



Newton City Council Agenda

May 5, 2025 - 6:00 PM

View the City Council Meeting:

In Person

City Hall - Council Chambers
101 W 4th St S, Newton, IA 50208

Television

Mediacom Channel
12/85/121.12

Online

newtongov.org/cablecast

Pledge

Pledge of Allegiance

Call to Order

1. Roll Call

Proclamation

2. 56th Annual Professional Municipal Clerks Week Proclamation
3. National Police Week Proclamation
4. Emergency Medical Services (EMS) Week Proclamation
5. May is Building Safety Month
6. May is National Preservation Month

Presentation

7. Habitat for Humanity (Jasper County & State) update - Becca Decker & Rachel Ong

Citizen Participation

8. This is the time of the meeting that a citizen may address the Council. After being recognized by the presiding officer, each person will be given three (3) minutes to speak. Elected officials will take comments into consideration; however, this time is not intended for a discussion or entering into a dialogue. Elected officials and City staff will not answer questions or debate a citizen during the *Citizen Participation* portion of the meeting

Consent Agenda

9. April 16, 2025 Special City Council Meeting Minutes
10. April 21, 2025 Regular City Council Meeting Minutes
11. April 21, 2025 Special City Council Meeting Minutes
12. Approve Liquor Licenses for the following: Casey's #1911 - LE0003308, 1018 1st Ave E, Class E Retail Alcohol License renewal; Newton/Des Moines East KOA - WBN001424, 1610 E 36th St S, Special Class B Retail Native Wine License renewal; The Venue & Public House, 211 N 2nd Ave W, amendment allowing temporary extension of outdoor service area including 200 block of N 2nd Ave W for car show June 13-14, 2025

13. Approve 2025-2026 Cigarette/Tobacco/Nicotine/Vapor License for the following: Fareway #848, 120 N 3rd Ave E; World Liquor & Tobacco + Vapors, 702 1st Ave E; World To Go, 403 1st Ave E
14. Resolution fixing the amounts to be assessed against individual private properties for the abatement of nuisance violations (Schedule No. 25-05)
15. Resolution Approving a Property Tax Rebate for the McCann Housing Associates, LP Property Located at 1105 East 12th Street South Within the McCann Urban Renewal Area
16. Resolution Approving a Property Tax Rebate for the Theisen's Property Located at 3021 1st Ave E Within the East Mart Urban Renewal Area
17. Resolution Denying a Property Tax Rebate payment to Newton Elite Properties, LLC (Property located at 1123 1st Avenue East) for the Spring 2025 payment due to a violation of the Economic Development Agreement
18. Resolution Approving Contract for Auditing Services and Preparation of Annual Financial Statements
19. Resolution Approving Replacement Windows on the West Side of the Newton Police Department
20. Resolution approving purchase of a pressure washer for the Public Works Community Development Wash Bay
21. Resolution Amending the Downtown Improvement Grant for United Way of Jasper County at 312 First Avenue West
22. Resolution Approving Amendment #001 to the Engineering Services Agreement for the Westwood Golf Course Bridge Replacement and Repair Project
23. Resolution authorizing the submission of FY 2026 Airport State Funding Application and certifying eligibility requirements.
24. Resolution Approving the Purchase of the Parks Utility Cart
25. Resolution approving contract change order document for Westwood Clubhouse
26. Resolution authorizing the purchase of pre-season salt for snow and ice control
27. Resolution approving the purchase and installation of two gate valves for the Newton Sanitary Landfill
28. Resolution accepting completion of work replacing the undercarriage of the Landfill 850L dozer
29. Resolution approving CO-1 for the 2025 Westwood Grading Project
30. Resolution ordering bids, approving plans, specifications, form of contract, notice to bidders, ordering clerk to publish notice, fixing a date for receiving same, for a public hearing on plans, specifications, form of contract and estimate of costs for the North East Pump Station Improvements Project
31. Resolution Setting a Date for a Public Hearing on the FY26-FY30 Capital Improvement Plan (CIP)
32. Approve Bills
33. Public Hearing on an Ordinance Establishing Partial Tax Exemption for Industrial Property

Public Hearing

- This is an ordinance establishing industrial abatement in accordance with Code of Iowa Chapter 427B.
- The tax exemption schedule, authorized by Iowa Code Chapter 427B is for five years as follows: Year 1: 75%, Year 2: 60%, Year 3: 45%, Year 4: 30%, Year 5: 15%.

34. First Consideration of an Ordinance Establishing Partial Tax Exemption for Industrial Property

Ordinance

35. First Consideration of an Ordinance Amending the Code of Ordinances, City of Newton, Iowa, 2025, Title III: Administration, Chapter 30: Mayor and Council

- In order to keep in line with comparable communities and for the good of the organization, it is recommended by staff to increase the Mayor's and Council's pay for the next elected council, which begins January 1, 2026.

Resolution

36. Resolution amending the Comprehensive Fee Schedule, Public Works Fees, by adding Solid Waste and Recycling Collection and Disposal Fee

- On January 24, three proposals were received. At the March 3 Newton City Council meeting, each vendor presented their proposals. Following deliberation, the City Council voted to enter into an agreement with Dodd's Solid Waste & Recycling of Newton, IA.
- Dodd's proposal includes a monthly rate of \$15.00 for manual weekly collection of a 35-gallon solid waste bin and an 18-gallon recycling tote.
- The contract includes an annual rate adjustment tied to the Consumer Price Index – Urban and has a term of five years.
- As a result of the new contract with Dodd's, the monthly rate for individual property owners, covering solid waste and recycling collection, landfill tipping fees, recycling tipping fees, leaf bag collection, and Christmas tree collection, will be \$18.55 per residential unit, effective July 1, 2025.

37. Resolution approving the granting of Downtown Improvement Grant funds for 309 1st Avenue West, Newton, Iowa in the Facade Rehabilitation Program Area

- On April 9, 2025, the Downtown Grant Review Board recommended approval of downtown improvement grant funds to Carl Hentsch for Betty J's Merchantile.
- The maximum allowed grant amount is \$5,000.00, provided a 1:1 match is met.
- The recommended grant amount is \$500.00, provided a 1:1 match is met.

38. Resolution approving a low-moderate income housing set-aside grant for 2122 North 4th Avenue East, Newton
- The owner of 2122 North 4th Avenue East has made an application in the plumbing category and has submitted a quote for the work. The owner and the property meet the requirements of the City's LMI Existing Housing Improvement Grant program.
 - The resolution approves a \$2,887.50 grant for 2122 North 4th Avenue East.
39. Resolution approving a low-moderate income housing set-aside grant for 2014 South 3rd Avenue East, Newton
- The owner of 2014 South 3rd Avenue East has made an application in the Exterior Treatments and Windows and Doors categories and has submitted a quote for the work. The owner and the property meet the requirements of the City's LMI Existing Housing Improvement Grant program.
 - The resolution approves a \$16,303.75 grant for 2014 South 3rd Avenue East.
40. Resolution Approving a D&D 2.0 Demolition Grant for 1010 East 8th Street North, Newton, Jasper County, Iowa
- Request for assistance for the demolition costs for 1010 East 8th Street North, Newton.
 - The grant program agreement would provide a D&D 2.0 Grant of \$20,000 to Brooks Grease management, LLC after completion of the demolition work.
41. Resolution approving the Westwood Clubhouse Facility Rental Policy and Adding Westwood Clubhouse Facility Rental Fee to the City of Newton Comprehensive Fee Schedule
- With the construction of the new clubhouse nearing completion, it has been identified that a facility rental policy is needed.
 - Westwood Golf Course Staff has prepared a policy to accommodate private parties during the off season of November 15th through March 1st of each year. Private parties during normal golfing season is not recommended, as the primary function of the clubhouse is to serve as a main hub for the golfcourse.
 - This policy does not apply to golf outings scheduled by Westwood Golf Course Staff.
42. Resolution approving the purchase of a Cemetery Zero Turn Mower

- The 2025-26 CIP identifies a zero turn mower for Newton Union Cemetery as a piece of equipment needing to be replaced.
- This resolution approves the purchase of a Cemetery Zero-Turn Mower from Mow Pow'r, Newton, IA, in the amount of \$14,479.00.

43. Resolution approving Change Order 02 to the contract for the City of Newton Fire Department Engine Bay Floor Reinforcing Project

- The Fire Department has a new ladder truck on order which is expected to be delivered in late 2026.
- The Fire Department is currently working with a contractor for the reinforcement of the engine bay floor.
- Conditions were found during the construction project that require a change to the original contract and are accounted for in this resolution.

44. Resolution approving Change Order 03 to the contract for the City of Newton Fire Department Engine Bay Floor Reinforcing Project

- The Fire Department has a new ladder truck on order which is expected to be delivered in late 2026.
- The Fire Department is currently working with a contractor for the reinforcement of the engine bay floor.
- Conditions were found during the construction project that require a change to the original contract and are accounted for in this resolution.

Staff Report

45. Annual Fire Report - Jarrod Wellik, Fire Chief

Mayor/Council Comments

46. Mayor and Council Comments

Adjourn

The City of Newton is pleased to provide reasonable accommodations, in compliance with the Americans with Disabilities Act, for those individuals or groups who require assistance to be able to participate in the public meeting. Should special accommodations be required, please contact the City Clerk's Office at least 48 hours in advance of the meeting, at 641-792-2787 to arrange for accommodations to be provided.

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PROCLAMATION

56th Annual Professional Municipal Clerks Week

May 4 – May 10, 2025

Whereas, The Office of the Professional Municipal Clerk, a time honored and vital part of local government exists throughout the world, and

Whereas, The Office of the Professional Municipal Clerk is the oldest among public servants, and

Whereas, The Office of the Professional Municipal Clerk provides the professional link between the citizens, the local governing bodies and agencies of government at other levels, and

Whereas, Professional Municipal Clerks have pledged to be ever mindful of their neutrality and impartiality, rendering equal service to all.

Whereas, The Professional Municipal Clerk serves as the information center on functions of local government and community.

Whereas, Professional Municipal Clerks continually strive to improve the administration of the affairs of the Office of the Professional Municipal Clerk through participation in education programs, seminars, workshops and the annual meetings of their state, provincial, county and international professional organizations.

Whereas, It is most appropriate that we recognize the accomplishments of the Office of the Professional Municipal Clerk.

Now, Therefore, I, Evelyn George, Mayor of the City of Newton, Iowa, do recognize the week of May 4 through May 10, 2025, as Professional Municipal Clerks Week, and further extend appreciation to our Professional Municipal Clerk, Katrina Davis and to all Professional Municipal Clerks for the vital services they perform and their exemplary dedication to the communities they represent.

Dated this 5th day of May, 2025.

Evelyn George, Mayor





Newton

PROCLAMATION

National Police Week (May 11-17, 2025) National Peace Officer Memorial Day (May 15, 2025)

WHEREAS, Congress and the President of the United States have designated May 15th as Peace Officers Memorial Day, and the week in which it falls as National Police Week; and

WHEREAS, since the first recorded law enforcement death in 1786, more than 24,000 law enforcement officers in the United States have made the ultimate sacrifice and have died in the line of duty, including members of the Newton Police Department; and

WHEREAS, it is important that all citizens know and understand the duties, responsibilities, hazards, and sacrifices of their law enforcement agency, and that members of our law enforcement agency recognize their duty to serve the people by safeguarding life and property, by protecting them against violence and disorder, and by protecting the innocent against deception and the weak against oppression; and

NOW, THEREFORE, I, Evelyn George, Mayor of the City of Newton, call upon all citizens of Newton and Jasper County to observe May 11th through May 17th as National Police Week, and to commemorate police officers, past and present, who by their faithful and loyal devotion to their responsibilities have rendered a dedicated service to their communities and, in doing so, have earned for themselves an enduring reputation for preserving the rights and security of all citizens.

I FURTHER call upon all citizens of Newton and Jasper County to observe Thursday, May 15, 2025, as Peace Officers Memorial Day to honor the service and sacrifice of those law enforcement officers who have died in the line of duty while protecting our communities.

In witness thereof, I have hereunto set my hand and caused the Seal of the City of Newton to be affixed.

Dated this 5th day of May, 2025.

Evelyn George, Mayor





Newton

PROCLAMATION

MAY 18 - 24, 2025 - EMERGENCY MEDICAL SERVICES (EMS) WEEK

WHEREAS, emergency medical services is a vital public service; and

WHEREAS, the dedicated EMT's and Paramedics of Newton Fire Department provide exemplary emergency medical care and ambulance transportation to the citizens of the City of Newton and Jasper County, Iowa; and

WHEREAS, the Newton Fire Department is ready to provide lifesaving care to those in need 24 hours a day, seven days a week; and

WHEREAS, access to quality emergency care dramatically improves the survival and recovery rate of those who experience sudden illness or injury; and

WHEREAS, the emergency medical services system consists of emergency medical technicians, paramedics, firefighters, emergency physicians, emergency nurses, educators, administrators and others; and

WHEREAS, the members of emergency medical services teams engage in thousands of hours of specialized training and continuing education to enhance their lifesaving skills; and

WHEREAS, it is appropriate to recognize the value and the accomplishments of emergency medical services providers by designating Emergency Medical Services Week; and

NOW, THEREFORE, THE CITY COUNCIL OF NEWTON, IOWA, HEREBY PROCLAIMS:

The week of May 18 - 24, 2025, as:

"EMERGENCY MEDICAL SERVICES (EMS) WEEK"
With the theme, "We Care. For everyone."

And encourages all City of Newton residents to recognize the practitioners and observe this week with appropriate programs, ceremonies, and activities.

DONE AND PROCLAIMED this 5th day of May 2025, in the City of Newton, Iowa.



Evelyn George, Mayor

PROCLAMATION

Building Safety Month — May, 2025

Whereas, our City is committed to recognizing that our growth and strength depends on the safety and economic value of the homes, buildings and infrastructure that serve our citizens, both in everyday life and in times of disaster, and;

Whereas, our confidence in the resilience of these buildings that make up our community is achieved through the work of building safety and fire prevention officials, architects, engineers, builders, tradespeople, design professionals, laborers, plumbers, electricians, and others in the construction industry, who work year-round to ensure the safe construction of buildings, and;

Whereas, modern building codes include safeguards to protect the public from hazards such as hurricanes, snowstorms, tornadoes, wildland fires, floods and earthquakes, and;

Whereas, Building Safety Month reminds the public about the critical role of our communities' largely unknown protectors of public safety—our local code officials—who assure us of safe, sustainable, energy efficient and livable buildings that are essential to America's prosperity, and;

Whereas, "Game On!" the theme for Building Safety Month 2025, encourages all of us to get involved and raise awareness about building safety on a personal, local, and global scale, and;

Whereas, each year, in observance of Building Safety Month, citizens are asked to consider the commitment to improve building safety, resilience and economic investment at home and in the community, and to acknowledge the essential service provided to all of us by local and state building departments, fire prevention bureaus and federal agencies in protecting lives and property.

NOW, THEREFORE, I, Evelyn George, Mayor, of the City of Newton, do hereby proclaim the month of May 2025 as Building Safety Month.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Newton to be affixed.

Signed this _____ day of May, 2025.



Evelyn George, Mayor

PROCLAMATION

May is Historic Preservation Month

WHEREAS, historic preservation is an effective tool for building community and fostering local pride while revitalizing neighborhoods and enhancing livability, and;

WHEREAS, historic preservation is relevant for all communities and all Americans across the nation, and;

WHEREAS it is important to celebrate the role of history in our lives and the contributions made by dedicated individuals in helping us to connect with our shared heritage which has shaped us as a people;

NOW, THEREFORE, I, Evelyn George, Mayor of the City of Newton, Iowa, in recognition of the local, state, and national preservation efforts made by passionate citizens, do hereby proclaim this May as Historic Preservation Month 2025 with the theme of "Harnessing the Power of Place."

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the City of Newton to be affixed.

Signed this _____ day of May, 2025.

Evelyn George, Mayor



NEWTON SPECIAL MEETING CITY COUNCIL MEETING MINUTES
APRIL 16, 2025, 12:30 PM

Call to Order

1. Roll Call

The City Council of Newton, Iowa met in special session at 12:30 P.M. on the above date in the Council Chambers at 101 West 4th Street South. Mayor George presided. Present Council Members: Mullan (via telephone), Dalton, Hallam, Simbro, Ervin. Absent: Mills.

Closed Session

2. To Discuss Strategy with Counsel in Matters that Are Presently in Litigation or Where Litigation is Imminent Where its Disclosure Would be Likely to Prejudice or Disadvantage the Position of the Governmental Body in that Litigation, Which Discussions are Exempt from the Open Meetings Law Pursuant to the Provision of Section 21.5(1)(c), Code of Iowa 2025

At 12:31 P.M., it was moved by Hallam, seconded by Simbro to go into closed session. The city attorney advised the council that they had legal authority to do so. AYES: Five. NAYS: None. The motion passed.

Return to Open Session

3. Return to Open Session

Council returned to open session at 1:25 P.M. with a quorum present.

Adjourn

Moved by Dalton, seconded by Hallam to adjourn the meeting at 1:26 P.M. Motion unanimously carried by voice vote.

Katrina Davis, City Clerk

Evelyn George, Mayor

NEWTON CITY COUNCIL MEETING MINUTES
APRIL 21, 2025, 6:00 PM

Pledge

Pledge of Allegiance

Mayor George asked everyone present to join in saying the Pledge of Allegiance.

Call to Order

1. Roll Call

The City Council of Newton, Iowa met in regular session at 6:00 P.M. on the above date in the Council Chambers at 101 West 4th Street South. Mayor George presided. Present Council Members: Mills, Mullan, Dalton, Hallam, Simbro, Ervin. Absent: None.

Proclamation

2. Arbor Day Proclamation

Newton has been recognized as a Tree City USA by the National Arbor Day Foundation and desires to continue its tree-planting practices. Mayor George proclaimed Friday, April 25th as Arbor Day.

Presentation

3. Arbor Estates and the Newton Housing Market - Bruce Showalter, NHDC

Over the last 10 years, 134 residential building permits have been issued. There was a 34 million dollar increase in the tax base from new construction. 49% of new homes sold were to new families moving to Newton. Over 200 new apartment units were created in the downtown. Over 200 properties have been improved by D&D and grant programs. 33 different builders have built in Newton.

4. Parks & Rec Update- Nick Cummins, Parks Operations Superintendent; Jamie Murphy, Assistant Parks Operations Superintendent; Liz Ventling, Recreation Specialist

The annual update included information on the Aurora pickleball courts, the Maytag Park Mini-Pitch, the disc golf course at Woodland Park, the Westwood Club House build, pool updates, the holiday lights display, and various program activities.

Citizen Participation

5. Eugene Lammers, 202 N 15th Ave W, spoke regarding the Sheriff's department firing range. Board members from the Newton Arboreum and Botanical Gardens spoke about events around their 30th anniversary, deemed the Dirty Thirty Derby Day Plant Sale, May 2nd and 3rd.

Consent Agenda

Moved by Ervin, seconded by Mills to approve consent agenda items 6-23. AYES: Six. NAYS: None. Consent Agenda was adopted.

6. April 7, 2025 Regular City Council Meeting Minutes

7. April 7, 2025 Special City Council Meeting Minutes

8. Approve Liquor Licenses for the following: Walgreen's #05942 - LE0002171, 1204 1st Ave E, Class E Retail Alcohol License renewal

9. Approve 2025-2026 Cigarette/Tobacco/Nicotine/Vapor License for the following: Walmart Store #784, 300 Iowa Speedway Dr

10. Resolution levying assessments for costs of nuisance abatement and providing for the payment thereof (Schedule 25-04)
Resolution 2025-138 adopted.

11. Resolution approving a Telecommunications Licensing Agreement with Windstream Iowa Communications, LLC – 2025-01
Resolution 2025-139 adopted.

12. Resolution Approving a Property Tax Rebate for the CRH Properties LLC Property Located at 117 1st Ave W Within the North Central Urban Renewal Area
Resolution 2025-140 adopted.

13. Resolution Approving a Property Tax Rebate for the Best Midwest Properties LLC Property Located at 109 1st Ave W Within the North Central Urban Renewal Area

Resolution 2025-141 adopted.

14. Resolution Approving a Property Tax Rebate for the Van Maanen Electric, Inc Property Located at 500 Iowa Speedway Drive Within the East Mart Urban Renewal Area
Resolution 2025-142 adopted.

15. Resolution Approving Payment to S&P Global Ratings for Services Related to the 2025 Bonding
Resolution 2025-143 adopted.
 16. Resolution Approving a Second Amendment to the Design Services Agreement for the Downtown Spray Park & Gathering Space Project
Resolution 2025-144 adopted.
 17. Resolution approving Change Order 01 to the contract for the City of Newton Fire Department Engine Bay Floor Reinforcing Project
Resolution 2025-145 adopted.
 18. Resolution awarding contract for the 2025-01 PCC patching project
Resolution 2025-146 adopted.
 19. Resolution awarding contract for the Roof Repair Project 2025-01 – Water Treatment
Resolution 2025-147 adopted.
 20. Resolution awarding contract for the Landfill Lower Shop and City Garage Building Roof Rehabilitation Project.
Resolution 2025-148 adopted.
 21. Resolution ordering bids, approving plans, specifications, and form of contract and notice to bidders, and ordering the clerk to publish notice and fixing a date for receiving, and for a public hearing on plans, specifications, form of contract, and estimate of costs for the Newton Landfill Concrete Crushing Project 2025.
Resolution 2025-149 adopted.
 22. Resolution Ordering Bids, Approving Plans, Specifications, Form of Contract, Notice to Bidders, Ordering Clerk to Publish Notice, fixing a date for receiving same, for a Public Hearing on Plans, Specifications, Form of Contract and Estimate of Costs for the 2025 Aurora Park Tennis Courts-Lighting
Resolution 2025-150 adopted.
 23. Approve Bills
- Public Hearing
24. Public Hearing approving an application for Federal Aviation Administration (FAA) funding assistance for the Newton Apron Expansion Project, and awarding a contract for said project contingent upon the receipt of said funding assistance grant
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Moved by Mullan, seconded by Hallam to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
 25. Resolution approving an application for Federal Aviation Administration (FAA) funding assistance for the Newton Apron Expansion Project, and awarding a contract for said project contingent upon the receipt of said funding assistance grant
Moved by Hallam, seconded by Dalton to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-151 adopted.
 26. Public Hearing on a Resolution Approving the Whispering Pines Minor Subdivision in the City of Newton, Jasper County, Iowa
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Moved by Hallam, seconded by Dalton to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
 27. Resolution Approving the Whispering Pines Minor Subdivision in the City of Newton, Jasper County, Iowa
Moved by Ervin, seconded by Hallam to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-152 adopted.
 28. Public hearing on a proposed amended development agreement with Hotel Maytag Investors, LLC
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Owner, Jack Hatch spoke regarding the restructuring of the financing and the changes in management at the property. Moved by Mullan, seconded by Ervin to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
 29. Resolution Approving Amended Development Agreement with Hotel Maytag Investors, LLC, Authorizing Tax Increment Payments and Pledging Certain Tax Increment Revenues to the Payment of the Agreement
Moved by Mullan, seconded by Hallam to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-153 adopted.

30. Public Hearing on a Resolution Approving the sale of city-owned property at 509 West 2nd Street South, 514 South 2nd Avenue West, 315 East 4th Street South, and 616 West 4th Street South, Newton, Jasper County, Iowa
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Moved by Hallam, seconded by Dalton to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
31. Resolution Approving the sale of city-owned property at 509 West 2nd Street South, 514 South 2nd Avenue West, 315 East 4th Street South, and 616 West 4th Street South, Newton, Jasper County, Iowa
Moved by Mullan, seconded by Ervin to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-154 adopted.
32. Public Hearing on a Resolution Approving the sale of city-owned property at 1017 West 4th Street South, 902 1st Avenue West, 917 1st Avenue West, 717 West 6th Street South, 625 East 5th Street South, and 1219 South 4th Avenue East, Newton, Jasper County, Iowa
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Moved by Dalton, seconded by Mills to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
33. Resolution Approving the sale of city-owned property at 1017 West 4th Street South, 902 1st Avenue West, 917 1st Avenue West, 717 West 6th Street South, 625 East 5th Street South, and 1219 South 4th Avenue East, Newton, Jasper county, Iowa
Moved by Mullan, seconded by Ervin to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-155 adopted.
34. Public Hearing on a Resolution Approving the sale of city-owned property at 721 East 7th Street North, Newton, Jasper County, Iowa
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Moved by Hallam, seconded by Mills to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
35. Resolution Approving the sale of city-owned property at 721 East 7th Street North, Newton, Jasper County, Iowa
Moved by Mullan, seconded by Dalton to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-156 adopted.
36. Public Hearing on a Resolution approving the 2025-26 Operating Budget for the City of Newton
Mayor George stated that this is the time and place for a Public Hearing on the above Resolution. There were no written comments. Moved by Hallam, seconded by Ervin to close the public hearing. AYES: Six. NAYS: None. The public hearing was closed.
37. Resolution Approving the 2025-26 Operating Budget for the City of Newton
Moved by Hallam, seconded by Simbro to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-157 adopted.

Ordinance

38. Third Consideration of an Ordinance Amending the Code of Ordinances, City of Newton, Iowa, 2025, Title IX: General Regulations, Chapter 95: Cemeteries
Moved by Simbro, seconded by Hallam to approve the third consideration of the Ordinance. AYES: Six. NAYS: None. Third Consideration of the Ordinance was approved. Moved by Mullan, seconded by Hallam, to adopt the Ordinance. AYES: Six. NAYS: None. Ordinance 2466 was adopted.

Resolution

39. Resolution approving a Newton Hotel-Motel Tourism Grant Program Application for \$1,950 for the Newton Farmers' Market hosted by Newton Main Street
Moved by Ervin, seconded by Simbro to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-158 adopted.
40. Resolution approving a Newton Hotel-Motel Tourism Grant Program Application for \$2,500 for Thunder Nites hosted by the American Legion Post 111
Moved by Dalton, seconded by Hallam to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-159 adopted.
41. Resolution approving a Newton Hotel-Motel Tourism Grant Program Application for \$1,141.39 for the Newton Arboretum & Botanical Gardens Annual Spring Plant Sale
Moved by Hallam, seconded by Mullan to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-160 adopted.

42. Resolution awarding contract for the 2025 Westwood grading project
Moved by Ervin, seconded by Dalton to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-161 adopted.
43. Resolution approving the granting of Downtown Improvement Grant funds for 104 1st Street North, Newton, Iowa in the Paint Program Area
Moved by Mullan, seconded by Hallam to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-162 adopted.
44. Resolution approving the granting of Downtown Improvement Grant funds for 309 1st Avenue West, Newton, Iowa in the Facade Rehabilitation Program Area
Moved by Dalton, seconded by Simbro to adopt the Resolution. Ervin requested that the owner make an appearance at the council meeting. Moved by Hallam, seconded by Ervin to table the resolution to the next meeting. AYES: Six. NAYS: None. Resolution was tabled.
45. Resolution approving the 2025-26 Non-Union Compensation Plan
Moved by Hallam, seconded by Simbro to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-163 adopted.
46. Resolution approving salary increase for City Administrator
Moved by Simbro, seconded by Mullan to adopt the Resolution with a 4% increase. AYES: Five. NAYS: Ervin. Resolution 2025-164 adopted.
47. Resolution approving an amendment to the adopted Low-Moderate Income Set Aside Funds Policy
Moved by Dalton, seconded by Hallam to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-165 adopted.
48. Resolution providing Low-Moderate Income Housing Set-aside Funds to the residential development at 1309-1317 West 16th Street South
Moved by Hallam, seconded by Mullan to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-166 adopted.
49. Resolution authorizing and approving a Loan Agreement, providing for the issuance of \$5,240,000 General Obligation Corporate Purpose Bonds, Series 2025A and providing for the levy of taxes to pay the same
Moved by Hallam, seconded by Ervin to adopt the Resolution. AYES: Six. NAYS: None. Resolution 2025-167 adopted.

Mayor/Council Comments

50. Mayor and Council Comments
Mayor George spoke regarding an open house at Plant 1 Legacy Apartments on April 30th from 4:00 p.m. to 7:00 p.m.

Closed Session

51. Closed Session under Iowa Code Section 21.5.1.j, to discuss the purchase or sale of particular real estate only where premature disclosure could be reasonably expected to increase the price the governmental body would have to pay for that property or reduce the price the governmental body would receive for that property. The minutes and the audio recording of a session closed under this paragraph shall be available for public examination when the transaction discussed is completed.
At 7:52 P.M., it was moved by Dalton, seconded by Hallam to go into closed session. The city attorney advised the council that they had legal authority to do so. AYES: Six. NAYS: None. The motion passed.

Return to Open Session

52. Return to Open Session
Council returned to open session at 9:00 P.M. with all members present.

Closed Session

53. To Discuss Strategy with Counsel in Matters that Are Presently in Litigation or Where Litigation is Imminent Where its Disclosure Would be Likely to Prejudice or Disadvantage the Position of the Governmental Body in that Litigation, Which Discussions are Exempt from the Open Meetings Law Pursuant to the Provision of Section 21.5(1)(c), Code of Iowa 2025
At 9:01 P.M., it was moved by Mills, seconded by Hallam to go into closed session. The city attorney advised the council that they had legal authority to do so. AYES: Six. NAYS: None. The motion passed.

Return to Open Session

54. Return to Open Session
Council returned to open session at 9:48 P.M. with all members present.

Adjourn
Moved by Dalton, seconded by Mills to adjourn the meeting at 9:48 P.M. Motion unanimously carried by voice vote.

Katrina Davis, City Clerk

Evelyn George, Mayor

NEWTON SPECIAL MEETING CITY COUNCIL MEETING MINUTES
APRIL 21, 2025, 6:00 PM

Call to Order

- 1. Roll Call
The City Council of Newton, Iowa met in special session at 9:49 P.M. on the above date in the Council Chambers at 101 West 4th Street South. Mayor George presided. Present Council Members: Mills, Mullan, Dalton, Hallam, Simbro, Ervin. Absent: None.

Resolution

- 2. Resolution Approving Joint Agreement with Jasper County, Iowa for urban renewal purposes
Moved by Ervin, seconded by Dalton to adopt the Resolution. Council discussion ensued regarding challenges, risks, and looking for opportunities. Simbro reiterated that there are a lot of issues that are still not agreed upon. Mills hopes for alignment and to work together with the county for growth. Mayor George agreed that we need an agreement on a revenue fund in order to take care of the roads. AYES: Five. NAYS: Simbro. Resolution 2025-137 adopted.

Adjourn

Moved by Ervin, seconded by Hallam to adjourn the meeting at 9:59 P.M. Motion unanimously carried by voice vote.

Katrina Davis, City Clerk

Evelyn George, Mayor

City of Newton Council Report

**Item:**

Resolution fixing the amounts to be assessed against individual private properties for the abatement of nuisance violations (Schedule No. 25-05)

Summary:

The City of Newton abated some nuisances, such as tall grass/weeds, trash, or snow. These costs remain unpaid by the property owner(s) and should be assessed to the property taxes.

Financial Impact:

Cost Recovery: \$1,180.25

Report Number: 2025-520

Date:

May 5, 2025

Lead Department:

Police

Recommendation:

Approve

Background:

The City continues to work towards better curb appeal and improved aesthetics within the community. The City abated violations that remained non-compliant after the initial warning period. The attached schedule lists owner, parcel number, address, amount to be assessed, date work was completed, property legal description, and property valuation.

Recommendation:

City Staff recommends approval of the Resolution fixing the amounts to be assessed against individual private properties for the abatement of nuisance violations.

Matt Muckler, City Administrator

RESOLUTION 2025- _____

**RESOLUTION FIXING THE AMOUNTS TO BE ASSESSED AGAINST INDIVIDUAL
PRIVATE PROPERTIES FOR THE ABATEMENT OF NUISANCE VIOLATIONS
(SCHEDULE NO. 25-05)**

WHEREAS, the City of Newton has abated nuisance violations at the addresses as found in Schedule No. 25-05: Assessment for the Expenses for Nuisance Abatement; and

WHEREAS, the City of Newton has maintained a report of the abatement costs for each individual property as found in Schedule 25-05: Assessment for the Expenses for Nuisance Abatement; and

WHEREAS, the expenses have been billed to the property owners and remain unpaid.

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that the Schedule 25-05: Assessment for the Expenses for Nuisance Abatement is approved.

NOW THEREFORE, BE IT FURTHER RESOLVED by the City Council of Newton, Iowa, that the City Clerk is hereby directed to prepare, sign, and file in the clerk's office the Schedule 25-05: Assessment for the Expenses for Nuisance Abatement.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

Schedule 25-05: Assessment for the Expenses for Nuisance Abatement

Deed/Contract Holder	Parcel Number	Property Address	City	Net Assessed Property Value	Abatement Fee	Admin. Fee	Total Amount Assessed	Legal	Date Abated
Betty Snodgrass	833104014	1600 1st Ave W	Newton	\$42,740	\$1,030.25	\$150.00	\$1,180.25	LEEPER'S HIGHLAND ADD W 60' LOT 14 BLK 3	3/31/2025
						TOTAL:	\$1,180.25		

City of Newton Council Report

**Item:**

Resolution Approving a Property Tax Rebate for the McCann Housing Associates, LP Property Located at 1105 East 12th Street South Within the McCann Urban Renewal Area

Summary:

Resolution Approving Property Tax Rebate to the McCann Housing Associates, LP Property According to the Approved Development Agreement

Report Number: 2025-479**Date:**

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Financial Impact:

\$48,157.37 property tax rebate from the McCann Urban Renewal TIF Fund

Background:

The City of Newton entered into a development agreement in March of 2018 with McCann Housing Associates, LP on the property located at 1105 East 12th Street South within the McCann Urban Renewal Area. The Agreement states that the City shall rebate 100% of all TIF property taxes paid by McCann Housing Associates, LP in Fiscal year 24/25.

McCann Housing Associates, LP has provided documentation that the property taxes for the 2nd half of fiscal year 2024-2025 have been paid in the total amount of \$58,163.00 and is eligible to receive a 100% TIF rebate of \$48,157.37.

Recommendation:

Staff recommends approval of the attached Resolution approving the tax rebate payment to McCann Housing Associates, LP for the 2nd half of the 24/25 property taxes.

Matt Muckler, City Administrator

RESOLUTION NO. 2025- _____

RESOLUTION APPROVING A PROPERTY TAX REBATE FOR THE MCCANN HOUSING ASSOCIATES, LP PROPERTY LOCATED AT 1105 EAST 12th STREET SOUTH WITHIN THE MCCANN URBAN RENEWAL AREA

WHEREAS, the City of Newton (City) has established the McCann Urban Renewal Area; and

WHEREAS, a Development Agreement with McCann Housing Associates, LP was entered into in March of 2018 on the property located at 1105 East 12th Street South within the McCann Urban Renewal Area, and

WHEREAS, said Agreement provides that the City provide to the Developer a 100% TIF Property Tax Rebate in Fiscal Year 24-25, and

WHEREAS, the Developer has paid its property taxes for the 2nd half of fiscal year 2024-2025 in the total amount of \$58,163.00 and is eligible to receive a 100% TIF rebate of \$48,157.37;

NOW, THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa: That, per the terms of the Development Agreement with McCann Housing Associates, LP a property tax rebate for the 2nd half of fiscal year 2024-2025 taxes in the amount of \$48,157.37 is hereby approved.

PASSED this 5th day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution Approving a Property Tax Rebate for the Theisen's Property Located at 3021 1st Ave E Within the East Mart Urban Renewal Area

Summary:

Resolution Approving Property Tax Rebate to the Theisen's Property According to the Approved Development Agreement

Report Number: 2025-460**Date:**

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Financial Impact:

\$28,271 property tax rebate from the East Mart Urban Renewal TIF Fund as budgeted

Background:

The City of Newton entered into a development agreement in December of 2021 with Theisen's on the property located at 3021 1st Ave E within the East Mart Urban Renewal Area. The Agreement states that the City shall rebate 100% of all TIF property taxes paid by Theisen's in Fiscal year 24/25.

Theisen's has provided documentation that the 2nd half of property taxes in the amount of \$33,294 have been paid to the Jasper County Treasurer for FY 2024/25 for the property and the amount of the 100% rebate from the TIF Fund would be \$28,271.

Recommendation:

Staff recommends approval of the attached Resolution approving the tax rebate payment to Theisen's for property taxes paid in FY24/25

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION APPROVING A PROPERTY TAX REBATE FOR THE
THEISEN’S PROPERTY LOCATED AT 3021 1st Ave E WITHIN THE
EAST MART URBAN RENEWAL AREA**

WHEREAS, the City of Newton (City) has established the East Mart Urban
Renewal Area; and

WHEREAS, a Development Agreement with Theisen’s was entered into in
December of 2021 on the property located at 3021 1st Ave E within the East Mart Urban
Renewal Area, and

WHEREAS, said Agreement states the City will provide to the Developer a 100%
TIF Property Tax Rebate in Fiscal Year 24-25, and

WHEREAS, the Developer has paid its property taxes for the 2nd half of the fiscal
year 2024-2025 in the total amount of \$33,294 and is eligible to receive a 100% TIF rebate
in the amount of \$28,271;

NOW, THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa:
That, per the terms of the Development Agreement with Theisen’s, a property tax rebate
for the 2nd half of fiscal year 2024-2025 property taxes in the amount of \$28,271 is hereby
approved.

PASSED this 5th day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution Denying a Property Tax Rebate payment to Newton Elite Properties, LLC (Property located at 1123 1st Avenue East) for the Spring 2025 payment due to a violation of the Economic Development Agreement

Report Number: 2025-500**Date:**

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Summary:

Resolution Denying a Property Tax Rebate to the Newton Elite Properties, LLC Property for the Spring 2025 payment due to a violation of the Economic Development Agreement

Financial Impact:

No Financial Impact to the 1st Avenue East Urban Renewal TIF Fund

Background:

The City of Newton entered into a development agreement in November of 2020 with Newton Elite Properties, LLC on the property located at 1123 1st Avenue East within the 1st Avenue East Urban Renewal Area. The Agreement states that the City shall rebate 70% of all TIF property taxes paid by Newton Elite Properties, LLC in Fiscal year 24/25.

In January of 2025, the property was gifted to Capstone Community Foundation, which is an exempt organization. Section A.4 of the development agreement states the following:

A.4: The Developer agrees that it will not seek any tax exemption or abatement either presently or prospectively authorized under any State, Federal or local law with respect to taxation of the Property throughout the Term (as hereinafter defined) including causing or allowing the property to be leased, sold, transferred to or otherwise used by an entity that is exempt from property taxes under the laws of the State of Iowa.

Bond Counsel has advised the City that the developer is in violation of section A.4 of the agreement. Due to this breach of contract the City is within its rights to consider the agreement null and void on the date of the ownership transfer.

Recommendation:

Staff recommends approval of the attached Resolution denying the tax rebate payment in the amount of \$4,816.00 to Newton Elite Properties, LLC for the 2nd half of the 24-25 property taxes.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION DENYING A PROPERTY TAX REBATE PAYMENT TO
NEWTON ELITE PROPERTIES, LLC (PROPERTY LOCATED AT 1123
1ST AVENUE EAST) FOR THE SPRING 2025 PAYMENT DUE TO A
VIOLATION OF THE ECONOMIC DEVELOPMENT AGREEMENT**

WHEREAS, the City of Newton (City) has established the 1ST Avenue East Urban Renewal Area; and

WHEREAS, a Development Agreement with Newton Elite Properties, LLC was entered into in November of 2020 for the property located at 1123 1st Avenue East within the 1st Avenue East Urban Renewal Area, and

WHEREAS, said Agreement states that the City provide to the Developer a 70% TIF Property Tax Rebate in Fiscal Year 24-25, and

WHEREAS, the Developer has gifted the property to Capstone Community Foundation, an exempt organization, which is in violation of the Development Agreement,

NOW, THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa:
That, because the terms of the Development Agreement were violated, the property tax rebate request for the 2nd half of fiscal year 24-25 in the amount of \$4,816 is hereby denied.

PASSED this 5th day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution Approving Contract for Auditing Services and Preparation of Annual Financial Statements

Summary:

Resolution awards a three year contract for the City's annual financial audit to Anderson, Larkin and Co. from Ottumwa (FY2025, FY2026, FY2027)

Financial Impact:

The contract totals a maximum of \$75,000 over three years, which is lower than current and anticipated budgets

Report Number: 2025-478

Date:

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Background:

The City of Newton is required by Iowa Code to conduct an annual audit of its financial accounts and records. This process ensures that taxpayer's money is properly accounted for and required accounting standards are being met.

The City has reached the end of an agreement with the firm of Gronewold, Bell, Kyhnn, and Co from Atlantic to provide the auditing services. In order to enter a new agreement, the City sent out a request for proposals in February to six private accounting firms for another three-year agreement. Two responses were received by the March 20th deadline. The responses were from Gronewold, Bell, Kyhnn, and Co., PC from Atlantic and Anderson, Larkin & Co from Ottumwa.

City of Newton staff scored each of the proposals based on a criteria system recommended by the State of Iowa's Auditor's office. Seventy-five percent of the points were based on experience, accounting resources, understanding of the work, and timetable, while twenty-five percent of the scoring was based on cost.

Based on the scoring system, staff recommends the contract for auditing services be awarded to Anderson, Larkin & Co., PC, of Ottumwa, Iowa. The cost for the preparation of financial statements and auditing services would be a maximum of \$25,000 for Fiscal Year 2024-25, \$25,000 for Fiscal Year 2025-26, and \$25,000 for Fiscal Year 2026-27. The General Fund budget approved for next fiscal year for auditing services is \$26,000, so the proposal is lower than the amount budgeted for FY26.

Recommendation:

Staff recommends approving the proposal from Anderson, Larkin & Co., PC, from Ottumwa, Iowa, to prepare the financial statements and perform the audit for the fiscal years ending June 30, 2025, 2026 and 2027.

Matt Muckler, City Administrator

RESOLUTION NO. 2025– _____

**RESOLUTION APPROVING CONTRACT FOR AUDITING SERVICES
AND PREPARATION OF ANNUAL FINANCIAL STATEMENTS**

WHEREAS, the City’s three-year contract with the firm of Gronewold, Bell, Kyhnn, and Co. from Atlantic, Iowa for preparation of financial statements and auditing services has expired; and

WHEREAS, the requests for proposals for preparation of financial statements and auditing services were sent to six audit providers, with two submitting proposals; and

WHEREAS, the proposal submitted by the firm of Anderson, Larkin & Co., PC, from Ottumwa, Iowa, was selected from the proposals based on the scoring criteria developed by the State Auditors office; and

WHEREAS, the proposal from Anderson, Larkin & Co., PC is \$25,000 per fiscal year for the fiscal years ending June 30, 2025, 2026, and 2027

NOW THEREFORE, BE IT RESOLVED that the attached contract with Anderson, Larkin & Co., PC, be approved for preparation of financial statements and auditing services at a maximum cost of \$25,000 per fiscal years 2025 thru 2027.

PASSED this 5th day of May, 2025

APPROVED this _____ day of May, 2025

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

AGREEMENT BETWEEN
CITY OF NEWTON, IOWA
AND
ANDERSON, LARKIN & CO., P.C.

THIS AGREEMENT made and entered into this 20th day of March, 2025, by and between the City of Newton, Iowa, hereinafter called (Same) and Anderson, Larkin & Co., P.C., hereinafter called “CPA.”

WHEREAS, the City of Newton, Iowa wishes to obtain the services of the CPA to perform audits in accordance with Section 11.6, Code of Iowa, for the three years ending June 30, 2027; and

WHEREAS, the CPA is equipped and staffed to perform the above audit; and

WHEREAS, this agreement is in the public interest in fulfilling the requirements of Chapter 11 of the Code of Iowa.

NOW, THEREFORE, BE IT UNDERSTOOD AND AGREED:

1. That the CPA will:

- A. Provide auditors of various classifications and for the estimated hours as detailed in 2.A of this agreement.
- B. Begin work on the audit as specifically agreed upon with the City of Newton.
- C. Perform all work in accordance with U.S. generally accepted auditing standards, Government Auditing Standards, and applicable federal requirements.
- D. Immediately inform the City of Newton, Iowa, the Auditor of State, and City of Newton, Iowa’s Attorneys if the audit discloses any irregularities in the collection or disbursement of public funds.
- E. Provide access to the working papers to any appropriate federal agencies for the period of time specified in relevant agreements entered into by the City of Newton, Iowa.
- F. Provide access to its working papers to the Auditor of State in accordance with Chapter 11 of the Code of Iowa.

2. Conditions of Payment:

- A. It is understood the fees for the services set forth above shall be reimbursed at the following hourly rates:

Classification	Estimated Hours	Hourly Rate
Principal	60	\$ 175
Staff	125	\$ 75-100
Clerical	5	\$ 50

- B. The CPA shall present an invoice for services in the following manner: One half due upon completion of fieldwork and one half due upon delivery of final reports.
- C. Payment shall be made within 10 days of receipt of invoice.
- D. The total reimbursement shall not be for more than \$25,000 for the year ended June 30, 2025, \$25,000 for the year ended June 30, 2026 and \$25,000 for the year ended June 30, 2027, except as specifically agreed by the City of Newton, Iowa and the CPA.

3. Termination of Agreement:

- A. The City of Newton, Iowa may terminate this contract without notice if the CPA fails to perform the covenants or agreements contained herein.
- B. The CPA shall be paid for all work satisfactorily performed to the date of termination.

IT WITNESS THEREOF, the City of Newton, Iowa and CPA have executed this AGREEMENT as of the date indicated below:

ANDERSON, LARKIN & CO., P.C.

CITY OF NEWTON, IOWA

By _____

By _____

Title _____

Title _____

Date _____

Date _____

City of Newton Council Report

**Item:**

Resolution Approving Replacement Windows on the West Side of the Newton Police Department

Summary:

Resolution Approving Replacement Windows on the West Side of the Newton Police Department

Financial Impact:

2025A Bonds earmarked for Building Improvements in the amount of \$10,508.82

Report Number: 2025-496

Date:

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Background:

The City Hall building facility is over 30 years old and the original windows and doors are in need of replacement in order to achieve energy efficiency. Previous window replacements included the south ½ of the west windows. The final phase of the replacement window project would be the remaining windows on the west side of the Police department area of the building.

To remain consistent with other window upgrades to the City Hall facility, it is recommended to use Hamilton Glass to replace the above referenced windows for a total cost of \$10,508.82. Funds are available in the 2025A bond fund for this upgrade.

Recommendation:

Staff recommends approval of the attached Resolution.

Matt Muckler, City Administrator

RESOLUTION NO. 2025-_____

RESOLUTION APPROVING REPLACEMENT WINDOWS ON THE WEST SIDE OF THE NEWTON POLICE DEPARTMENT

WHEREAS, the windows on the west side of the Police Department are in need of replacement; and,

WHEREAS, Hamilton Glass has replaced windows and doors at other locations in the City Hall Building complex,

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Newton, Iowa that Hamilton Glass is authorized to replace the windows on the west side of the Police Department in the amount of \$10,508.82. This expense will be paid from the 2025A bonds.

PASSED this 5th day May, 2025.

APPROVED this ____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis,
City Clerk

219 1st AVE. E.
Newton, IA 50208
O:641-792-1641
C:641-521-9963

INVOICE # 111
Date: 0-0-25

To:
Newton P.D.
ATTN: Lisa Frasier

Expiration Date: 0-0-25

Project Manager /Estimator/installer	Job	Payment terms	Due date
Marty	Install	50% due on order 50% Due on receipt	TBD

Qty	Description	Unit price	Line total
10	Removal of existing material and disposal of material. Prep openings for installation of new frames and glass.	0.00	3600.00
Miscellaneous	(SCOPE) is but not limited to - Screws, Nails, Caulking, Flash Tape, Insulation, and Cutting Blades (any), trip/mileage, custom build/material, shipping (any), break metal (any)	0.00	1324.59
10	10 New dark bronzes frames with brake metal at sill location and in between frames with solar cool bronze glass.	0.00	5584.23
Subtotal			\$10508.82
Sales Tax			NA
Total			\$10508.82

X _____ Date _____

Signature is acceptance of this quote. This quote is good for 30 days.

Please read carefully and feel free to ask questions!

This is only an estimate, and prices are subject to change.

PLEASE BE AWARE NEW TERIFFS BEING PUT IN PLACE DAILY MAY AFFECT PRICING IN THE IMMEDIATE FUTURE (GOOD FOR 30 DAYS)

THANK YOU FOR YOUR BUISNESS

City of Newton Council Report

**Item:**

Resolution approving purchase of a pressure washer for the Public Works Community Development Wash Bay

Summary:

Approve purchase of a Hotsy Model 1473N pressure washer for the Public Works Community Development Wash Bay Project

Financial Impact:

\$36,248.76 from a combination of RUT and General Funds

Report Number: 2025-474**Date:**

May 5, 2025

Lead Department:

Public Works

Recommendation:

Approve

Background:

The current wash bay project was approved on January 6, 2025. The Farnsworth Group prepared plans and specifications for a stand-alone 40'x60x19' wash bay and placed them out for bid. A pressure washer system was not listed for purchase within the bid package. The existing pressure washer in the old wash bay is past its useful life and has been included in the CEP for replacement. The Farnsworth Group prepared plans and specifications for a pressure washer, and staff sought and received quotes.

The following bids were received;

Company	Location	Bid Price
Hotsy Cleaning Systems	Des Moines, IA	\$36,248.76
Hotsy Cleaning Systems	Minnesota	\$39,068.76
Hotsy Cleaning Systems	Wisconsin	\$39,478.76

The lowest responsive, responsible bidder is Hotsy Cleaning Systems, Des Moines, IA, with a bid of \$36,248.76.

Recommendation:

Approve purchase to the lowest responsive, responsible bidder, Hotsy Cleaning Systems of Des Moines, IA, utilizing \$36,248.76 from a combination of RUT and General Funds.

Matt Muckler, City Administrator

RESOLUTION NO. 2025-_____

RESOLUTION APPROVING PURCHASE OF A PRESSURE WASHER
FOR THE PUBLIC WORKS COMMUNITY DEVELOPMENT WASH BAY
PROJECT

WHEREAS, the current wash bay project was approved on January 6, 2025. The Farnsworth Group prepared plans and specifications for a stand-alone 40’x60x19’ wash bay and placed them out for bid. A pressure washer system was not listed for purchase within the bid package and is needed for the new wash bay; and

WHEREAS, Farnsworth Group, Inc. prepared plans and specifications for a pressure washer, and staff sought and received quotes; and

WHEREAS, the following bids were received;

Company	Location	Bid Price
Hotsy Cleaning Systems	Des Moines, IA	\$36,248.76
Hotsy Cleaning Systems	Minnesota	\$39,068.76
Hotsy Cleaning Systems	Wisconsin	\$39,478.76

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that the bid of Hotsy Cleaning Systems of Des Moines, IA, in the amount Thirty-Six Thousand Two Hundred Forty-Eight Dollars and seventy-six cents (\$36,248.76) for the Public Works Community Development Wash Bay Project as described in the plans and specifications, is hereby accepted with the cost to be paid from \$27,186.57 in road use tax funds and \$9,062.19 in general funds; and

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that the that the Public Works Director is authorized to process payment for a Hotsy Model 1473N pressure washer from Hotsy Cleaning Systems of Des Moines, IA, for the Public Works Community Development Wash Bay Project as described by the plans and specifications filed in the office of Public Works, be signed by the Mayor and City Clerk on behalf of the City.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution Amending the Downtown Improvement Grant for United Way of Jasper County at 312 First Avenue West

Summary:

Amending the grant amount to cover unanticipated work that was identified during the project

Financial Impact:

A total grant of 14,680.00

Report Number: 2025-483

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

By Resolution 2024-158, United Way of Jasper County was awarded a Downtown Improvement Grant for their property at 312 First Avenue West. The agreement between the City and United Way of Jasper County stipulated a \$13,885.00 grant. During the process, additional work was found to be necessary once the non-historic facade was removed.

The purpose of this resolution is to authorize the additional funding for the project- to a total of \$14,680.00.

Recommendation:

Staff recommends approval

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION AMENDING THE DOWNTOWN
IMPROVEMENT GRANT FOR UNITED WAY OF JASPER
COUNTY AT 312 FIRST AVENUE WEST**

WHEREAS, *Envision Newton 2042* recognizes the role of the Downtown as the heart of the community and recommends a focus on curb appeal and community aesthetics; and

WHEREAS, the Newton City Council has established the Downtown Improvement Grant Program; and

WHEREAS, by Resolution 2024-158, United Way of Jasper County was awarded a Downtown Improvement Grant for their property at 312 First Avenue West;

WHEREAS, unanticipated façade work and painting was necessary, increasing the rehabilitation cost for the property;

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that the Downtown Improvement Grant to be provided to United Way of Jasper County as a reimbursement of paid costs shall be amended to a not-to-exceed amount of \$14,680.00 in the façade removal, façade rehabilitation, signage, and painting program areas, provided a 1:1 match is met in each program area.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution Approving Amendment #001 to the Engineering Services Agreement for the Westwood Golf Course Bridge Replacement and Repair Project

Summary:

Amending the Engineering Agreement for Westwood Bridge Replacement Project

Financial Impact:

\$19,100, with the majority being reimbursed by FEMA (approximately 90%)

Report Number: 2025-512

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

On May 21, 2024, the City of Newton received heavy rains, resulting in flash flooding that caused severe damage to the bridge on Hole #16 at Westwood Golf Course.

By Resolution 2024-369, the City entered into an Engineering Services Agreement with Bolton & Menk on the Westwood Golf Course Bridge Replacement and Repair project. It is now necessary to amend the service agreement to include additional work related to structural abutment design for a pre-engineered bridge.

The project will be initially paid for using golf funds, with a future reimbursement by FEMA.

Recommendation:

Staff recommends approval.

Matt Muckler, City Administrator

RESOLUTION 2025- _____

RESOLUTION APPROVING AMENDMENT #001 TO THE ENGINEERING SERVICES AGREEMENT FOR THE WESTWOOD GOLF COURSE BRIDGE REPLACEMENT AND REPAIR PROJECT

WHEREAS, on May 21, 2024, the City of Newton received heavy rains, resulting in flash flooding that caused severe damage to the bridge on Hole #16 at Westwood Golf Course; and

WHEREAS, by Resolution 2024-369, the City entered into an Engineering Services Agreement with Bolton & Menk on the Westwood Golf Course Bridge Replacement and Repair project; and

WHEREAS, it is necessary to amend the service agreement to include additional work related to structural abutment design for a pre-engineered bridge;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that Amendment #001 to the previously approved Engineering Services Agreement for the Westwood Golf Course Bridge Replacement and Repair Project is hereby approved, with costs to be initially paid from golf funds to be reimbursed by FEMA.

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that said Engineering Services Agreement be signed by the Mayor on behalf of the City.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

**AMENDMENT #001 TO AGREEMENT FOR PROFESSIONAL SERVICES
BETWEEN CITY OF NEWTON, IOWA AND BOLTON & MENK, INC.**

This AMENDMENT #001 ("Amendment") to the original Agreement for Professional Services between City of Newton, Iowa ("OWNER") and Bolton & Menk, Inc. ("ENGINEER") dated November 4, 2024 (the "Agreement") is made and entered into on this ____ day of May, 2025.

WHEREAS, OWNER has engaged ENGINEER, pursuant to the Agreement, to furnish OWNER with engineering, design, procurement, and construction services in connection with the Westwood Golf Course Bridge Repairs and Replacement Project (the "Project");

WHEREAS, OWNER and ENGINEER have agreed to amend the Agreement as set forth in this Amendment and subject to the terms and conditions of this Amendment; and,

NOW THEREFORE, for good and valuable consideration, the sufficiency of which is hereby acknowledged, the parties agree as follows:

1. SCOPE ATTACHMENT. The Scope Attachment is attached and incorporated herein by reference as Exhibit A. If the OWNER requests or ENGINEER performs additional services for the Project, ENGINEER shall make such request to OWNER in writing, setting forth any changes or additions to the Scope of the Agreement, including any additional deliverables requested for the Project in Exhibit A.

2. FEE ATTACHMENT. The Fee Attachment is attached and incorporated herein by reference as Exhibit A. If the ENGINEER requests additional fees for the services for the Project or for services performed pursuant to Exhibit A, ENGINEER shall make such request to OWNER in writing, setting forth any changes in fees and all fees associated with such additional services, in the same or substantially similar format as Exhibit B. If OWNER agrees to the change in scope or fees proposed by ENGINEER in writing, the parties will adjust the Maximum Fee to account for such changes. No claim for extra services performed by ENGINEER will be allowed by OWNER except as provided in this Amendment nor will ENGINEER perform any services or work not previously approved by OWNER except upon receipt of a written amendment.

3. Additional Forms. Exhibit A is attached and incorporated into the Agreement.

4. All Other Terms and Conditions of the Agreement. Any conflict or inconsistency as to terms set forth in this Amendment and the Agreement or other writing will be governed by this Amendment.

IN WITNESS WHEREOF, the parties have caused this AMENDMENT #001 to be executed by their duly authorized representatives on the dates written below.

CITY OF NEWTON

BOLTON & MENK, INC.

SIGNED: _____

SIGNED: _____

NAME: EVELYN GEORGE

NAME: MATTHEW FERRIER, P.E.

TITLE: MAYOR

TITLE: PRINCIPAL ENGINEER

DATE: _____

DATE: _____

EXHIBIT A – SCOPE ATTACHMENT TO AMENDMENT #001

1. SCOPE OF SERVICES

Services as described in the Agreement for “WESTWOOD”, Exhibit Scope of Services are amended as follows:

- Add Subtask F: Structural Abutment Design for Pre-engineered pedestrian bridge

Bolton & Menk will prepare structural plans for the pre-engineered pedestrian bridge to be installed on Hole #16.

Subtasks:

- + Prepare the structural plan sheets.
- + Refine Opinion of Probable Construction Costs.
- + Incorporate comments from municipal designer and the Owner. Comments causing major changes in design direction from previously approved plans may be considered for additional services.

- Modify Subtask C: Hydraulic Design and Permitting

Subtasks 3.1 – Construction Documents:

- + Level II Wetland Delineation at three sites: Hole #11 Site 1, Hole #11 Site 2 and Hole #16

2. COMPENSATION

In consideration of the additional professional services provided, the CONSULTANT agrees to pay the SUBCONSULTANT the additional fee to increase the original TOTAL LUMP SUM FEE, including any *authorized* reimbursable expenses, pursuant to the Schedule of Fees set forth in The Agreement.

Task Description	Original Fee	Amendment #1	Total Revised Fee
Subtask A – Project Initiation and Mgmt	\$2,200	\$0	\$2,200
Subtask B – Data Collection	\$7,400	\$0	\$7,400
Subtask C – Construction Drawings	\$41,900	\$0	\$41,900
Subtask C – Hydraulic Design and Permitting	\$27,900	\$4,600	\$32,500
Subtask D – Bidding Phase	\$6,500	\$0	\$6,500
Subtask E – Construction Administration	\$25,900	\$0	\$25,900
Subtask F – Structural	\$0	\$14,500	\$14,500
Subconsultant – Geotechnical Exploration	\$4,500	\$0	\$4,500
Total Lump Sum	\$116,300	\$19,100	\$135,400

This AMENDMENT is subject to all provisions of the original agreement. This AMENDMENT together with the Agreement represents the entire and integrated AGREEMENT between the CONSULTANT and SUBCONSULTANT, as executed on the date written above.

AGREEMENT FOR PROFESSIONAL SERVICES IA

STANDARD PROJECT-PUBLIC CLIENT

CITY OF NEWTON, IOWA and BOLTON & MENK, INC.

This Agreement, made this 4th day of ~~October~~ ^{November}, 2024, by and between CITY OF NEWTON, 303 W 4th STREET N, SUITE 501, NEWTON, IOWA 50208 ("CLIENT"), and BOLTON & MENK, INC., 430 E GRAND AVENUE, SUITE 101, DES MOINES, IOWA 50309, ("CONSULTANT").

WITNESS, whereas the CLIENT requires professional services in conjunction with WESTWOOD GOLF COURSE BRIDGE REPAIRS AND REPLACEMENT Project") and whereas the CONSULTANT agrees to furnish the various professional services required by the CLIENT.

NOW, THEREFORE, in consideration of the mutual covenants and promises between the parties hereto, it is agreed:

SECTION I - CONSULTANT'S SERVICES

- A. The CONSULTANT agrees to perform the various Basic Services in connection with the proposed project as described in Exhibit I.
- B. Upon mutual agreement of the parties, professional services in addition to the Basic Services (the "Additional Services") may be authorized as described in EXHIBIT I, TASK III, and when so authorized, shall be included with the Services to be provided under this Agreement.

SECTION II - THE CLIENT'S RESPONSIBILITIES

- A. The CLIENT shall promptly compensate the CONSULTANT for the Services in accordance with Section III of this Agreement.
- B. The CLIENT shall place any and all previously acquired information related to the Project in its custody at the disposal of the CONSULTANT for its use. Such information shall include, but is not limited to: boundary surveys, topographic surveys, preliminary sketch plan layouts, building plans, soil surveys, abstracts, deed descriptions, tile maps and layouts, aerial photos, utility agreements, environmental reviews, and zoning limitations. The CONSULTANT may rely upon the accuracy and sufficiency of all such information in performing services unless otherwise instructed, in writing, by CLIENT.
- C. The CLIENT will guarantee access to and make all provisions for entry upon public portions of the project and reasonable efforts to provide access to private portions and pertinent adjoining properties.
- D. The CLIENT will give prompt notice to the CONSULTANT whenever the CLIENT observes or otherwise becomes aware of any defect in the proposed project.
- E. The CLIENT shall designate a liaison person to act as the CLIENT'S representative with respect to services to be rendered under this Agreement. Said representative shall have the authority to transmit instructions, receive instructions, receive information, interpret and define the CLIENT'S policies with respect to the project and CONSULTANT'S services.

F. The CONSULTANT'S services do not include legal, insurance counseling, accounting, independent cost estimating, financial advisory or "municipal advisor" (as described in Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act 2010 and the municipal advisor registration rules issued by the SEC) professional services and the CLIENT shall provide any such services as may be required for completion of the Project described in this Agreement.

G. The CLIENT will obtain any and all regulatory permits required for the proper and legal execution of the Project. CONSULTANT will assist CLIENT with permit preparation and documentation to the extent described in Exhibit I.

H. The CLIENT may hire, at its discretion, when requested by the CONSULTANT, an independent test company to perform laboratory and material testing services that can be justified for the proper design and construction of the Project. The CONSULTANT shall assist the CLIENT in selecting a testing company. Payment for testing services shall be made directly to the testing company by the CLIENT and is not part of this Agreement. If CLIENT elects not to hire an independent test company, CLIENT shall provide CONSULTANT with guidance and direction on completing those aspects of design and construction that require additional testing data.

SECTION III - COMPENSATION FOR SERVICES

A. FEES.

1. The CLIENT will compensate the CONSULTANT in accordance with the Schedule of Fees for the time spent by CONSULTANT'S personnel in performance of the Services. Total fees for the Services shall not exceed \$116,300.00 without the prior consent of CLIENT. See the Exhibit I Section V for schedule of fees.
2. The preceding Schedule of Fees shall apply for services provided through December 31, 2024. Hourly rates may be adjusted by CONSULTANT, in consultation with CLIENT, on an annual basis thereafter to reflect reasonable changes in its operating costs and other market factors. Adjusted rates will become effective on January 1st of each subsequent year, upon written acceptance by CLIENT.
3. Rates and charges do not include sales tax. If such taxes are imposed and become applicable after the date of this Agreement CLIENT agrees to pay any applicable sales taxes.
4. The rates in the Schedule of Fees include labor, general business and other normal and customary expenses associated with operating a professional business. Unless otherwise agreed in writing, the above rates include vehicle and personal expenses, mileage, telephone, survey stakes and routine expendable supplies; and no separate charges will be made for these activities and materials.
5. Additional Services as outlined in EXHIBIT I, TASK III, will vary depending upon project conditions and will be billed on an hourly basis at the rate described in Section I.B.
6. Expenses required to complete the agreed scope of services or identified in this paragraph will be invoiced separately, and include but are not limited to large quantities of prints; extra report copies; out-sourced graphics and photographic reproductions; document recording fees; special field and traffic control equipment rental; outside professional and technical assistance; geotechnical services; and other items of this general nature required by the CONSULTANT to fulfill the terms of this Agreement. CONSULTANT shall be reimbursed at cost plus an overhead fee (not-to-exceed 10%) for these Direct Expenses incurred in the performance of the work

B. PAYMENTS AND RECORDS

1. The payment to the CONSULTANT will be made by the CLIENT upon billing at intervals not more often than monthly at the herein rates and terms.

2. If CLIENT fails to make any payment due CONSULTANT for Services and expenses within 45 days after date of the CONSULTANT'S invoice, a service charge of one and one-half percent (1.5%) per month or the maximum rate permitted by law, whichever is less, will be charged on any unpaid balance.
3. In addition to the service charges described in preceding paragraph, if the CLIENT fails to make payment for Services and expenses within 60 days after the date of the invoice, the CONSULTANT may, upon giving seven days' written notice to CLIENT, suspend Services and withhold project deliverables due under this Agreement until CONSULTANT has been paid in full for all past due amounts for Services, expenses and charges, without waiving any claim or right against the CLIENT and without incurring liability whatsoever to the CLIENT.
4. Documents Retention. The CONSULTANT will maintain records that reflect all revenues, costs incurred and the Services provided in the performance of the Agreement. The CONSULTANT will also agree that the CLIENT, State, or their duly authorized representatives may, at any time during normal business hours and as often as reasonably necessary, have access to and the right to examine, audit, excerpt, and transcribe any books, documents, papers, records, etc., and accounting procedures and practices of the CONSULTANT which are relevant to this Contract for a period of six years.

SECTION IV - GENERAL

A. STANDARD OF CARE. Professional services provided under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the CONSULTANT'S profession currently practicing under similar conditions. No warranty, express or implied, is made.

B. CHANGE IN PROJECT SCOPE. In the event the CLIENT changes or is required to change the scope or duration of the project from that described in Exhibit I, and such changes require Additional Services by the CONSULTANT, the CONSULTANT shall be entitled to additional compensation at the applicable hourly rates. To the fullest extent practical, the CONSULTANT shall give notice to the CLIENT of any Additional Services, prior to furnishing such Additional Services. The CONSULTANT shall furnish an estimate of additional cost, prior to authorization of the changed scope of work and Agreement will be revised in writing.

C. LIMITATION OF LIABILITY

1. Liability of CONSULTANT. CONSULTANT shall indemnify CLIENT from losses, damages, and judgments arising from third-party claims or actions relating to the Project only to the extent caused by the negligent acts, errors or omissions (whether in the performance of professional services or otherwise) of CONSULTANT or CONSULTANT'S officers, employees, or subconsultants occurring during the scope of CONSULTANT's work on the Project and provided that any such claim, action, loss, damages, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property. CONSULTANT's obligation to indemnify the CLIENT and CLIENT's officers and employees harmless does not include a duty to defend. This indemnification shall not apply to third-party claims or actions for consequential damages, lost revenues, increased expense, or lost profits, nor to any claim for punitive or exemplary damages.
2. Liability of Client. To the fullest extent permitted by law, CLIENT shall indemnify CONSULTANT from losses, damages, and judgments (including reasonable attorneys' fees and expenses of litigation) arising from claims or actions relating to the Project, provided that any such claim, action, loss, damages, or judgment is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property, but only to the extent caused by the acts or omission of CLIENT or CLIENT'S employees, agents, or other consultants. This indemnification shall not apply to third-party claims or actions for consequential damages, lost revenues, increased expense or lost profits, nor to any claim for punitive or exemplary damages.

3. To the fullest extent permitted by law, CLIENT and CONSULTANT waive against each other, and the other's employees, officers, directors, members, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to this Agreement, from any cause or causes. CLIENT waives all claims against individuals involved in the services provided under this Agreement and agrees to limit all claims to the CONSULTANT's corporate entity.
4. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the CLIENT or the CONSULTANT. The CONSULTANT'S services under this Agreement are being performed solely for the CLIENT'S benefit, and no other entity shall have any claim against the CONSULTANT because of this Agreement or the performance or nonperformance of services provided hereunder.

D. INSURANCE

1. The CONSULTANT agrees to maintain, at CONSULTANT'S expense a commercial general liability (CGL) and excess or umbrella general liability insurance policy or policies insuring CONSULTANT against claims for bodily injury, death or property damage arising out of CONSULTANT'S general business activities. The general liability coverage shall provide limits of not less than \$2,000,000 per occurrence and not less than \$2,000,000 general aggregate. Coverage shall include Premises and Operations Bodily Injury and Property Damage; Personal and Advertising Injury; Blanket Contractual Liability; Products and Completed Operations Liability.
2. The CONSULTANT also agrees to maintain, at CONSULTANT'S expense, a single limit or combined limit automobile liability insurance and excess or umbrella liability policy or policies insuring owned, non-owned and hired vehicles used by CONSULTANT under this Agreement. The automobile liability coverages shall provide limits of not less than \$1,000,000 per accident for property damage, \$2,000,000 for bodily injuries, death and damages to any one person and \$2,000,000 for total bodily injury, death and damage claims arising from one accident.
3. CLIENT shall be named Additional Insured for the above CGL and Auto liability policies.
4. The CONSULTANT agrees to maintain, at the CONSULTANT'S expense, statutory worker's compensation coverage together with Coverage B, Employer's Liability limits of not less than \$500,000 for Bodily Injury by Disease per employee, \$500,000.00 for Bodily Injury by Disease aggregate and \$500,000 for Bodily Injury by Accident.
5. The CONSULTANT also agrees to maintain, at CONSULTANT'S expense, Professional Liability Insurance coverage insuring CONSULTANT against damages for legal liability arising from a negligent act, error or omission in the performance of professional services required by this Agreement during the period of CONSULTANT'S services and for three years following date of final completion of its services. The professional liability insurance coverage shall provide limits of not less than \$2,000,000 per claim and an annual aggregate of not less than \$2,000,000 on a claims-made basis.
6. CLIENT shall maintain statutory Workers Compensation insurance coverage on all of CLIENT'S employees and other liability insurance coverage for injury and property damage to third parties due to the CLIENT'S negligence.
7. Prior to commencement of this Agreement, CONSULTANT will provide the CLIENT with certificates of insurance, showing evidence of required coverages. All policies of insurance shall contain a provision or endorsement that the coverage afforded will not be canceled or reduced in limits by endorsement for any reason except non-

payment of premium, until at least 30 days prior written notice has been given to the Certificate Holder, and at least 10 days prior written notice in the case of non-payment of premium

E. OPINIONS OR ESTIMATES OF CONSTRUCTION COST. Where provided by the CONSULTANT as part of Exhibit I or otherwise, opinions or estimates of construction cost will generally be based upon public construction cost information. Since the CONSULTANT has no control over the cost of labor, materials, competitive bidding process, weather conditions and other factors affecting the cost of construction, all cost estimates are opinions for general information of the CLIENT and the CONSULTANT does not warrant or guarantee the accuracy of construction cost opinions or estimates. The CLIENT acknowledges that costs for project financing should be based upon contracted construction costs with appropriate contingencies.

F. CONSTRUCTION SERVICES. It is agreed that the CONSULTANT and its representatives shall not at any time supervise, direct, control, or have authority over any contractor's work, nor shall CONSULTANT have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety at any Project site, nor for any failure of a Contractor to comply with Laws and Regulations applicable to that Contractor's furnishing and performing of its work. CONSULTANT shall not be responsible for the acts or omissions of any Contractor. CLIENT acknowledges that on-site contractor(s) are solely responsible for construction site safety programs and their enforcement.

G. USE OF ELECTRONIC/DIGITAL DATA

1. Because of the potential instability of electronic/digital data and susceptibility to unauthorized changes, copies of documents that may be relied upon by CLIENT are limited to the printed copies (also known as hard copies) that are signed or sealed by CONSULTANT. Except for electronic/digital data which is specifically identified as a project deliverable for this Agreement or except as otherwise explicitly provided in this Agreement, all electronic/digital data developed by the CONSULTANT as part of the Project is acknowledged to be an internal working document for the CONSULTANT'S purposes solely and any such information provided to the CLIENT shall be on an "AS IS" basis strictly for the convenience of the CLIENT without any warranties of any kind. As such, the CLIENT is advised and acknowledges that use of such information may require substantial modification and independent verification by the CLIENT (or its designees).
2. Provision of electronic/digital data, whether required by this Agreement or provided as a convenience to the Client, does not include any license of software or other systems necessary to read, use or reproduce the information. It is the responsibility of the CLIENT to verify compatibility with its system and long-term stability of media. CLIENT shall indemnify and hold harmless CONSULTANT and its Subconsultants from all claims, damages, losses, and expenses, including attorneys' fees arising out of or resulting from third party use or any adaptation or distribution of electronic/digital data provided under this Agreement, unless such third party use and adaptation or distribution is explicitly authorized by this Agreement.

H. REUSE OF DOCUMENTS

1. Drawings and specifications and all other documents (including electronic and digital versions of any documents) prepared or furnished by CONSULTANT pursuant to this Agreement are instruments of service in respect to the Project and CONSULTANT shall retain an ownership interest therein. Upon payment of all fees owed to the CONSULTANT, the CLIENT shall acquire a limited license in all identified deliverables (including reports, plans, and specifications) for any reasonable use relative to the Project and the general operations of the CLIENT. Such limited license to Owner shall not create any rights in third parties.
1. CLIENT may make and disseminate copies for information and reference in connection with the use and maintenance of the Project by the CLIENT. However, such documents are not intended or represented to be

suitable for reuse by CLIENT or others on extensions of the Project or on any other project. Any reuse by CLIENT or, any other entity acting under the request or direction of the CLIENT, without written verification or adaptation by CONSULTANT for such reuse will be at CLIENT'S sole risk and without liability or legal exposure to CONSULTANT and CLIENT shall indemnify and hold harmless CONSULTANT from all claims, damages, losses and expenses including attorney's fees arising out of or resulting from such reuse.

I. CONFIDENTIALITY. CONSULTANT agrees to keep confidential and not to disclose to any person or entity, other than CONSULTANT'S employees and subconsultants any information obtained from CLIENT not previously in the public domain or not otherwise previously known to or generated by CONSULTANT. These provisions shall not apply to information in whatever form that comes into the public domain through no fault of CONSULTANT; or is furnished to CONSULTANT by a third party who is under no obligation to keep such information confidential; or is information for which the CONSULTANT is required to provide by law or authority with proper jurisdiction; or is information upon which the CONSULTANT must rely for defense of any claim or legal action.

J. PERIOD OF AGREEMENT. This Agreement will remain in effect for the longer of a period of two (2) years or until such other expressly identified completion date, after which time the Agreement may be extended upon mutual agreement of both parties.

K. TERMINATION. This Agreement may be terminated:

1. For cause, by either party upon 7 days written notice in the event of substantial failure by other party to perform in accordance with the terms of this Agreement through no fault of the terminating party. For termination by CONSULTANT, cause includes, but is not limited to, failure by CLIENT to pay undisputed amounts owed to CONSULTANT within 120 days of invoice and delay or suspension of CONSULTANT's services for more than 120 days for reasons beyond CONSULTANT'S cause or control; or,
2. For convenience by CLIENT upon 7 days written notice to CONSULTANT.
3. Notwithstanding, the foregoing, this Agreement will not terminate under paragraph IV.K if the party receiving such notice immediately commences correction of any substantial failure and cures the same within 10 days of receipt of the notice.
4. In the event of termination by CLIENT for convenience or by CONSULTANT for cause, the CLIENT shall be obligated to the CONSULTANT for payment of amounts due and owing including payment for services performed or furnished to the date and time of termination, computed in accordance with Section III of this Agreement. CONSULTANT shall deliver and CLIENT shall have, at its sole risk, right of use of any completed or partially completed deliverables, subject to provisions of Paragraph IV. H.
5. In event of termination by CLIENT for cause and in addition to any other remedies available to CLIENT, CONSULTANT shall deliver to CLIENT and CLIENT shall have right of use of any completed or partially completed deliverables, in accordance with the provisions of Paragraph IV.H. CLIENT shall compensate CONSULTANT for all undisputed amounts owed CONSULTANT as of date of termination.

L. INDEPENDENT CONTRACTOR. Nothing in this Agreement is intended or should be construed in any manner as creating or establishing the relationship of co-partners between the parties hereto or as constituting the CONSULTANT or any of its employees as the agent, representative, or employee of the CLIENT for any purpose or in any manner whatsoever. The CONSULTANT is to be and shall remain an independent contractor with respect to all services performed under this Agreement.

M. CONTINGENT FEE. The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from award or making of this Agreement.

N. NON-DISCRIMINATION. The provisions of any applicable law or ordinance relating to civil rights and discrimination shall be considered part of this Agreement as if fully set forth herein. **The CONSULTANT is an equal opportunity employer and federal contractor or subcontractor. Consequently, the parties agree that, as applicable, they will abide by the requirements of 41 CFR 60-1.4(a), 41 CFR 60-300.5(a) and 41 CFR 60-741.5(a) and that these laws are incorporated herein by reference. These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity or national origin. These regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. The parties also agree that, as applicable, they will abide by the requirements of Executive Order 13496 (29 CFR Part 471, Appendix A to Subpart A), relating to the notice of employee rights under federal labor laws.**

O. ASSIGNMENT. Neither party shall assign or transfer any interest in this Agreement without the prior written consent of the other party.

P. SURVIVAL. All obligations, representations and provisions made in or given in Section IV and Documents Retention clause of this Agreement will survive the completion of all services of the CONSULTANT under this Agreement or the termination of this Agreement for any reason.

Q. SEVERABILITY. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon CLIENT and CONSULTANT, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

R. CONTROLLING LAW. This Agreement is to be governed by the law of the State of Iowa and venued in courts of Iowa; or at the choice of either party, and if federal jurisdictional requirements can be met, in federal court in the district in which the project is located.

S. DISPUTE RESOLUTION. CLIENT and CONSULTANT agree to negotiate all disputes between them in good faith for a period of 30 days from the date of notice of dispute prior to proceeding to formal dispute resolution or exercising their rights under law. Any claims or disputes unresolved after good faith negotiations shall then be submitted to mediation using a neutral from the American Arbitration Association Construction Industry roster. If mediation is unsuccessful in resolving the dispute, then either party may seek to have the dispute resolved by bringing an action in a court of competent jurisdiction.

T. CONFLICT OF INTEREST. The CONSULTANT certifies that it does not presently have an interest in real estate, development proposals or have a client with development proposals or real estate interests which are located in the City of Newton, Iowa or which will directly benefit or be affected by the Project. Furthermore, the CONSULTANT agrees that it will not acquire interest in any real estate or development proposals, or accept a contract with any client owning real estate or having a development proposal in the City of Newton, Iowa or which will be directly affected or benefitted by the Project without first notifying and discussing said interest or contract with the CLIENT.

SECTION V - SIGNATURES

THIS INSTRUMENT embodies the whole agreement of the parties, there being no promises, terms, conditions or obligation referring to the subject matter other than contained herein. This Agreement may only be amended, supplemented, modified or canceled by a duly executed written instrument signed by both parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in their behalf.

CLIENT: CITY OF NEWTON, IOWA

CONSULTANT: Bolton & Menk, Inc.



EVELYN GEORGE, MAYOR



MATTHEW FERRIER, P.E.

11/05/2024
DATE

10/14/2024
DATE

EXHIBIT I
SCOPE OF SERVICES BY CONSULTANT
WESTWOOD GOLF COURSE BRIDGE REPLACEMENT AND REPAIRS
CITY OF NEWTON, IOWA

I. SCOPE OF SERVICES

Bolton & Menk, Inc., hereafter known as CONSULTANT, agrees to provide professional services required for engineering, design & construction management for the above-named project.

