



TOWN OF UXBRIDGE  
**WWTF BUILDING COMMITTEE**  
UXBRIDGE, MASSACHUSETTS 01569

Chairman Dale Bangma  
Vice Chair Joe Marchand  
Eugene O'Rourke  
Dan Hicks  
William Kessler

Benn Sherman (Ad hoc)  
Jim Legg (Ad hoc)

## MEETING MINUTES

**MEETING DATE:** December 19, 2018  
**MEETING LOCATION:** Lower Town Hall Meeting Room, 21 South Main Street

**COMMITTEE MEMBERS PRESENT:**

Dale Bangma (arrived at 5:18pm)  
Joe Marchand  
Dan Hicks  
Eugene O'Rourke

MAR 21 '19 PM 1:55

**OTHERS IN ATTENDANCE:**

|                |                                           |
|----------------|-------------------------------------------|
| Benn Sherman   | Director of Public Works                  |
| Jim Legg       | Wastewater Operations Supervisor          |
| Angie Ellison  | Town Manager                              |
| Sandy Tripp    | Project Designer (GHD)                    |
| Laurie Toscano | OPM (Weston & Sampson Engineers)          |
| Frank Woodfall | Resident Project Representative (Keville) |

Received by  
Uxbridge  
Town Clerk

**I. CALL TO ORDER**

It being 5:10 p.m., the meeting being properly posted, duly called and a quorum being present, the Vice Chair, Mr. Marchand, called the meeting to order.

**II. OLD BUSINESS**

None

**III. NEW BUSINESS**

**A. Citizens Comments**

None

**B. FY2018 WWTF & WRPS Building Committee Annual Report**

Mr. Sherman presented the draft annual report for FY2018 (July 1, 2017 to June 30, 2018) for review and approval. Motion by Eugene O'Rourke, seconded by Dan Hicks to accept the FY 2018 Committee annual report as written and submit to the Town Manager for inclusion in to the annual town book. **Motion carried 3-0-0 (Mr. Bangma not present for vote).**

**C. Acceptance of Meeting Minutes**

Motion by Joe Marchand, seconded by Dale Bangma to accept the meeting minutes from September 19, 2018 as written. **Motion carried 4-0-0.**

Motion by Joe Marchand, seconded by Dale Bangma to accept the meeting minutes from October 17, 2018 as written. **Motion carried 4-0-0.**

Motion by Joe Marchand, seconded by Dale Bangma to accept the meeting minutes from November 14, 2018 as written. **Motion carried 4-0-0.**

**D. West River Pump Station Discussion with Contractor**



Passover

**E. Project Update**

The project update was taken out of order. Ms. Toscano (OPM) distributed the OPM status report to the Committee. This report includes the month of December.

West River Pump Station (WRPS): Update during Executive Session.

Wastewater Treatment Facility (WWTF): Ms. Toscano reviewed the progress outlined in the OPM report. Refer to attached OPM report for specific/notable work activities. The contractor and engineer continue to submit and review submittals associated with the current work.

**F. Schedule Update**

Ms. Toscano presented and updated the committee on the WWTF schedule. A revised schedule format was provided for review. Refer to the OPM report for the updated project schedule. The new schedule shows the work breakdown structure (WBS) for each of the process areas. Based on the current schedule the float on the project is projected to be -2 days compared to -12 days from the prior month.

**G. Change Order Update**

WWTF-Change Orders 6 and 7 were distributed for review and discussion. Included with this discussion was the overall project contingency management. Refer to the OPM report for details regarding the management of contingency funds.

Mr. Woodfall presented the details behind the ten items contained in Change Order Number 6 (see attached summary). Mr. Bangma noted that the members of the committee had the opportunity to participate in a site walk to review the status of work and potential change orders.

Motion by Eugene O'Rourke, seconded by Dan Hicks to recommend approval of Change Order No. 6 for the WWTF project in the amount of \$57,504.00. **Motion carried 4-0-0.**

Mr. Woodfall presented the details behind the seven items contained in Change Order Number 7 (see attached summary). Mr. Marchand noted the only items he objected to in this change order were the two replacement doors. Ms. Tripp explained the details behind the large rolled electric doors and how the costs were compared to other installations at other facilities. J. Legg provided additional information regarding the material and installation costs. Mr. Sherman also noted these items were part of an Add Alternate in the project but was not selected due to priority and overall project costs.

Motion by Eugene O'Rourke, seconded by Dan Hicks to recommend approval of Change Order No. 6 for the WWTF project in the amount of \$76,779.00. **Motion carried 4-0-0.**



**H. Budget Update**

Ms. Toscano provided an update on the total project accounting. Refer to the OPM report for the details on each phase. Mr. Sherman handed out the project level budget summary to the committee for reference.

**IV. MEMBER COMMENTS**

None

**V. EXECUTIVE SESSION**

Motion by Dan Hicks to enter into Executive Session Pursuant to MGL c. 30A, §21(a)3 to discuss strategy with respect to the West River Pump Station Ongoing Contract Negotiations with the Angeline Ellison-Town Manager, Benn Sherman-DPW Director, Jim Legg-Wastewater Supervisor, Laurie Toscano-Owner's Project Manager, Sandy Tripp-Design Engineer, and Frank Woodfall-Resident Project Representative and adjourn the meeting following the Executive Session. Seconded by Dale Bangma. The motion carried 4-0-0 by roll-call vote (Bangma-YES, Marchand-YES, Hicks-YES, O'Rourke-YES).

**VI. ADJOURNMENT**

Adjourned following Executive Session.

*Minutes respectfully submitted by Benn Sherman.*

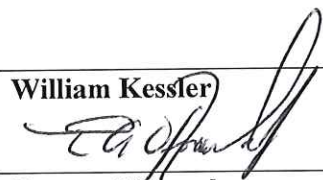
*Minutes approved by WWTF Building Committee*

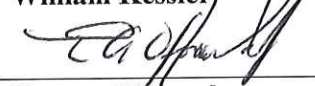
Date Approved: MARCH 20, 2019

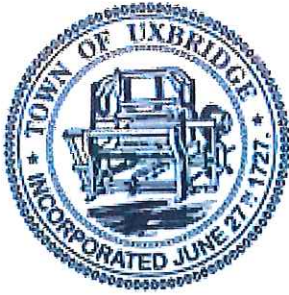
  
Dale Bangma, Chairman

  
Joe Marchand, Vice Chairman

  
Dan Hicks

  
William Kessler

  
Eugene O'Rourke



## December 2018

2016-05

### Wastewater Treatment Facility BNR & Infrastructure Upgrade

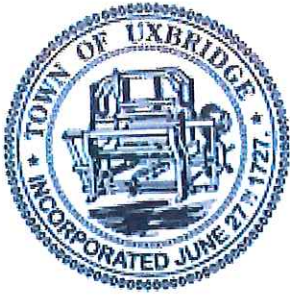
Progress:

Last Month – DOC submitted shop drawings, continued to procure equipment/materials, and continued work in the following areas: site work for entrance area (binder course paving install), piping and secondary electrical feeds site-wide, new Septage Receiving, new Preliminary Treatment equipment installation, Grit Tank improvements, new Garage, Preliminary Treatment equipment replacement, new Gravity Thickener #2 equipment installation, functional testing for SC #1 and SC #4, the Process Building, the Admin Building, Utility Tunnel Access #2, Primary Settling basins and distribution box, Yard Piping, Aeration basins distribution box, Aeration Basin #1-3 Extensions, the new Filter Building, the new Chemical Building, Sludge Pump Station, the Blower Building and Primary Canopy. A construction meeting was held on November 15, 2018.

This Month – DOC continues to submit shop drawings, to procure equipment/materials, continued electrical feed installation, installing electrical & plumbing for the Septage Receiving area, concrete work & equipment installation in the Grit Basin, electrical and plumbing/HVAC in Preliminary Treatment, electrical, plumbing and HVAC in the new Garage, Gravity Thickener #2 equipment installation, coatings & equipment installation in Primary Settling basins, finalize new SC #4, HVAC work, electrical and HVAC, lights & blowers in the Process Building, installation of walls in the Admin Building, complete walls for Utility Access Tunnel #2, complete masonry walls for the new Filter Building and the new Chemical Building, begin rough electrical, remove and replace roof and access hatch and continue rough electrical & MCC install for the Sludge Pump Station, continue electrical & HVAC in Blower Building. Photos below show a side-by-side comparison of the progress of construction from last month to this month and some additional photos of other work areas.

The Contractor's 14<sup>th</sup> payment application was processed for \$2,107,419.63. The next monthly construction meeting date was revised and will be held on January 10, 2019.

GHD continues to review and comment on submittals and RFI's received, reviews payment applications, reviews and recommends change orders and continues to provide full-time construction inspection.



New Septage Receiving (west end) 11/2018



New Septage Receiving & Garage Paved 12/2018



New Preliminary Treatment (int) 11/2018



New Preliminary Treatment Paved (ext.) 12/2018

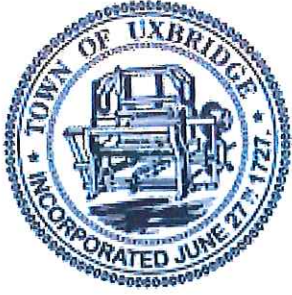


Aeration Tank Expansions Catwalk Poured 11/2018



Aeration Tank Expansion 12/2018





*New Chemical & Filter Building Walls 11/2018*



*New Chemical & Filter Building 12/2018*



*New Aeration Splitter Box Wall Forms 11/2018*



*Aeration Distribution Box 12/2018*

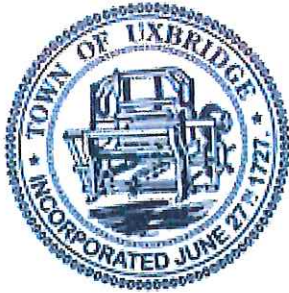


*Utility/Pipe Gallery Tunnel New Access 11/2018*



*Utility/Pipe Gallery Tunnel Access 12/2018*





Admin Building New Training Room 11/2018



Training Room Admin Building 12/2018



Schedule: Estimated Project Completion Date: February 21, 2020

At the request of the Building Committee, DOC 1 has provided a simplified graphical schedule to depict the remaining work by area. Please refer to the attached *Summary WBS (Work Breakdown Schedule) for Frank (Data Date 11/15/18)*.

