



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

September 8, 2015

SUBJECT: FAU Route 1583 (115th St.)
Project ACCM-1583(005)
Section 0303-RS&N
Cook County
Contract No. 60V52
Item No. 4, September 18, 2015 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Replaced the Schedule of Prices
2. Revised page ii of the Table of Contents to the Special Provisions
3. Added pages 202 - 212 to the Special Provisions
4. Revised sheet 5 of the Plans

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E.
Acting Engineer of Design and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger P.E." with a small "P.E." to the right.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

cc: John Fortmann, Region 1, District 1; Tim Kell; Estimates

MS/ck

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0322708	REM EX ST LIGHT EQUIP	EACH	1.000				
X0324085	EM VEH P S LSC 20 3C	FOOT	247.000				
X0324599	ROD AND CLEAN EX COND	FOOT	5,171.000				
X0326968	JUN BOX POLE/POST MTD	EACH	2.000				
X0327006	ROADWAY LT POLE IO	EACH	6.000				
X0370001	TR & BKFILL SCR CDOT	FOOT	220.000				
X0370012	COIL C HDPE80DB2 CDOT	FOOT	690.000				
X0370119	WIRE AERIAL 1C N6CDOT	FOOT	450.000				
X0370120	RACK SCDY AER 2W CDOT	EACH	3.000				
X0370227	CON F24 1.25A15B7CDOT	EACH	6.000				
X0370237	ELB CON ST2AEM P CDOT	EACH	1.000				
X0370238	CON RISER UP P 2 CDOT	EACH	1.000				
X0370239	PVC CON T 2SCH40 CDOT	FOOT	135.000				
X0370240	ADD ELBO 2 C FDN CDOT	EACH	1.000				
X0370241	PVC CON T 2SCH80 CDOT	FOOT	165.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X1400081	FAC T SUPER P CAB SP	EACH	1.000				
X4400100	PCC SURF REM VAR DP	SQ YD	777.000				
X5537800	SS CLEANED 12	FOOT	300.000				
X6022505	CB TA 4D T1FOL (CHGO)	EACH	1.000				
X6030310	FR & LIDS ADJUST SPL	EACH	20.000				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000				
X7030025	WET REF TEM TP T3 L&S	SQ FT	759.200				
X7030030	WET REF TEM TAPE T3 4	FOOT	7,255.000				
X7030040	WET REF TEM TAPE T3 6	FOOT	1,226.000				
X7030055	WET REF TEM TPE T3 24	FOOT	38.000				
X8300001	LIGHT P0LE SPECIAL	EACH	3.000				
X8380084	BKWY DEVICE COUPLING	EACH	12.000				
X8620200	UNINTER POWER SUP SPL	EACH	1.000				
X8710024	FOCC62.5/125 MM12SM24	FOOT	5,171.000				
Z0004562	COMB C C&G REM & REPL	FOOT	310.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
Z0010614	CLEAN EX MAN/HAND	EACH	3.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0018500	DRAINAGE STR CLEANED	EACH	20.000				
Z0030850	TEMP INFO SIGNING	SQ FT	102.800				
Z0033028	MAINTAIN LIGHTING SYS	CAL MO	6.000				
Z0033046	RE-OPTIMIZE SIG SYS 2	EACH	1.000				
Z0073510	TEMP TR SIGNAL TIMING	EACH	1.000				
20200100	EARTH EXCAVATION	CU YD	396.000				
20800150	TRENCH BACKFILL	CU YD	37.700				
21101505	TOPSOIL EXC & PLAC	CU YD	75.000				
25000400	NITROGEN FERT NUTR	POUND	8.500				
25000500	PHOSPHORUS FERT NUTR	POUND	8.500				
25000600	POTASSIUM FERT NUTR	POUND	8.500				
25100630	EROSION CONTR BLANKET	SQ YD	345.000				
25200110	SODDING SALT TOLERANT	SQ YD	345.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
30300112	AGG SUBGRADE IMPR 12	SQ YD	464.000				
35501316	HMA BASE CSE 8	SQ YD	167.000				
35501317	HMA BASE CSE 8 1/4	SQ YD	401.000				
40600275	BIT MATLS PR CT	POUND	6,098.000				
40600400	MIX CR JTS FLANGEWYS	TON	17.000				
40600982	HMA SURF REM BUTT JT	SQ YD	271.000				
40601005	HMA REPL OVER PATCH	TON	8.000				
40603335	HMA SC "D" N50	TON	9.000				
40603595	P HMA SC "F" N90	TON	1,272.000				
42001300	PROTECTIVE COAT	SQ YD	239.000				
42400200	PC CONC SIDEWALK 5	SQ FT	1,952.000				
42400800	DETECTABLE WARNINGS	SQ FT	54.000				
44000156	HMA SURF REM 1 3/4	SQ YD	2,821.000				
44000157	HMA SURF REM 2	SQ YD	5,082.000				