TASK I – ENGINEERING SERVICES

For purposes of this specific project, services to be provided by CONSULTANT are as follows:

Subtask A – Data Collection

1. CONSULTANT will collect topographic survey of the site which will include:
 - a. Horizontal and vertical location of existing surface improvements
 - b. Horizontal and vertical location of CLIENT utilities – sanitary sewer, watermain (including irrigation) and storm sewer
 - c. Locate private utilities (natural gas, telephone, CATV, electric, watermain, etc.) based on field marking or other information from utility owners
 - d. Identify property corners to determine ROW limits
 - e. Survey existing ground to create surface model and contours for the site.
 - f. CAD drafting to create project mapping of the project area.

Deliverables:

Base map in PDF and CAD format

Subtask B – Construction Drawings

1. CONSULTANT will complete all aspects of design needed for the construction. 60% (Preliminary) and 90% (Final) plans and specifications will be provided to the City for review and approval. The anticipated plan elements include:
 - a. **Title and General Information Sheets (A Sheets).** The title sheets will include the following: index of sheets, revisions, legend, location map, project number, design traffic data.
 - b. **Typical Cross Sections (B Sheets).** The typical Cross Sections will include but not be limited to typical sections for the proposed grading, drainage and bank stabilization improvements. The Typical Cross Sections will be used for the proposed improvements as well as determination of the limits that each section will apply.
 - c. **Estimate of Quantities (C Sheets).** This includes determination of the bid items to be included in the project, along with an estimate of quantities for each item. Estimate Reference Notes (ERN) will be developed to assist the contractor in bidding the project. Erosion Control and Restoration sheets will be included in the C sheets. Sheets include the design of erosion control measures and surface restoration to be provided on the Project.
 - d. **Plan and Profiles (D Sheets).** Plan and profile sheets will show the existing and proposed horizontal and vertical roadway alignment of the corridor. Proposed Right-of-Way and Construction Easement limits based on the catch point lines will be shown. The scale of these sheets will be 1"=20'.

- e. **Staging (J Sheets).** Plan includes anticipated construction scheduling and staging of the Project. Staging plan shall include provisions for maintaining access to adjacent golf course during construction.
 - f. **Underground Utilities (M Sheets).** Plans include storm sewer, sanitary sewer, and water main design as needed. These drawings will show identified locations of franchise utilities and critical crossings. Sheets may be combined depending on clarity of the plans. The scale of these plan sheets will be 1"=20'
 - g. **Removal Plans (R Sheets).** This includes the design and drafting of the removal limits of the existing infrastructure inside of the project area. The plan includes the removals of pavement, underground utilities.
 - h. **Bridge and Culvert Design (V Sheets).** Bridge removal and culvert replacement plans will be developed in accordance with applicable codes and standards. The scale of these plan sheets will be 1"=20'.
 - i. **Detailed Cross Sections (W & X Sheets).** This task consists of design and drafting associated with the assembly of detailed cross sections (25' increments) to illustrate typical conditions, drainage designs, and non-typical conditions as needed for guidance during design, review, and quantity estimating purposes.
2. **Project Manual:** CONSULTANT will prepare a project manual for the project in accordance with Iowa SUDAS and City of Newton standards. Project Manual will be provided at the 90% design phase.
 3. **Engineer's Estimate:** CONSULTANT will prepare an Opinion of Probable Cost (OPC) with breakdowns provided for the various construction elements. An OPC will be provide at the 60% and 90% Design phases.
 4. **CLIENT Review:** Plans will be reviewed with CLIENT at the 60%, and 90% complete stages. The project manual will be reviewed with CLIENT at the 90% complete stage. If required, changes will be made to the contract documents based on CLIENT's review and comments. It is assumed that easement and right-of-way design will commence at the 60% complete stage of plan set production. The final contract documents will be presented to CLIENT for approval.
 5. CONSUTLANT provide acquisition plats to CLIENT for any temporary or permanent acquisitions and easements. These will be provided at the 60% design phase.
 6. CONSUTLANT will provide the following bidding assistance:
 - a. Assist CLIENT in the preparation of advertisement for bids and submittal to the local newspaper and other required publications, secure affidavits of publication
 - b. Assist CLIENT in posting advertisement for bids on CLIENT's website.
 - c. Upon request by prospective bidders, subcontractors or suppliers, CLIENT will distribute copies of the contract/bidding documents – hard copy or electronic documents, or both. A nominal refundable fee may be charged for bidding documents.
 - d. Address questions from prospective bidders, subcontractors and suppliers, and prepare and issue addenda as required.
 - e. Assist CLIENT with the public opening and reading of the bids.

- f. Review bids and prepare bid tabulation and abstract of all bid items.
- g. Conduct pre-award review of the low bidder and significant subcontractors and perform other research to investigation capabilities and qualifications of the low bidder.
- h. Assist CLIENT in preparing recommendation for CLIENT Council regarding the award of the bid. CONSULTANT will attend CLIENT Council meeting to answer any questions regarding the recommendation.

Subtask C – Hydraulic Design & Permitting

CONSULTANT will perform the required research, develop the required calculations & background information, and other documentation for the floodplain permit application. This task also includes coordination and support activities as needed for permit approval.

1. Develop and create an existing conditions HEC-RAS model
2. Develop and create a proposed conditions HEC-RAS model
3. Develop and submit a Iowa DNR floodplain development permit
4. Develop and submit a Jasper County floodplain permit (if necessary)
5. Coordinate with Army Corp of Engineers to obtain Section 404 Nationwide permit concurrence, including wetland delineation (if necessary). Submittal of an Individual Corp permit is outside the scope and will require an Engineering Services Agreement amendment
6. Level II Wetland Delineation
7. Aquatic Resource Permitting
8. Meetings and Additional Requests – Requires CLIENT authorization. Only to be used if reviewing agency requests.

Subtask D – Construction Management

CLIENT will provide day to day construction project observation and documentation. Consultant will support CLIENT by providing construction administration and construction observation as follows::

1. Convene the preconstruction conference to be attended by CLIENT, contractors, and any affected utility companies. CONSULTANT will coordinate development of a pre-construction meeting agenda & meeting minutes.
2. Provide Resident Project Representative services. Fee assumes 2 weeks of 40 hrs per week inspection and 4 weeks of 12 hours per week inspection services.
3. Attend and support construction scheduling/progress meetings
4. Review, for conformance with design concept only, any shop drawings required to be furnished by the Contractor.
5. Review any material lists, supplier's lists, or other submittals required to be furnished by the Contractor.
6. Perform visits to the site as needed.
7. Obtain additional information or clarifications from CLIENT when required for the proper execution of the work.
8. Modifications: Consider and evaluate contractor's suggestions for modifications in Drawings or Specifications and report with RPR's recommendations to project engineer.

Transmit to contractor decisions as issued by project engineer.

9. CONSULTANT will conduct an inspection of the project in the company of CLIENT and the Contractor for conformance with contract documents. A punch list will be developed from the inspection and be used to track completion of those items.
10. CONSULTANT will prepare record drawings reflecting constructed conditions from information observed by RPR or supplied by others and furnish one reproducible copy and one electronic copy of the plans.
11. CONSULTANT will prepare project closeout documentation.

II. HOURLY RATE SERVICES

The following services shall be provided at CONSULTANT's standard hourly rate and a fee estimate shall be developed and mutually agreed upon prior to commencement of work:

III. ADDITIONAL SERVICES

Consulting services performed other than those authorized under Task 1 shall not be considered part of the Basic Services and may be authorized by the Sponsor as Additional Services. Additional Services consist of those services, which are not generally considered to be Basic Services; or exceed the requirements of the Basic Services; or are not definable prior to the commencement of the project; or vary depending on the technique, procedures or schedule of the project contractor.

Construction Staking will be available if necessary and can be negotiated at time of construction to match general contractor's needs. Upon proposal submittal for Construction Staking, the proposal will include, but not limited to the following items:

- + Find and verify existing property corners and benchmarks
- + Stake four control points at gridline intersections with offsets as requested for buildings
- + Benchmarks set for finish floor elevation for buildings

Additional services may consist of the following:

- + City site plan predevelopment meeting and Site Plan Submittal Process
- + Certified Survey Map, Title Commitment, or ALTA Survey
- + Deliverables associated with: Architectural plans, Structural plans and calcs, or MEP plans.
- + Details related to architectural elements
- + 3-D illustrations
- + Applying for and/or obtaining permits not specifically noted in the tasks above
- + Environmental clean-up and mitigation measures
- + Retaining wall design
- + Parking lot modifications design

IV. PROPOSED SCHEDULE

The schedule is dependent upon Iowa DNR Flood Plain permitting, which will be confirmed when the permit package is submitted. The tentative project is:

- Topographic Survey: October/November 2024
- 60% Design Review: January 2025
- Iowa DNR Permit Submittal: February 2025
- 90% Design Review: April 2025

- Bidding Phase: April May 2025
- Construction Award: June 2022
- Construction Start: October 2025
- Construction Completion/Project Closeout: December 2025

V. ESTIMATED FEES:

The fees for the completion of the above scope are:

Subtask A – Project Initiation and Project Management:	\$2,200.00
Subtask B - Data Collection:	\$7,400.00
Subtask C – Construction Drawings:	\$41,900.00
Subtask C – Hydraulic Design and Permitting:	\$27,900.00
Subtask D – Bidding Phase:	\$6,500.00
Subtask E – Construction Administration	\$25,900.00
<u>Subconsultant – Geotechnical Exploration</u>	<u>\$4,500.00</u>
	<u>Total \$116,300.00</u>

2024 SCHEDULE OF FEES

The following fee schedule is based upon competent, responsible professional services and is the minimum, below which adequate professional standards cannot be maintained. It is, therefore, to the advantage of both the professional and the client that fees be commensurate with the service rendered. Charges are based on hours spent at hourly rates in effect for the individuals performing the work. The hourly rates for principals and members of the staff vary according to skill and experience. The current specific billing rate for any individual can be provided upon request.

The fee schedule shall apply for the period through December 31, 2024. These rates may be adjusted annually thereafter to account for changed labor costs, inflation, or changed overhead conditions.

These rates include labor, general business, and other normal and customary expenses associated with operating a professional business. For projects with typical expenses and unless otherwise agreed, the above rates include vehicle and personal expenses, mileage, telephone, survey stakes, and routine expendable supplies; no separate charges will be made for these activities and materials. Expenses beyond typical project expenses, non-routine expenses, and expenses beyond the agreed scope of services, such as out of town travel expenses, long travel distances, large quantities of prints, extra report copies, outsourced graphics and photographic reproductions, document recording fees, outside professional and technical assistance, and other items of this general nature will be invoiced separately. Rates and charges do not include sales tax, if applicable.

Employee Classification	Hourly Billing Rates
Senior Project Manager	\$180-261
Project Manager	\$145-231
Senior Project Engineer	\$140-216
Project Engineer	\$130-201
Design Engineer	\$115-176
Graduate Engineer	\$120-156
Senior Planner	\$110-231
Planner	\$85-161
Senior Landscape Architect	\$145-216
Landscape Architect	\$130-161
Landscape Designer	\$75-134
Licensed Project Surveyor	\$160-191
Graduate Surveyor	\$125-191
Survey Technician	\$80-189
Senior Technician	\$120-206
Technician	\$85-176
Specialist*	\$95-226
Practice Expert**	\$170-311
Senior Principal	\$200-320
Principal	\$165-286
Administrative/Corporate Specialists	\$50-176
GPS/Robotic Survey Equipment	NO CHARGE
CAD/Computer Usage	NO CHARGE
Routine Office Supplies	NO CHARGE
Routine Photo Copying/Reproduction	NO CHARGE
Field Supplies/Survey Stakes & Equipment	NO CHARGE
Mileage	NO CHARGE

* No separate charges will be made for GPS or robotic total stations on Bolton & Menk, Inc. survey assignments; the cost of this equipment is included in the rates for survey technicians.

*Specialized role not classified above otherwise, incl. graphic design, project communication, funding support, etc.

**Highly specialized and industry expertise unique to the market or area of discipline.

City of Newton Council Report

**Item:**

Resolution authorizing the submission of FY 2026 Airport State Funding Application and certifying eligibility requirements.

Summary:

This resolution approves the submittal of a grant application to the Iowa DOT to preserve and improve the pavements.

Financial Impact:

No financial impact with this initial grant application. Should the project be awarded a grant from the state and if said grant is separately accepted and approved by Council, then the City's estimated local match would be 15% (\$41,437.50) of the grant amount.

Report Number: 2025-458**Date:**

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

There are several areas of concern at the Newton Airport, where pavements have experienced heaving and are creating problems with hangar doors and associated taxi-lanes. Iowa DOT State Grants are available to help preserve and improve these pavement areas. Under FAA funding requirements these types of concerns are not eligible for project funding with FAA grants. However, these are perfect projects to apply for State Grants as they are aware of the limitations of FAA dollars close to Hangars.

Kirkham Michael, the City's airport consultant, has the project estimate for these areas to be correct at \$276,250. The state funding program is an 85%/15% match, with the City of Newton responsible for 15% of the project cost. Based on this project cost estimate of \$276,250 the local contribution would be \$41,437.50.

Applications for FY 2026 state funded programs are due 4:00 pm on May 15th 2025. If the City is awarded funding and chooses to fund the local match requirement, it is anticipated that construction might occur late spring or early summer 2026.

Recommendation:

Staff recommends approval of the resolution authorizing the Mayor to sign the application for grant request for the proposed improvements and authorizing the Sr. City Planner to submit said application to the Iowa DOT.

A handwritten signature in black ink, appearing to read "Matt Muckler".

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION AUTHORIZING THE SUBMISSION OF FY 2026 AIRPORT
STATE FUNDING APPLICATION AND CERTIFYING ELIGIBILITY
REQUIREMENTS**

WHEREAS, the City of Newton, Iowa desires to make Airport State Funding Application for fiscal year 2026 to the Iowa Department of Transportation for certain improvements at the Newton Municipal Airport as described as follows:

- Preserve and Improve pavements; and

WHEREAS, the Iowa Department of transportation requires a resolution certifying certain application requirements, commitments, and criteria; and

WHEREAS, if the project is selected for state funding, the Iowa DOT grant would pay up to 85% of the project cost and the remaining 15% is required to be paid from local contributions; and

WHEREAS, the estimated project cost of the pavement improvements has been estimated to be \$276,250; and

WHEREAS, the request to the state is in the amount of \$234,812.50 with the 15% local contribution being \$41,437.50; and

WHEREAS, on behalf of the City, Kirkham Michael & Associates, Inc. has prepared an application describing the proposed improvements.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that the City hereby endorses the Application for Iowa Airport Improvement Program funding for said improvements and that the Mayor is hereby authorized to sign and submit the Application.

NOW, THEREFORE, BE IT FURTHER RESOLVED, by the City Council of Newton, Iowa, that acceptance of any grant award and commitment of local match funds shall come before the City Council for a decision at a future date.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

(SEAL)

Evelyn George, Mayor
City of Newton

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution Approving the Purchase of the Parks Utility Cart

Summary:

This piece of equipment is essential for the efficiency of the daily maintenance tasks undertaken by the parks maintenance staff.

Financial Impact:

Purchase of the Parks Utility Cart is to be paid for utilizing funds from the 2025 Bond Proceeds.

Report Number: 2025-514

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

Staff analyzed the Parks and Recreation equipment needs in preparation for the 2025-2026 CIP; a parks utility cart for the Newton Parks and Recreation Department was identified as an appropriate piece of equipment to be replaced.

Recommendation:

City staff recommends that Council award the bid for a new parks utility cart, from Harris Golf Cars, Dubuque, Ia, in the amount of \$11,100.00.

Matt Muckler, City Administrator

RESOLUTION 2025- _____

RESOLUTION APPROVING THE PURCHASE OF A PARKS UTILITY CART

WHEREAS, Staff analyzed the Parks and Recreation equipment needs in preparation for the 2025-2026 CIP; a parks utility cart for the Newton Parks and Recreation Department was identified as an appropriate piece of equipment to be replaced; and

WHEREAS, this piece of equipment is essential for the efficiency of the daily maintenance tasks undertaken by the parks maintenance staff; and

WHEREAS, staff sought three quotes for said utility cart:

- Harris Golf Cars, Dubuque, Ia. \$11,100.00
- Balls Out Motors, Blair, Ne. \$11,800.00
- Four Points Golf Cars LLC, Kellogg, Ia. \$12,200.00; and

WHEREAS, City staff recommends that Council award the bid for a new parks utility cart, from Harris Golf Cars, Dubuque, Ia, in the amount of \$11,100.00; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that the proposal for the purchase of a 2025 Yamaha UMAX2 from Harris Golf Cars of Dubuque, Iowa, in the amount of \$11,100.00 is hereby approved.

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that the Community Development Director is authorized to process said payment in the amount of \$11,100.00; to be paid utilizing 2025 Bond Funds.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution approving contract change order document for Westwood Clubhouse

Summary:

Approval of Change Order document, which includes previously authorized costs for the Bar plus additional changes for the golf simulators, kitchen equipment changes, and gas piping

Financial Impact:

24,558 from bonded funds

Report Number: 2025-516

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

The change order contract document provides a summary of already approved changes and additional necessary changes for the Westwood Clubhouse Construction Project. This contract shows a total increase of \$95,347.00. However, \$70,789.00 of this amount has already been approved by the Newton City Council. Resolution 2025-059 approved a change order for Ball Team for Bar Lights and the Bar Alternate- for a total of \$70,789.00.

The remaining items include necessary revisions after final kitchen equipment selection, revisions required for the golf simulators, and some additional gas piping. This work totals \$24,558.00.

It is necessary to approve this contract document and authorize the Mayor's signature on it.

Recommendation:

Staff recommends approval

Matt Muckler, City Administrator

RESOLUTION 2025- _____

**RESOLUTION APPROVING CONTRACT CHANGE ORDER DOCUMENT
FOR WESTWOOD CLUBHOUSE**

WHEREAS, a number of adjustments need to be made to complete the Westwood Clubhouse Project; and

WHEREAS, by Resolution 2025-059, change orders for the Bar and Bar lights were approved to amend the fee for Ball Team by an increase of \$70,789.00; and

WHEREAS, additional adjustments are necessary for changes related to Kitchen Equipment, installation of the Golf Simulators, and additional gas piping for a cost of \$24,558;

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that the Change Order is hereby approved and the Mayor is authorized to sign the document.

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that said \$70,789.00 of the Increased Contract Sum be paid for using donated funds and the remaining \$24,558.00 be paid for using bonded funds.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk



AIA®

Document G701® – 2017

Change Order

PROJECT: *(Name and address)*

City of Newton Westwood Golf Course
Clubhouse - Phase 2
3387 Highway F48 W
Newton, IA 50208

CONTRACT INFORMATION:

Contract For: General Construction

Date: 11/08/2024

CHANGE ORDER INFORMATION:

Change Order Number: 002

Date: 04/17/2025

OWNER: *(Name and address)*

City of Newton, Community Development
Department
303 W 4th Street North, Suite 501
Newton, IA 50208

ARCHITECT: *(Name and address)*

I & S Group, Inc. (ISG)

217 East 2nd Street, Suite 110
Des Moines, IA 50309

CONTRACTOR: *(Name and address)*

Ball Team, LLC

10550 New York Avenue, Suite 200
Urbandale, IA 50322

THE CONTRACT IS CHANGED AS FOLLOWS:

(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)

CR#03 – Kitchen Equipment Changes | ADD \$12,586

CR#04 – Bar Lights | ADD \$1,651

CR#05 – Additional Gas Piping | ADD \$1,148

CR#06R2 – Bar Alternate | ADD \$69,228

CR#07 – Golf Simulator Changes | ADD \$10,734

The original Contract Sum was	\$	692,000.00
The net change by previously authorized Change Orders	\$	13,269.00
The Contract Sum prior to this Change Order was	\$	705,269.00
The Contract Sum will be increased by this Change Order in the amount of	\$	95,347.00
The new Contract Sum including this Change Order will be	\$	800,616.00

The Contract Time will be increased by Fifty-Six (56) days.

The new date of Substantial Completion will be May 23, 2025

NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

I & S Group, Inc.

ARCHITECT *(Firm name)***SIGNATURE**

Erik Pingel

PRINTED NAME AND TITLE

04/17/2025

DATE

Ball Team, LLC

CONTRACTOR *(Firm name)***SIGNATURE**

Russell Smith, President

PRINTED NAME AND TITLE

4/17/25

DATE

City of Newton

OWNER *(Firm name)***SIGNATURE****PRINTED NAME AND TITLE****DATE**

City of Newton Council Report

**Item:**

Resolution authorizing the purchase of pre-season salt for snow and ice control

Summary:

Purchase 800 tons of salt at the pre-season price.

Financial Impact:

\$56,800.00 from the Road Use Tax Fund.

Report Number: 2025-473**Date:**

May 5, 2025

Lead Department:

Public Works

Recommendation:

Approve

Background:

Every year, money is allocated to the Snow & Ice Operating budget to purchase salt, sand, and other winter maintenance materials. The Public Works salt storage building allows for adequate storage so we may buy salt at pre-season prices, typically about \$25/ton less than the in-season prices. The City of Newton needs to purchase 800 tons of salt to replenish the salt stock used from the past winter in preparation for the 2025-2026 winter season.

The City of Newton is in a Central Iowa Salt Group comprising most of the cities and counties in the Des Moines metropolitan area. The group can obtain very competitive bids by bidding together for a large amount of salt. The City of West Des Moines is the group administrator.

Bids were received, and Hutchinson Salt Company of Hutchinson, Kansas, was the low bidder with a bid price of \$71.00 per ton delivered to the City of Newton. The salt will be delivered after July 1, 2025, but before the winter season.

Recommendation:

City staff recommends approving the resolution authorizing the Public Works Director to purchase 800 tons of the pre-season salt from Hutchinson Salt Company of Hutchinson, Kansas, for the bid amount of \$56,800.00 paid from the Road Use Tax Fund.

Matt Muckler, City Administrator

RESOLUTION NO. 2025-_____

**RESOLUTION AUTHORIZING THE PURCHASE OF PRE-SEASON
SALT FOR SNOW AND ICE CONTROL**

WHEREAS, money is budgeted annually within the Snow and Ice Control budget to purchase salt, sand, and other winter maintenance materials; and

WHEREAS, staff have estimated that 800 tons of salt are needed to replenish the salt supply from the previous winter in preparation for the upcoming winter season; and

WHEREAS, the City of Newton is part of the Central Iowa Salt Group that pools together its salt needs to obtain competitive bids; and

WHEREAS, bids for the pre-season salt were received by the City of West Des Moines, the administrator for the Central Iowa Salt Group, and the successful low bidder is Hutchinson Salt Company of Hutchinson, Kansas, for a bid price of \$71.00 per ton; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Newton, Iowa, that the Public Works Director is authorized to purchase 800 tons of salt for \$56,800.00 from Hutchinson Salt Company of Hutchinson, Kansas. The salt will be purchased utilizing Road Use Tax funds.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution approving the purchase and installation of two gate valves for the Newton Sanitary Landfill

Summary:

Approve the purchase and installation of two gate valves for leachate control for the Newton Sanitary Landfill.

Financial Impact:

\$18,509.25 from the Newton Sanitary Landfill Enterprise Fund

Report Number: 2025-517

Date:

May 5, 2025

Lead Department:

Public Works

Recommendation:

Approve

Background:

The Newton Sanitary Landfill facilitates the flow of leachate from Areas B, C, D1-D2, and the closed Area 1945. Piping and gate valves have been in place since their installation in 1995. Two gate valves in the control box MH 2 are non-functioning and must be replaced to control the flow of leachate entering the pump station #2 or the leachate lagoon.

Staff reviewed plans and specifications and determined the size of replacement gate valves needed. Staff sought and obtained a quote from Iowa Pump Works of Ankeny, IA, for \$18,509.25, which includes purchase and installation. The project will be paid for using Newton Sanitary Landfill Enterprise Funds.

Recommendation:

Approve the purchase of two 8-inch Troy Valves which includes installation from Iowa Pump Works of Ankeny, Iowa, for \$18,509.25.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

RESOLUTION APPROVING THE PURCHASE AND INSTALLATION OF TWO GATE VALVES FOR THE NEWTON SANITARY LANDFILL

WHEREAS, the Newton Sanitary Landfill facilitates the flow of leachate from Areas B, C, D1-D2, and the closed Area 1945. Piping and gate valves have been in place for many years, since their installation in 1995; and

WHEREAS, two gate valves in the control box MH 2 are non-functioning and must be replaced to control the flow of leachate entering the pump station #2 or entering the leachate lagoon; and

WHEREAS, staff reviewed plans and specifications and determined the size of replacement gate valves needed for the project; and

WHEREAS, based on the quote received, staff recommends approving the purchase of \$18,509.25 from Iowa Pump Works of Ankeny, Iowa.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Newton, Iowa, that the purchase and installation from Iowa Pump Works of Ankeny, Iowa, in the amount of Eighteen Thousand, five hundred nine dollars and twenty-five cents (\$18,509.25) be approved and the cost of which will be paid using Newton Sanitary Landfill Enterprise Funds.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk



IOWA PUMP WORKS

-a UFT Company-

Iowa Pump Works, LLC.
825 SW Ordinance Rd
Ankeny, IA 50023

Invoice
#INV027285
04/15/2025

Bill To

Newton IA, City of
403 W 4th Street N
Suite 501
Newton IA 50208
United States

Ship To

Newton IA, City of
1915 E 5th St S
Newton IA 50208
United States

TOTAL

\$18,509.25

Due Date: 05/15/2025

Details

SALE & INSTALLATION OF TWO 8" SLUICE GATE VALVES

Sales Rep	PO #	Terms	Shipping Method
Bryan Collins	SIGNED QUOTE 11/25/24	Net 30	

QTY	Item	Comment	Rate	Amount
2	26201 TROY VALVE 8" DI SLUICE GATE UNIT W/ 2" OP NUT		\$7,000.00	\$14,000.00
6	21926 WEDGE ANCHOR 3/4 X 8-1/2 SS		\$25.00	\$150.00
1	INSTALL SERVICES			\$4,359.25

Subtotal \$18,509.25

Tax \$0.00

Amount Paid \$0.00

Amount Due \$18,509.25

PLEASE REMIT TO:
Iowa Pump Works
PO Box 735936
Chicago, IL 60673-5936

Online payment accepted at <http://www.iowapumpworks.com> - PAY NOW
3% charge for credit card and \$2.25 charge for e-Check

PAST DUE INVOICES ARE SUBJECT TO 1.5% PER MONTH FINANCE CHARGE

Thank you for your business.

Toll Free: 855-228-6383 | Email: info@iowapumpworks.com | Website: <http://www.iowapumpworks.com>



INV027285



TERMS & CONDITIONS OF SALES AND/OR REPAIR

The following terms and conditions shall apply to an order covered by this quotation unless specifically excepted therein:

Prices

Any price quoted shall only be valid for orders placed within 10 days from the date of issue of the quotation. Prices are F.O.B. our office in U.S. We reserve the right to correct typographical or clerical errors.

Terms

All orders are subject to approval by our Credit Department. Unless otherwise stated, if payment for the invoice due is not made within thirty (30) days after shipment, administration fees of eighteen percent (18%) per year (equivalent to a nominal monthly interest rate of 1 1/2%) will be applied on overdue accounts. The terms and conditions herein set forth are based upon tariffs, taxes, foreign exchange rates, delivery, and other conditions in effect on the date of this contract. In the event changed conditions, legislations, regulations, or other matters shall become applicable to any quotation, contract, or delivery hereunder, any increased exchange, duties, taxes, ocean freight, or other charges resulting from such action shall be for the customer's account and Iowa Pump Works, LLC, may charge such increased duties, taxes, or charges to the customer. Unless the order includes the appropriate exemption certificates and/or licenses, duties, and taxes levied by Federal, State, or other governments are required to be charged automatically at the rate imposed at time of importation/shipment. Any change in law, regulations, or Government Department practice which causes a variation of any kind in the applicable charges from the amounts allowed for the quotation, shall result in an equivalent change in the price quoted.

Until payment is made in full, Iowa Pump Works, LLC, shall retain the right, without notice, to repossess and/or retain the items, and/or dispose of them, for its benefit and hold the customer responsible for any loss. Customer agrees to enter into any agreements, contracts, or notices required to confirm such rights.

Security

In order to secure any obligations due to Iowa Pump Works, LLC, from the customer (whether or not under this contract) the customer grants and confirms in Iowa Pump Works, LLC, a security interest in:

- a) The merchandise covered by this contract, and
- b) in all property and funds of the customer now or hereafter in Iowa Pump Works, LLC, possession, whether or not arising out of this contract, and in all additions, accessions, and proceeds of such merchandise and/or property. The customer hereby authorizes Iowa Pump Works, LLC, to sign alone any financing statement or statements and to do all and any other things which may be necessary to perfect such security interest.

Payment Terms / Please remit to:

Iowa Pump Works, LLC
PO Box 735936
Chicago, IL 60673-5936
Online payment accepted at <http://www.iowapumpworks.com>
PAY NOW 3% charge for credit card and \$2.25 charge for e-Check
PAST DUE INVOICES ARE SUBJECT TO 1.5% PER MONTH FINANCE CHARGE

Cancellation

After acceptance, orders may be canceled only with our approval and payment in accordance with contract by the customer for work performed and/or material expenses incurred by us to date of cancellation. We reserve the right to cancel the order if the customer's financial condition, in our sole judgment, places the payment in jeopardy.

Return

No credit will be allowed for returns unless our authorization in writing for such returns has been obtained beforehand. A copy of this authorization is to be returned with the item as the packing slip.

Shipment

- a) **Handling Charge:** Customer shall be responsible for making all arrangements for shipment of the order with a suitable carrier. In the event that customer requests that Iowa Pump Works, LLC, make arrangements for shipment, then customer agrees to pay to Iowa Pump Works, LLC, for the applicable shipping charges, with special services requiring additional charges.
- b) **New Articles:** Where shipping instructions indicate no exact routing, our best judgment will be used in determining routing, but we shall not be liable for any charges beyond F.O.B. point. If changes are made at customer's request in a) F.O.B. point, b) in our normal routing from either the manufacturers' or our own plants and in these changes involve extra costs, such costs shall be for the customer's account, unless otherwise noted on the Iowa Pump Works, LLC, price quotation.
- c) **Repair Work:** Defined as work and services performed by Iowa Pump Works, LLC. All orders shall be delivered to and picked up from our facility unless otherwise specified. All costs of delivery shall be for the customer's account unless otherwise agreed to in writing prior to shipment.
- d) **All Orders:** On collect freight shipments, cartage charges from facility to carrier are for customer's account. Title to articles passes to customer upon delivery to carrier acting as customer's agent subject to any right of retention by us. All claims for shortage in, and damages in, shipment or otherwise must be reported to carrier immediately upon receipt with copy or report to ourselves within five (5) days.

Guarantee

- a) **New Articles:** We guarantee new articles against defects in material and/or workmanship for a period of one (1) year from the date of acceptance, provided that the articles have been installed, maintained, and operated in accordance with our recommendations and instructions, or according to the manufacturer's written warranty.
- b) **Repair Work:** Defined herein as work and services performed by Iowa Pump Works, LLC,

we guarantee all work and services performed by us against defect arising from workmanship and/or materials provided by us for a period of ninety (90) calendar days from the date of shipment to customer.

- c) **All Orders:** Claims shall be submitted promptly in writing to Iowa Pump Works, LLC. Replacement and/or repair under guarantee shall be made F.O.B. our facility. Our liability under these guarantees is limited to the replacement and/or repair only of defective material or workmanship, and in no event shall Iowa Pump Works, LLC, be liable for any loss or damage of whatever kind or nature arising out of defects in material and/or workmanship, or resulting from delay, loss of use of articles, or any installation into which the article may be installed, or arising out of the contract for the work or service, or from negligence.

Iowa Pump Works, LLC, shall not be liable for any loss or damage resulting from delay and/or late delivery due to causes beyond our reasonable control. In no event shall Iowa Pump Works, LLC, be liable for any claim exceeding the amount of this order. Our guarantee on products of other than our own manufacture is limited to the guarantee extended to us by the original manufacturer. On any claims for repairs and/or replacement under such guarantee all costs incurred by us which are not underwritten by the original manufacturers shall be for the claimant's account. Except as stated above, no representations, conditions, or warranties are made with respect to products, work, or services, whether express or implied, verbal or otherwise, including warranties of merchantability and fitness. Our guarantee and warranty shall not apply to materials or workmanship which have been subject to misuse, neglect, or accident. Iowa Pump Works, LLC, shall be held free and harmless from any dispute or claim anywhere arising relating to infringement of patent, design trademark or copyright of items, sold or repaired under this contract.

Property rights and risks

The customer's property at all times shall remain at the risk of the customer while being worked on by our personnel or on our premises and Iowa Pump Works, LLC, shall not be responsible for any loss or damage to the customer's property resulting from any cause whatsoever.

Title to and rights in relation to item sold under this contract/quotation shall remain with Iowa Pump Works, LLC, until such items are paid for, subject to risk on products sold passing to the customer upon acceptance by a carrier or other, which shall constitute good delivery.

City of Newton Council Report

**Item:**

Resolution accepting completion of work replacing the undercarriage of the Landfill 850L dozer

Summary:

Replacement of tracks and complete undercarriage of the landfill 850K dozer.

Financial Impact:

\$29,858.62 from the Newton Sanitary Landfill Operational Equipment repair budget.

Report Number: 2025-518**Date:**

May 5, 2025

Lead Department:

Public Works

Recommendation:

Approve

Background:

The Newton Sanitary Landfill purchased a new John Deere 850L bulldozer in 2021. The dozer pushes garbage and dirt daily and has 4,810 hrs. and 6,000 miles. Continuous use on solid waste and earth fill had worn the tracks and undercarriage, requiring replacement.

Bids for the purchase and installation of the tracks and undercarriage were sought, and the bid from Murphy Equipment Co., Des Moines, Iowa, in the amount of \$23,533.87 was approved on February 17th, 2025. Work has been completed, and the final amount for the installation, including additional necessary labor, is \$29,858.62.

Recommendation:

City Staff recommends accepting completion of the work and approving the final installation cost of the undercarriage by Murphy Equipment of Des Moines, Iowa.

Matt Muckler, City Administrator

RESOLUTION NO. 2025-_____

**RESOLUTION ACCEPTING COMPLETION OF WORK REPLACING THE
UNDERCARRIAGE OF THE LANDFILL 850L DOZER**

WHEREAS, the Newton Sanitary Landfill purchased a new John Deere 850L bulldozer in 2021. The dozer pushes garbage and dirt daily and has 4,810 hrs. and 6,000 miles; and

WHEREAS, continuous use on solid waste and earth fill has worn the tracks and undercarriage, requiring replacement; and

WHEREAS, the City of Newton obtained sealed bids for the purchase and installation of tracks, idlers, sprockets, rollers, and undercarriage; and

WHEREAS, Murphy Tractor and Equipment Co. of Des Moines, Iowa, was the lowest responsive bidder in the amount of \$23,533.87; and

WHEREAS, the bid from Murphy Tractor and Equipment Co. of Des Moines, Iowa, was approved on February 17th, 2025; and

WHEREAS, work has been completed, and the final amount for the installation, including additional necessary labor, is \$29,858.62; and

WHEREAS, City staff recommends accepting completion of the work and approving the final installation cost of the undercarriage by Murphy Equipment of Des Moines, Iowa.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Newton, Iowa, that the final invoice from Murphy Tractor in Des Moines, Iowa, in the amount of \$29,858.62 to be paid utilizing funds from the Newton Sanitary Landfill Enterprise Fund is hereby approved.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution approving CO-1 for the 2025 Westwood Grading Project

Summary:

Change order to add gravel golf cart storage and grading around the west corner of the new clubhouse building

Financial Impact:

\$8,885.90

Report Number: 2025-521

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

Resolution 2025-161 awarded a grading contract to Crossroads Pipe & Grading, Inc. of Monroe, Iowa for exterior drainage improvements and surrounding grading for the Westwood Clubhouse. Said project was awarded for an amount of \$13,757.50, \$13,177.50 under the Engineer's Estimate.

With the cost of the project coming in under budget, staff explored costs to add additional grading in the area of the northwest corner of the building and to add gravel for golf cart parking. The gravel for the cart parking will serve as the necessary gravel base for any future paving while providing a cleaner scenario in the interim.

Cost of this change order adds \$8,885.90 to the contract.

Recommendation:

Staff recommends approval

Matt Muckler, City Administrator

RESOLUTION 2025- _____

**RESOLUTION APPROVING CO-1 FOR THE
2025 WESTWOOD GRADING PROJECT**

WHEREAS, by Resolution 2025-161, a contract with Crossroads Pipe & Grading, Inc. was approved for exterior drainage and grading improvements;

WHEREAS, said awarded contract to Crossroads Pipe & Grading Inc. had a cost of \$13,757.50 on, as savings of \$13,177.50 from the engineer’s estimate; and

WHEREAS, additional grading work in the area of the northwest corner has been identified as well as the reshaping of the old ADA access path for an increase of 436 CY of Class 10 excavation waste on the site at contract unit price; and

WHEREAS, 1” road stone was determined to be necessary for cart parking on the northwest side of the building, and 112 tons is estimated to complete this with Crossroads providing a price of \$33.75 per ton was provided to haul and place this material, well in line with the industry standard; and

WHEREAS, City Staff recommends that Council approve C0-1 in the amount of \$8,885.90 for the additional work for the cart parking near the new clubhouse and over all sight improvements; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that the change order of Crossroads Pipe & Grading Inc. of Monroe, IA, in the amount of eight thousand eight hundred and eighty-five dollars and ninety cents (\$8,885.90) for the 2025 Westwood grading project, all as described, is hereby accepted.

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that the City shall utilize 2024 bond proceeds and future 2025 bond proceeds to pay for the 2025 Sidewalk/ Cart path PCC project.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton 303 W 4th St N, Suite 501 Newton Iowa, 50208		Change Order No.1
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Owner:	City of Newton	Project Title:	Westwood Grading Project
Contractor:	Cross Roads Pipe & Grading		
Contract Date:	4/21/2025	Date Prepared:	4/30/2025
Prepared By:	BLS	Reviewed By:	EC

In accordance with the General Regulations for the referenced Contract, you are directed to make the following changes in the work:

Nature of Change	Units	Unit Price	Price Change	Time Change
Additional 436 CY of Class 10 waste on site. Grading the area of the removed sidewalk and the NW part of clubhouse grading. Per cy	436	\$ 9.50	\$ 4,142.00	No additional time.
PCC Removal, 119 SY removed old cart path access on NE side of clubhouse Per SY	119	\$ 8.10	\$ 963.90	No additional time.
1" roadstone for cart parking. Hauling and placing of roadstone 6" deep for cart parking on the NW side of the building	112	\$ 33.75	\$ 3,780.00	No additional time.
Total Change in Cost		Total Change in Cost	\$ 8,885.90	

Contract Price Prior to this Change Order	\$13,757.50
Net Increase Resulting from this Change Order	\$8,885.90
Current Contract Price Including this Change Order	\$22,643.40
Contract Time Prior to this Change Order (completion date)	30-May-25
Net Increase Resulting from this Change Order (completion date)	N/A
Current Contract Time Including this Change Order (new completion date)	30-May-25

The above changes are approved:

Date: _____

The above changes are approved:

Date: 04-30-2025

City of Newton, IA

By: _____

Contractor
Cross Roads Pipe & Grading

By: _____

ERIC ANDERSON

City of Newton Council Report

**Item:**

Resolution ordering bids, approving plans, specifications, form of contract, notice to bidders, ordering clerk to publish notice, fixing a date for receiving same, for a public hearing on plans, specifications, form of contract and estimate of costs for the North East Pump Station Improvements Project

Summary:

Accept plans and order bids for the NE Pump Station Improvements Project

Financial Impact:

None

Report Number: 2025-497

Date:

May 5, 2025

Lead Department:

Utilities

Recommendation:

Approve

Background:

Improvements to the Northeast Pump Station have been identified in the 2019 Facility Plan Update by Strand Engineering (formerly Fox Engineering) with assistance from City staff. This project was included in the Capital Improvement Plan for fiscal year 2025. This project is necessary to handle the increased sanitary sewer flow from the additional housing in Arbor Estates as well as increased flow from the NE industrial area.

Planned improvements at the Northeast Pump Station include the removal of the existing grinder and the installation of a new, higher-capacity unit featuring advanced control systems. The project will also involve the addition of a third pump, equipped with a variable frequency drive (VFD) and capable of handling 800 to 900 gallons per minute. Associated upgrades will include the installation of necessary piping, electrical infrastructure, and control systems to support the new equipment.

Final plans and specifications for the NE Pump Station Improvements Project have been prepared by Strand Engineering and are ready to be placed out for bid. The proposed bid opening for the project will occur on June 3, 2025 at 2:00 pm. The public hearing to accept the bids and award the work will take place at the regularly scheduled council meeting on June 16, 2025. The project will be paid using Water Pollution Control funds.

Recommendation:

Approval to accept the plans, set dates, and obtain bids for the NE Pump Station Improvements Project

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

RESOLUTION ORDERING BIDS, APPROVING PLANS, SPECIFICATIONS, FORM OF CONTRACT, NOTICE TO BIDDERS, ORDERING CLERK TO PUBLISH NOTICE, FIXING A DATE FOR RECEIVING SAME, FOR A PUBLIC HEARING ON PLANS, SPECIFICATIONS, FORM OF CONTRACT AND ESTIMATE OF COSTS FOR THE NORTH EAST PUMP STATION IMPROVEMENTS PROJECT

WHEREAS, improvements to the Northeast Pump Station have been identified in the 2019 Facility Plan Update by Strand Engineering (formerly Fox Engineering) with assistance from City staff. This project was included in the Capital Improvement Plan for fiscal year 2025. This project is necessary to handle the increased sanitary sewer flow from the additional housing in Arbor Estates as well as increased flow from the NE industrial area; and

WHEREAS, planned improvements at the Northeast Pump Station include the removal of the existing grinder and the installation of a new, higher-capacity unit featuring advanced control systems. The project will also involve the addition of a third pump, equipped with a variable frequency drive (VFD) and capable of handling 800 to 900 gallons per minute. Associated upgrades will include the installation of necessary piping, electrical infrastructure, and control systems to support the new equipment; and

WHEREAS, Final plans and specifications for the NE Pump Station Improvements Project have been prepared by Strand Engineering and are ready to be placed out for bid. The proposed bid opening for the project will occur on June 3, 2025 at 2:00 pm. The public hearing to accept the bids and award the work will take place at the regularly scheduled council meeting on June 16, 2025. The project will be paid using Water Pollution Control funds; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Newton, Iowa, that the NE Pump Station Improvements Project in the City of Newton, Iowa is hereby ordered to be advertised for bids for construction; and the project be paid for with Water Pollution Control funds; and

BE IT FURTHER RESOLVED that the detailed plans and specifications as prepared by Strand Engineering for the construction of the NE Pump Station Improvements Project in the City of Newton, Iowa, and the form of contract and Notice to Bidders and Notice of Public Hearing, be and the same are hereby approved, subject to hearing thereon, and are hereby ordered placed on file in the office of the City Clerk for public inspection; and

That the City Clerk is hereby directed to advertise for bids for the construction of said improvements. Bids will be received and opened at the office of the Utilities Director at 2:00 PM on the 3rd day of June, 2025. The public hearing to accept the bids and award the work will take place at the regularly scheduled council meeting on June 16, 2025. Notice to Bidders is to be published not less than thirteen (13) calendar days nor more than forty-five (45) days prior to the date fixed for said bid opening in the following: 1) a relevant contractor plan room service with statewide circulation, 2) a relevant construction lead generating service with statewide circulation and 3) the City of Newton website; and

That the Council hold a public hearing on the matter of the adoption of proposed plans, specifications and form of contract for the making of said improvements, which documents are now on file in the office of the City Clerk, and that the City Clerk give notice of said hearing by publication once in a local legal newspaper, printed wholly in English language, not less than four (4) clear days nor more than twenty (20) days prior to the date fixed therefore.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

Professional

Engineering

Services

Northeast
Pump Station
Improvements

Contract 1-2025

Project Manual

City of Newton

Newton, Iowa

Issued for Bid

May 6, 2025



OWNER REVIEW DRAFT-(042925)

PLAN HOLDER: _____

Set No.: _____

PROJECT MANUAL

CITY OF NEWTON
NEWTON, IOWA
NORTHEAST PUMP STATION IMPROVEMENTS
CONTRACT 1-2025

Prepared by:

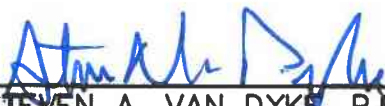
STRAND ASSOCIATES, INC.®
414 South 17th Street, Suite 107
Ames, IA 50010
www.strand.com

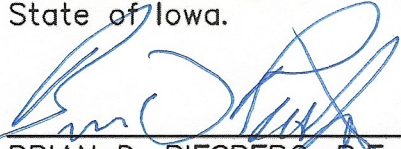
Issued for Bid
May 6, 2025



CERTIFICATION PAGE

CITY OF NEWTON
NEWTON, IOWA
NORTHEAST PUMP STATION IMPROVEMENTS
CONTRACT 1-2025

	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.  <u>4-28-25</u> STEVEN A. VAN DYKE, P.E. DATE License number P16044 My license renewal date is December 31, 2025. Pages or sheets covered by this seal: <u>All sections except Divisions 25 and 26.</u>
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	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.  <u>28 Apr 2025</u> BRIAN D. RIESBERG, P.E. DATE License number P14412 My license renewal date is December 31, 2025. Pages or sheets covered by this seal: <u>Divisions 25 and 26.</u>
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BIDDING AND CONTRACTING REQUIREMENTS

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ADVERTISEMENT TO BID

CITY OF NEWTON
NEWTON, IOWA
NORTHEAST PUMP STATION IMPROVEMENTS
CONTRACT 1-2025

The City of Newton (OWNER) is requesting Bids for the construction of the following Project:

Northeast Pump Station Improvements
Contract 1-2025

Bids for the construction of the Project will be received at the Newton Public Works located at 303 West 4th Street North, Suite 501, Newton, IA 50208, until Tuesday, June 3, 2025, at 2 P.M., local time. At that time the Bids received will be publicly opened and read aloud.

The Project includes the following Work: Replacement of a grinder and a new wastewater pump, along with associated piping, valves, and electrical power and controls.

The Work will be substantially complete on or before April 30, 2026, and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before May 29, 2026.

Complete digital Project Bidding Documents are available at www.strand.com or at www.questcdn.com at no cost. Download the digital Bidding Documents by inputting Quest project number 9668333 on the website's project search page. Please contact QuestCDN.com at (952) 233-1632 or info@questcdn.com for assistance with free membership registration, downloading, and working with this digital Project information.

Paper copies may be obtained from the Issuing Office, which is Strand Associates, Inc.[®], 414 South 17th Street, Suite 107, Ames, IA 50010. A refundable fee of \$100 will be required (shipping and handling fees included). Overnight mailing of Bidding Documents will not be provided. The fee will be refunded if Bidding Documents are returned within 14 days after the award of the Project.

All Bidders submitting a sealed Bid shall obtain the Bidding Documents from QuestCDN.com or from Strand Associates, Inc.[®]

Bidders who submit a Bid must be a Plan Holder of record at the Issuing Office. Bids from Bidders who are not on the Plan Holders List may be returned as not being responsive.

Plan Holders are requested to provide an e-mail address if they wish to receive addenda and other information electronically. Plan Holders are requested to designate whether they are a prime contractor, subcontractor, or supplier if they want this information posted on the Project Plan Holders List.

The Bid must be accompanied by Bid security made payable to OWNER in an amount of 5% of the Bidder's maximum Bid price.

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By virtue of statutory authority, preference will be given to products and provisions grown and coal produced within the State of Iowa. In accordance with Iowa Statutes, a resident bidder shall be allowed a preference as against a nonresident bidder from a state or foreign country if that state or foreign country gives or requires any preference to bidders from that state or foreign country, including, but not limited to, any preference to bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to bidders or laborers from that state or foreign country. The preference allowed shall be equal to the preference given or required by the state or foreign country in which the nonresident bidder is a resident. In the instance of a resident labor force preference, a nonresident bidder shall apply the same resident labor force preference to a public improvement in this state as would be required in the construction of a public improvement by the state or foreign country in which the nonresident bidder is a resident.

The City of Newton, Iowa, reserves the right to reject any or all Bids, to waive any technicality, and to accept any Bid which it deems advantageous. All Bids shall remain subject to acceptance for 60 days after the time set for receiving Bids. The Contract Times will commence to run within 30 days after the Effective Date of the Contract or at the end of the bid acceptance period, whichever is earlier.

Contract award shall be made based on the lowest responsive and responsible Bidder that is deemed to be in the best interests of the City of Newton.

The Strand Associates, Inc.[®] project manager is Steve Van Dyke and can be contacted at Strand Associates, Inc.[®], 414 South 17th Street, Suite 107, Ames, IA 50010, regarding the Project.

For all further requirements regarding Bid submittal, qualifications, procedures, and Contract Award, refer to the Instructions to Bidders that are included in the Bidding Documents.

Published by the authority of the City of Newton, Iowa
Jody Rhone, Utilities Director

Dated at City of Newton, Iowa
May 6, 2025

END OF SECTION

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SECTION 00 21 13

INSTRUCTIONS TO BIDDERS

- A. These Instructions to Bidders establish requirements for Bidding and Award of Contract.
- B. These articles are not necessarily numbered consecutively.
- C. Table of Contents

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ARTICLE 1–DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and the Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- A. Issuing Office–The office from which the Bidding Documents are to be issued and which registers planholders.

ARTICLE 2–BIDDING DOCUMENTS

2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.

2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.

2.03 Electronic Documents

A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.

1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader Version 6.0 or later. It is the intent of ENGINEER and OWNER that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because OWNER and ENGINEER cannot totally control the transmission and receipt of Electronic Documents nor CONTRACTOR's means of reproduction of such documents, OWNER and ENGINEER cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.03.A. above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3–QUALIFICATIONS OF BIDDERS

3.01 To demonstrate Bidder's qualifications to perform the Work, within five days of OWNER's request, Bidder shall submit the Qualifications Statement.

3.02 Bidder must be prepared to submit evidence of Bidder's qualifications to do business in the state where the Project is located prior to award of the Contract.

3.03 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

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3.04 Bidders shall submit the documentation listed in Paragraph 7.01 of the Bid Form (Section 00 41 00).

A. Bidder shall complete and submit the Bidder Status Form with its Bid as required by Iowa Administrative Code 875, Chapter 156.

3.05 No requirement in this Article 3 to submit information will prejudice the right of OWNER to seek additional pertinent information regarding Bidder's qualifications.

3.06 Bidder is advised to carefully review those portions of the Bidding Documents requiring Bidder's representations and certifications.

ARTICLE 4—PRE-BID CONFERENCE

4.01 A pre-bid conference will not be held for this Project.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 Site and Other Areas

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by OWNER for the use of CONTRACTOR. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by CONTRACTOR.

5.02 Existing Site Conditions

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:

a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.

b. Those drawings known to OWNER of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.

c. Reports and drawings known to OWNER relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.

d. Technical Data contained in such reports and drawings.

2. OWNER will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data

or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Underground Facilities: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A. of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

5.03 Other Site-Related Documents

A. In addition to the documents regarding existing Site conditions referred to in Paragraph 5.02.A., the following other documents relating to conditions at or adjacent to the Site are known to OWNER and made available to Bidders for reference:

1. Plans for Northeast Service Area Sanitary Sewer Project, Phase 2, City of Newton, Iowa, consisting of 30 sheets.

OWNER will make copies of these other Site-related documents available to any Bidder on request.

B. OWNER has not verified the contents of these other Site-related documents, and Bidder may not rely on the accuracy of any data or information in such documents. Bidder is responsible for any interpretation or conclusion Bidder draws from the other Site-related documents.

C. The other Site-related documents are not part of the Contract Documents.

D. Bidders are encouraged to review the other Site-related documents, but Bidders will not be held accountable for any data or information in such documents. The requirement to review and take responsibility for documentary Site information is limited to information in (1) the Contract Documents and (2) the Technical Data.

5.04 Site Visit and Testing by Bidders

A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.

B. Bidders visiting the Site are required to arrange their own transportation to the Site.

C. All access to the Site other than during a regularly scheduled Site visit must be coordinated through the following OWNER or ENGINEER contact for visiting the Site: Brad Hansen, Wastewater Superintendent, (641) 792-3422. Bidder must conduct the required Site visit during normal working hours.

D. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.

E. On request, and to the extent OWNER has control over the Site, and schedule permitting, OWNER will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting

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a successful Bid. OWNER will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on OWNER's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.

F. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by OWNER or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

G. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 OWNER's Safety Program

A. Site visits and work at the Site may be governed by an OWNER safety program. If an OWNER safety program exists, it will be noted in the Supplementary Conditions.

5.06 Other Work at the Site

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which OWNER is aware (if any) that is to be performed at the Site by OWNER or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If OWNER is party to a written contract for such other work, then on request, OWNER will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 6–BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

6.01 Express Representations and Certifications in Bid Form, Agreement

A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

B. If Bidder is awarded the Contract, Bidder (as CONTRACTOR) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7–INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to ENGINEER in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Issuing Office as having received the Bidding Documents.

7.02 All requests for interpretation must be received at least five days prior to the day set for receiving Bids. Addenda will be issued not later than three days prior to the day set for receiving Bids. Failure of any Bidder to receive any such Addendum or interpretation shall not relieve such Bidder from any obligations under the Bid as submitted. All Addenda so issued shall become part of the Contract Documents.

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7.03 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

7.04 Receipt of all addenda must be acknowledged in space provided in the Bid.

ARTICLE 8–BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to OWNER in an amount of 5% of the Bidder's maximum Bid price and in the form of Surety2000, a certified check, bank money order, or a Bid Bond (on form attached) issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. A PDF copy of the Bid Bond can be attached to electronically submitted Bids.

8.02 The Bid security of the apparent Successful Bidder will be retained until OWNER awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, OWNER may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a Penal Sum Bid Bond, and to the extent of OWNER's damages in the case of a damages-form bond. Such forfeiture will be OWNER's exclusive remedy if Bidder defaults.

8.03 The Bid security of other Bidders that OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of 7 days after the Effective Date of the Contract or 46 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that OWNER believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9–CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.

9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 10–SUBSTITUTE OR “OR EQUAL” ITEMS

10.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without evaluation of Alternative Equipment Manufacturers listed in the Lump Sum Base Bid, if any, and without evaluation of possible substitute or “or equal” items. Whenever it is specified or described in the Bidding Documents that an Alternative Equipment Manufacturers listed in the Lump Sum Base Bid or that a substitute or “or equal” item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be evaluated by ENGINEER until after the Effective Date of the Contract.

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10.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that CONTRACTOR will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

11.01 A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents or in the Specifications. If a prospective Bidder objects to retaining any such Subcontractor or Supplier and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

11.02 Subsequent to the submittal of the Bid, OWNER may not require the Successful Bidder or CONTRACTOR to retain any Subcontractor, Supplier, or other individual or entity against which CONTRACTOR has reasonable objection.

11.03 The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of the Subcontractors or Suppliers proposed for the Work. If requested by OWNER, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and OWNER may consider such price adjustment in evaluating Bids and making the Contract award.

11.04 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

ARTICLE 12—PREPARATION OF BID

12.01 The Bid Form is included with the Bidding Documents.

A. All blanks on the Bid Form shall be completed in ink and the Bid Forms shall be signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, Alternate, adjustment Unit Price item, and Unit Price item listed therein.

B. If the Bid Form expressly indicates that submitting pricing on a specific Alternate item is optional, and Bidder elects to not furnish pricing for such optional Alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."

12.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.

12.03 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address and state of incorporation shall be shown.

12.04 A Bid by a limited liability company shall be executed in the name of the firm by a member, if the LLC is member-managed, or by a manager, if manager-managed, and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.

12.05 A Bid by an individual shall show the Bidder's name and official address.

12.06 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.

12.07 All names shall be printed below the signatures.

12.08 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.

12.09 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.

12.10 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.

12.11 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 Lump Sum

A. Bidders shall submit a Bid on a Lump Sum basis as set forth in the Bid Form.

13.02 Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. For Bids submitted on a Lump Sum basis, discrepancies between words and figures will be resolved in favor of the words.

ARTICLE 14—SUBMITTAL OF BID

14.01 Bids will be received for all divisions of the Specifications and all other provisions of the Bidding Documents.

14.02 Bidder is furnished one copy of the Bidding Documents with one separate unbound copy of the Bid Forms and the Bid Bond form. The Bidding Documents may be retained by Bidder. The unbound copy of the Bid Forms is to be completed and submitted with the Bid security along with any data required by the Bidding Documents to be attached to and made a condition of the Bid. Additional copies may be obtained from the Issuing Office.

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14.03 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope, plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If the Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to place indicated in the Advertisement or Invitation to Bid. No relief will be provided for a mailed Bid not being received by the prescribed time.

14.04 Bids received after the date and time prescribed for the opening of Bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BIDS

15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to that date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.

15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further Bidding on the Work.

ARTICLE 16—OPENING OF BIDS

16.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously nonresponsive, read aloud publicly. An abstract of the amounts of the Base Bids and major alternatives and components, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

18.01 OWNER reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. OWNER also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.

18.02 OWNER will reject the Bid of any Bidder that OWNER finds, after reasonable inquiry and evaluation, to not be responsible.

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18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to OWNER or ENGINEER, then OWNER will reject the Bid as nonresponsive.

18.04 In evaluating Bids, OWNER will consider whether or not the Bids comply with the prescribed requirements, and such alternatives, unit prices, and other data as may be requested in the Bid Form or prior to the Notice of Award.

18.05 In evaluating Bids, OWNER will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions. OWNER also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the work when such data is required to be submitted prior to the Notice of Award.

18.06.1 OWNER may conduct such investigations as OWNER deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals or entities to perform the Work in accordance with the Contract Documents to OWNER's satisfaction within the prescribed time. Bidder shall furnish to OWNER all such information and data for this purpose as OWNER may request. OWNER reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy OWNER that such Bidder is properly qualified to carry out the obligations of the Contract Documents and to complete the work contemplated therein.

18.06.2 OWNER shall be satisfied that Bidder involved (1) maintains a permanent place of business, (2) has adequate plant and equipment to do the work properly and expeditiously, (3) has a suitable financial status to meet obligations incident to the work, (4) has appropriate technical experience, and (5) can submit a satisfactory performance record.

18.07 If a Contract is to be awarded, it will be awarded to the responsible Bidder whose evaluation by OWNER indicates to OWNER that the award will be in the best interests of the Project.

18.08 If a Contract is to be awarded, OWNER will give the successful Bidder a Notice of Award within 30 days after the time set for opening Bids.

ARTICLE 19—BONDS AND INSURANCE

19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth OWNER's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by required bonds and insurance documentation.

19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing Bid Bonds as part of the Bidding process.

19.03 Out-of-State Contractors may also need to file a Surety Bond with the State. See Section 00 61 13.19 for additional details.

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ARTICLE 20—SIGNING OF AGREEMENT

20.01 When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unexecuted counterparts of the Agreement along with all other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement and attached documents to ENGINEER with the required Bonds and insurances. Within 15 days after receipt of properly executed documents and Bonds and insurances which meet all requirements of the Contract Documents, ENGINEER will deliver one fully signed counterpart to Successful Bidder.

ARTICLE 21—RETAINAGE

21.01 Provisions concerning retainage are set forth in the Agreement.

ARTICLE 22—WAGE RATE DETERMINATION

22.01 A wage rate determination is not a requirement of this Project.

ARTICLE 23—SALES AND USE TAXES

23.01 OWNER is exempt from Iowa state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes must not be included in the Bid. Refer to Paragraph SC-7.10 of the Supplementary Conditions for additional information.

ARTICLE 24—LAWS, ORDINANCES, AND REGULATIONS

24.01 Bidder must familiarize itself with all laws, ordinances, and regulations by federal, state, city, or other governmental agency, which by reason of being neglected or violated may affect the Work contemplated and must secure and pay the fee required for any permits which may be necessary unless such fees are otherwise indicated to be paid in the Bidding Documents.

ARTICLE 25—BIDDING PREFERENCE

25.01 The State of Iowa, its agencies, and its political subdivisions, including cities, school districts and public utilities are required by Iowa Code Section 8A.311B to require a reciprocal resident Bidder and resident labor force preference.

25.02 Nonresident Bidders are advised that when a contract for a public improvement is to be awarded to the lowest responsible Bidder that per Iowa law a resident Bidder shall be allowed a preference over a nonresident Bidder from a state or foreign country if that state or foreign country gives or requires any preference to Bidders from that state or foreign country. Preferences include but not limited to any preference to Bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to Bidders or laborers from that state or foreign country. The preference allowed shall be equal to the preference given or required by the state or foreign country in which the nonresident Bidder resides. In the instance of a resident labor force preference, a nonresident Bidder shall apply the same resident labor force preference to a public improvement in this state as would be required in the construction of a public improvement by the state or foreign country in which the nonresident Bidder is a resident.

25.03 Nonresident Bidder is defined as a person or entity authorized to transact business and having a business address for transacting business outside the State of Iowa at which it is conducting and has conducted business.

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25.04 Resident Bidder is defined as a person or entity authorized to transact business and having a business address for transacting business within the State of Iowa at which it is conducting and has conducted business for a minimum of three years prior to the date of the first advertisement for the public improvement. If the nonresident Bidder's state or foreign country defines resident Bidder more stringently than the State of Iowa then the more stringent definition shall apply to the nonresident Bidder's Bid.

ARTICLE 26-OPINION OF PROBABLE COST

26.01 The opinion of probable cost for the Project as of May 6, 2025 is \$350,000.

END OF SECTION

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SECTION 00 41 00

BID

CITY OF NEWTON
NEWTON, IOWA
NORTHEAST PUMP STATION IMPROVEMENTS
CONTRACT 1-2025

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ARTICLE 1-BID RECIPIENT

1.01 Bids to be received until 2 P.M. local time, June 3, 2025.

1.02 This Bid is submitted to: Utilities Director
 303 West 4th Street, Suite 501
 Newton, IA 50208

1.03 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2-BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

2.01 Bid Acceptance Period

A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.

2.02 Instructions to Bidders

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

2.03 In submitting this Bid, Bidder represents the following:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following addenda:

Date:	Addendum Number:
_____	_____
_____	_____
_____	_____

2.04 Bidder will sign and deliver the required number of counterparts of the Agreement with the bonds, insurance certificates, and other documents required by the Bidding Requirements within 15 days after the date of OWNER's Notice of Award.

ARTICLE 3–BIDDER’S REPRESENTATIONS

3.01 Bidder’s Representations

A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.

2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.

5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.

6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as CONTRACTOR; and (c) Bidder's (CONTRACTOR's) safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.

9. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4-BIDDER'S CERTIFICATIONS

4.01 Bidder certifies the following:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.

C. Bidder has not solicited or induced any individual or entity to refrain from Bidding.

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the Bidding process.

2. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the Bidding process to the detriment of OWNER, (b) to establish Bid prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition.

3. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish Bid prices at artificial, non-competitive levels.

4. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the Bidding process or affect the execution of the Contract.

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ARTICLE 5–BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

The following abbreviations may be used in this Bid:

CIP	-	Complete in Place	LS	-	Lump Sum
CY	-	Cubic Yard	LT	-	Left
DI	-	Ductile Iron	MBF	-	Thousand Board Feet
DIA	-	Diameter	MFOB	-	Thousand Freight-On-Board
EA	-	Each	MH	-	Manhole
EST	-	Estimate(d)	RCP	-	Reinforced Concrete Pipe
EXCL	-	Excluding	RT	-	Right
FT	-	Feet	SF	-	Square Foot
GAL	-	Gallon	STA	-	Station
HERCP	-	Horizontal Elliptical RCP	SY	-	Square Yard
HRS	-	Hours	T	-	Ton
IN	-	Inch	VLF	-	Vertical Linear Foot
INCL	-	Including	W/	-	With
LBS	-	Pounds	W/O	-	Without
LF	-	Linear Foot			

BIDDERS SHOULD NOT ADD ANY CONDITIONS OR QUALIFYING STATEMENTS TO THIS BID OR THE BID MAY BE DECLARED IRREGULAR AS NOT BEING RESPONSIVE TO THE INSTRUCTIONS TO BIDDERS.

OWNER REVIEW DRAFT-(042925)

BID

CITY OF NEWTON
NEWTON, IOWA
NORTHEAST PUMP STATION IMPROVEMENTS
CONTRACT 1-2025

LUMP SUM BID:

	Dollars \$	
(Words)		(Numbers)

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ARTICLE 6–TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete on or before April 30, 2026 and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before May 29, 2026.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times.

ARTICLE 7–ATTACHMENTS TO THIS BID

7.01 The following documents are attached to and made a condition of this Bid:

A. Required Bid security in the form of _____
(Certified Check, Bank Money Order, or Bond)

B. Bidder Status Form.

C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license, if applicable, within the time for acceptance of Bids.

D. Where applicable, Bidder shall provide CONTRACTOR's License Number for the state of the Project, where noted at end of Bid or Bidder shall provide evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids.

ARTICLE 8–DEFINED TERMS

8.01 The terms used in this Bid with initial or all capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9–COMMUNICATIONS

9.01 Communications concerning this Bid shall be addressed to the address of Bidder indicated below:

Name: _____

Street: _____

City, State, Zip Code: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

ARTICLE 10–BID SUBMITTAL

Submitted on _____

State Contractor License Number _____ (if applicable).

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If Bidder is:

An Individual

By: _____
(Individual's signature)

Name (typed or printed): _____

Doing business as: _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Attest _____
(Signature of Corporate Secretary)

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

Date of Qualification to do business in (State where the Project is located) is _____

Sworn and subscribed to before me this
_____ day of _____, _____

Notary Public or Other Officer
Authorized to Administer Oaths.
My Commission expires: _____

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A Limited Liability Company (Note: If member-managed, an authorized member must sign; if manager-managed, the authorized manager must sign. Attach evidence of authority to sign on behalf of LLC).

(Fill in complete name of LLC)

State of Formation: _____

By: _____
(Signature)

_____, [Member] [Manager]
(Print Name)

Business Address: _____

Telephone.: _____

Email: _____

Fax: _____

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A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____

By: _____
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

Second Joint Venturer Name: _____

By: _____
(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ Fax No.: _____

E-mail address: _____

Phone No., Fax No., and postal and E-mail address for receipt of official communications:

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Sworn and subscribed to before me this
_____ day of _____, _____

Notary Public or Other Officer
Authorized to Administer Oaths.
My Commission expires: _____

END OF SECTION

5% BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

Bidder Name: [Full formal name of Bidder] Address (<i>principal place of business</i>): [Address of Bidder's principal place of business]	Surety Name: [Full formal name of Surety] Address (<i>principal place of business</i>): [Address of Surety's principal place of business]
Owner Name: [Full formal name of Owner] Address (<i>principal place of business</i>): [Address of Owner's principal place of business]	Bid Project (<i>name and location</i>): [Owner project/contract name, and location of the project] Bid Due Date: [Enter date bid is due]
Bond Penal Sum: [Amount] Date of Bond: [Date]	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
(<i>Full formal name of Bidder</i>)	(<i>Full formal name of Surety</i>) (<i>corporate seal</i>)
By: _____ (<i>Signature</i>)	By: _____ (<i>Signature</i>) (<i>Attach Power of</i>
Name: _____ (<i>Printed or typed</i>)	Name: _____ (<i>Printed or typed</i>)
Title: _____	Title: _____
Attest: _____ (<i>Signature</i>)	Attest: _____ (<i>Signature</i>)
Name: _____ (<i>Printed or typed</i>)	Name: _____ (<i>Printed or typed</i>)
Title: _____	Title: _____
Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

To be completed by all bidders

Part A

Please answer "Yes" or "No" for each of the following:

- ☐ Yes ☐ No My company is authorized to transact business in Iowa.
(To help you determine if your company is authorized, please review the worksheet on the next page).
- ☐ Yes ☐ No My company has an office to transact business in Iowa.
- ☐ Yes ☐ No My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.
- ☐ Yes ☐ No My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.
- ☐ Yes ☐ No My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders

Part B

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: ____ / ____ / ____ to ____ / ____ / ____ Address: _____

City, State, Zip: _____

Dates: ____ / ____ / ____ to ____ / ____ / ____ Address: _____

City, State, Zip: _____

Dates: ____ / ____ / ____ to ____ / ____ / ____ Address: _____

You may attach additional sheet(s) if needed. City, State, Zip: _____

To be completed by non-resident bidders

Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to resident bidders, resident labor force preferences or any other type of preference to bidders or laborers? ☐ Yes ☐ No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: _____

Signature: _____ Date: _____

You must submit the completed form to the governmental body requesting bids per 875 Iowa Administrative Code Chapter 156. This form has been approved by the Iowa Labor Commissioner.

Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- ☐ Yes ☐ No My business is currently registered as a contractor with the Iowa Division of Labor.
- ☐ Yes ☐ No My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- ☐ Yes ☐ No My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- ☐ Yes ☐ No My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- ☐ Yes ☐ No My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, and has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- ☐ Yes ☐ No My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

QUALIFICATIONS STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT
PERMITTED BY LAWS AND REGULATIONS

ARTICLE 1—GENERAL INFORMATION

1.01 Provide contact information for the Business:

Legal Name of Business:			
Corporate Office			
Name:		Phone number:	
Title:		Email address:	
Business address of corporate office:			
Local Office			
Name:		Phone number:	
Title:		Email address:	
Business address of local office:			

1.02 Provide information on the Business's organizational structure:

Form of Business:	☐ Sole Proprietorship ☐ Partnership ☐ Corporation		
☐ Limited Liability Company ☐ Joint Venture comprised of the following companies:			
1.			
2.			
3.			
Provide a separate Qualification Statement for each Joint Venturer.			
Date Business was formed:		State in which Business was formed:	
Is this Business authorized to operate in the Project location?		☐ Yes ☐ No ☐ Pending	

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- 1.03 Identify all businesses that own Business in whole or in part (25% or greater), or that are wholly or partly (25% or greater) owned by Business:

Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			

- 1.04 Provide information regarding the Business's officers, partners, and limits of authority.

Name:		Title:		
Authorized to sign contracts: ☐ Yes ☐ No		Limit of Authority:	\$	
Name:		Title:		
Authorized to sign contracts: ☐ Yes ☐ No		Limit of Authority:	\$	
Name:		Title:		
Authorized to sign contracts: ☐ Yes ☐ No		Limit of Authority:	\$	
Name:		Title:		

ARTICLE 2—LICENSING

- 2.01 Provide information regarding licensure for Business:

Name of License:			
Licensing Agency:			
License No:		Expiration Date:	
Name of License:			
Licensing Agency:			
License No:		Expiration Date:	

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ARTICLE 3—DIVERSE BUSINESS CERTIFICATIONS

3.01 Provide information regarding Business's Diverse Business Certification, if any. Provide evidence of current certification.

Certification	Certifying Agency	Certification Date
☐ Disadvantaged Business Enterprise		
☐ Minority Business Enterprise		
☐ Woman-Owned Business Enterprise		
☐ Small Business Enterprise		
☐ Disabled Business Enterprise		
☐ Veteran-Owned Business Enterprise		
☐ Service-Disabled Veteran-Owned Business		
☐ HUBZone Business (Historically Underutilized) Business		
☐ Other		
☐ None		

ARTICLE 4—SAFETY

4.01 Provide information regarding Business's safety organization and safety performance.

Name of Business's Safety Officer:		
Safety Certifications		
Certification Name	Issuing Agency	Expiration

4.02 Provide Worker's Compensation Insurance Experience Modification Rate (EMR), Total Recordable Frequency Rate (TRFR) for incidents, and Total Number of Recorded Manhours (MH) for the last 3 years and the EMR, TRFR, and MH history for the last 3 years of any proposed Subcontractor(s) that will provide Work valued at 10% or more of the Contract Price. Provide documentation of the EMR history for Business and Subcontractor(s).

Year									
Company	EMR	TRFR	MH	EMR	TRFR	MH	EMR	TRFR	MH

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ARTICLE 5—FINANCIAL

- 5.01 Provide information regarding the Business's financial stability. Provide the most recent audited financial statement, and if such audited financial statement is not current, also provide the most current financial statement.

Financial Institution:			
Business address:			
Date of Business's most recent financial statement:		☐ Attached	
Date of Business's most recent audited financial statement:		☐ Attached	
Financial indicators from the most recent financial statement			
Contractor's Current Ratio (Current Assets ÷ Current Liabilities)			
Contractor's Quick Ratio ((Cash and Cash Equivalents + Accounts Receivable + Short Term Investments) ÷ Current Liabilities)			

ARTICLE 6—SURETY INFORMATION

- 6.01 Provide information regarding the surety company that will issue required bonds on behalf of the Business, including but not limited to performance and payment bonds.

Surety Name:			
Surety is a corporation organized and existing under the laws of the state of:			
Is surety authorized to provide surety bonds in the Project location?	☐ Yes ☐ No		
Is surety listed in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" published in Department Circular 570 (as amended) by the Bureau of the Fiscal Service, U.S. Department of the Treasury? ☐ Yes ☐ No			
Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

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ARTICLE 7—INSURANCE

- 7.01 Provide information regarding Business's insurance company(s), including but not limited to its Commercial General Liability carrier. Provide information for each provider.

Name of insurance provider, and type of policy (CLE, auto, etc.):			
Insurance Provider		Type of Policy (Coverage Provided)	
Are providers licensed or authorized to issue policies in the Project location?		☐ Yes ☐ No	
Does provider have an A.M. Best Rating of A-VII or better?		☐ Yes ☐ No	
Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

ARTICLE 8—CONSTRUCTION EXPERIENCE

- 8.01 Provide information that will identify the overall size and capacity of the Business.

Average number of current full-time employees:	
Estimate of revenue for the current year:	
Estimate of revenue for the previous year:	

- 8.02 Provide information regarding the Business's previous contracting experience.

Years of experience with projects like the proposed project:			
As a general contractor:		As a joint venturer:	
Has Business, or a predecessor in interest, or an affiliate identified in Paragraph 1.03:			
Been disqualified as a bidder by any local, state, or federal agency within the last 5 years? ☐ Yes ☐ No			
Been barred from contracting by any local, state, or federal agency within the last 5 years? ☐ Yes ☐ No			
Been released from a bid in the past 5 years? ☐ Yes ☐ No			
Defaulted on a project or failed to complete any contract awarded to it? ☐ Yes ☐ No			
Refused to construct or refused to provide materials defined in the contract documents or in a change order? ☐ Yes ☐ No			
Been a party to any currently pending litigation or arbitration? ☐ Yes ☐ No			
Provide full details in a separate attachment if the response to any of these questions is Yes.			

- 8.03 List all projects currently under contract in Schedule A and provide indicated information.
- 8.04 List a minimum of three and a maximum of six projects completed in the last 5 years in Schedule B and provide indicated information to demonstrate the Business's experience with projects similar in type and cost of construction.
- 8.05 In Schedule C, provide information on key individuals whom Business intends to assign to the Project. Provide resumes for those individuals included in Schedule C. Key individuals include the Project Manager, Project Superintendent, Quality Manager, and Safety Manager. Resumes may be provided for Business's key leaders as well.

ARTICLE 9—REQUIRED ATTACHMENTS

- 9.01 Provide the following information with the Statement of Qualifications:
 - A. If Business is a Joint Venture, separate Qualifications Statements for each Joint Venturer, as required in Paragraph 1.02.
 - B. Diverse Business Certifications if required by Paragraph 3.01.
 - C. Certification of Business's safety performance if required by Paragraph 4.02.
 - D. Financial statements as required by Paragraph 5.01.
 - E. Attachments providing additional information as required by Paragraph 8.02.
 - F. Schedule A (Current Projects) as required by Paragraph 8.03.
 - G. Schedule B (Previous Experience with Similar Projects) as required by Paragraph 8.04.
 - H. Schedule C (Key Individuals) and resumes for the key individuals listed, as required by Paragraph 8.05.
 - I. Additional items as pertinent.

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This Statement of Qualifications is offered by:

Business: _____
(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(date signed)

(If Business is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address for giving notices:

Designated Representative:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Address: _____

Phone: _____

Email: _____

Schedule A—Current Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

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Schedule C—Key Individuals

Project Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Project Superintendent			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

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Safety Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Quality Control Manager			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

SECTION 00 52 00

AGREEMENT

THIS AGREEMENT is by and between _____
(hereinafter called OWNER) and _____
(hereinafter called CONTRACTOR).

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

OWNER and CONTRACTOR, in consideration of the mutual covenants set forth herein, agree as follows:

Article 1. WORK

1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Article 2. THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Article 3. ENGINEER

3.01 OWNER has retained Strand Associates, Inc.[®] ("ENGINEER") to act as OWNER's representative, assume all duties and responsibilities of ENGINEER, and have the rights and authority assigned to ENGINEER in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by ENGINEER.

Article 4. CONTRACT TIMES

4.01 Time of the Essence

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 Dates for Substantial Completion and Final Payment

A. The Work will be substantially complete on or before April 30, 2026 and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before May 29, 2026.

4.03 Liquidated Damages

A. CONTRACTOR and OWNER recognize that time is of the essence as stated in Paragraph 4.01 above and that OWNER will suffer financial and other losses if the Work is not completed and Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: CONTRACTOR shall pay OWNER \$100 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.

2. Completion of Remaining Work: After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, CONTRACTOR shall pay OWNER \$100 for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Milestones, Substantial Completion, and final completion are not additive, and will not be imposed concurrently.

Article 5. CONTRACT PRICE

5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds as follows, subject to adjustment under the Contract:

A. For all Work, at the prices stated in CONTRACTOR's Bid, attached hereto as an exhibit.

B. All specific Cash Allowances are included in the Contract Price and have been computed in accordance with Paragraph 13.02 of the General Conditions.

Article 6. PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

A. CONTRACTOR shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

6.02 Progress Payments; Retainage

A. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as established at the preconstruction conference during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the schedule of values established in Paragraph 2.05.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements:

B. Retainage: OWNER shall retain an amount equal to 5% of each progress payment application. The 5% retainage shall be withheld from all applications for progress payments until 100% of the work is complete. All punchlist items shall be finished before the work shall be deemed 100% complete. CONTRACTOR shall not submit an application for progress payment that indicates a work item as being 100% complete based on a claim that the retainage withholding amount covers the cost of the outstanding work included on the punchlist.

1. Retained funds shall be retained by OWNER for a period of 30 calendar days after the completion and final acceptance of the improvements by OWNER. If at the end of the 30 calendar day period claims are on file as provided in Iowa Code Ch. 573, OWNER shall also continue to retain from the unpaid funds, a sum equal to double the total amount of all claims on file. The remaining balance of the unpaid fund, or if no claims are on file and the Work is complete, the entire unpaid fund shall be released and paid to CONTRACTOR.

