



## **ADDENDUM NUMBER 2**

Project Number	<b>89008260</b>
Project Title	<b>NW Waukomis Drive Complete Streets Upgrade Federal STP-3451(402)</b>

ISSUE DATE: **1/19/2023**

Bidders are hereby notified that the Bidding and Contract Documents for the above project, for which Bids are to be received on **January 24, 2023**, are amended as follows:

**Information to Bidders** The following is provided to Bidders for information only:

- Q1. How does the city monitor the PI/LL of the dirt for each lift? Is it decided upon in advance as to whether or not the dirt will need to be treated or do I install a lift, then is it tested for PI/LL and if then, it is above the limits, that lift gets cement treatment? How does this work?
- A1. Once a material for backfill, embankment, whatever, has been identified the Atterberg's are run to see if it meets the city's specification or not. If it does, nothing needs to be done and a proctor is run to determine max density/optimum moisture. If it does not, then the material is either rejected and a new material is proposed or the material is stabilized with fly ash, cement, or hydrated lime and a proctor is run with the percentage of the additive. No further laboratory testing of the material is required. When/if that source is depleted then a new source is located, sample the process is repeated. The Atterberg's cannot change unless something happens to the material that would cause a chemical/molecular change such as fire, fuel/oil spills, etc...**
- Q2. Is polypropylene pipe allowed everywhere that RCP is shown in the plans?
- A2. Response: Project shall be bid using RCP as shown on the plans.**
- Q3. Schedule – I saw that Phase 3 is to be completed June 1 – Aug 15th. So I assume Phases 1A and 1B with the ConSpans need to go earlier (maybe late spring), but didn't see a schedule. Is there one for the other phases?
- A3. Response: Phase 3 construction dates are intended to minimize disruption to school activities. No construction schedule has been developed for other phases. Contractor is to submit a construction schedule for review in accordance with the requirements of the Project Manual and the Plans.**
- Q4. Plans – On sheet 217, the SE wingwall end elevation is shown as 797.40', which would make it 18.82' tall. This would be taller at the end than it is at the structure. The other three wings have end heights around 10-11'. Can you confirm the elevation for this wall?
- A4. Response: The southeast wingwall end elevation is 797.40'.**

Q5. Plans – Sheets 214 & 217 show a 6' tall fence mounted to the headwalls. Are there details for this connection or will it be the same as the Post Connection & Plan of Base Plate shown on 216, 219 & 220?

**A5. Response: The detail is for both fences.**

Q6. Plans – Sheets 216, 219 & 220 show reinforcement for the CIP barrier wall extending into the top of the precast arches (Section C-C). Are these to be field drilled or do you want splicers in the precast?

**A6. Response: The details call for a resin anchor system. Not inserts.**

Q7. Plans/Specs – Sheets 214 & 217 say all steel is to be epoxy coated. Spec section 03410 / 2.3 doesn't state epoxy steel is needed. Can you confirm which is correct? Epoxy steel in the arches isn't very common at all.

**A7. Response: See attached revised Plans. Plain reinforcement is acceptable.**

Q8. Specs – where can I find the concrete mix listed in section 03410 / 2.1.A? Need to give it to the precasters to make sure that there are no issues with it.

**A8. Response: Contact concrete mix supplier for mix requirements.**

Q9. Specs – section 03410 / 2.11.B mentions a formliner applied to the headwalls and wingwalls with the design to be approved during the shop review process. Formliners come in varying thicknesses, which will impact the wall thickness. Also there isn't an elevation view of the structures showing the extent of the formliner. The elevation view of the barriers show the formliner in just the top 18". Is the formliner to cover the full height of the outside of the headwalls and wingwalls?

**A9. Response: See attached revised plans. Contractor should assume formliner with 2" relief. Formliner on headwalls and wingwalls shall be full height up to a 6" wide concrete band per attached revised drawings.**

Q10. Can cement be used for bid item 19: Chemically Treated Subgrade(6") ? I noticed bid item 6a soil treatment of embankment listed in its description the use of 15% fly-ash or 5% cement.

**A10. Response: Per Project Manual, 5% cement may be used.**

Q11. Which page of plans can we find the continuation of Match Line STA 1+75.0 of sheet 169?

**A11. Response: The continuation of sta 1+75.00 can be found on the subsequent sheet, sheet 170.**

Q12. There are no typical roadway sections for the 10" paving 123+38-128+95.

**A12. Response: Refer to note on sheets 12 and 13. Layout information can be found on the Roundabout Layout Sheets and section information can be found on the Roadway Details sheets.**

Q13. How is the flume paid for the block walls.

**A13. Response: Refer to note 4 on sheets 145 thru 148 and note 5 on the retaining walls typical section on sheet 149.**

Q14. I have taken the project quantities off and there are several quantities that are no where close to the bid quantity. Is there any way to have the engineer check there qty's for all the concrete curb, pavement, sidewalk, and asphalt paving? Also can we get the excel

file of the bid unit prices form? Also can we get a typical section detail of the round a bout. There currently is no plan sheet that shows a profile view of the round a bout construction.

**A14. Response: Refer to attachments for revised quantities. Excel file of bid unit prices form is included in this addendum and available through ebuilder. Refer to question 12 for roundabout plan information.**

Q15. The FO relocate bid item for the 128 ct. FO wire/conduit that runs along the east side of this job for KCMO and The Park Hill School District stats the contractor has to relocate, “prior to any other construction in the corridor”, maintain and take responsibility for the FO cable “during any remaining roadway or utility construction”. Our question is, why can’t this FO cable/conduit be treated like any other utility and be relocated prior to the job building and not be part of this jobs scope of work/responsibility?

**A15. The fiber bid item is part of the contract to be coordinated with the construction activities in conflict with the fiber to reduce downtime.**

#### Project Manual

1. Job Special Provisions Section N (Utilities JSP 93-26F) shall be revised to include the following utility relocation statuses.  
Google: Relocation work complete.  
Charter (Spectrum): Relocation work continuing. Nearing completion of overhead work. Anticipated completion of underground fiber systems early March.  
Unite Private Networks: Relocation work will follow completion of Charter overhead work. Anticipated duration approximately 45 days.
2. Job Special Provisions Section BB (Bid Items): Revise Concrete Sidewalk (4”) to **Concrete Sidewalk (6”)**
3. Replace Section 00412 Unit Prices – Bid Form (PDF)
4. Add Section 00412 Unit Prices – Bid Form (Excel)

#### Drawings:

1. Replace sheet 2 Summary of Quantities
2. Replace sheet 214 East Fork Line Creek Bridge Layout
3. Replace sheet 215 East Fork Link Creek Bridge Layout
4. Replace sheet 217 Old Maid’s Creek Bridge Layout
5. Replace sheet 218 Old Maid’s Creek Details

**NOTE: Bidders must acknowledge receipt of this Addendum by listing the number and date, where provided, on the Bid Form - Document 00410.**





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IN ASSOCIATION WITH

PROJECT NAME

WAUKOMIS DRIVE  
COMPLETE  
STREETS  
UPGRADE

KANSAS CITY, MISSOURI

CITY PROJECT NO. 89008260

FEDERAL PROJECT NO. STP-3451(402)



NO. DATE SUBMITTALS  
1 01/18/2023 ADDENDUM #2

DESIGNED BY

M.J.H.

REVIEWED BY

D.L.B.

DRAWN BY

D.M.B.

PROJECT NUMBER

M08-14007-00

DATE

27 JANUARY 2022

SHEET TITLE

SUMMARY OF  
QUANTITIES

SHEET NUMBER

SUMMARY OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	APPROXIMATE QUANTITY	UNIT
ROADWAY			
1	Mobilization	1	LS
2	Construction Staking	1	LS
3	Clearing & Grubbing	16	AC
4	Removal of Improvements	1	LS
5	Unclassified Excavation	22,553	CY
6	Embankment	34,539	CY
6a	Soil Treatment (if LL>40 and/or PI>25) (15% Fly Ash or 5% Cement)	34,539	CY
7	Type 5-01 Asphaltic Concrete Surface (2" Roadway)	15,227	SY
8	Type 1-01 Asphaltic Concrete Base (9" Roadway)	15,227	SY
9	Type 1-01 Asphaltic Concrete Base (5")	4,740	SY
10	Temporary Asphalt Pavement (6" Type 1-01 & 6" MoDOT Type 5)	452	SY
11	Temporary Gravel Driveway (6")	530	SY
12	Concrete Pavement (10")	2,815	SY
13	Concrete Pavement (10", Stamped & Colored)	808	SY
14	Concrete Pavement (8")	1,160	SY
15	Concrete Median (4")	5,553	SF
16	MoDOT Type 5 (6")	24,530	SY
17	MoDOT Type 5 (17")	266	SY
18	KDOT AB-3 (4")	7,730	SY
19	Chemically Treated Subgrade(6")	25,645	SY
20	Concrete Curb & Gutter (All types)	14,788	LF
21	Concrete Commercial Drive (8")	12,922	SF
22	Concrete Sidewalk (6")	20,366	SF
23	Concrete Trail (6")	35,243	SF
24	Concrete Sidewalk Ramp (6")	2,572	SF
25	Large Block Retaining Wall	11,613	VSF
26	Curb Inlet Type 1 (5'x4')	20	EA
27	Curb Inlet Type 1 (5'x6')	4	EA
28	Curb Inlet Type 2 (5'x4')	2	EA
29	Area Inlet (4'x4')	3	EA
30	Area Inlet (5'x5')	1	EA
31	Junction Box JB-1 (4'x4')	3	EA
32	Junction Box JB-1 (5'x5')	1	EA
33	15" RCP (Class III)	1,291	LF
34	18" RCP (Class III)	122	LF
35	24" RCP (Class III)	62	LF
36	30" RCP (Class III)	182	LF
37	36" RCP (Class III)	607	LF
38	15" RCP End Section	6	EA
39	18" RCP End Section	1	EA
40	36" RCP End Section	1	EA
41	6" Perforated HDPE	584	LF
42	6" Solid PVC	73	LF
43	Tied Concrete Block Mat	32,605	SF
44	Type 3 Rock Ditch Liner	51	SY
45	Construction Fencing	746	LF
46	Ornamental Fencing (6')	556	LF
47	Ornamental Fencing (2')	254	LF
48	Black Vinyl Coated Chain Link Fencing (6')	191	LF
49	Chain Link Fencing (6')	1,174	LF
50	Chain Link Fencing (8')	75	LF
51	Private Signage	1	EA
52	Biodegradable Logs	1,463	LF
53	Curb Inlet Protection	27	EA
54	Area Inlet Protection	3	EA
55	Junction Box Protection	4	EA
56	Construction Entrance	3,423	SF
57	Rock Check Dam	16	EA
58	Utility Structure Top Adjustment	10	EA
59	Project Information Signs	2	EA
60	Variable Message Signs	2	EA

ITEM NO.	ITEM DESCRIPTION	APPROXIMATE QUANTITY	UNIT
BRIDGES			
61	Precast Concrete Arch Structure (36' wide)	1	EA
62	Precast Concrete Arch Structure (60' X12')	1	EA
63	Concrete (Class B-2 (Substructure))	470	CY
64	Reinforcing Steel	49,640	LBS
65	Pedestrian Barrier Wall	336	LF

TEMPORARY TRAFFIC CONTROL SIGNAGE & EQUIPMENT			
66	Temporary Sign, M4-8 (24x12)	7	EA
67	Temporary Sign, M4-9L (30x24)	4	EA
68	Temporary Sign, M4-9R (30x24)	5	EA
69	Temporary Sign, M6-3 (21x15)	7	EA
70	Temporary Sign, CW20-1D (48x48)	4	EA
71	Temporary Sign, W20-3 (48x48)	5	EA
72	Temporary Sign, W16-8a (24x15)	18	EA
73	Temporary Sign, R11-2 (48x30)	10	EA
74	Temporary Sign, R11-4 (60x30)	30	EA
75	Temporary Sign, R3-1 (36x36)	2	EA
76	Temporary Sign, R3-2 (36x36)	1	EA

