Project Name:	ATRKX19008 - Petersburg
Date:	9/1/2020
Linear Development Project?	Yes

CLEAR ALL

data input cells
constant values
calculation cells
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* →	1.48
Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*0*
Post-Development TP Load Reduction for Site (lb/yr):	*0.43*

Check:
BMP Design Specifications List: 2013 Draft Stds & Specs
Linear project? Yes
Land cover areas entered correctly? ✔
Total disturbed area entered? ✔

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed forest/open space					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed			0.58		0.58
Impervious Cover (acres)			0.90		0.90
					1.48

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land					0.00
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed			0.59		0.59
Impervious Cover (acres)			0.89		0.89
Area Check	OK.	OK.	OK.	OK.	1.48

Constants

Annual Rainfall (inches)	43
Target Rainfall Event (inches)	1.00
Total Phosphorus (TP) EMC (mg/L)	0.26
Total Nitrogen (TN) EMC (mg/L)	1.86
Target TP Load (lb/acre/yr)	0.41
Pj (unitless correction factor)	0.90

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

STORMWATER MANAGEMENT NARRATIVE

Amtrak's ADA Platform Program (ADAPP) is proposing to upgrade the current station platform to comply with ADA requirements and the associated site stormwater, architectural, structural and utility improvements. The station has an existing building and parking lots as well as an open field of grass. It is zoned as Light Industrial District (I-1) and has a total area of 9.546 acres. The proposed platform will replace the existing paved platform and is approximately 1,020 feet long. Due to site constraints, stormwater management for the new platform area will be provided as two separate systems. The site will be split at approximately the middle of the platform, with 490 LF draining to the south, and 530 LF draining to the north. The area effected by the platform upgrades, will be approximately 1.48 acres in total disturbance.

The northerly platform drainage system will outlet to an existing stormwater path that flows northerly overland in grassy and vegetated areas and into Fleets Brook. Although the impervious area increases, the total tributary area for the northerly system is being reduced so that in turn the peak flow rate will be less than under existing conditions.

The southern stormwater outlet will be an existing inlet that is a part of the municipal system in Bessie Lane near the existing parking lot on the south side of the train station. Southern storm water management is provided using an underground detention system.

Water Quality Control

DEQ Virginia Runoff Reduction Method (VRRM) Redevelopment Compliance Spreadsheet - Version 3.0 has been utilized to meet water quality requirements for this development. The water quality analysis was completed analyzing the entire site, post development impervious coverage is 0.89 acres, with a total disturbance of 1.48 acres. Water quality requirements will be met by purchasing stormwater credits. The pollutant removal requirement for the proposed site improvements is 0.43 lbs/yr. Water quality calculations are located on this sheet.

Water Quantity Control

The northern half of the site drains to one outfall point, which is continued following an overland stormwater path that eventually leads to Fleets Brook. The existing drainage area to the on-site outlet point is approximately 1.34 acres, which includes 0.72 acres of adjoining drainage area. The drainage area is being reduced by 0.08 acres to 1.26 acres which is intended to reduce proposed peak flow rates below predevelopment rates to comply with water quantity requirements. The 1-year allowable release rate to meet channel protection requirements is 3.83 cfs and the post-development 1-year flow rate will be 3.47 cfs. The 10-year pre and post development peak flow rates are 7.74 and 7.16 cfs, respectively. Refer to the Northern Platform Stormwater Calculations for detailed calculations.

The southern half of the site drains to an existing inlet located in Bessie Lane as part of the municipal stormwater system with an existing drainage area of approximately 0.77 acres. The area will be increased to account for the northern shift. Of the 0.96 acres, 0.48 acres of drainage area is being detained in an underground detention system. The 1-year allowable release rate to meet channel protection requirements is 1.33 cfs and the post-development 1-year flow rate will be 0.99 cfs. The 1-year pre and post development peak flow rates are 1.54 cfs and 0.99 cfs, respectively. The 10-year pre and post development peak flow rates are 2.91 cfs and 1.52 cfs, respectively. Refer to the Southern Platform Stormwater Calculations for detailed calculations. The proposed detention system is designed to meet channel protection and flood protection requirements of Part IIB of the Virginia Stormwater Management. The remaining 0.48 acres will be maintaining existing hydrology and drainage patterns.

The Flooding Protection criteria outlined in section 9VAC25-870-98 of the Virginia administrative code has been addressed by this project as the 10-year post-developed peak rate of runoff does not exceed the pre-developed peak rate of runoff. This project can also be considered a "linear development" which does not require post-developed stormwater controls against flooding.

The Channel Protection criteria outlined section 9VAC25-870-66 of the administrative code has been addressed through completion of 1-year storm energy balance computations as found on sheets C-127 and C-128. The developed release rate flow does not exceed the allowable or pre-developed, illustrating compliance with the protection requirements.

	Drainage Area			Total Area (AC)
	1S	2S	1N	
Proposed Platform (AC)	0.27	N/A	0.17	0.44
Future Platform (AC)	0.07	N/A	0.22	0.29

North Outfall Summary Table

	1-year (cfs)	10-year (cfs)
Q_{forest}=	1.01	4.03
$Q_{Pre\text{-}developed}$ =	3.83	7.74
$Q_{Post\text{-}developed}$ =	3.47	7.16

South Outfall Summary Table

	1-year (cfs)	10-year (cfs)
Q_{forest}=	0.36	1.44
$Q_{Pre\text{-}developed}$ =	1.54	2.91
$Q_{Post\text{-}developed}$ =	0.99	1.52

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre		
Pre-ReDevelopment	**Listed**	**Adjusted[1]**
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.58	0.58
Weighted Rv(turf)	0.22	0.22
% Managed Turf	39%	39%
Impervious Cover (acres)	0.90	0.90
Rv(impervious)	0.95	0.95
% Impervious	61%	61%
Total Site Area (acres)	**1.48**	**1.48**
Site Rv	**0.66**	**0.66**

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.0819	0.0819
Pre-ReDevelopment Treatment Volume (cubic feet)	3,567	3,567
Pre-ReDevelopment TP Load (lb/yr)	**2.24**	**2.24**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	1.51	1.51
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.61*

[1] *Adjusted Land Cover Summary:*
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

Column I shows load reduction requriement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final)		*Land Cover Summary-Post*		*Land Cover Summary-Post*	
Post ReDev. & New Impervious		**Post-ReDevelopment**		**Post-Development New Impervious**	
Forest/Open Space Cover (acres)	0.00	Forest/Open Space Cover (acres)	0.00		
Weighted Rv(forest)	0.00	Weighted Rv(forest)	0.00		
% Forest	0%	% Forest	0%		
Managed Turf Cover (acres)	0.59	Managed Turf Cover (acres)	0.59		
Weighted Rv (turf)	0.22	Weighted Rv (turf)	0.22		
% Managed Turf	40%	% Managed Turf	40%		
Impervious Cover (acres)	0.89	ReDev. Impervious Cover (acres)	0.89	New Impervious Cover (acres)	0.00
Rv(impervious)	0.95	Rv(impervious)	0.95	Rv(impervious)	--
% Impervious	60%	% Impervious	60%		
Final Site Area (acres)	**1.48**	**Total ReDev. Site Area (acres)**	**1.48**		
Final Post Dev Site Rv	**0.66**	**ReDev Site Rv**	**0.66**		

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.0813	**Post-ReDevelopment Treatment Volume (acre-ft)**	0.0813	**Post-Development Treatment Volume (acre-ft)**	--
Final Post-Development Treatment Volume (cubic feet)	3,540	**Post-ReDevelopment Treatment Volume (cubic feet)**	3,540	**Post-Development Treatment Volume (cubic feet)**	--
Final Post-Development TP Load (lb/yr)	**2.22**	**Post-ReDevelopment Load (TP) (lb/yr)***	**2.22**	**Post-Development TP Load (lb/yr)**	--
Final Post-Development TP Load per acre (lb/acre/yr)	1.50	Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.50		
		Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**		
		TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.43**	**TP Load Reduction Required for New Impervious Area (lb/yr)**	**0**

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.43**
Linear Project TP Load Reduction Required (lb/yr):	**0.43**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	16.03
Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	15.91

100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni
PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
T 215.222.3000 F 215.222.3588

PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

WATER QUALITY CALCULATIONS AND STORMWATER NARRATIVE

Designed: DM	Drawn: SS	Checked: RR	Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	21 OF 80
Dwg. No.	C-126

Hydrograph Report

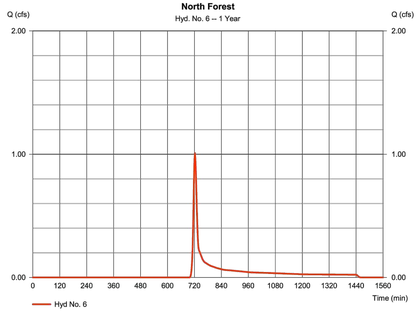
8

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 6

North Forest

Hydrograph type	= SCS Runoff	Peak discharge	= 1.009 cfs
Storm frequency	= 1 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 2,961 cuft
Drainage area	= 1.340 ac	Curve number	= 70
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.77 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

2

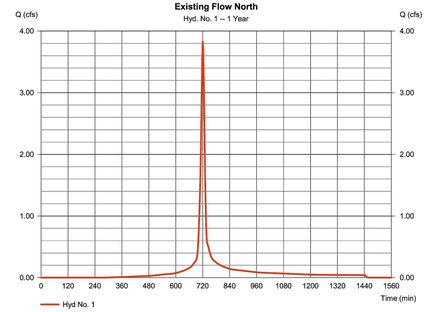
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 1

Existing Flow North

Hydrograph type	= SCS Runoff	Peak discharge	= 3.827 cfs
Storm frequency	= 1 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 10,207 cuft
Drainage area	= 1.340 ac	Curve number	= 93*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.77 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.160 x 80) + (1.080 x 98) + (0.210 x 74)] / 1.340



Hydrograph Report

21

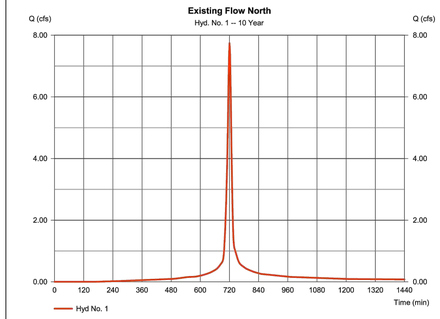
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 1

Existing Flow North

Hydrograph type	= SCS Runoff	Peak discharge	= 7.738 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 21,501 cuft
Drainage area	= 1.340 ac	Curve number	= 93*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 5.09 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.160 x 80) + (1.080 x 98) + (0.210 x 74)] / 1.340



1-yr ENERGY BALANCE COMPUTATIONS:

North Half of Platform

Allowable Release Calculation Guidelines below per 9VAC25-870-66 :

1. $Q_{Developed}$ < I.F. * ($Q_{Pre\text{-}developed}$ * $RV_{Pre\text{-}Developed}$)/ $RV_{Developed}$
2. Under no Condition Shall $Q_{Developed}$ be greater than $Q_{Pre\text{-}developed}$
3. Nor shall $Q_{Developed}$ be less than (Q_{Forest} * RV_{Forest})/ $RV_{Developed}$
4. I.F. (Improvement Factor) equals 0.8 for sites > 1 acre or 0.9 for sites < 1 acre

	Post-Conditions with Runoff Reduction
$Q_{Pre\text{-}developed}$ =	3.83 cfs
Q_{Forest} =	1.01 cfs
$RV_{Pre\text{-}Developed}$ =	10,207.00 cf
$RV_{Developed}$ =	9,173.00 cf
RV_{Forest} =	2,961.00 cf
I.F. =	0.90

I.F. * ($Q_{Pre\text{-}developed}$ * $RV_{Pre\text{-}Developed}$)/ $RV_{Developed}$ =	3.83 cfs
(Q_{Forest} * RV_{Forest})/ $RV_{Developed}$ =	0.33 cfs
Under no condition may $Q_{Developed}$ be greater than $Q_{Pre\text{-}developed}$ =	3.83 cfs
$Q_{developed}$ Allowable Release Rate =	**3.83 cfs**
$Q_{developed}$ Release Rate =	**3.47 cfs** < 3.83 cfs

Hydrograph Report

10

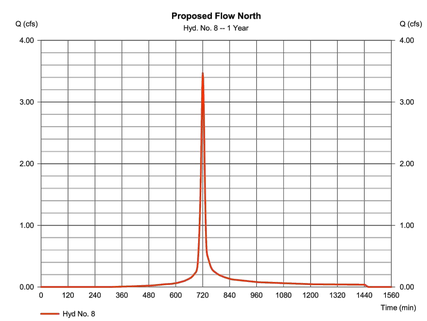
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 8

Proposed Flow North

Hydrograph type	= SCS Runoff	Peak discharge	= 3.469 cfs
Storm frequency	= 1 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 9,173 cuft
Drainage area	= 1.260 ac	Curve number	= 92*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.77 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.890 x 98) + (0.150 x 80) + (0.180 x 74)] / 1.260



Hydrograph Report

28

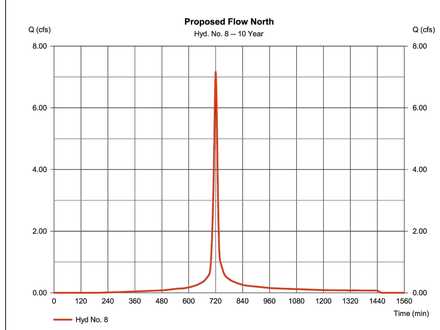
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 8

Proposed Flow North

Hydrograph type	= SCS Runoff	Peak discharge	= 7.162 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 19,703 cuft
Drainage area	= 1.260 ac	Curve number	= 92*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 5.09 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.890 x 98) + (0.150 x 80) + (0.180 x 74)] / 1.260



100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni
PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
T 215.222.3000 F 215.222.3588

PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

CIVIL STORMWATER CALCULATIONS - NORTH

Designed: DM | Drawn: SS | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	22 OF 80
Dwg. No.	C-127

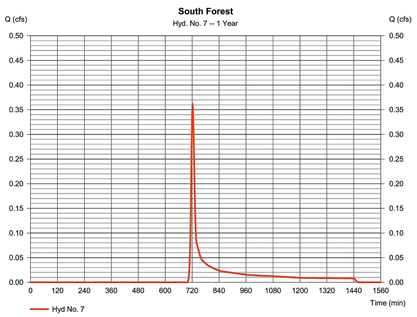
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 7

South Forest

Hydrograph type	= SCS Runoff	Peak discharge	= 0.361 cfs
Storm frequency	= 1 yrs	Time to peak	= 722 min
Time interval	= 2 min	Hyd. volume	= 1,061 cuft
Drainage area	= 0.480 ac	Curve number	= 70
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.77 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

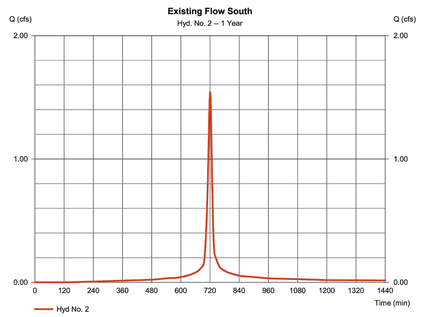
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 2

Existing Flow South

Hydrograph type	= SCS Runoff	Peak discharge	= 1.543 cfs
Storm frequency	= 1 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 4,367 cuft
Drainage area	= 0.480 ac	Curve number	= 97*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.77 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.020 x 74) + (0.360 x 98)] / 0.480



Hydrograph Report

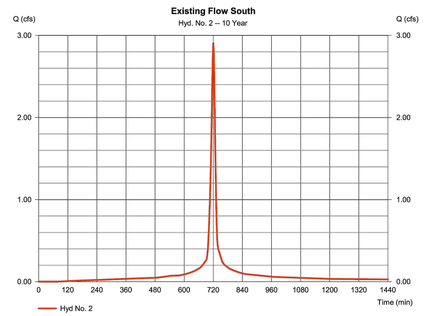
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 2

Existing Flow South

Hydrograph type	= SCS Runoff	Peak discharge	= 2.905 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 8,511 cuft
Drainage area	= 0.480 ac	Curve number	= 97*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 5.09 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.020 x 74) + (0.360 x 98)] / 0.480



Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Pond No. 4 - Proposed Platform

Pond Data

UG Chambers -Invert elev. = 100.41 ft, Rise x Span = 1.25 x 1.25 ft, Barrel Len = 57.50 ft, No. Barrels = 28, Slope = 0.50%, Headers = Yes

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	100.41	n/a	0	0
0.15	100.56	n/a	29	29
0.31	100.72	n/a	149	178
0.46	100.87	n/a	250	428
0.62	101.03	n/a	301	729
0.77	101.18	n/a	323	1,052
0.92	101.33	n/a	323	1,375
1.08	101.49	n/a	301	1,676
1.23	101.64	n/a	250	1,925
1.38	101.79	n/a	149	2,074
1.54	101.95	n/a	29	2,103

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrFRsr]
Rise (in)	= 10.00	10.00	0.00	0.00
Span (in)	= 10.00	10.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 100.20	100.41	0.00	n/a
Length (ft)	= 42.40	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .012	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	Yes	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.00	4.00	0.00	0.00
Crest El. (ft)	= 102.20	102.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= 1	Rect	---	---
Multi-Stage	= Yes	Yes	No	No

Exfil.(in/hr) = 0.000 (by Wet area)
TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	100.41	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.15	29	100.56	0.17 ic	0.09 ic	---	---	0.00	0.00	---	---	---	---	0.094
0.31	178	100.72	0.35 ic	0.35 ic	---	---	0.00	0.00	---	---	---	---	0.354
0.46	428	100.87	0.68 oc	0.68 ic	---	---	0.00	0.00	---	---	---	---	0.685
0.62	729	101.03	0.98 oc	0.98 ic	---	---	0.00	0.00	---	---	---	---	0.976
0.77	1,052	101.18	1.19 oc	1.19 ic	---	---	0.00	0.00	---	---	---	---	1.188
0.92	1,375	101.33	1.31 oc	1.31 ic	---	---	0.00	0.00	---	---	---	---	1.310
1.08	1,676	101.49	1.49 oc	1.49 ic	---	---	0.00	0.00	---	---	---	---	1.494
1.23	1,925	101.64	1.66 oc	1.66 ic	---	---	0.00	0.00	---	---	---	---	1.660
1.38	2,074	101.79	1.81 oc	1.81 ic	---	---	0.00	0.00	---	---	---	---	1.807
1.54	2,103	101.95	1.94 oc	1.94 ic	---	---	0.00	0.00	---	---	---	---	1.944