This schedule update shows that the strategies that have been implemented to restore float in the schedule have resulted in an improved -2 days of float for the UV/Post Aeration item, but positive for all other process paths. Critical remaining work is also identified on the attached and these will continue to be closely monitored to keep the project on schedule.

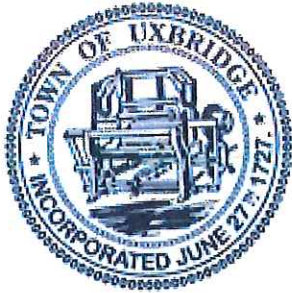
|            |             |                |                        |                   |
|------------|-------------|----------------|------------------------|-------------------|
| Financial: | OPM Budget: | \$500,000      | Invoiced: \$ 209,056   | % Complete: 41.8% |
|            | GHD Budget: | \$4,150,000    | Invoiced: \$1,915,607  | % Complete: 46.2% |
|            | DOC Budget: | \$35,126,379** | Invoiced: \$17,823,070 | % Complete: 50.7% |

\*\*Adjusted for Change Order Nos. 1, 2, 3, 4 & 5 (DOC)

Submittal Status: Approximately 83% of submittals have been received and have been or are being reviewed.

Action Items: Continue to work with DOC to track strategies that have been implemented to maintain float in the schedule and continue construction progress at the increased rate. Continue to process submittals, process payment requisitions and continue to evaluate potential change orders. The next SRF reimbursement request package will be submitted to DEP early next week.

Current Status: DOC will continue submittals (especially the UV system), procurement of equipment and materials and continue to maintain an increased labor presence on-site, as more work areas continue to be made available for concurrent work activities.



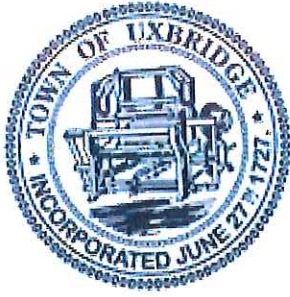
## 2016-04 & 2016-05 Project Contingency Management/ Change Order Summary

Based on discussions at prior Building Committee meetings, below is a summary for the contingency on the combined projects (WWTF & WR PS), amounts that have been allocated to Approved Change Orders and amounts that are likely to be considered in the future for identified Potential Change Order items.

| Project Item                               | Item Amount     | Cumulative Total |
|--------------------------------------------|-----------------|------------------|
| Project Original Contingency <sup>a</sup>  |                 | \$2,300,000.00   |
|                                            |                 |                  |
| WR PS Change Order No. 1 (8/9/17)          | \$78,900.00     | \$2,221,100.00   |
| WR PS Change Order No. 2 (8/9/17)          | \$5,213.00      | \$2,215,887.00   |
| WR PS Change Order No. 3 (10/18)           | \$27,209.00     | \$2,188,678.00   |
| WR PS Potential Change Orders <sup>b</sup> | To be discussed |                  |
|                                            |                 |                  |
| WWTF Change Order No.1 (3/6/18)            | \$60,283.00     | \$2,128,395.00   |
| WWTF Change Order No. 2 (6/21/18)          | \$126,050.00    | \$2,002,345.00   |
| WWTF Change Order No. 3 (8/15/18)          | \$90,655.00     | \$1,911,690.00   |
| WWTF Change Order No. 4 (9/19/18)          | \$56,443.00     | \$1,855,247.00   |
| WWTF Change Order No. 5 (10/18)            | \$188,022.00    | \$1,667,225.00   |
| * WWTF Change Order No. 6 (12/18)          | \$57,504.00     | \$1,609,721.00   |
| * WWTF Change Order No. 7 (102/18)         | \$76,799.00     | \$1,532,942.00   |
| WWTF Potential Change Orders <sup>b</sup>  | \$161,000.00    |                  |
|                                            |                 |                  |
| Utility Work (Eversource)                  | \$122,323.92    | \$1,410,618.08   |

<sup>a</sup> Contingency includes original budget (\$2,050,000) plus additional services budget in GHD contract (\$250,000).

<sup>b</sup> Potential Change Orders (PCOs) are in various stages of review and negotiation. For the WR PS, this amount is more significant than included above, however we would will discuss this during the executive session of this meeting to preserve negotiations with the contractor. This value is provided based on estimated potential costs identified to date and will be updated monthly.



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\\Wse03.Local\\WSE\\Projects\\MA\\Uxbridge MA\\2170264 WWTF OPM Services\\Monthly OPM Updates\\December 2018 Monthly OPM Project Update.Docx





TOWN OF UXBRIDGE  
DEPARTMENT OF PUBLIC WORKS  
147 HECLA STREET  
UXBRIDGE, MASSACHUSETTS 01569-1326  
508-278-8616 ♦ Fax 508-278-3179

Benn Sherman, P.E.  
Director

WWTF & WEST RIVER PUMP STATION BUDGET & REIMBURSEMENT SUMMARY

PURPOSE: WWTF & WRPS Construction  
SOURCE: SRF 0%, SRF 2%, Local Borrowing  
TM DATE: 4/2/2016 (Article 1)  
TM APPROPRIATION: \$44,800,000.00

SRF Portion Eligible for 0% Interest Rate \$ 29,200,000.00  
SRF Portion Eligible for 2% Interest Rate \$ 13,600,000.00

TOTAL AUTHORIZATION: \$44,800,000.00

Total SRF Approval \$ 42,800,000.00

| ACCOUNT NUMBER                | CONTRACTS                            | APPROVED | ORIGINAL BUDGET  | CONTRACT/<br>PO AMOUNT | APPROVED<br>CHANGE ORDERS | ADJUSTED<br>CONTRACT | EXPENSE TO DATE  | BALANCE<br>REMAINING | % CMPLT | STATUS |
|-------------------------------|--------------------------------------|----------|------------------|------------------------|---------------------------|----------------------|------------------|----------------------|---------|--------|
| 41-440-2050-4106PW15-0000-0-0 | WRPS RETAINAGE <sup>1</sup>          | 06/26/17 |                  |                        |                           |                      | \$ 25,507.85     |                      |         |        |
| 41-440-2050-4106PW16-0000-0-0 | WWTF RETAINAGE <sup>1</sup>          | 06/26/17 |                  |                        |                           |                      | \$ 969,113.07    |                      |         |        |
| 41-440-5303-4106PW16-0000-0-0 | LEGAL <sup>1</sup>                   | 07/01/17 | \$ 45,638.00     | \$ 45,638.00           | -                         | \$ 45,638.00         | \$ 833.33        | \$ 44,804.67         | 1.8%    | Active |
| 41-440-5880-4106PW16-0000-0-0 | WWTF FINAL DESIGN <sup>2</sup>       | 07/01/16 | \$ 1,500,000.00  | \$ 1,500,000.00        | -                         | \$ 1,500,000.00      | \$ 1,500,000.00  | \$ -                 | 100.0%  | Closed |
| 41-440-5892-4106PW16-0000-0-0 | OWNER'S PROJECT MANAGER <sup>2</sup> | 02/07/17 | \$ 500,000.00    | \$ 500,000.00          | -                         | \$ 500,000.00        | \$ 224,478.33    | \$ 275,521.67        | 44.9%   | Active |
| 41-440-5893-4106PW16-0000-0-0 | WWTF CPS (GHD) <sup>1,3</sup>        | 11/09/16 | \$ 4,400,000.00  | \$ 4,150,000.00        | -                         | \$ 4,150,000.00      | \$ 1,915,606.96  | \$ 2,234,393.04      | 46.2%   | Active |
| 41-440-5893-4106PW16-9100-0-0 | WRPS CPS (GHD) <sup>1</sup>          | 11/09/16 | \$ 140,000.00    | \$ 140,000.00          | -                         | \$ 140,000.00        | \$ 90,531.54     | \$ 49,468.46         | 64.7%   | Active |
| 41-440-5894-4106PW16-0000-0-0 | WWTF CONSTRUCTION (DOC) <sup>1</sup> | 06/26/17 | \$ 34,604,926.00 | \$ 34,604,926.00       | \$ 521,453.00             | \$ 35,126,379.00     | \$ 18,413,148.37 | \$ 16,713,230.63     | 53.2%   | Active |
| 41-440-5894-4106PW16-9100-0-0 | WRPS CONSTRUCTION (WMS) <sup>1</sup> | 06/26/17 | \$ 1,559,436.00  | \$ 1,559,436.00        | \$ 111,322.00             | \$ 1,670,758.00      | \$ 484,649.15    | \$ 1,186,108.85      | 31.1%   | Active |
| 41-440-5897-4106PW16-0000-0-0 | CONTINGENCY <sup>1,3</sup>           | 07/01/17 | \$ 2,050,000.00  | \$ 2,300,000.00        | \$ (632,775.00)           | \$ 1,667,225.00      | \$ 122,323.92    | \$ 1,544,901.08      | 32.8%   | Active |
| TOTAL COMMITTED               |                                      |          | \$ 44,800,000.00 | \$ 44,800,000.00       | \$ -                      | \$ 44,800,000.00     | \$ 23,746,192.52 | \$ 21,053,807.48     | 53.0%   |        |