44000200	DRIVE PAVEMENT REM	SQ YD	211.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44000500	COMB CURB GUTTER REM	FOOT	840.000				
44000600	SIDEWALK REM	SQ FT	1,490.000				
44002211	HMA RM OV PATCH 2 3/4	SQ YD	58.000				
44201353	CL C PATCH T2 10	SQ YD	56.000				
44201765	CL D PATCH T2 10	SQ YD	102.000				
44201771	CL D PATCH T4 10	SQ YD	54.000				
44300200	STRIP REF CR CON TR	FOOT	583.000				
550A0340	STORM SEW CL A 2 12	FOOT	38.000				
56400400	FIRE HYDNDS RELOCATED	EACH	1.000				
*ADD 56400500	FIRE HYDNDS TO BE REM	EACH	2.000				
*ADD 56400600	FIRE HYDRANTS	EACH	2.000				
60107600	PIPE UNDERDRAINS 4	FOOT	583.000				
60208230	CB TC T23F&G	EACH	2.000				
60252800	CB RECONST	EACH	1.000				
60300105	FR & GRATES ADJUST	EACH	7.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60603800	COMB CC&G TB6.12	FOOT	456.000				
60604400	COMB CC&G TB6.18	FOOT	116.000				
66900200	NON SPL WASTE DISPOSL	CU YD	215.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	1.000				
67000400	ENGR FIELD OFFICE A	CAL MO	9.000				
67100100	MOBILIZATION	L SUM	1.000				
67201100	SEAL ABAN MONIT WELLS	EACH	5.000				
70300100	SHORT TERM PAVT MKING	FOOT	890.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	291.200				
70300220	TEMP PVT MK LINE 4	FOOT	6,709.000				
70300240	TEMP PVT MK LINE 6	FOOT	1,142.000				
70300250	TEMP PVT MK LINE 8	FOOT	291.000				
70300260	TEMP PVT MK LINE 12	FOOT	322.000				
70300280	TEMP PVT MK LINE 24	FOOT	144.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70301000	WORK ZONE PAVT MK REM	SQ FT	3,612.000				
72000100	SIGN PANEL T1	SQ FT	27.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	291.200				
78000200	THPL PVT MK LINE 4	FOOT	6,709.000				
78000400	THPL PVT MK LINE 6	FOOT	1,142.000				
78000500	THPL PVT MK LINE 8	FOOT	291.000				
78000600	THPL PVT MK LINE 12	FOOT	322.000				
78000650	THPL PVT MK LINE 24	FOOT	144.000				
78100100	RAISED REFL PAVT MKR	EACH	160.000				
78300200	RAISED REF PVT MK REM	EACH	160.000				
80500020	SERV INSTALL POLE MT	EACH	1.000				
81028200	UNDRGRD C GALVS 2	FOOT	919.000				
81028210	UNDRGRD C GALVS 2 1/2	FOOT	120.000				
81028220	UNDRGRD C GALVS 3	FOOT	53.000				
81028240	UNDRGRD C GALVS 4	FOOT	338.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT
NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
81400100	HANDHOLE	EACH	4.000				
81400200	HD HANDHOLE	EACH	4.000				
81400300	DBL HANDHOLE	EACH	2.000				
81603136	UD 5#4#6GXLPUSE 1.5 P	FOOT	280.000				
83600355	LP F M 15BC 8" X 6'	EACH	3.000				
85000200	MAIN EX TR SIG INSTAL	EACH	2.000				
86400100	TRANSCIVER - FIB OPT	EACH	1.000				
87300925	ELCBL C TRACER 14 1C	FOOT	5,171.000				
87301215	ELCBL C SIGNAL 14 2C	FOOT	2,701.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	1,522.000				
87301245	ELCBL C SIGNAL 14 5C	FOOT	1,213.000				
87301255	ELCBL C SIGNAL 14 7C	FOOT	1,883.000				
87301305	ELCBL C LEAD 14 1PR	FOOT	1,315.000				
87301805	ELCBL C SERV 6 2C	FOOT	92.000				
87301900	ELCBL C EGRDC 6 1C	FOOT	579.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
87502500	TS POST GALVS 16	EACH	3.000				
87700220	S MAA & P 36	EACH	2.000				
87700260	S MAA & P 44	EACH	1.000				
87700280	S MAA & P 48	EACH	1.000				
87800100	CONC FDN TY A	FOOT	12.000				
87800150	CONC FDN TY C	FOOT	4.000				
87800415	CONC FDN TY E 36D	FOOT	48.000				
87900200	DRILL EX HANDHOLE	EACH	13.000				
88030020	SH LED 1F 3S MAM	EACH	6.000				
88030100	SH LED 1F 5S BM	EACH	5.000				
88030110	SH LED 1F 5S MAM	EACH	5.000				
88102717	PED SH LED 1F BM CDT	EACH	8.000				
88200400	TS BACKPLATE F PLAST	EACH	12.000				
88500100	INDUCTIVE LOOP DETECT	EACH	10.000				
88600100	DET LOOP T1	FOOT	1,028.000				