2. Upon Substantial Completion of all Work, however, and in accordance with Iowa Code 573.28, CONTRACTOR may request the release of all or part of the retained funds owed. The request shall be accompanied by a sworn statement of CONTRACTOR that, ten calendar days prior to filing the request, notice was given as required to all known subcontractors, sub-subcontractors, and suppliers.

a. Prior to applying for release of retained funds, CONTRACTOR shall send a notice to all subcontractors, sub-subcontractors, and suppliers that provided labor or materials for the public improvement project. The notice shall be substantially similar to the following:

"NOTICE OF CONTRACTOR'S REQUEST FOR EARLY RELEASE OF RETAINED FUNDS

You are hereby notified that [name of CONTRACTOR] will be requesting an early release of funds on a public improvement project designated as [name of project] for which you have or may have provided labor or materials. The request will be made pursuant to Iowa Code Section 573.28. The request may be filed with the [name of governmental entity or department] after ten calendar days from the date of this notice. The purpose of the request is to have [name of governmental entity or department] release and pay funds for all work that has been performed and charged to [name of governmental entity or department] as of the date of this notice. This notice is provided in accordance with Iowa Code section 573.28."

b. If at the time of the request for the release of the retained funds labor or material are yet to be provided, an amount equal to two hundred percent of the value of the labor or materials yet to be provided, as determined by ENGINEER, may be withheld until such labor or materials are provided.

3. CONTRACTOR shall release retained funds to subcontractor or subcontractors in the same manner as retained funds are released to CONTRACTOR by OWNER. Each subcontractor shall pass through each lower tier subcontractor all retained fund payments from CONTRACTOR.

6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said Paragraph 15.06.

6.04 Consent of Surety

A. OWNER will not make final payment unless CONTRACTOR submits written consent of the surety to such payment.

Article 7. HIERARCHY

7.01 In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

First:	WRITTEN AMENDMENTS
Second:	CHANGE ORDERS/FIELD ORDERS/WORK CHANGE DIRECTIVES
Third:	ADDENDA
Fourth:	AGREEMENT
Fifth:	SUPPLEMENTARY CONDITIONS
Sixth:	GENERAL CONDITIONS
Seventh:	SPECIFICATIONS
Eighth:	DRAWINGS

For categories that have the same order of precedence, the document that includes the latest date shall control. Figure dimensions (numerical) on Drawings shall take precedence over dimensions measured utilizing a scale.

Article 8. REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 CONTRACTOR's Representations

A. In order to induce OWNER to enter into this Contract, CONTRACTOR makes the following representations:

1. CONTRACTOR has examined and carefully studied the Contract Documents, including Addenda.

2. CONTRACTOR has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. CONTRACTOR is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. CONTRACTOR has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site, if any, that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.

5. CONTRACTOR has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.

6. CONTRACTOR has considered the information known to CONTRACTOR itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR; and (c) CONTRACTOR's safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, CONTRACTOR agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.

9. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. CONTRACTOR's entry into this Contract constitutes an incontrovertible representation by CONTRACTOR that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 CONTRACTOR's Certifications

A. CONTRACTOR certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of

OWNER, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

Article 9. CONTRACT DOCUMENTS

9.01 Contents

A. The Contract Documents consist of the following:

1. This Agreement (pages 00 52 00-1 through 00 52 00-____, inclusive);
2. Performance bond (pages to 00 61 13.13-1 through 00 61 13.13-4, inclusive);
3. Payment bond (pages 00 61 13.16-1 through 00 61 13.16-4, inclusive);
4. Other bonds
 - a. _____ (pages _____ to _____, inclusive);
 - b. _____ (pages _____ to _____, inclusive);
 - c. _____ (pages _____ to _____, inclusive);
5. General Conditions (pages 00 72 00-1 through 00 72 00-_____, inclusive);
6. Supplementary Conditions (pages 00 73 00-1 through 00 73 00-____, inclusive);
7. Specifications as listed in the table of contents of the Project Manual;
8. Drawings--Sheets No. _____ through No. _____

inclusive incorporated herein by reference with each sheet bearing the following general title:

as well as drawings listed in the table of contents that are bound at the back of these specifications.

9. Addenda (_____);
10. Exhibits to this Agreement (enumerated as follows):
 - a. CONTRACTOR's Bid (pages ____ to ____);
 - b. Documentation submitted by CONTRACTOR prior to Notice of Award
(_____);
 - c. (_____);
11. The following may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed (pages { _____ } to { _____ }, inclusive);
 - b. Work Change Directives (not attached to this Agreement);
 - c. Change Order(s) (not attached to this Agreement);
 - d. Warranty Bond, if any.

B. The Contract Documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 11.01 of the General Conditions.

Article 10. MISCELLANEOUS

10.01 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.02 Integration

A. The parties' entire agreement is contained in the Contract Documents, and the provisions of the Contract Documents supersede all prior discussions or writings between the parties.

OWNER REVIEW DRAFT-(042925)

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on _____, _____ (which is the Effective Date of the Contract).

OWNER

Signature and Title

ATTEST:

By:

Signature and Title

Address for Giving Notices:

Name:

Street:

City, State, Zip Code:

Phone:

Facsimile:

E-mail:

Designated Representative:

OWNER REVIEW DRAFT-(042925)

CONTRACTOR _____

Signature and Title

ATTEST:

By: _____

Signature and Title

Address for Giving Notices:

Name: _____

Street: _____

City, State, Zip Code: _____

Phone: _____

Facsimile: _____

E-mail: _____

Designated Representative: _____

License No.: _____

(Where applicable)

(If CONTRACTOR is a corporation, limited liability company, or a partnership, attach evidence of authority to sign.)

OWNER REVIEW DRAFT-(042925)

Approved as to form:

OWNER's Attorney

Date

Provision has been made to pay the liability that will accrue under this Agreement:

Countersigned:

OWNER's Comptroller or Treasurer

Date

OWNER REVIEW DRAFT-(042925)

INSTRUCTIONS FOR EXECUTING CONTRACT

The full name and business address of CONTRACTOR should be inserted and the Agreement should be signed with CONTRACTOR's official signature. Please have the name of the signing party printed under all signatures to the Agreement.

If CONTRACTOR is operating as a partnership, each partner should sign the Agreement. If the Agreement is not signed by each partner, there should be attached to the Agreement a duly authenticated power of attorney evidencing the signer's (signers') authority to sign such Agreement for and on behalf of the partnership.

If CONTRACTOR is an individual, the trade name (if CONTRACTOR is operating under a trade name) should be indicated in the Agreement and the Agreement should be signed by such individual. If signed by other than CONTRACTOR, there should be attached to the Agreement a duly authenticated power of attorney evidencing the signer's authority to execute such Agreement for and on behalf of CONTRACTOR.

If CONTRACTOR is operating as a limited liability company, and it is member-managed, each member should sign the Agreement, or an authorized member should sign. If the LLC is manager-managed, an authorized manager should sign. If the Agreement is not signed by each member, there should be attached to the Agreement a duly authenticated power of attorney evidencing the signer's (signers') authority to sign such Agreement for and on behalf of the LLC.

If CONTRACTOR is a corporation, the Secretary of the corporation should sign the certificate below. If the Agreement itself is signed by the Secretary of the corporation, the certificate below should be executed by some other officer of the corporation. In lieu of the following certificate, there may be attached to the Agreement copies of so much of the records of the corporation which will show the official character and authority of the officers signing, duly certified by the Secretary or Assistant Secretary to be true copies.

I, _____, certify that I am the _____
(Print Name) (Title of Officer Signing Certificate)

of the corporation named as CONTRACTOR herein above; that _____
(Print Name of Officer Signing Agreement)

who signed the foregoing Agreement on behalf of CONTRACTOR was then
_____ of said corporation; that said Agreement was duly signed
(Title of Officer Signing Agreement)

for and on behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

(Officer Signature)

END OF SECTION

OWNER REVIEW DRAFT-(042925)

SECTION 00 55 00

NOTICE TO PROCEED

Dated: _____

TO: _____
(CONTRACTOR)

ADDRESS: _____

PROJECT: _____

OWNER'S CONTRACT NO.: _____

CONTRACT FOR: _____

(Insert name of Contract as it appears in the Bidding Documents)

You are notified that the Contract Time under the above Contract will commence to run on _____ day of _____, 20____. On that date, you are to start performing your obligations under the Contract Documents.

Before you may start any work at the site, Paragraph 2.01.B of the General Conditions provides that you must deliver to OWNER (with copies to ENGINEER and other identified additional insureds) certificates of insurance, copies of endorsements, and other evidence of insurance which you are required to purchase and maintain in accordance with the Contract Documents.

Also before you may start any work at the site, you must _____

(Add Other Requirements)

(OWNER)

By: _____
(Authorized Signature)

(Title)

END OF SECTION

PERFORMANCE BOND

Contractor Name: [Full formal name of Contractor] Address (<i>principal place of business</i>): [Address of Contractor's principal place of business]	Surety Name: [Full formal name of Surety] Address (<i>principal place of business</i>): [Address of Surety's principal place of business]
Owner Name: [Full formal name of Owner] Mailing address (<i>principal place of business</i>): [Address of Owner's principal place of business]	Contract Description (<i>name and location</i>): [Owner's project/contract name, and location of the project] Contract Price: [Amount from Contract] Effective Date of Contract: [Date from Contract]
Bond Bond Amount: [Amount] Date of Bond: [Date] (<i>Date of Bond cannot be earlier than Effective Date of Contract</i>) Modifications to this Bond form: ☐ None ☐ See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
By: _____ (<i>Full formal name of Contractor</i>) _____ (<i>Signature</i>) Name: _____ (<i>Printed or typed</i>) Title: _____ Attest: _____ (<i>Signature</i>) Name: _____ (<i>Printed or typed</i>) Title: _____	By: _____ (<i>Full formal name of Surety</i>) (<i>corporate seal</i>) _____ (<i>Signature</i>)(<i>Attach Power of Attorney</i>) Name: _____ (<i>Printed or typed</i>) Title: _____ Attest: _____ (<i>Signature</i>) Name: _____ (<i>Printed or typed</i>) Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

- 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.
7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
- 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
14. Definitions
 - 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. ~~Modifications to this Bond are as follows: [Describe modification]~~

WARRANTY BOND

Contractor Name: [Full formal name of Contractor] Address (<i>principal place of business</i>): [Address of Contractor's principal place of business]	Surety Name: [Full formal name of Surety] Address (<i>principal place of business</i>): [Insert address of Surety's principal place of business]
Owner Name: [Full formal name of Owner] Address (<i>principal place of business</i>): [Address of Owner's principal place of business]	Construction Contract Description (<i>name and location</i>): [Owner's project/contract name, and location of the project] Contract Price: [Amount from Contract] Effective Date of Contract: [Date from Contract] Contract's Date of Substantial Completion: [Date from Contract]
Bond Bond Amount: [Amount] Date of Bond: [Date] Modifications to this Bond form: ☐ None ☐ See Paragraph 9	
Bond Period: Commencing 364 days after Substantial Completion of the Work under the Construction Contract, and continuing until [insert number of years, typically either two or three] years after such Substantial Completion.	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth herein, do each cause this Warranty Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
By: _____ <i>(Full formal name of Contractor)</i> _____ <i>(Signature)</i> Name: _____ <i>(Printed or typed)</i> Title: _____ Attest: _____ <i>(Signature)</i> Name: _____ <i>(Printed or typed)</i> Title: _____	By: _____ <i>(Full formal name of Surety) (corporate seal)</i> _____ <i>(Signature) (Attach Power of Attorney)</i> Name: _____ <i>(Printed or typed)</i> Title: _____ Attest: _____ <i>(Signature)</i> Name: _____ <i>(Printed or typed)</i> Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract's Correction Period Obligations. The Construction Contract is incorporated herein by reference.
2. If the Contractor performs the Correction Period Obligations, the Surety and the Contractor shall have no obligation under this Warranty Bond.
3. If Owner gives written notice to Contractor and Surety during the Bond Period of Contractor's obligation under the Correction Period Obligations, and Contractor does not fulfill such obligation, then Surety shall be responsible for fulfillment of such Correction Period Obligations. Surety shall either fulfill the Correction Period Obligations itself, through its agents or contractors, or, in the alternative, Surety may waive the right to fulfill the Correction Period Obligations itself, and reimburse the Owner for all resulting costs incurred by Owner in performing Contractor's Correction Period Obligations, including but not limited to correction, removal, replacement, and repair costs.
4. The Surety's liability is limited to the amount of this Warranty Bond. Renewal or continuation of the Warranty Bond will not modify such amount, unless expressly agreed to by Surety in writing.
5. The Surety shall have no liability under this Warranty Bond for obligations of the Contractor that are unrelated to the Construction Contract. No right of action will accrue on this Warranty Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
6. Any proceeding, legal or equitable, under this Warranty Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and must be instituted within two years after the Surety refuses or fails to perform its obligations under this Warranty Bond.
7. Written notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown in this Warranty Bond.
8. Definitions
 - 8.1. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page of this Warranty Bond, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 8.2. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
 - 8.3. *Correction Period Obligations*—The duties, responsibilities, commitments, and obligations of the Contractor with respect to correction or replacement of defective Work, as set forth in the Construction Contract's Correction Period clause, EJCDC® C-700, Standard General Conditions of the Construction Contract (2018), Paragraph 15.08, as duly modified.
 - 8.4. *Substantial Completion*—As defined in the Construction Contract.
 - 8.5. *Work*—As defined in the Construction Contract.
9. ~~Modifications to this Bond are as follows: [Describe modification]~~

PAYMENT BOND

Contractor Name: [Full formal name of Contractor] Address (<i>principal place of business</i>): [Address of Contractor's principal place of business]	Surety Name: [Full formal name of Surety] Address (<i>principal place of business</i>): [Address of Surety's principal place of business]
Owner Name: [Full formal name of Owner] Mailing address (<i>principal place of business</i>): [Address of Owner's principal place of business]	Contract Description (<i>name and location</i>): [Owner's project/contract name, and location of the project] Contract Price: [Amount, from Contract] Effective Date of Contract: [Date, from Contract]
Bond Bond Amount: [Amount] Date of Bond: [Date] (<i>Date of Bond cannot be earlier than Effective Date of Contract</i>) Modifications to this Bond form: ☐ None ☐ See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
By: _____ (<i>Full formal name of Contractor</i>) _____ (<i>Signature</i>)	By: _____ (<i>Full formal name of Surety</i>) (<i>corporate seal</i>) _____ (<i>Signature</i>)(<i>Attach Power of Attorney</i>)
Name: _____ (<i>Printed or typed</i>)	Name: _____ (<i>Printed or typed</i>)
Title: _____	Title: _____
Attest: _____ (<i>Signature</i>)	Attest: _____ (<i>Signature</i>)
Name: _____ (<i>Printed or typed</i>)	Name: _____ (<i>Printed or typed</i>)
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.

- 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
 9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
 10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
 11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
 12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
 13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
 14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
 15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1. *Claim*—A written statement by the Claimant including at a minimum:

16.1.1. The name of the Claimant;

16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

16.1.4. A brief description of the labor, materials, or equipment furnished;

16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

16.1.7. The total amount of previous payments received by the Claimant; and

16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

~~18. Modifications to this Bond are as follows: [Describe modification]~~

SECTION 00 61 13.19

OUT-OF-STATE CONTRACTOR BOND

An out-of-state Contractor must either file a surety Bond, as provided in Iowa Code section 91C.7, with the Iowa Division of Labor Services in the amount of twenty-five thousand dollars (\$25,000) for a one (1) year period or must provide a statement to the Iowa Division of Labor Services that the contractor is prequalified to Bid on projects for the Iowa Department of Transportation pursuant to Iowa Code Section 314.1

An out-of-state Contractor, before commencing a contract in excess of five thousand dollars (\$5,000) in value of Iowa, must file a Bond with the Iowa Division of Labor Services of the Iowa Department of Workforce Development. A Surety Bond filed pursuant to Iowa Code section 91C.2 must be executed by a surety company authorized to do business in this state, and the Bond must be continuous in nature until canceled by the Surety with not less than thirty (30) days; written notice to the contractor and to the Division of Labor Services of the Iowa Department of Workforce Development in dictating the surety's desire to cancel the Bond. The Surety company is liable under the Bond for any contract commenced after the cancellation of the Bond. The Bond must be in the sum of the greater of the following:

- (1) One thousand dollars (\$1,000.00); or
- (2) Five percent (5%) of the contract price

An out-of-state Contractor may file a blanket Bond in an amount at least equal to fifty thousand dollars (\$50,000) for a two (2) year period in lieu of filing an individual Bond for each Contract. The Division of Labor Services of the Iowa Department of Workforce Development may increase the Bond amount after a hearing.

END OF SECTION

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared By



Endorsed By



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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*
 - a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the

requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

- b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.
 - c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.
 - d. A demand for money or services by a third party is not a Claim.
- 11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
 - 12. *Contract*—The entire and integrated written contract between Owner and Contractor concerning the Work.
 - 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 - 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.
 - 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 - 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 - 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 - 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 - 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 - 20. *Electronic Document*—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.
 - 21. *Electronic Means*—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the

recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. *Engineer*—The individual or entity named as such in the Agreement.
23. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
24. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.
 - a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.
 - b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.
 - c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.
25. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
26. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
27. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.
28. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
29. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
30. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
31. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.
32. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

33. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.
34. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
35. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.
36. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
37. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
38. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.
39. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
40. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
41. *Submittal*—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.
42. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.

43. *Successful Bidder*—The Bidder to which the Owner makes an award of contract.
44. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
45. *Supplier*—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
46. *Technical Data*
- a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.
 - b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.
 - c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.
47. *Underground Facilities*—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.
48. *Unit Price Work*—Work to be paid for on the basis of unit prices.
49. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
50. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:* The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:* The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:* The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - 1. does not conform to the Contract Documents;
 - 2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - 3. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).
- E. *Furnish, Install, Perform, Provide*
 - 1. The word “furnish,” when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 - 2. The word “install,” when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 - 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.
 - 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

- F. *Contract Price or Contract Times*: References to a change in “Contract Price or Contract Times” or “Contract Times or Contract Price” or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term “or both” is not expressed.
- G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 *Delivery of Performance and Payment Bonds; Evidence of Insurance*

- A. *Performance and Payment Bonds*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).
- B. *Evidence of Contractor’s Insurance*: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.
- C. *Evidence of Owner’s Insurance*: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work

into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.
 - 4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.
- B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.
- F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- G. Nothing in the Contract Documents creates:
 - 1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or
 - 2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 *Reference Standards*

- A. *Standards Specifications, Codes, Laws and Regulations*
 - 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 - 2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility

inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.

- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the

established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. Abnormal weather conditions;
 - 3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and
 - 4. Acts of war or terrorism.

- D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:
1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.
 2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.
 3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.
- E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:
1. The circumstances that form the basis for the requested adjustment;
 2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;
 3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;
 4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and
 5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.
- Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.
- F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.
- G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.
 - C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment

and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;
2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and
3. Technical Data contained in such reports and drawings.

- B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

- C. *Reliance by Contractor on Technical Data:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

- D. *Limitations of Other Data and Documents:* Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;
 3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or
 4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;
 2. is of such a nature as to require a change in the Drawings or Specifications;
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- E. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in

Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
- a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;
 - b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.
- F. *Underground Facilities; Hazardous Environmental Conditions:* Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:
1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 2. complying with applicable state and local utility damage prevention Laws and Regulations;

3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;
 4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.
- C. *Engineer's Review:* Engineer will:
1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;
 2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;
 3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and
 4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Early Resumption of Work:* If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.
- F. *Possible Price and Times Adjustments*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown

or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and
 - c. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.
 4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;
2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures

- of construction to be employed by Contractor, and safety precautions and programs incident thereto;
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.
- H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.
- B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.
- C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or

Regulations, and must be issued and signed by a surety named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.
- E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.
- F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner’s termination rights under Article 16.
- G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.
- H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Alternative forms of insurance coverage, including but not limited to self-insurance and “Occupational Accident and Excess Employer’s Indemnity Policies,” are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.
- D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by

- Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.
- E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.
 - F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
 - G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.
 - H. Contractor shall require:
 - 1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and
 - 2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.
 - I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
 - J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.
 - K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.

- L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.
- M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.
- N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 Contractor's Insurance

- A. *Required Insurance:* Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.
- B. *General Provisions:* The policies of insurance required by this Paragraph 6.03 as supplemented must:
 - 1. include at least the specific coverages required;
 - 2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;
 - 3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;
 - 4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and
 - 5. include all necessary endorsements to support the stated requirements.
- C. *Additional Insureds:* The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:
 - 1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;
 - 2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;
 - 3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);

4. not seek contribution from insurance maintained by the additional insured; and
5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 *Builder's Risk and Other Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.
- B. *Property Insurance for Facilities of Owner Where Work Will Occur*: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.
- C. *Property Insurance for Substantially Complete Facilities*: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.
- E. *Insurance of Other Property; Additional Insurance*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 *Property Losses; Subrogation*

- A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against

Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
 2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.
1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.
- C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.
- D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.

6.06 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 *Contractor's Means and Methods of Construction*

- A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.
- B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.

- B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.
- C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 *"Or Equals"*

- A. *Contractor's Request; Governing Criteria:* Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that the proposed item:
 - 1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

- 2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) has a proven record of performance and availability of responsive service; and
 - 4) is not objectionable to Owner.
- b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:
- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.
- E. *Treatment as a Substitution Request*: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

- A. *Contractor's Request; Governing Criteria*: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.
1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.
 2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:
 - a. will certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design;
 - 2) be similar in substance to the item specified; and
 - 3) be suited to the same use as the item specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from the item specified; and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 *Concerning Subcontractors and Suppliers*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.
- B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.
- E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.
- F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

- H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.
- J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.
- K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.
- L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.
- M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.
- C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.
- B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.
- C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
- F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.
- H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

- I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).
- J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 *Submittals*

A. *Shop Drawing and Sample Requirements*

- 1. Before submitting a Shop Drawing or Sample, Contractor shall:
 - a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determine and verify:
 - 1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;
 - 2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - 3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;
 - c. confirm that the Submittal is complete with respect to all related data included in the Submittal.
- 2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.
1. *Shop Drawings*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.
 2. *Samples*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Engineer's Review of Shop Drawings and Samples*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will

document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.
2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:
 - a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.
 - b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.
 - c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

- d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.
- 2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03, 2.04, and 2.05.
- F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.
- B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:
 - 1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and
 - 2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.
- C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:
 - 1. Observations by Engineer;
 - 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 - 3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 - 4. Use or occupancy of the Work or any part thereof by Owner;
 - 5. Any review and approval of a Shop Drawing or Sample submittal;
 - 6. The issuance of a notice of acceptability by Engineer;
 - 7. The end of the correction period established in Paragraph 15.08;
 - 8. Any inspection, test, or approval by others; or

9. Any correction of defective Work by Owner.
- E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 *Delegation of Professional Design Services*

- A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.
- B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.
- C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

- D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.
- E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:
 - 1. Checking for conformance with the requirements of this Paragraph 7.19;
 - 2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and
 - 3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.
- F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.
- G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

ARTICLE 8—OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.
- D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

- E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.
- F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. An itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. The extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.
 - 1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.
 - 2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.
- C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9—OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Resident Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.
- B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 *Engineer's Authority*

- A. Engineer has the authority to reject Work in accordance with Article 14.
- B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.
- C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.
- D. Engineer's authority as to changes in the Work is set forth in Article 11.

E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.

ARTICLE 11—CHANGES TO THE CONTRACT

11.01 *Amending and Supplementing the Contract*

- A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
- B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.
- C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 *Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 - 3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and
 - 4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 *Work Change Directives*

- A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.

B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.
2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 *Field Orders*

- A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.
- B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.
- B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.
- C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:

1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);
 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or
 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit will be determined as follows:
1. A mutually acceptable fixed fee; or
 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;
 - b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;
 - d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and
 - f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.

11.08 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.
- B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 *Change Proposals*

- A. *Purpose and Content:* Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

- B. *Change Proposal Procedures*

- 1. *Submittal:* Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.
- 2. *Supporting Data:* The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.
 - a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.
 - b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

- 3. *Engineer's Initial Review:* Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.
- 4. *Engineer's Full Review and Action on the Change Proposal:* Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change

Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. *Binding Decision*: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- C. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.
- D. *Post-Completion*: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 Notification to Surety

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 Claims

- A. *Claims Process*: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and
 4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge

and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

- C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*
 - 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.
 - 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.
 - 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 - 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.
 5. Other costs consisting of the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are

consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

- 1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. *Construction Equipment Rental*

- 1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.
 - 2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.
 - 3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.
- d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
- e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work does not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. The cost of purchasing, renting, or furnishing small tools and hand tools.
 - 3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 6. Expenses incurred in preparing and advancing Claims.
 - 7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee*
- 1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:
 - a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.
 - b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:
 - 1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.
 - 2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.
 - 2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change

Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

- E. *Documentation and Audit:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.
- C. *Owner's Contingency Allowance:* Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision

thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. *Adjustments in Unit Price*

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.
3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 Defective Work

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,

losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,

or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments*
 - 1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
 - 2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation

establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work;
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.
- D. *Payment Becomes Due*
1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.
- E. *Reductions in Payment by Owner*
1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

- b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. The Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. The Contract Price has been reduced by Change Orders;
 - i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;
 - j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or
 - l. Other items entitle Owner to a set-off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time

submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without

significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

- d. a list of all duly pending Change Proposals and Claims; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.
- B. *Engineer's Review of Final Application and Recommendation of Payment:* If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.
- C. *Notice of Acceptability:* In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.
- D. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.
- E. *Final Payment Becomes Due:* Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 Waiver of Claims

- A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,

appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such adjacent areas;
 - 2. correct such defective Work;
 - 3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.
- B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.
- C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.
- D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,

- attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
 - G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate for Convenience*

- A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The

provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17—FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
 - 2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18—MISCELLANEOUS

18.01 *Giving Notice*

- A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:
 - 1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
 - 2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
 - 3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination of the Contract or of the services of Contractor.

18.07 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION 00 73 00

SUPPLEMENTARY CONDITIONS

A. These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

B. The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

C. The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

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SC-1.01.A Defined Terms

Insert in the first sentence after the phrase “printed with initial capital letters” the following phrase:

“or with all capital letters”

SC-1.01.A.8 Change Order

Insert a comma and the word “ENGINEER” immediately after the word “CONTRACTOR” in this definition.

SC-1.01.A.18 Drawings

Add the following to the end of Paragraph 1.01.A.18:

The following Drawings are part of the Contract Documents:

Drawings titled “Northeast Pump Station Improvements, Contract 1-2025, City of Newton, Iowa,” Sheets No. 1 through No. 8, prepared by Strand Associates, Inc.®

Electronic files were provided for the convenience of CONTRACTOR. The data on which CONTRACTOR may rely is limited to the paper copy.

SC-1.01.A.50 Work Change Directive

Amend the phrase “signed by OWNER” in the first sentence of Paragraph 1.01.A.50 to read as follows:

“signed by OWNER and CONTRACTOR.”

Add the following language to the end of Paragraph 1.01.A.50:

A Work Change Directive cannot change Contract Price or Contract Times without a subsequent Change Order.

SC-1.01.A.51 Request for Information

Add the following new paragraph immediately after Paragraph 1.01.A.50:

51. Request for Information:

Written request submitted by CONTRACTOR to ENGINEER on a form supplied by ENGINEER requesting clarification, interpretation, or additional information pertaining to Contract Documents.

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SC-2.01 Delivery of Bonds and Evidence of Insurance

Delete Paragraphs 2.01.B and 2.01.C in their entirety and insert the following in their place:

B. Evidence of CONTRACTOR's Insurance: When CONTRACTOR delivers the signed counterparts of the Agreement to OWNER, CONTRACTOR shall also deliver to OWNER copies of the policies (including all endorsements, and identification of applicable self-insured retentions and deductibles) of insurance required to be provided by CONTRACTOR in this Contract. CONTRACTOR may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

SC-2.02 Copies of Documents

Amend the first sentence of Paragraph 2.02.A to read as follows:

OWNER shall furnish to CONTRACTOR three printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF).

SC-2.03 Before Starting Construction

Add the following subparagraph to Paragraph 2.03:

4. a proposed listing of subcontractors and major material and equipment suppliers.
The list shall include any proposed substitutions in accordance with Paragraph 7.06.

SC-2.05 Acceptance of Schedules

Add the following language to the end of Paragraph 2.05.A.2:

The schedule for submittals shall show all submittals complete before 50% of completion of the Work and the schedule for maintenance manuals shall show all submittals complete before 75% of completion of the Work.

Add the following new paragraph immediately after Paragraph 2.05.A:

B. The times included in this paragraph apply to the preliminary schedules. See Division 01 for other submittal and time requirements for the construction progress schedule and submittal schedule.

SC-3.03 Reporting Discrepancies

Add the following language at the end of Paragraph 3.03.A:

4. CONTRACTOR shall report apparent discrepancies to ENGINEER using a Request for Information form on a form supplied by ENGINEER. The Request for Information form shall:
 - a. be submitted by CONTRACTOR only;
 - b. be legible and complete;
 - c. not be used for the purposes of only confirming or verifying issues; and,

d. be prioritized by CONTRACTOR in the event that multiple Requests for Information are outstanding.

Requests for Information that are not in conformance with the requirements above shall be returned to CONTRACTOR without response.

5. CONTRACTOR shall not be relieved of its responsibility to coordinate the Work to prevent adverse impacts to CONTRACTOR's Project Schedule while submitting Requests for Information.

6. If CONTRACTOR believes the Scope of Work included in the Request for Information has a cost and/or time impact, CONTRACTOR should submit a claim in accordance with Article 12 of these General Conditions.

7. If CONTRACTOR proceeds with work when CONTRACTOR had actual knowledge or should have known that a conflict, error, ambiguity, or discrepancy existed as indicated above, correction of work constructed without such notification to ENGINEER shall be at CONTRACTOR's expense, (except in an emergency as authorized by Paragraph 7.15.A).

SC-3.04 Requirements of the Contract Documents

Delete Paragraph 3.04.C in its entirety.

SC-5.03 Subsurface and Physical Conditions

Add the following new paragraphs immediately after Paragraph 5.03.D:

E. No reports of explorations or tests of subsurface conditions at or adjacent to the Site containing technical data are known to OWNER. CONTRACTOR shall conduct its own personal investigation to determine conditions at the site which may affect the Work, including compliance with OSHA excavation and trenching requirements.

F. No drawings of physical conditions relating to existing surface or subsurface structures at the Site containing technical data, are known to OWNER. CONTRACTOR shall conduct its own personal investigation to determine conditions at the site which may affect the Work, including compliance with OSHA excavation and trenching requirements.

SC-5.06 Hazardous Environmental Conditions at the Site

Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to OWNER.

B. Not Used.

SC-6.01 Performance, Payment and Other Bonds

Add the following paragraphs immediately after Paragraph 6.01.B:

1. The correction period specified as one year after the date of Substantial Completion in Paragraph 15.08.A of the General Conditions is hereby revised to be two years after Substantial Completion.
2. After Substantial Completion, CONTRACTOR shall furnish a warranty bond issued in the form of EJCDC® C-612, Warranty Bond (2018). The warranty bond must be in a bond amount of 15 percent of the final contract price. The warranty bond period will extend to a date two years after Substantial Completion of the work. CONTRACTOR shall deliver the fully executed warranty bond to OWNER prior to or with the final application for payment, and in any event no later than 11 months after Substantial Completion.
3. The warranty bond must be issued by the same surety that issues the performance bond required under Paragraph 6.01.A of the general conditions.

Add the following new paragraphs immediately after Paragraph 6.01.H:

- I. The forms of the performance and payment or other Bonds attached hereto shall be used for the Contract. Note instructions thereon as to the form applicable. Each form contemplates one corporate surety only. In case co-sureties or individual sureties will be furnished, proper forms therefore shall be obtained. Besides the stipulations of Paragraphs 6.01 through 6.03, the surety on the Bonds shall provide a certificate indicating surety is licensed to underwrite contracts in the jurisdiction of the project location which shall be attached to the Bonds.

SC-6.03 CONTRACTOR's Insurance

Add the following new language to the end of Paragraph 6.03.C.3:

CONTRACTOR shall provide an executed endorsement form CG 20 01 04 13, or equal, supporting this requirement.

Add the following new paragraphs under Paragraphs 6.03.C:

D. Other Additional Insureds: As a supplement to the provisions of Paragraph 6.03.C. of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to OWNER and ENGINEER) the following: None.

E. Worker's Compensation and Employer's Liability: CONTRACTOR shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B. of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory

Workers' Compensation and Related Policies	Policy limits of not less than:
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Employer's Liability	
Each accident	\$500,000
Each employee	\$500,000
Policy limit	\$500,000

F. *Commercial General Liability—Claims Covered:* CONTRACTOR shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of CONTRACTOR, on an occurrence basis, against claims for:

1. damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees,
2. damages insured by reasonably available personal injury liability coverage, and
3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

G. *Commercial General Liability—Form and Content:* CONTRACTOR's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage.
 - a. Such insurance must be maintained for three years after final payment.
 - b. CONTRACTOR shall furnish OWNER and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, including but not limited to coverage of CONTRACTOR's contractual indemnity obligations in Paragraph 7.18.
3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
4. Underground, explosion, and collapse coverage.
5. Personal injury coverage.
6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together), or equal, for each required additional insured. If CONTRACTOR demonstrates to OWNER that the specified ISO endorsements are not commercially available, then CONTRACTOR may satisfy this requirement by providing equivalent endorsements.

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7. Insurance certificates for commercial general, automobile, and umbrella shall specifically indicate by name the additional insureds which are to include OWNER and ENGINEER as well as other persons or entities so identified. Certificates shall be Acord 25-S or equivalent.

8. Endorsements or General Liability policy shall not exclude supervisory or inspection services.

H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

1. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if CONTRACTOR is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).

2. Any exclusion for water intrusion or water damage.

3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.

4. Any exclusion of coverage relating to earth subsidence or movement.

5. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).

6. Any limitation or exclusion based on the nature of CONTRACTOR’s work.

7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$1,000,000
Fire Damage (any one fire)	\$50,000
Medical Damage Limit (any one person)	\$5,000

General Aggregate Limits specified above shall apply separately to this project by attachment of:

“Amendment of Limits of Insurance—Designated Location(s) General Aggregate Limit Endorsement (ISO Form No. CG 25 04 05 09) or “Designated Construction Project(s) General Aggregate Limit” Endorsement (ISO Form CG 25 03 05 09) or equivalent endorsement coverage.

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J. *Automobile Liability:* CONTRACTOR shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Bodily Injury	
Each Person	\$1,000,000
Each Accident	\$1,000,000
Property Damage	
Each Accident	\$1,000,000
or	
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$1,000,000

CONTRACTOR shall also provide an Additional Insured Endorsement for the automobile policy. Endorsement form shall be CA 20 48, or equal.

K. *Using Umbrella or Excess Liability Insurance to Meet CGL and Other Policy Limit Requirements:* CONTRACTOR may meet the policy limits specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policy's policy limits and partial attribution of the policy limits of an umbrella or excess liability policy that is at least as broad in coverage as that of the underlying policy, as specified herein.

L. *Contractor's Pollution Liability Insurance:* CONTRACTOR shall purchase and maintain a policy covering third-party injury and property damage, including cleanup costs, as a result of pollution conditions arising from CONTRACTOR's operations and completed operations. This insurance must be maintained for no less than three years after final completion.

Contractor's Pollution Liability	Policy limits of not less than:
Each Occurrence/Claim	Not Applicable
General Aggregate	Not Applicable

☒ If box is checked, CONTRACTOR is not required to provide this insurance.

CONTRACTOR's Pollution Liability coverage shall include coverage for fungus, mold, and bacteria.

M. *Contractor's Professional Liability Insurance:* If CONTRACTOR will provide or furnish professional services under this *Contract*, through a delegation of professional design services or otherwise, then CONTRACTOR shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance must cover negligent acts, errors, or omissions in the performance of professional design or related services by the insured or others for whom the insured is legally liable. The insurance must be maintained throughout the duration of the Contract and for a

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minimum of two years after Substantial Completion. The retroactive date on the policy must pre-date the commencement of furnishing services on the Project.

CONTRACTOR's Professional Liability	Policy limits of not less than:
Each Claim	Not Applicable
Annual Aggregate	Not Applicable

☒ If box is checked, CONTRACTOR is not required to provide this insurance.

N. *Railroad Protective Liability Insurance:* Prior to commencing any Work within 50 feet of railroad-owned and controlled property, CONTRACTOR shall (1) endorse its commercial general liability policy with ISO CG 24 17, removing the contractual liability exclusion for work within 50 feet of a railroad, (2) purchase and maintain railroad protective liability insurance meeting the following requirements, (3) furnish a copy of the endorsement to OWNER, and (4) submit a copy of the railroad protective policy and other railroad-required documentation to the railroad, and notify OWNER of such submittal.

Railroad Protective Liability Insurance	Policy limits of not less than:
Each Claim	Not Applicable
Aggregate	Not Applicable

☒ If box is checked, CONTRACTOR is not required to provide this insurance.

O. *Unmanned Aerial Vehicle Liability Insurance:* If CONTRACTOR uses unmanned aerial vehicles (UAV—commonly referred to as drones) at the Site or in support of any aspect of the Work, CONTRACTOR shall obtain UAV liability insurance in the amounts stated; name OWNER, ENGINEER, and all individuals and entities identified in the Supplementary Conditions as additional insureds; and provide a certificate to OWNER confirming CONTRACTOR's compliance with this requirement. Such insurance will provide coverage for property damage, bodily injury or death, and invasion of privacy.

Unmanned Aerial Vehicle Liability Insurance	Policy limits of not less than:
Each Claim	Not Applicable
General Aggregate	Not Applicable

☒ If box is checked, CONTRACTOR is not required to provide this insurance.

P. *Waiver of Subrogation:* CONTRACTOR's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall provide a waiver of subrogation covering OWNER and ENGINEER, and any individuals or entities identified in the Supplementary Conditions. CONTRACTOR shall obtain all necessary endorsements to support these requirements. Endorsement shall be CG 24 04 05 09, or equal.

Q. *General Liability, Automobile Liability, and Umbrella Liability* shall include coverage for mental anguish and punitive damages.

R. The specimen Insurance Certificate bound at the end of this section has been prepared as a guide to assist CONTRACTOR and CONTRACTOR's Insurance Agent when preparing the required

insurance documentation. This specimen certificate is included as a representation of what acceptable documents will look like. Specific project information must be included when preparing the actual document.

S. CONTRACTOR shall also execute a Preservation of Governmental Immunities Endorsement, pursuant to Section 670.4 of the Iowa Code.

SC-6.04.A CONTRACTOR's Installation Floater Insurance

Delete Paragraph 6.04.A of the General Conditions and substitute the following in its place:

A. *Installation Floater*

1. CONTRACTOR shall provide and maintain installation floater insurance on a broad form or "all risk" policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work ("Covered Property"). Coverage under CONTRACTOR's installation floater will include loss from covered "all risk" causes (perils) to Covered Property:

a. of CONTRACTOR, and Covered Property of others that is in CONTRACTOR's care, custody, and control;

b. while in transit to the Site, including while at temporary storage sites;

c. while at the Site awaiting and during installation, erection, and testing;

d. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by OWNER.

2. The installation floater coverage cannot be contingent on an external cause or risk, or limited to property for which CONTRACTOR is legally liable.

3. The installation floater coverage will be in an amount sufficient to protect CONTRACTOR's interest in the Covered Property. CONTRACTOR will be solely responsible for any deductible carried under this coverage.

4. This policy will include a waiver of subrogation applicable to OWNER, CONTRACTOR, ENGINEER, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.

SC-7.03.C Labor; Working Hours

Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Regular working hours will be 7 A.M. to 6 P.M.

SC-7.04.B Services, Materials, and Equipment Warranty

Add the following to the end of Paragraph 7.04.B:

Suppliers shall be deemed to impliedly warrant that their products and all component materials incorporated into them are suitable and fit for the intended use of such products and shall be free from defect in material, workmanship or design, such warranty to run to the benefit of OWNER and

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ENGINEER. The foregoing applies whether the products or their component materials are specified in the Contract Documents or are of Supplier's design.

SC-7.09 Permits

Delete last sentence of Paragraph 7.09.A and add the following in its place:

See General Requirements and technical specification sections for utility charge provisions.

Add Paragraph 7.09.B as follows:

- B. See General Requirements for additional permit information.

SC-7.10 Taxes

Add the following new paragraph immediately after Paragraph 7.10.A:

B. OWNER is exempt from payment of sales and compensating use taxes of the State of Iowa, the City of Newton, and the County of Jasper on all materials to be incorporated into the Work.

1. OWNER will furnish the required certificates of tax exemption to CONTRACTOR for use in the purchase of supplies and materials to be incorporated into the Work.

2. OWNER's exemption also does not apply to construction tools, machinery, equipment, or other property purchased by or leased by CONTRACTOR, or to supplies or materials not incorporated into the Work.

C. CONTRACTOR shall provide a listing to the City identifying all appropriate subcontractors qualified for use of the tax exemption certificate. The listing shall include the Federal Employer Identification Number (FEIN) for CONTRACTOR and each Subcontractor.

D. OWNER will complete an on-line application to register this Contract with the Iowa Department of Revenue and Finance and will furnish CONTRACTOR and all listed subcontractors with an authorization letter and Tax Exemption Certificate for use in the purchase of supplies and materials to be incorporated into the Work. CONTRACTOR and subcontractors may make copies of the tax exemption certificates and authorization letters and provide a copy to each supplier providing construction materials to be incorporated into this project.

E. CONTRACTOR shall be responsible for complying with all applicable provisions of Iowa Code Section 422.

SC-7.12 Record Documents

In Paragraph 7.12.A delete last sentence and insert the following:

Upon completion of the Work, these record documents, samples, and shop drawings shall be delivered by CONTRACTOR to OWNER.

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SC-7.13 Safety and Protection

Add the following language to the end of Paragraph 7.13.A:

If the Work includes excavation or trenches, CONTRACTOR shall keep at the Site at all times during the progress of the Work a competent person to comply with OSHA trenching and excavation requirements. The competent person shall be one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions that are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

SC-7.18 Indemnification

Add the following to the end of Paragraph 7.18.A:

In addition, CONTRACTOR shall indemnify, hold harmless, and pay for the defense of OWNER and ENGINEER from and against claims, losses, or damages in regard to any act or failure to act by OWNER or ENGINEER in connection with general supervision, inspection and/or coordination of CONTRACTOR's operations.

CONTRACTOR shall, at its own expense, appear, defend, and pay all fees of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith; and, if any judgments shall be rendered against any individual or entity indemnified hereunder in any such action, CONTRACTOR shall, at its own expense, satisfy and discharge same. CONTRACTOR expressly understands and agrees that any Letter of Credit or insurance protection required by the Contract, or otherwise provided by CONTRACTOR, shall in no way limit the responsibility to indemnify, keep and, save harmless, and defend any individual or entity indemnified hereunder as herein provided.

Add the following new paragraph immediately after Paragraph 7.18.B:

C. For any matter for which OWNER and ENGINEER are indemnified under Paragraph 7.18.A, CONTRACTOR shall pay for OWNER's and ENGINEER's reasonable defense, including, but not limited to, all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs or awards until OWNER or ENGINEER are found negligent.

SC-10.03 Resident Project Representative

Add the following new subparagraph immediately after Paragraph 10.03.A:

1. Strand Associates, Inc.® provided design services for the Project and will assume all duties and responsibilities of ENGINEER in Article 10 with the exception of Paragraph 10.03.

SC-11.01 Amending and Supplementing the Contract

Delete the second sentence in Paragraph 11.01.C in its entirety.

SC-11.07 Change of Contract Price

Amend the phrase at the end of Paragraph 11.07.B.2 to read:

(which may include an allowance for overhead and profit in accordance with Paragraph 11.07.C.2. unless OWNER and CONTRACTOR agree that these allowances are not appropriate for the Work involved.)

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SC-11.09.C Change Proposals

Delete Paragraph 11.09.C in its entirety and insert the following in its place:

"Not used."

SC-11.10 Notification to Surety

Add the following new paragraphs immediately after Paragraph 11.10.A:

B. CONTRACTOR shall be responsible for notifying the surety of any assignment, modification, or change of the Contract, change in the Work covered thereby, or extension of time for the completion of the project.

C. Failure to provide notice to the surety of any such change shall not exonerate the surety from its obligations under the bond.

SC-12.01.A Claims Process

Delete Paragraph 12.01.A.3 in its entirety and insert the following in its place:

"Not used."

SC-14.02.A Tests and Inspections

Add the following to the beginning of Paragraph 14.02.A:

All Work is subject to testing to indicate compliance with Contract Document requirements. Copies of test results of all tests required shall be submitted to ENGINEER. Tests and inspection of work may be conducted by OWNER or an independent laboratory employed by OWNER. Tests may also be performed in the field by ENGINEER as a basis for acceptance of the Work.

Add the following to the end of Paragraph 14.02.A:

Samples required for testing shall be furnished by CONTRACTOR at no cost to OWNER. In the event that completed Work does not conform to specification requirements during the initial test, the Work shall be corrected and retested for conformance. The entire cost of retesting completed Work shall be borne by CONTRACTOR. This shall include the extra cost for inspection to OWNER which will be deducted from the final amount due CONTRACTOR.

SC-15.01 Progress Payments

Add the following language at the end of Paragraph 15.01.B.1:

An updated Progress Schedule shall be submitted with each Application for Payment. Applications for Payment submitted without an acceptable updated Progress Schedule will be returned to CONTRACTOR without review. Progress Schedules that are submitted which do not reflect current project conditions, will not be considered acceptable.

SC-15.01.B Applications for Progress Payment

Delete Paragraph 15.01.B.3 in its entirety and renumber Paragraph 15.01.B.4 as 15.01.B.3.

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Add the following language at the end of Paragraph 15.01.B.3:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage, or invest the retainage for the benefit of CONTRACTOR.

Add the following paragraphs immediately after Paragraph 15.01.B.3:

4. No advanced payment for shop drawing preparation will be made. Shop drawing costs will be paid when equipment and materials are delivered and suitably stored on the site.

5. All stored equipment and materials for which payment is requested shall have invoices included with the pay request. Equipment shall be identified thoroughly on the invoices, including serial numbers.

6. Payment for the stored equipment and material which are on the site shall not exceed the invoiced amount for each item, less the Contract retainage. The overhead and profit for the stored items shall not be invoiced until the item is installed.

7. Payment for off-site storage is normally reserved for sensitive or very large pieces of equipment that in ENGINEER's opinion would not be practical to have stored on the site. Payment for off-site stored items shall be limited to 75% of the invoiced value of the item, less Contract retainage. CONTRACTOR shall reimburse OWNER the cost of inspecting off-site stored items. When off-site storage is approved, CONTRACTOR shall provide Insurance Certificates and Document of Ownership to OWNER.

SC-15.01.E.1.k Reductions in Payment by OWNER

Delete Paragraph 15.01.E.1.k and insert the following in its place:

k. Claims pursuant to Iowa Code Chapter 573 have been filed in connection with the Work.

SC-15.02 CONTRACTOR's Warranty of Title

Delete the word "liens" in Paragraph 15.02.A and insert the following language in its place: "claims pursuant to Iowa Code Chapter 573."

Amend Paragraph 15.02.A by striking out the following text: "no later than seven days after the time of payment by OWNER" and inserting "no later than the time of payment by OWNER."

SC-15.03 Substantial Completion

Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by ENGINEER, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by CONTRACTOR to OWNER. If CONTRACTOR does not pay, or the parties are unable to agree as to the amount owed, then OWNER may impose a reasonable set-off against payments due under this Article 15.

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SC-15.06 Final Payment

Delete from Paragraph 15.06.A.2.c the word “liens” and replace it with the word “claims.”

Delete from Paragraph 15.06.A2.e the phrase “lien rights” and word “liens” and replace each with the word “claims.”

Delete from Paragraph 15.06.A.3 the word “lien” and replace it with the word “claims” in all locations where “lien” appears in this paragraph.

Delete Paragraph 15.06.E in its entirety and insert the following paragraph in its place:

1. Except as provided in subparagraph (2), retained funds shall be retained by OWNER for a period of 30 calendar days after the completion and final acceptance of the improvement by OWNER. If at the end of the 30 calendar day period claims are on file as provided, OWNER shall continue to retain from the unpaid funds, a sum equal to double the total amount of all claims on file. The remaining balance of the unpaid fund, or if no claims are on file, the entire unpaid fund shall be released and paid to CONTRACTOR.

2. If CONTRACTOR requests an early release of retained funds, payment shall be in accordance with Iowa Code Section 26.13 and 573.15A. Retained funds will not be released prior to Substantial Completion of all Work on the Project, regardless as to whether OWNER takes partial utilization of the Work.

SC-15.08 Correction Period

Add the following new Paragraph 15.08.G:

G. The correction period specified as one year after the date of Substantial Completion in Paragraph 15.08.A of the General Conditions, as may be amended by the Supplementary Conditions, is hereby revised to be the number of years set forth in SC-6.01.B.1.

Add the following new Paragraph 15.08.H:

H. If Substantial Completion for the entire work is never requested by CONTRACTOR, the correction period shall commence after final payment.

SC-16.02 OWNER May Terminate for Cause

Add the following new paragraphs immediately after Paragraph 16.02.B.2:

3. complete the Work as OWNER may deem expedient at the expense of CONTRACTOR and surety;

4. apply the amounts retained from partial payments to the completion of the Work;
and

5. authorize the surety to complete the steps in Paragraphs 16.02.B.1 through 4.

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SC-16.03 OWNER May Terminate for Convenience

Add the following paragraph after Paragraph 16.03.B:

C. CONTRACTOR shall require similar provisions contained in Paragraph 16.03 in each of its subcontracts to protect CONTRACTOR from claims by Subcontractors arising from OWNER's termination for convenience, or to minimize claims by such subcontractors. The remedy provided to CONTRACTOR under this Paragraph 16.03 shall be CONTRACTOR's sole remedy in the event of termination for convenience by OWNER.

END OF SECTION



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Insurance Agency	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	PRODUCER CUSTOMER ID #:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
INSURED	INSURER A:	Insurance Company
Contractor	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						EACH OCCURRENCE \$ 1,000,000
	☒ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	☐ CLAIMS-MADE ☒ OCCUR						MED EXP (Any one person) \$ 5,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$ 2,000,000
	☐ POLICY ☒ PRO-JECT ☐ LOC						FIRE DAM. - (ANY ONE FIRE) \$ 50,000
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	☒ ANY AUTO						BODILY INJURY (Per person) \$ 1,000,000
	☐ ALL OWNED AUTOS						BODILY INJURY (Per accident) \$ 1,000,000
	☐ SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident) \$ 1,000,000
	☐ HIRED AUTOS						
	☐ NON-OWNED AUTOS						
	UMBRELLA LIAB ☒ OCCUR						EACH OCCURRENCE \$
	EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						☒ WC STATU-TORY LIMITS ☐ OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)						E.L. EACH ACCIDENT \$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 500,000
							E.L. DISEASE - POLICY LIMIT \$ 500,000
	BUILDERS RISK						SEE SC-6.04

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Northeast Pump Station Improvements, Contract 1-2024, City of Newton, Iowa

The City of Newton and Strand Associates, Inc. are additional insured with respect to General Liability, Automobile Liability, and Excess/Umbrella Liability. The City of Newton is an insured with respect to Builder's Risk policy. In addition, see attached Additional Insured Endorsements for the General Liability and Automobile Liability policies.

CERTIFICATE HOLDER

CANCELLATION

City of Newton 303 West 4th Street, Suite 501 Newton, IA 50208	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
(Provide separate certificate to each party.)	AUTHORIZED REPRESENTATIVE
Strand Associates, Inc. 414 South 17th Street, Suite 107 Ames, IA 50010	

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SPECIFICATIONS

SECTION 01 11 00

SUMMARY OF WORK

PART 1—GENERAL

1.01 DIVISION ONE

- A. The requirements of Division 01 apply to all sections of the Contract.

1.02 PROJECT SCOPE

- A. CONTRACTOR shall provide all items, articles, materials, operations or methods mentioned or scheduled on the Drawings or herein specified: including all labor, supervision, equipment, incidentals, taxes, and permits necessary to complete the Work as described within the Contract Documents. CONTRACTOR shall install all items provided by OWNER as mentioned or scheduled on the Drawings or herein specified.

1.03 CONTRACT DOCUMENTS—INTENT AND USE

A. Intent of Documents:

1. Singular notations and Specifications shall be considered plural where application is reasonably inferred.
2. Mention or indication of extent of work under any division or Specification section is done only for convenience of CONTRACTOR and shall not be construed as describing all work required under that division or section.
3. Some individual sections may contain a list of related sections. The list of related sections in individual sections is provided for the convenience of CONTRACTOR and is not necessarily all-inclusive. CONTRACTOR may not rely upon this listing for determination of scope of work. Other sections of the Specifications not referenced in individual sections shall apply as required for proper performance of the Work.
4. Command type sentences may be used in the Contract Documents. These sentences refer to and are directed to CONTRACTOR.
5. Symbols for various elements and systems are shown on the Drawings. Should there be any doubt regarding the meaning or intent of the symbols used, a written interpretation shall be obtained from ENGINEER.

B. Use of Documents:

1. CONTRACTOR shall examine all Specifications and Drawings for the Work, including those that may pertain to Work CONTRACTOR does not normally perform with its own forces.
2. CONTRACTOR shall use all of the Project Drawings and Specifications:
 - a. For a complete understanding of the Project.
 - b. To determine the type of construction and systems required.
 - c. For coordination with other contractors.
 - d. To determine what other work may be involved in various parts or phases.
 - e. To anticipate and notify others when work by others will be required.
 - f. And all other relevant matters related to the project.
3. CONTRACTOR is also bound by all requirements of the Contract Documents which are applicable to, pertain to, or affect its Work as may be shown or inferred by the entire set of Project Drawings and Specifications.

1.04 CONSTRUCTION REQUIREMENTS

A. General Information and Requirements:

1. It will be necessary to take the pump station out of service to complete the work in the wet well. The amount of time that the pump station can remain out of service will be limited, so CONTRACTOR shall plan and schedule the work accordingly.
2. Operation of existing facilities will be the responsibility of OWNER. CONTRACTOR shall cooperate with OWNER's staff at all times. A minimum of 48 hours prior to making any process or electrical connections to existing facilities or modification or demolition of existing facilities, CONTRACTOR shall notify OWNER in writing. At the time of notification, CONTRACTOR shall submit a schedule for completion of the Work, including a description of measures that will be taken to minimize the impact to existing facilities.
3. Except as specified, OWNER will remove wet well contents to the extent possible using existing piping and pumping equipment. Subsequent cleaning or further draining and/or pumping shall be provided by CONTRACTOR. If there exists sludge, grit, or other residue that cannot be drained or pumped in its present state, it shall be the responsibility of CONTRACTOR to remove and dispose of this material.

B. Parking and Deliveries:

1. CONTRACTOR is responsible for control of traffic by vehicles and persons within the limits of its operations.
2. Parking for employees, subcontractors, and agents of CONTRACTOR shall be in areas subject to approval of OWNER.
3. Access to the site for delivery of construction material or equipment shall be subject to approval of OWNER.

1.05 EXISTING SERVICES, OVERHEAD UTILITIES, AND UNDERGROUND FACILITIES INCLUDING STRUCTURES

- A. Interruption of existing services and systems including heating, ventilating, air conditioning, water, sanitary, lighting and power, signal and security systems, and similar work shall be kept to an absolute minimum and shall be limited to times approved by OWNER.
- B. If deemed necessary by OWNER, such work shall be accomplished after OWNER's normal office hours.
- C. Work shall not commence until all labor, materials, and equipment are available so Work can continue without interruption or delay.
- D. Should uncharted or incorrectly charted services or Underground Facilities be encountered during installation, notify OWNER and consult with utility owner immediately.
- E. Cooperate with OWNER and utility companies in keeping respective services and Underground Facilities in operation and repair any damage.
- F. CONTRACTOR shall not interrupt existing services and Underground Facilities occupied and used by OWNER or others, except when permitted in writing by OWNER.
- G. Any accidental interruption of services and Underground Facilities shall be repaired immediately, including provision of temporary facilities until permanent repairs can be made.

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- H. Iowa Law (Chapter 480, Iowa Code) requires, among other provisions, that before excavation or demolition begins, reasonable advance notice (not less than 48 hours prior to the start of the excavation or demolition) of the intent to excavate or demolish be provided to the owners of the Underground Facilities in and near the construction area whose facilities may be affected by the excavation or demolition. As part of this notification requirement, CONTRACTOR shall contact Iowa One Call (811 or 1-800-292-8989). CONTRACTOR shall be aware that not all owners participate in the Iowa One Call program. A call to this agency shall not absolve CONTRACTOR of the requirements of this statute. CONTRACTOR shall comply with all others provisions of the statute though not enumerated herein.
- I. Locations and elevations of services and Underground Facilities as shown on the Drawings are approximate. It shall be CONTRACTOR's responsibility to determine their exact location when in their vicinity. To this end, CONTRACTOR shall proceed with caution in the excavation and preparation of the Site so the exact location of services and Underground Facilities can be determined. CONTRACTOR shall include in the Contract Price any costs for temporary or permanent relocations of such services and Underground Facilities required to complete the Work unless specifically indicated otherwise in the Specifications.
- J. Where potential grade conflicts might occur with existing services and Underground Facilities, CONTRACTOR shall uncover such services and Underground Facilities sufficiently in advance of construction so that elevations may be determined to allow any necessary adjustments to be made.
- K. CONTRACTOR shall coordinate with overhead utility companies prior to the Work. CONTRACTOR shall provide all necessary temporary and permanent support relocation or temporary and permanent restraint to maintain overhead utilities in service.
- L. CONTRACTOR shall keep an accurate and complete record of all such services and Underground Facilities encountered and shall provide OWNER a copy of this record. The record shall include a description of the item encountered, opinion as to conditions, and adequate measurements and depths so that the item can be located in the future.
- M. CONTRACTOR shall inspect all services and Underground Facilities for condition and soundness. Unsound conditions shall be reported to OWNER immediately after exposing. CONTRACTOR shall not proceed with the Work until the service or facility owner has been notified. Service or facility owner shall then be given time to inspect and correct, if required, the service or Underground Facility. CONTRACTOR may make claim under the provisions of Articles 11 and 12 of the General Conditions should CONTRACTOR feel a price or time adjustment is justified.
- N. Any additional costs incurred because of failure of CONTRACTOR to report the condition of any and all existing services and Underground Facility encountered shall be paid for by CONTRACTOR.
- O. Whenever ENGINEER feels it is necessary to explore and excavate to determine the location of existing services and Underground Facilities, CONTRACTOR shall make explorations and excavations for such purposes. If CONTRACTOR is required to perform additional Work in making the explorations and excavations, extra compensation will be allowed as provided for in the General Conditions.

1.06 PROTECTION OF WORK AND IMPROVEMENTS

- A. CONTRACTOR shall protect the property of OWNER, existing improvements, and the Work installed by CONTRACTOR and others from abuse, damage, dust, debris, and other objectionable materials resulting from construction activities.
- B. CONTRACTOR shall provide suitable covers, partitions, or other dust and fume containment devices to suit construction operations.
- C. CONTRACTOR shall keep property, existing improvements, and the Work including structures, mains, fittings, and accessories free from dirt and foreign matter at all times.
- D. CONTRACTOR shall provide temporary plugging of openings, holes, and pipe ends that are existing or that CONTRACTOR has installed.
- E. Property, improvements, and Work damaged by CONTRACTOR shall be repaired or replaced by CONTRACTOR to the satisfaction of OWNER.
- F. CONTRACTOR is cautioned that existing public and private streets, alleyways, and roads may not hold up to typical construction traffic or activities. CONTRACTOR shall repair or replace streets, alleyways, roads, and shoulders damaged by its construction activities to their original condition at CONTRACTOR's expense.

1.07 AVAILABILITY OF LANDS

- A. Easements were not obtained for this Project. CONTRACTOR shall confine its operations, equipment and storage areas to the lands and rights-of-way in which the Project is to be located. CONTRACTOR may enter into written agreements with property owners for use of other lands during construction. Copies of such agreements shall be provided to OWNER.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 29 00

CONTRACT CONSIDERATIONS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: Measurement and Payment—Lump Sum.

1.02 MEASUREMENT AND PAYMENT—LUMP SUM

- A. Payment for Lump Sum projects will be based on the accepted schedule of values for the project.
- B. An acceptable schedule of values will include the following features:
 - 1. Schedule shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction. Schedule shall be subdivided as necessary by specification section and work area.
 - 2. Identify each line item with the number and title of the respective Specification Section.
 - 3. For each major line item list sub-values of major products or operations under the item.
 - 4. For the various portions of the work:
 - a. Each item shall include a directly proportional amount of CONTRACTOR's overhead and profit.
 - b. For items on which progress payments will be requested for stored materials, break down the value into:
 - (1) The cost of the materials, delivered and unloaded, with taxes paid. Paid invoices are required for materials upon request by ENGINEER.
 - (2) The total installed value.
 - 5. The sum of all values listed in the schedule shall equal the total Contract Sum.
 - 6. Schedule shall include a separate listing of general items such as bonds, insurance, mobilization, demobilization, field supervision, record documents, and cash allowances.
- C. Once a schedule of values is accepted, it shall not be revised, except for changes associated with subsequently executed change orders.
- D. No separate measurement for payment will be performed for Lump Sum Work.
- E. CONTRACTOR shall estimate percentage of Work completed. ENGINEER will review CONTRACTOR's estimate of quantity of Work completed.
- F. Payment will be made based on the percentage of the Contract completed less retainage and/or liquidated damages.
- G. Unless noted otherwise, all Work described in the Specifications and/or shown on the Drawings shall be included in the Lump Sum Bid.
- H. Some technical specification sections may include payment provisions. These provisions are in addition to the provisions of this section which apply to all of the Work.

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PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

OWNER REVIEW DRAFT-(042925)

SECTION 01 31 00

COORDINATION, FIELD ENGINEERING, AND MEETINGS

PART 1–GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Coordination.
 - 2. Field Engineering.
 - 3. Progress Meetings.

1.02 COORDINATION

- A. CONTRACTOR shall coordinate scheduling, submittals, and work of the various sections of the work to provide an efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later. See Section 01 11 00–Summary of Work for specific construction sequence.
- B. CONTRACTOR shall verify utility requirements and characteristics of operating equipment are compatible with building utilities and coordinate Work of various sections having interdependent responsibilities for installing, connecting to, and placing in service such equipment.
- C. CONTRACTOR shall coordinate space requirements and installation of mechanical and electrical work which are indicated diagrammatically on the Drawings and shall follow routing shown for pipes, ducts, and conduit as closely as practicable; place runs parallel with line of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. CONTRACTOR shall coordinate completion and cleanup of Work of separate sections in preparation for substantial completion and for portions of Work designated for OWNER's occupancy.

1.03 FIELD ENGINEERING

- A. CONTRACTOR shall provide field engineering services as required to establish elevations, lines, and levels utilizing recognized engineering survey practices.
- B. CONTRACTOR shall be responsible for all lines, elevations, and measurements of buildings, structures, piping, utilities, and other work executed by CONTRACTOR under the Contract. CONTRACTOR must exercise proper precaution to verify figures before laying out the Work and will be held responsible for any error resulting from its failure to exercise such precaution.

1.04 PROGRESS MEETINGS

- A. Progress meetings will be held throughout progress of the Work at intervals agreed to by OWNER, ENGINEER, and CONTRACTOR. Interval will generally be monthly.

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- B. CONTRACTOR's project manager, job superintendent, major subcontractors, and suppliers shall attend as appropriate to address agenda topics for each meeting. CONTRACTOR's representatives shall have authority to bind CONTRACTOR to decisions at the meetings.
- C. The project schedule shall be updated monthly and shall be reviewed at each progress meeting.
- D. CONTRACTOR shall also provide the following information in written form at each meeting.
 - 1. Construction progress, including:
 - a. Activities completed this reporting period.
 - b. Activities in progress this reporting period.
 - c. Activities scheduled to commence this reporting period.
 - 2. Description of problem areas.
 - 3. Current and anticipated delays.
 - a. Cause of the delay.
 - b. Corrective action and schedule adjustments to correct the delay.
 - c. Impact of the delay on other activities, on milestones, and on completion dates.
 - 4. Changes in construction sequence.
- E. ENGINEER will prepare and distribute minutes to all attending parties.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Whenever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined either by manufacturer's name and catalog number or by reference to recognized industry standards.
 - 2. To facilitate CONTRACTOR's understanding of the design intent, procedures have been established for advance submittal of design data and for its review or rejection by ENGINEER.
 - 3. The type of submittal requirements specified in this section include construction progress schedule, submittal schedule, shop drawings, product data, samples, maintenance manuals, and other miscellaneous work-related submittals.
- B. Related work described elsewhere: More detailed requirements for submittals are described in other sections of these Specifications for some materials and equipment. They are to be considered additional requirements to supplement the requirements specified in this section. Submittals shall conform to Article 7 of the General Conditions.
- C. Definitions: "Electronic Submittal" is defined as any submittal transmitted electronically to ENGINEER for review.

1.02 IDENTIFICATION OF SUBMITTALS

- A. CONTRACTOR shall completely identify each submittal and resubmittal by showing at least the following information:
 - 1. Name and address of submitter, plus name and telephone number of the individual who may be contacted for further information.
 - 2. Name and location of project and identification number.
 - 3. Drawing number and Specifications section number to which the submittal applies.
 - 4. Include the date of each submittal or resubmittal.

1.03 GROUPING OF SUBMITTALS

- A. Unless otherwise specifically permitted by ENGINEER, CONTRACTOR shall make all submittals in groups containing all associated items so that information is available for checking each item when it is received.
- B. Partial submittals may be rejected as not complying with the provisions of the Contract Documents.

1.04 TIMING OF SUBMITTALS

- A. CONTRACTOR shall make all submittals far enough in advance of scheduled dates of installation to provide required time for reviews, for securing necessary approval, for possible revision and resubmittal, and for placing orders and securing delivery.

- B. The review period for submittals that are received after 3 P.M. shall commence on the following business day.

1.05 CONSTRUCTION PROGRESS AND SUBMITTAL SCHEDULES

- A. Submit preliminary schedules within 10 days of the Effective Date of the Contract.
- B. Revise schedules incorporating any comments provided at the schedule review conference required in GC-2.05 and resubmit.
- C. As a minimum, the construction progress schedule shall consist of a horizontal bar chart with a separate line for each major portion of Work or operation, identifying first workday of each week.
- D. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration for each activity. Identify activities that are on the critical path.
- E. Include line items for milestones (if any), Substantial, and Final Completion.
- F. Submit updated schedules with each Application for Payment, identifying changes since previous version.
- G. Indicate estimated percentage of completion for each item of Work at each submission.
- H. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.06 SHOP DRAWINGS

- A. Shop drawings shall include specially prepared technical data for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form for general application to a range of similar projects. Shop drawings shall be submitted for all manufactured or fabricated items. See individual technical sections for special requirements.
- B. CONTRACTOR shall make all shop drawings accurately to scale and sufficiently large to show all pertinent aspects of the item and its method of connection to the work.
- C. Shop drawings shall be checked, approved, and stamped by CONTRACTOR in accordance with the General Conditions before transmittal to ENGINEER for review and approval.
- D. Complete shop drawings and descriptive data shall be submitted on all manufactured or fabricated items prior to 50% completion of the Work. Applications for payment beyond 50% of the Contract amount will not be recommended for payment until all shop drawings are submitted, including color hard copies if requested by OWNER, or a revised schedule for any remaining submittals is agreed to by OWNER and ENGINEER.
- E. CONTRACTOR shall submit shop drawings following the electronic submittal procedure described below.

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- F. Shop drawings submitted to ENGINEER will be reviewed and stamped "Approved," "Approved as Noted," "Approved as Noted-Resubmit," or "Not Approved." CONTRACTOR shall resubmit shop drawings stamped "Approved as Noted-Resubmit" and "Not Approved," and will continue this process until shop drawings are stamped "Approved" or "Approved as Noted." If Drawings are stamped "Approved as Noted-Resubmit," fabrication may proceed in accordance with the marked-up shop drawings. Installation shall not proceed until shop drawings have been resubmitted and stamped "Approved" or "Approved as Noted."
- G. If shop drawings are stamped "Approved as Noted" or "Approved as Noted-Resubmit" and CONTRACTOR does not agree with revisions or cannot conform with revisions, fabrication shall not proceed and shop drawings shall be resubmitted with explanation of CONTRACTOR's position.
- H. All shop drawings used for construction site activities shall bear the "Approved" or "Approved as Noted" stamp of ENGINEER.
- I. PDF Submittal Procedures:
 - 1. Summary:
 - a. Shop drawing and product data submittals shall be transmitted to ENGINEER in electronic (PDF) format.
 - b. The intent of PDF submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.
 - c. The PDF submittal process is not intended for color samples, color charts, or physical material samples.
 - 2. Procedures:
 - a. CONTRACTOR shall review and apply a stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer/product, dimensions and coordination of information with other parts of the work.
 - b. CONTRACTOR shall transmit each cover letter and submittal to ENGINEER as an e-mail attachment.
 - c. ENGINEER will return the reviewed shop drawing via e-mail with a transmittal letter, after review, indicating the status of the shop drawing review.
 - d. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of CONTRACTOR.
 - e. Electronically submitted shop drawings shall follow the following format:
 - (1) All files shall be delivered in PDF format with a minimum resolution of 300 dpi unless otherwise requested by ENGINEER. Scanned in material shall be scanned in color and any markings by CONTRACTOR shall be made in red. Pages shall be rotated to the appropriate position for easy reading on a computer monitor such that the majority of text is vertical.
 - (2) Files shall be delivered without security features activated.
 - (3) Shop Drawings shall be uploaded as individual files. All pages of one submittal should be contained in one file.
 - (4) The file shall open to a cover page containing, at a minimum, the following information:
 - (a) CONTRACTOR's stamp.
 - (b) Name, e-mail, and telephone number of the individual who may be contacted for further information.
 - (c) Project number.
 - (d) Submittal number.
 - (e) Submission date, if resubmittal, all previous submission dates.

(f) Index detailing contents and the total number of pages in the submittal.

J. Shop drawings shall include verification that the item meets applicable codes and standards.

1.07 COLORS AND PATTERNS

A. Unless the precise color and pattern is specifically described in the Contract Documents, whenever a choice of color or pattern is available in a specified product, CONTRACTOR shall submit accurate color charts and pattern charts to ENGINEER for OWNER's review and selection.

B. Unless all available colors and patterns have identical wearing capabilities and are identically suited for the installation, CONTRACTOR shall completely describe the relative capabilities of each.

1.08 PRODUCT DATA

A. CONTRACTOR shall provide product data as required to supplement shop drawings.

B. Product data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by CONTRACTOR to illustrate a material, product, or system for some portion of the work.

C. CONTRACTOR shall collect required product data into one submittal for each unit of work or system.

D. CONTRACTOR shall include manufacturer's standard printed recommendations for application and use, compliance with standards, performance characteristics, wiring and piping diagrams and controls, component parts, finishes, dimensions, required clearances, and other special coordination requirements.

E. CONTRACTOR shall mark each copy of standard printed data to identify pertinent products, models, options, and other data.

F. CONTRACTOR shall supplement manufacturer's standard data to provide information unique to the work.

1.09 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by ENGINEER.

B. Shop Drawings and Product Data:

1. Revise initial drawings or data and resubmit as specified for initial submittal.
2. Itemize in a cover letter any changes which have been made other than those requested by ENGINEER.

1.10 MANUFACTURER'S DIRECTIONS

A. Manufactured articles, materials, and equipment shall be stored, commissioned, operated, applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer, unless specified to the contrary.

- B. Wherever Specifications call for work to be performed or materials to be installed in accordance with the manufacturer's printed instructions or directions, CONTRACTOR shall furnish copies as required for shop drawings of those instructions or directions to ENGINEER before installing the material or performing the work.

1.11 MAINTENANCE MANUAL

- A. Prior to 75% completion of the Contract or at a minimum of 45 days prior to the scheduled start-up date of any individual item of equipment, whichever is earlier, CONTRACTOR shall furnish to ENGINEER two complete color hard copies of a maintenance manual for all equipment furnished. Applications for payment beyond 75% of the contract amount will not be recommended for payment until all maintenance manuals are submitted or a revised schedule for remaining maintenance manuals is agreed to by OWNER and ENGINEER.
- B. The manuals shall include manufacturer's instructions for maintenance and operation for each item of mechanical and electrical equipment. Manuals shall be specific for the equipment as installed; provide project specific inserts as required. Manuals shall contain: operation instructions, lubrication schedules, types and quantities, preventative maintenance program, spare parts list, parts lists, I.D. No. and exploded views, assembly instructions, parts supplier location, trouble shooting and startup procedures and, where applicable, test data and curves.
- C. All sheets shall have reduced dimensions as described for shop drawings, and shall be furnished in 3-ring binders or 3-tab report covers.
- D. CONTRACTOR is responsible for producing an electronic version of the Equipment Operations and Maintenance (O&M) Manuals Manual. The Electronic Equipment O&M Manual shall be delivered in Portable Document Format (PDF). The entire manual may be converted to PDF via scanning or other method of conversion. Drawings or other graphics must be converted to PDF format and made part of the PDF document. CONTRACTOR shall provide all Equipment O&M Manuals in the electronic format as defined below.
- E. The filename for the Equipment O&M Manual submittal will be provided with the request for final Equipment O&M Manuals. Filenames use the "eight dot three" convention (XX XX XX_YY.PDF) where XX XX XX is the specification section number and YY is an ID number. No one file shall be larger than 10 MB. If technical problems require that the submittal be divided into more than one file, a letter extension shall be added to the end of each filename.
- F. The number of files shall be kept to a minimum. Equipment O&M Manuals that span more than one file shall have the final Bookmark "Return to Table of Contents" which shall take the User to the first file on the Equipment O&M Manual.
- G. All text (word processed), spreadsheets, and electronic graphics shall be delivered in portable document format (*.PDF). The resolution of all scanned images shall be a minimum of 300 dpi unless otherwise requested by ENGINEER. Scanned images shall be processed with the "original image with hidden text" option (Adobe Acrobat 6 or higher). This results in a clear image and provides for optical character recognition (OCR) and word search functionality. Graphical files shall be fully searchable. All submittals must be indexed with the Adobe Catalog feature. Placement and structure of index files shall be in accordance with Adobe's recommendations to minimize problems when transferring files. Successful searches for words or strings in the PDF document shall demonstrate proof of OCR.

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- H. Rotate pages viewed in landscape to the appropriate position for easy reading on a computer monitor.
- I. Bookmarks shall be created in the navigation frame for each entry in the Table of Contents. Three levels deep is usually enough (i.e., "Chapter," "Section," "Subsection"); however, complex submittals like instrumentation and electrical may be required at the discretion of ENGINEER. When setting bookmarks for Chapter level heading, the page shall be displayed at Full Page. Section and Subsection level heading pages shall be displayed as a magnified view. Bookmarks shall be displayed as subordinate to other bookmarks in their hierarchy set so that only the Chapter level headings are displayed.
- J. Thumbnails shall be generated and embedded in each PDF file.
- K. Files shall be delivered without Security features activated. Password protected files will be unacceptable.
- L. The opening view for PDF files shall be set as follows:
 - 1. Initial View: Bookmarks and Page
 - 2. Magnification: Fit In Window
 - 3. Page Layout: Single Page
- M. The file shall open to the cover page of the Equipment O&M Manual with bookmarks to the left. The first bookmark shall be the name of Equipment O&M Manual.
- N. O&M Manual PDFs shall be delivered electronically.
- O. CONTRACTOR shall reprocess any portion of the document that does not view or print to OWNER's satisfaction.
- P. CONTRACTOR is fully responsible for obtaining any and all copyright permissions associated with conversion of this information to electronic format.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

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SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1–GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. OSHA Requirements.
 - 2. Roadway Limits.
 - 3. Permits.
 - 4. Wage Rates.

1.02 OSHA REQUIREMENTS

- A. All work including site safety, equipment, materials, and fabricated items provided under the Contract shall comply with the provisions of the “Occupational Safety and Health Act.”

1.03 ROADWAY LIMITS

- A. CONTRACTOR shall comply with roadway weight restrictions including seasonal weight restrictions.

1.04 PERMITS

- A. The following permit was obtained by OWNER: Iowa Department of Natural Resources Construction permit.

1.05 WAGE RATES

- A. A wage rate determination is not a requirement of this Project.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1—GENERAL

1.01 SUMMARY

- A. Work Includes:
 - 1. Quality Assurance—Control of Installation.
 - 2. Tolerances.
 - 3. Manufacturers' Field Services and Reports.

1.02 QUALITY ASSURANCE—CONTROL OF INSTALLATION

- A. CONTRACTOR shall monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship to produce Work of specified quality.
- B. CONTRACTOR shall comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, CONTRACTOR shall request clarification from ENGINEER before proceeding.
- D. CONTRACTOR shall comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Work shall be performed by persons qualified to produce workmanship of specified quality.
- F. CONTRACTOR shall secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 TOLERANCES

- A. CONTRACTOR shall monitor tolerance control of installed products to produce acceptable work and shall not permit tolerances to accumulate.
- B. CONTRACTOR shall comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, CONTRACTOR shall request clarification from ENGINEER before proceeding.
- C. CONTRACTOR shall adjust products to appropriate dimensions; position before securing products in place.

1.04 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections or when requested by ENGINEER, CONTRACTOR shall require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, and quality of workmanship.

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- B. CONTRACTOR shall submit qualifications of observer to ENGINEER 30 days in advance of required observations.
- C. CONTRACTOR shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. CONTRACTOR shall submit report in duplicate within 30 days of observation to ENGINEER for information.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Temporary Utilities.
 - 2. Temporary Stairs and Access.
 - 3. Temporary Support Facilities.
 - 4. Removal of Temporary Facilities.
- B. CONTRACTOR shall arrange for and provide temporary facilities as required for proper and expeditious prosecution of the Work.
- C. CONTRACTOR shall pay all costs, except as otherwise specified, until final acceptance of the Work unless OWNER makes arrangements for use of completed portions of the Work after substantial completion in accordance with the provisions of the General Conditions.
- D. CONTRACTOR shall make all temporary connections to utilities and services in locations acceptable to OWNER and local authorities having appropriate jurisdiction.
 - 1. Furnish all necessary labor and materials.
 - 2. Make all installations in a manner subject to the acceptance of such authorities and OWNER.
 - 3. Maintain such connections.
 - 4. Remove temporary installation and connection when no longer required.
 - 5. Restore services and sources of supply to proper operating conditions.

1.02 TEMPORARY UTILITIES

- A. Temporary Toilets: CONTRACTOR shall provide and maintain sanitary temporary chemical toilets located where approved by OWNER and in sufficient number required for the work force employed by CONTRACTOR.
- B. Temporary Electrical Services:
 - 1. Existing outlets and wiring shall not be used for motors larger than fractional HP or for welding equipment. Circuits for larger motors and welding equipment may be provided with special circuits to mains of electrical panels at the expense of those trades requiring them, provided that written permission is obtained from OWNER and ENGINEER.
 - 2. Any temporary electrical services required during power outages shall be obtained and paid for by CONTRACTOR.
 - 3. All temporary lighting required for construction as well as OWNER's full use of the entire facility throughout construction shall be provided by CONTRACTOR.
 - 4. No permanent electrical equipment or wiring shall be used without express written permission of OWNER. Such approval, if given, shall not affect guarantee period.

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- C. Temporary Water: CONTRACTOR shall supply its own water during construction. CONTRACTOR shall also provide its own piping, valves, and appurtenances for its requirements. Connection to the existing water system shall be coordinated with OWNER and shall meet all code requirements including disinfection and backflow prevention.
- D. Temporary Fire Protection: CONTRACTOR and Subcontractor(s) who maintain or provide an enclosed shed or trailer shall provide and maintain in operating order in each shed or trailer a minimum of one fire extinguisher. More extinguishers shall be provided as necessary. Fire extinguishers shall be minimum dry chemical, nonfreezing-type, UL rating 2A-30BC, with 10-pound capacity for Class A, B, and C fires.
- E. CONTRACTOR's and Subcontractor(s)' personnel shall refrain from smoking during excavation, laying pipe, backfilling, and other work at the Site which may involve potential contact with explosive vapors or gasoline products.

