THE GOLD STAR
MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

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YORK TOLL PLAZA
MM 7.9 to MM 9.6
CONTRACT 2018.20

VOLUME 3 OF 3

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MECHANICAL AND ELECTRICAL

UTILITIES

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HNTB

CONTRACT 2018.20

Date:7/23/2018

Filename: ...\d0259637\001B_Title_03.dgn

TOLL PLAZA AND TUNNEL STRUCTURAL NOTES:

GENERAL NOTE:

ALL WORK SHALL CONFORM TO THE FOLLOWING:

- STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISIONS OF 2014
- STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR HIGHWAY AND BRIDGES, NOVEMBER 2014
- MAINE TURNPIKE AUTHORITY STANDARD AND PROJECT SPECIAL PROVISIONS

DESIGN CODES AND REFERENCES:

CONCRETE CASH LANE SLABS, ORT SLABS, BUMPERS, TUNNEL AND TUNNEL STAIRCASE STRUCTURES:

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (7TH EDITION WITH 2015 INTERIMS)
- AASHTO BRIDGE DESIGN GUIDE SPECIFICATIONS FOR GFRP-REINFORCED CONCRETE BRIDGE DECKS AND TRAFFIC RAILINGS (2009)

ORT SPACE FRAME FOUNDATIONS, CCTV POLE AND LIGHT POLE FOUNDATIONS:

- AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS (6TH EDITION)

CANOPIES AND STAIR ENCLOSURES:

- INTERNATIONAL BUILDING CODE (2015)
- ASCE 7 - MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (2010)
- AISC MANUAL OF STEEL CONSTRUCTION - LRFD (14TH EDITION)
- ACI 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (2014)
- "STATE OF MAINE GROUND SNOW LOAD BY TOWN" (2015)

DESIGN LOADS AND CRITERIA:

CONCRETE CASH LANE SLABS, ORT SLABS, TUNNEL AND TUNNEL STAIRCASE STRUCTURES:

MAINE MODIFIED LIVE LOAD: HL-93 LIVE LOAD PLUS 25% INCREASE IN TRUCK LOAD FOR STRENGTH I LIMIT STATE

CANOPIES AND STAIR ENCLOSURES:

- GROUND SNOW LOAD: Pg 50 PSF
- WIND: BASIC WIND SPEED (V-ULT) = 121 MPH FOR RISK CATEGORY II

MATERIALS:

CONCRETE (STRUCTURAL)

- CLASS AAA - f'c=4500 psi. THE CONCRETE MIX FOR CASH LANE STRUCTURAL SLABS AND ORT SLABS SHALL CONTAIN 5 LBS PER CUBIC YARD OF SYNTHETIC FIBER REINFORCEMENT.

PRECAST CONCRETE (E.G., FOR PRECAST TUNNEL AND PRECAST TUNNEL STAIRCASE ELEMENTS)

- f'c = 5000 (REFER TO STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 534 AND 712.061)

STEEL REINFORCEMENT:

- ASTM A615 AND ASTM A775 GRADE 60 (EPOXY-COATED)
- ASTM A884 CLASS A (EPOXY-COATED WELDED WIRE FABRIC)

GFRP REINFORCEMENT

- ASLAN 100 GFRP GLASS FIBER REINFORCED POLYMER (GFRP) REINFORCING BARS AS MANUFACTURED BY HUGHES BROTHERS, OR APPROVED EQUAL.
- FOR #6 BAR:
  MINIMUM TENSILE STRENGTH: 100 KSI
  MINIMUM TENSILE MODULUS OF ELASTICITY: 6700 KSI

STRUCTURAL STEEL:

HOLLOW STRUCTURAL STEEL:
- ASTM A500, GRADE B (Fy = 46,000 PSI)

W-SHAPES:
- ASTM A992 GRADE 50 (Fy = 50,000 PSI)

ALL OTHER STEEL:
- ASTM A709 GRADE 36 (Fy = 36,000 PSI) UNLESS NOTED OTHERWISE

CANOPY ANCHOR RODS: ASTM F1554 GRADE 55 (Fy = 55,000 PSI)

STAIR FRAMING DESIGN AT TUNNEL STAIRCASES:

1) STEEL FRAMING INCLUDING CONNECTIONS AND HSS SUPPORTS FOR TUNNEL STAIRCASES AND LANDINGS SHALL BE DESIGNED AND PROVIDED BY THE STAIR FABRICATOR. DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.

2) EMBEDDED PLATES AND SHEAR STUDS IN PRECAST SECTIONS FOR SUPPORT OF STAIRS SHALL BE INCLUDED IN THE DESIGN.

3) STAIRS SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
-DEAD LOAD: ALL STEEL COMPONENTS AND CONCRETE INFILL
-LIVE LOAD: 100 PSF UNIFORM LOAD OR 300 LB CONCENTRATED LOAD APPLIED OVER AN AREA OF 4 SQUARE INCHES, WHICHEVER RESULTS IN A LARGER SIZE. THE CONCENTRATED LOAD NEED NOT BE APPLIED CONCURRENTLY WITH THE UNIFORM LOAD.

4) REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

CONCRETE CLEAR COVER FOR REINFORCEMENT (UNLESS NOTED OTHERWISE):

PRECAST CONCRETE STRUCTURES

EXTERIOR REINFORCEMENT	2"
INTERIOR REINFORCEMENT	1½"

CAST-IN-PLACE CONCRETE STRUCTURES

EXTERIOR REINFORCEMENT	2"
INTERIOR REINFORCEMENT	1½"
CONCRETE CAST AGAINST EARTH	3"

CONSTRUCTION NOTES:

CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED JANUARY 31, 2017 AND THE FOLLOWING:

1) CHAMFER ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

2) ALL EXPOSED CONCRETE SURFACES SHALL RECEIVE A CLEAR PROTECTIVE COATING PER SECTION 515 OF THE SPECIFICATIONS.

3) CONSTRUCTION JOINTS (CJ) ALLOWED ONLY WHERE SHOWN OR OTHERWISE APPROVED BY THE ENGINEER.

4) PREMOLDED JOINT FILLER SHALL CONFORM TO ASTM D1752, TYPE II. PREMOLDED JOINT FILLER SHALL BE A NON-STAINING, NON-BLEEDING TYPE. PROVIDE "CERAMAR" MANUFACTURED BY W.R. MEADOWS, OR AN APPROVED EQUAL. CORK IS NOT AN ACCEPTABLE JOINT FILLER MATERIAL.

5) SELF-LEVELING ELASTOMERIC SEALANT SHALL CONFORM TO ASTM C920, GRADE P. ELASTOMERIC SEALANT SHALL BE SIKA FLEX 2C SL OR AN APPROVED EQUAL. SEALANT SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

BAR SIZE	DEVELOPMENT LENGTH Ld (INCHES)				CLASS B SPLICE LENGTH (INCHES)			
	1.5"/2" CONC COVER		3" CONC COVER		1.5"/2" CONC COVER		3" CONC COVER	
	TOP BARS EPOXY	OTHER EPOXY	TOP BARS EPOXY	OTHER EPOXY	TOP BARS EPOXY	OTHER EPOXY	TOP BARS EPOXY	OTHER EPOXY
#4	22	17	22	17	28	22	28	22
#5	27	21	27	21	35	27	35	27
#6	32	25	32	25	42	32	42	32
#7	46	41	41	36	60	53	53	47
#8	58	51	46	41	75	67	60	53

GEOTECHNICAL REPORT DESIGN RECOMMENDATIONS:

ALLOWABLE BEARING PRESSURE: 5000 PSF

MODULUS OF SUBGRADE REACTION: 250 PCI FOR CASH LANE AND ORT CONCRETE SLAB DESIGN

THE GEOTECHNICAL REPORT WILL BE PROVIDED TO THE CONTRACTOR UPON REQUEST.

TOLL BOOTH ROOFS:

THE TOLL BOOTH ROOFS ARE NOT CAPABLE OF SUPPORTING CONSTRUCTION LOADS (MATERIALS, EQUIPMENT, CONSTRUCTION WORKERS, ETC). THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY NECESSARY STAGING OR TEMPORARY SUPPORTS FOR ACCESSING THE TOLL BOOTH ROOFS.

Date: 7/23/2018

Filename: ...\294_(S-01) Notes_Bridge01.dgn

Scale:

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CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

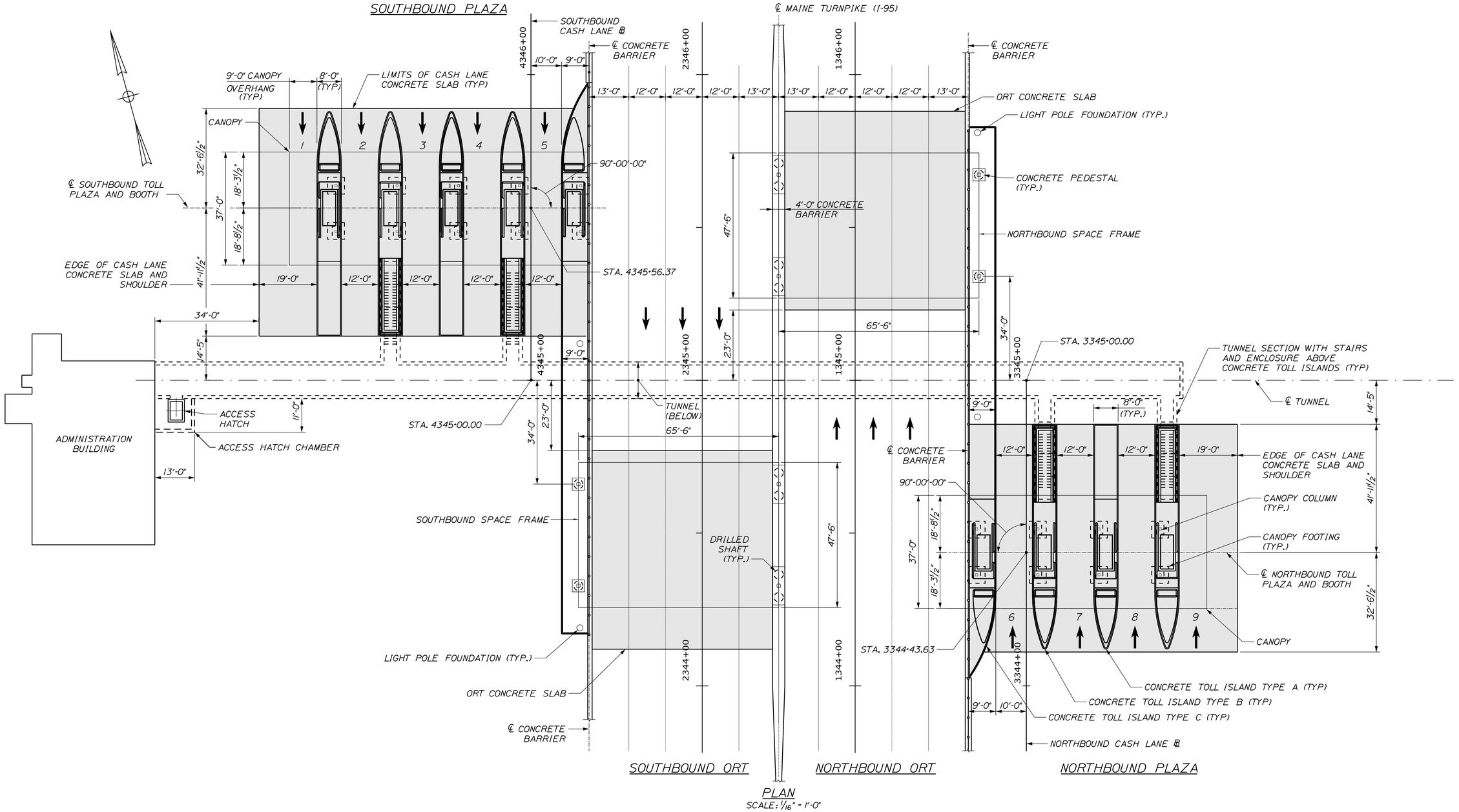
YORK TOLL PLAZA

STRUCTURAL GENERAL NOTES

SHEET NUMBER: S-01

CONTRACT: 2018.20

Date:7/23/2018



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

Scale:
16 0 16 32
Scale of Feet

No.	Revision	By	Date

Designed by:

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

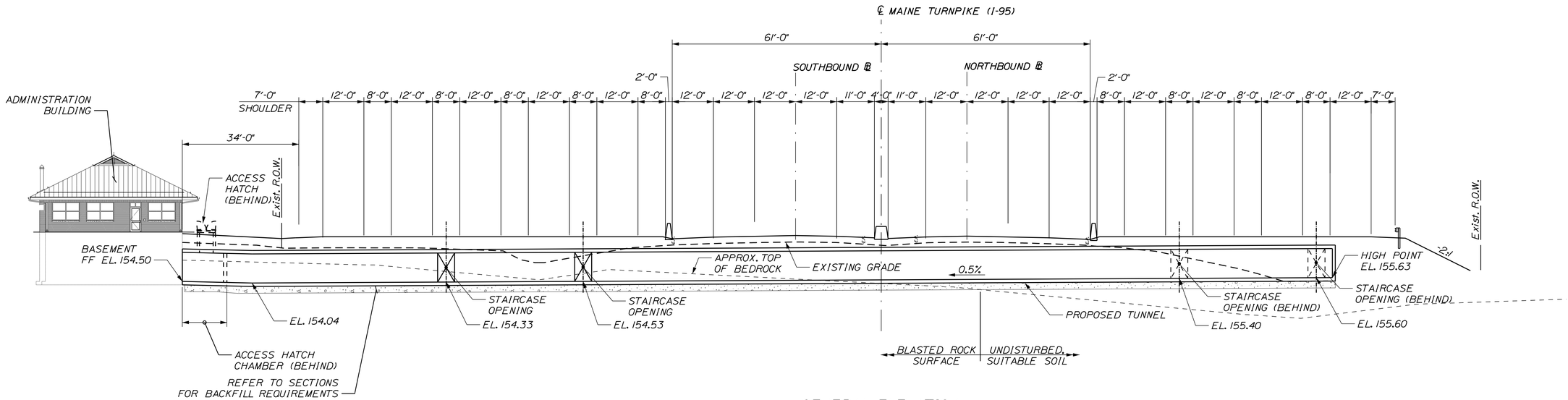
YORK TOLL PLAZA

STRUCTURAL GENERAL PLAN

SHEET NUMBER: S-02

CONTRACT:2018.20

Filename: ...\295_(S-02) Structural General Plan 1.dgn



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

NOTES:
1. SEE CONSTRUCTION STAGING PLANS FOR CONSTRUCTION STAGES AND TRAFFIC MANAGEMENT.
2. THE CONTRACTOR IS ALERTED TO THE POTENTIAL FOR UNSUITABLE SOILS AT THE EAST END OF TUNNEL WHERE WETLANDS EXIST. REMOVE UNSUITABLE SOILS AND REPLACE WITH SUITABLE MATERIAL IN ACCORDANCE WITH SPECIFICATIONS.
3. REFER TO SHEETS CS-01 THROUGH CS-05 FOR CONSTRUCTION STAGING PLANS.

Scale: 16 0 16 32 Scale of Feet

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YORK TOLL PLAZA

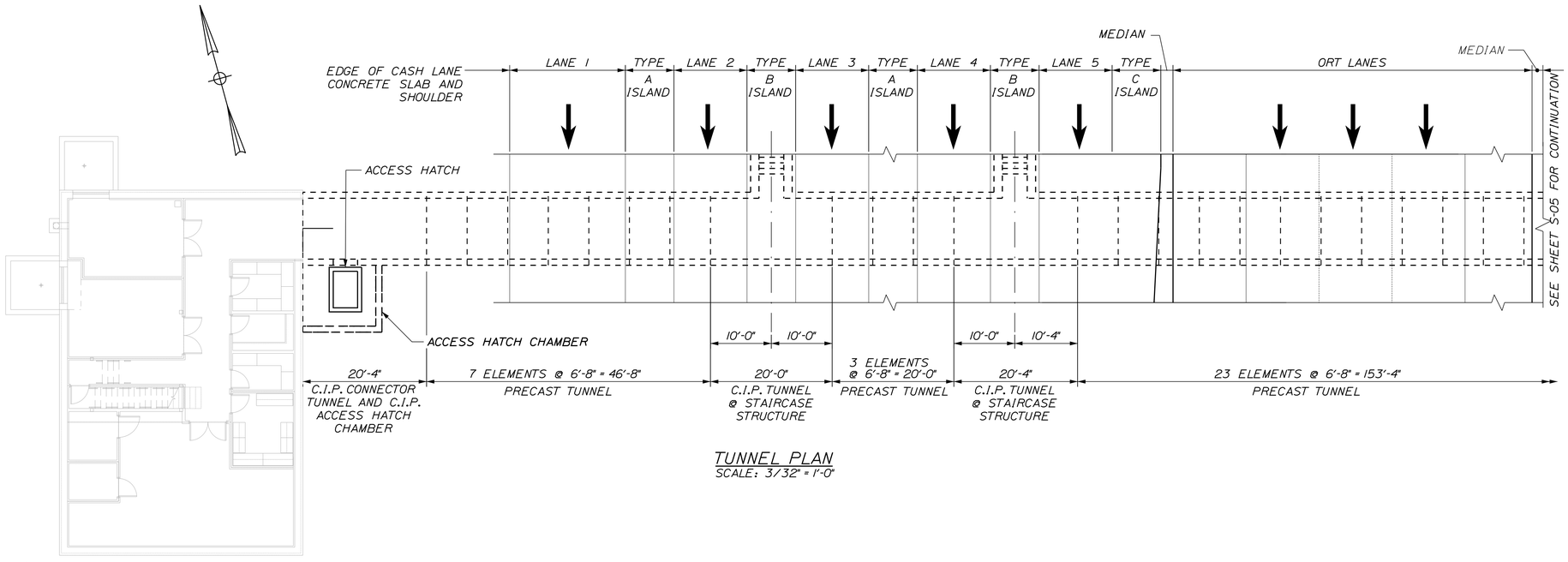
STRUCTURAL GENERAL ELEVATION

SHEET NUMBER: S-03

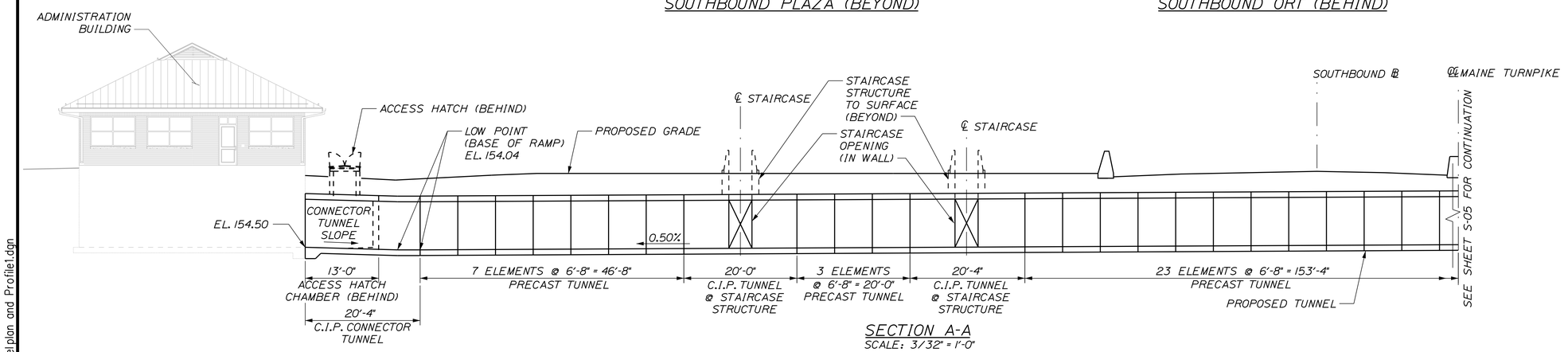
CONTRACT:2018.20

Date:7/23/2018

Filename: ...\296_(S-03) Structural General Elevation 1.dgn



TUNNEL PLAN
SCALE: 3/32" = 1'-0"



SECTION A-A
SCALE: 3/32" = 1'-0"

NOTES:
1. EXACT LENGTHS OF PRECAST TUNNEL ELEMENTS AND CAST-IN-PLACE (C.I.P.) TUNNEL STRUCTURES TO BE SELECTED BY CONTRACTOR TO SUIT HIS MEANS AND METHODS SUBJECT TO APPROVAL OF ENGINEER. HOWEVER, MEASUREMENT FOR PAYMENT FOR C.I.P. PORTIONS SHALL NOT EXCEED DIMENSIONS SHOWN ON THE DRAWINGS.
2. THE CONTRACTOR MAY ELECT TO USE A CAST-IN-PLACE CLOSURE POUR (NOT SHOWN) BETWEEN ADJACENT LENGTHS OF PRECAST TUNNEL ELEMENTS IF REQUIRED TO FACILITATE THE CONSTRUCTION STAGING PLAN. THE CLOSURE POUR, IF USED, SHALL HAVE THE SAME CONCRETE MIX DESIGN, WALL AND SLAB THICKNESSES, REINFORCEMENT SIZE AND SPACING AND WATERPROOFING DETAILS AS THE CAST-IN-PLACE TUNNEL TO STAIRCASE CONNECTIONS SHOWN HEREIN. (SEE SHEET S-12). THE CAST-IN-PLACE CLOSURE POUR (IF USED) SHALL NOT BE MEASURED SEPARATELY FOR PAYMENT BUT RATHER SHALL BE INCLUDED IN THE CONTRACTOR'S LUMP SUM PRICE FOR PRECAST CONCRETE TUNNEL.
3. REFER TO SHEET S-06 FOR DETAILS OF PRECAST TUNNEL ELEMENTS.
4. REFER TO SHEETS S-07 THOUGH S-11 FOR DETAILS OF C.I.P. CONNECTOR TUNNEL INCLUDING ACCESS HATCH.
5. REFER TO SHEET S-12 THROUGH S-14 FOR DETAILS OF STAIRCASE STRUCTURES.
6. REFER TO SHEET S-06 FOR TUNNEL PENETRATION DETAILS, WHICH ARE APPLICABLE TO BOTH PRECAST AND CAST-IN-PLACE TUNNEL SECTIONS.