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 60V52

State Job # - C-91-576-12

County Name - COOK - -

Code - 31 - -

District - 1 - -

Section Number - 0303-RS&N

Project Number _____

ACCM-1583/005/

*REVISED: AUGUST 31, 2015

Route _____

FAU 1583

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
88800100	PED PUSH-BUTTON	EACH	8.000				
89000100	TEMP TR SIG INSTALL	EACH	1.000				
89501400	REL EM VEH PR SYS D U	EACH	2.000				
89501410	REL EM VEH PR SYS P U	EACH	1.000				
89502300	REM ELCBL FR CON	FOOT	5,171.000				
89502375	REMOV EX TS EQUIP	EACH	1.000				
89502380	REMOV EX HANDHOLE	EACH	10.000				
89502385	REMOV EX CONC FDN	EACH	13.000				

CONTRACT NUMBER

60V52

THIS IS THE TOTAL BID

\$ _____

NOTES:

1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

EQUAL EMPLOYMENT OPPORTUNITY (BDE).....	182
FRICITION AGGREGATE (BDE)	185
HOT MIX ASPHALT – PRIME COAT (BDE)	188
PAVEMENT PATCHING (BDE).....	192
PAVEMENT STRIPING - SYMBOLS (BDE).....	193
PRECAST CONCRETE HANDHOLE (BDE).....	193
PROGRESS PAYMENTS (BDE)	194
REINFORCEMENT BARS (BDE)	195
RIGID METAL CONDUIT (BDE).....	196
SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)	196
TRACKING THE USE OF PESTICIDES (BDE).....	197
WARM MIX ASPHALT (BDE)	197
WEEKLY DBE TRUCKING REPORTS (BDE).....	198
WORKING DAYS (BDE).....	199
BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID).....	199
FIRE HYDRANTS TO BE REMOVED	202
FIRE HYDRANTS.....	203

REVISED 9/8/15

FIRE HYDRANTS TO BE REMOVED

Description. Work under this item will include the removal of existing City of Chicago Fire Hydrants as part of the complete removal of water main pipe leading to the fire hydrant to be removed.

The Contractor is advised that the work will be performed on a potable water system owned and operated by the Chicago Department of Water Management (CDWM). As such, all operations shall be performed in such a way as to avoid contamination of the water system through the introduction of contaminants or the process of the work. All work will require the review and approval of the CDWM prior to the commencement of work operations.

The water main shutdown required to perform the Work will only be allowed based upon scheduling by CDWM. The Work must be substantially complete in order to place the water main back into service in coordination with CDWM. The construction schedule must clearly indicate when testing of the new water main items will be made and for the water main to be inspected by CDWM prior to placing the new water main into service.

Demolition. No work shall proceed prior to the shutdown of any water main leading to or adjacent to the fire hydrant to be removed. The shutdown of the water main leading to the fire hydrant is at the discretion of the City of Chicago Department of Water Management. This work will consist of the removal of the City of Chicago fire hydrant in conformance with Section 564 of the IDOT Standard Specifications for Road and Bridge Construction and City of Chicago Department of Water Management Standards.