TRAFFIC - SIGNAGE & PAVEMENT MARKINGS			
77	Existing Signage Removal	1	LS
78	Flat Sheet Signs	563	SF
79	Sign Post	74	EA
80	RRFB System (Set of 2 Poles)	2	EA
81	Preformed Thermoplastic Pavement Marking, 4 In. White	3,000	LF
82	Preformed Thermoplastic Pavement Marking, 6 In. White	6,500	LF
83	Preformed Thermoplastic Pavement Marking, 4 In. Yellow	3,050	LF
84	Preformed Thermoplastic Pavement Marking, 8 In. White	185	LF
85	Preformed Thermoplastic Pavement Marking, 12 In. White	80	LF
86	Preformed Thermoplastic Pavement Marking, 12 In. Yellow	140	LF
87	Preformed Thermoplastic Pavement Marking, 24 In. White	700	LF
88	Preformed Thermoplastic Pavement Marking, Left Arrow	12	EA
89	Preformed Thermoplastic Pavement Marking, Right Arrow	1	EA
90	Preformed Thermoplastic Pavement Marking, 2'x6' Thru Arrow	21	EA
91	Preformed Thermoplastic Pavement Marking, Right & Thru Shared Arrow	2	EA
92	Preformed Thermoplastic Pavement Marking, Left & Thru Shared Arrow	2	EA
93	Preformed Thermoplastic Pavement Marking, "ONLY"	4	EA
94	Preformed Thermoplastic Pavement Marking, Shared Lane Marking	6	EA
95	Preformed Thermoplastic Pavement Marking, 6'x4' Bicycle	13	EA
96	Preformed Thermoplastic Pavement Marking, "BIKE LANE"	9	EA
97	Preformed Thermoplastic Pavement Marking, Yield Line Triangles	20	EA

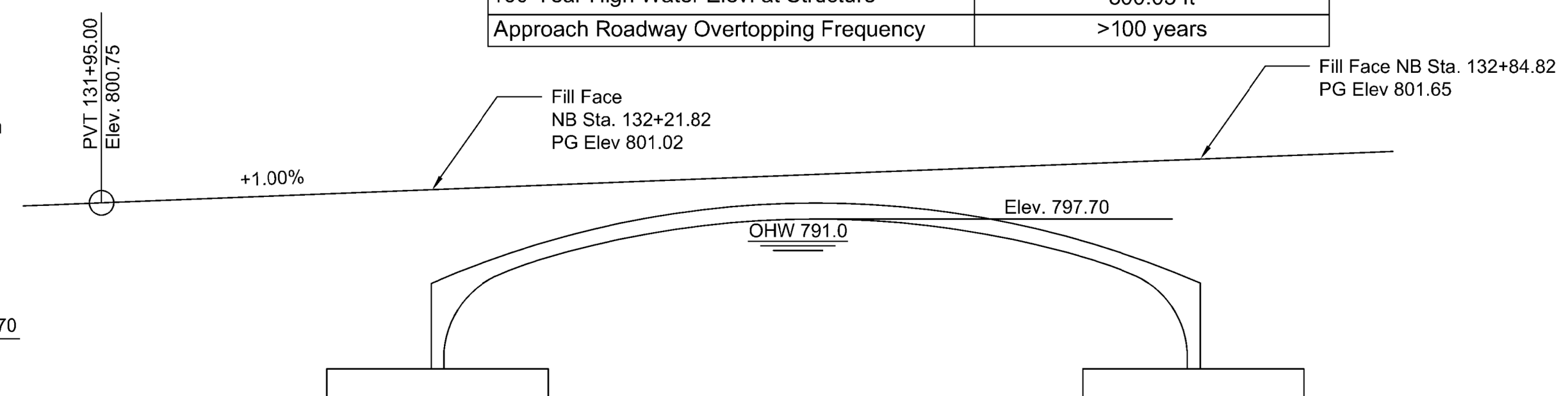
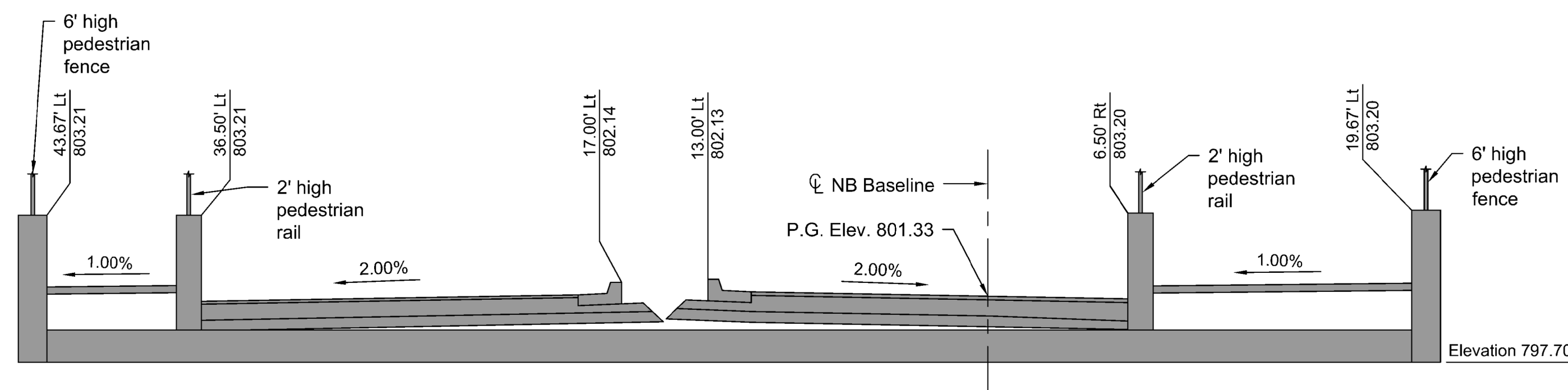
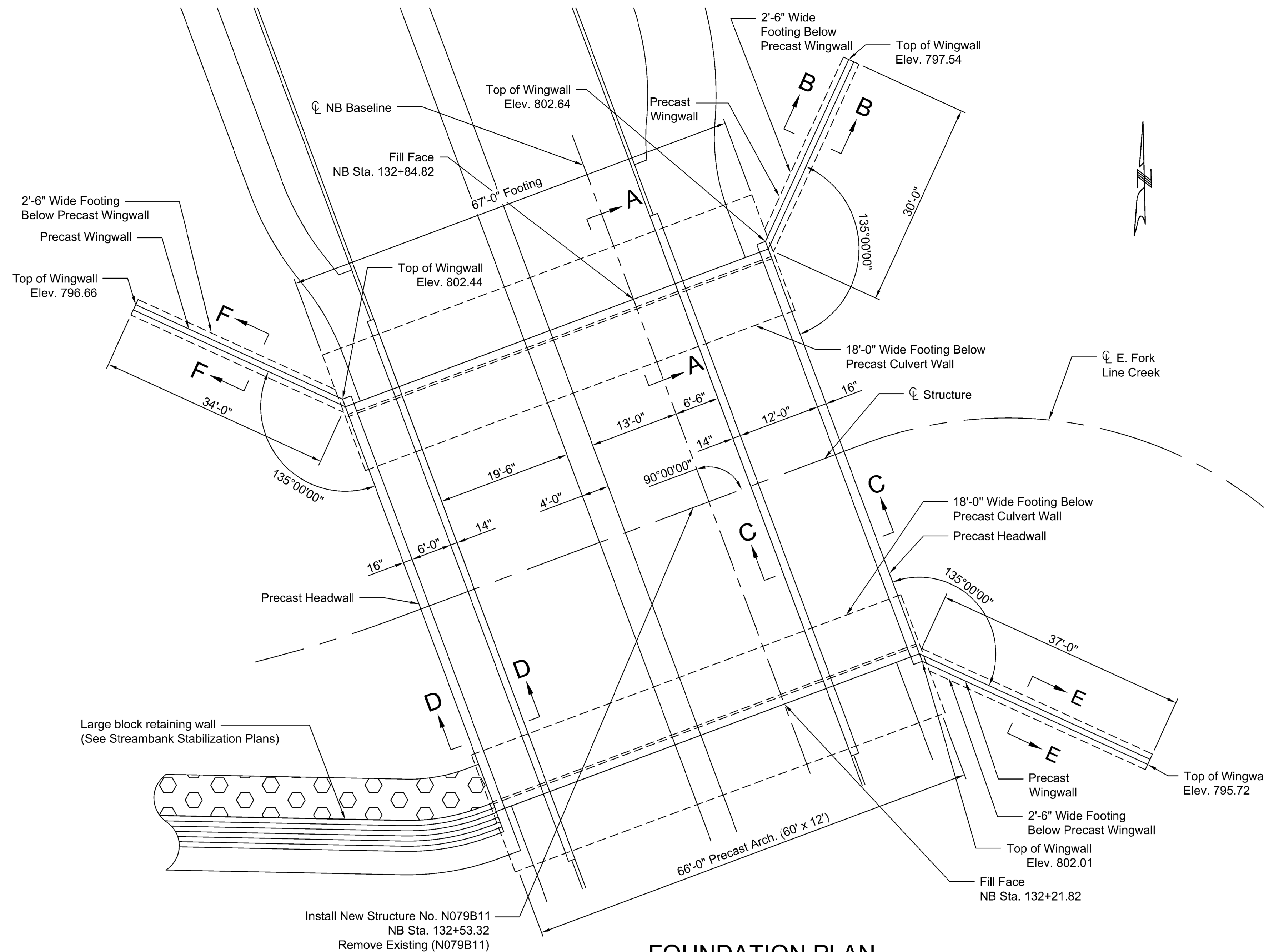
ITS			
98	Conduit (3") Trench	3,883	LF
99	Conduit (3") Bore	3,955	LF
100	Type II Pull Box (Fiber Optic)	14	EA
101	96-CT Fiber Optic Cable	3,883	LF
102	192-CT Fiber Optic Cable (Relocated)	3,955	LF
103	Fiber Splice	3	EA

ITEM NO.	ITEM DESCRIPTION	APPROXIMATE QUANTITY	UNIT
STREET LIGHTING			
104	Luminaire Design Parameter 'A'	48	EA
105	Pole (35') Design Parameter 'A'	48	EA
106	Luminaire Design Parameter 'B' (KCMO Type B LED)	1	EA
107	Pole (30') Design Parameter 'B'	1	EA
108	Type 'B' Arm (6'-0")	1	EA
109	1 #10 RHW/USE Internal Pole Wire	5,100	LF
110	2 # 4 RHH/RHW/USE, 1 #4 CU GND., 2" CID	5,900	LF
111	2 # 6 RHH/RHW/USE, 1 #6 CU GND., 2" CID	1,450	LF
112	3" HDPE Conduit For KCP&L Feed	200	LF
113	2" Empty Conduit for Future Lighting at South Roundabout	80	LF
114	1 #6 AWG Bare Copper Wire	200	LF
115	4 Circuit Lighting Controller	2	EA
116	Ground Rod	2	EA
117	Fuse Kits	96	EA
118	Non-Fussed Fuse Kits	49	EA
119	Cable Retainers	49	EA
120	Screw In Light Pole Base	49	EA
121	ID Tag	51	EA
122	Concrete Foundations for Lighting Controller	2	EA
123	Everygy Electrical Service That Include Everygy Pole Mounted Transform	2	EA
124	Pull Box	6	EA
125	Trench and Backfill	7,350	LF
126	Luminare and Arm Removal	24	EA
127	Wood Pole Removal and Equipment	22	EA
128	Metal Pole Removal and Equipment	2	EA
129	Power Hookups For Everygy Power Sources	2	EA

LANDSCAPING			
130	Deciduous Tree (2.5" Caliper)	126	EA
131	Perennials (#1 Containers)	4,124	EA
132	Perennials (4" Pot)	987	EA
133	Plugs	3,134	EA
134	Bulbs	271	EA
135	Fescue Sod	17,403	SY
136	Native Seed & Wildflower Seeding	4	AC
137	Temporary Seed	4	AC
138	RPM Tree (#3)	233	EA
139	RPM Shrub (#3)	102	EA
140	Tree Hydration Bladder (36" Diameter)	126	EA
141	Hydraulic Erosion Control	17,424	SY
142	Straw Wattles	1,170	LF
143	Infiltration Trench	245	CY
144	Infiltration Testing	8	EA
145	Pretreatment Chambers	7	EA
146	Stone Veneer Assenblies	1,630	SFF
147	Steel Landscape Edging	627	LF
148	Trench Edging	2,671	LF
149	Cast-in-Place Concrete Wall	112	CY
150	Dry Stack Masonry Walls	810	CF
151	Limestone Boulders (Medium)	30	EA
152	Limestone Boulders (Large)	13	EA
153	River Rock (Buffalo River Rock)	7,540	SF
154	Decorative Aggregate (MO Rainbow Oversized)	3,045	SF







General Notes:

1. Design Specifications:  
2012 AASHTO LRFD Bridge Design Specifications.  
Missouri Standard Specifications For Highway Construction  
2021 Edition and Amendments (All Modot references here will pertain to this specifications.)

2. Design Loadings:  
 Vehicular = HS20-44 (Modified)  
 Design Fill Height 1 ft. min. to 4 ft. max. earth 130 # / cu. ft.  
 Equivalent Fluid Pressure 55 # / Cu. Ft. (Min.) 95 Cu. Ft. (Max)  
 Internal Friction Angle of Backfill,  $\phi = 34$  Degrees  
 Water Pressure: 0# / Cu. Ft. (Min.); 62.4# / Cu. Ft. (Max)

- 3. Design Unit Stresses**  
 Class B-1 Concrete (Barrier),  $f'_c = 4,000$  psi  
 Class B-2 Concrete (Substructure),  $f'_c = 4,000$  psi  
 Reinforcing Steel (Grade 60)  $F_y = 60,000$  psi

- 4. Reinforcing Steel:**  
Reinforcing Steel shall be deformed new billet steel conforming to ASTM A615, Grade 60.