Proposed Platform

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.49	489	100.90	0.75 oc	0.75 ic	---	---	0.00	0.00	---	---	---	---	0.751
0.51	519	100.92	0.78 oc	0.78 ic	---	---	0.00	0.00	---	---	---	---	0.778
0.52	549	100.93	0.82 oc	0.81 ic	---	---	0.00	0.00	---	---	---	---	0.806
0.54	579	100.95	0.84 oc	0.83 ic	---	---	0.00	0.00	---	---	---	---	0.834
0.55	609	100.96	0.87 oc	0.87 ic	---	---	0.00	0.00	---	---	---	---	0.867
0.57	639	100.98	0.89 oc	0.89 ic	---	---	0.00	0.00	---	---	---	---	0.891
0.58	669	100.99	0.93 oc	0.93 ic	---	---	0.00	0.00	---	---	---	---	0.925
0.60	699	101.01	0.95 oc	0.95 ic	---	---	0.00	0.00	---	---	---	---	0.948
0.62	729	101.03	0.98 oc	0.98 ic	---	---	0.00	0.00	---	---	---	---	0.976
0.63	762	101.04	1.00 oc	1.00 ic	---	---	0.00	0.00	---	---	---	---	1.000
0.65	794	101.06	1.03 oc	1.03 ic	---	---	0.00	0.00	---	---	---	---	1.029
0.66	826	101.07	1.05 oc	1.05 ic	---	---	0.00	0.00	---	---	---	---	1.049
0.68	858	101.09	1.07 oc	1.07 ic	---	---	0.00	0.00	---	---	---	---	1.072
0.69	891	101.10	1.10 oc	1.10 ic	---	---	0.00	0.00	---	---	---	---	1.096
0.71	923	101.12	1.12 oc	1.12 ic	---	---	0.00	0.00	---	---	---	---	1.120
0.72	955	101.13	1.14 oc	1.14 ic	---	---	0.00	0.00	---	---	---	---	1.141
0.74	987	101.15	1.16 oc	1.16 ic	---	---	0.00	0.00	---	---	---	---	1.157
0.76	1,020	101.16	1.17 oc	1.17 ic	---	---	0.00	0.00	---	---	---	---	1.174
0.77	1,052	101.18	1.19 oc	1.19 ic	---	---	0.00	0.00	---	---	---	---	1.188
0.78	1,084	101.19	1.20 oc	1.20 ic	---	---	0.00	0.00	---	---	---	---	1.200
0.80	1,116	101.21	1.21 oc	1.21 ic	---	---	0.00	0.00	---	---	---	---	1.206
0.81	1,149	101.22	1.21 oc	1.21 ic	---	---	0.00	0.00	---	---	---	---	1.207
0.83	1,181	101.24	1.19 oc	1.19 ic	---	---	0.00	0.00	---	---	---	---	1.186
0.85	1,213	101.26	1.21 oc	1.21 ic	---	---	0.00	0.00	---	---	---	---	1.207
0.86	1,246	101.27	1.23 oc	1.23 ic	---	---	0.00	0.00	---	---	---	---	1.229
0.88	1,278	101.29	1.25 oc	1.25 ic	---	---	0.00	0.00	---	---	---	---	1.250
0.89	1,310	101.30	1.27 oc	1.27 ic	---	---	0.00	0.00	---	---	---	---	1.270
0.91	1,342	101.32	1.29 oc	1.29 ic	---	---	0.00	0.00	---	---	---	---	1.290
0.92	1,375	101.33	1.31 oc	1.31 ic	---	---	0.00	0.00	---	---	---	---	1.310
0.94	1,405	101.35	1.33 oc	1.33 ic	---	---	0.00	0.00	---	---	---	---	1.329
0.95	1,435	101.36	1.35 oc	1.35 ic	---	---	0.00	0.00	---	---	---	---	1.349
0.97	1,465	101.38	1.37 oc	1.37 ic	---	---	0.00	0.00	---	---	---	---	1.368
0.98	1,495	101.39	1.39 oc	1.39 ic	---	---	0.00	0.00	---	---	---	---	1.387
1.00	1,525	101.41	1.41 oc	1.41 ic	---	---	0.00	0.00	---	---	---	---	1.405
1.01	1,555	101.42	1.42 oc	1.42 ic	---	---	0.00	0.00	---	---	---	---	1.423
1.03	1,585	101.44	1.44 oc	1.44 ic	---	---	0.00	0.00	---	---	---	---	1.441
1.05	1,615	101.46	1.46 oc	1.46 ic	---	---	0.00	0.00	---	---	---	---	1.459
1.06	1,645	101.47	1.48 oc	1.48 ic	---	---	0.00	0.00	---	---	---	---	1.477
1.08	1,675	101.49	1.49 oc	1.49 ic	---	---	0.00	0.00	---	---	---	---	1.494
1.09	1,700	101.50	1.51 oc	1.51 ic	---	---	0.00	0.00	---	---	---	---	1.511
1.11	1,725	101.52	1.53 oc	1.53 ic	---	---	0.00	0.00	---	---	---	---	1.528
1.12	1,750	101.53	1.55 oc	1.54 ic	---	---	0.00	0.00	---	---	---	---	1.545
1.14	1,775	101.55	1.56 oc	1.56 ic	---	---	0.00	0.00	---	---	---	---	1.562
1.15	1,800	101.56	1.58 oc	1.58 ic	---	---	0.00	0.00	---	---	---	---	1.578
1.17	1,825	101.58	1.59 oc	1.59 ic	---	---	0.00	0.00	---	---	---	---	1.594
1.18	1,850	101.59	1.61 oc	1.61 ic	---	---	0.00	0.00	---	---	---	---	1.610
1.20	1,875	101.61	1.63 oc	1.63 ic	---	---	0.00	0.00	---	---	---	---	1.628
1.21	1,900	101.62	1.64 oc	1.64 ic	---	---	0.00	0.00	---	---	---	---	1.642
1.23	1,925	101.64	1.66 oc	1.66 ic	---	---	0.00	0.00	---	---	---	---	1.660
1.24	1,949	101.65	1.67 oc	1.67 ic	---	---	0.00	0.00	---	---	---	---	1.675
1.26	1,975	101.67	1.69 oc	1.69 ic	---	---	0.00	0.00	---	---	---	---	1.689
1.28	1,970	101.69	1.70 oc	1.70 ic	---	---	0.00	0.00	---	---	---	---	1.704
1.29	1,985	101.70	1.72 oc	1.72 ic	---	---	0.00	0.00	---	---	---	---	1.719
1.31	2,000	101.72	1.73 oc	1.73 ic	---	---	0.00	0.00	---	---	---	---	1.734
1.32	2,015	101.73	1.75 oc	1.75 ic	---	---	0.00	0.00	---	---	---	---	1.749
1.34	2,030	101.75	1.76 oc	1.76 ic	---	---	0.00	0.00	---	---	---	---	1.763
1.35	2,044	101.76	1.78 oc	1.78 ic	---	---	0.00	0.00	---	---	---	---	1.778
1.37	2,059	101.78	1.79 oc	1.79 ic	---	---	0.00	0.00	---	---	---	---	1.793
1.38	2,074	101.79	1.81 oc	1.81 ic	---	---	0.00	0.00	---	---	---	---	1.807
1.40	2,077	101.81	1.82 oc	1.82 ic	---	---	0.00	0.00	---	---	---	---	1.821
1.41	2,080	101.82	1.84 oc	1.84 ic	---	---	0.00	0.00	---	---	---	---	1.835
1.43	2,083	101.84	1.85 oc	1.85 ic	---	---	0.00	0.00	---	---	---	---	1.849
1.45	2,086	101.86	1.86 oc	1.86 ic	---	---	0.00	0.00	---	---	---	---	1.863
1.46	2,089	101.87	1.88 oc	1.88 ic	---	---	0.00	0.00	---	---	---	---	1.877
1.48	2,092	101.89	1.89 oc	1.89 ic	---	---	0.00	0.00	---	---	---	---	1.891
1.49	2,095	101.90	1.90 oc	1.90 ic	---	---	0.00	0.00	---	---	---	---	1.904
1.51	2,098	101.92	1.92 oc	1.92 ic	---	---	0.00	0.00	---	---	---	---	1.918
1.52	2,101	101.93	1.93 oc	1.93 ic	---	---	0.00	0.00	---	---	---	---	1.931
1.54	2,103	101.95	1.94 oc	1.94 ic	---	---	0.00	0.00	---	---	---	---	1.944

...End

1-yr ENERGY BALANCE COMPUTATIONS:

South Half of Platform

Allowable Release Calculation Guidelines below per 9VAC25-870-66 :

1. $Q_{Developed} \leq$ I.F. * ($Q_{Pre\text{-}developed}$ * $RV_{Pre\text{-}Developed}$)/ $RV_{Developed}$
2. Under no Condition Shall $Q_{Developed}$ be greater than $Q_{Pre\text{-}developed}$
3. Nor shall $Q_{Developed}$ be less than (Q_{Forest} * RV_{Forest})/ $RV_{Developed}$
4. I.F. (Improvement Factor) equals 0.8 for sites > 1 acre or 0.9 for sites < 1 acre

	Post-Conditions with Runoff Reduction
$Q_{Pre\text{-}developed}$ =	1.54 cfs
Q_{Forest} =	0.36 cfs
$RV_{Pre\text{-}Developed}$ =	4,367.00 cf
$RV_{Developed}$ =	4,563.00 cf
RV_{Forest} =	1,061.00 cf
I.F. =	0.90

I.F. * ($Q_{Pre\text{-}developed}$ * $RV_{Pre\text{-}Developed}$)/ $RV_{Developed}$ =	1.33 cfs
(Q_{Forest} * RV_{Forest})/ $RV_{Developed}$ =	0.08 cfs
Under no condition may $Q_{Developed}$ be greater than $Q_{Pre\text{-}developed}$ =	1.54 cfs
$Q_{developed}$ Allowable Release Rate =	**1.33 cfs**
$Q_{developed}$ Release Rate =	**0.99 cfs** ≤ 1.33 cfs

Hydrograph Report

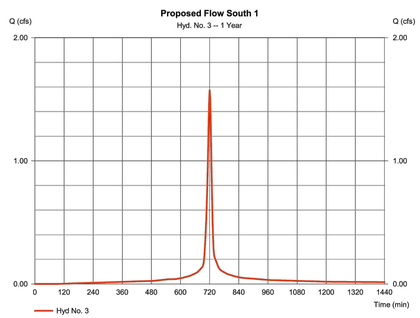
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 3

Proposed Flow South 1

Hydrograph type	= SCS Runoff	Peak discharge	= 1.573 cfs
Storm frequency	= 1 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 4,563 cuft
Drainage area	= 0.480 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 2.77 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.010 x 74) + (0.470 x 98)] / 0.480



Hydrograph Report

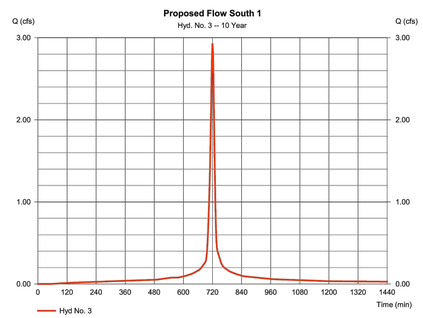
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 3

Proposed Flow South 1

Hydrograph type	= SCS Runoff	Peak discharge	= 2.925 cfs
Storm frequency	= 10 yrs	Time to peak	= 720 min
Time interval	= 2 min	Hyd. volume	= 8,720 cuft
Drainage area	= 0.480 ac	Curve number	= 98*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 10.00 min
Total precip.	= 5.09 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(0.010 x 74) + (0.470 x 98)] / 0.480



Hydrograph Report

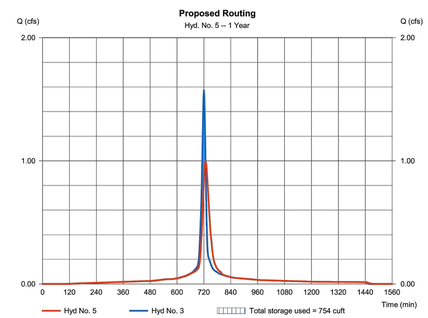
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 5

Proposed Routing

Hydrograph type	= Reservoir	Peak discharge	= 0.994 cfs
Storm frequency	= 1 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 4,560 cuft
Inflow hyd. No.	= 3 - Proposed Flow South 1	Max. Elevation	= 101.04 ft
Reservoir name	= Proposed Platform	Max. Storage	= 754 cuft

Storage Indication method used.



Hydrograph Report

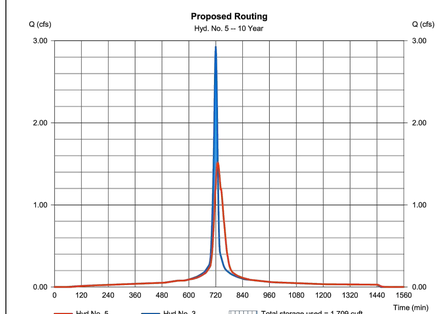
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® 2019 by Autodesk, Inc. v2020 — Tuesday, 09 / 1 / 2020

Hyd. No. 5

Proposed Routing

Hydrograph type	= Reservoir	Peak discharge	= 1.517 cfs
Storm frequency	= 10 yrs	Time to peak	= 728 min
Time interval	= 2 min	Hyd. volume	= 8,717 cuft
Inflow hyd. No.	= 3 - Proposed Flow South 1	Max. Elevation	= 101.51 ft
Reservoir name	= Proposed Platform	Max. Storage	= 1,709 cuft

Storage Indication method used.



100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
T 215.222.3000 F 215.222.3588

PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

CIVIL STORMWATER CALCULATIONS - SOUTH

Designed: DM | Drawn: SS | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	23 OF 80
Dwg. No.	C-128

NORTH DRAINAGE AREA EXHIBIT - SECTION A

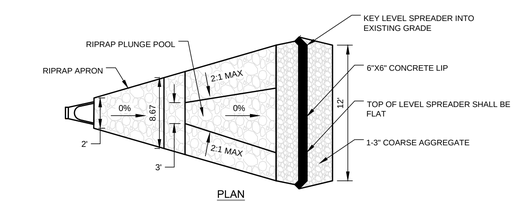
SCALE: 1" = 50'-0"

0 50' 100'

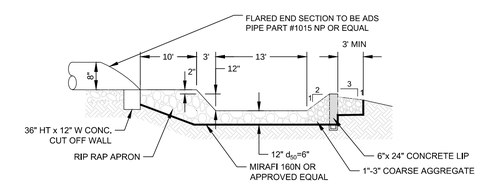
NORTH DRAINAGE AREA EXHIBIT - SECTION B

SCALE: 1" = 50'-0"

0 50' 100'



PLAN



PROFILE

LEVEL SPREADER

N.T.S.

LEGEND

7 — PHOTO # AND DIRECTION

. . . → STORMWATER FLOW PATH

100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
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PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
NORTH DRAINAGE AREA EXHIBIT

Designed: DM | Drawn: KP | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	24 OF 80
Dwg. No.	C-129

Photo #1 - Westerly Stormwater Path Looking North

Photo #5 - Westerly Stormwater Path Looking North

Photo #9 – Westerly Stormwater Path Looking Northwestd

Photo #13 – Stormwater Path along Track Ballast Looking North

Photo #17 – Stormwater Path along Track Ballast Looking East Along Property Line

Photo #2 - Westerly Stormwater Path Looking South

Photo #6 - Westerly Stormwater Path Looking South

Photo #10 – Stormwater Path Along Track Ballast Looking North

Photo #14 – Stormwater Path along Track Ballast Looking North Along Property Line

Photo #18 – Stormwater Path along Track Ballast Looking East Along Property Line

Photo #3 - Westerly Stormwater Path Looking South

Photo #7 - Westerly Stormwater Path Looking South

Photo #11 – Stormwater Path Along Track Ballast Looking South

Photo #15 – Stormwater Path along Track Ballast Looking South

Photo #19 – Stormwater Path Along Track Ballast Looking North

Photo #4 - Westerly Stormwater Path Looking North

Photo #8 - Westerly Stormwater Path Looking North

Photo #12 – Stormwater Path Along Track Ballast Looking East

Photo #16 – Stormwater Path along Track Ballast Looking East Along Property Line

Photo #20 – Stormwater Path Along Property Line Looking North

100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

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PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
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PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

NORTH DRAINAGE AREA PHOTOS I

Designed: DM | Drawn: KP | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	25 OF 80
Dwg. No.	C-130

Photo #21 – Stormwater Path Along Property Line Looking North

Photo #25 – Stormwater Path Along Property Line Looking South

Photo #22 – Stormwater Path Along Track Ballast Looking North

Photo #26 – Stormwater Path Along Property Line Looking North

Photo #23 – Stormwater Path Along Track Ballast Looking South

Photo #27 – Stormwater Path Where it Meets Fleets Brook Looking West

Photo #24 – Stormwater Path Along Property Line Looking East

Photo #28 – Stormwater Path Where it Meets Fleets Brook Looking East

100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
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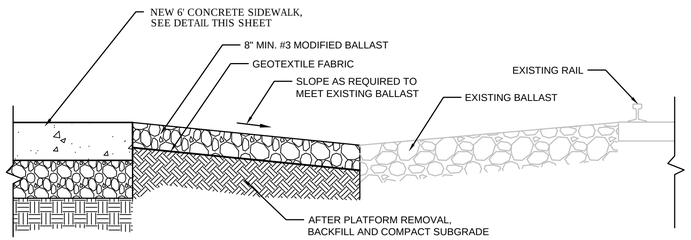
PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

NORTH DRAINAGE AREA PHOTOS II

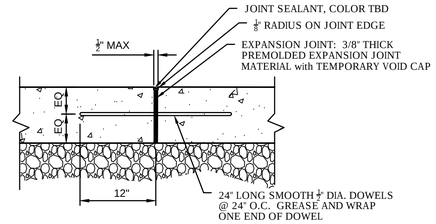
Designed: DM | Drawn: KP | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	26 OF 80
Dwg. No.	C-131

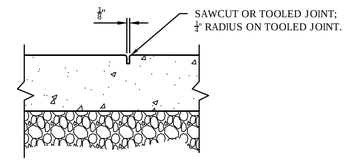


DETAIL - ROCK BALLAST

N.T.S.



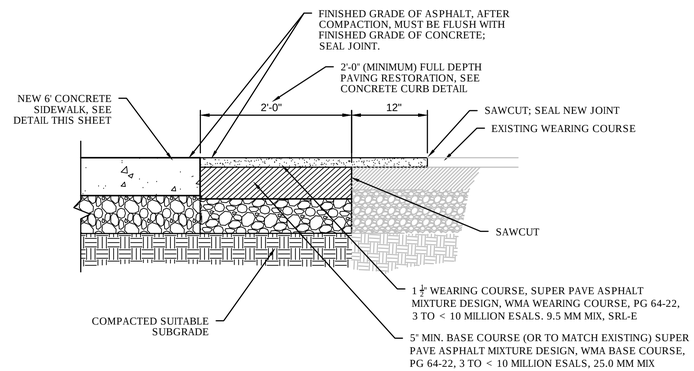
SIDEWALK EXPANSION JOINT



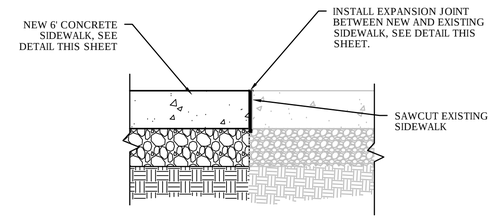
SIDEWALK CONTROL JOINT

JOINTING NOTES:

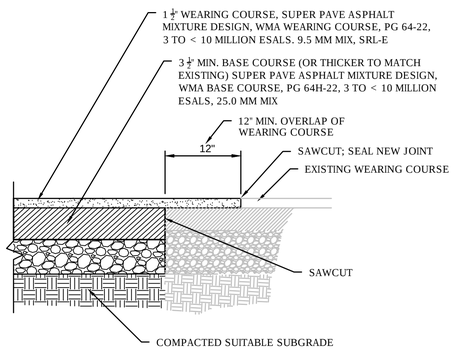
1. SEE LAYOUT PLAN FOR SCORING PATTERNS AND EXPANSION JOINT LOCATIONS. 30' MAXIMUM SPACING BETWEEN EXPANSION JOINTS. JOINT LOCATIONS MAY BE ADJUSTED IN FIELD TO PROVIDE EQUAL DISTANCES BETWEEN JOINTS, WITH APPROVAL OF ENGINEER.
2. PLACE EXPANSION JOINTS AT LOCATIONS AS SHOWN ON PLAN AND WHERE SIDEWALK MEETS A CURB, RAMP, SOLID OBJECT OR STRUCTURE.
3. REMOVE TEMPORARY JOINT CAP IN ITS ENTIRETY PRIOR TO SEALANT APPLICATION.
4. CAULK ALL JOINTS WITH A MULTI-COMPONENT SELF-LEVELING POLYURETHANE SEALANT, COLOR TO BE DETERMINED.
5. TO MEET ADA, MAXIMUM WIDTH OF ANY JOINT 1/2" WIDE AT SURFACE.



TYPICAL SIDEWALK CONNECTION TO BITUMINOUS PAVING



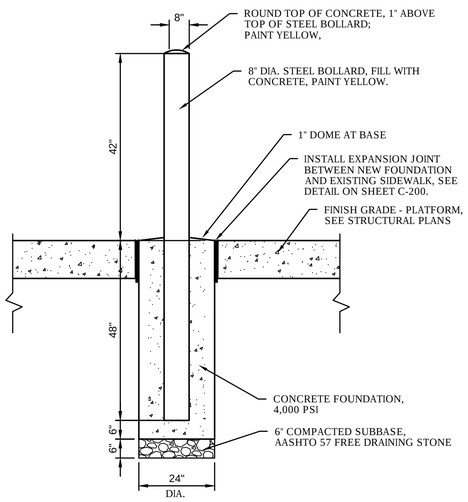
TYPICAL SIDEWALK CONNECTION TO CONCRETE PAVING



NOTE: PAVEMENT MATERIALS AND INSTALLATION TO MEET VIRGINIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS

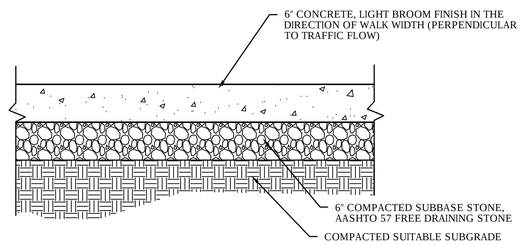
DETAIL - BITUMINOUS PARKING LOT PAVING

N.T.S.

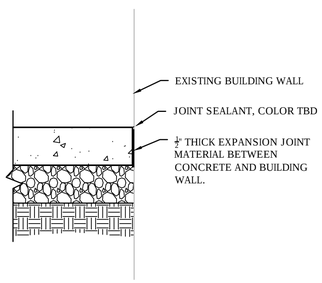


DETAIL - STEEL BOLLARD IN CONCRETE FOUNDATION

N.T.S.



TYPICAL SIDEWALK SECTION



SIDEWALK JOINT at BUILDING

CONCRETE NOTES:

1. ALL CONCRETE SHALL BE 4,000 PSI AT 28 DAYS.
2. SEE DWG C-115 AND C-116 FOR EXPANSION AND CONTROL JOINT LOCATIONS.
3. SEE CIVIL NOTES (DWG C-001) FOR PAVING TOLERANCES.

DETAIL - CONCRETE SIDEWALK

N.T.S.

100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

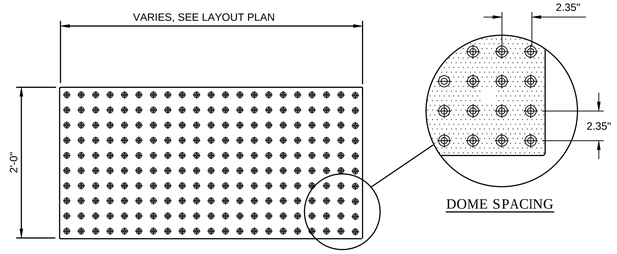
Approved	Date

Pennoni
PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
T 215.222.3000 F 215.222.3588

PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
CIVIL CONSTRUCTION DETAILS

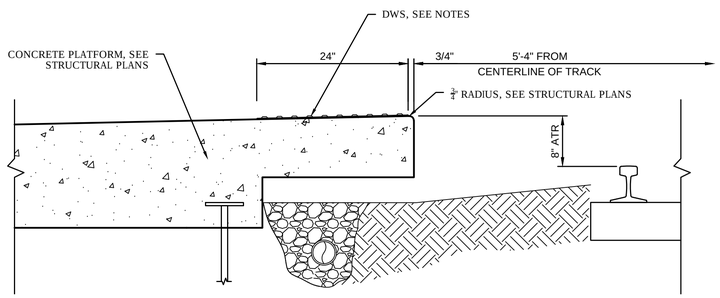
Designed: DM | Drawn: SS | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	27 OF 80
Dwg. No.	C-200



DOME SPACING

TYPCIAL DOME PATTERN



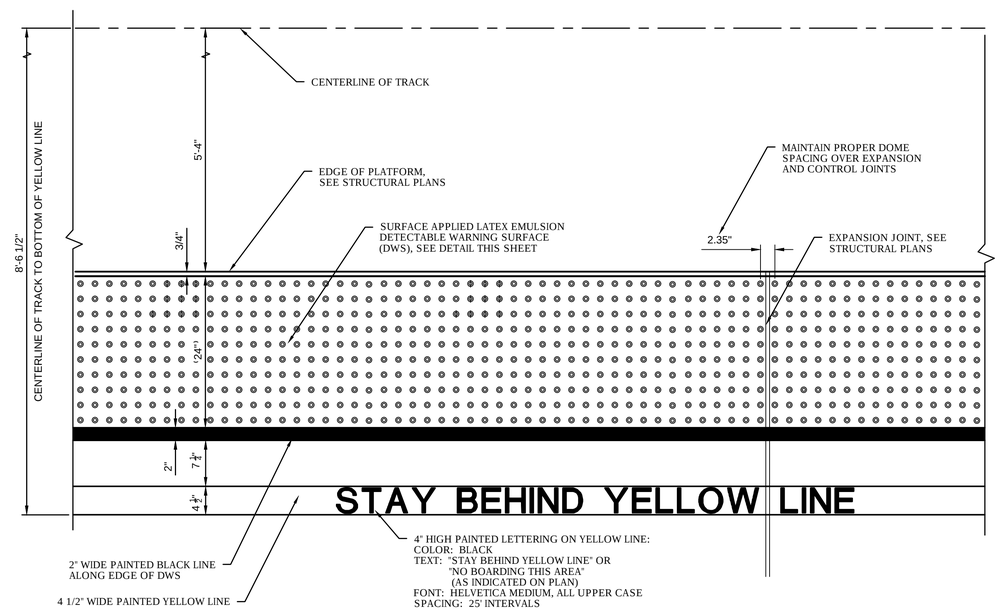
DWS ON NEW CONCRETE PLATFORM

DETECTABLE WARNING SURFACING (DWS) NOTES:

1. DWS TO BE A SURFACE APPLIED SYSTEM THAT COMPLIES WITH ALL ADA STANDARDS AND GUIDELINES.
2. THE SYSTEM IS COMPRISED OF A PORTLAND BASED CATALYST POWDER AND POLYMERIZED LATEX EMULSIONS, AS MANUFACTURED BY STRONGWALL INDUSTRIES, INC., OR APPROVED EQUAL. www.strongwall.com
3. THIS PRODUCT CAN BE APPLIED TO EXISTING OR NEW CONCRETE.
4. SEE SPECIFICATIONS FOR PRODUCT AND INSTALLATION INFORMATION.

