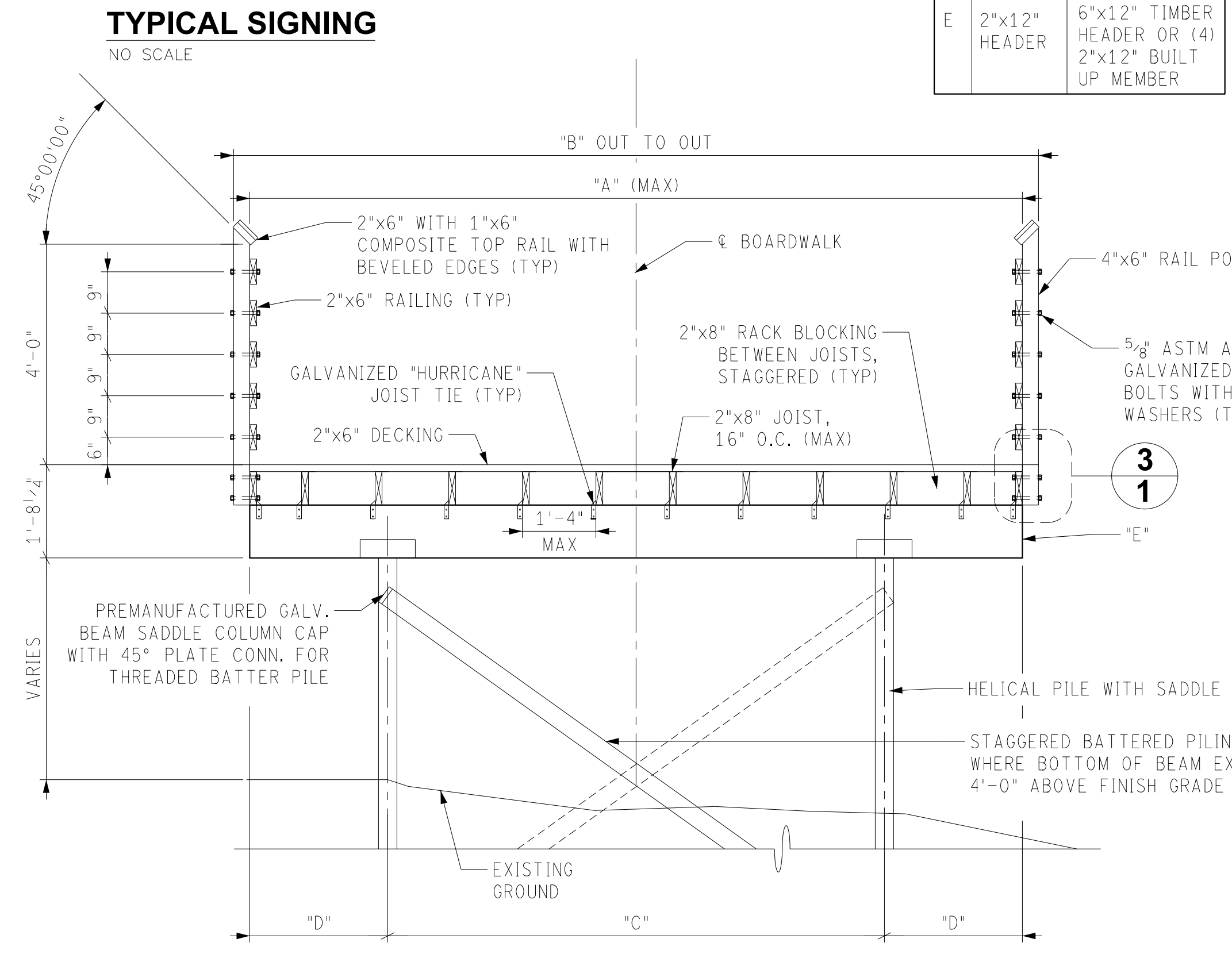


**NOTES:**  
 1. SIGNS SHALL BE 18"x18" AND CONSTRUCTED OF .063 ENGINEERING GRADE REFLECTIVE ALUMINUM WITH 1-1/2" RADIUS AT CORNERS.  
 2. SIGNS SHALL HAVE A YELLOW BACKGROUND WITH BLACK COPY AND BLACK OUTLINE.  
 3. SIGN LOCATION TO BE DETERMINED BY DESIGN ENGINEER AND APPROVED BY THE CITY.