Minimum clearance to the Reinforcing Steel shall be 1 1/2 " unless otherwise shown.

All Reinforcing Steel shall be epoxy coated unless otherwise shown. All Reinforcing Steel in precast members shall not be epoxy coated.

5. Granular Backfill:  
Excavation and backfill at bridge footings shall be in accordance with the project manual and the precast arch structure manufacturer requirements.

6. Foundation:  
A minimum of 6" thick crushed limestone base with a maximum particle size of 0.75 inch shall be used as a base layer under footing, additional 18" width of granular backfill shall be extended outside around the footings.

- 7. Joint Filler:**  
Sidewalk joint filler: 3/4" preformed fiber expansion joint material.  
Barrier joint filler: 1/4" backer rod and silicone sealant.

- 8. Miscellaneous**  
For details of Pedestrian Fence, see project specifications.

For sections A-A, B-B, C-C, D-D, E-E, & F-F, see Sheet 215.

Estimated Quantities				
Item		Substr.	Superstr.	Total
Precast Concrete 60' x 14' Arch Structure	Ea.		1	1
Concrete (Class B-2 (Substructure))	Cu. Yd.	258.8		258.8
Reinforcing (Plain)	Lbs.	27,120		27,120
Barrier	Ln. Ft.		168	168

The cost of prefabricated wing walls is included in the cost of "Precast Concrete 60' x 14' Arch Structure".

The cost of fill on the arch structure is included in the cost of roadway fill.

The cost of items not specifically included is covered in the cost of "Precast Concrete 60' x 14' Arch Structure".

Hydrologic Data	
Drainage Area	4.4 Sq Mi.
Design Frequency	50 years
Design Discharge	6440.7 CFS
Design High Water Elev. at Structure	799.17 ft
Overtopping Elevation	801.00 ft
100-Year Discharge	7649.1 CFS
100-Year High Water Elev. at Structure	800.03 ft
Approach Roadway Overtopping Frequency	>100 years

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IN ASSOCIATION WITH



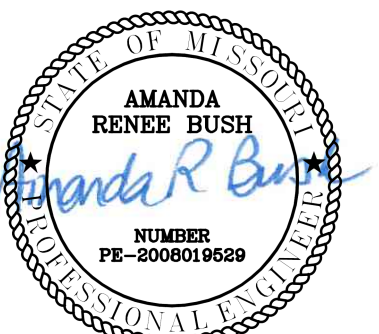
PROJECT NAME

**WAUKOMIS DRIVE  
COMPLETE  
STREETS  
UPGRADE**

KANSAS CITY, MISSOURI

CITY PROJECT NO. 89008260

FEDERAL PROJECT NO. STP-3451(402)



1-18-2023

NO.	DATE	SUBMITTALS
1/18/2023	1	Addendum 2

DESIGNED BY

A.R.B

REVIEWED BY

A.R.B.

DRAWN BY

T.A.J.

PROJECT NUMBER

M08-14007-00

DATE \_\_\_\_\_

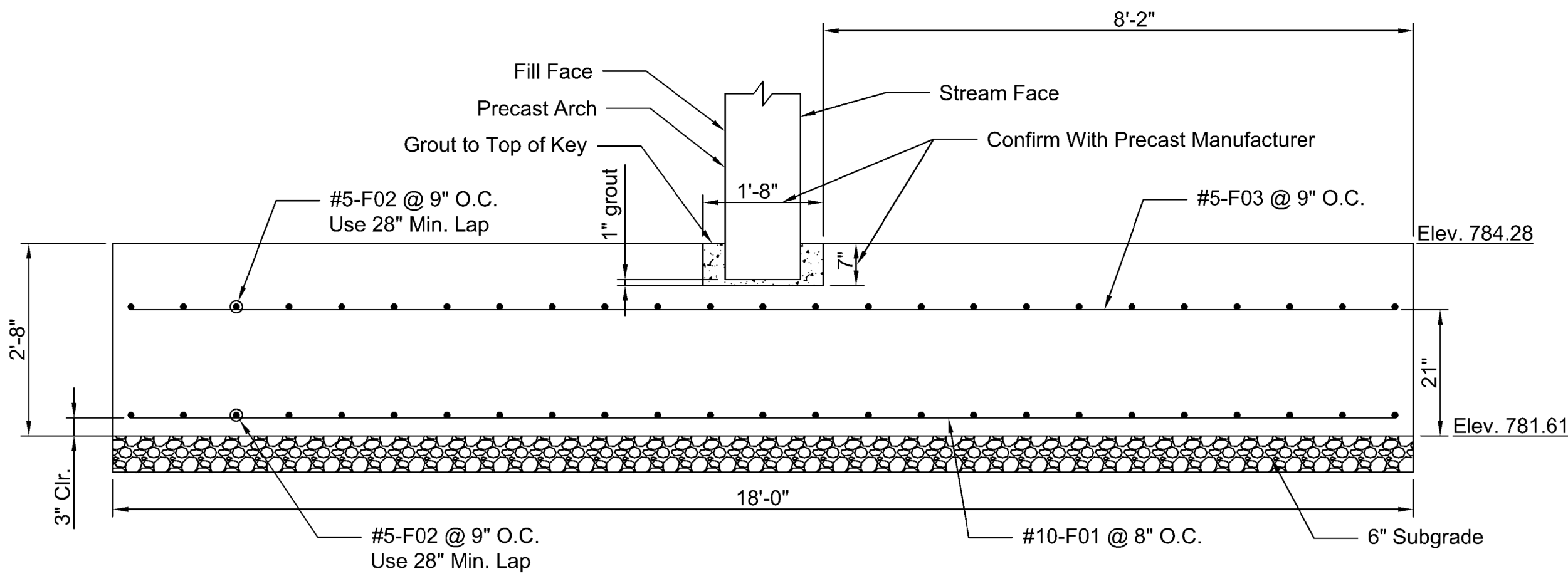
27 JANUARY 2022

SHEET TITLE

## EAST FORK LINE CREEK BRIDGE LAYOUT

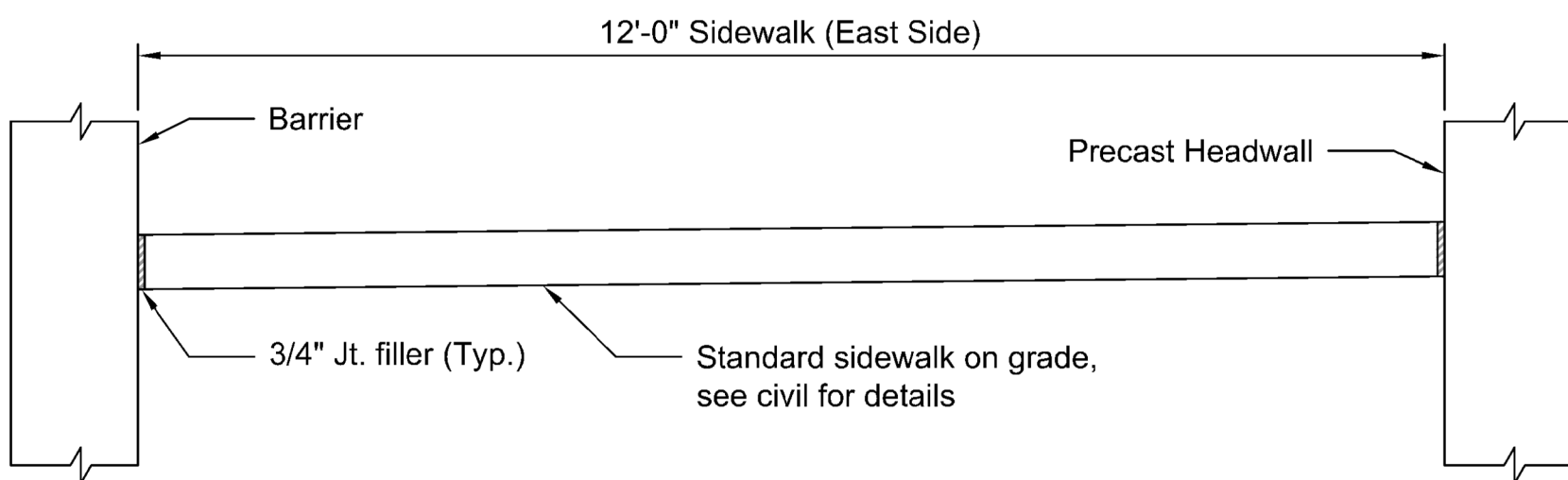
SHEET NUMBER



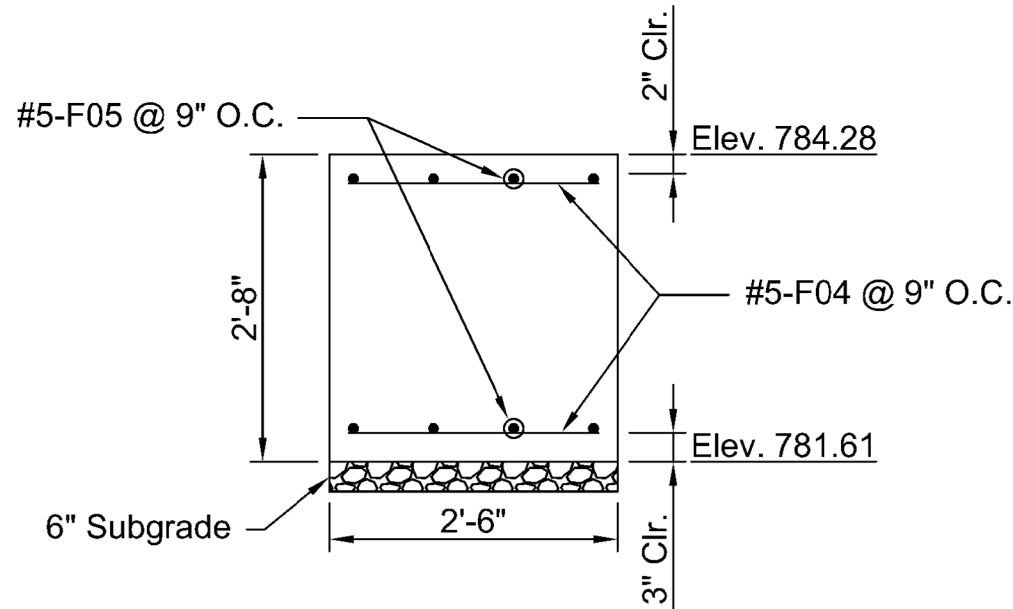


SECTION A-A

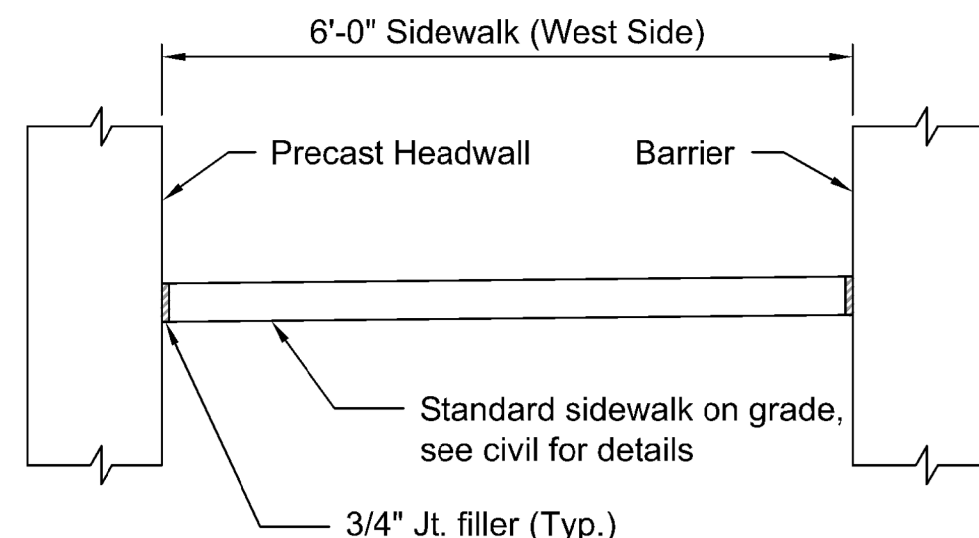
Note: Fill entire keyway including nominal 1" void between bottom of keyway and bottom of precast bridge unit with grout.



