



ADDENDUM #2

City of Washington, Missouri
Busch Creek Greenway Project, TAP-6406(606)
February 17, 2022

1. A retaining wall will be added to the project in the non-participating portion between shared use path Stations 8+80 thru 12+87. The retaining wall utilizes a separate stationing than the shared use path. Line Item #44 was added to the bid sheet under section "SITEWORK ITEMS - Non-Participating," plan sheet 2 was updated and four new retaining wall sheets 1-4 were created.
2. The updated bid sheet 2 of 2, plan sheet 2 and new retaining wall plan sheets 1-4 are attached. Replace Bid Sheet 2 of 2 on page 14-b in the current specifications with the attached Estimated Quantities Bid Sheet, replace Sheet 2 in the plans with the updated plan and include retaining wall sheets 1-4 in the plan set.
3. The bid due date was revised in Addendum #1:

Bids will be due **Friday, March 11, 2022 up to 2:00 p.m.**, CDT.

Thank you,

John Nilges

John Nilges PE, CFM, CPESC
Director of Public Services

Attachments

Received Addendum #2:

By: _____

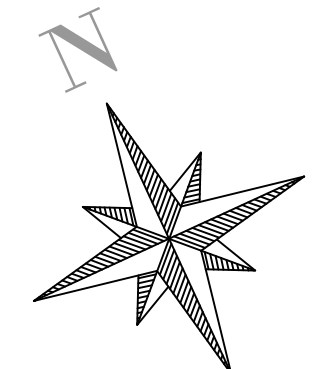
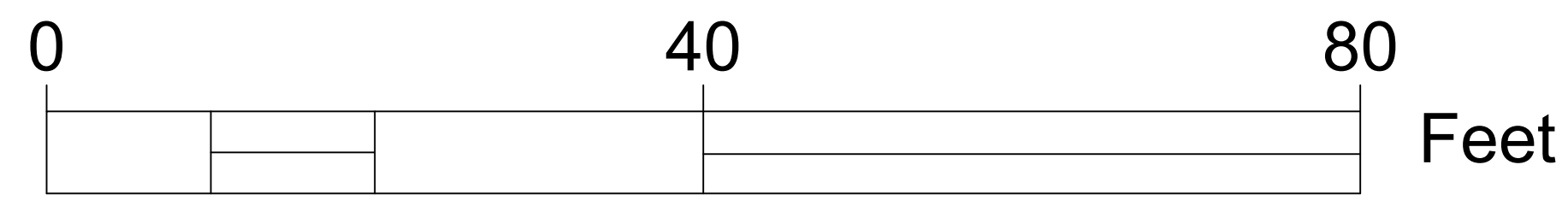
Company Name: _____