DETAIL - DETECTABLE WARNING SURFACE (DWS)

N.T.S.



WEST EDGE OF PLATFORM

DETAIL - PLATFORM MARKINGS

N.T.S.

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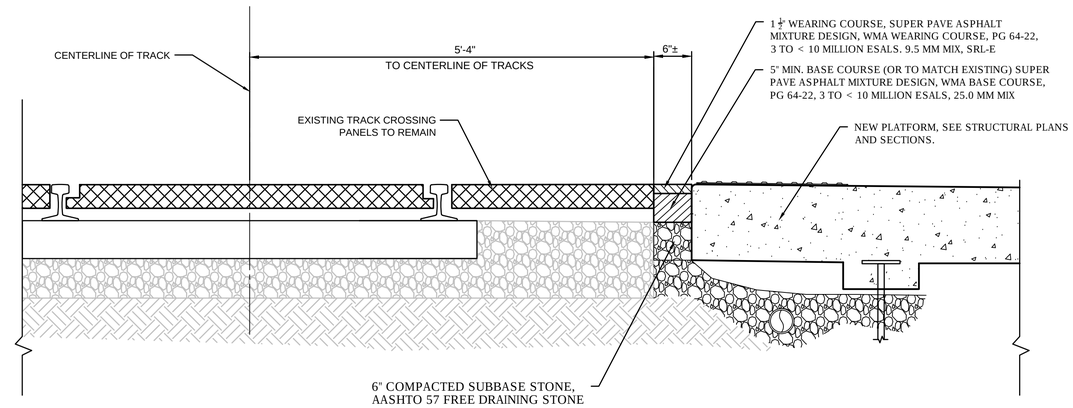
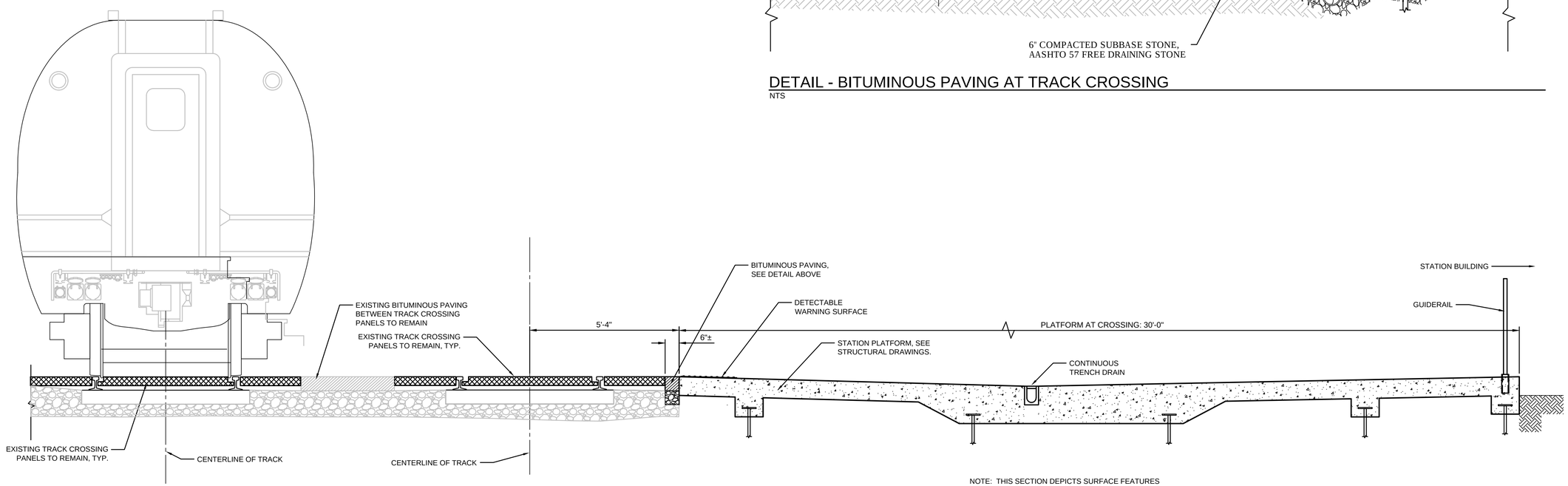
Sheet No.	28 OF 80
Dwg. No.	C-201



DETAIL - BITUMINOUS PAVING AT TRACK CROSSING

NTS



NOTE: THIS SECTION DEPICTS SURFACE FEATURES ONLY. SEE STRUCTURAL SECTIONS ON DWG S-400 FOR UNDERGROUND FEATURES

TYPICAL SECTION - TRACK CROSSING / EMERGENCY BOARDING LOCATION (0" ATR)

SCALE: 1/2" = 1'-0"

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30th Street Station, Philadelphia, Pennsylvania 19104

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PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
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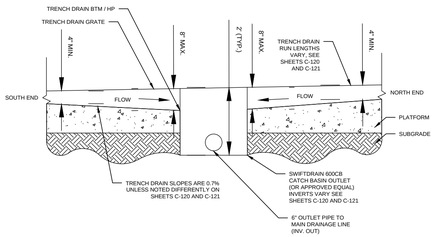
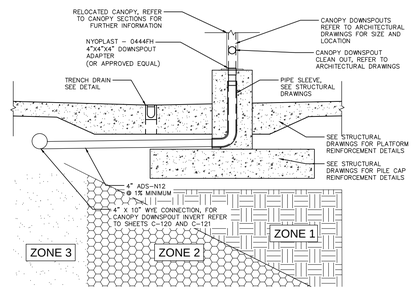
Designed: DM | Drawn: DM | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	29 OF 80
Dwg. No.	C-202



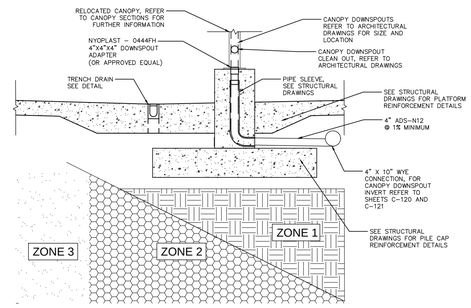
TRENCH DRAIN ELEVATION DETAIL STATIONS 1+25, 2+09, 2+71, 2+93, 3+78, 4+58, 5+49, 6+37, 7+25, 8+13, 9+01, AND 9+89

N.T.S



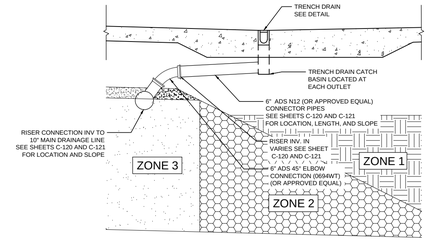
CANOPY DOWNSPOUT & ROOF LEADER CONNECTION DETAIL STATIONS 3+08, 3+56, 4+04, AND 4+52

N.T.S



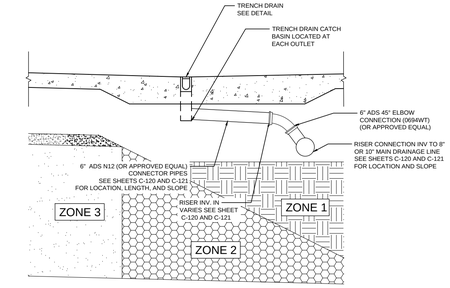
CANOPY DOWNSPOUT & ROOF LEADER CONNECTION DETAIL STATIONS 0+68, 1+16, 1+64, AND 2+12

N.T.S



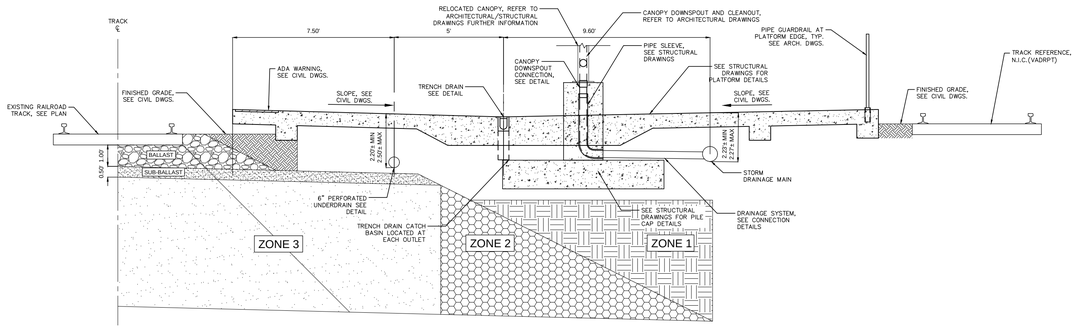
DRAINAGE CONNECTION DETAIL - RISER STATION 2+93

N.T.S



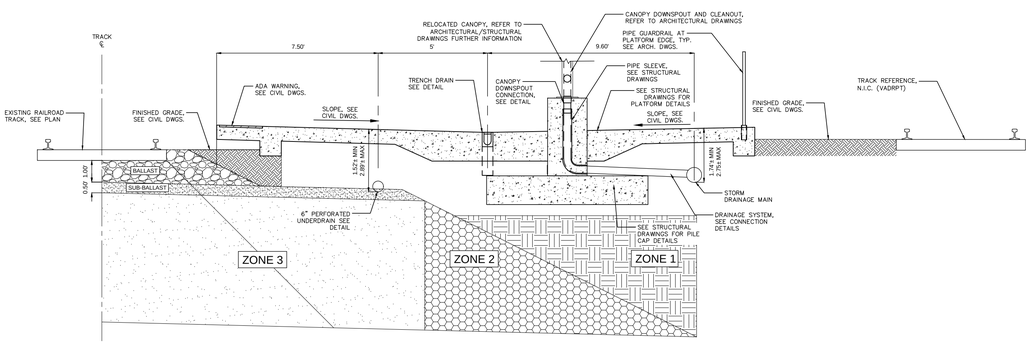
DRAINAGE CONNECTION DETAIL - RISER STATIONS 1+25, 2+09, 6+37, 7+25, 8+13, 9+01, AND 9+89

N.T.S



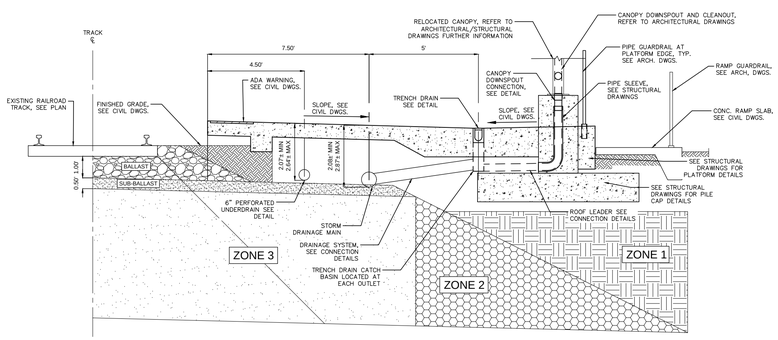
TYPICAL 30' PLATFORM DRAINAGE SECTION DETAIL

N.T.S



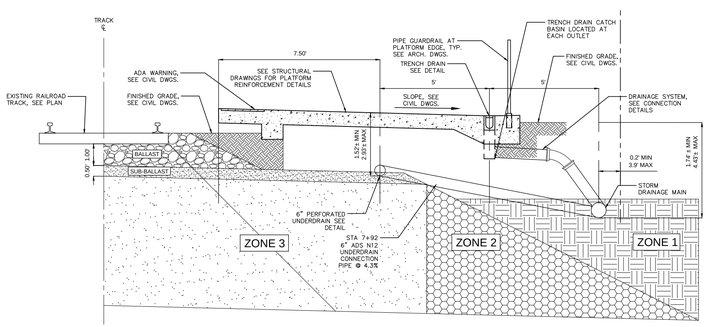
TYPICAL 25' PLATFORM DRAINAGE SECTION DETAIL STATION 0+69 TO STATION 2+49 AND STATION 4+04 TO STATION 5+06

N.T.S



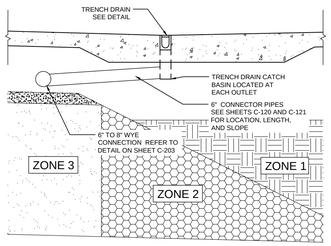
TYPICAL 18' PLATFORM DRAINAGE SECTION DETAIL STATION 2+49 TO STATION 4+04

N.T.S



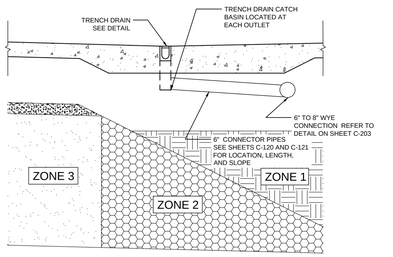
TYPICAL 14' PLATFORM DRAINAGE SECTION DETAIL STATION 5+06 TO STATION 10+35

N.T.S



DRAINAGE CONNECTION DETAIL - WYE STATIONS 2+71, 3+78, AND 4+61

N.T.S



DRAINAGE CONNECTION DETAIL - WYE STATIONS 0+48 AND 5+49

N.T.S

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NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

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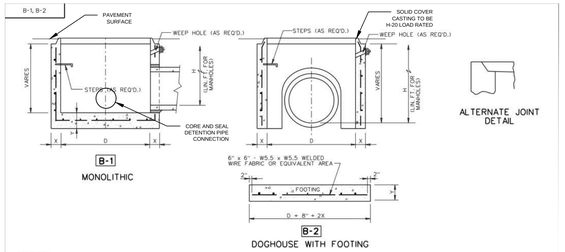
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
CIVIL CONSTRUCTION DETAILS

Designed: DM | Drawn: CM | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	30 OF 80
Dwg. No.	C-203

U:\Accounts\ATRK\ATRK19008 – AE Design ADA Stations Petersburg VA\DESIGN_SHEETS\C-203.dwg PLOTTED: 9/2/2020 11:20 AM, BY: Ho Kuon Kong PLOTSTYLE: Amtrak Plot Style.ctb PROJECT STATUS: ----



NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON WEEP HOLES, STEP REQUIREMENTS, "H" (LIN. FT. FOR MANHOLES) DIMENSIONS, ETC.
2. ALL BASE UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
3. CONCRETE SHALL BE 4000 PSI.
4. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE. HOLES ARE TO BE A MINIMUM OF 4" TO A MAXIMUM OF 8" LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
5. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
6. "D" IS NOMINAL DIAMETER.
7. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE.
8. TONGUE AND GROOVE JOINT ARE TO BE OF FABRICATOR'S DESIGN MEETING VDOT APPROVAL. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.

DIMENSIONS

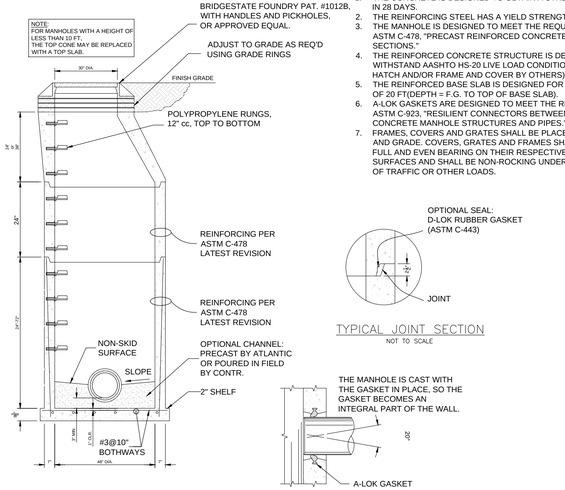
D	X MINIMUM	Y MINIMUM	SUGGESTED MAX. PIPE SIZE	ABSOLUTE MAXIMUM ☆
* 36"	4"	6"	18"	21"
48"	5"	6"	24"	27"
60"	5"	8"	36"	42"
72"	6"	8"	48"	54"
84"	7"	8"	60"	66"
96"	8"	8"	66"	72"
108"	9"	8"	78"	84"
120"	10"	8"	90"	96"
126"	10½"	8"	96"	102"
144"	12"	8"	108"	120"

* DEPTH "H" OF 36" DIAMETER BASE UNIT RESTRICTED TO 4'-0" MAXIMUM.
☆ ONE THROUGH PIPE ONLY, (ONE PIPE ENTERING AND ONE PIPE EXITING STRUCTURE)

VDOT ROAD AND BRIDGE STANDARDS	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. STANDARD PRECAST BASE UNITS VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1 / REVISION DATE		105
103.11 / 08/17		302

DOGHOUSE MANHOLE DETAIL

N.T.S



NOTES

1. THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI IN 28 DAYS.
2. THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI.
3. THE MANHOLE IS DESIGNED TO MEET THE REQUIREMENTS OF ASTM C-478, "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
4. THE REINFORCED CONCRETE STRUCTURE IS DESIGNED TO WITHSTAND AASHTO HS-20 LIVE LOAD CONDITIONS (DESIGN OF HATCH AND/OR FRAME AND COVER BY OTHERS).
5. THE REINFORCED BASE SLAB IS DESIGNED FOR A MAXIMUM DEPTH OF 20 FT(DEPTH = F.G. TO TOP OF BASE SLAB).
6. A-LOK GASKETS ARE DESIGNED TO MEET THE REQUIREMENTS OF ASTM C-923, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURES AND PIPES."
7. FRAMES, COVERS AND GRATES SHALL BE PLACED TRUE TO LINE AND GRADE. COVERS, GRATES AND FRAMES SHALL MAKE FIRM, FULL AND EVEN BEARING ON THEIR RESPECTIVE UNDERLYING SURFACES AND SHALL BE NON-ROCKING UNDER THE INFLUENCE OF TRAFFIC OR OTHER LOADS.

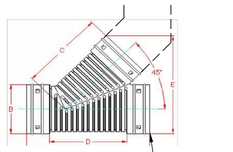
48" DIA. STORM MANHOLE DETAIL

N.T.S.

(RECOMMENDED FOR PIPE SIZES 4"-18")

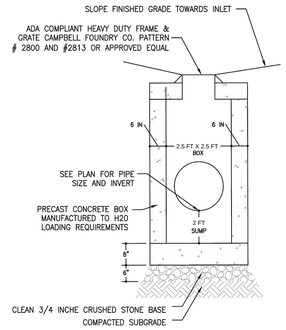
(THIS DIAMETER RECOMMENDED FOR MANHOLES UP TO 15 FT IN DEPTH)

PART #	PIPE SIZE	A	B	C	D	E
0322AA	3 in (75 mm)	10.5 in (267 mm)	4.0 in (102 mm)	7.0 in (178 mm)	6.4 in (162 mm)	8.4 in (213 mm)
0422AA	4 in (100 mm)	11.6 in (295 mm)	5.1 in (130 mm)	7.6 in (194 mm)	7.3 in (184 mm)	9.8 in (248 mm)
0522AA	5 in (125 mm)	13.6 in (346 mm)	6.3 in (159 mm)	9.3 in (235 mm)	8.8 in (222 mm)	11.9 in (302 mm)
0622AA	6 in (150 mm)	16.0 in (406 mm)	7.4 in (187 mm)	11.1 in (283 mm)	11.4 in (289 mm)	14.1 in (359 mm)
0822AA	8 in (200 mm)	19.3 in (489 mm)	10.0 in (254 mm)	13.5 in (343 mm)	14.9 in (378 mm)	18.8 in (476 mm)



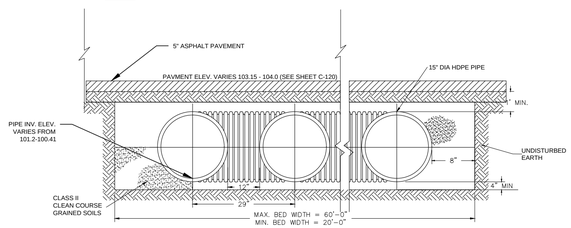
WYE CONNECTION DETAIL

N.T.S



DRAINAGE INLET DETAIL

N.T.S



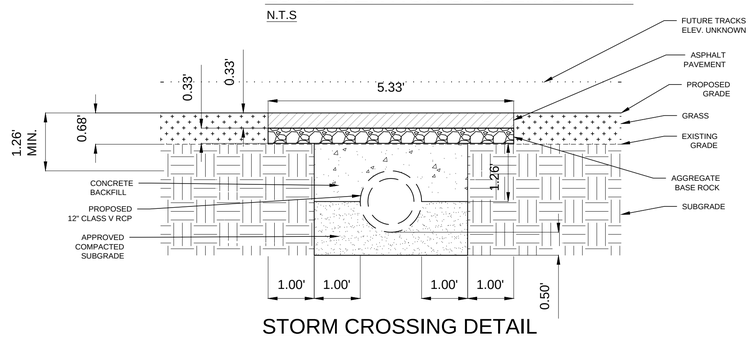
BARREL NO.	BARREL LENGTH
24	60'-0"
3	40'-0"
5	20'-0"

DETENTION SYSTEM PIPING NOTES:

1. ALL REFERENCES TO CLASS II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION (1 ½" MAXIMUM SIZE)
2. ALL RETENTION AND DETENTION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ATM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. CONTRACTOR SHALL PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED, SEE ASTM D2321, CONTAMINATED BEDDING AND BACKFILL SHALL BE REPLACED AT NO ADDITIONAL COST TO OWNER.
4. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE PROJECT GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
5. BEDDING: SUITABLE MATERIAL SHALL BE CLASS II CLEAN COURSE GRAINED SOILS. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750MM-900MM).
6. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS II CLEAN COURSED GRAINED SOILS IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN THE ASTM D2321, LATEST EDITION.
7. MINIMUM COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO GROUND SURFACE. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" UP TO 48" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.
8. PIPES SHALL BE ADS N-12 SMOOTH INTERIOR OR APPROVED EQUAL. PIPE SYSTEM SHALL MEET H-25 LOADING WITH THE MINIMUM COVER AS SHOWN ABOVE. ACCESS RISER SHALL BE INSTALLED AT LOCATIONS SHOWN ON PLAN, AND CLEANOUT SHALL BE INSTALLED AT ALTERNATE ENDS OF EACH BARREL. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
9. ANY SUBSTITUTION OF PIPE MATERIAL SHALL BE SUBMITTED HAVING A LICENSED PROFESSIONAL SEAL (VA) STATING THE MINIMUM COVER AS WELL AS THE VARIOUS SYSTEM CROSS SECTION FEATURES.

