



Forsyth County Procurement

Donna H. Kukarola, CPPO, CPPB | Director

July 10, 2020

ADDENDUM #1

Bid No. 20-83-5212

For: To provide all materials, equipment, and labor for the replacement of a portion of the Big Creek Greenway, from McFarland Road Trailhead to Union Hill, approximately 1.810 miles.

This addendum supersedes and supplements all portions of the bidding documents and becomes part of the contract documents for the above-referenced project.

Where any item called for in the specifications or indicated on the drawings is supplemented hereby, the original requirements shall remain in effect.

Where any original item is amended, voided or superseded hereby, the provision of such item not so specifically amended, voided or superseded shall remain in effect.

Response to questions received: (response in italics)

1. The typical boardwalk section #1 on sheet 05-0001 notes boardwalks 1-6 are to have steel caps. Sheet 35-0002 Indicates steel caps are an option in reusing existing piles yet the section drawing notes for new or existing. Please clarify/ quantify the amount of steel caps to be used on each boardwalk. *Boardwalks 1-6 are to have steel caps as noted on the plans. The option for wooden caps as indicated on sheet 35-0002 are only in locations where new boardwalk is proposed (not replaced) outside of the sewer line easement.*
2. Steel caps in large quantities will be expensive. Will 3 x 12 wood caps for all boardwalks be an acceptable substitution? *Wood caps are only allowable on boardwalks on new locations (boardwalks 5A, 8 and 9) as shown on the plans. In all other areas steel caps are required.*
3. The plans indicate that 20% of the posts are expected to be replaced. Is that 20% represented in the lump sum items for each boardwalk with the Replace 6x6 Timber Boardwalk Post used as a unit price for overages or is that 275' represent the 20% referred to in the plans? *The lump sum for each boardwalk to be replaced (boardwalks 1-*

6) is for super structure replacement only. The 275 replacement posts represents 20% of the post assumed to need replacing. For completely new boardwalks (5A, 8 and 9) the lump sum cost for boardwalk should include the complete installation of the boardwalk including posts. Any post required beyond the 275 (20%) will be paid for by the established unit price for each 6x6 post.

4. General Note 16 indicates that we will pressure wash the trail after construction. Is this all 5 miles of the trail or just the sections we work on? *The entirety of the trail between McFarland and Union Hill trailheads shall be pressure washed. North of Union Hill Road only areas where work is completed or sections of the trail used for access by the contractor shall be pressure washed.*
5. Who will be responsible for the existing construction materials laying along the trail from previous repairs? *The County is not aware of any existing construction materials along the trail from previous repairs. If any exist, it will not be the responsibility of the contractor to remove.*
6. We are being told that the lumber market has a shortage of treated materials and that there is an extensive back log to get the materials. Will this be taken into consideration for the awarded contractor and scheduling of the project? *Yes, the County will work with the selected contractor on schedule due to any material shortages.*
7. It appears that the distance between top of deck and bottom of beam will be much greater than the ground clearance in most locations. To achieve the depth required to get all wood members in place will require excavation which will likely hit top of existing support post footing or undermine the footing. Could smaller joist/beams be used in this area or should contractor take replacing the post in to consideration while rebuilding? It appears that the post/footing replacement will be much more the 275 allotted for the project. *We recognize that some elements of the structure at transitions between at-grade concrete trail and proposed boardwalk will be buried. We expect the contractor will grade to drain to ensure the stringers are out of the ground as quickly as possible over the first couple of spans. If the posts need to be replaced in these first couple of spans to complete construction then that is understandable. The 275 post is an estimate of 20% replacement of the posts. The is responsible for inspecting and replacing post that are not in good structural condition in coordination with the County. It is possible that more post will be required to be replaced, and if so, will be done for the provided unit price for each additional post. The joist/beams shall be as shown on the plans.*

8. Will the trail section from McFarland rd. to Union Hill trail head be closed for the duration of the construction to protect pedestrians or will only the areas under construction be closed? *Yes, the County will close the entire section from McFarland Road to the Union Hill Road Trailhead for the duration of construction. Contractor to ensure to place appropriate signage and barriers.*
9. Will there be any additional access provided by the owner for the concrete portions of the trail? *The available access to the trail is from the existing trailheads and trail itself.*
10. Regarding the treatment level shown on the plans, ACZA (ammoniacal copper zinc arsenate) is predominantly used to treat Douglas-fir. It is not available for SYP and, as it contains arsenic, would not be EPA approved for use in a pedestrian structure. (It could be acceptable for structural members determinate on design criteria.) The primary non-arsenical preservative currently offered is Copper Azole (CA-C). One other point related to the wood preservative was it appeared they were requesting a 0.80 lb./cu. ft. retention level for handrail posts. This retention level is typical for round timber piling but not for sawn lumber or timbers. Sawn Lumber & Timbers, AWP A U1, Commodity Specification: Structural Framing: UC4B and Deck level and above: UC4A would be the industry standard. *The CA-C Treatment is acceptable for Southern Pine. Other treatments that are acceptable for Southern Pine include ACQ (alkaline copper quarernary), MCA (micronized copper azole), and CBA (copper azole). We specified 0.80/UC4C only for substructure posts (although we only said "posts" in the plans) and 0.60/UC4B for all other wood components. The wording in the plans has been revised to ensure that all wood components have the correct treatment for sawn lumber.*
11. - On the pile caps, can you confirm the correct use of options 1 and 2? Can option 1 be used for all caps, or is it only for new posts? Is steel required for the reuse of all existing posts? *Option 1 is allowable (and desired) for boardwalks 5A, 8 and 9. The others (1-6) must use Option 2. This is due to the exiting sewer line running along and under the existing boardwalks 1-6. A wooden cap is not viable where the posts are spaced 12' apart as existing to avoid sewer line relocations. Any post that are replaced shall be replaced in the same location as existing.*
12. - Would the county consider any value engineering options at the time of the bid? If so, would they need to be issued as an alternate bid schedule with an explanatory narrative? *No, the bid should be made based upon the provided plans.*
13. - Will the silt fence be required to be installed in the areas where the boardwalk will be rebuilt? The specs call for top down construction methods to be used, and the installation of trenched in silt fence will create a significant amount of disturbance. *Silt fence may be omitted at boardwalks 1-6 where all work is required to be performed from the top of*

boardwalk. The contractor shall be responsible for maintaining sediment within the entirety of the work zones and silt fence is required in all areas of ground disturbance.

14. - Will the top rail need to be composite, or would a timber product be considered? *The top rail shall be composite as shown on the plans.*
15. -Once the boardwalk is complete and has been pressure washed, will an application of wood sealant be required once the new wood has been allowed to dry? *No.*
16. - Will the county provide a unit price line item for curbing and handrail? *The contractor shall replace the curbing and handrail as existing along the trail. A unit price line item has been added to establish costs and to estimate the amount of curbing and handrailing required.*
17. Should it be assumed that the longitudinal bracing will be replaced anywhere the posts are replaced? *Yes.*
18. - Is it possible that one post would be retained and the other replaced, or should they be replaced as a pair as needed? *It is possible that only one post is replaced if the other is in good structural condition.*
19. - On sheet 35-0002, there are two details for the pile caps. Option 1 says for all new construction, while option 2 says for reused posts. Would the county consider as an alternate the exclusive use of the timber caps? If so, could there be an alternate consideration for a solid beam cap? *Option 1 is for locations where the existing posts much be reused at their 12' wide spacing in order to avoid conflicts with the existing sanitary sewer line. A timber cap is not structurally sufficient for the reuse of the existing posts. Option 2 is acceptable for all other locations as shown and noted in the plans.*
20. - On sheet 04-0001, note 6 states that the boardwalks will be built using top down construction, and no equipment will be allowed in the wetlands. Will type C be required for the length as it appears, or will be it be installed judiciously at the direction of the project manager? *Yes, type C silt fence is required for the length as shown on the detail on drawing 05-0001.*
21. - Will a county representative be on site daily with decision making power to make determinations regarding the re-use of piles as the segments are demolished so that progress is not delayed? *Staff will be made available as necessary.*

