# OLIVE ROAD AT CARPENTER CREEK

# **GENERAL NOTES**

### GENERAL

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROJECT ARCHITECTS PLAN LAYOUT AND GUIDELINES. SUITABILITY FOR ACCESS AND INTENDED USAGE SHALL BE THE RESPONSIBILITY OF THE ARCHITECT.

2. VEHICULAR ACCESS LARGER THAN THE DESIGN LIVE LOAD SHALL BE LIMITED BY PERMANENT PHYSICAL MEANS.

3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS THROUGH THE PROJECT ARCHITECT. PRIOR TO CONSTRUCTION, ALL FOUNDATION LOCATIONS SHALL BE STAKED BY THE SURVEYOR PER THE APPROVED DRAWINGS MARKED 'FOR CONSTRUCTION'.

4. ONLY PERMATRAK NORTH AMERICA MAY PROVIDE THE PRECAST STRUCTURE SHOWN ON THESE PLANS.

5. INSTALLER SHALL NOT CUT OR MODIFY ANY PERMATRAK COMPONENTS WITHOUT PERMATRAK'S APPROVAL.

6. THE INSTALLER IS RESPONSIBLE FOR THE APPROPRIATE MEANS AND METHODS FOR THIS PROJECT, INCLUDING ENSURING PROPER CONSTRUCTIBILITY OF ALL COMPONENTS SHOWN ON THESE PLANS. NO EQUIPMENT MAY BE OPERATED ON THE STRUCTURE, UNLESS NOTED OTHERWISE IN THE DESIGN DATA ON THIS SHEET.

7. A MATERIAL CHANGE TO THE BOARDWALK SYSTEM IS NOT ALLOWED AND NOT CONSIDERED AN EQUAL

8. PRIOR TO CONSTRUCTION. ALL EXISTING UTILITIES. BUILDING LOCATIONS. EXISTING FOUNDATIONS AND TREE ROOTS (AS APPLICABLE) SHALL BE LOCATED TO VERIFY NO CONFLICTS EXIST WITH THE STRUCTURES SHOWN ON THESE PLANS.

### DESIGN DATA

1. BOARDWALK SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND THE LRFD GUIDE SPECIFICATION FOR THE DESIGN OF PEDESTRIAN BRIDGES.

2. DESIGN LIVE LOAD: PEDESTRIAN LOADING - 90 PSF UNIFORM VEHICULAR LOADING - H-5 DEISGN TRUCK (10,000 LB. VEHICLE) RAILING LOAD: 30 PLF

FOUNDATIONS SHALL BE DESIGNED FOR THE FOLLOWING.

APPLIED PIER/PILE LOADS: COMPRESSION: 39 KIPS (FACTORED) LATERAL: = 1.4 KIPS (FACTORED)

3. A HYDRAULIC ANALYSIS, INCLUDING SCOUR EVALUATION, HAS NOT BEEN PERFORMED BY PERMATRAK. THIS SCOPE IS THE RESPONSIBILITY OF THE DESIGN CONSULTANT.

4. PRECAST, PRESTRESSED PILES SHOWN ON THESE PLANS SHALL BE DESIGNED BY OTHERS. PILES SHALL MEET FDOT 2023-2024 STANDARD INDEX 455-012.

5. THE RAILING SUPPLIER IS RESPONSIBLE FOR THE ENGINEERING OF THE DETAILED RAILING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

### MATERIAL

1. FASTENERS, BOLTS AND HARDWARE SHALL BE GALVANIZED, FIBER REINFORCED POLYMER (FRP) OR GRADE 316 STAINLESS STEEL

2. ALL REINFORCING SHALL BE UNCOATED GRADE 60 CONFORMING TO ASTM A615.

3. ALL TREADS AND BEAMS SHALL BE ADELAIDE GRAY IN COLOR AND ALL TREADS SHALL HAVE THE 'BEACHWOOD' TEXTURE, PROVIDED BY PERMATRAK.