Date: _____

Please return signed addendum to gvanek@washmo.gov

Tie into Original Trail
alignment STA 8+80

Proposed
Retaining Wall
370 LF



CITY OF WASHINGTON
ENGINEERING DEPARTMENT
405 JEFFERSON ST
WASHINGTON, MISSOURI 63090
(636)390-1010



**CITY OF WASHINGTON
BUSCH CREEK GREENWAY
TRAIL PLANS
TAP #6406(606) - Addendum 2**

REVISIONS	
Number	Description

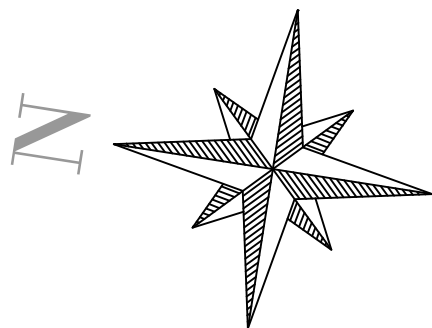
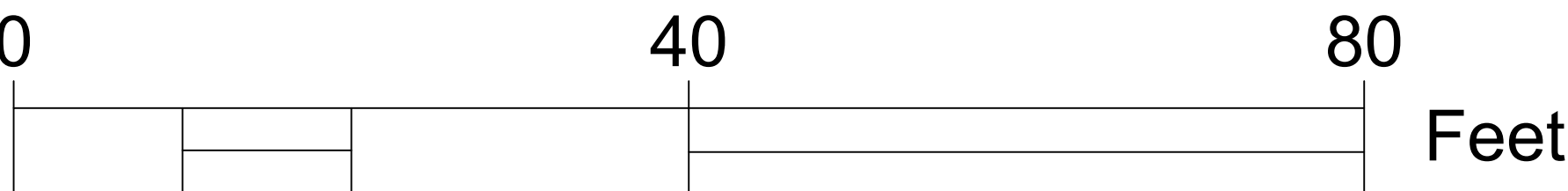
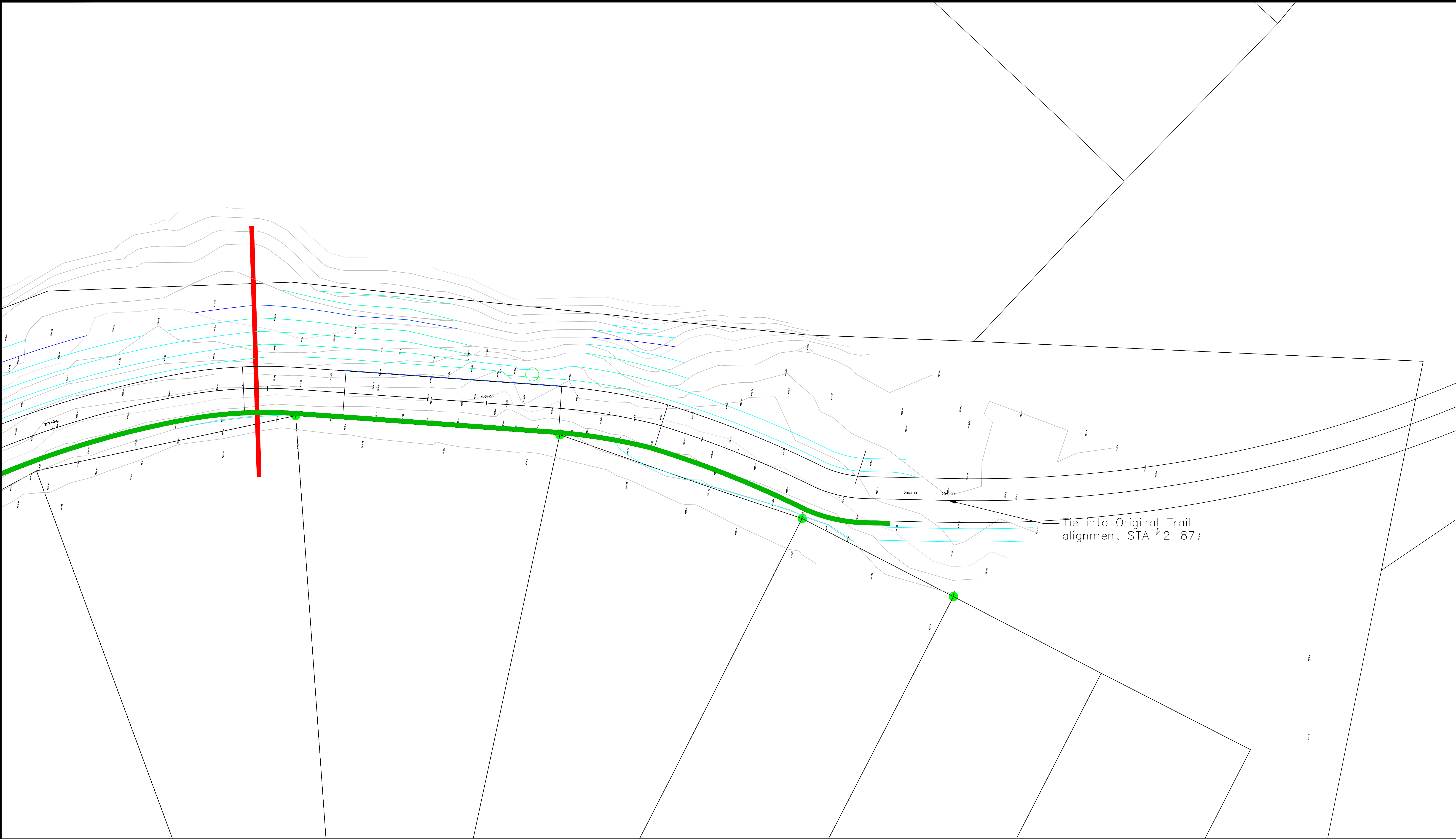
JOHN ROBERT NILGES, P.E.
PE #2013000609
CITY ENGINEER

DATE:
2/14/2022

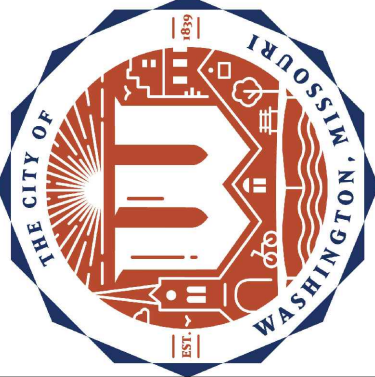
DESIGN BY:
JRN

DRAWN BY:
CAS

SHEET: PLAN SHEET
1 OF 4



CITY OF WASHINGTON
ENGINEERING DEPARTMENT
405 JEFFERSON ST
WASHINGTON, MISSOURI 63090
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**CITY OF WASHINGTON
BUSCH CREEK GREENWAY
TRAIL PLANS
TAP #6406(606) - Addendum 2**