End of Addendum #1

Forsyth County
BID SCHEDULE 20-83-5212 REVISED ADDENDUM #1
 Big Creek Greenway Rehabilitation Segment 1

Pay Item #	Item Description	Qty.	Unit	Unit Price	Total
	Trail				
210-0100	GRADING COMPLETE	1	LS		
310-5060	GR AGGR BASE CRS, 6 INCH, INCL MATL	599	SY		
441-0106	CONC SIDEWALK, 6 IN	554	SY		
550-2150	SIDE DRAIN PIPE, 15 IN, H 1-10 (AS DIRECTED)	100	LF		
				Sub Total	
	Erosion Control				
163-0232	TEMPORARY GRASSING	1	AC		
163-0240	MULCH	6	TN		
163-0300	CONSTRUCTION EXIT	4	EA		
165-0010	MAINTENANCE OF TEMPORARY SILT FENCE, TP A	10,358	LF		
165-0101	MAINTENANCE OF CONSTRUCTION EXIT	4	EA		
171-0030	TEMPORARY SILT FENCE, TYPE C	20,716	LF		
700-6910	PERMANENT GRASSING	1	AC		
700-7000	AGRICULTURAL LIME	3	TN		
700-8000	FERTILIZER MIXED GRADE	2	TN		
700-8100	FERTILIZER NITROGEN CONTENT	50	LB		
				Sub Total	
	Signing & Marking				
	SOLID TRAFFIC STRIPE, 4 IN, WHITE (PAINT)	370	LF		
				Sub Total	
	Boardwalks				
540-1102	REMOVAL OF EXISTING BR, BOARDWALK 1	1	LS		
	BOARDWALK 1	1	LS		
540-1102	REMOVAL OF EXISTING BR, BOARDWALK 2	1	LS		
	BOARDWALK 2	1	LS		
540-1102	REMOVAL OF EXISTING BR, BOARDWALK 3	1	LS		
	BOARDWALK 3	1	LS		
540-1102	REMOVAL OF EXISTING BR, BOARDWALK 4	1	LS		
	BOARDWALK 4	1	LS		
540-1102	REMOVAL OF EXISTING BR, BOARDWALK 5	1	LS		
	BOARDWALK 5	1	LS		

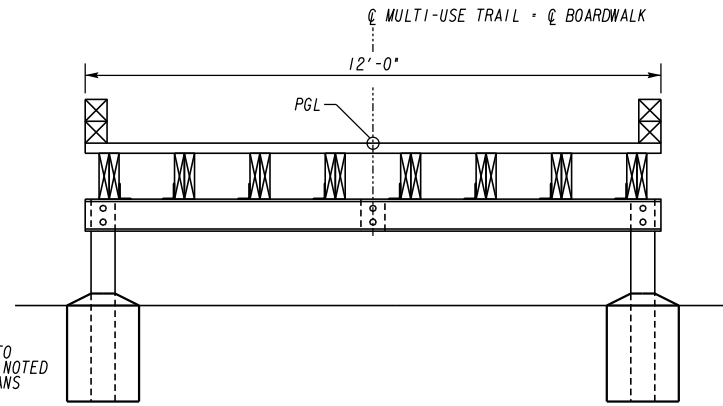
	BOARDWALK 5A	1	LS		
540-1102	REMOVAL OF EXISTING BR, BOARDWALK 6	1	LS		
	BOARDWALK 6	1	LS		
	BOARDWALK 8	1	LS		
	BOARDWALK 9	1	LS		
	REPLACE 6x6 TIMBER BOARDWALK POST (AS DIRECTED)	275	EA		
	TIMBER HANDRAIL	3,940	LF		
	TIMBER CURB	14,436	LF		
				<i>Sub Total</i>	
TOTAL PROJECT CONSTRUCTION =					

Authorized Signature

Date

Print Name and Title

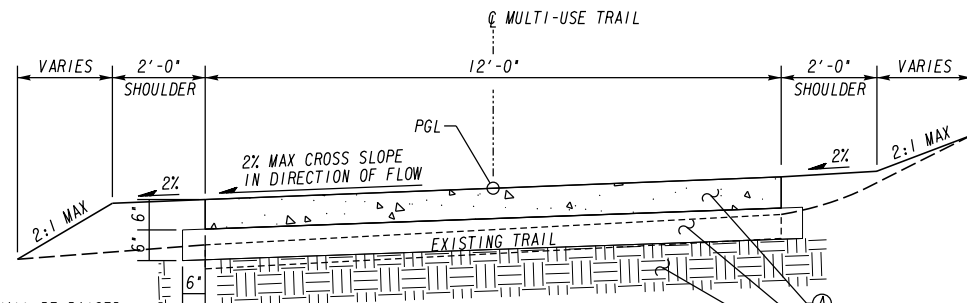
Company Name



NOTE:
PROPOSED BOARDWALK PROFILE TO
MATCH EXISTING EXCEPT WHERE NOTED
TO BE RAISED BY 3'-0" ON PLANS

TYPICAL SECTION 1 - BOARDWALK REPLACEMENT
FOR ADDITIONAL DETAILS SEE 35-SERIES

- BOARDWALK 1
- BOARDWALK 2
- BOARDWALK 3
- BOARDWALK 4
- BOARDWALK 5
- BOARDWALK 6

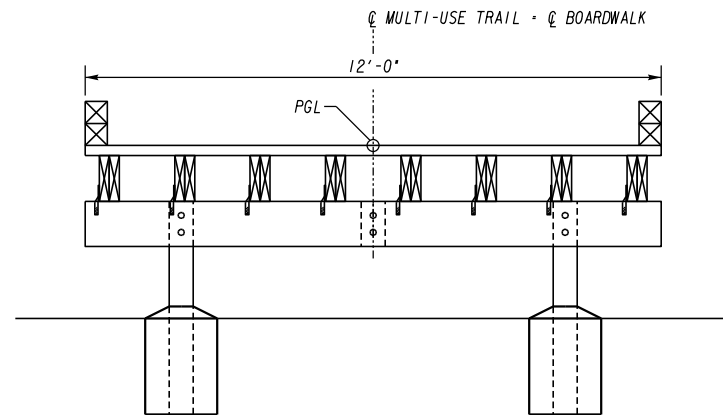


NOTE:
SLAB ON GRADE SHALL BE RAISED
A MINIMUM OF 6" FROM EXISTING
PGL OR SUFFICIENT HEIGHT
TO PROVIDE POSITIVE DRAINAGE
WITHIN PROJECT EASEMENT

