

## CERTIFICATE OF SUBSTANTIAL COMPLETION

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Owner:	City of Bloomfield	Owner's Contract No.:	
Contractor:	Woodruff Construction	Contractor's Project No.:	
Engineer:	HR Green	Engineer's Project No.:	171462
Project:	Bloomfield WWTP Improvements	Contract Name:	

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**This final Certificate of Substantial Completion applies to:**

All Work  The following specified portions of the Work:

The aeration system and piping in lagoon #2, SCADA System, Air Conditioning Unit (AC-1), the Autodialer, and the drainage system around the blower building. The warranty period on these items will begin when these items were completed.

10/19/21

**Date of Substantial Completion**

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.]*

Amendments to Owner's responsibilities:

None  
 As follows

Amendments to Contractor's responsibilities:


None  
 As follows:

The following documents are attached to and made a part of this Certificate:

Punchlist

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

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EXECUTED BY ENGINEER:		RECEIVED:	RECEIVED:
By: <u></u> (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)	
Title: <u>Project Manager</u>	Title: _____	Title: _____	
Date: <u>11/16/2021</u>	Date: _____	Date: _____	

## Bloomfield WWTP Punchlist – November 16, 2021

- ~~1. Lifting device needed for crane in East St. Lift Station.~~
- ~~2. The south pump in the East St. Lift Station was originally wired incorrectly leading to a seal failure. The pump was sent out to Iowa Pump Works for repair. When the pump was reinstalled, it quit working again. Iowa Pump works sent out a repair technician that determined the pump was functioning correctly. After he left, the pump failed again. This pump needs to be repaired and verified to be working correctly.~~
- ~~3. Silt needs to be cleared off SAGR mulch.~~
4. Winches on lagoon aeration counter-weights are not functional. The Owner determined that double lock nuts in lieu of the handles are acceptable so the counterweights can be adjusted using an impact wrench.
- ~~5. Manhole 7100 wheel needs to be removed and replaced with a direct nut connection and valve stem extension.~~
6. SCADA system – effluent flow meter not reading correctly. Issue is in flow meter transmitter but it would not give the daily total signal. ~~The City has ordered a new transmitter.~~ New transmitter will need to be verified as connected to the SCADA System and reading correctly.
- ~~7. Grating needs to be installed on SAGR Splitter structure.~~
- ~~8. SCADA System backup generator integration with call out needed. Battery Charger alarm.~~
- ~~9. DO Probe needs to be calibrated and connected to the SCADA System.~~
- ~~10. SCADA System meeting with Engineer to review screens and functionality required.~~
- ~~11. Final grading around lagoons needs to be cleaned up so City can mow lagoon berms.~~
- ~~12. Aeration laterals in Lagoons #1 and #2 need to be removed or plugged a minimum of 1 foot below the clay liner. If the aeration lateral shut off valves can be located and operated, the valves may be closed in lagoon cell #1.~~
- ~~13. Rocks and debris around SAGRS needs to be removed so City can mow.~~
- ~~14. Erosion matting needed on interior berm slopes on lagoon #1 and #2.~~
- ~~15. Pipe on south side of lagoon #2 appears to have floated slightly. Lagoon needs to be lowered and Engineer needs to be present to inspect the pipe and piers and to agree to corrective action.~~
- ~~16. SAGR Panel pressure sensor is not functioning and needs to be replaced.~~
17. PTAC -1 unit in office is producing condensation that is dripping down inside the wall onto the floor and on the exterior block. Needs to be resolved with supplier. Humidity is high in the room.
- ~~18. Air Conditioning unit (AC-1) in the control room is not functioning properly.~~
- ~~19. Water bill for sludge removal needs to be paid to the City.~~
- ~~20. The old standby generator needs to be moved per Keynote 4 on Sheet E101.~~
21. Exhaust fan grilles need to be properly secured to ceiling tile in restroom and shower room. Screws directly into the ceiling tile is not acceptable.
- ~~22. Drainage work needs to be completed around new control building per Change Order 5.~~
- ~~23. Stainless steel bolts need to be installed on all butterfly valves in aeration system.~~
- ~~24. Demo poles for old control panels.~~
- ~~25. Water heater in control building needs to be checked. Water is not hot.~~
- ~~26. Lower valve box covers by splitter box.~~
- ~~27. Training by Nexom needs to be provided for SAGR system and aeration system operation.~~
- ~~28. Operation and Maintenance manuals need to be submitted.~~
- ~~29. Owner training needs to be completed per 25 9120~~