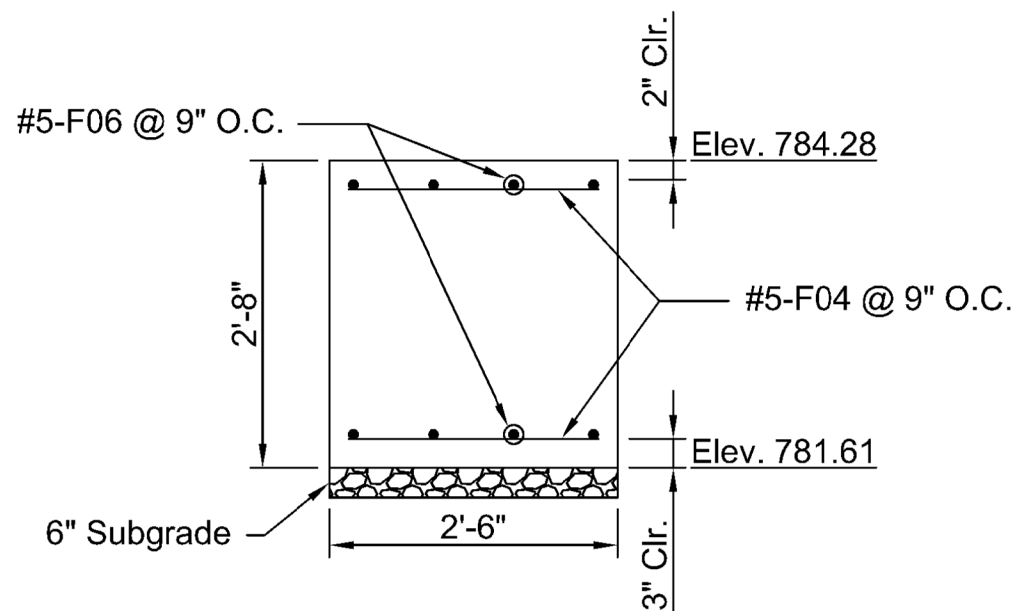
SECTION C-C



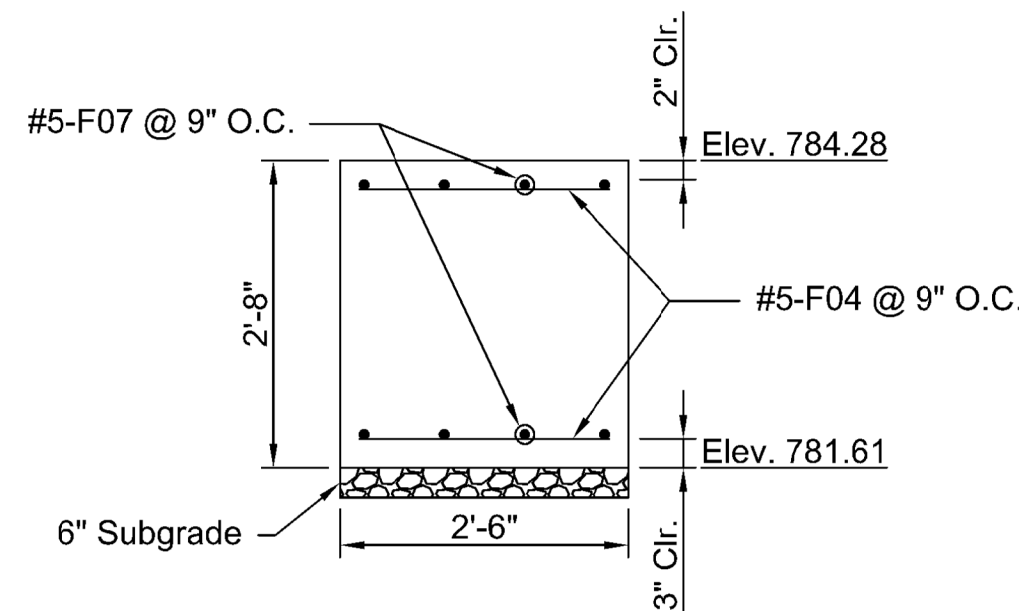
SECTION B-B



SECTION D-D

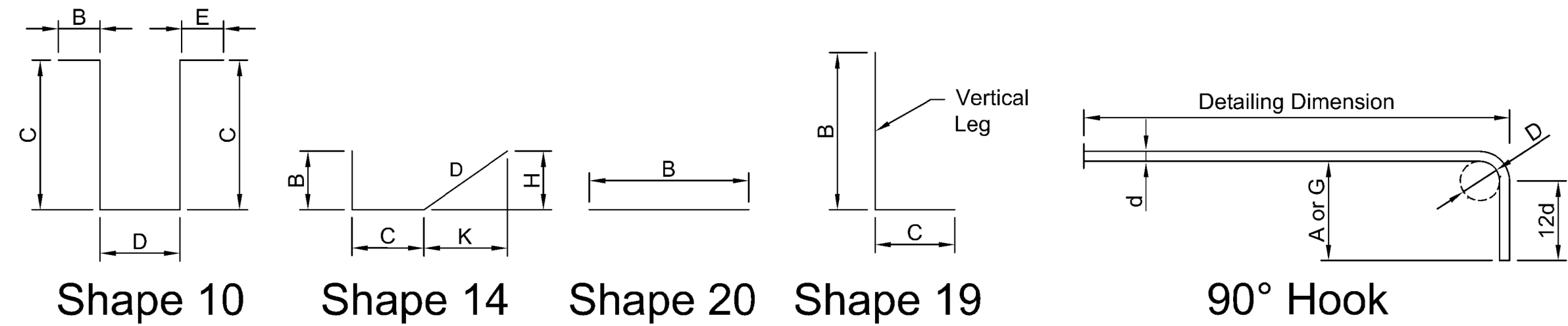


SECTION E-E

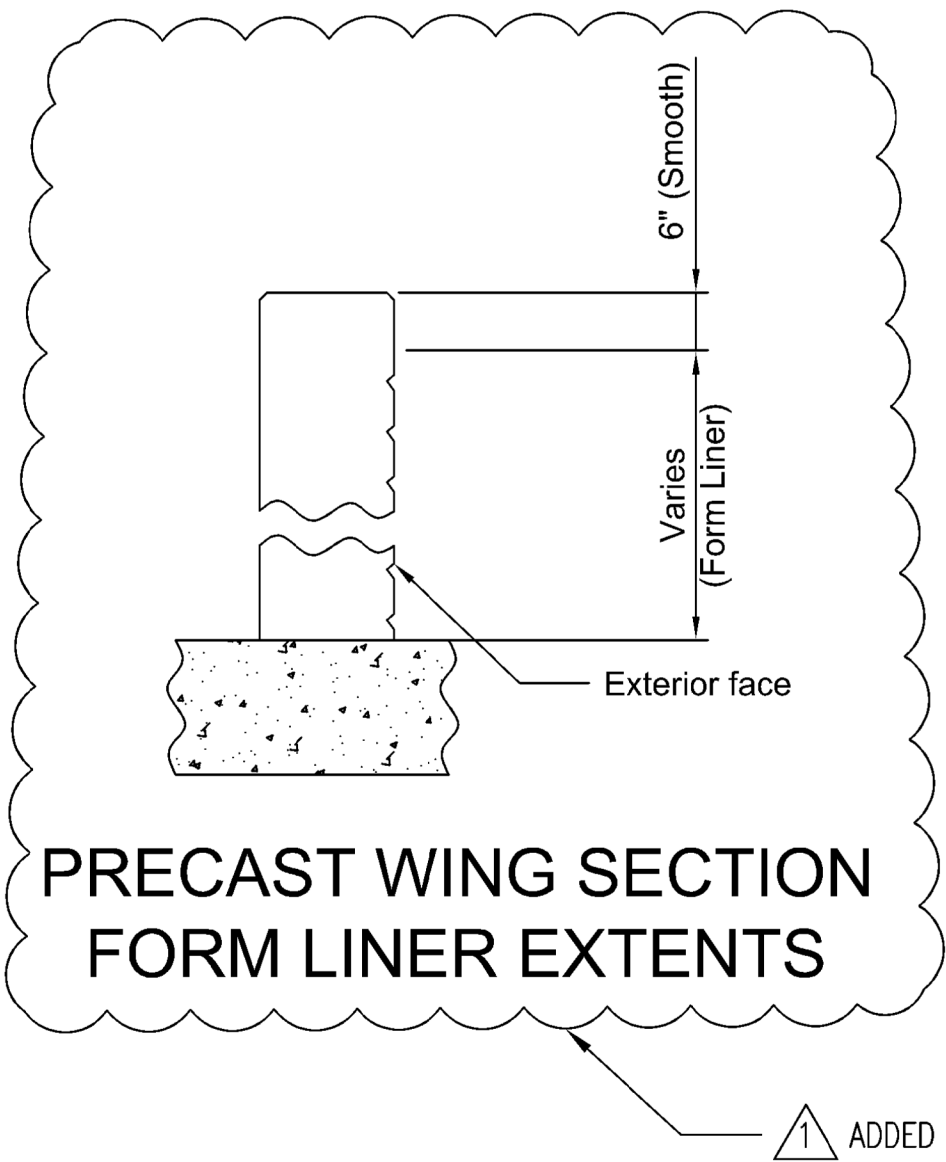


SECTION F-F

NO. REQD	MARK NO.		LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS														NOMINAL LENGTH		NOMINAL WEIGHT	ACTUAL LENGTH		ACTUAL WEIGHT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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END HOOK DIMENSIONS				
BAR SIZE	D (IN.)	ALL GRADES		
		180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#5	3 3/4"	7"	5"	10"



Reinforcing Notes:

All standard hooks and bends other than 180 deg. to be bent with the same procedure as for 90 deg. std. hooks.

Hooks and bends shall be in accordance with the procedures as shown on this sheet.

E = Epoxy coated reinforcement.

S = Stirrup

X = Bar is included in substructure quantities.

V = Bar dimensions vary in equal increments between dimensions shown on this line and the following line.

No. Ea. = Number of bars of each length.

Nominal lengths are based on out to out dimensions show in bending diagram and are listed for fabricator's use (nearest inch).

Actual lengths are measured along centerline bar to the nearest inch.

Payweights are based on actual lengths.

Reinforcing Steel (Grade 60) Fy= 60,000 psi



Walter P Moore and Associates, Inc.  
1100 Walnut, Suite 1825  
Kansas City, Missouri 64106

816.701.2100  
walterpmoore.com  
MO PE Corporation No. 1999141112

IN ASSOCIATION WITH



PROJECT NAME

WAUKOMIS DRIVE  
COMPLETE  
STREETS  
UPGRADE

KANSAS CITY, MISSOURI

CITY PROJECT NO. 89008260

FEDERAL PROJECT NO. STP-3451(402)



1-18-2023

NO. DATE	SUBMITTALS
1/18/2023	ADDENDUM 2

DESIGNED BY

A.R.B

REVIEWED BY

A.R.B.

DRAWN BY

T.A.J.