TYPICAL SECTION 2 - REPLACEMENT OF SLABS ON GRADE

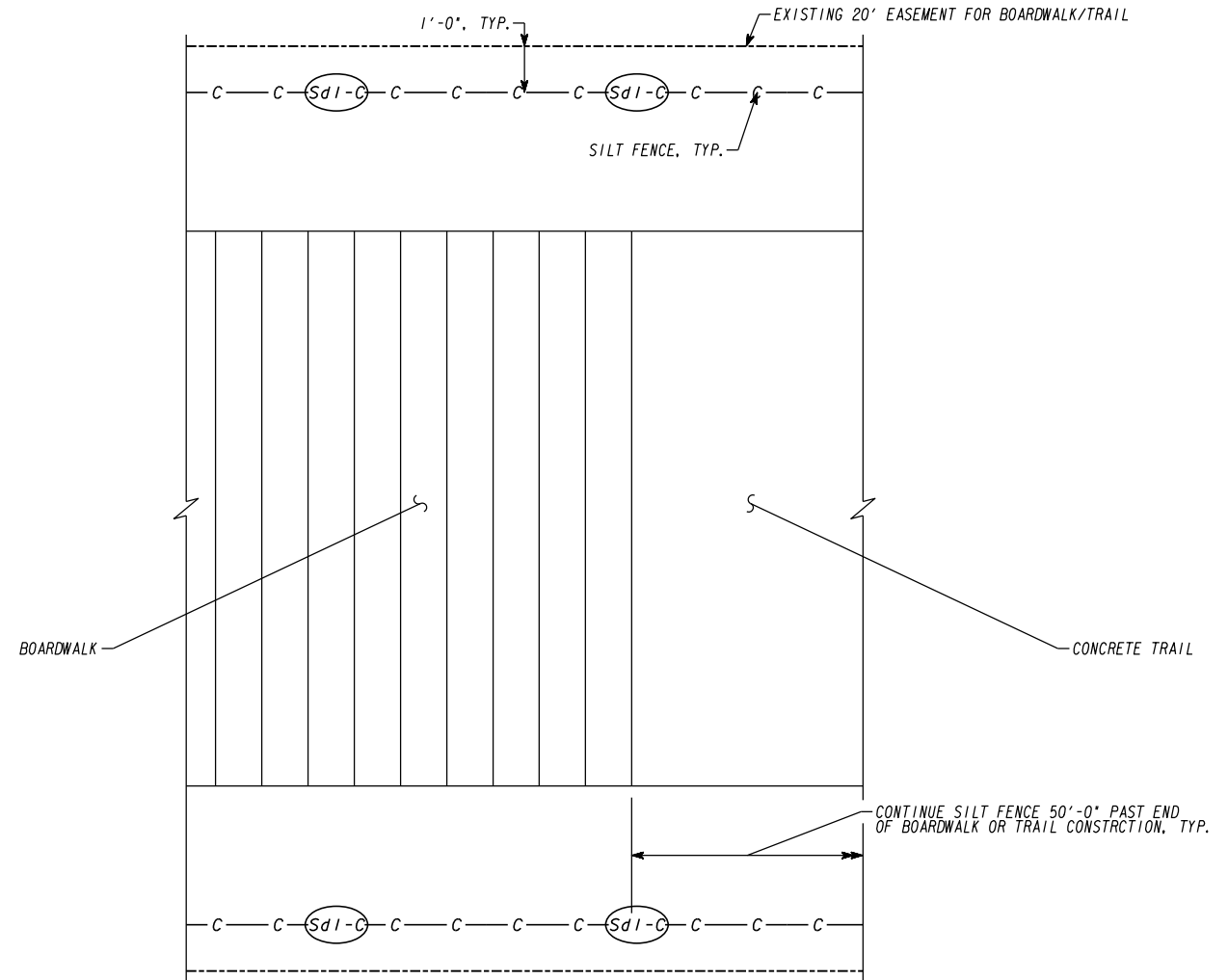
SEGMENT 7

- (A) - CONCRETE SIDEWALK - 6 IN THICK
- (B) - GRADED AGGREGATE OR STABILIZED BASE CRS - 6 IN THICK
- (C) - COMPACTED SUBGRADE



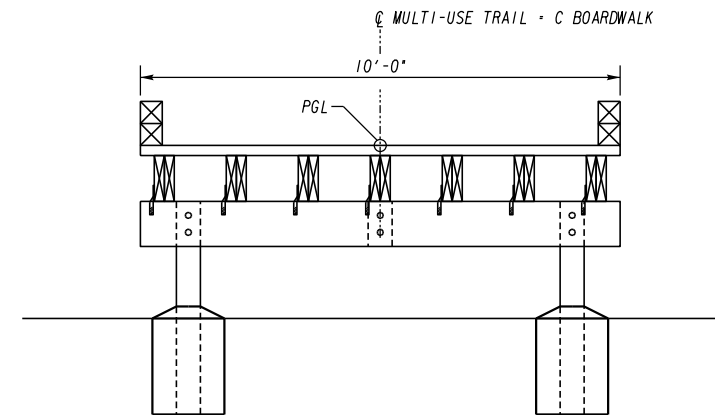
TYPICAL SECTION 3 - PROPOSED BOARDWALK
FOR ADDITIONAL DETAILS SEE 35-SERIES

BOARDWALK 5A
BOARDWALK 9



TYPICAL SILT FENCE PLACEMENT

NOTE: SILT FENCE MAY BE OMITTED AT BOARDWALKS 1-6 WHERE ALL WORK IS
REQUIRED TO BE PERFORMED FROM THE TOP OF BOARDWALK. THE CONTRACTOR SHALL
BE RESPONSIBLE FOR MAINTAINING SEDIMENT WITHIN THE ENTIRETY OF THE WORK
ZONES AND SILT FENCE IS REQUIRED IN ALL AREAS OF GROUND DISTURBANCE.



TYPICAL SECTION 4 - PROPOSED BOARDWALK
FOR ADDITIONAL DETAILS SEE 35-SERIES

BOARDWALK 8

SUMMARY QUANTITIES

GRADING COMPLETE	
TOTAL	1 LS

GR AGGR BASE CRS, 6 INCH, INCL MATL	
TOTAL	544 SY
ADDITIONAL AS DIRECTED	55 SY

CONCRETE SIDEWALK, 6 IN	
TOTAL	503 SY
ADDITIONAL AS DIRECTED	51 SY

SIDE DRAIN PIPE, 15 IN H 1-10 (AS DIRECTED)	
TOTAL	100 LF

CONSTRUCTION EXIT	
TOTAL	4 EA

MAINTENANCE OF TEMPORARY SILT FENCE, TP C	
TOTAL	10358 LF

MAINTENANCE OF CONSTRUCTION EXIT	
TOTAL	4 EA

TEMPORARY SILT FENCE, TYPE C	
TOTAL	20716 LF

SOLID TRAFFIC STRIPE, 4 IN, WHITE (PAINT)	
TOTAL	370 LF

GRASSING			AGRICULTURAL LIME	FERTILIZER MIXED GRADE	FERTILIZER NITROGEN CONTENT	MULCH
	UNIT	QUANTITY	TN	TN	LB	TN
PERMANENT GRASSING	AC	1	3	1	50	3
TEMPORARY GRASSING	AC	1	0	1	0	3
TOTALS		2	3	2	50	6

