

STRUCTURES

STEPS					
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CITY OF PITTSBURGH  
STANDARDS  
OF CONSTRUCTION

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SHEET 1 OF 1

4/14/25

DEPUTY CHIEF ENGINEER      DATE

4/10/25

CHIEF ENGINEER      DATE

7/10/25

DIRECTOR OF DOMI      DATE

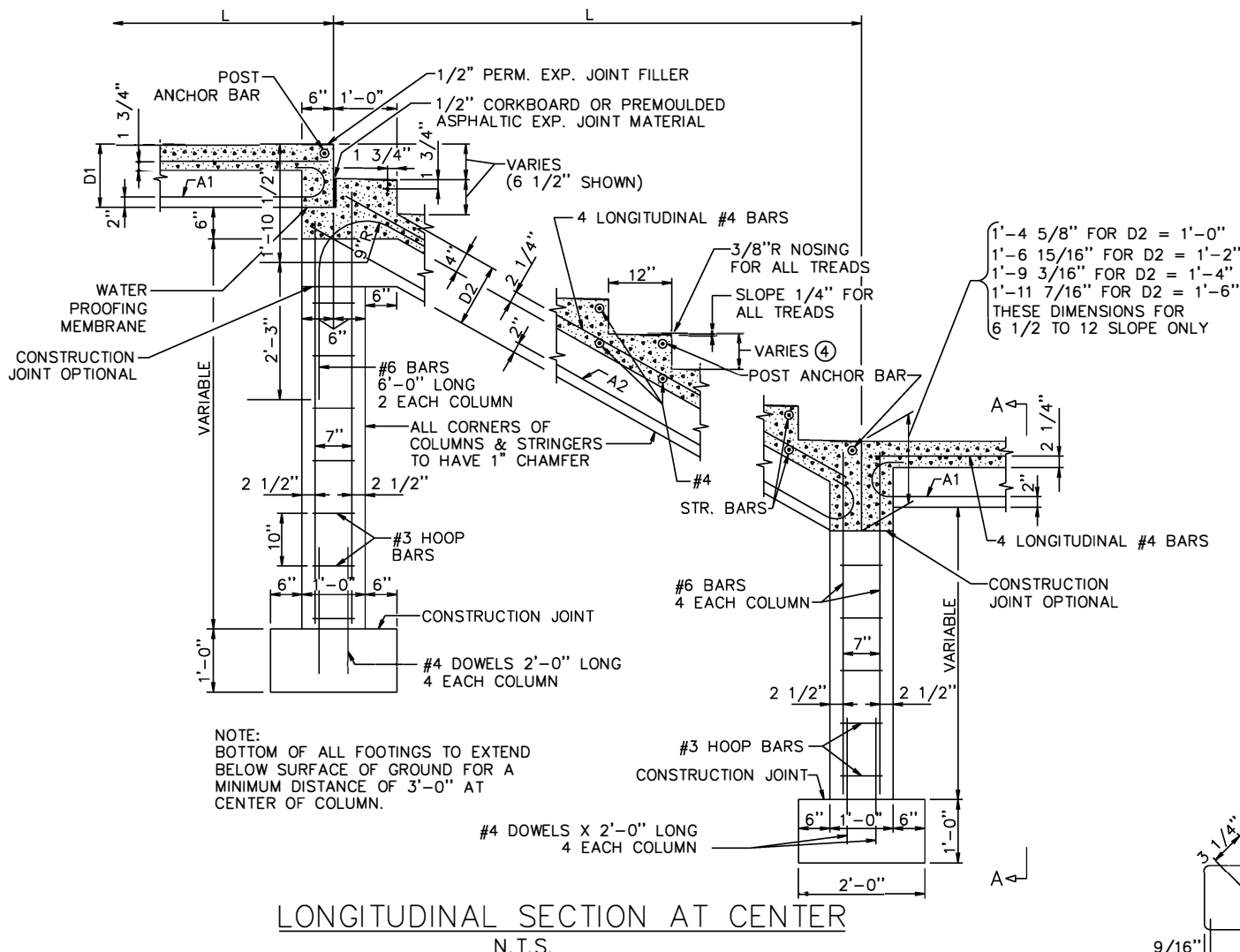
07/11/2025

DIRECTOR OF PUBLIC WORKS      DATE

FORMER STANDARD	ACCESSION NO. _____
DRAWING NO. _____	CASE NO. _____

DWG. NO. GA-100-4

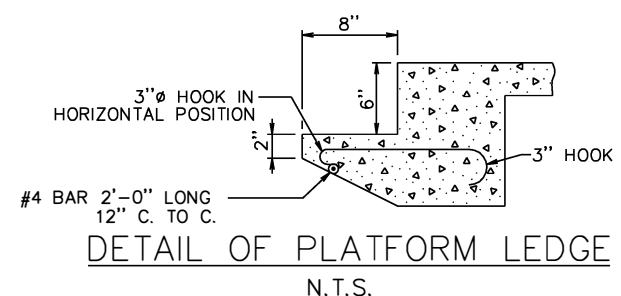
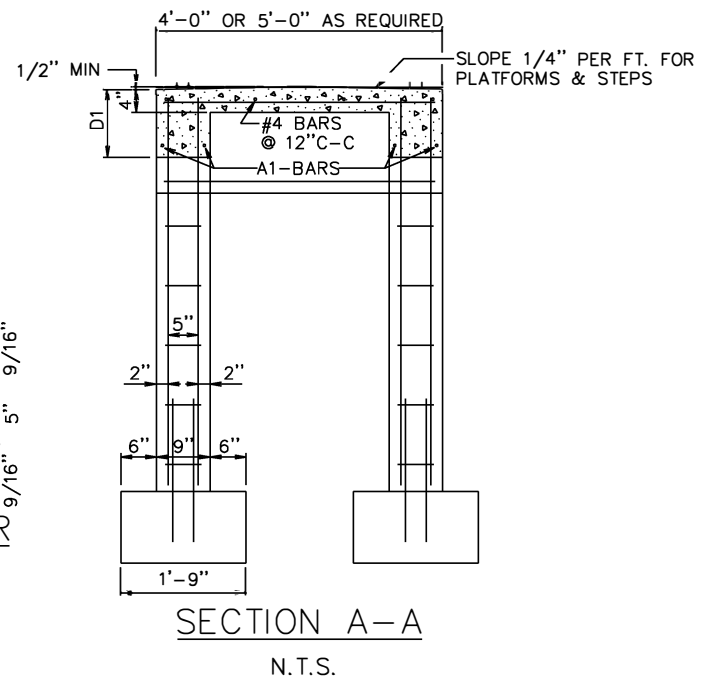
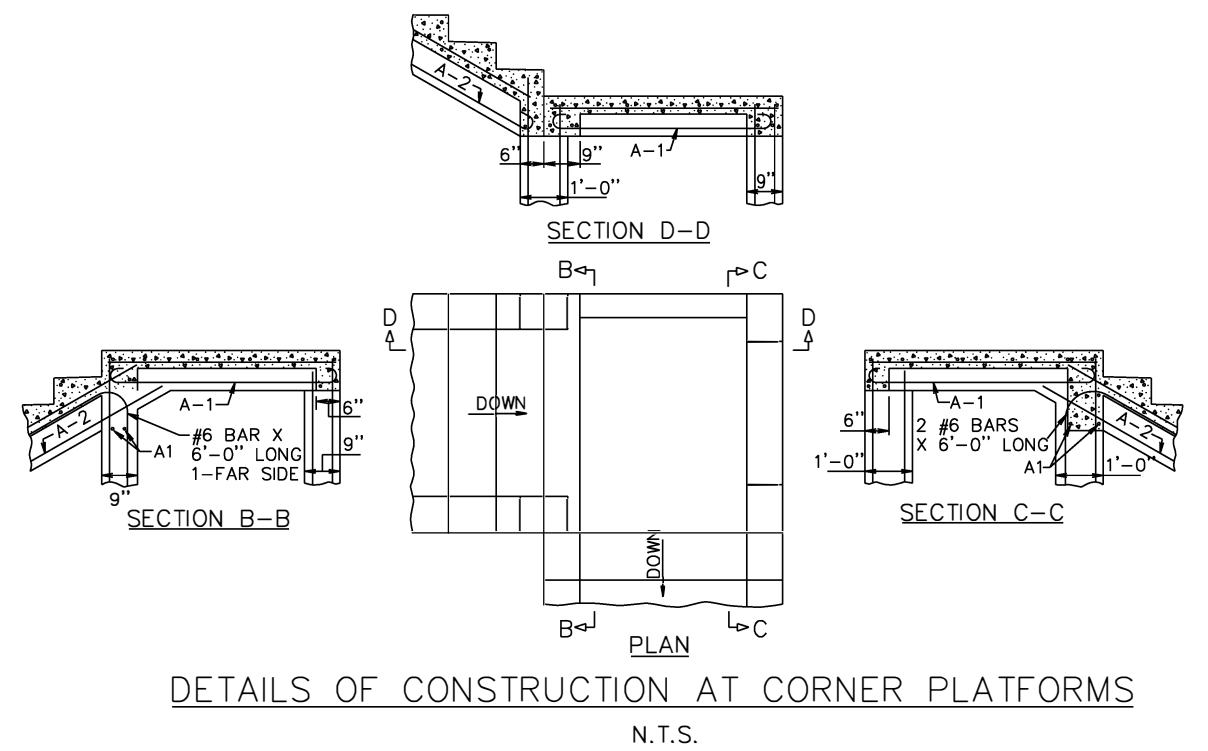
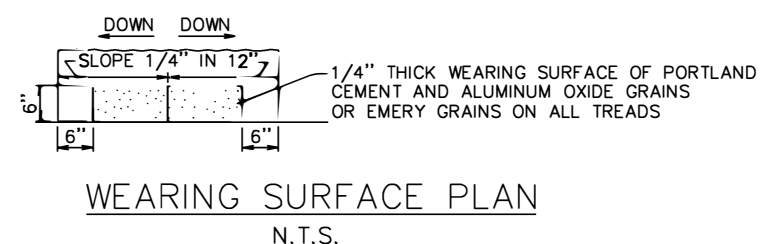
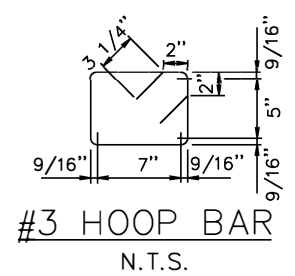
REVISION	MADE BY	CHECKED BY	DESCRIPTION



NOTE:  
BOTTOM OF ALL FOOTINGS TO EXTEND  
BELOW SURFACE OF GROUND FOR A  
MINIMUM DISTANCE OF 3'-0" AT  
CENTER OF COLUMN.

