

ADDENDUM NO. 3
TO THE BIDDING DOCUMENTS
for the construction of the
4th Street Pump Station and Gatewell, 2nd Street Floodwall South
Fargo, North Dakota
Work Package 42A.1/42A.3, Contract No. WP-42A.1/42A.3

Date: October 16, 2014
CH2M HILL Project No. 435534/WP-42A.1/42A.3
HMG Project No. 1014-210

To All Planholders and/or Prospective Bidders:

RESPONSES TO BIDDER QUESTIONS

- Q1. Spec section 40 05 13-2.2.2 states “all buried ductile iron pipe shall have restrained joints.” Seeing as all buried pipe is a boltless restrained joint system, what type of fitting configuration is acceptable for the buried fittings? Will Mechanical Joint fittings w/ Wedge-Action restraining glands (EBAA MegaLugs) be acceptable or will you require boltless Flex-Ring or TR-Flex style Restrained Joint fittings?
- A1. As long as the joints are restrained per the specification they are acceptable. Spec 40 05 13-2.2.2.3 identifies restrained joint manufacturers for reference if an “or equal” will be submitted.
- Q2. Will AWWA C153 Compact Ductile Iron Mechanical Joint fittings be acceptable on this project for the buried force main & sump pump discharge fittings or will AWWA C110 Full Body Mechanical Joint fittings be required?
- A2. Either is acceptable.
- Q3. How firm is the milestone date for substantial completion of the pump station (November 13, 2015)? This date seems aggressive considering that storm water over winter is low. Can it push out to January of 2016?
- A3. The pump station substantial completion milestone won't be changed. We agree this is an aggressive schedule but the new pump station needs be operational prior to start of demolition of the existing pump station. Demolition of existing pump station needs to be complete prior to the 2016 flood season. The existing pump station needs to be removed so construction can start on the generator building.
- Q4. Can we wait until after flood season to excavate through the levee and use an open cut instead of coffer dams?
- A4. Per specification 31 00 00.00 13 if the levee excavation is open cut then it has to be at 2.5:1 slopes, and shoring is required below elevation 870. The contractor is responsible for maintaining flood protection during construction which includes timing of the levee degrade. It is anticipated that shoring is necessary to start construction of the pump station while keeping the existing levee in place. The shoring is expected to minimize the time period that the levee is degraded. If the contractor proposes to build the pump station (and meet the milestones) without shoring, the contractor's construction plan would have to be evaluated by the engineer.

- Q5. Is the head pressure for the 72"x72" Gate, 40' or 30'?
- A5. All the gates are 8-ft x 5-ft. There are no 72"x72" gates. Table 1 of Section 35 20 16.53 lists the seating and unseating head for the gates.
- Q6. What is the expectation regarding qualification requirements for the SSHO?
- A6. For each Prime Contractor, refer to Specification Section 01 35 29 (Health and Safety), Article 1.05 for SSHO Site Qualifications, Duties, and Meetings.
- Q7. Are diving services needed for this project?
- A7. Diving services are not required for this project.
- Q8. Pollution insurance is required on this project correct?
- A8. The Supplementary Conditions, 6.03K.5 Contractor's Pollution Liability states: "Contractor is NOT required to provide Contractor's Pollution Liability insurance under this Contract".
- Q9. Revised docs indicate demo of existing force mains under the levee will be required by 11/1/15. Is this really true? I understand the intent of only penetrating the levee once, but the cost to provide temporary pumping prior to operation of the pump station seems that it would be excessive.
- A9. The pumps in the lift station shall remain operational so the contractor shall have to plan for rerouting those forcemains outflows during construction.
- Q10. Is staining of the floodwalls required?
- A10. Floodwall staining will be required for WP-42A1/A.3 this will be covered the in Architectural Concrete spec to be added into Addendum #1.
- Q11. Is flood insurance required for this project?
- A11. Per the General Conditions, the Contractor is required to have Builder's All Risk property insurance but not flood insurance. Please refer to GC-6.05 (Property Insurance).
- Q12. What kind of pumps are for this project?
- A12. The pumps for this project are axial flow or mix-flow pumps.
- Q13. Are there any preferred automation companies?
- A13. There is no preferred vendor so long as they meet the requirements in the specs. Acceptable manufacturers of equipment are listed and those minimum requirements also need to be met.
- Q14. Are there any MBE/WBE goals for this project?
- A14. No.