REMOVAL OF EXISTING BR, BOARDWALK 1	
TOTAL	1 LS

BOARDWALK 1	
TOTAL	1 LS

REMOVAL OF EXISTING BR, BOARDWALK 2	
TOTAL	1 LS

BOARDWALK 2	
TOTAL	1 LS

REMOVAL OF EXISTING BR, BOARDWALK 3	
TOTAL	1 LS

BOARDWALK 3	
TOTAL	1 LS

REMOVAL OF EXISTING BR, BOARDWALK 4	
TOTAL	1 LS

BOARDWALK 4	
TOTAL	1 LS

REMOVAL OF EXISTING BR, BOARDWALK 5	
TOTAL	1 LS

BOARDWALK 5	
TOTAL	1 LS

BOARDWALK 5A	
TOTAL	1 LS

REMOVAL OF EXISTING BR, BOARDWALK 6	
TOTAL	1 LS

BOARDWALK 6	
TOTAL	1 LS

BOARDWALK 8	
TOTAL	1 LS

BOARDWALK 9	
TOTAL	1 LS

REPLACE 6X6 TIMBER BOARDWALK POST (AS DIRECTED)	
TOTAL	275 EA

TIMBER HANDRAIL	
TOTAL	3,940 LF

TIMBER CURB	
TOTAL	14,436 LF

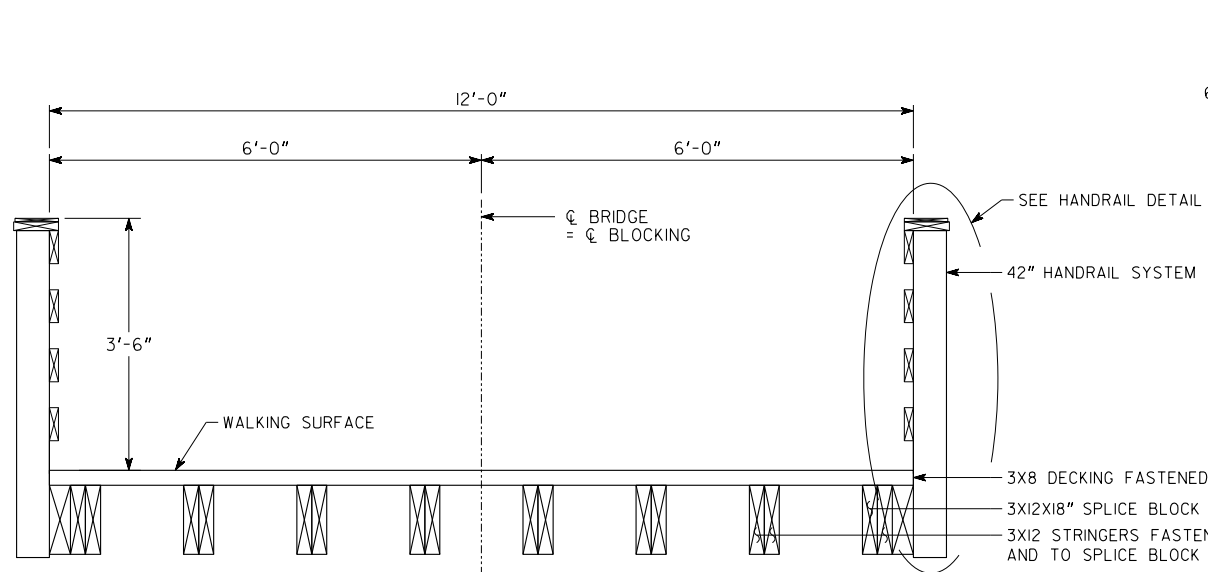
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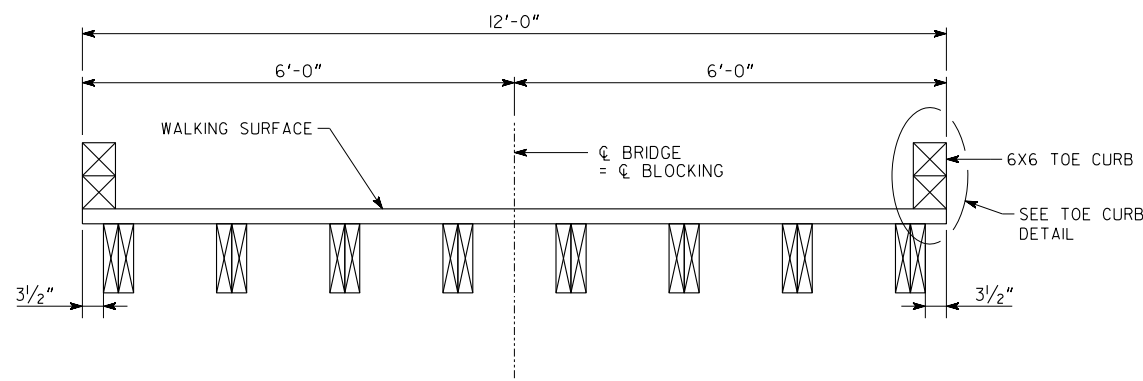
REVISION DATES

FORSYTH COUNTY
SUMMARY QUANTITIES
 BIG CREEK GREENWAY
 REHABILITATION

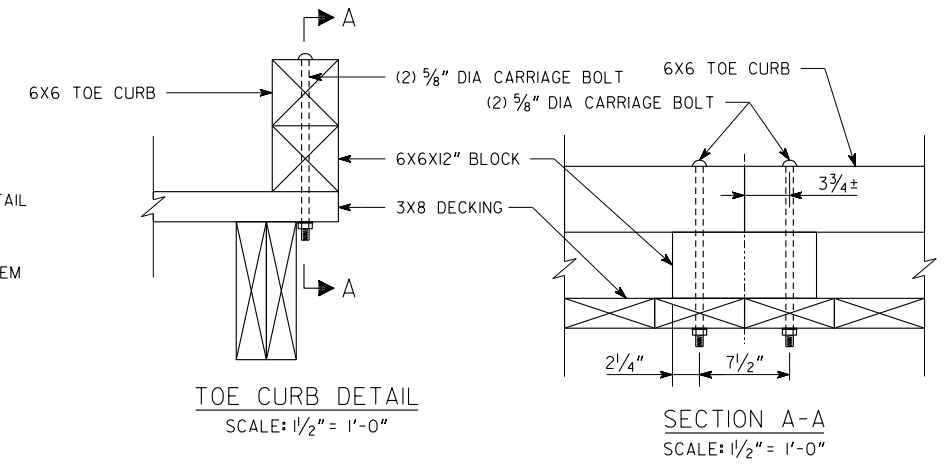
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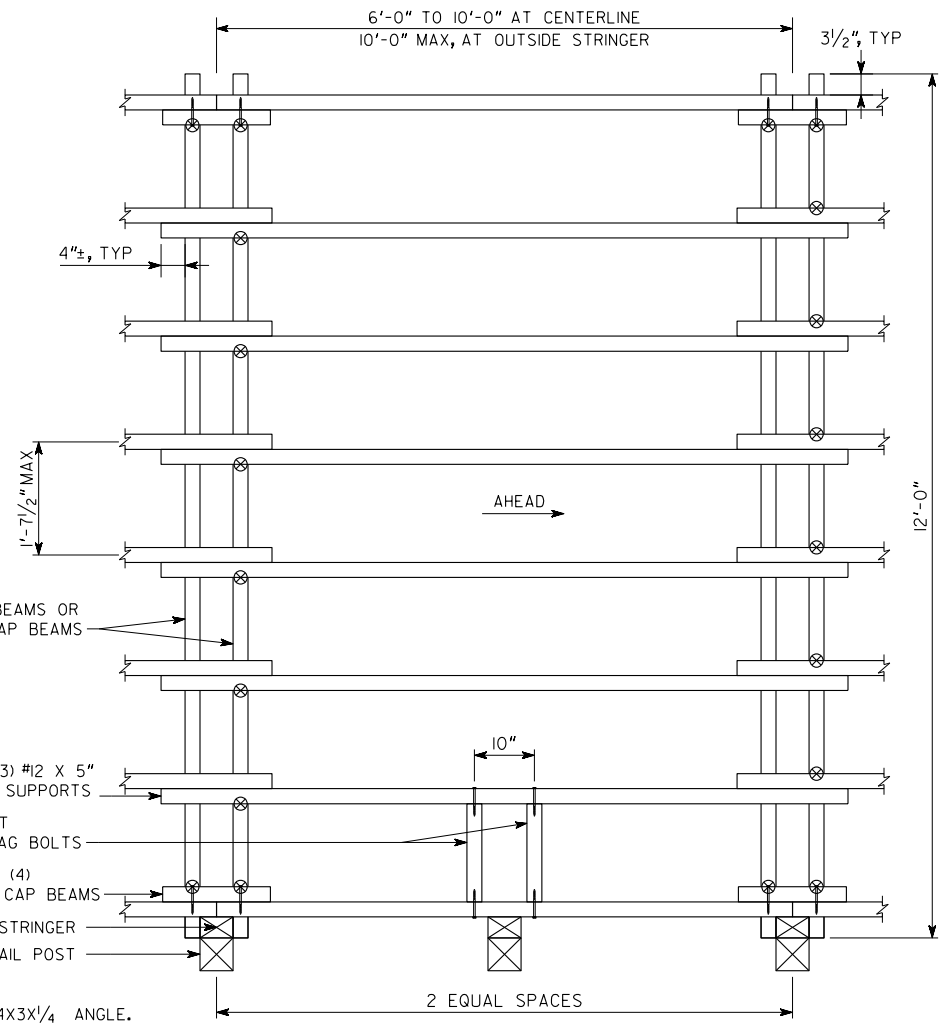
BOARDWALK TYPICAL SECTION WITH HANDRAIL
USE HANDRAIL WHEN WALKING SURFACE IS HIGHER THAN GROUND BY 30"