- NOTE:
- 1 AT EXPANSION JOINTS THE SUPPORTING BEAMS MUST BE PLACED FIRST AND SET HARD BEFORE SUPPORTED PLATFORM STRUCTURE IS PLACED.
  - 2 BARS NOT NOTED, USE #4 STRAIGHT. DIMENSIONS GIVEN ON C OF BAR.
  - 3 PROVIDE PENNDOT CLASS AAA CEMENT CONCRETE (F=4000 PSI) WITH #8 COARSE AGGREGATE FOR ALL STRUCTURES
  - 4 RISE, MIN. 6" TO 7" MAX. RISER HEIGHT INCREMENTS OF 1/8"

REINFORCED CONCRETE STRINGER FOR PLATFORMS				REINFORCED CONCRETE STRINGER FOR STEPS			
FOR ONE STRINGER 9" WIDE				FOR ONE STRINGER 9" WIDE			
SPAN L	WIDTH	DEPTH D1	REINFORCING BARS A-1	SPAN L	WIDTH	DEPTH D2	REINFORCING BARS A-2
10'-0" OR LESS	5'-0"	1'-0"	2-#5	10'-0" OR LESS	5'-0"	1'-0"	2-#5
10'-1" TO 13'-0"	5'-0"	1'-0"	2-#5	11'-0"	5'-0"	1'-0"	2-#6
13'-1" TO 15'-0"	5'-0"	1'-1"	2-#6	12'-0" & 13'-0"	5'-0"	1'-2"	2-#6
15'-1" TO 17'-0"	5'-0"	1'-2"	2-#6	14'-0" & 15'-0"	5'-0"	1'-4"	2-#6
17'-1" TO 18'-0"	5'-0"	1'-2"	2-#7	16'-0"	5'-0"	1'-6"	2-#6
12'-6" OR LESS	6'-0"	1'-0"	2-#6	17'-0" & 18'-0"	5'-0"	1'-6"	2-#7
12'-7" TO 13'-6"	6'-0"	1'-1"	2-#6	10'-0" OR LESS	6'-0"	1'-0"	2-#5
13'-7" TO 15'-0"	6'-0"	1'-2"	2-#6	11'-0" TO 13'-0"	6'-0"	1'-2"	2-#6
15'-1" TO 16'-0"	6'-0"	1'-3"	2-#6	14'-0" TO 16'-0"	6'-0"	1'-6"	2-#6



CITY OF PITTSBURGH  
STANDARDS  
OF CONSTRUCTION

STEPS - CONCRETE  
STEPS TYPE 1

DEPUTY CHIEF ENGINEER	DATE
4/14/25	
CHIEF ENGINEER	DATE
7/10/25	
DIRECTOR OF DOM	DATE
07/11/2025	
DIRECTOR OF PUBLIC WORKS	DATE

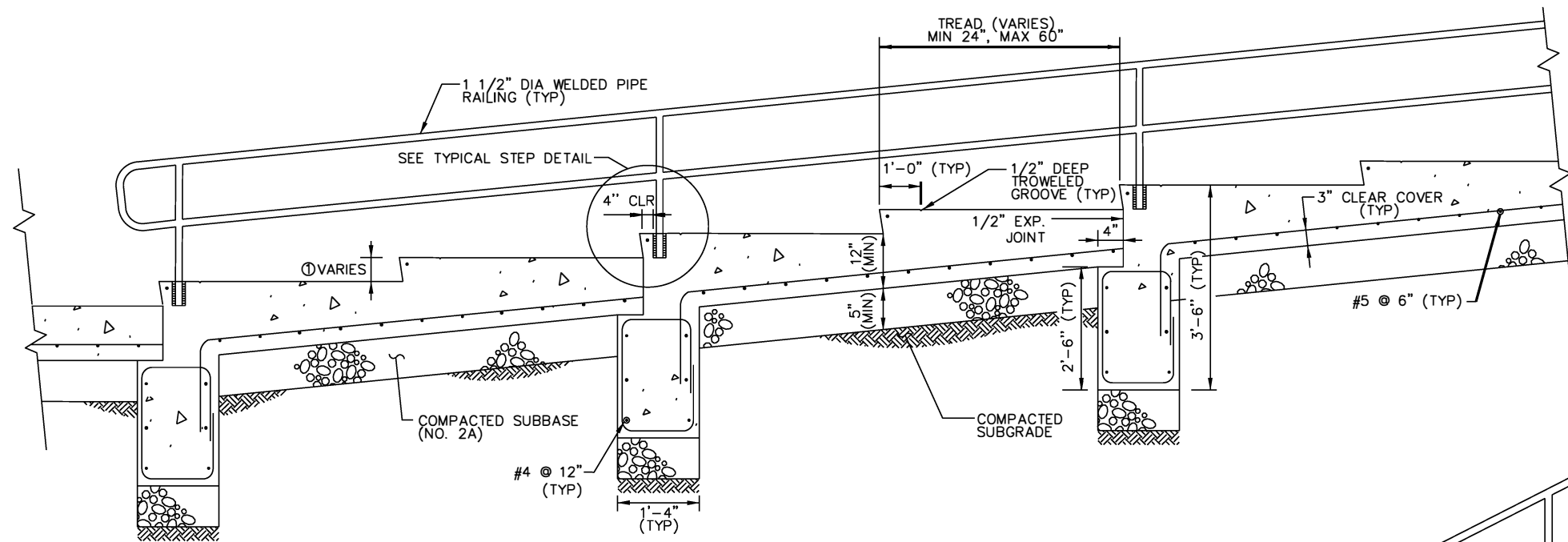
Acting

FORMER STANDARD	ACCESSION NO.
DRAWING NO.	CASE NO.

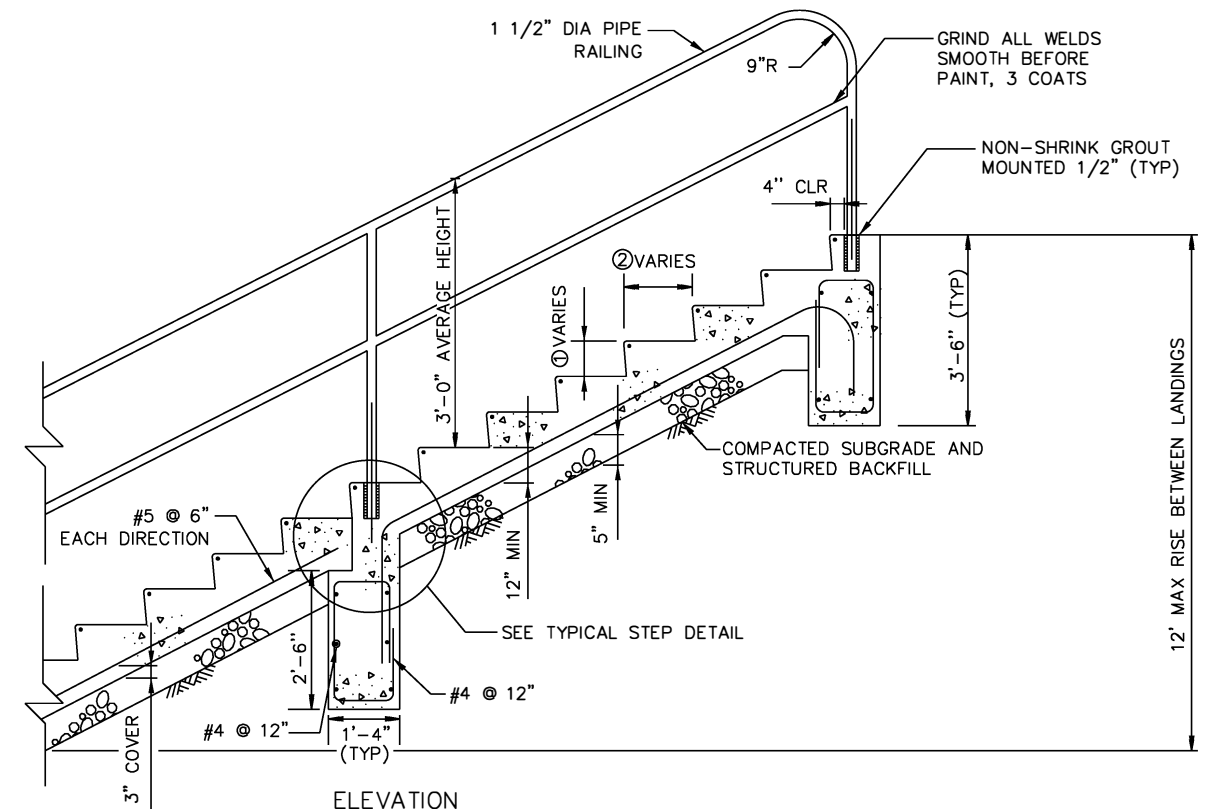
DWG. NO. SU-100

REVISION	MADE BY	CHECKED BY	DESCRIPTION

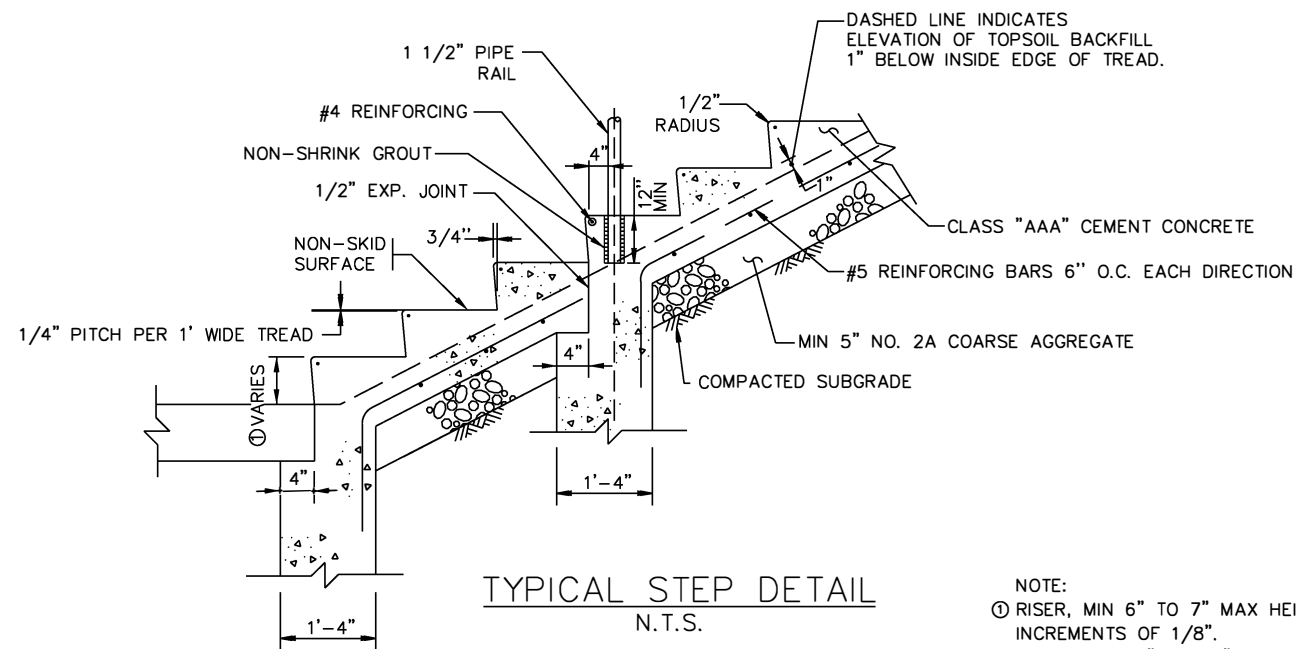
DWG. NO. SU-101



JUMPER STEPS ON GRADE  
N.T.S.