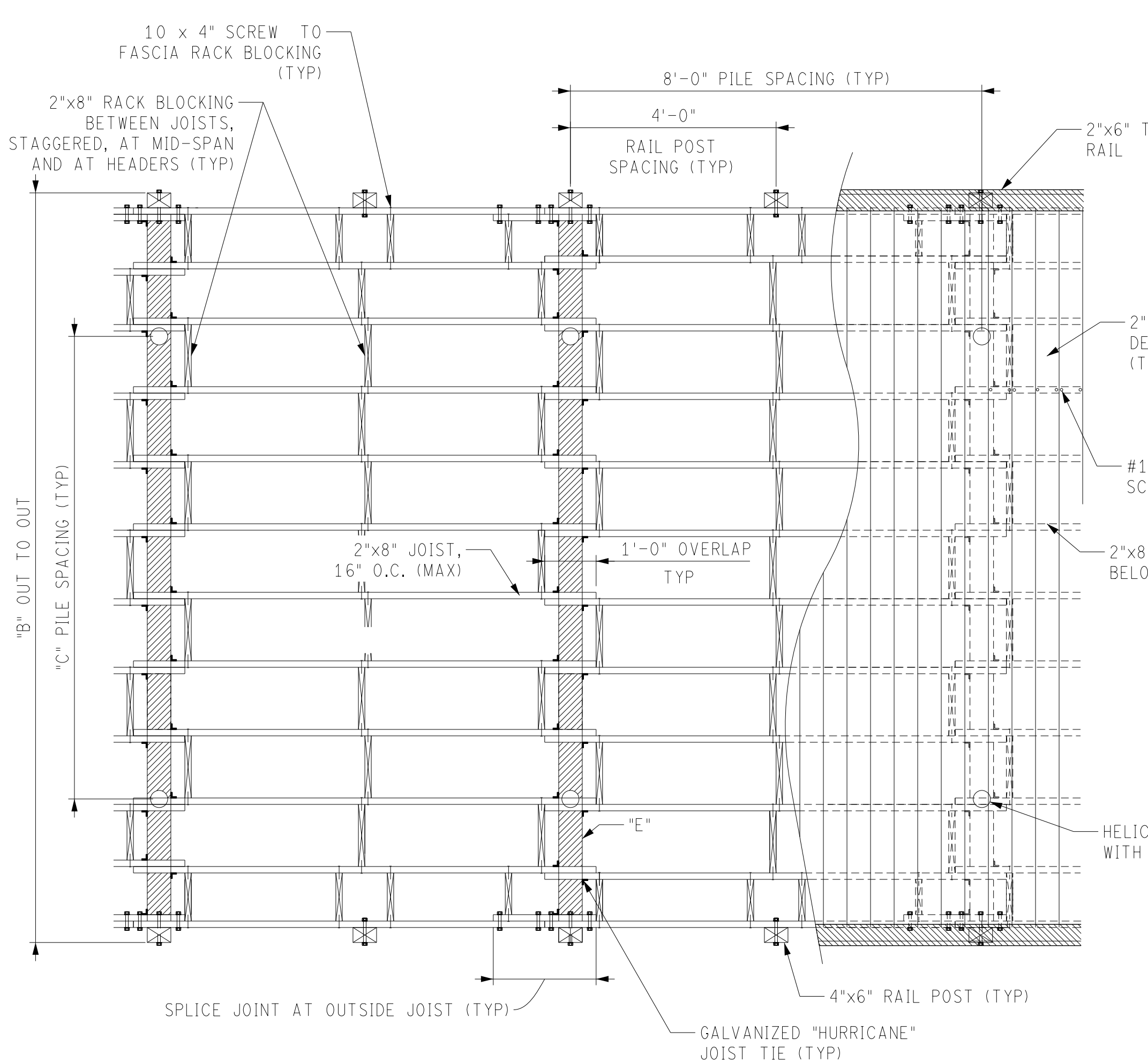
VARIABLE CALLOUTS	
SIDEWALK	BIKE PATH
A 10'-0"	14'-0"
B 10'-7"	14'-7"
C 7'-0"	9'-0"
D 1'-6"	2'-6"
E 2"x12" HEADER	6"x12" TIMBER HEADER OR (4) 2"x12" BUILT UP MEMBER