Q15. How are the two concrete median noses to be paid? I don't see any pay item for them. Are they included in something else?

A15. The median noses are included in our total length of curb and gutter.

Q16. What is the color/stamp that will be used for the 4" Impressed Concrete?

A16. The impressed concrete shall be Solomon color 338 leather with a pinwheel pattern as will show in Addendum #3.

Q17. I don't find any information pertaining to wage rates for this project but I just wanted to verify that there will not be any.

A17. Davis-Bacon wage rates do not apply to this project.

END OF RESPONSES TO BIDDER QUESTIONS

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the construction of 4th Street Pump Station and Gatewell, 2nd Street Floodwall South, Fargo, North Dakota, Work Package 42A.1/42A.3, dated September 2014 as fully and completely as if the same were fully set forth therein:

PART 2, CONTRACTING REQUIREMENTS

1. C-520 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR GENERAL CONSTRUCTION - CONTRACT NO. 1
 - a. Line 1 REPLACE "Flood Metro Diversion Authority" with "Metro Flood Diversion Authority" in its entirety.
2. C-520 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR ELECTRICAL CONSTRUCTION - CONTRACT NO. 2
 - a. Line 1 REPLACE "Flood Metro Diversion Authority" with "Metro Flood Diversion Authority" in its entirety.
3. C-520 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR MECHANICAL CONSTRUCTION - CONTRACT NO. 3
 - a. Line 1 REPLACE "Flood Metro Diversion Authority" with "Metro Flood Diversion Authority" in its entirety.
4. C-520 AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR COMBINED GENERAL CONSTRUCTION, ELECTRICAL CONSTRUCTION, AND MECHANICAL CONSTRUCTION - CONTRACT NO. 4
 - a. Line 1 REPLACE "Flood Metro Diversion Authority" with "Metro Flood Diversion Authority" in its entirety.

PART 4, DRAWINGS

1. Sheet C-020-1: Added note 14 which reads: IMPRESSIONED CONCRETE SHALL BE SOLOMON COLOR 338 LEATHER WITH A PINWHEEL PATTERN CONFORMING TO CITY OF FARGO STANDARDS.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 3 in the Addenda Acknowledgement Form. Addenda Acknowledgement Form submitted without acknowledgment or without this Addendum will be considered in nonconformance.

Houston-Moore Group, LLC


Project Engineer

Appended hereto and part of Addendum No. 3:

1. Sheet C-020-1

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of North Dakota. Responsible for Specification Sections 23 00 00, 23 03 00.00 20, 23 05 48.00 40, 23 05 93, 23 07 00, 23 08 00.00 10, 23 09 33.00 40, 23 23 00, 23 31 13.00 40, 23 82 46.00 40, 33 08 55, 33 52 10, 33 S6 10 and 33 58 00.

This document was originally issued and sealed by Jeffrey A. Lewis, Registration No. PE-9245, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of North Dakota. Responsible for Specification Sections 02 41 00, 02 82 16.00 20, 03 22 70.01 13, 22 00 00, 22 10 00.00 10, 22 10 00.00 10A, 22 14 29.00 40, 31 23 33.00 13, 32 12 16, 32 92 19.01 13, 35 05 40.17, 35 20 16.53, 40 05 13, 35 31 19.00 13, 41 22 23.19, and 46 20 20.

This document was originally issued and sealed by Kenneth T. Demmons, Registration No. PE-8979, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of North Dakota. Responsible for Specification Sections 03 11 13.00 10, 03 15 00.00 10, 03 20 00.00 10, 03 30 00.00 10, 03 35 00.00 10, 03 39 00.00 10, 03 45 33, 05 12 00, 05 50 13, 05 50 14 and 31 00 00.00 14.

This document was originally issued and sealed by Svein K. Magnussen, Registration No. PE-9375, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Architect under the laws of the state of North Dakota. Responsible for Specification Sections 03 33 00, 04 20 00, 05 51 33, 05 72 00, 06 10 00, 07 11 13, 07 14 00, 07 19 00, 07 21 13, 07 22 00, 07 53 23, 07 60 00, 07 92 00, 08 11 16, 08 60 45, 08 71 00, 08 81 00, 08 91 00, 09 06 90, 09 90 00, 10 14 00.20, 10 44 16.