ELEVATION  
STANDARD STEPS ON GRADE  
N.T.S.



TYPICAL STEP DETAIL  
N.T.S.

- NOTE:
- ① RISER, MIN 6" TO 7" MAX HEIGHT INCREMENTS OF 1/8".
  - ② TREAD MIN 12" TO 24" MAX DEPTH.

1 1/2" PIPE RAIL—WELDED JOINT, GROUND SMOOTH AND GALVANIZED.

AVERAGE 3'-0" HEIGHT SUBJECT TO SLOPE OF STEPS. ADJUST PIPE RAIL HEIGHT AT LANDINGS ACCORDINGLY.

INTERMEDIATE SUPPORT POSTS SHALL NOT EXCEED 8'-0" FROM END OR OTHER INTERMEDIATE POSTS, AS DIRECTED IN THE FIELD.

BOTTOM 18" OF POSTS TO BE HOT DIPPED GALVANIZED BEFORE PAINTING. TYPICAL ALL STEEL TYPES.

# CITY OF PITTSBURGH STANDARDS OF CONSTRUCTION

## STEPS – CONCRETE STEPS TYPE 3

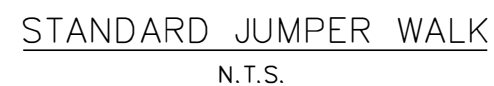
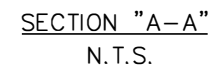
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DEPUTY CHIEF ENGINEER	DATE
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CHIEF ENGINEER	DATE
<i>[Signature]</i>	7/10/25
DIRECTOR OF DOMI	DATE
<i>[Signature]</i>	07/11/2025
DIRECTOR OF PUBLIC WORKS	DATE

Acting

FORMER STANDARD	ACCESSION NO. _____
DRAWING NOSU-300	CASE NO. _____

DWG. NO. SU-102-1

REVISION	MADE BY	CHECKED BY	DESCRIPTION



REVISION	MADE BY	CHECKED BY	DESCRIPTION

## GENERAL DESIGN NOTES

PROVIDE PENNDOT CLASS AAA CEMENT CONCRETE ( $f = 4,000$  psi) WITH #8 COARSE AGGREGATE FOR PRE-CAST UNITS AND CAST-IN-PLACE LANDINGS.

PROVIDE PENNDOT CLASS A CEMENT CONCRETE ( $f = 3,000$  psi) FOR COLUMNS AND FOUNDATIONS.

PROVIDE 3/8" RADIUS NOSING FOR ALL STAIR AND LANDING TREADS.

CHAMFER ALL OTHER CORNERS 3/4" X 3/4".

BROOM FINISH ALL CAST-IN-PLACE CONCRETE WEARING SURFACES.

PROVIDE EPOXY COATED GRADE 60 REINFORCING BARS THAT MEET PENNDOT PUB 408 REQUIREMENTS.

INSERTS SHALL BE GALVANIZED.

ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED. STATIONS AND ELEVATIONS ARE GIVEN IN FEET UNLESS OTHERWISE INDICATED.

## DESIGN SPECIFICATIONS

INTERNATIONAL BUILDING CODE (IBC) (2018)

ICC/ANSI A-117.1 – AMERICAN NATIONAL STANDARDS INSTITUTE'S (ANSI)  
ACCESSIBLE AND USABLE FACILITIES AND BUILDINGS (2017)

AMERICAN WITH DISABILITIES ACT (ADA) STANDARDS FOR ACCESSIBILITY DESIGN  
(2010)

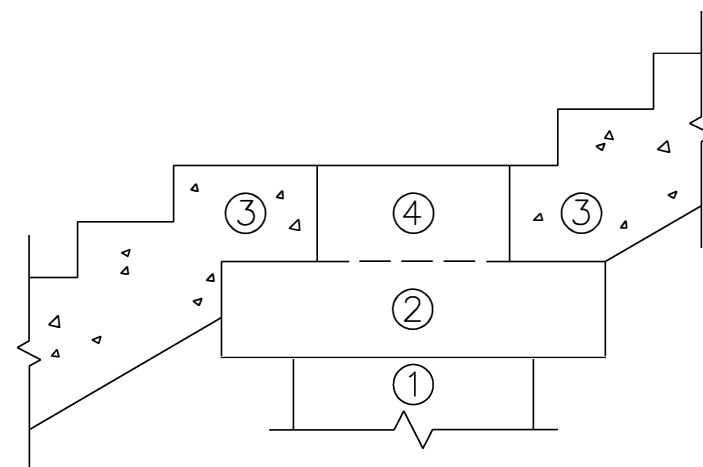
PA. CODE TITLE 34, CHAPTER 47

SNOW LOAD = 21 PSF FOR CITY OF PITTSBURGH

ICE LOAD = HORIZONTAL = 12 PSF, VERTICAL = 16 PSF

LIVE LOAD = 100 PSF OR 300 LBS PER 2' X 2' AREA

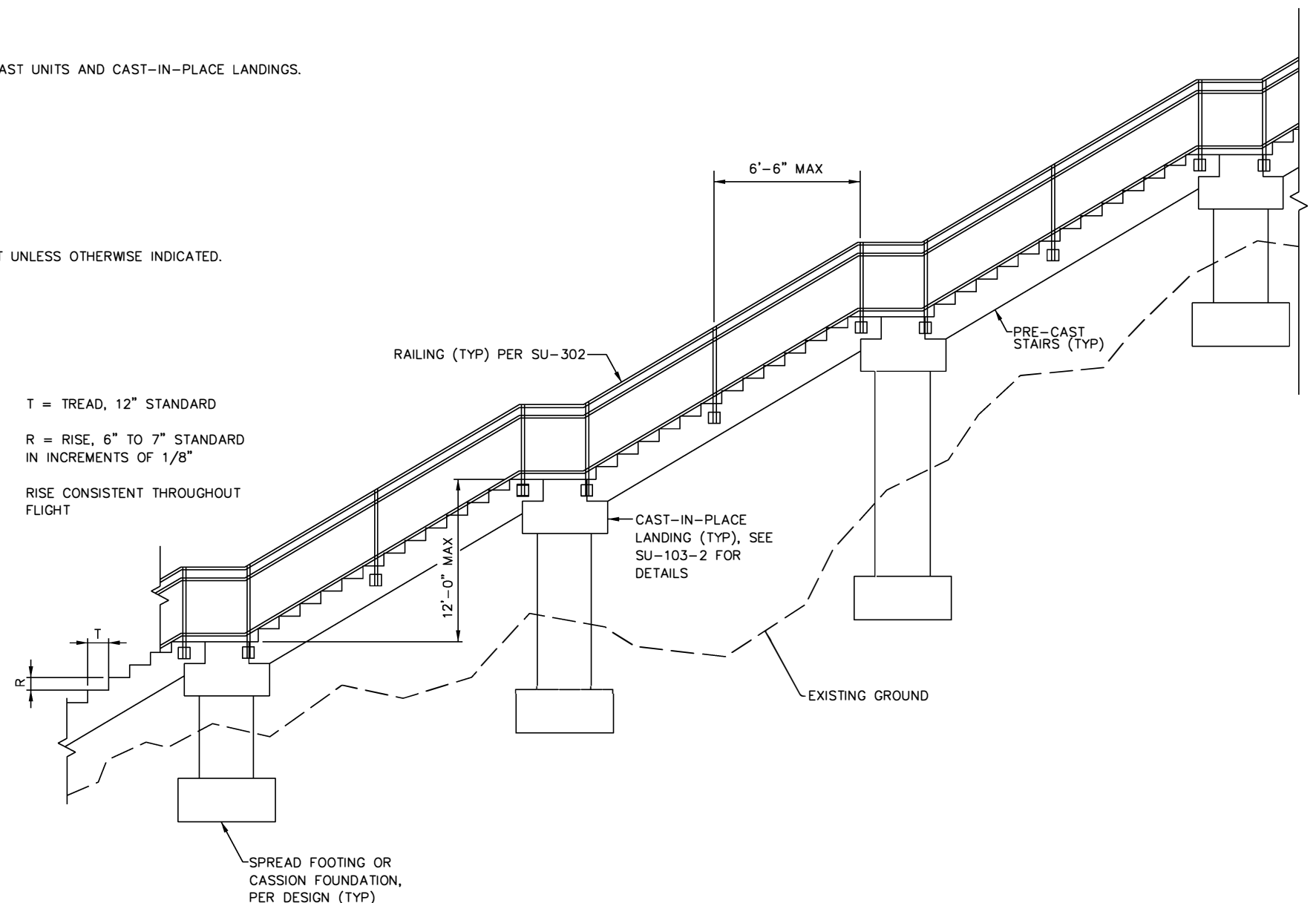
WIND SHORTENED DIRECTION



## CAST-IN-PLACE LANDING CONCRETE POUR SEQUENCE

N.T.S.