Scale: 8 0 8 16 Scale of Feet

No.	Revision	By	Date

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL
PLAN AND PROFILE - 1 OF 2

SHEET NUMBER: S-04

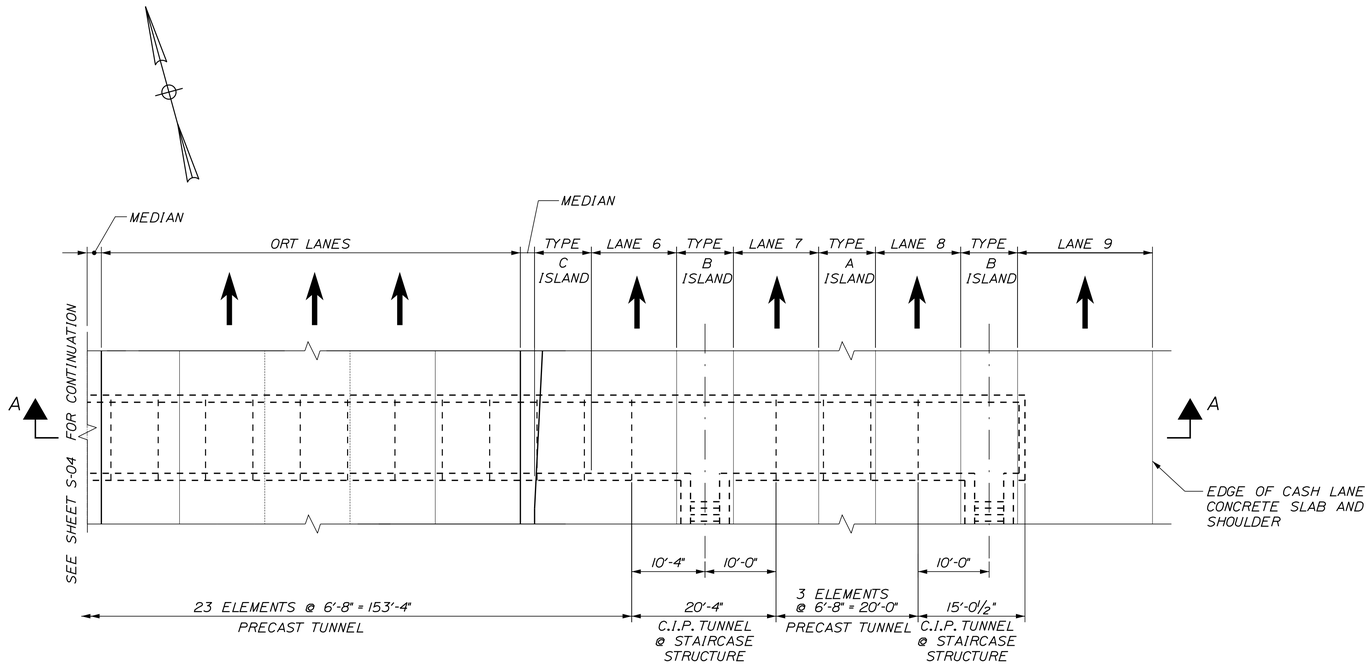
CONTRACT:2018.20

297 OF 489

Date:7/23/2018

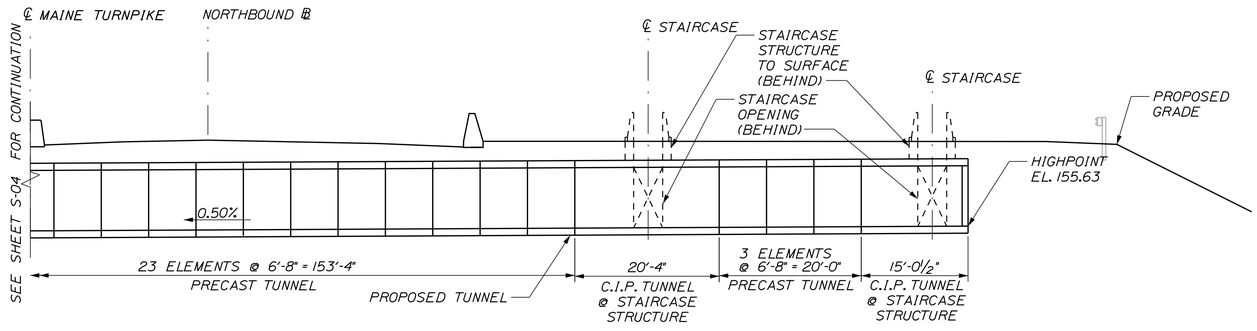
Filename: ...\297_(S-04) Tunnelplan and Profile1.dgn

NOTES:
1. REFER TO SHEET S-04



TUNNEL PLAN
SCALE: 3/32" = 1'-0"

NORTHBOUND ORT (BEYOND) NORTHBOUND PLAZA (BEHIND)



SECTION A-A
SCALE: 3/32" = 1'-0"

Date:7/23/2018

Filename: ...\298_(S-05) Tunnelplan and Profile2.dgn

Scale:
8 0 8 16
Scale of Feet

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

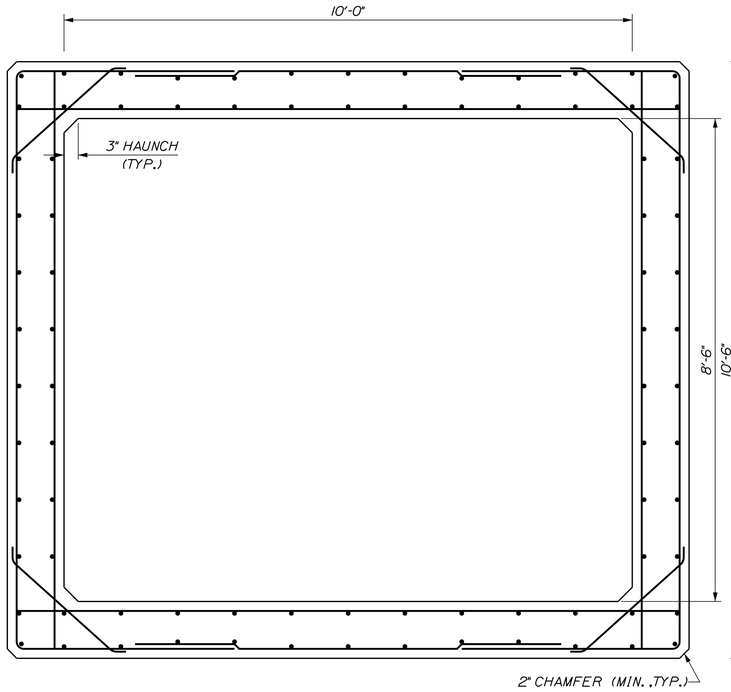
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

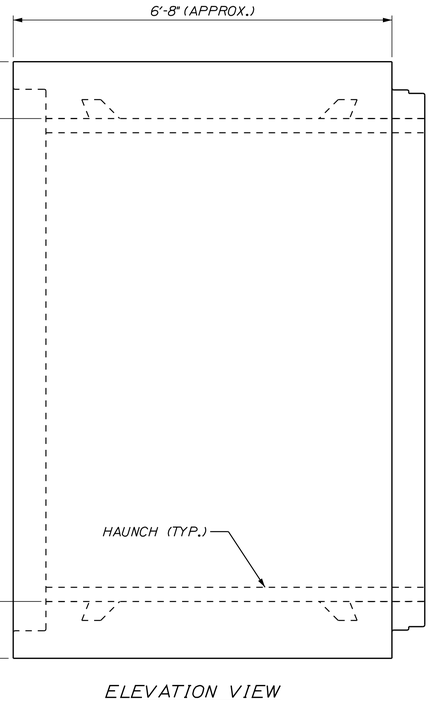
TUNNEL
PLAN AND PROFILE - 2 OF 2

SHEET NUMBER: S-05

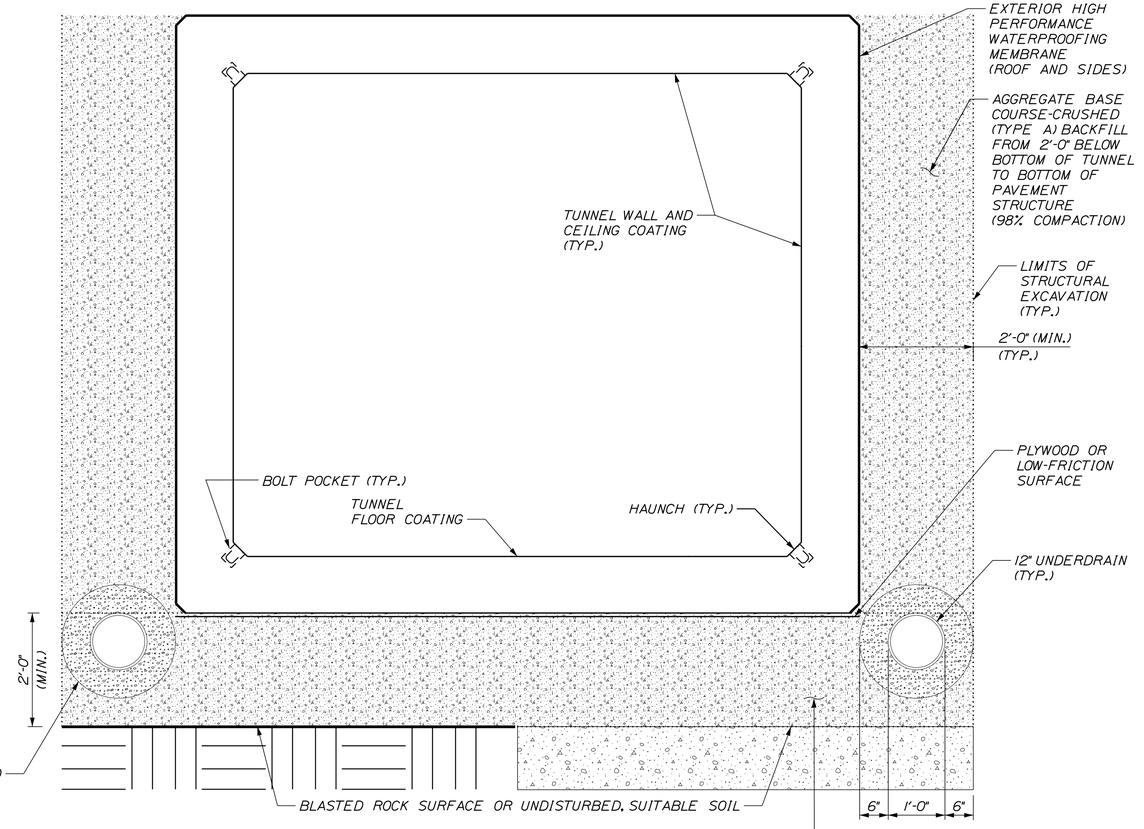
CONTRACT:2018.20



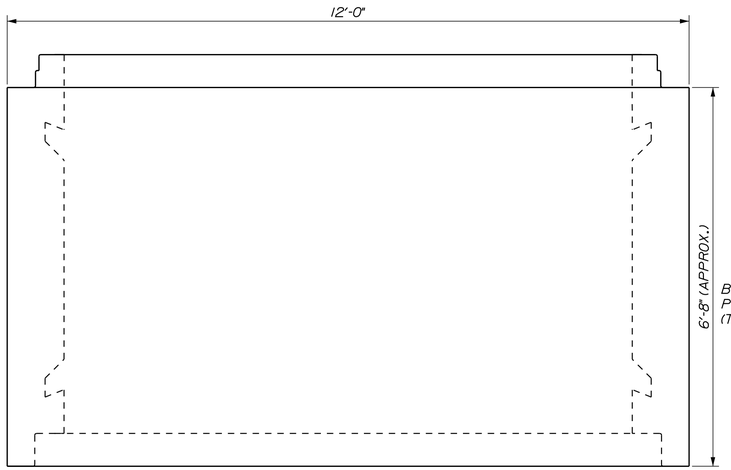
TUNNEL SECTION
3/4" = 1'-0"



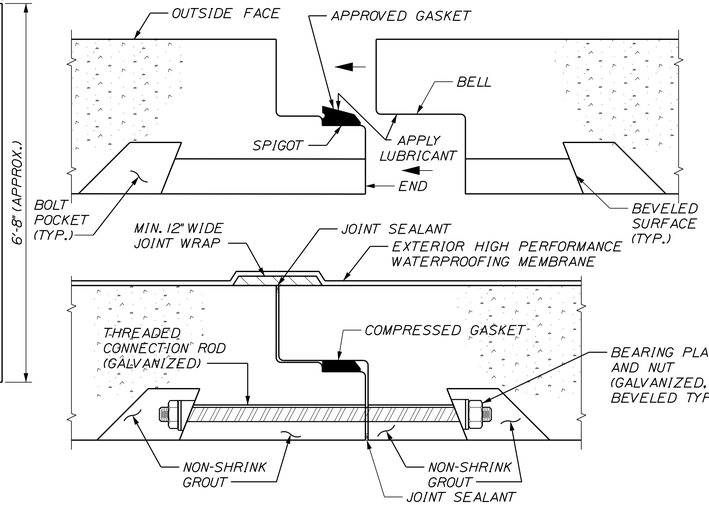
ELEVATION VIEW
3/4" = 1'-0"



TUNNEL SECTION AS INSTALLED
3/4" = 1'-0"
(REINFORCEMENT NOT SHOWN FOR CLARITY)

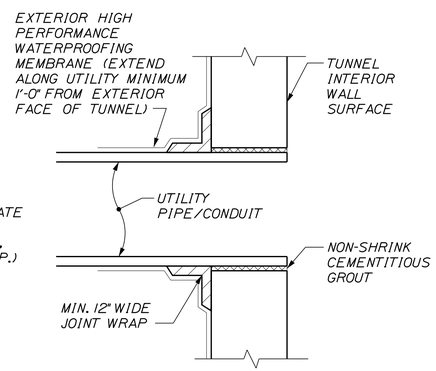


PLAN VIEW
3/4" = 1'-0"



REINFORCEMENT NOT SHOWN FOR CLARITY.

BOLT POCKET/JOINT/GASKET DETAIL
N.T.S.



TUNNEL UTILITY PENETRATION DETAIL
N.T.S.

NOTES:

1. SLAB AND WALL THICKNESS AND REINFORCEMENT SHOWN ARE FOR REFERENCE PURPOSES ONLY. PRECAST TUNNEL ELEMENTS SHALL BE DESIGNED BY THE CONTRACTOR'S PRECAST MANUFACTURER IN ACCORDANCE WITH SPECIFICATIONS. INSIDE DIMENSIONS ARE MANDATORY.
2. JOINT/GASKET DETAILS SHOWN FOR GRAPHICAL PURPOSES ONLY. JOINT/GASKET DETAILS TO BE DESIGNED BY CONTRACTOR'S PRECAST MANUFACTURER TO BE WATERTIGHT WHERE "WATERTIGHT" IS DEFINED AS NO DISCERNABLE LEVEL OF MOISTURE OR DAMPNESS IN THE TUNNEL.
3. GASKETS SHALL BE PROVIDED FROM SUPPLIER IN CONTINUOUS (ONE-PIECE) FRAMES THAT ENCIRCLE THE ENTIRE JOINT CROSS SECTION.
4. CONTRACTOR TO SELECT EXACT LENGTH OF PRECAST TUNNEL ELEMENTS TO SUIT HIS MEANS AND METHODS WITH CONSIDERATION TO LOCATION OF PENETRATIONS.
5. CONTRACTOR SHALL USE PLYWOOD OR A LOW-FRICTION SURFACE METHOD TO ENSURE ROCKS AND DEBRIS DO NOT ENTER TUNNEL JOINTS DURING INSTALLATION.
6. CONTRACTOR TO SELECT DIMENSIONS, NUMBER AND LOCATIONS OF BOLT POCKETS (CONNECTION RODS) TO ACHIEVE WATERTIGHTNESS CRITERIA ABOVE AND TO PREVENT DAMAGE TO TUNNEL ELEMENTS (E.G., LOCALIZED SPALLING OR CRACKING, ETC.).
7. COORDINATE LOCATIONS OF TUNNEL PENETRATIONS PRIOR TO CASTING AND DESIGN AND PLACE REINFORCEMENT ACCORDINGLY. UTILITY PENETRATIONS MUST BE MINIMUM 1'-0" CLEAR OF JOINTS BETWEEN SEGMENTS.

Date:7/23/2018

Filename: ...\299_(S-06) TunnelCross Secton & Connection Details 1.dgn

Scale: AS NOTED

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

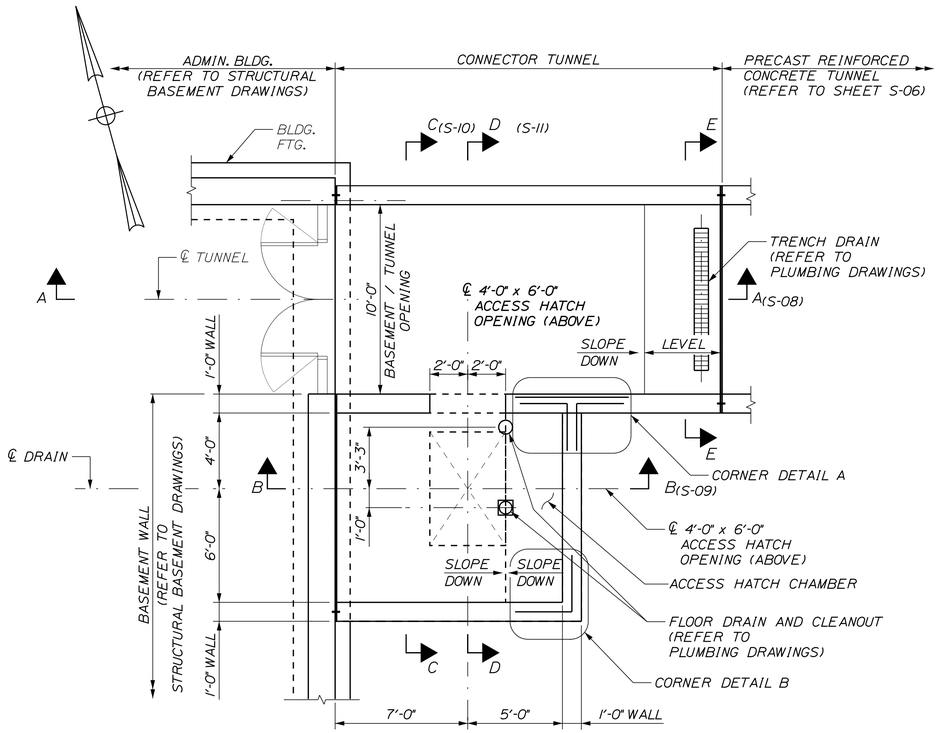
YORK TOLL PLAZA

PRECAST TUNNEL ELEMENTS
CROSS SECTION & CONNECTION DETAIL

SHEET NUMBER: S-06

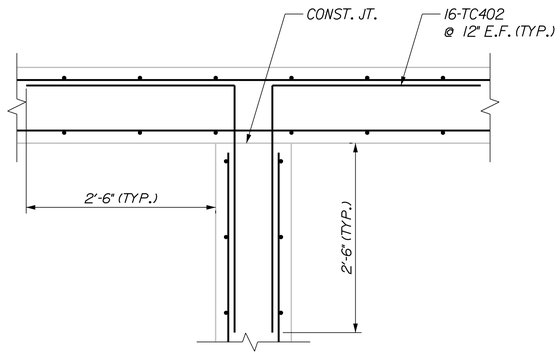
CONTRACT:2018.20

NOTE:
1. REFER TO SHEET S-15 FOR REINFORCEMENT SCHEDULE.

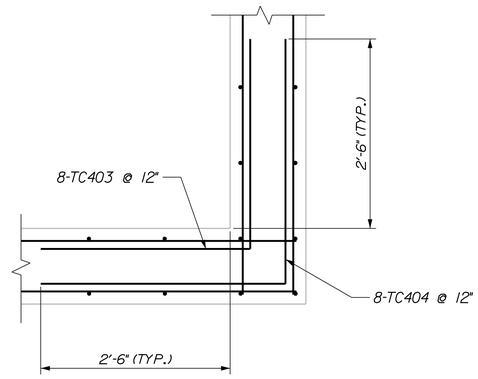


NOTE:
REINFORCEMENT NOT SHOWN FOR CLARITY.

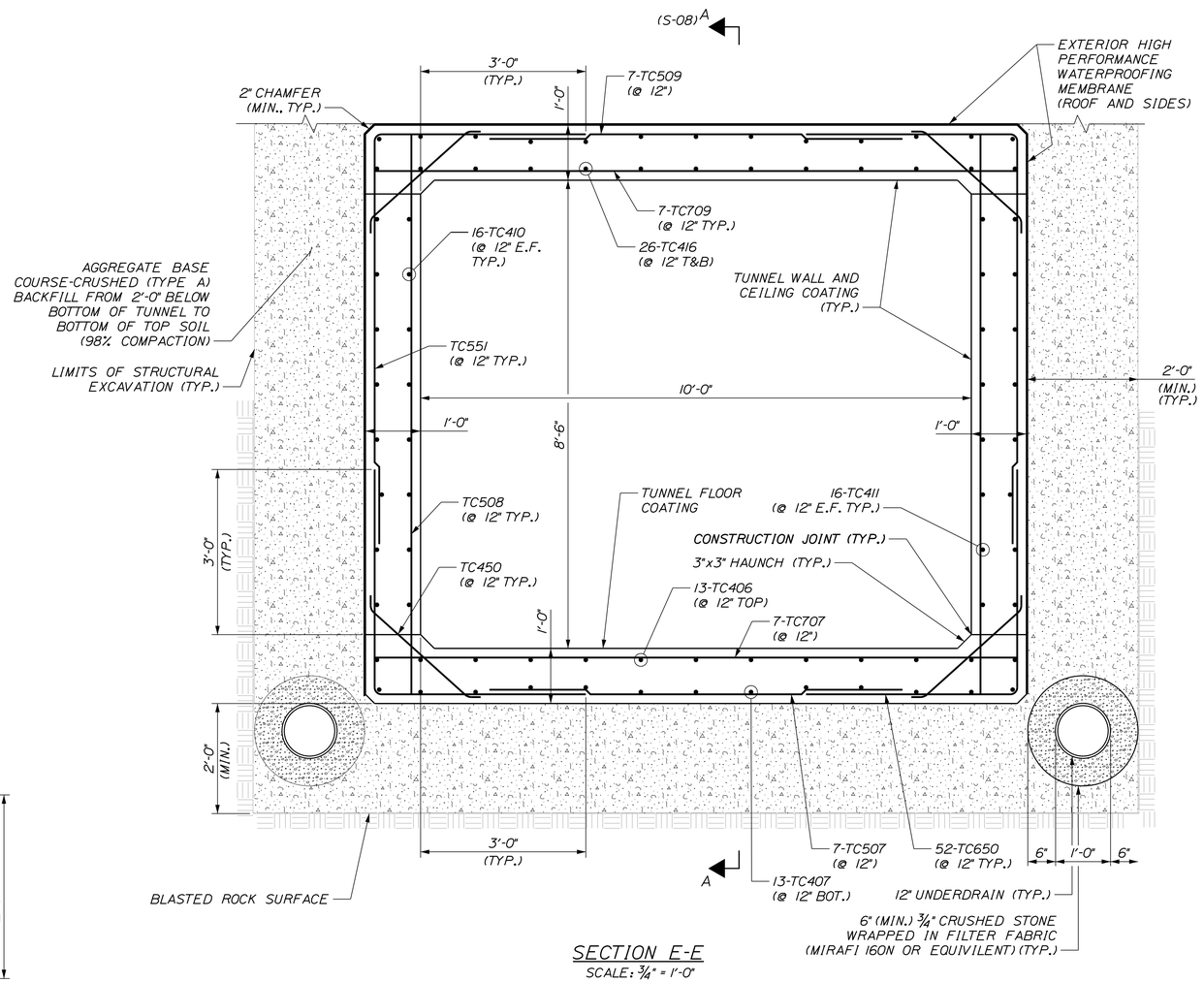
CONNECTOR TUNNEL PLAN
SCALE 1/4" = 1'-0"



CORNER DETAIL A
SCALE 1" = 1'-0"



CORNER DETAIL B
SCALE 1" = 1'-0"



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

Date:7/23/2018

Filename: ...\300_(S-07) Tunnel Connection Part Plan and Section E-E.dgn

Scale: AS NOTED

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

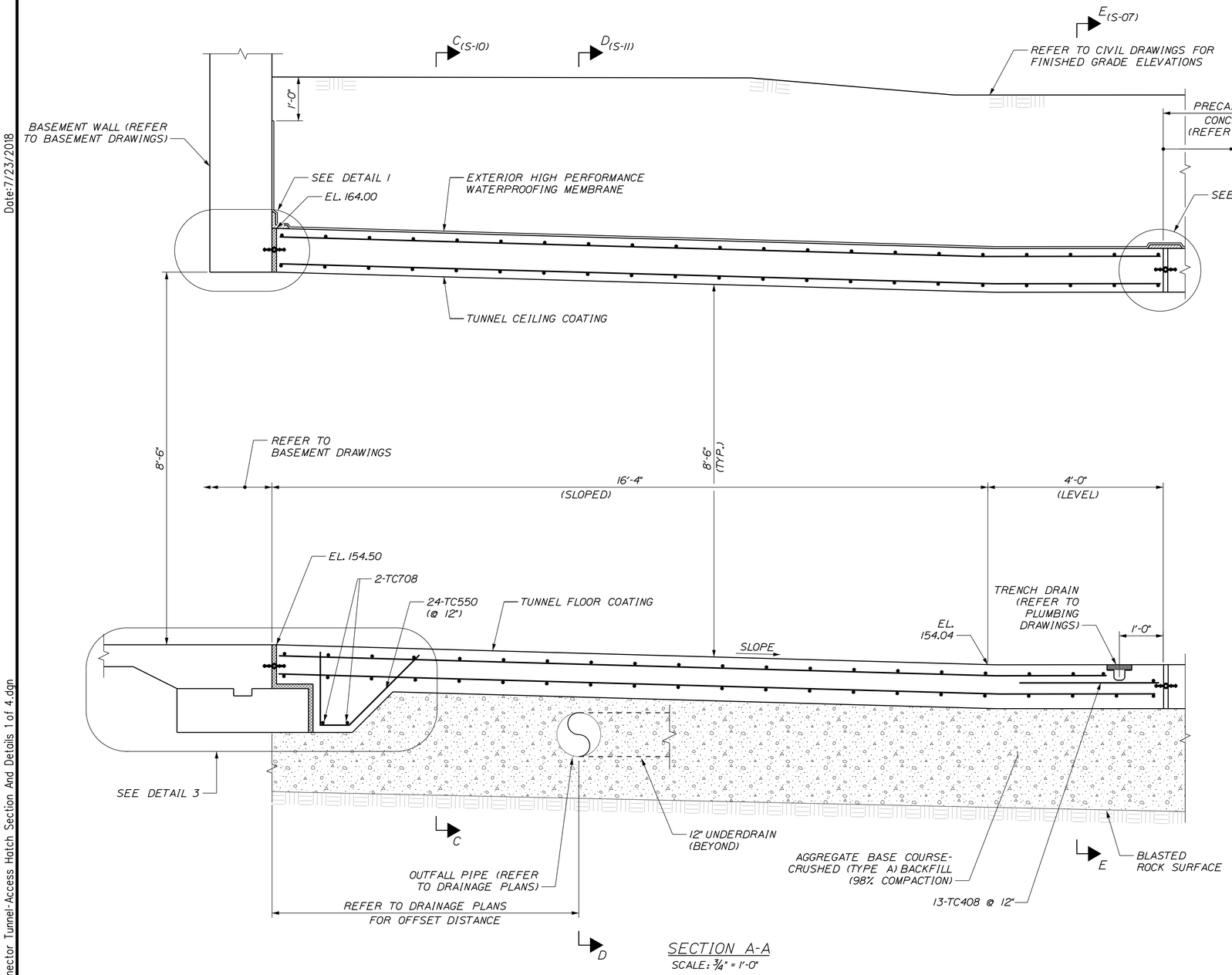
YORK TOLL PLAZA

CONNECTOR TUNNEL/ACCESS HATCH PLAN, SECTION AND DETAILS

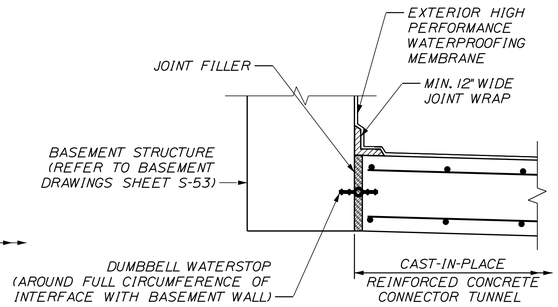
SHEET NUMBER: S-07

CONTRACT:2018.20

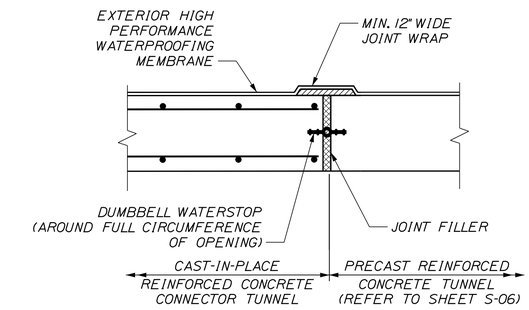
NOTES:
1. REFER TO SHEET S-15 FOR REINFORCEMENT SCHEDULE.
2. WIDTH OF EXPANSION JOINT SET TO MATCH BULB O.D. OF DUMBBELL WATERSTOP.