1.03 TEMPORARY STAIRS AND ACCESS

- A. CONTRACTOR shall provide and maintain all equipment such as temporary stairs, ladders, ramps, runways, chutes, and so on as required for proper execution of the Work. CONTRACTOR shall be responsible for providing its own scaffolds, hoists, etc.
- B. All such apparatus, equipment, and construction shall meet all requirements of OSHA, the labor laws, and other applicable State and local laws. Provide stairs with handrails. As soon as possible and where applicable, permanent stairs shall be installed.
- C. As soon as permanent stairs are created, provide temporary protective treads, handrails, and shaft protection.
- D. Provide barricades at hazardous locations, complete with signs, temporary general lighting, warning lights, and similar devices as required.

1.04 TEMPORARY SUPPORT FACILITIES

- A. CONTRACTOR shall provide whatever facilities and services which may be needed to properly support primary construction process and meet compliance requirements and governing regulations.
- B. CONTRACTOR shall not use permanent facilities except as otherwise indicated, unless authorized by OWNER.

1.05 REMOVAL OF TEMPORARY FACILITIES

- A. Remove temporary materials, equipment, services, and construction as soon as practicable but no later than just prior to final completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities and restore existing facilities used during construction to specified, or to original, condition.

PART 2-PRODUCTS

NOT APPLICABLE

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PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

OWNER REVIEW DRAFT-(042925)

SECTION 01 52 13

FIELD OFFICES AND SHEDS

PART 1-GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Materials, Equipment, and Furnishings.
 - 2. Construction.
 - 3. Storage Areas and Sheds.
 - 4. Preparation.
 - 5. Maintenance and Cleaning.
 - 6. Removal.

PART 2-PRODUCTS

2.01 MATERIALS, EQUIPMENT, AND FURNISHINGS

- A. Materials, equipment, and furnishings shall be serviceable, new or used, and adequate for required purpose.

2.02 CONSTRUCTION

- A. Portable or mobile buildings or buildings shall be constructed with floors raised above ground, securely fixed to foundations, with steps and landings at entrance doors.
- B. CONTRACTOR shall provide structurally sound, secure, weathertight enclosures for office and storage spaces.
- C. Temperature transmission resistance of floors, walls, and ceilings shall be compatible with occupancy and storage requirements.
- D. Exterior materials shall be weather resistant.
- E. Interior materials in offices shall consist of sheet type materials for walls and ceilings, prefinished or painted; resilient floors and bases.
- F. Lighting for offices shall be 50 footcandles minimum at desk top height, with exterior lighting at entrance doors.
- G. Provide appropriate type fire extinguisher at each office and each storage area.
- H. Interior materials in storage sheds shall be as required to provide specified conditions for storage of products.

2.03 STORAGE AREAS AND SHEDS

- A. Provide storage areas and sheds of size to meet storage requirements for products of individual sections, allowing for access and orderly provision for maintenance and for observation of products to meet requirements of Section 01 60 00—Materials and Equipment.

PART 3—EXECUTION

3.01 PREPARATION

- A. CONTRACTOR shall fill and grade sites for temporary structures to provide drainage away from buildings.

3.02 MAINTENANCE AND CLEANING

- A. CONTRACTOR shall maintain approach walks free of mud, water, and snow.

3.03 REMOVAL

- A. Upon final acceptance and completion of the Work, CONTRACTOR shall remove field offices, foundations, utility services, and debris and shall restore areas.

END OF SECTION

OWNER REVIEW DRAFT-(042925)

SECTION 01 57 00

TEMPORARY CONTROLS

PART 1--GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Dust Control.
 - 2. Noise Control.
 - 3. Traffic Control.
 - 4. Site Security.
 - 5. Daily Cleanup.

PART 2--PRODUCTS

NOT APPLICABLE

PART 3--EXECUTION

3.01 DUST CONTROL

- A. CONTRACTOR shall execute the Work by methods to minimize raising dust from construction operations.
- B. CONTRACTOR shall provide positive means to prevent airborne dust from dispersing into atmosphere.
- C. CONTRACTOR shall provide partitions, enclosures, etc., within buildings as necessary to confine dust and protect adjacent areas.

3.02 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise produced by construction operations.

3.03 TRAFFIC CONTROL

- A. CONTRACTOR shall be responsible for providing all signs, barricades, flagmen, and other traffic control devices in the construction zone.
- B. All traffic control measures shall meet the requirements of the current edition of the Manual on Uniform Traffic Control Devices, except for exceptions noted in Iowa Admin.760-130.1.
- C. Do not close or obstruct roadways without approval of OWNER.
- D. Conduct operations with minimum interference to roadways.
- E. Maintain one-way traffic on streets at all times.

3.04 SITE SECURITY

- A. CONTRACTOR shall have the sole responsibility of safeguarding the Site perimeter to prevent unauthorized entry to the Site throughout the duration of the Project. CONTRACTOR shall at all times provide such permanent and temporary fencing or barricades or other measures as may be necessary to restrict unauthorized entry to its construction area including construction in public rights-of-way or easements. Site security measures shall include safeguards against attractive nuisance hazards as a result of construction activity.
- B. CONTRACTOR shall at all times be responsible for the security of the Work including materials and equipment. OWNER will not take any responsibility for missing or damaged equipment, tools, or personal belongings. CONTRACTOR shall have the sole responsibility of safeguarding the Work and the Site throughout the duration of the Project.

3.05 DAILY CLEANUP

- A. CONTRACTOR shall clean up the Site and remove all rubbish on a daily basis.
- B. CONTRACTOR shall clean up public streets and highways and remove any dirt, mud, or other materials due to project traffic on daily basis and shall comply with all local and state ordinances and permit requirements.

END OF SECTION

OWNER REVIEW DRAFT-(042925)

SECTION 01 60 00

MATERIALS AND EQUIPMENT

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: CONTRACTOR shall be responsible for the delivery, handling, storage and protection of all material and equipment required to complete the Work as specified herein.
- B. Related Sections and Divisions: Specific requirements for the handling and storage of material and equipment are described in other sections of these Specifications.

1.02 PRODUCTS

- A. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.
- B. CONTRACTOR shall not use materials and equipment removed from existing construction, except as specifically required, or allowed, by the Contract Documents.
- C. When any construction deviations from the Drawings and/or Specifications necessary to accommodate equipment supplied by CONTRACTOR, result in additional costs to CONTRACTOR or other contractors, such additional costs shall be borne by CONTRACTOR. CONTRACTOR shall also pay any additional costs necessary for revisions of Drawings and/or Specifications by ENGINEER.
- D. Each major component of equipment shall bear a nameplate giving the name and address of the manufacturer and the catalogue number or designation.

1.03 TRANSPORTATION AND HANDLING

- A. Materials, products and equipment shall be properly containerized, packaged, boxed, and protected to prevent damage during transportation and handling.
- B. CONTRACTOR shall not overload any portion of the structure in the transporting or storage of materials.
- C. CONTRACTOR shall not damage other construction by careless transportation, handling, spillage, staining or impact of materials.
- D. CONTRACTOR shall provide equipment and personnel to handle products, including those provided by OWNER, by methods to prevent soiling and damage.
- E. CONTRACTOR shall provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.
- F. CONTRACTOR shall handle product by methods to avoid bending or overstressing. Lift large and heavy components only at designated lift points.

1.04 DELIVERY AND RECEIVING

- A. CONTRACTOR shall arrange deliveries of products in accordance with the Progress Schedule, allowing time for observation prior to installation.
- B. CONTRACTOR shall coordinate deliveries to avoid conflict with the Work and conditions at the Site; work activities of other contractors or OWNER; limitations on storage space; availability of personnel and handling equipment and OWNER's use of premises.
- C. CONTRACTOR shall deliver products in undamaged, dry condition, in original unopened containers or packaging with identifying labels intact and legible.
- D. CONTRACTOR shall clearly mark partial deliveries of component parts of equipment to identify equipment and contents to permit easy accumulation of parts and to facilitate assembly.
- E. Immediately on delivery, CONTRACTOR shall inspect shipment to review that:
 - 1. Product complies with requirements of Contract Documents and reviewed submittals.
 - 2. Quantities are correct.
 - 3. Accessories and installation hardware are correct.
 - 4. Containers and packages are intact and labels legible.
 - 5. Products are protected and undamaged.

1.05 STORAGE AND PROTECTION

- A. General:
 - 1. CONTRACTOR shall store products, immediately on delivery, in accordance with manufacturer's instructions, with all seals and labels intact and legible.
 - 2. Any additional off-site space required shall be arranged by CONTRACTOR.
 - 3. CONTRACTOR shall allocate the available storage areas and coordinate their use by the trades on the job.
 - 4. CONTRACTOR shall arrange storage in a manner to provide access for maintenance of stored items and for observation.
- B. In enclosed storage, CONTRACTOR shall:
 - 1. Provide suitable temporary weather tight storage facilities as may be required for materials that will be damaged by storage in the open.
 - 2. Maintain temperature and humidity within ranges stated in manufacturer's instructions.
 - 3. Provide ventilation for sensitive products as required by manufacturer's instructions.
 - 4. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.
 - 5. Store solid materials such as insulation, tile, mechanical and electrical equipment, fittings, and fixtures under shelter, in original packages, away from dampness and other hazards.
 - 6. Store liquid materials away from fire or intense heat and protect from freezing.
- C. At exterior storage, CONTRACTOR shall:
 - 1. Store unit materials such as concrete block, brick, steel, pipe, conduit, door frames, and lumber off ground, out of reach of dirt, water, mud and splashing.
 - 2. Store tools or equipment that carry dirt outside.
 - 3. Store large equipment so as not to damage the Work or present a fire hazard.
 - 4. Cover products subject to discoloration or deterioration from exposure to the elements, with impervious sheet material and provide ventilation to avoid condensation.

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5. Completely cover and protect any equipment or material which is prime coated or finish painted with secured plastic or cloth tarps. Store out of reach of dirt, water, mud and splashing.
6. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent mixing with foreign matter.
7. Provide surface drainage to prevent erosion and ponding of water.
8. Prevent mixing of refuse or chemically injurious materials or liquids.
9. Cover aggregates such as sand and gravel in cold wet weather.
10. Remove all traces of piled bulk materials at completion of work and return site to original or indicated condition.

1.06 MAINTENANCE OF STORAGE

- A. CONTRACTOR shall periodically inspect stored products on a scheduled basis.
- B. CONTRACTOR shall verify that storage facilities comply with manufacturer's product storage requirements, and verify that manufacturer required environmental conditions are maintained continually.
- C. CONTRACTOR shall verify that surfaces of products exposed to the elements are not adversely affected and that any weathering of finishes is acceptable under requirements of Contract Documents.
- D. CONTRACTOR shall perform scheduled maintenance of equipment in storage as recommended by the manufacturer. A record of the maintenance shall be kept and turned over to ENGINEER when the equipment is installed.

1.07 INSTALLATION REQUIREMENTS

- A. Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the respective manufacturers, unless otherwise specified.
- B. After installation, CONTRACTOR shall protect all materials and equipment against weather, dust, moisture, and mechanical damage.
- C. CONTRACTOR shall be responsible for all damages that occur in connection with the care and protection of all materials and equipment until completion and final acceptance of the Work by OWNER. Damaged material and equipment shall be immediately removed from the Site.

1.08 EQUIPMENT WARRANTIES

- A. Warranties shall be nonprorated, include all parts and labor, and be in written form. Warranties shall specifically exclude buyer's indemnification language. Warranty language shall not eliminate manufacturer's responsibility for sizing of the equipment. During warranty period, manufacturer shall be responsible for any travel expenses, outside contractor fees, and rental equipment fees associated with providing warranty service. Manufacturer shall pay expenses incurred for repairs and parts replacement not made by manufacturer if manufacturer's response is not within 72 hours of notification by OWNER. Warranty language shall be provided with the shop drawings.

1.09 CONCRETE EQUIPMENT BASE

- A. Cast-in-place concrete equipment bases shall be provided for all new and relocated equipment including electrical control panels, motor control centers, switchgear, etc. Concrete equipment bases shall be provided by CONTRACTOR except where specifically noted to be provided by others. Bases shall be 3 1/2-inch minimum height and shall be a minimum of 3 inches larger than equipment being supported. Grouting of equipment bases shall be as recommended by equipment manufacturer.
- B. Concrete and grout shall meet applicable sections of the Specifications.
- C. Provide all anchor bolts, metal shapes and templates to be cast in concrete or used to form concrete for support of equipment.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 01 73 29

CUTTING, PATCHING, AND ALTERATIONS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included: CONTRACTOR shall be responsible for all cutting, fitting, patching, and other alterations required to complete the Work as specified herein or to:
 - 1. Make its several parts fit together properly.
 - 2. Uncover portions of the Work to install improperly sequenced Work.
 - 3. Remove and replace defective Work.
 - 4. Remove and replace Work not conforming to requirements of the Contract Documents.
 - 5. Provide penetrations of surfaces for installation of piping and electrical conduit.

1.02 REFERENCES

- A. ANSI A10 Safety Requirements for Construction and Demolition.

1.03 QUALITY ASSURANCE

- A. CONTRACTOR shall perform all cutting, patching, and alterations in strict accordance with pertinent requirements of these Specifications.
- B. Except as modified by governing codes, CONTRACTOR shall comply with the applicable provision and recommendations of ANSI A10.

1.04 SUBMITTALS

- A. CONTRACTOR shall submit a written request to OWNER well in advance of executing any cutting or alteration which affects the following:
 - 1. Work of OWNER or any separate contractor.
 - 2. Structural value or integrity of any element of the Project.
 - 3. Integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 - 4. Efficiency, operational life, maintenance, or safety of operational elements.
 - 5. Visual qualities of sight-exposed elements.
- B. The request shall include:
 - 1. Description of affected work.
 - 2. The necessity for cutting, patching, or alteration.
 - 3. Effect on work of OWNER, any separate contractor, or on the structural or weather-proof integrity of the Project.
 - 4. Description of proposed work to include:
 - a. Scope of cutting, patching, or alteration.
 - b. Trades who will execute the Work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
 - 5. Alternatives to cutting and patching.
 - 6. Written permission of any separate contractor whose work will be affected.

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- C. Submit written notice to OWNER designating the date and the time the Work will be uncovered or executed.

1.05 SCHEDULING AND COORDINATION

- A. All work under this section shall be coordinated with OWNER's work forces and those of other contractors and shall be accomplished at times acceptable to OWNER.
- B. Before starting any work relating to existing utilities (electrical, sewer, water, heat, gas, fire lines, etc.) that will temporarily discontinue or disrupt service to the existing building, notify ENGINEER and OWNER 72 hours in advance and obtain OWNER's approval before proceeding with this phase of the Work. Temporary facilities, if required, shall be in place prior to disruption of service.

PART 2-PRODUCTS

2.01 NEW MATERIALS

- A. For replacement of work removed, CONTRACTOR shall use materials which comply with the pertinent sections of these Specifications.
- B. All new materials for patching and extending work shall match existing products and work.
- C. CONTRACTOR shall determine type and quality of existing products by inspection and any necessary testing and workmanship by use of existing as the standard.

2.02 UNSALVAGEABLE MATERIALS

- A. Materials or items demolished and not designated to become the property of OWNER or not designated to be reinstalled shall become the property of CONTRACTOR and shall be removed from the site and legally and properly disposed of by CONTRACTOR.
- B. Materials shall be removed by CONTRACTOR in a manner that will avoid damage to materials or equipment to remain.

PART 3-EXECUTION

3.01 INSPECTION

- A. CONTRACTOR shall inspect existing conditions including elements subject to movement or damage during cutting, patching, and other alterations.
- B. After uncovering the Work, CONTRACTOR shall inspect conditions affecting installation of new products or performance of new work.
- C. CONTRACTOR shall report unsatisfactory or questionable conditions to ENGINEER in writing.
- D. CONTRACTOR shall not proceed with work until unsatisfactory or questionable conditions are resolved.

- E. Beginning of cutting, patching, and alterations work means acceptance of existing conditions by CONTRACTOR.

3.02 PREPARATION AND PROTECTION

- A. CONTRACTOR shall provide temporary bracing, shoring, needling, and support of the structure during alterations work as necessary to prevent collapse, settling, or deflection and to protect persons and property from injury or damage.
- B. Temporary supports must adequately carry all existing and imposed load.
- C. CONTRACTOR shall provide and maintain temporary protection of surface finishes, equipment, and adjacent work designated to remain where demolition, removal, and new work is being done, connections are being made, materials are being handled, or equipment is being removed.
- D. CONTRACTOR shall provide temporary partitions or barriers to contain all dust, dirt, and debris from entering into finished areas or areas where OWNER is operating, storing, or manufacturing products.
- E. CONTRACTOR shall provide adequate fire protection in accordance with local Fire Department requirements.
- F. CONTRACTOR shall provide waterproofing, weather protection, heat, and other facilities for that portion of the Work which may be exposed by cutting and patching, demolition, or other alterations.
- G. CONTRACTOR shall cut, move, or remove items as necessary for access to alterations and renovations work and replace and restore at completion of the Work.
- H. CONTRACTOR shall prepare surfaces and remove surface finishes to provide for proper installation of new work and new finishes.
- I. CONTRACTOR shall be responsible for any damage to the existing structure or its contents directly or indirectly by its crews or those of its subcontractors.

3.03 PERFORMANCE

- A. CONTRACTOR shall accomplish all work of cutting, removal, demolition, patching, or other alterations using only persons skilled in the appropriate trade.
- B. CONTRACTOR shall execute the Work in a careful and orderly manner with the least possible disturbance to the public and to the occupants of the building.
- C. CONTRACTOR shall execute cutting and demolition by methods which will prevent damage to other work and will provide proper surfaces to receive installation of repairs.
- D. CONTRACTOR shall execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- E. CONTRACTOR shall fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.

- F. CONTRACTOR shall thoroughly clean and prepare all surfaces to receive new finish or covering to completely remove all dirt, dust, grease, oil, paint, loose materials, and soil.
- G. CONTRACTOR shall refinish entire surface as necessary to provide an even finish to match adjacent finishes:
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

3.04 DEMOLITION, CUTTING, AND REMOVAL

- A. Cutting and removal of construction shall be performed by CONTRACTOR so as not to cut or remove more than is necessary and so as not to damage adjacent work.
- B. CONTRACTOR shall cut out embedded anchorages and attachment items as required to properly provide for patching and repair of the respective finishes.
- C. CONTRACTOR shall not cut structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio.
- D. CONTRACTOR shall not cut operational elements and safety components in a manner resulting in decreased performance, shortened useful life, or increased maintenance.
- E. CONTRACTOR shall not cut work exposed to view (exterior or interior) in a manner resulting in noticeable reduction of visual qualities as determined by OWNER.
- F. Construction that is to remain which is loosened, cracked, or otherwise damaged or defaced as a result of careless cutting or demolition and is unsuitable for use intended shall be removed and replaced at no additional cost to OWNER.
- G. CONTRACTOR shall clean demolished areas and remove debris, waste, and rubbish from the building at the conclusion of each day's work.
- H. CONTRACTOR shall not let piled waste material endanger the structure.

3.05 PATCHING, EXTENDING, AND MATCHING

- A. Patching work shall conform to the standards of the Specifications where applicable, and where not specified, work shall conform to the highest standards of the applicable trade.
- B. CONTRACTOR shall patch construction to match adjacent work unless noted otherwise.
- C. Patching or restoration shall be carried to natural breaks (e.g., corners) wherever possible.
- D. CONTRACTOR shall provide adequate support to substrate for patching finishes.
- E. At locations in existing areas where partitions are removed, CONTRACTOR shall patch floors, walls, and ceiling with finish material to match adjacent surfaces.
- F. Transitions:
 - 1. Where new work abuts or finishes flush with existing work, CONTRACTOR shall make the transition as smooth as possible.
 - 2. Patched work shall match adjacent work in texture and appearance so as to make the patch or transition invisible to the eye at a distance of 3 feet.

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3. Where masonry, tile, plaster, metal, or other finished surface is cut in such a way that a smooth transition is not possible, CONTRACTOR shall terminate the existing surface in a neat fashion along a straight line at a natural line of division and provide trim appropriate to the finished surface.
4. Where two or more spaces are indicated to become one space, CONTRACTOR shall rework floors and ceilings so that horizontal planes are without breaks, steps, or bulkheads, unless shown otherwise.
5. In case of extreme level changes (3 inches or more), review condition with ENGINEER prior to making transition.
6. CONTRACTOR shall restore existing work that is damaged during patching operations to a condition equal to its construction at the time of the start of the Work.

END OF SECTION

SECTION 01 77 00

CONTRACT CLOSEOUT

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Closeout Procedures.
 - 2. Final Cleaning.
 - 3. Adjusting.
 - 4. Project Record Documents.
 - 5. Warranties.
 - 6. Warranty Bond.

1.02 CLOSEOUT PROCEDURES

- A. CONTRACTOR shall provide submittals to ENGINEER that are required by governing or other authorities.
- B. CONTRACTOR shall comply with General Conditions and Supplementary Conditions and complete the following before requesting ENGINEER's observation of the Work or designated portion thereof for substantial completion.
 - 1. Submit executed warranties, workmanship bonds, maintenance agreements, inspection certificates, and similar required documentation for specific units of Work, enabling OWNER's unrestricted occupancy and use.
 - 2. Submit record documentation, maintenance manuals, tools, spare parts, keys, and similar operational items.
 - 3. Submit consent of surety (if surety required in Contract).
 - 4. Complete final cleaning, touch-up work of marred surfaces, and remove temporary facilities and tools.

1.03 FINAL CLEANING

- A. It is CONTRACTOR's responsibility to completely clean up the inside and outside of all buildings and the construction site at the completion of the Work.
- B. CONTRACTOR shall clean areas of the building in which painting and finishing work is to be performed just prior to the start of this work and maintain these areas in satisfactory condition for painting and finishing. This cleaning includes:
 - 1. Removal of trash and rubbish from these areas.
 - 2. Broom cleaning of floors.
 - 3. Removal of any plaster, mortar, dust, and other extraneous materials from finish surfaces, including but not limited to exposed structural steel, miscellaneous metal, masonry, concrete, mechanical equipment, piping, and electrical equipment.
- C. In addition to the cleaning specified above and the more specific cleaning that may be required in various technical sections of the Specifications, CONTRACTOR shall prepare the Project for occupancy by a thorough cleaning throughout, which shall include the following:

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1. Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
2. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
3. Replace filters of operating equipment.
4. Clean debris from roofs, gutters, downspouts, and drainage systems.
5. Clean site; sweep paved areas, rake clean landscaped surfaces.
6. Remove waste and surplus materials, rubbish, and construction facilities from the Site.

1.04 ADJUSTING

- A. CONTRACTOR shall adjust operating products and equipment to provide smooth and unhindered operation.

1.05 PROJECT RECORD DOCUMENTS

- A. CONTRACTOR shall maintain on Site one set of the following record documents to record actual revisions to the Work:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change orders and other modifications to the Contract.
 5. Reviewed shop drawings, product data, and samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. CONTRACTOR shall make entries that are complete and accurate, enabling future reference by OWNER.
- C. CONTRACTOR shall store record documents separate from documents used for construction.
- D. CONTRACTOR shall record information concurrent with construction progress.
- E. Specifications: CONTRACTOR shall legibly mark and record at each Product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by addenda and modifications.
- F. Record Drawings: CONTRACTOR shall legibly mark each item to record actual construction including:
 1. Measured depths of foundations in relation to finish floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances referenced to permanent surface improvements.
 3. Measured locations of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of the Work.
 4. Field changes of dimension and detail.
 5. Details not on original Contract Drawings.

1.06 WARRANTIES

- A. CONTRACTOR shall provide warranties beyond project one-year warranty as required by technical sections.
- B. Submit warranty information as follows:
 - 1. Provide original copies bearing authorized signatures.
 - 2. Execute and assemble transferable warranty documents from subcontractors, suppliers, and manufacturers, and provide Table of Contents and assemble in three-ring binder with durable cover.
 - 3. Submit with request for certificate of Substantial Completion.
 - 4. For items of work delayed beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance listing date of acceptance as start of warranty period.

1.07 WARRANTY BOND

- A. CONTRACTOR shall provide warranty bond prior to or with the final Application for Payment in accordance with SC-6.01.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

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SECTION 01 91 00

STARTING OF SYSTEMS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. General.
 - 2. Equipment and System Installation.
 - 3. Starting Equipment and Systems.
 - 4. Demonstration, Instructions, and Operator Training.
 - 5. Start-Up and Testing.
 - 6. Equipment Systems Requiring Certification of Proper Installation.
- B. CONTRACTOR shall perform the Work described in the following subsections.

1.02 GENERAL

- A. The number of days for manufacturer's services stated in the Specifications shall be considered as the minimum number of days. Should additional time be required for services because of equipment malfunction or other problem, such time shall be at the expense of CONTRACTOR, with no change in Contract Price.
- B. "Days" specified shall consist of 8-hour days on-site, excluding travel time.
- C. CONTRACTOR shall designate and provide one person to be responsible for scheduling, coordinating, and expediting the specified services. Scheduling the services shall be done in cooperation with, and with the prior approval of ENGINEER and OWNER. Such schedule shall be arranged with the appropriate subcontractors, manufacturers, and suppliers with sufficient time to allow their compliance with the service requirements.
- D. CONTRACTOR shall manage equipment checkout such that checkout has been completed and deficiencies addressed prior to demonstration and training. Scheduling training prior to checkout may result in cancellation when checkout cannot be completed prior to training.

1.03 EQUIPMENT AND SYSTEM INSTALLATION

- A. Competent and experienced technical personnel shall represent the manufacturers of all equipment and systems for as many days as may be necessary to provide proper installation and to resolve assembly or installation problems at the site that are attributable to, or associated with, the equipment furnished. This requirement applies to manufacturers for all equipment furnished, whether or not specifically set forth in the Specifications.
- B. Where a Certificate of Proper Installation is called for in this Specification Section, the manufacturer's representative shall provide the attached Certificate of Proper Installation stating that the equipment or system has been installed in accordance with the manufacturer's instructions and has been inspected by a manufacturer's authorized representative, that it has been serviced with the proper initial lubricants, that applicable safety equipment has been properly installed, that the proper electrical and mechanical

connections have been made, and that any other manufacturer requirements have been met. This certification shall be provided to ENGINEER and OWNER prior to the start-up. This certificate is in addition to the manufacturer's standard startup reports, checklists, and other pertinent information.

- C. Functional (or run) testing is required for all equipment and systems. The manufacturer's representative shall supervise the functional test, which shall include checking for proper rotation, alignment, speed, excessive vibration, and noisy operation. The Manufacturer's Certificate of Proper Installation shall state that proper adjustments have been made and that the equipment or system is ready for start-up.
- D. Manufacturer shall demonstrate, using laser alignment equipment, if appropriate, that the installed equipment has been aligned properly. Final acceptance of equipment will not be granted until manufacturer has demonstrated to ENGINEER that acceptable alignment to tolerances have been achieved. For pumps with motors 7.5 hp and larger, the acceptable shaft alignment tolerances shall be as recommended in the pump manufacturer's written instructions and shall include parallel offset and angular gap measurements.

1.04 STARTING EQUIPMENT AND SYSTEMS

- A. Where field testing and start-up services are called for in the Specifications, or when technical assistance is necessary as a result of any malfunction of the equipment or system furnished, the manufacturer's representative shall provide such services.
- B. Manufacturer's representative shall also conduct and/or assist with performance testing, as required by the Specifications. These services shall continue until such times as the applicable equipment or system has been successfully tested for performance and has been accepted by OWNER for full-time operation.
- C. Coordinate schedule for start-up of various equipment and systems. Coordination includes, but is not limited to, communication with subcontractors, suppliers, OWNER, and ENGINEER. CONTRACTOR shall confirm that all necessary work is complete and that the equipment and systems can be operated in conjunction with all associated processes.
- D. Notify ENGINEER and OWNER a minimum of 7 days prior to start-up of each item using the attached Equipment Startup and O&M Training Scheduling form. CONTRACTOR shall submit form to ENGINEER.
- E. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or for other conditions that may cause damage.
- F. Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.
- G. Verify wiring and support components for equipment are complete and tested.
- H. Execute start-up under supervision of applicable manufacturer's representative and CONTRACTOR's personnel in accordance with manufacturers' instructions.

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- I. Require manufacturer to provide authorized representative to be present at site to inspect, check, and approve equipment or system installation prior to start-up and to supervise placing equipment or system in operation. Authorized representative shall provide approval for starting of systems in writing where specified.
- J. Equipment manufacturer shall provide a written report covering checkout, testing, inspections, and start-up and shall identify any deficiencies noted. Report shall be submitted to ENGINEER. CONTRACTOR shall be responsible for correcting all deficiencies noted in report. In addition, CONTRACTOR shall submit a fully executed Certificate of Proper Installation form if required in Paragraph 3.01 of this section.

1.05 DEMONSTRATION, INSTRUCTIONS, AND OPERATOR TRAINING

- A. For all mechanical equipment and systems and where called for in the Specifications, provide a qualified technical representative to provide detailed instructions to OWNER's personnel for operation and maintenance of equipment and associated instrumentation. Training services shall include pre-start-up classroom instruction and start-up on-site instruction, as stated in the Specifications.
- B. Refer to the Specifications for additional training requirements.
- C. CONTRACTOR shall coordinate the pre-start-up training periods with OWNER's operating personnel and manufacturers' representatives.
 - 1. Schedule training dates and times with OWNER, that are acceptable to the OWNER, using equipment, startup, and O&M training form. Normal hours available for training are between 7:30 A.M. to 3 P.M., Monday through Friday, except for holidays.
 - 2. Submit outline and presentation to ENGINEER at least 7 days in advance of training.
 - 3. Provide name, contact information, and brief synopsis of qualifications of the trainer.
 - 4. If materials above are not provided at least 7 days in advance, training may be canceled.
 - 5. Failure of supplier's or manufacturer's representative to appear for scheduled training, failure to notify OWNER 24 hours in advance of need to cancel scheduled training or failure to arrive within 30 minutes of start of scheduled training shall result in reimbursement to OWNER for time lost by OWNER's personnel in waiting for arrival of manufacturer's representative. Except in case of failure to arrive on time, time will not exceed 1 hour for each employee scheduled to receive training. Failure to arrive on time will be reimbursed by actual time late, up to 1 hour, after 1 hour, training will be rescheduled. CONTRACTOR shall reimburse OWNER via a change order.
 - 6. During the training, instructor will dedicate its time solely to training and not start-up services.
 - 7. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with OWNER's personnel in detail to explain all aspects of operation and maintenance.
 - 8. Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment.
 - 9. Prepare and insert additional data in operation and maintenance manuals when need for additional data becomes apparent during instruction.

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10. OWNER may videorecord the training for future internal use. Provide to OWNER paper and electronic copies of any media used as part of training.
 11. Provide training handouts for each of OWNER's personnel present.
- D. CONTRACTOR shall provide attached Certificate of Operator Training cosigned by OWNER and supplier's representative verifying training was accomplished to satisfaction of all parties.
 - E. Operation and maintenance manual submitted in accordance with Section 01 33 00–Submittals shall be provided prior to operator training.
 - F. For equipment or systems requiring seasonal operation, perform demonstration for dormant season at start of dormant season.
 - G. Final payment for various items of equipment will not be made by OWNER until the equipment is operating to OWNER's satisfaction.
 - H. Where items of equipment are placed into service at different times or sequence, manufacturer's services for start-up, field testing, and supervision shall be provided for each time or sequence. Training shall be provided prior to or at the time the first similar item of equipment is placed in service.

1.06 START-UP AND TESTING

- A. Prior to acceptance of any portion of the Work, start-up and testing of all equipment and testing of all materials furnished on the Project by CONTRACTOR shall have been conducted in the presence of representatives of CONTRACTOR, OWNER, and ENGINEER and also manufacturer if requested by OWNER or ENGINEER.
- B. CONTRACTOR shall provide whatever temporary installations and conditions are necessary in order to perform start-up and testing operations on all equipment and materials furnished under the Contract. Temporary connections and equipment necessary during start-up and testing operations shall include, but not be limited to, temporary piping and electrical power and control equipment and devices, temporary connection from various parts of the systems and any other labor, materials, fuel, devices, or items that may be required for start-up and testing operations. Temporary conditions shall include filling with water, if necessary, to check equipment and materials.
- C. All temporary installations and conditions shall be removed by CONTRACTOR upon completion of start-up and testing.

PART 2–PRODUCTS

NOT APPLICABLE

PART 3–EXECUTION

3.01 EQUIPMENT SYSTEMS REQUIRING CERTIFICATION OF PROPER INSTALLATION

- A. Section 43 23 31–End Suction Non-Clog Centrifugal Pumps.

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- B. Section 46 24 33–Grinder.
- C. All equipment specified in Divisions 25 and 26.

END OF SECTION

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TS No. _____

EQUIPMENT START-UP AND O&M TRAINING SCHEDULING FORM STRAND ASSOCIATES, INC.®

PROJECT _____ CLIENT _____

CONTRACT _____

CONTRACTOR _____ Date: _____

The following equipment is scheduled for start-up on _____

EQUIPMENT NAME: _____ SPECIFICATION SECTION: _____

MANUFACTURER: _____ MINIMUM HOURS OF TRAINING: _____

DATE O&M MANUALS SUBMITTED: _____

Specification Section 01 91 00 requires that start-up and operation and training be conducted by a qualified manufacturer's representative prior to placing equipment in operation. Review Specification Sections 01 33 00 and 01 45 00 and the individual equipment sections for start-up and training requirements. OWNER may find it necessary to propose alternate dates for training based on conflicts with other training and staff availability. The Operation and Maintenance Manuals must be submitted prior to training.

After the equipment or system has been properly installed and is functioning correctly, submit a written report in accordance with Specification Section 01 45 00.

Submit the completed form to ENGINEER and OWNER at least 7 days prior to start-up and training.

Proposed Training Date: _____ Time of Training: _____

Factory-trained representative giving training:

Name(s): _____

Company: _____

Address: _____

Phone: _____

Fax: _____

E-mail: _____

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CERTIFICATE OF PROPER INSTALLATION

Project_____

Equipment_____

Specification Section_____

Contract_____

I hereby certify the equipment supplier/manufacturer has inspected this equipment and that it has been properly installed, adjusted, and calibrated. I further certify this equipment may now be operated for test purposes and/or normal use.

MANUFACTURER'S REPRESENTATIVE

Signature_____Date_____

Name (print)_____

Title_____

Representing_____

CONTRACTOR

Signature_____Date_____

Name (print)_____

Title_____

This form shall be completed and submitted to ENGINEER prior to OWNER training.

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CERTIFICATE OF OPERATOR TRAINING

Project_____

Equipment_____

Specification Section_____

Contract_____

I hereby certify the equipment supplier/manufacturer has instructed OWNER's personnel in the start-up operation and maintenance of this equipment as required in the Specifications.

MANUFACTURER'S REPRESENTATIVE

Signature_____Date_____

Name (print)_____

Title_____

Representing_____

CONTRACTOR

Signature_____Date_____

Name (print)_____

Title_____

OWNER

I hereby state that my operating personnel received instruction for start-up, operation, and maintenance of this equipment.

Signature_____Date_____

Name (print)_____

Title_____

END SECTION

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SECTION 09 96 00

HIGH PERFORMANCE COATINGS

PART 1—GENERAL

1.01 SCOPE OF WORK

- A. The work required under this section shall include all labor, material, equipment (including ladders, scaffolds and cloths), together with all services necessary for and incidental to field painting and finishing of all new process piping, valves, fittings, and other items as indicated on the Drawings and in the Painting Schedule located at the end of this specification section.
- B. This section does not apply to factory or shop painting and finishing work specified in other specification sections. Surfaces left unfinished, as required in other sections, shall be field painted or finished as a requirement of this contract and as detailed in the Painting Schedule.
- C. The Painting CONTRACTOR shall examine other sections of the specifications and shall become thoroughly familiar with all provisions regarding painting requirements.
- D. Paint shall include emulsions, enamels, sealers and similar coatings.

1.02 QUALITY ASSURANCE

- A. The Painting CONTRACTOR shall be fully experienced, reputable and qualified, and regularly engaged in the application of industrial grade coating systems.
- B. Workmanship and materials shall be of the highest quality.
- C. The Painting CONTRACTOR shall be experienced in the application of the specified coatings for a minimum of five years on projects of similar size and complexity of work.

1.03 SUBMITTALS

- A. Submit Shop Drawings including complete manufacturer's product data in accordance with Section 01 33 00—Submittals for all materials.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. All paint materials must be delivered in the original containers, with the seals unbroken and labels intact 10 days prior to start of painting for ENGINEER's inspection.
- B. All materials used on the job will be stored in a single place designated by OWNER. Such storage place shall be kept neat and clean, and all damage thereto or to its surroundings shall be corrected by the Contactor. Any oily rags, waste and other such materials must be removed every night, and every precaution shall be taken to avoid the danger of fire.
- C. All materials shall be stored in accordance with the manufacturer's recommendations.

PART 2-PRODUCTS

2.01 GENERAL

- A. Materials used throughout shall be the product of one manufacturer only and shall be the first line and top grade materials produced by the manufacturer selected. All materials shall be applied in strict conformance with the manufacturer's standard specifications for the materials and surfaces involved.
- B. All colors for finish paint materials shall be as selected by OWNER from the manufacturer's standard colors or any inter-mix thereof as required to produce an acceptable hue.
- C. All paints coming in contact with water intended for human consumption, either raw or treated, shall be approved by the National Sanitation Foundation NSF 61 Standard.

2.02 MANUFACTURERS

- A. All materials specified here shall be manufactured by Tnemec Company, Inc. or pre-approved equivalent.

2.03 COATINGS

- A. Type 1-Polyamidoamine Epoxy:
 - 1. Coating shall abrasion resistant and shall be suitable for suitable for immersions and resistant to chemical contact exposure.
 - 2. Finish: Satin.
 - 3. Minimum volume solids: $67.0 \pm 2.0\%$.
 - 4. Allowable Products: Tnemec Series N69 H.B. Epoxoline II.
- B. Type 2-Aliphatic Acrylic Polyurethane:
 - 1. Coating shall be provide excellent color and gloss retention for exterior applications.
 - 2. Finish: Semi-gloss.
 - 3. Minimum volume solids: $66.0 \pm 2.0\%$.
 - 4. Allowable Products: Tnemec Series 1095 Endura-Shield.
- C. Type 3-Modified Polyamine Epoxy:
 - 1. Coating shall be suitable domestic and industrial wastewater immersion and fume environments. Contains micro-fiber reinforcement for improved film integrity.
 - 2. Finish: Gloss.
 - 3. Volume solids: 100%.
 - 4. Allowable Products: Tnemec Series G435 Perma-Glaze.
- D. Type 4-Aromatic Urethane, Zinc-Rich:
 - 1. A two component moisture cured zinc-rich primer.
 - 2. Finish: Reddish-Gray.
 - 3. Minimum volume solids: $63 \pm 2\%$.
 - 4. Allowable Products: Tnemec Series Series 90-97 Tneme-Zinc.
- E. Type 5-Polyamide Epoxy:
 - 1. Corrosion-resistant coating for protection against abrasion, immersion and mild chemical contact.
 - 2. Finish: Satin.

3. Minimum volume solids: 58.0 $\pm$ 2%.
 4. Allowable Products: Tnemec Series 161 Tneme-Fascure.
- F. Type 6–Coal Tar Epoxy:
1. High build corrosion resistant coating providing one coat protection.
 2. Finish: Semi-gloss.
 3. Minimum volume solids: 75.0 $\pm$ 1 2%.
 4. Allowable Products: Tnemec Series 46H-413 Hi-Build Tneme-Tar.
- G. Type 7–Silicone Aluminum:
1. Heat resistant coating rated for continuous temperatures of up to 1,200°F.
 2. Minimum volume solids: 25.0 $\pm$ 2.0%.
 3. Allowable Products: Tnemec Series 39-1261.

PART 3–EXECUTION

3.01 GENERAL

- A. Environmental Conditions:
1. All coatings shall be applied in accordance with the manufacturer's recommendations regarding temperature, humidity and other environmental factors.
 2. Perform work only if the temperature is above 50°F.
 3. Provide, operate and maintain supplemental heating if required to maintain temperatures above 50°F.
 4. Do not perform work when surfaces are damp.
 5. Do not perform exterior work during rainy or frosty weather.
- B. Preparation:
1. Protection of items to remain unpainted:
 - a. The Painting CONTRACTOR shall not only protect his work at all times, but shall also protect all adjacent work and materials.
 - b. Hardware, hardware accessories, machined surfaces, plates, lighting fixtures, fire detection elements and similar items in contact with painted surfaces and not to be painted shall be removed, masked or otherwise protected prior to surface preparation and painting operations.
 - c. Exposed radiator covers shall be removed to permit the complete painting.
 2. General surface preparation:
 - a. Surface preparation shall be verified in accordance with SSPC-Vis 1 and ASTM Standards.
 - b. All metal surfaces shall be first washed with mineral spirits to remove any dirt or grease before applying materials. Where rust or scale is present, it shall be wire brushed or sandpapered clean before painting.
 - c. All galvanized metal surfaces shall be chemically treated with a compound designed for this purpose in accordance with manufacturer's directions for use, before applying the first coat of paint.
 - d. Plastic pipe shall be hand sanded and solvent wiped prior to the first coat of paint.
 - e. Concrete and masonry surfaces to be painted shall be prepared by removing efflorescence, chalk, dust, dirt, grease, oil, asphalt, tar, excessive mortar, and mortar droppings, and by roughening to remove glaze. Surface deposits of free iron shall be removed prior to painting.

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- f. If concrete, metal or any other surface to be finished cannot be put in proper condition for finishing by the customary cleaning and sand blasting operations, CONTRACTOR shall immediately notify ENGINEER in writing, or assume responsibility for and rectify any unsatisfactory finish that results.

C. Paint Application:

1. All necessary sealing of holes, cracks, and other voids shall be done before the first coat, with sealant of a color to match that of the finish. Sealant shall be brought flush with the adjoining surface in a neat and workmanlike manner.
2. Spray application of paints will not be permitted, except as specified or unless specific approval has been secured in writing from ENGINEER and unless the surfaces and materials are entirely suitable to this type of application as proven by on-the-job demonstration.
3. Where thinning is necessary, only the products of the manufacturer furnishing the paint, and for the particular purpose, shall be allowed, and all such thinning shall be done strictly in accordance with the manufacturer's instructions.
4. Where two or more coats are specified, the first coat shall be tinted a minimum of three shades lighter than the color specified, and progressively to the final coat.
5. Additional coats of paint shall not be applied nor shall units be returned to service until paints are thoroughly dry/cured.
6. Application rates:
 - a. Metal and plastic surfaces: Each coat of paint shall be applied at the rate specified by the manufacturer to achieve the minimum dry mil thickness required.
 - b. Concrete and masonry surfaces: Application rates will vary according to surface texture. However, in no case shall the manufacturer's stated coverage rate be exceeded.
 - c. Dry film thickness shall be verified in accordance with SSPC-PA 2. Deficiencies in film thickness shall be corrected by the application of an additional coat(s) of paint.
7. Where conditions are other than normal because of the weather or because painting must be done in confined spaces, longer drying times will be necessary.
8. Finished surfaces:
 - a. All finished surfaces shall be free from runs, drops, ridges, waves, laps, brush marks and variations in color, texture, and finish.
 - b. The hiding shall be complete, and each coat shall be so applied as to produce film of uniform thickness.
 - c. Special attention shall be given to ensure that all surfaces including edges, corners, crevices, welds, and rivets receive a film thickness equivalent to that of adjacent painted surfaces.
 - d. Metal or wood surfaces adjacent to surfaces to receive water-thinned paints shall be primed and/or touched up prior to the application of water-thinned paints.
 - e. A protective and decorative finish shall be achieved for all porous surfaces.
 - f. Finished surfaces shall be protected at all times until final acceptance of the project. CONTRACTOR shall be responsible for the satisfactory repair of any damaged surface.
9. Where interior or exterior metal is primed in the mill or shop, the material shall, in every case, be that specified for such surfaces and shall be used in accordance with the manufacturer's directions for the first or prime coat.

D. Clean-Up:

1. Upon completion of the work, CONTRACTOR shall remove all paint and varnish spots from the floors, glass and other surfaces.

2. All rubbish and accumulated materials shall be removed from the premises, and the work areas shall be brought to a clean, orderly and acceptable condition.

3.02 PAINTING SYSTEMS–GENERAL

- A. Surface preparation recommendations indicated below may vary depending on surface condition when equipment is ready for painting. For example, cast iron fittings and pipes when painted in a new condition before any rusting or corrosion forms do not require blasting. SSPC SP-1 Solvent Cleaning is acceptable. CONTRACTOR shall notify ENGINEER of varying surface conditions and consult the manufacturer to confirm conditions or recommend alternate surface preparation.
- B. Spreading rates listed below are given at manufacturer's recommended "theoretical" coverage and shall be adjusted by CONTRACTOR for specific textures and conditions. Under no circumstances will the dry film thickness be less than as specified.
- C. Chromium plate, stainless steel, aluminum, galvanized steel and monel metal shall not be painted or finished except as otherwise indicated.
- D. No request for substitution will be considered which decreases the film thickness designated and/or the number of coats to be applied, or which offers a change from the general type of coatings specified.

3.03 PAINTING SYSTEMS–INTERIOR WORK

- A. The following painting systems shall be used in all interior areas.
- B. Non-galvanized, ferrous metals–structural steel, pipes (including cast and ductile iron), valves, equipment and miscellaneous fabrications:
 1. Non-immersion surfaces:
 - a. Surface Preparation: SSPC-SP6 Commercial Blast Cleaning:
 - b. 1st Coat: Type 1 Coating at 4.0 dry mils.
 - c. 2nd Coat: Type 1 Coating at 5.0 dry mils.
 - d. 3rd Coat: Type 1 Coating at 5.0 dry mils.
 2. Immersion surfaces (frequently we due to condensation, splash, spray or immersion except potable water immersion):
 - a. Surface Preparation: SSPC-SP10 Near White Blast Cleaning.
 - b. 1st Coat: Type 1 Coating at 5.0 dry mils.
 - c. 2nd Coat: Type 1 Coating at 5.0 dry mils.

3.04 PAINTING SCHEDULE

- A. New Work:
 1. All new exposed pipe, fittings, valves, pipe hangers/supports and appurtenances.
 2. All new equipment of a material requiring paint.

END OF SECTION

SECTION 25 51 00

PROCESS CONTROL EQUIPMENT

PART 1—GENERAL

1.01 SCOPE OF WORK

- A. This section covers work necessary for the design, documentation, assembly, test, installation, field testing, calibration, startup, training, final documentation, and warrantee follow-up service for a PLC control system as shown on the drawings and as described herein.
- B. A complete and operational system is intended to be supplied. System and devices shall be furnished as needed to be fully operational as described herein, and as otherwise required for operation and Code compliance. Control, monitoring and alarms shall be in full complement to pumps, instrumentation and other equipment provided for this project. Field instrumentation shall be provided by the PLC system supplier, unless otherwise indicated by the contract documents, to yield single point responsibility for the entire control system.
- C. Wiring and devices provided for control of equipment shall be provided to comply substantially with schematic diagrams, other project drawings, and the descriptions contained herein. Alterations to the schematic diagrams as mutually agreed between PLC system manufacturer's designers and the Engineer will be allowed.
- D. Control systems integrator shall supply motor control equipment under their scope of work to assure the control wiring for motor controls matches exactly what is needed for the PLC and hard-wired control system interface. Equipment includes Motor Control Centers, Enclosed Motor Controllers and Variable Speed Controllers.

1.02 RELATED SECTIONS

- A. 25 91 00 – PROCESS CONTROL DESCRIPTIONS
- B. 26 29 13 – ENCLOSED MOTOR CONTROLLERS
- C. 26 29 23 – VARIABLE SPEED CONTROLLERS

1.03 REFERENCES

- A. NEMA ICS-2 – Industrial Control Devices, Controllers and Assemblies
- B. NEMA 250 – Enclosures for Electrical Equipment
- C. UL 508 – Industrial Control Equipment

1.04 BASIS OF DESIGN

- A. The naming of a manufacturer in this specification is not intended to eliminate competition or prohibit qualified manufacturers from offering equipment. Rather, the intent is to establish

a standard of excellence for the material used, and to indicate a principle of operation desired.

- B. The base bid control equipment shall be Allen Bradley CompactLogix PLC's and I/O, and new operator interface. See detailed panel listing, later in this specification. Proposed equal alternate equipment and software shall be submitted to the Engineer, in accordance with Pre-Bid Approval submittal requirements, specified herein. The Engineer will issue an addendum prior to bid, listing approved alternate control systems.

1.05 SYSTEM SUPPLIER

- A. The system supplier shall be one of the following:
 - 1. Jetco Inc., Altoona, Iowa, Mr. John Whitacre, 515-967-5874.
 - 2. Alternates: With pre-approval from Engineer

1.06 PRE-BID APPROVAL

- A. Any system hardware other than the named design basis system must submit a pre-bid submittal document fourteen (14) calendar days prior to project bid date. Provide two bound copies, with tabbed dividers and contents organized and presented as hereinafter specified.
- B. Pre-Bid approval does not exempt the Contractor from meeting all the requirements of the Contract Documents nor does it give any prior acceptance of any equipment, software or services. The Contract Documents are the final authority for acceptance of the work provided. The Pre-Bid Submittal is not a part of the contract documents and as such does not exempt the Contractor from the requirements of contract submittals described hereinafter.
- C. Information contained in the Pre-Bid Submittal shall be considered public information. All data submitted will become and remain the property of the Owner; none will be returned.
- D. It is intended that the Owner shall receive the full benefit of any savings in cost involved in materials substitution as a result of a reduction of the contract price should they decide to accept an alternate.
- E. The Engineer's decision as to pre-bid approval shall be final. The Engineer shall be considered the sole judge of the merits of the proposed alternate system and shall indicate pre-approval of the alternate system via a written addendum to the specifications prior to the actual bid date.
- F. The right is reserved to request additional information as needed to make satisfactory evaluation of proposed alternate equipment and systems. Additionally, the right is reserved to reject any and all proposals, to waive any informality, irregularity, mistake, error or omission in any proposals received and to accept the proposal, as determined by the Engineer or Owner, deemed most favorable to the Owner's interests.
- G. The Owner and the Engineer will review system technical information as submitted by the Contractor for software; operating system, database, control strategies and the graphical user interface, i.e. report and log formats, graphics, trends, alarming, etc. for complete compliance with these specifications.

H. Contents:

1. Include a complete summary of deviations and/or exceptions from the technical requirements listed in this specification.
2. Provide a written overview of the proposed SCADA system hardware describing the principal functions and capabilities of the system's PC, PLC's, system communications and general system capabilities (maximum number of network nodes, PLC's and I/O points, communication protocols available, etc.). Information is required for:
 - a. Make, model and qty of proposed PLC's, main and remote. Include method of communication and medium (RS232, Ethernet, Fiber Optic, radio modem, phone modem, ect) between PLC processors.
 - b. Make, model and qty of proposed I/O modules, including method of communication and medium between PLC and I/O modules.
 - c. Make, model and qty of proposed radio equipment, if proposed.
 - d. Make, model and qty of each proposed operator interface.
3. Provide descriptive literature and technical performance specifications for the proposed hardware component.
4. Provide an operating system and software applications list. Include all major software packages and model numbers. Indicate whether any proposed software is proprietary and would not be turned over to the owner.

1.07 SUBMITTALS

- A. The following requirements shall be in addition to those other sections in this project manual. In the case of conflict, the more stringent requirement shall be met.
- B. Before any components are fabricated, and/or integrated into assemblies or shipped to the job site, furnish to the Engineer for their review submittal documents. Submittals shall include full details, shop drawings, catalog cuts and such other descriptive matter and documentation as may be required to fully describe the equipment and to demonstrate its conformity to these specifications. At minimum the Contractor shall submit the following:
 1. Hardware:
 - a. Indicate enclosure sizes, material, finish, weights, outline and construction information, including component arrangements (door-mounted, internal and external), proposed nameplate engraving, space heaters, ventilation and cooling systems if supplied.
 - b. Provide complete schematic diagrams for the panels and showing all external interfaces (typical schematics are not sufficient). In the case of multiple panels required, clearly show the exact requirements of interconnection wiring needed for field installation.
 - c. For control panels that are modified with addition of new I/O connections and/or cards, existing control panel drawings available at the facility shall be updated to reflect the changes.
 - d. For control panels that have deleted field process equipment, the associated I/O shall be disconnected and the existing drawings updated to reflect the changes.
 - e. Provide a complete bill of materials of all component pieces, showing component name, make/model numbers, and quantity supplied. Include catalog cut sheets of each electrical component.
 - f. Personal computers (PC's) and programmable logic controllers (PLC's) to be supplied shall include a complete listing of processor type(s), peripheral devices and component ratings.
 2. Software:
 - a. Provide written system operation sequence.

- b. Submit proposed (preliminary/rough) graphic displays and report format layouts for comment and approval. List and briefly describe all operator interface functions provided from display screens and/or PC's, including: alarm annunciation and acknowledgment, status displays, control capabilities, report generation, event logging, charting and trending, etc.
 - c. Licensing information and a listing of user manuals shall be provided for all proposed software and firmware supplied at shop drawing submittal time. The user manuals themselves shall be included in the final Operations and Maintenance Manual.
 - 3. Test Outlines and Procedures Submittals: Test descriptions shall be in sufficient detail to fully describe the specific tests to be conducted to demonstrate conformance with this specification.
 - 4. Spare Parts and Expendable Item Recommendations: The Contractor shall provide a list of recommended spares and expendable items. The list shall be exclusive of any spares furnished under this Contract. A total purchase cost for the recommended list shall be provided in addition to the unit cost for each item. Pricing stated shall be effective for 1 year after Acceptance of Control system.
- C. Contractor shall allow time for and attend a face-to-face meeting with the engineering team to review all submittals, in particular the draft screen graphic displays and pop-up menu selections that are proposed. The required meeting shall take place approximately 1 week after the submittal is received at Engineer's office.
- D. Post Project Documentation: Contractor shall be responsible to supply electronic copies of programs, annotations and other valuable electronic files so the Owner may have permanent record and backups of customized software.
 - 1. Submission shall be made on CD-ROM, with sub-directories made for each piece of major component. (I.e. Provide separate directories for each control panel, SCADA computer, operator interface, etc.)
 - 2. Submission shall be made at conclusion of startup and again near the conclusion of the warrantee period.
 - 3. Specific files shall include, but not be limited to:
 - a. PLC executable and development programming files.
 - b. SCADA executable and development programming files.
 - c. PLC development file full annotations,
 - d. SCADA full annotations.
 - e. Other files as requested by Engineer.

1.08 QUALITY ASSURANCE

- A. Products (Where panels DO connect to Hazardous locations):
 - 1. Panels provided under this section shall be constructed in compliance with Underwriter's Laboratories Categories 698A and 913 standards – "Enclosed Industrial Control Panel Relating to Hazardous Locations with Intrinsically Safe Circuit Extensions" listing and following-up service. The control panel(s) shall bear the Underwriter's Laboratories serialized label for "Enclosed Industrial Control Panel Relating to Hazardous Locations with Intrinsically Safe Circuit Extensions".
 - 2. While the use of U.L. listed components is encouraged, their use alone and/or the alternate use of a U.L. 508A – "Enclosed Industrial Control Panel" serialized label will not be considered an acceptable or satisfactory alternate to the "Enclosed Industrial Control Panel Relating to Hazardous Locations with Intrinsically Safe Circuit Extensions" serialized label specified above. Upon request from the Engineer, the panel manufacturer shall supply documentation to the owner proving they are a U.L.

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recognized manufacturing facility for the type of equipment required. Only the labeled products of U.L.698A and 913 "Enclosed Industrial Control Panel Relating to Hazardous Locations with Intrinsically Safe Circuit Extensions" recognized panel manufacturer shall be considered acceptable for use on this project.

- B. Testing: Manufacturer of control panels shall fully test the systems before delivery to the job site. All testing shall be documented, with copies placed in the Operation and Maintenance manual.

1.09 DEFINITION OF ACCEPTANCE

- A. System acceptance shall be defined as that point in time when the following requirements have been fulfilled:
 - 1. All O&M documentation has been submitted, reviewed and approved.
 - 2. The complete SCADA system and instrumentation have successfully completed all testing requirements specified herein and have successfully been started up.
 - 3. All Owner's staff personnel training programs have been completed, except if some training is specified to occur some time significantly after startup.
 - 4. Electronic copies of programs have been received and approved by Engineer. See also Submittal Requirements in this Specification.
 - 5. Owner/Engineer sign a document indicating SCADA system has formally been accepted.

1.10 POST-ACCEPTANCE PROGRAMMING

- A. No pre-purchased additional programming hours are included in this project.

1.11 WARRANTY

- A. The Contractor and control system Supplier shall provide a written warranty in the name of the Owner and submit Warranty to the Engineer for review.
- B. The Warranty shall guarantee the control system and all of its components to be free of defects for a period of two (2) years from the date of Acceptance.
- C. The Warranty shall include all supervision, labor, materials and equipment, installation, and travel to the site to correct any defects in any component due to faulty materials, equipment, installation methods, programming, or workmanship and consequent damage resulting from such defects. Warranty work shall be schedule on-site during normal working hours at the Owner's convenience.
- D. The Contractor shall be responsible to amend any and all hardware, software, panels, wiring, installation or other components as needed to gain conformance to the project requirements regardless of when it is first noticed by the Engineer or Owner, even if reviewed previously, but not commented. This requirement remains in force after Acceptance, throughout the warrantee period.

PART 2-PRODUCTS

2.01 GENERAL

- A. In order to achieve standardization for appearance, operation, maintenance, spare parts and manufacturer's service, to the greatest extent possible, like items of equipment provided hereunder shall be the end products of one (1) manufacturer.
- B. PLC control panels that are new or have added functionality are described in dedicated sections below in detail. Main additions for the project include
 - 1. New pump #3 with variable speed power/control.
 - 2. Remove and replace grinder with new reversing motor starters and controls.
 - 3. Add float backup controls and timers for the pump station.

2.02 MOTOR CONTROL CENTER - NORTHEAST LIFT STATION

- A. Existing MCC section for PLC controls contains Compact Logix PLC and I/O and radio. Upgrade station controls to include the following equipment.
 - 1. New PLC I/O as needed for new processes. See attached I/O list.
 - 2. Updated PLC and Instrument Power Supplies as needed
 - 3. New intrinsically safe isolation/surge relays. See I/O list.
 - 4. New control switches, indicating lights, and run timer (with nameplates) to match existing pump 1 and 2 door-mounted devices for new pump #3. Provide also new switches and lights relating to new float backup mode operations.
 - 5. Switches, timers, relays, indicating lights and other hard-wired equipment as needed to accomplish the control descriptions in this specification, and schematics/controls shown on the drawings.
 - 6. Engraved nameplates for each control device, switch, light and other items on the panel.
- B. Existing MCC section with back-panel contains motor starter and controls for existing grinder. A full-height MCC section is currently used only for the existing grinder. Ample space to make all needed additions is present. Modifications to the section are as follows:
 - 1. Remove all existing motor starter and control devices for existing grinder. Power for existing motor starter is supplied from separate feeder circuit breaker cubicle in the MCC with power supply wiring. Preserve wiring for reuse.
 - 2. Remove door-mounted control station supplied with the existing grinder.
 - 3. Provide front-door blanking plate with new switches, indicating lights, run-timer, as shown by project schematics and
 - 4. Provide and install new reversing motor starter components mounted on back panel for powering the new grinder.
 - 5. Install seal failure and thermal switch relays supplied with grinder into this cubicle.
 - 6. Provide and install all other control relays, timers and switches as needed for control of the grinder.
 - 7. Provide control switch station to be mounted locally at the grinder. Control switches will be mounted inside a NEMA 4 box, with padlocking cover for security.
 - 8. Switches, timers, relays, indicating lights and other hard-wired equipment as needed to accomplish the control descriptions in this specification, and schematics/controls shown on the drawings.
 - 9. Engraved nameplates for each control device, switch, light and other items on the panel.

- C. Existing MCC sections for Pump 1 and Pump 2. Each pump has a dedicated MCC section for power and hard-wired controls. Control circuit and any timers associated with the pump output check valve position switch will be disabled by removing field wiring and installation of jumper wiring. However control relays and control wiring will remain intact as much as possible to allow re-enabling these controls in the future if desired.
- D. Existing MCC section for Pump 3. A full-height MCC section with is completely empty with a blank front hinged door, ready for addition of new motor controls. Provide the following:
 - 1. MCC bus tap connectors
 - 2. VFD input circuit breaker with outer-door operator and interlock
 - 3. VFD with input line reactor and door-mounted OIT
 - 4. Door Ventilation: Slots cut or drilled into upper and lower region of door with grill faceplates and filtered-inlet with cooling fans to draw in room air and expel heated air to the electrical room.
 - 5. Outer-door switches and indicating lights.
 - 6. Switches, timers, relays, indicating lights and other hard-wired equipment as needed to accomplish the control descriptions in this specification, and schematics/controls shown on the drawings.
 - 7. Engraved nameplates for each control device, switch, light and other items on the panel.

2.03 CONTROL SYSTEM HARDWARE

- A. Power Supplies: All power supplies required for operation shall be provided. Power supplies shall be sized to have a minimum of 40% spare capacity providing increased reliability and allowing for the addition of future equipment.
- B. PLC Input/Output Cards (I/O): PLC shall be supplied with I/O that matches the project schematics and wiring lists. Unless otherwise stated in the project documents, the following criteria shall apply for I/O.
 - 1. General:
 - a. PLC I/O shall match the brand and style of the processor used. I/O of a different style, though it will communicate with the processor supplied, will not be allowed. For example, a PLC processor type AB ControlLogix shall use ControlLogix I/O, not MicroLogix I/O. CompactLogix PLC's however, utilize as standard, MicroLogix I/O.
 - b. Mixed analog input/output cards shall not be used accept if the total I/O count for that PLC is not more than one analog input and one analog output. If higher I/O quantities are required, provide separate analog input and analog output cards.
 - 2. Digital Inputs:
 - a. Inputs shall be interrogated at 120VAC, but need not be electrically separate. If electrical separation is required due to field-connections, auxiliary relays inside the control panel shall be used.
 - b. Inputs used to register pulses from totalizing meters or other pulsing field devices shall be sufficiently fast to recognize the meter pulse. If the meter pulse is faster than a standard digital input card will recognize, inputs with high-speed counter capability shall be supplied.
 - 3. Digital Outputs: All outputs shall be connected to interposing output relays. The relays shall match the requirements listed in these specifications for control relays.
 - 4. Analog Inputs: Inputs shall be rated for 4-20mA DC, and shall have capability of being loop-powered, from the PLC power supply, or field-powered.
 - 5. Analog Outputs: Outputs shall be rated for 4-20mA DC.

- C. Spare Parts: As part of this contract, the Contractor shall furnish a minimum of one (1) each of the spare parts listed below. Parts shall be provided in a single package with each component tagged.
1. PLC CPU, qty 1
 2. PLC program EPROM, qty 1, if not supplied with CPU above
 3. I/O cards, qty 1 of each type used for the project
 4. PLC power supply, qty 1 of each size used
 5. Instrument or auxiliary power supply (if used), qty 1
 6. Communications cards, qty 2 of each type used if not part of the processor, (i.e. DH+).

2.04 PILOT DEVICES

- A. Selector switches shall include removable 10 amp, 600-volt double make double break contacts. All pilot lights, selector switches and pushbuttons shall be rated for NEMA/UL 4 applications. They shall be heavy duty, not less than 30mm diameter, Allen-Bradley Series 800T or equal.
1. Hermetically sealed contact blocks shall be utilize for selector switches placed in Hazardous Locations, as classified by the National Electrical Code.
 2. Indicating lights shall utilize LED lamps for extra-long life.

2.05 RELAYS & TIMERS

- A. Relays shall be general-purpose plug-in type. They shall be a minimum of 3-pole, double-throw with contacts rated for 5 amps at 240 VAC. All relay sockets shall allow for future expansion. Timers shall be double-pole, double-throw, and solid state plug-in type. With contacts rated for 5 amps at 240 VAC. Sockets shall be eight-pin octal types. Timers shall be adjustable from 1-1023 seconds in one-second increments. A "time cycle in progress" indicating LED shall be provided.

2.06 RUNNING TIMER METERS

- A. An elapsed time meter shall be mounted on the enclosure door for each pump. It shall be 6 digit (99999.9 hours) non-reset type. Each pump run signal shall be derived from a motor starter auxiliary.

2.07 CYCLE TIMERS

- A. Cycle timers shall be solid state eight-mode selectable with up to 300 hour setting. Contacts shall be rated 5A, 120V, 960VA/120W maximum. Cycle timers shall be Idec GT3W series (www.idec.com) or equal.

2.08 INSTRUMENT CIRCUIT SURGE PROTECTION (FOR CIRCUITS EXTENDING TO OUTDOOR LOCATIONS)

- A. When location of the field instrument is outside of the same building as the connecting control panel, or if both the instrument and control panel are outdoors, that analog circuit shall be supplied with internal panel surge protection and isolation.

2.09 ENCLOSURE REQUIREMENTS

- A. General Requirements Common to all Enclosures, unless otherwise specified,
 - 1. Internal components shall be mounted on a white-painted steel back plate. Heavy items shall be provided with mounting reinforcements as required.
 - 2. All doors, inner and outer, shall be equipped with full-length piano-type hinges and 3-point door latches with operator handles. Outer doors shall have double-angled flanges to prevent dust/moisture ingress.
 - 3. All selector switches, pushbuttons, pilot lights, motor starter overload reset operators and circuit breakers shall be operable and visible without opening the panel dead front.
 - 4. Nameplates shall be provided for each control device (light, switch, push-button, ect.) to indicate function and associated equipment.
 - 5. Mounting tabs or feet shall be provided as dictated by size of panel. When provided with mounting feet, removable panel skirts, matching material and finish as the panel, shall be supplied to cover field wiring and conduits.
 - 6. Panel Product Basis of Specification
 - a. Wall-hung panels shall be Hoffman type A*****LP with continuous hinge and clamp covers with full gasket, shown in Hoffman bulletin A12, or pre-approved equal.
 - b. Free standing panels shall be rated NEMA 12, Hoffman type A*****FS with continuous hinge and single door handle with 3-point latch, shown in Hoffman bulletin A30, or pre-approved equal.
 - c. Hoffman Concept-series panels or similar quality from other suppliers is not allowed for any locations.
 - 7. Thermal conditioning.
 - a. Ventilation louvers, fans and inlet/outlet air filters shall be provided if internal equipment rejects significant heat during normal operation. Fans, if used shall be thermostatically controlled. For significant heat rejection devices, such as VFD's and transformers, a panel air conditioning system shall be supplied.
 - b. Condensation protection shall be provided. Enclosure shall have a heater which operates continuously to prevent condensation or moisture build-up.
 - c. A heater and thermostat shall be provided for all outdoor panels to avoid condensation and component freeze problems.
- B. Local Control Stations
 - 1. Provide enclosure types and sizes as indicated by the drawings. Provide suitable enclosure to match environmental conditions even if otherwise indicated by the drawings.
 - 2. Provide engraved nameplates on each control station to indicate what is being controlled and what each light/button/switch does.
- C. Indoor/Dry
 - 1. All indoor control and power equipment shall be mounted in freestanding 14 gauge steel NEMA/UL 12 gasketed enclosures with skirts.
 - 2. Unless otherwise noted in the project documents, enclosures located in humid or corrosive areas shall be type 304 stainless steel. Enclosures in other areas may be 304 stainless steel or epoxy gray powder-painted steel.
- D. Outdoor/Wet
 - 1. All outdoor control and power equipment shall be mounted in weatherproof, rain-tight enclosures designed specifically for mounting in an unprotected outdoor location. Unless specifically detailed otherwise, all outdoor panels shall be constructed with inner-

door and dead-front outer door. No control items shall be mounted on the exterior of panel without explicit specifications to the contrary.

2. Enclosures shall be rated NEMA 4. If NEMA 4 enclosures are not available with other specified enclosure options, such as door latches and ventilation, NEMA 12 with drip shields and gaskets may be supplied.
3. Unless otherwise noted in the project documents, all outdoor enclosures shall be type 304 stainless steel.
4. All outdoor control and power equipment panels shall be insulated with 1/2" thick (minimum) rigid insulating foam permanently fastened to panel. Insulation shall be placed behind the backboard, on all sides, top and bottom, and on available areas of the front door. Enclosures judged by the Engineer or Owner to have inadequate insulation will be supplied with additional insulation at no additional cost to the Owner.
5. Each enclosure shall have a gasketed, hinged, front weather-door, and an internally mounted hinged dead front panel so that all the components normally actuated by Operating Personnel are accessible without opening the dead front and yet are not exposed to the elements or to unauthorized personnel.
6. An outer door shall be provided with a 3-point latch system. The latch operator/handle shall be capable of being padlocked in the closed position.
7. When specified, provide a viewing window shall be provided in the outer door that will allow the operator to see all control related devices without opening the outer door.
8. Inner doors shall be provided with breaks to make the doors more rigid.

2.10 PANEL WIRING

- A. All wiring shall be in complete conformance with the National Electric Code, state, local and NEMA electrical standards.
- B. Internal power wiring shall be #14 AWG minimum.
- C. Internal control wiring shall be #16 AWG minimum.
- D. Wiring shall be SIS copper.
- E. Power circuits shall land directly on starters for motors.
- F. Control wiring from field devices external to panel shall land on terminal strips with ring/tongue connectors.
- G. Wiring shall be permanently marked with wire numbers that correspond to the system schematics. The numbering convention shall comply with the municipal industry standard.
- H. All incoming and outgoing wires shall be connected to numbered terminal blocks and all wiring neatly tied and fastened to chassis as required.

2.11 INSTRUMENTATION

- A. Several Equipment systems are supplied with a compliment of instrumentation that is not included in the scope of supply for 25 51 00. See equipment specification sections.

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- B. A summary of instrumentation provided under 25 51 00 is supplied in the following table. Details of each type of instrument are specified below the summary table. In each case, the instrument ranges, calibrations and special features must match the process connection and situation and controls interface, which will be the final responsibility of the Control System Supplier.

Type	Location	Quantity
FS/1, Float Switch – float backup	Wet Well	3

- C. Instruments Specified Elsewhere: No additional instruments supplied with this project.
- D. Float Switch, FS-1
1. Quantity of float switches shall be as indicated by the drawings. Each grouping of float switches shall be supplied with one common means of mounting with the exact level of the float being completely and independently adjustable through the entire depth of the wet well.
 2. Float switch must meet NFS Standard 61, for potable water.
 3. Provide high impact polypropylene housing 2.74" diameter x 4.83" long, narrow operating range, mechanical-actuated snap-action normally open (or normally closed, depending on application and circuit) contact rated 120VAC, 100mA max, 0.16mA min, water depth 30ft max, with 2-conductor cord type SJOW, CPE jacket.
 4. Provide each float with mounting clamp, suitable for mounting to cable as specified below.
 5. The float switches shall be SJE-Rhombus type SJE-MilliAmpMaster, narrow angle operating range, or engineer approved equal.
 6. The float switches shall be mounted to a single vinyl-coated multi-strand stainless steel cable with plastisol-coated, 25-pound cast-iron weight with a cast-in-place stainless steel eyelet. The stainless steel cable shall have a loop with two cable clamps at the upper end of the assembly for mounting to an eyelet. The kit shall be Anchor Scientific type WRW or equal.

PART 3–EXECUTION

3.01 CONSTRUCTION SEQUENCE

- A. The specified control system will replace existing controls in functioning water/wastewater infrastructure. The Contractor shall coordinate all activities and schedules with the Owner and Engineer so operation of the facility and its component processes are maintained while connection of new controls is made. In addition, changes to the plant treatment processes, equipment, and piping will be occurring in parallel to the controls upgrade. The Contractor shall include planning of overall project activities in relation to proposed outages related to the control system.
- B. Unless specifically noted on the drawings or other contract documents, prolonged outage of any one piece of equipment or process will not be allowed. The Contractor shall propose all outage durations to the Engineer for review and approval. Construction activities shall be completed to the greatest extent possible prior to switchover, so the shortest outage durations are achieved.

- C. Unless noted on the drawings or other contract documents, switchover from existing to new control systems shall be accomplished one process or component at a time, not disconnection of all existing controls, then connection of all new controls. Likewise, testing of new automatic systems shall be completed as first available.
- D. Contractor shall provide temporary manual switches, timers, relays and other miscellaneous items and wiring to allow temporary manual or semi-manual control while the existing system is dismantled. Where plant processes utilize spare pumps or other equipment, the redundant equipment can be switched over and made operational without provision of temporary items or wiring.

3.02 PANEL INSTALLATION

- A. Full-height panels (approximately 78" tall or greater) shall be mounted directly to a concrete pad unless noted.
- B. Mid-height panels (approximately 50 to 70 inches tall) shall be mounted so the main display is at approximately 60" above floor level. Mount the panel to the wall or on legs with skirts to cover all conduits that enter from below.
- C. Small panels (approximately 48" or shorter) shall be mounted to the wall so center of panel is approximately 40 to 60 inches above floor level, as directed by the Owner.

3.03 TESTING AND STARTUP

- A. All elements of the SCADA system shall be tested to demonstrate that the total system satisfies all of the requirements of the contract documents. The Contractor shall provide all special testing materials and equipment. The Contractor shall coordinate and schedule all of his testing and startup work with the Owner. Testing requirements are as follows:
- B. Factory Tests: The PC with peripherals, PLC's and all other associated hardware shall be tested at the factory, prior to shipment, so as to demonstrate that each component is operational and meets the requirements of these specifications. Test results shall be certified, with written documentation provided to the Owner upon test completion. The Owner or Engineer will not witness factory testing.
- C. Field Tests
 1. The services of a factory trained, qualified representative shall be provided at project site to supervise, perform, and coordinate the installation, make all adjustments necessary to place the system in trouble-free operation, and instruct the operating personnel in the proper care and operation of the equipment.
 2. All system components shall be checked to verify that they have been installed properly and that all terminations have been made correctly. Witnessed field tests shall be performed on the complete system. Each function shall be demonstrated to the satisfaction of the Owner and Engineer on a paragraph-by-paragraph basis.
 3. Each test shall be witnessed and signed off by the Contractor and the Engineer upon satisfactory completion. The Contractor shall notify the Owner and Engineer at least one (1) month prior to the target date of the field tests, with verification at least one (1) week prior to commencement.

- D. Post Startup Verification:
 - 1. After Contractor has determined all punch list items are complete and the control system is finished, Engineer will verify operation of the entire facility in accordance with these project specifications and any changes that have been made during construction.
 - 2. All motors, instrumentation, alarms, setpoints, alarms, reports and other features of the control system are intended to be verified. A detailed list of non-compliance items will be made and transmitted to Contractor.
 - 3. Contractor shall update programming, panel wiring, operation or other features of the controls as needed to obtain compliance to the operational requirements.
 - 4. Owner Acceptance of project will not be made until after the Contractor has brought control system into compliance and Engineer has agreed that items on the abovementioned list are completed.

3.04 INSTRUCTING THE OWNER'S REPRESENTATIVE

- A. The factory representative shall provide training and hands-on operation to the Owner's designated representative or representatives in the maintenance, care and operation of the complete systems installed under this contract. Training shall be 6 hours minimum, taking place in a dedicated scheduled meeting with city staff, and shall be completed at the conclusion of startup. All instruction and reference materials needed for the training shall be provided by the Contractor.
- B. Instructions shall be set up and given at a specific time, as coordinated between the Contractor and Owner.
- C. The Owner has the option to video tape the instruction and training for future reference. Within reason, the Contractor shall facilitate location and method of instructions to allow for video taping.
- D. The Engineer shall be notified at least two weeks in advance of the time and place of verbal instructions to be given so that he or his representative may be present if desirable.

3.05 POST STARTUP CHANGE OVER

- A. With the project are provided spare parts (PLC processor, and power supplies, I/O cards, communications cards, EPROM's, ect), which need to demonstrate reliability and operation.
- B. At conclusion of startup phase, shut down the PLC system, and remove the similar functioning items from the control panel, and pack for long term storage.
- C. Insert spare parts with applicable programming, energize, and restore automatic operation of the plant using the "spare" parts.

3.06 OPERATION AND MAINTENANCE MANUALS

- A. The Contractor shall provide operation and maintenance manuals as specified in section 01 3300. In addition to "as-built" system drawings, the manuals shall include internal wiring diagrams and operating and maintenance literature for all components provided under this section.

- B. The submitted literature shall be in sufficient detail to facilitate the operation, removal, installation, programming and configuration, adjustment, calibration, testing and maintenance of each component and/or instrument.
- C. Operation and Maintenance manuals shall include copies of all PLC programs written to accomplish the monitoring and control functions specified. Programs shall be updated after startup is complete, with the program(s) provided to the Owner on compact disk (CD). Two (2) copies to be provided.
- D. The contents of the O&M manuals shall be generally organized as follows:
 - 1. System Hardware/Installation
 - 2. System Software
 - 3. Customized Software Executable and Development files.
 - 4. Operation
 - 5. Maintenance and Troubleshooting

PART 4-SUPPLEMENTAL INFORMATION

4.01 PROJECT LISTING OF PLC INPUTS AND OUTPUTS

- A. A list of PLC I/O follows as an appendix to this section.

END OF SECTION

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Seq.	Item	Description	Function	Control Panel	I/O Type				Notes
					DI	DO	AI	AO	
1	NE Lift Station								3
2	Wet Well	Float Switch high, low		CPL-LS	3				2
3	Wet Well	Float backup mode		CPL-LS	1				
4	Lift Pump 3	Run, Manual-Speed-Select, Speed	Command	CPL-LS		2		1	
5	Lift Pump 3	Running, VFD Alarm, Speed	Status	CPL-LS	2		1		
6	Lift Pump 3	In-Auto, Fail	Status	CPL-LS	2				
7				CPL-LS					
8	Grinder	Run Forward, Run Reverse	Command	CPL-LS		2			
9	Grinder	Running For, Running Rev, In-Auto, Fa	Status	CPL-LS	4				
10	Grinder	In-Auto, Fail	Status	CPL-LS	2				
11	Grinder	Seal SW, Therm SW	Status	CPL-LS	2				2
12	Grinder	Jam (CT Overload)	Status	CPL-LS	1				
13									
14		20%	Spare I/O		3	1	0	0	
15			Subtotal		20	5	1	1	
			Project Total I/O	DI		DO	AI	AO	
				20		5	1	1	

Notes:

1. I/O list provided for convenience only. Provide additional I/O as needed by sequence of operation descriptions.
2. Intrinsically safe relay isolation required
3. Existing control panel. I/O shown is only that added, not existing unchanged.