- CONCRETE POUR SEQUENCE:
1. POUR CAST-IN-PLACE LANDING COLUMN.
  2. POUR BOTTOM HALF OF LANDING.
  3. INSTALL PRECAST STAIRS AND/OR DECK PANEL.
  4. COMPLETE FINAL POUR FOR THE UPPER HALF OF THE CAST-IN-PLACE LANDING TO LOCK IN STAIR SECTIONS.



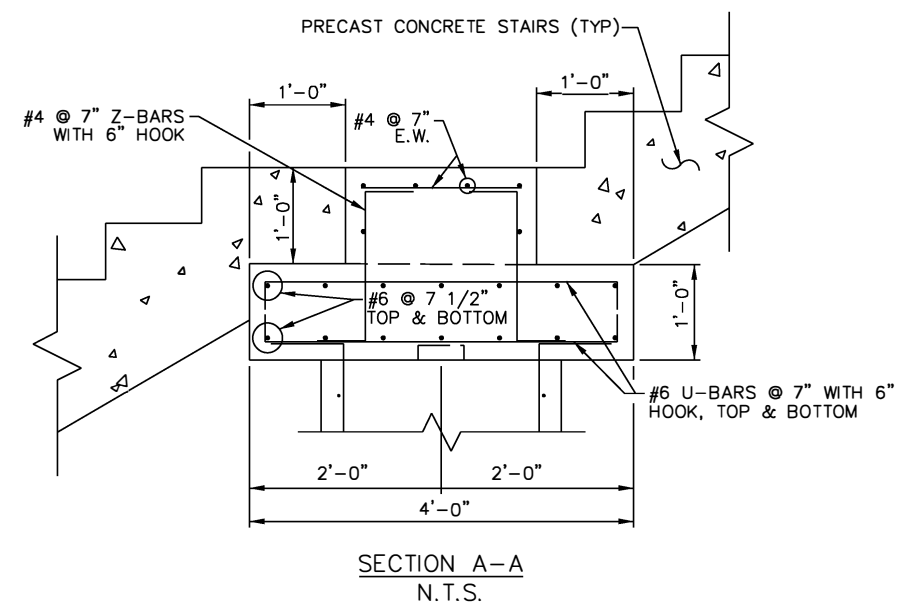
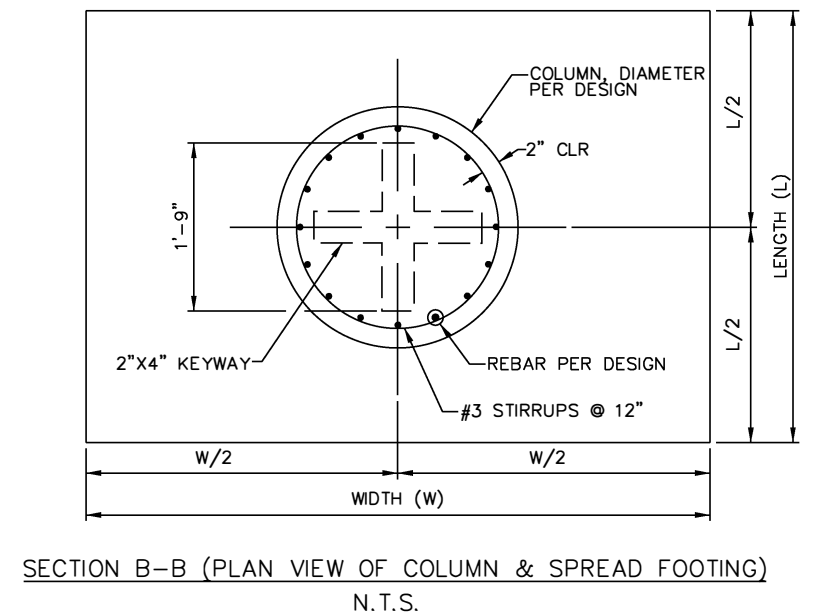
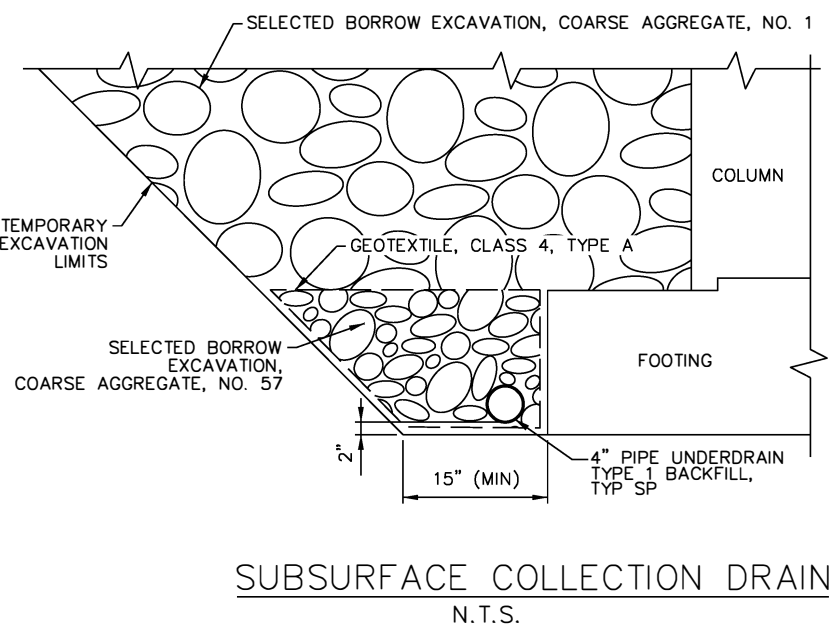
## STANDARD ELEVATED PRE-CAST STEPS

N.T.S.

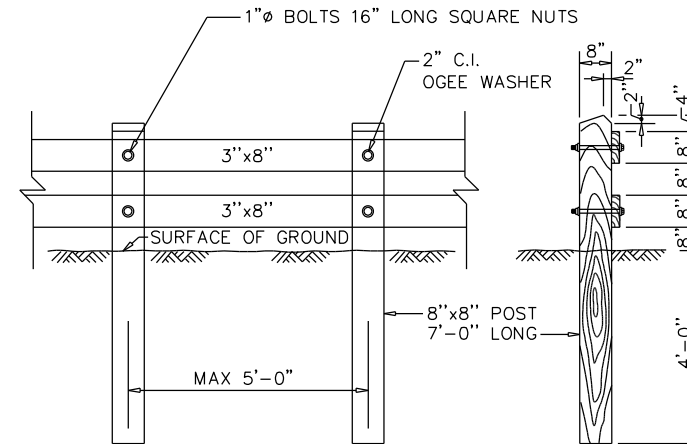
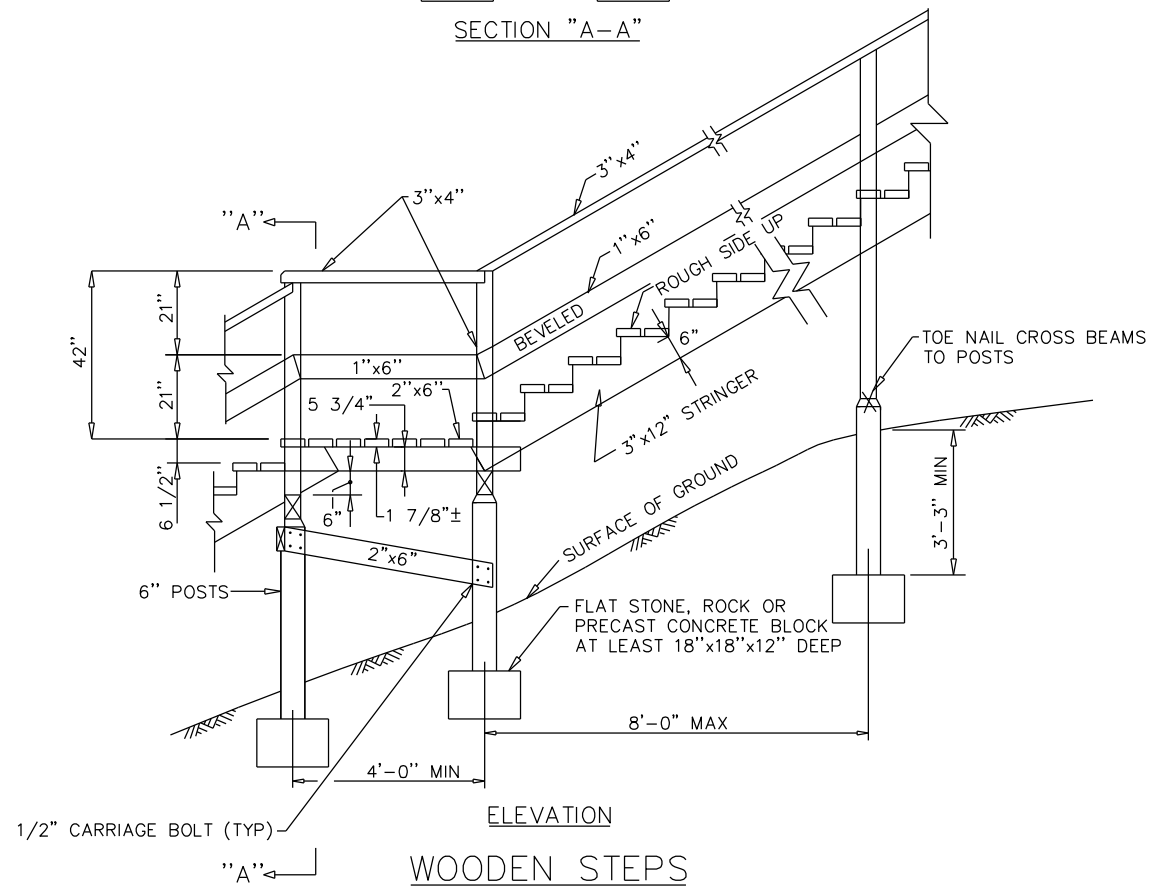
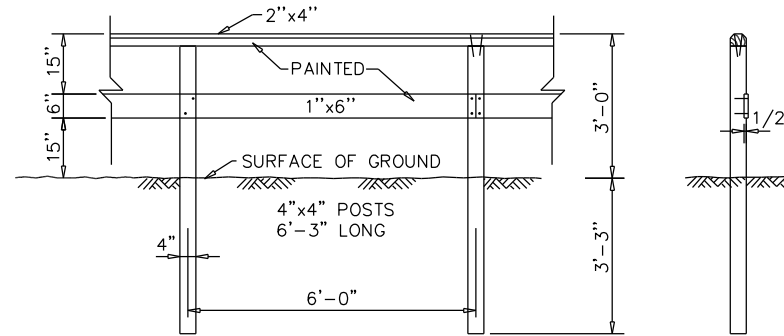
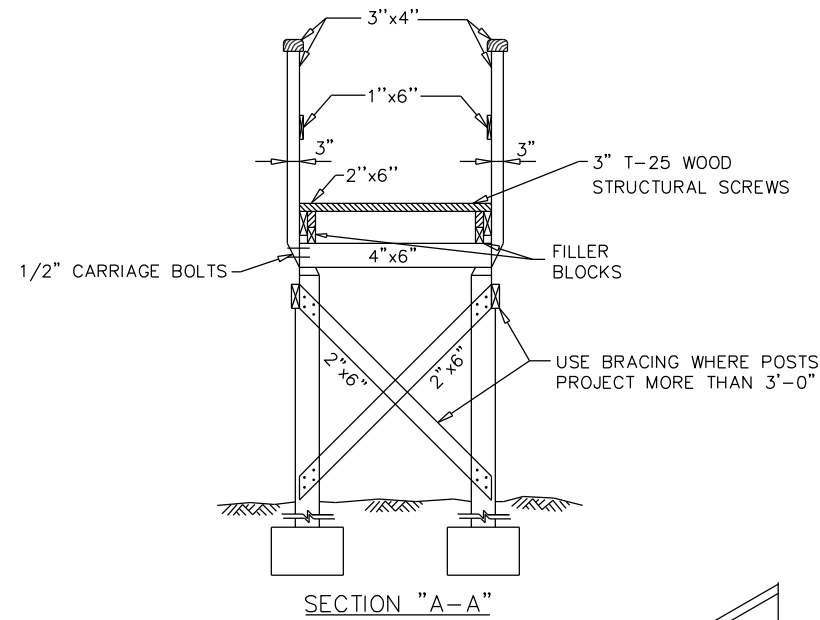
CITY OF PITTSBURGH STANDARDS OF CONSTRUCTION	
STEPS – CONCRETE STEPS TYPE 4	
<i>Glenn White</i> DEPUTY CHIEF ENGINEER	4/14/25 DATE
<i>Eric J. Seltzer</i> CHIEF ENGINEER	4/10/25 DATE
<i>[Signature]</i> DIRECTOR OF DOMI	7/10/25 DATE
<i>Chris Heath</i> DIRECTOR OF PUBLIC WORKS	07/11/2025 DATE
FORMER STANDARD DRAWING NO. _____	ACCESSION NO. _____ CASE NO. _____
DWG. NO. SU-103-1	