PROJECT NUMBER

M08-14007-00

DATE

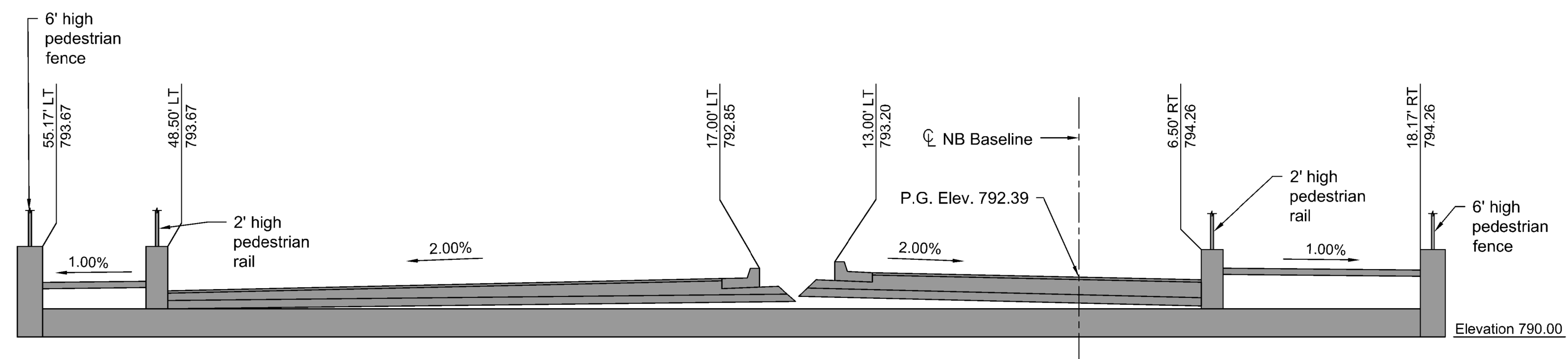
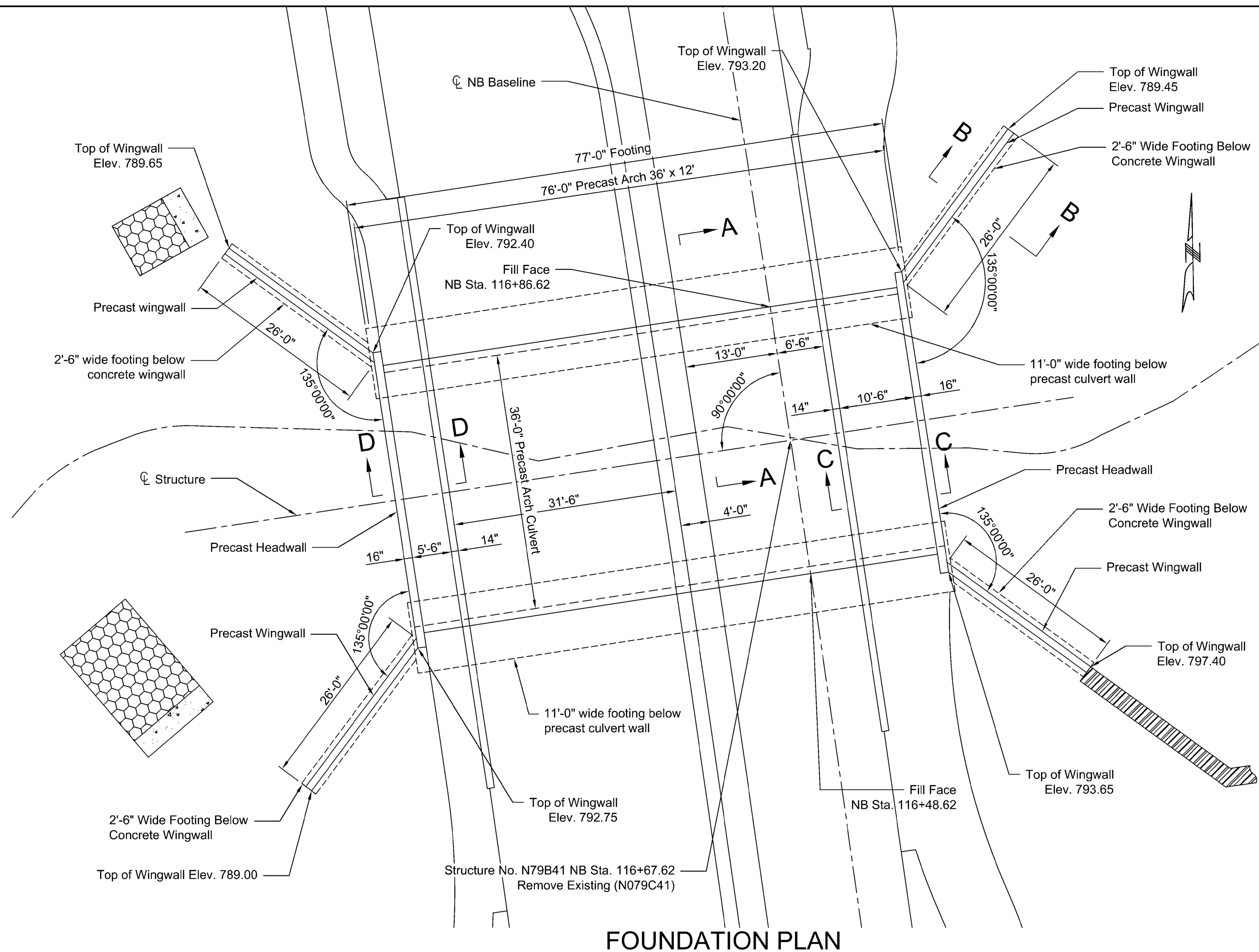
27 JANUARY 2022

SHEET TITLE

EAST FORK LINE CREEK  
DETAILS

SHEET NUMBER





Note: This drawing is not to scale. Follow dimensions.

General Notes:

1. Design Specifications:  
2012 AASHTO LRFD Bridge Design Specifications.  
Missouri Standard Specifications For Highway Construction  
2021 Edition and Amendments (All Modot references here will pertain to this specifications.)

2. Design Loadings:  
 Vehicular = HS20-44 (Modified)  
 Design Fill Height 1 ft. min. to 4 ft. max. earth 130 # / cu. ft.  
 Equivalent Fluid Pressure 55 # / Cu. Ft. (Min.) 95 Cu. Ft. (Max)  
 Internal Friction Angle of Backfill,  $\phi = 34$  Degrees  
 Water Pressure: 0# / Cu. Ft. (Min.); 62.4# / Cu. Ft. (Max)

3. Design Unit Stresses  
Class B-1 Concrete (Barrier),  $f'_c = 4,000$  psi  
Class B-2 Concrete (Substructure),  $f'_c = 4,000$  psi  
Reinforcing Steel (Grade 60)  $F_y = 60,000$  psi

4. Reinforcing Steel:  
Reinforcing Steel shall be deformed new billet steel conforming to ASTM A615, Grade 60.

Minimum clearance to the Reinforcing Steel shall be 1 1/2 " unless otherwise shown.

All Reinforcing Steel shall be epoxy coated unless otherwise shown. All Reinforcing Steel in precast members shall not be epoxy coated.

5. **Granular Backfill:**  
Excavation and backfill at bridge footings shall be in accordance with the project manual and the precast arch structure manufacturer requirements.

6. Foundation:  
A minimum of 6" thick crushed limestone base with a maximum particle size of 0.75 inch shall be used as a base layer under footing, additional 18" width of granular backfill shall be extended outside around the footings. Spread footings to bear on limestone.

- 7. Joint Filler:**  
Sidewalk joint filler: 3/4" preformed fiber expansion joint material.  
Barrier joint filler: 1/4" backer rod and silicone sealant.

- 8. Miscellaneous**  
For details of Pedestrian Fence, see project specifications.

For sections A-A, B-B, C-C & D-D, see Sheet 218.

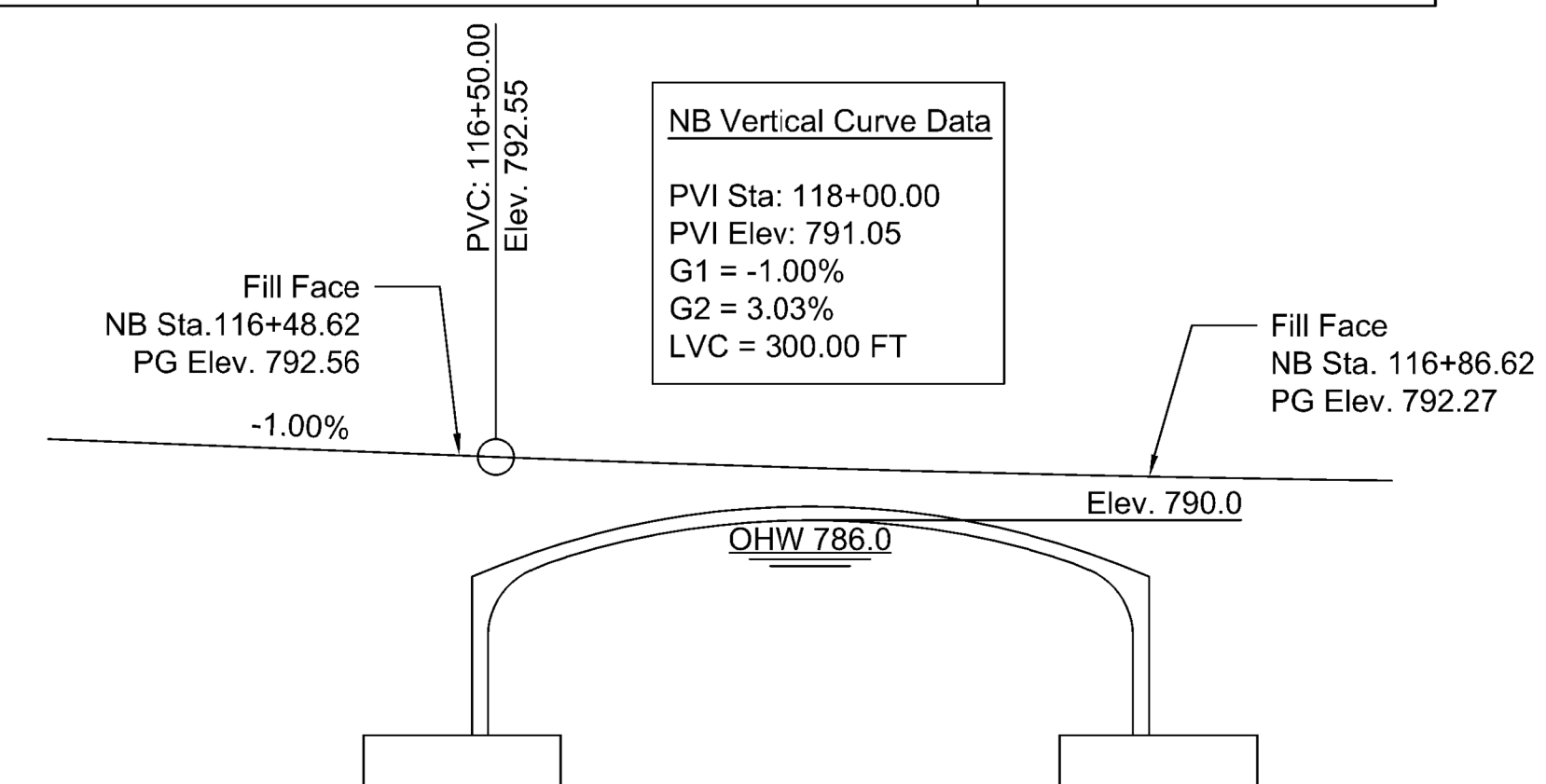
Estimated Quantities				
Item		Substr.	Superstr.	Total
Precast Concrete 36' x 12' Arch Structure	Ea.		1	1
Concrete (Class B-2 (Substructure))	Cu. Yd.	211.0		211.0
Reinforcing (Plain)	Lbs.	22,520		22,520
Barrier	Ln. Ft.		168	168

The cost of prefabricated wing walls is included in the cost of "Precast Concrete 30' x 12' Arch Structure".

The cost of fill on the arch structure is included in the cost of roadway fill.

The cost of items not specifically included is covered in the cost of "Precast Concrete 30' x 12' Arch Structure".

Hydrologic Data	
Drainage Area	1.4 Sq. Mi
Design Frequency	50 Years
Design Discharge	2660.8 CFS
Design High Water El. At Structure	791.53 Ft
Overtopping Elevation	792.94 Ft
100-Year Discharge	3234.5 CFS
100-Year High Water Elev. at Structure	791.94 Ft
Approach Roadway Overtopping Frequency	>100 Years
Ordinary High Water Elevation	786.0



## PROFILE VIEW



Walter P Moore and Associates, Inc.  
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Kansas City, Missouri 64106

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MO PE Corporation No. 1999141112

IN ASSOCIATION WITH



PROJECT NAME

**WAUKOMIS DRIVE  
COMPLETE  
STREETS  
UPGRADE**

KANSAS CITY, MISSOURI

CITY PROJECT NO. 89008260

FEDERAL PROJECT NO. STP-3451(402)