SUPI
PRECAST CONCRETE TREADS
PRECAST CONCRETE BEAMS
RUBBER SPACER PADS (BETWEEN TREADS)
RUBBER LEVELING PADS (BETWEEN TREAD AND E
CLIP ANGLE KITS
SIKAFLEX SELF LEVELING SEALANT
SIMPSON STRONG-TIE SET-3G (EPOXY ANCHORIN
SHIMS (LEVELING FOR PRECAST COMPONENTS)
ELASTOMERIC BEARING PADS (BETWEEN BEAM A
PRECAST CONCRETE CAPS AND LIFTING INSERTS
3/4" DIAMETER X 1'-6' LONG THREADED BARS WITH
3/4" DIAMETER X 1'-3" LONG THREADED BARS WIT
PATCHING MATERIAL

	SUPF
EXPANSION JOINT MATERIAL	
RAILING AND CONNECTION HARDWARE	
CAST-IN-PLACE CONCRETE	
PRECAST PRESTRESSED CONCRETE PIL	ES



PERMATRAK BOARDWALK

# PERMATRAK BOARDWALK LOCATION PLAN

6. ALL GEOTECH SUBSURFACE INV REPORT "OLIVE R DATED JUNE 8. 20 TO AN MINIMUM T CAPACITIES ARE	IICAL ESTI DAD 22 AI P EL SUFF	. RECOMMENDATIONS CONTAINED IN THE REPOR GATION SHALL BE FOLLOWED. (CR209) IMPROVEMENTS PEDESTRIAN BRIDGE" \ ND PRODUCED BY TIERRA. PILES SHALL BE INST EVATION OF 60.00 FT. CONTRACTOR TO VERIFY ICIENT TO SUPPORT THE DESIGN LOADS NOTED	RT OF NAS ALLED PILE ABOVE.				Patented Product: U.S. Patent #5,906,084	PREPARED B PERMATRAK 8050 CORPOI SUITE 100-J CHARLOTTE, <u>CERTIFICATE</u> #8,302,362 #8,5	Y: NORTH AMERICA RATE CENTER DRIVE NC 28226 <u>C OF AUTHORIZATION #30529</u> 522,505 #8,839,588 #9,096,975
©2024 by PermaTrak® this	6			PREPARED FOR:		OFFICE LOCATIONS	PROJECT TITLE:		JOB NUMBER: 2022-1792
drawing contains information that is proprietary to and property of PermaTrak® and shall be kept confidential. No duplication or distribution of this drawing may be made without the express written consent of PermaTrak® except for the limited purposes set forth in the contract between PermaTrak® and party for whom this drawing was made.	5			MOFFAT & NICHOL		NORTH CAROLINA			DATE: 10/08/2024
	4				Permairak	SOUTH CAROLINA	OLIVE ROAD AT		DESIGNED BY: KAS
	3					FLORIDA	CARPENTER		DRAWN BY: KAS
	2			FOR BIDDING PURPOSES	The Concrete Boardwalk Company	OHIO	CREEK		CHECKED BY: KAS
	1			NOT FOR CONSTRUCTION		GEORGIA	ESCAMBIA COUNTY, FL		SHEET NO.
	NO.	DATE DESCRIPTION	BY:		www.permatrak.com TEL: 877-332-7862	TEXAS			PT01

## **PROJECT COMPONENTS**

PLIED BY PERMATRAK

BEAM)

IG SYSTEM)

ND FOUNDATION)

H NUTS AND WASHERS (BEAM TO PIER CONNECTION) H NUTS AND WASHERS (CAP TO PILE CONNECTION)