The fire hydrant must be removed using methods that minimize damage to the hydrant, pipe, valves, fittings and other elements. After removal, the hydrant must be provided to the City of Chicago Department of Water Management (CDWM). If the hydrant is rejected by CDWM due to condition the hydrant must be disposed of off-site in an approved manner. The Contractor will pay for all disposal fees.

Any water main dewatering required during the removal of the fire hydrants shall be considered included as part of the successful removal of the fire hydrants.

Method of Measurement. This work will be paid for per each fire hydrant removed as described.

Basis of Payment. This work will be paid for at the contract unit price per each for FIRE HYDRANTS TO BE REMOVED which price will be payment in full for all labor and materials necessary to complete the work as described. Salvaging of any materials will be considered incidental to this item.

Added 09/08/15

FIRE HYDRANTS

ITEM

Description. This work will consist of the installation of new fire hydrants at locations specified, and as agreed to by the City of Chicago Department of Water Management.

Hydrants shall be installed according to Article 564 of the “Standard Specifications” and in conformance with City of Chicago Department of Water Management Standards and Technical Specifications.

The Contractor is advised that the work will be performed on a potable water system owned and operated by the Chicago Department of Water Management (CDWM). As such, all operations shall be performed in such a way as to avoid contamination of the water system through the introduction of contaminants or the process of the work. All work will require the review and approval of the CDWM prior to the commencement of work operations.

The water main shutdown required to perform the Work will only be allowed based upon scheduling by CDWM. The Work must be substantially complete in order to place the water main back into service in coordination with CDWM. The construction schedule must clearly indicate when testing of the new water main items will be made and for the water main to be inspected by CDWM prior to placing the new water main into service.

Construction Requirements. The furnishing and installation of ductile iron hydrants, fittings, and other appurtenances for the installation fire hydrants shall conform to the Contract and the applicable sections of the Chicago Department of Water Management’s Technical Specifications for Water Main Construction shown below and included as part of this special provision (See Appendix B):

Ductile Iron Pipe and Fittings	Section 33 11 13
Fire Hydrants	Section 33 12 19
Hydrostatic Testing and Disinfecting Water Mains	Section 33 13 00

Testing and disinfecting as required by the City of Chicago Department of Water Management is included under this item.

Any water main dewatering required during the installation and testing of the fire hydrants shall be considered included as part of the successful installation of the fire hydrants.

Method of Measurement. This work will be paid for per each fire hydrant installed and accepted.

Basis of Payment. This work will be paid for at the contract unit price per each for FIRE HYDRANTS and includes all necessary thrust restraint.

Added 09/08/15

ITEM APPENDIX B – CHICAGO DEPARTMENT OF WATER MANAGEMENT (CDWM)
TECHNICAL SPECIFICATIONS FOR WATER MAIN CONSTRUCTION

This specification amends the Chicago Department of Water Management (CDWM) Technical Specifications for Water Main Construction included in Appendix B and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the Contract:

1. Revise all references to the Commissioner to the Engineer.

2. Section 33 11 13
 - a) Delete Articles 1.2 A, B, C.
 - b) Delete Article 1.4 A.
 - c) Delete Articles 1.6 A, B, C, D.
 - d) Modify Article 1.6 E to “All existing valves must be operated only be personnel of the Department of Water Management. Notify the Department of Water Management seventy-two (72) hours prior to the need for operation of the valve.”
 - e) Modify Article 2.2 B to “Pipe joints must be restrained joints noted on the Drawings, specified here, or as directed by the Engineer.”
 - f) Delete Article 2.2 E.
 - g) Delete Article 2.7.
 - h) Modify Article 3.4 B to delete “specified in Section 33 11 15 Thrust Restraint,”.
 - i) Modify Article 3.4 C to delete “as per Section 33 23 19 Dewatering Excavations”.
 - j) Modify Article 3.4 D to delete “in accordance with Section 31 23 10 Excavation, Trenching and Backfilling”.
 - k) Delete Article 3.5.
 - l) Delete Article 3.7.
 - m) Modify Article 3.13 to delete “CLSM flowable material must meet standards specified in Section 31 23 10, “Excavation, Trenching and Backfilling”, paragraph 2.3, C of these specifications.”
 - n) Modify Article 3.14 A to delete “as specified in Section 31 23 10, “Excavation, Trenching and Backfilling”.
 - o) Delete Article 3.15.