REVISIONS	
Number	Description

JOHN ROBERT NILGES, P.E.
PE #2013000309
CITY ENGINEER

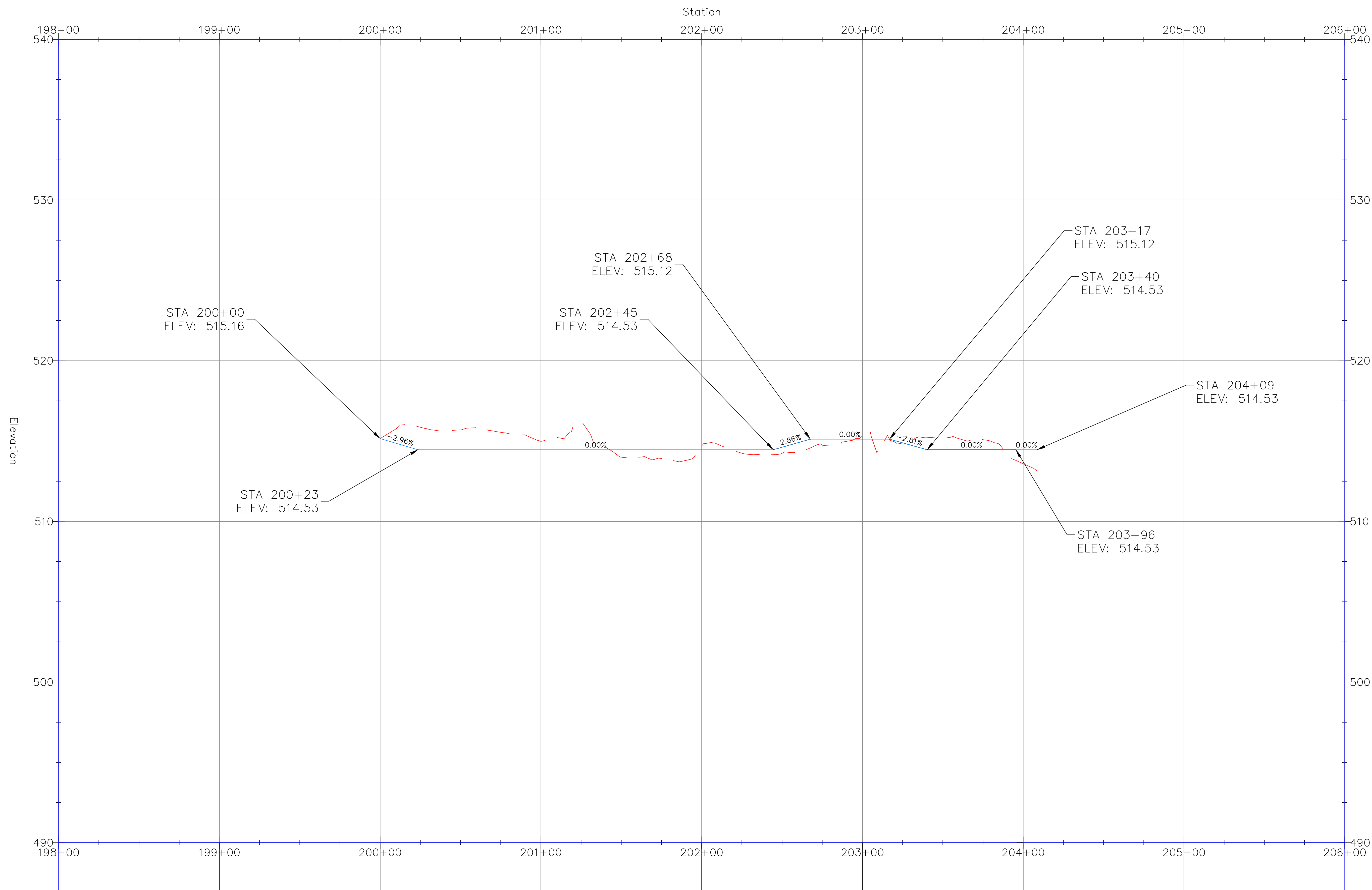
DATE:
2/14/2022

DESIGN BY:
JRN

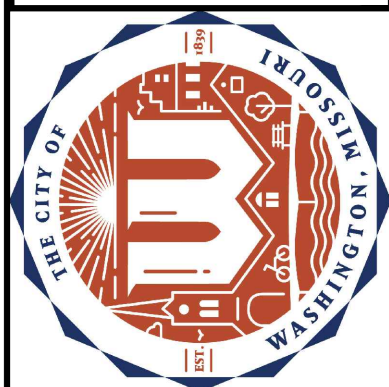
DRAWN BY:
CAS

SHEET: PLAN SHEET
2 OF 4

Proposed Trail Centerline Profile



CITY OF WASHINGTON
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CITY OF WASHINGTON
BUSCH CREEK GREENWAY
TRAIL PLANS
TAP #6406(606) - Addendum 2