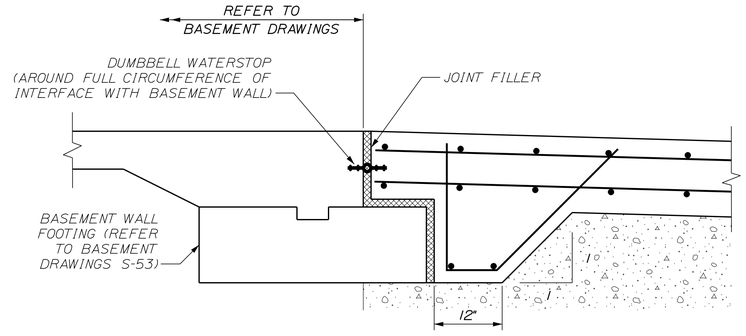
SECTION A-A
SCALE: 3/4" = 1'-0"



DETAIL 1
SCALE: 1" = 1'-0"
EXPANSION JOINT AT INTERFACE BETWEEN BASEMENT STRUCTURE AND CAST-IN-PLACE CONNECTOR TUNNEL ROOF SLAB



DETAIL 2
SCALE: 1" = 1'-0"
EXPANSION JOINT AT INTERFACE BETWEEN CAST-IN-PLACE CONNECTOR TUNNEL AND PRECAST TUNNEL



DETAIL 3
SCALE: 1" = 1'-0"
EXPANSION JOINT AT INTERFACE BETWEEN BASEMENT STRUCTURE AND CAST-IN-PLACE CONNECTOR TUNNEL BASE SLAB

Date: 7/23/2018

Filename: ...\301_(S-08) Connector Tunnel-Access Hatch Section And Details 1 of 4.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	MSD	07/18	Checked	SGS	07/18
Drawn	EFG	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

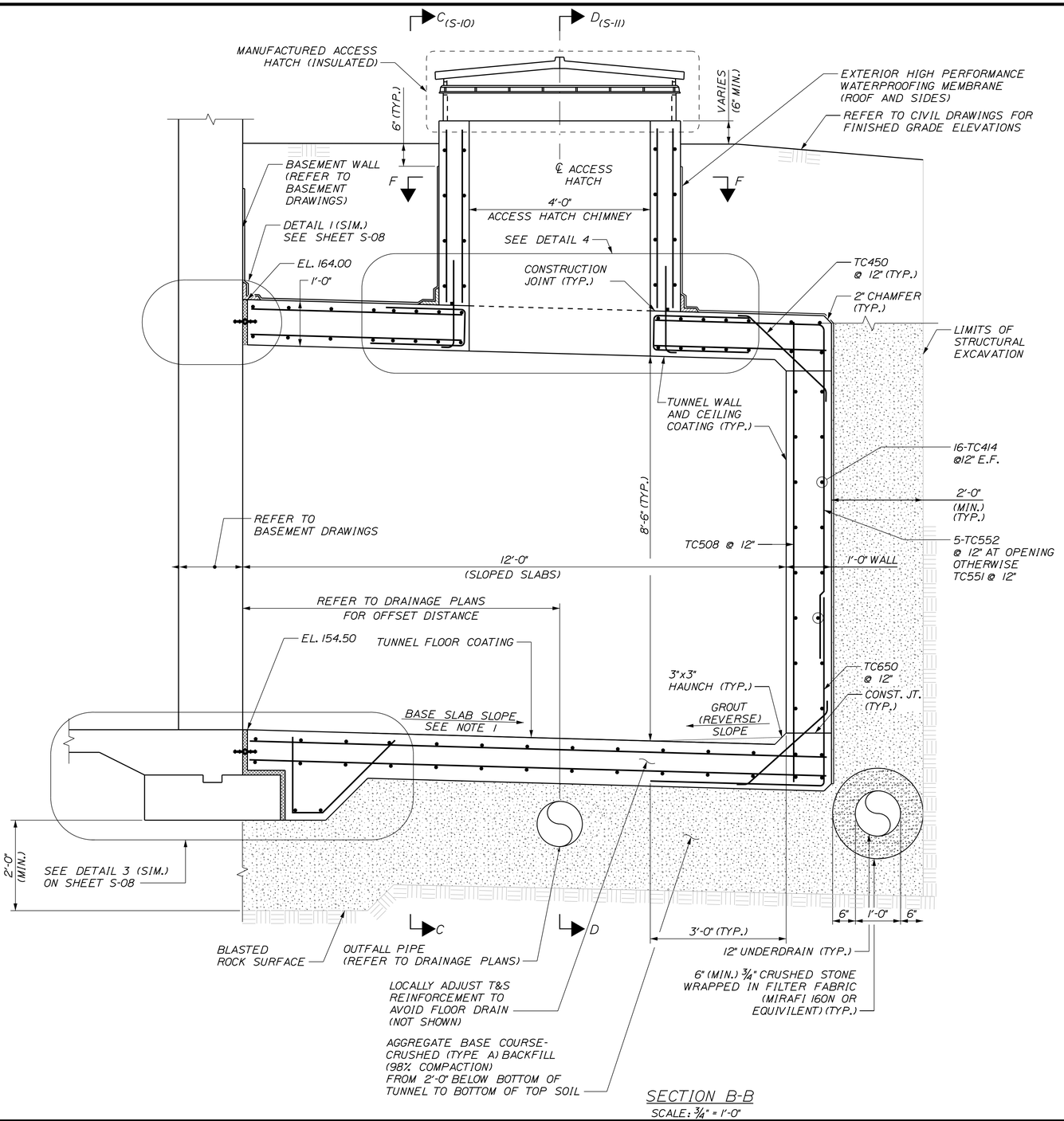
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CONNECTOR TUNNEL/ACCESS HATCH SECTIONS AND DETAILS 1 OF 4

SHEET NUMBER: S-08

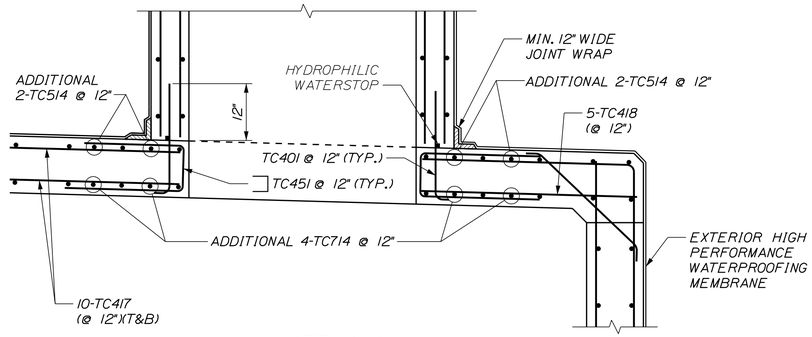
CONTRACT: 2018.20



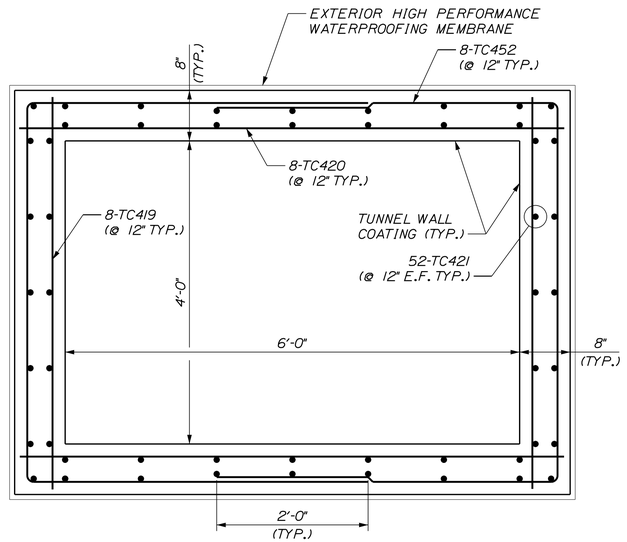
SECTION B-B
SCALE: 3/4" = 1'-0"

NOTES:

1. SLOPE BASE SLAB OF ACCESS HATCH CHAMBER TO MATCH ADJACENT SLAB OF CONNECTOR TUNNEL.
2. LOCALLY PROVIDE GROUT FOR REVERSING SLOPE TOWARDS FLOOR DRAIN FOR EASTERN PORTION OF ACCESS HATCH CHAMBER BASE SLAB AS SHOWN.
3. WATERPROOFING FOR ACCESS HATCH CHIMNEY ENDS 6" BELOW FINISHED GRADE.
4. LOCALLY ADJUST T&S REINFORCEMENT TO ACCOMONDATE FLOOR DRAIN.
5. REFER TO SHEET S-15 FOR REINFORCEMENT SCHEDULE.
6. WIDTH OF EXPANSION JOINT SET TO MATCH BULB O.D. OF DUMBBELL WATERSTOP.



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



SECTION F-F
SCALE: 1" = 1'-0"

Date: 7/23/2018

Filename: ...\302_(S-09) Connector Tunnel-Access Hatch Section And Details 2 of 4.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

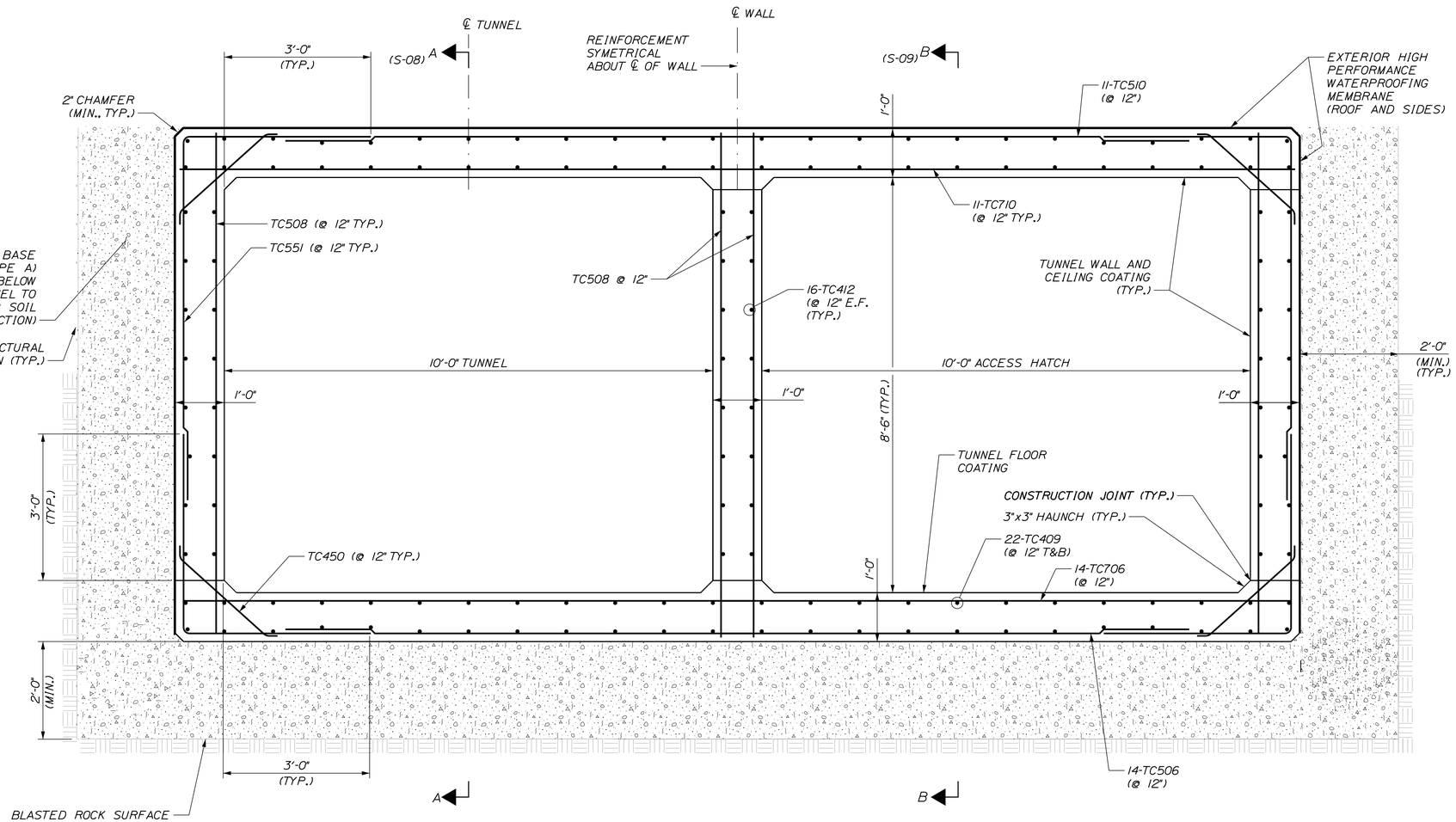
YORK TOLL PLAZA

CONNECTOR TUNNEL/ACCESS HATCH SECTIONS AND DETAILS 2 OF 4

SHEET NUMBER: S-09

CONTRACT: 2018.20

NOTES:
1. WASTE PIPE FOR TRENCH DRAIN/FLOOR DRAIN NOT SHOWN. REFER TO PLUMBING DRAWINGS.



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

Scale: AS NOTED				Designed by: JACOBS®					
No.	Revision	By	Date	CONSULTANT PROJECT MANAGER: T. MORIN					
					By	Date		By	Date
				Designed	MD	7/18	Checked	SGS	7/18
				Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CONNECTOR TUNNEL/ACCESS HATCH SECTIONS AND DETAILS 3 OF 4

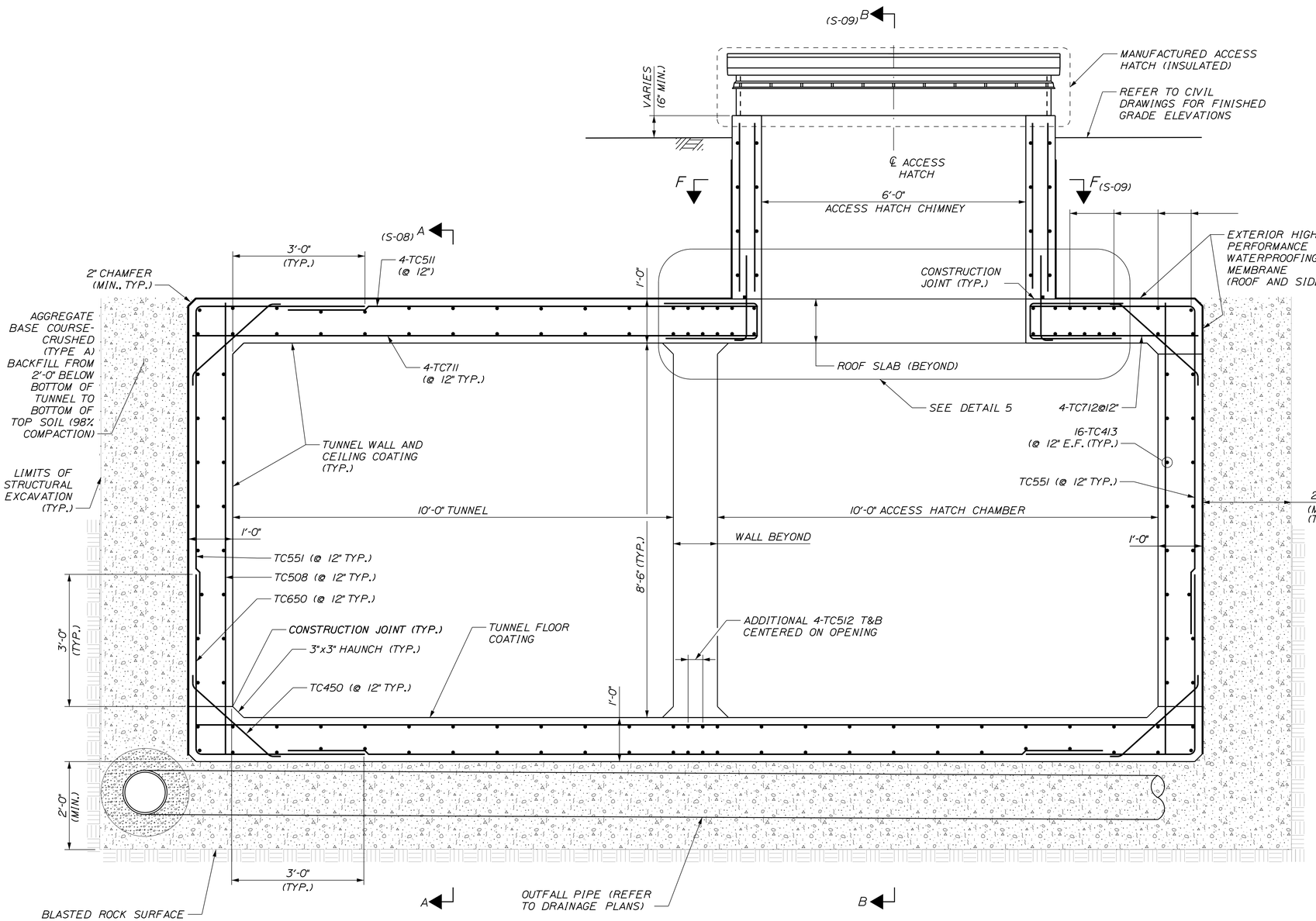
SHEET NUMBER: S-10

CONTRACT:2018.20

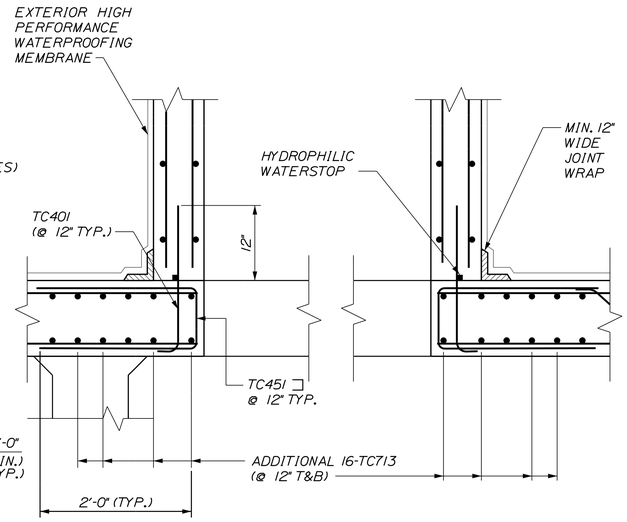
Date:7/23/2018

Filename: ...\303_(S-10) Connector Tunnel-Access Hatch Section And Details 3 of 4.dgn

NOTES:
1. WASTE PIPE FOR TRENCH DRAIN/FLOOR DRAIN NOT SHOWN. REFER TO PLUMBING DRAWINGS.
2. WATERPROOFING FOR ACCESS HATCH CHIMNEY ENDS 6" BELOW FINISHED GRADE.



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



DETAIL 5
SCALE: 1" = 1'-0"

Date:7/23/2018

Filename: ...\304_(S-11) Connector Tunnel-Access Hatch Section And Details 4 of 4.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	MD	7/18	Checked	SGS	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

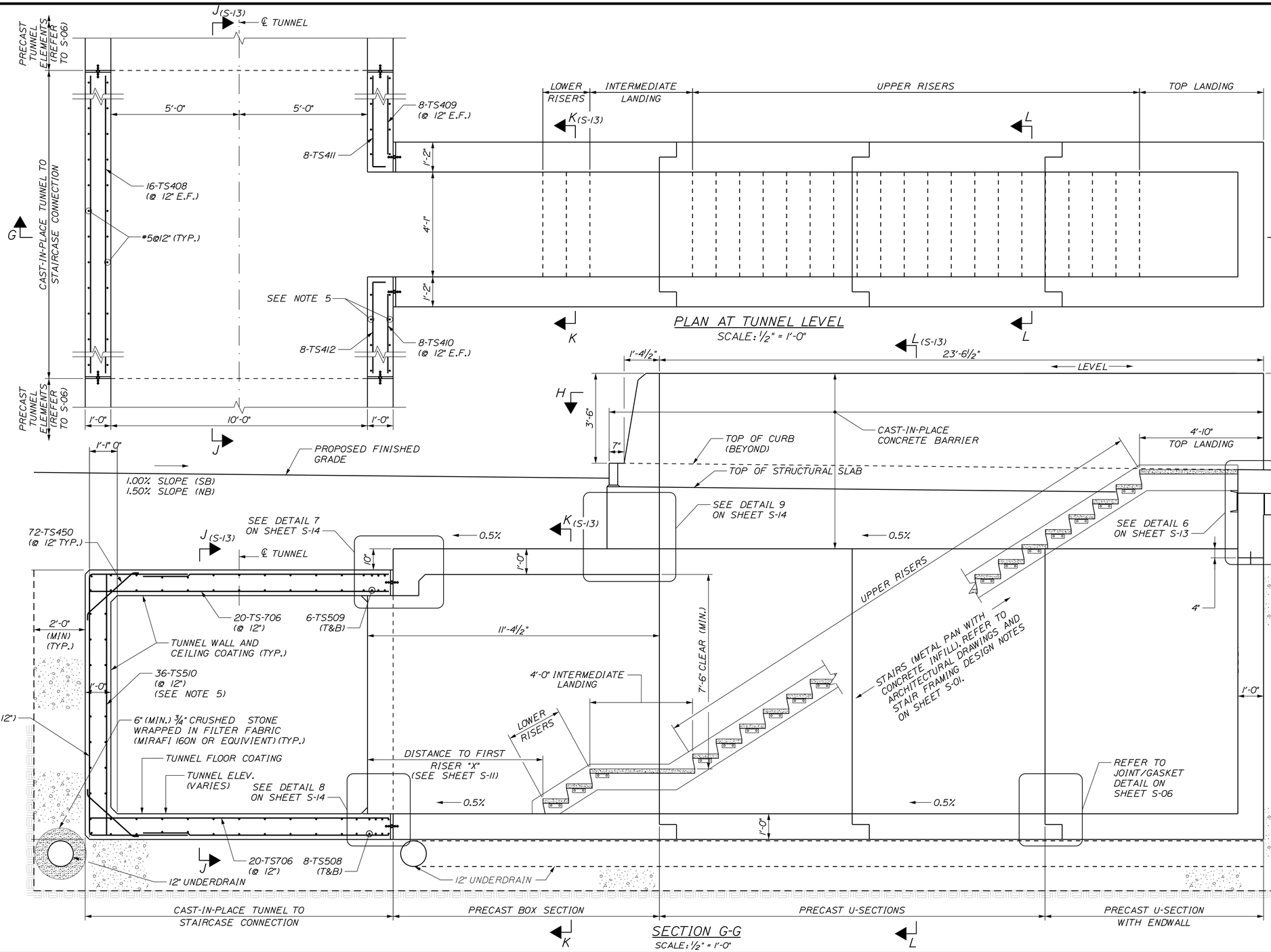
YORK TOLL PLAZA

CONNECTOR TUNNEL/ACCESS HATCH SECTIONS AND DETAILS 4 OF 4

SHEET NUMBER: S-11

CONTRACT:2018.20

NOTES:
1. FOR PRECAST STAIRCASE NOTES, SEE SHEET S-14.
2. FOR STAIRCASE LANDING ELEVATIONS AND RISER DIMENSIONS, SEE SHEET S-14.
3. WATERPROOFING NOT SHOWN FOR CLARITY.
4. REFER TO SHEET S-16 FOR REINFORCEMENT SCHEDULE.
5. TRANSVERSE WALL REINFORCEMENT ADJACENT TO OPENING IS SIMILAR TO OPPOSITE WALL (WITHOUT OPENING).