### PLIED BY CONTRACTOR





ELEVATED PREC	CAST CONCL	RETE BOARDWALK	1.3 QUALITY ASSURANCE		A. DESIGN CRITERIA: The design of the boardwalk and railing system shall comply with the			
PROJECT SPECIF	ICATIONS	V4.1 UPDATED SEPTEMBER 2023	A The contractor performing the i	nstallation of the nile foundations shall have installed niles of size	tollowing guidelines:	C. Coordinate fabrication and delivery schedule of handrails with const sequence to avoid delay of railing installation	ruction progress and	
VT.1 OF DATED SEFTEMBER 2025		and length similar to those show	n on the plans for a minimum of three (3) years prior to the bid date	1. AASHTO LRFD Guide Specifications for The Design of Pedestrian Bridges, 2 <sup>nd</sup> Edition with	sequence to avoid defay of raining installation.			
			for this project. The contractor s the last three (3) years on which	shall submit a list containing at least three (3) projects completed in the contractor has installed piles of a size and length similar to those	<ol> <li>2015 Interim Revisions.</li> <li>Latest Version of AASHTO LRFD Bridge Design Specifications for Highway Bridges.</li> </ol>	<ol> <li>Air entrained composed of Portland cement, fine and course ag The air-entraining feature may be obtained by the use of either</li> </ol>	gregates, admixtures and water.	
			shown on the plans. The list of p	projects shall contain names and phone numbers of owner's	3. Latest Version of American Concrete Institute - Building Code and Commentary.	cement or an air entraining admixture. The entrained air-conten	t shall be not less than four	
			representatives who can verify t	ne contractor s participation on those projects.	<ol> <li>In addition to the dead loads of the system, the structure shall be designed for the live loads defined in Section 1.2 G above.</li> </ol>	percent or more than seven percent.		
PRECAST CONCRETE BOAH	RDWALK SYSTEM		B. Manufacturer Qualifications: No products as described below.	ot less than 10 years experience in the actual production of precast		1.7 WARRANTY:		
PART 1-GENERAL			products as described below.	1	.5 SUBMISSIONS: Prior to the start of fabrication or construction, the Contractor shall submit to the Engineer a design package, which shall include, but is not limited to, the following:	A Contractor will be regrangible for installation defeats according with	the boardwalls and abutment	
			<ol> <li>Components shall be facto registered to do husiness in</li> </ol>	ry fabricated and engineered by single entity. This entity shall be		components, foundation system, and railings for a period of 12 calen	dar months from the date of	
1.1 SUMMARY			<ol> <li>Boardwalk supplier (Preca</li> </ol>	ster) for the boardwalk shall have in-house color mixing facilities for	A. FOR APPROVAL SUBMISSIONS: Prior to the start of fabrication or construction, the Contractor shall submit to the Engineer a design package, which shall include but not limited to the following:	final acceptance by the Owner.		
A. These specifications are for	or a precast concrete b	ooardwalk and shall be regarded as minimum	color pigmentation.	star) shall have either a minimum experience of 5 years or 50		B. Boardwalk manufacturer shall warranty all precast concrete compon	ents against defects in	
standards for this project.	These specifications a	are based upon products designed and supplied by:	boardwalk projects in desig	gn, production, and field consultation.	<ol> <li>DETAILED PLANS:</li> <li>a. PLAN VIEW: Full plan view of the boardwalk, foundation and railing system drawn to</li> </ol>	material and workmanship for a period of 10 years.		
PermaTrak North America	a LLC		<ol> <li>Boardwalk supplier (Precaster) must be certified by PCI or NPCA.</li> <li>Precast components must be manufactured with the use of hot rolled steel skin in reinforced.</li> </ol>		scale. The plan view must reflect the proposed horizontal alignment as shown on the	C Railing manufacturer shall warranty the railing against defects in ma	terials and workmanshin for a	
Ph: (956) 229-1848 Ph: 877-332-7862			steel forms. Temporary (i.e., Timber) and/or single use forms are unacceptable unless approved in writing by the Boardwalk Engineer.		<ul> <li>b. PARTIAL ELEVATION VIEW (IF REQUESTED): Full elevation view of the boardwalk,</li> </ul>	period of 12 months.	terrain and working for a	
www.permatrak.com					railing and foundation system drawn to scale which reflect the actual vertical alignment. Elevation views shall indicate the elevation at the top and bottom of the boardwalk and	1.8 MEASUREMENT AND PAYMENT		
jdove@permatrak.com	ve		C. Acceptability Criteria for Treads and Curbs (if applicable): The finished visible (in the final installed		foundation system components.			
			from the approved samples or e	vidence of repairs when viewed in good typical daylight illumination	c. DETAILS: Details of all boardwalk and railing system components and their connections such as the length, size and where changes occur; connections; etc.	Iwalk and railing system components and their connections       A. Precast concrete boardwalk, railings, and foundations shall be paid for at the contribution of the price as listed in the bid proposal for "Precast Concrete Boardwalk". This price as listed in the bid proposal for "Precast Concrete Boardwalk".		