REVISIONS	
Number	Description

JOHN ROBERT NILGES, P.E.
PE #2013000603
CITY ENGINEER

DATE:
2/14/2022

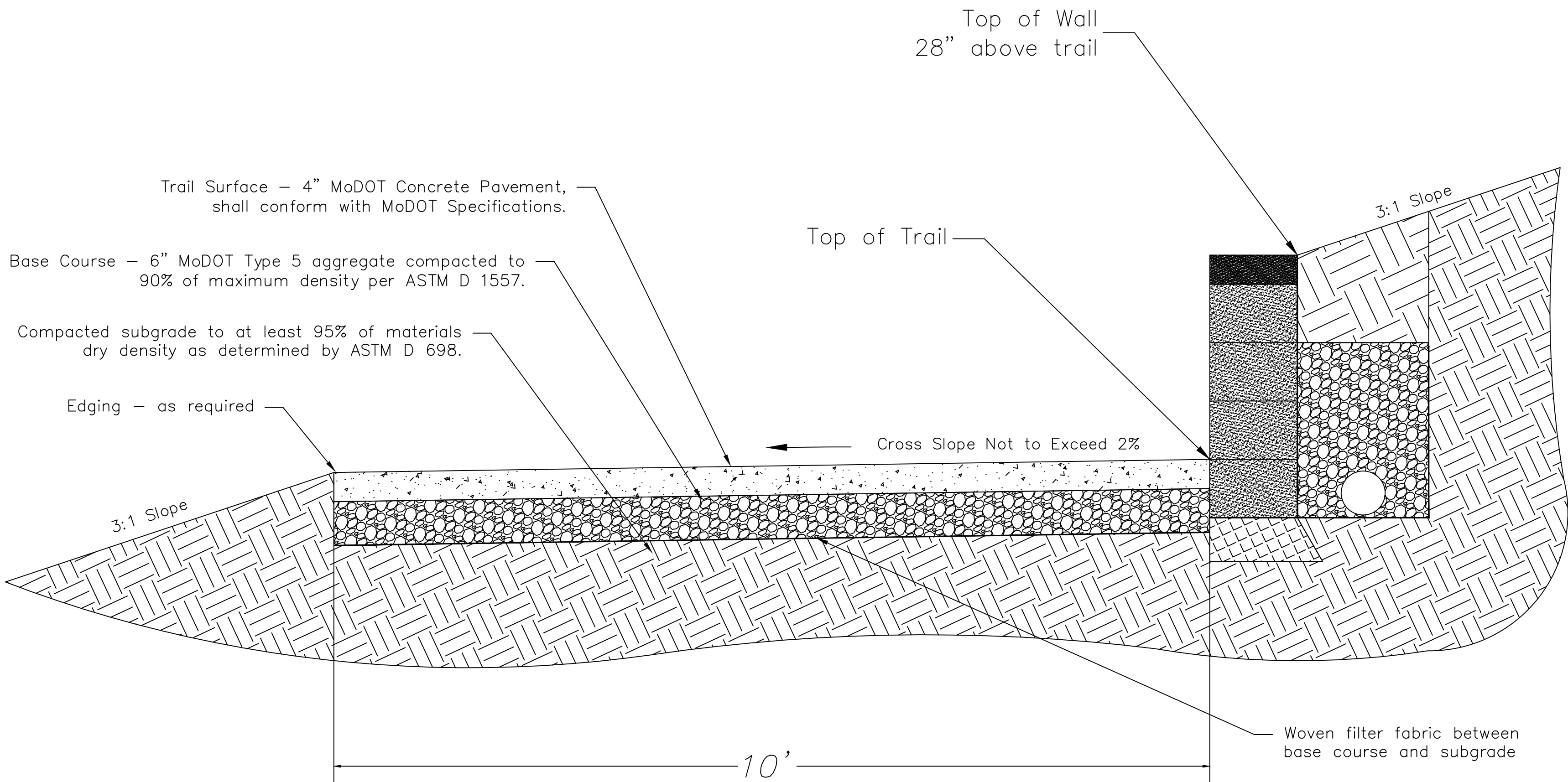
DESIGN BY:
JRN

DRAWN BY:
CAS

SHEET: PLAN SHEET
3 OF 4

Retaining Wall and Trail Detail

NOT TO SCALE



- Notes:
- 1) Provide positive drainage away from trail.
 - 2) Trail alignments shall be reviewed and approved by City prior to construction.
 - 3) Slope path to drain, 2% max. cross slope.
 - 4) Strip topsoil prior to placing subgrade.