This document was originally issued and sealed by James C. Adrian Jr., R. A., License No. 2444, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of North Dakota. Responsible for Specification Sections 26 00 00.00 20, 26 20 00, 26 23 00.00 40, 26 29 01.00 10, 26 32 15.00 10, 26 36 00.00 10, 26 41 00, 26 51 00, 26 56 00, 33 56 10, 33 58 00, 33 71 02, 40 95 00, 40 95 00A and 40 95 00B.

This document was originally issued and sealed by Kevin K. Themes, Registration No. PE-9499, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of North Dakota. Responsible for Specification Section 31 00 00.00 13.

This document was originally issued and sealed by Randy G. Engelstad, Registration No. PE-6676, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of North Dakota. Responsible for Specification Section 35 20 14.

This document was originally issued and sealed by Jeremy L. McLaughlin, Registration No. PE-4883, on July 25, 2014 and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

This document was originally issued and sealed by the above professionals, and the original document is stored at CH2M HILL ENGINEERING, INC., Fargo, ND.

END OF ADDENDUM

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1. **GENERAL**
 - a. THE CITY OF FARGO STANDARD SPECIFICATIONS FOR CONSTRUCTION (REVISED 2014), ALONG WITH THESE NOTES, SHALL GOVERN THE CIVIL SITE WORK CONSTRUCTION OF THIS PROJECT SHOWN ON SHEETS C-004-1 TO C-200-10 WITH THE EXCEPTION OF EARTHWORK ASSOCIATED WITH THE LEVEES AND FLOODWALLS WHICH SHALL BE GOVERNED BY SECTION 31 00 00 OF THE ENCLOSED SPECIFICATIONS.
 - b. SPECIFICATIONS CAN BE DOWNLOADED AT WWW.CITYOFFARGO.COM/CONSTRUCTIONSPECIFICATIONS. BE SURE TO REVIEW THE SUMMARY OF REVISIONS DOCUMENT PRIOR TO BIDDING.
2. **TRAFFIC CONTROL**
 - a. TRAFFIC CONTROL SHALL BE TYPE 1 IN ACCORDANCE WITH SECTION 4100 OF THE STANDARD SPECIFICATIONS AND SHALL INCLUDE SIGNING FOR ALL SIDEWALKS CLOSED DURING THE COURSE OF THE PROJECT. ALL DEVICES AND METHODS OF TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THESE PLANS AND SPECIFICATIONS.
3. **TEMPORARY CONSTRUCTION FENCING**
 - a. THE CONTRACTOR SHALL BE REQUIRED AS PART OF THIS PROJECT TO INSTALL TEMPORARY CONSTRUCTION FENCING CONFORMING TO NDDOT 752.03 G "TEMPORARY SAFETY FENCE".
4. **STORM WATER PERMITTING**
 - a. THE ENGINEER HAS ESTIMATED THAT THIS PROJECT WILL RESULT IN A LAND DISTURBANCE OR TOTAL AMOUNT OF EXPOSED ERODIBLE SURFACE OF GREATER THAN ONE ACRE. THEREFORE THE CONTRACTOR MUST FOLLOW THE NDDPES PERMIT REQUIREMENTS FOR CONSTRUCTION ACTIVITY WITH LAND DISTURBANCE OVER AN ACRE AS SPECIFIED UNDER SECTION 3300 OF THE STANDARD SPECIFICATIONS.