1-18-2023

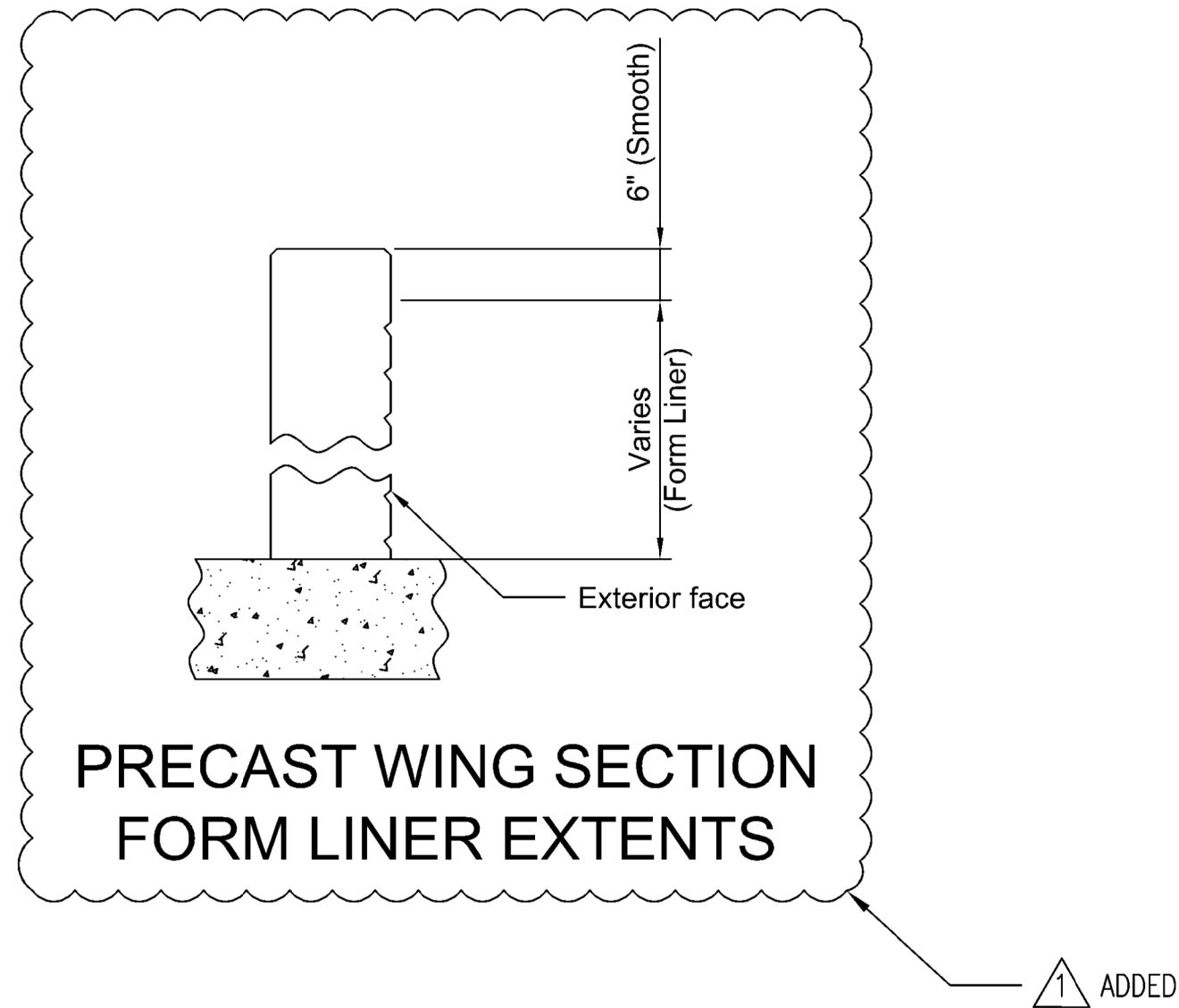
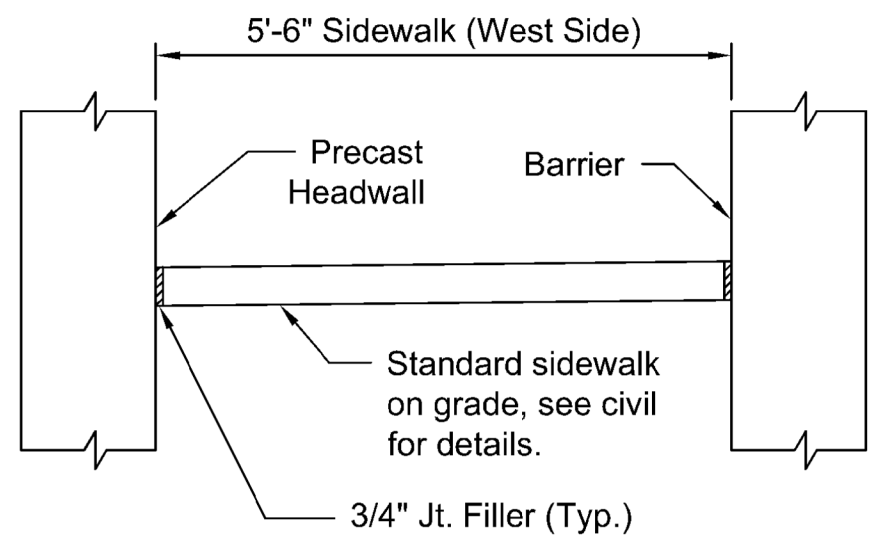
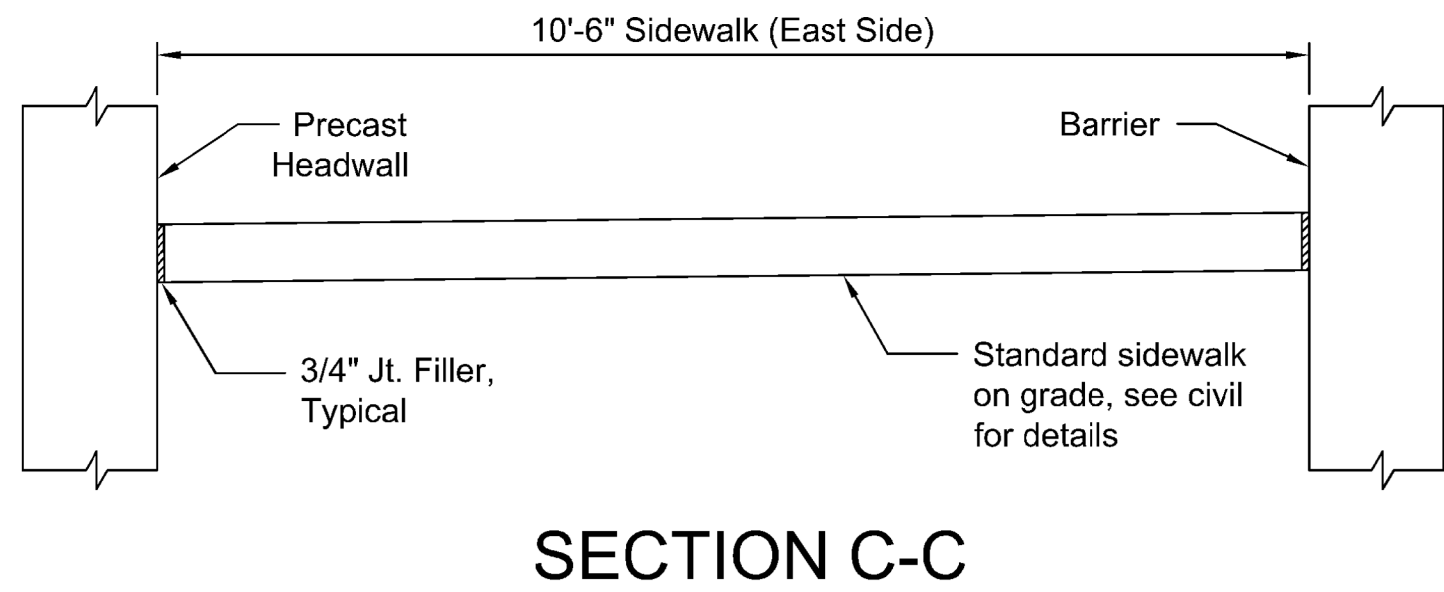
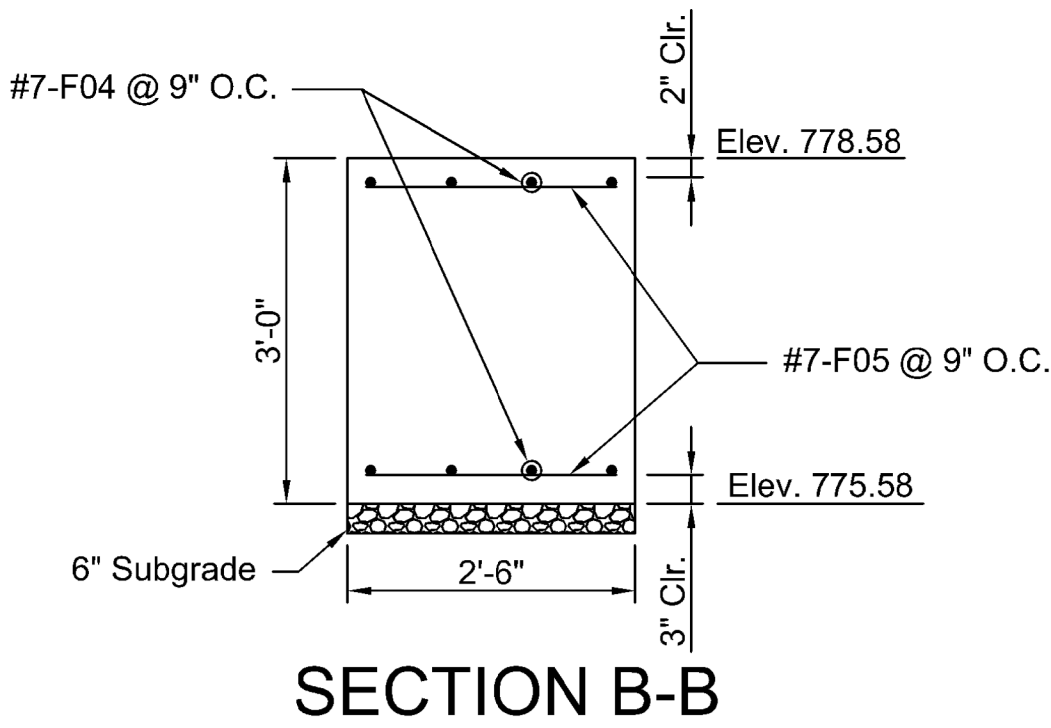
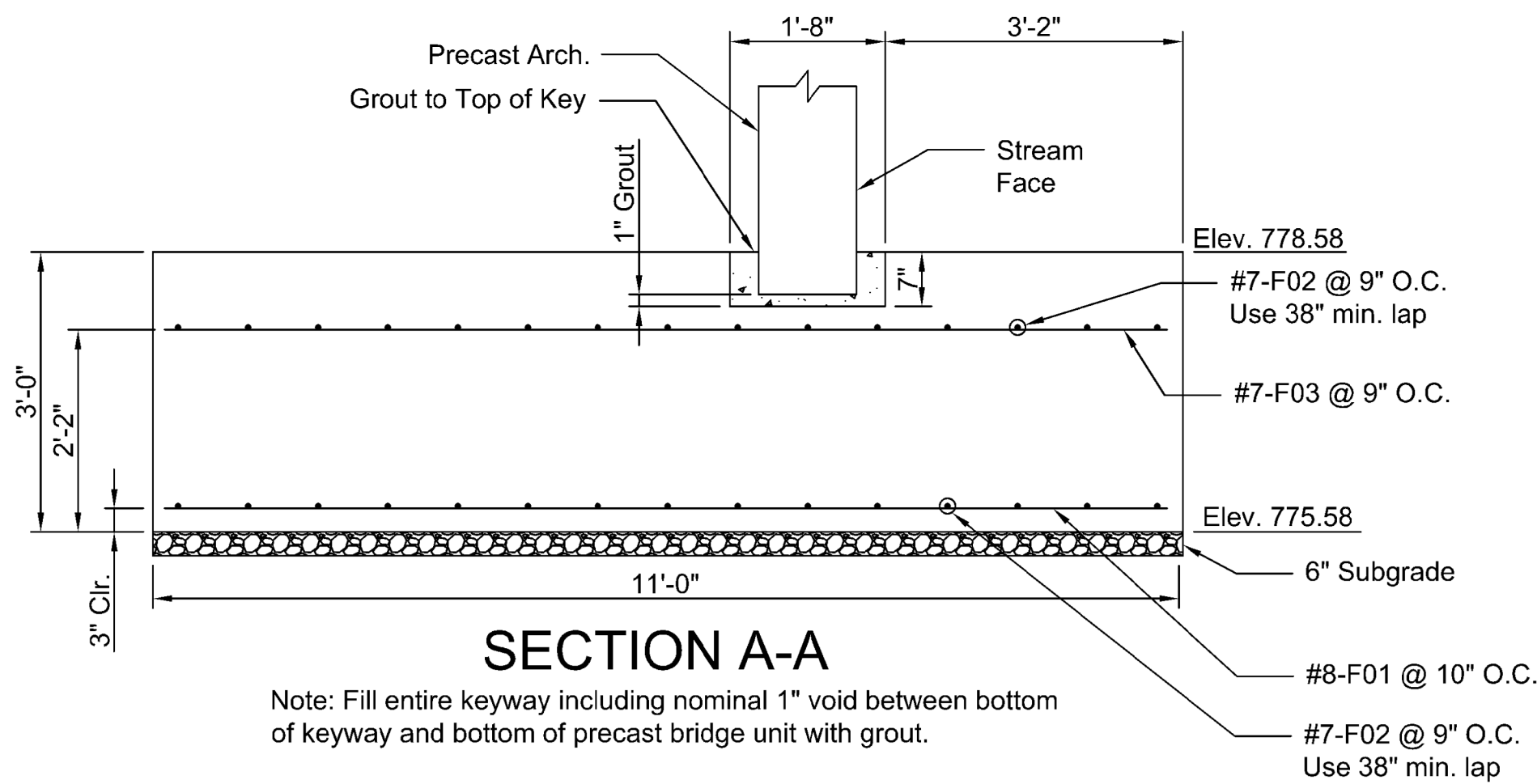
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DESIGNED BY	A.R.B
REVIEWED BY	A.R.B
DRAWN BY	T.A.J.
PROJECT NUMBER	M08-14007-00
DATE	27 JANUARY 2022
SHEET TITLE	