Sta 200+23 to Sta 203+96

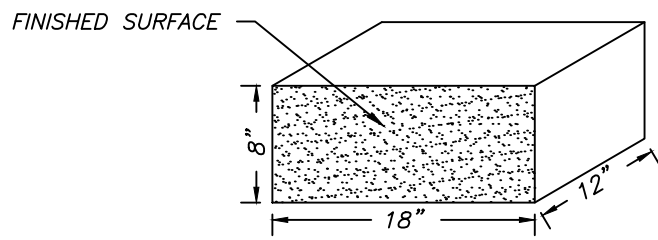
Earthwork Quantities

Cut - 210 CY

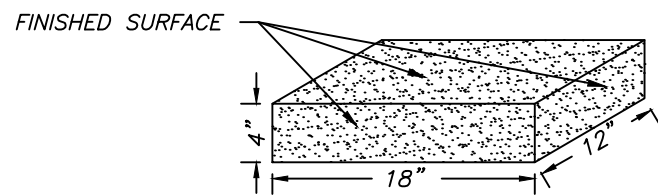
Fill - 160 CY

SMALL BLOCK RETAINING WALL

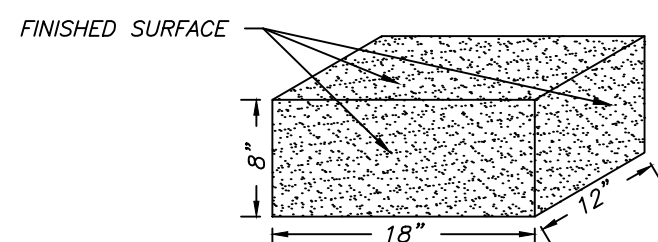
Not to Scale



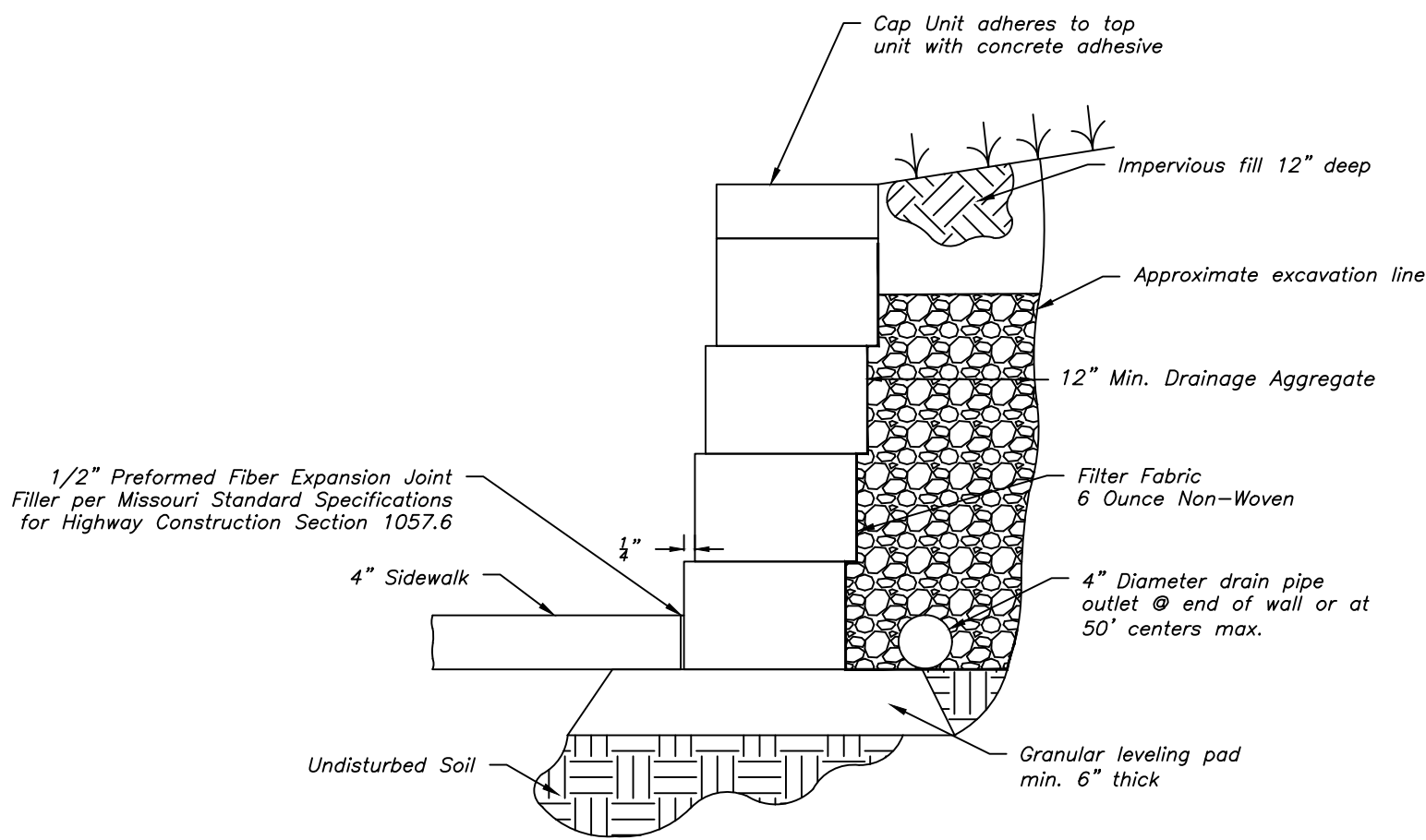
STRAIGHT BLOCK (S)



TOP CAP (TC)



CORNER BLOCK (C)



TYPICAL SECTION - UNREINFORCED RETAINING WALL

Not to Scale

GENERAL NOTES:

MATERIAL PROPERTIES:

1. WALL UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C1372 HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI, A TOTAL AIR CONTENT OF 6%+/- 1%, A SLUMP OF 5" +/- 1" AND A MAXIMUM MOISTURE ABSORPTION OF 8%. ALL UNITS SHALL BE 8" TALL, 18" LONG AND 12" DEEP. THE CAP BLOCK SHALL BE 4" TALL, 18" LONG AND 12" DEEP.
2. DRAINAGE AGGREGATE SHALL BE A CLEAN CRUSHED STONE OR GRANULAR FILL MEETING THE FOLLOWING GRADATION AS DETERMINED IN ACCORDANCE WITH ASTM D 422:

SIEVE SIZE	PERCENT PASSING
1 INCH	100
3/4 INCH	75-100
NO. 4	0-60
NO. 40	0-50
NO. 200	0-5
3. LOW PERMEABLE SOIL SHALL CONSIST OF MATERIAL HAVING A MINIMUM PLASTICITY INDEX OF 10. NO MORE THAN 10% SHALL BE RETAINED ON A NO. 4 SIEVE AND NO LESS THAN 35% SHALL PASS A NO. 200 SIEVE. MATERIAL WITH A USC DESIGNATION OF ML, CL OR OL ARE ACCEPTABLE FOR USE AS LOW PERMEABLE SOIL.
4. DRAINAGE PIPE SHALL BE A PERFORATED OR SLOTTED PVC OR CORRUGATED HDPE PIPE. THE PIPE AND DRAINAGE AGGREGATE SHALL BE WRAPPED WITH A GEOTEXTILE FILTER FABRIC THAT WILL FUNCTION AS A FILTER. DRAINAGE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D 3034 AND/OR ASTM D 1248.