 - b. THE CONTRACTOR SHALL ALSO KEEP ALL INSPECTIONS AND MAINTENANCE FORMS CURRENT AS REQUIRED BY THE NDDPES PERMIT. INSPECTIONS SHALL BE DONE AT A MINIMUM OF EVERY TWO WEEKS AND AFTER EACH RAIN EVENT MEASURING 0.5" OR GREATER.
5. **REMOVAL ITEMS**
 - a. PIPE, MANHOLE, AND INLET REMOVALS
 - EXISTING PIPE BEING REPLACED SHALL BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR IN ACCORDANCE WITH SECTION 1050 OF THE STANDARD SPECIFICATIONS. COSTS FOR REMOVING THE FOLLOWING ITEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BID ITEMS "REMOVE PIPE ALL SIZES ALL TYPES".
 - COSTS FOR REMOVING STRUCTURES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BID ITEMS "REMOVE MANHOLE" AND "REMOVE INLET".
 - ALL OTHER COSTS FOR WORK NECESSARY TO PROPERLY COMPLETE THE WORK SPECIFIED HEREIN INCLUDING, BUT NOT LIMITED TO TRENCHING AND BACKFILLING PER SECTION 1000.
 - SPECIFICATIONS SHALL NOT BE BID ITEMS; THE COSTS SHALL BE CHARGED TO OTHER ITEMS UNLESS A BID ITEM IS SPECIFICALLY INCLUDED ON THE BID SHEET.
 - b. PIPE ABANDONMENT
 - ALL STORM SEWER, SANITARY SEWER, WATER LINE, GAS LINES AND OTHER UTILITIES TO BE ABANDONED IN PLACE SHALL BE DONE IN ACCORDANCE WITH SECTION 1050 OF THE STANDARD SPECIFICATIONS UNLESS NOTED AS PIPES BEING REMOVED ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE ENGINEER. ABANDONED PIPES WITH SECTIONS REMOVED SHALL HAVE THE ENDS OF THE PIPE FILLED WITH CONCRETE AS DIRECTED IN THE FIELD BY THE ENGINEER.
 - c. REMOVE EXISTING ASPHALT
 - REMOVAL SHALL BE IN ACCORDANCE WITH SECTION 1050 OF THE STANDARD SPECIFICATIONS, AND SHALL INCLUDE REMOVAL OF 6-INCHES OF SUBGRADE MATERIAL TO PROVIDE ROOM FOR BASE MATERIAL INSTALLATION UNDER AREAS WHERE NEW ASPHALT WILL BE PLACED. PAYMENT SHALL INCLUDE ALL COSTS FOR THE WORK TO REMOVE THE EXISTING ASPHALT WITH NO DIFFERENTIATION IN PAYMENT BASED ON WIDTH, THICKNESS, NOR MATERIAL, AND REMOVAL OF THE SUBGRADE MATERIAL TO THE DEPTH SPECIFIED.
 - d. REMOVE EXISTING CONCRETE
 - REMOVAL SHALL BE IN ACCORDANCE WITH SECTION 1050 OF THE STANDARD SPECIFICATIONS, AND SHALL INCLUDE REMOVAL OF 6-INCHES OF SUBGRADE MATERIAL TO PROVIDE ROOM FOR BASE MATERIAL INSTALLATION UNDER AREAS WHERE NEW CONCRETE WILL BE PLACED. PAYMENT SHALL INCLUDE ALL COSTS FOR THE WORK TO REMOVE THE EXISTING CONCRETE WITH NO DIFFERENTIATION IN PAYMENT BASED ON WIDTH, THICKNESS, NOR MATERIAL, AND REMOVAL OF THE SUBGRADE MATERIAL TO THE DEPTH SPECIFIED.
 - e. REMOVE EXISTING LEVEE