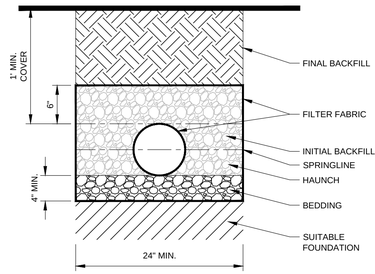
15" DETENTION SYSTEM DETAIL

N.T.S



STORM CROSSING DETAIL

N.T.S



NOTES:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST ADDITION

2. FILTER FABRIC: CONTRACTOR SHALL PREVENT MIGRATION OF NATIVE FINES INTO BEDDING AND BACKFILL MATERIAL. CONTAMINATED BEDDING AND BACKFILL SHALL BE REPLACED AT NO ADDITIONAL COST TO OWNER.

3. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

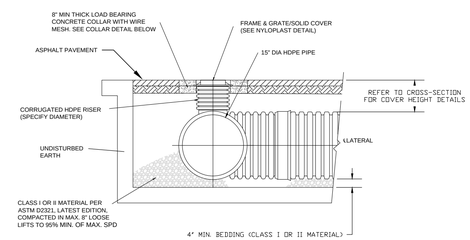
4. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-1500mm).

5. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

6. ALL UNDERDRAIN PIPE TO BE 6" PERFORATED ADS N12 OR APPROVED EQUAL.

UNDERDRAIN DETAIL

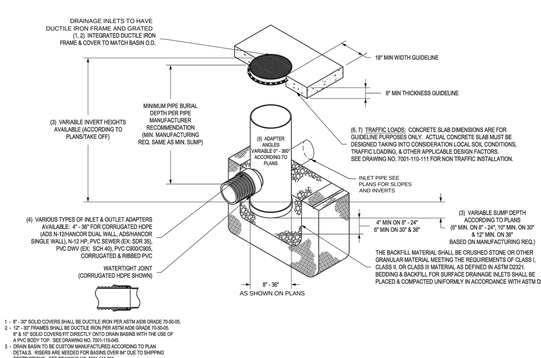
N.T.S



* LOAD BEARING CONCRETE COLLAR SHALL BE CONSTRUCTED IN TRAFFIC AREAS SUCH THAT THE LIVE LOAD IS TRANSMITTED TO THE SURROUNDING SOIL AND NOT DIRECTLY TO THE RISER.

DETENTION SYSTEM RISER DETAIL

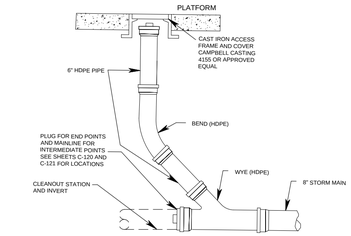
N.T.S



1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - 12" - 36" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-085.
4 - ADAPTERS FOR CORRUGATED HDPE PIPE SHALL CONFORM TO ASTM D2212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER(4"-36").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
6 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
7 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY; NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

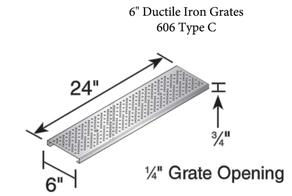
HDPE MANHOLE DETAIL

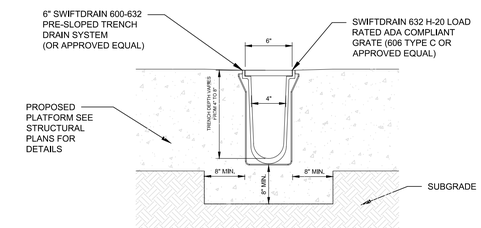
N.T.S



STORM SEWER CLEANOUT DETAIL STATIONS 2+62, 4+62, 5+48, 7+48, 9+48, AND 10+76

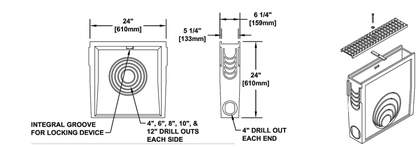
N.T.S





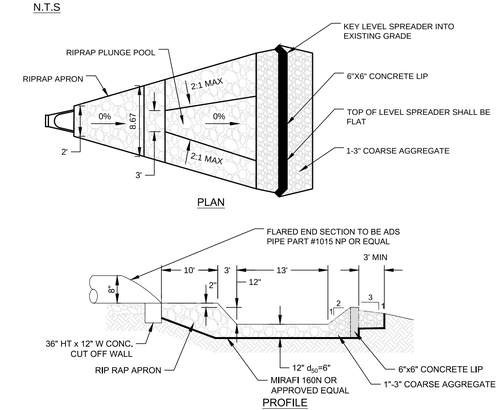
HEAVY DUTY TRENCH DRAIN DETAIL

N.T.S



TRENCH DRAIN CATCH BASIN DETAIL

N.T.S



LEVEL SPREADER

N.T.S.

100% ISSUE FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni
PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
Philadelphia, PA 19103
T 215.222.3000 F 215.222.3588

PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

CIVIL CONSTRUCTION DETAILS

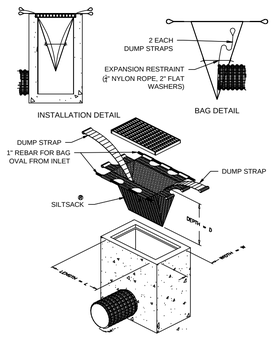
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	31 OF 80
Dwg. No.	C-204

Designed: DM | Drawn: CM | Checked: RR | Date: 2021-02-22

SILTSACK

SPECIFICATIONS

NOTE: THE SILTSACK WILL BE MANUFACTURES FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.



REGULAR FLOW SILTSACK
(AREAS OF LOW TO MODERATE PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	300 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	120 LBS
MULLEN BURST	ASTM D-3786	800 PSI
TRAPEZOID TEAR	ASTM D-4533	120 LBS
UV RESISTANCE	ASTM D-4355	60%
APPARENT OPENING SIZE	ASTM D-4751	40 US SIEVE
FLOW RATE	ASTM D-4491	40 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	0.55 SEC -1

HI-FLOW SITLSACK
(FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF)

PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONAGTION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.50 SEC -1

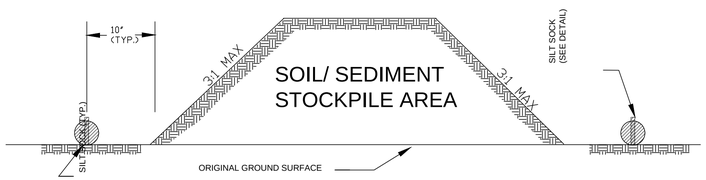
OIL-ABSORBANT SILTSACK
(FOR AREAS WHERE THERE IS A CONCERN FOR OIL RUN-OFF OR SPILLS)

DEPENDING ON YOUR PARTICULAR APPLICATION, THE SILKSACK CAN BE MADE FROM EITHER ONE OF THE ABOVE FABRICS WTH AN OIL-ABSORBANT PILLOW INSERT OR, MADE COMPLETELY FROM AN OIL-ABSORBANT SILTSACK WITH A WOVEN PILLOW INSERT

INLET PROTECTION DETAIL

N.T.S.

TEMPORARY STOCKPILE AREA

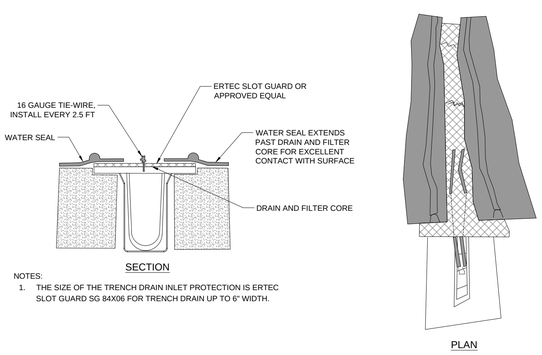


NOTES:

1. SILT FENCE TO EXTEND AROUND ENTIRE PERIMETER OF STOCKPILE, OR IF STOCKPILE AREA IS LOCATED ON/NEAR A SLOP THE SILT FENCE IS TO EXTEND ALONG CONTOURS OF THE DOWN-GRADIENT AREA.
2. IF STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS, TEMPORARY STABILIZATION MEASURES MUST BE IMPLEMENTED.
3. SILT FENCE SHALL BE MAINTAINED UNTIL STOCKPILE AREA HAS EITHER BEEN REMOVED OR PERMANENTLY STABILIZED.
4. THE KEY TO FUNCTIONAL TEMPORARY STOCKPILE AREAS IS WEEKLY INSPECTIONS, ROUTINE MAINTENANCE, AND REGULAR SEDIMENT REMOVAL.

EXCAVATED MATERIAL STOCKPILE AREA DETAIL

N.T.S.

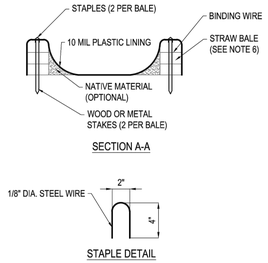


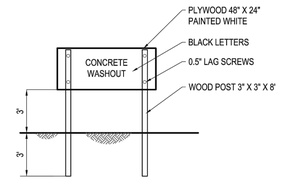
NOTES:

1. THE SIZE OF THE TRENCH DRAIN INLET PROTECTION IS ERTEC SLOT GUARD SG 84X06 FOR TRENCH DRAIN UP TO 6" WIDTH.

TRENCH DRAIN INLET PROTECTION DETAIL

N.T.S.

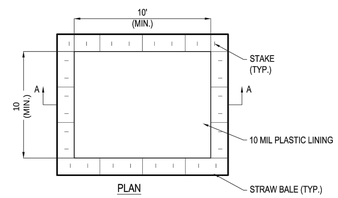




CONCRETE WASHOUT SIGN DETAIL (OR EQUIVALENT)

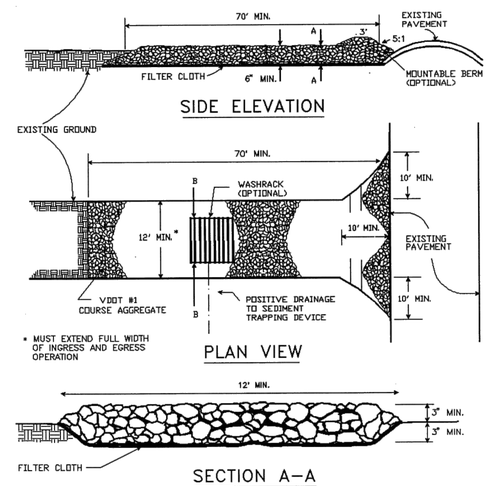
NOTES:

1. TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE LOCATED A MINIMUM OF 50 FT. FROM STORM DRAIN INLETS.
2. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF OFF-SITE. CONTRACTOR TO DISPOSE OF HARDENED CONCRETE ON A REGULAR BASIS.
3. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
4. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
5. WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
6. STRAW BALE AND STAPLES MAY BE SUBSTITUTED WITH ALTERNATE SECURING MEASURES SUCH AS CONCRETE BLOCK.



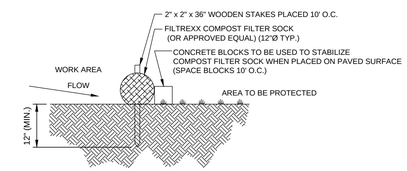
CONCRETE WASHOUT DETAIL

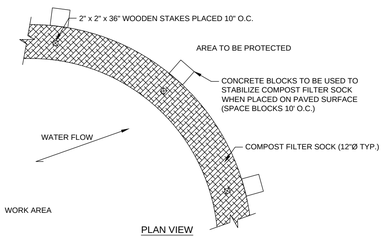
N.T.S.



CONSTRUCTION ENTRANCE DETAIL

N.T.S.

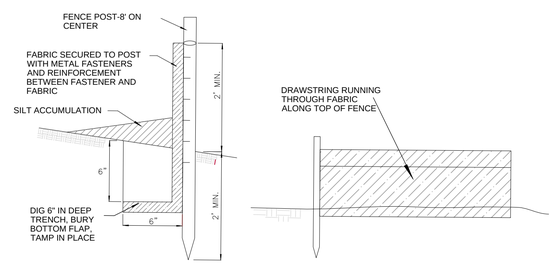




NOTE:
SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. COMPOST FILTER SOCKS SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF COMPOST FILTER SOCK IS REDUCED. COMPOST FILTER SOCKS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATION AT THE COMPOST FILTER SOCK SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE COMPOST FILTER SOCK IS REMOVED.

SILT SOCK DETAIL

N.T.S.



NOTES:

1. PLACE SILT FENCE AT LOCATIONS SHOWN.
2. THE SLOPE OF THE LAND FOR AT LEAST 30 FEET SHALL NOT EXCEED 5%
3. SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE AROUND THE SIDES.
4. INSPECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY.
5. SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE DIRECTED BY THE GOVERNING AGENCY.
6. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY SIX (6) INCHES AND FOLDED.
7. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED ½ ACRE PER 100 FEET WITH A MAXIMUM PONDING DEPTH OF 1.5 FEET BEHIND THE FENCE.
8. SILT FENCE TO BE INSTALLED ON CONSTRUCTION SIDE OF CONSTRUCTION FENCE
9. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUNOFF TO SILT FENCE

SLOPE STEEPNESS (V:H)	MAXIMUM LENGTH
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

SILT FENCE DETAIL

N.T.S.

SHEET NO.	TOTAL SHEETS

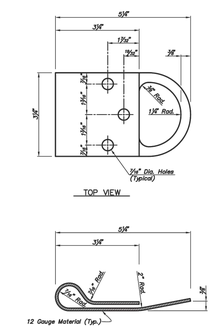
END SECTIONS ADS N12 PIPE

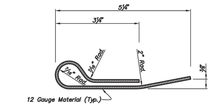
Dia.	Gauge	Weight	* A	* H	* L	* W	Slope	Overall Width
6"	18	10	4	3	8	12	2	20"
8"	18	14	5 3/4	4	14 1/2	16	2 1/4	27 1/2"
10"	18	17	7 3/8	6	14 1/2	20	2 1/2	35 1/4"
12"	16	25	7	6	21	24	2 1/2	38"
15"	16	33	8	6	26	30	2 1/2	46"
18"	16	42	8	6	31	36	2 1/2	52"
21"	16	49	9	6	36	42	2 1/2	60"
24"	16	65	10	6	41	48	2 1/2	68"
30"	14	123	12	8	51	60	2 1/2	84"
36"	14	135	14	9	60	72	2 1/2	100"
42"	12	320	16	11	69	84	2 1/2	116"
48"	12	375	18	12	78	90	2 1/4	126"
54"	12	440	18	12	84	102	2 1/4	138"
60"	12/10	610	18	12	87	114	2	150"

Toe plate extensions where specified, to be punched to match holes in apron lip. 3/8" bolts to be furnished. The length of toe plate to be as follows: W = 12" for 12" to 30" diameter pipes inclusive. W = 20" for 36" to 60" diameter pipes inclusive.

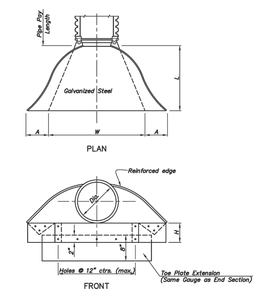
Multiple panel end sections shall have lap seams which are to be tightly jointed by bolts. Corner plate, and toe plate to be same gauge as end section.

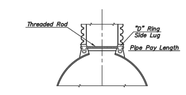
** – Dimensions in Inches Plus or Minus Standard Shop Tolerance.*





"D" RING SIDE LUG
TYPE 2 ATTACHMENT DETAILS





TYPE 2 CONNECTIONS
(12" & Larger)

No.	Date	Revisions

STANDARD END SECTION FOR ADS N12 PIPE

STEEL END SECTIONS FOR PIPE DETAIL

N.T.S.

100% ISSUED FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

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1900 Market Street, Suite 300
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PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
CIVIL CONSTRUCTION DETAILS

Designed: DM | Drawn: CMN | Checked: RR | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	32 OF 80
Dwg. No.	C-205

ABBREVIATION LIST

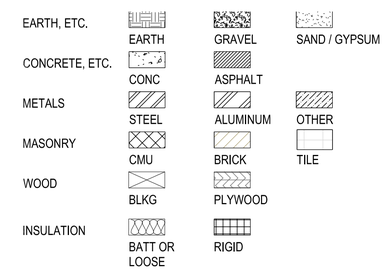
Abbreviation	Description
#	POUND OR NUMBER
ACT	ACOUSTIC CEILING TILE
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJACENT OR ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
ALUM	ALUMINUM
AMT	AMTRAK
ANOD	ANODIZED
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL)
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUTO	AUTOMATIC
BD	BOARD
BL	BUILDING LINE
BLDG	BUILDING
BLKG	BLOCKING
BO	BOTTOM OF
BOC	BOTTOM OF CURB
BOW	BOTTOM OF WALL
BSMT	BASEMENT
BYND	BEYOND
CAB	CABINET
CB	CATCH BASIN
CF	CUBIC FEET
CH	COAT HOOK
CHNL	CHANNEL
CI	CAST IRON
CIP	CAST IN PLACE
CJ	CONTROL JOINT
CL	CENTER LINE
CL	CENTER LINE
CL. / CLOS.	CLOSET
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT, CASED OPENING
COL	COLUMN
COMPR	COMPRESSIBLE
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONV	CONVECTOR
CORR	CORRIDOR
CPT	CARPET
CPU	CENTRAL PROCESSING UNIT
CT	CERAMIC TILE
IDRIDRIDR	CENTER
IDRIDRIDRIDR	COURTYARD
D	DEEP, DEPTH
D.C.	DUST CHUTE
DB. / DISP. BD.	DISPLAY BOARD
DB.S.	DISPLAY BOARD SURFACE
DBL	DOUBLE
DEMO	DEMOLITION
DEP.	DEPRESSED
DEPT.	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMEMSION
DISP	DISPENSER
DISP CAB	DISPLAY CABINET
DIV	DIVIDE, DIVISION
DN	DOWN
DR	DOOR
DWG	DRAWING
DWR	DRAWER
E	EAST

Abbreviation	Description
EA	EACH
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
ENCL	ENCLOSE, ENCLOSURE
EP	ELECTRIC PANEL
EPDM	ETHYLENE PROPYLENE DIENE M-CLASS (ROOFING)
EQ	EQUAL
EQUIP	EQUIPMENT
ESCAL	ESCALATOR
EX	EXHAUST
EXH	EXPANSION, EXPOSED
EXP	EXISTING
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFE	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FIN	FINISH, FINISHED
FIXT	FIXTURE
FLOUR	FLUORESCENT
FLR	FLOOR, FLOORING
FM	FILLED METAL
FO	FACE OF, FINISHED OPENING
FP	FIRE PROTECTION, FIREPROOF
FR	FRAME. FIRE
GA	GAUGE
GALV	GALVANIZED
GB	GLAZED BLOCK
GC	GENERAL CONTRACTOR
GL	GLASS
GR ELEV	GRADE ELEVATION
GV	GAS VALVE
GWB	GYPSUM BOARD
H	HIGH
H.	HIGH
H.P.	HIGH POINT
H.R.	HAND RAIL
HC	HOLLOW CORE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
ILO	IN LIEU OF
INFO	INFORMATION
INSUL	INSULATED
INT	INTERIOR
IRGWB	IMPACT RESISTANT GYPSUM WALLB
JT	JOINT
LAV	LAVATORY
LCD	LIQUID CRYSTAL DISPLAY
LED	LIGHT EMITTING DIODE
LP	LOW POINT
LT	LIGHT
MAT	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEMBR	MEMBRANE
MFR	MANUFACTURER
MIN	MINIMUM
MO	MASONRY OPENING
MPH	MILES PER HOUR
MRGWB	MOISTURE-RESISTANT GYPSUM WALL
MTD	MOUNTED

Abbreviation	Description
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OAI	OUTSIDE AIR INTAKE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND / OVERHEAD
OPP	OPPOSITE
OZ	OUNCE
P	PAINT
PCC	PRE-CAST CONCRETE
PLUMB	PLUMBING
PLYD	PLYWOOD
PNT	PRESSURE TREATED / POINT OF TANGENT
PSF	POUNDS PER SQUARE FOOT
PT	PAINT/PAINTED
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RADIUS
RAD	RADIATOR
RB	RESILIENT BASE (VINYL OR RUBBER)
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCING
REQ	REQUIRED
RET	RETAINING
RI	RESCUE INTERCOM
RM	ROOM
RO	ROUGH OPENING
RPZ	REDUCE PRESSURE ZONE
RT	RUBBER TILE
RUB	RUBBER
RW	RESILIENT WOOD
SAD	SADDLE
SAN	SANITARY
SECT	SECTION
SF	SQUARE FEET
SIM	SIMILAR
SPEC	SPECIFFICATION
SPK	SPRINKLER
SS	STAINLESS STEEL
ST PL	STEEL PLATE
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STD DET	STANDARD DETAIL
STL	STEEL
STO	STORAGE
STRUCT	STRUCTURAL
T&G	TONGUE AND GROOVE
T/D	TELEPHONE/DATA
TBD	TO BE DETERMINED
TEL	TELEPHONE
THK	THICKNESS
TLT	TOILET
TO	TOP OF
TOC	TOP OF CONCRETE
TOP	TOP OF PLATFORM
TOR	TOP OF RAIL
TOS	TOP OF STEEL
TOSB	TOP OF SLAB
TYP	TYPICAL
U/S	UNDERSIDE
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS OTHERWISE NOTED