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SECTION 25 91 00

PROCESS CONTROL DESCRIPTIONS

PART 1–GENERAL

1.01 RELATED SECTIONS

A. 25 51 00–PROCESS CONTROL EQUIPMENT

PART 2–PLANT OPERATIONAL DESCRIPTIONS

2.01 GENERAL REQUIREMENTS

A. General

1. Most equipment is designed to utilize local Hand-Off-Auto (HOA) control switches at the equipment and Hand-Off-Remote (HOR) control switches at the motor control center (MCC). Operation of these switches is shown on the project control schematic diagrams. Unless otherwise noted, descriptions contained herein assume the local switch is in the AUTO position and the MCC switch is in the REMOTE position.
2. A listing of PLC system Inputs/Outputs (I/O) is included with this project manual. While an attempt to identify all I/O for the project has been made, the list is intended as an aid to the Contractor and System supplier only. If additional and/or different I/O types are required for the project to achieve sequence descriptions and controls, those I/O shall be provided at no additional cost to the Owner.
3. Based on the I/O list provided, approximately 20% spare I/O of each type shall be provided for future addition to the control system, unless otherwise listed in the I/O list. If the designs call for distributed I/O (I/O located at more than one location), the spare I/O requirement shall be made at each location without respect to other locations.
4. Programming descriptions given in this specification outline basic requirements. Review of submitted shop drawing's verbal sequence descriptions may necessitate clarification and/or expansion of the requirements to achieve proper operation.
5. The Contractor shall include additional programming efforts to modify displays, operations or other features of the programming to suit the Owner's preferences. See specification section 25 51 00, Part 1, "Post-Acceptance Programming".

B. System Graphics

1. System shall be capable of providing both dynamic and static graphic displays. Dynamic graphics shall provide real-time system information displayed on operator interfaces, as applicable for the project. Alarms, status, and analog data depicted shall be updated as data is made available.
2. System supplier shall create displays representing system processes and instrumentation as described hereunder. These displays shall be built with object oriented graphic elements such as ovals, rectangles, lines, arcs, circles and text. The created displays shall result in symbols that match the equipment, (i.e. pumps look like pumps, tanks look like tanks etc.). Graphic displays to be provided under this contract shall include:
 - a. Individual graphic display for each site in the system. Displays shall include such items as digital and/or bar graph indication of analog process variables, and alarm and status indications for each piece of monitored equipment.

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- b. All PLC system inputs shall be displayed in the system graphics in symbol or textual form.
 - c. When the project includes a mix of different view panels, the graphic screens and menu systems shall be laid out in similar fashion as much as will be allowed despite the differences in screen types and sizes.
 3. Displays shall use the color capabilities of the video display system to visually indicate status, level and alarm conditions of major components in the system. As the status of the actual components change, the color of the displayed symbol for the components shall change to denote their current status. Setpoints and control points shall be modifiable when displayed on the screen by an operator who has been assigned access to this function.
 - a. Pump symbols shall be green when its respective pump is running, white when it is off and red when in alarm. The pump symbols shall be yellow when commanded to run, but not yet detected as running. The words "Running", "Off" and "Failed" shall be placed adjacent to the pump symbol to further indicate status.
 - b. The wet wells and other levels shall be displayed as a dynamic vertical bar graph.
 - c. Dynamic valve (and gate) symbols shall be provided. In addition, the words "Opened" or "Closed" shall appear adjacent to their respective symbol.
 - (1) If valves are provided with limit switches, valves will change color and update the text based on inputs from the field wiring.
 - (2) In the case of modulating valves, both the commanded position and feedback position %-Open shall be displayed. Valves shall change color when full-open, intermediate, and full closed.
 - (3) If no valve position devices are provided, static valve graphic symbols shall be displayed, but the text shall indicate the commanded position.
 - (4) Colors to be used shall be
 - (a) Valve Open = Green
 - (b) Valve Closed = White
 - (c) Valve Alarm = Red
 - (d) Valve Traveling or Intermediate Position = Orange
 4. Soft pushbuttons shall be provided to allow the operator to enter setpoints, change sequence and acknowledge alarms.
- C. Operator Interfaces: PLC system will be equipped with multiple operator interfaces, all Allen-Bradley PanelView type displays. Each display will be required to show all plant info, in identical for all locations of the plant.
- D. Trending
 1. Analog graphic real time and historical trend charts shall be available for all monitored analog process variables in the system. These shall be displayed in strip chart style with the vertical axis depicting the variable value and the horizontal axis representing time. Each display shall be scaled in appropriate coordinates for the specific variable being monitored. Chart time frame shall be operator selectable from a minimum of one minute to one year.
 2. System shall be capable of displaying up to eight (8) analogs on a single chart. Color shall be used to differentiate between analogs. When multiple analogs are displayed, the vertical axis shall be scaled to a percentage of the operating range.
 3. Ability to print both real-time and historical trends shall be provided.
 4. Analog variable for each chart shall be automatically sampled and the value stored on the system hard drive. It shall be possible to import/export historical data in a CSV format to/from spreadsheets, other databases and editors.

- E. Alarming capabilities shall include:
 - 1. High-High, High, Low, Low-Low
 - 2. Major/Minor deviation.
 - 3. Eight (8) hierarchical alarm groups w/16 subgroups per group.
 - 4. Viewing all alarms or subsets as a summary or a history.
 - 5. Selectable formats for display, archiving or printing.
 - 6. Rate of change.
 - 7. All alarms shall be time and date stamped, and displayed in the alarm log in reverse chronological order.

- F. Reports
 - 1. System shall be able to print reports formatted suitably for management and governmental requirements.
 - 2. Reports shall be printed using actual or calculated values from either the system's real-time database, the historical database, or manually entered data.
 - 3. Contractor shall provide programming and development time to achieve up to 4 different reports under this contract. The type(s) of data, formatting and other details will be confirmed during execution of the contract, prior to installation and testing. Reports will contain information and data as needed for IDNR reporting and valuable information as identified by Owner.
 - 4. A report generation system shall be included to print standard and custom reports, lists, tables and graphic charts. Report generation shall be invoked either on demand by the operator, by a monitored event, or automatically on a daily, weekly, monthly or yearly basis.
 - 5. Report generation system shall be capable of producing daily, weekly, monthly and/or yearly reports. It shall be possible to configure the reports to meet management and government requirements as specified herein. Reports shall be printed using actual or calculated values from either the system's real-time database, the historical database, or manually entered data.
 - 6. The system shall utilize Microsoft™ Access™ or InSQL Server to hold report data and shall allow data to be shared by dynamically linking to third party spreadsheets to send or receive, manipulate, display or print graphs and reports.
 - 7. If needed to generate various reports, a single copy of Crystal Reports shall be provided.
 - 8. Copies of required governmental reports to be provided under this contract are available for download via the Iowa DNR website.

- G. Database
 - 1. System shall utilize a Real-Time Database which stores current system values and status, announces alarm conditions and status changes, totalization and running time accumulation and provides control logic for outputs based on information contained in the database. Analog data points shall be capable of having their values sampled for chart displays and reports, plus they shall be used in comparisons for alarm and setpoint control.
 - 2. System shall utilize a Historical Database to periodically collect information from the Real-Time Database. The data shall be filed on the computer hard disk. Period between collections shall be adjustable from one day to one year, selectable by data point.
 - 3. Data from the both the Real-Time and Historical Databases shall be available for displays and reports. Data shall be capable of being exported to third party spreadsheets, text files or any DDE program. In order to conserve system resources, all third party software shall reside on a separate computer.

- H. Anticipated new and reworked graphic screens for this project as follows below. Updates will be made to existing lift station OIT.
 - 1. NE Lift Station –new additions.
 - a. Pump #3 status/controls/setpoints
 - b. Wet well new setpoints for modes of operations and new float switches.
 - c. New grinder controls: Previous grinder was not in the PLC system.
 - d. New Alarms
- I. Common Programming
 - 1. Programming internal to the PLC shall be fully annotated to allow full understanding of logic. Each rung at a minimum shall be accompanied with description of its function, various permissions, interlocks, and where used elsewhere in the program.
 - 2. When the facility main power panel or motor control center is supplied with a power detection device PLC programming shall have the following features:
 - a. Remove all run commands from all equipment. This will avoid false/transient required/not-running alarms and power surges that result when power is interrupted.
 - b. Stagger the re-start of required pumping and/or equipment after a power outage to minimize power surges on the utility power system.
 - 3. Unless otherwise specified, common display and data logging requirements exist for the following equipment. This programming shall be provided each item in the process control system.
 - a. Timers: When timing, all OIT's shall show the timer setpoint, and the current status of the timer (if it is in a timing sequence), and what the current count (i.e. count-up or count-down).
 - b. Motors:
 - (1) Motor run times are kept via MCC run timers. PLC does not record run hours.
 - (2) Operator Interface graphics will show In-Auto, Running, Stopped, Failed and other available status information, with changing color and text based on status.
 - (3) Alarms shall be generated whenever a motor is commanded to run, but is not proved running via current-sensor-switch within an adjustable time delay.
 - c. Valves
 - (1) PLC system will keep a log of valve operations.
 - (2) Operator Interface graphics will show In-Auto, Running, Stopped, Failed and other available status information, with changing color and text based on status.
 - d. Float Switches
 - (1) Float switch status shall be graphically shown on the panelview, as if attached to a fixed point on the tank graphic. When liquid level is below the float, the float shall appear to angle down and away from the virtual attachment point. When liquid level is above the float, it shall appear to angle up and away from the virtual attachment point.
 - (2) Float status changes shall also be shown with changing colors and text notes next to the floats to differentiate the two different positions.
 - (3) Float Switch signals shall have delays built into the PLC programming, to allow cleaning of floats, or other maintenance activities to occur without setting off alarms or initiating plant processes. The delays shall be independently adjustable if needed by the specific process.
 - e. Flow Transmitters
 - (1) Instantaneous flow rates shall be displayed on the operator interface and graphic displays.

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- (2) The numeric value of flow shall be noted on the screen adjacent to the appropriate segment of piping.
- (3) For flow meters equipped with a pulse output, the daily flow totals shall be recorded and logged based on the pulse input (adjustable gallons per pulse) from the flow meter. The daily total flow will be reset to zero at a specified time of day, i.e. 7am each day.
- (4) For setpoints that involve totalized flows, a count-up or count-down totalizer should be shown to indicate the amount of flow that remains before the associated process step is complete.
- f. Level Transmitters
 - (1) Instantaneous levels shall be displayed on the operator interface and graphic displays.
 - (2) Tanks, pits, sumps and the like shall have dynamic graphic displays corresponding to detected level. The numeric value of the level shall be noted adjacent to the tank symbol.
- g. Timers: Show all time setpoints and remaining time countdowns on the relevant screens.
4. Motor Starters
 - a. Unless otherwise modified for an individual piece of equipment, a typical motor will be controlled as follows. See project schematic diagrams for details of how the motor starter should be wired.
 - (1) The MCC or individual motor starter will have on it a HAND-OFF-REMOTE switch.
 - (a) HAND – The motor runs.
 - (b) OFF – The motor does not run.
 - (c) REMOTE – The local switch is allowed to control the motor.
 - (2) A local control switch near the motor, with positions of HAND-OFF-AUTO
 - (a) HAND – The motor runs.
 - (b) OFF – The motor does not run.
 - (c) AUTO – The PLC is allowed to control the motor.
 - (3) PLC system will be programmed with a software switch, with positions of HAND-OFF-AUTO
 - (a) HAND – The motor runs.
 - (b) OFF – The motor does not run
 - (c) AUTO – The PLC turns the motor on and off based on the detailed sequence of operation. See the description of operation for details.
 - b. A typical motor will have the following inputs and outputs to/from the PLC control system.
 - (1) Run Command output
 - (2) In-Auto, Running-Feedback, Failed inputs, Motor Running-amperage
 - (3) Note that the “In-Auto” status is a combination of many signals, meaning all physical control switches are in the AUTO position, all interlocks are satisfied, and control power is available at the starter. See project schematic diagrams for wiring of the “In-Auto” signal.
 - c. Status of all I/O points, (inputs and outputs) for the motor shall be displayed on the control system operator interfaces. If supplied with the project, all info shall be shown the SCADA computers as well.
 - (1) In-Auto, Running, Stopped, Failed, Run-Command and other available status information will be shown with changing color and text based on status.
 - (2) Status of all programmable PLC-based software switches.

- d. For submersible motors, they typically come equipped with seal fail detection and thermal switch protection.
 - (1) Detection relays for the equipment will typically be supplied with the equipment, but transferred to the Systems Integrator for inclusion into the PLC control panels.
 - (2) Operation of the motor shall be halted and alarmed for action of either the seal fail detection or thermal switch.
 - (3) Status of both points shall be displayed on the OIT/SCADA system.
- e. Motor run times are kept via PLC/SCADA run timers. Neither the MCC's nor starters will have run hour timers.
- 5. Variable Frequency Drives (VFD's)
 - a. Unless otherwise modified for an individual piece of equipment, a typical variable frequency drive shall be controlled as follows.
 - b. Variable frequency drives shall have all the same control features as motor starters (above), with the added controls associated with modulating speed.
 - (1) When the VFD status is not "In-Auto", speed control of the VFD is signaled to be via the VFD's operator interface and associated programming, not controlled by the PLC system.
 - (2) When the VFD status is "In-Auto", speed control is via the PLC system.
 - (3) The VFD will have a programmed switch for PLC control of the speed, either FIXED or AUTO.
 - (a) When FIXED, the VFD will be controlled by the PLC, but at a speed that matches the speed setpoint.
 - (b) When AUTO, the VFD will be controlled by the PLC at a speed detailed by the sequence of operation for that equipment.
 - c. For VFD's that have local disconnect switches, an auxiliary contact from the main power circuit will be wired to the VFD control logic, to stop the VFD prior to opening the power circuit.
 - d. VFD operator interface programming shall be programmed at time of commissioning to input key limits of operation relating to the motor being driven. These setup parameters will include, but not limited to the following.
 - (1) VFD minimum and maximum speeds. The minimum speed will often be related to a pump minimum operating flow rate or bearing loading.
 - (2) Acceleration and deceleration ramp rates. These will often be related to limiting hydraulic surges in piping systems or other process considerations.
 - (3) VFD operating speed if the VFD "In-Auto" condition is not met.
 - (4) VFD carrier frequency. Under most conditions, this will be the lowest available setting, unless a different setting is specifically needed. Consult equipment manuals for all equipment in the power delivery circuit for that motor.
 - e. A typical VFD will have the following added inputs and outputs to/from the PLC control system, in addition to those of a typical motor starter.
 - (1) Commanded Speed
 - (2) Feedback Speed
 - (3) Speed control selector switch and all other PLC programmable switches.
- 6. Valve/Gate Operator (Open/Close)
 - a. Valves are supplied with limit switches to report full-closed and full-open positions, reported to the PLC.
 - b. Valves are supplied with adjustable intermediate-position limit switches. These switches are sometimes used for key valve position as set during commissioning, and are sometimes used in detailed operation of a system, as detailed by the sequence of operation for that process.

- c. Unless otherwise modified for an individual piece of equipment, a typical valve will be controlled as follows.
 - (1) The valve operator will have on it a HAND-OFF-REMOTE switch.
 - (a) HAND – The operator's local open/close controls will be functional.
 - (b) OFF – The operator does not run.
 - (c) REMOTE – The PLC is allowed to control the operator.
 - (2) PLC system will be programmed with a software switch, with positions of HANDOFF-AUTO
 - (a) HAND – The operator will open or close based on PLC system manual controls.
 - (b) OFF – The operator does not run
 - (c) AUTO – The PLC opens and closes the valve based on the detailed sequence of operation. See the description of operation for details.
- d. A typical valve will have the following inputs and outputs to/from the PLC control system.
 - (1) Open and Close Command outputs
 - (2) Full-Open and Full-Closed status inputs.
- e. Status of all I/O points, (inputs and outputs) for the operator shall be displayed on the control system operator interfaces. If supplied with the project, all info shall be shown the SCADA computers as well.
 - (1) In-Auto, Running, Stopped, Failed, Run-Command and other available status information will be shown with changing color and text based on status.
 - (2) Status of all programmable PLC-based software switches.
 - (3) When commanding the valve to move, feedback from the valve shall be noted by the PLC to indicate traveling condition. If commanded to fully open or close, and reception of the corresponding limit switch signal is not received within an adjustable time delay, an alarm shall be generated.
- 7. Valve/Gate Operator (Modulating)
 - a. Same basic operation as above, but with added functions to make it modulate.
 - b. Modulating valves are controlled with 4-20mA PLC signal to command desired position, and supply a 4-20mA signal to the PLC to report the actual position.
 - c. When specifically mentioned in the detailed operation of the valves, the analog command position shall not be used. Instead, the PLC will directly control the valve position via the open and close digital commands, and remove the open/close commands when the desired position is achieved. For motor-operators, extreme care must be taken to avoid hunting of the valve and over-cycling the operator motor, which would result in motor burn-out. Time delays and %error allowances will need to be incorporated to avoid motor burn-outs.
- J. PLC Watch Dog Timer: PLC programmed to continuously cycle a digital output open and closed at 100-second intervals. The output is wired to two timers. If the PLC output contact remains closed/open for longer than 120 seconds, one of the timers will change state and initiate an alarm light and horn that are mounted to the control panel. When an alarm dialer or other remote signaling device is provided, this signal shall initiate remote annunciation of the alarm.

2.02 SEQUENCE OF OPERATIONS

- A. NE Lift Station: Existing programming for items at the lift station are unchanged, except as described below.

B. Grinder

1. Existing grinder controls are hard wired and part of the suppliers control package. They will all be removed with this project and replaced with a combination of hard-wired and PLC controls.
2. New grinder is powered via a reversing motor starter, with hard-wired timer interlocks to require a pre-determined "Off" time when switching operating directions. See schematic diagrams.
3. Motor starter power circuit is also equipped with two current transformer switches on the output. The grinder is designed to run continuously. Under most load conditions, the motor is very lightly loaded with operating amps much lower than motor full load amps.
 - a. First switch is for confirmed running condition, and set to detect minimum operating current. The output contact is in series with the output contacts of both contactors to indicate if running is forward or reverse.
 - b. Second switch is set up during grinder commissioning to indicate a jam or high torque. This will correspond to roughly 80% full load amps, to be confirmed during commissioning. When the grinder encounters a heavier load or complete jam, the motor amps will be elevated and signal the control system. See details below for sequences relating to jam clearing.
4. The grinder is a submersible device, supplied with thermal and seal detection sensors.
 - a. Specialized relays or detection unit devices shall be supplied with the grinder and provided to the control system supplier for inclusion in the panel.
 - b. Contacts for each shall be isolated with intrinsically safe relays.
 - c. Reception of either seal fail signal or thermal switch will lock in and require reset via a local panel pushbutton.
 - d. Thermal switch shall lock out operation of the grinder in all modes.
 - e. Seal fail indication will also lock out operation of the grinder in all modes
5. Local to the grinder are control switches.
 - a. Auto-Off-Manual:
 - (1) Auto: PLC will control the grinder.
 - (2) Off: Grinder is off regardless of actions of the PLC or other switches.
 - (3) Manual: Grinder control is via the local Forward-Off-Reverse switch.
 - b. Forward-Off-Reverse:
 - (1) Forward: Grinder runs continuously in forward direction.
 - (2) Off: Grinder is "OFF" only if Auto-Off-Manual switch is in the Manual position.
 - (3) Reverse: Grinder runs continuously in the reverse direction.
6. PLC Automatic Operation.
 - a. PLC operation of the grinder is intended to be the same as operation of a similar grinder at Newton's SE Lift Station, added in roughly 2014 or 2015, except as needed to be tweaked to account for a manual delay timer and remote switches instead of at the control panel.
 - b. The grinder shall operate continuously when the local switch is in the AUTO position, and shall continue to operate until one of the following conditions is met:
 - (1) The current sensing relay reaches the overload limit, then Auto-Clear Cycle shall be engaged.
 - (2) An adjustable time set point (starting at 120 minutes) is reached, then Maintenance Cycle shall be engaged
7. Auto-Clear Cycle
 - a. Cycle shall be engaged if current sensing relay reaches 80% of locked rotor current of grinder motor
 - b. The motor shall stop in the forward direction and engage a two second delay. This delay shall be adjustable.

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- c. After delay, the grinder shall start in the reverse direction. It shall continue in the reverse direction until the current sensing relay again reaches the overload limit.
 - d. At this limit, the two second delay shall be activated, and then the grinder shall run in the forward direction.
 - e. If in the forward direction the current sensing relay again reaches the overload limit, the cycle shall repeat.
 - f. If the overload condition still exists after four cycles, the grinder shall be locked out and the grinder FAULT condition shall be engaged.
 - g. Reset of grinder shall be by the manual RESET button on control panel.
 - h. During the cycle, if the grinder continues to run unobstructed for more than 30 seconds, then the counter shall be reset and continue with operation as normal. This time band shall be adjustable.
- 8. Maintenance-Cycle
 - a. If the grinder has continued operation for the adjustable set point time of 120 minutes without reaching a current sensing overload, then it shall be stopped and the adjustable two second delay shall be engaged.
 - b. Following the delay, the grinder shall start and run in the opposite direction.
 - c. This cycle shall continue whenever the grinder is in AUTO position and an overload condition has not been met. If an overload condition does occur, this shall reset the 120 minute time period.
- 9. Interlocks
 - a. The grinder shall be locked out if either the seal failure or motor over temperature input to the PLC are activated. Provide latching relay to lock out both HAND and AUTO operation and activate the appropriate SCADA alarm and indicator lights. Reset shall be through the RESET pushbutton.
 - b. Control power to seal failure and over temperature shall be from a common circuit and powered through an auxiliary contact in the motor starter such that when power is disconnected from the pump, power to the alarm circuits shall also be de-energized.
- 10. Operator Interfaces will show
 - a. Status:
 - (1) Running Forward
 - (2) Running Reverse
 - (3) Timer setpoints and count-down status.
 - (4) Jam clearing routine counter
 - b. Alarms:
 - (1) Seal Failure alarm
 - (2) Thermal Switch alarm
 - (3) Grinder Fault/Jam
- C. NE Lift Station Wet Well
 - 1. An existing level transmitter detects level in the west portion of the wet well. No changes to the transmitter or PLC programming of the transmitter will be made, except to add new setpoints for control of Pump #3, detailed below.
 - 2. Three new float switches are added to indicate high wet well level and low level.
 - a. A common float switch will trigger a high alarm.
 - b. Since the wet well is divided into west and east portions, two float switches, one for each portion, will trigger separate low level, alarms, associated with the matching float switch.
 - c. Float switches with timers will also trigger operation of a backup pump mode via timers that are completely independent of the PLC system. See schematic diagrams and pump descriptions.

3. Operator interfaces will show:
 - a. Status:
 - (1) Float switch status.
 - b. Alarms:
 - (1) Wet Well High level, float switch.
 - (2) West portion Wet Well Low level, float switch.
 - (3) West portion Wet Well Low level, float switch.
- D. NE Lift Station Pumps
 1. There are two existing pumps (Pump #1 and Pump #2) in the lift station, powered via static soft starters.
 - a. Operation of Pump #1 and Pump #2 will be termed as MODE-1.
 - b. Existing PLC and level detector programming for these pumps includes programming to run both pumps in a Lead/Lag fashion. No changes are anticipated to pump staging routines based on wet well level.
 - c. Manual operation of Pump #1 and Pump #2 will be possible via control panel switches and the PLC OIT screens, even if the pump station PLC is in "MODE-2".
 - d. PLC Programming for MODE-1 will exclude any automatic operation of Pump #3.
 2. A new larger Pump #3 will be added with this project. Pump #3 will be driven via a VFD and will be used as a backup pump to the tandem operation of Pump #1 and Pump #2.
 - a. Automatic operation of Pump #3 will be termed as MODE-2.
 - b. Manual operation of Pump #3 will be possible via control panel switches and the PLC OIT screens, even if the pump station PLC is in "MODE-1".
 - c. PLC programming will be added to automatically operate Pump #3 when the lift station is under a MODE-2 operations mode.
 3. PLC MODE-1/MODE-2 switching
 - a. A PLC OIT selector shall be programmed to determine the lift station operation mode, with positions of MODE-1 or MODE-2. Selection of MODE-1 or MODE-2 will remain fixed via the PLC. When in AUTO-MODE, changes will occur as follows:
 - (1) When in MODE-1, PLC pumping occurs using Pump #1 and Pump #2.
 - (2) When in MODE-2, PLC pumping uses only Pump #3.
 - b. Automatic change of pump station from MODE-1 to MODE-2 will occur if any of the following occur.
 - (1) Any type of failure for either of Pump #1 or Pump #2
 - (2) Either pump with output flow too low.
 - (3) Pump #1 and Pump #2 combined flow to low.
 - (4) Either Pump #1 or Pump #2 have status "Not-In-Auto"
 - c. Automatic change of pump station from MODE-2 to MODE-1 will occur if any of the following occur.
 - (1) Any type of failure for either of Pump #3
 - (2) Pump #3 with output flow too low.
 - (3) Pump #3 with status "Not-In-Auto"
 - d. If the PLC automatically changed the operating mode from the MODE-1/MODE-2 switch selected position as a result of the above conditions, a separate alarm will be created to signal that the operating mode has switched. Further failures after the mode has automatically switched will not result in further automatic changes to the operating mode until the alarm has been acknowledged and cleared.
 4. MODE-1 (Pump #1 and Pump #2) Automatic Operation:
 - a. Existing PLC programming of pumps is used, and is largely unchanged from current operation, except as needed for the changes related to addition of Pump #3 and automatic operational MODES.

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5. MODE-2 (Pump #3) Automatic Operation: When all switches are in Auto and Pump 3 has IN-AUTO status.
 - a. Raising wet well levels above the Start setpoint will start and run the pump at minimum speed.
 - b. Pump speed will increase as wet well level rises.
 - c. Pump speed will reach maximum at the wet well max speed level setpoint.
 - d. Pump speed will decrease as wet well level decreases.
 - e. Pump will turn off if level is below the pump off setpoint.
6. Speed Modulation
 - a. Any operation of hard-wired switches to the HAND position will initiate running of pumps at a fixed speed as set on the VFD operator interface.
 - b. With all hard switches in REMOTE and AUTO, and the software switch in HAND, speed will be set at an operator-adjustable % set point (50%-100%), which can be set at any PLC operator interface.
 - c. When all switches are in AUTO, speed will be controlled by the PLC as described below in accordance with the wet well level and many set points.
 - (1) Pump operation shall be as follows:
 - (a) Start when wet well level exceeds the Pump On Min. Speed setpoint level. Stop if level falls below the Pump Off Level.
 - (b) While pumping in auto, the pump shall rotate no faster than the "Max-Speed" setpoint and rotate no slower than the "Min-Speed" setpoint.
 - (c) Speed control via the PLC will be as governed by a straight-line proportion governed by the following points:

Min-Speed setpoint and Start/Min-Speed-Level setpoint

Max-Speed setpoint and Max-Speed-Level setpoint
 - (d) If level increases, pump speed will increase.
 - (e) If level increases beyond Max-Speed-Level, the pump will rotate no faster than the Max-Speed setpoint.
 - (f) If level falls, pump speed will decrease.
 - (g) If pump is at minimum speed and level continues to fall, pump will continue to run at minimum speed until the Lead Pump Off Level is achieved and it will stop.
 - (2) Pump controls shall include sufficient algorithms and time delays to provide smooth operation of the pumps, so that pumps are not "hunting" and continuously ramping up and down.
 - (a) Systems Integrator shall allot sufficient additional programming time to adjust P&ID curves, time delays, and other parameters to accomplish desired pump control with a wide variety of plant incoming flow rates, varying operating conditions with the designed wet-well volume.
 - (b) Except for particularly complex and non-intuitive settings, all setpoints shall be viewable and changeable via the SCADA computer when logged in as plant administrator. Engineer shall approve which settings should not be altered via the operator interface.
7. Time Delay Settings: Pump operation PLC programming shall be provided with adjustable time delays to help limit surges in the electrical power system. Settings shall be viewable and changeable at the pump control screen on the operator interface. Initial settings shall be as follows:
 - a. Pump-3 Start: 2 seconds
 - b. Pump #3 Fail (run called, but not running via current sensor): 30 seconds

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8. Interlocks: On a manual basis, all pumps may run at the same time. However from an automatic programming basis, only MODE-1 (Pumps 1 and 2) may run at a time, or MODE-2 (Pump-3 only) will run at a time.

E. NE Lift Station Level Control

1. Control of Pump #3 start/stop points and speed controls are made in response to increasing or falling wet well level, shown in the following table. These setpoints will be added to the setpoints already existing for control of Pump #1 and Pump #2. Note that the levels indicated below are intended for initial startup. All setpoints shall be operator-adjustable via the OIT.

Level	Action	Notes
0.0 ft (850.00)	bottom of wet well	
2.5 ft (852.50)	Low low level alarm/cutoff (float)	
3.25 ft (853.25)	Low level alarm	
4.0 ft (854.00)	Pump-3 off	
7.0 ft (857.00)	Pump-3 on min speed level	60% speed (adjustable)
8.0 ft (858.00)	Pump-3 max speed level	100% speed (adjustable)
9.0 ft (859.00)	High wet well alarm	
10.0 ft (860.00)	High high wet well alarm (float)	

2. For the record, setpoints for control of Pump #1 and Pump #2 are listed below:

Level	Action	Notes
4.0 ft (854.00)	All Pumps Off	
7.0 ft (857.00)	Lead Pump On	
8.0 ft (858.00)	Lag Pump On	

3. Operator Interfaces will show: Setpoints: Levels, Start-Speeds, Min/Max-Speeds, all independent of each other.

F. Pump Station Float Backup Mode

1. A hard-wired float switch and timer system will be added to all three pumps in the lift station, two existing and third new pump. The system will be operational in event of PLC controller or level transmitter failure. See schematic diagram for wiring details.
2. Low-Low cutout float switch shall be provided for the west portion of the wet well. If the wet well west portion level falls below the Low-Low float elevation Pump #1 and Pump #2 shall be stopped. The pumps shall remain off until the wet well level rises to the High-High level alarm float elevation.
3. Low-Low cutout float switches shall be provided for the east portion of the wet well. If the wet well level falls below the Low-Low float elevation Pump #3 shall be stopped. The pump shall remain off until the wet well level rises to the High-High level alarm float elevation.
4. A High-High level alarm float shall be provided. If the wet well level rises to the High-High level alarm float elevation two pumps shall be started in a timed sequence. The delay between each pump start shall be manually adjustable. A pilot light shall be provided to indicate a primary control failure. This alarm shall also initiate strobe action. The back-up control shall be manually reset.
5. The logic in this section shall be powered from an independent power source, and shall be operable if the automatic controller is not operable.
6. NOTE: Flow monitoring (below) will not be active in Float Backup Mode.

G. NE Lift Station Pump Flow Alarms

1. Any PLC monitoring of the check valves for Pump #1 and Pump #2 will be disabled, but preserved to allow future re-activation, if needed.
2. Verification of pumps running will be determined via the existing lift station output flow meter.
3. New setpoints shall be implemented for:
 - a. Mode-1 minimum flow rate (one pump)
 - b. Mode-1 minimum flow rate (two pumps)
 - c. Mode 2, Pump #3 minimum flow rate.
4. If one or more pumps are running in the appropriate mode, and the flow meter recorded flow is less than the setpoint, for more than 10 seconds (adjustable), the associated pump(s) will be deemed as failed, and the lift station operating mode will change from the current mode, to the other mode, i.e. from MODE-1 to MODE 2 or from MODE-2 to MODE-1.

2.03 SCADA COMPUTERS

A. Existing Wastewater Treatment Plant SCADA computers.

1. Existing SCADA system at Wastewater Treatment Plant shows limited status and operations of the lift station.
2. Updates to SCADA computer displays and controls and alarms will be required:
 - a. Add full operational control of the entire lift station as currently available via the local PLC OIT.
 - b. Add new control/monitoring/alarms for the new Grinder and new Pump-3 controls added at the lift station.
 - c. Add full alarming capability via the SCADA computer for all lift station alarms, including ability to disable alarms and select alarms for remote dialing/notification.

2.04 ALARMS

A. General.

1. Alarms for new equipment and changed process shall be added to the existing alarm system.
2. Primary system is via the SCADA computer, using WIN911 or SCADAalarm. Backup system is via an external phone dialer.
3. The following alarms shall be supplied for all equipment if the stated condition occurs:
 - a. Pump or equipment called to run, but no feedback to confirm running.
 - b. Valve called to open or close, and no indication of limit switch movement.
 - c. Process equipment (pump, valve or other similar) not IN-AUTO.
 - d. Transmitter signal lost or out of range.
 - e. PLC failure
4. At the PLC level, every alarm shall be configurable with the following characteristics:
 - a. Individual time delays associated with any alarm, possible to be different from every other alarm. This will allow certain transient situations from resulting in nuisance alarms.
 - b. Enable/Disable any alarm
 - c. Enable/Disable Dialing for any alarm

B. Specific Process Alarms

1. Pumps/Grinder (typical for all)
 - a. Running, but not enough water flow after 30 seconds (adjustable)
 - b. Not in Auto

- c. Fail
- d. Pump Seal Fail
- e. Thermal Switch High
- f. VFD Trouble
- 2. Grinder Jam/Failure
- 3. Pump Low Flow (typical for each)
- 4. Lift Station Mode-1/Mode-2 change

2.05 DATA LOGGING

- A. All flow rates.

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 26 05 00

BASIC ELECTRICAL REQUIREMENTS

PART 1—GENERAL

1.01 SCOPE OF WORK

- A. This Specification and the accompanying drawings govern the work involved in furnishing, installing, testing and placing into satisfactory operation the Electrical Systems as shown on the drawings and specified herein.
- B. Contractor shall provide all new materials as indicated in the schedules on the drawings, and/or in the project specifications, and all items required to make the Electrical System a finished and working system.
- C. Description of Systems
 - 1. Complete electrical power system including panelboards, load centers, transformers, motors, disconnects, starters, receptacles, raceway, wiring, etc.
 - 2. Complete electrical lighting system including fixtures, lamps, ballasts, battery backups, switches, controls, raceway, wiring, etc.
 - 3. Complete grounding system.
 - 4. Complete power distribution, controls, wiring, etc., for non-electrical equipment supplied for the project (i.e. mechanical or process equipment and the like).
- D. Work and Materials by Others: None.

1.02 OWNER-FURNISHED WORK/MATERIALS

- A. None.

1.03 WORK SEQUENCE

- A. Any construction work and tie-in to existing facilities that could affect Owner's operation of existing systems shall be fully coordinated with the Owner with knowledge and approval of work before the work begins. See other sections of this project manual.
- B. Modification of power system includes upgrading overall electrical power service and addition of backup generator and transfer switch. Work also includes reconditioning and P/M work for the main switchgear. These activities will require multiple outages of the entire power system.
 - 1. Contractor should plan that only one longer-duration outage can be accomplished per day.
 - 2. Shorter outages will be easier to accommodate and with multiple allowed per day.
 - 3. A maximum of eight hours for an outage may be allowed, but only if low-flow conditions at the plant exist and are expected.
- C. Construction sequence plans on running the entire facility from Alliant Energy's "East" distribution line. If the "East" line becomes unavailable for a lengthy time, the "West" line will be used, which will require addition of cable jumpers as noted on the one-line diagram. When running from the "West" line, operations surrounding construction of the sludge storage tank

may need to be curtailed or with added restrictions due to proximity of an energized live overhead line.

- D. For outages that are needed during high-flow conditions, or for longer than allowed time based on flow conditions, accommodations using temporary generators to keep Equalization Basin Pumps running while the remaining parts of the facility are out, would be possible, but will need to be discussed and approved by the Engineer and Owner.

1.04 EQUIPMENT CONTROL

- A. Although an attempt has been made to identify control requirements for the project via the specifications and/or drawings, no guarantee is given nor should be implied regarding the level of completeness represented by the project documents. Exact requirements are unable to be determined until after purchase of equipment and approval of shop drawings.
- B. Contactor shall provide all additional components (i.e. control switches, control transformers, control relays, pressure switches, thermostats, similar devices, and electrical boxes to contain said components) and wiring to achieve complete and working systems, whether detailed or not. For HVAC systems, these types of components are generally, but not always, provided with HVAC temperature controls. In the case of other process and packaged equipment controls, these items are Contractor's field installation responsibility.
- C. Ultimately the Contractor is responsible to provide control materials and wiring, and is responsible to coordinate which trade(s) has responsibility of provision and installation.
- D. Unless noted, shown or otherwise prohibited by Codes or Authority Having Jurisdiction, low voltage (24V and below) wiring may be plenum-rated without raceway, routed and supported to the satisfaction of the Owner and Engineer. Raceway systems shall be provided for all wiring 120V and above, regardless of system.

1.05 COMPLIANCE WITH CODES, LAWS, ORDINANCES

- A. Contractor shall conform to all requirements of the local and state Codes, Laws, Ordinances and other regulations having jurisdiction over this installation.
- B. The current issue of the National Electrical Code shall be followed, unless otherwise stated.
- C. Installation quality and style shall follow common and accepted practices as detailed by National Electrical Contractors Association, NECA-1, Standard for Good Workmanship in Electrical Construction.
- D. If during bidding, any parts of the project documents are not in accordance with codes or regulations, the Contractor shall notify the Engineer in writing, to request a clarification. If there is insufficient time to follow this procedure, the Contractor shall submit with his proposal a separate price required to make the system comply with codes and regulations.
- E. All changes made after letting of the contract in order to comply with codes, regulations, or requirements of authorities having jurisdiction, shall be made by the Contractor without additional cost to the Owner.
- F. In the event of discrepancy among codes, regulations, inspectors or other factors, the Engineer shall determine the resolution method.

1.06 PERMITS, FEES, TAXES, INSPECTIONS

- A. Pay all applicable charges for such permits, licenses, inspections and similar that may be required.
- B. Pay all applicable fees and taxes imposed by the State, Municipal and/or other regulatory bodies.

1.07 UTILITY COMPANY REQUIREMENTS

- A. Contractor shall obtain and follow all applicable requirements from the Utility to complete the project. Modification of details and installation needed to comply with Utility requirements shall be made at no cost increase.
- B. Contractor shall be responsible to make application and pay for application of new electrical service and associated utility application/review charges, if any. Contractor shall coordinate schedule and details between Owner and Utility.
- C. Utility charges for actual construction and extension of a new electrical power service shall be billed directly to the Owner, not the responsibility of the Contractor.

1.08 EXAMINATION OF DRAWINGS

- A. The drawings for electrical work are intended to show scope of work only. Contractor shall make minor adjustments and modifications to result in a complete and functioning coordinated systems. If adjustments are made, they shall be completed at no additional cost to the Owner.
- B. Locations of equipment and devices are shown in general locations only. Drawings are not intended to be scaled. Installation of equipment and devices shall be as coordinated with Owner, Architect/Engineer and other trades. In case of conflict the location of components shall take precedence in order of the following list:
 - 1. Large Bore Process Piping
 - 2. Light Fixtures
 - 3. Gravity Flow Piping (such as drain, steam and condensate)
 - 4. Electrical Busduct
 - 5. Sheet Metal (ductwork)
 - 6. Cable Trays, including access space
 - 7. Sprinkler Piping and other Piping
 - 8. Conduit and Wireway
- C. Items such as junction boxes, pull boxes, conduit fittings, etc., shall be provided by the Contractor as required to facilitate construction, even though they are not shown on the drawings.
- D. If an item is called for in the specifications or shown on the drawings, it shall be sufficient to be required of the contract.
- E. Determination of quantities of material and equipment required shall be made by the Contractor.

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- F. Equipment schedules shown on the drawings are provided as an aid, for Contractor's convenience only. Items required by the drawings and specifications are required of the Contractor even if not listed in the schedules.
- G. Catalog numbers listed in schedules or other locations are also listed as an aid to the Contractor. In the case of obsolete or incorrect catalog numbers, the descriptions and other ratings shown will prevail. Any accessories required to provide a complete and working system shall be provided even if not detailed or described.
- H. Where the words "Provide", "Install", "Supply", "Furnish", "Include" or other similar words are used in the specifications or on the drawings, it shall mean to furnish, install, and connect in a manner to be complete and ready for operation.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

3.01 FIELD QUALITY CONTROL

- A. The Contractor shall conduct all tests applicable for the equipment both during and after construction of the work.
- B. All needed instruments, meters and other devices/materials needed to conduct the tests shall be supplied by the Contractor.
- C. All cables and wires shall be tested for shorts and grounds following installation and connection to devices. Shorted or grounded wires shall be removed and replaced.
- D. Insulation systems for cables, splices, panels, bus bars, breakers, motors, transformers and other electrical devices shall be tested and comply with applicable IEEE, NEMA and/or NEC standards. Items found not to comply with applicable standards shall be replaced or repaired.

3.02 CONTROL AND INSTRUMENTATION WIRING INSTALLATION

- A. Contactor shall provide conduits as sized by notes on the drawings. If no notes or indications are supplied, sizes of **conduits for control and instrumentation circuits** shall conform to National Electrical Code requirements for conduit fill based on the conductors required, and be increased to the next larger trade size. The intent of this specification is to allow installation of extra wiring without need of installing new conduits.
- B. The required end result for the control systems and field wiring is to allow full functionality as specified herein AND as modified during shop drawing approvals of process equipment and control panels. Since design documents are based on preliminary information and design-basis process equipment, slight changes to field control wiring are inevitable. This situation will occur almost every time an alternate equipment supplier is utilized.

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- C. The scope of work required of the installation Contractor includes all of what is specified herein, all of what is shown on the project drawings, as required by approved shop drawings AND includes all wiring and conduit adjustments as needed to allow desired control. Types of adjustments this will include are listed below, but are in no way limited to the following:
 - 1. As a result of increased required conductor quantity, a conduit with no spare space will require a larger conduit. This is also addressed above, within this Article.
 - 2. Bidding documents may indicate wires terminate to a control panel, but instead the wiring needs to terminate inside a motor starter in the same electrical room as the control panel. As a result, longer circuits are required.
 - 3. Bidding documents may detail raceway connections between motor controllers and control panels in the same electrical room, but not detail exact quantity of wiring. Control wiring interconnections shall be supplied as needed by the approved shop drawings.
 - 4. Submersible pumps with a specific type of seal fail detection relay may require local mounting inside a local disconnect or splice box instead of inside a remote panel.
 - 5. Certain equipment may be supplied with factory cables that cannot be removed. Contractor will need to splice factory cable and provide and install a suitable splice box. Note that contractor shall confirm the device will operate correctly with spliced cables prior to cutting.
 - 6. Alternate process equipment was provided instead of the design-basis equipment, and extra valves, instruments, control switches, safety switches, ect, are required as a compliment to the equipment. Extra and different wiring/conduits are required.
 - 7. Other similar types of adjustments.
- D. Controlling documents for determination of the full and final scope of installation work shall be the approved shop drawings of process equipment, instrumentation and control panels. When a discrepancy between the bidding documents and the approved shop drawings is discovered, Contractor shall contact Engineer for confirmation. Ultimately, the Contractor is responsible for planning and installation of all field wiring conduits and cable pulls in accordance with approved shop drawings. Circuit information provided with the bidding documents shall not be followed exclusively.
- E. Contractor shall be responsible to execute the types of minor changes described above without adjustment to contract price. Significant additions, as judged by Engineer, will be reviewable as possible allowed change orders.
- F. Claims for change orders that are based on removal and/or alteration of wiring and/or raceway that was installed in accordance with bidding documents, when the approved shop drawings clearly required something different, will be rejected.
- G. Contractor shall NOT be responsible to:
 - 1. Provide extensive changes, as judged by Engineer, without discussion for possible change order.
 - 2. Provide control wiring to a device that was not identified in any way in the bidding documents. Note: If a new control device or instrument is required in conjunction with alternate process equipment being provided, different than design-basis, Contractor is responsible for provision of wiring/raceway since it was Contractor's choice to use the nondesign-basis equipment.
- H. The Engineer shall be the sole and final authority in evaluation and judgment of minor control wiring adjustments in contrast to major control wiring changes, and resulting affects it may have on possible change orders.

3.03 INSTRUCTING THE OWNER'S REPRESENTATIVE

- A. Adequately instruct the Owner's designated representative or representatives in the maintenance, care and operation of the complete systems installed under this contract.
- B. Instructions shall be set up and given at a specific time, as coordinated between the Contractor and Owner.
- C. The Owner has the option to video tape the instruction and training for future reference. Within reason, the Contractor shall facilitate location and method of instructions to allow for video taping.
- D. The Architect/Engineer shall be notified of the time and place of verbal instructions to be given so that he or his representative may be present if desirable.

3.04 SYSTEMS COMMISSIONING

- A. Electrical systems included in the construction documents are to be complete and fully operational systems. The system start-up, testing, balancing and satisfactory performance is the responsibility of the Contractor. This shall include all calibration and adjustments of electrical equipment controls, balancing of loads, trouble shooting and verification of software and final adjustments that may be required.
- B. All operating conditions and control sequences shall be simulated and tested during the start-up period. Testing shall include all interlocks, safety shut-downs, system operations and alarms.
- C. The Contractor, subcontractors, and equipment suppliers are expected to have skilled technicians to insure that the systems perform as designed.

3.05 PAINTING

- A. The Contractor shall paint all outdoor electrical equipment prior to mounting and/or installation.
- B. The Contractor shall paint any equipment marred or damaged during construction. Paint and color shall match original equipment paint.

3.06 ADJUST AND CLEAN

- A. Contractor shall thoroughly clean all equipment and systems prior to the Owner's final acceptance of the project.
- B. Contractor shall clean all foreign paint, grease, oil, dirt, labels, stickers, and other foreign material from equipment and fixtures.
- C. Contractor shall remove all rubbish, debris, etc., accumulated during the Contractor's operations from the premises.

END OF SECTION

SECTION 26 05 01

MINOR ELECTRICAL DEMOLITION

PART 1–GENERAL

1.01 SECTION INCLUDES

- A. Electrical demolition.

PART 2–PRODUCTS

2.01 MATERIALS AND EQUIPMENT

- A. Materials and equipment for patching and extending work: As specified in individual sections.

PART 3–EXECUTION

3.01 EXAMINATION

- A. Verify field measurements and circuiting arrangements are as shown on drawings.
- B. Verify that abandoned wiring and equipment serve only abandoned facilities.
- C. Demolition drawings are based on casual field observation and existing record documents.
- D. Report discrepancies to Engineer before disturbing existing installation.
- E. Beginning of demolition means installer accepts existing conditions.

3.02 PREPARATION

- A. Disconnect electrical systems in walls, floors, and ceilings to be removed.
- B. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.
- C. Electrical Power System: Maintain existing power system until new power systems are ready to provide power. Disable system only to make switchovers and connections. Minimize outage duration.
 - 1. Obtain permission from Owner at least 2 weeks before partially or completely disabling system, and confirm approximately 24 hours prior to outage.
 - 2. Make temporary connections to maintain service in areas adjacent to work area.
- D. Existing Control System: Maintain existing control systems and instrumentation and control switches, until new systems and/or process controls or equipment are ready to be replace the existing treatment functions.

3.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK

- A. Remove, relocate, and extend existing installations to accommodate new construction.
- B. Remove abandoned wiring to source of supply.
- C. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
- D. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets which are not removed.
- E. Disconnect and remove abandoned panelboards and distribution equipment.
- F. Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.
- G. Repair adjacent construction and finishes damaged during demolition and extension work.
- H. Maintain access to existing electrical installations which remain active. Modify installation or provide access panel as appropriate.
- I. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.

3.04 CLEANING AND REPAIR

- A. Clean and repair existing materials and equipment which remain or are to be reused.
- B. Panelboards: Clean exposed surfaces and check tightness of electrical connections. Replace damaged circuit breakers and provide closure plates for vacant positions. Provide typed circuit directory showing revised circuiting arrangement.

END OF SECTION

SECTION 26 05 19

BUILDING WIRE AND CABLE

PART 1-GENERAL

1.01 SECTION INCLUDES

- A. Wire and cable for 600 volts and less.
- B. Wiring connectors and connections.

1.02 REFERENCES

- A. NECA 1 - Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association.
- B. NETA STD ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.
- C. NFPA 70 - National Electrical Code; National Fire Protection Association.

PART 2-PRODUCTS

2.01 WIRING REQUIREMENTS

- A. Concealed Dry Interior Locations: Use only building wire in raceway, building wire with Type THN/THHN insulation in raceway.
- B. Exterior Locations: Use only building wire, building wire with Type THW/THWN insulation in raceway.
- C. Underground Installations: Use only building wire, building wire with Type THW/THWN insulation in raceway.
- D. Wet-well Installations: Use only building wire with type HDPE/PVC insulation.
- E. Use solid conductor for feeders and branch circuits 10 AWG and smaller.
- F. Use stranded conductors for control circuits.
- G. Use conductor not smaller than 12 AWG for power and lighting circuits.
- H. Use conductor not smaller than 16 AWG for control circuits.
- I. Use 10 AWG conductors for 20 ampere, 120 volt branch circuits longer than 75 feet.
- J. Use 10 AWG conductors for 20 ampere, 277 volt branch circuits longer than 200 feet.
- K. Conductor sizes are based on copper unless indicated as aluminum or "AL".

2.02 BUILDING WIRE

- A. Description: Single conductor insulated wire.
- B. Conductor: Copper.
- C. Insulation Voltage Rating: 600 volts.
- D. Insulation: NFPA 70, Type THWN/THHN.

2.03 INSTRUMENTATION WIRE

- A. Description: Twisted pair or triad conductor insulated wire, with metal foil shield and drain wire.
- B. Conductor: Copper #18AWG
- C. Insulation Voltage Rating: 250 volts minimum.
- D. Design Basis: Beldon 8760/8770

2.04 SERVICE ENTRANCE CABLE

- A. Description: NFPA 70, Type SE/USE.
- B. Conductor: Copper.
- C. Insulation Voltage Rating: 600 volts.
- D. Insulation: Type RHW.

2.05 WIRING CONNECTORS

- A. Split Bolt Connectors: Not allowed
- B. Solderless Pressure Connectors: Allowed
- C. Spring Wire Connectors: Allowed for #10 AWG and smaller wire.
- D. Compression Connectors: Allowed

PART 3-EXECUTION

3.01 PREPARATION

- A. Completely and thoroughly swab raceway before installing wire.

3.02 INSTALLATION

- A. Install wire and cable securely, in a neat and workmanlike manner, as specified in NECA 1.

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- B. Route wire and cable as required to meet project conditions.
 - 1. Wire and cable routing indicated is approximate unless dimensioned.
 - 2. Where wire and cable destination is indicated and routing is not shown, determine exact routing and lengths required.
 - 3. Include wire and cable of lengths required to install connected devices within 10 ft of location shown.
- C. Use wiring methods indicated.
- D. Pull all conductors into raceway at same time.
- E. Use suitable wire pulling lubricant for building wire 4 AWG and larger.
- F. Protect exposed cable from damage.
- G. Support cables above accessible ceiling, using spring metal clips or metal cable ties to support cables from structure or ceiling suspension system. Do not rest cable on ceiling panels.
- H. Use suitable cable fittings and connectors.
- I. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- J. Clean conductor surfaces before installing lugs and connectors.
- K. Make splices, taps, and terminations to carry full ampacity of conductors with no perceptible temperature rise.
- L. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
- M. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.
- N. Trench and backfill for direct burial cable installation as indicated on the drawings. Install warning tape along entire length of direct burial cable, within 3 inches of grade.
- O. Identify and color code wire and cable. Identify each conductor with its circuit number or other designation indicated.
- P. Install low voltage signal wiring in separate conduits from any 120V or higher voltage wiring.

END OF SECTION

SECTION 26 05 26

GROUNDING AND BONDING

PART 1—GENERAL

1.01 SECTION INCLUDES

- A. Grounding and bonding components.
- B. Provide all components necessary to complete the grounding system(s) consisting of: Rod electrodes.

1.02 REFERENCES

- A. NETA STD ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.
- B. NFPA 70 - National Electrical Code; National Fire Protection Association.

1.03 PERFORMANCE REQUIREMENTS

- A. Grounding System Resistance: 5 ohms.

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience with service facilities within 100 miles of Project.
- C. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2—PRODUCTS

2.01 ELECTRODES

- A. Rod Electrodes: Copper.
 - 1. Diameter: 3/4 inch.
 - 2. Length: 10 feet.
- B. Foundation Electrodes: Copper 2/0 AWG.

2.02 CONNECTORS AND ACCESSORIES

- A. Mechanical Connectors: Bronze.
- B. Exothermic Connections: Cadweld or equal.

- C. Wire: Stranded copper.
- D. Compression Connections: Burndy HyGround with Penetrox conductive sealant or equal.
- E. Grounding Electrode Conductor: Size to meet NFPA 70 requirements.

PART 3-EXECUTION

3.01 INSTALLATION

- A. Install ground electrodes at locations indicated. Install additional rod electrodes as required to achieve specified resistance to ground.
- B. Use of Mechanical Bronze Connectors is acceptable in accessible indoor locations only.
- C. Install 4 AWG bare copper wire in foundation footing where indicated.
- D. Provide grounding electrode conductor and connect to reinforcing steel in foundation footing where indicated. Bond steel together.
- E. Provide bonding to meet requirements described in Quality Assurance.
- F. Equipment Grounding Conductor: Provide separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing. Use of conduit as the equipment grounding conductor is not acceptable.

END OF SECTION

SECTION 26 05 29

HANGERS AND SUPPORTS

PART 1–GENERAL

1.01 SECTION INCLUDES

- A. Conduit and equipment supports.
- B. Anchors and fasteners.

1.02 REFERENCES

- A. NECA 1 - Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association.
- B. NFPA 70 - National Electrical Code; National Fire Protection Association.

1.03 SUBMITTALS

- A. See Section 01 33 00–Submittals.
- B. Product Data: Provide manufacturer's catalog data for fastening systems.
- C. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by product testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2–PRODUCTS

2.01 MATERIALS

- A. Hangers, Supports, Anchors, and Fasteners - General:
 - 1. Corrosion-resistant materials of size and type adequate to carry the loads of equipment and conduit, including weight of wire in conduit.
 - 2. Support and fastener material and finishes shall match the conduit types specified, unless otherwise detailed by drawing notes and schedules.

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Conduit Support Fasteners and hardware	Conduit Support Fasteners and hardware	Conduit Support Fasteners and hardware
RGS	Cast Metal or Hot dipped	Hot dipped galvanized steel
Aluminum	Stainless Steel	Stainless Steel
EMT	EMT Electro-plated steel	Electro-plated steel
PVC	PVC or Fiberglass	PVC coated steel or 316 stainless steel
Fiberglass	PVC or Fiberglass	PVC coated steel or 316 stainless steel

- B. Supports: Supports shall match boxes and materials specified for each area.
1. When supports are noted as galvanized, they shall be fabricated of structural steel or formed steel members; galvanized.
 2. In highly corrosive areas or other areas noted on the drawings, supports shall be cast aluminum, stainless steel, or fiberglass.
- C. Anchors and Fasteners: Where locations require supports made of certain materials, to prevent moisture or chemical corrosion, all associated hardware/fasteners shall match the indicated support materials.
1. Do not use powder-actuated anchors or spring clips.
 2. Concrete Structural Elements: Use precast inserts, expansion anchors, or preset inserts.
 3. Steel Structural Elements: Use beam clamps, steel ramset fasteners, or welded fasteners.
 4. Concrete Surfaces: Use self-drilling anchors or expansion anchors.
 5. Hollow Masonry, Plaster, and Gypsum Board Partitions: Use toggle bolts or hollow wall fasteners.
 6. Solid Masonry Walls: Use expansion anchors or preset inserts.
 7. Sheet Metal: Use sheet metal screws.
 8. Wood Elements: Use wood screws.

PART 3-EXECUTION

3.01 INSTALLATION

- A. Install hangers and supports as required to adequately and securely support electrical system components, in a neat and workmanlike manner, as specified in NECA 1.
1. Do not fasten supports to pipes, ducts, mechanical equipment, or conduit.
 2. Do not drill or cut structural members.
 3. Obtain permission from Architect/Engineer before drilling or cutting structural members.
- B. Rigidly weld support members or use hexagon-head bolts to present neat appearance with adequate strength and rigidity. Use spring lock washers under all nuts.
- C. Install surface-mounted cabinets and panelboards with minimum of four anchors.
- D. In wet and damp locations use steel channel supports to stand cabinets and panelboards 1 inch off wall.
- E. Use sheet metal channel to bridge studs above and below cabinets and panelboards recessed in hollow partitions.

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- F. Aluminum supports and hardware shall not be used in direct contact with concrete or embedded in soil. Where aluminum must penetrate concrete walls/floors, a protective bituminous coating shall be applied to allow grouting around the penetration to seal it.

END OF SECTION

SECTION 26 05 33

BOXES

PART 1-GENERAL

1.01 SECTION INCLUDES

- A. Wall and ceiling outlet boxes.
- B. Floor boxes.
- C. Pull and junction boxes.

1.02 REFERENCES

- A. NECA 1 - Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association.
- B. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies; National Electrical Manufacturers Association.
- C. NEMA OS 1 - Sheet Steel Outlet Boxes, Device Boxes, Covers, and Box Supports; National Electrical Manufacturers Association.
- D. NEMA OS 2 - Nonmetallic Outlet Boxes, Device Boxes, Covers and Box Supports; National Electrical Manufacturers Association.
- E. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum); National Electrical Manufacturers Association.
- F. NFPA 70 - National Electrical Code; National Fire Protection Association.

1.03 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Provide products listed and classified by Underwriters Laboratories, Inc., as suitable for the purpose specified and indicated.

PART 2-PRODUCTS

2.01 OUTLET BOXES

- A. Sheet Metal Outlet Boxes: NEMA OS 1, galvanized steel.
 - 1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; include 1/2 inch male fixture studs where required.
 - 2. Concrete Ceiling Boxes: Concrete type.
- B. Nonmetallic Outlet Boxes: NEMA OS 2.

- C. Cast Boxes: NEMA FB 1, Type FD, aluminum. Provide gasketed cover by box manufacturer. Provide threaded hubs.
- D. Wall Plates for Finished Areas: As specified with Wiring Devices.

2.02 PULL AND JUNCTION BOXES

- A. Sheet Metal Boxes: NEMA OS 1, galvanized steel.
- B. Hinged Enclosures: As specified on drawings.
- C. Surface Mounted Cast Metal Box: NEMA 250, Type 4; flat-flanged, surface mounted junction box:
 - 1. Material: Galvanized cast iron.
 - 2. Cover: Furnish with ground flange, neoprene gasket, and stainless steel cover screws.
- D. In-Ground Cast Metal Box: NEMA 250, Type 6, outside flanged, recessed cover box for flush mounting:
 - 1. Material: Galvanized cast iron.
 - 2. Cover: Smooth cover with neoprene gasket and stainless steel cover screws.
 - 3. Cover Legend: "ELECTRIC".
- E. Fiberglass Handholes: Die molded glass fiber hand holes:
 - 1. Cable Entrance: Pre-cut 6 x 6 inch cable entrance at center bottom of each side.
 - 2. Cover: Glass fiber weatherproof cover with nonskid finish.

2.03 HINGED COVER ENCLOSURES

- A. Construction: NEMA 250, Type 1 steel enclosure.
- B. Covers: Continuous hinge, held closed by flush latch operable by screwdriver.
- C. Provide interior plywood panel for mounting terminal blocks and electrical components; finish with white enamel.
- D. Enclosure Finish: Manufacturer's standard enamel.

2.04 BOX USAGE BY AREAS

- A. Unless otherwise noted or scheduled on the drawings, the following box types shall be used. All boxes shall generally match the conduit being applied. Reference the contract drawings and conduit specification 26 05 33 for further details. If more than one type of box might be acceptable for an area, the most conservative type of box shall be utilized.
- B. RGS and Liquid-tight Flexible Metal Conduit or unspecified damp/wet location: Cast Boxes with water resistant covers with gaskets.
- C. EMT or Flexible Metal Conduit: Sheet metal boxes with covers, but no gaskets required.
- D. PVC Conduit: Use fiberglass or PVC boxes with water resistant covers.

PART 3-EXECUTION

3.01 EXAMINATION

- A. Verify locations of floor boxes and outlets in offices and work areas prior to rough-in.

3.02 INSTALLATION

- A. Install boxes securely, in a neat and workmanlike manner, as specified in NECA 1.
- B. Install in locations as shown on Drawings, and as required for splices, taps, wire pulling, equipment connections, and as required by NFPA 70.
- C. Coordinate installation of outlet boxes for equipment connected under Section 26 05 83.
- D. Set wall mounted boxes at elevations to accommodate mounting heights indicated.
- E. Electrical boxes are shown on Drawings in approximate locations unless dimensioned. Adjust box locations up to 10 feet if required to accommodate intended purpose.
- F. Orient boxes to accommodate wiring devices oriented as specified in Section 26 27 26.
- G. Maintain headroom and present neat mechanical appearance.
- H. Install pull boxes and junction boxes above accessible ceilings and in unfinished areas only.
- I. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches from ceiling access panel or from removable recessed luminaire.
- J. Install boxes to preserve fire resistance rating of partitions and other elements, using materials and methods.
- K. Coordinate mounting heights and locations of outlets mounted above counters, benches, and backsplashes.
- L. Locate outlet boxes to allow luminaires positioned as shown on reflected ceiling plan.
- M. Align adjacent wall mounted outlet boxes for switches, thermostats, and similar devices.
- N. Use flush mounting outlet box in finished areas.
- O. Locate flush-mounting box in masonry wall to require cutting of masonry unit corner only. Coordinate masonry cutting to achieve neat opening.
- P. Do not install flush mounting box back-to-back in walls; provide minimum 6 inches separation. Provide minimum 24 inches separation in acoustic rated walls.
- Q. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- R. Use stamped steel bridges to fasten flush mounting outlet box between studs.

- S. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
- T. Use adjustable steel channel fasteners for hung ceiling outlet box.
- U. Do not fasten boxes to ceiling support wires.
- V. Support boxes independently of conduit.
- W. Use gang box where more than one device is mounted together. Do not use sectional box.
- X. Use gang box with plaster ring for single device outlets.
- Y. Use cast outlet box in exterior locations exposed to the weather and wet locations.
- Z. Use cast floor boxes for installations in slab on grade; formed steel boxes are acceptable for other installations.
- AA. Set floor boxes level.
- BB. Large Pull Boxes: Use hinged enclosure in interior dry locations, surface-mounted cast metal box in other locations.

3.03 ADJUSTING

- A. Adjust floor boxes flush with finish flooring material.
- B. Adjust flush-mounting outlets to make front flush with finished wall material.
- C. Install knockout closures in unused box openings.

3.04 CLEANING

- A. Clean interior of boxes to remove dust, debris, and other material.
- B. Clean exposed surfaces and restore finish.

END OF SECTION

SECTION 26 05 36

CONDUIT

PART 1—GENERAL

1.01 SECTION INCLUDES

- A. Conduit, fittings and conduit bodies.

1.02 RELATED SECTIONS

- A. Section 26 05 26—Grounding and Bonding.
- B. Section 26 05 29—Hangers and Supports.
- C. Section 26 05 33—Boxes.
- D. Section 26 05 53—Electrical Identification.

1.03 REFERENCES

- A. ANSI C80.1—American National Standard Specification for Rigid Steel Conduit -- Zinc Coated.
- B. NECA 1—Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association.
- C. NECA 101—Standard for Installing Steel Conduits (Rigid, IMC, EMT); National Electrical Contractors Association.
- D. NEMA FB 1—Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit and Cable Assemblies; National Electrical Manufacturers Association.
- E. NEMA TC 3—PVC Fittings for Use with Rigid PVC Conduit and Tubing; National Electrical Manufacturers Association.
- F. NFPA 70—National Electrical Code; National Fire Protection Association.

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

PART 2-PRODUCTS

2.01 CONDUIT REQUIREMENTS

- A. Conduit Size: Comply with NFPA 70. Minimum Size: 3/4 inch unless otherwise specified.
- B. See drawings for notes and schedules for conduit types in any given location. In absence of notes, the below general guidelines shall apply.
- C. Embedded Installations: (Unless otherwise indicated by drawings.)
 - 1. Direct Buried: Use schedule 40 PVC conduit.
 - 2. In or Under Slab on Grade: Use schedule 40 PVC conduit.
 - 3. Minimum Size: 1 inch.
 - 4. Provide underground transition to RGS metal conduit before turning up to an above grade location unless totally concealed by transformer terminal box, generator base, or similar.
- D. Outdoor Locations Above Grade: Use rigid aluminum conduit. Direct buried or concrete embedded aluminum is not allowed.
- E. Interior to Buildings:
 - 1. Instrumentation 4-20mA circuit: Use metal rigid conduit, either aluminum or galvanized steel to match the other conduits used in the areas. Use RGS rigid metal conduits if embedded installation in concrete or soil is planned. Buried or embedded aluminum is not allowed.
 - 2. Electrical Rooms: Use RGS conduit. Use liquid-tight flexible metal whips where needed.
 - 3. Process rooms: Use metal rigid conduit, either aluminum or galvanized steel to match the other conduits used in the areas. Use liquid-tight metal flexible conduit for whips to equipment.
 - 4. Stub-ups from underground or below-slab PVC conduit shall transition to metal conduit, suitable for the area prior to turning up. If exposed PVC conduit is allowed in the area, elbows shall be either fiberglass or metal to allow better cable pulling performance.

2.02 METAL CONDUIT

- A. Rigid Steel Conduit: ANSI C80.1.
- B. Intermediate Metal Conduit (IMC): Rigid steel.
- C. Fittings and Conduit Bodies: NEMA FB 1; material to match conduit.

2.03 FLEXIBLE METAL CONDUIT

- A. Not allowed. Use liquidtight flexible metal conduit.

2.04 LIQUIDTIGHT FLEXIBLE METAL CONDUIT

- A. Description: Interlocked steel construction with PVC jacket.
- B. Fittings: NEMA FB 1.

2.05 ELECTRICAL METALLIC TUBING (EMT)

- A. Description: ANSI C80.3; galvanized tubing.
- B. Fittings and Conduit Bodies: NEMA FB 1; steel or malleable iron compression type.

2.06 NONMETALLIC CONDUIT

- A. Description: NEMA TC 2; Schedule 40 PVC.
- B. Fittings and Conduit Bodies: NEMA TC 3.

PART 3-EXECUTION

3.01 EXAMINATION

- A. Conduit routing is shown on drawings in approximate locations unless dimensioned. Route as required to supply a complete wiring system.

3.02 INSTALLATION

- A. Install conduit securely, in a neat and workmanlike manner, as specified in NECA 1.
- B. Install steel conduit as specified in NECA 101.
- C. Install nonmetallic conduit in accordance with manufacturer's instructions.
- D. Arrange supports to prevent misalignment during wiring installation.
- E. Support conduit using coated steel or malleable iron straps, lay-in adjustable hangers, clevis hangers, and split hangers.
- F. Group related conduits; support using conduit rack. Construct rack using steel channel; provide space on each for 25 percent additional conduits.
- G. Fasten conduit supports to building structure and surfaces under provisions of Section 26 05 29.
- H. Do not support conduit with wire or perforated pipe straps. Remove wire used for temporary supports.
- I. Do not attach conduit to ceiling support wires.
- J. Arrange conduit to maintain headroom and present neat appearance.
- K. Route exposed conduit parallel and perpendicular to walls.
- L. Route conduit installed above accessible ceilings parallel and perpendicular to walls.
- M. Route conduit in and under slab from point-to-point.

- N. Do not cross conduits in slab.
- O. Maintain adequate clearance between conduit and piping.
- P. Maintain 12 inch clearance between conduit and surfaces with temperatures exceeding 104 degrees F.
- Q. Cut conduit square using saw or pipecutter; de-burr cut ends.
- R. Bring conduit to shoulder of fittings; fasten securely.
- S. Join nonmetallic conduit using cement as recommended by manufacturer. Wipe nonmetallic conduit dry and clean before joining. Apply full even coat of cement to entire area inserted in fitting. Allow joint to cure for 20 minutes, minimum.
- T. Use conduit hubs to fasten conduit to sheet metal boxes in damp and wet locations.
- U. Install no more than equivalent of three 90 degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use hydraulic one shot bender to fabricate bends in metal conduit larger than 2 inch size.
- V. Avoid moisture traps; provide junction box with drain fitting at low points in conduit system.
- W. Provide suitable fittings to accommodate expansion and deflection for long runs.
- X. Provide suitable pull string in each empty conduit except sleeves and nipples.
- Y. Use suitable caps to protect installed conduit against entrance of dirt and moisture.
- Z. Ground and bond conduit under provisions of Section 26 05 26.
- AA. Identify conduit under provisions of Section 26 05 53.
- BB. Apply bituminous coating to any aluminum conduits penetrating concrete walls or floors prior to installation, so concrete/grout seals do not come in contact with the aluminum.
- CC. Seal all wall, floor and ceiling penetrations to establish needed barriers for weather, building code classification divisions, fire-proofing, explosive hazard isolation, or other required separations. Use materials suitable for the types of closures and isolations to be made.

3.03 INTERFACE WITH OTHER PRODUCTS

- A. Install conduit to preserve fire resistance rating of partitions and other elements, using materials and methods.
- B. Route conduit through roof openings for piping and ductwork wherever possible. Where separate roofing penetration is required, coordinate location and installation method with roofing installation.

END OF SECTION

SECTION 26 05 53

ELECTRICAL IDENTIFICATION

PART 1–GENERAL

1.01 SECTION INCLUDES

- A. Nameplates and labels.
- B. Wire and cable markers.
- C. Conduit markers.
- D. Field-painted identification of conduit.

1.02 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

PART 2–PRODUCTS

2.01 MANUFACTURERS

- A. Brady Corporation
- B. Seton Identification Products
- C. HellermannTyton

2.02 NAMEPLATES AND LABELS

- A. Nameplates:
 - 1. Engraved three-layer laminated plastic, black letters on white background.
 - 2. Submit proposed engraving for approval prior to engraving or installation.
- B. Locations:
 - 1. Each electrical distribution and control equipment enclosure.
 - 2. Each motor starter.
 - 3. Each disconnect switch.
- C. Letter Size:
 - 1. Use 1/4 inch letters for identifying individual equipment and loads.
 - 2. Use 3/8 inch letters for identifying grouped equipment and loads.
 - 3. Use 3/4 inch letters for identifying equipment or load of ratings less than 100 amperes.
 - 4. Use 1 inch letters for identifying equipment or load of ratings 100 amperes or greater capacity.

- D. Labels: Adhesive label, with 3/16 inch black letters on white background. Use only for identification of individual wall switches and receptacles, and control device stations.

2.03 WIRE MARKERS

- A. Manufacturers:
 - 1. Brady.
 - 2. Panduit.
 - 3. Substitutions: As approved by Engineer.
- B. Description: Cloth or tape or printed-tube type wire markers.
- C. Locations: Each conductor at panelboard gutters, pull boxes, outlet boxes, and junction boxes each load connection.
- D. Legend:
 - 1. Power and Lighting Circuits: Branch circuit or feeder number indicated on drawings.
 - 2. Control Circuits: Control wire number indicated on schematic and interconnection diagrams on drawings.

2.04 UNDERGROUND WARNING TAPE

- A. Description: 4 inch wide plastic tape, detectable type colored red with suitable warning legend describing buried electrical lines.

PART 3-EXECUTION

3.01 PREPARATION

- A. Degrease and clean surfaces to receive nameplates and labels.

3.02 INSTALLATION

- A. Install nameplates and labels parallel to equipment lines.
- B. Secure nameplates to equipment front using screws.
- C. Secure nameplates to inside surface of door on panelboard that is recessed in finished locations.
- D. Identify underground conduits using underground warning tape. Install one tape per trench at 3 inches below finished grade.

END OF SECTION

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SECTION 26 05 83

EQUIPMENT WIRING

PART 1–GENERAL

1.01 SECTION INCLUDES

- A. Electrical connections to equipment.

1.02 REFERENCES

- A. NEMA WD 1–General Color Requirements for Wiring Devices; National Electrical Manufacturers Association; 1999.
- B. NEMA WD 6–Wiring Devices–Dimensional Requirements; National Electrical Manufacturers Association; 1997.
- C. NFPA 70–National Electrical Code; National Fire Protection Association; 2008.

1.03 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

1.04 COORDINATION

- A. Obtain and review shop drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other sections.
- B. Determine connection locations and requirements.
- C. Verify power supply characteristics and control requirements prior to installation of conduit or wiring. Adjust wiring and power system devices to match provided equipment.
- D. Sequence rough-in of electrical connections to coordinate with installation of equipment.
- E. Sequence electrical connections to coordinate with start-up of equipment.

PART 2–PRODUCTS

2.01 MATERIALS

- A. Cords and Caps: NEMA WD 6; match receptacle configuration at outlet provided for equipment.
 - 1. Colors: Conform to NEMA WD 1.
 - 2. Cord Construction: NFPA 70, Type SO multi-conductor flexible cord with identified equipment grounding conductor, suitable for use in damp locations.

- 3. Size: Suitable for connected load of equipment, length of cord, and rating of branch circuit overcurrent protection.
- B. Disconnect Switches: As specified in Section 26 28 16—Enclosed Switches.
- C. Flexible Conduit: As specified in Section 26 05 36—Conduit.
- D. Wire and Cable: As specified in Section 26 05 19—Building Wire and Cable.
- E. Boxes: As specified in Section 26 05 33—Boxes.

2.02 EQUIPMENT CONNECTIONS

- A. Typical equipment connection requirements may include, but not be limited to the following:
 - 1. Electrical Connection: Flexible conduit.
 - 2. Electrical Connection: Cord and plug (NEMA 5-20R).
 - 3. Disconnect Switch: Unless otherwise specified or shown on the drawings, verify the existence of a disconnect supplied with the equipment. If none is supplied with the equipment, provide a suitable disconnect.
 - 4. Voltage: As indicated on the drawings.
 - 5. Load rating: As indicated on the drawings and confirmed by the equipment provided.
 - 6. Provide all required materials and devices to accomplish a complete and operational equipment installation, regardless of what is provided or not provided with the equipment.
 - 7. Provide suitable cord and plug connections for equipment that is not furnished with cord and plug sets.

PART 3—EXECUTION

3.01 ELECTRICAL CONNECTIONS

- A. Verify and cross-check equipment nameplate power (voltage, phasing, amperage, etc.) and control requirements with design documents prior to connection of any wiring. Make electrical connections in accordance with equipment manufacturer's instructions.
- B. Make conduit connections to equipment using flexible conduit.
 - 1. Pumps: Do not use EMT conduit or non-liquid-tight flexible conduit within 10 foot radius of a pump. Use PVC, IMC, RGS or Aluminum conduit to match the area with liquid-tight flexible whips. If boxes are needed, use cast or NEMA 4 gasketed boxes within 10 ft radius of all pumps, even if in a dry location.
 - 2. Equipment: Use flexible metal conduit at the connection to all vibrating equipment, or locations subject to shifting due to expansion or frost. Use liquid-tight raceways if the equipment is exposed to moisture or processes any liquid.
- C. Connect heat producing equipment using wire and cable with insulation suitable for temperatures encountered.
- D. Provide receptacle outlet to accommodate connection with attachment plug.
- E. Provide cord and cap where field-supplied attachment plug is required.

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- F. Install suitable strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
- G. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.
- H. Install terminal block jumpers to complete equipment wiring requirements.
- I. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

END OF SECTION

SECTION 26 27 26

WIRING DEVICES

PART 1—GENERAL

1.01 SECTION INCLUDES

- A. Wall switches.
- B. Receptacles.
- C. Device plates and decorative box covers.

1.02 REFERENCES

- A. NECA 1—Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association.
- B. NEMA WD 1—General Color Requirements for Wiring Devices; National Electrical Manufacturers Association.
- C. NEMA WD 6—Wiring Device—Dimensional Requirements; National Electrical Manufacturers Association.
- D. NFPA 70—National Electrical Code; National Fire Protection Association.

1.03 SUBMITTALS

- A. See Section 01 33 00 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide manufacturer's catalog information showing dimensions, colors, and configurations.
- C. Manufacturer's Installation Instructions.

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Products: Provide products listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2-PRODUCTS

2.01 WALL SWITCHES

- A. Wall Switches: Heavy Duty, AC only general-use snap switch, complying with NEMA WD 6 and WD 1.
 - 1. Body and Handle: Plastic with toggle handle.
 - 2. Indicator Light: Lighted handle type switch; red handle.
 - 3. Locator Light: Lighted handle type switch; red color handle.
 - 4. Ratings:
 - a. Voltage: 120 volts, AC.
 - b. Current: 20 amperes.
 - 5. Ratings: Match branch circuit and load characteristics.
- B. Switch Types: Single pole, double pole, and 3-way.

2.02 RECEPTACLES

- A. Receptacles: Heavy duty, complying with NEMA WD 6 and WD 1.
 - 1. Device Body: Plastic.
 - 2. Configuration: NEMA WD 6, type as specified and indicated.
 - 3. All receptacles shall be Hospital Grade regardless of location.
- B. Convenience Receptacles: Type 5 - 20.
- C. Single Convenience Receptacles.
- D. Duplex Convenience Receptacles.
- E. GFCI Receptacles: Convenience receptacle with integral ground fault circuit interrupter to meet regulatory requirements.
- F. Hospital Use Receptacles.

2.03 WALL PLATES

- A. Decorative Cover Plates: Smooth plastic.
- B. Jumbo Cover Plates: Smooth plastic.
- C. Weatherproof Cover Plates: Gasketed cast metal, with "While In Use" cover. See equipment schedules.
- D. Unfinished Spade Cover Plates: Galvanized Steel.

2.04 DEVICES BY AREA

- A. Finished areas: Ivory devices with Ivory wall plates.
- B. Non-finished areas: Gray devices with Stainless steel wall plates.
- C. Outdoor area: Gray devices with galvanized steel or cast cover plates

- D. All locations for this project are classified Non-Finished or Outdoor. There are no "Finished" areas.

PART 3-EXECUTION

3.01 EXAMINATION

- A. Verify that outlet boxes are installed at proper height.
- B. Verify that wall openings are neatly cut and will be completely covered by wall plates.
- C. Verify that floor boxes are adjusted properly.
- D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to wiring devices.
- E. Verify that openings in access floor are in proper locations.

3.02 PREPARATION

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean debris from outlet boxes.

3.03 INSTALLATION

- A. Install securely, in a neat and workmanlike manner, as specified in NECA 1.
- B. Install devices plumb and level.
- C. Install switches with OFF position down.
- D. Install receptacles with grounding pole on top.
- E. Connect wiring device grounding terminal to outlet box with bonding jumper.
- F. Install decorative plates on switch, receptacle, and blank outlets in finished areas.
- G. Connect wiring devices by wrapping conductor around screw terminal.
- H. Use jumbo size plates for outlets installed in masonry walls.
- I. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- J. Install protective rings on active flush cover service fittings.

3.04 INTERFACE WITH OTHER PRODUCTS

- A. Coordinate locations of outlet boxes provided under Section 26 05 33 to obtain mounting heights specified.

- B. Install wall switch 48 inches above finished floor.
- C. Install convenience receptacle 18 inches above finished floor.
- D. Install convenience receptacle 6 inches above counter.
- E. Install dimmer 48 inches above finished floor.

3.05 FIELD QUALITY CONTROL

- A. Perform field inspection, testing, and adjusting in accordance with Section 01 91 00–Starting of Systems.
- B. Inspect each wiring device for defects.
- C. Operate each wall switch with circuit energized and verify proper operation.
- D. Verify that each receptacle device is energized.
- E. Test each receptacle device for proper polarity.
- F. Test each GFCI receptacle device for proper operation.
- G. Verify that each telephone jack is properly connected and circuit is operational.

3.06 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

3.07 CLEANING

- A. Clean exposed surfaces to remove splatters and restore finish.

END OF SECTION

SECTION 26 28 13

FUSES

PART 1–GENERAL

1.01 SECTION INCLUDES

- A. Fuses.