FOUNDATION SOIL PREPARATION:

1. FOUNDATION SOIL SHALL BE EXCAVATED AS REQUIRED FOR LEVELING PAD SHOWN ON DRAWINGS.
2. FOUNDATION SOIL SHALL BE INSPECTED BY A GEOTECHNICAL ENGINEER TO INSURE THAT THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS THE BEARING CAPACITY AS SHOWN ON THE WALL ELEVATIONS. SOILS NOT MEETING THE REQUIRED STRENGTH SHALL BE REMOVED AND REPLACED WITH MATERIAL ACCEPTABLE TO THE GEOTECHNICAL ENGINEER.
3. OVER-EXCAVATED AREAS SHALL BE BACK-FILLED WITH APPROVED, COMPACTED MATERIAL.

BASE LEVELING PAD:

1. LEVELING PAD SHALL BE PLACED AS SHOWN ON THE DRAWINGS AS FOLLOWS:
 - LEAN CONCRETE (2,000 PSI) - 4" MINIMUM THICK
 - WELL GRADED 3/4" GRAVEL WITH FINES - 6" MINIMUM THICK
2. GRAVEL BASE SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR TO PROVIDE A LEVEL, HARD SURFACE.
3. LEVELING PAD SHALL BE CONSTRUCTED TO INSURE FULL BEARING OF RETAINING WALL UNITS.

EXCAVATION:

1. EXCAVATION SUPPORT, INCLUDING THE STABILITY OF THE EXCAVATION AND ITS INFLUENCE ON ADJACENT PROPERTY IS THE RESPONSIBILITY OF THE CONTRACTOR.

UNIT INSTALLATION:

1. THE FIRST COURSE OF MODULAR CONCRETE UNITS SHALL BE PLACED ON THE BASE LEVELING PAD AND CHECKED FOR LEVEL, ALIGNMENT, AND FULL CONTACT WITH BASE.
2. UNITS SHALL BE PLACED SIDE BY SIDE FOR FULL LENGTH OF WALL. ALIGNMENT SHALL BE DONE BY MEANS OF A STRING LINE OR OFFSET MEASUREMENT FROM BASE LINE.
1. INSTALL NON-WOVEN 6 OUNCE FILTER FABRIC PLACED DIRECTLY BEHIND THE WALL EXTENDING FROM THE BOTTOM OF THE BASE COURSE TO THE MIDDLE OF THE TOP COURSE.
4. PLACE DRAINAGE FILL A MINIMUM OF 12" DIRECTLY BEHIND AND BETWEEN THE UNITS. EXCESS MATERIAL SHALL BE REMOVED FROM TOP OF UNITS PRIOR TO INSTALLATION OF NEXT COURSE.
5. LAY UP EACH COURSE INSURING A POSITIVE CONNECTION BETWEEN PREVIOUS COURSE IS ACHIEVED.
6. AT THE END OF EACH DAY'S OPERATION, SLOPE THE LAST LEVEL OF COMPACTED BACKFILL AWAY FROM THE INTERIOR (CONCEALED) FACE OF THE WALL TO DIRECT SURFACE WATER RUNOFF FROM THE WALL FACE.
 - A. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT THE FINISHED SITE DRAINAGE IS DIRECTED AWAY FROM THE RETAINING WALL SYSTEM.
 - B. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT THE SURFACE WATER RUNOFF FROM ADJACENT CONSTRUCTION AREAS IS NOT ALLOWED TO ENTER THE RETAINING WALL AREA OF THE CONSTRUCTION SITE.

FIELD QUALITY CONTROL:

1. THE OWNER IS RESPONSIBLE FOR ENGAGING THE SERVICES OF AN INDEPENDENT THIRD PARTY INSPECTOR TO OBSERVE AND VERIFY ALL SOIL PROPERTIES AND VERIFY CORRECT INSTALLATION OF ALL SYSTEM COMPONENTS TO MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND DRAWINGS.
2. THE INSTALLER SHALL CORRECT ALL WORK WHICH DOES NOT MEET THE REQUIREMENTS OF THESE GENERAL NOTES AND DRAWINGS AT THEIR EXPENSE.