FUNDS AVAILABLE

- <sup>1</sup> Included in the SRF funding request and authorization  
<sup>2</sup> Included in the independent borrowing for final design and OPM services  
<sup>3</sup> GHD additional services for WWTF were put into the contingency line

| REIMBURSEMENT SUMMARY |                         | ELIGIBLE COSTS <sup>4</sup> |                  | CONTRACTED<br>AMOUNT | 2%<br>Loan 16-26 | 0%<br>Loan 16-26A | 0%<br>Fed. Grant (26B) | TOTAL SUBMITTED  | TOTAL<br>REIMBURSED |
|-----------------------|-------------------------|-----------------------------|------------------|----------------------|------------------|-------------------|------------------------|------------------|---------------------|
| ACCOUNT NUMBER        | REIMBURSIBLE ITEMS      |                             |                  |                      |                  |                   |                        |                  |                     |
| 41-440-4680-4106PW16  | WRPS CONSTRUCTION (WMS) | \$ 1,637,408.00             | \$ 1,670,758.00  | \$ 484,649.15        | \$ -             | \$ -              | \$ -                   | \$ 484,649.15    | \$ 484,649.00       |
| 41-440-4680-4106PW16  | WWTF CONSTRUCTION (DOC) | \$ 36,335,172.00            | \$ 35,126,379.00 | \$ 4,565,603.98      | \$ 11,740,124.74 | \$ -              | \$ -                   | \$ 16,305,728.72 | \$ 15,214,123.00    |
| 41-440-4680-4106PW16  | WWTF CPS (GHD)          | \$ 4,400,000.00             | \$ 4,150,000.00  | \$ -                 | \$ -             | \$ 1,774,116.74   | \$ -                   | \$ 1,774,116.74  | \$ 1,774,116.00     |
| 41-440-4680-4106PW16  | WRPS CPS (GHD)          | \$ 140,000.00               | \$ 140,000.00    | \$ 88,495.86         | \$ -             | \$ -              | \$ -                   | \$ 88,495.86     | \$ 79,716.00        |
| 41-440-4680-4106PW16  | UTILITY WORK            | \$ 287,420.00               | \$ 287,420.00    | \$ 122,324.92        | \$ -             | \$ -              | \$ -                   | \$ 122,324.92    | \$ 122,325.00       |
| TOTAL                 |                         | \$ 42,800,000.00            | \$ 41,374,557.00 | \$ 5,261,073.91      | \$ 11,740,124.74 | \$ 1,774,116.74   | \$ -                   | \$ 18,775,315.39 | \$ 17,674,929.00    |

<sup>4</sup> MassDEP's revised Project Approval Certificate dated 6/1/2017

# Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade

Proposed Change Order (PCO) Log  
and Project Funding Budget Status  
General Contractor: Daniel O'Connell's Sons, Inc.  
Contract No. 2016-05; GHD Job No. 8618922A  
December 18, 2018

|                        |
|------------------------|
| Open                   |
| Agreed Change          |
| Not Approved / Closed  |
| No Cost Change         |
| Not Approved / Dispute |
| Void or Superseded     |

Contract Value:  
\$34,604,926.00  
Contingency:  
\$1,730,246.30  
Construction  
Budget:  
\$36,335,172.30

| PCO No. | Response to RFI | Work Item Descriptions                    | Negotiated Value         | GHD Rough Estimate | PCO Reasoning        |                         |                 |             | Net Available         | Net Available as % |
|---------|-----------------|-------------------------------------------|--------------------------|--------------------|----------------------|-------------------------|-----------------|-------------|-----------------------|--------------------|
|         |                 |                                           |                          |                    | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |                       |                    |
|         |                 |                                           | <b>Beginning Balance</b> |                    |                      |                         |                 |             | <b>\$1,730,246.30</b> |                    |
| 1       | 1001B           | Transformer access road                   |                          | \$ 30,000          | \$ 30,000            |                         |                 |             | \$1,730,246.30        | 100.0%             |
| 2       | 1002            | Relocate gas line                         | \$2,220.00               |                    |                      |                         |                 | \$ 2,220    | \$1,728,026.30        | 99.9%              |
| 3       | 1003A           | Electrical modifications                  | \$17,785.00              |                    | \$ 17,785            |                         |                 |             | \$1,710,241.30        | 98.8%              |
| 4       | 1004            | Preliminary treatment cleanout            | \$743.00                 |                    | \$ 743               |                         |                 |             | \$1,709,498.30        | 98.8%              |
| 5       | 1005            | Septage pipe roof penetration             | \$3,000.00               |                    |                      |                         |                 | \$ 3,000    | \$1,706,498.30        | 98.6%              |
| 6       | FO11            | Drill and grout dowels at PT bldg         | \$359.00                 |                    |                      |                         |                 | \$ 359      | \$1,706,139.30        | 98.6%              |
| 7       | 1007            | Potable water well pump power and control | \$12,404.00              |                    | \$ 12,404            |                         |                 |             | \$1,693,735.30        | 97.9%              |
| 8       | 1006            | Core FDs in PT bldg                       | \$1,966.00               |                    |                      | \$ 1,966                |                 |             | \$1,691,769.30        | 97.8%              |
| 9       | 1008            | AIS compliant pinch valve                 | \$4,889.00               |                    |                      | \$ 4,889                |                 |             | \$1,686,880.30        | 97.5%              |
| 10      | FO12A           | Relocate block retaining wall             | \$45,265.00              |                    | \$ 45,265            |                         |                 |             | \$1,641,615.30        | 94.9%              |
| 11      | 9               | Pipe vents in septage bldg                | \$7,440.00               |                    |                      | \$ 7,440                |                 |             | \$1,634,175.30        | 94.4%              |
| 12      | 8               | Septage bldg main cleanout                |                          | 750                | \$ 750               |                         |                 |             | \$1,634,175.30        | 94.4%              |
| 13      | 1009            | Replace valves at clarifier 4             | \$20,394.00              |                    |                      |                         | \$ 20,394       |             | \$1,613,781.30        | 93.3%              |
| 14      | 46              | Changes to EMH13 and electrical room      | \$65,500.00              |                    |                      |                         |                 | \$ 65,500   | \$1,548,281.30        | 89.5%              |
| 15      | 35              | Trench drains in garage                   | \$0.00                   |                    |                      |                         |                 |             | \$1,548,281.30        | 89.5%              |
| 15A     | 35              | Trench drains in garage                   | \$0.00                   |                    |                      |                         |                 |             | \$1,541,645.30        | 89.1%              |
| 15B     | 35              | Trench drains in garage (vents)           | \$6,636.00               |                    |                      | \$ 6,636                |                 |             | \$1,541,645.30        | 89.1%              |
| 16      | 1011            | Primary scum level sensor                 | \$0.00                   |                    |                      |                         |                 | \$ -        | \$1,541,645.30        | 89.1%              |
| 17      | 1012            | Main PS bypass changes                    |                          | 1,500              | \$ 1,500             |                         |                 | \$ 1,500    | \$1,541,645.30        | 89.1%              |
| 18      |                 | Weather impacts                           |                          |                    |                      |                         |                 |             | \$1,541,645.30        | 89.1%              |
| 19      | 1015            | Gravity Thickener 2 concrete fill         | \$3,510.00               |                    | \$ -                 |                         |                 |             | \$1,538,135.30        | 88.9%              |
| 20      | 53              | PRB-MOD 7 & 15                            | \$0.00                   |                    |                      |                         | \$ 3,510        |             | \$1,538,135.30        | 88.9%              |

# Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade

## Proposed Change Order (PCO) Log

### and Project Funding Budget Status

General Contractor: Daniel O'Connell's Sons, Inc.

Contract No. 2016-05; GHD Job No. 8618922A

December 18, 2018

|                        |
|------------------------|
| Open                   |
| Agreed Change          |
| Not Approved / Closed  |
| No Cost Change         |
| Not Approved / Dispute |
| Void or Superseded     |

\$34,604,926.00

\$1,730,246.30

\$36,335,172.30

Contract Value:  
Contingency:  
Construction  
Budget:

| PCO No. | Response to RFI | Work Item Descriptions                                                      | Negotiated Value | GHD Rough Estimate | PCO Reasoning        |                         |                 |             | Net Available  | Net Available as % |
|---------|-----------------|-----------------------------------------------------------------------------|------------------|--------------------|----------------------|-------------------------|-----------------|-------------|----------------|--------------------|
|         |                 |                                                                             |                  |                    | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |                |                    |
| 21      | 43              | Core and Link Seal                                                          | \$504.00         |                    | \$ 584               | \$ 504                  |                 |             | \$1,537,631.30 | 88.9%              |
| 22      | 1014            | Demolish suspended ceiling                                                  | \$584.00         |                    |                      |                         |                 |             | \$1,537,047.30 | 88.8%              |
| 23      | 46X             | Reconfiguration of ductbank G-G - MOVED to PCO 14                           | \$0.00           | \$ -               |                      |                         |                 |             | \$1,537,047.30 | 88.8%              |
| 24      | 1019            | Cleanouts in chemical room                                                  | \$3,050.00       |                    | \$ 3,050             |                         |                 |             | \$1,533,997.30 | 88.7%              |
| 25      | 1018            | Firewall in chemical room                                                   | \$0.00           |                    | \$ -                 |                         |                 |             | \$1,533,997.30 | 88.7%              |
| 26      |                 | Buried fire alarm conduit in chemical room                                  | \$4,240.00       |                    | \$ 4,240             |                         |                 |             | \$1,529,757.30 | 88.4%              |
| 27      | 1021            | Additional rebar at secondary clarifier 4                                   |                  | \$ 1,500           |                      | \$ 1,500                |                 |             | \$1,529,757.30 | 88.4%              |
| 28      | 64              | GPR existing concrete                                                       | \$35,000.00      |                    | \$ 35,000            |                         |                 |             | \$1,494,757.30 | 86.4%              |
| 29      | 1017            | Relocate MW-105                                                             | \$9,444.00       |                    | \$ 9,444             |                         |                 |             | \$1,485,313.30 | 85.8%              |
| 30      | 1022            | Manhole covers                                                              |                  |                    |                      | \$ -                    |                 |             | \$1,485,313.30 | 85.8%              |
| 31      | 74              | Chemical room eyewash and water supply                                      |                  | \$ -               |                      |                         |                 | \$ -        | \$1,485,313.30 | 85.8%              |
| 32      | 1025            | Administration building changes                                             | \$13,640.00      |                    |                      |                         |                 | \$ 13,640   | \$1,471,673.30 | 85.1%              |
| 33      | 1020            | Gravity thickener supports                                                  |                  | \$ 2,500           |                      | \$ 2,500                |                 |             | \$1,471,673.30 | 85.1%              |
| 34      | 1062            | Remove and replace existing 8-inch scum line @ Sec Clar 4 (PCO 38 and 1062) | \$14,380.00      |                    | \$ 14,380            |                         |                 |             | \$1,457,293.30 | 84.2%              |
| 35      | 1026            | Chemical Room Floor                                                         |                  | \$ 15,000          | \$ 15,000            |                         |                 |             | \$1,457,293.30 | 84.2%              |
| 36      | 1027            | Filter bldg gate and valves                                                 | \$41,068.00      |                    |                      |                         |                 | \$ 41,068   | \$1,416,225.30 | 81.9%              |
| 37      | 1029            | Storage Room ADB-129 window                                                 | \$763.00         |                    |                      |                         |                 | \$ 763      | \$1,415,462.30 | 81.8%              |
| 38      | 1030            | Sludge pumping station roof                                                 | \$25,270.00      |                    | \$ 25,270            |                         |                 |             | \$1,390,192.30 | 80.3%              |
| 39      | 1031            | Garage bathroom                                                             | \$0.00           | \$ -               |                      |                         |                 |             | \$1,390,192.30 | 80.3%              |
| 40      | 1032            | Admin/process building windows                                              | \$19,260.00      |                    |                      |                         | \$ 19,260       |             | \$1,370,932.30 | 79.2%              |

# Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade

Proposed Change Order (PCO) Log  
and Project Funding Budget Status  
General Contractor: Daniel O'Connell's Sons, Inc.  
Contract No. 2016-05; GHD Job No. 8618922A  
December 18, 2018

|                        |
|------------------------|
| Open                   |
| Agreed Change          |
| Not Approved / Closed  |
| No Cost Change         |
| Not Approved / Dispute |
| Void or Superseded     |

Contract Value: \$34,604,926.00  
Contingency: \$1,730,246.30  
Construction Budget: \$36,335,172.30

| PCO No. | Response to RFI | Work Item Descriptions                | Negotiated Value | GHD Rough Estimate | PCO Reasoning        |                         |                 |             | Net Available  | Net Available as % |
|---------|-----------------|---------------------------------------|------------------|--------------------|----------------------|-------------------------|-----------------|-------------|----------------|--------------------|
|         |                 |                                       |                  |                    | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |                |                    |
| 41      | 1035            | Delete blower discharge valves        |                  | \$ (5,000)         |                      |                         |                 | \$ (5,000)  | \$1,370,932.30 | 79.2%              |
| 42      | 105             | ADB pull stations                     | \$1,770.00       |                    |                      | \$ 1,770                |                 |             | \$1,369,162.30 | 79.1%              |
| 43      | 83              | Details for lifting eyes              | (\$9,515.00)     |                    |                      |                         |                 | \$ (9,515)  | \$1,378,677.30 | 79.7%              |
| 44      | 75R             | Water supply size                     | \$7,012.00       | -                  |                      | \$ 7,012                |                 |             | \$1,371,665.30 | 79.3%              |
| 45      | 76R             | Emergency eyewash and shower          | \$0.00           |                    |                      | \$ -                    |                 |             | \$1,371,665.30 | 79.3%              |
| 46      | 79              | Flow Switches                         |                  | \$ 5,000           |                      | \$ 5,000                |                 |             | \$1,371,665.30 | 79.3%              |
| 47      | 1037            | Plant water system gate valves        | \$28,670.00      |                    |                      |                         | \$ 28,670       |             | \$1,342,995.30 | 77.6%              |
| 48      | 1036            | Gravity thickener guard rails         | (\$12,785.00)    |                    |                      |                         |                 | \$(12,785)  | \$1,355,780.30 | 78.4%              |
| 49      | 82R1            | Louver openings                       |                  | \$ 10,000          |                      |                         |                 | \$ 10,000   | \$1,355,780.30 | 78.4%              |
| 50      | 1039            | Process Admin Bldg duct modifications | (\$878.00)       |                    |                      |                         |                 | \$ (878)    | \$1,356,658.30 | 78.4%              |
| 51      | 92              | W05 window type                       |                  | -                  |                      | \$ -                    |                 |             | \$1,356,658.30 | 78.4%              |
| 52      | 1040            | Glycol storage                        | \$1,150.00       |                    |                      | \$ 1,150                |                 |             | \$1,355,508.30 | 78.3%              |
| 53      | 1038            | Process Bldg. HVAC (west)             | \$24,470.00      |                    |                      | \$ 24,470               |                 |             | \$1,331,038.30 | 76.9%              |
| 53A     | 1038            | Process Bldg. Elec                    | \$3,500.00       |                    |                      | \$ 3,500                |                 |             | \$1,327,538.30 | 76.7%              |
| 54      | 93              | Roof Openings - Admin. Bldg.          | \$30,500.00      |                    |                      | \$ 30,500               |                 |             | \$1,300,538.30 | 75.2%              |
| 55      | 1046            | Water line - Process Bldg.            |                  | \$ 7,500           |                      | \$ 7,500                |                 |             | \$1,300,538.30 | 75.2%              |
| 56      | 1049            | Slide Gates                           | \$1,560.00       |                    |                      | \$ 1,560                |                 |             | \$1,298,978.30 | 75.1%              |
| 57      | 1047            | Process Bldg. Roof Openings           | \$25,130.00      |                    |                      | \$ 25,130               |                 |             | \$1,273,848.30 | 73.6%              |
| 58      | 109             | Toilet Carrier                        | \$3,250.00       | \$ 3,250           |                      |                         |                 |             | \$1,270,598.30 | 73.4%              |
| 59      | 117             | Chemical Building Gr.                 | \$1,840.00       |                    |                      |                         |                 | \$ 1,840    | \$1,268,758.30 | 73.3%              |
| 60      | 2C              | Vents for OWS                         | \$6,560.00       |                    |                      | \$ 6,560                |                 |             | \$1,262,198.30 | 72.9%              |

# Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade

## Proposed Change Order (PCO) Log

### and Project Funding Budget Status

General Contractor: Daniel O'Connell's Sons, Inc.

Contract No. 2016-05; GHD Job No. 8618922A

December 18, 2018

|                        |
|------------------------|
| Open                   |
| Agreed Change          |
| Not Approved / Closed  |
| No Cost Change         |
| Not Approved / Dispute |
| Void or Superseded     |

\$34,604,926.00

\$1,730,246.30

\$36,335,172.30

Contract Value:  
Contingency:  
Construction  
Budget:

| PCO No. | Response to RFI | Work Item Descriptions                       | Negotiated Value | GHD Rough Estimate | PCO Reasoning        |                         |                 |             | Error    | Net Available  | Net Available as % |
|---------|-----------------|----------------------------------------------|------------------|--------------------|----------------------|-------------------------|-----------------|-------------|----------|----------------|--------------------|
|         |                 |                                              |                  |                    | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |          |                |                    |
| 61      | 113             | Utility Coordination                         | \$13,980.00      |                    | \$ 13,980            |                         |                 |             |          | \$1,248,218.30 | 72.1%              |
| 62      | 1050            | Filter Bldg. Clean Out                       |                  | \$ (5,000)         |                      |                         |                 | \$ (5,000)  |          | \$1,248,218.30 | 72.1%              |
| 63      | WCD1            | Boiler Abatement                             | \$10,000.00      |                    | \$ 10,000            |                         |                 |             |          | \$1,238,218.30 | 71.6%              |
| 63      | WCD1            | Cost overrun                                 |                  |                    |                      |                         |                 |             |          |                |                    |
| 64      | 1052            | Vacuum Pump                                  | \$845.00         |                    |                      | \$ 845                  |                 |             |          | \$1,237,373.30 | 71.5%              |
| 65      | 1054            | Restroom Floor Drains                        | \$6,609.00       |                    | \$ 6,609             |                         |                 |             |          | \$1,230,764.30 | 71.1%              |
| 66      | 146/147         | Roof Drains                                  | \$4,960.00       |                    | \$ 4,960             |                         |                 |             |          | \$1,225,804.30 | 70.8%              |
| 67      |                 | Lead abatement at ceilings                   |                  | \$ -               | \$ -                 |                         |                 |             |          | \$1,225,804.30 | 70.8%              |
| 68      | 1058            | Lab Plumbing Changes                         | \$1,725.00       |                    |                      | \$ 1,725                |                 | \$ (1,000)  |          | \$1,224,079.30 | 70.7%              |
| 69      | 1059            | IT Network Rack                              |                  | \$ (1,000)         |                      |                         |                 | \$ (4,247)  |          | \$1,228,326.30 | 71.0%              |
| 70      | 128             | Bubblers in Admin bldg                       | (\$4,247.00)     |                    |                      |                         |                 |             |          | \$1,228,326.30 | 71.0%              |
| 71      | 1057            | Aeration Basin 1 concrete repair             |                  | \$ 1,000           | \$ 1,000             |                         |                 |             |          | \$1,228,326.30 | 71.0%              |
| 72      | 1053            | Chem PW                                      |                  | \$ 4,500           |                      | \$ 4,500                |                 |             |          | \$1,228,326.30 | 71.0%              |
| 73      | 89              | Reloc. Plant Water in Process Building       | \$5,000.00       |                    | \$ 5,000             |                         |                 |             |          | \$1,223,326.30 | 70.7%              |
| 74      | 160             | Recirc Line Chem Room Eyewash                |                  | \$ -               | \$ -                 |                         |                 |             |          | \$1,223,326.30 | 70.7%              |
| 75      | 144 & 154       | Chem & Filter Bldg. Plumbing Questions       | \$5,095.00       |                    | \$ 5,095             |                         |                 |             |          | \$1,218,231.30 | 70.4%              |
| 76      | 125             | Chem and Flit Bldg Electrical Questions      | \$14,795.00      |                    |                      | \$ 14,795               |                 |             |          | \$1,203,436.30 | 69.6%              |
| 77      | 1060            | Aeration Basin Port Opening Height           | \$3,095.00       |                    |                      |                         |                 |             | \$ 3,095 | \$1,200,341.30 | 69.4%              |
| 78      | 173             | Existing Topping Slab Clarifiers 1,2, & 3    |                  | \$ (20,000)        |                      |                         |                 | \$ (20,000) |          | \$1,200,341.30 | 69.4%              |
| 79      | 162             | South Elevation Downspout at Filter Building |                  | \$ 1,000           |                      | \$ 1,000                |                 |             |          | \$1,200,341.30 | 69.4%              |

# Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade

Proposed Change Order (PCO) Log  
and Project Funding Budget Status  
General Contractor: Daniel O'Connell's Sons, Inc.  
Contract No. 2016-05; GHD Job No. 8618922A

December 18, 2018

|                        |
|------------------------|
| Open                   |
| Agreed Change          |
| Not Approved / Closed  |
| No Cost Change         |
| Not Approved / Dispute |
| Void or Superseded     |

Contract Value:  
\$34,604,926.00  
Contingency:  
\$1,730,246.30  
Budget:  
\$36,335,172.30

| PCO No. | Response to RFI | Work Item Descriptions                                    | Negotiated Value | PCO Reasoning      |                      |                         |                 |             | Net Available  | Net Available as % |
|---------|-----------------|-----------------------------------------------------------|------------------|--------------------|----------------------|-------------------------|-----------------|-------------|----------------|--------------------|
|         |                 |                                                           |                  | GHD Rough Estimate | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |                |                    |
| 80      | 1061            | Process/Admin Bldg Misc. Masonry                          |                  | \$ 10,000          |                      | \$ 10,000               |                 |             | \$1,200,341.30 | 69.4%              |
| 81      | 1063            | Existing Secondary Clarifiers Remedial Work               |                  | \$ 12,000          | \$ 12,000            |                         |                 |             | \$1,200,341.30 | 69.4%              |
| 82      | 1064            | Security/Site Fence Location                              |                  | \$ -               |                      |                         | \$ -            |             | \$1,200,341.30 | 69.4%              |
| 83      | 165             | Chemical Day Tank Nameplate Info.                         | \$670.00         |                    |                      |                         | \$ 670          |             | \$1,199,671.30 | 69.3%              |
| 84      | 157             | Vent, Plumbing Conflict                                   |                  | \$ 2,000           | \$ 2,000             |                         |                 |             | \$1,199,671.30 | 69.3%              |
| 85      | 1066            | CMU Brick Support Admin Windows                           |                  | \$ 6,000           |                      | \$ 6,000                |                 |             | \$1,199,671.30 | 69.3%              |
| 86      | 177             | Existing panel feeder intersection                        | \$14,982.00      |                    | \$ 14,982            |                         |                 |             | \$1,184,689.30 | 68.5%              |
| 87      | 145             | Garage Vent                                               |                  | \$ 1,500           |                      | \$ 1,500                |                 |             | \$1,184,689.30 | 68.5%              |
| 88      | 179             | Prelim bldg downspout                                     | \$6,689.00       |                    |                      | \$ 6,689                |                 |             | \$1,178,000.30 | 68.1%              |
| 89      | 180             | Drainage near primary settling basins                     |                  | \$ 2,000           |                      |                         |                 | \$ 2,000    | \$1,178,000.30 | 68.1%              |
| 90      | 194             | Exterior walls at ADB116 and ADB117                       |                  | \$ 10,000          |                      | \$ 10,000               |                 |             | \$1,178,000.30 | 68.1%              |
| 91      | 1082            | Chemical room floor fill                                  | \$7,970.00       |                    |                      | \$ 7,970                |                 |             | \$1,170,030.30 | 67.6%              |
| 92      | 1072            | Water heater and plumbing changes (RFIs 1069, 1072, 1074) |                  | \$ 16,000          |                      |                         |                 | \$ 16,000   | \$1,170,030.30 | 67.6%              |
| 93      | 181             | Process bldg drain to DMH3                                |                  | \$ 8,000           | \$ 8,000             |                         |                 |             | \$1,170,030.30 | 67.6%              |
| 94      | 193             | Masonry openings for door louvers and windows             |                  | \$ 10,000          |                      | \$ 10,000               |                 |             | \$1,170,030.30 | 67.6%              |
| 95      | 202             | Trap primers in garage                                    | \$3,106.00       |                    |                      | \$ 3,106                |                 |             | \$1,166,924.30 | 67.4%              |
| 96      | 1076            | Encase wall at UT access No. 2                            |                  | \$ 5,000           | \$ 5,000             |                         |                 |             | \$1,166,924.30 | 67.4%              |
| 97      | 1075            | Septage equipment walkway                                 |                  | \$ (3,000)         |                      |                         |                 | \$ (3,000)  | \$1,166,924.30 | 67.4%              |
| 98      | 98              | Delete toeboards at secondary clarifier                   | (\$10,777.00)    |                    |                      |                         |                 | \$ (10,777) | \$1,177,701.30 | 68.1%              |
| 99      | 203             | Aeration wall and base slab                               |                  | \$ 7,500           | \$ 7,500             |                         |                 |             | \$1,177,701.30 | 68.1%              |
| 100     | 61              | OWS-4 Piping                                              |                  | \$ 1,000           | \$ 1,000             |                         |                 |             | \$1,177,701.30 | 68.1%              |
| 101     | 1078            | Blower bldg floor slab                                    | \$2,965.00       |                    | \$ 2,965             |                         |                 |             | \$1,174,736.30 | 67.9%              |
| 102     | 1079            | Grit chamber baffle demo                                  |                  | \$ 500             | \$ 500               |                         |                 |             | \$1,174,736.30 | 67.9%              |

**Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade**  
**Proposed Change Order (PCO) Log**  
**and Project Funding Budget Status**  
**General Contractor: Daniel O'Connell's Sons, Inc.**  
**Contract No. 2016-05; GHD Job No. 8618922A**  
 December 18, 2018

|                        |
|------------------------|
| Open                   |
| Agreed Change          |
| Not Approved / Closed  |
| No Cost Change         |
| Not Approved / Dispute |
| Void or Superseded     |

\$34,604,926.00  
 \$1,730,246.30  
**\$36,335,172.30**

**Contract Value:**  
**Contingency:**  
**Construction**  
**Budget:**

| PCO No. | Response to RFI | Work Item Descriptions                           | Negotiated Value | GHD Rough Estimate | PCO Reasoning        |                         |                 |             | Error | Net Available  | Net Available as % |
|---------|-----------------|--------------------------------------------------|------------------|--------------------|----------------------|-------------------------|-----------------|-------------|-------|----------------|--------------------|
|         |                 |                                                  |                  |                    | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |       |                |                    |
| 103     | 164             | Hangers and supports in chem and filtration bldg |                  | \$ -               |                      |                         |                 |             |       | \$1,174,736.30 | 67.9%              |
| 104     |                 | HVAC controls (per 15985-001)                    | \$2,003.00       |                    |                      |                         |                 | \$ 2,003    |       | \$1,172,733.30 | 67.8%              |
| 105     | 1077            | Admin bldg vestibule                             |                  | 1,000              |                      |                         |                 | \$ 1,000    |       | \$1,172,733.30 | 67.8%              |
| 106     | 205             | Window sill existing conditions                  |                  | 3,000              | \$ 3,000             |                         |                 |             |       | \$1,172,733.30 | 67.8%              |
| 107     | 182             | Type SL mounting details                         | \$3,949.00       |                    | \$ 3,949             |                         |                 |             |       | \$1,168,784.30 | 67.6%              |
| 108     | 1083            | Prelim Treatment Influent Channel Fill           |                  | 3,000              |                      | \$ 3,000                |                 |             |       | \$1,168,784.30 | 67.6%              |
| 109     | 206R2           | Weir elevations                                  | \$4,730.00       |                    |                      | \$ 4,730                |                 |             |       | \$1,164,054.30 | 67.3%              |
| 110     | 1085            | Sludge PS Access Hatch                           |                  | 2,500              |                      | \$ 2,500                |                 |             |       | \$1,164,054.30 | 67.3%              |
| 111     | 1086            | Restroom north wall windows                      | \$674.00         |                    |                      |                         | \$ 674          |             |       | \$1,163,380.30 | 67.2%              |
| 112     | 1088            | Plant Water Chem Room 2                          |                  | 1,000              | \$ 1,000             |                         |                 |             |       | \$1,163,380.30 | 67.2%              |
| 113     | NA              | Aeration Basin Buttress Wall                     |                  | 7,000              | \$ 7,000             |                         |                 |             |       | \$1,163,380.30 | 67.2%              |
| 114     | 1065R           | Chem bldg plumbing                               |                  | 2,000              | \$ 2,000             |                         |                 |             |       | \$1,163,380.30 | 67.2%              |
| 115     | 208             | Sludge Pumping Station Suction Piping            |                  | 5,000              | \$ 5,000             |                         |                 |             |       | \$1,163,380.30 | 67.2%              |
| 116     | 1090            | Thickened Sludge Pump Truck Loading              |                  | 8,000              |                      |                         | \$ 8,000        |             |       | \$1,163,380.30 | 67.2%              |
| 117     | 1092            | Aeration basin guardrail swing gates             | \$12,230.00      |                    |                      |                         | \$ 12,230       |             |       | \$1,151,150.30 | 66.5%              |
| 118     | 1093            | Building Receptacles                             | \$5,520.00       |                    |                      |                         | \$ 5,520        |             |       | \$1,145,630.30 | 66.2%              |
| 119     | 1096            | Collection Chamber Grating Support Beam          | \$40,450.00      |                    |                      |                         | \$ 40,450       |             |       | \$1,145,630.30 | 66.2%              |
| 120     | 1094            | Exterior Process Building Overhead Doors         |                  | 10,000             |                      | \$ 10,000               |                 |             |       | \$1,105,180.30 | 63.9%              |
| 121     | 1095            | Utility Tunnel East End Wall                     | \$9,725.00       |                    |                      | \$ 9,725                |                 |             |       | \$1,095,455.30 | 63.3%              |
| 122     | 226             | Type PL fixture conductor size                   | \$11,395.00      |                    |                      | \$ 11,395               |                 |             |       | \$1,084,060.30 | 62.7%              |
| 123     | 1098            | Metal Lockers                                    |                  | -                  | \$ -                 |                         |                 |             |       | \$1,084,060.30 | 62.7%              |
| 124     | 1099            | Primary Clarifier Concrete Repair                |                  | -                  | \$ -                 |                         |                 |             |       | \$1,084,060.30 | 62.7%              |
| 125     | 216             | Secondary Clarifier Launder Repair               |                  | (40,000)           |                      |                         |                 |             |       | \$1,084,060.30 | 62.7%              |
| 126     | 221             | Aeration Basin Drain                             |                  |                    |                      |                         |                 |             |       | \$1,084,060.30 | 62.7%              |
| 127     | 214             | Utility Tunnel Access Layout                     |                  | -                  |                      |                         |                 |             |       | \$1,084,060.30 | 62.7%              |
| 128     | 1100            | Electrical room door ADB125A                     | \$6,050.00       |                    |                      | \$ 6,050                |                 |             |       | \$1,078,010.30 | 62.3%              |
| 129     | 1105            | Deletion of tools                                |                  | (300)              |                      |                         | \$ (300)        |             |       | \$1,078,010.30 | 62.3%              |