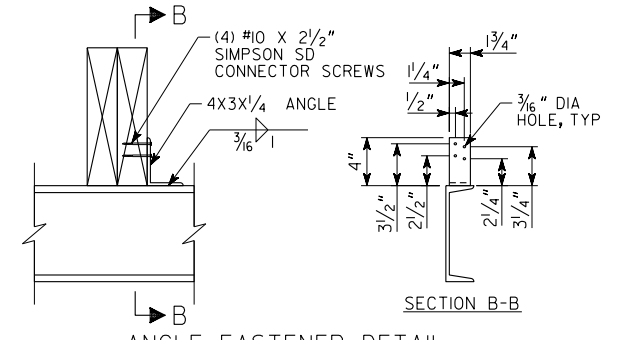
BOARDWALK TYPICAL SECTION WITH TOE CURB
STRINGER AND DECK DETAILS SIMILAR TO SECTION THROUGH HANDRAIL
USE HANDRAIL WHEN WALKING SURFACE IS HIGHER THAN GROUND 30"



TOE CURB DETAIL SCALE: 1/2" = 1'-0"
SECTION A-A SCALE: 1/2" = 1'-0"



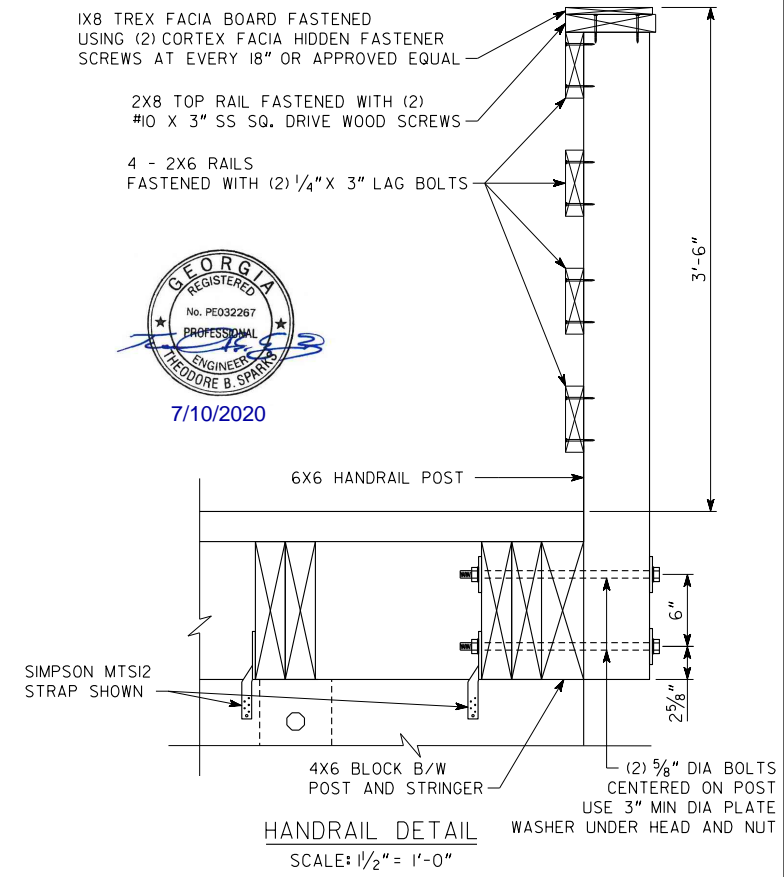
TYPICAL FRAMING PLAN
HANDRAIL SHOWN ONLY ON ONE SIDE OTHER SIDE DEPICTS TOE CURB SECTIONS.



ANGLE FASTENER DETAIL SCALE: 1/2" = 1'-0"

- FASTENER NOTES:
- ⊗ - INDICATES LOCATIONS OF SIMPSON MTS12 STRAP OR 4X3X1/4 ANGLE.
 - USE MTS12 STRAP FOR WOOD CAP AND 4X3X1/4 ANGLE FOR STEEL CAP
 - SIMPSON CONNECTORS SHALL FOLLOW MANUFACTURERS RECOMMENDED INSTALLATION REQUIREMENTS.

- GENERAL NOTES:
- BOARDWALK IS DESIGNED IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS 17TH EDITION, 2002 AND AWC NDS 2015.
 - BOARDWALK IS DESIGNED FOR THE FOLLOWING LOADS:
PEDESTRIAN LOADING: 90 PSF
VEHICULAR LOADING: H-5 TRUCK (NO IMPACT)
CONSTRUCTION LOADING: 18,000 LBS (INCLUDING ATTACHMENTS)
 - CONCRETE: $f'_c = 4,000$ PSI
STEEL PLATE: ASTM A36 GALVANIZED ACCORDING TO ASTM A123
CHANNEL AND ANGLE : ASTM A36 PAINTED WITH PAINT SYSTEM II AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS AFTER WELDING.
 - BOLTS SHALL BE ASTM A307 GRADE A. NUTS SHALL BE ASTM A563. REGULAR WASHERS SHALL BE ASTM F844 AND PLATE WASHERS SHALL BE ASTM F436.
 - BOLTS, NUTS, WASHERS, NAILS & LAG BOLTS SHALL BE GALVANIZED ACCORDING TO ASTM A153.
 - WASHERS SHALL BE PROVIDED UNDER BOLT AND LAG SCREW HEADS AND NUTS THAT ARE IN CONTACT WITH WOOD. PLATE WASHERS SHALL BE PROVIDED AT HANDRAIL POST BASE CONNECTIONS.
 - ALL LUMBER SHALL BE VISUALLY GRADED, SOUTHERN PINE INSPECTION BUREAU (SPIB) SOUTHERN PINE NO. 1.
 - ALL WOOD COMPONENTS SHALL BE PRESSURE IMPREGNATED WITH WOOD PRESERVATIVE IN ACCORDANCE WITH THE REQUIREMENTS OF AWPA STANDARD UC4B WITH .31 CA-C RETENTION WITH THE EXCEPTION OF DECKING, HANDRAIL POSTS, RAILS AND TOE CURB WHICH MAY BE UC4A WITH .15 CA-C RETENTION.
 - TIMBER POST FOUNDATION HOLES SHALL BE AUGERED TO FIRM SOIL CAPABLE OF 1500 PSF MINIMUM BEARING CAPACITY.
 - NEW STRINGERS AND BEAMS SHALL BE INSTALLED ONLY ON NEW CAP BEAMS.
 - CONDITION OF THE EXISTING POST FOR RE-USE SHALL BE DETERMINED BY VISUAL INSPECTION BY PARKS AND REC MAINTENANCE. POST SHALL BE VOID OF ANY SECTION LOSS, ROT OR CRACKS. ENGINEER SHALL BE CONTACTED IF THIS DETERMINATION CANNOT BE MADE.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER.