Date: 7/23/2018

Filename: ...\305_(S-12) Tunnel Stair Plan & Xscton.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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Designed	MD	7/18	Checked	SGS	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

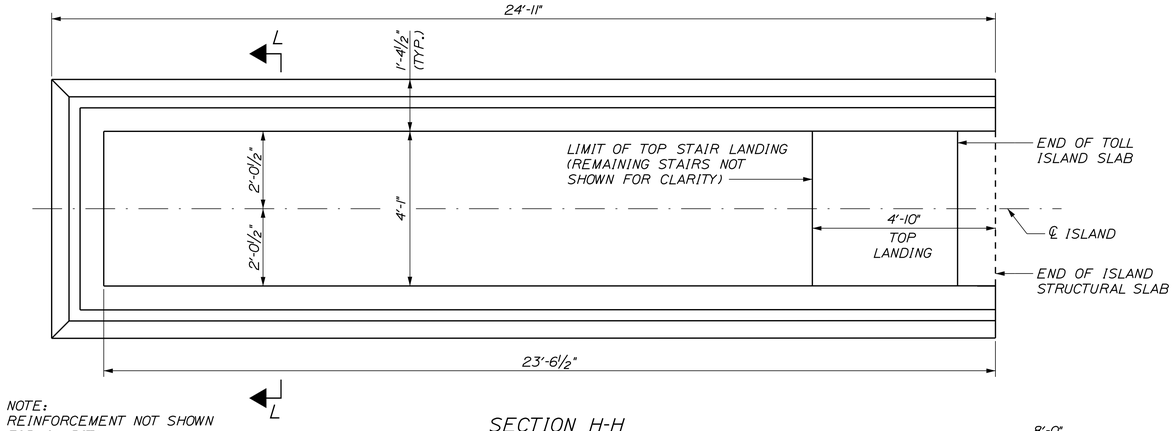
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL STAIRCASES PLAN AND ELEVATION

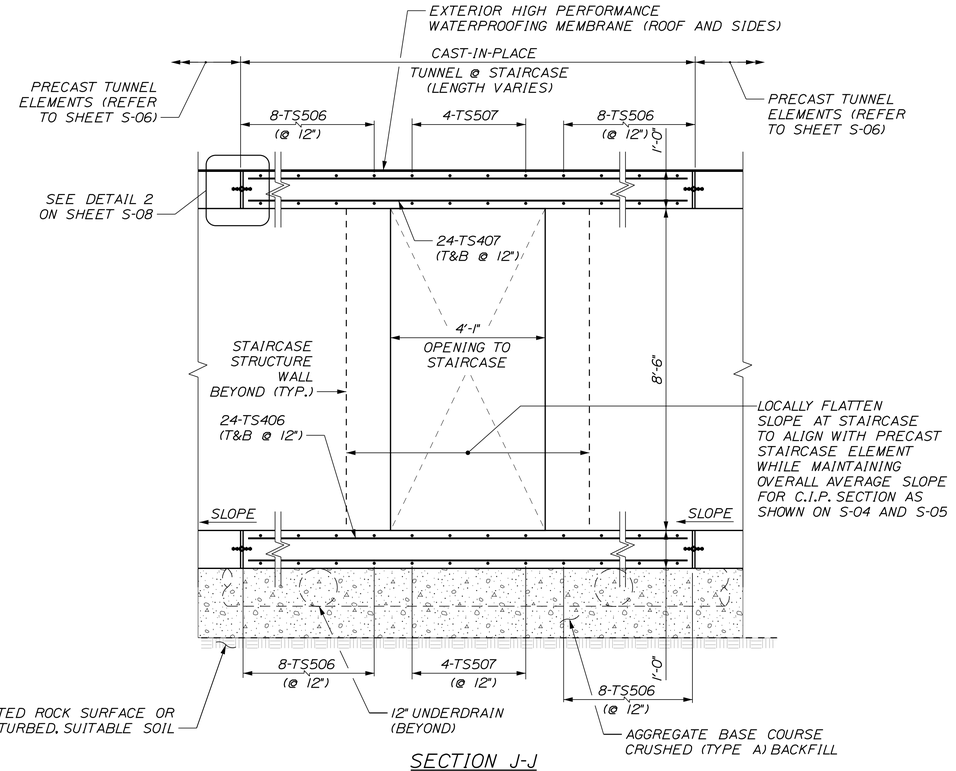
SHEET NUMBER: S-12

CONTRACT: 2018.20



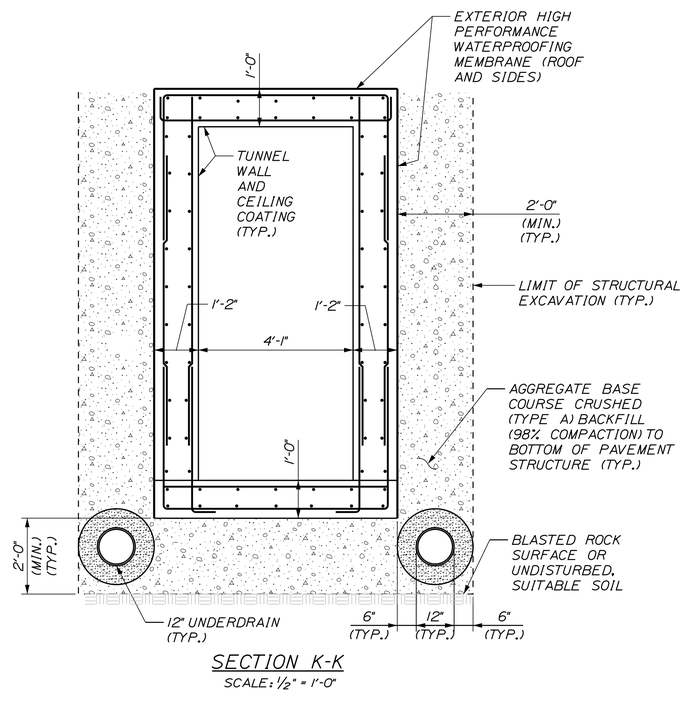
NOTE:
REINFORCEMENT NOT SHOWN FOR CLARITY.

SECTION H-H
SCALE: ½" = 1'-0"

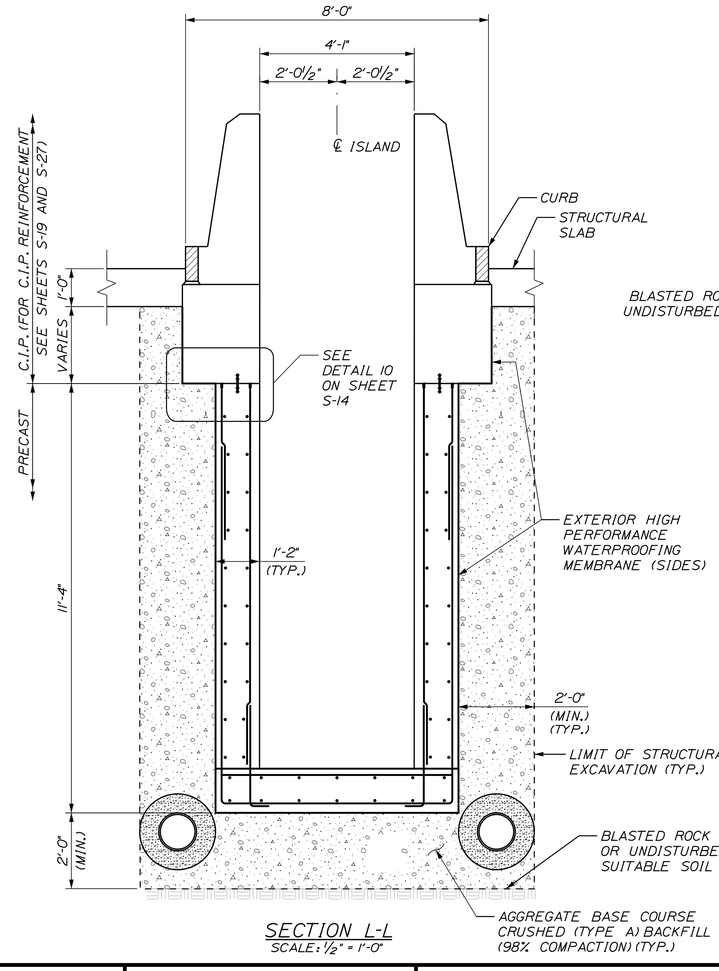


SECTION J-J
SCALE: ½" = 1'-0"

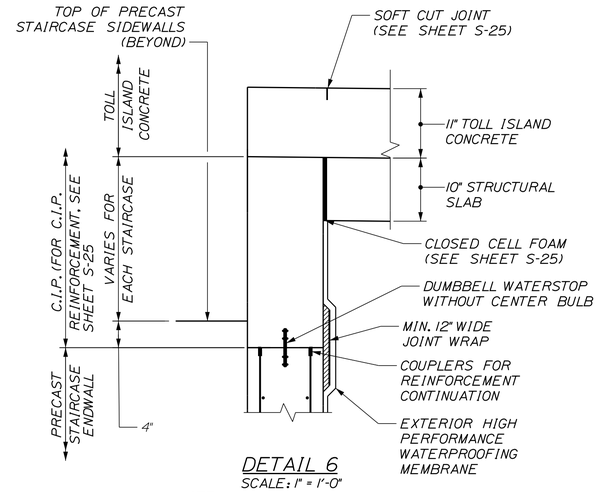
NOTES:
1. REINFORCEMENT SHOWN FOR PRECAST STAIRCASE ELEMENTS IS FOR REFERENCE PURPOSES ONLY.



SECTION K-K
SCALE: ½" = 1'-0"



SECTION L-L
SCALE: ½" = 1'-0"



DETAIL 6
SCALE: 1" = 1'-0"

NOTE:
STAIRS NOT SHOWN FOR CLARITY.

Date:7/23/2018

Filename: ...\306_(S-13) TunnelStair Xsctions.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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Designed	MD	7/18	Checked	SGS	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

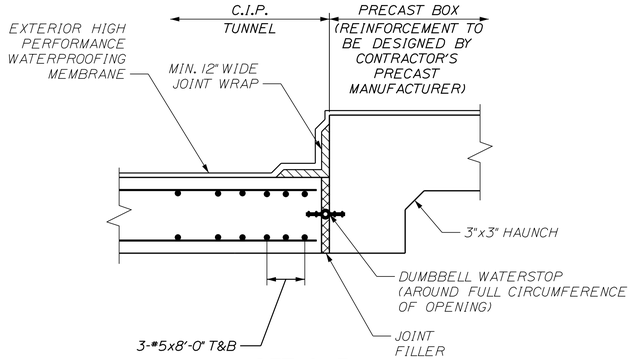
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

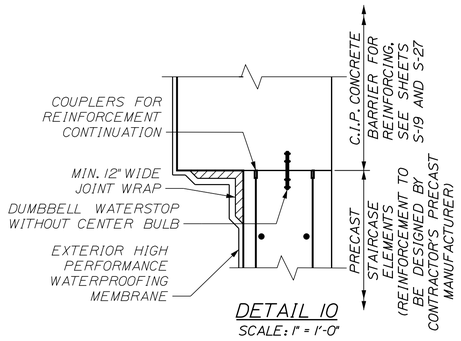
TUNNEL STAIRCASES SECTIONS

SHEET NUMBER: S-13

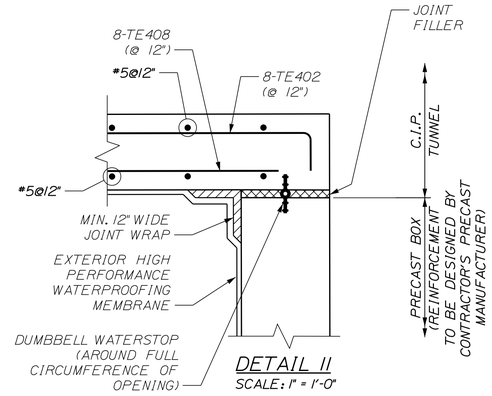
CONTRACT:2018.20



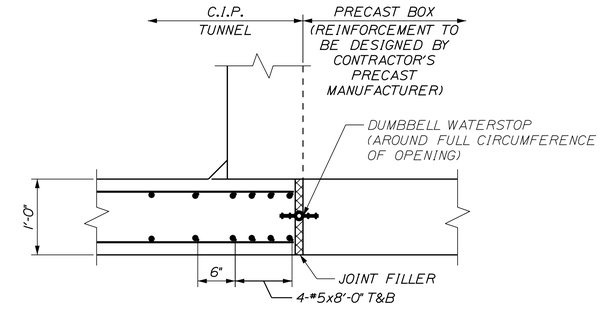
DETAIL 7
SCALE: 1" = 1'-0"



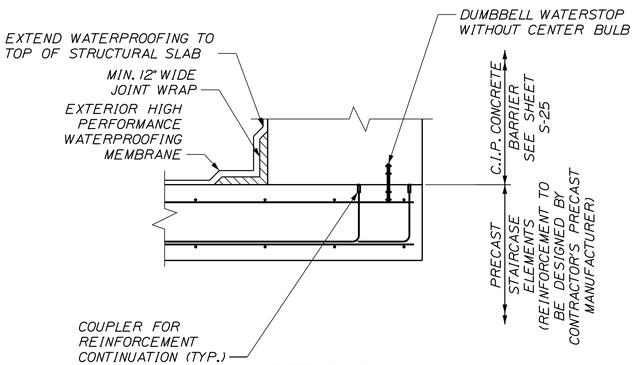
DETAIL 10
SCALE: 1" = 1'-0"



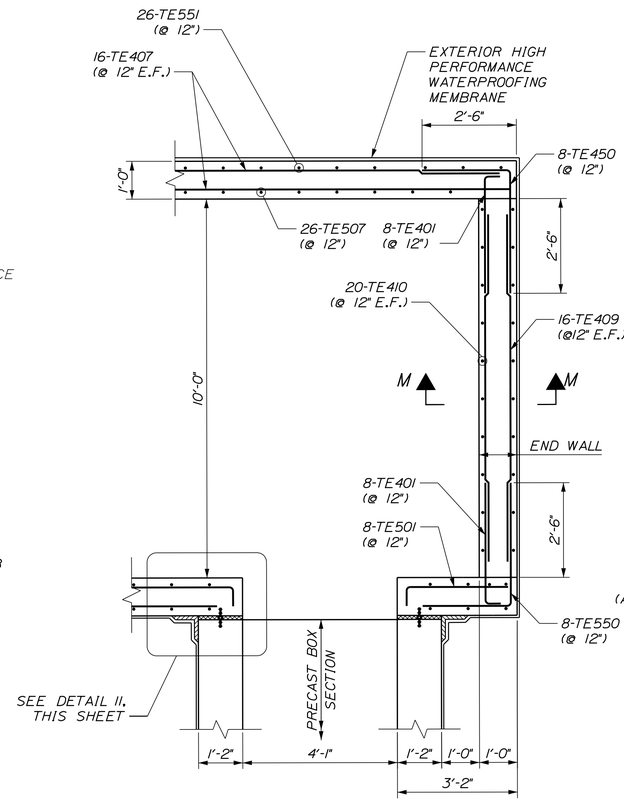
DETAIL 11
SCALE: 1" = 1'-0"



DETAIL 8
SCALE: 1" = 1'-0"

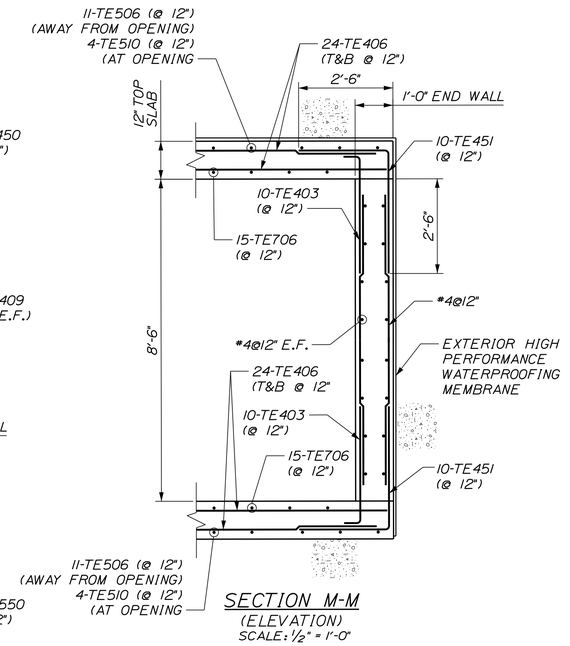


DETAIL 9
SCALE: 1" = 1'-0"



PLAN
(AT MID-HEIGHT OF TUNNEL)

C.I.P. MAIN TUNNEL END WALL
SCALE: ½" = 1'-0"



SECTION M-M
(ELEVATION)
SCALE: ½" = 1'-0"

NOTES:

1. PROTECT SUBGRADE SOILS FROM DETERIORATION.
2. SLAB AND WALL THICKNESSES SHOWN FOR PRECAST STAIRCASE ELEMENTS ARE MANDATORY.
3. REFER TO SHEET S-06 FOR NOTES ON PRECAST TUNNEL ELEMENTS. THESE NOTES ARE EQUALLY APPLICABLE TO THE PRECAST STAIRCASE ELEMENTS. WITH THE EXCEPTION THAT WALL AND SLAB THICKNESSES OF PRECAST STAIRCASE ELEMENTS SHALL BE AS SHOWN.
4. REINFORCEMENT FOR PRECAST STAIRCASE ELEMENTS NOT SHOWN FOR CLARITY (TYPICAL). IF SHOWN, REINFORCEMENT FOR PRECAST ELEMENTS IS FOR REFERENCE PURPOSES ONLY.
5. PRECAST MANUFACTURER TO COORDINATE SPACING OF REINFORCEMENT WITH CAST-IN-PLACE STRUCTURE ABOVE TO ALLOW CONTINUITY OF REINFORCEMENT USING MECHANICAL COUPLERS AS SHOWN.
6. CONTRACTOR'S PRECAST MANUFACTURER SHALL DESIGN THE PRECAST STAIRCASE ELEMENTS FOR THE DESIGN CODES, LOADS AND CRITERIA AS INDICATED ON SHEET S-01. ADDITIONALLY, THE CONTRACTOR'S PRECAST MANUFACTURER SHALL DESIGN THE PRECAST STAIRCASE ELEMENTS FOR THE FOLLOWING LOADS, TO ACCOUNT FOR THE LOADS FROM THE CAST-IN-PLACE CONCRETE BARRIERS, THE STAIRCASE ENCLOSURE STRUCTURES, AND SIDE IMPACT LOADS:
   - AXIAL LOAD: 2 K/FT (EXT 11) - APPLIED AT TOP OF PRECAST STAIRCASE STRUCTURE.
   - SIDE IMPACT LOAD: 13.5 K (EXT 11) - APPLIED OVER MAXIMUM 4'-0" LEGTH OF BARRIER AT 1.5 FT ABOVE ROADWAY LEVEL.
7. MEASUREMENT FOR PAYMENT FOR CAST-IN-PLACE PORTIONS OF THE STAIRCASES (I.E., C.I.P. CONCRETE BARRIERS) SHALL NOT EXCEED DIMENSIONS SHOWN ON THE DRAWINGS.
8. PRECAST MANUFACTURER TO COORDINATE WITH STAIRCASE FABRICATOR FOR LOCATIONS OF CAST-INS, ETC.
9. WIDTH OF EXPANSION JOINTS SET TO MATCH BULB O.D. OF DUMBBELL WATERSTOPS.

TABLE: STAIRCASE ELEVATIONS AND RISER DIMENSIONS

STAIRCASE	TUNNEL ELEVATION AT STAIRCASE C/L	INTERMEDIATE LANDING ELEV.	TOP LANDING ELEV.	NUMBER OF RISERS (LOWER & UPPER)	RISER HEIGHT (LOWER & UPPER)	TREAD WIDTH (LOWER & UPPER)	DISTANCE TO FIRST RISER "X"
Southbound Lane 2	154.33	156.12	167.74	3 & 20	7" & 6 7/8"	11" & 11"	6'-10"
Southbound Lane 4	154.53	156.32	167.74	3 & 20	7" & 6 3/4"	11" & 11"	6'-10"
Northbound Lane 7	155.40	157.20	167.55	3 & 18	7" & 6 13/16"	11" & 11"	8'-8"
Northbound Lane 9	155.60	157.40	167.55	3 & 18	7" & 6 11/16"	11" & 11"	8'-8"

Date:7/23/2018

Filename: ...\307_(S-14) Tunnel Stair Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	MD	7/18	Checked	SGS	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

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MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

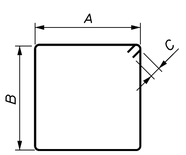
TUNNEL STAIRCASES DETAILS

SHEET NUMBER: S-14

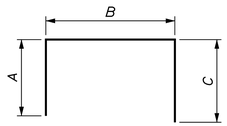
CONTRACT:2018.20

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
CONNECTOR TUNNEL AND ACCESS HATCH CHAMBER									
TC401	4	24	2'-4"	DWL	1' 8"	8"			CHIMNEY
TC402	4	16	6'-0"	DWL	3' 4"	2' 8"			DOWELS
TC403	4	8	5'-4"	DWL	2' 8"	2' 8"			DOWELS
TC404	4	8	6'-8"	DWL	3' 4"	3' 4"			DOWELS
TC406	4	13	18'-8"	17F	5 1/2"	16' 2"	2' 6"		LONGITUDINAL
TC407	4	13	20'-0"	17F	5 1/2"	16' 2"	3' 10"		LONGITUDINAL
TC408	4	13	3'-8"	STR					LONGITUDINAL
TC409	4	22	12'-8"	STR					LONGITUDINAL
TC410	4	16	20'-0"	STR					LONGITUDINAL
TC411	4	16	11'-0"	STR					LONGITUDINAL
TC412	4	16	4'-8"	STR					LONGITUDINAL
TC413	4	16	12'-8"	STR					LONGITUDINAL
TC414	4	16	11'-8"	STR					LONGITUDINAL
TC415	4	8	12'-8"	STR					LONGITUDINAL
TC416	4	26	20'-0"	17F	5 1/2"	16' 2"	3' 10"		LONGITUDINAL
TC417	4	10	4'-8"	STR					LONGITUDINAL
TC418	4	5	3'-8"	STR					LONGITUDINAL
TC419	4	8	5'-0"	STR					CHIMNEY
TC420	4	8	7'-0"	STR					CHIMNEY
TC421	4	52	4'-0"	STR					CHIMNEY
TC450	4	106	3'-5"	17C	4 1/2"	4 1/2"	2' 4"		HAUNCH
TC451	4	18	4'-8"	17	2' 0"	8"	2' 0"		U-SHAPE
TC452	4	8	14'-4"	17	4' 8"	5' 0"	4' 8"		CHIMNEY
TC506	5	14	19'-2"	STR					TRANSVERSE
TC507	5	7	8'-2"	STR					TRANSVERSE
TC508	5	68	10'-1"	STR					VERTICAL
TC509	5	7	8'-2"	STR					TRANSVERSE
TC510	5	11	19'-2"	STR					TRANSVERSE
TC511	5	4	10'-8"	STR					TRANSVERSE
TC512	5	4	8'-0"	STR					BEAM AT OPENING
TC514	5	4	11'-8"	STR					TRANSVERSE
TC550	5	24	4'-6"	17G	1' 7"	1' 7"	8"	1'-7"	TRANSVERSE
TC551	5	47	11'-8"	17	7' 10"	3' 10"	0"		TRANSVERSE
TC552	5	5	11'-6"	17	7' 10"	3' 8"	0"		TRANSVERSE
TC650	6	52	7'-8"	17	3' 10"	3' 10"	0"		TRANSVERSE
TC706	7	14	22'-8"	STR					TRANSVERSE
TC707	7	7	11'-8"	STR					TRANSVERSE
TC708	7	2	22'-8"	STR					FOOTING
TC709	7	7	11'-8"	STR					TRANSVERSE
TC710	7	11	22'-8"	STR					TRANSVERSE
TC711	7	4	12'-8"	STR					TRANSVERSE
TC712	7	4	3'-8"	STR					TRANSVERSE
TC713	7	16	12'-8"	STR					BEAM AT OPENING
TC714	7	4	11'-8"	STR					TRANSVERSE

NOTES:
1. EXACT LENGTHS OF REINFORCEMENT SHALL DEPEND ON CONTRACTOR'S SELECTION OF LENGTHS FOR PRECAST TUNNEL AND CAST-IN-PLACE TUNNEL.
2. LENGTH OF TC409 IS AN AVERAGE LENGTH. LENGTHS OF INDIVIDUAL BARS WILL VARY SLIGHTLY DUE TO SLOPE OF ROOF SLAB.