REVISION	MADE BY	CHECKED BY	DESCRIPTION





CITY OF PITTSBURGH STANDARDS OF CONSTRUCTION	
STEPS – CONCRETE STEPS TYPE 4 CIP LANDING	
<i>glog idl</i>	4/14/25
DEPUTY CHIEF ENGINEER	DATE
<i>Eric J. Siffer</i>	4/10/25
CHIEF ENGINEER	DATE
<i>[Signature]</i>	7/10/25
DIRECTOR OF DOMI	DATE
<i>Chris Hunter</i>	07/11/2025
DIRECTOR OF PUBLIC WORKS	DATE
FORMER STANDARD DRAWING NO. _____	ACCESSION NO. _____ CASE NO. _____
DWG. NO. SU-103-2	



WOODEN RAILING DETAILS

CITY OF PITTSBURGH  
STANDARDS  
OF CONSTRUCTION

STEPS – WOODEN STEPS  
AND WOODEN  
RAILING DETAILS

<i>[Signature]</i>	4/14/25
DEPUTY CHIEF ENGINEER	DATE
<i>[Signature]</i>	4/10/25
CHIEF ENGINEER	DATE
<i>[Signature]</i>	7/10/25
DIRECTOR OF DOMI	DATE
<i>[Signature]</i>	07/11/2025
DIRECTOR OF PUBLIC WORKS	DATE

Acting

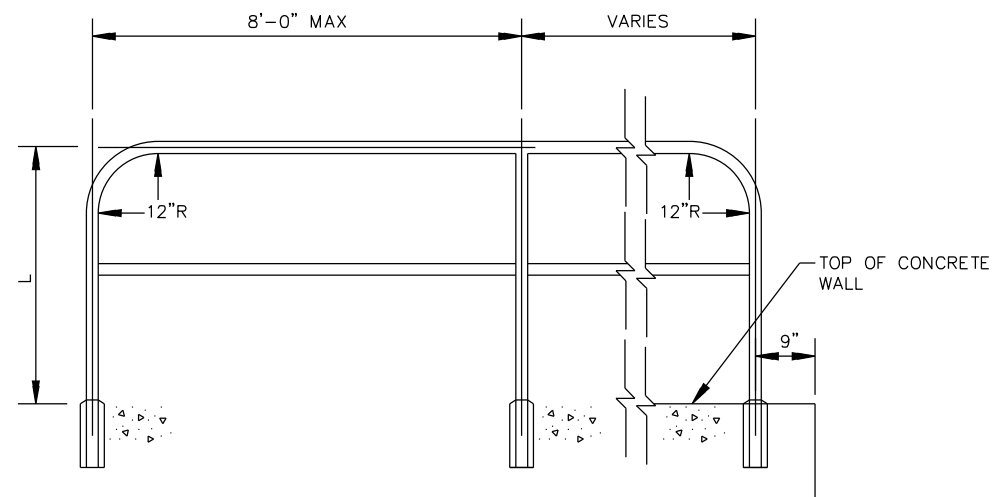
FORMER STANDARD	ACCESSION NO. _____
DRAWING NO. _____	CASE NO. _____

DWG. NO. SU-200

REVISION	MADE BY	CHECKED BY	DESCRIPTION



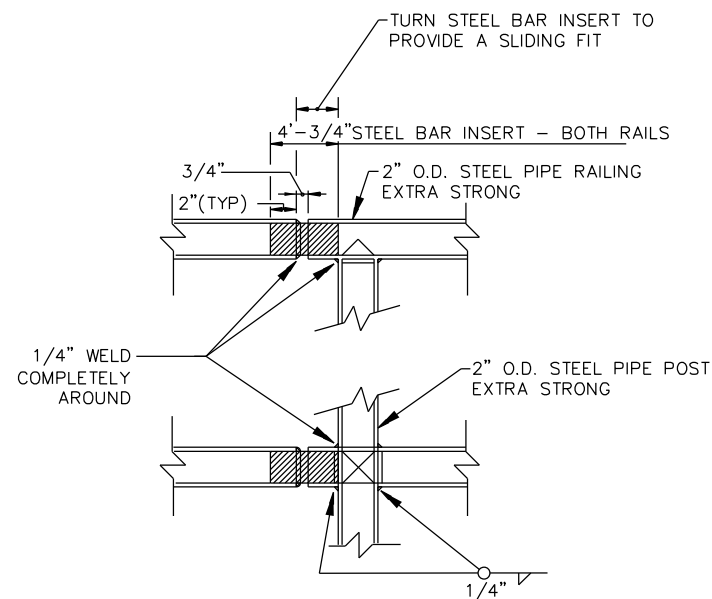




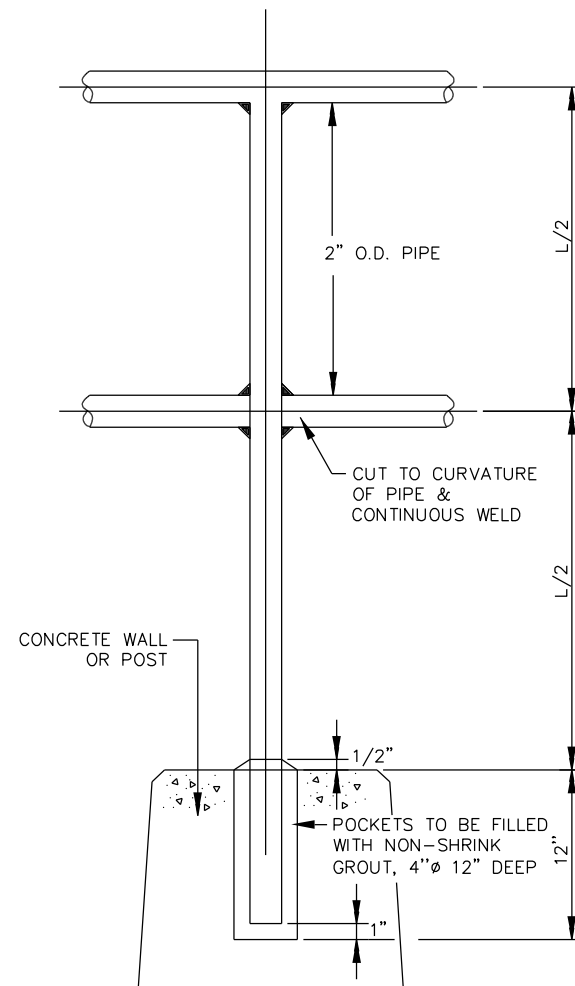
ELEVATION  
N.T.S.

RAIL HEIGHTS	
DROP-OFF (FROM LEDGE TO GROUND BELOW)	RAILING (L) REQUIRED
< 21"	3'-0" (MIDDLE RAIL OPTIONAL)
21"-30"	3'-0"
> 30"	3'-6", OR TYPE 4 RAIL

- NOTES:
1. ALL WELDS TO BE GROUND SMOOTH.
  2. BOTTOM 18" OF POST TO BE HOT DIPPED GALVANIZED BEFORE PAINTING.
  3. SHOP COAT ALL ELEMENTS. APPLY MINIMUM TWO COAT SYSTEM.
  4. FINISH COAT TO BE FEDERAL COLOR NO. 27038, BLACK, SEMI-GLOSS.