This item shall also in shall	1. d d:		with the unaided naked eye at a evaluated when light is illumina	20 ft. viewing distance. Appearance of the surface shall not be ting the surface from an extreme angle as it tends to accentuate the	d. CODE REFERENCE: Design parameters used along with AASHTO references.	materials, equipment, labor and work necessary for and incidental to	the design, construction,	
system that is attached to t	the proposed boardwa	Ik system.	minor surface irregularities. The	e following is a list of finish defects that shall be properly repaired, if	2 CONSTRUCTION SPECIFICATIONS	delivery, unloading, assembly, and placement of the boardwalk and foundation as sho		
			acceptable repair method.	distance. Patching (by a trained skilled concrete repair person) is an		contract plans including an rannings on the supersulucture.		
1.2 MINIMUM STANDARD	S: The selected board	walk shall have the following minimum	1		<ul> <li>Construction methods specific to the boardwalk vendor chosen. Submittal requirements such as certification, guality and accentance/rejection criteria shall be included. Details on</li> </ul>	PART 2-MATERIALS & TESTING		
characteristics:			Ragged or irregular surface     Excessive air voids (comm	es. only called bug holes) larger than ¼ in. evident on the top surface of	connection of boardwalk units and foundation system such that assurance of uniform load	2.1 PRECAST CONCRETE: shall conform to the following:		
A. The precast system shall b	e designed as a modu	lar flexible system allowing a prescribed settlemen	t the tread or curbs (if applied	sable).	transfer shall be checked.			
at pier locations. Joints sha	all be designed for su	ch movement to occur without damage to the	<ol> <li>Adjacent flat and return su samples or mockups.</li> </ol>	rfaces with greater texture and/or color differences than the approved	B. FINAL SUBMISSION: Once a boardwalk, foundation and railing system design has been reviewed	<ul> <li>A. The minimum compressive strength of the concrete shall be 4000 ps</li> <li>B. All precast concrete shall contain structural steel reinforcement as de</li> </ul>	measured at 28 days.	
succura megny of the s	system.		<ol> <li>Casting and/or aggregate s consolidation</li> </ol>	egregation lines evident from different concrete placement lifts and	boardwalk, foundation and railing system is responsible for the review of any drawings prepared for	record.		
<li>B. Boardwalk system (beams material change including</li>	s, treads, and curbs if a	applicable) must be reinforced precast concrete. A te is not considered an equal to the design shown o	n 5. Visible mold joints or irreg	gular surfaces.	fabrication. One set of all approved shop drawings shall be submitted to the Engineer's permanent records.	C. All precast concrete components shall be air entrained composed of Portland cement, fine and cours aggregates, admixtures and water. The air-entraining feature may be obtained by the use of either a		
the bid documents.	g case in place concre		<ol> <li>Rust stains on exposed sur</li> <li>Units with excessive veries</li> </ol>	faces.		air entraining Portland cement or an air entraining admixture. The er less than four percent or more than seven percent	trained air-content shall be not	
C Walking surface (treads) shall be made of reinforced precast concrete and supported by reinforced		unit or compared with adjacent units.		C. SUBMITTALS: Product Data: Submit Manufacturer's technical product data for railing components and accessories.	D. All reinforcing steel shall be standard uncoated steel conforming to ASTM A615			
precast concrete beams. V	Where applicable, edg	es of treads will receive precast concrete curbs.	<ol> <li>Blocking stains evident on exposed surfaces.</li> <li>Areas of backup concrete bleeding through the facing concrete</li> </ol>		Manufacturer to supply submittal drawings for approval to include the following:	PART 3 - EXECUTION		
D. Walking surface (finish) of top surface of treads shall have a formliner finish with one of		<ol> <li>Areas of backup concrete bleeding through the facing concrete.</li> <li>Foreign material embedded in the surface.</li> </ol>		1. Section-thru details.	TAKI 5 - EALCO HON			
PermaTrak's standard texts	ures. Texture must be	integral with the concrete and shall not be an appli	ed 11. Visible repairs at a 20 ft. v	iewing distance.	<ol> <li>Mounting methods.</li> <li>Typical Elevations.</li> </ol>	1.1 PRECAST CONCRETE BOARDWALK		
post pour wearing surface.		<ol> <li>Removement shadow lines.</li> <li>Cracks visible at a 20 ft. viewings distance.</li> </ol>		4. Key plan layout.	A. Installation of the precast concrete boardwalk system and railings, if applicable, shall			