TYPE 100



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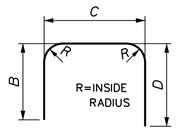

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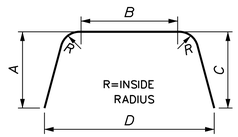

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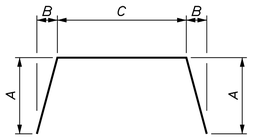

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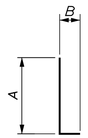
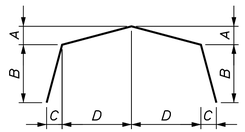


TYPE DWL



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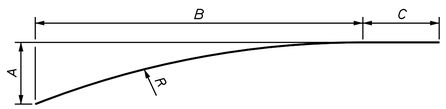

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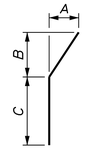

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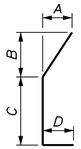

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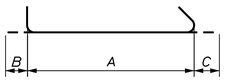

TYPE 110

Date:7/23/2018

Filename: ...\308_(S-15) Reinforcement Schedule for Cast-in-Place Concrete Tunnel Sections 1 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	IC	7/18	Checked	VPL	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

REINFORCEMENT SCHEDULE FOR CAST-IN-PLACE TUNNEL SECTIONS 1 OF 2

SHEET NUMBER: S-15

CONTRACT:2018.20

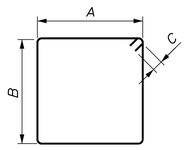
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
TUNNEL STAIRCASE - SOUTHBOUND LANE 2									
TS406	4	24	19'-6"	STR					LONGITUDINAL
TS407	4	24	19'-6"	STR					LONGITUDINAL
TS408	4	16	19'-6"	STR					LONGITUDINAL
TS409	4	8	7'-2"	STR					LONGITUDINAL
TS410	4	8	7'-2"	STR					LONGITUDINAL
TS411	4	8	8'-2"	110	7' 8"	6"	0"		LONGITUDINAL
TS412	4	8	8'-2"	110	7' 8"	6"	0"		LONGITUDINAL
TS450	4	72	3'-5"	17C	4 1/2"	4 1/2"	2' 4"		HAUNCH
TS506	5	32	8'-2"	STR					TRANSVERSE
TS507	5	8	9'-11"	STR					TRANSVERSE
TS508	5	8	8'-0"	STR					BEAM
TS509	5	6	8'-0"	STR					BEAM
TS510	5	36	10'-1"	STR					VERTICAL
TS550	5	36	18'-1"	17	4' 0"	10' 1"	4' 0"		TRANSVERSE
TS706	7	40	11'-8"	STR					TRANSVERSE

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
TUNNEL STAIRCASE - SOUTHBOUND LANE 4									
TS406	4	24	19'-10"	STR					LONGITUDINAL
TS407	4	24	19'-10"	STR					LONGITUDINAL
TS408	4	16	19'-10"	STR					LONGITUDINAL
TS409	4	8	7'-2"	STR					LONGITUDINAL
TS410	4	8	7'-6"	STR					LONGITUDINAL
TS411	4	8	8'-2"	110	7' 8"	6"	0"		LONGITUDINAL
TS412	4	8	8'-6"	110	8' 0"	6"	0"		LONGITUDINAL
TS450	4	72	3'-5"	17C	4 1/2"	4 1/2"	2' 4"		HAUNCH
TS506	5	32	8'-2"	STR					TRANSVERSE
TS507	5	8	9'-11"	STR					TRANSVERSE
TS508	5	8	8'-0"	STR					BEAM
TS509	5	6	8'-0"	STR					BEAM
TS510	5	36	10'-1"	STR					VERTICAL
TS550	5	36	18'-1"	17	4' 0"	10' 1"	4' 0"		TRANSVERSE
TS706	7	40	11'-8"	STR					TRANSVERSE

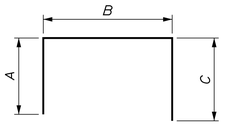
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
TUNNEL STAIRCASE - NORTHBOUND LANE 7									
TS406	4	24	19'-10"	STR					LONGITUDINAL
TS407	4	24	19'-10"	STR					LONGITUDINAL
TS408	4	16	19'-10"	STR					LONGITUDINAL
TS409	4	8	7'-2"	STR					LONGITUDINAL
TS410	4	8	7'-6"	STR					LONGITUDINAL
TS411	4	8	7'-8"	110	7' 8"	6"	0"		LONGITUDINAL
TS412	4	8	8'-0"	110	8' 0"	6"	0"		LONGITUDINAL
TS450	4	72	3'-5"	17C	4 1/2"	4 1/2"	2' 4"		HAUNCH
TS506	5	32	8'-2"	STR					TRANSVERSE
TS507	5	8	9'-11"	STR					TRANSVERSE
TS508	5	8	8'-0"	STR					BEAM
TS509	5	6	8'-0"	STR					BEAM
TS510	5	36	10'-1"	STR					VERTICAL
TS550	5	36	18'-1"	17	4' 0"	10' 1"	4' 0"		TRANSVERSE
TS706	7	40	11'-8"	STR					TRANSVERSE

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
TUNNEL END STAIRCASE - NORTHBOUND LANE 9									
TE401	4	16	3'-11"	110	3' 3"	8"	0"		DOWELS
TE402	4	8	8'-1"	110	7' 5"	8"	0"		LONGITUDINAL
TE403	4	20	3'-11"	110	3' 3"	8"	0"		DOWELS
TE406	4	48	14'-8"	STR					LONGITUDINAL
TE407	4	16	14'-8"	STR					LONGITUDINAL
TE408	4	8	7'-5"	STR					LONGITUDINAL
TE409	4	16	9'-8"	STR					HORIZONTAL
TE410	4	20	8'-2"	STR					VERTICAL
TE450	4	8	3'-11"	17	3' 3"	8"	0"		OUTSIDE CORNER
TE451	4	20	5'-9"	17	3' 3"	2' 6"	0"		TRANSVERSE
TE452	4	48	3'-5"	17C	4 1/2"	4 1/2"	2' 4"		HAUNCH (NOT SHOWN - SIMILAR TO OTHER STAIRCASES)
TE501	5	8	3'-4"	110	2' 10"	6"	0"		LONGITUDINAL
TE506	5	22	8'-2"	STR					TRANSVERSE (SLABS, AWAY FROM OPENING)
TE507	5	26	10'-1"	STR					VERTICAL
TE508	5	8	8'-0"	STR					BEAM (NOT SHOWN - SIMILAR TO OTHER STAIRCASES)
TE509	5	6	8'-0"	STR					BEAM (NOT SHOWN - SIMILAR TO OTHER STAIRCASES)
TE510	5	8	9'-11"	STR					TRANSVERSE (SLABS, AT OPENING)
TE550	5	8	5'-6"	17	3' 3"	2' 3"	0"		OUTSIDE CORNER
TE551	5	26	18'-1"	17	4' 0"	10' 1"	4' 0"		TRANSVERSE
TE706	7	30	11'-8"	STR					TRANSVERSE

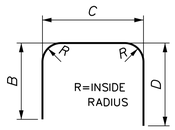
NOTE:
EXACT LENGTHS OF REINFORCEMENT SHALL DEPEND ON CONTRACTOR'S SELECTION OF LENGTHS FOR PRECAST TUNNEL AND CAST-IN-PLACE TUNNEL.



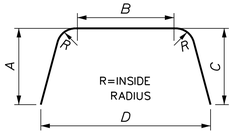
TYPE 100



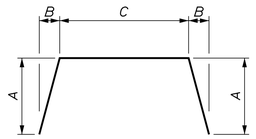
TYPE 17



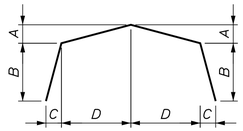
TYPE 17A



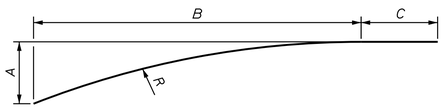
TYPE 17B



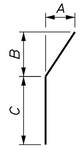
TYPE 17C



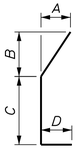
TYPE 17D



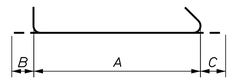
TYPE 17E



TYPE 17F



TYPE 17G



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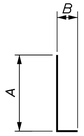

TYPE DWL

Date:7/23/2018

Filename: ...\309_(S-16) Reinforcement Schedule for Cast-in-Place Concrete Tunnel Sections 2 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	MD	7/18	Checked	VPL	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

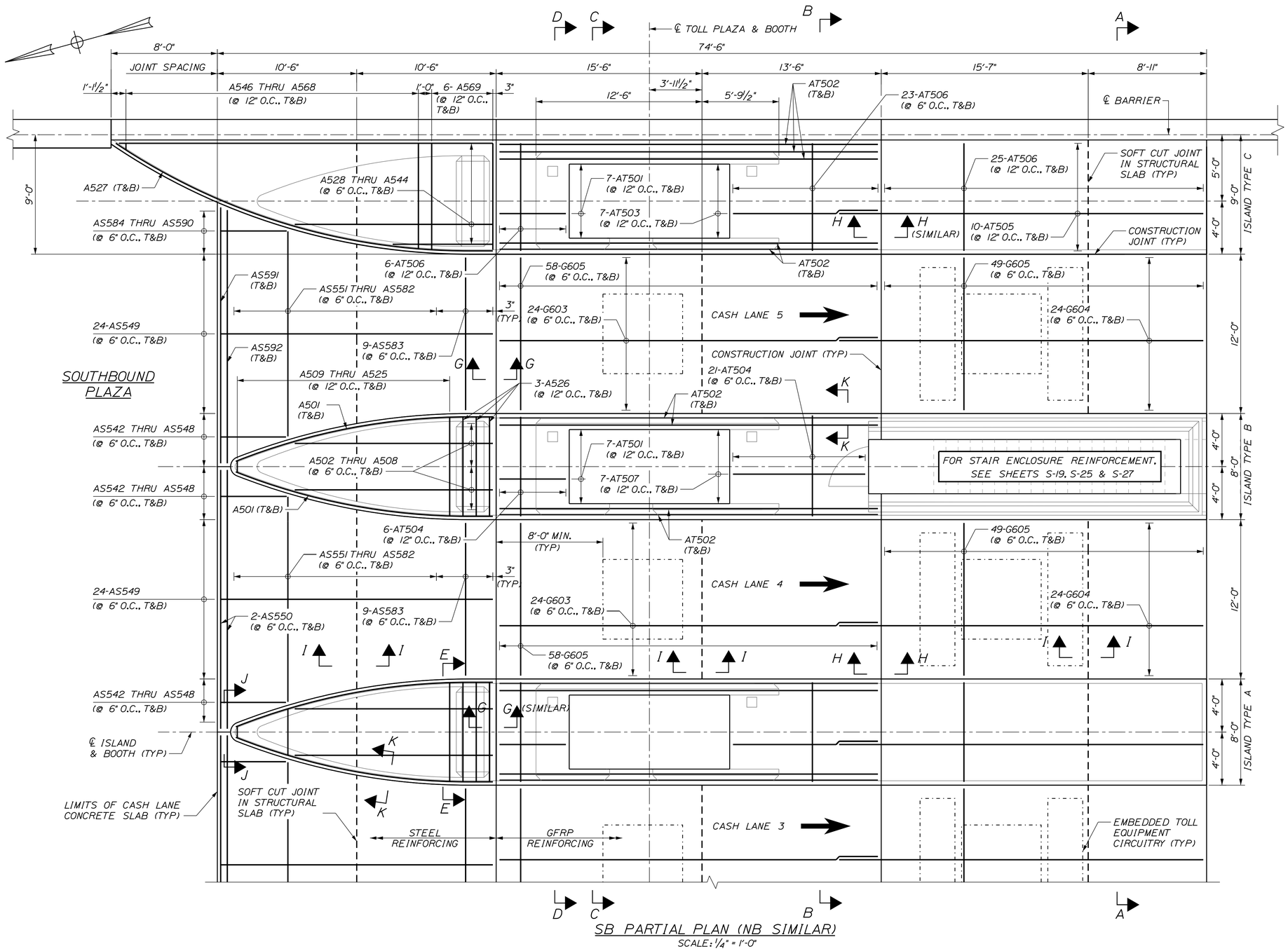
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

REINFORCEMENT SCHEDULE FOR CAST-IN-PLACE TUNNEL SECTIONS 2 OF 2

SHEET NUMBER: S-16

CONTRACT:2018.20



SB PARTIAL PLAN (NB SIMILAR)

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

SUGGESTED SEQUENCE OF CONSTRUCTION NOTES:

1. CONSTRUCT SUBGRADE FOR CANOPY COLUMN FOOTINGS AND STAIRCASE FOUNDATIONS.
2. CONSTRUCT CANOPY COLUMN FOOTINGS AND PEDESTALS.
3. CONSTRUCT STAIRCASE FOUNDATIONS AND SIDEWALLS.
4. CONSTRUCT SUBGRADE FOR STRUCTURAL SLABS UNDER RAISED ISLAND FOOTPRINT.
5. CONSTRUCT CANOPY COLUMNS.
6. CONSTRUCT STRUCTURAL SLAB UNDER RAISED ISLAND FOOTPRINT.
7. SET ISLAND CURBSTONES AND PLACE RAISED ISLAND CONCRETE.
8. CONSTRUCT BARRIERS, CURTAIN WALLS, BUMPER, RAMPART ETC.
9. CONSTRUCT STRUCTURAL SLAB BETWEEN ISLANDS.

NOTES:

1. SOUTHBOUND CASH LANE PLAZA IS SHOWN. NORTHBOUND PLAZA IS SIMILAR.
2. CONSTRUCT ALL TRANSVERSE JOINTS PERPENDICULAR TO THE CENTERLINE OF ISLANDS.
3. SOFT CUT JOINTS SHALL BE CUT WITHIN 4 TO 6 HOURS OF INITIAL CONCRETE SET.
4. FOR STRUCTURAL SLAB DETAILS AT OUTSIDE LANE AND SECTIONS D-D AND E-E, SEE SHEET S-18.
5. FOR SECTIONS A-A, B-B AND C-C, SEE SHEET S-19.
6. FOR SECTIONS G-G, H-H, I-I, J-J AND K-K, SEE SHEET S-20.
7. FOR STRUCTURAL SLAB REINFORCEMENT SCHEDULE, SEE SHEETS S-46 AND S-47. ALL REINFORCEMENT WITHIN THE ISLANDS IS STEEL. VERTICAL REINFORCEMENT EXTENDING UP FROM PRECAST TUNNEL AND TRANSVERSE REINFORCEMENT IN STAIR ENCLOSURE BARRIER NOT SHOWN FOR CLARITY. REFER TO SHEET S-27 FOR ADDITIONAL REINFORCEMENT DETAILS AT STAIR ENCLOSURE BARRIER.
8. FOR ISLAND SLAB, BOOTH ENCLOSURE, STAIR ENCLOSURE, BUMPER BLOCK AND UTILITY PIT DETAILS, SEE SHEETS S-19 AND S-21 THROUGH S-35.

Date:7/23/2018

Filename: ...\310_(S-17) Cash Lanes Structural Slab Layout 1 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	RCE	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

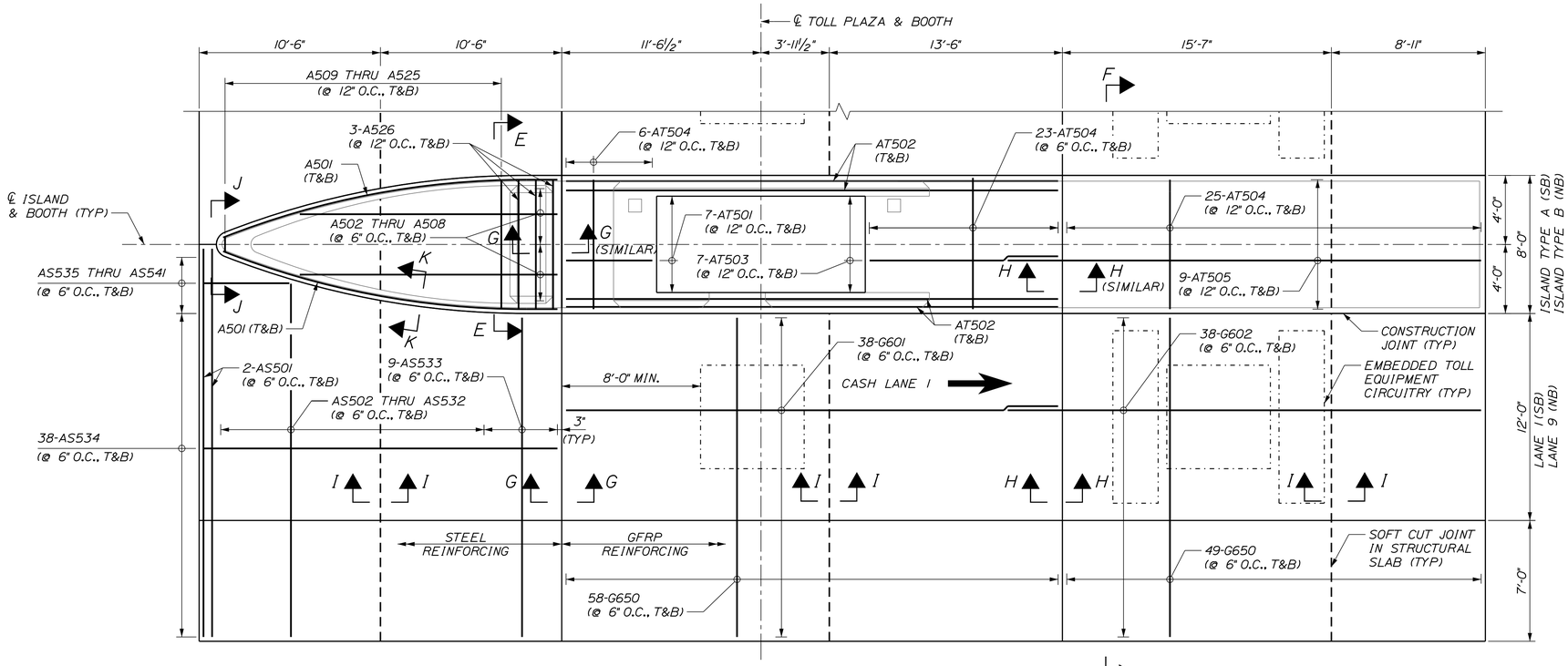
CASH LANES
STRUCTURAL SLAB LAYOUT 1 OF 2

SHEET NUMBER: S-17

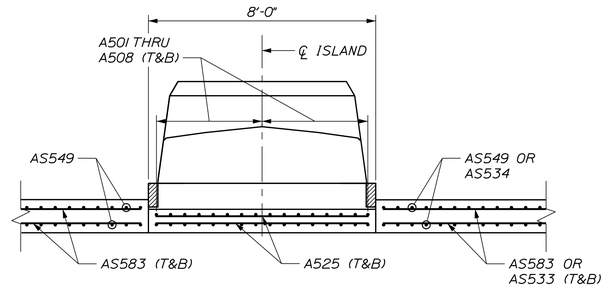
CONTRACT:2018.20

NOTES:

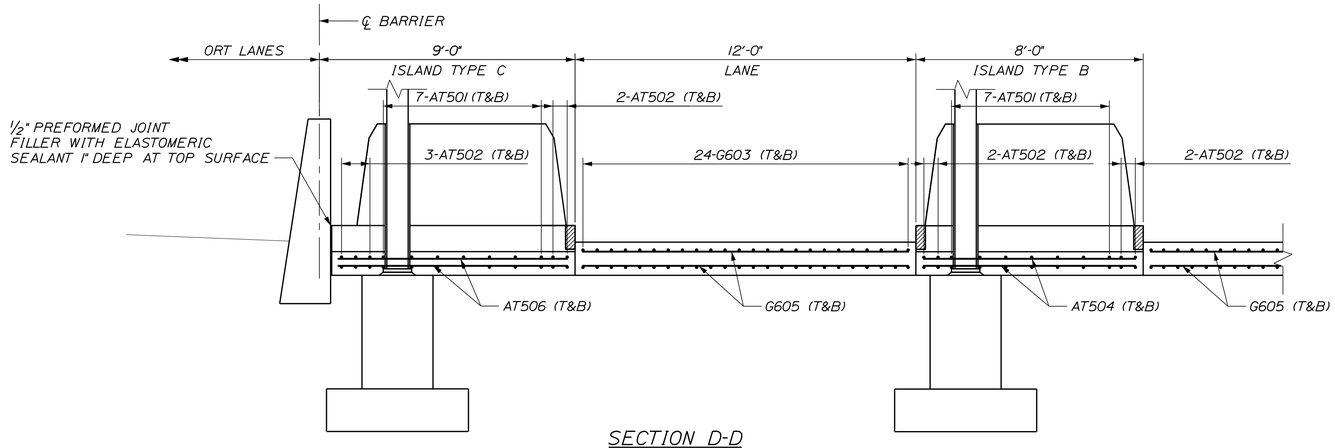
1. CONSTRUCT ALL TRANSVERSE JOINTS PERPENDICULAR TO THE CENTERLINE OF ISLANDS.
2. SOFT CUT JOINTS SHALL BE CUT WITHIN 4 TO 6 HOURS OF INITIAL CONCRETE SET.
3. FOR SECTIONS G-G, H-H, I-I, J-J AND K-K, SEE SHEET S-20.
4. FOR STRUCTURAL SLAB REINFORCEMENT SCHEDULE, SEE SHEETS S-46 AND S-47. ALL REINFORCEMENT WITHIN THE ISLANDS IS STEEL.
5. FOR ISLAND SLAB, BOOTH ENCLOSURE, STAIR ENCLOSURE, BUMPER BLOCK AND UTILITY PIT DETAILS, SEE SHEETS S-19 AND S-21 THROUGH S-35.



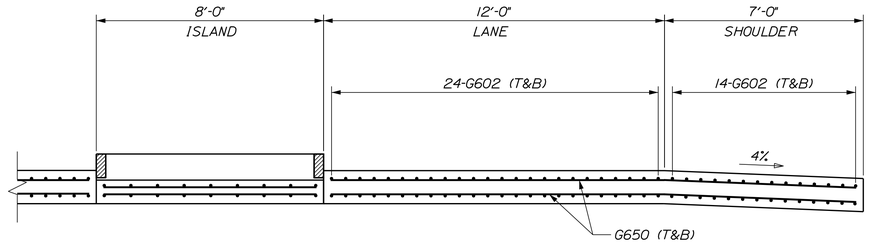
SB PARTIAL PLAN (NB SIMILAR)
SCALE: 1/4" = 1'-0"



SECTION E-E
SCALE: 3/8" = 1'-0"



SECTION D-D
SCALE: 3/8" = 1'-0"



SECTION F-F
SCALE: 3/8" = 1'-0"

Date:7/23/2018

Filename: ...\311_(S-18) Cash Lanes Structural Slab Layout 2 of 2.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

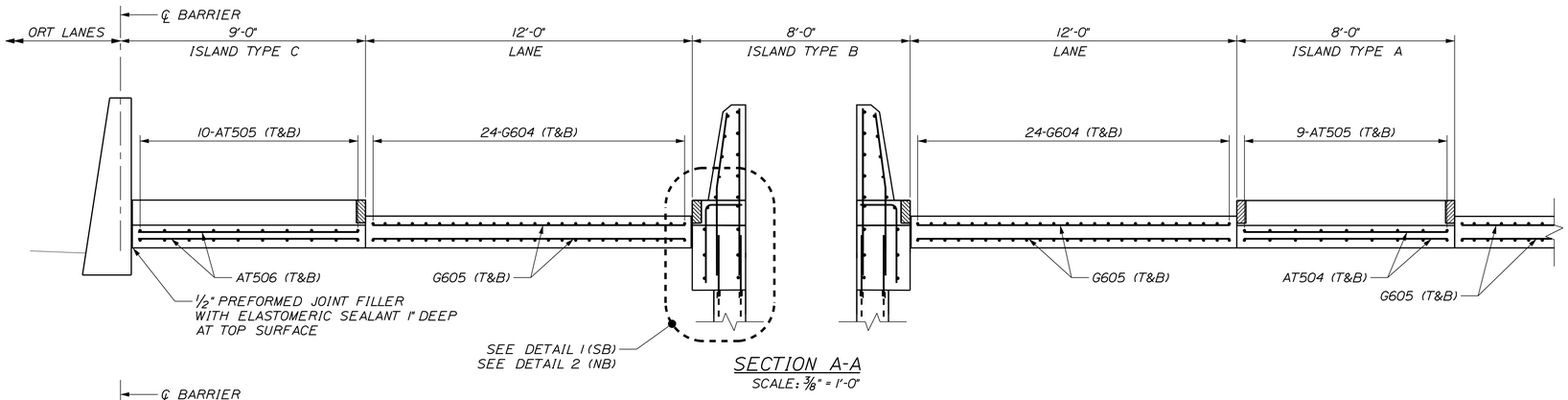
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
STRUCTURAL SLAB LAYOUT 2 OF 2