## December 18, 2018

|                        |
|------------------------|
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\$34,604,926.00

\$1,730,246.30

**\$36,335,172.30**

Contract Value:  
Contingency:  
Construction  
Budget:

| Construction Budget: |                 |                                                |                  |                    |                      |                         |                 |             |       |               |                    |
|----------------------|-----------------|------------------------------------------------|------------------|--------------------|----------------------|-------------------------|-----------------|-------------|-------|---------------|--------------------|
| PCO No.              | Response to RFI | Work Item Descriptions                         | Negotiated Value | GHD Rough Estimate | PCO Reasoning        |                         |                 |             | Error | Net Available | Net Available as % |
|                      |                 |                                                |                  |                    | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added |       |               |                    |
| UNNUMBERED           |                 |                                                |                  |                    |                      |                         |                 |             |       |               |                    |
| 1023                 |                 | Septage unloading pad CB and drain             |                  | \$ 1,000           |                      |                         |                 | \$ 1,000    |       |               |                    |
| 1024                 |                 | Slide gate FTB-SG-03                           |                  | \$ -               | \$ -                 |                         |                 |             |       |               |                    |
| 1087                 |                 | Carbon Feed Line Aer. Basin 4                  |                  | (1,000)            |                      |                         |                 | \$ (1,000)  |       |               |                    |
| 1089                 |                 | Chain link privacy slats                       |                  | (3,000)            |                      |                         |                 | \$ (3,000)  |       |               |                    |
| 1091                 |                 | Micro-C chemical piping material               |                  | (1,000)            |                      |                         |                 | \$ (1,000)  |       |               |                    |
| 1101                 |                 | Sludge thickener No 2 tank wall guardrail      |                  | (3,000)            |                      |                         |                 | \$ (3,000)  |       |               |                    |
| 1106                 |                 | Compressed air pipe drops in garage            |                  | (1,000)            |                      |                         | \$ (1,000)      |             |       |               |                    |
|                      |                 |                                                |                  |                    |                      |                         |                 |             |       |               |                    |
|                      |                 |                                                |                  |                    |                      |                         |                 |             |       |               |                    |
|                      |                 |                                                |                  |                    |                      |                         |                 |             |       |               |                    |
| 2D                   |                 | Coring OWS-4                                   |                  | 2,000              | \$ 2,000             |                         |                 |             |       |               |                    |
| 4                    |                 | Gate valve and pinch valve at Septage Building |                  | (8,000)            |                      |                         |                 | \$ (8,000)  |       |               |                    |
| 178                  |                 | Lab island GFCI                                |                  | 3,000              |                      | \$ 3,000                |                 |             |       |               |                    |
| 98                   |                 | Credit for Toeboards on Claifier No. 4         |                  | (3,000)            |                      |                         |                 | \$ (3,000)  |       |               |                    |
| 210                  |                 | Fence Layout                                   |                  | -                  |                      | \$ -                    |                 |             |       |               |                    |
| 215                  |                 | Demo limits utility tunnel                     |                  | (2,000)            |                      |                         |                 | \$ (2,000)  |       |               |                    |
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**Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade**

**Change Orders - Summary**

General Contractor: Daniel O'Connell's Sons, Inc.

Contract No. 2016-05; GHD Job No. 8618922A

\$ 34,604,926

Contract Value:

| Change Order No | PCO | RFI       | Change Order Description                       | Change Order Value | Unforeseen Condition | Omission (paper change) | Owner Initiated | Value Added | Error | Change Order Total Value | Cumulative Value of Approved Change Orders | Contract Value w/ Approved Change Orders | Formal Change Order Approval Date | Cumulative Change Order Value % of Original Contract | Cumulative Change Order Value % of 5 Percent Contingency | Cumulative Change Order Value % of Original Contract |
|-----------------|-----|-----------|------------------------------------------------|--------------------|----------------------|-------------------------|-----------------|-------------|-------|--------------------------|--------------------------------------------|------------------------------------------|-----------------------------------|------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------|
| 1               | 9   | 1008      | 1008 AIS compliant pinch valve                 | \$ 4,389.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     | 3/1/2018                          | 0.17%                                                | 3.48%                                                    | 0.17%                                                |
|                 | 13  | 1009      | 1009 Replace valves at Danier 4                | \$ 20,394.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 28  | 1009      | 1009 GPR existing concrete                     | \$ 35,000.00       | \$ 35,000.00         | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 4   |           | Preliminary treatment clarifier                | \$ 743.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 5   |           | Seepage pipe roof penetration                  | \$ 3,000.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 11  | 1008      | 1008 Core FDS in PT bldg                       | \$ 1,986.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 14  | 46        | 46 Changes to EMH13 and electrical room        | \$ 7,440.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 150 | 35        | 35 Trench drains in garage (vents)             | \$ 6,500.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 21  | 43        | 43 Core and Link Seal                          | \$ 594.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 22  | 1014      | 1014 Demolish suspended ceiling                | \$ 584.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 24  | 1019      | 1019 Replicate M4-105                          | \$ 3,050.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 29  | 1017      | 1017 Replicate M4-105                          | \$ 9,444.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 37  | 1029      | 1029 Storage room ADB-123 window               | \$ 763.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 38  | 1030      | 1030 Sludge pumping station roof               | \$ 25,270.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 52  | 1040      | 1040 Glycol storage                            | \$ 1,160.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 6   | 1002      | 1002 Relocate gas line                         | \$ 2,220.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 6   | FO11      | FO11 Drift and gravel ditches at PT bldg       | \$ 389.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 7   | 1007      | 1007 Potable water well pump power and control | \$ 12,404.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 26  | 0         | 0 Buried fire alarm conduit in chemical room   | \$ 4,240.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 40  | 1032      | 1032 Admin/Process Building windows            | \$ 19,260.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 42  | 105       | 105 ACS pull stations                          | \$ 1,770.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 43  | 83        | 83 Details for filling eyes                    | \$ (9,515.00)      | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 48  | 1036      | 1036 Gravity thickener guard rails             | \$ (12,785.00)     | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 50  | 1038      | 1038 Process Admin Bldg duct modifications     | \$ 24,470.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 53  | 1039      | 1039 Process Bldg HVAC (ceiling)               | \$ 25,130.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 57  | 1047      | 1047 Process Bldg Roof Openings                | \$ 13,980.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 61  | 1113      | 1113 Entry Accession                           | \$ 10,000.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 63  | 1031      | 1031 Electrical modifications                  | \$ 17,785.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 7   | 3         | 3 Water supply size                            | \$ 7,012.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 74  | 117       | 117 Chemical Building Gr.                      | \$ 1,840.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 75  | 20        | 20 Vents for OMS                               | \$ 6,660.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 76  | 20        | 20 Vacuum Pump                                 | \$ 845.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 77  | 1052      | 1052 Restroom Floor Drains                     | \$ 5,609.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 78  | 148/147   | 148/147 Roof Drains                            | \$ 4,960.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 79  | 144 & 154 | 144 & 154 Bubbles in Admin Bldg                | \$ 5,095.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 83  | 165       | 165 Chemical Day Tank Nameplate Info.          | \$ 670.00          | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 85  | 202       | 202 Existing panel feeder Intersection         | \$ 14,982.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 86  | 177       | 177 Trap primers in garage                     | \$ 3,106.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 98  | 08        | 08 Delete lockboards at secondary clarifier    | \$ (10,717.00)     | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 104 | FO19A     | FO19A Relocate block retaining wall            | \$ 45,285.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 92  | 1025      | 1025 Administration building changes           | \$ 13,640.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 96  | 1027      | 1027 Filter bldg gate and valves               | \$ 41,988.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 47  | 1037      | 1037 Plant water system gate valves            | \$ 28,970.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 93  | 93        | 93 Roof Openings Admin. Bldg                   | \$ 30,000.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 51  | 1092      | 1092 Chemical room floor demo                  | \$ 2,970.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 107 | 182       | 182 Type S mounting details                    | \$ 3,846.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 109 | 208/2     | 208/2 Wet elevators                            | \$ 4,730.00        | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |
|                 | 117 | 1092      | 1092 Perfection basin guardrail swing gates    | \$ 12,230.00       | \$ -                 | \$ -                    | \$ -            | \$ -        | \$ -  | \$ -                     | \$ -                                       | \$ -                                     |                                   |                                                      |                                                          |                                                      |