E. Precast concrete treads shall be structural load bearing elements and shall interlock with one another via a "tongue and groups" connection		D. Lastilla Qualifications Firm with 2 more annuine in installation of antone similarity and a maintain D		in accordance to the approved plans and manufactur D. SHOP DRAWINGS: Shop drawings shall: 		nstructions. Boardwalk		
		D. Installer Qualifications: Firm with 3 years experience in installation of systems similar in complexity to those required for this Project.		1 8	Contractor and Engineer and to certify that the installation has been	performed according to the		
F. All precast shall consist of integrally colored concrete in a color selected by the owner from one of ParmaTark's "standard colors". All color number thall mast ASTM C070 Standard Specification		E Maak Up Provide if required	hy Architect/Engineer a most up for avaluation of the heardwalk	<ol> <li>Be stamped by a licensed Professional Engineer in the State of the project location.</li> <li>Show actual field conditions and true elevation and location supplied after field verification</li> </ol>	approved drawings and manufacturer's instructions.			
for Pigments for Integrally Colored Concrete.		showing the surface preparation techniques and application workmanship.		<ol> <li>Clearly detail reinforcement in beams, treads and curbs including clear dimension from concrete</li> </ol>				
G DESIGN LOADS: See PT01 for pedestrian and vehicular decign live loads		1 Finish areas designated by	Architect / Engineer	edge, size and amount of rebar. 4 Clearly state concrete compressive strength steel type and strength and a listing of all				
		<ol> <li>Prinsh areas designated by Architect / Engineer.</li> <li>Do not proceed with remaining work until mock-up is accepted by Architect / Engineer.</li> </ol>		component weights including lifting locations.				
H. Treads shall maintain a "boardwalk appearance", specifically meaning each tread shall have a width: length ratio ranging from a minimum of 3:1 to a maximum of 14:1. Width is defined as the tread		<ol> <li>Refinish mock-up area as required to produce acceptable work.</li> </ol>		.6 DELIVERY, STORAGE, AND HANDLING				
dimension perpendicular to	to the normal direction	n of travel. Length is defined as the tread dimensior	1.4 DESIGN					
measured in the direction of	of travel.				A. Store products in manufacturer's unopened packaging until ready for installation.			
I. Tread width shall be as noted on the contract drawings. Alignment should follow the horizontal and			d A. For applications requiring mining by the Owner to be avoided dur	num disturbance due to tree roots or other existing objects specified ing construction, the Boardwalk Manufacturer requires the	B. Field Measurements: Where handrails and railings are indicated to fit to other construction, check			
vertical angliment shown o	on the contract plans.		Contractor or Engineer/Archited	t to provide a survey of the proposed boardwalk location identifying posts that cannot be disturbed per the Owner	actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings:			
J. Connectors for curbs (if ap	pplicable) to treads sh	all not be visible to boardwalk users while viewed						
from the top of the warkwa	ay.		<ul> <li>B. The designer of the boardwalk, Professional Engineer licensed</li> </ul>	foundation and railing system shall be a qualified registered in the State of the project location and having a minimum of 20 years	<ol> <li>Where field measurements cannot be made without delaying the railing fabrication and delivery, obtain guaranteed dimensions in writing by the Contractor and proceed with</li> </ol>			
K. All tread-to-beam connect	tors shall be non-corre	sive, and hidden from view. Metallic tread-to-bear	n of experience in the design of co	oncrete structures, foundation and railing systems.	fabrication of products so as not to delay fabrication, delivery and installation.			
connectors are not accepta	able for this project.		C. The foundation design shown or	n the boardwalk drawings are based recommendations found in the		PREPARED E		
L. Boardwalk supplier shall provide a field representative on site for a minimum of 2 days. Field							RATE CENTER DRIVE	
representative shall be know	owledgeable in the ins	stallation of precast concrete boardwalks.				SUITE 100-J	NC 28226	
						CHARLOTTE	, NG 20220 <u>E OF AUTHORIZATI</u> ON #30529	
				1		Patented Product: U.S. Patent #5,906,084 #8,302,362 #8,	522,505 #8,839,588 #9,096,975	
©2024 by PermaTrak® this	6			PREPARED FOR:		TITLE:	JOB NUMBER: 2022-1792	
that is proprietary to and	5						DATE: 10/08/2024	
shall be kept confidential. No	4					= ROAD A I	DESIGNED BY: KAS	
drawing may be made without the express written consent of	3			┤╹		RPENTER	DRAWN BY: KAS	
PermaTrak® except for the limited purposes set forth in the	2			FOR BIDDING PURPOSES	I ne Concrete Boardwalk Company OHIO	CREEK	CHECKED BY: KAS	
contract between PermaTrak® and party for whom this	1				GEORGIA ESCAN	MBIA COUNTY, FL	SHEET NO.	
drawing was made.	NO. DATE	DESCRIPTION	BY		www.permatrak.com TEL: 877-332-7862 TEXAS		Precast Specs	