### BOARDWALK NOTES

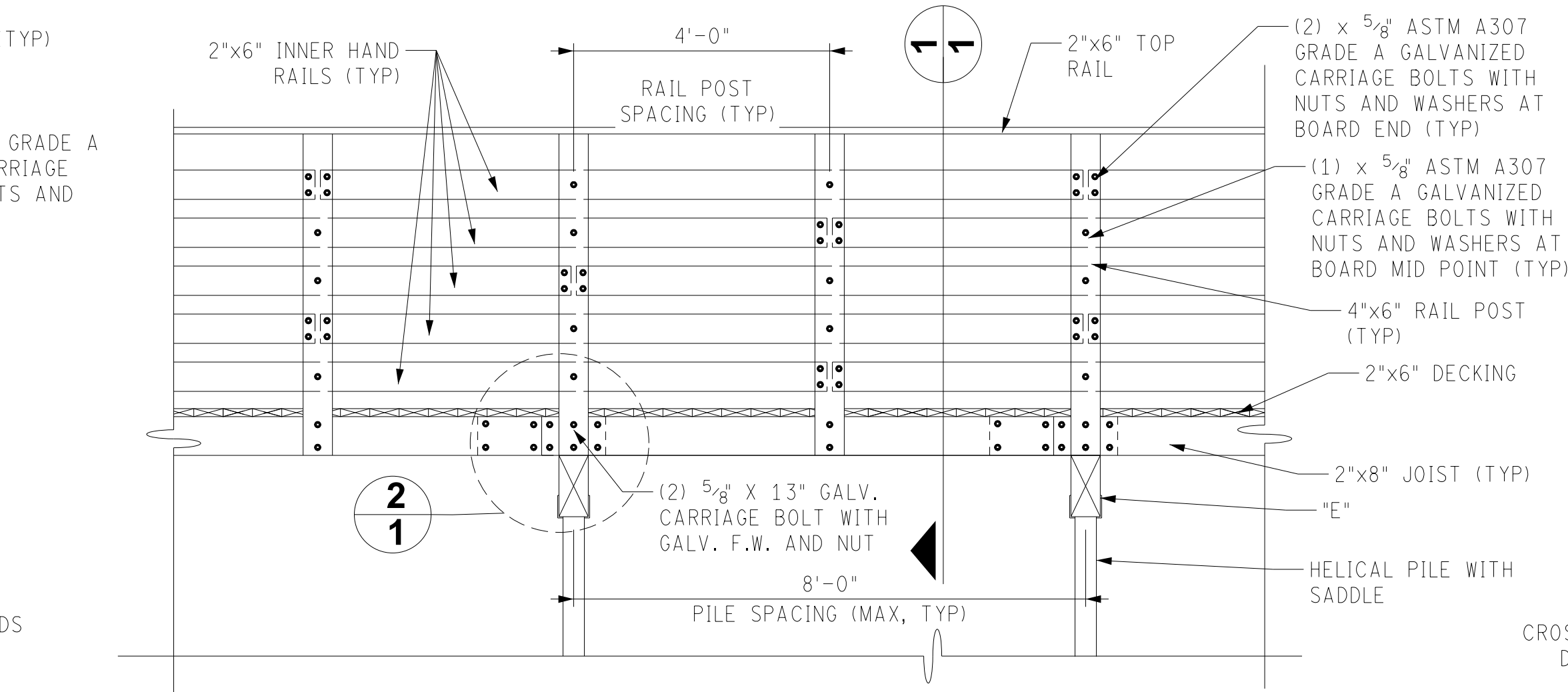
- THE DESIGN OF THIS STRUCTURE IS BASED ON CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION PEDESTRIAN LOADING OF 90 PSF AND A MAINTENANCE VEHICLE (3,500 LB PER CITY OF NOVI) LOADING NOT ACTING CONCURRENTLY. LIVE LOAD DEFLECTION DOES NOT EXCEED  $\frac{1}{300}$  OF SPAN LENGTH AND  $\frac{1}{250}$  OF CANTILEVER ARM.
- ALL BOARDWALK SKELETAL LUMBER SHALL BE KILN DRIED SOUTHERN YELLOW PINE #2, OR OWNER APPROVED EQUAL. LUMBER SUPPLIED SHALL MEET THE REQUIREMENTS OF SECTION 912 OF MDT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- CONDITION AND TREAT STRUCTURAL TIMBER AND LUMBER IN ACCORDANCE WITH AWPA U1, SECTION 6, COMMODITY SPECIFICATION A. REFER TO USE CATEGORY 4A (UC4A) FOR ABOVE GROUND REQUIREMENTS AND USE CATEGORY 4C (UC4C) FOR GROUND CONTACT REQUIREMENTS.
- TIMBER AND LUMBER FOR DECK, RAILING, AND OTHER AREAS AS DETERMINED BY THE ENGINEER WHERE FREQUENT HUMAN CONTACT MAY OCCUR MUST MEET THE REQUIREMENTS OF SECTION 912.10 OR MDT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- THE DESIGN OF STRUCTURAL MEMBERS IS BASED ON MATERIAL OF THE FOLLOWING GRADES AND STRESSES:  
 CONCRETE: GRADE 3500  $f'_c = 3,500$  psi  
 STEEL REINFORCEMENT:  $f_y = 60,000$  PSI  
 STRUCTURAL STEEL: AASHTO M 270 GRADE 36 OR GRADE 50  $f_y = 36,000$  psi  
 $f_y = 50,000$  psi  
 STRUCTURAL TIMBER AND LUMBER: Southern Pine #2,  $F_b = 1,700$  psi,  $E = 1,700,000$  psi  
 HARDWARE AND FASTENERS: ASTM 307, GRADE A  $f_u = 60,000$  psi  
 ASTM F1554, GRADE 36  $f_y = 36,000$  psi
- ALL BOLTS, WASHERS AND OTHER HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232.