3. Section 33 12 16
 - a) Modify Article 1.1 A to delete “resilient wedge valves and butterfly valves”.
 - b) Modify Article 1.4 A to “Contractor must provide an affidavit stating that all valves comply with all applicable provisions shown on the drawings and as specified in these Special Provisions.”.
 - c) Modify Article 1.4 B to delete “valve operators, and torque overload protectors.”.
 - d) Modify Article 2.1 M to replace “Department” with “Engineer”.

Added 09/08/15

- e) Modify Article 2.1 N to replace all instances of “Department” with “Engineer”.
 - f) Delete Article 2.2.
 - g) Delete Article 2.3.
 - h) Delete Article 2.4.
4. Section 33 12 17
- a) Modify Article 1.1 A to delete “and concrete”.
 - b) Delete Article 1.2 A.
 - c) Delete Article 1.4 A.
 - d) Delete Article 2.2.
 - e) Modify Article 2.6 A to delete “as specified in Section 03 30 00 – Cast-In-Place Concrete”
 - f) Delete Article 3.1.
5. Section 33 12 19 – No deletions or modifications to this section.
6. Section 33 12 20
- a) Modify Article 1.1 A to “This Section includes requirements for construction and/or adjustment of water main valve basins using precast concrete structures.”
 - b) Delete Article 1.2.
 - c) Delete Article 1.4 A.
 - d) Modify Article 1.4 B to “Shop Drawings: Submit detailed drawings of precast utility structures and related metal work.”
 - e) Delete Articles 2.6, 2.7, 2.8, and 2.9.
 - f) Delete Articles 3.1, 3.3 and 3.5.
7. Section 33 13 00
- a) Modify Article 3.11 to “For all types of flushing, the Contractor must prepare and submit a flushing plan to the Engineer that indicates the City sewers to which discharges are planned and the flow rates. Flushing must be performed in accordance with the flow rates on the plan approved by the Engineer.

Added 09/08/15

SECTION 33 12 19 FIRE HYDRANTS

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

- A. This section includes requirements for supplying materials for and the installation of fire hydrants, as shown on the drawings and specified here.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM), latest edition:
1. ASTM A108 - Standard Quality Carbon Steel Bars.
 2. ASTM A126 - Gray Iron Castings for Valves, Flanges, and Pipe Fittings.
 3. ASTM A153 - Hot Dip Zinc Coating for Iron and Steel Hardware.
 4. ASTM A307 - Carbon Steel Bolts and Studs.
 5. ASTM A536 - Ductile Iron Castings.
 6. ASTM B62 - Composition Bronze or Ounce Metal Castings.
 7. ASTM B584 - Copper Alloy Sand Castings.
 8. ASTM B633 - Electrodeposited Zinc Coatings on Iron and Steel.
 9. ASTM C700 - Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.
 10. ASTM D395 - Test Methods for Rubber Property Compression Set.
 11. ASTM D412 - Test Methods for Rubber and Elastomers.
 12. ASTM D2000 - Classification of Rubber Products in Automotive Applications.
 13. ASTM D2240 - Durometer Test for Rubber Hardness.
- B. AWWA C502 - Dry Barrel Fire Hydrants, latest edition.
- C. Federal Specification FF-B-575C - Bolts; Hexagon and Square, latest edition.
- D. Federal Specification RR-C 271D - Chains and Attachments, latest edition.

1.3 SUBMITTALS

Added 09/08/15

- A. Provide an affidavit from the manufacturer to attest to the fact that all hydrants furnished under this Contract were tested and proven hydrostatically tight and mechanically sound in accordance with the specified test procedures.

1.4 QUALITY ASSURANCE

- A. After each hydrant is completely assembled, it must be mechanically and hydrostatically tested in conformance with AWWA C502, Sec 5.1.
- B. The Work performed for the hydrant installation must be performed by a plumber licensed in the State of Illinois or the City. The Work may include, but not be limited to, setting hydrants; joining all pipe, fittings, and valves; installation of joint gaskets and continuity wedges; and tightening of all gland nuts and bolts, as applicable for the installation.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The hydrants must be of the City of Chicago standard design with mechanical joint bottom. The completed hydrants must be delivered finished, painted, and fully assembled.