 - REMOVAL SHALL BE IN ACCORDANCE WITH SECTION 1000 OF THE STANDARD SPECIFICATIONS, AND SHALL INCLUDE REMOVAL OF LEVEE AS DIRECTED IN THE FIELD BY ENGINEER OR REPRESENTATIVE.
 - f. REMOVE EXISTING PUMP STATION, GATEWELL, AND PIPE
 - EXISTING PIPE AND STRUCTURES SHALL BE REMOVED AND BECOME PROPERTY OF THE CONTRACTOR IN ACCORDANCE WITH SECTION 1050 OF THE STANDARD SPECIFICATIONS. EXCEPT FOR ITEMS REQUESTED TO BE SALVAGED BY CITY OF FARGO PERSONNEL.
 - THE CITY OF FARGO PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED 4 WEEKS PRIOR TO START OF PUMP STATION DEMOLITION TO ALLOW THE CITY TIME TO SALVAGE ITEMS FROM THE PUMP STATION. THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE PUMP STATION TO ALLOW FOR CITY SALVAGE ACTIVITIES.
 - SALVAGE THE FOLLOWING ITEMS FROM THE EXISTING PUMP STATION PRIOR TO BEGINNING DEMOLITION ACTIVITIES. CONTRACTOR SHALL GIVE CITY PUBLIC WORKS DEPARTMENT A 48 HOUR NOTICE OF WHEN CONTRACTOR IS TO START SALVAGING ITEM AND THEN HAVE 48 HOURS TO COMPLETE SALVAGE OPERATIONS. ITEMS TO BE DELIVERED TO THE CITY INCLUDE PUMPS AND MOTORS.
 - g. CONTRACTOR SHALL NOT BEGIN DEMOLITION OF THE EXISTING MAIN STORM LIFT STATION FOR THE CONSTRUCTION OF THE GENERATOR BUILDING AND FUEL STORAGE AREA UNTIL THE NEW 4TH STREET PUMP STATION HAS BEEN ACCEPTED AND COMPLETELY OPERATIONAL.
 - h. UTILITIES AND STRUCTURES SHOWN ARE BASED ON AS-BUILT INFORMATION PROVIDED BY THE CITY OF FARGO AND IS NOT GUARANTEED TO INCLUDE ALL SUCH FEATURES OR EXACT LOCATION. CONTRACTOR TO FIELD VERIFY ALL UTILITIES AND STRUCTURES PRIOR TO DEMOLITION. COPIES OF AS-BUILT INFORMATION ARE AVAILABLE FROM THE CITY OF FARGO.
 - i. THE CITY OF FARGO HAS A NUMBER OF UTILITIES IN THE AREA INCLUDING BUT NOT LIMITED TO UNDERGROUND ELECTRIC, WATER AND FIBER OPTICS THAT SHALL REMAIN IN OPERATION. CONTRACTOR SHALL COORDINATE AND LOCATE ALL UTILITIES WITH THE CITY PRIOR TO BEGINNING DEMOLITION.
 - j. CONTRACTOR AND ITS WORK SHALL IN NO WAY INTERFERE WITH THE OPERATION OF THE EXISTING 4TH STREET PUMP STATION.
 - k. PAVEMENT, CONCRETE CURBS, SIDEWALKS AND UTILITIES TO BE REMOVED SHALL BE DOUBLE SAW CUT CLEANLY AND REMOVED.
 - l. PIPES TO BE REMOVED SHALL HAVE ENDS OF REMAINING PIPE SECTIONS PLUGGED WITH CONCRETE OVER A LENGTH EQUAL TO 1.5 TIMES THE DIAMETER OF THE PIPE OR 2 FEET, WHICHEVER IS GREATER.
 - m. PIPES TO BE FILLED SHALL BE FILLED WITH FLOWABLE CONCRETE FILL.
 - n. REMOVE PUMP STATION FOUNDATION WALLS TO ELEVATION 880.0, FILL FOUNDATION WITH COMPACTED CLAY. SEAL ALL PIPES AT FOUNDATION WALL WITH 5 FEET OF FLOWABLE FILL.