Abbreviation	Description
VCT	VINYL COMPOSITION TILE
VENT	VENTILATOR
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFIY IN FIELD
VIN	VINYL
VOC	VOLATILE ORGANIC COMPOUND
VP	VISION PANEL
W	WIDE
W/	WITH
WAINS.	WIAINSCOT
WARD	WARDROBE
WC	WATER CLOSET
WD	WOOD
WH	WEEPHOLE
WI	WROUGHT IRON
WM	WIRE MESH
WP	WATERPROOFING
WT.	WEIGHT
WWF	WELDED WIRE FABRIC
WXHXL	WIDTH BY HEIGHT BY LENGTH

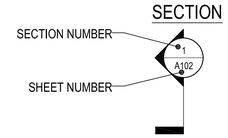
MATERIALS



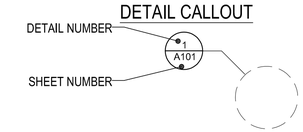
STANDARD SYMBOLS

NORTH ARROW SYMBOL

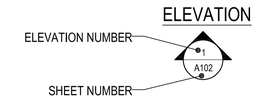
SECTION



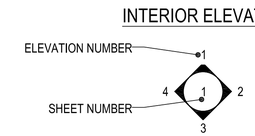
DETAIL CALLOUT



ELEVATION



INTERIOR ELEVATION



DRAWING TITLE

100% ISSUE FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

PENNONI ASSOCIATES INC.
1900 Market Street, Suite 300
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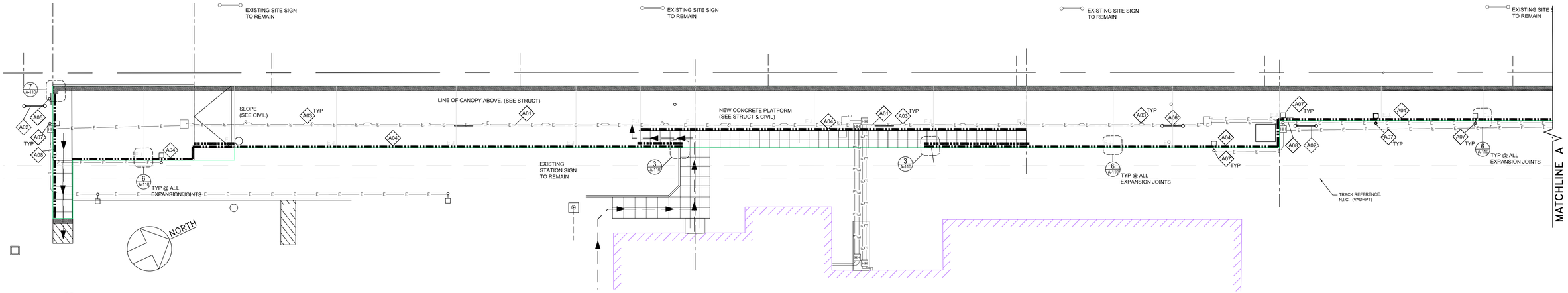
PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

ARCHITECTURAL ABBREVIATION & SYMBOLS

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

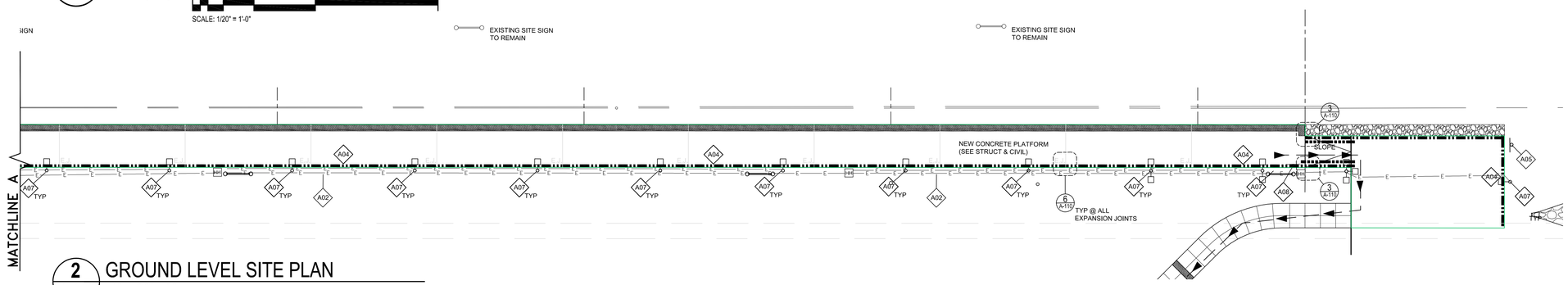
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	33 OF 80
Dwg. No.	A-100



1 A-110 GROUND LEVEL SITE PLAN

1" = 20' - 0"

SCALE: 1/20" = 1'-0"



2 A-110 GROUND LEVEL SITE PLAN

1" = 20' - 0"

SHEETNOTES - ENLARGED PLAN

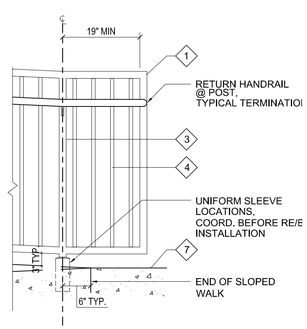
Key Note Number	DESCRIPTION
A01	TYPICAL PLATFORM SIGNAGE SUPPORTED BY CANOPY, SEE A-750
A02	TYPICAL PLATFORM SIGN REINSTALLED ON NEW FOUNDATION, SEE A-750
A03	REINSTALL SALVAGED EXISTING CANOPY "CHEVRON" SHAPED COLUMNS WITH NEW STRUCTURAL STEEL SUPPORTS, ROOFING, ROOF DRAIN, LIGHTING AND AMTRAK SIGNAGE, SEE CIVIL& STRUCTURAL
A04	NEW RAILING AT PLATFORM AND SLOPES. FOR DESIGN SEE DETAILS ON THIS SHEET AND STRUCTURAL
A05	INSTALL SIGNAGE AT END OF PLATFORM ON NEW FOUNDATIONS.
A06	REINSTALL EXISTING AMTRAK BULLETIN BOARD ON NEW FOUNDATION. SEE CIVIL.
A07	NEW LIGHT POLE; SEE CIVIL FOR PLACEMENT & DETAILS.
A08	INSTALL SIGNAGE ON NEW RAILING.

KEYNOTES - CONSTRUCTION SITE RAILINGS

NO.	DESCRIPTION
1	1-1/2" DIA GALV AND PTD STEEL RAIL.
2	1-1/2" DIA GALV AND PTD STEEL HANDRAIL WELDED TO POSTS W/ 1/2" DIA. BRACKET. RAILING W/ HANDRAIL IS LOCATED (NOT ADA REQUIRED) WHERE RAILING FOLLOWS SLOPING SURFACE
3	1-1/2" DIA GALV & PTD STEEL POST BYND, SPACED EVENLY AT 48" OC MAX, TYP.
4	3/4" DIA. GALV. AND PTD STEEL PICKETS SPACED EVENLY AT 4" O.C. MAX, TYP.
5	SET RAILING POSTS IN (3" DIA. X 7" H) SLEEVES EMBEDDED 5" W/ 2" OF SLEEVE EXPOSED ABOVE TOP OF CONCRETE. GROUT SOLID AND SLOPE TOP EDGE OF GROUT AWAY FROM POST, TYP. GC TO PLACE SLEEVES IN UNIFORM SPACING PRIOR TO RE/BAR INSTALLATION AND CONCRETE POUR. GC RESPONSABLE FOR COORDINATED RAILING SLEEVE AND RE/BAR SHOP DRAWINGS. USE NON-SHRINK GROUT, TYP
6	SEE SHEET A-117 FOR RAILING SLEEVE LOCATION COORDINATION.
7	TOP OF PLATFORM, REFER TO PLANS.
8	1/2" EXPANSION JT, REFER TO STRUCTURAL.
9	PROVIDE WELDED END CAPS $\frac{1}{4}$" THICKNESS W/ $\frac{1}{32}$" EASED EDGES, TYP.

FINISH NOTE

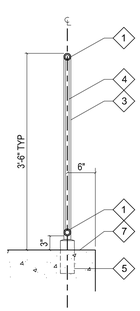
P-1 RAILING COLOR: BLACK, SEMI-GLOSS, EPOXY EXTERIOR PAINT FINISH AT ALL RAILS, GUARDRAILS AND HANDRAILS (SEE SPECIFICATION)



3 A-110 RAILING DETAIL @ END CAP

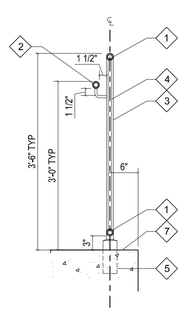
3/4" = 1' - 0"

SCALE: 3/4" = 1'-0"



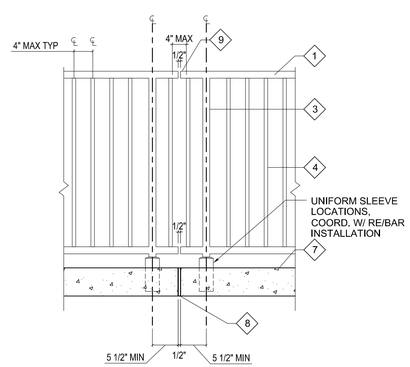
4 A-110 RAILING SECTION, TYP

3/4" = 1' - 0"



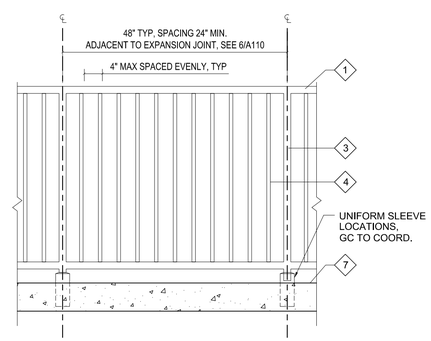
5 A-110 RAILING W/ HANDRAIL

3/4" = 1' - 0"



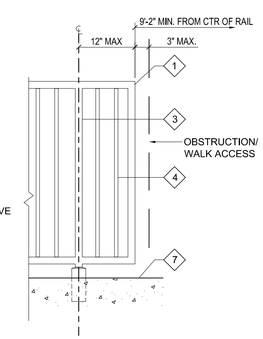
6 A-110 RAILING ELEVATION @ E.J.

3/4" = 1' - 0"



7 A-110 RAILING ELEVATION, TYP

3/4" = 1' - 0"



8 A-110 RAILING END CONDITION, TYP

3/4" = 1' - 0"

LEGEND

LINE TYPE TO INDICATE RAILING, SEE 1/A110 FOR INFORMATION

LINE TYPE TO INDICATE RAILING W/HANDRAIL, SEE 1/A110 FOR INFORMATION

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NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni

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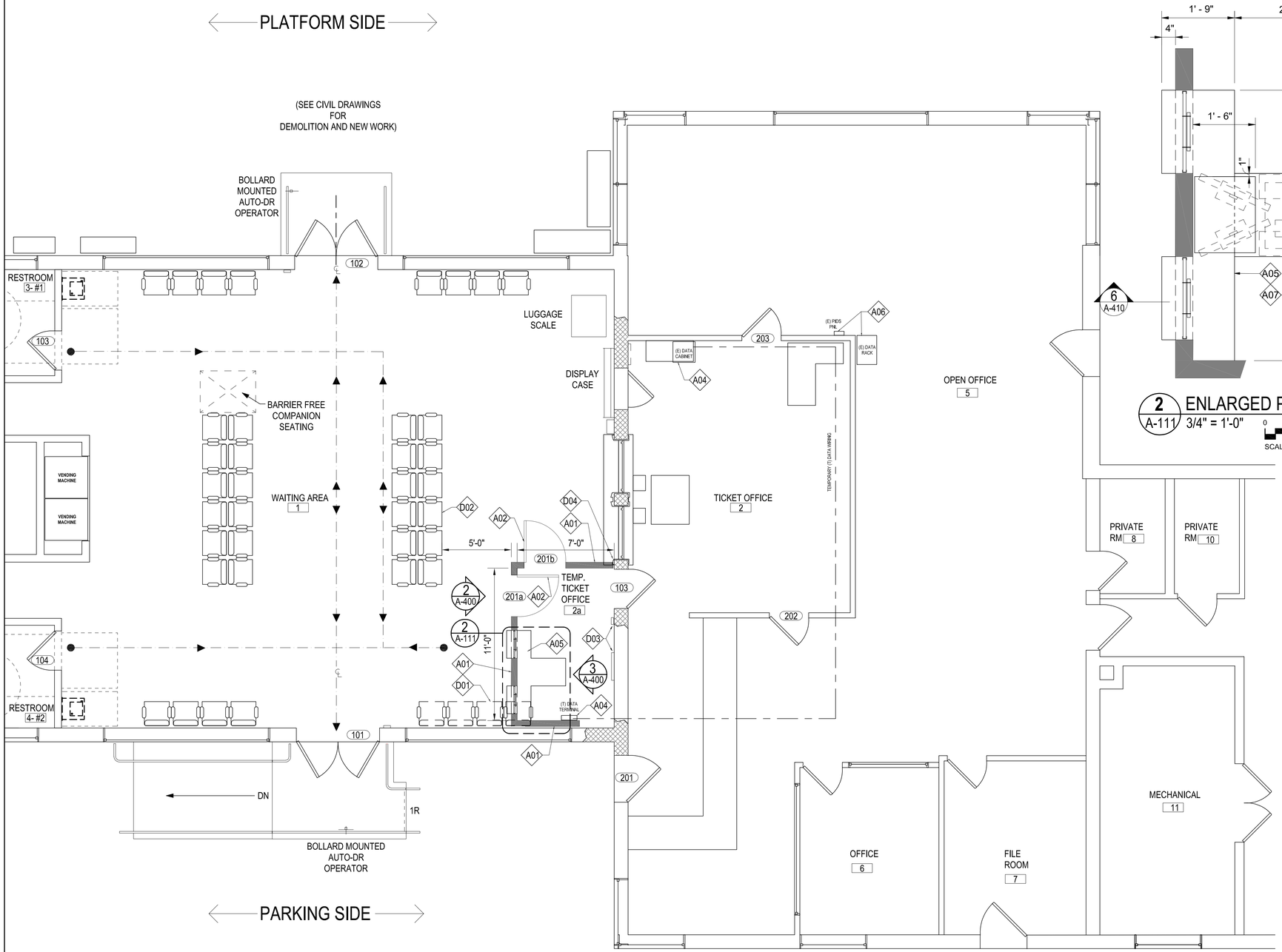
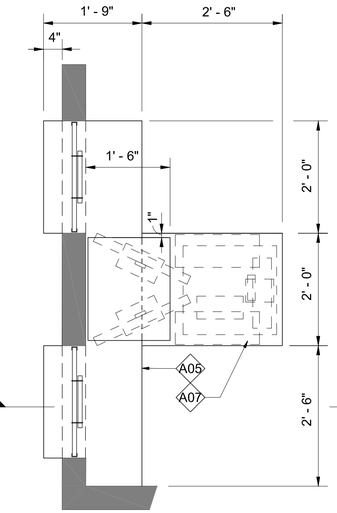
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
ARCHITECTURAL SITE PLAN

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	34 OF 80
Dwg. No.	A-110



1 A-111 GROUND LEVEL PHASE 1 PLAN
1/4" = 1'-0"
0 2' 4' 8'
SCALE: 1/4" = 1'-0"



2 A-111 ENLARGED PHASE 1 PLAN
3/4" = 1'-0"
0 1' 2'
SCALE: 3/4" = 1'-0"

SHEETNOTES - DEMOLITION WORK

Key Note Number	DESCRIPTION
D01	TEMPORARILY REMOVE BENCH - STORE AND REINSTALL AFTER PHASE 2 COMPLETION.
D02	RELOCATE EXISTING BENCH SEATING TO ALLOW FUTURE CLEARANCE FOR TEMPORARY PHASE 2 WALLS.
D03	REMOVE WALL MOUNTED ITEM TO BE RELOCATED AND INSTALLED CONSISTENT WITH ADA MOUNTING HEIGHTS.
D04	REMOVE EXISTING WINDOW TRIM TO ALLOW TEMPORARY WALL INSTALLATION, SCRIBE GYPSUM BD TO EXISTING COUNTER TO MAINTAIN TICKET OPERATIONS.

SHEETNOTES - TEMPORARY PHASE WORK

	DESCRIPTION
A01	CONSTRUCT SELF-SUPPORTING PARTITIONS FOR TEMPORARY WALLS, MATERIALS TO BE 3 5/8" METAL STUD WITH 5/8" GYPSUM TYPE X (2) SIDES & BULLET RESISTANT PANEL AT CORE, PROVIDE 1/2" MIN. GAP TO ADJACENT EXISTING SURFACES, - DO NOT DAMAGE EXISTING WALL MURALS.
A02	PROVIDE DOOR, FRAME AND HARDWARE IN TEMPORARY WALL. SEE DOOR SCHEDULE NO. 201a & 201b FOR SIZE.
A03	SEE DOOR SCHEDULE FOR INFORMATION.
A04	EXISTING AMTRAK NETWORK RACK/EQUIP TO REMAIN. PHASE 1 - INSTALL TEMPORARY DATA & POWER FOR TEMPORARY TICKET EQUIPMENT.
A05	PROVIDE (2) TEMPORARY SALES POSITIONS, REQUIRING WINDOW, COUNTER, QUAD POWER, (2) DATA DROPS EACH.
A06	SEE ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.
A07	TICKETING BOOTH EQUIPMENT, COMPUTER, MONITOR, KEYBOARD, PHONE & PRINTER. (AMTRAK SUPPLIED)

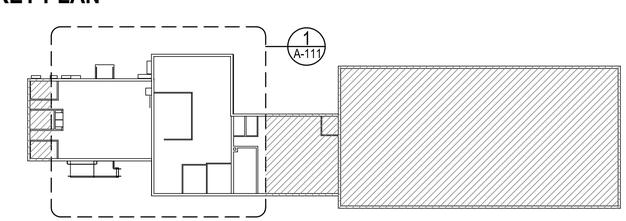
DOOR SCHEDULE

NO	ROOM	DOOR SIZE / TYPE	FRAME TYPE / SIZE	HARDWARE	COMMENTS
103	RESTROOM 3 - #1	EX. WD/ 36"x84"x1 3/4"	EX. HM/ 36"x84"x2"	SET #2	PATCH PREVIOUS MOUNTING HOLES
104	RESTROOM 4 - #2	EX. WD/ 36"x84"x1 3/4"	EX. HM/ 36"x84"x2"	SET #2	PATCH PREVIOUS MOUNTING HOLES
201a	TEMP. TICKET OFFICE 2a	NEW WD / 36"x84"x1 3/4"	NEW HM / 36"x84"x2"	SET #1	PAINT TO MATCH EXISTING
201b	TEMP. TICKET OFFICE 2a	NEW WD / 36"x84"x1 3/4"	NEW HM / 36"x84"x2"	SET #1	PAINT TO MATCH EXISTING

LEGEND

- ADA COMPLIANT PATH OF TRAVEL
- HATCHED AREAS DENOTES PORTIONS OF BUILDING NOT IN SCOPE OF WORK- EMPLOYEE ONLY.
- NON-SHADED AREAS DENOTE EXISTING WALLS
- DASHED DENOTE TO BE REMOVED
- SHADED AREAS DENOTE NEW WALLS

KEY PLAN



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NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

Pennoni
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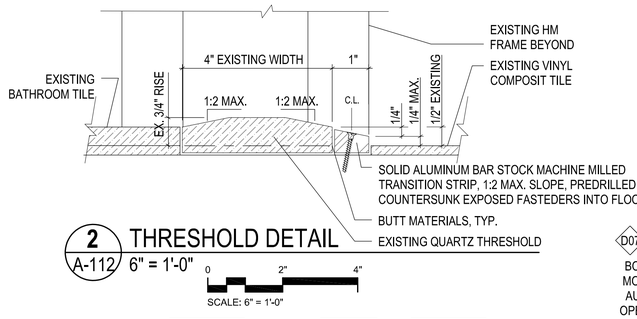
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
ARCHITECTURAL DEMOLITION & PHASE 1 PLAN