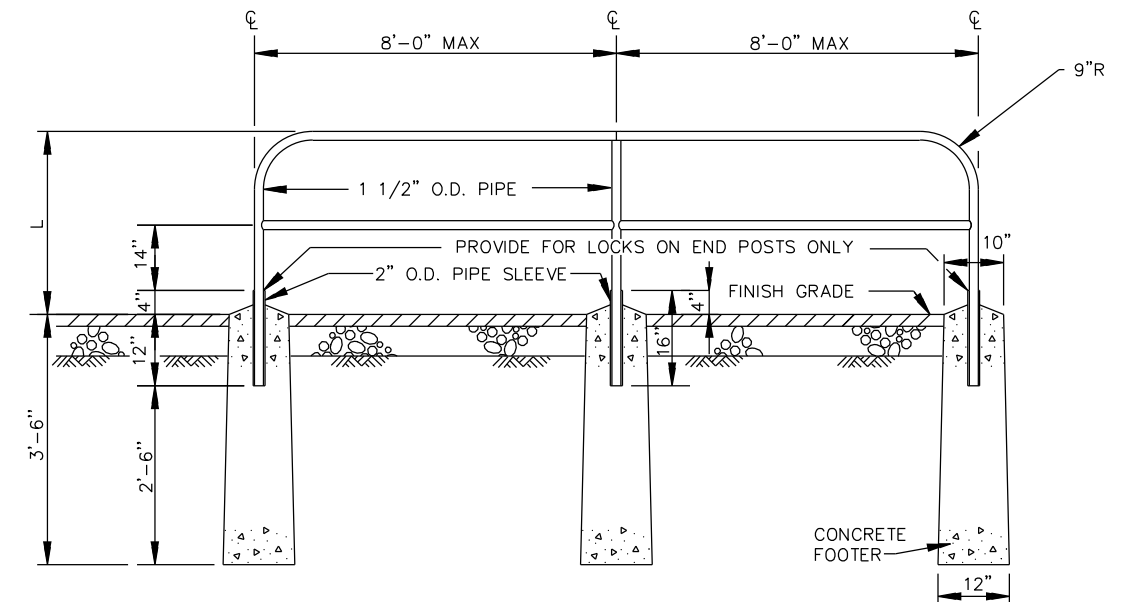


PIPE RAIL EXPANSION JOINT

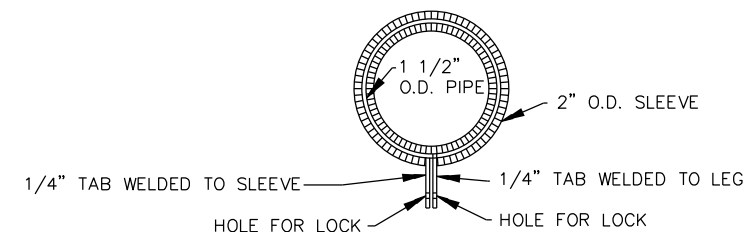


DETAIL OF POST

STEEL PIPE WELDED RAILING TYPE 3  
N.T.S.

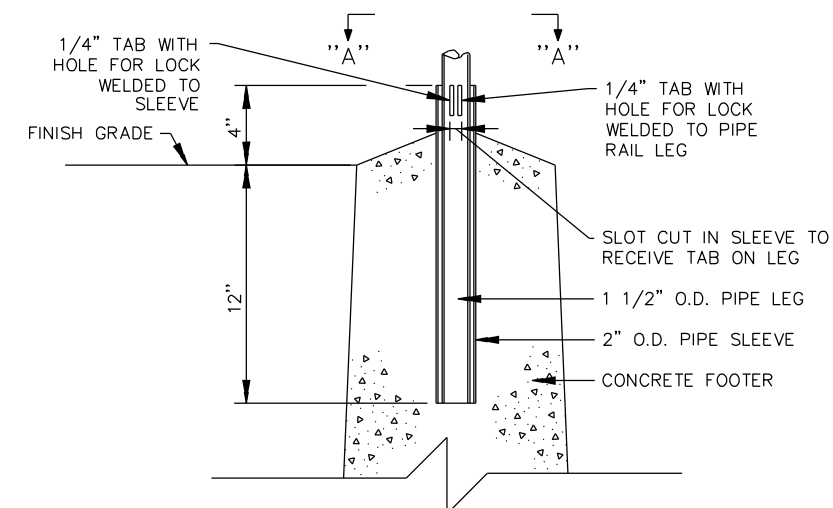


SECTION/ELEVATION  
N.T.S.



SECTION "A-A"

- NOTES:
1. GUARD RAIL TO BE FABRICATED TO MAXIMUM LENGTHS SUITABLE FOR HANDLING BEFORE BEING GALVANIZED.
  2. ALL WELDS TO BE GROUND SMOOTH BEFORE GALVANIZING.
  3. AFTER CONCRETE HAS SET FOR 7 DAYS ALL EXPOSED FOOTER TOPS SHALL BE PAINTED WITH 2 COATS OF POLY-COAT BLACK OR EQUAL. (IN BITUMINOUS AREAS ONLY)



DETAIL  
REMOVABLE GUARD RAIL  
N.T.S.

## CITY OF PITTSBURGH STANDARDS OF CONSTRUCTION

### POSTS AND RAILINGS - STEEL WELDED RAILING TYPE 3 AND REMOVABLE GUARD RAIL

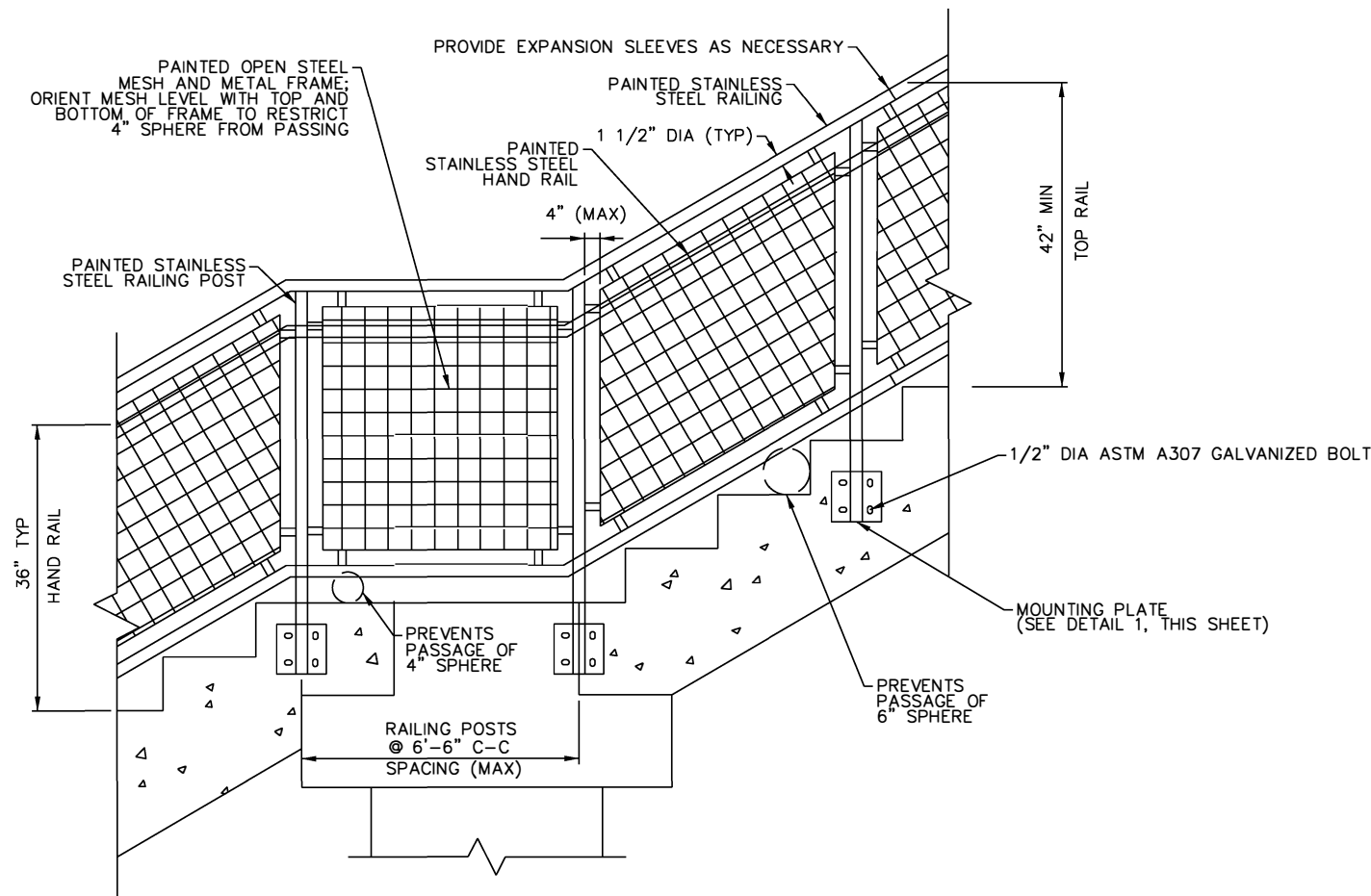
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DEPUTY CHIEF ENGINEER	DATE
<i>[Signature]</i>	4/10/25
CHIEF ENGINEER	DATE
<i>[Signature]</i>	7/10/25

Acting	DIRECTOR OF DOMI	DATE
	<i>[Signature]</i>	07/11/2025
	DIRECTOR OF PUBLIC WORKS	DATE

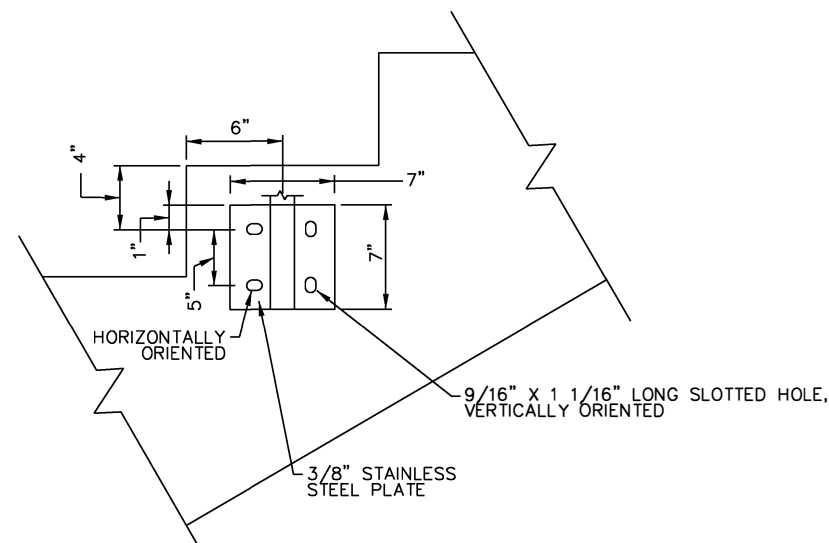
FORMER STANDARD DRAWING NO. _____	ACCESSION NO. _____ CASE NO. _____
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DWG. NO. SU-301