6. **SAWCUTTING**
 - a. NO SEPARATE PAYMENT WILL BE MADE FOR SAWCUTTING. THIS WORK SHALL NOT BE MEASURED FOR SEPARATE PAYMENT BUT SHALL BE INCLUDED IN THE PRICE OF THE PAVEMENT, SIDEWALK, BIKE PATH, OR CURB BEING REMOVED.
7. **SEEDING WITH HYDRO MULCH**
 - a. ALL AREAS OF SEEDING SHALL BE PREPARED, LEVELED, TOPSOILED, SEEDED, MULCHED, FERTILIZED, AND WATERED AS SPECIFIED IN SECTION 3100 OF THE STANDARD SPECIFICATIONS, WITH THE FOLLOWING CLARIFICATIONS:
 - b. TOPSOIL SHALL BE RE-SPREAD TO A DEPTH OF 6" AND SHALL BE CONSIDERED A SUBSIDIARY ITEM TO STRIPPING BID ITEM.
 - c. ALL SEED SHALL BE DRILL SEEDED.
 - d. SEEDING AREAS SHALL BE TYPE B SEED MIX WITH HYDRO-MULCH. SPECIAL CARE SHALL BE TAKEN TO PROTECT HYDRANT, POWER POLES, STREET LIGHT POLES, BUILDINGS AND OTHER STRUCTURES, AND PAVED AREAS FROM RECEIVING HYDRO-MULCH. THE CONTRACTOR WILL BE REQUIRED TO CLEAN OFF OVERSPRAY AREAS AT NO ADDITIONAL COMPENSATION.
 - e. PAYMENT FOR SEEDING WITH HYDRO-MULCH SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR THE BID ITEM "SEEDING TYPE B" AND "MULCHING TYPE 1 - HYDRO" BASED ON THE AREA COVERED.
 - f. THE CONTRACTOR SHALL PLACE SPECIAL EMPHASIS ON CONTOURING A UNIFORM GRADE IN REBUILDING EXISTING BOULEVARDS.
 - g. AREAS THAT WILL BE SEEDED SHALL HAVE A MINIMUM OF 6 INCHES OF TOPSOIL INSTALLED PRIOR TO SEEDING. ALL IMPORTED TOPSOIL SHALL CONFORM TO THE REQUIREMENTS FOR TOPSOIL - IMPORT SET FORTH IN SECTION 2000 OF THE STANDARD SPECIFICATIONS.
 - h. IT IS THE INTENT OF THIS PROJECT TO GRADE, SEED & HYDRO MULCH THE MAJORITY OF THE BOULEVARDS AND DISTURBED AREAS.
 - i. CONTRACTOR IS TO INCLUDE OVERSEEDING IN 6 MONTHS AS A BID PURPOSE ONLY. THIS WILL ONLY BE USED AS IT IS DEEMED NECESSARY BY THE ENGINEER.
8. **OVERSEEDING**
 - a. OVERSEEDING WAS INCLUDED IN THE PROJECT BID IN A QUANTITY EQUAL TO THE ORIGINAL SEEDING QUANTITY. THIS BID ITEM MAY OR MAY NOT BE UTILIZED DEPENDING ON THE GROWING CONDITIONS THAT ARE ENCOUNTERED. IF UTILIZED, IT IS EXPECTED THAT THIS WOULD BE COMPLETED APPROXIMATELY 6 MONTHS AFTER THE INITIAL SEEDING AT THE SAME RATE OF APPLICATION. ONLY THE AREA OF OVERSEEDING COMPLETED WILL BE MEASURED FOR PAYMENT. THIS MAY ONLY BE A PORTION OF THE AREA.
9. **WEED CONTROL - TYPE B**
 - a. WEED CONTROL WAS INCLUDED IN THE PROJECT BID IN A QUANTITY EQUAL TO THE ORIGINAL SEEDING QUANTITY. THIS BID ITEM MAY OR MAY NOT BE UTILIZED DEPENDING ON THE GROWING CONDITIONS THAT ARE ENCOUNTERED. IF UTILIZED, ONLY THE AREA OF WEED CONTROL COMPLETED WILL BE MEASURED FOR PAYMENT. THIS MAY ONLY BE A PORTION OF THE AREA.
10. **REMOVE EXISTING CASTING AND REPLACE**
 - a. THIS ITEM SHALL CONSIST OF FURNISHING MATERIALS, LABOR, EQUIPMENT AND SUPERVISION TO REMOVE THE EXISTING CASTING, ADJUST THE RIM ELEVATION IF REQUIRED, AND PROVIDE A NEW CASTING OF THE TYPE SHOWN ON THE PLANS. THIS ITEM IS SHALL BE USED ON EXISTING UTILITY STRUCTURES THAT WILL NOT BE REMOVED AND ONLY HAVE THE CASTING REPLACED. THIS ITEM SHALL BE PAID FOR PER EACH FOR THE BID ITEMS "F & I CASTING - INLET" OR "F&I CASTING - FLOATING MANHOLES" DEPENDING ON CASTING SHOWN ON THE PLANS.