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

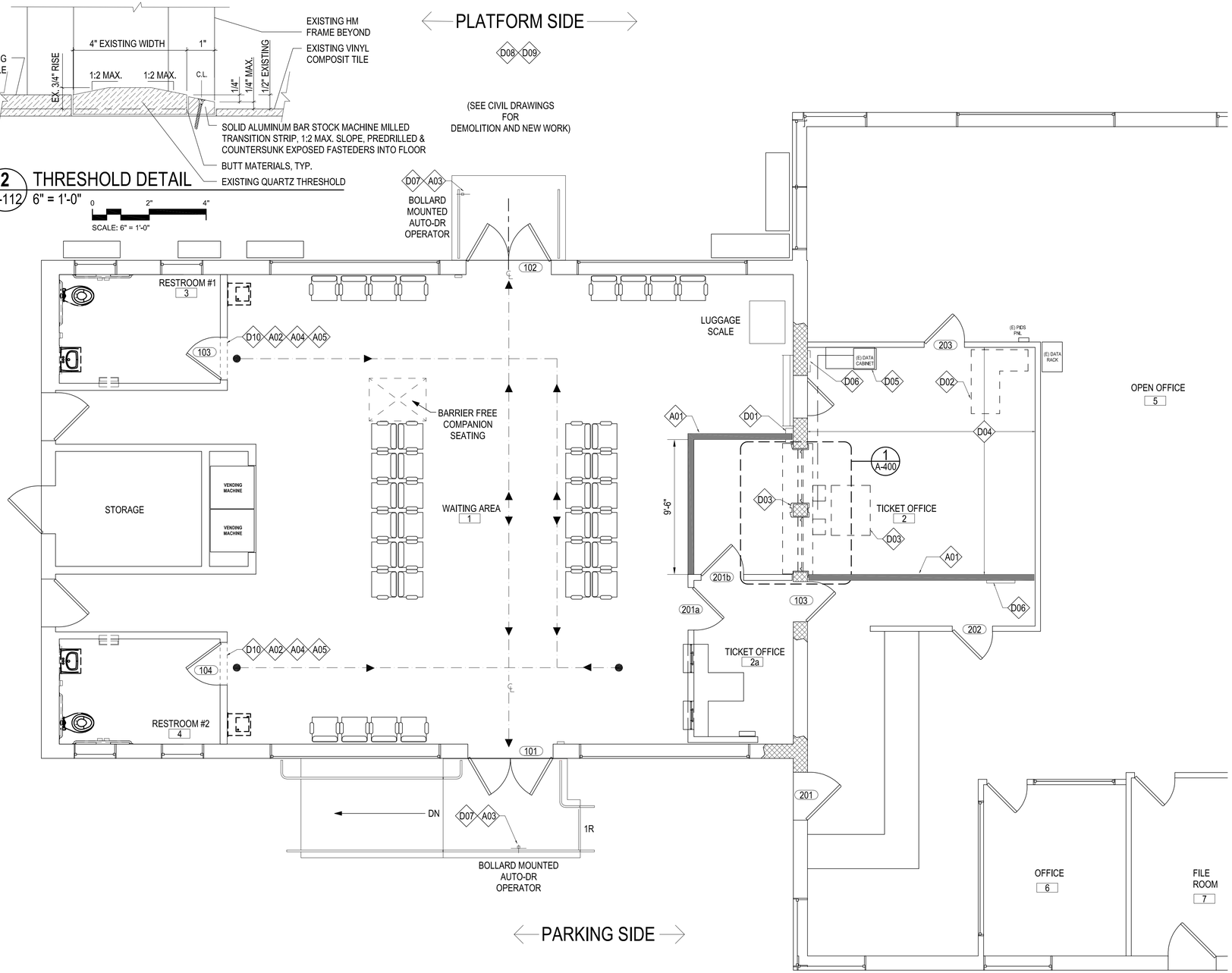
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	35 OF 80
Dwg. No.	A-111



2 / A-112 THRESHOLD DETAIL

6" = 1'-0"

SCALE: 6" = 1'-0"



1 / A-112 GROUND LEVEL PHASE 2 PLAN

1/4" = 1'-0"

SCALE: 1/4" = 1'-0"

NORTH

SHEETNOTES - DEMOLITION WORK

Key Note Number	DESCRIPTION
D01	REMOVE WALL MOUNTED ITEM TO BE RELOCATED AND INSTALLED CONSISTENT WITH ADA MOUNTING HEIGHTS.
D02	RELOCATE EXISTING DESK AND OFFICE EQUIPMENT AT START OF PHASE 2. (NIC)
D03	DEMOLITION EXISTING TICKET COUNTER & REMOVE EXISTING CMU REQUIRED TO INSTALL NEW TICKET COUNTER CABINETRY.
D04	PROVIDE PROTECTIVE SHEATHING OVER EXISTING VINYL COMPOSITE TILE FLOORING THROUGHOUT TICKET OFFICE #2 FOR DURATION OF CONSTRUCTION.
D05	EXISTING AMTRAK NETWORK RACK/EQUIP TO REMAIN. PHASE 2 - DEMO EXISTING POWER AND DATA TO EXISTING TICKET STATIONS WHILE MAINTAINING TEMPORARY PHASE 1 TICKET EQUIPMENT.
D06	REMOVE AND RELOCATE BAGGAGE TICKET RACK TO TEMPORARY LOCATION FOR PHASE 2 WORK.
D07	EXISTING BOLLARD WITH AUTO-DOOR PUSH PAD, REMOVE BOLLARD & SALVAGE OPERATOR PAD FROM FOR REINSTALLATION.
D08	REMOVE EXISTING SITE SIGNAGE, SEE SHEET A-750 FOR ADDITIONAL INFORMATION.
D09	REMOVE AND SALAVAGE EXISTING CANOPY "CHEVRON" SHAPE COLUMNS FOR REINSTALLATION. SEE STRUCTURAL SHEETS FOR ADDITIONAL INFORMATION.
D10	REMOVE STRIP OF EXISTING FLOORING & PREP EXISTING NON COMPLIANT THRESHOLD.

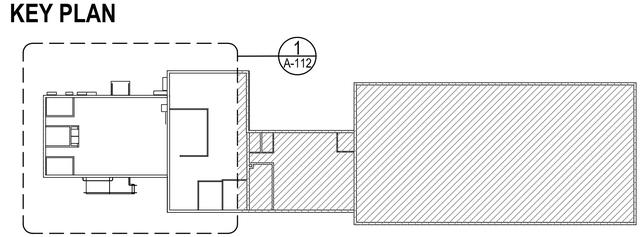
SHEETNOTES - TEMPORARY PHASE WORK

	DESCRIPTION
A01	CONSTRUCT SELF-SUPPORTING PARTITIONS FOR TEMPORARY WALLS, PROVIDE 1/4" MIN. GAP TO ADJACENT EXISTING SURFACES (WALL/CEILING) - DO NOT DAMAGE EXISTING WALL MURALS.
A02	SEE DOOR SCHEDULE, SHEET A-111
A03	RECONFIGURE BOLLARD HEIGHT TO REQUIRED 32" MAX. AFF, INSTALL OPERATOR PAD & PROVIDE SIGN STICKER (STRIPING) GRAPHIC TO EXISTING BOLLARD TO IDENTIFY DOOR DEVISE ON APPROACH.
A04	PREPARE EXISTING THRESHOLD FOR NEW REDUCER STRIP, PROVIDE 1/2" TRANSITION BETWEEN EXISTING FLOORING MATERIALS, SLOPE TO BE 2:1 MAX. , SEE DETAIL 2/A112
A05	PROVIDE NEW OVERHEAD CLOSER, REQUIRED TO MOVE THE DOOR FROM A 90 DEGREES POSITION TO A POSITION OF 12 DEGREES FROM THE LATCH IN 5 SECONDS MIN. AND WITH A PUSH/PULL FORCE OF 5 POUNDS (22.2 N) MAX.

LEGEND

- ADA COMPLIANT PATH OF TRAVEL
- HATCHED AREAS DENOTES PORTIONS OF BUILDING NOT IN SCOPE OF WORK- EMPLOYEE ONLY.
- NON-SHADED AREAS DENOTE EXISTING WALLS
- DASHED DENOTE TO BE REMOVED
- SHADED AREAS DENOTE NEW WALLS

KEY PLAN



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National Railroad Passenger Corporation
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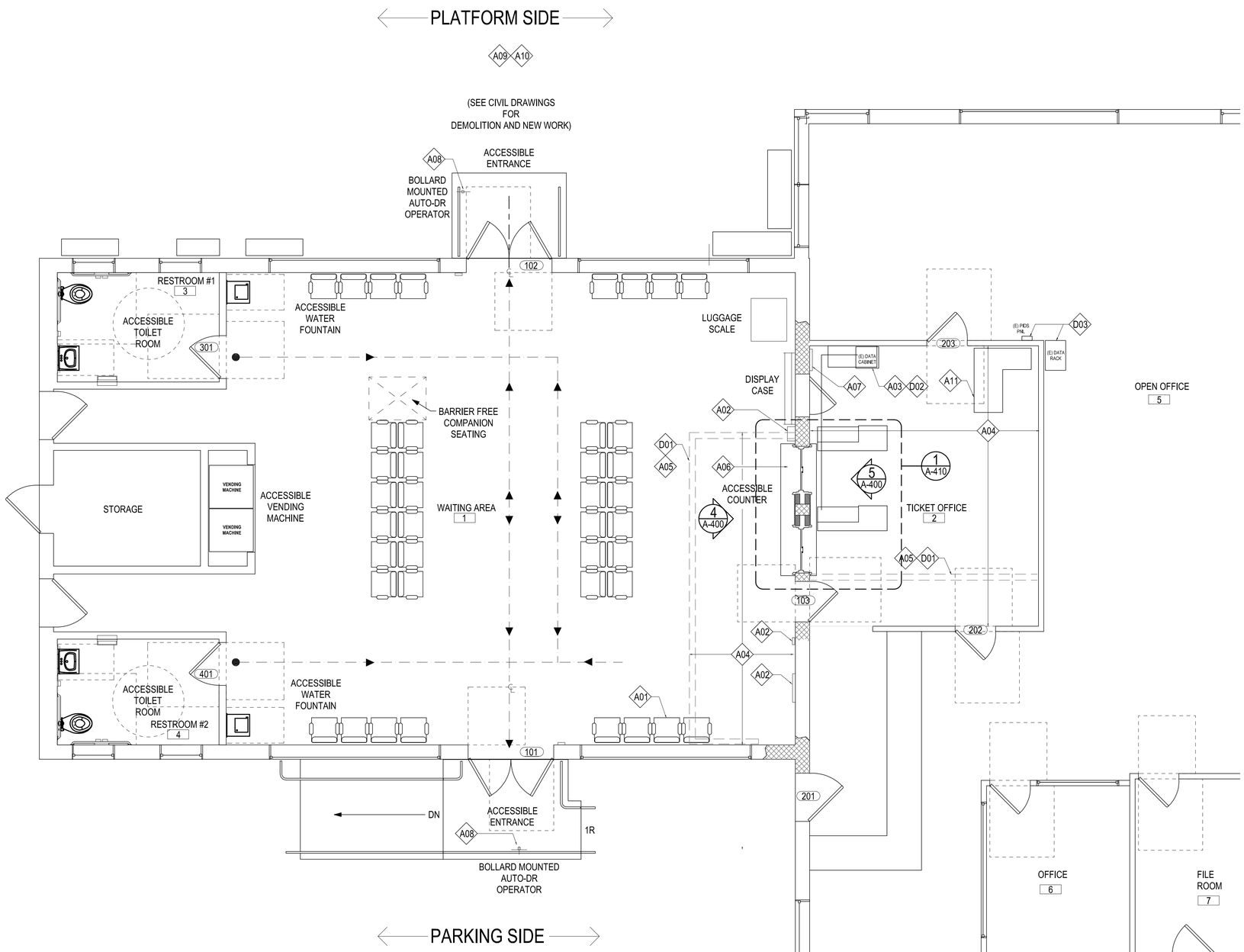
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)

ARCHITECTURAL DEMOLITION & PHASE 2 PLAN

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	36 OF 80
Dwg. No:	A-112



1 A-113 GROUND LEVEL PROPOSED PLAN

1/4" = 1'-0"

0 2' 4' 8'

SCALE: 1/4" = 1'-0"

SHEETNOTES - CONSTRUCTION WORK

Key Note Number	DESCRIPTION
A01	REINSTALL BENCH SEATING TO ORIGINAL LOCATION ON COMPLETION OF PHASE 2.
A02	REINSTALL WALL MOUNTED ITEM TO BE CONSISTENT WITH ADA MOUNTING HEIGHTS.
A03	EXISTING AMTRAK NETWORK RACK/EQUIP TO REMAIN. PHASE 2 - INSTALL (2) DATA DROPS FOR (2) NEW TICKET STATION EACH, TO SUPPORT EXISTING EQUIPMENT.
A04	REMOVE PROTECTIVE FLOOR COVERING AT TICKET OFFICE 2
A05	PATCH SURFACES ON THE REMOVAL OF TEMPORARY WALLS, MATCH ADJACENT FINISH (FLOORING / WALLS / CEILING) - DO NOT DAMAGE EXISTING WALL MURALS.
A06	PROVIDE (2) NEW TICKET COUNTER STATIONS, REQUIRING WINDOW, COUNTERS, CABINETS, QUAD POWER, (2) DATA DROPS EACH.
A07	RELOCATE BAGGAGE TICKET RACK TO ORIGINAL LOCATION ON COMPLETION OF PHASE 2.
A08	TOP OF BOLLARD AT 32" MAX. AFF.
A09	INSTALL SITE SIGNAGE, SEE SHEET A-750 FOR ADDITIONAL INFORMATION.
A10	INSTALL PIPE RAILING AT PLATFORM, SEE SHEET A-110 FOR LOCATION SIZE AND TYPE.
A11	RELOCATE DESK & EQUIPMENT TO ORIGINAL LOCATION ON COMPLETION OF PHASE 2.

SHEETNOTES - TEMPORARY PHASE WORK

	DESCRIPTION
D01	REMOVE TEMPORARY SELF-SUPPORTING PARTITIONS. - DO NOT DAMAGE EXISTING WALL MURALS.
D02	EXISTING AMTRAK NETWORK RACK/EQUIP TO REMAIN. REMOVE TEMPORARY PHASE 1 - DATA & POWER.
D03	SEE ELECTRICAL SHEETS FOR ADDITIONAL INFORMATION.

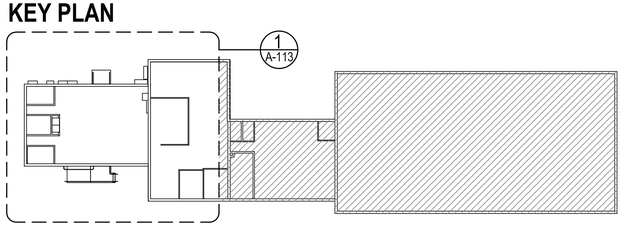
GENERAL NOTES

1. ENSURE A SMOOTH AND EVEN SUBSURFACE FOR APPLICATION OF NEW FINISHES.
2. PROVIDE ADEQUATE BLOCKING FOR COUNTERS, CABINETS AND OTHER WALL MOUNTED ITEMS AS REQUIRED.

LEGEND

- X — WALL TYPE (SEE SHEET A-430)
- XXX — DOOR TAG (SEE SHEET A-430)
- ADA COMPLIANT PATH OF TRAVEL
- HATCHED AREAS DENOTES PORTIONS OF BUILDING NOT IN SCOPE OF WORK- EMPLOYEE ONLY.
- NON-SHADED AREAS DENOTE EXISTING WALLS
- SHADED AREAS DENOTE NEW WALLS
- ACCESSIBLE CLEARANCE

KEY PLAN



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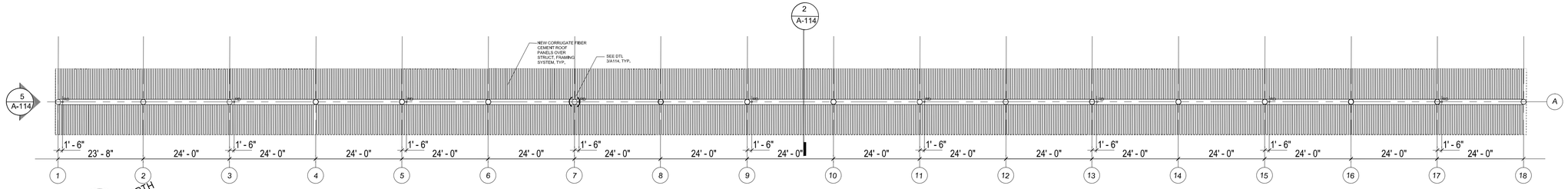
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
ARCHITECTURAL PROPOSED FLOOR PLAN

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	37 OF 80
Dwg. No.	A-113

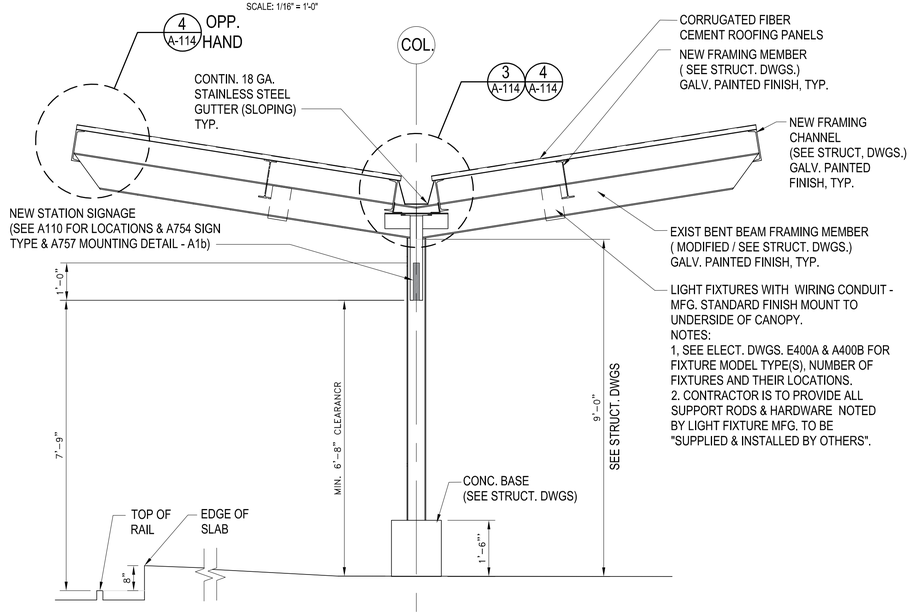


CANOPY DEMOLITION NOTES:
1. REMOVE EXISTING ASBESTOS ROOF DECKING AND ALL THEIR ATTACHMENTS HARDWARE, TYP. (SEE STRUCTURAL DRAWING)
2. FOLLOW ALL REGULATORY REQUIREMENTS FOR REMOVAL OF ASBESTOS MATERIALS, TYP.
3. REMOVE EXISTING GUTTER SYSTEM, DOWNSPOUTS AND THEIR ATTACHMENT HARDWARE, TYP.
4. PREP STRUCTURAL FRAMING MEMBERS TO RECEIVE NEW FIBER CEMENT ROOF PANELS.

1 / A-114 ROOF LEVEL CANOPY PLAN

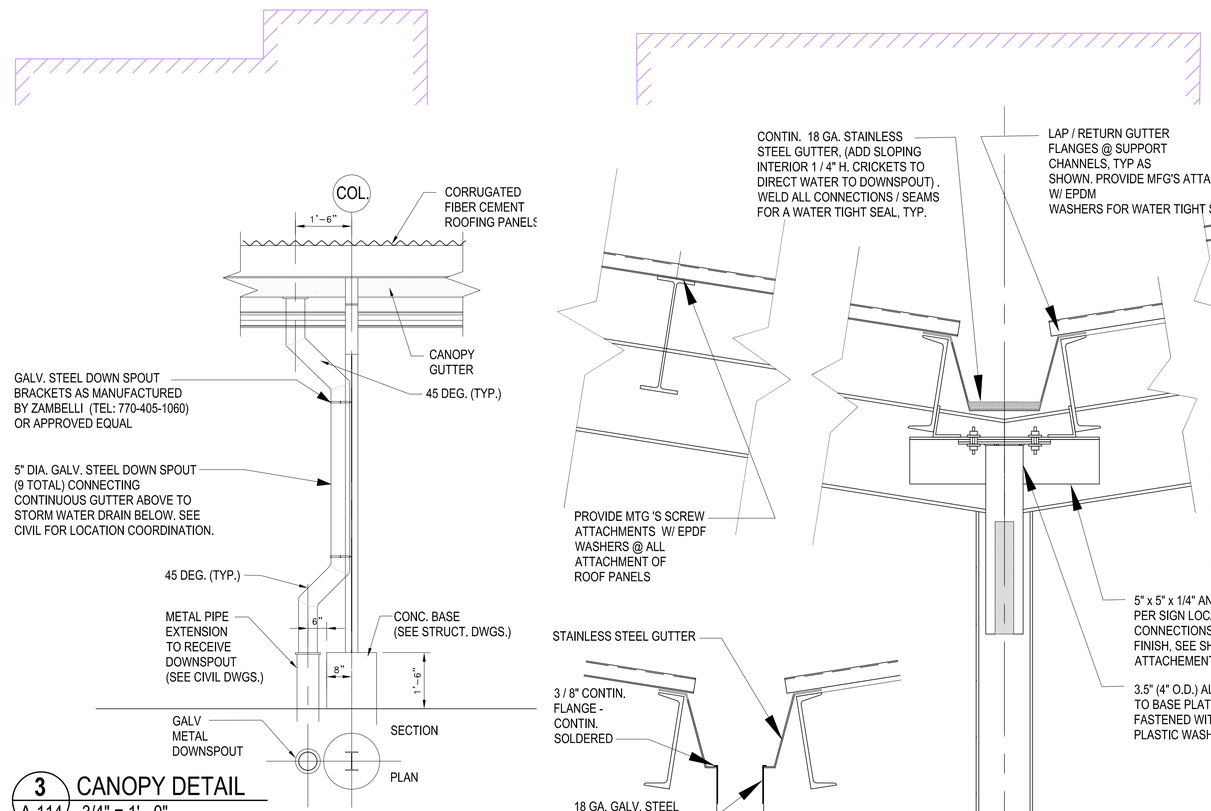
1 /16" = 1' - 0" 0 8' 16' 32'

SCALE: 1/16" = 1'-0"



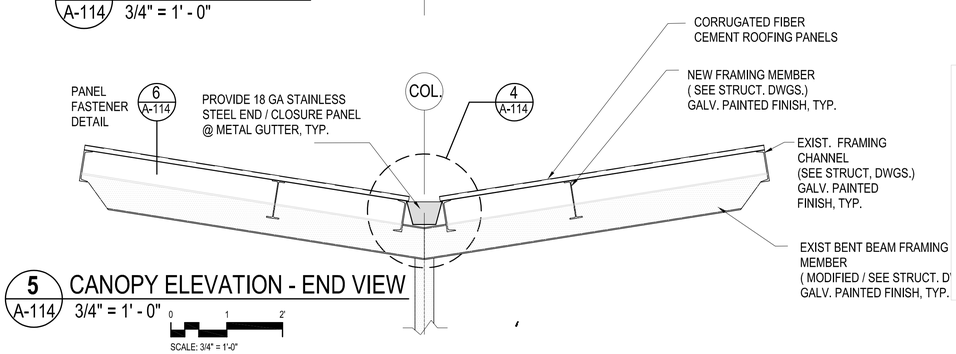
2 / A-114 CANOPY SECTION

3/4" = 1' - 0"



3 / A-114 CANOPY DETAIL

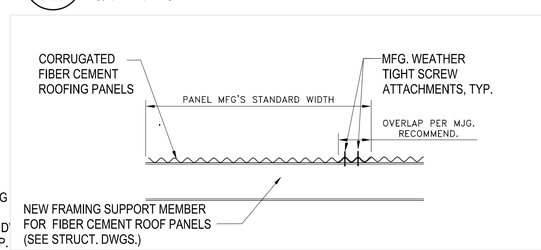
3/4" = 1' - 0"



5 / A-114 CANOPY ELEVATION - END VIEW

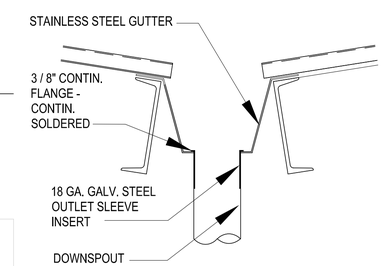
3/4" = 1' - 0" 0 1 2'

SCALE: 3/4" = 1'-0"



6 / A-114 PANEL (MFG.) FASTENER DETAIL

N.T.S.