1.02 REFERENCES

- A. NEMA FU 1–Low Voltage Cartridge Fuses; National Electrical Manufacturers Association.
- B. NFPA 70–National Electrical Code; National Fire Protection Association.

1.03 MAINTENANCE MATERIALS

- A. See Section 01 33 00–Submittals, for additional provisions.
- B. Furnish two fuse pullers.
- C. Furnish three of each size and type fuse installed.

PART 2–PRODUCTS

2.01 FUSES - GENERAL

- A. Dimensions and Performance: NEMA FU 1, Class as specified or indicated.
- B. Voltage: Rating suitable for circuit phase-to-phase voltage.
- C. Main Service Switches: Class RK1 (time delay).
- D. Motor Load Feeder Switches: Class RK1 (time delay).
- E. Motor Branch Circuits: Class L time delay.

PART 3–EXECUTION

3.01 INSTALLATION

- A. Install fuses with label oriented such that manufacturer, type, and size are easily read.

END OF SECTION

SECTION 26 28 16

ENCLOSED SWITCHES

PART 1–GENERAL

1.01 SECTION INCLUDES

- A. Fusible and Non-Fusible switches.

1.02 REFERENCES

- A. NEMA FU 1–Low Voltage Cartridge Fuses; National Electrical Manufacturers Association.
- B. NEMA KS 1–Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum); National Electrical Manufacturers Association.
- C. NETA STD ATS–Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.
- D. NFPA 70–National Electrical Code; National Fire Protection Association.

1.03 SUBMITTALS

- A. Product Data: Provide switch ratings and enclosure dimensions.

PART 2–PRODUCTS

2.01 MANUFACTURERS

- A. ABB.
- B. Square D.
- C. Siemens Energy & Automation.
- D. Substitutions: Engineer approved equal.

2.02 COMPONENTS

- A. Fusible Switch Assemblies: NEMA KS 1, Type HD enclosed load interrupter knife switch.
 - 1. Externally operable handle interlocked to prevent opening front cover with switch in ON position.
 - 2. Handle lockable in OFF position.
 - 3. Fuse clips: Designed to accommodate NEMA FU1, Class R fuses.
- B. Nonfusible Switch Assemblies: NEMA KS 1, Type HD enclosed load interrupter knife switch.
 - 1. Externally operable handle interlocked to prevent opening front cover with switch in ON position.
 - 2. Handle lockable in OFF position.

- C. Enclosures: NEMA KS 1. As noted on drawings.

PART 3-EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install fuses in fusible disconnect switches.
- C. Apply adhesive tag on inside door of each fused switch indicating NEMA fuse class and size installed.

END OF SECTION

SECTION 26 29 13

ENCLOSED MOTOR CONTROLLERS

(Provided by supplier of 25 51 00)

PART 1-GENERAL

1.01 SECTION INCLUDES

- A. Magnetic motor controllers.
- B. Combination magnetic motor controllers and disconnects.

1.02 REFERENCES

- A. NECA 1-Standard Practices for Good Workmanship in Electrical Contracting; National Electrical Contractors Association.
- B. NEMA ICS 2-Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2000 Volts AC or 750 Volts DC; National Electrical Manufacturers Association.
- C. NEMA ICS 5-Industrial Control and Systems: Control Circuit and Pilot Devices; National Electrical Manufacturers Association.
- D. NEMA ICS 6-Industrial Control and Systems: Enclosures; National Electrical Manufacturers Association.
- E. NEMA KS 1-Enclosed and Miscellaneous Distribution Equipment Switches (600 Volts Maximum); National Electrical Manufacturers Association.
- F. NETA STD ATS-Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.
- G. NFPA 70-National Electrical Code; National Fire Protection Association.

1.03 SUBMITTALS

- A. Product Data: Provide catalog sheets showing voltage, controller size, ratings and size of switching and overcurrent protective devices, short circuit ratings, dimensions, and enclosure details.

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience and with service facilities within 100 miles of Project.

- C. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2-PRODUCTS

2.01 MANUFACTURERS

- A. ABB.
- B. Square D.
- C. Siemens Energy & Automation.
- D. Allen-Bradley.
- E. Substitutions: Engineer approved equal.

2.02 AUTOMATIC CONTROLLERS

- A. Magnetic Motor Controllers: NEMA ICS 2, AC general-purpose Class A magnetic controller for induction motors rated in horsepower.
- B. Coil Operating Voltage: 120 volts, 60 Hertz.
- C. Overload Relays: NEMA ICS 2; melting alloy.
- D. Enclosures: NEMA ICS 6, Type 1.

2.03 ACCESSORIES

- A. Auxiliary Contacts: NEMA ICS 2, 2 normally open contacts in addition to seal-in contact.
- B. Cover Mounted Pilot Devices: NEMA ICS 5, heavy duty 30mm oil tight type.
- C. Pilot Device Contacts: NEMA ICS 5, Form Z, rated A150.
- D. Pushbuttons: Unguarded type.
- E. Indicating Lights: Transformer, LED type.
- F. Selector Switches: Rotary type.
- G. Relays: NEMA ICS 2.
- H. Control Power Transformers: 120 volt secondary, 200 VA minimum, in each motor starter. Provide fused primary, secondary, and bond unfused leg of secondary to enclosure.

2.04 DISCONNECTS

- A. Combination Controllers: Combine motor controllers with disconnects in common enclosure. Obtain IEC Class 2 coordinated component protection.

- B. Thermal Magnetic Circuit Breakers: Integral thermal and instantaneous magnetic trip in each pole; UL listed.
- C. Motor Circuit Protector: Circuit breakers with integral instantaneous magnetic trip in each pole; UL listed.
- D. Nonfusible Switch Assemblies: NEMA KS 1, enclosed knife switch with externally operable handle.
- E. Fusible Switch Assemblies: NEMA KS 1, enclosed knife switch with externally operable handle. Fuse clips: Designed to accommodate Class R fuses.

PART 3—EXECUTION

3.01 INSTALLATION

- A. Install enclosed controllers where indicated, in accordance with manufacturer's instructions.
- B. Install securely, in a neat and workmanlike manner, as specified in NECA 1.
- C. Provide supports in accordance with Section 26 05 29—Hangers and Supports.
- D. Height: 5 feet to operating handle.
- E. Select and install overload heater elements in motor controllers to match installed motor characteristics.
- F. Neatly type label inside each motor controller door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating. Place label in clear plastic holder.

END OF SECTION

SECTION 26 29 23

VARIABLE FREQUENCY CONTROLLERS

(Provided by supplier of 25 51 00)

PART 1-GENERAL

1.01 SECTION INCLUDES

- A. Variable frequency controllers.

1.02 REFERENCES

- A. NEMA ICS 7.1–Safety Standards for Construction and Guide for Selection, Installation, and Operation of Adjustable Speed Drive Systems; National Electrical Manufacturers Association.
- B. NEMA ICS 7–Industrial Control and Systems: Adjustable Speed Drives; National Electrical Manufacturers Association.
- C. NEMA 250–Enclosures for Electrical Equipment (1000 Volts Maximum); National Electrical Manufacturers Association.
- D. NETA STD ATS–Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems; International Electrical Testing Association.
- E. NFPA 70–National Electrical Code; National Fire Protection Association.

1.03 SUBMITTALS

- A. See Section 01 33 00–Submittals, for submittal procedures.
- B. Product Data: Provide catalog sheets showing voltage, controller size, ratings and size of switching and overcurrent protective devices, short circuit ratings, dimensions, and enclosure details.
- C. Shop Drawings: Indicate front and side views of enclosures with overall dimensions and weights shown; conduit entrance locations and requirements; and nameplate legends.
- D. Manufacturer's Instructions: Indicate application conditions and limitations of use stipulated by testing agency. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- E. Operation Data: NEMA ICS 7.1. Include instructions for starting and operating controllers, and describe operating limits that may result in hazardous or unsafe conditions.

PART 2-PRODUCTS

2.01 MANUFACTURERS

- A. ABB, type ACH or ACQ.
- B. Square D, Altivar 61 series.
- C. Siemens Energy & Automation.
- D. Allen-Bradley, PowerFlex 735 series.
- E. Danfoss VLT Aqua.
- F. Substitutions: Engineer Pre-Approved equivalent.
- G. Design Basis: The above listing of manufacturer's series names above does not relieve manufacturer from meeting all technical requirements listed in this specification. Any discrepancy in requirements compared to available features shall be made known to Engineer prior to bidding. Models of allowed manufacturers that do not have listed design basis equipment must meet all technical requirements AND be basically equivalent to the competitor's listed equipment.

2.02 DESCRIPTION

- A. Variable Frequency Controllers: Enclosed controllers suitable for operating the indicated loads, in conformance with requirements of NEMA ICS 7. Select unspecified features and options in accordance with NEMA ICS 3.1.
 - 1. Employ microprocessor-based inverter logic isolated from power circuits.
 - 2. Employ pulse-width-modulated inverter system.
 - 3. Design for ability to operate controller with motor disconnected from output.
 - 4. Design to attempt five automatic restarts following fault condition before locking out and requiring manual restart.
 - 5. 4-Mode Starting: Current Limit, Torque Ramp, Current Ramp, Voltage Ramp.
 - 6. 4-Mode Stopping: Free-wheel, Torque Ramp, Time Ramp, Dynamic Brake.
- B. Enclosures: Provide drive mounted in a NEMA 1 enclosure, unless otherwise noted on the plan drawings.
- C. Finish: Manufacturer's standard enamel.

2.03 OPERATING REQUIREMENTS

- A. Rated Input Voltage: 480-volts, three-phase, 60 Hertz.
- B. Motor Nameplate Voltage: 460-volts, three-phase, 60 Hertz.
- C. Displacement Power Factor: Between 1.0 and 0.95, lagging, over entire range of operating speed and load.
- D. Operating Ambient: 0 degrees C to 40 degrees C.

- E. Minimum Efficiency at Full Load: 95 percent.
- F. Volts Per Hertz Adjustment: Plus or minus 10 percent.
- G. Current Limit Adjustment: 60 to 110 percent of rated.
- H. Acceleration Rate Adjustment: 0.5 to 30 seconds.
- I. Deceleration Rate Adjustment: 1 to 30 seconds.
- J. Remote Input Signal: 4 to 20 mA DC.
- K. Motor rated horsepower: See project one-line diagram. Adjust drive sizes as needed to match motors provided on approved process equipment.
- L. Motor Characteristics: Variable Torque.

2.04 COMPONENTS

- A. Display: Provide integral digital display to indicate output voltage, output frequency, and output current.
- B. Status Indicators: Separate indicators for overcurrent, overvoltage, ground fault, overtemperature, and input power ON.
- C. Control devices: Furnish HAND-OFF-AUTOMATIC selector switches, indicating lights, auxiliary relays, cycle timers, reset pushbuttons and other devices as needed to conform to project schematic diagrams. Pilot devices shall be 30mm oil-tight heavy duty type, indicating lights shall be LED.
- D. Include undervoltage release.
- E. Control Power Source: Derived from main power via internal control power transformer.
- F. Operator Interface: Unit-mounted display and keypad.
- G. Safety Interlocks: Furnish terminals for remote contact to inhibit starting under both manual and automatic mode.
- H. Control Interlocks: Furnish terminals for remote contact to allow starting in automatic mode. Provide isolated dry contact outputs for remote indication of "Running" and "Fault" signals.
- I. Input power disconnect switch: None required.
- J. Isolation/Bypass: If shown on drawings.
- K. Cooling Fans: Drives and enclosures that require cooling fans shall derive power for fans via circuits that allow power only while the drive is in operation and for a short time afterwards to cool down. Continuously-running fans are not allowed.

- L. Power Quality:
 - 1. Line Side: Provide each variable speed drive with a nominal 3% reactor on the input line side to serve as surge isolation and limit harmonic pollution from the drive back into the Owner's power system. DC-Link reactors, if used in the VFD architecture will not be sufficient alone to provide input surge isolation.
 - 2. Load Side: Provide drives with load side dV/dT filter if shown on the drawings or if needed, based on the anticipated cable lengths for this project. See plan drawings for distances. Performance specifications will be evaluated, and those filters that do not meet design-basis specifications will be rejected, and others supplied without increase of project cost to Owner. Filter shall have performance equivalent to design basis equipment: MTE Corporation's Series A or Transcoil TCI type V1K.

PART 3-EXECUTION

3.01 EXAMINATION

- A. Verify that surface is suitable for controller installation.
- B. Do not install controller until building environment can be maintained within the service conditions required by the manufacturer.
- C. Verify that field measurements are as indicated on shop drawings.

3.02 INSTALLATION

- A. Install in accordance with NEMA ICS 7.1 and manufacturer's instructions.
- B. Tighten accessible connections and mechanical fasteners after placing controller.
- C. Select and install overload heater elements in motor controllers to match installed motor characteristics.
- D. Provide engraved plastic nameplates; refer to Section 26 05 53 for product requirements and location.
- E. Neatly type label inside each motor controller door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating. Place in clear plastic holder.

3.03 MANUFACTURER'S FIELD SERVICES

- A. Provide the service of the manufacturer's field representative to prepare and start controllers.

3.04 ADJUSTING

- A. Make final adjustments to installed controller to assure proper operation of load system. Obtain performance requirements from installer of driven loads.

3.05 DEMONSTRATION

- A. Demonstrate operation of controllers in automatic and manual modes.

END OF SECTION

SECTION 26 50 00

LIGHTING

PART 1—GENERAL

1.01 SECTION INCLUDES

- A. Luminaires and accessories.
- B. Emergency lighting units.
- C. Exit signs.
- D. Ballasts.
- E. Lamps.
- F. Luminaire accessories.

1.02 REFERENCES

- A. ANSI C78.379—American National Standard for Electric Lamps -- Reflector Lamps -- Classification of Beam Patterns.
- B. ANSI C82.1—American National Standard Specifications for Fluorescent Lamp Ballasts.
- C. ANSI C82.4—American National Standard for Ballasts for High-Intensity-Discharge and Low Pressure Sodium Lamps (Multiple-Supply Type).
- D. NECA/IESNA 500—Recommended Practice for Installing Indoor Commercial Lighting Systems; National Electrical Contractors Association.
- E. NECA/IESNA 502—Recommended Practice for Installing Industrial Lighting Systems; National Electrical Contractors Association.
- F. NEMA WD 6—Wiring Devices—Dimensional Requirements; National Electrical Manufacturers Association.
- G. NFPA 70—National Electrical Code; National Fire Protection Association.
- H. NFPA 101—Code for Safety to Life from Fire in Buildings and Structures; National Fire Protection Association.

1.03 SUBMITTALS

- A. See Section 01 33 00—Submittals, for submittal procedures.
- B. Shop Drawings: Indicate dimensions and components for each luminaire that is not a standard product of the manufacturer.

- C. Product Data: Provide dimensions, ratings, and performance data.
- D. Manufacturer's Installation Instructions: Indicate application conditions and limitations of use stipulated by product testing agency specified under Quality Assurance. Include instructions for storage, handling, protection, examination, preparation, and installation of product.
- E. Operation and Maintenance Data: Instructions for each product.

1.04 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70 and NFPA 101.
- B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Products: Listed and classified by Underwriters Laboratories, Inc. as suitable for the purpose specified and indicated.

PART 2-PRODUCTS

2.01 LUMINAIRES AND LAMPS

- A. Furnish products as indicated in Schedule shown on the project drawings.

2.02 BALLASTS AND CONTROL UNITS

- A. Fluorescent Ballasts: electronic ballast, suitable for lamps specified.
 - 1. Voltage: See schedules and plan drawings.
 - 2. Product: See schedules and plan drawings.
- B. High Intensity Discharge (HID) Ballasts: ANSI C82.4, mercury vapor lamp ballast, suitable for lamp specified.
 - 1. Voltage: See schedules and plan drawings.
 - 2. Product: See schedules and plan drawings.

PART 3-EXECUTION

3.01 INSTALLATION

- A. Install fixtures securely, in a neat and workmanlike manner, as specified in NECA 500 (commercial lighting).
- B. Install suspended luminaires and exit signs using pendants supported from swivel hangers. Provide pendant length required to suspend luminaire at indicated height.
- C. Support luminaires larger than 2-foot by 4-foot size independent of ceiling framing.
- D. Locate recessed ceiling luminaires as indicated on reflected ceiling plan.

- E. Install surface mounted exit signs plumb and adjust to align with building lines and with each other. Secure to prevent movement.
- F. Exposed Grid Ceilings: Support surface mounted luminaires in grid ceiling directly from building structure.
- G. Exposed Grid Ceilings: Provide auxiliary members spanning ceiling grid members to support surface mounted luminaires.
- H. Exposed Grid Ceilings: Fasten surface mounted luminaires to ceiling grid members using bolts, screws, rivets, or suitable clips.
- I. Install recessed luminaires to permit removal from below.
- J. Install recessed luminaires using accessories and firestopping materials to meet regulatory requirements for fire rating.
- K. Install clips to secure recessed grid-supported luminaires in place.
- L. Install wall mounted emergency lighting units and exit signs at height as indicated on Drawings.
- M. Install accessories furnished with each luminaire.
- N. Connect luminaires and exit signs to branch circuit outlets using flexible conduit.
- O. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within luminaire.
- P. Bond products and metal accessories to branch circuit equipment grounding conductor.
- Q. Install specified lamps in each emergency lighting unit, exit sign, and luminaire.

3.02 FIELD QUALITY CONTROL

- A. Perform field inspection in accordance with Section 01 45 00–Quality Control.
- B. Operate each luminaire after installation and connection. Inspect for proper connection and operation.

3.03 ADJUSTING

- A. Aim and adjust luminaires as indicated.
- B. Position exit sign directional arrows as indicated.

3.04 CLEANING

- A. Clean electrical parts to remove conductive and deleterious materials.
- B. Remove dirt and debris from enclosures.

- C. Clean photometric control surfaces as recommended by manufacturer.
- D. Clean finishes and touch up damage.

3.05 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate luminaire operation for minimum of two hours.

3.06 PROTECTION

- A. Relamp luminaires that have failed lamps at Substantial Completion.

END OF SECTION

SECTION 40 05 07

HANGERS AND SUPPORTS FOR PROCESS PIPING

PART 1-GENERAL

1.01 GENERAL

- A. All materials shall be new, full weight, and of the best quality with the same brand or manufacturer used for each class of material or equipment. CONTRACTOR shall be responsible for the safety and good condition of materials and equipment installed until final acceptance by ENGINEER. After acceptance, the guarantee requirements shall apply. All materials shall be stored to prevent damage or weathering prior to installation.
- B. All materials and equipment shall be installed in a neat and workmanlike manner by skilled craftsmen in their trade. The installation of any materials and equipment not meeting these standards may be rejected by ENGINEER and shall be removed and reinstalled to meet these standards at no additional cost to OWNER.

1.02 SUBMITTALS

- A. CONTRACTOR shall submit shop drawings indicating the pipe support products to be used, and locations of each product and the process piping being supported, on a scaled/dimensioned drawing for engineering review. Scaled/dimensioned drawings shall be received for information purposes only for reviewing general conformance with the given performance and design criteria. Avoid designs which transfer loads to a very small area (i.e. a point load) and indicate dimensions of plates or saddles which allow for a determination of area. When lateral support is required, show locations and details of lateral bracing or struts.
- B. If the scaled/dimensioned shop drawing indicates a different location, with respect to the Contract Drawings, of any pipe or pipe fitting relative to the surrounding structure or relative to the coordinate space indicated on the Contract Drawings, this must be clearly noted in the shop drawing submittal drawing.
- C. Submittals shall be submitted in accordance with Section 01 33 00 for all special pipe, supports, anchors, or accessories specified herein. Include materials of construction for all piping supports.

1.03 VERIFICATION OF DRAWINGS

- A. The contract drawings indicate the required size and locations for all process piping and equipment. Locations shall be verified in the field by CONTRACTOR. Valves and fittings shall be of such dimensions to allow for the installation of this piping. If it is necessary to change the location of any work due to interference with other work, CONTRACTOR shall notify and consult with ENGINEER before making any changes. CONTRACTOR shall determine and be responsible for the proper location and character of all anchor bolts, inserts, hangers, chases, sleeves and other openings in the construction for the piping and mechanical equipment.

1.04 PIPE SUPPORTS AND ANCHORS

- A. In certain locations, pipe supports and anchors may have been indicated on the drawings, but no attempt has been made to indicate every pipe support and anchor. It shall be CONTRACTOR's responsibility to provide a complete system of pipe supports, pipe expansion joints, and suitable anchorage for all piping in accordance with the requirements set forth herein. Additional pipe supports may be required adjacent to expansion joints, couplings, or valves.
- B. Spacing and location of pipe supports shall be in accordance to that specified herein, with the pipe support product manufacturer's recommendation, and the process pipe product manufacturer's recommendations.
- C. All piping shall be rigidly supported and anchored so that there is no movement or visible sagging between supports.
- D. Contact between dissimilar metals shall be prevented by using like materials or rubber or vinyl coated materials.

1.05 SERVICE CONDITIONS

- A. The temperature of the water and wastewater in process piping will typically range from 33°F to 80°F.

PART 2-PRODUCTS

2.01 MATERIALS

- A. Structure Attachments shall be National Pipe Hanger Association, Piping Technology & Products, F & S Central Manufacturing, or approved equivalent:
 - 1. To Concrete:
 - a. New work: Provide product which meets ENGINEERING characteristics of the National Pipe Hanger Figure 600 concrete insert box for loads up to 1200 pounds.
 - b. Existing Concrete: Provide product which meets ENGINEERING characteristics of the National Pipe Hanger Figures 646 or 647, Piping Tech Fig 73, or equivalent for loads up to up to 5,800 pounds.
 - 2. To Steel: Provide product which meets ENGINEERING characteristics of the National Pipe Hanger Fig. 695 beam clamp.
- B. Intermediate Attachments: Continuous threaded rod may be used wherever possible. No chain, wire or perforated strap shall be used.
- C. Pipe Attachments shall be National Pipe Hanger Association, Piping Technology and Products, F & S Control Manufacturing, or approved equivalent.
 - 1. Use split ring hangers, which meets ENGINEERING characteristics with National Pipe Hanger Fig. 100 or Adjustable Clevis Hanger, Piping Tech. Fig 83, National Pipe Hanger Fig. 200.
 - 2. When thermal expansion in excess of 1/2 inch axially is anticipated, use National Pipe Hanger Fig 250 or 260, Piping Tech Fig. 195, or National Pipe Hanger Fig. 248, or equivalent. Where pipe is insulated, use a pipe covering protection saddle in conjunction with the roll device.

3. For vertical pipe, use a heavy duty riser clamp, National Pipe Hanger Fig. 404.
- D. Spring Hangers: For pipe where vertical movements up to $\frac{3}{4}$ inch are expected, use National Pipe Hanger Fig. 901 or 902 spring hangers.
- E. Hanger Sizing:
 1. Hangers shall be pipe size for bare pipes.
 2. Hangers shall be insulation O.D. size for all insulated lines. A 316 stainless steel pipe covering protection shield, National Pipe Hanger Association Figure 300 or equal, shall be used at all pipe support locations.
- F. Pipe support from floor: Use pipe saddles under piping to distribute pipe load over an area; piping shall not bear upon support at only one point.
 1. For pipes very close to floor (e.g., less than 12 inches), use Tripac Series TP426, a concrete pipe support (see Standard Details on the drawings), or equivalent.
 2. For pipes more than 1 foot above finished floor, use pipe saddle National Pipe Hanger Association Figure 516, Figure 520, Figure 538, or equal with U-bolt. A concrete pipe support may also be acceptable.
 3. Base tees and base elbows shall be supported with a concrete pipe support as indicated in the Standard Details on the drawings.
 4. For pipes over a wall, a steel pipe plate support bolted to a pipe flange as indicated in the Standard Details on the drawings may be used.
- G. Threaded hot rolled carbon steel rod shall conform to ASTM A-107.
- H. Fabricated or concrete supports and anchorage can be provided if acceptable to ENGINEER or as indicated on the Drawings.
- I. All support components shall conform to the Manufacturer's Standardization Society Specification SP-58.

PART 3-EXECUTION

3.01 INSTALLATION PROCEDURE

- A. Installation-Horizontal Piping: Hangers shall adequately support the piping system no matter what the material. They shall be located near or at changes in piping direction and concentrated loads. They shall provide vertical adjustment for leveling and, where applicable, to maintain pitch required for proper drainage. They shall allow for expansion and contraction of the piping. Hangers shall be fastened to building structural members wherever practical.
 1. Horizontal steel or iron piping shall be supported as below:

Pipe Size (inch)	Rod Diameter (inch)	Maximum Spacing (ft)
Up to 1 1/4	3/8	8
1 1/2 and 2	3/8	10
2 1/2 and 3	1/2	12
4 and 5	5/8	15
6 and 8	3/4	17
10 and 12	7/8	22

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Pipe Size (inch)	Rod Diameter (inch)	Maximum Spacing (ft)
14 and 16	1	26
18 and 20	1 1/4	28
24	1 1/2	30
30	1 1/2	18

2. Horizontal lines of copper tubing shall be supported as below:

Normal Tubing Size (inch)	Rod Diameter (inch)	Maximum Spacing (ft)
Up to 1	3/8	6
1 1/4 and 1 1/2	3/8	8
2	3/8	9
2 1/2	1/2	9
3 and 4	1/2	10

3. Cast iron pipe shall be supported as follows. Support fittings to maintain alignment.

Pipe Size (inch)	Rod Diameter (inch)	Maximum Spacing (ft)
2 through 5	3/8	Each Joint
6 through 10	1/2	Each Joint
12 through 15	5/8	Each Joint

4. Plastic or fiberglass pipe shall be supported as recommended by the manufacturer to prevent sags and provide for expansion. Supports shall be provided for the intended service conditions including elevated temperatures. See Paragraph 1.04.C of the Section for the reference on FRP piping support.

- B. Installation-Vertical Piping: Support vertical piping as indicated on the drawings and support pipe at every floor.
- C. Trapeze hangers may be used to support three or more parallel pipes. Trapeze design and application shall be subject to approval by ENGINEER and shall incorporate adjustment features specified for ring or clevis hangers.
- D. Piping near the floor shall be supported from sidewall or floor by approved pipe brackets, stanchions, or hangers, in such a manner as to maintain its alignment while making suitable provisions for necessary expansion.
- E. Where pipes or conduits of different contractors or sub-contractors may possibly be racked on the same supporting structure, each CONTRACTOR shall cooperate with the others involved to properly locate the supporting members and shall furnish a proportionate share of the labor and materials involved in the installation.

3.02 ANCHORAGE OF PIPING

- A. Anchorage shall be provided to resist thrust and force expansion and contraction movement to occur at expansion joints, loops, or elbows, and as required to prevent excessive stresses

and movement at couplings. Pipe guides shall be installed at expansion joints and as recommended by the Manufacturer.

- B. Thermal expansion and anchorage shall be provided for the full range of temperature extremes. FRP piping may be anchored to force expansion within the piping system as recommended by the manufacturer.

3.03 INSTALLATION AND WORKMANSHIP

- A. All equipment, pipe supports, and anchors shall be installed complete, utilizing competent workmen, so that the complete installation will function properly, and reflect a high quality of workmanship. All material shall be new, undamaged, and conform to the latest standards listed.
- B. CONTRACTOR shall cooperate with other trades to avoid interference in the installation of this work. Install all equipment and systems so as not to delay progress of construction, and correlate with other trades to avoid delay. Should differences of opinion develop; the Project ENGINEER's decision will be final.
- C. Keep premises clean and orderly during installation of this work. Remove rubbish periodically and as may be directed by ENGINEER. Upon completion of this part of the project, remove all dirt, debris, tools, scaffolding, and other construction items under this CONTRACTOR's control or caused by his work.

END OF SECTION

SECTION 40 05 01

COMMON REQUIREMENTS FOR PROCESS VALVES

PART 1—GENERAL

1.01 SCOPE OF WORK

- A. Section includes common requirements and accessories for process valves.
 - 1. Furnish and install all valves for the complete control of all process risers, branches, each group of fixtures, and as indicated on the drawings. Valves shall have gear, chain or special operators where indicated on the drawings. In general, the location of the principal valves is indicated on the drawings. In addition to these valves, however, the following specifications shall apply:
 - 2. It is intended that valves be furnished where required for proper servicing, isolation in connections at all equipment, in all supply and return mains at their sources, in branches from mains or risers, and in branches to groups of two or more fixtures.
 - 3. All such valves shall be arranged for easy access and operation.

1.02 RELATED SECTIONS

- A. Section 40 05 62—Plug Valves.
- B. Section 40 05 65—Check Valves.
- C. Section 40 23 00—Process Piping Materials and Methods.
- D. Section 40 23 11—Hangers and Supports for Process Piping.

1.03 SUBMITTALS

- A. Shop drawing submittals shall be submitted for all valves and accessories specified herein.

1.04 VERIFICATION OF DRAWINGS

- A. The contract drawings indicate the required size and general arrangement for all piping and equipment. Locations shall be verified in the field by CONTRACTOR.
- B. Valves and fittings shall be of such dimensions to allow for the installation of this piping. If it is necessary to change the location of any work due to interference with other work, CONTRACTOR shall consult with ENGINEER before making any changes.
- C. CONTRACTOR shall determine and be responsible for the proper locations and character of all anchor bolts, inserts, hangers, chases, sleeves and other openings in the construction for the piping and mechanical equipment.

PART 2-PRODUCTS

2.01 MANUFACTURER'S QUALIFICATIONS

- A. Subject to compliance with the Contract Documents, refer to individual valve Specification Sections for acceptable manufacturers.

2.02 MATERIALS

- A. All materials shall be new, full weight, and of the best quality with the same brand or manufacturer used for each class of material or equipment. CONTRACTOR shall be responsible for the safety and good condition of materials and equipment installed until final acceptance by ENGINEER. After acceptance, the guarantee requirements shall apply. All materials shall be stored to prevent damage or weathering prior to installation.
- B. Special materials of construction shall be provided for the intended application, anticipated environment, chemicals in the lines, or operating temperatures above or below ambient. Any conflict between this requirement and what is called for in the drawings and specifications shall be called to ENGINEER's attention as soon as possible.
- C. Where indicated, valves shall be provided with locking mechanisms to allow for suitable lockout with paddle lock or loop in open or closed position.
- D. Valves over 7 feet above the operating floor (measured to centerline of the valve) shall be equipped with chainlever or chainwheel adapters and chain as to allow convenient and safe operation. Operating chains shall be hot dip galvanized carbon steel. Access shall be through access panels where applicable.

PART 3-EXECUTION

3.01 INSTALLATION AND WORKMANSHIP

- A. All valves and accessories shall be installed complete, utilizing competent workmen, so that the complete installation with function properly, and reflect a high quality of workmanship. All materials shall be new, undamaged, and conform to the latest standards listed. The installation of any materials and equipment not meeting these standards may be rejected by ENGINEER and shall be removed and reinstalled to meet these standards at no additional cost to OWNER.
- B. CONTRACTOR shall cooperate with other trades to avoid interference in the installation of this work. Install all equipment and systems so as not to delay progress of construction, and correlate with other trades to avoid delay. Should differences of opinion develop, ENGINEER's decision will be final.
- C. Keep premises clean and orderly during installation of this work and remove rubbish periodically and as may be directed by ENGINEER. Upon completion of this part of the project, remove all dirt, debris, tools, scaffolding, and other construction items under this CONTRACTOR's control or caused by his work.

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- D. Unless otherwise permitted by ENGINEER, all eccentric plug valves shall be INSTALLED WITH THE SHAFT HORIZONTAL AND THE PLUG IN THE UPPER HALF OF THE VALVE BODY. Valves shall be installed with the seat on the upstream side.

END OF SECTION

SECTION 40 05 62

PLUG VALVES

PART 1–GENERAL

1.01 SUMMARY

- A. Section Includes: Non-lubricated plug valves (rectangular port and round port).

1.02 RELATED SPECIFICATIONS

- A. Section 40 05 51–Common Requirements for Process Valves.

PART 2–PRODUCTS

2.01 NON-LUBRICATED PLUG VALVES

- A. Non-lubricated plug valves shall be of the eccentric type with an elastomer covering all seating surfaces. The elastomer shall be suitable for the service intended. All resilient-seated eccentric plug valves shall conform to AWWA C517.
- B. Flanged valves shall be manufactured in accordance with ANSI B16.1 including facing, drilling and flange thickness. Mechanical joint ends shall be in compliance with AWWA/ANSI C111-92. Rigid grooved ends shall conform to ANSI/AWWA C-606. Threaded ends shall meet the NPT standard.
- C. Ports shall be round or rectangular with a minimum of 80% flow area on sizes 2 1/2 inches through 12 inches. Valves 14 inches and larger may be of rectangular port design with a minimum flow area of 80%. Ports shall be 100% round port where round port valves are indicated on the drawings.
- D. Valve bodies shall be ASTM A-126 Class B cast iron. Valves 3 inches and larger shall be furnished with a welded-in overlay seat of not less than 95% nickel in accordance with AWWA 517-709. Sprayed, plated or screwed-in seats are not acceptable.
- E. Plugs shall be of ASTM A-536 Grade 65-45-12 ductile iron in compliance with AWWA C-517 Section 4.3, or cast iron ASTM A126 Class B. The plugs shall be of one piece construction with PTFE or stainless steel thrust bearings on the upper and lower bearing journals to reduce torque and prevent dirt and grit from entering the bearing and seal area. The plug face and body seat shall be externally adjustable in the field with the valve in line under pressure with the plug in the closed position.
- F. Valves shall be furnished with replaceable sleeve type bearings conforming to AWWA C-517-09, Section 4.3.3.6. Bearings shall be of sintered, oil impregnated type 316 stainless steel ASTM A743 Grade CF-8M. Valve shaft seals shall be of the “U” cup type in accordance with AWWA C504-80, Section 3.7. Seals shall be self adjusting and repackable without removing the bonnet from the valve. A “V” cup type design may be acceptable.

- G. Wrench operated valves 2 1/2 inches to 6 inches shall be capable of being converted to worm gear or automated operation without removing the bonnet or plug from the valve. Exposed valves 6 inches and smaller shall be lever operated, and 8" and larger shall be gear operated with handwheel except as otherwise indicated on the drawings or where chain or electric actuators are required.
- H. Worm gear operators, where required, shall be of heavy duty construction with the ductile iron quadrant supported on the top and bottom by oil impregnated bronze bearings. The worm gear and shaft shall be manufactured of hardened steel and run on high efficiency roller bearings. Valves shall be designed and manufactured to shut off bubble tight at psi in either direction for valves 1/2 inch through 12 inches and at 150 psi in either direction for valves 14 inches through 36 inches.
- I. The following Manufacturers shall be allowed to provide plug valves for this project:
 - 1. Milliken Valve Co., Inc.
 - 2. Victaulic.
 - 3. Pratt.
 - 4. DeZurik.
 - 5. Clow Valve.
 - 6. Val-Matic.
 - 7. Golden Anderson.
 - 8. Or equal.

PART 3-EXECUTION

3.01 INSTALLATION

- A. See Section 40 05 51-Common Requirements for Process Valves.
- B. Unless otherwise permitted by ENGINEER, all eccentric plug valves shall be INSTALLED WITH THE SHAFT HORIZONTAL AND THE PLUG IN THE UPPER HALF OF THE VALVE BODY. Valves in shall be installed with the seat on the upstream side.

3.02 TESTING

- A. Each valve shall be given a hydrostatic and seat test with the test results being certified when required by the customer. Certified copies of Proof-of-Design test results shall be furnished as outlined in AWWA C517, Section 5.2.1.2 when requested by ENGINEER.

END OF SECTION

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SECTION 40 05 65

CHECK VALVES

PART 1–GENERAL

1.01 SUMMARY

- A. Section Includes: Swing Check Valves.

1.02 RELATED SPECIFICATIONS

- A. Section 40 05 51–Common Requirements for Process Valves.

PART 2–PRODUCTS

2.01 SWING CHECK VALVES

- A. Swing check valves shall be full opening, horizontal rubber flapper swing check valve meeting the following requirements:
 - 1. Flanged ends.
 - 2. Rated for 250 psi.
 - 3. Removable cover to allow removal of the flexible disc without taking the valve from the line.
 - 4. Valve body and cover shall be ductile iron per ASTM A536 Grade 65-45-12.
 - 5. Flapper shall be a single piece reinforced Buna-N (NBR) disc.
 - 6. Interior and exterior of the valve shall be factory epoxy coated.
 - 7. Valve shall include the manufacturer's standard internal spring to assist in valve's closure. Spring shall be stainless steel.
 - 8. The following manufacturers are acceptable for this project:
 - a. APCO CRF-100SA.
 - b. Golden Anderson Industries Figure SB200.
 - c. Approved equivalent.

PART 3–EXECUTION

3.01 INSTALLATION

- A. See Section 40 05 51–Common Requirements for Process Valves.

END OF SECTION

SECTION 40 23 00

PROCESS PIPING MATERIALS AND METHODS

PART 1—GENERAL

1.01 SCOPE

- A. This section covers piping materials and methods for exposed process wastewater applications.

1.02 RELATED SECTIONS

- A. Section 09 96 00—High Performance Coatings.
- B. Section 40 23 11—Pipe Supports and Anchors for Process Piping.

1.03 GENERAL

- A. Materials—All materials shall be new, full weight, and of the best quality with the same brand or manufacturer used for each class of material or equipment. CONTRACTOR shall be responsible for the safety and good condition of materials and equipment installed until final acceptance by ENGINEER. After acceptance, the guarantee requirements shall apply. All materials shall be stored to prevent damage or weathering prior to installation.
- B. Workmanship—All materials and equipment shall be installed in a neat and workmanlike manner by skilled craftsmen in their trade. The installation of any materials and equipment not meeting these standards may be rejected by ENGINEER and shall be removed and reinstalled to meet these standards at no additional cost to OWNER.

1.04 SUBMITTALS

- A. Shop drawing submittals for all process pipe, fittings, and accessories specified herein.

1.05 VERIFICATION OF DRAWINGS

- A. The Contract Drawings indicate the required size and general arrangement for all piping and equipment. Locations shall be verified in the field by CONTRACTOR. Valves and fittings shall be of such dimensions to allow for the installation of this piping. If it is necessary to change the location of any work due to interference with other work, CONTRACTOR shall consult with ENGINEER before making any changes. Pipe and fitting locations can only be changed by field order or change order. CONTRACTOR may be required to remove and replace piping which is installed in a location not indicated on the Contract Drawings without prior approval by ENGINEER.
- B. CONTRACTOR shall determine and be responsible for the proper locations and character of all anchor bolts, inserts, hangers, chases, sleeves and other openings in the construction for the piping and mechanical equipment.

PART 2-PRODUCTS

2.01 PIPE MATERIALS

A. Ductile Iron Pipe (DIP):

1. Pipe:
 - a. Ductile iron pipe shall conform to applicable sections of ANSI/AWWA C150/ A21.50 and ANSI/AWWA C151/A21.51 with minimum pipe class of 250 psi.
 - b. Exposed flanged by mechanical joint pipe shall be minimum Class 53. Pipe may be of greater thickness if required for fabrication
2. Fittings:
 - a. Ductile iron or cast iron fittings per ANSI/AWWA C110/A21.10 or shall be compact fittings per ANSI/AWWA C153/A21.53.
 - b. All fittings shall be the same size as the pipeline in which they are installed, unless otherwise noted on the Drawings.
 - c. Exposed fittings shall be flanged
3. Exposed pipe joints—all joints shall be flanged or grooved:
 - a. Flanged joints and fittings shall be flat faced and conform to ANSI Specification B16.1, Class 125 or ANSI/AWWA C115/A21.15. Flange coupling adapters shall be used where indicated on the drawings. Other locations require ENGINEER approval.
 - b. Grooved couplings and fittings may be used in lieu of flanged joints without prior ENGINEER approval and shall meet the requirements of ANSI/AWWA C606. Couplings and fittings shall be Victaulic "Style 31", Anvil "Figure 7401", or equal. Pipes shall have grooved ends conforming to ANSI/AWWA C606, Table 5, for rigid joints. Coupling gasket shall be molded synthetic rubber. Coupling housing shall be ductile iron conforming to ASTM A536, Grade 65-45-12.
4. Linings: All iron pipe and fittings shall be lined with cement mortar, unless specifically indicated otherwise on the Drawings. Cement mortar lining shall conform to ANSI/AWWA C104/A21.4.
5. Coatings: The exterior surfaces of all interior and exterior exposed iron pipe and fittings shall be shop primed and coated in conformance with Section 09 96 00—High Performance Coatings.

2.02 PIPE ACCESSORIES

A. Flexible Couplings:

1. A flexible coupling shall be provided where indicated on the drawings. The coupling shall be Metraflex "100HT," Mercer Style 501, Proco Style 231 with retaining ring, gusset plate, and control rod, or equivalent.
2. The coupling shall be of the size, material, temperature rating, and pressure rating required for the indicated service.
3. Adequate anchorage shall be provided on each side of the flexible coupling to prevent unnecessary pipe movement.

B. Mechanical Couplings:

1. Mechanical couplings shall be installed in strict accordance with manufacturer's recommendations. A space of at least 1/4 inch and not more than 1 inch shall be left between the pipe ends. All assembly bolts shall be uniformly tightened so that the coupling is free from leaks and all parts of the coupling are square and symmetrical with the pipe. Gaskets shall be oil-resistant synthetic rubber suitable for the indicated service. Gaskets and coatings in contact with potable water shall be NSF 61 certified.

2. Restrained Mechanical Couplings: Where indicated in the drawings, restrained mechanical couplers shall be used. Joint restraint to prevent axial separation shall be incorporated into the design of the coupler and shall consist of a plurality of individually actuated gripping surfaces to maximize restraint capability. Restrained mechanical couplings shall be made of ductile iron conforming to ASTM A536. The restrained joining system shall meet the applicable requirements of AWWA C219, ANSI/AWWA C111/A21.1 and ASTM D2000. Restrained couplings shall be Series 3800 by EBAA Iron or equal.
- C. Pressure Gauges:
1. Pressure gauges for liquid service shall be 4 1/2-inch size low internal volume spiral/helical coil Bourbon tube type with solid front and rear blowout. Gauges shall conform to ASME B40.1, Grade 2A or better and have a 0.5% accuracy. Indicating range shall be through approximately 270 degrees. Gauges shall be Dwyer Instruments, Inc. Spirahelic Series 7000, Ashcroft Type 1279, or equivalent. Gauges shall be suitable for the installation conditions and pressure range up to 160 psi. Pressure range for each gauge shall be as applicable for the intended service.
 2. Pressure gauges for gas/air service shall be 4 1/2-inch size. Gauges shall have an accuracy of 0.5% and suitable for operation from 20 to 250 degrees F. Indicating range shall be through approximately 270 degrees. Gauges shall be Dwyer Instruments, Ashcroft, or equivalent. Gauges shall be suitable for the installation conditions and pressure range up to 15 psi. Pressure range for each gauge shall be as applicable for the intended service.
 3. A suitable gauge isolator shall be provided where gauges will be connected to process water, chemical, or sludge lines.
 - a. The isolator shall be provided with a removable AISI Type 316 stainless steel diaphragm. Each isolator and diaphragm seal and the gauge served shall be factory assembled, filled with a suitable fluid, and calibrated as a unit.
 - b. Gauge Isolator Rings shall be used for sludge lines when indicated on the drawings. They shall be of an inline, flow-through, flange type gage isolator. Each isolator shall consist of a carbon steel housing, carbon steel assembly flanges, and Pure gum rubber flexible liner and shall be filled with silicone oil. Each isolator shall be suitable for installation between two flat-faced ANSI B16.1, Class 125 cast iron pipe flanges and shall be tapped for a 1/2-inch NPT gauge connection. Isolators shall be OPW Engineered Systems "Iso-Ring," Red Valve "Series 40 Flanged Sensor," RKL Controls "Series W Pressure Sensor," or equal.
 4. Pressure gauges for gas/air service shall be mounted with a snubber.
 5. All gauges and diaphragm seals shall be installed in the vertical upright position at locations easily accessible for viewing.
 6. Direct tapping of pipe walls for installation of gauge connections will not be permitted.
 7. Provide tees or welding fittings where necessary to permit installation.

PART 3-EXECUTION

3.01 PIPE CONSTRUCTION PROCEDURES

- A. All work shall be performed by skilled workmen in accordance with generally accepted standards of good practice. Work which, in the opinion of ENGINEER, does not conform to these standards will be rejected and shall be removed and redone until work has been performed in an acceptable manner. Piping runs shall be true to building lines and plumb except where expressly indicated otherwise.

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- B. All piping materials shall be installed free of dirt, scale, rust, excess oil, grease or other compounds. Steel and copper piping sections before installation shall be stood on end and rapped sharply to loosen cuttings and other foreign materials from the interior. After installation, open ends of piping systems shall be temporarily plugged. Foreign matter accumulating in or on the piping as a result of fabrication and erection work shall be removed as the work progresses. Special cleaning as required for critical services, e.g., oxygen, freon, etc., shall be carried in accordance with applicable codes and standards.
- C. Openings in pipes, drains, fittings and equipment shall be kept covered or plugged to prevent accumulation of debris in systems.
- D. Piping shall be free of traps, sags and bends. Piping shall be drainable at low points in the systems.
- E. Install piping to maintain headroom and keep passageways clear. Offset to maintain the required clearances and conform to architectural and structural features of the building. Run parallel and straight with adjacent walls or ceilings to present a uniform appearance. Maintain spacing to accommodate insulation.
- F. All rough-in shall be set to dimensions furnished by manufacturers.
- G. Pipe shall be cut using measurements taken at the site and not from the drawings. All necessary provisions shall be taken in laying out piping to provide for expansion and contraction.
- H. Street elbows, bushings and long screw fittings shall not be used.
- I. Main and Risers: All piping shall be continuous between fittings wherever possible, as short lengths and couplings will not be permitted.
- J. Unions and Flanges: Provide unions or flanges to all connections to equipment for dismantling of piping. Provide unions at connections to screwed body control valves.
- K. Pipe and fittings shall be carefully handled to avoid damage. Pipe and fittings which have been damaged or have damaged linings shall be replaced. All pipe coating which has been damaged shall be repaired by CONTRACTOR before the pipe is installed. Pipe and fittings shall be carefully examined for cracks and other defects immediately before installation, and all defective pipe and fittings shall be removed from the site of the work.

3.02 JOINTS AND CONNECTIONS

- A. Flanged fittings shall be assembled by tightening bolts at a uniform rate to ensure uniform compression of the gasket. When bolting flanged joints, one flange shall be free to move in any direction to prevent unnecessary stress in the flanges. When connecting flanged pipe to equipment, special care shall be taken to prevent transfer of stresses to the equipment flanges.
- B. Other types of joints shall be as discussed elsewhere, as recommended by the manufacturer, and as approved by ENGINEER.

3.03 WELDING

- A. Pipe welding shall comply with the provisions of the latest revision of the applicable code, whether ASME Boiler and Pressure Vessel Code, ANSI Code for Pressure Piping, or state or local requirements as may supersede codes specified herein.
- B. Each manufacturer or CONTRACTOR shall be responsible for the quality of welding done by his organization and shall repair or replace any work not in accordance with these specifications.

3.04 THERMAL EXPANSION OF PIPES

- A. Swing joints, turns, expansion loops, expansion joints, guides, anchors, and long offsets shall be provided wherever indicated on the drawings and wherever necessary to allow for expansion of piping within the building. Pipes and fittings which break due to rigid connections shall be removed and replaced at no additional expense to OWNER.
- B. Anchorage shall be provided to resist thrust and force expansion and contraction movement to occur at expansion joints, loops, or elbows, and as required to prevent excessive stresses and movement at couplings. Pipe guides shall be installed at expansion joints and as recommended by the manufacturer.
- C. Thermal expansion and anchorage shall be provided for the full range of temperature extremes.

3.05 THRUST RESTRAINT

- A. All exposed piping with mechanical couplings, push-on or mechanical joints, or similar joints subject to internal pressure shall be restrained to prevent separation of the joints.
- B. It shall be CONTRACTOR's responsibility to determine the anchorage required to support the fitting size and internal pressure. Any damage caused by faulty anchorage shall be the responsibility of CONTRACTOR.

3.06 TESTING

- A. All piping systems shall be tested for pressure and leakage as specified herein. All specified tests shall be made by and at the expense of CONTRACTOR in the presence, and to the satisfaction of ENGINEER. All necessary testing equipment and materials including meters, sectionalizing valves, gauges, and anchorage shall be furnished and all tests shall be made by and at the expense of CONTRACTOR and at such time as acceptable to ENGINEER.
- B. Before testing, the pipe, fittings, and appurtenances shall be adequately secured and braced to resist the loads incurred during testing. Each section tested shall be slowly filled with water, care being taken to expel all air from the pipe. CONTRACTOR shall be responsible for providing adequate means to expel air from the pipe for testing. Test pressures shall be applied by means of a force pump sized to provide and maintain the required pressure without interruption during the test. Leakage may be determined by loss of pressure, soap solution, or other positive and accurate means acceptable to ENGINEER. All fixtures, devices, or other accessories which are to be connected to the lines which would be damaged if subjected to the test pressure shall be disconnected and the ends of the branch lines plugged or capped as required for the test.

- C. Process Pipe Testing: Liquid piping shall be tested at 1 1/2 times the working pressure, but not less than 50 psi. Each piping system shall be tested for at least one hour with no loss of pressure. The test medium shall be water for all lines except as otherwise noted.
- D. Leakage: All piping shall be watertight and free from leaks. Each leak which is discovered within the correction period specified in the General Conditions shall be repaired by and at the expense of CONTRACTOR.

3.07 INSTALLATION AND WORKMANSHIP

- A. All equipment and piping shall be installed complete, utilizing competent workmen, so that the complete installation will function properly, and reflect a high quality of workmanship. All material shall be new, undamaged, and conform to the latest standards listed.
- B. CONTRACTOR shall cooperate with other trades to avoid interference in the installation of this work. Install all equipment and systems so as not to delay progress of construction, and correlate with other trades to avoid delay. Should differences of opinion develop, ENGINEER's decision will be final.
- C. Keep premises clean and orderly during installation of this work, and remove rubbish periodically and as may be directed by ENGINEER. Upon completion of this part of the project, remove all dirt, debris, tools, scaffolding, and other construction items under this CONTRACTOR's control or caused by his work.

END OF SECTION

SECTION 43 23 31

END SUCTION NON-CLOG CENTRIFUGAL PUMPS

PART 1—GENERAL

1.01 SCOPE

- A. This section covers the installation of one vertical, single-stage, end suction, non-clog, centrifugal Raw Wastewater Pump (RWP) with pedestal mounted motor.
- B. Each pumping unit shall be complete with a pump, electric motor, base, anchor bolts, and all other appurtenances specified or otherwise required for proper operation.

1.02 GENERAL

- A. Equipment furnished and installed under this section shall be fabricated, assembled, erected, and placed in proper operating condition in full conformity with drawings, specifications, engineering data, instructions, and recommendations of the equipment manufacturer unless exceptions are noted by ENGINEER. Hydraulic considerations and definition of terms shall be as set forth in the Hydraulic Institute Standards.

1.03 QUALITY ASSURANCE

- A. Equipment shall be furnished by manufacturer who is fully experienced, reputable, and qualified, and regularly engaged in the manufacture of the equipment as specified herein.
- B. Pumps and motors are to be engineered, manufactured, and assembled in the United States under a written Quality Assurance program. This written Quality Assurance program shall have been in effect for at least five years, and include a written record of periodic internal and external audits to confirm compliance with UL Quality Assurance specifications.

1.04 WARRANTY

- A. The manufacturer shall provide a 100% parts and labor warranty. The warranty shall cover defects in workmanship and material under normal use, operation, and service for a minimum period of two years from the date of start-up.
- B. In the event a component fails to perform as specified or is proven defective in service during the guarantee period, the Manufacturer shall repair or replace, at his discretion, such defective part.

1.05 SUBMITTALS

- A. Complete fabrication, assembly, foundation, and installation drawings, together with detailed specifications and data covering materials used, parts, devices, and other accessories forming a part of the equipment furnished, shall be submitted in accordance with the submittals section. See Section 01 33 00 for additional requirements. The data and specifications for each unit shall include, but shall not be limited to, the following:
 - 1. Pumps:
 - a. Name of manufacturer.

- b. Type and model.
- c. Rotative speed.
- d. Size of suction nozzle.
- e. Size of discharge nozzle.
- f. Type of coupling.
- g. Net weight of pump only.
- h. Net weight with base-plate, coupling, motor and accessories.
- i. Complete performance curves showing capacity versus head, NPSH required, efficiency, and bhp.
- j. Data on shop painting.
- 2. Motors:
 - a. Name of manufacturer.
 - b. Type and model.
 - c. Type of bearings and lubrication.
 - d. Rated size of motor, hp.
 - e. Temperature rating.
 - f. Full load rotative speed.
 - g. Net weight.
 - h. Efficiency at full load and rated pump condition.
 - i. Full load current.
 - j. Locked rotor current.

- B. Submit operation, maintenance and installation manuals as specified in Section 01 33 00–Submittals.

1.06 SERVICE CONDITIONS

- A. Raw Wastewater Pump (RWP):
 - 1. The RWP will take suction from the adjacent wet well and will discharge to a force main.
 - 2. The pumped liquid will be raw wastewater.
 - 3. Temperature of the liquid will normally range from 35°F to 90°F.
 - 4. The RWP will be driven with a variable frequency drive (VFD).
 - 5. The RWP shall be provided with the largest impeller diameter possible while not exceeding the motor nameplate horsepower within the manufacturer's recommended operating range for the pump. The design conditions shall be met by varying the speed of each pump.

PART 2–PRODUCTS

2.01 MANUFACTURERS

- A. The following manufacturers and equipment shall be considered acceptable for this project:
 - 1. Fairbanks Nijhuis (Pentair).
 - 2. Flowserve.
 - 3. Pre-approved equivalent.

2.02 GENERAL PERFORMANCE AND DESIGN REQUIREMENTS

- A. Pump performance shall be stable and free from cavitation and noise throughout the normal operating head range at minimum suction submergences. The design running clearance

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between the impeller inlet and the casing wearing ring (if provided) shall be not less than 0.006 inch or 1/2 mil per inch of casing wearing ring diameter, whichever is greater.

- B. Design equipment so parts are readily accessible for inspection and repairs, easily duplicated and replaced, and suitable for service required.

2.03 PERFORMANCE AND DESIGN REQUIREMENTS

- A. The RWP's shall be designed for the following operating conditions and requirements:
1. Number of units: 1.
 2. Minimum best efficiency point on curve at max speed, %: 68.
 3. Maximum pump nominal operating speed, rpm: 1,800.
 4. Minimum shutoff head at max speed, feet: 200.
 5. Max bhp required at the motor at all points along the pump curve at max. speed: 75.
 6. Primary design point flow, gpm: 900.
 7. Primary design point head, feet: 174.
 8. Minimum pump efficiency at primary design point, %: 66.
 9. Secondary design point flow, gpm: 400.
 10. Secondary design point head, feet: 98.
 11. Approximate pump speed at secondary design point, rpm: 1,250.
 12. Minimum pump efficiency at secondary design pump speed, %: 45.
 13. Minimum pump suction nozzle size, inches: 6.
 14. Minimum pump discharge nozzle size, inches: 4
 15. Minimum test sphere diameter, inches: 3.
 16. Minimum hydrostatic test pressure, psi: 150.
- B. The RWP shall be capable of operating within the following system curves through the use of the VFD:

Flow, gpm	Curve 1 Head, ft	Curve 2 Head, ft
0	80	80
400	105	98
600	133	118
800	170	145
900	191	161

2.04 MATERIALS

- A. Casing, Casing Covers, Frame: Cast iron, ASTM 48.
- B. Impeller: Cast iron, ASTM 48.
- C. Casing Wearing Ring: Stainless steel.
- D. Impeller Wearing Ring: Stainless steel.
- E. Shaft: Carbon steel, AISI 1045, A4142, 4140HT; ASTM A311 Grade 1141 or 1144.
- F. Shaft Sleeve: Stainless steel.
- G. Stuff Box Hardware: Corrosion-resistant metal.

- H. Mechanical Seals: Silicon carbide, reaction bonded (RSC).
- I. Discharge Base: Cast iron or fabricated steel.
- J. Epoxy Coating Primer: Compatible with field coating system.
- K. Finish Coat: Compatible with field coating system.

2.05 PUMP CONSTRUCTION

- A. Pump Casing:
 - 1. Provide casing with upper head bolted to volute, concentric shoulder fit, and provisions for ensuring accurate centering. Size upper head to permit removal of impeller and to contain stuffing box. Volute, radial, or mixed flow form is to contain discharge connection and handhole in discharge volute for inspection and cleaning of impeller. Provide lower head. Provide suction fitting with handhole for inspection and cleaning of impellers.
 - 2. Cast casing in hard, close-grained cast iron to withstand abrasive action of solids and foreign matter contained in wastewater, and provide with ribs or other suitable reinforcement to withstand test pressures specified, and to prevent deflection due to hydraulic thrust load. Provide casing with lifting devices and tapped holes for drain, air relief, and stuffing box connections. Drilling and dimensions of flanges on suction and discharge connection shall conform to ANSI 125-lb, unless otherwise specified as special requirements. No pipe or other obstructions shall pass through pump casing in manner to impede flow. Provide casing for rotation as shown on drawings.
- B. Pump Impeller: Provide non-clog design with water passages having smooth contours free from sharp edges, of close-grained cast iron having high wear resisting qualities, and ultimate tensile strength of not less than 30,000 lbs/sq in. Secure impeller to shaft by key and locknut, so it cannot unscrew or become loose due to torque resulting from rotation in either direction. Non-clog impellers shall be designed to prevent clogging and to pass solids, trash, and stringy material contained in wastewater. Enclosed impellers shall have no less than two vanes having well-rounded finished entrances.
- C. Pump Shaft and Sleeve. The shaft shall be high grade, carbon steel, accurately machined and polished, and of sufficient diameter to carry maximum load imposed to ensure rigid support of impeller, and to prevent vibration at operating speeds. Impeller overhang not to exceed center-to-center dimension of bearing spacings. Provide stainless steel sleeve containing not less than 11% chromium fitted, and securely fastened in place where shaft passes through stuffing box.
 - 1. Horizontal pumps shall include a spacer coupling that connects the motor and pump shafts.
 - 2. Vertical pumps shall include a flexible coupling that connect the motor and pump shafts.
 - 3. Units with the impeller connected directly to the motor shaft shall not be acceptable.
- D. Wearing Rings: Pumps with enclosed impellers shall be equipped with easily removable axial casing and impeller wearing rings so designed that hydraulic pressure will seat them against a shoulder in the pump case around the full periphery of wearing ring. The wearing rings shall be locked in place by doweling to prevent rotation. Fabricate of stainless steel containing not less than 11% chromium. Brinnell hardness of not less than 400 to 484 for the casing wearing ring. Brinnell hardness of the impeller ring shall be 300 to 350.

- E. Bearings: Provide guide bearing of antifriction type to carry loads imposed under conditions of continuous service without overheating and of standard sizes to ensure interchangeability. Minimum of two bearings, one radial guide bearing, and one combination guide and thrust bearing shall be provided. Bearings shall be accessible for easy replacement. Chambers shall be dust-tight, grease-sealed, cast integral housing, both radial and thrust bearings. Rate guide and thrust bearings for minimum L10 life of 100,000 hours at the best efficiency point of the pump.
- F. Mechanical Seal and Housing: Flow Induced Dual Cartridge Seal (FIDC) mechanical seal with tungsten carbide-carbon faces by AESEAL.
- G. Volute: The volute shall be matched to the impeller and made of close-grained cast iron conforming to ASTM A48 Class 30. The volute is to be of one-piece circular constant flow, equalizing pressure design with smooth fluid passages large enough to pass any size solid that can pass through the impeller. The volute shall be side flanged tangential discharge and capable of rotation in 45 degree increments to accommodate piping orientation. The volute shall be furnished with large cleanout openings located at the impeller centerline, to allow access to the impeller. Volute priming, drain, and 1/4" inch minimum gauge connections shall be provided. Flanges shall be 125 lbs. flanges per ASA/ANSI standards.
- H. Accessories:
 - 1. Each pump shall be provided with lifting eyebolts or lugs, plugged gauge cock connections at the suction and discharge nozzles, tapped and plugged openings for casing assembly and bearing housing vents and drains, and fittings for properly adding bearing lubricant and seal water.
 - 2. Grease lubricated pumping units shall be provided with a means of venting the casing.
 - 3. A single pressure gauge with isolator ring shall be provided as specified in Section 40 23 00—Process Piping Materials and Methods and installed on the discharge piping of each pump. Pressure range shall be so the pump shutoff head is within 60 to 90% of the gauge range, or as close as possible with gauge manufacturer's standard range selections.
- I. Base: The pump shall be supported by a heavy duty cast iron or fabricated steel base. The base shall be designed to support the assembled weight of the pump and driver.

2.06 BALANCE

- A. All rotating parts shall be accurately machined and shall be in as nearly perfect rotational balance as practicable. Excessive vibration shall be sufficient cause for rejection of the equipment. The mass of the unit and its distribution shall be such that resonance at normal operating speeds is avoided. In any case, the vibration displacement (peak-to-peak) as measured at any point on the machine shall not exceed 4.0 mils. At any operating speed, the ratio of rotative speed to the critical speed of a unit or components thereof shall be less than 0.8 or more than 1.3.

2.07 ELECTRIC MOTORS

- A. Each pump shall be driven by a vertical solid shaft, normal thrust electric motor furnished by the pump manufacturer. The pump motors shall be rated 460 volts, 60 Hz, three-phase, TEFC and shall be of the premium efficiency type. Each motor shall have a 1.15 service factor. The motors shall have a nameplate rating that exceeds the maximum horsepower required by the pump. Motor insulation shall be Class F with Class B temperature rise. Each

motor shall be NEMA Design B for continuous duty. Motors for the RWPs shall be inverter duty rated and shall be provided with 1600 volt winding insulation, shaft grounding ring and insulated thrust bearing.

- B. Each motor bearing shall be antifriction, permanently lubricated type. The bearings shall have a calculated AFBMA Life Rating of 40,000 hours when operating at maximum operating head.

2.08 ELECTRICAL POWER SUPPLY

- A. The power supply to the pumping equipment will be 480 volts, 60 Hz, three-phase.

2.09 ANCHOR BOLTS

- A. All anchor bolts, nuts, and washers shall be stainless steel and shall comply with the anchor bolts and expansion anchors section. Anchor bolts shall be accurately located and centered in pipe sleeves having an inside diameter approximately 2 1/2 times the bolt diameter and with a length approximately eight times the bolt diameter.

2.10 PAINTING

- A. All iron and steel parts and surfaces shall be shop cleaned in accordance with the coating manufacturer's recommendations and painted with an epoxy coating system. Painting of the inside of the impeller casing, the impeller and stainless steel is not required. The coating shall have a dry film thickness of at least 5 mils and shall consist of a prime (first) coat and one or more finish coats.

2.11 SPARE PARTS

- A. A complete set of seals, O-rings, gaskets, one mechanical seal and one set of wear rings shall be furnished for each model of pump. Spare parts shall be suitably packaged with labels indicating the contents of each package. Spare parts shall be delivered to OWNER as directed.

PART 3-EXECUTION

3.01 SHOP TESTS

- A. Each pump shall be tested at the factory for capacity, power requirement, and efficiency at rated head, shutoff head and NPSH required at as many other points as necessary for accurate performance curve plotting. All tests and test reports shall be made in conformity with the requirements and recommendations of the Hydraulic Institute Standards based on acceptance Grade 1U.
- B. The report covering each test shall be prepared by the pump manufacturer and delivered to ENGINEER not less than 10 days prior to the shipment of the equipment from the factory. The report shall include data and test information as stipulated in the Hydraulic Institute Standards; copies of the testing log originals; test reading to curve conversion equations; and certified performance curves. The curves shall include pump total head, bhp, pump efficiency, rpm, and shop test NPSH, plotted against capacity. The curves shall be easily read and plotted to scales consistent with performance requirements. All test points shall be

clearly indicated. When the pump is not tested at the rated speed, performance charts shall include both the test and the calculated speed curves.

3.02 INSTALLATION

- A. Each pumping unit shall be leveled, plumbed, aligned, and wedged into position to fit connecting piping. Installation procedures shall be as recommended by the pump manufacturer and the Hydraulic Institute Standards. Grouting shall be as specified in the grout section. Piping shall be adjusted to proper fit, and shimming between machined surfaces will not be permitted.

3.03 MANUFACTURER'S FIELD SERVICES.

- A. Manufacturer's field services shall be provided for the installed equipment as specified in Section 01 45 00—Quality Control.

END OF SECTION

SECTION 46 24 33

GRINDERS

PART 1—GENERAL

1.01 SCOPE

- A. This section covers furnishing and installing a channel grinder to be installed in the existing influent channel at the Northeast Pump Station, as indicated on the Drawings.
- B. The equipment shall consist of a stationary cutter screen with rotating cutter, and with the motor mounted in a vertical position directly above the unit.

1.02 GENERAL

- A. Equipment furnished and installed under this section shall be fabricated, assembled, erected and placed in proper operating condition in full conformity with detail drawings, specifications, engineering data, instructions and recommendations of the equipment manufacturer unless exceptions are noted by ENGINEER.

1.03 SUBMITTALS

- A. Complete assembly, foundation and installation drawings, together with detailed specifications, and data covering material used, parts, devices, and other accessories forming a part of the equipment furnished, shall be submitted in accordance with the submittals section.
 - B. The data and specifications shall include but not be limited to, the following:
 - 1. Grinder:
 - a. Manufacturer*.
 - b. Type and model*.
 - c. Rotational speed*.
 - d. Dimensions of openings and widths.
 - e. Type of bearings and bearing manufacturer and number.
 - 2. Motor:
 - a. Manufacturer*.
 - b. Type and model*.
 - c. Rotational speed*.
 - d. Volt/Phase/Hertz*.
 - e. Hp*.
- *Minimum nameplate requirements

1.04 WARRANTY

- A. The manufacturer shall provide a 100% parts and labor warranty. The warranty shall cover defects in workmanship and material under normal use, operation, and service for a minimum period of two years from the date of start-up.

- B. In the event a component fails to perform as specified or is proven defective in service during the guarantee period, the Manufacturer shall repair or replace, at his discretion, such defective part.

PART 2-PRODUCTS

2.01 MANUFACTURERS

- A. Grinders supplied under this section shall be Dimminutor Model DM-T20 as manufactured by Franklin Miller, Inc., Livingston, New Jersey, or pre-approved equal.

2.02 PERFORMANCE AND DESIGN REQUIREMENTS

- A. Design Requirements: Each unit of grinding equipment shall be designed for the following operating conditions:
 - 1. Max design flow through grinder: 7.3 mgd.
 - 2. Fluid handled: Raw wastewater.
 - 3. Fluid temperature: 40 to 85°F.
 - 4. Max size of particle passing grinder: 3/8 inch.
 - 5. Nominal width of channel: 30 inches.
 - 6. Nominal depth of channel: 16.2 feet.
 - 7. Max motor rotative speed, rpm: 1,800.
 - 8. Max motor rating, hp: 3.
- B. The unit shall have continuous available torque and smooth 360 degree rotation. The performance of the machine shall be the same for either direction of rotation. There shall be a high percentage of open area to stream flow. Cutting action shall take place over at least two thirds of the screen height. The unit shall be designed for continuous 24 hour a day service and shall use an efficient low speed, high torque gear reducer.
- C. The grinder shall be constructed with a single heavy duty rotating shaft supported on roller bearings which shall be protected by a set of mechanical seals and permanently lubricated with oil. The drive shall be mounted to a ground steel plate for accurate alignment. Drive, motor, mechanical seals, bearings, cutters, and screens shall be removable without requiring removal of entire unit from channel. No bearings or seals shall be located below the cutters.

2.03 GRINDER MECHANISM

- A. Grinders shall be of a single shaft rotating head containing cutters running against a stationary screen. The screen and cutters shall be designed so that the rotating cutters penetrate into the slot openings of the screen to positively clear them of debris. The solids shall be chopped and shredded to a size small enough to pass through the sizing screen.
- B. The mechanism shall include three multiple tined cutters mounted angularly on support arms of a single rotor shall sweep oversized solids from a special concave semicircular screen in a continuous 360 degree rotation and shred them against two stationary cutters.
- C. The screen shall be removable in interchangeable sections. The screen and cutters shall be easily unbolted for repair or replacement without requiring removal of the drive and shaft. The cutters screen, and hardware shall be constructed of stainless steel. The rotating and stationary cutters shall be stainless steel hardened for long life. The stationary cutters shall

be adjustable by means of an eccentric adjuster mechanism. Cutters shall be removable from the machine without requiring removal of unit from channel.

- D. The grinder housing shall be constructed of ductile iron.
- E. The rotating cutters shall be designed to be interchangeable and rotatable for maximum life. This will allow the lower cutters, exposed to the highest concentration of solids and abrasive material, to be replaced by one of the other (higher) cutters.
- F. The grinder shall be driven by a direct driven gear reducer assembled as an integral part of the equipment and shall be equipped with mechanical seals.
- G. The grinder shall be provided with grease-lubricated sleeve, ball, or ball and roller type bearings. The bearings and seals shall be housed in replaceable wear sleeves.
- H. The grinder shall be provided with lifting eyebolts or lugs.
- I. Overflow screen:
 - 1. The unit shall include the manufacturer's standard overflow bar screen mounted at the upstream side of the grinder frame.
 - 2. The screen shall be constructed of 3/16 inch minimum bars with 1 1/2-inch clear spaces.
 - 3. All overflow screen materials shall be stainless steel.

2.04 CHANNEL FRAME AND LIFTING SYSTEM

- A. The grinder shall be easily removed from the channel to the operating floor without the need to enter the channel area below the floor level. Grinder will be removed using an OWNER supplied hoist.
- B. The unit shall slide vertically into a channel slot defined by stainless steel brackets. It shall not be necessary to bolt or otherwise affix the grinder to the structure.
- C. The Manufacturer shall provide a suitable harness system for retrieving the grinder using an OWNER supplied hoist. The system shall allow for closure of the access hatch when the grinder is not being removed or installed and shall not require access to the channel area below the floor level to connect the hoist to the retrieval system.
- D. The Manufacturer is responsible for the complete design and providing all materials associated with the channel frame lifting system. CONTRACTOR is responsible for installed the materials provided by the Manufacturer.

2.05 BEARINGS

- A. The grinder shall have heavy roller bearings permanently oil lubricated and protected from sewage by mechanical seals.

2.06 MECHANICAL SEALS

- A. Primary Seals: The primary seals shall feature elastomeric members which operate as opposing disk springs when compressed and at the same time keeping the faces of the two metallic rings together insuring positive sealing. No metal springs shall be used.

- B. Labyrinth Rings: The contact-less labyrinth rings shall be supplied to further protect from coarse and fine granular contaminants.

2.07 REDUCER

- A. The speed reducer shall be a grease-filled planetary or cycloidal type reducer with "Heavy-Shock" load classification. The reduction ratio shall be 47:1. The high-speed shaft of the grinder shall be directly coupled with the reducer via a coupling.
- B. The two-piece, three-lobed coupling shall have jaws that intermesh by at least 3/4 inch for dependable torque transmission.

2.08 MOTOR

- A. The unit shall incorporate a submersible explosion-proof motor coupled to a reducer comprising a sealed assembly suited for continuous or intermittent submerged service. Pump motors, as a minimum, shall contain a moisture detector to detect seal leakage (float switch or resistance) and winding temperature detectors. Seal failure, and if required, over temperature relays shall be shipped to the control system supplier for inclusion in the control system.
- B. The motor shall be three-lead, 460-volt, 60 Hz, three-phase submersible motor explosion proof of continuous-in-air operation. The motor shall also meet the following requirements:
 - 1. Insulation: Moisture-resistant Class F 155EC/311EF
 - 2. Design: Squirrel cage induction, NEMA Design B for continuous operation
- C. The gear reducer shall be fully sealed and capable of operating submerged continuously.
- D. The motor shall be supplied with the necessary length of cable to allow for removal of the unit from the channel to the operating floor without the need to disconnect wiring.
- E. A coupling adapter shall be used having registers for accurate alignment and smooth operation. The coupling adapter shall be sealed to prevent water contamination. The adapter shall be firmly connected to the input of the reducer and shall rigidly support the submersible motor weight.

2.09 CONTROLS

- A. Controls will be provided by the control system manufacturer as specified in Electrical Division 25. Any changes required to the described control system shall be included in CONTRACTOR's base bid. No additional payment will be allowed. All controls shall be included in the controls supplied by the control system manufacturer; no separately mounted cabinets will be allowed.
- B. A recommended sequence of operation, including values and ranges for time delays, reversing operation, and other set points for programming the control system shall be submitted and coordinated with Control System Supplier.

2.10 PAINTING

- A. Each grinder shall be painted with the manufacturer's standard finish coating system consisting of two coats of Tnemec Series 66 or N69 paint.

2.11 BALANCE

- A. All rotating parts shall be accurately machined and shall be in as nearly perfect rotational balance as practicable. Excessive vibration shall be sufficient cause for rejection of the equipment. The mass of the unit and its distribution shall be such that resonance at normal operating speed is avoided.

PART 3—EXECUTION

3.01 FACTORY TEST

- A. Each grinder shall be factory tested to ensure satisfactory operation.

3.02 INSTALLATION

- A. Install the specified equipment in strict conformance with the manufacturer's instruction and recommendations.

3.03 MANUFACTURER'S FIELD SERVICES

- A. Manufacturer's field services shall be provided for the installed equipment.

END OF SECTION

For more location information
please visit www.strand.com

Office Locations

Ames, Iowa | 515.233.0000

Brenham, Texas | 979.836.7937

Cincinnati, Ohio | 513.861.5600

Columbus, Indiana | 812.372.9911

Columbus, Ohio | 614.835.0460

Joliet, Illinois | 815.744.4200

Lexington, Kentucky | 859.225.8500

Louisville, Kentucky | 502.583.7020

Madison, Wisconsin* | 608.251.4843

Milwaukee, Wisconsin | 414.271.0771

Nashville, Tennessee | 615.800.5888

Phoenix, Arizona | 602.437.3733

*Corporate Headquarters



NORTHEAST PUMP STATION IMPROVEMENTS

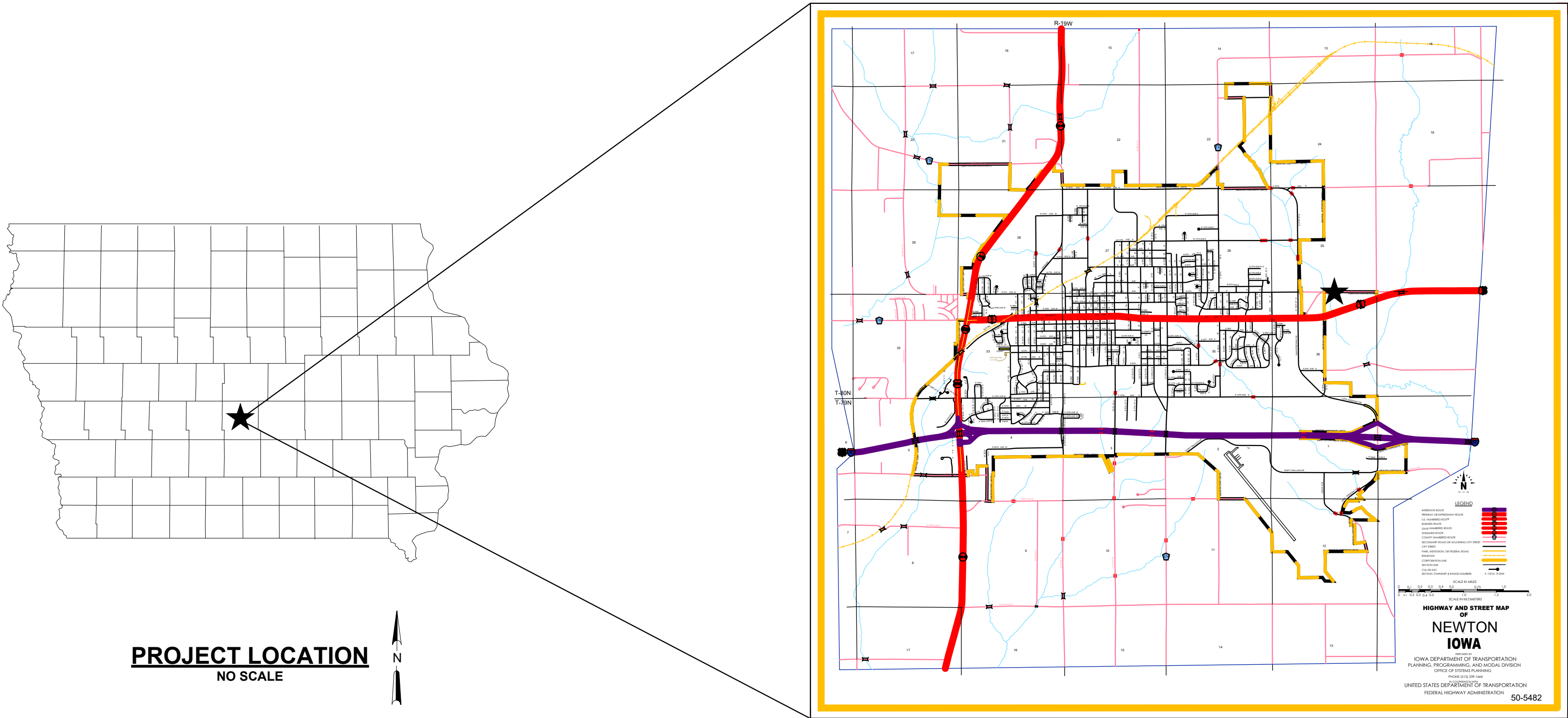
FOR THE

CITY OF NEWTON

JASPER COUNTY, IOWA

SHEET INDEX

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E5	CONTROL DETAILS - SCHEMATIC DIAGRAMS



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	My license renewal date is December 31, 2025.	