11. **MANHOLE STEPS**
 - a. CONTRACTOR SHALL ADJUST AND ADD MANHOLE LADDER STEPS AS DIRECTED IN THE FIELD TO EXISTING AND PROPOSED MANHOLES IF NECESSARY. THIS SHALL BE INCIDENTAL TO OTHER ITEMS.
12. **FLAP GATES**
 - a. **SCOPE OF WORK**
 - THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS REQUIRED TO INSTALL AND READY FOR OPERATION STAINLESS STEEL FLAP GATES AS SHOWN ON THE CONTRACT DRAWINGS AND AS SPECIFIED HEREIN.
 - b. **QUALITY ASSURANCE**
 - THE MANUFACTURE SHALL HAVE EXPERIENCE IN THE PRODUCTION OF SUBSTANTIALLY SIMILAR EQUIPMENT, AND SHALL SHOW EVIDENCE OF SATISFACTORY OPERATION IN AT LEAST 10 INSTALLATIONS.
 - c. **GENERAL**
 - GATES SHALL BE THE SIZE, TYPE, MATERIAL AND CONSTRUCTION AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
 - LEAKAGE SHALL NOT EXCEED 0.1 GPM/FT OF WETTED SEAL PERIMETER IN SEATING HEAD CONDITION.
 - THE FLAP GATE SHALL UTILIZE A RESILIENT SEAL AROUND THE PERIMETER OF THE OPENING.
 - ALL STRUCTURAL COMPONENTS OF THE FRAME AND FLAP SHALL BE FABRICATED OF STAINLESS STEEL HAVING A MINIMUM THICKNESS OF 1/4-INCH AND SHALL HAVE ADEQUATE STRENGTH TO PREVENT DISTORTION DURING NORMAL HANDLING, DURING INSTALLATION, AND WHILE IN SERVICE.
 - ALL FLAP GATES SHALL BE DESIGNED FOR THE HEADS SHOWN IN THE UTILITY PLAN AND PROFILE SHEETS WITH A MINIMUM SAFETY FACTOR OF FIVE.
 - ALL WELDS SHALL BE PERFORMED BY WELDERS WITH AWS CERTIFICATION.
 - FINISH: MILL FINISH ON STAINLESS STEEL. WELDS SHALL BE SANDBLASTED TO REMOVE WELD BURN AND SCALE.
 - d. ALL FLAP GATES SHALL BE CONSTRUCTED OF FORMED STAINLESS STEEL PLATE WITH A MINIMUM THICKNESS OF 1/4-INCH.
 - e. FRAME DESIGN FOR ST-1.1, ST-6 AND ST-12 INSTALLATION SHALL BE OF THE FLANGED BACK TYPE SUITABLE FOR MOUNTING DIRECTLY TO A WALL WITH STAINLESS STEEL ANCHOR BOLTS AND GROUT OR MOUNTING TO A PIPE FLANGE WITH STAINLESS STEEL MOUNTING STUDS MOUNTING STUDS AND A MASTIC GASKET MATERIAL. MOUNTING STYLE SHALL BE AS SHOWN.
 - f. THE ANGLE OF THE FLAP WHEN SEATED AGAINST THE FRAME SHALL BE BETWEEN 3 DEGREES AND 7 DEGREES FROM THE VERTICAL.
 - g. LIFTING LUGS SHALL BE PROVIDED ON THE TOP OF THE FRAME TO FACILITATE INSTALLATION.
 - h. **HINGE ARMS**
 - HINGE ARMS SHALL BE CONSTRUCTED OF FORMED STAINLESS STEEL PLATE WITH A MINIMUM THICKNESS OF 1/4-INCH AND SHALL CONNECT THE FRAME TO THE FLAP.
 - DUAL HINGE ARMS SHALL BE PROVIDED ON ALL FLAP GATES IN EXCESS OF 18 INCHES WIDE.
 - FLAP GATES IN EXCESS OF 30 INCHES WIDE SHALL HAVE TWO PIVOT JOINTS PER ARM. AN ADJUSTABLE LOWER PIVOT WITH LIMITED ROTATION AND A FIXED OR ADJUSTABLE UPPER HINGE LUG ARRANGEMENT TO PERMIT ADJUSTMENT OF THE OPENING SENSITIVITY TO UNSEATING HEAD.
 - THE HINGE PINS SHALL HAVE A MINIMUM DIAMETER OF 1-3/8 INCH AND SHALL BE CONSTRUCTED OF SOLID STAINLESS STEEL ROD.
 - THE HINGE PIN BUSHINGS SHALL BE UHMW OR BRONZE.
 - i. **FLAP**
 - THE FLAP AND REINFORCING STIFFENERS SHALL BE CONSTRUCTED OF STAINLESS STEEL PLATE WITH A MINIMUM THICKNESS OF 1/4-INCH.
 - THE FLAP SHALL NOT DEFLECT MORE THAN 1/360 OF THE SPAN UNDER THE MAXIMUM DESIGN HEAD.
 - REINFORCING STIFFENERS SHALL BE WELDED TO THE FLAP.