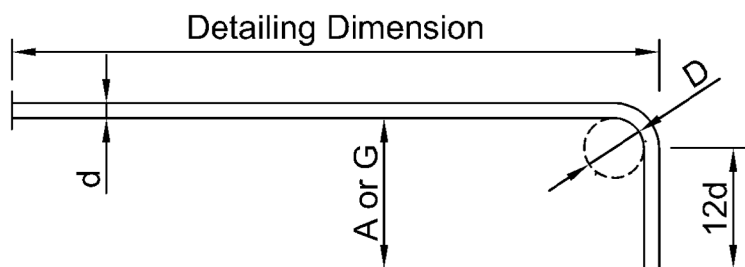
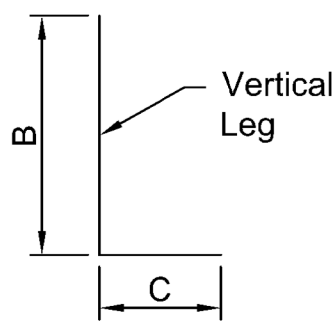
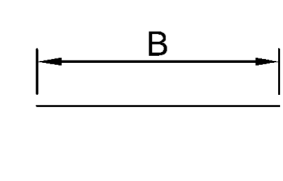
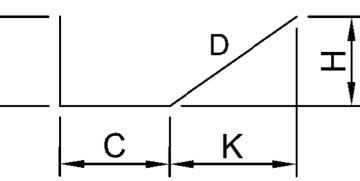
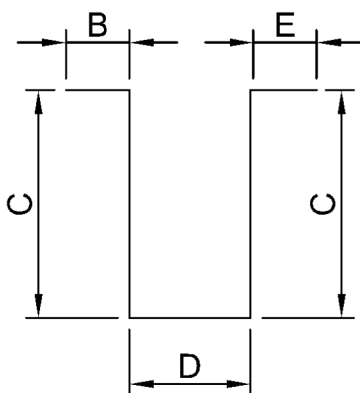
## OLD MAID'S CREEK BRIDGE LAYOUT

SHEET NUMBER





NO. REQ'D	MARK NO.		LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS														NOMINAL LENGTH		NOMINAL WEIGHT	ACTUAL LENGTH		ACTUAL WEIGHT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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BAR SIZE	D (IN.)	END HOOK DIMENSIONS		
		ALL GRADES		
		180° HOOKS	J	90° HOOKS
#5	3 3/4"	7"	5"	10"

Note: This drawing is not to scale. Follow dimensions.



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Kansas City, Missouri 64106

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MO PE Corporation No. 1999141112

IN ASSOCIATION WITH



PROJECT NAME

## WAUKOMIS DRIVE COMPLETE STREETS UPGRADE

KANSAS CITY, MISSOURI

CITY PROJECT NO. 89008260

FEDERAL PROJECT NO. STP-3451(402)



1-18-2023

NO. DATE	SUBMITTALS
1/18/2023	ADDENDUM 2

Reinforcing Notes:

All standard hooks and bends other than 180 deg. to be bent with the same procedure as for 90 deg. std. hooks.

Hooks and bends shall be in accordance with the procedures as shown on this sheet.

E = Epoxy coated reinforcement.

S = Stirrup

X = Bar is included in substructure quantities.

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Nominal lengths are based on out to out dimensions show in bending diagram and are listed for fabricator's use (nearest inch).

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Payweights are based on actual lengths.

Reinforcing Steel (Grade 60) Fy= 60,000 psi

DESIGNED BY	A.R.B.
REVIEWED BY	A.R.B.
DRAWN BY	T.A.J.
PROJECT NUMBER	M08-14007-00
DATE	27 JANUARY 2022
SHEET TITLE	

## OLD MAID'S CREEK DETAILS

SHEET NUMBER

CITY OF FOUNTAINS  
HEART OF THE NATIONKANSAS CITY  
MISSOURI

## UNIT PRICES

Project Number: 89008260Project Title: NW Waukomis Drive

Item No.	Item Description	Approx Quantity	Unit	Unit Cost	Total Cost
1	Mobilization	1	LS		
2	Construction Staking	1	LS		
3	Clearing & Grubbing	15.5	AC		
4	Removal of Improvements	1	LS		
5	Unclassified Excavation	22,553	CY		
6	Embankment	34,539	CY		
6a	Soil Treatment (if LL>40 and/or PI>25) (15% Fly Ash or 5% Cement)	34,539	CY		
7	Type 5-01 Asphaltic Concrete Surface (2" Roadway)	15,227	SY		
8	Type 1-01 Asphaltic Concrete Base (9" Roadway)	15,227	SY		
9	Type 1-01 Asphaltic Concrete Base (5")	4,740	SY		
10	Temporary Asphalt Pavement (6" Type 1-01 & 6" MoDOT Type 5)	452	SY		
11	Temporary Gravel Driveway (6")	530	SY		
12	Concrete Pavement (10")	2,815	SY		
13	Concrete Pavement (10", Stamped & Colored)	808	SY		
14	Concrete Pavement (8")	1,160	SY		
15	Concrete Median (4")	5,553	SF		

16	MoDOT Type 5 (6")	24,530	SY		
17	MoDOT Type 5 (17")	266	SY		
18	KDOT AB-3 (4")	7,730	SY		
19	Chemically Treated Subgrade(6")	25,645	SY		
20	Concrete Curb & Gutter (All types)	14,788	LF		
21	Concrete Commercial Drive (8")	12,922	SF		
22	Concrete Sidewalk (6")	20,366	SF		
23	Concrete Trail (6")	35,243	SF		
24	Concrete Sidewalk Ramp (6")	2,572	SF		
25	Large Block Retaining Wall	11,613	VSF		
26	Curb Inlet Type 1 (5'x4')	20	EA		
27	Curb Inlet Type 1 (5'x6')	4	EA		
28	Curb Inlet Type 2 (5'x4')	2	EA		
29	Area Inlet (4'x4')	3	EA		
30	Area Inlet (5'x5')	1	EA		
31	Junction Box JB-1 (4'x4')	3	EA		
32	Junction Box JB-1 (5'x5')	1	EA		
33	15" RCP (Class III)	1,291	LF		
34	18" RCP (Class III)	122	LF		
35	24" RCP (Class III)	62	LF		
36	30" RCP (Class III)	182	LF		
37	36" RCP (Class III)	607	LF		



38	15" RCP End Section	6	EA		
39	18" RCP End Section	1	EA		
40	36" RCP End Section	1	EA		
41	6" Perforated HDPE	584	LF		
42	6" Solid PVC	73	LF		
43	Tied Concrete Block Mat	32,605	SF		
44	Type 3 Rock Ditch Liner	51	SY		
45	Construction Fencing	746	LF		
46	Ornamental Fencing (6')	556	LF		
47	Ornamental Fencing (2')	254	LF		
48	Black Vinyl Coated Chain Link Fencing (6')	191	LF		
49	Chain Link Fencing (6')	1,174	LF		
50	Chain Link Fencing (8')	75	LF		
51	Private Signage	1	EA		
52	Biodegradable Logs	1,463	LF		
53	Curb Inlet Protection	27	EA		
54	Area Inlet Protection	3	EA		
55	Junction Box Protection	4	EA		
56	Construction Entrance	3,423	SF		
57	Rock Check Dam	16	EA		
58	Utility Structure Top Adjustment	10	EA		
59	Project Information Signs	2	EA		

60	Variable Message Signs	2	EA		
61	Precast Concrete Arch Structure (36' Wide)	1	EA		
62	Precast Concrete Arch Structure (60' X12')	1	EA		
63	Concrete (Class B-2 (Substructure))	470	CY		
64	Reinforcing Steel	49,640	LBS		
65	Pedestrian Barrier Wall	336	LF		
66	Temporary Sign, M4-8 (24x12)	7	EA		
67	Temporary Sign, M4-9L (30x24)	4	EA		
68	Temporary Sign, M4-9R (30x24)	5	EA		
69	Temporary Sign, M6-3 (21x15)	7	EA		
70	Temporary Sign, CW20-1D (48x48)	4	EA		
71	Temporary Sign, W20-3 (48x48)	5	EA		
72	Temporary Sign, W16-8a (24x15)	18	EA		
73	Temporary Sign, R11-2 (48x30)	10	EA		
74	Temporary Sign, R11-4 (60x30)	30	EA		
75	Temporary Sign, R3-1 (36x36)	2	EA		
76	Temporary Sign, R3-2 (36x36)	1	EA		
77	Existing Signage Removal	1	LS		
78	Flat Sheet Signs	563	SF		
79	Sign Post	74	EA		
80	RRFB System (Set of 2 Poles)	2	EA		
81	Preformed Thermoplastic Pavement Marking, 4 In. White	3,000	LF		

82	Preformed Thermoplastic Pavement Marking, 6 In. White	6,500	LF		
83	Preformed Thermoplastic Pavement Marking, 4 In. Yellow	3,050	LF		
84	Preformed Thermoplastic Pavement Marking, 8 In. White	185	LF		
85	Preformed Thermoplastic Pavement Marking, 12 In. White	80	LF		
86	Preformed Thermoplastic Pavement Marking, 12 In. Yellow	140	LF		
87	Preformed Thermoplastic Pavement Marking, 24 In. White	700	LF		
88	Preformed Thermoplastic Pavement Marking, Left Arrow	12	EA		
89	Preformed Thermoplastic Pavement Marking, Right Arrow	1	EA		
90	Preformed Thermoplastic Pavement Marking, 2'x6' Thru Arrow	21	EA		
91	Preformed Thermoplastic Pavement Marking, Right & Thru Shared Arrow	2	EA		
92	Preformed Thermoplastic Pavement Marking, Left & Thru Shared Arrow	2	EA		
93	Preformed Thermoplastic Pavement Marking, "ONLY"	4	EA		
94	Preformed Thermoplastic Pavement Marking, Shared Lane Marking	6	EA		
95	Preformed Thermoplastic Pavement Marking, 6'x4' Bicycle	13	EA		
96	Preformed Thermoplastic Pavement Marking, "BIKE LANE"	9	EA		
97	Preformed Thermoplastic Pavement Marking, Yield Line Triangles	20	EA		
98	Conduit (3") Trench	3,883	LF		
99	Conduit (3") Bore	3,955	LF		
100	Type II Pull Box (Fiber Optic)	14	EA		
101	96-CT Fiber Optic Cable	3,883	LF		
102	192-CT Fiber Optic Cable (Relocated)	3,955	LF		
103	Fiber Splice	3	EA		



104	Luminaire Design Parameter 'A'	48	EA		
105	Pole (35') Design Parameter 'A'	48	EA		
106	Luminaire Design Parameter 'B' (KCMO Type B LED)	1	EA		
107	Pole (30') Design Parameter 'B'	1	EA		
108	Type 'B' Arm (6'-0")	1	EA		
109	1 #10 RHW/USE Internal Pole Wire	5,100	LF		
110	2 # 4 RHH/RHW/USE, 1 #4 CU GND., 2" CID	5,900	LF		
111	2 # 6 RHH/RHW/USE, 1 #6 CU GND., 2" CID	1,450	LF		
112	3" HDPE Conduit For KCP&L Feed	200	LF		
113	2" Empty Conduit for Future Lighting at South Roundabout	80	LF		
114	1 #6 AWG Bare Copper Wire	200	LF		
115	4 Circuit Lighting Controller	2	EA		
116	Ground Rod	2	EA		
117	Fuse Kits	96	EA		
118	Non-Fussed Fuse Kits	49	EA		
119	Cable Retainers	49	EA		
120	Screw In Light Pole Base	49	EA		
121	ID Tag	51	EA		
122	Concrete Foundations for Lighting Controller	2	EA		
123	Everyy Electrical Service That Include Everyy Pole Mounted Transformer	2	EA		
124	Pull Box	6	EA		
125	Trench and Backfill	7,350	LF		

126	Luminare and Arm Removal	24	EA		
127	Wood Pole Removal and Equipment	22	EA		
128	Metal Pole Removal and Equipment	2	EA		
129	Power Hookups For Every Power Sources	2	EA		
130	Deciduous Tree (2.5" Caliper)	126	EA		
131	Perennials (#1 Containers)	4,124	EA		
132	Perennials (4" Pot)	987	EA		
133	Plugs	3,134	EA		
134	Bulbs	271	EA		
135	Fescue Sod	17,403	SY		
136	Native Seed & Wildflower Seeding	3.6	AC		
137	Temporary Seed	3.6	AC		
138	RPM Tree (#3)	233	EA		
139	RPM Shrub (#3)	102	EA		
140	Tree Hydration Bladder (36" Diameter)	126	EA		
141	Hydraulic Erosion Control	17,424	SY		
142	Straw Wattles	1,170	LF		
143	Infiltration Trench	245	CY		
144	Infiltration Testing	8	EA		
145	Pretreatment Chambers	7	EA		
146	Stone Veneer Assemblies	1,630	SFF		
147	Steel Landscape Edging	627	LF		