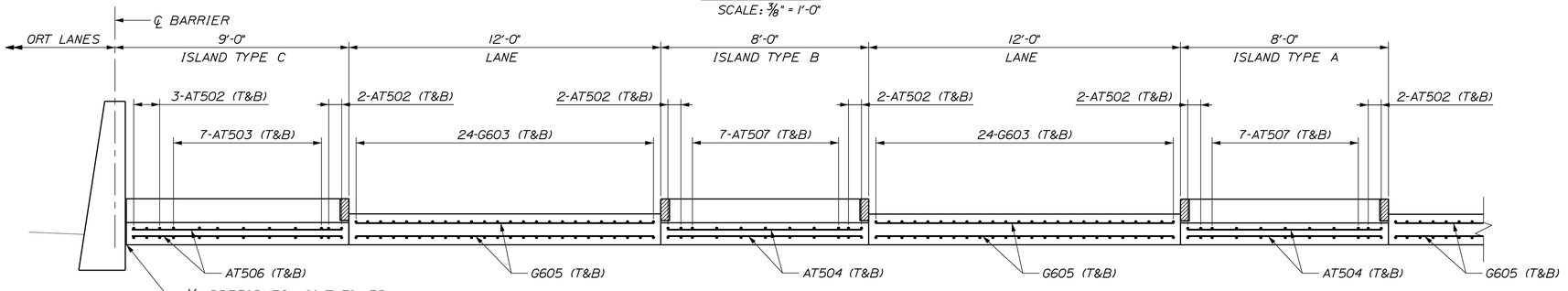
SHEET NUMBER: S-18

CONTRACT:2018.20



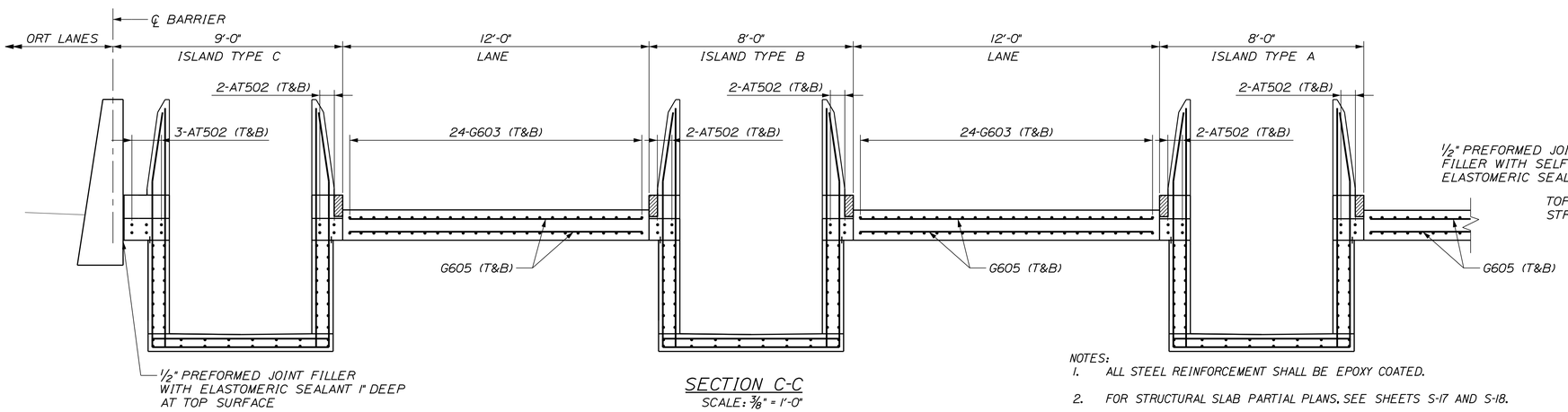
SECTION A-A

SCALE: 3/8" = 1'-0"



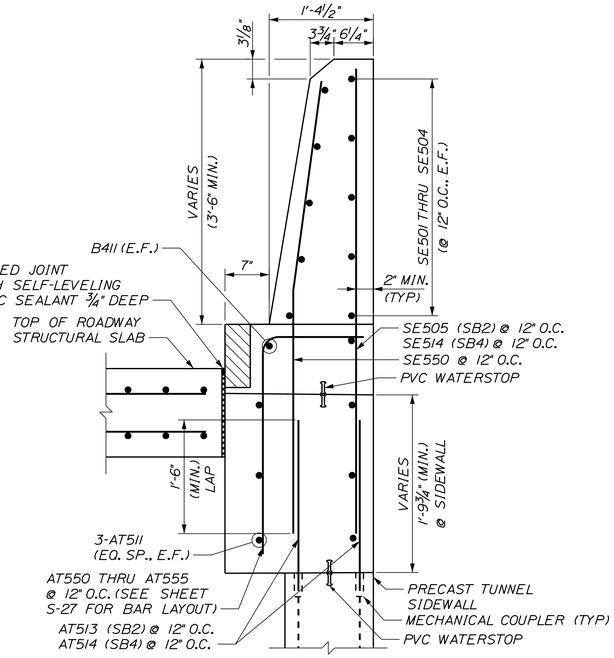
SECTION B-B

SCALE: 3/8" = 1'-0"



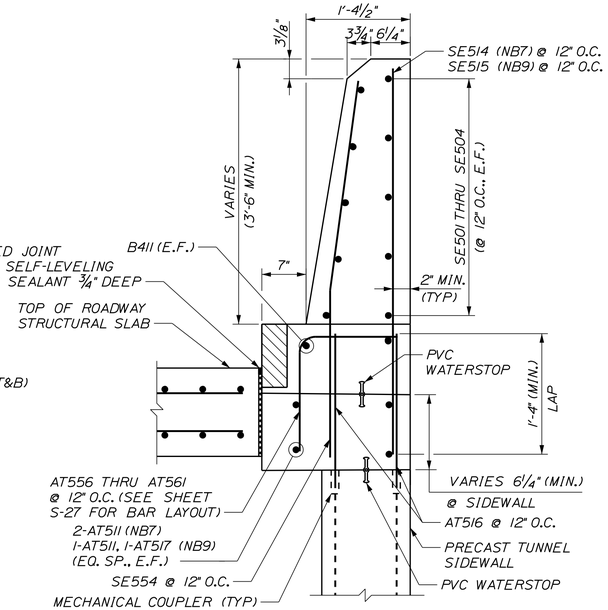
SECTION C-C

SCALE: 3/8" = 1'-0"



DETAIL 1- AT SOUTHBOUND STAIR ENCLOSURE

SCALE: 1" = 1'-0



DETAIL 2- AT NORTHBOUND STAIR ENCLOSURE

SCALE: 1" = 1'-0

NOTES:

1. ALL STEEL REINFORCEMENT SHALL BE EPOXY COATED.
2. FOR STRUCTURAL SLAB PARTIAL PLANS, SEE SHEETS S-17 AND S-18.
3. FOR ISLAND SLAB, BOOTH ENCLOSURE, STAIR ENCLOSURE, UTILITY PIT DETAILS, SEE SHEETS S-21 THROUGH S-35.
4. FOR STRUCTURAL SLAB TYPICAL DETAILS AND REINFORCEMENT SCHEDULE, SEE SHEET S-20.
5. SB2= LANE 2, SB4= LANE 4, NB7= LANE 7, AND NB9= LANE 9.

Date: 7/23/2018

Filename: ...\312_(S-19) Cash Lanes Structural Slab Sections.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

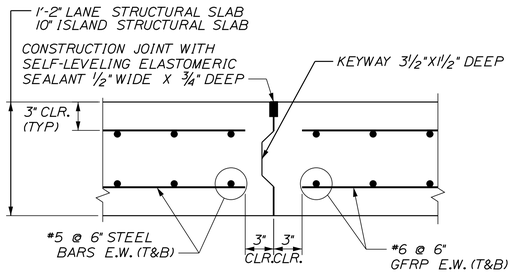
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

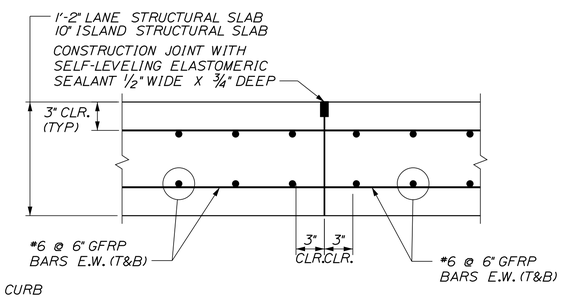
CASH LANES STRUCTURAL SLAB SECTIONS

SHEET NUMBER: S-19

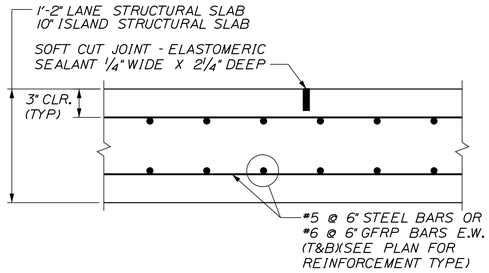
CONTRACT: 2018.20



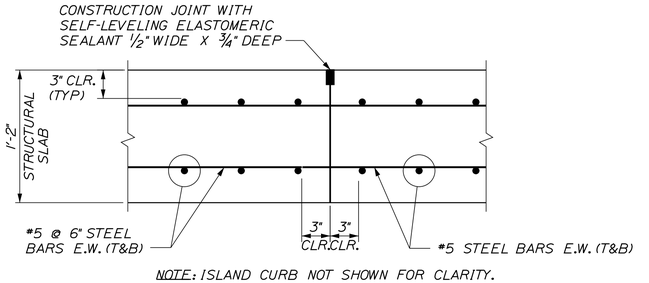
SECTION G-G
1 1/2" = 1'-0"



SECTION H-H
1 1/2" = 1'-0"

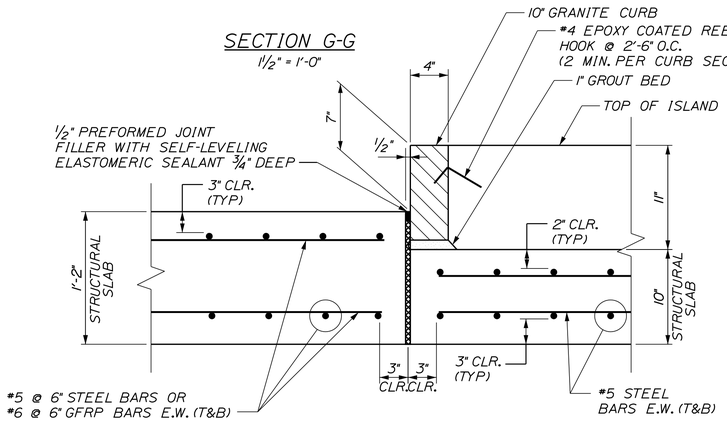


SECTION I-I
1 1/2" = 1'-0"



NOTE: ISLAND CURB NOT SHOWN FOR CLARITY.

SECTION J-J
1 1/2" = 1'-0"



SECTION K-K
1 1/2" = 1'-0"

NOTE:
SEE SHEETS S-46 AND S-47 FOR REINFORCEMENT SCHEDULE.

Date:7/23/2018

Filename: ...\313_(S-20) Cash Lane StructuralSlab TypicalDetails and Reinforcement Schedule.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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Drawn	LLG	7/18	In Charge of	TWN	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

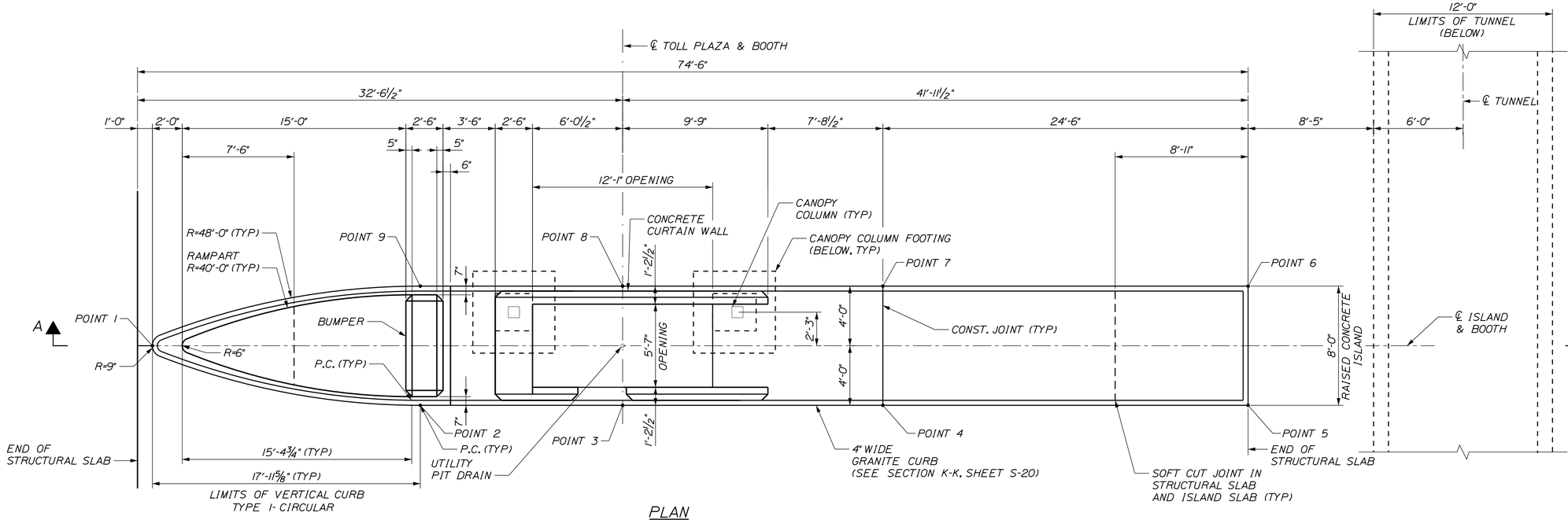
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

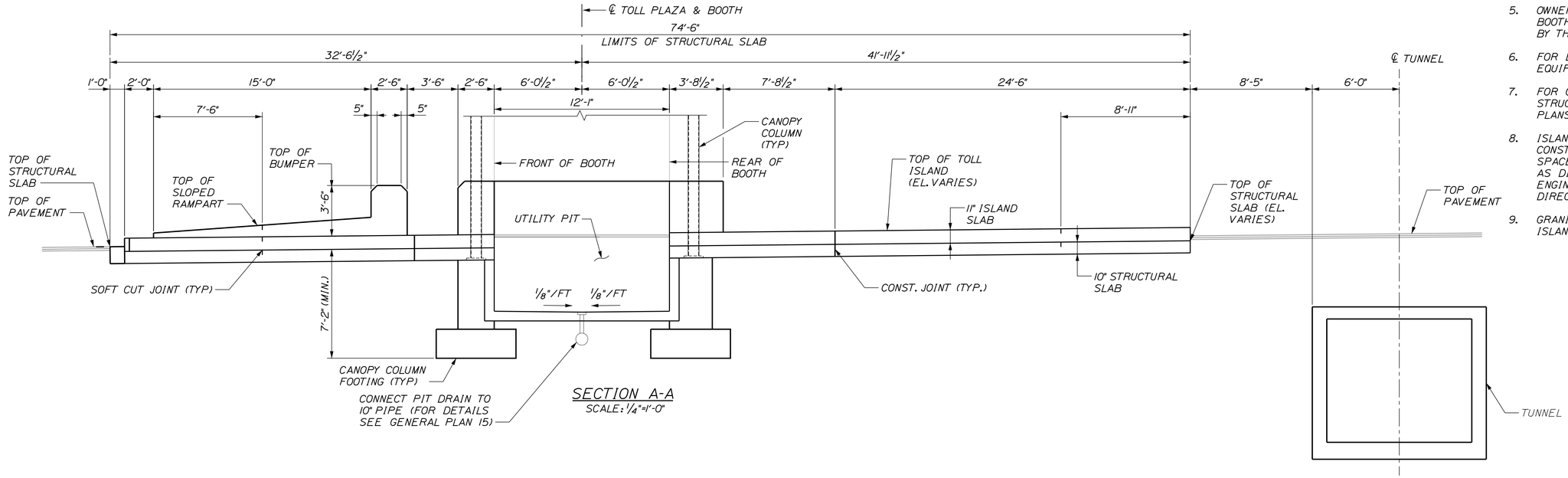
CASH LANES STRUCTURAL SLAB TYPICAL DETAILS

SHEET NUMBER: S-20

CONTRACT:2018.20



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



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

ISLAND TYPE A ELEVATIONS TABLE			
ISLAND LOCATION	POINT NO.	TOP OF PVMT. SLAB	TOP OF CURB
SB	1	166.68	167.26
	2	166.86	167.44
	3	167.00	167.58
	4	167.17	167.75
	5	167.42	168.00
	6	167.42	168.00
	7	167.17	167.75
	8	167.00	167.58
	9	166.86	167.44
NB	1	166.24	166.82
	2	166.51	167.09
	3	166.71	167.29
	4	166.97	167.55
	5	167.34	167.92
	6	167.34	167.92
	7	166.97	167.55
	8	166.71	167.29
	9	166.51	167.09

NOTES:

1. FOR LOCATIONS OF TYPE A TOLL ISLANDS, SEE SHEET S-02.
2. TOP OF STRUCTURAL SLAB AND RAISED TOLL ISLAND TO BE CONSTRUCTED ALONG VERTICAL PROFILE OF THE ROADWAY AT THE TOLL PLAZA. SEE ELEVATIONS TABLE FOR CONTROL POINT ELEVATIONS.
3. FOR TOLL BOOTH DETAILS, SEE ARCHITECTURAL DRAWINGS.
4. FOR REINFORCING DETAILS, SEE SHEET S-22.
5. OWNER WILL PROVIDE PREFABRICATED BOOTH ENCLOSURES FOR INSTALLATION BY THE CONTRACTOR.
6. FOR LOCATION OF ELECTRONIC TOLL EQUIPMENT, SEE TOLLING SYSTEMS PLANS.
7. FOR CONDUITS WITHIN ISLAND AND STRUCTURAL SLAB, SEE TOLLING SYSTEMS PLANS.
8. ISLAND SLAB SHALL HAVE ADDITIONAL CONSTRUCTION OR CONTRACTION JOINTS SPACED AT APPROXIMATELY 8 FEET OR AS DIRECTED BY THE RESIDENT ENGINEER. LOCATE ISLAND SLAB JOINTS DIRECTLY ABOVE STRUCTURAL SLAB JOINTS.
9. GRANITE CURB JOINTS SHALL ALIGN WITH ISLAND AND BARRIER JOINTS.

Date: 7/23/2018

Filename: ...\314_(S-21) Cash Lanes Island Type A Layout.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	MJA	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

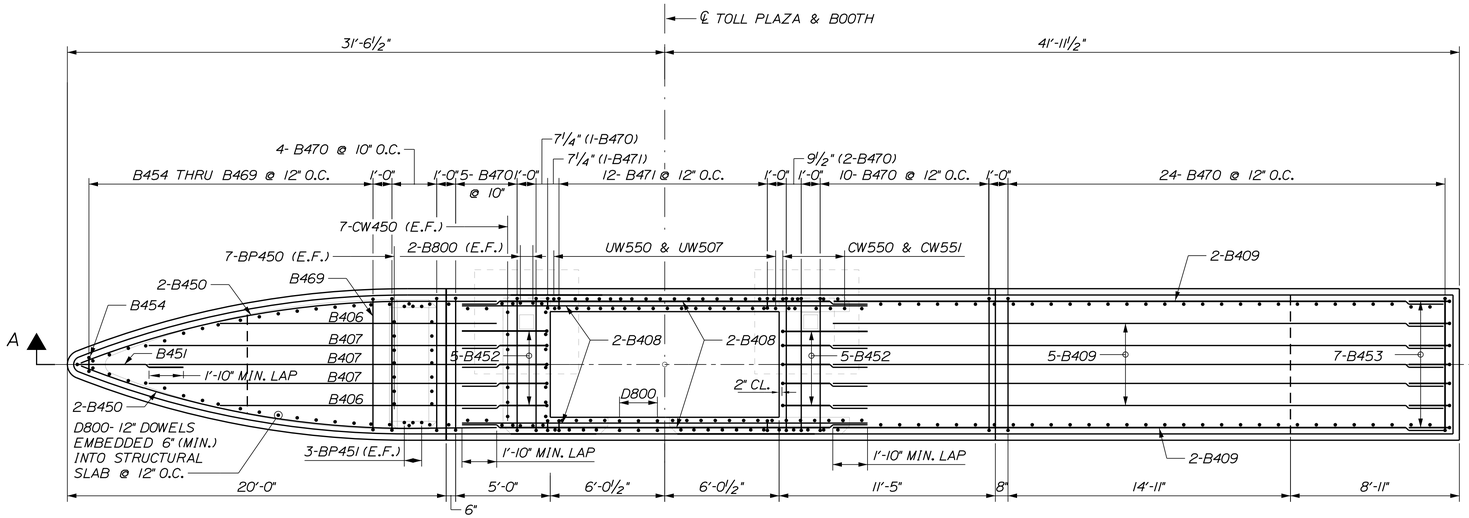
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

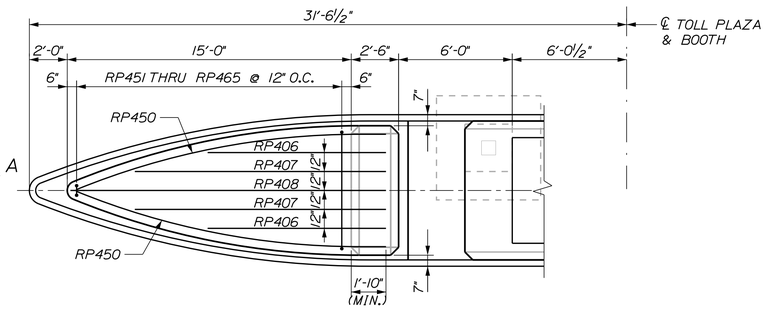
CASH LANES
ISLAND TYPE A LAYOUT

SHEET NUMBER: S-21

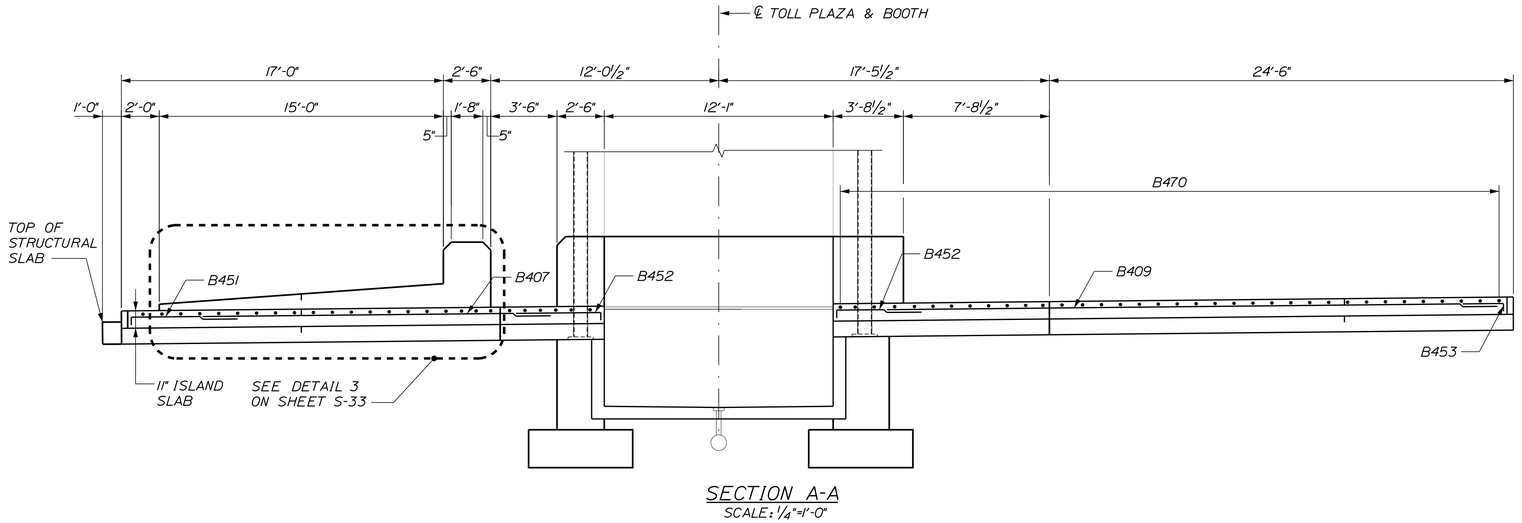
CONTRACT: 2018.20



PLAN
SCALE: ¼"=1'-0"



RAMPART REINFORCEMENT LAYOUT
SCALE: ¼" = 1'-0"



SECTION A-A
SCALE: ¼"=1'-0"

NOTES:

1. FOR ISLAND LAYOUT AND SECTION, SEE SHEET S-21.
2. FOR STRUCTURAL SLAB REINFORCING DETAILS, SEE SHEETS S-17 THROUGH S-20.
3. FOR CONDUITS WITHIN ISLAND AND STRUCTURAL SLAB, SEE TOLLING SYSTEMS PLANS.
4. ISLAND SLAB SHALL HAVE ADDITIONAL CONSTRUCTION OR CONTRACTION JOINTS SPACED AT APPROXIMATELY 8 FEET OR AS DIRECTED BY THE RESIDENT ENGINEER. LOCATE ISLAND SLAB JOINTS DIRECTLY ABOVE STRUCTURAL SLAB JOINTS.
5. FOR BOOTH CURTAIN WALL DETAILS, SEE SHEET S-32.
6. FOR UTILITY PIT REINFORCEMENT, SEE SHEET S-34.