- ~~30. Record drawings need to be submitted to the Engineer.~~
31. Light on north side of blower building is not functioning properly.
32. A float hook needs to be installed in Lift Station 1100 so floats are accessible from the hatch by the operator. Float tree needs to be moved off the wall so wall will not interfere with float operation. Remove excess SS cable. Utilize all SS hardware for float hook and anchors.
33. Remove shipping protection from control panels.
34. Lift Station 1240 – remove excess SS cable on float suspension cable.
35. All control field wiring needs to be labeled on both end per specification 25 1613 2.13 A. 3. & C. 1. Most field wiring is not label. Where labels were applied in the control building, the label is so far from the end, it is not useful. Numbering scheme for labeling shall follow numbers found on System Integrators drawings.
36. All Control Panels, Junction Boxes, and Pull Boxes need to be cleaned interior and exterior – debris, metal filings and dirt/dust. Clean all ventilation filters or replace as required. See specification 26 0573 3.04.
37. Control panels in heated spaces or control panels in unheated spaces with internal heaters (CP-1100, CP-1240, CP-2200, CP-6200, IP-1527, IP-2160) – fill all conduit openings coming from outside with duct seal to prevent air migration and condensation. See specification 26 0534 3.02 M.
38. Lift station control panels (CP-1100, CP-1240) – Motor lead conduits were brought into the control side instead of the power side of the panel. Intrinsically safe wiring for floats shall be physically or mechanically separate from all non- intrinsically safe wiring as require per NEC and UL 508A. CP-1240 – Motor power conductors are routed through Panduit on the control side with control wiring – this is unacceptable. Revise as required and do not route pump power conductors through control side of enclosure. See specification 26 0519 3.03
39. CP-1100 has unused conduit openings covered with duct tape. Any unused openings in control panels shall be plugged using devices that maintain the rating of the enclosure – use NEMA 4X hole plugs.
40. All control panel – all field wiring, cables, fiber jumpers shall be bundled, supported, and organized in a neat workman like fashion. See specification 26 0519 3.03
41. Electrical Steel Channel Strut – provide vinyl caps on each end of exposed channel strut in accordance with Section 26 0529, Part 2.02.G.3.
42. Transformer T1 – support LFMC off-of slab.
43. Transformer T2 – support LFMC off-of slab; secondary LFMC jacket is rippled due to tight radius and is caught under rear side lower corner of adjacent Transformer T1.
44. Label exterior Transformer T3 disconnect switches at existing Maintenance Building.
45. Label interior EF-1 combination motor starter.
46. Exterior Fiber Optic Handholes – provide 50’-0” service loop in accordance with Section 27 1300, Part 3.01.D.
47. Fiber Optic Cable testing – submit FO cable OTDR testing reports from On-Reel (prior to installation) and following Cable Installation and Terminations in accordance with Section 3.05.3.b.
48. LS-1100 & LS-1240 – verify installation and location of UL listed conduit seal-off fittings. Submit pictures of each location.
49. Engine-Generator – label each output circuit breaker 1) Main Circuit Breaker, and 2) Load Bank Circuit Breaker.
50. Engine-Generator – Interior Service Lights to be battery voltage operated with control by spring-wound timer located adjacent to engine-generator control panel.

51. Engine-Generator – verify location of exterior red alarm beacon and Emergency Off Pushbutton.  
Submit pictures of each location.
52. Label exterior Load Bank Docking Station.
53. Pole Lights Type S1 & S2 – verify installation of handhole covers. Missing cover noted on site.
54. Blower Control Panel – replace nylon rope cable ties with wide face nylon ties.
55. Blower Control Panel – touch-up front door finish scratches.
56. Office 101 – at south wall install TMGB to terminate ground loop cable.
57. Label Exterior Main Switch and PV Gutter Box.
- ~~58. Email screen shots of completed reports and trends trends with one week's worth of data as discussed between Andrew of Jeteo and Dan Origer of HR Green during site visit, for review.~~