148	Trench Edging	2,671	LF		
149	Cast-in-Place Concrete Wall	112	CY		
150	Dry Stack Masonry Walls	810	CF		
151	Limestone Boulders (Medium)	30	EA		
152	Limestone Boulders (Large)	13	EA		
153	River Rock (Buffalo River Rock)	7,540	SF		
154	Decorative Aggregate (MO Rainbow Oversized)	3,045	SF		
<b>TOTAL:</b>					

CITY OF FOUNTAINS  
HEART OF THE NATIONKANSAS CITY  
MISSOURI**UNIT PRICES****Project Number:** City Project No. 89008260; Federal Project No. STP 3451(402)**Project Title:** Waukomis Drive Complete Streets Upgrade**NOTE: IN THE EVENT OF DISCREPANCY, UNIT PRICE SHALL GOVERN.**

Item No.	Spec Sec.	Unit	Quantity	Item Description:	Unit Price	Extension
<b>ROADWAY</b>						
1		LS	1	MOBILIZATION		
2		LS	1	CONSTRUCTION STAKING		
3		AC	15.5	CLEARING & GRUBBING		
4		LS	1	REMOVAL OF IMPROVEMENTS		
5		CY	22,553	UNCLASSIFIED EXCAVATION		
6		CY	34,539	EMBANKMENT		
6a		CY	34,539	SOIL TREATMENT (IF LL>40 AND/OR PI>25) (15% FLY ASH OR 5% CEMENT)		
7		SY	15,227	TYPE 5-01 ASPHALTIC CONCRETE SURFACE (2" ROADWAY)		
8		SY	15,227	TYPE 1-01 ASPHALTIC CONCRETE BASE (9" ROADWAY)		
9		SY	4,740	TYPE 1-01 ASPHALTIC CONCRETE BASE (5")		
10		SY	452	TEMPORARY ASPHALT PAVEMENT (6" TYPE 1-01 & 6" MODOT TYPE 5)		
11		SY	530	TEMPORARY GRAVEL DRIVEWAY (6")		
12		SY	2,815	CONCRETE PAVEMENT (10")		
13		SY	808	CONCRETE PAVEMENT (10", STAMPED & COLORED)		
14		SY	1,160	CONCRETE PAVEMENT (8")		
15		SF	5,553	CONCRETE MEDIAN (4")		
16		SY	24,530	MODOT TYPE 5 (6")		
17		SY	266	MODOT TYPE 5 (17")		
18		SY	7,730	KDOT AB-3 (4")		
19		SY	25,645	CHEMICALLY TREATED SUBGRADE(6")		
20		LF	14,788	CONCRETE CURB & GUTTER (ALL TYPES)		
21		SF	12,922	CONCRETE COMMERCIAL DRIVE (8")		
22		SF	20,366	CONCRETE SIDEWALK (6")		
23		SF	35,243	CONCRETE TRAIL (6")		
24		SF	2,572	CONCRETE SIDEWALK RAMP (6")		
25		VSF	11,613	LARGE BLOCK RETAINING WALL		
26		EA	20	CURB INLET TYPE 1 (5'X4')		
27		EA	4	CURB INLET TYPE 1 (5'X6')		
28		EA	2	CURB INLET TYPE 2 (5'X4')		
29		EA	3	AREA INLET (4'X4')		
30		EA	1	AREA INLET (5'X5')		
31		EA	3	JUNCTION BOX JB-1 (4'X4')		
32		EA	1	JUNCTION BOX JB-1 (5'X5')		
33		LF	1,291	15" RCP (CLASS III)		
34		LF	122	18" RCP (CLASS III)		
35		LF	62	24" RCP (CLASS III)		
36		LF	182	30" RCP (CLASS III)		
37		LF	607	36" RCP (CLASS III)		
38		EA	6	15" RCP END SECTION		
39		EA	1	18" RCP END SECTION		
40		EA	1	36" RCP END SECTION		
41		LF	584	6" PERFORATED HDPE		
42		LF	73	6" SOLID PVC		
43		SF	32,605	TIED CONCRETE BLOCK MAT		
44		SY	51	TYPE 3 ROCK DITCH LINER		
45		LF	746	CONSTRUCTION FENCING		
46		LF	556	ORNAMENTAL FENCING (6')		
47		LF	254	ORNAMENTAL FENCING (2')		
48		LF	191	BLACK VINYL COATED CHAIN LINK FENCING (6')		
49		LF	1,174	CHAIN LINK FENCING (6')		
50		LF	75	CHAIN LINK FENCING (8')		
51		EA	1	PRIVATE SIGNAGE		
52		LF	1,463	BIODEGRADABLE LOGS		
53		EA	27	CURB INLET PROTECTION		
54		EA	3	AREA INLET PROTECTION		
55		EA	4	JUNCTION BOX PROTECTION		
56		SF	3,423	CONSTRUCTION ENTRANCE		
57		EA	16	ROCK CHECK DAM		
58		EA	10	UTILITY STRUCTURE TOP ADJUSTMENT		
59		EA	2	PROJECT INFORMATION SIGNS		

Item No.	Spec Sec.	Unit	Quantity	Item Description:	Unit Price	Extension
60		EA	2	VARIABLE MESSAGE SIGNS		
				<b>ROADWAY SUBTOTAL:</b>		

**BRIDGES**

61		EA	1	PRECAST CONCRETE ARCH STRUCTURE (36' Wide)		
62		EA	1	PRECAST CONCRETE ARCH STRUCTURE (60' X12')		
63		CY	470	CONCRETE (CLASS B-2 (SUBSTRUCTURE))		
64		LBS	49,640	REINFORCING STEEL		
65		LF	336	PEDESTRIAN BARRIER WALL		
				<b>BRIDGES SUBTOTAL:</b>		

**TEMPORARY TRAFFIC CONTROL SIGNAGE & EQUIPMENT**

66		EA	7	TEMPORARY SIGN, M4-8 (24X12)		
67		EA	4	TEMPORARY SIGN, M4-9L (30X24)		
68		EA	5	TEMPORARY SIGN, M4-9R (30X24)		
69		EA	7	TEMPORARY SIGN, M6-3 (21X15)		
70		EA	4	TEMPORARY SIGN, CW20-1D (48X48)		
71		EA	5	TEMPORARY SIGN, W20-3 (48X48)		
72		EA	18	TEMPORARY SIGN, W16-8A (24X15)		
73		EA	10	TEMPORARY SIGN, R11-2 (48X30)		
74		EA	30	TEMPORARY SIGN, R11-4 (60X30)		
75		EA	2	TEMPORARY SIGN, R3-1 (36X36)		
76		EA	1	TEMPORARY SIGN, R3-2 (36X36)		
				<b>TRAFFIC - FIBER OPTIC SUBTOTAL:</b>		

**TRAFFIC - SIGNAGE & PAVEMENT MARKINGS**

77		LS	1	EXISTING SIGNAGE REMOVAL		
78		SF	563	FLAT SHEET SIGNS		
79		EA	74	SIGN POST		
80		EA	2	RRFB SYSTEM (SET OF 2 POLES)		
81		LF	3,000	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 4 IN. WHITE		
82		LF	6,500	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 6 IN. WHITE		
83		LF	3,050	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 4 IN. YELLOW		
84		LF	185	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 8 IN. WHITE		
85		LF	80	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN. WHITE		
86		LF	140	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 12 IN. YELLOW		
87		LF	700	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 24 IN. WHITE		
88		EA	12	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT ARROW		
89		EA	1	PREFORMED THERMOPLASTIC PAVEMENT MARKING, RIGHT ARROW		
90		EA	21	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 2'X6' THRU ARROW		
91		EA	2	PREFORMED THERMOPLASTIC PAVEMENT MARKING, RIGHT & THRU SHARED ARROW		
92		EA	2	PREFORMED THERMOPLASTIC PAVEMENT MARKING, LEFT & THRU SHARED ARROW		
93		EA	4	PREFORMED THERMOPLASTIC PAVEMENT MARKING, "ONLY"		
94		EA	6	PREFORMED THERMOPLASTIC PAVEMENT MARKING, SHARED LANE MARKING		
95		EA	13	PREFORMED THERMOPLASTIC PAVEMENT MARKING, 6'X4' BICYCLE		
96		EA	9	PREFORMED THERMOPLASTIC PAVEMENT MARKING, "BIKE LANE"		
97		EA	20	PREFORMED THERMOPLASTIC PAVEMENT MARKING, YIELD LINE TRIANGLES		
				<b>TRAFFIC - SIGNAGE &amp; PAVEMENT MARKINGS:</b>		

**ITS**

98		LF	3,883	CONDUIT (3") TRENCH		
99		LF	3,955	CONDUIT (3") BORE		
100		EA	14	TYPE II PULL BOX (FIBER OPTIC)		
101		LF	3,883	96-CT FIBER OPTIC CABLE		
102		LF	3,955	192-CT FIBER OPTIC CABLE (RELOCATED)		
103		EA	3	FIBER SPLICE		
				<b>ITS:</b>		

**STREET LIGHTING**

104		EA	48	LUMINAIRE DESIGN PARAMETER 'A'		
105		EA	48	POLE (35') DESIGN PARAMETER 'A'		
106		EA	1	LUMINAIRE DESIGN PARAMETER 'B' (KCMO TYPE B LED)		
107		EA	1	POLE (30') DESIGN PARAMETER 'B'		
108		EA	1	TYPE 'B' ARM (6'-0")		
109		LF	5,100	1 #10 RHW/USE INTERNAL POLE WIRE		
110		LF	5,900	2 # 4 RHH/RHW/USE, 1 #4 CU GND., 2" CID		
111		LF	1,450	2 # 6 RHH/RHW/USE, 1 #6 CU GND., 2" CID		
112		LF	200	3" HDPE CONDUIT FOR KCP&L FEED		
113		LF	80	2" EMPTY CONDUIT FOR FUTURE LIGHTING AT SOUTH ROUNDABOUT		
114		LF	200	1 #6 AWG BARE COPPER WIRE		
115		EA	2	4 CIRCUIT LIGHTING CONTROLLER		
116		EA	2	GROUND ROD		
117		EA	96	FUSE KITS		



Bidder: \_\_\_\_\_

Item No.	Spec Sec.	Unit	Quantity	Item Description:	Unit Price	Extension
118		EA	49	NON-FUSSED FUSE KITS		
119		EA	49	CABLE RETAINERS		
120		EA	49	SCREW IN LIGHT POLE BASE		
121		EA	51	ID TAG		
122		EA	2	CONCRETE FOUNDATIONS FOR LIGHTING CONTROLLER		
123		EA	2	EVERGY ELECTRICAL SERVICE THAT INCLUDE EVERGY POLE MOUNTED TRANSFORMER		
124		EA	6	PULL BOX		
125		LF	7,350	TRENCH AND BACKFILL		
126		EA	24	LUMINARE AND ARM REMOVAL		
127		EA	22	WOOD POLE REMOVAL AND EQUIPMENT		
128		EA	2	METAL POLE REMOVAL AND EQUIPMENT		
129		EA	2	POWER HOOKUPS FOR EVERGY POWER SOURCES		
STREET LIGHTING:						
LANDSCAPE						
130		EA	126	DECIDUOUS TREE (2.5" CALIPER)		
131		EA	4,124	PERENNIALS (#1 CONTAINERS)		
132		EA	987	PERENNIALS (4" POT)		
133		EA	3,134	PLUGS		
134		EA	271	BULBS		
135		SY	17,403	FESCUE SOD		
136		AC	3.6	NATIVE SEED & WILDFLOWER SEEDING		
137		AC	3.6	TEMPORARY SEED		
138		EA	233	RPM TREE (#3)		
139		EA	102	RPM SHRUB (#3)		
140		EA	126	TREE HYDRATION BLADDER (36" DIAMETER)		
141		SY	17,424	HYRDAULIC EROSION CONTROL		
142		LF	1,170	STRAW WATTLES		
143		CY	245	INFILTRATION TRENCH		
144		EA	8	INFILTRATION TESTING		
145		EA	7	PRETREATMENT CHAMBERS		
146		SFF	1,630	STONE VENEER ASSEMBLIES		
147		LF	627	STEEL LANDSCAPE EDGING		
148		LF	2,671	TRENCH EDGING		
149		CY	112	CAST-IN-PLACE CONCRETE WALL		
150		CF	810	DRY STACK MASONRY WALLS		
151		EA	30	LIMESTONE BOULDERS (MEDIUM)		
152		EA	13	LIMESTONE BOULDERS (LARGE)		
153		SF	7,540	RIVER ROCK (BUFFALO RIVER ROCK)		
154		SF	3,045	DECORATIVE AGGREGATE (MO RAINBOW OVERSIZED)		
LANDSCAPING:						
GRAND TOTAL:						

Note: May be printed, for manual fill-in, or filled in on electronic excel spreadsheet version.