CITY OF WASHINGTON
ENGINEERING DEPARTMENT
405 JEFFERSON ST
WASHINGTON, MISSOURI 63090
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CITY OF WASHINGTON
BUSCH CREEK GREENWAY
TRAIL PLANS
TAP #6406(606) - Addendum 2

REVISIONS	
Number	Description

JOHN ROBERT NILGES, P.E.
PE #2013000609
CITY ENGINEER

DATE:
2/14/2022

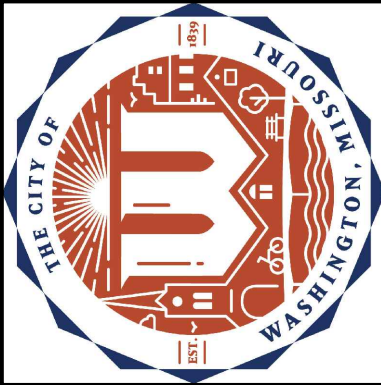
DESIGN BY:
JRN

DRAWN BY:
CAS

SHEET: PLAN SHEET
4 OF 4

			Busch Creek Greenway Trail TAP #6406(606)																					
			1	2	3	8	4	9	5	10	6	11	7	12	19	13	14	15	16	20	17	18	30	21
			Mobilization	Synthetic Erosion Control (Silt Fence)	Pavement Markings Yellow 4" (Participating)	Pavement Markings Yellow 4" (Non-Participating)	Pavement Markings White 4" (Participating)	Pavement Markings White 4" (Non-Participating)	Pavement Markings White 12" (Participating)	Pavement Markings White 12" (Non-Participating)	Pavement Markings White 24" (Participating)	Pavement Markings White 24" (Non-Participating)	Pavement Markings Bike Symbols	18" Reinforced Concrete Pipe (Participating)	18" Reinforced Concrete Pipe (Non-Participating)	21" Reinforced Concrete Pipe	36" Reinforced Concrete Pipe	48" Reinforced Concrete Pipe	36" Concrete Flared End Section	Precast Concrete Drop Inlet 3 FT X 3 FT (Non-Participating)	Precast Concrete Manhole - 60 IN.	Rip-Rap	Modified Concrete Swale (Non-Participating)	Concrete Swale
Location	Sta.	Sta.	LS	LF	LF	LF	LF	LF	LF	LF	LF	LF	EA	LF	LF	LF	LF	LF	LF	EA	EA	SF	LF	SF
			1	500																				
Jefferson & Locust	0+00	5+61																						
Jefferson & Locust	5+61	11+48																						
Locust - Sunnyside	11+48	16+85						120				156												
Locust - Sunnyside	16+85	20+10																						
Sunnyside & 9th Street	20+10	21+00																						
Sunnyside & 9th Street	21+00	24+06				87																		
Sunnyside- 11th to Blue Jay	800+00	801+19						260																
Sunnyside- 11th to Blue Jay	801+19	804+67								217														
9th Street	24+06	29+39																						
Schaper Avenue & MO 47	29+39	35+43																						
MO 47 Intersection	35+43	41+84																						
8th Street	41+84	47+52						145																
8th Street	47+52	53+09																						
8th Street	53+09	58+73																						
8th Street	58+73	64+43																						
8th Street & Camp Street	64+43	69+33																						
Camp Street	69+33	75+93																						
9th Street	75+93	81+51																						
9th Street	81+51	87+14																						
9th Street	87+14	92+88																						
9th Street	92+88	98+61																						
9th Street	98+61	104+46																						
9th Street	104+46	110+33																						
9th Street & Southbend Drive	110+33	116+86				86																		
Southpoint School	116+86	123+22				636																		
Southpoint School	123+22	130+32				710																		
Steriger Avenue & Old Hwy 100	130+32	137+50				26																		
Old Hwy 100 & Kingsland Drive	137+50	143+76						130																
Kingsland Drive	143+76	149+51																						
Kingsland Drive	149+51	155+55																						
Riverfront Trail Connection	155+55	156+88																						
Subtotal - Participating			1	500	2839	0	665	0	373	0	51	0	101	8	0	320	16	15	1	0	1	20	0	68
Subtotal - Non-Participating			0	0	0	1584	0	120	0	156	0	15	0	0	34	0	0	0	0	1	0	0	30	0
Total			1	500	2839	1584	665	120	373	156	51	15	101	8	34	320	16	15	1	1	1	20	30	68