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	MJA	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
ISLAND TYPE A DETAILS

SHEET NUMBER: S-22

CONTRACT: 2018.20

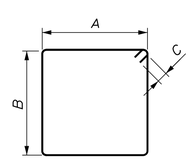
315 OF 489

Date: 7/23/2018

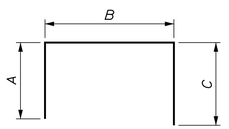
Filename: ...\315_(S-22) Cash Lanes Island Type A Details.dgn

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ISLAND A SLAB (PER ISLAND)									
B406	4	2	14'-9"	STR					LONGITUDINAL
B407	4	3	19'-1"	STR					LONGITUDINAL
B408	4	8	21'-5"	STR					LONGITUDINAL
B409	4	9	32'-3"	STR					LONGITUDINAL
B450	4	4	22'-4 1/2"	17E	3'-3 3/4"	17'-3 1/2"	4'-8 1/2"		R=47'-5" (INSIDE RADIUS)
B451	4	1	5'-6 1/2"	17	7 1/2"	4'-11"			LONGITUDINAL
B452	4	10	5'-1 1/2"	17	7 1/2"	4'-6"			LONGITUDINAL
B453	4	7	2'-10"	17	7 1/2"	2'-2 1/2"			LONGITUDINAL
B454	4	1	2'-2"	17	8"	10"	8"		TRANSVERSE
B455	4	1	2'-11"	17	8"	1'-7"	8"		TRANSVERSE
B456	4	1	3'-7"	17	8"	2'-3"	8"		TRANSVERSE
B457	4	1	4'-2 1/2"	17	8"	2'-10 1/2"	8"		TRANSVERSE
B458	4	1	4'-9 1/2"	17	8"	3'-5 1/2"	8"		TRANSVERSE
B459	4	1	5'-4"	17	8"	4'-0"	8"		TRANSVERSE
B460	4	1	5'-10"	17	8"	4'-6"	8"		TRANSVERSE
B461	4	1	6'-3 1/2"	17	8"	4'-11 1/2"	8"		TRANSVERSE
B462	4	1	6'-8"	17	8"	5'-4"	8"		TRANSVERSE
B463	4	1	7'-0 1/2"	17	8"	5'-8 1/2"	8"		TRANSVERSE
B464	4	1	7'-4"	17	8"	6'-0"	8"		TRANSVERSE
B465	4	1	7'-7 1/2"	17	8"	6'-3 1/2"	8"		TRANSVERSE
B466	4	1	7'-10"	17	8"	6'-6"	8"		TRANSVERSE
B467	4	1	8'-0"	17	8"	6'-8"	8"		TRANSVERSE
B468	4	1	8'-2"	17	8"	6'-10"	8"		TRANSVERSE
B469	4	1	8'-3"	17	8"	6'-11"	8"		TRANSVERSE
B470	4	46	8'-4"	17	8"	7'-0"	8"		TRANSVERSE
B471	4	26	1'-10 1/2"	17	8"	6 1/2"	8"		TRANSVERSE
B800	8	4	1'-0"	STR					DOWELS
D800	8	120	1'-0"	STR					DOWELS
ISLAND A RAMPART (PER ISLAND)									
RP406	4	2	9'-5"	STR					LONGITUDINAL
RP407	4	2	13'-3"	STR					LONGITUDINAL
RP408	4	1	16'-8"	STR					LONGITUDINAL
RP450	4	2	16'-5 1/2"	17E	2'-10"	14'-7"	1'-5 1/2"		R=39'-5" (INSIDE RADIUS)
RP451	4	1	1'-9 1/2"	17D	1/4"	8 1/4"	1 1/4"	2 1/4"	TRANSVERSE
RP452	4	1	2'-7"	17D	3/4"	8 3/4"	1 1/2"	6 1/2"	TRANSVERSE
RP453	4	1	3'-4 1/2"	17D	1"	9 1/4"	1 1/2"	10 3/4"	TRANSVERSE
RP454	4	1	4'-1 1/2"	17D	1 1/2"	9 3/4"	1 1/2"	1'-2 3/4"	TRANSVERSE
RP455	4	1	4'-9 1/2"	17D	2"	10 1/4"	1 3/4"	1'-6"	TRANSVERSE
RP456	4	1	5'-5 1/2"	17D	2 1/4"	11"	1 3/4"	1'-9 1/4"	TRANSVERSE
RP457	4	1	6'-0"	17D	2 1/2"	11 1/2"	1 3/4"	2'-0"	TRANSVERSE
RP458	4	1	6'-6 1/2"	17D	2 3/4"	1'-1/4"	2"	2'-2 1/2"	TRANSVERSE
RP459	4	1	7'-0"	17D	3"	1'-1"	2"	2'-4 1/2"	TRANSVERSE
RP460	4	1	7'-5 1/2"	17D	3 1/4"	1'-1 3/4"	2 1/4"	2'-6 1/2"	TRANSVERSE
RP461	4	1	7'-10 1/2"	17D	3 1/4"	1'-2 1/2"	2 1/4"	2'-8 1/4"	TRANSVERSE
RP462	4	1	8'-2"	17D	3 1/2"	1'-3 1/4"	2 1/2"	2'-9 1/4"	TRANSVERSE
RP463	4	1	8'-5"	17D	3 1/2"	1'-4"	2 1/2"	2'-10"	TRANSVERSE
RP464	4	1	8'-8 1/2"	17D	3 1/2"	1'-5"	2 3/4"	2'-10 3/4"	TRANSVERSE
RP465	4	1	8'-11"	17D	3 3/4"	1'-6"	3"	2'-11"	TRANSVERSE
ISLAND A BUMPER (PER ISLAND)									
BP450	4	14	4'-2"	17	8"	3'-6"			
BP451	4	6	2'-10"	17G	2"	1'-2"	1'-0"	8"	
BP452	4	3	11'-3 1/2"	17B	3'-1 1/2"	4'-6"	3'-1 1/2"	6'-4"	R=5 1/2" (INSIDE RADIUS)
BP453	4	7	8'-3 1/2"	17A		3'-2"	2'-1"	3'-2"	R=6" (INSIDE RADIUS)
BP454	4	6	10'-4 1/2"	17A		4'-2"	2'-2"	4'-2"	R=7" (INSIDE RADIUS)

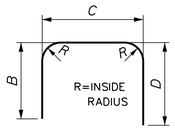
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ISLAND A UTILITY PIT (PER ISLAND)									
UB506	5	30	6'-11"	STR					
UB507	5	16	13'-5"	STR					
UW506	5	35	4'-0"	STR					
UW507	5	30	9'-2"	STR					
UW508	5	20	4'-6"	STR					
UW509	5	16	4'-3"	STR					
UW510	5	16	13'-5"	STR					
UW511	5	16	11'-9"	STR					
UW550	5	30	8'-11 1/2"	17F	5"	2'-7 3/4"	6'-3 1/2"		
UW551	5	10	3'-4"	17	1'-8"	1'-8"			
ISLAND A CURTAIN WALL BARRIER (PER ISLAND)									
CW506	5	4	4'-4"	STR					
CW507	5	4	5'-2"	STR					
CW508	5	4	8'-4"	STR					
CW509	5	4	9'-2"	STR					
CW510	5	8	9'-10"	STR					
CW450	4	14	4'-2"	17	8"	3'-6"			
CW451	4	7	8'-4 1/2"	17A		3'-2 1/2"	2'-1"	3'-2 1/2"	R=6" (INSIDE RADIUS)
CW452	4	4	12'-4"	17B	3'-4"	5'-1 1/2"	3'-4"	6'-10 1/2"	R=5 1/2" (INSIDE RADIUS)
CW453	4	8	10'-10 1/2"	17A		4'-5"	2'-2"	4'-5"	R=7" (INSIDE RADIUS)
CW550	5	8	5'-3 1/2"	17G	5 1/2"	2'-8 1/2"	1'-8 3/4"	10"	
CW551	5	9	5'-6"	17	10"	4'-8"			
ISLAND A CANOPY FOUNDATIONS (PER ISLAND)									
CF606	6	48	5'-0"	STR					
CF650	6	32	5'-4"	17	1'-0"	4'-4"			
CP606	6	32	4'-6"	STR					
CP350	3	9	9'-7"	100	2'-2"	2'-3 1/2"	4"		
CP351	3	9	10'-5"	100	2'-7"	2'-3 1/2"	4"		
CP352	3	18	2'-11"	110	2'-3 1/2"	3 1/2"	4"		
CP353	3	9	2'-9 1/2"	110	2'-2"	3 1/2"	4"		
CP354	3	9	3'-2 1/2"	110	2'-7"	3 1/2"	4"		



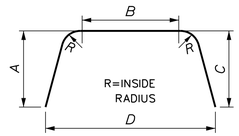
TYPE 100



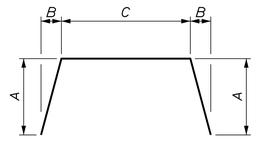
TYPE 17



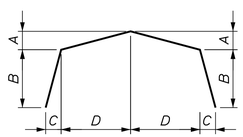
TYPE 17A



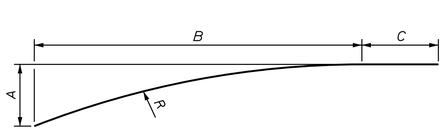
TYPE 17B



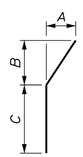
TYPE 17C



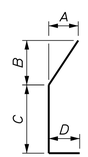
TYPE 17D



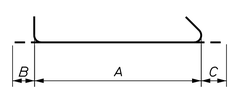
TYPE 17E



TYPE 17F



TYPE 17G



TYPE 110

Date:7/23/2018

Filename: ...\316_(S-23) Cash Lanes Island Type A Reinforcement Schedule.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	LLG	7/18	Checked	DJM	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

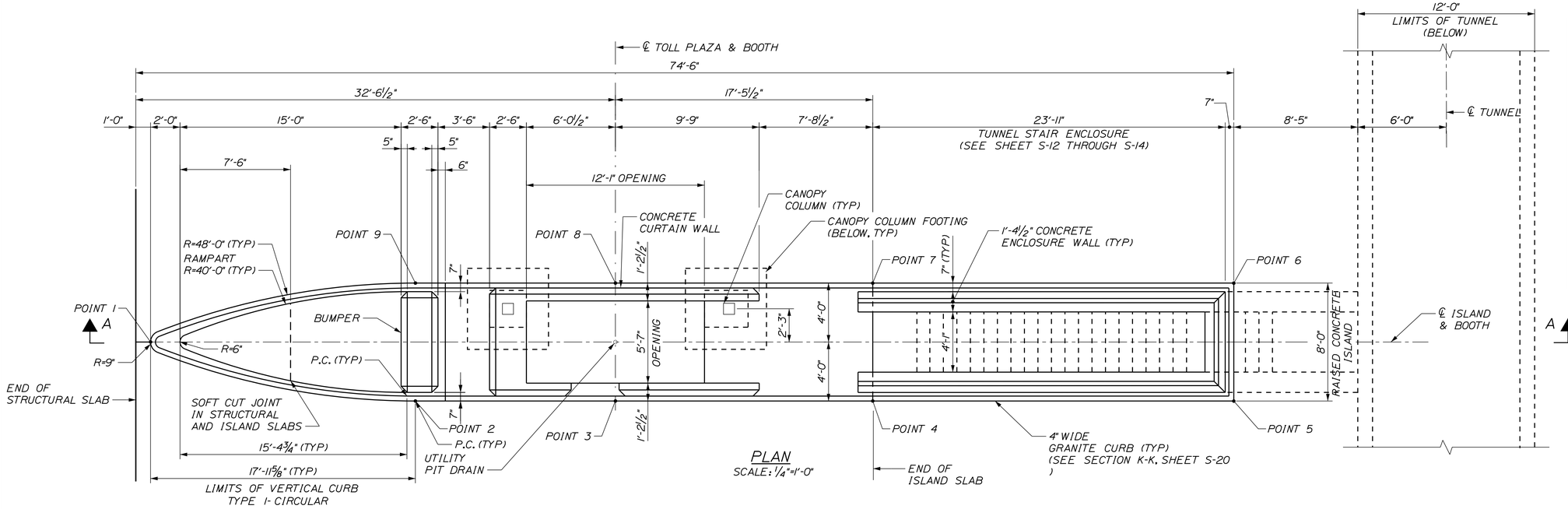
YORK TOLL PLAZA

CASH LANES ISLAND TYPE A REINFORCEMENT SCHEDULE

SHEET NUMBER: S-23

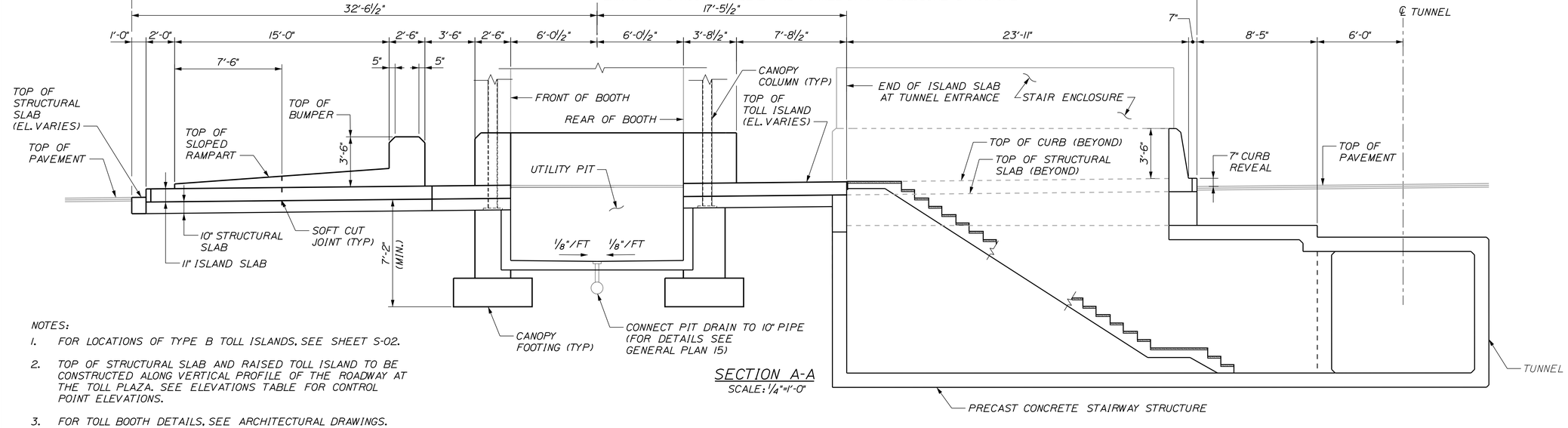
CONTRACT:2018.20

Date:7/23/2018



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

ISLAND TYPE B ELEVATIONS TABLE			
ISLAND LOCATION	POINT NO.	TOP OF PVMT. SLAB	TOP OF CURB
SB	1	166.68	167.26
	2	166.86	167.44
	3	167.00	167.58
	4	167.17	167.75
	5	167.42	168.00
	6	167.42	168.00
	7	167.17	167.75
	8	167.00	167.58
	9	166.86	167.44
NB	1	166.24	166.82
	2	166.51	167.09
	3	166.71	167.29
	4	166.97	167.55
	5	167.34	167.92
	6	167.34	167.92
	7	166.97	166.55
	8	166.71	167.29
	9	166.51	167.09



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

NOTES:

1. FOR LOCATIONS OF TYPE B TOLL ISLANDS, SEE SHEET S-02.
2. TOP OF STRUCTURAL SLAB AND RAISED TOLL ISLAND TO BE CONSTRUCTED ALONG VERTICAL PROFILE OF THE ROADWAY AT THE TOLL PLAZA. SEE ELEVATIONS TABLE FOR CONTROL POINT ELEVATIONS.
3. FOR TOLL BOOTH DETAILS, SEE ARCHITECTURAL DRAWINGS.
4. FOR TUNNEL STAIRWAY STRUCTURE DETAILS, SEE SHEETS S-12 THROUGH S-14.
5. FOR ADDITIONAL CASH LANE ISLAND NOTES, SEE SHEET S-21.

Filename: ...\317_(S-24) Cash Lanes Island Type B Layout.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

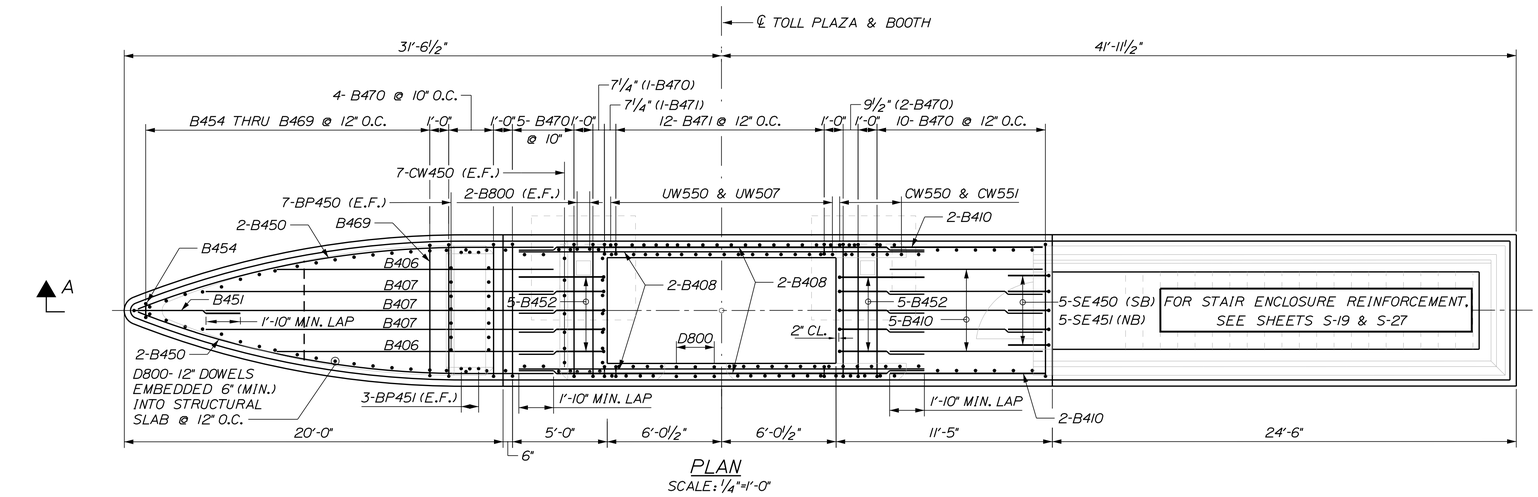
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

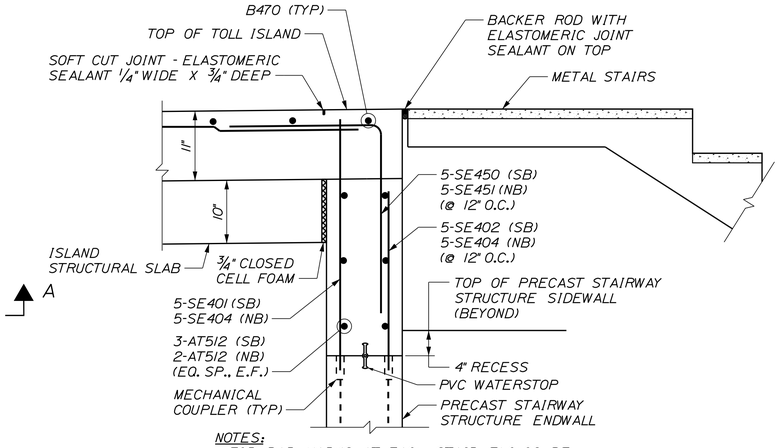
CASH LANES
ISLAND TYPE B LAYOUT

SHEET NUMBER: S-24

CONTRACT:2018.20



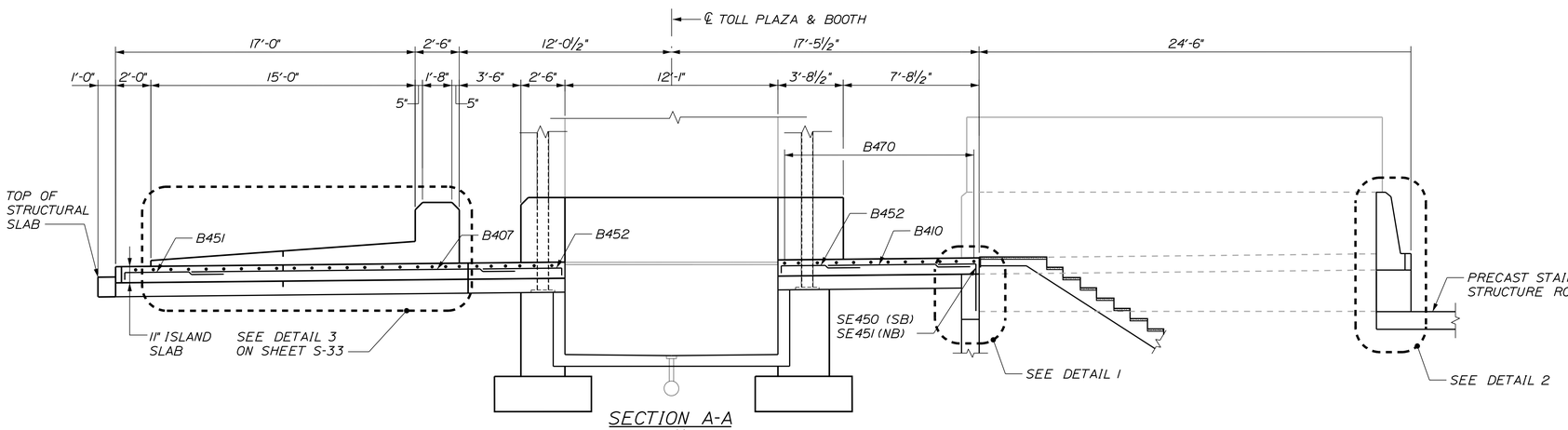
PLAN
SCALE: ¼"=1'-0"



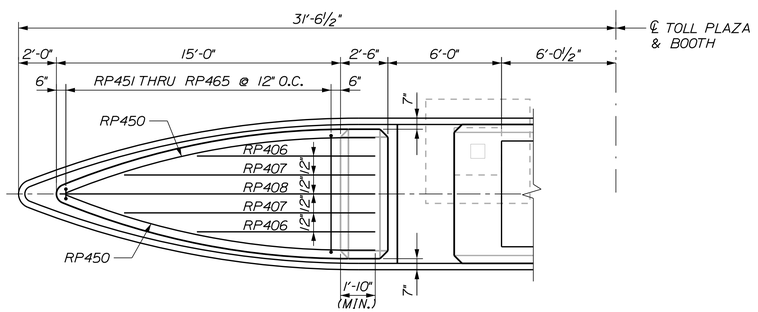
NOTES:
1) FOR BAR MARKS AT EACH STAIR ENCLOSURE, SEE SHEET S-27.

2) REFER TO S-13 FOR WATERPROOFING DETAILS.

DETAIL 1
SCALE: 1" = 1'-0



SECTION A-A
SCALE: ¼"=1'-0"



RAMPART REINFORCEMENT LAYOUT
SCALE: ¼" = 1'-0"

NOTES:
1. FOR ISLAND LAYOUT AND SECTION, SEE SHEET S-24.
2. FOR STRUCTURAL SLAB REINFORCING DETAILS, SEE SHEETS S-17 THROUGH S-20.
3. FOR CONDUITS WITHIN ISLAND AND STRUCTURAL SLAB, SEE TOLLING SYSTEMS PLANS.
4. ISLAND SLAB SHALL HAVE ADDITIONAL CONSTRUCTION OR CONTRACTION JOINTS SPACED AT APPROXIMATELY 8 FEET OR AS DIRECTED BY THE RESIDENT ENGINEER. LOCATE ISLAND SLAB JOINTS DIRECTLY ABOVE STRUCTURAL SLAB JOINTS.
5. FOR BOOTH CURTAIN WALL DETAILS, SEE SHEET S-32.
6. FOR UTILITY PIT REINFORCEMENT, SEE SHEET S-34.

NOTE:
FOR BAR MARKS AND LAYOUT AT EACH STAIR ENCLOSURE, SEE SHEET S-27.