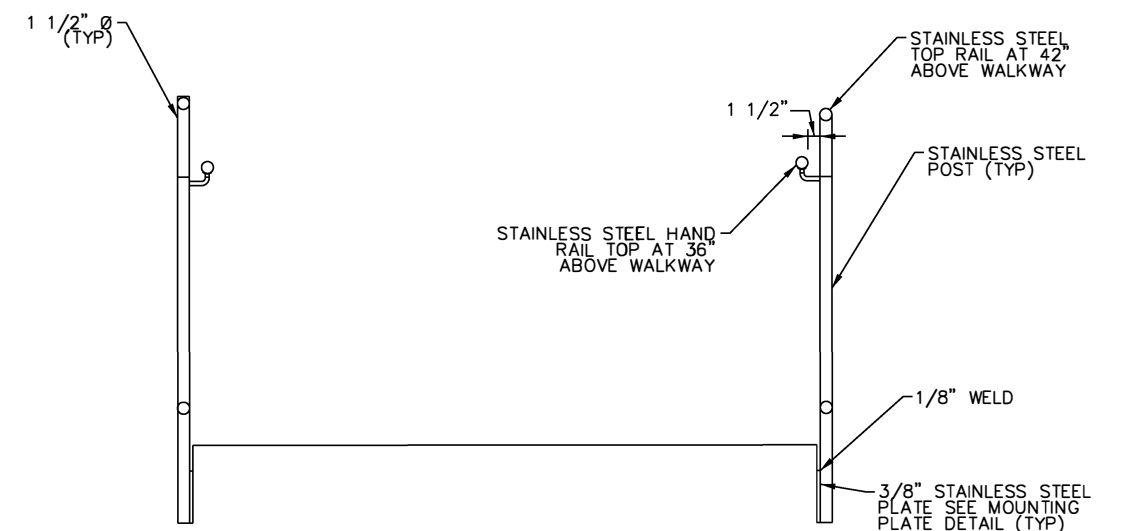
REVISION	MADE BY	CHECKED BY	DESCRIPTION



STEEL RAILING TYPE 4  
N.T.S.



① MOUNTING PLATE  
N.T.S.



TYPICAL STAIR SECTION

CITY OF PITTSBURGH  
STANDARDS  
OF CONSTRUCTION

POSTS AND RAILINGS –  
STEEL RAILING  
TYPE 4

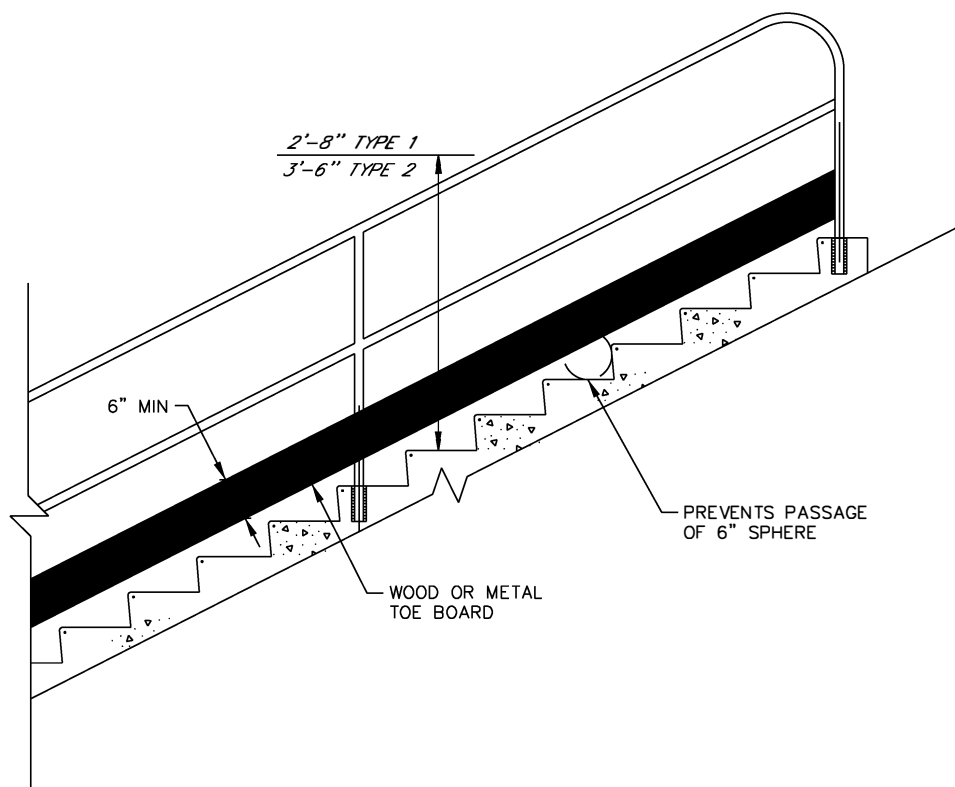
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DEPUTY CHIEF ENGINEER	DATE
<i>[Signature]</i>	4/10/25
CHIEF ENGINEER	DATE
<i>[Signature]</i>	7/10/25

Acting DIRECTOR OF DOMI *[Signature]* 07/11/2025  
DIRECTOR OF PUBLIC WORKS

FORMER STANDARD DRAWING NO. _____	ACCESSION NO. _____ CASE NO. _____
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DWG. NO. SU-302

REVISION	MADE BY	CHECKED BY	DESCRIPTION



ELEVATION

EXISTING RAILING WITH TOE BOARD

NOTES:

1. EXISTING IRON RAILINGS SHOWN. TOE BOARD REQUIRED FOR INSTALLATION ON IRON, WOOD, AND STEEL RAILINGS
2. FOR USE WHEN 6 OR MORE FEET FROM LEDGE TO GROUND BELOW.
3. TOE BOARD TO BE ATTACHED TO EXISTING POSTS WITH SCREWS OR STRAPS.

CITY OF PITTSBURGH  
STANDARDS  
OF CONSTRUCTION

POSTS AND RAILINGS –  
ADA PROTECTION ON  
EXISTING RAILINGS

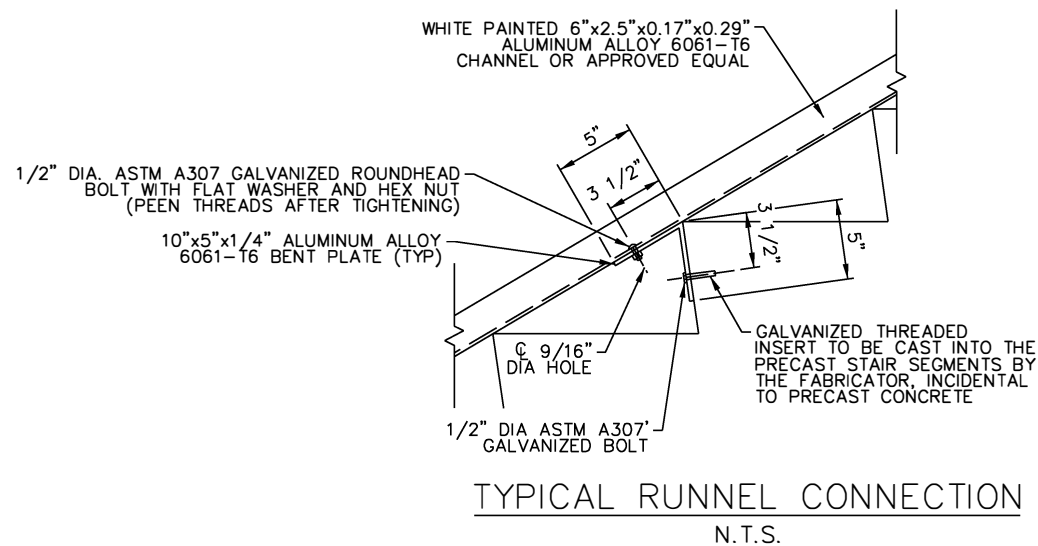
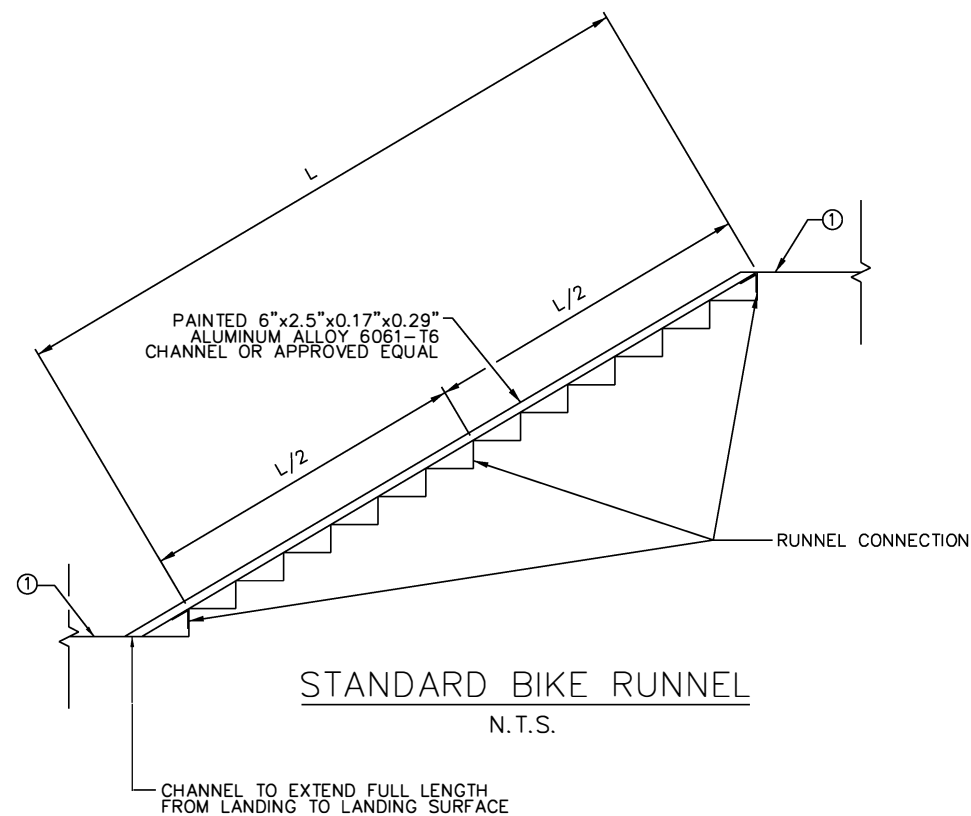
*[Signature]* 4/14/25  
DEPUTY CHIEF ENGINEER DATE  
*[Signature]* 4/10/25  
CHIEF ENGINEER DATE  
*[Signature]* 7/10/25