TYP. GUTTER & DOWNSPOUT DETAIL

4 / A-114 CANOPY DETAIL

1 1/2" = 1' - 0" 0 6" 1' 2'

SCALE: 1 1/2" = 1'-0"

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NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

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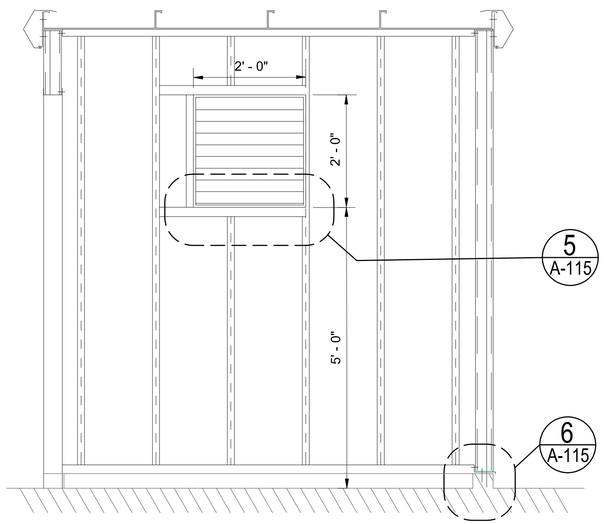
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
ARCHITECTURAL CANOPY PLAN & DETAILS

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

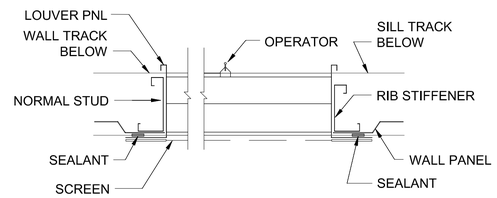
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	38 OF 80
Dwg. No.	A-114

SHEETNOTES - WHEEL CHAIR SHED

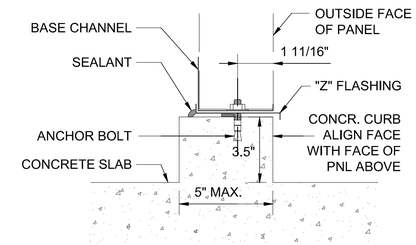
Key Note Number	DESCRIPTION
A01	SEE SPECIFICATIONS FOR MANUFACTURER OF SHED AND ADDITIONAL INFORMATION.



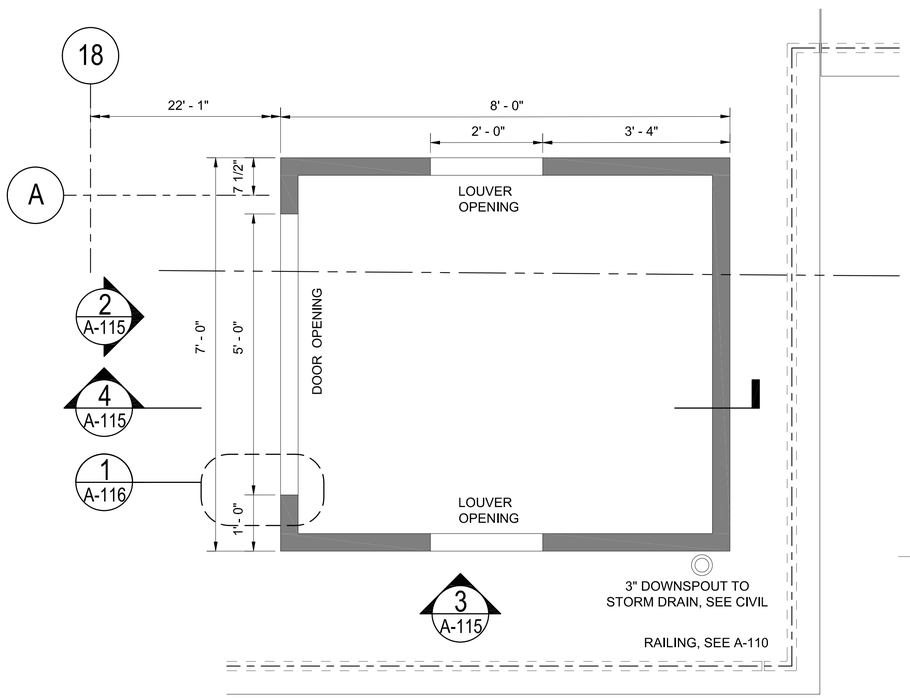
4 A-115 WCLE SECTION
3/4" = 1'-0"



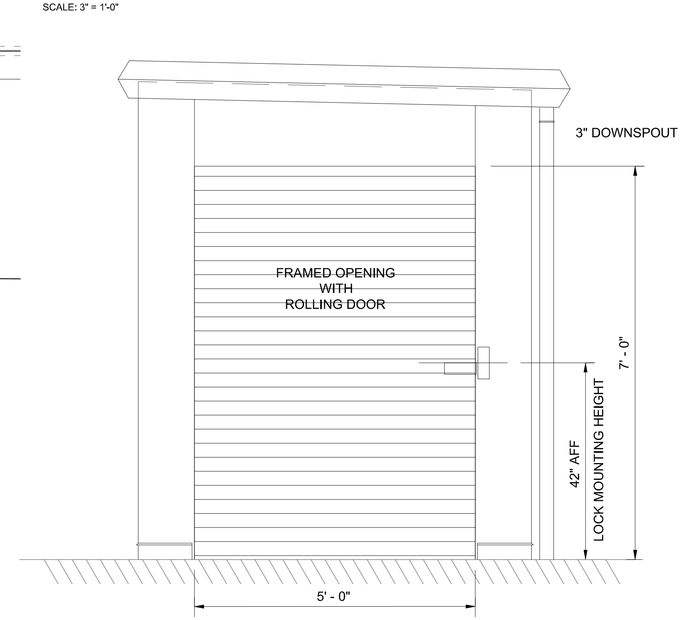
5 A-115 SECTION THRU LOUVER
3" = 1'-0"
SCALE: 3" = 1'-0"



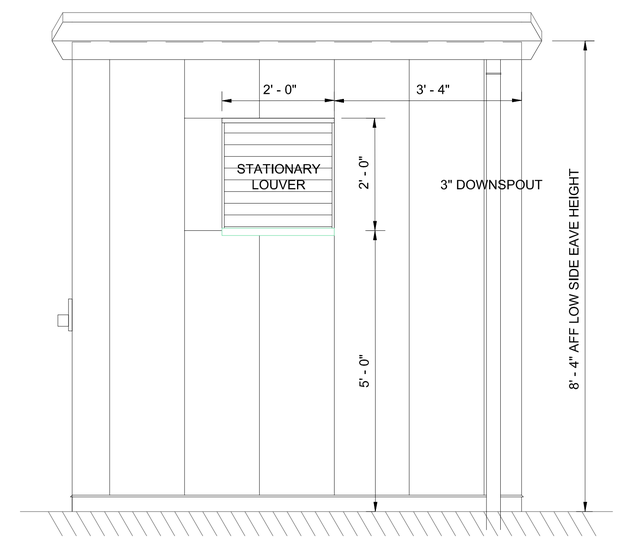
6 A-115 WCLE BASE DETAIL
3" = 1'-0"



1 A-115 ENLARGED WHEEL CHAIR LIFT ENCLOSURE PLAN
3/4" = 1'-0"
SCALE: 3/4" = 1'-0"



2 A-115 WHEEL CHAIR LIFT ENCLOSURE FRONT ELEVATION
3/4" = 1'-0"



3 A-115 WCLE SIDE ELEVATION
3/4" = 1'-0"

NORTH

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National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

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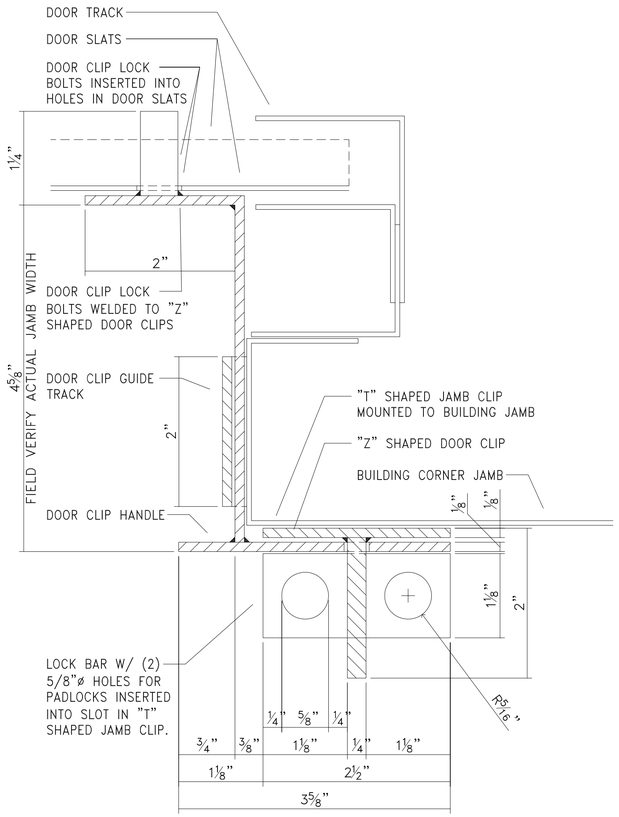
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)
ARCHITECTURAL WHEEL CHAIR LIFT ENCLOSURE & DTLS

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	39 OF 80
Dwg. No.	A-115

SHEETNOTES - WHEEL CHAIR SHED

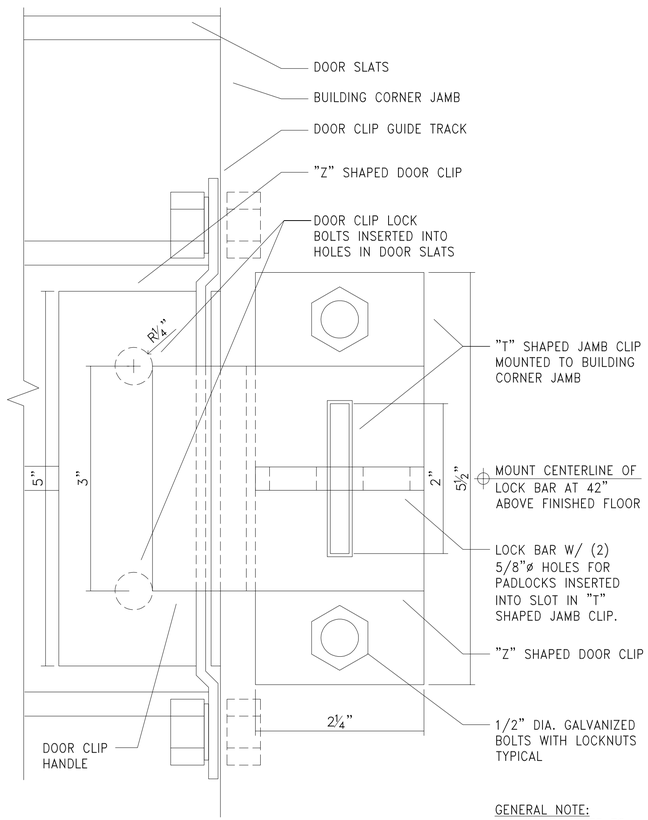
Key Note Number	DESCRIPTION
A01	SEE SPECIFICATIONS FOR MANUFACTURER OF SHED AND ADDITIONAL INFORMATION.



GENERAL NOTE:
ALL COMPONENTS TO BE GALVANIZED STEEL.

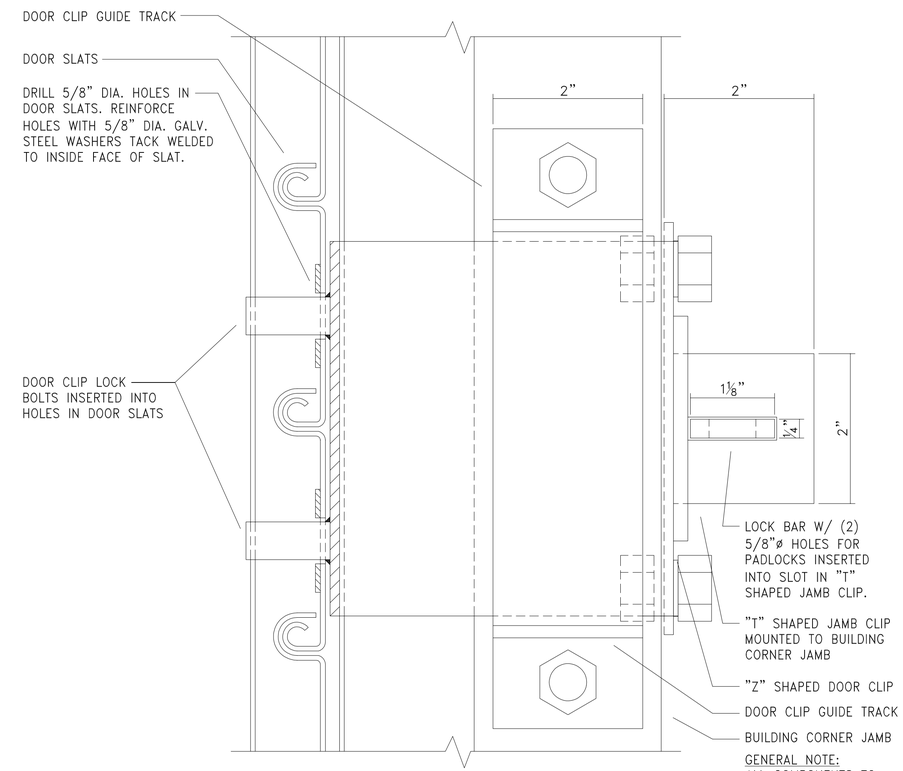
1 A-116 WHEEL CHAIR LIFT ENCLOSURE - LOCK PLAN
12" = 1'-0"

0 1' 2' 3'
SCALE: 12" = 1'-0"



GENERAL NOTE:
ALL COMPONENTS TO BE GALVANIZED STEEL.

2 A-116 WHEEL CHAIR LIFT ENCLOSURE - FRONT ELEVATION
12" = 1'-0"



GENERAL NOTE:
ALL COMPONENTS TO BE GALVANIZED STEEL.

3 A-116 WHEEL CHAIR LIFT ENCLOSURE - SIDE ELEVATION
12" = 1'-0"

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NO.	DESCRIPTION	DATE	BY

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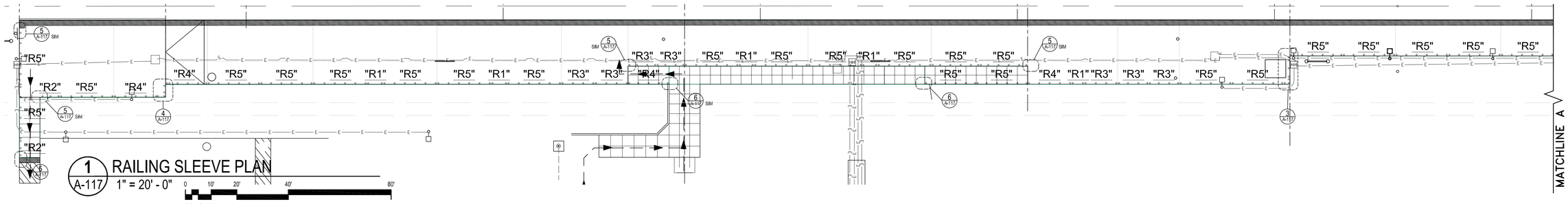
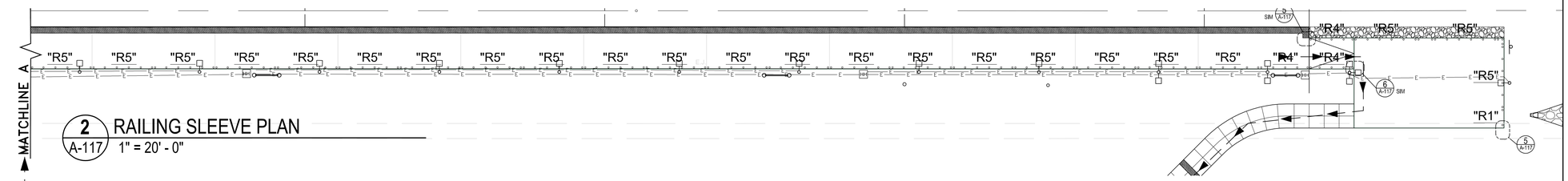
PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)
ARCHITECTURAL WHEEL CHAIR LIFT ENCLOSURE & DTLS

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

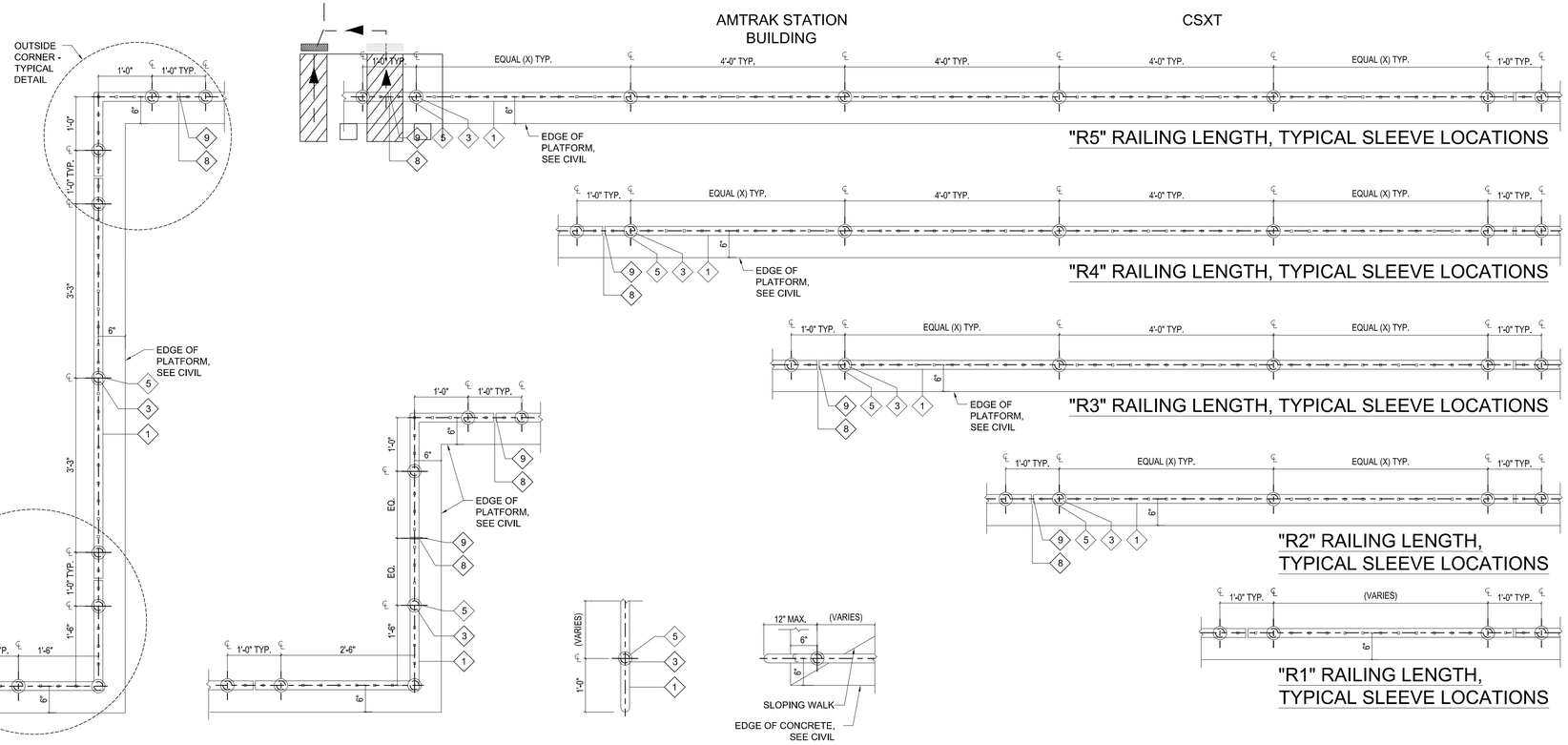
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	40 OF 80
Dwg. No.	A-116



1 A-117 RAILING SLEEVE PLAN
1" = 20' - 0"
SCALE: 1/20" = 1'-0"



2 A-117 RAILING SLEEVE PLAN
1" = 20' - 0"



3 A-117 RAILING & SLEEVE DETAIL
3/4" = 1' - 0"
SCALE: 3/4" = 1'-0"

4 A-117 RAILING & SLEEVE DETAIL
3/4" = 1' - 0"

5 A-117 RAILING & SLEEVE DETAIL
3/4" = 1' - 0"

6 A-117 RAILING & SLEEVE DETAIL
3/4" = 1' - 0"

7 A-117 RAILING & SLEEVE PLAN DETAIL
3/4" = 1' - 0"

KEYNOTES - CONSTRUCTION SITE RAILINGS

NO.	DESCRIPTION
1	1-1/2" DIA GALV AND PTD STEEL RAIL.
3	1-1/2" DIA GALV & PTD STEEL POST BYND, SPACED EVENLY AT 48" OC MAX, TYP.
5	(3" DIA. X 7" H) SLEEVES EMBEDDED 5" W/ 2" OF SLEEVE EXPOSED ABOVE TOP OF CONCRETE. GC TO PLACE SLEEVES IN UNIFORM SPACING PRIOR TO RE/BAR INSTALLATION AND CONCRETE POUR. GC RESPONSABLE FOR COORDINATED RAILING SLEEVE AND RE/BAR SHOP DRAWINGS.
8	1/2" EXPANSION JOINT, SEE SHEET A-110 FOR RAILING DETAILS.
9	PROVIDE WELDED END CAPS $\frac{1}{4}$" THICKNESS W/ $\frac{1}{32}$" EASED EDGES, TYP.