- j. **SEALS**
 - ALL FLAPS SHALL BE PROVIDED WITH A SEAL SYSTEM TO RESTRICT LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS LISTED IN THIS SPECIFICATION.
 - A CONTINUOUS RESILIENT SEAL SHALL BE MOUNTED TO THE SEATING SURFACE OF THE FRAME TO RESTRICT LEAKAGE.
 - THE SEAL SYSTEM SHALL BE DURABLE AND SHALL BE DESIGNED TO ACCOMMODATE FREQUENT OPERATION WITHOUT LOOSENING OR SUFFERING DAMAGE.
 - ALL SEALS MUST BE BOLTED OR OTHERWISE MECHANICALLY FASTENED TO THE FRAME. ARRANGEMENT WITH SEALS THAT ARE FORCE FIT AND/OR HELD IN PLACE WITH ADHESIVES ARE UNACCEPTABLE.
 - THE SEALS SHALL BE MOUNTED SO AS NOT TO OBSTRUCT THE WATER WAY OPENING.
- k. **ANCHOR BOLTS**
 - ANCHOR BOLTS SHALL BE PROVIDED BY THE FLAP GATE MANUFACTURER FOR MOUNTING THE GATES.
 - QUANTITY AND LOCATION SHALL BE DETERMINED BY THE GATE MANUFACTURER.
 - IF EPOXY TYPE ANCHOR BOLTS ARE PROVIDED, THE GATE MANUFACTURER SHALL PROVIDE THE STUDS AND NUTS.
 - ANCHOR BOLTS SHALL HAVE A MINIMUM DIAMETER OF 1/2-INCH.
- l. **STORAGE AND INSTALLATION:**
 - INSTALLATION OF THE GATES AND APPURTENANCES SHALL BE DONE IN A WORKMANLIKE MANNER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HANDLE, STORE, AND INSTALL THE EQUIPMENT SPECIFIED IN THIS SECTION IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- m. THE CONTRACTOR SHALL REVIEW THE INSTALLATION DRAWINGS AND INSTALLATION INSTRUCTIONS PRIOR TO INSTALLING THE GATES.
- n. THE GATE ASSEMBLIES SHALL BE INSTALLED IN A TRUE VERTICAL PLANE, SQUARE AND PLUMB.
- o. THE CONTRACTOR SHALL FILL THE VOID IN BETWEEN THE GATE FRAME AND THE WALL WITH NON-SHRINK GROUT AS SHOWN ON THE INSTALLATION DRAWING AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- p. **FIELD TESTING**
 - AFTER INSTALLATION, ALL GATES SHALL BE FIELD TESTED IN THE PRESENCE OF THE ENGINEER AND OWNER TO ENSURE THAT ALL ITEMS OF EQUIPMENT ARE IN FULL COMPLIANCE WITH THIS SECTION. EACH GATE SHALL BE CYCLED TO CONFIRM THAT THEY OPERATE WITHOUT BINDING, SCRAPING, OR DISTORTING.
- q. **APPROVED PRODUCTS**
 - 54" ROUND FLAP GATE: WHIPPS MODEL 452 OR FONTAINE MODEL 60 OR EQUIVALENT AS DETERMINED BY THE ENGINEER.
 - 48" ROUND FLAP GATE: WHIPPS MODEL 452 OR FONTAINE MODEL 60 OR EQUIVALENT AS DETERMINED BY THE ENGINEER.
 - 12" ROUND PIPE MOUNTED FLAP GATE: WHIPPS MODEL 452 OR FONTAINE MODEL 60 OR EQUIVALENT AS DETERMINED BY THE ENGINEER.
- r. **MEASUREMENT AND PAYMENT**
 - THE COSTS FOR THE GATE TO BE INSTALLED IN THE NEW ST-10 STRUCTURE, SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR THE STRUCTURE.
 - THE COSTS FOR THE GATE TO BE INSTALLED IN THE NEW ST-7 STRUCTURE, SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR THE STRUCTURE.
 - THE COST FOR THE GATE TO BE INSTALLED IN THE EXISTING ST-15 STRUCTURE, SHALL BE MEASURED AND PAID FOR IN THE BID ITEM "54" FLAP GATE".

13. IMPRESSIONED CONCRETE SHALL BE SOLOMON COLOR 338 LEATHER WITH A PINWHEEL PATTERN CONFORMING TO CITY OF FARGO STANDARDS.

ELEVATION DATUM (VERTICAL CONTROL) NAVD83 GEOID03
COORDINATE SYSTEM (HORIZONTAL CONTROL) NAVD83 GEOID03
FARGO GROUND - US SURVEY FEET

DATE:	8-19-14
REVISED:	10-16-14
REVISED:	
REVISED:	
RECORD:	
FILE NAME:	
PROJECT No.	WP-42A.3
DRAWN BY:	JMW, KAL
CHECKED BY:	RGE
PROJ. MANAGER:	CGT
PROJ. ENGINEER:	

2ND STREET/DOWNTOWN - IN-TOWN LEVEES
4TH STREET PUMP STATION & 2ND STREET S FLOODWALL
RED RIVER OF THE NORTH RIVER BASIN
FARGO-MOORHEAD FLOOD RISK MANAGEMENT
CASS COUNTY, NORTH DAKOTA
CIVIL NOTES



C-020-1