2.2 FIRE HYDRANTS

- A. The standpipe must include the manufacturer's name, year of manufacturing, and the letters "C.W.W." in letters 1-Inch high. This lettering must be positioned approximately 1 foot below the top flange.
- B. Materials from which the various parts of the hydrants are constructed must be of the kind designated on the details. Each kind of material used must meet the requirements as to physical and chemical properties hereafter specified. Test bars required to established quality grade or strength under the ASTM standards must be made and machined by the manufacturer as part of the work.
- C. 3/4-Inch x 2-3/4-Inch unfinished hex head machine bolts and 3/4-Inch American Standard regular hot press hex nuts must conform to Federal Specification FF-B-575C, Class B Steel, Class 1 fit or, hex head bolts and hex nuts must conform to ASTM A307 Grade A. All nuts and bolts to be hot dipped galvanized conforming to ASTM A153 or must be coated by the rust proof electrozinc process ASTM B633, Type G.S., or SS Type 18-8SS, ANSI Type 302, 303, or 304.

Added 09/08/15

- D. Iron castings must conform to ASTM A126 Class B. The thickness of metal castings, whose standard thickness is less than 0.8-Inch, must not be more than 0.08-Inch less than the standard thickness. The deficiency in thickness of castings, whose standard thickness is 0.8-Inch or more, must not exceed 10% of the standard thickness. The above allowable deficiencies in thickness must not extend over more than one-half of the area of any casting. The diameter of the castings must not vary from the standard dimensions by more than 0.08-Inch.
- E. All bronze castings, with the exception of the stem nut, stem screw, and valve seats must conform to ASTM B62 for Leaded Red Brass Copper Alloy UNS No. C83600. The valve seat must conform to ASTM B584 for Leaded Manganese Bronze, Copper Alloy UNS No. C86700. The stem nut and stem screw must conform to ASTM B584 for Silicon Brass, Copper Alloy UNS No. C87600 with the following mechanical properties:
1. Minimum Tensile Strength - 45,000-psi
 2. Minimum Yield Strength - 25,000 psi
 3. Minimum Elongation - 16% of length
 4. Brinell Hardness - 110
- F. The stem nut and stem screw must be stamped SI for identification purposes.
- G. Wrench nuts made of ductile iron must be marked "D.I." on the flange portion opposite the arrow indicating the direction of turn to open.
- H. Ductile iron castings must comply with compositions and physical properties in accordance with ASTM A536 Grade 65-45-12.
- I. The City will furnish neoprene-seating valves if requested by the Contractor. The Contractor's charges for transporting the neoprene seating valves must be considered incidental to the construction and no additional payment will be allowed.
- J. Full face gasket of suitable material, 1/16-inch thick, 8 1/2-inches X 13 1/2-inches, with eight (8) 7/8-inch diameter holes on an 11 3/4-inch bolt circle must be provided for the hydrant flange gaskets.

Added 09/08/15

- K. Steel hydrant chain must comply with Federal Specification RR-C-271D (1), Type II, Class 2, with an approximate weight of 25-pounds per 100 feet, and have a hot galvanized coating. This chain, approximately 26-Inches long, must be connected to hydrant cap hooks and fastened at its center to the hydrant by means of the ½-Inch X 1-Inch cap screw with chain angle and "S" hook of ½-Inch mild steel stock "S" hook and cap hooks which engage the chain, must be securely welded in the closed position or fastened in a suitable manner to hold the hooks securely in a closed position.
- L. Where the Plans call for finish and drilling, all such work must accurately comply with the dimensions shown, so that all parts are interchangeable from one hydrant to another. It will be the manufacturer's responsibility to provide the patterns and gauges necessary to perform the work specified.
- M. Where machining tolerances are not indicated on the drawings, the following must be used where applicable:
1. If dimension is in decimals, tolerance is ± 0.005 -Inch.
 2. If dimension is in inches, tolerance is $\pm 1/64$ -Inch.
- N. Appropriate lubricant must be applied to threads on hydrant bottom, ½-Inch X 1-Inch cap screw and valve seat before assembly.
- O. Operating stem must be of cold rolled steel, ASTM A108 Grade 1018. Stem must be coated, excluding bottom 3-7/8-Inch of the section below shoulder including threads, with a bituminous coating.
- P. Rubber Gaskets must comply with ASTM D2000; Type SC-715B, as follows:
1. Shore A Durometer Hardness - 70 + 5 ASTM D2240.
 2. Tensile Strength - 1500-psi minimum ASTM D412.
 3. Compression Set - 35% maximum ASTM D395.
- Q. The City reserves the right to make at any time such tests as it may deem proper to determine that the materials used are proper for the work and that the hydrants are of good mechanical construction. The contractor must give the authorized inspectors of the City free access to all places where hydrants are being made. At the City's request the manufacturer must furnish properly prepared standard test specimens of the materials used and must provide facilities for testing them.