FINISH NOTE

P-1 RAILING COLOR: BLACK, SEMI-GLOSS, EPOXY EXTERIOR PAINT FINISH (SEE SPECIFICATION)

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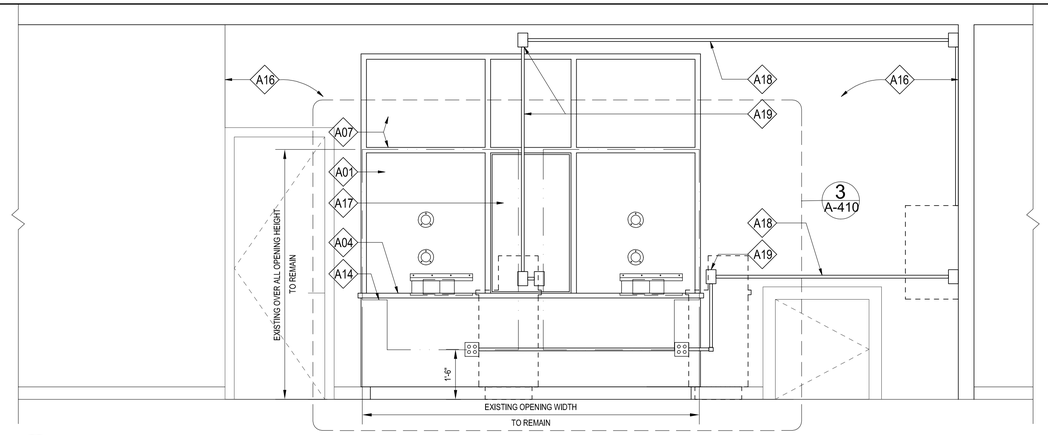
PETERSBURG (PTB) VA
ADA PLATFORM PROGRAM (ADAPP)

ARCHITECTURAL RAILING SLEEVE PLAN & DETAILS

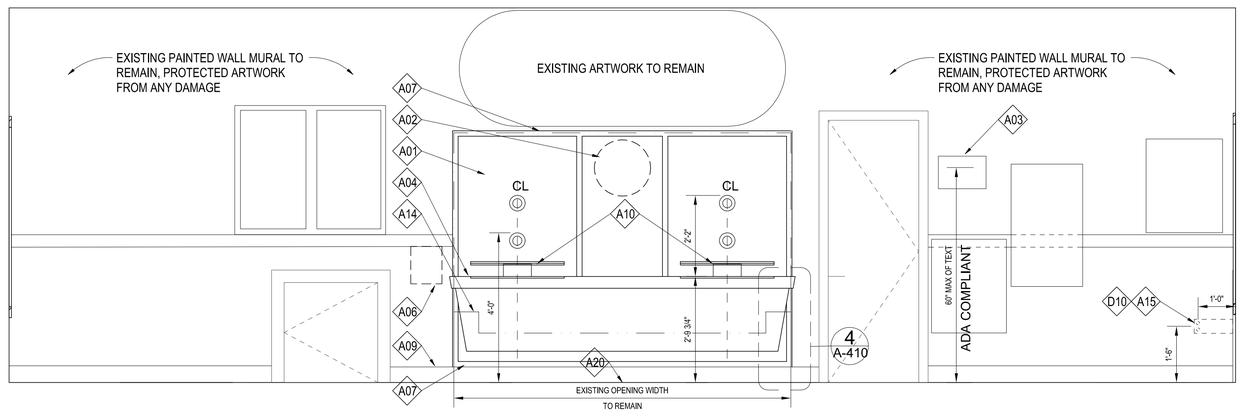
Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	41 OF 80
Dwg. No.	A-117



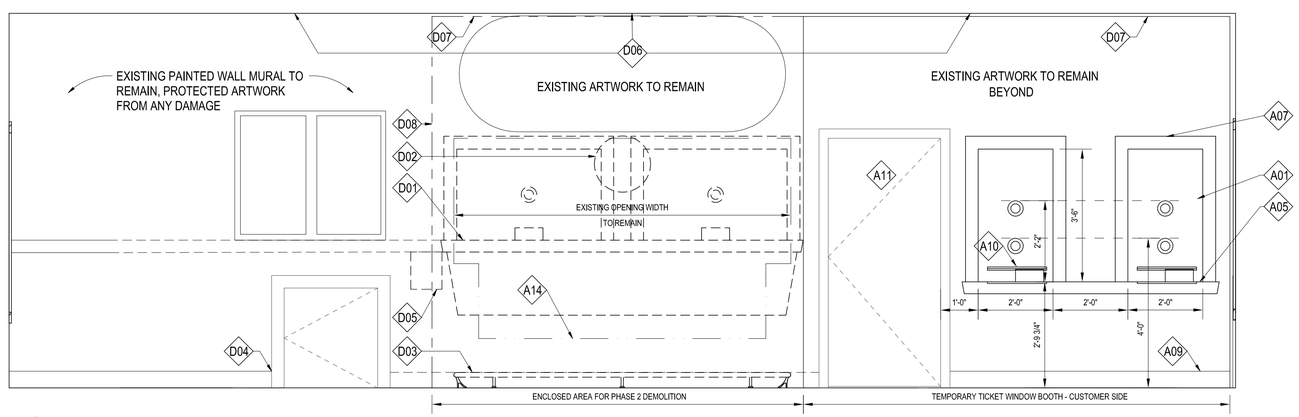
5 A-400 PROPOSED TICKET COUNTER ELEVATION - EMPLOYEE SIDE

1/2" = 1'-0"



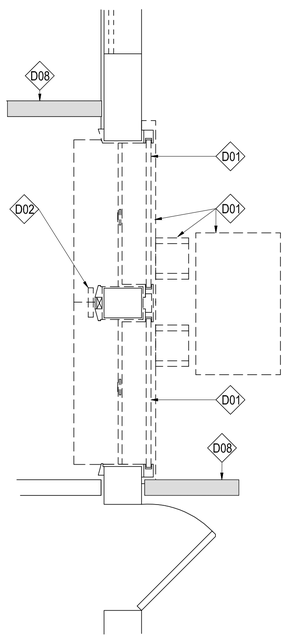
4 A-400 PROPOSED TICKET COUNTER ELEVATION - CUSTOMER SIDE

1/2" = 1'-0"



2 A-400 TEMPORARY PHASED TICKET BOOTH ELEVATION - CUSTOMER SIDE

1/2" = 1'-0"

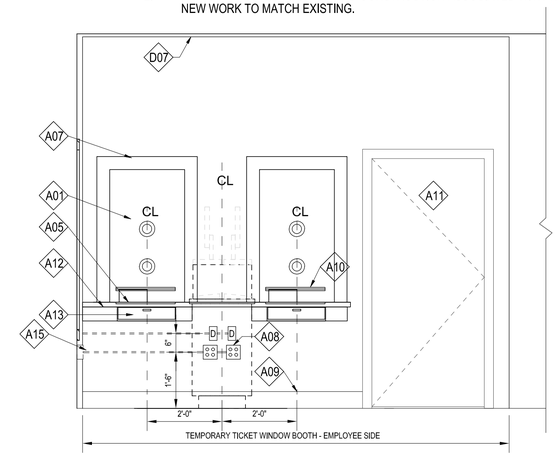


1 A-400 ENLARGED DEMO PLAN

1/2" = 1'-0"

0 1' 2' 4'

SCALE: 1/2" = 1'-0"



3 A-400 TEMPORARY PHASED TICKET BOOTH ELEVATION - EMPLOYEE SIDE

1/2" = 1'-0"

SHEETNOTES - PROPOSED PLAN

Key Note Number	DESCRIPTION
A01	INSTALL NEW BULLET RESISTANT SECURITY GLAZING TO FIT OPENING.
A02	RELOCATE EXISTING CLOCK AT COMPLIANT HEIGHT. INSTALLED AT 70" A.F.F. MAX.
A03	REINSTALL ROOM SIGNAGE, PAINT EXPOSED SURFACES TO MATCH.
A04	NEW FULL TICKET COUNTER TO BE INSTALLED.
A05	NEW TEMPORARY TICKET COUNTER TO BE INSTALLED.
A06	REINSTALL BROCHURE RACK, PAINT EXPOSED SURFACES TO MATCH.
A07	WOOD TRIM PTD. (PLAM PANELS) - PROFILE TO MATCH EXISTING
A08	TEMPORARY ELECTRICAL QUAD OUTLET, PHONE OUTLET, AND DATA OUTLET LOCATION. SEE ELECTRICAL.
A09	NEW WALL BASE TO MATCH EXISTING ADJACENT WALL BASE.
A10	NEW 4"X9" OPENING IN SECURITY GLAZING WITH SLIDING SECURITY GLAZING PANEL.
A11	NEW TEMPORARY DOOR.
A12	PROVIDE GROMMET HOLES & WIRE MANAGEMENT SYSTEM AS FOR DATA, POWER, AND TELEPHONE WIRING.
A13	PROVIDE NEW LOCKABLE UNDER COUNTER DRAWER.
A14	EXISTING CMU WALL BEYOND.
A15	TEMPORARY SURFACE MOUNTED WIRE MOLD FOR TEMPORARY TICKET COUNTER POWER AND DATA. SEE ELECTRICAL..
A16	PAINT EXTENT OF WALL TO MATCH EXISTING
A17	PROVIDE CUSTOM SIZE BULLETIN BOARD, INSET IN WOOD MILLWORK.
A18	EXISTING WIRE MOLDING TO REMAIN, POWER AND DATA SEPARATELY.
A19	PROVIDE JUNCTION BOX AND NEW WIRE MOLDING TO EXTEND EACH SERVICE SEPARATELY TO NEW OUTLET LOCATION.
A20	PROVIDE NEW FLOORING PATCH WORK AT LOCATION OF CANE RAIL MOUNT REMOVAL.

SHEETNOTES - DEMOLITION WORK

Key Note Number	DESCRIPTION
D01	REMOVE EXISTING (2) TICKET COUNTER STATIONS BASE, COUNTER TRIM AND SHUTTER ELEMENTS.
D02	REMOVE AND SALVAGE EXISTING CLOCK.
D03	REMOVE CANE DETECTION RAIL
D04	EXISTING WALL BASE TO REMAIN
D05	REMOVE AND REINSTALL WALL MOUNTED ITEMS TO COMPLY WITH ADA STANDARDS
D06	DO NOT DAMAGE EXISTING WALL MURALS.
D07	STOP TEMPORARY WALLS SHORT OF EXISTING ACOUSTIC TILE CEILING.
D08	LOCATION OF TEMPORARY WALL, ERECTED PHASE TWO.
D09	REMOVE EXISTING OVERHEAD TICKET SHUTTER DOOR AND TRIM.
D10	PENETRATION PATH FOR TEMPORARY TICKET COUNTER POWER AND DATA

GENERAL CONSTRUCTION NOTES

1. NEW WORK TO COMPLY WITH DOTAS 2006 REQUIREMENTS.
2. REPAIR AFFECTED FINISHED AND CONSTRUCTION ASSOCIATED WITH THE NEW WORK TO MATCH EXISTING.

100% ISSUE FOR BID

NO.	DESCRIPTION	DATE	BY

AMTRAK

Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

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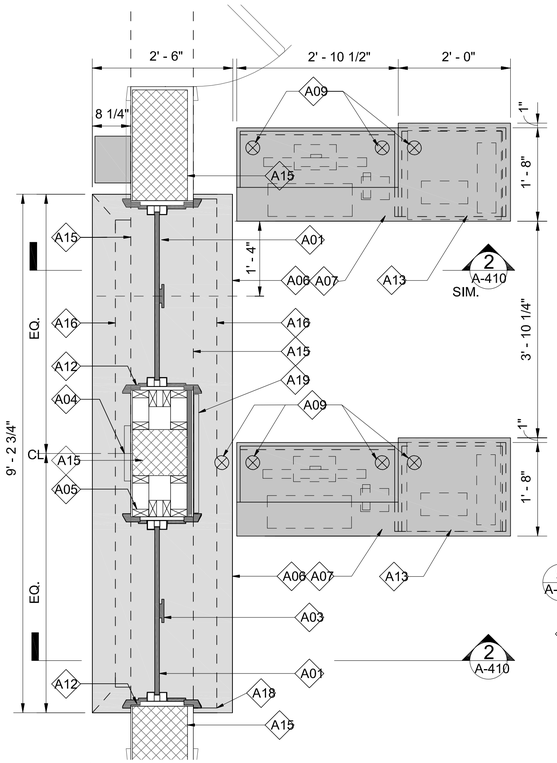
PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

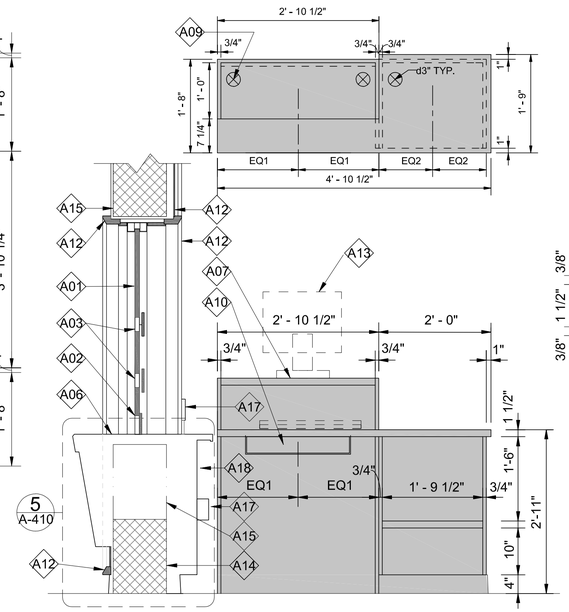
ARCHITECTURAL CASEWORK DEMOLITION & ELEVATIONS

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

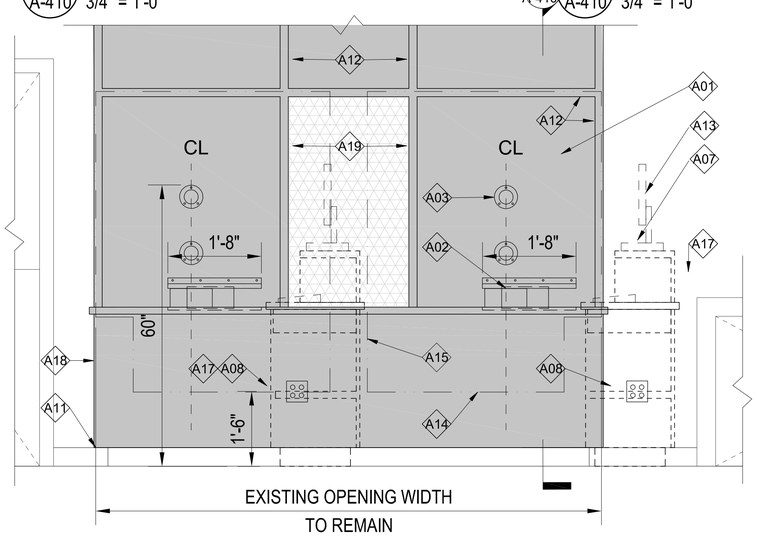
Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	42 OF 80
Dwg. No.	A-400



1 TICKET COUNTER PLAN
A-410 3/4" = 1'-0"

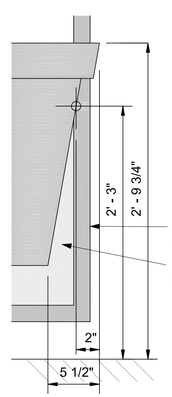


2 TICKET COUNTER SECTION A
A-410 3/4" = 1'-0"



3 TICKET COUNTER SECTION - EMPLOYEE SIDE
A-410 3/4" = 1'-0"

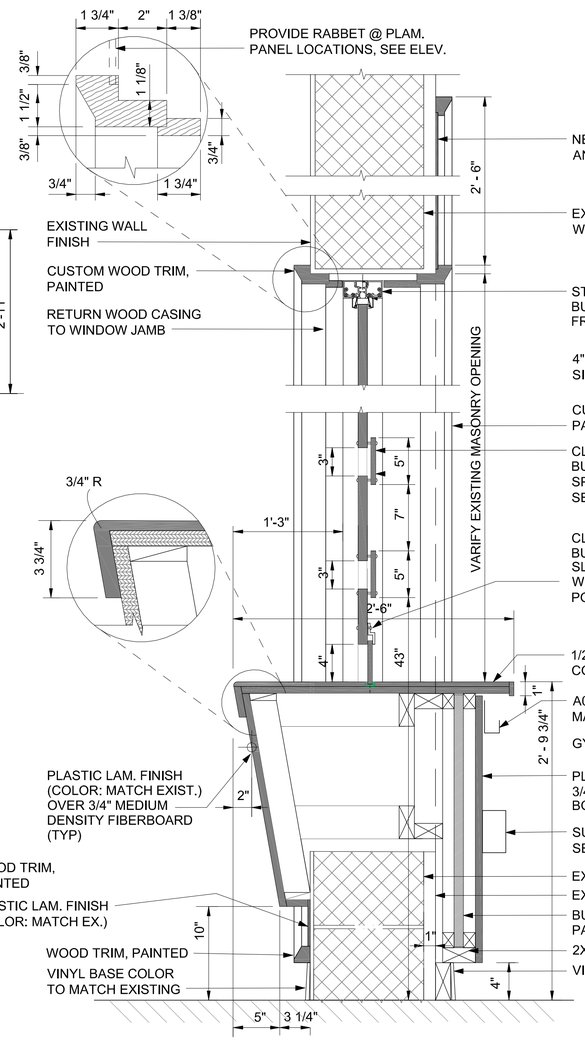
SCALE: 3/4" = 1'-0"



WOOD TRIM, PAINTED

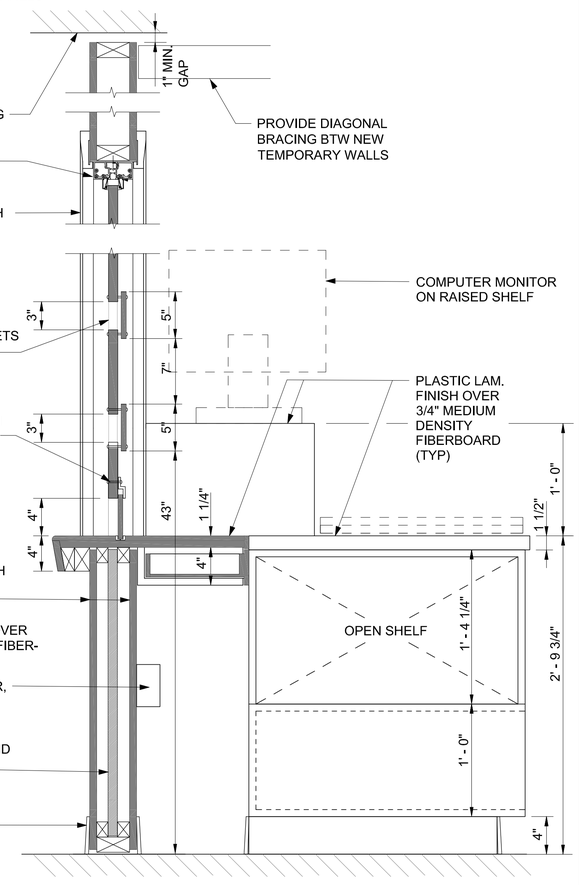
PLASTIC LAM. FINISH (COLOR: MATCH EX.)

4 COUNTER CALLOUT
A-410 1 1/2" = 1'-0"



5 TICKET COUNTER ENLARGED SECTION
A-410 1 1/2" = 1'-0"

SCALE: 1 1/2" = 1'-0"



6 TEMPORARY TICKET COUNTER ENLARGED SECTION
A-410 1 1/2" = 1'-0"

SHEETNOTES - CASEWORK

Key Note Number	DESCRIPTION
A01	INSTALL NEW BULLET RESISTANT SECURITY GLAZING IN CLASS III FRAME AT EACH OPENING.
A02	NEW 4"X9" OPENING IN SECURITY GLAZING WITH SLIDING SECURITY GLAZING PANEL.
A03	NEW BULLET RESISTANT SPEAKER PORT PROVIDED (2) EACH WITHIN SECURITY GLASS.
A04	REINSTALL EXISTING CLOCK AT COMPLIANT HEIGHT, 70" A.F.F. MAX.
A05	NEW BLOCKING.
A06	NEW TICKET COUNTER TO BE INSTALLED.
A07	NEW FREESTANDING CABINETS TO BE INSTALLED & SECURED TO THE FLOOR..
A08	PROPOSED ELECTRICAL QUAD OUTLET, PHONE OUTLET, AND DATA OUTLET LOCATION. (REFER TO ELECTRICAL DRAWINGS)
A09	PROVIDE GROMMET HOLES AND WIRE MANAGEMENT SYSTEM AS REQUIRED FOR DATA, POWER, AND TELEPHONE WIRING.
A10	PROVIDE NEW LOCKABLE UNDER COUNTER DRAWER.
A11	NEW WALL BASE TO MATCH EXISTING ADJACENT WALL BASE.
A12	PROVIDE CUSTOM WOOD TRIM CASING PAINTED (PLAM PANELS) AT TICKET WINDOW OPENING.
A13	COMPUTER, KEY BOARD, PHONE AND PRINTER EQUIPMENT AT TICKET STATION, AMTRAK PROVIDED AND INSTALLED.
A14	EXISTING CMU WALL MODIFIED FOR LOWER COUNTER TOP.
A15	EXISTING MASONRY WALL STRUCTURE TO REMAIN.
A16	FACE OF NEW PLAM. MILLWORK BELOW COUNTER.
A17	SURFACE MOUNTED FOR TICKET COUNTER POWER AND DATA. SEE ELECTRICAL.
A18	NEW MILLWORK COUNTER RETURN TO EXISTING WALL, BOTH SIDES TYPICAL.
A19	PROVIDE NEW BULLETIN BOARD, SURFACE APPLIED W/ GLUE AND FASTNERS AS REQUIRED.

100% ISSUE FOR BID

NO.	DESCRIPTION	DATE	BY

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Office of Chief Engineer

National Railroad Passenger Corporation
30th Street Station, Philadelphia, Pennsylvania 19104

Approved	Date

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PETERSBURG (PTB) VA
ADA PLATFORM
PROGRAM (ADAPP)

ARCHITECTURAL CASEWORK PLAN & SECTIONS

Designed: WN | Drawn: WG | Checked: JC | Date: 2021-02-22

Project Code:	PTB, VA
WBS:	C.EN.100694.0669
Sheet No.	43 OF 80
Dwg. No.	A-410