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CONTRACT NO. 1-2025



SHEET
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G1



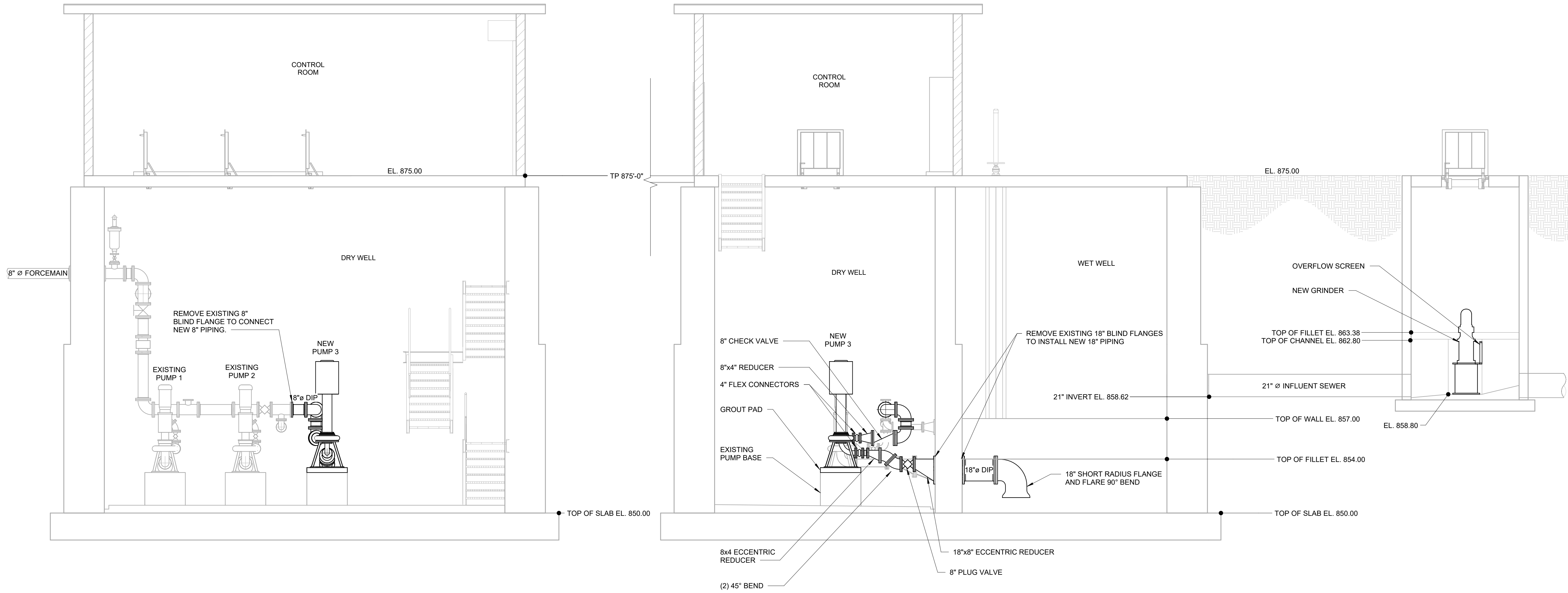
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7036.019

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STEVE VAN DYKE



**SHEET
2
M1**

- GENERAL NOTES:
1. INSTALL PUMP SEAL WATER AND PRESSURE GAUGE PIPING AND VALVES AS RECOMMENDED BY THE PUMP MANUFACTURER AND WITH MATERIALS AND GENERAL ORIENTATION EQUAL OR EQUIVALENT TO THOSE INSTALLED FOR THE EXISTING PUMPS.
 2. EACH WET WELL WILL BE PUMPED DOWN AS FAR AS POSSIBLE USING THE EXITING PUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL REMAINING LIQUID AND SOLID MATERIALS FROM EACH WET WELL.
 3. CONTRACTOR SHALL VERIFY ALL CRITICAL FIELD ELEVATIONS PRIOR TO SUBMITTING SHOP DRAWINGS.



SECTION 1
M2

SECTION 2
M2

PUMP STATION
SECTION VIEWS

NORTHEAST PUMP STATION IMPROVEMENTS
CITY OF NEWTON
JASPER COUNTY, IOWA

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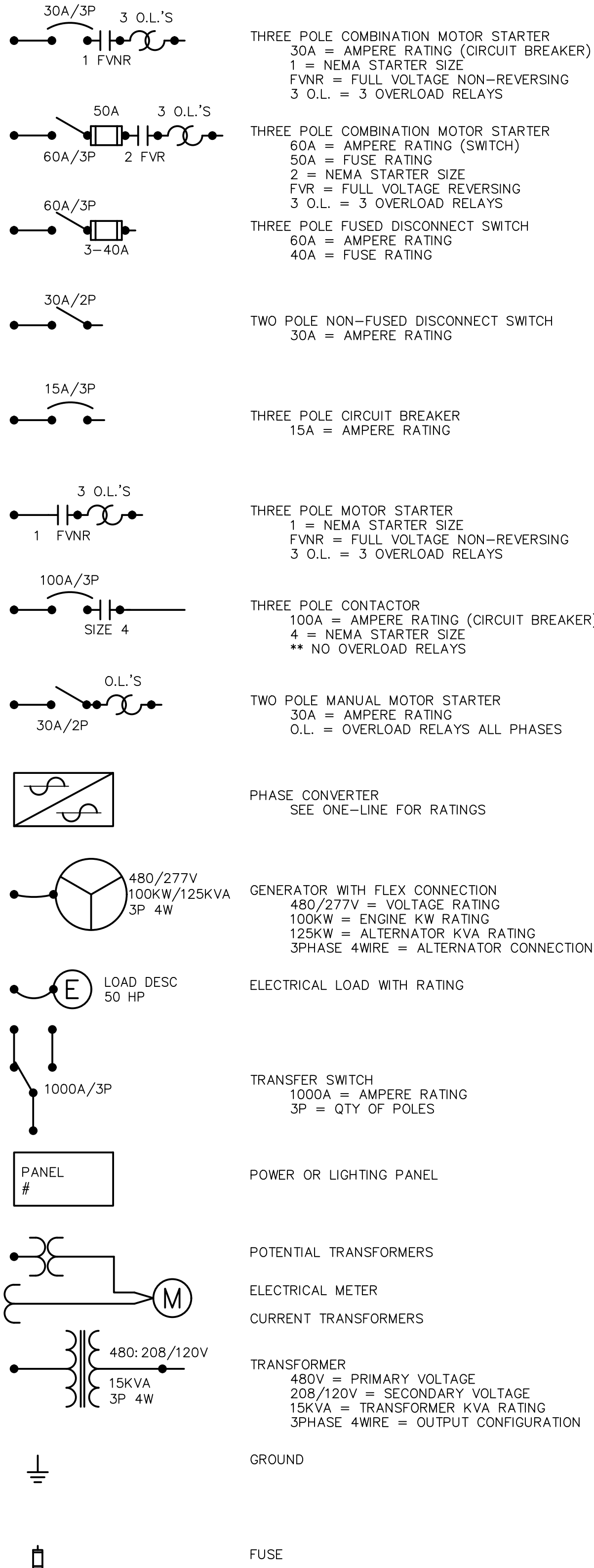
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M2

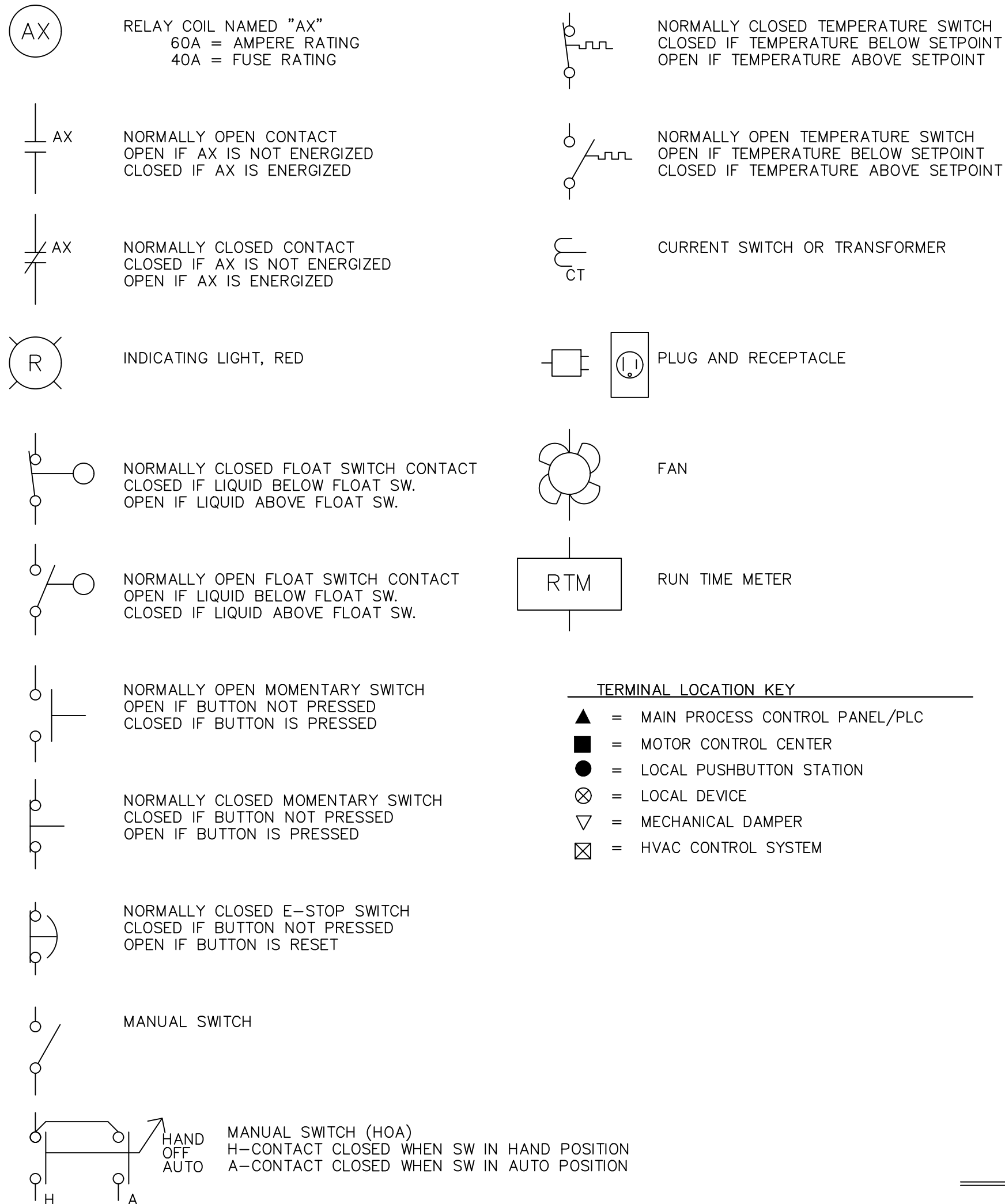
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ELECTRICAL ONE LINE SYMBOLS



NOTE:
COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. NO ASPECT OF A SYSTEM INSTALLATION OR ITS ROUGH-IN SHALL COMMENCE UNTIL PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION HAS TRANSPIRED. ITEMS TO BE COORDINATED SHALL INCLUDE BUT NOT BE LIMITED TO: BUILDING STRUCTURE, SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.

CONTROL SCHEMATIC SYMBOLS



GENERAL NOTE:
UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS ALSO POSSIBLE THAT THERE MAY BE OTHER UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES IN EXISTENCE THAT ARE NOT SHOWN. IT IS THE RESPONSIBILITY OF EACH INDIVIDUAL PARTY REFERENCING THIS PLAN TO DETERMINE THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. HAND EXCAVATE AT CRITICAL POINTS AS NECESSARY TO VERIFY LOCATIONS, SIZES, ELEVATIONS, FLOW LINES, ETC. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.

ELECTRICAL ABBREVIATIONS

AAC	ABOVE ACCESSIBLE CEILING	N	NEW DEVICE IN EXISTING LOCATION
ACT	DEVICE MOUNTED +8" ABOVE COUNTER TOP (VERIFY LOCATION)	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NM	NONMETALLIC
AFG	ABOVE FINISHED GRADE	NTS	NOT TO SCALE
AIC	AMPS INTERRUPTING CAPACITY	OC	ON CENTER
ATS	AUTOMATIC TRANSFER SWITCH BREAKER	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
BKR	BREAKER	OFOI	OWNER FURNISHED, OWNER INSTALLED
C	CONDUIT	PC	PHOTOCELL
CATV	CABLE TELEVISION	R	EXISTING ITEM TO BE REMOVED
CB	CIRCUIT BREAKER	RN	EXISTING ITEM TO BE REMOVED AND NEW ITEM REINSTALLED
CKT	CIRCUIT	RR	EXISTING ITEM TO BE REMOVED AND RELOCATED
CSB	CENTRAL SWITCH BANK	RRG	ROOM REFERENCE GROUNDING POINT
DPST	DOUBLE POLE SINGLE THROW	SES	SERVICE ENTRANCE SWITCHBOARD
E	EXISTING ITEM TO REMAIN	SJB	SOUND JUNCTION BOX
EC	ELECTRICAL CONTRACTOR	SN	SOLID NEUTRAL
EM	EMERGENCY LIGHT FIXTURE	SPDT	SINGLE POLE DOUBLE THROW
EPG	EQUIPOTENTIAL GROUNDING BUS	SPST	SINGLE POLE SINGLE THROW
ER	NEW LOCATION OF EXISTING ITEM	TB	TERMINAL BOARD
F	ROUGH IN FOR FUTURE DEVICE	TCP	TEMPERATURE CONTROL PANEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL	TFA	TO FLOOR ABOVE
FACP	FIRE ALARM CONTROL PANEL	TL	TWIST LOCK RECEPTACLE
FBO	FURNISHED BY OTHERS	TP	TAMPER PROOF
FFB	FROM FLOOR BELOW	TTB	TELEPHONE TERMINAL BOARD
GF	GROUND FAULT CIRCUIT INTERRUPTER	TV	TELEVISION
GP	GROUND FAULT PROTECTED	TYP	TYPICAL
GND	GROUND	UC	UNDERCOUNTER
HOA	HAND OFF AUTOMATIC	UF	DEVICE UNDER RAISED FLOOR
JB	JUNCTION BOX	UPS	UNINTERRUPTIBLE POWER SUPPLY
K	KEYED	VG	VANDAL GUARD COVER
LC	LIGHTING CONTACTOR	VIF	VERIFY IN FIELD
MC	MECHANICAL CONTRACTOR	VL	VERIFY LOCATION
MCB	MAIN CIRCUIT BREAKER	VP	VANDAL PROOF
MDP	MAIN DISTRIBUTION PANEL	VR	VANDAL RESISTANT
MH-P	MANHOLE - POWER	WG	WIREGUARD COVER
MH-S	MANHOLE - SIGNAL	WP	WEATHERPROOF DEVICE
MLO	MAIN LUGS ONLY	WR	WEATHER RESISTANT DEVICE
MSS	MOTOR STARTER SWITCH	XFMR	TRANSFORMER
		+24"	INDICATES MOUNTING HEIGHT CENTER LINE OF DEVICE TO FINISHED FLOOR

ELECTRICAL PLAN SYMBOLS

L1	LIGHT FIXTURE - SURFACE MOUNTED	S	SINGLE POLE SWITCH, +48" OR AS NOTED LOWERCASE LETTERING DENOTES SWITCH LEG
P1	PENDANT MOUNTED LIGHT FIXTURE - HEIGHT AS NOTED	S3	THREE WAY SWITCH, +48" OR AS NOTED LOWERCASE LETTERING DENOTES SWITCH LEG
L1O1	WALL MOUNTED LIGHT FIXTURE - HEIGHT AS NOTED	S4	FOUR WAY SWITCH, +48" OR AS NOTED LOWERCASE LETTERING DENOTES SWITCH LEG
R1	RECESSED DOWNLIGHT FIXTURE	SMS	MANUAL MOTOR STARTER, +48" OR AS NOTED
R1	RECESSED WALLWASH LIGHT FIXTURE		SINGLE RECEPTACLE, +18" OR AS NOTED
F1	RECESSED TROFFER LIGHT FIXTURE		DUPLEX RECEPTACLE, +18" OR AS NOTED
F1	STRIP LIGHT FIXTURE - SURFACE MOUNTED		FOUR PLEX RECEPTACLE, +18" OR AS NOTED
F1	UTILITY STRIP FIXTURE		FLOOR BOX WITH DEVICES AS INDICATED ON DRAWINGS - VERIFY EXACT LOCATION
F1	PENDANT MOUNTED STRIP FIXTURE		DUPLEX RECEPTACLE - MOUNTED OVERHEAD
F1	WALL MOUNTED STRIP FIXTURE - HEIGHT AS NOTED		ENCLOSED CIRCUIT BREAKER, SEE EQUIPMENT SCHEDULE
	TRACKLIGHT, TRIANGLES INDICATE NUMBER OF HEADS		MOTOR STARTER, SEE EQUIPMENT SCHEDULE
MP1	POLE MOUNTED LIGHT FIXTURE		COMBINATION MOTOR STARTER DISCONNECT, SEE EQUIPMENT SCHEDULE
MB1	WALL MOUNTED EXTERIOR LIGHT FIXTURE - HEIGHT AS NOTED		EQUIPMENT IDENTIFICATION EQUIPMENT NUMBER
B1	BOLLARD FIXTURE		NOTE REFERENCE
CT	CEILING FAN		
E1	EMERGENCY LIGHT FIXTURE - WALL MOUNTED, +96" OR AS NOTED		
X1	EXIT LIGHT - WALL MOUNTED, +96" OR AS NOTED (ARROW INDICATES EGRESS DIRECTION)		

ELECTRICAL SYMBOLS, ABBREVIATIONS, NOTES

NORTHEAST PUMP STATION IMPROVEMENTS
CITY OF NEWTON
JASPER COUNTY, IOWA

JOB NO.
7036.019
PROJECT MGR.
STEVE V.



SHEET
4
E1

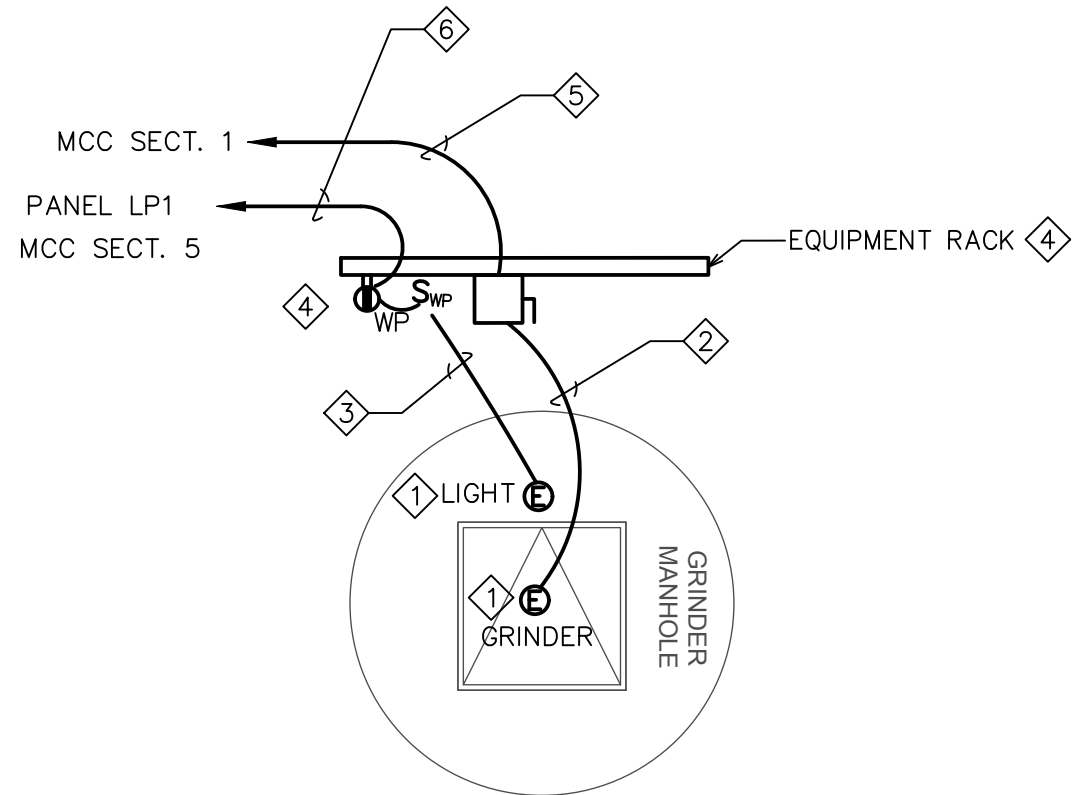
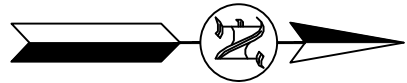
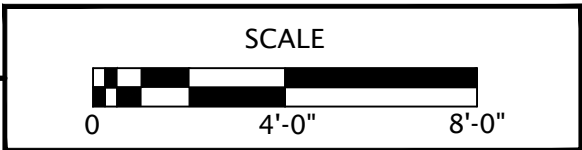
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Engineering Company

Ph. 515.622.1609 - Perry, Iowa
Internet http://www.briesberg-engr.com
REC PROJECT # 24-004

DATE:					
REVISIONS					
NO.					



1 | ELECTRICAL PLAN
E2 | 1/4"=1'-0"



GENERAL NOTES:

1. WET WELL AND GRINDER MANHOLE RATED CLASS I DIV 2 GROUP D. INSTALL ALL CONDUIT AND RACEWAY SYSTEMS TO COMPLY WITH THIS RATING.
2. FOLLOW OVERALL PROJECT REQUIREMENTS FOR CONSTRUCTION SEQUENCE AND PARTIAL OPERATION OF SYSTEMS.

TAGGED NOTES OUTDOORS

- 1 DISCONNECT AND REMOVE NOTED ITEM. PREPARE FOR NEW EQUIPMENT.
- 2 SUBMERSIBLE GRINDER CABLE IN CONDUIT WITH SEAL-OFF FITTING AT DISCONNECT SWITCH. REMOVE CABLES AND ALL CONDUIT. PREPARE FOR NEW CONDUIT.
- 3 LIGHTING CIRCUIT AND CONDUIT WITH SEAL OFF FITTING BELOW LIGHT SWITCH. REMOVE ALL CABLES AND CONDUIT. PREPARE FOR NEW CONDUIT.
- 4 REMOVE ELECTRICAL MATERIAL SUPPORT STRUT AND BOARD. NOTED EQUIPMENT REUSED.
- 5 REMOVE POWER CABLE AND CONDUIT TO MCC SECTION 1. CONDUIT UNDER BUILDING ALLOWED TO REMAIN ABANDONED.
- 6 NO CHANGES ANTICIPATED TO RECEPTACLE AND LIGHT POWER CIRCUIT AND CONDUIT. PROTECT FROM OTHER DEMOLITION WORK AND NEW CONSTRUCTION.

TAGGED NOTES INDOORS

- A REMOVE ALL EXTERNAL GRINDER CONTROLS AND INTERNAL GRINDER STARTER/CONTROLS. PREPARE FOR ADDITIONS.
- B REMOVE GRINDER CONTROL WIRING, IF ANY PRESENT.
- C MCC SECTION EMPTY, EXCEPT FOR CONDUIT SLEEVE IN BOTTOM OF SECTION THROUGH FLOOR..
- D FEEDER BREAKER FOR GRINDER IN TOP CUBICLE, 15A/3P. NO CHANGES TO BREAKER.
- E DISABLE INTERLOCK CIRCUITS BETWEEN PUMP'S DISCHARGE CHECK VALVE AND THE MOTOR CONTROL CIRCUIT. DISCONNECT FIELD WIRING BUT DO NOT REMOVE. INSERT JUMPER WIRES AS NEEDED THAT ARE CLEARLY MARKED. KEEP EXISTING RELAYS AND CONTROL WIRING IN TACT.

NO.	REVISIONS					DATE:

**ELECTRICAL PLANS
REMOVALS**
NORTHEAST PUMP STATION IMPROVEMENTS
CITY OF NEWTON
JASPER COUNTY, IOWA

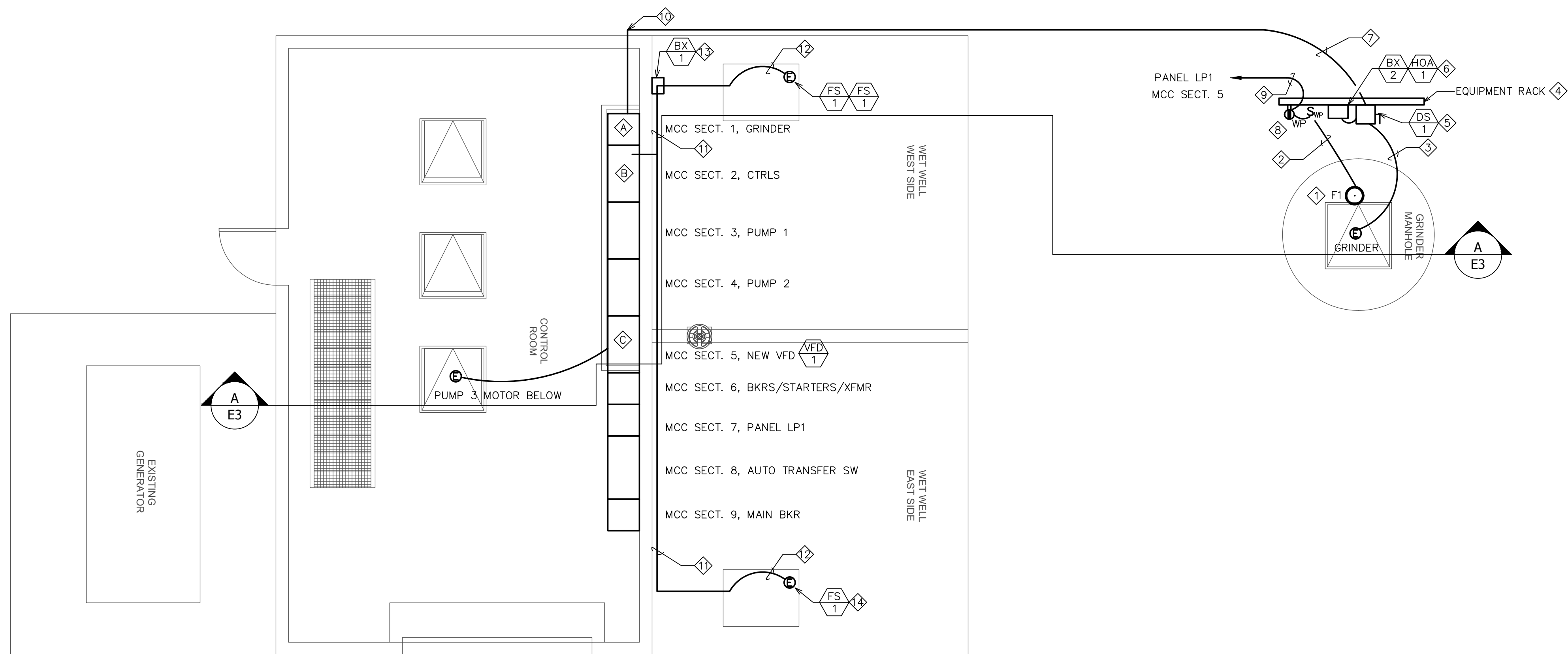
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PROJECT MGR.
STEVE V.



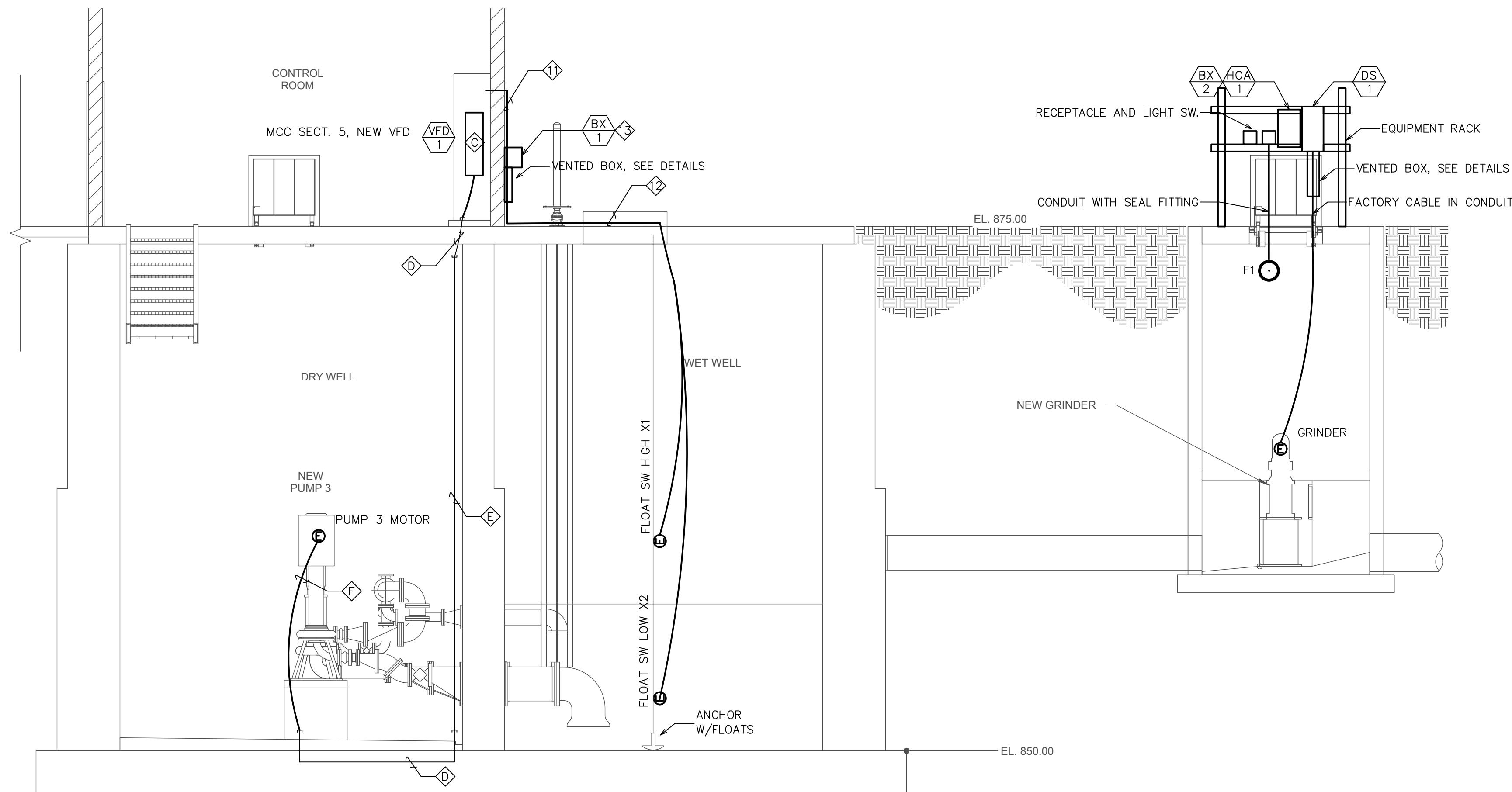
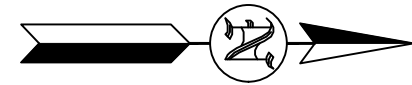
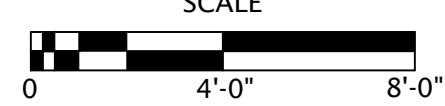
SHEET
5
E2

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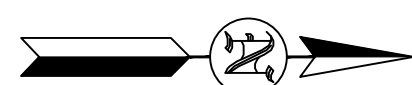
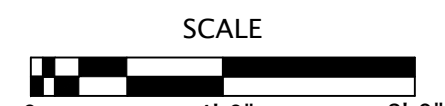
1 ELECTRICAL PLAN

E3 1/4"=1'-0"



A ELECTRICAL SECTION

E3 1/4"=1'-0"



GENERAL NOTES:

1. WET WELL IS HAZARDOUS LOCATION, CLASS 1 DIV 1 GROUP G. INSIDE BUILDING IS UN-RATED.
2. ALL CONDUIT BETWEEN STRUCTURES SHALL BE EMBEDDED. NO SURFACE-MOUNTED CONDUIT AT ANY MANHOLE OR ACROSS ANY SPAN.
3. ALL EXTERIOR CONDUIT SUPPLIED WITH RGS VERTICAL AND ABOVE-GRADE SEGMENTS.
4. ALL CONDUIT BETWEEN WET WELL AND RACK TYPE RGS.
5. PVC CONDUIT FOR NEW FEEDER TO GRINDER MOTOR MCC SECTION ALLOWED. ALL VISIBLE CONDUIT SHALL BE TYPE RGS.

TAGGED NOTES OUTDOORS:

- 1 MOUNT NEW LIGHT IN FORMER LIGHT FIXTURE LOCATION.
- 2 NEW WIRING 3#12AWG IN NEW 3/4" CONDUIT WITH SEAL-OFF FITTING BELOW LIGHT SWITCH.
- 3 NEW 3" RGS CONDUIT FOR GRINDER FACTORY CABLES.
- 4 ERECT EQUIPMENT UNISTRUT STAND. SEE DETAILS. SEEK ENGINEER APPROVAL FOR FINAL LOCATION PRIOR TO CONSTRUCTION.
- 5 NEW DISCONNECT SWITCH MOUNTED TO RACK WITH WET WELL ISOLATION VENTED BOX BELOW. SEE DETAILS. SEAL FAIL AND THERMAL SWITCH WIRING FROM PUMP CABLE TERMINATES ON TERMINAL BLOCK PLACED INSIDE THE DISCONNECT SWITCH. PROVIDE TERMINAL BLOCK INSIDE DISCONNECT.
- 6 NEW METAL BOX WITH HOA SWITCHES MOUNTED TO EQUIPMENT RACK. PROVIDE NIPPLE CONNECTION TO DISCONNECT SWITCH.
- 7 TWO NEW CONDUITS FOR POWER AND CONTROL WIRING.
A. HOA'S AND PWR: 4#14 AND 3#12 W/ 1#12G IN 1"C.
B. SEAL/THERM: 4#14AWG IN 3/4"C. (INTRINSICALLY SAFE)
- 8 NEW RECEPTACLE AND LIGHT SWITCH MOUNTED TO EQUIPMENT RACK. MOUNT RECEPTACLE NO LOWER THAN 24" ABOVE GRADE TO ALLOW REUSE OF EXISTING SUPPLY WIRING.
- 9 EXTEND AND RECONNECT EXISTING CONDUIT AND WIRING FOR NEW LIGHT SWITCH AND RECEPTACLE.
- 10 PENETRATE MASONRY WALL AND FILL VOID WITH NONSHRINK GROUT. PROVIDE PUTTY INSIDE BUILDING AT FIRST FITTING OR PANEL ENTRANCE.
- 11 EAST WET WELL: 4#14AWG IN 3/4"C.
WEST WET WELL 2#14AWG IN 3/4"C.
FLOAT SWITCHES. INTRINSICALLY SAFE.
- 12 PROVIDE STAINLESS STEEL HOOK FOR HANGING FLOAT SWITCH ANCHOR/CABLE AND CABLE GRIPS FOR FLOATS. FACTORY CABLES PROCEED TO SPLICE BOX. CORE DRILL NIPPLE THROUGH CONCRETE WETWELL AND EXTEND TO VENTED BOX.
- 13 SPLICE BOX MOUNTED 48" AFF. PROVIDE VENTED BOX BELOW. SEE WET WELL DETAILS.
- 14 ADDITIONAL LOW CUTOFF FLOAT SWITCH FOR EAST SIDE OF WET WELL. OVERALL SYSTEM RESULTS IN COMMON HIGH LEVEL FLOAT SWITCH AND TWO LOW CUTOFF FLOAT SWITCHES. SEE SCHEMATIC WIRING DETAILS AND SPECIFICATIONS 25 51 00 AND 25 91 00.

TAGGED NOTES INDOORS:

- 1 NEW REVERSING MOTOR STARTER AND OVERLOAD SUPPLIED WITH CHANGES TO DOOR BY CONTROL INTEGRATOR. SEE SPEC 25 51 00.
- 2 PLC AND CONTROL WIRING ADDITIONS. UPDATES TO DOOR BY CONTROL INTEGRATOR. SEE SPEC 25 51 00.
- 3 VFD ADDED TO EMPTY SECTION OF MCC. PROVIDE CONNECTING TAP WIRING, CIRCUIT BREAKER ISOLATION, DOOR-INTERLOCK HANDLE EXTENSION, ALL CONTROL WIRING TO PLC CONTROLS SECTION.
- 4 EXISTING 3"C. EMPTY SLEEVE EMBEDDED IN CONCRETE. CONNECT TO NEW CONDUITS AND PROVIDE NEW POWER WIRING.
- 5 NEW 3"C. TYPE RGS WITH 3#1AWG AND #4AWG GROUND.
- 6 POWER CABLES CONTINUE. PROVIDE LIQUID TIGHT FLEX METAL CONDUIT AT MOTOR.

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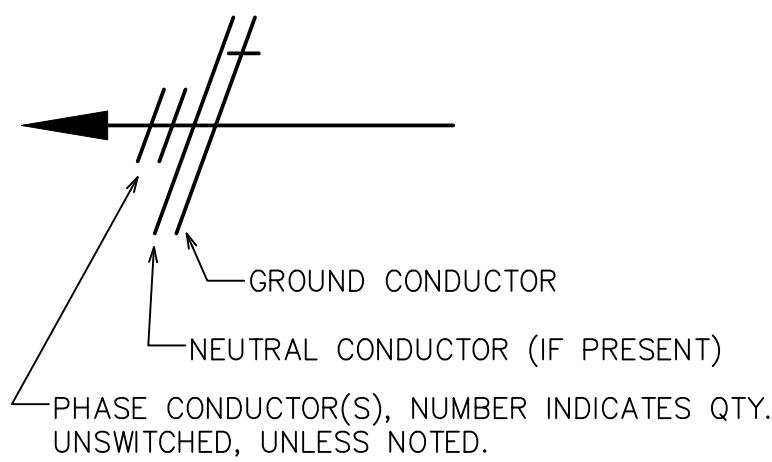
ELECTRICAL PLANS AND SECTIONS MODIFICATIONS

NORTHEAST PUMP STATION IMPROVEMENTS
CITY OF NEWTON
JASPER COUNTY, IOWA

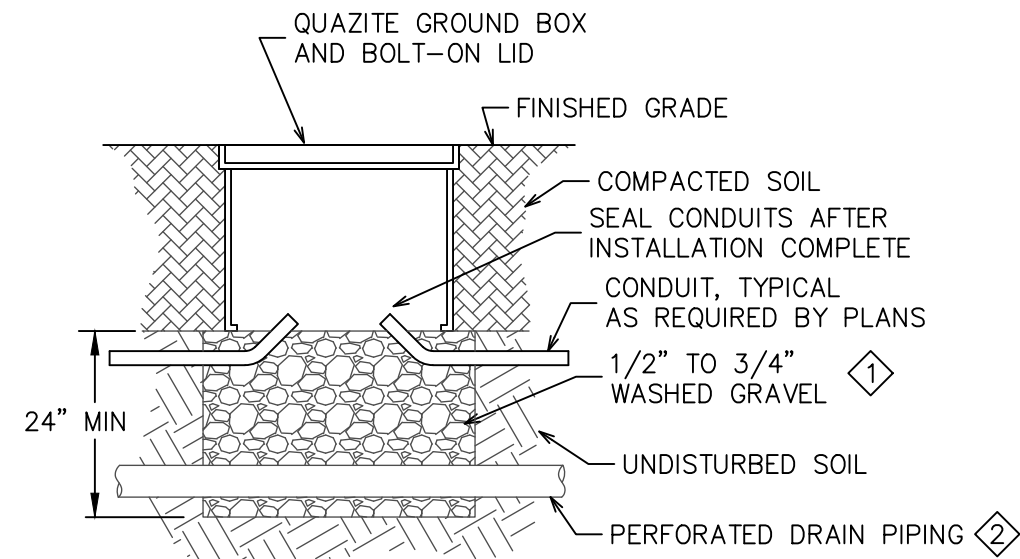
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STEVE V.



SHEET
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E3

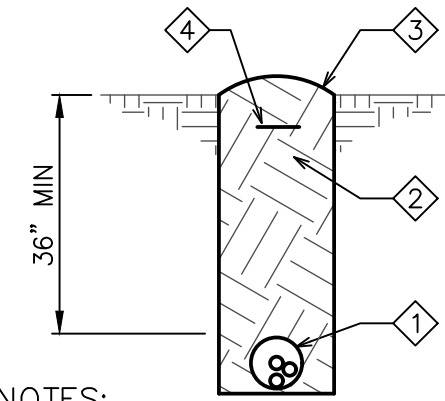


1 | **CIRCUIT HOME RUN KEY**
E4 | NO SCALE



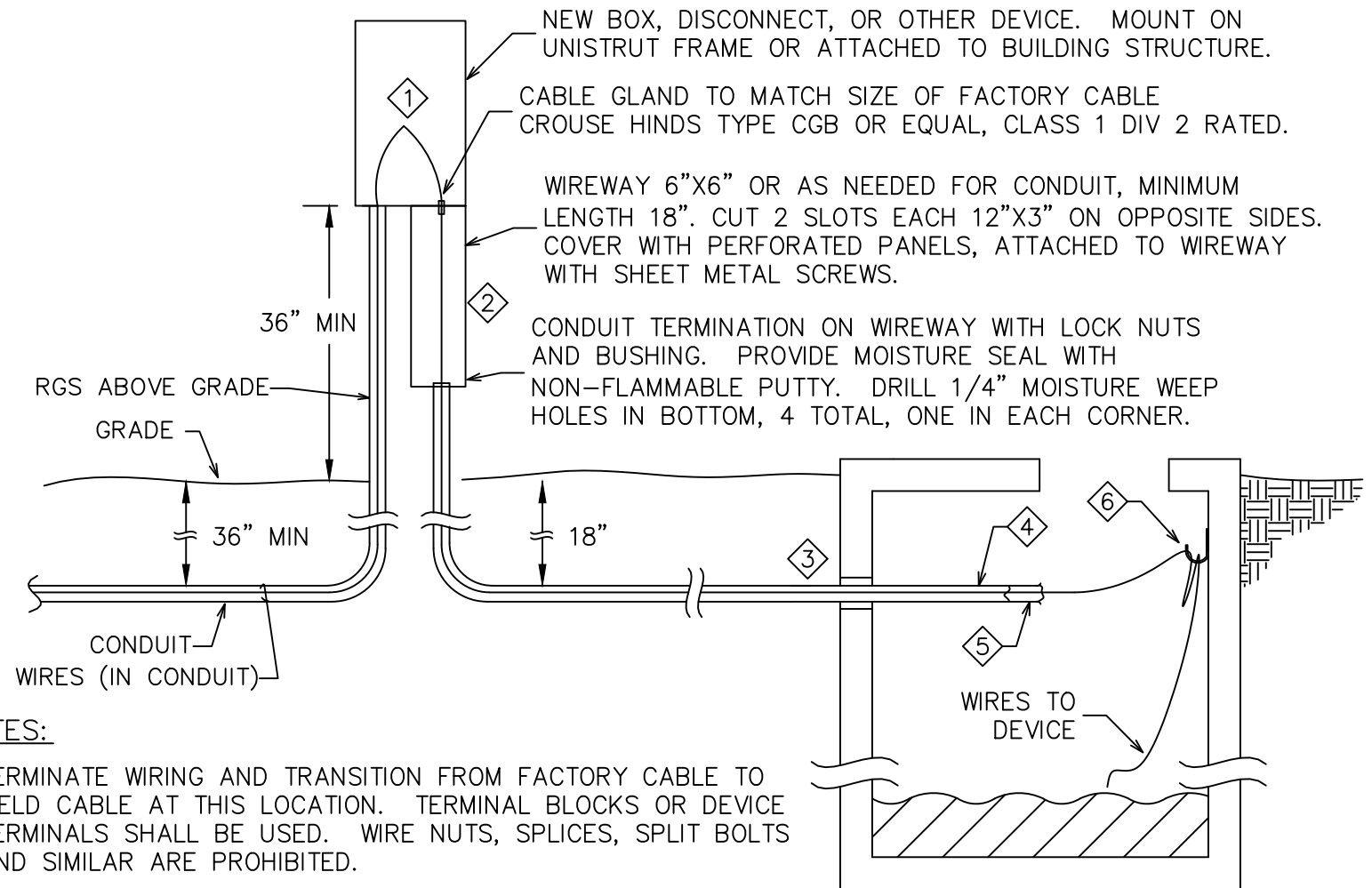
- NOTES:
- GRAVEL EXTENDS A MINIMUM OF 6" BEYOND ALL SIDES OF BOX, FOR BASE AND EASE OF ADDING FUTURE CONDUITS. FOR A 2'x3' BOX, A 3'x4' GRAVEL BASE IS REQUIRED.
 - PROVIDE DRAIN ONLY IF SHOWN ON SITE PLANS. ADJUST ELEVATION OF DRAIN PIPING AND PROVIDE ADDITIONAL EXCAVATION AND DEPTH OF GRAVEL TO ALLOW PROPER SLOPING OF DRAIN THROUGH SITE.

2 | **GROUND BOX INSTALLATION DETAIL**
E4 | NO SCALE



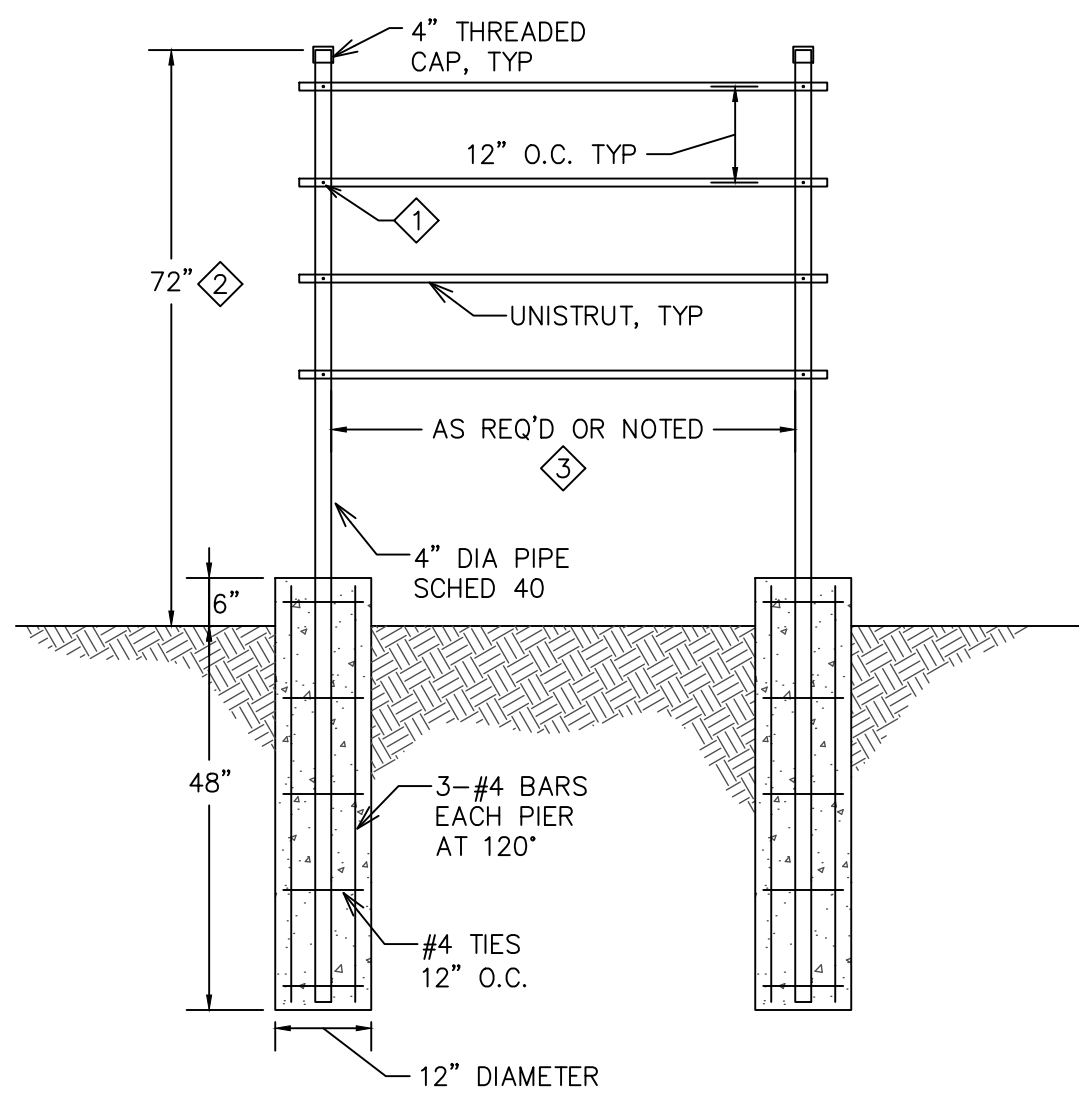
- NOTES:
- CONDUIT AND CABLES BY CONTRACTOR. CABLE AND INSTALLATION BY CONTRACTOR.
 - TRENCH AND BACKFILLING BY CONTRACTOR. BACKFILL AND COMPACT IN 6" LIFTS.
 - MOUND APPROXIMATELY 3" ABOVE SURROUNDING GRADE TO ALLOW FOR SETTLING.
 - WARNING TAPE 12" BELOW SURFACE.

3 | **CABLE TRENCHING DETAIL**
E4 | NO SCALE



- NOTES:
- TERMINATE WIRING AND TRANSITION FROM FACTORY CABLE TO FIELD CABLE AT THIS LOCATION. TERMINAL BLOCKS OR DEVICE TERMINALS SHALL BE USED. WIRE NUTS, SPLICES, SPLIT BOLTS AND SIMILAR ARE PROHIBITED.
 - WIREWAY PAINTED STEEL, HAMMOND 1486 SERIES OR EQUAL. PERFORATED PANELS, 1/8" HOLES ON 1/4" CENTERS, ALUMINUM, 14GAUGE.
 - CORE DRILL OR SLEEVE IN SIDE OF WET WELL. INSTALL NON-SHRINK GROUT TO COVER GAP OF CONDUIT.
 - EXTEND CONDUIT TO EDGE OF ACCESS MANHOLE, SO END OF CONDUIT AND WIRING CAN BE REACHED FROM GRADE LEVEL, WITHOUT ENTERING WET WELL. ROUTE IN MANNER THAT DOES NOT INTERFERE WITH ACCESS TO PUMPS, RAILS, VALVES, OPERATION OF HOISTS, OR ANY OTHER WET WELL EQUIPMENT. PROVIDE SUPPORTS FROM CEILING OF MANHOLE AS NEEDED.
 - PROVIDE DUX-SEAL WATER PROOFING TO SEAL CONDUIT AND WIRING FROM WET WELL.
 - PROVIDE STAINLESS STEEL J-HOOK. COIL 36" MINIMUM SPARE WIRE ON HOOK. SUPPORT NEATLY.

4 | **WET WELL INSTALLATION DETAIL**
E4 | NO SCALE



- NOTES:
- GENERAL:
- ALL PIPE, STRUT, HARDWARE SHALL BE GALVANIZED STEEL UNLESS OTHERWISE NOTED.
 - SEE PLAN NOTES FOR ADDITIONAL REQUIREMENTS TO MATCH SPECIFIC INSTALLATION.

- UNISTRUT ATTACHED TO PIPE WITH 3/8" BOLTS, NUTS AND LOCK WASHERS.
- ADJUST DIMENSION AS NOTED ON PLANS.
- MAXIMUM WIDTH BETWEEN POSTS 40". PROVIDE ADDITIONAL POSTS AS NEEDED FOR WIDTH OF REQUIRED RACK.

5 | **ELECTRICAL EQUIPMENT RACK**
E4 | NO SCALE

ELECTRICAL MATERIALS			
ITEM #	SYMBOL	TAG #	DESCRIPTION
1	WP		GROUND FAULT RECEPTACLE, 120V, 20A, WITH DIE-CAST WEATHER PROTECTED "WHILE IN USE" COVER, IVORY, LEVITON 6899 WITH INTERMATIC WP1010MC OR EQUAL
2	SWP		SWITCH, AS SPECIFIED ABOVE WITH DIE CAST METAL GASKETTED WEATHER-PROOF COVER, INTERMATIC TS-IV OR EQUAL
3		DS 1	DISCONNECT NEMA 12/3R PAINTED STEEL GRAY, 600V, 3 POLE, 30A, NON-FUSED SQUARE D HEAVY DUTY TYPE HU361AWK OR EQUAL.
4		BX 1	PAINTED STEEL GASKETTED SPLICE BOX, CLAMP COVER, 10X8X4, HOFFMAN #A-1008NF OR EQUAL. WITH POWER AND CONTROL TERMINAL BLOCKS AS NEEDED
5		BX 2	PAINTED STEEL GASKETTED SPLICE BOX, CLAMP COVER, 16X14X6, HOFFMAN #A-1614NF OR EQUAL. WITH POWER AND CONTROL TERMINAL BLOCKS AS NEEDED. PADLOCKABLE HASP. WITH HOA/1 SWITCH INSIDE.

CONTROL SYSTEM MATERIALS PROVIDED BY 25 5100 SUPPLIER			
			DESCRIPTION
1		HOA 1	EXPLOSIVE ENVIRONMENT CONTROL STATION, NEMA 12/4, SQUARE D CLASS 9001 OR EQUAL. ENCLOSURE: 2-HOLE, CAST ALUMINUM HOLE #1 OPERATOR: NEMA 4X 3-POSITION "HAND-OFF-AUTO" MAINTAINED, NON-ILLUMINATED, SQ.D.#SKS43B CONTACTS: HERMETICALLY SEALED (2) KA51 STYLE BLOCKS, 2 CLOSED CONTACTS IN HAND, 2 CLOSED IN AUTO. HOLE #2 OPERATOR: NEMA 4X 3-POSITION "FORWARD-OFF-REVERSE" MAINTAINED, NON-ILLUMINATED, SQ.D.#SKS43B CONTACTS: HERMETICALLY SEALED (2) KA51 STYLE BLOCKS, 2 CLOSED CONTACTS IN FORWARD, 2 CLOSED IN REVERSE. PROVIDE NAME-PLATES IN ACCORD WITH SCHEMATIC DIAGRAMS.
2		VFD 1	480V VOLTAGE VARIABLE SPEED DRIVE 75HP MOTOR, VARIABLE TORQUE MOTOR, NEMA 1 RATING, 5% LINE REACTOR, NO BYPASS, NO ISOLATION, 4-20MA IN/OUTPUTS FOR SPEED PACE AND FEEDBACK, MANUAL SPEED VIA LOCAL DISPLAY PANEL. MOUNT IN MCC CUBICLE WITH ACCESSORIES AS FOLLOWS: INPUT CIRCUIT BREAKER WITH THROUGH-DOOR OPERATOR AND MECHANICAL DOOR INTERLOCK, MCC SUPPLY BUS TAP CABLES. SEE SPECIFICATIONS. SEE SCHEMATIC DIAGRAMS FOR ADDITIONAL CONTROL ACCESSORIES REQUIRED.

FIXTURE SCHEDULE										
TAG #	DESCRIPTION	MOUNT	SIZE	LAMPS					LENS	MANUFACTURER (1)
				QTY	WATTS	TYPE	LUMENS	VOLTS		
F1	MARINE GRADE LED HAZARDOUS LOCATION HIGH OUTPUT, CAST ALUMINUM, NATURAL FINISH	CEILING MOUNT	12"L 12"W 5"H	1	55	LED	6400	120-277 UNV	TYPE 5 FROSTED LENS, WIDE OPTICS	LDPI LE401-P5, 4K, COOPER, COLUMBIA, LITHONIA, DAYBRITE EQUAL.
LAMPS FL = FLUORESCENT, 85 CRI, 4000K LED = LIGHT EMITTING DIODE, 85CRI, 4000K MH = METAL HALIDE PSMH = PULSE START METAL HALIDE HPS = HIGH PRESSURE SODIUM		BALLASTS MB = MAGNETIC, HIGH POWER FACTOR RMB = REGULATED MAGNETIC PSR = PULSE START MAGNETIC REGULATED EB = ELECTRONIC, 10% HARMONIC DEB = DIMMING ELECTRONIC LTEB = LOW TEMPERATURE 0-DEGREES F ELECTRONIC					NOTES 1. BASIS OF DESIGN MANUFACTURER SHOWN. EQUALS WILL BE EVALUATED AS SPECIFIED.			

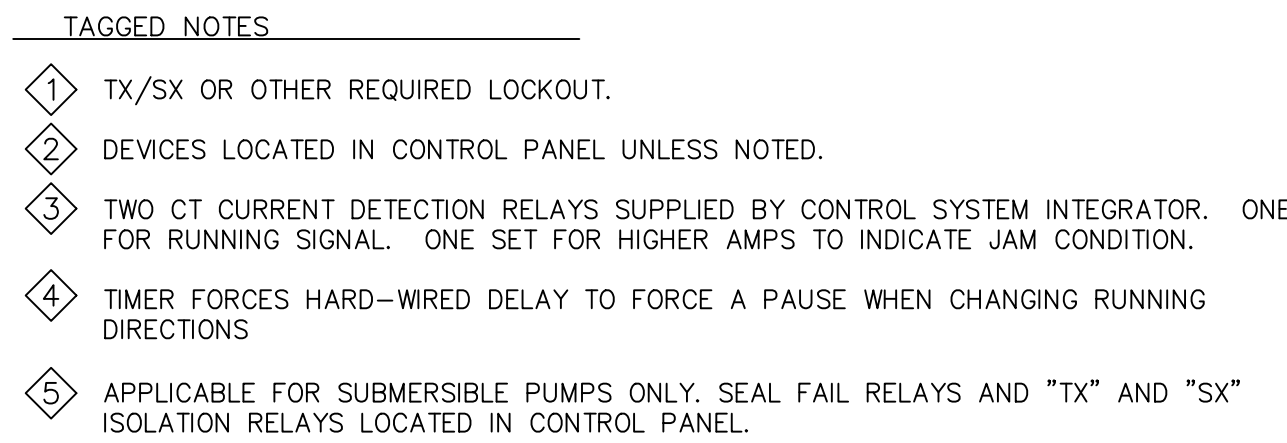
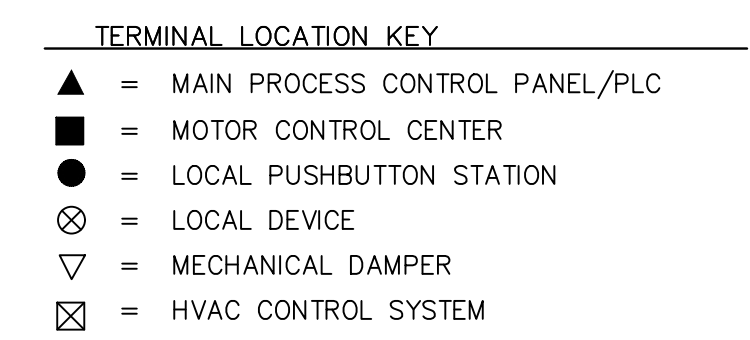
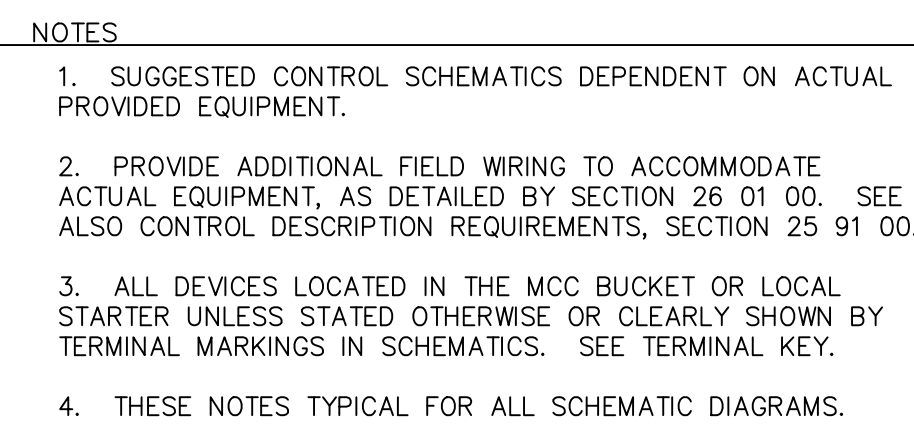
**ELECTRICAL AND CONTROL
DETAILS AND SCHEDULES**
NORTHEAST PUMP STATION IMPROVEMENTS
CITY OF NEWTON
JASPER COUNTY, IOWA

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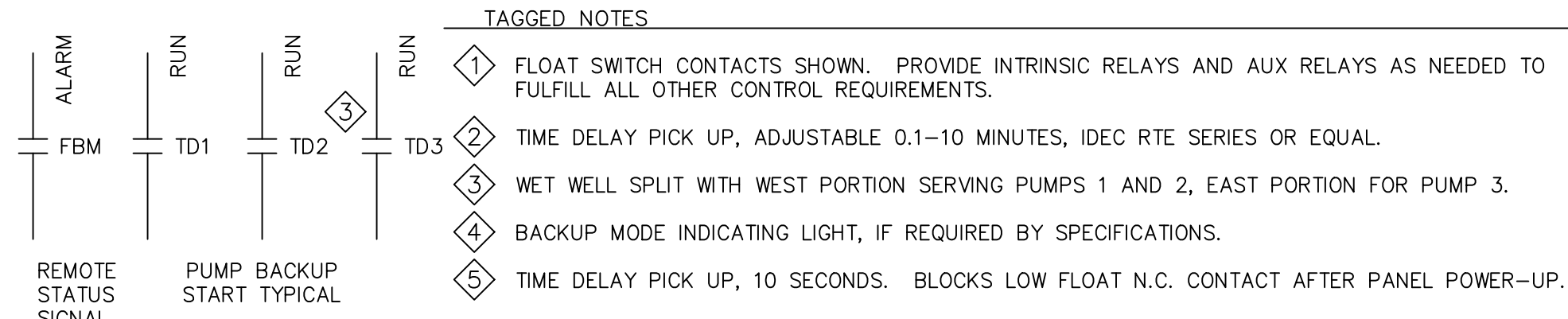
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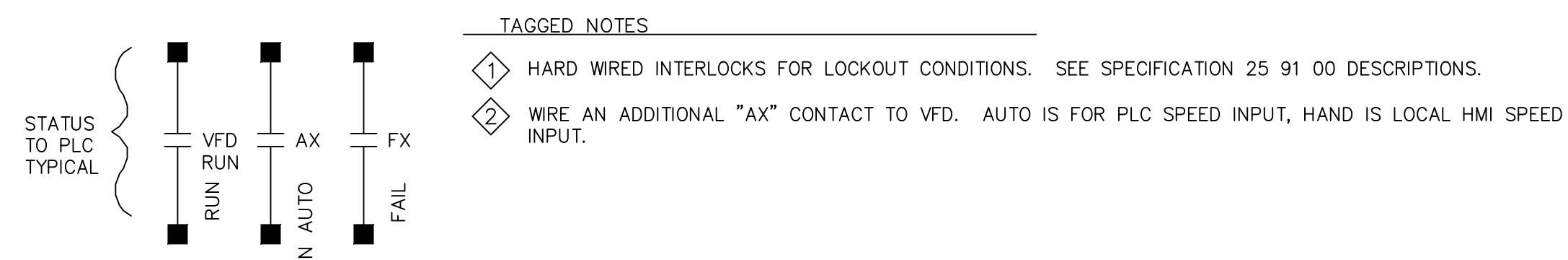
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REC PROJECT # 24-004



1	GRINDER
5	SCHEMATIC DIAGRAM



E5	SCHEMATIC DIAGRAM
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E5	SCHEMATIC DIAGRAM
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City of Newton Council Report

**Item:**

Resolution Setting a Date for a Public Hearing on the FY26-FY30 Capital Improvement Plan (CIP)

Report Number: 2025-506**Date:**

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Summary:

Setting the date for a Public Hearing on the FY26-FY30 Capital Improvement Plan (CIP)

Financial Impact:

None

Background:

Using City Council's recently approved goals, the City's most-recent revision of the Comprehensive Plan, and department director input on project and equipment needs, the FY26 through FY30 Capital Improvement Plan (CIP) has been prepared for City Council's approval. The CIP is a 5-year plan detailing funding sources and expenditures for proposed project construction and equipment purchases throughout all City departments.

The proposed project and equipment purchases included in the first year (FY26) of the CIP align with the proposed FY26 budget. Years two through five of the CIP will be modified as-needed in subsequent budget years. All projects and equipment in this 5-year plan are always subject to revision at any time based on City Council's direction.

The draft FY26 through FY30 Capital Improvement Plan (CIP) was presented to the City Council in December 2024; and the proposed City of Newton FY26-FY30 Capital Improvement Plan (CIP) has been finalized and is now ready for council consideration

Recommendation:

Staff recommends approval of the Resolution.

Matt Muckler, City Administrator

RESOLUTION NO. 2025-_____

RESOLUTION SETTING A DATE FOR A PUBLIC HEARING
ON THE FY26-FY30 CAPITAL IMPROVEMENT PLAN (CIP)

WHEREAS, using City Council's recently approved goals, the City's most-recent revision of the Comprehensive Plan, and department director input on project and equipment needs; staff has prepared the FY26 through FY30 Capital Improvement Plan (CIP); and

WHEREAS, the CIP is a 5-year plan detailing funding sources and expenditures for proposed project construction and equipment purchases throughout all City departments; and

WHEREAS, the draft FY26 through FY30 Capital Improvement Plan (CIP) was presented to the City Council in December 2024; and

WHEREAS, the proposed City of Newton FY26 through FY30 Capital Improvement Plan (CIP) has been finalized and is ready for council consideration.

NOW THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa that the FY26 through FY30 Capital Improvement Plan (CIP) as prepared by the Finance Department of the City of Newton, Iowa, and the Notice of Public Hearing for said FY26 through FY30 Capital Improvement Plan (CIP), are hereby ordered placed on file in the office of the City Clerk for public inspection; and

That the Council hold a public hearing on the matter of the FY26 through FY30 Capital Improvement Plan (CIP), which documents are now on file in the office of the City Clerk, said hearing to be held at the Council Chambers in the City Hall, Newton, Iowa, on the 2nd day of June 2025, at 6:00 pm, and that the City Clerk give notice of said hearing by publication once in a local newspaper, printed wholly in English language, not less than four (4) clear days nor more than twenty (20) days prior to the date fixed therefore.

PASSED this 5th day May, 2025.
APPROVED this ____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis,
City Clerk

Vendor	Department	Description	Amount
Acushnet Company	Golf	Supplies	\$ 3,455.41
Ag-Grow Plus Lawn Care	Airport	Services	\$ 182.31
Air Products and Chemicals Inc	Water Treatment Plant	Supplies	\$ 4,677.12
Airgas USA LLC	Fire	Supplies	\$ 245.82
Alliant Energy/IPL	All	Utilities	\$ 14.50
Amazon Capital Services	All	Supplies	\$ 2,306.29
Ambitec Inc	Police	Supplies	\$ 8,338.34
American Business Phones	Administration / WPC	Services	\$ 380.00
American Legal Publishing Corporation	Administration	Service	\$ 550.00
April's Diner	Administration	Service	\$ 743.52
Ascendance Trucks Midwest LLC	City Garage	Supplies	\$ 170.22
Baker & Taylor	Library	Supplies	\$ 2,691.07
Baker & Taylor Entertainment	Library	Supplies	\$ 16.09
Better Homes and Gardens	Library	Supplies	\$ 16.00
Bituminous Materials & Supply	Street	Supplies	\$ 932.18
Black Hills Energy	Water Pollution Control	Utilities	\$ 3,632.48
Blackburn Mfg Co	Water Distribution	Supplies	\$ 992.30
Bolton & Menk Inc	All	Service	\$ 32,084.00
Bound Tree Medical LLC	Fire	Supplies	\$ 996.63
Brick Gentry P.C.	Legal Services	Service	\$ 32,726.65
Caldwell Brierly & Chalupa PLLC	Parks	Services	\$ 60.00
Capital City Equipment	Cemetery	Supplies	\$ 109.47
Capital One	All	Supplies	\$ 2,780.93
Carl's Window Service	Library	Service	\$ 90.00
CCL Supply LLC	Water Pollution Control	Supplies	\$ 358.32
Center Point Large Print	Library	Supplies	\$ 123.28
CentiMark Corporation	2024 Water Rev Bond	RESO 2025-066	\$ 20,675.00
Christine Pletcher Dezn	Golf Clubhouse Fund	Service	\$ 5,184.79
Condor Elite Inc	Police	Supplies	\$ 317.72
D & K Products	Parks	Supplies	\$ 2,176.00
Dannen, Ryan	D&D / Parks	Services	\$ 1,775.00
Demco Inc	Library	Supplies	\$ 359.36
Diamond Vogel Inc	Water Treatment Plant	Supplies	\$ 147.72
Digium Cloud Services LLC	All	Service	\$ 455.71
DLT Solutions	Engineering	Service	\$ 395.00
Dodd Trash Hauling & Recycling	Solid Waste	Service	\$ 72,079.24
FBG Service Corporation	Library	Service	\$ 1,644.00
Fink, Keith	Engineering	Reimbursement	\$ 15.35
Forbes Office Solutions	Landfill / Library	Service	\$ 104.98
foreUp Golf Software	Golf	Service	\$ 650.00
Galls LLC	Fire	Supplies	\$ 682.15
Garcia, Jose	Police	Reimbursement	\$ 18.17
GFS Automotive	Fire	Service	\$ 1,919.40
Gila LLC	Utility Billing	Service	\$ 945.95
Grainger Inc	Water Pollution Control	Supplies	\$ 129.12
Gregg Young Auto Center	Police	Service	\$ 161.28
Hach Co	Water Treatment Plant	Supplies	\$ 89.25

Hawkins Water Treatment	Water Treatment Plant	Supplies	\$ 6,955.50
Hometown Press	Library	Supplies	\$ 30.00
Hornung's	Golf	Supplies	\$ 241.01
HR Green Inc	Storm Water	RESO 2025-101	\$ 17,117.50
Hy-Vee Inc	Administration	Supplies	\$ 6.98
IMWCA	All	Service	\$ 5,387.78
International Institute of Muni Clerks	Executive	Service	\$ 195.00
Interstate Power Systems Inc	Water Pollution Control	Services	\$ 965.64
Iowa Department of Transportation	Landfill	Supplies	\$ 124.76
Iowa Golf Association	Golf	Membership	\$ 175.00
InTrans/LTAP	Street	Training	\$ 744.00
Isolved Benefit Services	Finance	Service	\$ 133.13
Jasper Construction Services	Water Distribution	Supplies	\$ 27.68
Jensen Builders Limited	Streets - RESO 2025-006	Service	\$ 106,152.29
Jerrie McKinney Estate	Cemetery	Refund	\$ 100.00
JETCO Inc	2024 Water Rev Bond	Service	\$ 1,457.50
Johnson Aviation	Airport	Services	\$ 3,634.62
Johnson Controls Fire Protection LP	Airport	Services	\$ 1,288.40
Kirkham Michael	Airport - RESO 2025-022	Services	\$ 20,123.62
Legacy Emergency Vehicles	Fire	Service	\$ 270.93
Library Furniture International	Library	Service	\$ 11,360.00
Magnum Automotive	Police	Service	\$ 39.67
Mahaska Bottling Co	Golf	Supplies	\$ 870.47
Mahaska Communication Group LLC	Administration	Utilities	\$ 283.73
Manatts - D.M.	Storm Water / Street	Supplies	\$ 1,222.17
Martin Marietta Materials	Street	Supplies	\$ 939.69
Maxim Advertising	Administration	Supplies	\$ 55.00
Menards-Altoona	Water Treatment / WPC	Supplies	\$ 368.41
Midwest Alarm	Library	Service	\$ 263.88
Lemke, Rick & Barb	Utility Billing	Refund	\$ 40.00
Mississippi Lime Company	Water Treatment Plant	Supplies	\$ 26,041.14
MTI Distributing Inc	Golf	Supplies	\$ 4,074.06
Municipal Supply Inc	Water Distribution	Supplies	\$ 1,166.16
NAPA Auto Parts	All	Supplies	\$ 808.51
News Printing Company	All	Service	\$ 2,401.62
Newton Clinic PC	Fire	Service	\$ 498.10
Niemann Ace Hardware 650	All	Supplies	\$ 176.62
O'Reilly Auto Parts	Golf	Supplies	\$ 20.57
Peter, Phyllis	Library	Reimbursement	\$ 51.80
Phelps Uniform Specialists	All	Supplies	\$ 343.54
Pitney Bowes	Landfill	Service	\$ 198.15
Playaway Products	Library	Supplies	\$ 720.88
Prairie Ag Supply	City Garage	Supplies	\$ 954.38
Proquest	Library	Service	\$ 1,556.26
Ray, Randy	Police	Service	\$ 200.00
Reeves Heating & Cooling	City Center / Library	Service	\$ 2,197.59
Regal Clean LLC	City Center	Supplies	\$ 3,309.64
Reserve Account-Pitney Bowes	All	Service	\$ 4,061.31
Ryan's Tire & Auto	Airport / City Garage	Supplies	\$ 743.12
Safety Coalition of Central Iowa	Administration	Service	\$ 465.18
Sande Construction and Supply	Maytag Pool	Supplies	\$ 1,282.00
Security Equipment Inc	Library	Service	\$ 426.48

Sign Pro	Water Distribution	Services	\$ 75.00
Smith Quality Rental	Cemetery / Golf	Services	\$ 122.98
Spahn & Rose Lumber Co	All	Supplies	\$ 896.99
Springer Professional Home Services	Library	Service	\$ 58.30
Star Equipment	Water Distribution	Supplies	\$ 108.00
Stivers Ford	Tort Liability (Police)	RESO 2025-109	\$ 46,990.00
Superior Welding Supply	City Garage	Supplies	\$ 80.62
Sweetwater	Police	Supplies	\$ 1,356.93
T Mobile	Police	Utilites	\$ 566.80
Tatman, Anthony	Fire	Service	\$ 350.00
The Flower Court Garden Center	Parks	Supplies	\$ 296.31
The Scale Guys LLC	Landfill	Service	\$ 550.00
Theisen's	All	Supplies	\$ 818.65
Thompson, Jessica	Fire	Refund	\$ 2,028.22
Town & Country Wholesale Co	Golf	Supplies	\$ 529.94
Traf-O-Teria System	Police	Supplies	\$ 347.20
Truck Equipment	Parks	Supplies	\$ 557.65
True Pitch - A/R Dept	Parks	Supplies	\$ 479.60
Turfwerks	Parks	Supplies	\$ 835.32
Two Rivers Cooperative	Water Pollution Control	Supplies	\$ 877.20
USABlueBook	Water Pollution Control	Supplies	\$ 228.54
Van Maanen Electric Inc	Airport/Street Lighting	Supplies	\$ 634.22
Vernon Co	Community Marketing	Supplies	\$ 2,398.04
Vessco Inc	Water Treatment Plant	Supples	\$ 574.00
Wall Street Journal	Library	Supplies	\$ 310.00
Warnick Mechanical	Parks	Supplies	\$ 81.00
Waste Solutions of Iowa	Golf	Supplies	\$ 1,768.00
Wells Fargo Financial Leasing Inc	Utility Billing	Service	\$ 211.52
Wex Bank	Water Distribution	Supplies	\$ 1,303.91
White Cap L P	Maytag Pool	Supplies	\$ 913.17
Williams Scotsman Inc	Golf	Supplies	\$ 717.85
Windstream	City Center	Utilities	\$ 37.99
Winther, Camden	Fire	Reimbursement	\$ 169.99
Grand Totals:			\$ 508,143.53

Pre-Authorized Payments

Best Midwest LLC	N Center TIF - Tax Rebate	RESO 2025-141	\$ 1,240.00
Black Hills Energy	All	Utilities	\$ 2,597.22
Christine Pletcher Dezn	Golf Clubhouse	RESO 2024-342	\$ 2,087.50
CRH Properties LLC	N Center TIF - Tax Rebate	RESO 2025-140	\$ 1,198.00
Des Moines Excavating LLC	LMI Fund - FM North	RESO 2025-131	\$ 3,696.27
Dish	Airport	Utilities	\$ 159.10
Machin, Ed	LMI Fund - FM North	RESO 2024-401	\$ 1,961.25
Vanderpool Construction Inc	LMI Fund - FM North	RESO 2025-093	\$ 15,475.00
Van Maanen Electric Inc	East Mart TIF - Tax Rebate	RESO 2025-142	\$ 82,673.00
Total:			\$ 111,087.34

ACH Payments

Advantage Credit Union	All	Insurance	\$ 13,905.00
Bank Iowa	All	Insurance	\$ 3,645.00
Kabel	All	Insurance	\$ 50.00
GEMT	Fire	Fees	\$ 9,150.21
Self Funded Insurance	All	Insurance	\$ 119,516.01
Payroll 3-28-25	All	Payroll	\$ 493,350.68
Payroll 4-11-25	All	Payroll	\$ 498,554.93
Mutual of Omaha	All	Insurance	\$ 4,952.37
Great Southern Bank	Golf	Fees	\$ 226.41
State of Iowa	General	Sales Tax	\$ 2,953.88
Lambs Grove	Utility Billing	Fees	\$ 2,321.88
Wet Tax	Utility Billing	Tax	\$ 9,458.06
Returned ACH Fees	Utility Billing	Charges	\$ 605.40
GILA - Fees	Utility Billing	Fees	\$ 881.92
Returned Check Fees	Utility Billing	Fees	\$ 160.03
Total:			\$ 1,159,731.78

City of Newton Council Report

**Item:**

Public Hearing on an Ordinance Establishing Partial Tax Exemption for Industrial Property

Summary:

Adopting an ordinance aligned with Iowa Code Chapter 427B.

Financial Impact:

None at this time.

Report Number: 2025-501

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

Code of Iowa Chapter 427B allows cities to pass an ordinance establishing an industrial abatement to local property taxes for improving industrial real estate. The abatement is allowed on the actual value added to eligible properties.

Code of Iowa Chapter 427B stipulates the following five-year abatement schedule: Year 1: 75%, Year 2: 60%, Year 3: 45%, Year 4: 30%, Year 5: 15%

Additionally, it is required that an ordinance is adopted for each exemption, thus the inclusion of Chapter 35, Section 29: Approved Exemptions in this ordinance.

Local Request. Upon adoption of this ordinance, a public hearing will be set to consider a property tax exemption for the currently under-construction industrial building at 1610 North 15th Avenue East by CMGA Enterprises, LLC. The timeline for responding to a request is outlined by Iowa Code as follows: *The City Council shall hold a public hearing on the requested exemption and shall enact an ordinance approving the partial tax exemption not less than thirty (30) days after said public hearing.*

Upon adoption of this ordinance (presumably after three readings), City Council can set a public hearing for consideration of the anticipated property tax exemption request for 1610 North 15th Avenue East at the June 16, 2025 meeting and adopt the ordinance approving the exemption request no sooner than the July 21, 2025 City Council Meeting.

This timeline could be accelerated, should council choose to waive the 2nd and 3rd readings of this ordinance.

Recommendation:

Staff recommends approval.

Matt Muckler, City Administrator

ORDINANCE ESTABLISHING PARTIAL TAX EXEMPTION FOR INDUSTRIAL PROPERTY

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NEWTON DOES ORDAIN AS FOLLOWS:

Section 1. The Code of Ordinances, City of Newton, Iowa, Chapter 35: Fiscal Management; Taxation is hereby amended by adding the following:

§ 35.28. PARTIAL TAX EXEMPTION FOR INDUSTRIAL PROPERTY.

(A) *Purpose Established.* The purpose of this section is to authorize partial property tax exemptions, for property on which improvements have been made, of the actual value added to industrial real estate Iowa Code Chapter 427B.

(B) *Definitions.* This ordinance shall be subject to and interpreted according to the definitions and requirements set forth in Iowa Code Chapter 427B.

(C) *Exemption Granted.* The actual value added to the qualifying industrial real estate, in accordance with Iowa Code Chapter 427B, is eligible to receive a partial exemption from taxation for a period of five (5) years, upon application by the property owner to the local assessor; upon compliance with the requirements of the Iowa Department of Revenue; and upon compliance with the requirements of § 35.28 (E), if applicable. The amount of actual value added which is eligible to be exempt from taxation shall be as follows:

- (1) For the first year, 75% (seventy-five percent).
- (2) For the second year, 60% (sixty percent).
- (3) For the third year, 45% (forty-five percent).
- (4) For the fourth year, 30% (thirty percent).
- (5) For the fifth year, 15% (fifteen percent).

(D) *Exemption Ineligibility.* Industrial property otherwise eligible for tax exemption under this section shall not be granted such an exemption upon the following occurrences:

- (1) If the property ceases to be classified as industrial real estate or ceases to be used as a warehouse or distribution center, then the partial exemption for the value added shall not be allowed for subsequent assessment years.
- (2) If, in the case of new construction constituting complete replacement of an existing building or structure, the exemption would result in the assessed value of the industrial real estate being reduced below the assessed value of the industrial real estate before the start of the new construction added.
- (3) The property for which the exemption is claimed has received any other property tax exemption authorized by law.