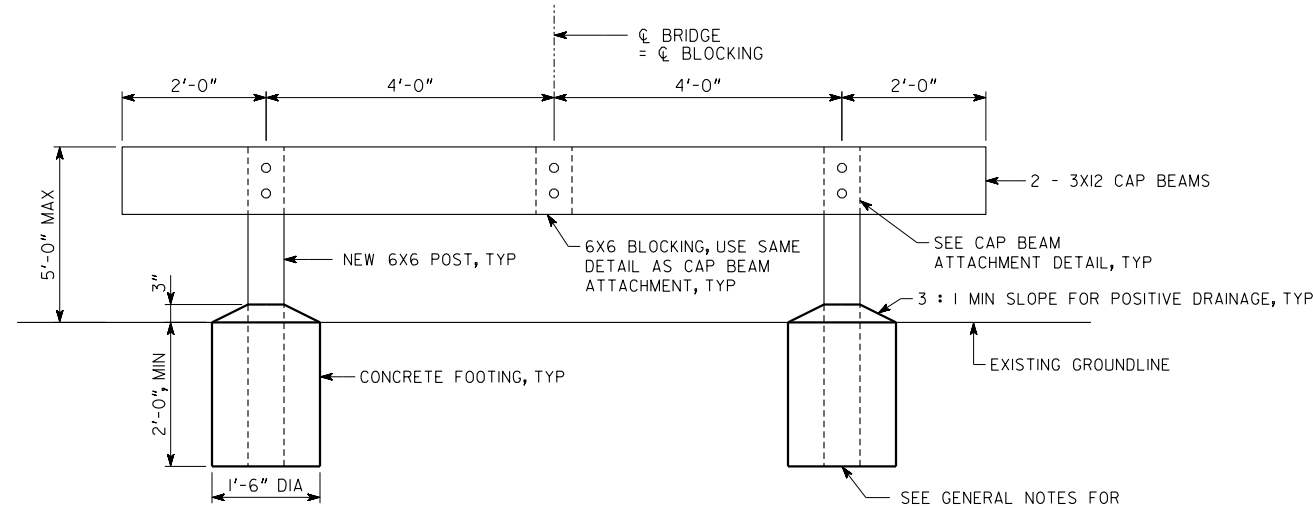


H&L Heath & Lineback Engineers
INCORPORATED
2390 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5395
(770)424-1668

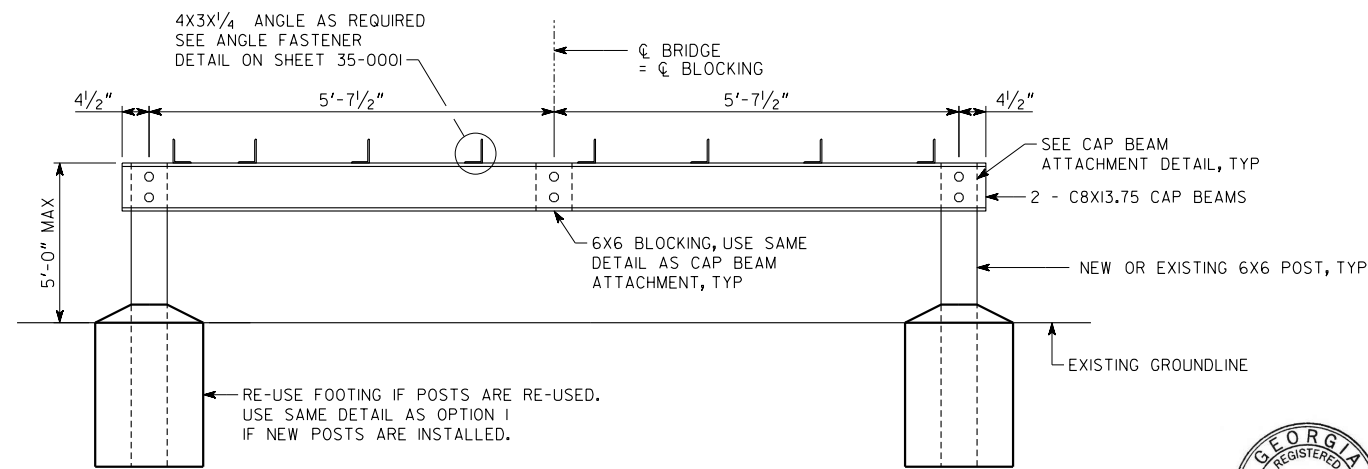
SCALE: 3/4" = 1'-0"
(UNLESS NOTED OTHERWISE)

SCALE IN INCHES

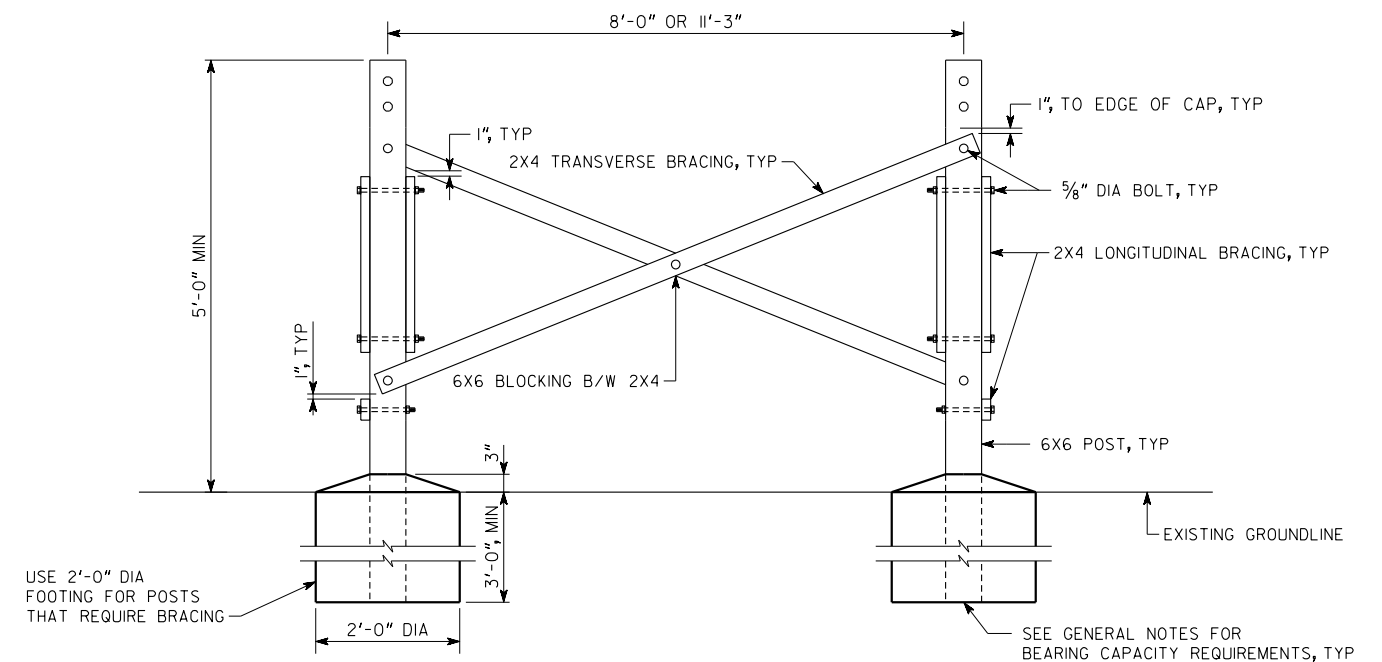
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		TIMBER BOARDWALK DETAILS (1 OF 3)	
		12' WIDE SECTIONS	
		BIG CREEK GREENWAY REHABILITATION	
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CORRECTED:	DATE:		
VERIFIED:	DATE:		