## \$ 34,604,926

anatomical

Journal of the International Association of Agricultural Economists, 1997, 19, 1-12

**Uxbridge Wastewater Treatment Facility BNR and Infrastructure Upgrade  
Change Management**

**General Contractor: Daniel O'Connell's Sons, Inc.  
Contract No. 2016-05; GHD Job No. 8618922A**

**Periodic Update: November / December 2018**

|                               |           |                   |
|-------------------------------|-----------|-------------------|
| <b>Construction Budget</b>    | <b>\$</b> | <b>36,335,172</b> |
| Initial Construction Contract | \$        | 34,604,926        |
| Approved Change Orders*       | \$        | 655,736           |
| Unallocated Budget            | \$        | 1,074,510         |

**Construction Progress**

|                                            |     |                                                         |                  |
|--------------------------------------------|-----|---------------------------------------------------------|------------------|
| Days Since June 26, 2017 Notice to Proceed | 522 | Construction Contract Value,<br>Including Change Orders | \$ 35,260,662.00 |
| Contract Duration                          | 970 | Amount Earned to Date                                   | \$ 19,382,261.44 |
| Days Remaining                             | 448 | Percent of Value Completed                              | 55%              |
| Percent of Time Expended                   | 54% |                                                         |                  |

**Potential Change Orders (PCOs) vs Construction Budget**

|                                          |       |                             |            |
|------------------------------------------|-------|-----------------------------|------------|
| Requests for Information from DOC        | 242   | No. of PCOs                 | 147        |
| Requests for Information from GHD        | 116   | No. PCOs in Negotiation     | 73         |
| Approved Change Orders                   | 5     | Potential Change Amount     | \$ 161,000 |
| Percent of Initial Construction Contract | 1.89% | Percent of Initial Contract | 0.47%      |

**Contingency Management**

|                                             |       |                          |              |
|---------------------------------------------|-------|--------------------------|--------------|
| Contingency - Percent of Initial Contract   | 5%    | Contingency Amount       | \$ 1,730,246 |
| Percent of Contingency in Change Orders     | 37.9% | Change Orders to Date    | \$ 655,736   |
| Percent of Contingency in Potential Changes | 9%    | Potential Changes        | \$ 161,000   |
| Percent of Contingency Identified           | 47%   | Total Changes Identified | \$ 817,000   |
| Percent of Contingency Remaining            | 53%   | Remaining Contingency    | \$ 913,246   |

# CHANGE ORDER FORM

SRF Number 4048  
Public Entity Town of Uxbridge  
Contract Number 2016-05  
Change Order Number 6

Contract Amount (As Bid) \$34,604,926.00

Net Change in Contract Price (this change order) \$ 57,504.00

Total Adjusted Contract Price (including this and all other change orders) \$35,183,883.00

This change order extends the time to complete the work by 0 calendar days (as explained further in the attached).

The extended completion date is n/a

This change order checked by Sandra L. Tripp, P.E., BCEE 11/30/2018  
(Chief) Resident Engineer Date

This change order is requested by: Daniel O'Connell's Sons, Inc.

This change order is recommended by: Sandra L. Tripp, P.E., BCEE

*Sandra L. Tripp* 48960 12/18/18  
Consultant Engineer P.E. Number Date

The undersigned agree to the terms of the change order.

*Elizabeth A. Brosnan* 12/19/18  
Contractor Date

\_\_\_\_\_  
Owner Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in an amount sufficient to cover the total cost of this change order is available.

By: \_\_\_\_\_  
Certification Officer (Auditor, accountant, treasurer) Date

Do not write below: this space reserved for STATE AGENCY APPROVAL

DEP/DMS

CHANGE ORDER FORM (Continued)

Public Entity Town of Uxbridge, MA  
SRF No: 4048 Contract No. 2016-05 Change Order No. 6  
Contract Title: WWTF BNR & Infrastructure Upgrade  
Owner's Name: Town of Uxbridge  
Owner's Address: 21 South Main Street, Uxbridge, MA 01569  
Contractor's Name: Daniel O'Connell's Sons Inc.  
Contractor's Address: 1000 Franklin Village Drive, Suite 205, Franklin, MA 02038

**Description of Change Summary:**

1. PCO-19 – Gravity Thickener No. 2 Concrete Fill

DESCRIPTION: For the effluent launder associated with Gravity Thickener No. 2, provide concrete fill on top of the launder slab to provide positive drainage of the gravity thickener effluent. Fill shall be Concrete Mix C and slope downwards toward the effluent drop box. Slope fill from 10.4 inches thick at the south end of the launder (180 degrees from the drop box), to 2 inches thick at the effluent drop box. The fill elevations shall be as follows (NAVD88):

- 237.76 ft at the high point
- 237.06 ft at the low point (at the effluent drop box)

REASON: The Town requested the effluent launder and the bottom of the effluent drop box to slope, which will facilitate maintenance of the structure.

Cost ..... For a lump sum amount of \$3,510.00

2. PCO-34 – Remove and Replace Scum Piping West of Clarifier No. 4

DESCRIPTION: The scum line serving Secondary Clarifier No. 1 is currently not in service. Remove the existing scum line as necessary to facilitate the construction of Secondary Clarifier No. 4. Coordinate with RPR on limits of demolition. Replace the 8" DIP scum line to avoid the new Secondary Clarifier No. 4.

REASON: The existing 8" scum piping is not located per the record drawings. Removal of the existing scum piping is required to construct Clarifier No. 4. Replacement of the pipe is required for operation of Clarifier No. 1.

Cost ..... For a lump sum amount of \$14,380.00

3. PCO-53A – Electric Service to HVAC Units in the Process Building

DESCRIPTION: Provide electrical connections and terminations to support modifications to the HVAC system for the Sludge Loading Room, Maintenance Room, Storage Room, Chemical Room, Dry Storage Room, Electrical Room, and Blower Room in the Process Building.

REASON: Item 10 in Change Order No. 3 incorporated modifications to the HVAC system required to eliminate roof-mounted HVAC units. This protects the existing precast concrete roof planks. The electrical modifications required to accommodate relocated HVAC units are included in this change order.

Cost ..... For a lump sum amount of \$3,500.00

4. PCO-56 – Slide Gate FTB-SG-03 Modifications

DESCRIPTION: Modify Slide Gate FTB-SG-03 from a 48" x 60" gate, to a 48" x 78" gate. Change the fully raised elevation of this gate from 228.00 to 227.00.

REASON: Gate FTB-SG-03 allows for isolation of the flocculation basins. Under normal operations it is closed and keeps flow from bypassing the flocculation basins. However, the top of gate in the closed position is at elevation 226, while the design depth in the flocculation basins is 227. Therefore, the gate will be overflowing under normal operation. For this reason, the gate height is being revised from 60" to 78".

Cost ..... For a lump sum amount of \$1,560.00

5. PCO-58 – Sanitary Drain Serving the Restrooms in Administration Building

DESCRIPTION: Provide a 4-inch drain from the wall chase serving the toilets in the Men's and Women's Restroom to the existing 4-inch drain located on the south end of the Men's Restroom. Demolish existing concrete floor for the installation and place concrete / patch the existing floor to support the drain installation.

REASON: The Town's plumbing inspector directed that the existing 3-inch drain line serving the toilets in the Men's and Women's restrooms be abandoned / replaced with a 4-inch drain line.

Cost ..... For a lump sum amount of \$3,250.00

6. PCO-68 – Laboratory Plumbing and Associated Architectural Modifications

DESCRIPTION: Delete the proposed sink to be located in the center island of the laboratory, including the cold water, hot water, and drains servicing this sink. Locate a new sink to the center cabinet along the south wall of the laboratory and connect the cold water, hot water, and drain from the utilities located behind the south cabinets to this sink. Provide a 6" gypsum wall along the east and west CMU walls in the Laboratory. The east gypsum wall will serve as a chase for the hot and cold water lines entering the Laboratory.

REASON: Relocating the sink from the center island to the south cabinets eliminates the need to trench into the existing floor to provide water service to the island.

Cost ..... For a lump sum credit amount of \$1,725.00

7. PCO-73 – Plant Water Piping Above MCC-3

DESCRIPTION: Demolish approximately 80 feet of existing 3-inch plant water piping currently located above the location of the proposed MCC-3. Replace with 3-inch PW piping including a 3-inch valve. The location of the new PW line is to be per RFI 89R1.

REASON: The existing plant water line is located above the proposed MCC-3 location. The pipe is in the dedicated 6-foot space above the MCC and needs to be removed. The plant water pipe will be replaced to maintain service.

Cost ..... For a lump sum amount of \$5,000.00

8. PCO-76 – Chemical Building and Filtration Building Electrical

DESCRIPTION: Provide a metal structure (bridge) to support the elevated conduits between the Filtration Building and the Chemical Building. The conduit bridge is to be per the details provided in RFI 125. In addition, modify the conductor size and quantity per RFI 125.

REASON: The details for the conduit bridge were not provided in the Contract Documents.

Cost ..... For a lump sum amount of \$14,795.00

9. PCO-77 – Aeration Basin Port Opening Heights

DESCRIPTION: On Drawing S255 Section B: MODIFY the dimension arrows showing the height of the opening associated with the text dimensions, 2'-3", 1'-6", and 2'-0", to be from the top of the concrete fill to the top of the port opening. This dimension is to be measured at the centerline of the port opening. Rework the wall forms to accommodate the dimensioning.

REASON: The section indicating the port opening dimensions were taken from the top of the base slab. RFI 1060 modified this to be taken from the top of the concrete fill topping.

Cost ..... For a lump sum amount of \$3,095.00

10. PCO-88 – Preliminary Building Roof Drainage

DESCRIPTION: Provide a 4-foot diameter leaching pit with frame and cover south of the Preliminary Treatment Building. Connect the downspout from the roof leader into the leaching pit. Place filter fabric and 2' of crushed stone below the leaching pit per the detail on Drawing C027.