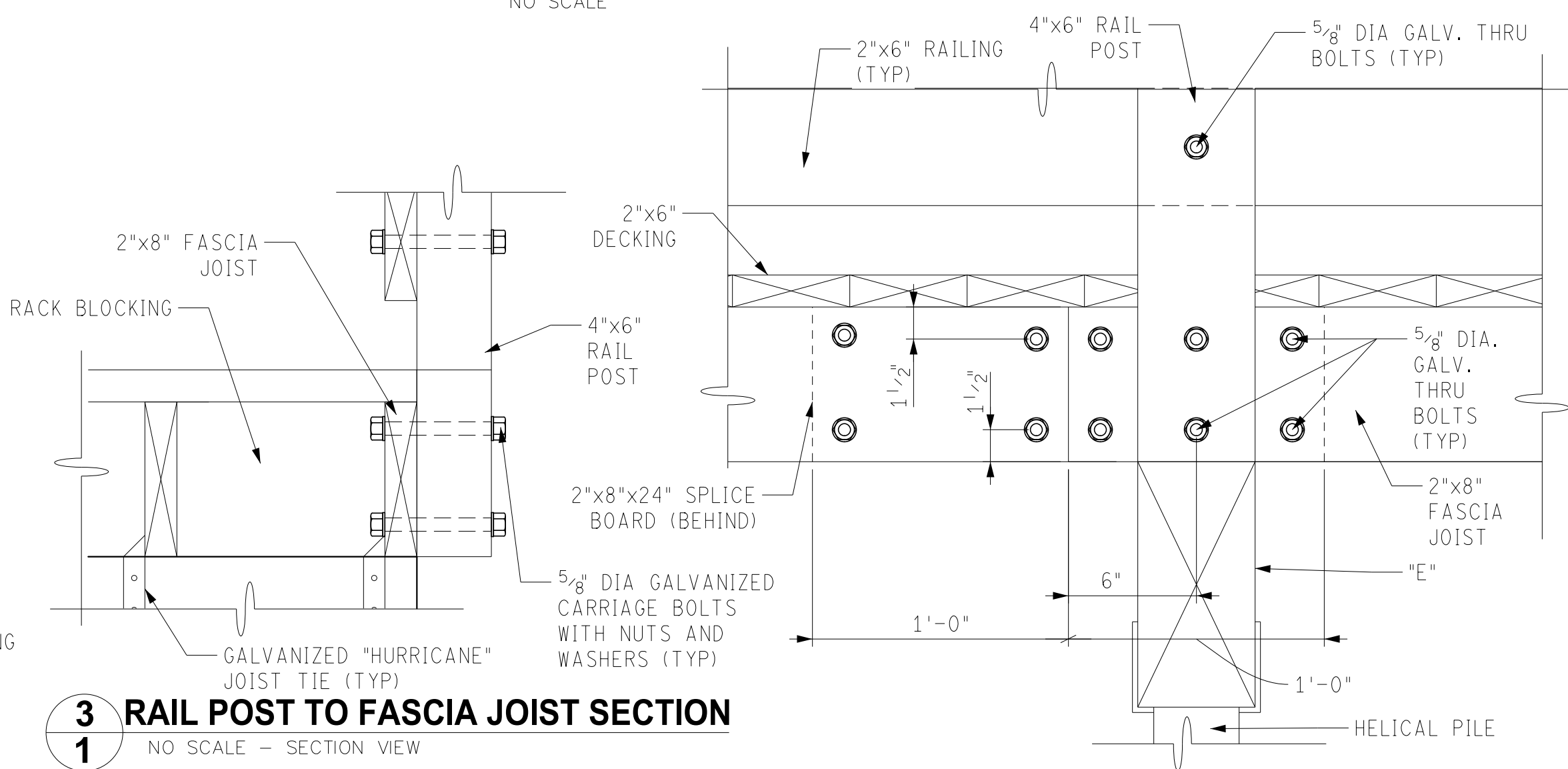
**1 BOARDWALK SECTION AND CROSS BRACING DETAIL**  
NO SCALE



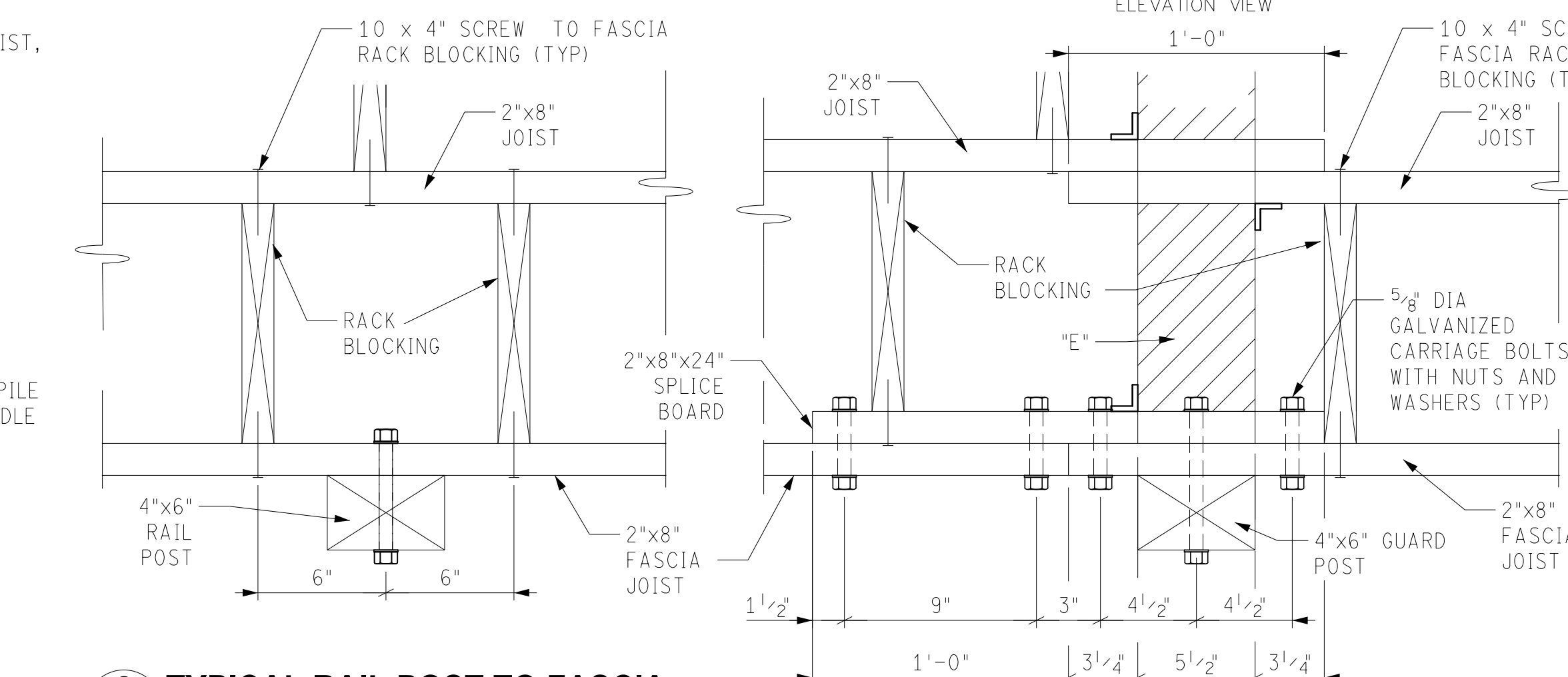
**TYPICAL BOARDWALK PLAN VIEW**



**TYPICAL PROFILE FOR BOARDWALK**  
NO SCALE



**3 RAIL POST TO FASCIA JOIST SECTION**  
NO SCALE - SECTION VIEW



**2 TYPICAL FASCIA DETAILS & FASCIA JOIST JOINT SPLICE DETAIL**  
ELEVATION VIEW

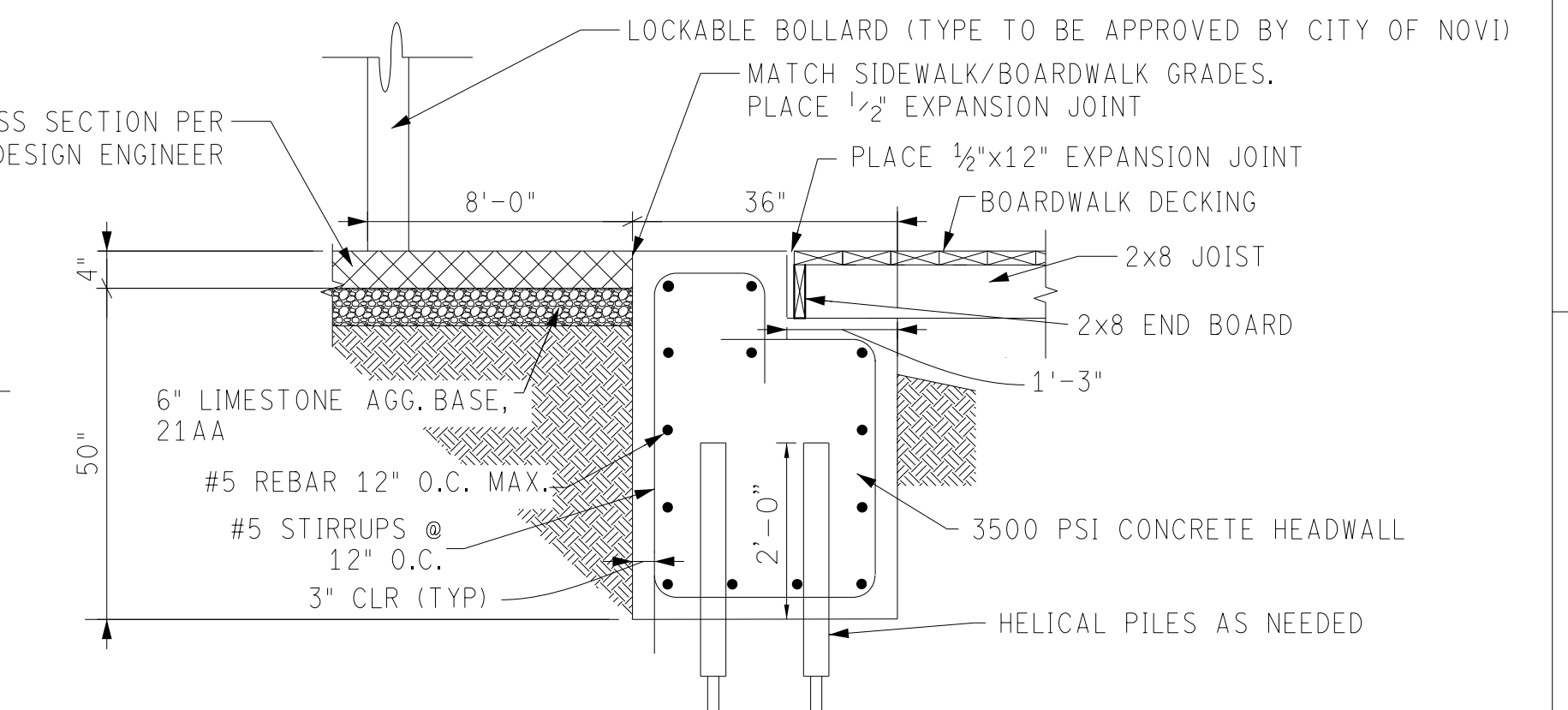


**3 TYPICAL RAIL POST TO FASCIA JOIST MIDSPAN CONNECTION**  
PLAN VIEW

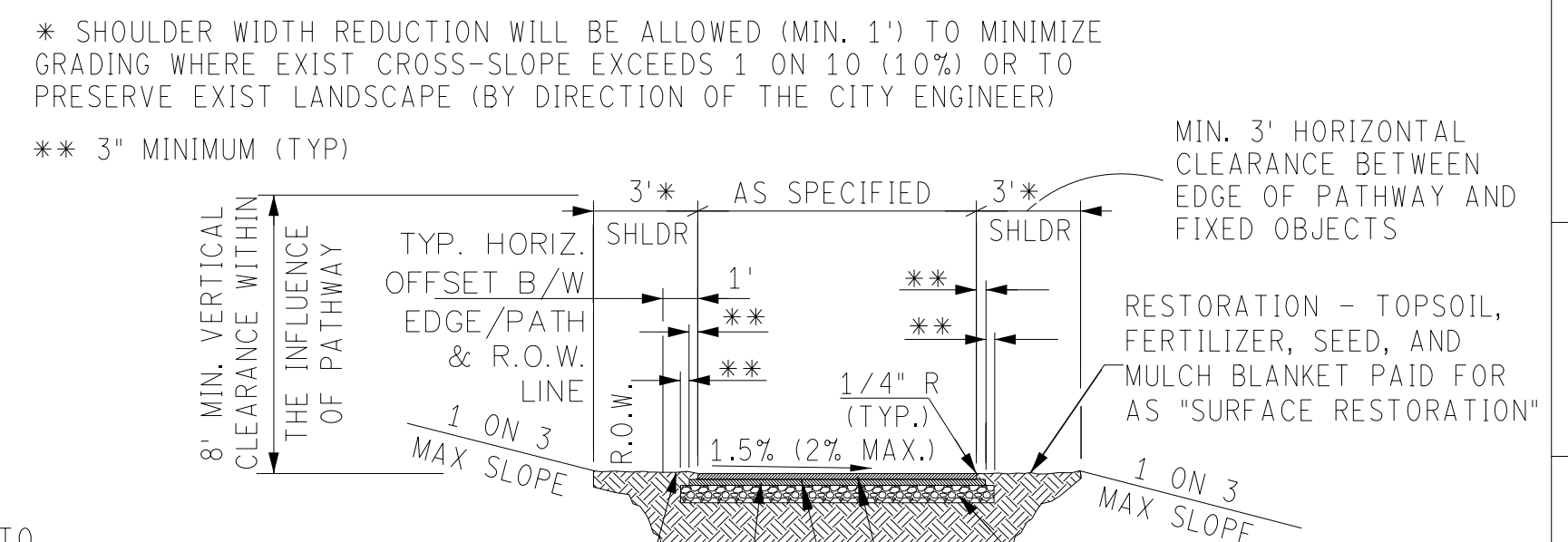


**3 TYPICAL RAIL POST TO FASCIA JOIST AT HEADER CONNECTION**  
PLAN VIEW

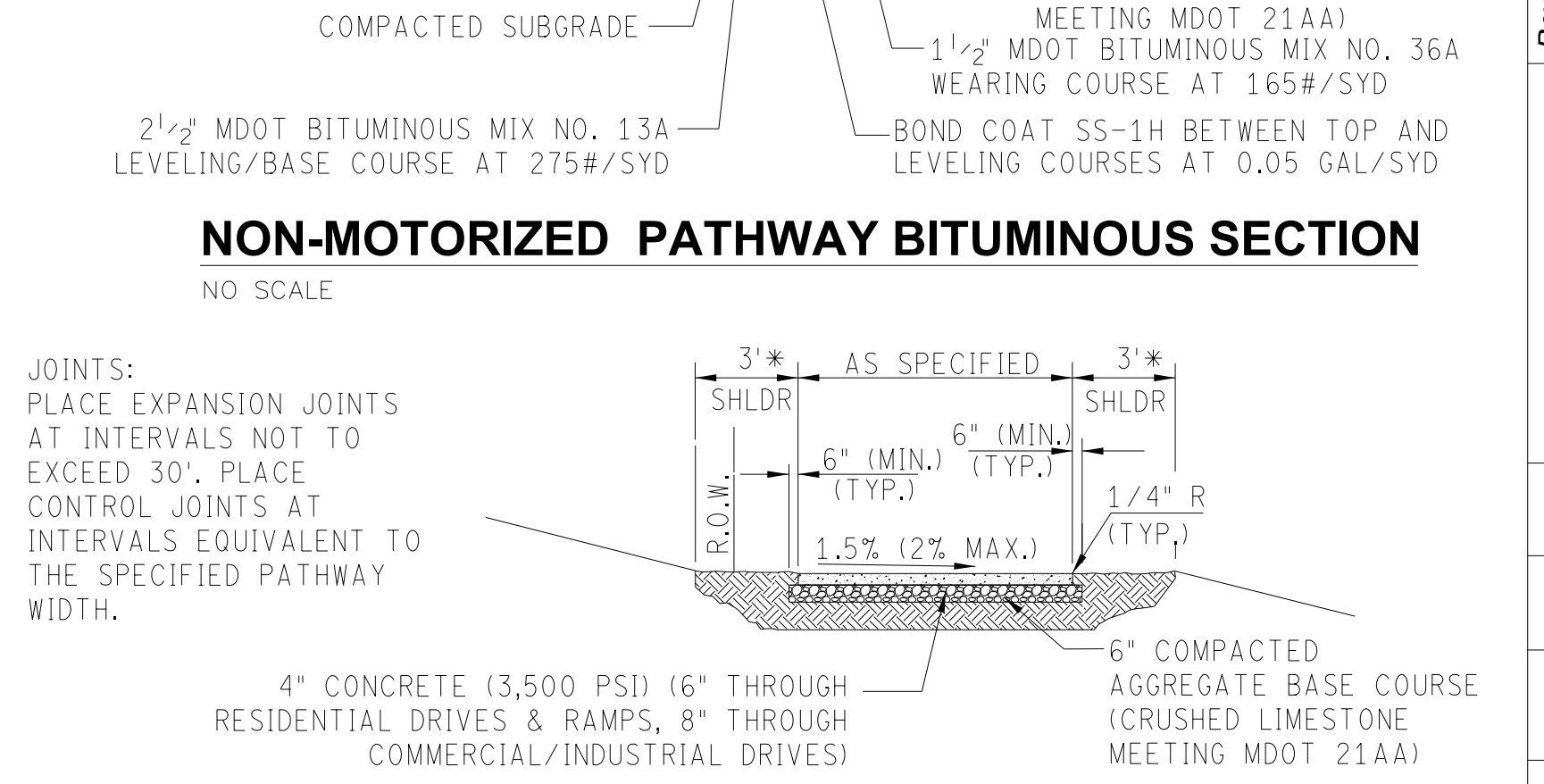