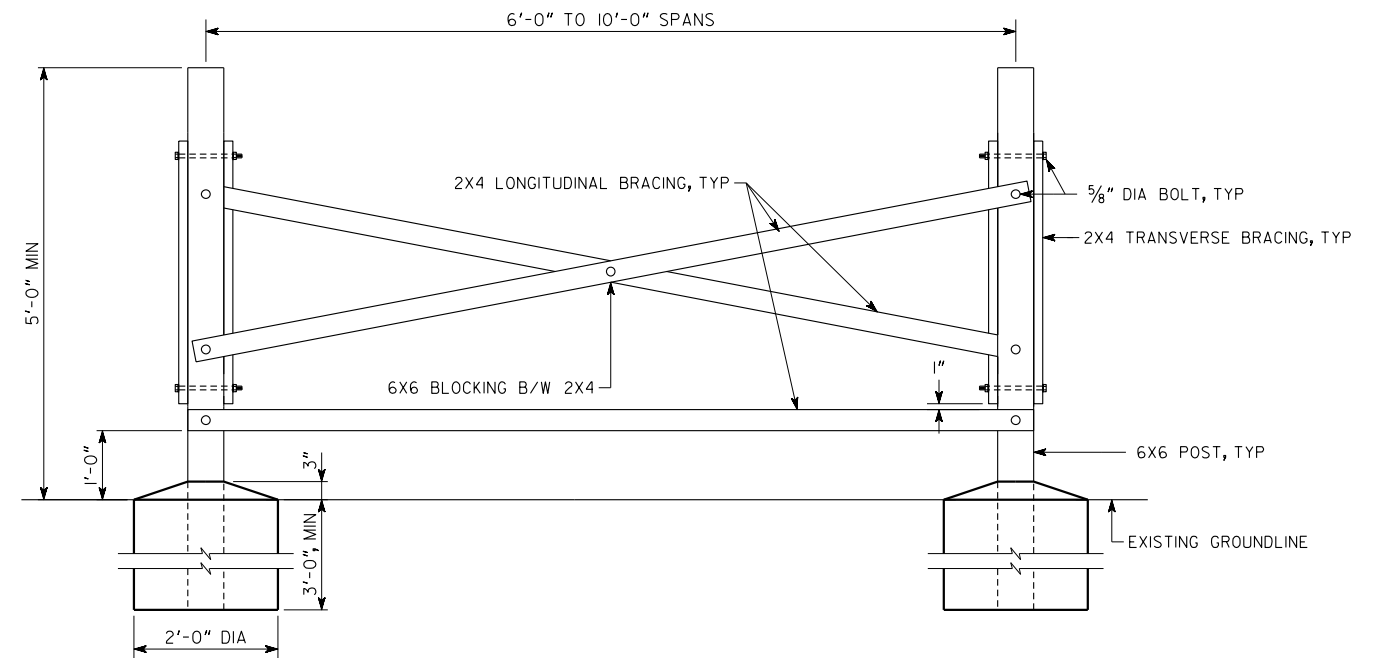
SUBSTRUCTURE REHAB OPTION 1 - WOOD CAP
TO BE USED IN ALL NEW CONSTRUCTION



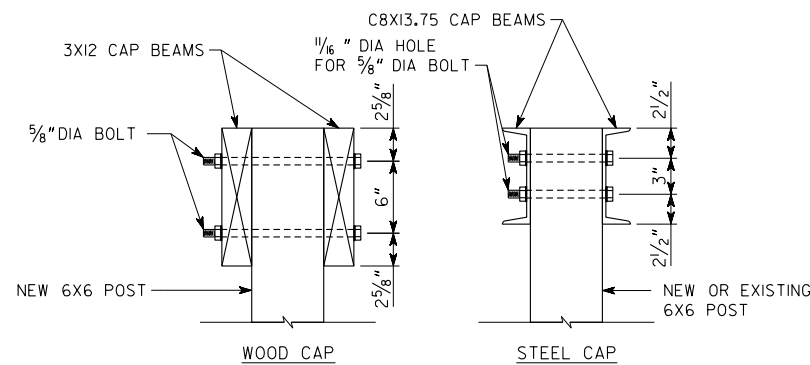
SUBSTRUCTURE REHAB OPTION 2 - STEEL CAP
RE-USE EXISTING POSTS IF THEY ARE IN GOOD CONDITION AND CAN BE RE-USED AS SPECIFIED IN THE GENERAL NOTES



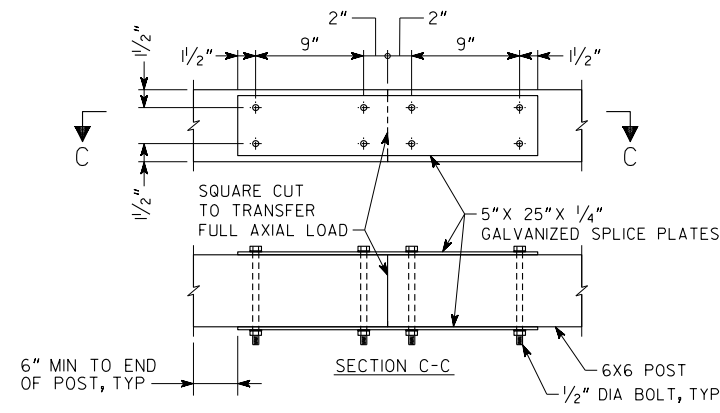
BRACING DETAIL - TRANSVERSE SECTION
PROVIDE TRANSVERSE BRACING AT EVERY SUPPORT WHEN HEIGHT EXCEEDS 5'-0"



BRACING DETAIL - SIDE ELEVATION
PROVIDE LONGITUDINAL BRACING AT EVERY OTHER SPAN WHEN HEIGHT EXCEEDS 5'-0"



CAP BEAM ATTACHMENT DETAIL
SCALE: 1/2" = 1'-0"

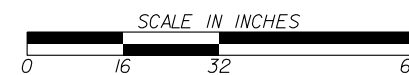


6X6 POST SPLICE DETAIL
SCALE: 1/2" = 1'-0"
USE DETAIL TO RE-USE AND EXTEND EXISTING POSTS IF THEY ARE IN GOOD CONDITION AS SPECIFIED IN GENERAL NOTES



H&L Heath & Lineback Engineers
INCORPORATED
2390 CANTON ROAD, BUILDING 200
MARIETTA, GEORGIA 30066-5393
(770)424-1668

SCALE: 3/4" = 1'-0"
(UNLESS NOTED OTHERWISE)