REASON: The roof drainage for the south side of the building drains underground but not into a swale or structure. Above-ground drainage onto a splash block on the asphalt would result in potential ice hazard. Therefore, a leaching pit is required to handle this stormwater.

Cost ..... For a lump sum amount of \$6,689.00

**For a total lump sum amount for this change order of \$57,504.00**

# CHANGE ORDER FORM

SRF Number 4048  
Public Entity Town of Uxbridge  
Contract Number 2016-05  
Change Order Number 7

Contract Amount (As Bid) \$34,604,926.00

Net Change in Contract Price (this change order) \$ 76,779.00

Total Adjusted Contract Price (including this and all other change orders) \$35,260,662.00

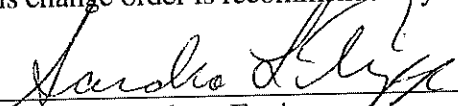
This change order extends the time to complete the work by 0 calendar days (as explained further in the attached).

The extended completion date is n/a

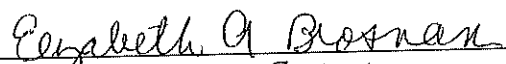
This change order checked by Sandra L. Tripp, P.E., BCCE 11/30/2018  
(Chief) Resident Engineer Date

This change order is requested by: Daniel O'Connell's Sons, Inc.

This change order is recommended by: Sandra L. Tripp, P.E., BCCE

 48960 12/18/18  
Consultant Engineer P.E. Number Date

The undersigned agree to the terms of the change order.

 12/19/18  
Contractor Date

\_\_\_\_\_  
Owner Date

Certification of Appropriation under M.G.L. c.44, §31C: Adequate funding in an amount sufficient to cover the total cost of this change order is available.

By: \_\_\_\_\_ Date  
Certification Officer (Auditor, accountant, treasurer)

Do not write below: this space reserved for STATE AGENCY APPROVAL

DEP/DMS

CHANGE ORDER FORM (Continued)

Public Entity Town of Uxbridge, MA

SRF No: 4048 Contract No. 2016-05 Change Order No. 7

Contract Title: WWTF BNR & Infrastructure Upgrade

Owner's Name: Town of Uxbridge

Owner's Address: 21 South Main Street, Uxbridge, MA 01569

Contractor's Name: Daniel O'Connell's Sons Inc.

Contractor's Address: 1000 Franklin Village Drive, Suite 205, Franklin, MA 02038

**Description of Change Summary:**

1. PCO-101 – Blower Building Floor Slab

DESCRIPTION: Place a 2-inch Concrete Mix CF topping slab on the demolished surface of the Blower Building floor to level the floor, per Section 03300-3.07.C.

REASON: The existing equipment pads located in the Blower Building are to be demolished by Contract. When the demolition was begun, the Contractor noted that the concrete pads were poured monolithically with the base slab rather than on top of the base slab. Thus, the demolition created an extremely rough surface, requiring more than just patching. Placement of a 2-inch topping slab provides for a smooth floor finish.

Cost ..... For a lump sum amount of \$2,965.00

2. PCO-111 – Restroom North Wall Windows

DESCRIPTION: The two W13 windows installed in the Administration Building locker rooms are comprised of an upper pane of frosted glass and lower spandrel panel as indicated on the W13 detail on Drawing A908. Replace the spandrel panel in both windows with frosted glass.

REASON: The windows for the north wall in the Men's and Women's Room (2 total) were approved and installed. The Owner requested that the spandrel panel be replaced with a pane of frosted glass to allow more natural light to enter the restrooms.

Cost ..... For a lump sum amount of \$674.00

3. PCO 118 –Building Receptacles

DESCRIPTION: Modify the building receptacles as follows:

- In the Preliminary Treatment Building, delete one (1) explosion-proof receptacle in the northwest corner of the building and one (1) receptacle located between the overhead doors.
- In the Septage Building, add two (2) explosion-proof receptacles, one (1) on the north wall and one (1) on the south wall of the building. The new receptacles shall be wired to circuit breaker 2 in LP-16.
- In the Blower Building, add two receptacles, one (1) on the east wall and the second one (1) on the west wall of the building. Connect the new receptacles to spare circuit breaker 11 in LP-12.
- In the Sludge Pumping Station, relocate two (2) of the five (5) receptacles from the Upper Level to the Lower Level. Relocate one (1) receptacle from the northeast corner of the Upper Level to the east wall on the Lower Level, north of the Secondary Scum Pump. Relocate one (1) receptacle from the south wall of the Upper Level to the east wall on the Lower Level, south of the Secondary Scum Pump.

REASON: The Owner requested the addition of explosion-proof receptacles in the Septage Building, the addition of interior receptacles in the Blower Building, and revised locations for the receptacles in the Sludge Pumping Station. Explosion-proof receptacles were deleted from the Preliminary Treatment Building to offset the cost of the explosion-proof receptacles in the Septage Building. The additions and modifications provide additional operational flexibility for the operators.

Cost ..... For a lump sum amount of \$5,520.00

4. PCO-120 – Process Building Exterior Overhead Doors

DESCRIPTION: Replace the two exterior overhead doors (Door ADB-127A in the Maintenance Room and Door ADB-128 in the Sludge Loading Room), as described in the Bid Item A-9 description and as defined on the Contract Drawings. Provide each of the two doors with controls and wiring as shown on Drawing E056 and as detailed on the OVERHEAD DOOR SCHEMATIC on Drawing E065.

REASON: Replacement of Doors ADB-127A and ADB-128 was included as part of Alternate No. 9, and therefore was not incorporated into the Contract. The Owner requested to incorporate replacement of these two exterior overhead doors, located on the west end of the Process Building, as these doors are failing.

Cost ..... For a lump sum amount of \$40,450.00

5. PCO-122 – Type PL Fixture Conductors

DESCRIPTION: Modify the site lighting circuits LP5-40 and 42 conductors from 2#8 to 2#4, and LP5-46 and 48 conductors from 2#8 to 2#6.

REASON: The voltage drop across the lengths of the circuits requires the increased wire sizes.

Cost ..... For a lump sum amount of \$9,725.00

6. PCO-123 – Metal Lockers

DESCRIPTION: Delete the requirement for 18" x 15" x 72" high lockers. Provide eleven (11) open-front stadium style lockers and eleven (11) gear lockers.

REASON: The narrow lockers specified will not easily accommodate the heavy boots and gear which will be stored in the locker rooms. In addition, the open front style will promote ventilation and better maintain the equipment and clothing stored inside of the lockers.

Cost ..... For a lump sum amount of \$11,395.00

7. PCO-128 – Electrical Room Door ADB125A

DESCRIPTION: Replace the existing Electrical Room Door ADB125A with a new door per Drawing A906, and orient the doors to open outward into the corridor as indicated on Drawing A055.

REASON: Replacement of Door ADB125A (the interior door to the Electrical Room ADB-125) was included as part of Alternate No. 9, and therefore was not incorporated into the Contract. As this door serves an Electrical Room, the door needs to swing out. The existing door swings in. Replacement of the door is required to meet the electrical and building code.

Cost ..... For a lump sum amount of \$6,050.00

**For a total lump sum amount for this change order of \$76,779.00**



TOWN OF UXBRIDGE  
WWTF BUILDING COMMITTEE  
UXBRIDGE, MASSACHUSETTS 01569

MEETING SIGN IN SHEET  
WEDNESDAY, DECEMBER 19, 2018, 5:00 pm  
BOS MEETING ROOM, 21 SOUTH MAIN STREET, UXBRIDGE, MA

| INITIAL   | NAME            | AFFILIATION             | ADDRESS | PHONE | EMAIL                                                                  |
|-----------|-----------------|-------------------------|---------|-------|------------------------------------------------------------------------|
| <i>DB</i> | Dale Bangma     | WWTF Building Committee |         |       |                                                                        |
| <i>JM</i> | Joe Marchand    | WWTF Building Committee |         |       |                                                                        |
| <i>EO</i> | Eugene O'Rourke | WWTF Building Committee |         |       |                                                                        |
| <i>DH</i> | Dan Hicks       | WWTF Building Committee |         |       |                                                                        |
| <i>WK</i> | William Kessler | WWTF Building Committee |         |       |                                                                        |
| <i>BS</i> | Benn Sherman    | Uxbridge DPW            |         |       | <a href="mailto:bsherman@uxbridge-ma.gov">bsherman@uxbridge-ma.gov</a> |
| <i>PH</i> | Paul Hutnak     | Uxbridge DPW            |         |       | <a href="mailto:phutnak@uxbridge-ma.gov">phutnak@uxbridge-ma.gov</a>   |
| <i>JK</i> | Jim Legg        | Uxbridge DPW-Wastewater |         |       | <a href="mailto:jlegg@uxbridge-ma.gov">jlegg@uxbridge-ma.gov</a>       |
| <i>AE</i> | Angie Ellison   | Town Manager            |         |       | <a href="mailto:aellison@uxbridge-ma.gov">aellison@uxbridge-ma.gov</a> |
| <i>ST</i> | Sandy Tripp     | GHD (Designer)          |         |       | <a href="mailto:sandy.tripp@ghd.com">sandy.tripp@ghd.com</a>           |
| <i>MD</i> | Marc Drainville | GHD (Designer)          |         |       | <a href="mailto:marc.drainville@ghd.com">marc.drainville@ghd.com</a>   |
| <i>LT</i> | Laurie Toscano  | Weston & Sampson (OPM)  |         |       | <a href="mailto:toscana1@wseinc.com">toscana1@wseinc.com</a>           |
| <i>FW</i> | Frank Woodfall  | Keville Enterprises     |         |       | <a href="mailto:fwoodfall@keville.com">fwoodfall@keville.com</a>       |
| <i>PM</i> | Paul Macnevin   | Weston & Sampson (OPM)  |         |       | <a href="mailto:macnevip@wseinc.com">macnevip@wseinc.com</a>           |
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