Acting DIRECTOR OF DOMI DATE  
*[Signature]* 07/11/2025  
DIRECTOR OF PUBLIC WORKS DATE

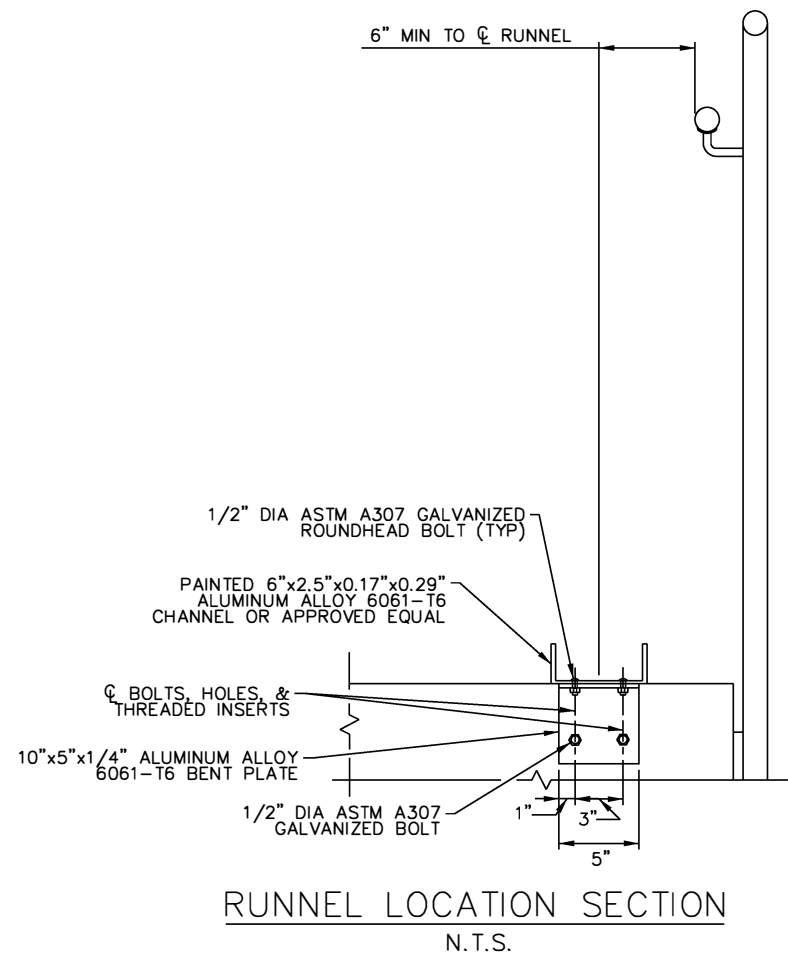
FORMER STANDARD  
DRAWING NO. \_\_\_\_\_  
ACCESSION NO. \_\_\_\_\_  
CASE NO. \_\_\_\_\_

DWG. NO. SU-303

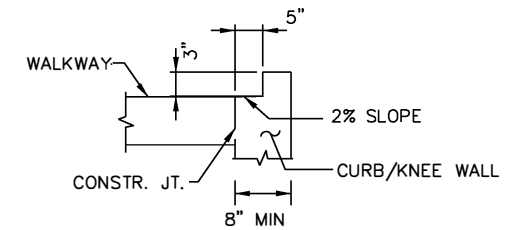
REVISION	MADE BY	CHECKED BY	DESCRIPTION



TYPICAL CHANNEL RUNNEL  
N.T.S.



NOTE: PROVIDE BIKE RUNNEL AT THE RIGHT SIDE OF STEPS, WHEN LOOKING "UP" THE STEPS, OR AS DIRECTED BY ENGINEER

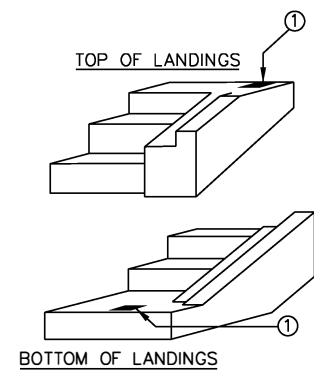


RIGHT-RUNNING SECTION

ALTERNATE FORMED CONCRETE CURB RUNNEL  
N.T.S.

POUR SEQUENCE:  
1. POUR CURB/KNEE WALL  
2. POUR TREAD WALKWAY

NOTE:  
6" MIN. FROM HANDRAIL TO CENTER OF FORMED CURB RUNNEL



BIKE RUNNEL ENDS

① NOTE:  
PLACE REFLECTIVE STICKER OR CONCRETE STAMP AT TOP AND BOTTOM OF RUNNEL. REFER TO TRAFFIC ENGINEER FOR GUIDANCE

CITY OF PITTSBURGH  
STANDARDS  
OF CONSTRUCTION

STEPS – ALUMINUM  
AND CONCRETE  
BIKE RUNNELS

4/14/25  
DEPUTY CHIEF ENGINEER DATE  
4/10/25  
CHIEF ENGINEER DATE  
7/10/25

Acting DIRECTOR OF DOMI DATE  
07/11/2025  
DIRECTOR OF PUBLIC WORKS DATE

FORMER STANDARD  
DRAWING NO. \_\_\_\_\_  
ACCESSION NO. \_\_\_\_\_  
CASE NO. \_\_\_\_\_

DWG. NO. SU-304

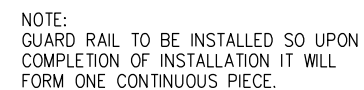
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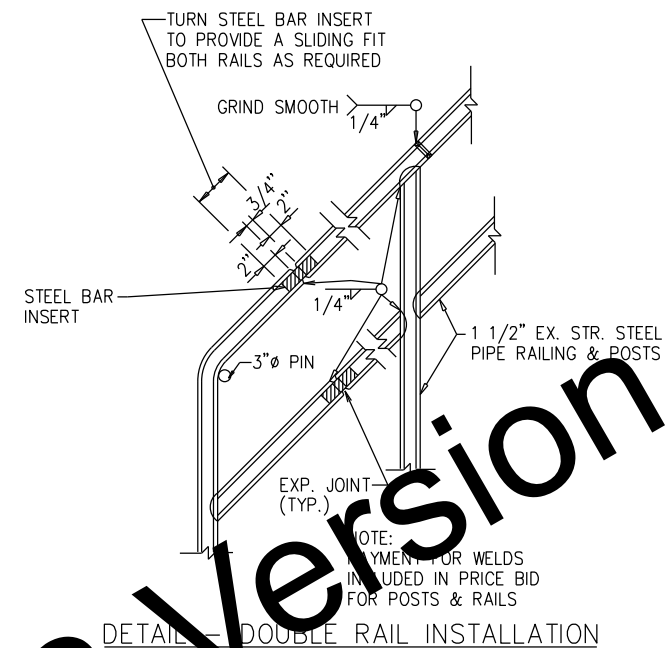




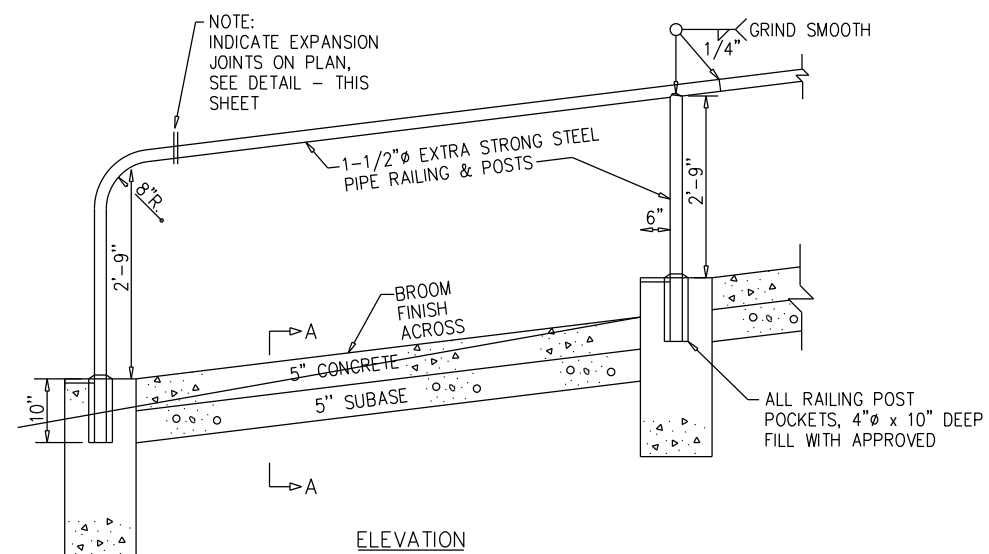
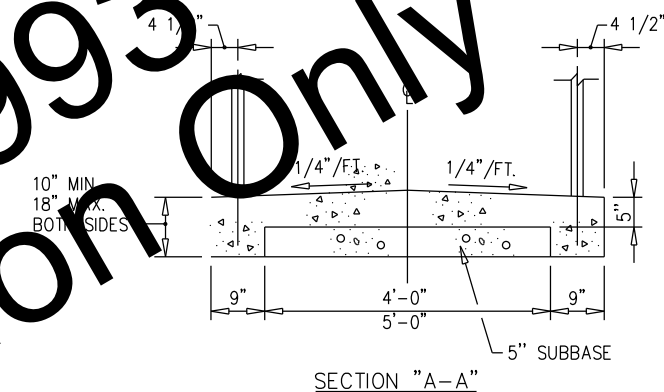
- NOTES:
1. GUARD RAIL TO BE FABRICATED TO MAXIMUM LENGTHS SUITABLE FOR HANDLING BEFORE BEING GALVANIZED.
  2. ALL WELDS TO BE GROUND SMOOTH BEFORE GALVANIZING.
  3. AFTER CONCRETE HAS SET FOR (7) DAYS ALL EXPOSED FOOTER TOPS SHALL BE PAINTED WITH (2) COATS OF POLY- COAT BLACK OR EQUAL. (IN BITUMINOUS AREAS ONLY).



SECTION  
GALVANIZED PIPE GUARD RAIL



## DETAIL - DOUBLE RAIL INSTALLATION



DETAIL – SINGLE RAIL INSTALLATION  
STANDARD JUMPER WALK

DWG. NO. SU-400