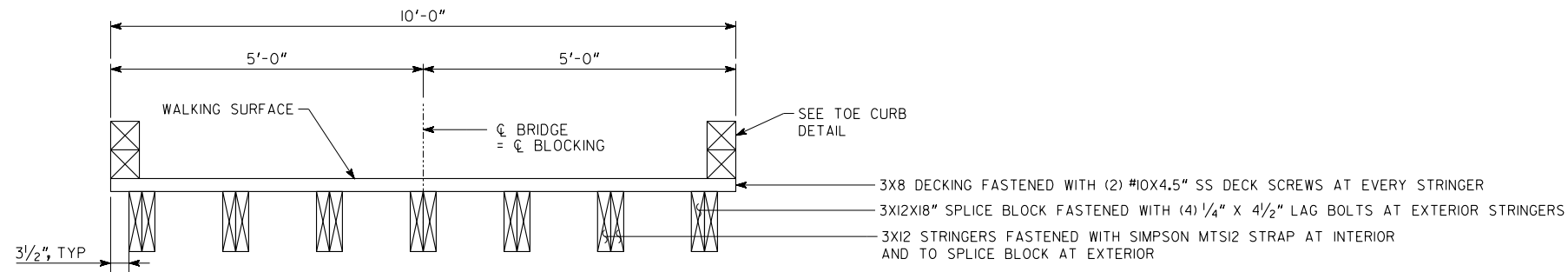
REVISION DATES

FORSYTH COUNTY
TIMBER BOARDWALK DETAILS (2 OF 3)
12' WIDE SECTIONS
BIG CREEK GREENWAY REHABILITATION

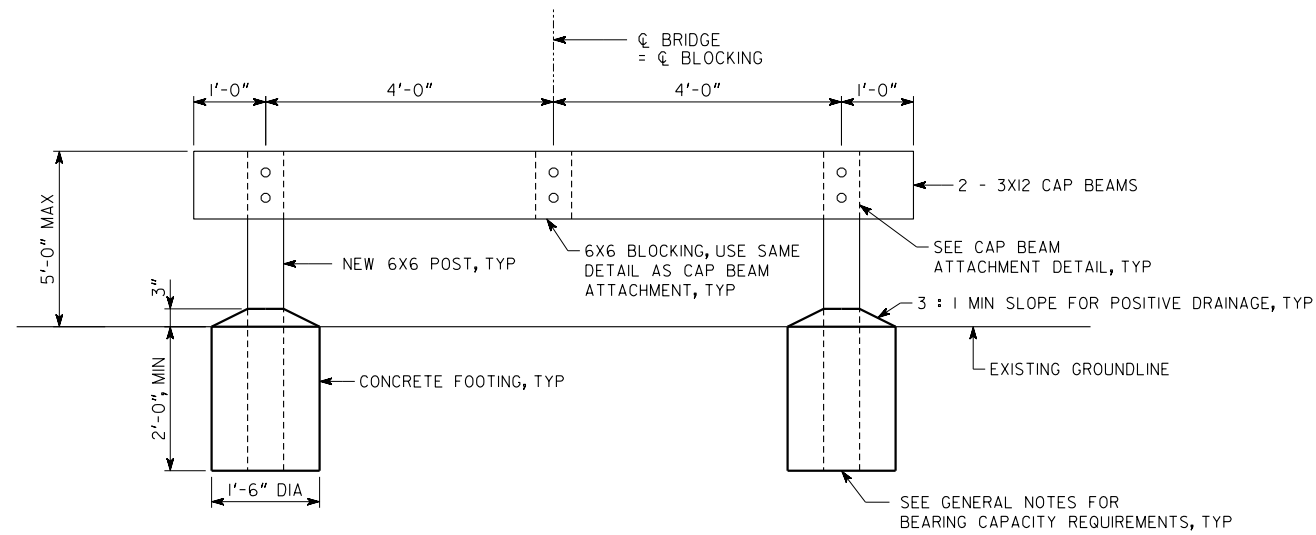
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VERIFIED:	DATE:	

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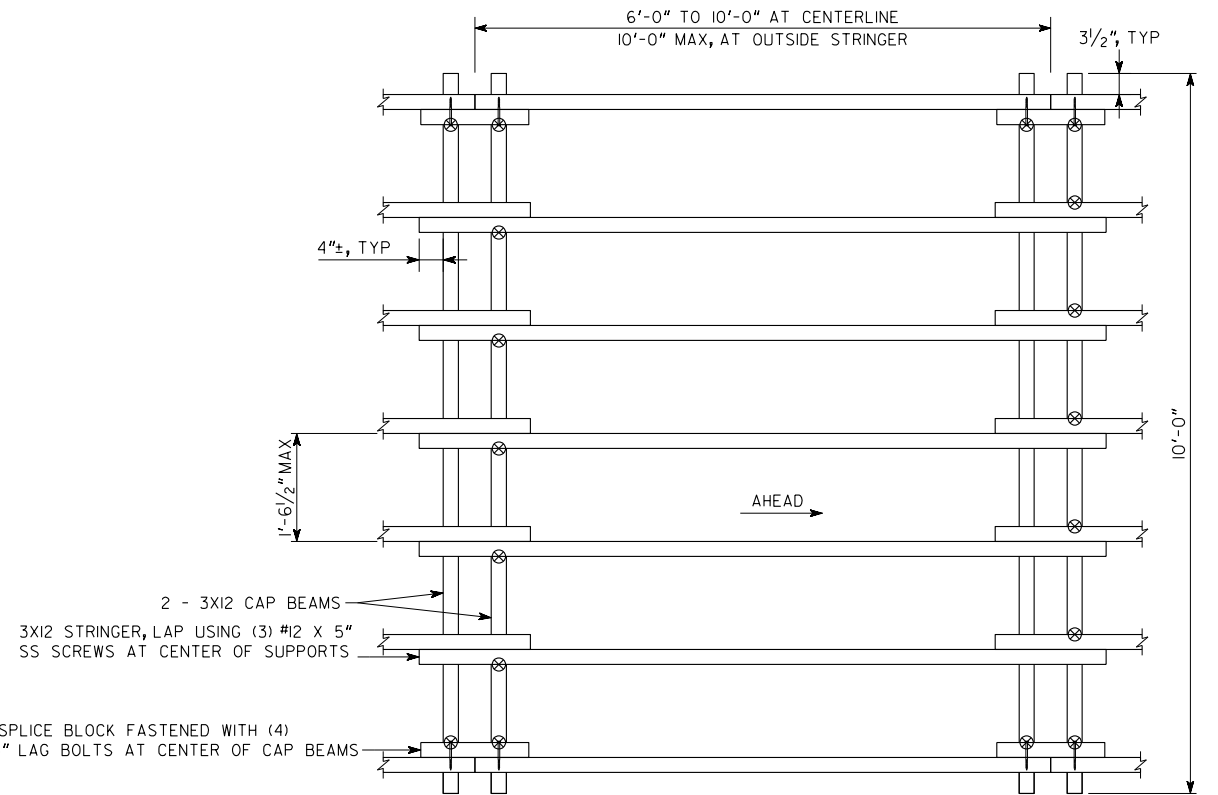
- FOR GENERAL NOTES AND ADDITIONAL DETAILS SEE SHEET 35-0001 & 35-0002.
- THE DETAILS ON THIS SHEET SHALL ONLY BE USED FOR BOARDWALK 8.



BOARDWALK TYPICAL SECTION WITH TOE CURB
USE HANDRAIL WHEN WALKING SURFACE IS HIGHER THAN GROUND BY 30"



TYPICAL SUBSTRUCTURE DETAIL
TO BE USED IN ALL NEW CONSTRUCTION



TYPICAL FRAMING PLAN

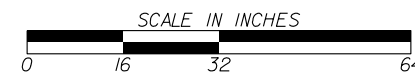
FASTENER NOTES:

- ⊗ - INDICATES LOCATIONS OF SIMPSON MTS12 STRAP
- SIMPSON CONNECTORS SHALL FOLLOW MANUFACTURERS RECOMMENDED INSTALLATION REQUIREMENTS.



H&L Heath & Lineback Engineers
 INCORPORATED
 2390 CANTON ROAD, BUILDING 200
 MARIETTA, GEORGIA 30066-5393
 (770)424-1668

SCALE: 3/4" = 1'-0"
 (UNLESS NOTED OTHERWISE)



REVISION DATES

FORSYTH COUNTY
TIMBER BOARDWALK DETAILS (3 OF 3)
 10' WIDE SECTIONS
 BIG CREEK GREENWAY REHABILITATION

CHECKED:	DATE:	DRAWING No.
BACKCHECKED:	DATE:	35-0003
CORRECTED:	DATE:	
VERIFIED:	DATE:	