Busch Creek Greenway Trail TAP #6406(606)																								
			22	31	23	24	32	33	25	26	34	35	27	44	28	29	36	38	37	39	40	41	42	43
Location	Sta.	Sta.	10' Wide Concrete Path (Participating)	10' Wide Concrete Path (Non-Participating)	Concrete Sidewalk (4" Thick)	ADA Curb Ramps (Participating)	ADA Curb Ramps (Non-Participating)	60" Chain-Link Fence (Non-Participating)	72" Privacy Fence	Gates (Participating)	Gates (Non-Participating)	Decorative Street Light (Non-Participating)	Tree Clearing	Retaining Wall	Grading, Seeding, and Straw	Slope Grading	Permanent Signs (Participating)	Permanent Signs (Non-Participating)	Relocate Existing Sign (Participating)	Relocate Existing Sign (Non-Participating)	Channelizers	ROAD WORK AHEAD (W20-1) Sign 48" x 48"	BE PREPARED TO STOP (W3-4) Sign 48" x 48"	Flagger Symbol Sign (W20-7a) 48" x 48"
			SF	SF	SF	SF	SF	LF	LF	EA	EA	EA	LS	LS	LS	LS	EA	EA	EA	EA	EA	EA	EA	EA
													1	1	1	1		1			100	2	2	2
Jefferson & Locust	0+00	5+61		4980				53				1						1						
Jefferson & Locust	5+61	11+48		4910			826				2							22						
Locust - Sunnyside	11+48	16+85		5360																				
Locust - Sunnyside	16+85	20+10		3260																				
Sunnyside & 9th Street	20+10	21+00				107													8	1				
Sunnyside & 9th Street	20+11	24+06	2190			280																		
Sunnyside- 11th to Blue Jay	800+00	801+19			185					2							4							
Sunnyside- 11th to Blue Jay	801+19	804+67			1395	147																		
9th Street	24+06	29+39	5330																					
Schaper Avenue & MO 47	29+39	35+43	6030																					
MO 47 Intersection	35+43	41+84	3030						102															
8th Street	41+84	47+52								2								10						
8th Street	47+52	53+09																6						
8th Street	53+09	58+73																4						
8th Street	58+73	64+43																4						
8th Street & Camp Street	64+43	69+33																6						
Camp Street	69+33	75+93																4						
9th Street	75+93	81+51																2						
9th Street	81+51	87+14																6						
9th Street	87+14	92+88																4						
9th Street	92+88	98+61																4						
9th Street	98+61	104+46				360												8						
9th Street	104+46	110+33																4						
9th Street & Southbend Drive	110+33	116+86	2160			318				2								9		1				
Southpoint School	116+86	123+22	6360																					
Southpoint School	123+22	130+32	7100															2						
Steringer Avenue & Old Hwy 100	130+32	137+50	1560															11						
Old Hwy 100 & Kingsland Drive	137+50	143+76				100				2														
Kingsland Drive	143+76	149+51																8						
Kingsland Drive	149+51	155+55																8						
Riverfront Trail Connection	155+55	156+88				330																		
Subtotal - Participating			33760	0	1580	1932	0	0	102	8	0	0	1	1	1	1	112	0	1	0	100	2	2	2
Subtotal - Non-Participating			0	18510	0	0	826	53	0	0	2	1	0	0	0	0	0	31	0	1	0	0	0	0
Total			33760	18510	1580	1932	826	53	102	8	2	1	1	1	1	1	112	31	1	1	100	2	2	2



CITY OF WASHINGTON

BUSCH CREEK GREENWAY

TRAIL PLANS

TAP #6406(606)

REVISIONS			
Number	Description		
1	2-9-2022		
2	2-10-2022		

JOHN ROBERT NILGES, P.E.

PE #2013000609

CITY ENGINEER

DATE:

2/10/2022

DESIGN BY:

JRN

DRAWN BY:

CAS

BUSCH CREEK GREENWAY IMPROVEMENT PROJECT				Contractor Name: _____					
PROJECT		TAP #6406(606)							
BID SHEET 2 OF 2						PARTICIPATING		NON-PARTICIPATING	
	SITEWORK ITEMS - Participating					Unit Cost	Total	Unit Cost	Total
21	Concrete Swale			68	SF			----	----
22	10' Wide Concrete Path			33,760	SF			----	----
23	Concrete Sidewalk (4" Thick)			1,580	SF			----	----
24	ADA Curb Ramps			1,932	SF			----	----
25	72" Privacy Fence			102	LF			----	----
26	Gates			8	EA			----	----
27	Tree Clearing			1	LS	----	----	----	----
28	Grading, Seeding, and Straw			1	LS			----	----
29	Slope Grading			1	LS			----	----
	SITEWORK ITEMS - Non-Participating					----	----	----	----
30	Modified Concrete Swale			30	LF	----	----		
31	10' Wide Concrete Path			18,510	SF	----	----		
32	ADA Curb Ramps			826	SF	----	----		
33	60" Chain-Link Fence			53	LF	----	----		
34	Gates			2	EA	----	----		
35	Decorative Street Light			1	EA	----	----		
44	Retaining Wall, Grading & Excavation included, Quantities on Plans			1	LS	----	----		
	SIGN ITEMS - Participating					----	----	----	----
36	Permanent Signs			120	EA			----	----
37	Relocate Existing Sign			1	EA			----	----
	SIGN ITEMS - Non-Participating					----	----	----	----
38	Permanent Signs			31	EA	----	----		
39	Relocate Existing Sign			1	EA	----	----		
	TRAFFIC CONTROL ITEMS - Participating					----	----	----	----
40	Channelizers			100	EA			----	----
41	ROAD WORK AHEAD (W20-1) Sign 48" x 48"			2	EA			----	----
42	BE PREPARED TO STOP (W3-4) Sign 48" x 48"			2	EA			----	----
43	Flagger Symbol Sign (W20-7a) 48" x 48"			2	EA			----	----
BID PROJECT SUBTOTAL						\$		\$	
BID PROJECT TOTAL						\$			
*Any rock required for concrete and storm sewer work is included in unit bid price.									
**All sawcuts are incidental									

See Bid Sheet 1 of 2 on previous page.

REMOVED #27 PER ADDENDA #1 dated February 9, 2022
 ADDED #44 PER ADDENDA #2 dated February 17, 2022