- DECK SCREWS SHALL BE CLIMACOATED, HOT DIPPED GALVANIZED PLATED OR OWNER APPROVED EQUAL. DECK SCREWS SHALL BE A MINIMUM #10 X 4-INCH WITH AN UNTHREADED UPPER SHAFT TO PREVENT BOARD JACKING AND TO ALLOW FOR TIGHTER FASTENING. DECK SCREWS SHALL BE USED FOR FASTENING ALL BOARDWALK MEMBERS UNLESS NOTED ON THE PLANS.
- RUST RESISTANT GALVANIZED CARRIAGE BOLTS TO BE USED FOR ALL RAILING/POST AND UNDERSTRUCTURE CONNECTIONS.
- RUST RESISTANT GALVANIZED HURRICANE JOIST TIES TO BE USED FOR ALL JOIST/HEADER CONNECTIONS.
- IN AREAS FAVORABLE TO TERMITE DAMAGE, AS DETERMINED BY THE CITY, METHODS OF PROTECTION SHALL BE BY CHEMICAL SOIL TREATMENT, PRESSURE TREATED WOOD, IN ACCORDANCE WITH THE AWPA, NATURALLY TERMITE-RESISTANT WOOD OR PHYSICAL BARRIERS (SUCH AS METAL OR PLASTIC TERMITE SHIELDS) OR ANY COMBINATION OF THESE METHODS.
- DO NOT "NOTCH" THE GUARDRAIL POST AROUND THE FASCIA JOIST.
- DECK BOARDS SHALL BE PIER ADVANTAGE WOOD DOCK PLANKING BY PINE RIVER GROUP OR CITY OF NOVI APPROVED EQUAL.
- COMPOSITE TOP RAIL BOARDS SHALL BE CONSTRUCTED, MANUFACTURED AND FABRICATED IN ACCORDANCE WITH ASTM D7032-06A STANDARD SPECIFICATIONS.
- THE ENGINEER OF RECORD IS REQUIRED TO PROVIDE ONE (1) SOIL BORING PER EVERY 100 LINEAR FEET OF PROPOSED BOARDWALK TO HARDPAN AND PROVIDE DATA TO THE CITY FOR REVIEW OF PROPOSED BOARDWALK PILE DEPTH.