Added 09/08/15

- R. Fire Hydrants that do not meet the requirements of this Specification will be rejected and, when so ordered by the City, the Contractor must remove all inferior hydrants not meeting the Specification and replace rejected items within the time limits as specified. The removal and replacement of the hydrants will be considered incidental to the construction and no additional payment will be allowed.

2.3 PAINT

- A. All ferrous metal parts of the hydrant, inside and outside, must be thoroughly cleaned before coating. Coatings used on interior surfaces of the hydrant that are in contact with potable water must be suitable for contact with drinking water. Prepare hydrant surfaces and apply paint in accordance with paint manufacturer's recommendations. Do not paint exposed hydrant nozzle threads or other useable threads.
- B. Primer must be red oxide primer; acceptable products are W. C. Richards Metal primer #WRFA-13-127; or Benjamin Moore Universal Metal Primer # M07.
- C. Top coat must be alkyd high-gloss enamel; acceptable products are Benjamin Moore Impervo #C13320 (Brilliant Red), or Sherwin Williams Industrial Enamel Safety Red #617-4064.
- D. Paint for color coding flange must be as follows:
1. White colored pigment; acceptable products are Seymour Stripe #16-652 Spray (White), Rustoleum High Performance Acrylic 5200 System (#5292 Gloss White), or Sherwin Williams PM 200 AES Pure White #5178-99993.
 2. Yellow colored pigment; acceptable products are Benjamin Moore Impervo #C133 Alkyd High-Gloss Metal and Wood Enamel (Safety Yellow), or Sherwin Williams Industrial Enamel Safety Yellow #617-4072, #617-8000, or #617-50320.

Added 09/08/15

3. Blue colored pigment: accept products are Seymour Stripe #16-653 Spray (Precaution Blue), or Rustoleum High Performance Acrylic 5200 System (#5225 Safety Blue), or equal.

E. Shop Coating of Fire Hydrants.

1. Exterior ferrous surfaces of the hydrant must be painted with a coat of primer to two feet below the top flange.
2. Exterior ferrous surfaces of the hydrant must be given a topcoat of alkyd high-gloss enamel to two feet below the top flange.
3. All exterior ferrous surfaces below the ground line not coated with primer and topcoat must be shop coated with two (2) coats of asphaltic coating, each a minimum of 1 mil thick. The first coat must be allowed to dry thoroughly before applying the second coat.

2.4 HYDRANT DRAIN

- A. Hydrant drains must be constructed of 6-Inch diameter, extra strength, perforated clay pipe, conforming to ASTM C700, with mortared bell and spigot type joints.

Added 09/08/15

PART 3 - EXECUTION

3.1 GENERAL

- A. Install fire hydrants and hydrant drain with drainage bedding, and connect to hydrant drain outlet as detailed on the drawings.
- B. Securely connect fire hydrant to the water main using mechanical joint thrust restraint glands or other restrained joint fittings as shown on the drawings.
- C. Pressure test the fire hydrant installation with full line pressure to the fire hydrant without blocking behind the fire hydrant.
- D. Hydrant leads must be 8-Inches in diameter, or as otherwise specified or shown on the Plans.
- E. Spool pieces are not allowed for the vertical adjustment of hydrants. If a vertical adjustment is required due to the depth of the water main, an offset must be utilized prior to installing the hydrant.

3.2 COLOR CODING HYDRANT FLANGES

- A. Contractor must color code the vertical edge of the hydrants top flange, (located approximately 6-Inches from the centerline of the nozzle cap), on all installed hydrants in accordance with the Department's "Color Code for Fire Hydrants".

Added 09/08/15