(E) *Approval.* Property Owners seeking the exemption shall file a request for approval to the City Council not later than 90 days before an application for exemption must be filed with the local assessor and shall include a copy of the completed Iowa Application for Industrial Property Tax Exemption provided by the State of Iowa Department of Revenue. The City Council shall hold a public hearing on the requested exemption and shall enact an ordinance approving the partial tax exemption not less than thirty (30) days after said public hearing. In the event the ordinance for exemption is disapproved because determinations could not be made in accordance with Iowa Code Chapter 427B, the property owner may submit a revised proposal in the same manner as the original request.

(F) *Limitation on Exemption.* A property tax exemption under this ordinance shall not be granted if the property for which the exemption is claimed has received or is eligible to for any other property tax exemption allowed by law.

§ 35.29. APPROVED EXEMPTIONS.

Section 2. Repealer Clause. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 3. Severability Clause. If any section, provision or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section 4. Effective. This ordinance shall be effective on _____ 2025, after the final passage, approval and publication as provided by law.

PASSED this ____ day of _____, 2025.

APPROVED this ____ day of _____, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

I, Katrina Davis, City Clerk of the City of Newton, Iowa, do hereby certify that the foregoing Ordinance was passed and approved by the City Council of the City of Newton, Iowa on the ____ day of _____, 2025 and was published in the Newton Daily News, a newspaper of general circulation in the said City of Newton on the ____ day of _____, 2025.

Dated this ____ day of _____, 2025.

Katrina Davis, City Clerk

CHAPTER 427B

SPECIAL TAX PROVISIONS

Referred to in §331.303, 331.402, 437A.16A, 441.47

SUBCHAPTER I		427B.19B	Guarantee of state replacement funds. Repealed by 2003 Acts, ch 178, §11.
INDUSTRIAL PROPERTY AND CATTLE FACILITIES ACTUAL VALUE ADDED EXEMPTION			
427B.1	Actual value added exemption from tax — public hearing.	427B.19C	Adjustment of certain assessments required.
427B.2	Zoning under chapter 335.	427B.19D	Appeal for state assistance.
427B.3	Period of partial exemption.		
427B.4	Application for exemption by property owner.	SUBCHAPTER IV	
427B.5	Exemption may be repealed.	UNDERGROUND STORAGE TANKS REMEDIAL ACTION CREDIT	
427B.6	Dual exemptions prohibited.	427B.20	Local option remedial action property tax credit — public hearing. Repealed by 2024 Acts, ch 1054, §20.
427B.7	Actual value added exemption from tax — cattle facilities.	427B.21	Application for credit by underground storage tank owner or operator — approval by county board of supervisors or city council. Repealed by 2024 Acts, ch 1054, §20.
427B.8	and 427B.9 Reserved.	427B.22	Credit may be repealed. Repealed by 2024 Acts, ch 1054, §20.
SUBCHAPTER II		427B.23	through 427B.25 Reserved.
RESERVED			
427B.10	through 427B.16 Reserved.		
SUBCHAPTER III			
SPECIAL VALUATION FOR MACHINERY, EQUIPMENT, AND COMPUTERS — STATE REPLACEMENT FUNDS			
427B.17	Property subject to special valuation.	SUBCHAPTER V	
427B.18	Replacement.	SPECIAL VALUATION FOR WIND ENERGY CONVERSION PROPERTY	
427B.19	Assessor and county auditor duties.	427B.26	Special valuation of wind energy conversion property.
427B.19A	Fund created.		

SUBCHAPTER I

INDUSTRIAL PROPERTY AND CATTLE FACILITIES ACTUAL VALUE ADDED EXEMPTION

427B.1 Actual value added exemption from tax — public hearing.

1. For purposes of [this section](#):

a. “*Distribution center*” means a building or structure used primarily for the storage of goods which are intended for subsequent shipment to retail outlets. “*Distribution center*” does not mean a building or structure used primarily to store raw agricultural products, used primarily by a manufacturer to store goods to be used in the manufacturing process, used primarily for the storage of petroleum products, or used for the retail sale of goods.

b. “*New construction*” means new buildings and structures and includes new buildings and structures which are constructed as additions to existing buildings and structures. “*New construction*” does not include reconstruction of an existing building or structure which does not constitute complete replacement of an existing building or structure or refitting of an existing building or structure, unless the reconstruction of an existing building or structure is required due to economic obsolescence and the reconstruction is necessary to implement recognized industry standards for the manufacturing and processing of specific products and the reconstruction is required for the owner of the building or structure to continue to competitively manufacture or process those products which determination shall receive prior approval from the city council of the city or the board of supervisors of the county.

c. “*Research-service facilities*” means a building or group of buildings devoted primarily

to research and development activities, including but not limited to the design and production or manufacture of prototype products for experimental use, and corporate-research services which do not have a primary purpose of providing on-site services to the public.

d. “Warehouse” means a building or structure used as a public warehouse for the storage of goods pursuant to [chapter 554, article 7](#), except that it does not mean a building or structure used primarily to store raw agricultural products or from which goods are sold at retail.

2. A city council, or a county board of supervisors as authorized by [section 427B.2](#), may provide by ordinance for a partial exemption from property taxation of the actual value added to industrial real estate by the new construction of industrial real estate, research-service facilities, warehouses, distribution centers and the acquisition of or improvement to machinery and equipment assessed as real estate pursuant to [section 427A.1, subsection 1](#), paragraph “e”. The exemption shall also apply to new machinery and equipment assessed as real estate pursuant to [section 427A.1, subsection 1](#), paragraph “e”, unless the machinery or equipment is part of the normal replacement or operating process to maintain or expand the existing operational status.

3. The ordinance may be enacted not less than thirty days after a public hearing is held in accordance with [section 335.6](#) in the case of a county, or [section 362.3](#) in the case of a city. The ordinance shall designate the length of time the partial exemption shall be available and may provide for an exemption schedule in lieu of that provided in [section 427B.3](#). However, an alternative exemption schedule adopted shall not provide for a larger tax exemption in a particular year than is provided for that year in the schedule contained in [section 427B.3](#).

[C81, §427B.1; 82 Acts, ch 1104, §20]

84 Acts, ch 1232, §2; 85 Acts, ch 232, §1; 2011 Acts, ch 118, §85, 89; 2013 Acts, ch 34, §8; 2017 Acts, ch 29, §123

Referred to in §364.19, 427.1(27)(c), 427.1(27)(d), 427B.2, 427B.3, 427B.4, 427B.5, 427B.7, 427B.17

427B.2 Zoning under chapter 335.

1. The board of supervisors of a county which has appointed a county zoning commission and provided for county zoning under [chapter 335](#) may provide for a partial exemption from property taxation of the actual value added to industrial real estate as provided under [section 427B.1](#).

2. The board of supervisors of a county which has not appointed a zoning commission may provide for a partial exemption from property taxation of the actual value added to industrial real estate as provided under [section 427B.1](#) in the following areas:

a. Outside the incorporated limits of a city to which a city has extended its zoning ordinance pursuant to [section 414.23](#) which complies with the city’s zoning ordinance.

b. Outside the incorporated limits of a city which has adopted a zoning ordinance but which has not extended the ordinance to the area permitted under [section 414.23](#) if the property would be within the area to which a city may extend a zoning ordinance pursuant to [section 414.23](#).

c. Outside the incorporated limits of a city which has not adopted a zoning ordinance but which would be within the area to which a city may extend a zoning ordinance pursuant to [section 414.23](#).

3. The board of supervisors of a county which has not appointed a zoning commission may provide for a partial exemption from property taxation of the actual value added to industrial real estate as provided under [section 427B.1](#) in an area where the partial exemption could not otherwise be granted under [this chapter](#) where the actual value added is to industrial real estate existing on July 1, 1979.

4. To grant an exemption under the provisions of [this section](#), the county board of supervisors shall comply with all of the requirements imposed by [this chapter](#) upon the city council of a city.

[C81, §427B.2; 82 Acts, ch 1104, §21 – 23]

2009 Acts, ch 41, §255

Referred to in §427B.1, 427B.7, 427B.17

427B.3 Period of partial exemption.

1. “Actual value added”, as used in [this chapter](#), means the actual value added as of the first year for which the exemption is received, except that actual value added by improvements to machinery and equipment means the actual value as determined by the assessor as of January 1 of each year for which the exemption is received.

2. The actual value added to industrial real estate for the reasons specified in [section 427B.1](#) is eligible to receive a partial exemption from taxation for a period of five years. However, if property ceases to be classified as industrial real estate or ceases to be used as a warehouse or distribution center, the partial exemption for the value added shall not be allowed for subsequent assessment years.

3. a. The amount of actual value added which is eligible to be exempt from taxation shall be as follows:

- (1) For the first year, seventy-five percent.
- (2) For the second year, sixty percent.
- (3) For the third year, forty-five percent.
- (4) For the fourth year, thirty percent.
- (5) For the fifth year, fifteen percent.

b. This schedule shall be followed unless an alternative schedule is adopted by the city council of a city or the board of supervisors of a county in accordance with [section 427B.1](#).

4. However, the granting of the exemption under [this section](#) for new construction constituting complete replacement of an existing building or structure shall not result in the assessed value of the industrial real estate being reduced below the assessed value of the industrial real estate before the start of the new construction added.

[C81, §427B.3]

[84 Acts, ch 1232, §3; 2011 Acts, ch 34, §167](#)

Referred to in [§427B.1](#), [427B.7](#), [427B.17](#)

427B.4 Application for exemption by property owner.

1. An application shall be filed for each project resulting in actual value added for which an exemption is claimed. The application for exemption shall be filed by the owner of the property with the local assessor by February 1 of the assessment year in which the value added is first assessed for taxation. Applications for exemption shall be made on forms prescribed by the director of revenue and shall contain information pertaining to the nature of the improvement, its cost, and other information deemed necessary by the director of revenue.

2. A person may submit a proposal to the city council of the city or the board of supervisors of a county to receive prior approval for eligibility for a tax exemption on new construction. The city council or the board of supervisors, by ordinance, may give its prior approval of a tax exemption for new construction if the new construction is in conformance with the zoning plans for the city or county. The prior approval shall also be subject to the hearing requirements of [section 427B.1](#). Prior approval does not entitle the owner to exemption from taxation until the new construction has been completed and found to be qualified real estate. However, if the tax exemption for new construction is not approved, the person may submit an amended proposal to the city council or board of supervisors to approve or reject.

[C81, §427B.4; [82 Acts, ch 1104, §24](#)]

[2000 Acts, ch 1058, §40; 2003 Acts, ch 145, §286; 2018 Acts, ch 1041, §127](#)

Referred to in [§427.1\(27\)\(d\)](#), [427B.7](#), [427B.17](#)

427B.5 Exemption may be repealed.

When in the opinion of the city council or the county board of supervisors continuation of the exemption granted by [this chapter](#) ceases to be of benefit to the city or county, the city council or the county board of supervisors may repeal the ordinance authorized by [section 427B.1](#), but all existing exemptions shall continue until their expiration.

[C81, §427B.5]

Referred to in [§427B.17](#)

427B.6 Dual exemptions prohibited.

A property tax exemption under [this chapter](#) shall not be granted if the property for which the exemption is claimed has received any other property tax exemption authorized by law. [C81, §427B.6]

427B.7 Actual value added exemption from tax — cattle facilities.

A city council, or a county board of supervisors as authorized by [section 427B.2](#), may, by ordinance as provided in [section 427B.1](#), establish a partial exemption from property taxation of the actual value added to owner-operated cattle facilities, including small or medium sized feedlots but not including slaughter facilities, either by new construction or by the retrofitting of existing facilities. The application for the exemption shall be filed pursuant to [section 427B.4](#). The actual value added to owner-operated cattle facilities, as specified in [section 427B.1](#), is eligible to receive a partial exemption from taxation for a period of five years. The amount of actual value added which is eligible to be exempt from taxation is the same as provided in the exemption schedule in [section 427B.3](#).

[87 Acts, ch 169, §10](#)

427B.8 and 427B.9 Reserved.

SUBCHAPTER II

RESERVED

427B.10 through 427B.16 Reserved.

SUBCHAPTER III

SPECIAL VALUATION FOR MACHINERY, EQUIPMENT, AND COMPUTERS — STATE REPLACEMENT FUNDS

427B.17 Property subject to special valuation.

1. For purposes of [this section](#):

a. “Electric power generating plant” means any nameplate rated electric power generating plant, in which electric energy is produced from other forms of energy, including all taxable land, buildings, and equipment used in the production of such energy.

b. “Net acquisition cost” means the acquired cost of the property including all foundations and installation cost less any excess cost adjustment.

c. “Net actual generation” means net electrical megawatt hours produced by the unit during the preceding assessment year.

d. “Net capacity factor” means net actual generation divided by the product of net maximum capacity times the number of hours the unit was in the active state during the assessment year. Upon commissioning, a unit is in the active state until it is decommissioned.

e. “Net maximum capacity” means the capacity the unit can sustain over a specified period when not restricted by ambient conditions or equipment deratings, minus the losses associated with station service or auxiliary loads.

2. For property defined in [section 427A.1, subsection 1](#), paragraphs “e” and “j”, the taxpayer’s valuation shall be limited to thirty percent of the net acquisition cost of the property, except as otherwise provided in [subsections 3 and 4](#).

3. Property defined in [section 427A.1, subsection 1](#), paragraphs “e” and “j”, which is first assessed for taxation in this state on or after January 1, 1995, shall be exempt from taxation.

4. Property defined in [section 427A.1, subsection 1](#), paragraphs “e” and “j”, and assessed under [subsection 2 of this section](#), shall be valued by the local assessor as follows for the following assessment years:

a. For the assessment year beginning January 1, 1999, at twenty-two percent of the net acquisition cost.

b. For the assessment year beginning January 1, 2000, at fourteen percent of the net acquisition cost.

c. For the assessment year beginning January 1, 2001, at six percent of the net acquisition cost.

d. For the assessment year beginning January 1, 2002, and succeeding assessment years, at zero percent of the net acquisition cost.

5. Property assessed pursuant to [this section](#) shall not be eligible to receive a partial exemption under [sections 427B.1 through 427B.5](#).

6. For the purpose of dividing taxes under [section 260E.4](#), the employer's or business's valuation of property defined in [section 427A.1, subsection 1](#), paragraphs "e" and "j", and used to fund a new jobs training project which project's first written agreement providing for a division of taxes as provided in [section 403.19](#) is approved on or before June 30, 1995, shall be limited to thirty percent of the net acquisition cost of the property. The community college shall notify the assessor by February 15 of each assessment year if taxes levied against such property of an employer or business will be used to finance a project in the following fiscal year. In any fiscal year in which the community college does rely on taxes levied against an employer's or business's property defined in [section 427A.1, subsection 1](#), paragraph "e" or "j", to finance a project, such property shall not be valued pursuant to [subsection 3 or 4](#), whichever is applicable, for that fiscal year. An employer's or business's taxable property used to fund a new jobs training project shall not be valued pursuant to [subsection 3 or 4](#), whichever is applicable, until the assessment year following the calendar year in which the certificates or other funding obligations have been retired or escrowed. If the certificates issued, or other funding obligations incurred, between January 1, 1982, and June 30, 1995, are refinanced or refunded after June 30, 1995, the valuation of such property shall then be the valuation specified in [subsection 3 or 4](#), whichever is applicable, for the applicable assessment year beginning with the assessment year following the calendar year in which those certificates or other funding obligations are refinanced or refunded after June 30, 1995.

7. Notwithstanding [subsection 8](#) or any other provision to the contrary, [this section](#) shall be applicable to a new cogeneration facility subject to the assessed value provisions of [section 437A.16A](#), but the exemptions provided in [this section](#) shall be reduced by an amount bearing the same ratio to the value of the property that is exempt pursuant to [this section](#) as the allowable credit under [section 437A.16A, subsection 1](#), bears to the assessable value of the entire new cogeneration facility before the application of any abatements, credits, or exemptions against that value.

8. a. [This section](#) shall not apply to property assessed by the department of revenue pursuant to [sections 428.24 through 428.29](#), or [chapters 434, 437, 437A, 437B, and 438](#), and such property shall not receive the benefits of [this section](#).

b. Any electric power generating plant which operated during the preceding assessment year at a net capacity factor of more than twenty percent, shall not receive the benefits of [this section](#) or of [section 15.332](#).

85 Acts, ch 32, §109; 93 Acts, ch 180, §12; 95 Acts, ch 206, §29; 96 Acts, ch 1049, §2, 3, 9; 96 Acts, ch 1180, §18; 97 Acts, ch 66, §1, 2; 2002 Acts, ch 1150, §11; 2003 Acts, ch 145, §286; 2005 Acts, ch 150, §64, 69; 2011 Acts, ch 104, §1, 2; 2013 Acts, ch 90, §105; 2013 Acts, ch 94, §5, 35, 36; 2018 Acts, ch 1026, §139; 2018 Acts, ch 1158, §12, 28

Referred to in §427B.19, 427B.19A, 427B.19C, 427B.19D, 437A.3

2018 amendment to subsection 8, paragraph a, is effective July 1, 2024; 2018 Acts, ch 1158, §28

Subsection 8, paragraph a amended

427B.18 Replacement.

Beginning with the fiscal year beginning July 1, 1996, each county treasurer shall be paid from the industrial machinery, equipment and computers replacement fund an amount equal to the amount of the industrial machinery, equipment and computers tax replacement claim, as calculated in [section 427B.19](#).

95 Acts, ch 206, §30

427B.19 Assessor and county auditor duties.

1. On or before July 1 of each fiscal year, the assessor shall determine the total assessed

value of the property assessed under [section 427B.17](#) for taxes payable in that fiscal year and the total assessed value of such property assessed as of January 1, 1994, and shall report the valuations to the county auditor.

2. On or before July 1 of each fiscal year, the assessor shall determine the valuation of all commercial and industrial property assessed for taxes payable in that fiscal year and the valuation of such property assessed as of January 1, 1994, and shall report the valuations to the county auditor.

3. On or before September 1 of each fiscal year through June 30, 2004, the county auditor shall prepare a statement, based upon the report received pursuant to [subsections 1 and 2](#), listing for each taxing district in the county:

a. Beginning with the assessment year beginning January 1, 1995, the difference between the assessed valuation of property assessed pursuant to [section 427B.17](#) for that year and the total assessed value of such property assessed as of January 1, 1994. If the total assessed value of the property assessed as of January 1, 1994, is less, there is no tax replacement for the fiscal year.

b. The tax levy rate for each taxing district for that fiscal year.

c. The industrial machinery, equipment and computers tax replacement claim for each taxing district. For fiscal years beginning July 1, 1996, and ending June 30, 2001, the replacement claim is equal to the amount determined pursuant to paragraph “a”, multiplied by the tax rate specified in paragraph “b”. For fiscal years beginning July 1, 2001, and ending June 30, 2004, the replacement claim is equal to the product of the amount determined pursuant to paragraph “a”, less any increase in valuations determined in paragraph “d”, and the tax rate specified in paragraph “b”. If the amount subtracted under paragraph “d” is more than the amount determined in paragraph “a”, there is no tax replacement for the fiscal year.

d. Beginning with the assessment year beginning January 1, 2000, the auditor shall reduce the amount listed in paragraph “a”, by the increase, if any, in assessed valuations of commercial and industrial property in the assessment year beginning January 1, 1994, and the assessment year for which taxes are due and payable in that fiscal year. If the calculation under this paragraph indicates a net decrease in aggregate valuation of such property, the industrial machinery, equipment and computers tax replacement claim for each taxing district is equal to the amount determined pursuant to paragraph “a”, multiplied by the tax rate specified in paragraph “b”.

4. The county auditor shall certify and forward one copy of the statement to the department of revenue not later than September 1 of each year.

5. For purposes of [this section](#), “assessed value of the property assessed under [section 427B.17](#)” does not include the value of property defined in [section 427A.1, subsection 1](#), paragraphs “e” and “j”, which is obligated to secure payment of certificates or other indebtedness incurred pursuant to [chapter 260E](#) or [260F](#).

6. For purposes of computing replacement amounts under [this section](#), that portion of an urban renewal area defined as the sum of the assessed valuations defined in [section 403.19, subsections 1 and 2](#), shall be considered a taxing district.

95 Acts, ch 206, §31; 96 Acts, ch 1049, §4; 97 Acts, ch 158, §32, 33; 2003 Acts, ch 145, §286; 2003 Acts, ch 178, §5, 6

Referred to in §257.3, 427B.18, 427B.19A

427B.19A Fund created.

1. The industrial machinery, equipment and computers property tax replacement fund is created. For the fiscal year beginning July 1, 1996, through the fiscal year ending June 30, 2004, there is appropriated annually from the general fund of the state to the department of revenue to be credited to the industrial machinery, equipment and computers property tax replacement fund, an amount sufficient to implement [this subchapter](#). However, for the fiscal year beginning July 1, 2003, the amount appropriated to the department of revenue to be credited to the industrial machinery, equipment and computers tax replacement fund is eleven million two hundred eighty-one thousand six hundred eighty-five dollars.

2. If an amount appropriated for a fiscal year is insufficient to pay all claims as a result of action by the general assembly limiting the amount appropriated to the fund, the director

shall prorate the disbursements from the fund to the county treasurers and shall notify the county auditors of the pro rata percentage on or before September 30.

3. The replacement claims shall be paid to each county treasurer in equal installments in September and March of each year. The county treasurer shall apportion the replacement claim payments among the eligible taxing districts in the county. If the taxing district is an urban renewal area, the amount of the replacement claim shall be apportioned as provided in [subsection 4](#) unless the municipality elects to proceed under [subsection 5](#).

4. a. If the total assessed value of property located in an urban renewal area taxing district is equal to or more than that portion of such valuation defined in [section 403.19, subsection 1](#), the total tax replacement amount computed pursuant to [section 427B.19](#) shall be credited to that portion of the assessed value defined in [section 403.19, subsection 2](#).

b. If the total assessed value of the property is less than that portion of such valuation defined in [section 403.19, subsection 1](#), the replacement amount shall be credited to those portions of the assessed value defined in [section 403.19, subsections 1 and 2](#), as follows:

(1) To that portion defined in [section 403.19, subsection 1](#), an amount equal to the amount that would be produced by multiplying the applicable consolidated levy times the difference between the assessed value of the taxable property defined in [section 403.19, subsection 1](#), and the total assessed value in the budget year for which the replacement claim is computed.

(2) To that portion defined in [section 403.19, subsection 2](#), the remaining amount, if any.

c. Notwithstanding the allocation provisions of paragraphs “a” and “b”, the amount of the tax replacement amount that shall be allocated to that portion of the assessed value defined in [section 403.19, subsection 2](#), shall not exceed the amount equal to the amount certified to the county auditor under [section 403.19](#) for the budget year in which the claim is paid, after deduction of the amount of other revenues committed for payment on that amount for the budget year. The amount not allocated to that portion of the assessed value defined in [section 403.19, subsection 2](#), as a result of the operation of this paragraph, shall be allocated to that portion of assessed value defined in [section 403.19, subsection 1](#).

5. A municipality may elect to reduce the amount of assessed value of property defined in [section 403.19, subsection 1](#), by an amount equal to that portion of the amount of such assessed value which was phased out for the fiscal year by operation of [section 427B.17, subsection 4](#). The applicable assessment roll and ordinance providing for the division of taxes under [section 403.19](#) in the urban renewal taxing district shall be deemed to be modified for that fiscal year only to the extent of such adjustment without further action on the part of the city or county implementing the urban renewal taxing district.

95 Acts, ch 206, §32; 96 Acts, ch 1049, §5, 6; 97 Acts, ch 158, §34; 2001 Acts, ch 116, §22; 2003 Acts, ch 145, §286; 2003 Acts, ch 178, §7; 2003 Acts, ch 179, §37; 2013 Acts, ch 90, §246; 2017 Acts, ch 54, §76

Referred to in §257.3, 298.18A, 427B.19C

427B.19B Guarantee of state replacement funds. Repealed by 2003 Acts, ch 178, §11.

427B.19C Adjustment of certain assessments required.

In the assessment year beginning January 1, 2003, the amount of assessed value of property defined in [section 403.19, subsection 1](#), for an urban renewal taxing district which received replacement moneys under [section 427B.19A, subsection 4](#), shall be reduced by an amount equal to that portion of the amount of assessed value of such property which was assessed pursuant to [section 427B.17, subsection 4](#).

96 Acts, ch 1049, §7; 2003 Acts, ch 178, §8; 2013 Acts, ch 90, §247

427B.19D Appeal for state assistance.

For fiscal years beginning on or after July 1, 1996, a municipality in which is located an urban renewal district for which debt was incurred prior to June 30, 1996, may appeal to the state appeal board for state assistance to meet such debt obligations for the fiscal year if such debt is not secured by an assessment agreement pursuant to [section 403.6, subsection 19](#), and if the urban renewal area contains property assessed pursuant to [section 427B.17](#). The appeal

shall be made by May 15 preceding the fiscal year on forms approved by the department of management.

96 Acts, ch 1049, §8

SUBCHAPTER IV

UNDERGROUND STORAGE TANKS REMEDIAL ACTION CREDIT

427B.20 Local option remedial action property tax credit — public hearing. Repealed by 2024 Acts, ch 1054, §20.

Property tax credits provided under this subchapter IV, existing on July 1, 2024, shall continue until their expiration; 2024 Acts, ch 1054, §21

427B.21 Application for credit by underground storage tank owner or operator — approval by county board of supervisors or city council. Repealed by 2024 Acts, ch 1054, §20.

Property tax credits provided under this subchapter IV, existing on July 1, 2024, shall continue until their expiration; 2024 Acts, ch 1054, §21

427B.22 Credit may be repealed. Repealed by 2024 Acts, ch 1054, §20.

Property tax credits provided under this subchapter IV, existing on July 1, 2024, shall continue until their expiration; 2024 Acts, ch 1054, §21

427B.23 through 427B.25 Reserved.

SUBCHAPTER V

SPECIAL VALUATION FOR WIND ENERGY CONVERSION PROPERTY

427B.26 Special valuation of wind energy conversion property.

1. a. A city council or county board of supervisors may provide by ordinance for the special valuation of wind energy conversion property as provided in [subsection 2](#). The ordinance may be enacted not less than thirty days after a public hearing on the ordinance is held. Notice of the hearing shall be published in accordance with [section 331.305](#) in the case of a county, or [section 362.3](#) in the case of a city. The ordinance shall only apply to property first assessed on or after the effective date of the ordinance.

b. If in the opinion of the city council or the county board of supervisors continuation of the special valuation provided under [this section](#) ceases to be of benefit to the city or county, the city council or the county board of supervisors may repeal the ordinance authorized by [this subsection](#). Property specially valued under [this section](#) prior to repeal of the ordinance shall continue to be valued under [this section](#) until the end of the nineteenth assessment year following the assessment year in which the property was first assessed. Following repeal of the ordinance and conclusion of the applicable nineteen-year period, the wind energy conversion property shall be subject to assessment and taxation under [chapter 437A](#), [section 441.21](#), [subsection 8](#), paragraphs “b”, “c”, and “d”, or [sections 428.24 through 428.26](#), [428.28](#), and [428.29](#), as applicable.

2. In lieu of the valuation and assessment provisions in [chapter 437A](#), [section 441.21](#), [subsection 8](#), paragraphs “b”, “c”, and “d”, and [sections 428.24 through 428.26](#), [428.28](#), and [428.29](#), as applicable, wind energy conversion property which is first assessed for property taxation on or after January 1, 1994, and on or after the effective date of the ordinance enacted pursuant to [subsection 1](#), shall be valued by the local assessor for property tax purposes as follows:

a. For the first assessment year, at zero percent of the net acquisition cost.

b. For the second through sixth assessment years, at a percent of the net acquisition cost which rate increases by five percentage points each assessment year.

c. For the seventh and succeeding assessment years, at thirty percent of the net acquisition cost.

3. *a.* The taxpayer shall file with the local assessor by February 1 of the assessment year in which the wind energy conversion property is first assessed for property tax purposes, a declaration of intent to have the property assessed at the value determined under [this section](#) in lieu of the valuation and assessment provisions in [chapter 437A, section 441.21, subsection 8](#), paragraphs “b”, “c”, and “d”, and [sections 428.24 through 428.26, 428.28, and 428.29](#), as applicable.

b. Maintaining, refurbishing, or repowering wind energy conversion property shall not cause the wind energy conversion property to receive a new assessment schedule under [subsection 2](#).

4. For purposes of [this section](#):

a. “*Collector substation*” means an electrical substation designed to collect energy from multiple electricity-generating sources.

b. “*Net acquisition cost*” means the acquired cost of the property including all foundations and installation cost less any excess cost adjustment. However, except in the case of a clerical error, an adjustment shall not be made after the third year the wind energy conversion property is assessed.

c. “*Repowering*” means the removal and replacement of components of wind energy conversion property.

d. “*Wind energy conversion property*” means the entire wind plant including but not limited to a wind charger, windmill, wind turbine, tower and electrical equipment, pad mount transformers, power lines, and collector substation.

[93 Acts, ch 161, §2; 2021 Acts, ch 80, §269, 270; 2022 Acts, ch 1075, §1 – 6](#)

Referred to in [§437A.6, 441.21, 476B.6](#)

2022 amendment to subsection 1, paragraph b applies retroactively to assessment years beginning on or after January 1, 2022; 2022 Acts, ch 1075, §5

2022 amendment to subsection 2, unnumbered paragraph 1 applies retroactively to assessment years beginning on or after January 1, 2022; 2022 Acts, ch 1075, §5

2022 amendment to subsection 3, paragraph a applies retroactively to assessment years beginning on or after January 1, 2022; [2022 Acts, ch 1075, §5](#)

Subsection 3, paragraph b applies to assessment schedules commenced under subsection 2 on or after May 23, 2022; [2022 Acts, ch 1075, §6](#)

2022 amendment to subsection 4 applies retroactively to assessment years beginning on or after January 1, 2022; 2022 Acts, ch 1075, §5

City of Newton Council Report

**Item:**

First Consideration of an Ordinance Amending the Code of Ordinances, City of Newton, Iowa, 2025, Title III: Administration, Chapter 30: Mayor and Council

Summary:

Increase the Mayor & Council pay for the next council which starts on 1-1-26.

Financial Impact:

Budgeted Salary Increase of \$29,450 distributed between all funds. No change to General Fund.

Report Number: 2025-519**Date:**

May 5, 2025

Lead Department:

Administration

Recommendation:

Approve

Background:

In order to keep in line with comparable communities and for the good of the organization, it is recommended by staff to increase the Mayor & Council pay for the next council which starts on 1-1-26. This increase may provide for improved inclusion by allowing someone that couldn't participate before an opportunity to become involved, such as someone that needed childcare in order to attend meetings.

Indianola is historically the closest comparable to Newton, which has Council pay set at \$5,900 per year and the Mayor pay on 1-1-26 will be \$10,250. Since the Mayor and City Council's work encompasses all funds for the City, the increase will be distributed among eligible funds and there will be no increase in General Fund Expenditures for this change.

Recommendation:

It is recommended that the City Council adopt the budgeted Mayor and Council wage increase effective January 1, 2026.

Matt Muckler, City Administrator

ORDINANCE NO. _____

**ORDINANCE AMENDING THE CODE OF ORDINANCES, CITY OF NEWTON,
IOWA, 2025, TITLE III: ADMINISTRATION, CHAPTER 30: MAYOR AND
COUNCIL**

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF NEWTON DOES ORDAIN AS FOLLOWS:

Section 1. The Code of Ordinances, City of Newton, Iowa, 2025, Title III: Administration, Chapter 30: Mayor and Council, is hereby amended by adding or ~~deleting~~ the following:

Mayor

§ 30.001 TERM OF OFFICE.

The Mayor is elected for a term of two years.

(2011 Code, § 3.0101)

§ 30.002 POWERS AND DUTIES.

The powers and duties of the Mayor shall be as follows.

(A) Chief executive officer. The Mayor is the chief executive officer of the city and, except for the duties delegated by law or ordinance to the City Administrator, the Mayor shall supervise all departments of the city.

(B) Presiding officer. The Mayor shall act as presiding officer at all regular and special Council meetings. The Mayor Pro Tem shall serve in this capacity in the Mayor's absence.

(C) Special meetings. The Mayor shall call special meetings of the Council when the Mayor deems such meetings necessary to the interests of the city.

(D) Mayor's veto. The Mayor may sign, veto or take no action on an ordinance, amendment or resolution passed by the Council. However, the Mayor may not veto a measure if the Mayor was entitled to vote on the measure at the time of passage. If the Mayor exercises the Mayor's veto power, the Mayor must explain the reason for such veto to the Council at the time of the veto. The Council may override the Mayor's veto by a three-fourths majority or at least five Council members.

(E) Reports to Council. The Mayor shall make such oral or written reports to the Council at the first meeting of every month as required. These reports shall concern municipal affairs generally, the municipal departments and recommendations suitable for Council action.

(F) Contracts. The Mayor shall, whenever authorized by Council, sign contracts on behalf of the city.

(2011 Code, § 3.0102) (Ord. 2429, passed 4-17-2023)

§ 30.004 COMPENSATION.

The salary of the Mayor shall be ~~\$4,800~~\$10,250 per year which includes \$2400 in car allowance, payable in quarterly installments at the end of each quarter of the calendar year.

(2011 Code, § 3.0104)

COUNCIL

§ 30.035 NUMBER AND TERM.

The Council consists of two Council members elected at-large and one Council member from each of four wards as established by the code of ordinances, elected for overlapping terms of four years.

(2011 Code, § 3.0301)

§ 30.036 POWERS AND DUTIES.

The powers and duties of the Council shall include, but are not limited to, the following:

- (A) General. All powers of the city are vested in the Council, except as otherwise provided for by law or ordinance.
- (B) Wards. By ordinance, the Council may divide the city into wards based upon population, change the boundaries of wards, eliminate wards or create new wards.
- (C) Fiscal authority. The Council shall apportion and appropriate all funds and audit and allow all bills, accounts, payrolls and claims, and order payment thereof. It shall make all assessments for the cost of street improvements, sidewalks, sewers and other work, improvement or repairs which may be specially assessed.
- (D) Public improvements. The Council shall make all orders for the doing of work, or the making or construction of any improvements, bridges or buildings.
- (E) Contracts. The Council shall make or authorize the making of all contracts and no contract shall bind or be obligatory upon the city unless either made by ordinance or resolution adopted by the Council, or reduced to writing and approved by the Council, or expressly authorized by ordinance or resolution adopted by the Council.
- (F) Employees.
 - (1) The Council shall authorize, by resolution, the number and compensation of employees not otherwise provided by state law or the code of ordinances. In accordance with the city's pay and benefits plan adopted by the Council, authorization of employee compensation by the Council shall occur within the annual salary resolution by Council specification therein of:
 - (a) The percentage increase, if any, to be applied to the step/merit pay schedule and merit pay schedule for non-union eligible employees; and
 - (b) The amount of funds allotted to the merit pool.
 - (2) The City Administrator shall allocate salary adjustments to non-union eligible employees in an amount not to exceed the total of divisions (F)(1)(a) and (F)(1)(b) above on the basis of performance appraisals conducted by supervisors. Gross yearly salaries of all city employees for the previous calendar year shall be published no later than 1 March of each year.
- (G) Records. The Council shall maintain records of its proceedings.
- (H) Setting compensation for elected officers. By ordinance, the Council shall prescribe the compensation of the Mayor, Council members and other elected city officers, but a change in the compensation of the Mayor shall not become effective during the term in which the increase is adopted, and the Council shall not adopt such an ordinance changing the compensation of any elected officer during the months of November and December immediately following a regular city election. A change in the compensation of Council members shall become effective for all Council members at the beginning of the term of the Council members elected at the election next following the adoption of the increase in compensation.

(2011 Code, § 3.0302)

§ 30.039 COMPENSATION.

The members of the Council shall receive, in full payment for their services as Council persons, a sum of ~~\$1,500~~\$5900 per year, payable in quarterly installments at the end of each quarter of the calendar year.

(2011 Code, § 3.0307)

Section 2. Repealer Clause. All ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 3. Severability Clause. If any section, provision or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision or part thereof not adjudged invalid or unconstitutional.

Section 4. Effective. This ordinance shall be effective on January 1, 2026, after the final passage, approval and publication as provided by law.

PASSED this ____ day of _____, 2025.

APPROVED this ____ day of _____, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

I, Katrina Davis, City Clerk of the City of Newton, Iowa, do hereby certify that the foregoing Ordinance was passed and approved by the City Council of the City of Newton, Iowa on the ____ day of _____, 2025 and was published in the Newton Daily News, a newspaper of general circulation in the said City of Newton on the ____ day of _____, 2025.

Dated this ____ day of _____, 2025.

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution amending the Comprehensive Fee Schedule, Public Works Fees, by adding Solid Waste and Recycling Collection and Disposal Fee

Summary:

The city provides residential garbage and recycling collection by contracted services, this fee covers those expenses

Financial Impact:

Increase of \$3.39 per month, per residential unit, to cover cost of new solid waste hauler contract. Estimated \$229,400 per year.

Report Number: 2025-304**Date:**

May 5, 2025

Lead Department:

Public Works

Recommendation:

Approve

Background:

The current solid waste collection and hauling contract with Dodd's Solid Waste and Recycling is set to expire on June 30, 2025.

On December 20, requests for proposals (RFPs) were distributed, seeking bids for solid waste collection services consistent with the existing contract. The base proposal specified weekly collection of 35-gallon solid waste bins and 18-gallon recycling totes from approximately 5,600 properties. In addition, bidders were asked to provide pricing for yard waste and Christmas tree collection, along with proposed contract durations and annual rate adjustments.

An alternative bid option was included, requesting rates for an automated solid waste collection system featuring 35-, 65-, and 95-gallon bins, as well as 95-gallon recycling bins. This alternative bid required haulers to include the initial purchase of waste and recycling bins to be provided to residents. Under the current contract, the monthly rate per unit is \$12.58. The total recycling and garbage fee paid by residents is \$15.16, which covers collection, tipping, and recycling fees.

On January 24, three proposals were received. At the March 3 Newton City Council meeting, each vendor presented their proposals. Following deliberation, the City Council voted to enter into an agreement with Dodd's Solid Waste & Recycling of Newton, IA. Dodd's proposal includes a monthly rate of \$15.00 for manual weekly collection of a 35-gallon solid waste bin and an 18-gallon recycling tote. The contract includes an annual rate adjustment tied to the Consumer Price Index – Urban and has a term of five years.

As a result of the new contract with Dodd's, the monthly rate for individual property owners, covering solid waste and recycling collection, landfill tipping fees, recycling tipping fees, leaf bag collection, and Christmas tree collection, will be \$18.55 per residential unit, effective July 1, 2025.

Recommendation:

council approved the attached resolution to adjust the solid waste and recycling fee effective July 1, 2025.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

RESOLUTION AMENDING THE COMPREHENSIVE FEE SCHEDULE,
PUBLIC WORKS FEES, BY ADDING SOLID WASTE AND RECYCLING
COLLECTION AND DISPOSAL FEE

WHEREAS, the current solid waste collection and hauling contract with Dodd’s Solid Waste and Recycling is set to expire on June 30, 2025; and

WHEREAS, On December 20, requests for proposals (RFPs) were distributed, seeking bids for solid waste collection services consistent with the existing contract. The base proposal specified weekly collection of 35-gallon solid waste bins and 18-gallon recycling totes from approximately 5,600 properties. In addition, bidders were asked to provide pricing for yard waste and Christmas tree collection, along with proposed contract durations and annual rate adjustments; and

WHEREAS, an alternative bid option was included, requesting rates for an automated solid waste collection system featuring 35-, 65-, and 95-gallon bins, as well as 95-gallon recycling bins. This alternative bid required haulers to include the initial purchase of waste and recycling bins to be provided to residents. Under the current contract, the monthly rate per unit is \$12.58. The total recycling and garbage fee paid by residents is \$15.16, which covers collection, tipping, and recycling fees; and

WHEREAS, On January 24, three proposals were received. At the March 3rd, 2025 Newton City Council meeting, each vendor presented their proposals. Following deliberation, the City Council voted to enter into an agreement with Dodd’s Solid Waste & Recycling of Newton, IA. Dodd’s proposal includes a monthly rate of \$15.00 for manual weekly collection of a 35-gallon solid waste bin and an 18-gallon recycling tote. The contract includes an annual rate adjustment tied to the Consumer Price Index – Urban and has a term of five years; and

WHEREAS, as a result of the new contract with Dodd’s, the monthly rate for individual property owners, covering the costs of solid waste and recycling collection, landfill tipping fees, recycling tipping fees, leaf bag collection, and Christmas tree collection, will be \$18.55 per residential unit, effective July 1, 2025; and

Public Works Fees

Description	Cost	Notes
Right-of-Way License Fee	\$30.00 Class A \$20.00 Class B	
Right-of-way Permit Fee	\$30.00 per driveway opening or 100 linear feet, not to exceed \$90.00	
Street Closure Application Fee for Construction/Utility	\$20.00	
Fiber Optic License Fee	\$0.06 per lineal Foot (until February 21, 2025)	
Fiber Optic License Fee	\$300.00 plus \$0.90 per lineal foot (effective February 22, 2025)	
Solid Waste & Recycling Collection & Disposal Fee	\$18.55 per unit, per month, Effective July 1, 2025	Needs adjusted annually, based on hauler contract adjustment

WHEREAS, this fee will need to be adjusted annually, based on the increase to Dodd’s Trash Hauling and Recycling, per the contractual agreement.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Newton, Iowa, that the Resolution is hereby approved.

BE IT FURTHER RESOLVED, that the fee for solid waste and recycling shall become effective July 1, 2025.

PASSED this _____ day of April, 2025.

APPROVED this _____ day of April, 2025.

ATTEST:

Eveyln George, Mayor

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution approving the granting of Downtown Improvement Grant funds for 309 1st Avenue West, Newton, Iowa in the Facade Rehabilitation Program Area

Summary:

Downtown Improvement Grant for the building at 309 1st Avenue West

Financial Impact:

\$500.00 of Downtown Improvement Grant Funds

Report Number: 2025-471

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

The residence is considered a contributing resource to the Newton Downtown Historic District. The building is eligible under Criterion A in association with the history of Newton community planning and development, significant in its ability to contribute to our understanding of the evolution of the business district, specifically how the composition of the commercial area developed over time from one with a variety of property types (including residences) represented to one dominated by commercial buildings.

The applicant has proposed the following work for the building -

- Replace the 2 dormer windows. The new windows will match the existing windows and have no grid.

Estimated cost to the applicant is \$1,000. Recommended grant amount is \$500.

Recommendation:

Staff recommends approval for a painting grant in an amount not to exceed \$500.00

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION APPROVING THE GRANTING OF DOWNTOWN
IMPROVEMENT GRANT FUNDS FOR 309 1ST AVENUE
WEST, NEWTON, IOWA IN THE FACADE PROGRAM AREA**

WHEREAS, *Envision Newton 2042* recognizes the role of the Downtown as the heart of the community and recommends a focus on curb appeal and community aesthetics; and

WHEREAS, bonded funds were set aside for the purpose of downtown improvements, providing the funding source for the Downtown Improvement Grant Program; and

WHEREAS, Carl Hentsch submitted an application requesting funds for 309 1st Ave. W, Newton in the facade improvement program areas for Betty J's Mercantile and

WHEREAS, The Downtown Grant Review Board reviewed the application and recommended granting of funds up to \$500.00 as a reimbursement after work is completed and a 1:1 match is met for the facade program area provided by the applicant;

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that the Downtown Improvement Grant Funds in an amount up to \$500.00 be provided to Carl Hentsch, 309 1st Ave. W, Newton, for the façade program areas.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk



**Downtown Façade Grant Program Agreement
Between City of Newton and Carl Hentsch**

This Agreement made and entered into this _____ day of _____ 2025 by and between the City of Newton, Iowa, hereinafter called "City" and Carl Hentsch, 309 1st Avenue West, Newton, Iowa, hereinafter called "Applicant."

WHEREAS, the Applicant submitted an application to receive Downtown Improvement Grant funds in the Façade Improvement Area for property located at 309 1st Avenue West, Newton; and

WHEREAS, the Downtown Grant Review Board reviewed the application and recommended approval;

NOW, THEREFORE BE IT UNDERSTOOD AND AGREED:

- 1) Carl Hentsch will receive up to \$500.00 in grant funds for Betty J's Mercantile for the facade Improvement project at 309 1st Avenue West.

Proposed Project	Estimated Cost	1:1 Match Amount	Maximum Allowed	Less previous Award	Recommended Grant
Betty J's Mercantile Façade - windows	\$1,000.00	\$500.00	\$5,000.00	\$2305.37	\$500.00
Total					\$500.00

- 2) The applicants will match provide a 1:1 match to the grant funds.
- 3) All projects shall be completed within 1 year of the agreement; by May 5, 2026.

- 4) The City of Newton will provide the grant funding as a reimbursement of completed work.
 - a. Copies of all receipts for each project area shall be submitted to the City of Newton Community Development Department, 303 West 4th Street North, Suite 501, Newton, Iowa 50208 for administrative verification of expenditures and applicant match.
- 5) The City will make timely payment of grant funds upon completion of the project and verification of project expenses.

Applicant:

Carl Hentsch
Owner

Date

For City of Newton:

Evelyn George, Mayor

Date

City of Newton Council Report

**Item:**

Resolution approving a low-moderate income housing set-aside grant for 2122 North 4th Avenue East, Newton

Summary:

Grant to assist Low-Mod Income household with property improvements

Financial Impact:

\$3,696.27.00 in Low-Mod Income Set Aside Funds

Report Number: 2025-498**Date:**

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

The City of Newton has identified housing development as a serious need for the community. Some barriers to providing housing options are the cost of infrastructure construction, the cost of labor and materials, and the challenge of enticing regional developers into the community. To address such barriers to general housing development, the City of Newton utilizes Tax Increment Financing (TIF), when and where City Council has determined it is appropriate. When TIF funding is used for residential development, State of Iowa law requires that the City of Newton set aside a portion of the newly generated tax increment for Low-Moderate Income (LMI) Housing throughout the community.

Recent residential development activity (Fairmeadows North and Arbor Estates) has been spurred utilizing TIF, and a LMI Housing set-aside fund has been slowly growing. By resolution 2023-093, City Council established the Low-Moderate Income Housing Set-Aside Funds Policy which has several program areas for which the set-aside dollars can be used. Program areas include: LMI Existing Housing Improvement Grant; State/Federal Affordable Housing Application Financial Support; Neighborhood Sidewalk Construction, Reconstruction & ADA improvements; and Neighborhood Revitalization and Blight Removal (which includes acquisition & demolition and dead/dying trees). The US Department of Housing & Urban Development (HUD) establishes the median family income for every county in the United States. Persons who meet the "low income" requirements have earnings at or below 80% of the median household income for the county, based on household size.

Eligible grant program areas include foundation work; permanent/semi-permanent interior work such as flooring, cabinetry, paint; windows and doors; HVAC; plumbing; electrical, exterior treatments; and roofing.

2122 North 4th Avenue East:

The property owner of 2122 North 4th Avenue East has made an application under the LMI Existing Housing Improvement Grant for the Plumbing category. The work entails replacing the existing lead water service line from the house to the main.

Robbie Howe of Newton, Iowa has provided a quote for the work in a total amount of \$3,850.00. The property owner has submitted the necessary documentation, and staff has verified that the property owner income-qualifies for the City's LMI grant program.

Under the program, the property owner is required to pay the contractor 25% of the project cost of \$3,850.00 and the City will directly pay the contractor 75% of the project cost. The attached program agreement stipulates that the City of Newton will pay \$2,887.50 to Robbie Howe.

Recommendation:

Staff recommends approval.

A handwritten signature in black ink, appearing to read "Matt Muckler". The signature is fluid and cursive, with the first name "Matt" and last name "Muckler" clearly distinguishable.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

RESOLUTION APPROVING A LOW-MODERATE INCOME HOUSING SET-ASIDE GRANT FOR 2122 NORTH 4TH AVENUE EAST, NEWTON

WHEREAS, the City of Newton has identified housing development as a serious need for the community and utilizes Tax Increment Financing (TIF) to address this need; and

WHEREAS, State of Iowa law requires that the City of Newton set aside a portion of newly generated residential tax increment for Low-Moderate Income (LMI) housing needs; and

WHEREAS, Resolution 2023-093 established a Low-Moderate Income Housing Set-Aside Funds Policy that includes an Existing Housing Improvement Grant policy area; and

WHEREAS, Thomas W. Kepler, owner of 2122 North 4th Avenue East, Newton meets the ownership and income requirements established by the policy; and

WHEREAS, Thomas W. Kepler proposes to remove & replace his existing water service line from the house to the main;

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that Low-Mod Income Existing Housing Improvement Grant Funds be issued to the contractor, Robbie Howe of Newton, Iowa, in an amount equal to 75% of the total project cost, up to a maximum of \$2,887.50;

BE IT FURTHER RESOLVED by the City Council of Newton, Iowa: That the City shall obtain the signatures on the grant program agreement.

PASSED this 5th day of May, 2025.

APPROVED this _____ day of May, 2025.

ATTEST:

Evelyn George, Mayor

Katrina Davis, City Clerk



**LMI Existing Housing Improvement Grant Agreement
Between City of Newton and Thomas W. Kepler**

This Agreement made and entered into this _____ day of May, 2025 by and between the City of Newton, Iowa, hereinafter called "City" and Thomas W. Kepler, hereinafter called "Applicant."

WHEREAS, the Applicant submitted an application to receive LMI Existing Housing Improvement Grant funds for property located at 2122 North 4th Avenue East in Newton; and

WHEREAS, the City's Community Development Department and Newton City Council reviewed and approved the application;

NOW, THEREFORE BE IT UNDERSTOOD AND AGREED:

- 1.) The Project will receive a total of **up to \$2,887.50** in grant funds for Plumbing improvements to install a new water service line from the house to the main, providing a 25% applicant cash match is met.
 - a. Funding breakdown for Plumbing Grant as follows:
 - Total Estimated Project Cost - \$3,850.00
 - 25% Applicant Cash Match - \$962.50
 - **Improvement Grant - \$2,887.50**
- 2.) Required sign, building, plumbing, mechanical or other permits will be obtained and work will be completed by licensed contractors, when required.
- 3.) The City of Newton will provide the grant funding directly to the contractor that completed the work in the amount referenced above once the project is fully completed. The portion paid directly by the City of Newton shall be **tax exempt**. The City of Newton shall provide a copy of the City's Tax Exemption Certificate to the contractor upon request. The contractor shall provide the City of Newton an IRS 1099 form prior to payment.

- 4.) City staff will inspect and verify completeness of work prior to issuance of grant funds.
 - a. The applicant shall provide a copy of the invoice from the licensed contractor that performed the work.
 - b. All work shall comply with applicable City Codes, including, but not limited to, zoning and building codes. All completed work shall be inspected and approved by the City's Building Official/Inspector.
- 5.) The applicant will provide a minimum 25% cash match to the grant funds for the approved work and pay that amount to the contractor directly.

Applicant:

Thomas W. Kepler

Date

For City of Newton:

Evelyn George, Mayor

Date

Contractor Acknowledgement:

Robbie Howe

Date

City of Newton Council Report

**Item:**

Resolution approving a low-moderate income housing set-aside grant for 2014 South 3rd Avenue East, Newton

Summary:

Grant to assist Low-Mod Income household with property improvements

Financial Impact:

\$16,303.75 in Low-Mod Income Set Aside Funds

Report Number: 2025-499

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

The City of Newton has identified housing development as a serious need for the community. Some barriers to providing housing options are the cost of infrastructure construction, the cost of labor and materials, and the challenge of enticing regional developers into the community. To address such barriers to general housing development, the City of Newton utilizes Tax Increment Financing (TIF), when and where City Council has determined it is appropriate. When TIF funding is used for residential development, State of Iowa law requires that the City of Newton set aside a portion of the newly generated tax increment for Low-Moderate Income (LMI) Housing throughout the community.

Recent residential development activity (Fairmeadows North and Arbor Estates) has been spurred utilizing TIF, and a LMI Housing set-aside fund has been slowly growing. By resolution 2023-093, City Council established the Low-Moderate Income Housing Set-Aside Funds Policy which has several program areas for which the set-aside dollars can be used. Program areas include: LMI Existing Housing Improvement Grant; State/Federal Affordable Housing Application Financial Support; Neighborhood Sidewalk Construction, Reconstruction & ADA improvements; and Neighborhood Revitalization and Blight Removal (which includes acquisition & demolition and dead/dying trees). The US Department of Housing & Urban Development (HUD) establishes the median family income for every county in the United States. Persons who meet the "low income" requirements have earnings at or below 80% of the median household income for the county, based on household size.

Eligible grant program areas include foundation work; permanent/semi-permanent interior work such as flooring, cabinetry, paint; windows and doors; HVAC; plumbing; electrical, exterior treatments; and roofing.

2014 South 3rd Avenue East:

The property owner of 2014 South 3rd Avenue East has made an application under the LMI Existing Housing Improvement Grant for the Exterior Treatments and Windows and Doors categories. The work entails removing & replacing the existing siding, exterior and basement windows and patio sliding door.

Huggins Construction, LLC of Newton, Iowa has provided a quote for the work in a total amount of \$30,005.00. The property owners have submitted the necessary documentation, and staff has verified that the property owners' income-qualifies for the City's LMI grant program.

Under the program, the property owners are required to pay the contractor a minimum of 25% of the project cost of \$30,005.00, and the City will directly pay the contractor 75% of the adjusted project cost, up to the maximum grant category limits. The attached program agreement stipulates that the

City of Newton will pay \$16,303.75 to Huggins Construction, LLC.

Recommendation:

Staff recommends approval.

A handwritten signature in black ink, appearing to read "Matt Muckler". The signature is fluid and cursive, with the first name "Matt" and last name "Muckler" clearly distinguishable.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

RESOLUTION APPROVING A LOW-MODERATE INCOME HOUSING SET-ASIDE GRANT FOR 2014 SOUTH 3RD AVENUE EAST, NEWTON

WHEREAS, the City of Newton has identified housing development as a serious need for the community and utilizes Tax Increment Financing (TIF) to address this need; and

WHEREAS, State of Iowa law requires that the City of Newton set aside a portion of newly generated residential tax increment for Low-Moderate Income (LMI) housing needs; and

WHEREAS, Resolution 2023-093 established a Low-Moderate Income Housing Set-Aside Funds Policy that includes an Existing Housing Improvement Grant policy area; and

WHEREAS, Corey & Emma McCoy, owners of 2014 South 3rd Avenue East, Newton meet the ownership and income requirements established by the policy; and

WHEREAS, Corey & Emma McCoy propose to remove & replace their existing siding, exterior & basement windows & trim, and patio sliding door;

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that Low-Mod Income Existing Housing Improvement Grant Funds be issued to the contractor, Huggins Construction, LLC of Newton, Iowa, in an amount equal to 75% of the total project cost, up to a maximum of \$16,303.75;

BE IT FURTHER RESOLVED by the City Council of Newton, Iowa: That the City shall obtain the signatures on the grant program agreement.

PASSED this 5th day of May, 2025.

APPROVED this _____ day of May, 2025.

ATTEST:

Evelyn George, Mayor

Katrina Davis, City Clerk



**LMI Existing Housing Improvement Grant Agreement
Between City of Newton and Corey & Emma McCoy**

This Agreement made and entered into this _____ day of May, 2025 by and between the City of Newton, Iowa, hereinafter called "City" and Corey & Emma McCoy, hereinafter called "Applicants."

WHEREAS, the Applicants submitted an application to receive LMI Existing Housing Improvement Grant funds for property located at 2014 South 3rd Avenue East; and

WHEREAS, the City's Community Development Department and Newton City Council reviewed and approved the application;

NOW, THEREFORE BE IT UNDERSTOOD AND AGREED:

The Project will receive a total of **up to \$16,303.75** in grant funds for Exterior Treatments and Windows and Doors improvements:

- 1.) A. Remove & replace existing siding, providing a minimum 25% applicant cash match is met.
 - a. Funding breakdown for Exterior Treatments Grant as follows:
 - Total Estimated Project Cost - \$21,600.00
 - Applicant Cash Match - \$11,600.00
 - **Improvement Grant - \$10,000.00 (maximum category grant)**
 - B. Remove & replace exterior & basement windows & trim, and patio sliding door.
 - a. Funding breakdown for Windows and Doors Grant as follows:
 - Total Estimated Project Cost - \$8,405.00
 - 25% Applicant Cash Match - \$2,101.25
 - **Improvement Grant - \$6,303.75**
- 2.) Required sign, building, plumbing, mechanical or other permits will be obtained and work will be completed by licensed contractors, when required.

- 3.) The City of Newton will provide the grant funding directly to the contractor that completed the work in the amount referenced above once the project is fully completed. The portion paid directly by the City of Newton shall be **tax exempt**. The City of Newton shall provide a copy of the City's Tax Exemption Certificate to the contractor upon request. The contractor shall provide the City of Newton an IRS 1099 form prior to payment.
- 4.) City staff will inspect and verify completeness of work prior to issuance of grant funds.
- a. The applicants shall provide a copy of the invoice from the licensed contractor that performed the work.
 - b. All work shall comply with applicable City Codes, including, but not limited to, zoning and building codes. All completed work shall be inspected and approved by the City's Building Official/Inspector.
- 5.) The applicants will provide a minimum 25% cash match to the grant funds for the approved work and pay that amount to the contractor directly.

Applicants:

Corey McCoy

Date

Emma McCoy

Date

For City of Newton:

Evelyn George, Mayor

Date

Contractor Acknowledgement:

Huggins Construction, LLC

Date

City of Newton Council Report

**Item:**

Resolution Approving a D&D 2.0 Demolition Grant for 1010 East 8th Street North, Newton, Jasper County, Iowa

Summary:

Award of D&D 2.0 Demo Grant for 1010 East 8th Street North

Financial Impact:

\$20,000 D&D Funds

Report Number: 2025-510

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

The City's Comprehensive Plan, *Envision Newton 2042*, emphasizes the importance of improving the community's curb appeal, and the City of Newton has established a grant program to the Newton Dangerous and Dilapidated Program to assist private citizens with the acquisition and demolition of dilapidated structures.

Brooks Grease Management, LLC purchased the dilapidated property at 1010 East 8th Street North from the City of Newton per Resolution 2024-290 that approved the purchase agreement. The purchase agreement stipulated that the buyer could apply for the City's D&D 2.0 Demolition Grant Program. Brooks Grease Management, LLC has now made an application for assistance from the D&D 2.0 Demolition Grant Program.

The quote for the demolition was \$21,000, and the project is eligible for the \$20,000 demo grant, which would be provided after the work is completed.

Recommendation:

Staff recommends approval.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION APPROVING A D&D 2.0 DEMOLITION GRANT
FOR 1010 EAST 8TH STREET NORTH, NEWTON, JASPER
COUNTY, IOWA**

WHEREAS, *Envision Newton 2042* emphasizes the importance of improving the community’s curb appeal; and

WHEREAS, the City of Newton has added a grant program to the Newton Dangerous and Dilapidated Program to assist private citizens with the acquisition and demolition of dilapidated structures; and

WHEREAS, Brooks Grease Management, LLC purchased the dilapidated property at 1010 East 8th Street North from the City of Newton per Resolution 2024-290, approving the purchase agreement which stipulated that the buyer could apply for the City’s D&D 2.0 Demolition Grant Program;

WHEREAS, Brooks Grease Management, LLC has made an application for assistance from the D&D 2.0 Demolition Grant Program;

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that the D&D Grant Funds in an amount of up to \$20,000.00 be provided to Brooks Grease Management, LLC as a reimbursement of actual paid demolition costs;

BE IT FURTHER RESOLVED by the City Council of Newton, Iowa:
That the City shall obtain the signatures on the D&D Grant Agreement and that copies of paid invoices be provided prior to issuance of the grant funds.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk



D&D Grant for Private Demolition

Between City of Newton and Brooks Grease Management, LLC

This Agreement made and entered into this _____ day of _____ 2025 by and between the City of Newton, Iowa, hereinafter called "City" and Brooks Grease Management, LLC, hereinafter called "Applicant."

WHEREAS, the Applicant submitted an application to receive D&D grant funds for the demolition of property located at 1010 East 8th Street North, Newton, Iowa.

NOW, THEREFORE BE IT UNDERSTOOD AND AGREED:

- 1.) The Applicant will receive **up to \$20,000.00** in grant funds for the demolition of the dilapidated structure at 1010 East 8th Street North, Newton, Iowa.
- 2.) The Demolition Project shall be completed by May 5, 2026.
- 3.) A Demolition Permit will be obtained by the Applicant or Applicant's contractor.
- 4.) Footings, foundations, and other ground work will be removed as part of the demolition project.
- 5.) The City of Newton will provide the grant funding as a reimbursement upon completion of the demolition.
- 6.) Copies of all receipts for each project area shall be submitted to the City of Newton, Community Development Department, 303 West 4th Street North, Suite 501 Newton, Iowa 50208 for administrative verification of expenditures and applicant match.

7.) The City will make timely payment of grant funds upon completion of the project and verification of project expenses.

Applicant:

Name Printed:

Date

Title:

Brooks Grease Management LLC

For City of Newton:

Evelyn George, Mayor

Date

City of Newton Council Report

**Item:**

Resolution approving the Westwood Clubhouse Facility Rental Policy and Adding Westwood Clubhouse Facility Rental Fee to the City of Newton Comprehensive Fee Schedule

Summary:

Adopting Westwood Clubhouse Facility Rental Policy and Fee Schedule.

Financial Impact:

Future Additional Revenue Source for Golf Fund

Report Number: 2025-511

Date:

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

With the construction of the new clubhouse nearing completion, it has been identified that a facility rental policy is needed.

Westwood Clubhouse will serve as the main hub for activities supporting the Westwood Golf Course. As such, it is not recommended to allow for private facility rentals during regular golf season, as private functions would interfere with the regular golf business. That said, establishing a pathway for facility rental during the off-season provides an additional potential revenue stream for the golf fund and increases the facility's use during winter months.

The attached policy covers topics such as rental fee, hours, party size, what the rental includes, food and beverage, cancellations, and City holidays.

Only one rental will be allowed per day, on a first-come, first-serve basis at the flat fee of \$1,000.00. This rate is consistent with other rentals for other such facilities.

Recommendation:

Staff recommends approval.

Matt Muckler, City Administrator

RESOLUTION NO. 2025 – _____

**RESOLUTION APPROVING THE WESTWOOD CLUBHOUSE
FACILITY RENTAL POLICY AND ADDING WESTWOOD
CLUBHOUSE FACILITY RENTAL FEE TO THE CITY OF
NEWTON COMPREHENSIVE FEE SCHEDULE**

WHEREAS, the newly constructed Westwood Clubhouse will be opening in 2025; and

WHEREAS, the clubhouse is a public building constructed with the primary function to serve as the main activity hub for Westwood Golf Course; and

WHEREAS, it is desirable to make Westwood Clubhouse available to rent for private parties during the off-season beginning November 15th through March 1st of each year;

WHEREAS, it is desirable to adopt a rental policy and fee for this purpose;

NOW THEREFORE, BE IT RESOLVED by the City Council of Newton, Iowa, that the Westwood Clubhouse Private Rental Policy as shown in Attachment A is hereby approved;

BE IT FURTHER RESOLVED by the City Council of Newton, Iowa that the Comprehensive Fee Schedule for the City of Newton shall be amended to add Westwood Clubhouse Facility Rental at a rate of \$1,000.00.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

WESTWOOD CLUBHOUSE PRIVATE RENTAL POLICY

The Westwood Clubhouse is a public building that has a primary function to serve as the main hub for activities related to the Westwood Golf Course. The Westwood Clubhouse is only available to be exclusively rented during the off-season: November 15th through March 1st.

Golf events or outings that are scheduled by the Westwood Golf Course staff are exempt from this policy. Events sponsored by the City of Newton are also exempt from this policy.

In general, events held in the Westwood Clubhouse shall not interfere with normal course activities.

Rental Fee: \$1,000 per event. Only one event allowed per day, reserved on a first-come, first-serve basis. The rental fee is due at the time of reservation. The reserving party/primary contact for the reservation shall be at the event for the full duration.

Limitation of Hours: The facility is available for reservation from 10:00 AM to 10:00 PM, daily during the off-season.

Maximum Party Size: The maximum party size shall be dictated by the posted occupancy limits for the facility.

Official City Holidays: The facility is not available to rent on Official City Holidays.

Rental Includes:

- Private use of clubhouse seating area.
- Use of the golf simulators.
- Use of bathrooms.
- No additional charge for set-up and cleaning. Set up is limited to arrangement of tables and chairs. Decorations shall be provided by the renting party.

Food and Beverage: Outside food catering is allowed. However, all beverages shall be purchased from Westwood Clubhouse. Outside caterers will be responsible for set-up/clean-up, tableware, serving, and food safety practices. Canned heat is allowed for the catering.

Event Plan: Reserving parties shall communicate with Westwood Clubhouse staff event details including planned activities, planned hours, decorations, etc. Westwood Clubhouse reserves the right to limit certain activities if deemed in the best interest of the facility and staff. There shall be no arts and crafts including the use of glue or paint; use of glitter, sand, confetti or

similar; affixing decorations on the walls, windows, ceilings, or furniture; open flames; use of nails or tacks; or activities that may result in damage or extra cleaning for the facility.

Cancellation: Cancellation is free up to 10 days prior to the event. If cancelled 10 days or less from the scheduled date, only 50% of the reservation fee will be refunded.

City of Newton Council Report

**Item:**

Resolution approving the purchase of a Cemetery Zero Turn Mower

Summary:

This piece of equipment is essential for the efficiency of the daily mowing that is undertaken by the cemetery maintenance staff.

Financial Impact:

The Cemetery Zero Turn purchase price of \$14,479.00 is to be paid for utilizing 2025 Bond Funds.

Report Number: 2025-513**Date:**

May 5, 2025

Lead Department:

Community Development

Recommendation:

Approve

Background:

Staff analyzed the Parks and Recreation equipment needs in preparation for the 2025-2026 CIP; a zero turn mower for Newton Union Cemetery was identified as an appropriate piece of equipment to be replaced.

Recommendation:

City staff recommends that Council award the bid for a new cemetery zero turn mower to Mow Pow'r, Newton, Ia, in the amount of \$14,479.00.

Matt Muckler, City Administrator

RESOLUTION 2025- _____

RESOLUTION APPROVING THE PURCHASE OF A CEMETERY ZERO TURN MOWER

WHEREAS, Staff analyzed the Parks and Recreation equipment needs in preparation for the 2025-2026 CIP; a zero turn mower for Newton Union Cemetery was identified as an appropriate piece of equipment to be replaced; and

WHEREAS, this piece of equipment is essential for the efficiency of the daily mowing that is undertaken by the cemetery maintenance staff; and

WHEREAS, staff sought quotes for said mower utilizing state bid pricing:

- Mow Pow'r, Newton, Ia. \$14,479.00
- Van Wall Equipment, Madrid, Ia \$15,542.00; and

WHEREAS, City staff recommends that Council award the bid for a new cemetery zero turn mower to Mow Pow'r, Newton, Ia, in the amount of \$14,479.00; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that the proposal for the purchase of a 2025 Gravely 552 Zero Turn Mower from Mow Pow'r of Newton, Iowa, in the amount of \$14,479.00 is hereby approved.

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that the Community Development Director is authorized to process said payment in the amount of \$14,479.00; to be paid utilizing 2025 Bond Funds.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

City of Newton Council Report

**Item:**

Resolution approving Change Order 02 to the contract for the City of Newton Fire Department Engine Bay Floor Reinforcing Project

Summary:

Approve change order for additional work resulting from on-site conditions.

Financial Impact:

Council previously approved a contract for a total of \$107,725.00 and change order #1 for \$6,078.00. This action would approve a change order #2 in the amount of \$322.00 for a grand total of \$114,125.00 to be paid with 2025A Bond proceeds.

Report Number: 2025-507**Date:**

May 5, 2025

Lead Department:

Fire

Recommendation:

Approve

Background:

A structural engineer inspected the floor of the engine bay in preparation for the delivery of a new ladder truck much heavier than the existing ladder truck. This was done to ensure the floor could support the new truck and would not cause structural damage to the fire engine bay. After inspection, the structural engineer designed a plan to construct an additional load-bearing wall and increase the capacity of the existing joist and beams. Sealed bids were received and opened on January 9, 2025. The City Council of the City of Newton awarded a contract to Minturn, Inc. in the amount of \$107,725.00 on January 20, 2025. Site conditions resulted in increased charges witnessed in Change Order 01 in the amount of \$6,078.00. Other work revealed an existing construction defect requiring additional materials witnessed in Change Order 02 in the amount of \$322.00. The new contract amount is a grand total of \$114,125.00. The Fire Chief has reviewed the Change Order Form and confirmed the conditions found and work estimate submitted.

Original Contract	\$107,725.00
Change Order 01	\$ 6,078.00
Change Order 02	\$ 322.00
Revised Contract	\$114,125.00

Recommendation:

City staff recommends approving Change Order 02 for the City of Newton Fire Department Engine Bay Floor Reinforcing Project in the amount of \$322.00 resulting in a new contract amount of \$114,125.00.

Matt Muckler, City Administrator

**RESOLUTION APPROVING CHANGE ORDER 02 TO THE CONTRACT
FOR THE CITY OF NEWTON FIRE DEPARTMENT ENGINE BAY
FLOOR REINFORCING PROJECT**

WHEREAS, A structural engineer inspected the floor of the engine bay in preparation for the delivery of a new ladder truck much heavier than the existing ladder truck. This was done to ensure the floor could support the new truck and would not cause structural damage to the fire engine bay. After inspection, the structural engineer designed a plan to construct an additional load-bearing wall and increase the capacity of the existing joist and beams; and

WHEREAS, sealed bids were received and opened on January 9, 2025; and

WHEREAS, contract was prepared and approved by Resolution #2025-020 in the amount of One Hundred Seven Thousand Seven Hundred Twenty-Five Dollars and Zero Cents (\$107,725.00) and a Substantial Completion Date of 4/30/2025, with Minturn Inc. of Brooklyn, Iowa by City Council on January 20, 2025; and

WHEREAS, changes to the work were presented on Change Order 01 approved by Resolution #2025-145 increasing the contract cost in the amount of Six Thousand Seventy Eight Dollars and Zero Cents (\$6,078.00) and added an additional seven (7) days to the contract time; and

WHEREAS, changes to the work were presented on Change Order 02 on 3/19/2025 required increasing the contract cost in the amount of Three-Hundred Twenty Two Dollars and Zero Cents (\$322.00) and added an additional zero (0) days to the contract time; and

WHEREAS, City staff recommends that the City of Newton approve Change Order 02 to the contract to Minturn, Inc. of Brooklyn, IA, for the City of Newton Fire Department Engine Bay Floor Reinforcing Project in the amount of \$322.00 and update the Substantial Completion Date to 5/7/2025.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that Change Order 02 proposed by Minturn, Inc. of Brooklyn, IA, in the amount Three-Hundred Twenty Two Dollars and Zero Cents (\$322.00) and added an additional zero (0) days to the contract time for the City of Newton Fire Department Engine Bay Floor Reinforcing Project as described in the plans and specifications, is hereby accepted with a new contract amount of One Hundred Fourteen Thousand One Hundred Twenty-Five Dollars and Zero Cents (\$114,125.00) and a Substantial Completion Date of 5/7/2025 with the cost to be paid utilizing 2025A General Obligation Bonds; and

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that Change Order 02 in the amount of \$322.00 proposed by Minturn, Inc. of Brooklyn, IA, for the City of Newton Fire Department Engine Bay Floor Reinforcing Project as described by the plans and specifications filed in the office of the City Clerk, be signed by the Mayor and City Clerk on behalf of the City.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

CHANGE ORDER

PROJECT: Newton Fire Department Reinforcing	CHANGE ORDER NUMBER: 002
	DATE: 3/19/2025
	OWNER: City of Newton
LOCATION Newton, Iowa	ARCHITECT: Tometich Engineering, Inc.
	CONTRACTOR: Minturn, Inc.

The Contract is changed as follows:
Provision & Installation of 7 ft Ledger instead of 3 ft Ledger originally scoped with additional Mounting Hardware.

Not valid until signed by the Owner and Contractor.

The original Contract Sum was	\$107,725
Net change by previously authorized Change orders	\$6,078
The Contract Sum prior to this Change order was	\$113,803
The Contract Sum will be increased	
by this Change Order in the amount of	\$322
The new Contract Sum including this Change order will be	\$114,125
The Contract Time will be increased by	0 DAYS
The date of Substantial Completion as of the date of this Change Order therefore is	5/7/2025

NOTE: This summary does not reflect changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive.

Tometich Engineering, Inc.	MINTURN, INC	City of Newton
ARCHITECT	CONTRACTOR	OWNER
	Chris Younker, Project Manager	
	NAME AND TITLE	NAME AND TITLE
		
	SIGNATURE	SIGNATURE
	4/16/2025	
	DATE	DATE

City of Newton Council Report

**Item:**

Resolution approving Change Order 03 to the contract for the City of Newton Fire Department Engine Bay Floor Reinforcing Project

Summary:

Approve change order for additional work resulting from on-site conditions.

Financial Impact:

Council previously approved a contract for a total of \$107,725.00 and change orders 01 (\$6,078.00) & 02 (\$322.00). This action would approve change order 03 in the amount of \$8,563.00 for a grand total of \$122,688.00 to be paid with 2025A Bond proceeds.

Report Number: 2025-509**Date:**

May 5, 2025

Lead Department:

Fire

Recommendation:

Approve

Background:

A structural engineer inspected the floor of the engine bay in preparation for the delivery of a new ladder truck much heavier than the existing ladder truck. This was done to ensure the floor could support the new truck and would not cause structural damage to the fire engine bay. After inspection, the structural engineer designed a plan to construct an additional load-bearing wall and increase the capacity of the existing joist and beams. Sealed bids were received and opened on January 9, 2025. The City Council of the City of Newton awarded a contract to Minturn, Inc. in the amount of \$107,725.00 on January 20, 2025. Site conditions resulted in increased charges witnessed in Change Order 01 in the amount of \$6,078.00. Other work revealed an existing construction defect requiring additional materials witnessed in Change Order 02 in the amount of \$332.00. Change Order 3 is for the engineering review of the FRP Design, Calculations and Stamped Drawings in the amount of \$8,563.00. The new contract amount is a grand total of \$122,688.00. This work will extend the term of the contract by 301 days with a final date of completion as 3/4/2026. The Fire Chief has reviewed the Change Order Form and confirmed the conditions found and work estimate submitted.

Original Contract	\$107,725.00
Change Order 01	\$ 6,078.00
Change Order 02	\$ 322.00
Change Order 03	\$ 8,563.00
Revised Contract	\$122,688.00

Recommendation:

City staff recommends approving Change Order 03 for the City of Newton Fire Department Engine Bay Floor Reinforcing Project in the amount of \$8,563.00 resulting in a new contract amount of \$122,688.00 and a substantial completion date of 3/4/2026.

Matt Muckler, City Administrator

**RESOLUTION APPROVING CHANGE ORDER 03 TO THE CONTRACT
FOR THE CITY OF NEWTON FIRE DEPARTMENT ENGINE BAY
FLOOR REINFORCING PROJECT**

WHEREAS, A structural engineer inspected the floor of the engine bay in preparation for the delivery of a new ladder truck much heavier than the existing ladder truck. This was done to ensure the floor could support the new truck and would not cause structural damage to the fire engine bay. After inspection, the structural engineer designed a plan to construct an additional load-bearing wall and increase the capacity of the existing joist and beams; and

WHEREAS, sealed bids were received and opened on January 9, 2025; and

WHEREAS, contract was prepared and approved by Resolution #2025-020 in the amount of One Hundred Seven Thousand Seven Hundred Twenty-Five Dollars and Zero Cents (\$107,725.00) and a Substantial Completion Date of 4/30/2025, with Minturn Inc. of Brooklyn, Iowa by City Council on January 20, 2025; and

WHEREAS, changes to the work were presented on Change Order 01 approved by Resolution #2025-145 increasing the contract cost in the amount of Six Thousand Seventy Eight Dollars and Zero Cents (\$6,078.00) and added an additional seven (7) days to the contract time; and

WHEREAS, changes to the work were presented on Change Order 02 approve by resolution required increasing the contract cost in the amount of Three-Hundred Twenty Two Dollars and Zero Cents (\$322.00) and added an additional zero (0) days to the contract time; and

WHEREAS, changes to the work were presented on Change Order 03 required increasing the contract cost in the amount of Eight Thousand Five-Hundred Sixty Three Dollars and Zero Cents (\$8,563.00) and added an additional zero (301) days to the contract time; and

WHEREAS, City staff recommends that the City of Newton approve Change Order 03 to the contract to Minturn, Inc. of Brooklyn, IA, for the City of Newton Fire Department Engine Bay Floor Reinforcing Project in the amount of \$8,563.00 and update the Substantial Completion Date to 3/4/2026.

NOW, THEREFORE, BE IT RESOLVED, by the City Council of Newton, Iowa, that Change Order 03 proposed by Minturn, Inc. of Brooklyn, IA, in the amount Eight Thousand Five-Hundred Sixty Three Dollars and Zero Cents (\$8,563.00) and added an additional (301) days to the contract time for the City of Newton Fire Department Engine Bay Floor Reinforcing Project as described in the plans and specifications, is hereby accepted with a new contract amount of One Hundred Twenty-Two Thousand Six Hundred Eighty-Eight Dollars and Zero Cents (\$122,688.00) and a Substantial Completion Date of 3/4/2026 with the cost to be paid with 2025A General Obligation Bonds; and

BE IT FURTHER RESOLVED, by the City Council of the City of Newton, Iowa, that Change Order 03 proposed by Minturn, Inc. of Brooklyn, IA, for the City of Newton Fire Department Engine Bay Floor Reinforcing Project as described by the plans and specifications filed in the office of the City Clerk, be signed by the Mayor and City Clerk on behalf of the City.

PASSED this _____ day of May, 2025.

APPROVED this _____ day of May, 2025.

Evelyn George, Mayor

ATTEST:

Katrina Davis, City Clerk

CHANGE ORDER

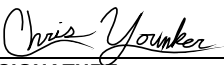
PROJECT: Newton Fire Department Reinforcing	CHANGE ORDER NUMBER: 003
	DATE: 3/19/2025
	OWNER: City of Newton
LOCATION Newton, Iowa	ARCHITECT: Tometich Engineering, Inc.
	CONTRACTOR: Minturn, Inc.

The Contract is changed as follows:
FRP Design Evaluation, Calculations, & Stamped Drawings Only (No Labor or Materials Included)

Not valid until signed by the Owner and Contractor.

The original Contract Sum was	\$107,725
Net change by previously authorized Change orders	\$6,400
The Contract Sum prior to this Change order was	\$114,125
The Contract Sum will be increased	
by this Change Order in the amount of	\$8,563
The new Contract Sum including this Change order will be	\$122,688
The Contract Time will be increased by	301 Days
The date of Substantial Completion as of the date of this Change Order therefore is	3/4/2026

NOTE: This summary does not reflect changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive.

Tometich Engineering, Inc.	MINTURN, INC	City of Newton
ARCHITECT	CONTRACTOR	OWNER
	Chris Younker, Project Manager	
	NAME AND TITLE	NAME AND TITLE
		
	SIGNATURE	SIGNATURE
	4/16/2025	
	DATE	DATE