- HELICAL PILE SUPPORT DESIGN SHALL BE BASED UPON SOIL CONDITIONS AS DETERMINED BY THE DESIGN ENGINEER. SUBMIT HELICAL PILE SUPPORT DESIGN TO THE CITY FOR REVIEW. SUBMITTED DESIGNS WILL BE REQUIRED TO SHOW SUPPORT FOR LIVE LOADING INCLUDING A 3,500 LB VEHICLE IN ADDITION TO THE DEAD LOAD OF THE BOARDWALK. USE A MINIMUM FACTOR OF SAFETY EQUAL TO 3 FOR DETERMINATION OF DESIGN PILE CAPACITY. DESIGN HELICAL PILE SYSTEM FOR A DESIGN LIFE OF 75 YEARS. ALL SUPPORT DESIGNS SHALL BE SIGNED AND SEALED BY A LICENSED, QUALIFIED PROFESSIONAL ENGINEER.
- VEHICULAR TRAFFIC ON THE BOARDWALK IS PROHIBITED. INSTALL LOCKABLE BOLLARDS (TYPE TO APPROVED BY THE CITY OF NOVI) AT EACH ACCESS POINT TO THE BOARDWALK TO PREVENT VEHICULAR TRAFFIC ON THE BOARDWALK. THE CITY WILL PROVIDE PADLOCKS AND KEYS WITH ALL BOLLARDS. VEHICULAR TRAFFIC IS LIMITED TO AUTHORIZED CITY OF NOVI MAINTENANCE VEHICLE (3,500 LB).
- ALTERNATIVE CABLE RAILING SYSTEM SHALL BE USED AT LOCATIONS WHERE DIRECTED BY THE CITY WHEN SIGHT DISTANCE CONCERNS EXIST. THE DESIGN ENGINEER SHALL PROVIDE SPECIFICATIONS AND DETAILS UPON REQUEST.



**PATHWAY / BOARDWALK INTERFACE DETAIL**



**NON-MOTORIZED PATHWAY BITUMINOUS SECTION**  
NO SCALE



**NON-MOTORIZED PATHWAY CONCRETE SECTION**  
SEE BITUMINOUS SECTION FOR ADDITIONAL DETAILS

Revisions	AW	JM
03/10/15		
04/12/18		

Drawn	Designed	Checked

Scale	Date	Job No.
NO SCALE	06/06/18	

Sht. No.