DETAIL 2
SCALE: 1" = 1'-0

Date:7/23/2018

Filename: ...\318_(S-25) Cash Lanes Island Type B Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
ISLAND TYPE B DETAILS

SHEET NUMBER: S-25

CONTRACT:2018.20

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ISLAND B SLAB (PER ISLAND)									
B406	4	2	14'-9"	STR					LONGITUDINAL
B407	4	3	19'-1"	STR					LONGITUDINAL
B408	4	8	21'-5"	STR					LONGITUDINAL
B410	4	9	8'-1"	STR					LONGITUDINAL
B411	4	4	24'-10"	STR					LONGITUDINAL
B450	4	4	22'-4 1/2"	17E	3'-3 3/4"	17'-3 1/2"	4'-8 1/2"		R=47'-5" (INSIDE RADIUS)
B451	4	1	5'-6 1/2"	17	7 1/2"	4'-11"			LONGITUDINAL
B452	4	10	5'-1 1/2"	17	7 1/2"	4'-6"			LONGITUDINAL
B454	4	1	2'-2"	17	8"	10"	8"		TRANSVERSE
B455	4	1	2'-11"	17	8"	1'-7"	8"		TRANSVERSE
B456	4	1	3'-7"	17	8"	2'-3"	8"		TRANSVERSE
B457	4	1	4'-2 1/2"	17	8"	2'-10 1/2"	8"		TRANSVERSE
B458	4	1	4'-9 1/2"	17	8"	3'-5 1/2"	8"		TRANSVERSE
B459	4	1	5'-4"	17	8"	4'-0"	8"		TRANSVERSE
B460	4	1	5'-10"	17	8"	4'-6"	8"		TRANSVERSE
B461	4	1	6'-3 1/2"	17	8"	4'-11 1/2"	8"		TRANSVERSE
B462	4	1	6'-8"	17	8"	5'-4"	8"		TRANSVERSE
B463	4	1	7'-0 1/2"	17	8"	5'-8 1/2"	8"		TRANSVERSE
B464	4	1	7'-4"	17	8"	6'-0"	8"		TRANSVERSE
B465	4	1	7'-7 1/2"	17	8"	6'-3 1/2"	8"		TRANSVERSE
B466	4	1	7'-10"	17	8"	6'-6"	8"		TRANSVERSE
B467	4	1	8'-0"	17	8"	6'-8"	8"		TRANSVERSE
B468	4	1	8'-2"	17	8"	6'-10"	8"		TRANSVERSE
B469	4	1	8'-3"	17	8"	6'-11"	8"		TRANSVERSE
B470	4	22	8'-4"	17	8"	7'-0"	8"		TRANSVERSE
B471	4	26	1'-10 1/2"	17	8"	6 1/2"	8"		TRANSVERSE
B472	4	1	7'-0"	STR					TRANSVERSE
B800	8	4	1'-0"	STR					DOWELS
D800	8	72	1'-0"	STR					DOWELS
ISLAND B RAMPART (PER ISLAND)									
RP406	4	2	9'-5"	STR					LONGITUDINAL
RP407	4	2	13'-3"	STR					LONGITUDINAL
RP408	4	1	16'-8"	STR					LONGITUDINAL
RP450	4	2	16'-5 1/2"	17E	2'-10"	14'-7"	1'-5 1/2"		R=39'-5" (INSIDE RADIUS)
RP451	4	1	1'-9 1/2"	17D	1/4"	8 1/4"	1 1/4"	2 1/4"	TRANSVERSE
RP452	4	1	2'-7"	17D	3/4"	8 3/4"	1 1/2"	6 1/2"	TRANSVERSE
RP453	4	1	3'-4 1/2"	17D	1"	9 1/4"	1 1/2"	10 3/4"	TRANSVERSE
RP454	4	1	4'-1 1/2"	17D	1 1/2"	9 3/4"	1 1/2"	1'-2 3/4"	TRANSVERSE
RP455	4	1	4'-9 1/2"	17D	2"	10 1/4"	1 3/4"	1'-6"	TRANSVERSE
RP456	4	1	5'-5 1/2"	17D	2 1/4"	11"	1 3/4"	1'-9 1/4"	TRANSVERSE
RP457	4	1	6'-0"	17D	2 1/2"	11 1/2"	1 3/4"	2'-0"	TRANSVERSE
RP458	4	1	6'-6 1/2"	17D	2 3/4"	1'-1/4"	2"	2'-2 1/2"	TRANSVERSE
RP459	4	1	7'-0"	17D	3"	1'-1"	2"	2'-4 1/2"	TRANSVERSE
RP460	4	1	7'-5 1/2"	17D	3 1/4"	1'-1 3/4"	2 1/4"	2'-6 1/2"	TRANSVERSE
RP461	4	1	7'-10 1/2"	17D	3 1/4"	1'-2 1/2"	2 1/4"	2'-8 1/4"	TRANSVERSE
RP462	4	1	8'-2"	17D	3 1/2"	1'-3 1/4"	2 1/2"	2'-9 1/4"	TRANSVERSE
RP463	4	1	8'-5"	17D	3 1/2"	1'-4"	2 1/2"	2'-10"	TRANSVERSE
RP464	4	1	8'-8 1/2"	17D	3 1/2"	1'-5"	2 3/4"	2'-10 3/4"	TRANSVERSE
RP465	4	1	8'-11"	17D	3 3/4"	1'-6"	3"	2'-11"	TRANSVERSE
ISLAND B BUMPER (PER ISLAND)									
BP450	4	14	4'-2"	17	8"	3'-6"			
BP451	4	6	2'-10"	17G	2"	1'-2"	1'-0"	8"	
BP452	4	3	11'-3 1/2"	17B	3'-1 1/2"	4'-6"	3'-1 1/2"	6'-4"	R=5 1/2" (INSIDE RADIUS)
BP453	4	7	8'-3 1/2"	17A		3'-2"	2'-1"	3'-2"	R=6" (INSIDE RADIUS)
BP454	4	6	10'-4 1/2"	17A		4'-2"	2'-2"	4'-2"	R=7" (INSIDE RADIUS)

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ISLAND B UTILITY PIT (PER ISLAND)									
UB506	5	30	6'-11"	STR					
UB507	5	16	13'-5"	STR					
UW506	5	35	4'-0"	STR					
UW507	5	30	9'-2"	STR					
UW508	5	20	4'-6"	STR					
UW509	5	16	4'-3"	STR					
UW510	5	16	13'-5"	STR					
UW511	5	16	11'-9"	STR					
UW550	5	30	8'-11 1/2"	17F	5"	2'-7 3/4"	6'-3 1/2"		
UW551	5	10	3'-4"	17	1'-8"	1'-8"			
ISLAND B CURTAIN WALL BARRIER (PER ISLAND)									
CW506	5	4	4'-4"	STR					
CW507	5	4	5'-2"	STR					
CW508	5	4	8'-4"	STR					
CW509	5	4	9'-2"	STR					
CW510	5	8	9'-10"	STR					
CW450	4	14	4'-2"	17	8"	3'-6"			
CW451	4	7	8'-4 1/2"	17A		3'-2 1/2"	2'-1"	3'-2 1/2"	R=6" (INSIDE RADIUS)
CW452	4	4	12'-4"	17B	3'-4"	5'-1 1/2"	3'-4"	6'-10 1/2"	R=5 1/2" (INSIDE RADIUS)
CW453	4	8	10'-10 1/2"	17A		4'-5"	2'-2"	4'-5"	R=7" (INSIDE RADIUS)
CW550	5	8	5'-3 1/2"	17G	5 1/2"	2'-8 1/2"	1'-8 3/4"	10"	
CW551	5	9	5'-6"	17	10"	4'-8"			
ISLAND B CANOPY FOUNDATIONS (PER ISLAND)									
CF606	6	48	5'-0"	STR					
CF650	6	32	5'-4"	17	1'-0"	4'-4"			
CP606	6	32	4'-6"	STR					
CP350	3	9	9'-7"	100	2'-2"	2'-3 1/2"	4"		
CP351	3	9	10'-5"	100	2'-7"	2'-3 1/2"	4"		
CP352	3	18	2'-11"	110	2'-3 1/2"	3 1/2"	4"		
CP353	3	9	2'-9 1/2"	110	2'-2"	3 1/2"	4"		
CP354	3	9	3'-2 1/2"	110	2'-7"	3 1/2"	4"		

NOTE:
SEE SHEET S-23 FOR BAR BENDING DIAGRAMS.

Date:7/23/2018

Filename: ...\319_(S-26) Cash Lanes Island Type B Reinforcement Schedule 1 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	LLG	7/18	Checked	DJM	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES ISLAND TYPE B
REINFORCEMENT SCHEDULE 1 OF 2

SHEET NUMBER: S-26

CONTRACT:2018.20

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
SOUTHBOUND STAIR ENCLOSURE AT LANE 2									
AT511	5	12	24'-11"	STR					LONGITUDINAL
AT512	5	9	7'-8"	STR					TRANSVERSE
AT513	5	108	1'-9"	STR					VERTICAL, SEE NOTE 1
AT550	5	28	4'-0"	17	2'-9"	1'-3"			TRANSVERSE
AT551	5	18	3'-10"	17	2'-7"	1'-3"			TRANSVERSE
AT552	5	16	3'-9"	17	2'-6"	1'-3"			TRANSVERSE
SE501	5	4	23'-11"	STR					LONGITUDINAL
SE502	5	8	24'-3"	STR					LONGITUDINAL
SE503	5	4	24'-5"	STR					LONGITUDINAL
SE504	5	4	24'-6"	STR					LONGITUDINAL
SE505	5	52	6'-3"	STR					VERTICAL
SE506	5	2	6'-0"	STR					TRANSVERSE
SE507	5	2	5'-9"	STR					TRANSVERSE
SE508	5	2	5'-6"	STR					TRANSVERSE
SE509	5	2	5'-4"	STR					TRANSVERSE
SE510	5	1	5'-1"	STR					TRANSVERSE
SE511	5	1	4'-9"	STR					TRANSVERSE
SE512	5	4	6'-9"	STR					VERTICAL
SE550	5	56	6'-3"	17F	4 1/2"	2'-9"	3'-6"		VERTICAL
SE551	5	4	6'-8"	17F	4 1/2"	2'-9"	3'-11"		VERTICAL
SE401	4	5	2'-11"	STR					VERTICAL, SEE NOTE 1
SE402	4	5	2'-0"	STR					VERTICAL, SEE NOTE1
SE450	4	5	4'-6"	17	2'-6"	2'-0"			LONGITUDINAL

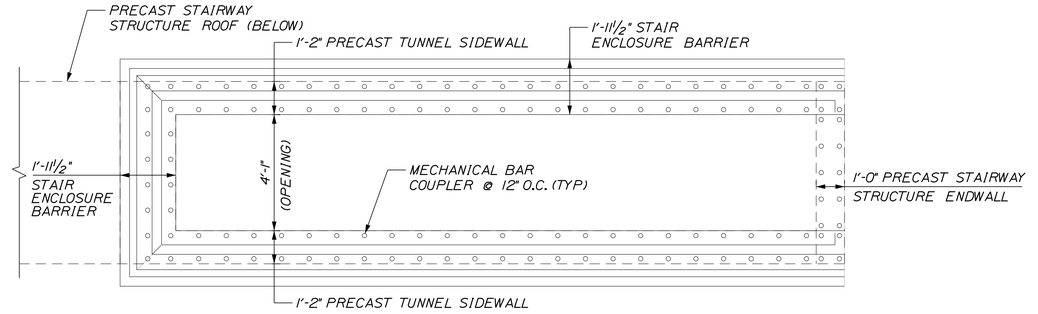
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
SOUTHBOUND STAIR ENCLOSURE AT LANE 4									
AT511	5	12	24'-11"	STR					LONGITUDINAL
AT512	5	9	7'-8"	STR					TRANSVERSE
AT514	5	108	1'-9"	STR					VERTICAL, SEE NOTE 1
AT551	5	12	3'-10"	17	2'-7"	1'-3"			TRANSVERSE
AT553	5	16	3'-9"	17	2'-6"	1'-3"			TRANSVERSE
AT554	5	18	3'-7"	17	2'-4"	1'-3"			TRANSVERSE
AT555	5	16	3'-6"	17	2'-3"	1'-3"			TRANSVERSE
SE501	5	4	23'-11"	STR					LONGITUDINAL
SE502	5	8	24'-3"	STR					LONGITUDINAL
SE503	5	4	24'-5"	STR					LONGITUDINAL
SE504	5	4	24'-6"	STR					LONGITUDINAL
SE514	5	52	6'-2"	STR					VERTICAL
SE506	5	2	6'-0"	STR					TRANSVERSE
SE507	5	2	5'-9"	STR					TRANSVERSE
SE508	5	2	5'-6"	STR					TRANSVERSE
SE509	5	2	5'-4"	STR					TRANSVERSE
SE510	5	1	5'-1"	STR					TRANSVERSE
SE511	5	1	4'-9"	STR					TRANSVERSE
SE513	5	4	6'-6"	STR					VERTICAL
SE550	5	56	6'-3"	17F	4 1/2"	2'-9"	3'-6"		VERTICAL
SE552	5	4	6'-6"	17F	4 1/2"	2'-9"	3'-9"		VERTICAL
SE401	4	5	2'-11"	STR					VERTICAL, SEE NOTE 1
SE402	4	5	2'-0"	STR					VERTICAL, SEE NOTE 1
SE450	4	5	4'-6"	17	2'-6"	2'-0"			LONGITUDINAL

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
NORTHBOUND STAIR ENCLOSURE AT LANE 7									
AT511	5	4	24'-11"	STR					LONGITUDINAL
AT512	5	6	7'-8"	STR					TRANSVERSE
AT516	5	108	1'-6 1/2"	STR					VERTICAL, SEE NOTE 1
AT518	5	4	13' 5"	STR					LONGITUDINAL
AT556	5	26	2'-9"	17	1'-6"	1'-3"			TRANSVERSE
AT557	5	12	2'-8"	17	1'-5"	1'-3"			TRANSVERSE
AT558	5	12	2'-7"	17	1'-4"	1'-3"			TRANSVERSE
AT559	5	12	2'-5"	17	1'-2"	1'-3"			TRANSVERSE
SE501	5	4	23'-11"	STR					LONGITUDINAL
SE502	5	8	24'-3"	STR					LONGITUDINAL
SE503	5	4	24'-5"	STR					LONGITUDINAL
SE504	5	4	24'-6"	STR					LONGITUDINAL
SE506	5	2	6'-0"	STR					TRANSVERSE
SE507	5	2	5'-9"	STR					TRANSVERSE
SE508	5	2	5'-6"	STR					TRANSVERSE
SE509	5	2	5'-4"	STR					TRANSVERSE
SE510	5	1	5'-1"	STR					TRANSVERSE
SE511	5	1	4'-9"	STR					TRANSVERSE
SE514	5	52	5'-2"	STR					VERTICAL
SE516	5	4	5'-7"	STR					VERTICAL
SE554	5	56	5'-1"	17F	4 1/2"	2'-9"	2'-4"		VERTICAL
SE556	5	4	5'-4"	17F	4 1/2"	2'-9"	2'-7"		VERTICAL
SE404	4	10	1'-7"	STR					VERTICAL, SEE NOTE 1
SE451	4	5	3'-5 1/2"	17	1'-5 1/2"	2'-0"			LONGITUDINAL

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
NORTHBOUND STAIR ENCLOSURE AT LANE 9									
AT511	5	4	24'-11"	STR					LONGITUDINAL
AT512	5	6	7'-8"	STR					TRANSVERSE
AT516	5	108	1'-6 1/2"	STR					VERTICAL, SEE NOTE 1
AT517	5	4	13'-3"	STR					LONGITUDINAL
AT557	5	4	2'-8"	17	1'-5"	1'-3"			TRANSVERSE
AT558	5	22	2'-7"	17	1'-4"	1'-3"			TRANSVERSE
AT559	5	12	2'-5"	17	1'-2"	1'-3"			TRANSVERSE
AT560	5	12	2'-4"	17	1'-1"	1'-3"			TRANSVERSE
AT561	5	12	2'-3"	17	1'-0"	1'-3"			TRANSVERSE
SE501	5	4	23'-11"	STR					LONGITUDINAL
SE502	5	8	24'-3"	STR					LONGITUDINAL
SE503	5	4	24'-5"	STR					LONGITUDINAL
SE504	5	4	24'-6"	STR					LONGITUDINAL
SE506	5	2	6'-0"	STR					TRANSVERSE
SE507	5	2	5'-9"	STR					TRANSVERSE
SE508	5	2	5'-6"	STR					TRANSVERSE
SE509	5	2	5'-4"	STR					TRANSVERSE
SE510	5	1	5'-1"	STR					TRANSVERSE
SE511	5	1	4'-9"	STR					TRANSVERSE
SE515	5	52	5'-0"	STR					VERTICAL
SE517	5	4	5'-5"	STR					VERTICAL
SE555	5	56	4'-11"	17F	4 1/2"	2'-9"	2'-2"		VERTICAL
SE557	5	4	5'-2"	17F	4 1/2"	2'-9"	2'-5"		VERTICAL
SE404	4	10	1'-7"	STR					VERTICAL, SEE NOTE 1
SE451	4	5	3'-5 1/2"	17	1'-5 1/2"	2'-0"			LONGITUDINAL

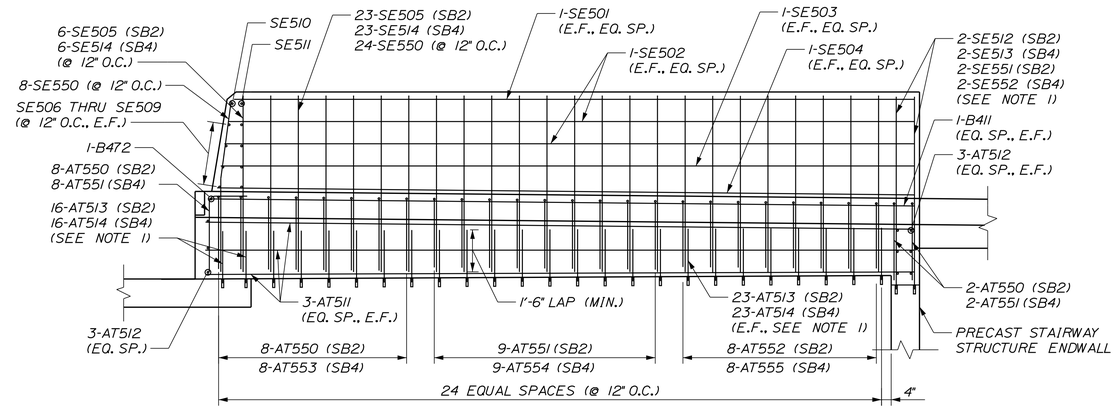
NOTES:

1. LENGTHS PROVIDED IN THE REINFORCEMENT SCHEDULE DO NOT INCLUDE THE THREADED INSERT LENGTH OF THE BARS INTO THE COUPLERS. THE CONTRACTOR SHALL INCREASE THE BAR LENGTHS BASED ON THE INSERT LENGTH SPECIFIED BY THE SELECTED COUPLER MANUFACTURER AND PRODUCT.
2. SB2= LANE 2, SB4= LANE 4, NB7= LANE 7, AND NB9= LANE 9.
3. SEE SHEET S-23 FOR BAR BENDING DIAGRAMS.



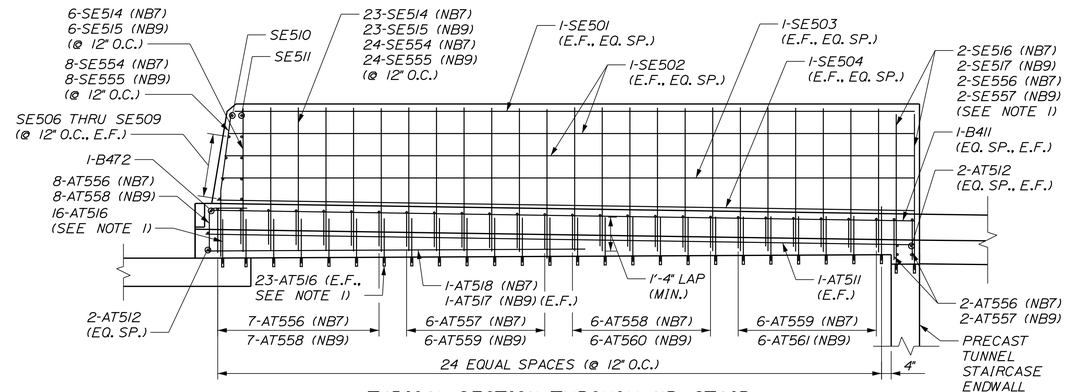
STAIR ENCLOSURE BARRIER AND COUPLER LAYOUT PLAN

SCALE: ⅜" = 1'-0"



TYPICAL SECTION THROUGH SB STAIR ENCLOSURE BARRIERS

SCALE: ⅜" = 1'-0"



TYPICAL SECTION THROUGH NB STAIR ENCLOSURE BARRIERS

SCALE: ⅜" = 1'-0"

Date: 7/23/2018

Filename: ...\320_(S-27) Cash Lanes Island Type B Reinforcement Schedule 2 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

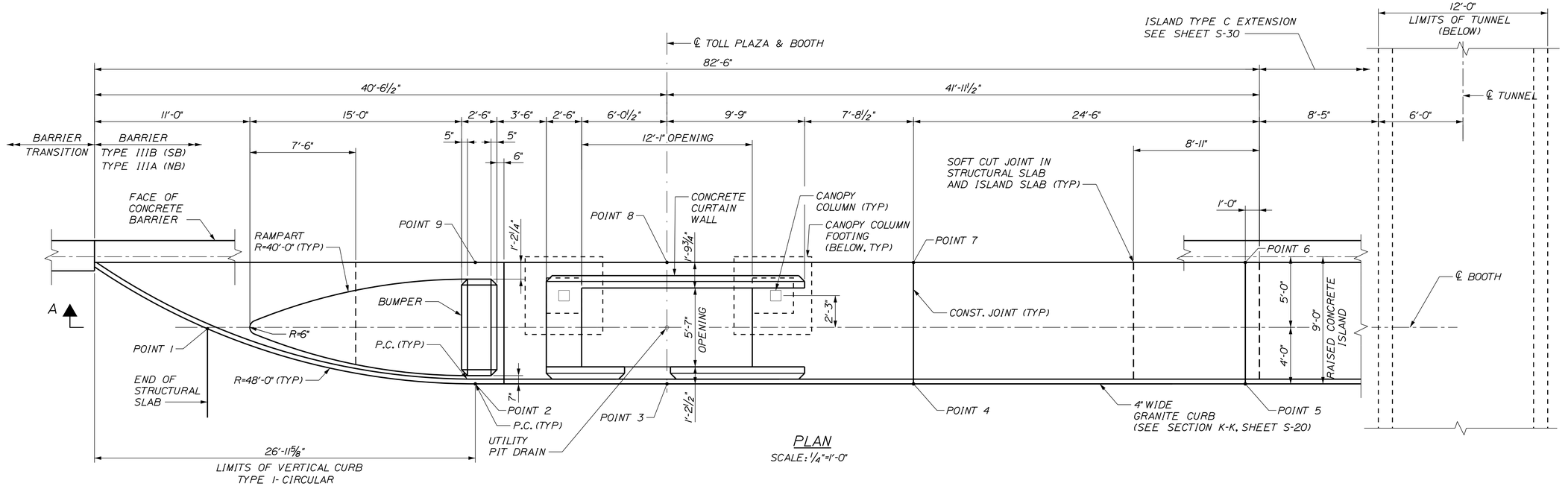
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

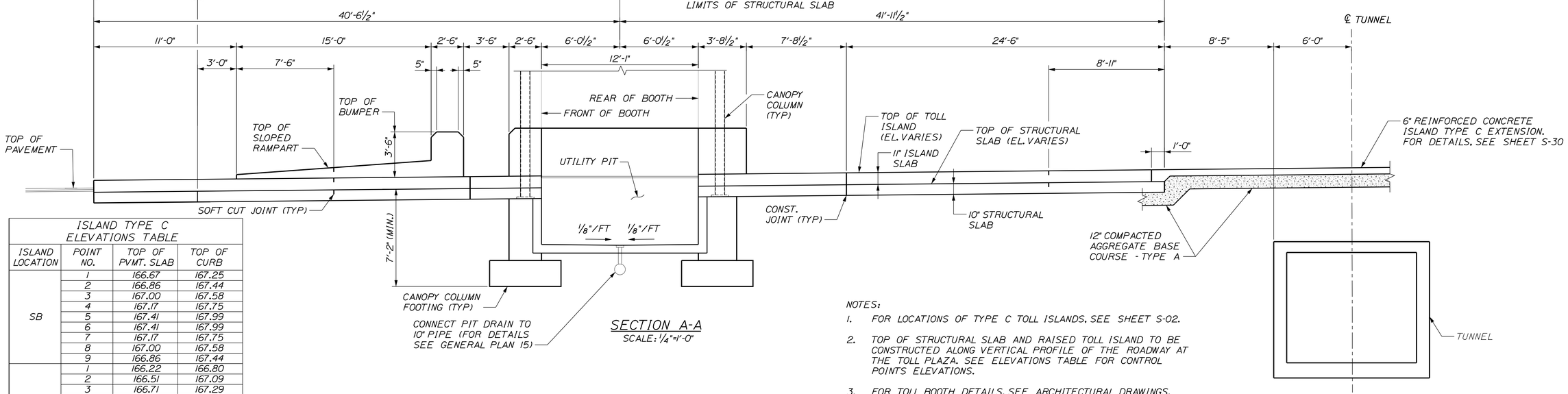
CASH LANES ISLAND TYPE B REINFORCEMENT SCHEDULE 2 OF 2

SHEET NUMBER: S-27

CONTRACT: 2018.20



PLAN
SCALE: ¼"=1'-0"



SECTION A-A
SCALE: ¼"=1'-0"

ISLAND TYPE C ELEVATIONS TABLE

ISLAND LOCATION	POINT NO.	TOP OF PVMT. SLAB	TOP OF CURB
SB	1	166.67	167.25
	2	166.86	167.44
	3	167.00	167.58
	4	167.17	167.75
	5	167.41	167.99
	6	167.41	167.99
	7	167.17	167.75
	8	167.00	167.58
	9	166.86	167.44
NB	1	166.22	166.80
	2	166.51	167.09
	3	166.71	167.29
	4	166.97	167.55
	5	167.32	167.91
	6	167.32	167.91
	7	166.97	167.55
	8	166.71	167.29
	9	166.51	167.09

NOTES:

1. FOR LOCATIONS OF TYPE C TOLL ISLANDS, SEE SHEET S-02.
2. TOP OF STRUCTURAL SLAB AND RAISED TOLL ISLAND TO BE CONSTRUCTED ALONG VERTICAL PROFILE OF THE ROADWAY AT THE TOLL PLAZA. SEE ELEVATIONS TABLE FOR CONTROL POINTS ELEVATIONS.
3. FOR TOLL BOOTH DETAILS, SEE ARCHITECTURAL DRAWINGS.
4. FOR ADDITIONAL CASH LANE ISLAND NOTES, SEE SHEET S-21.
5. FOR ISLAND TYPE C EXTENSION, SEE SHEET S-30.

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

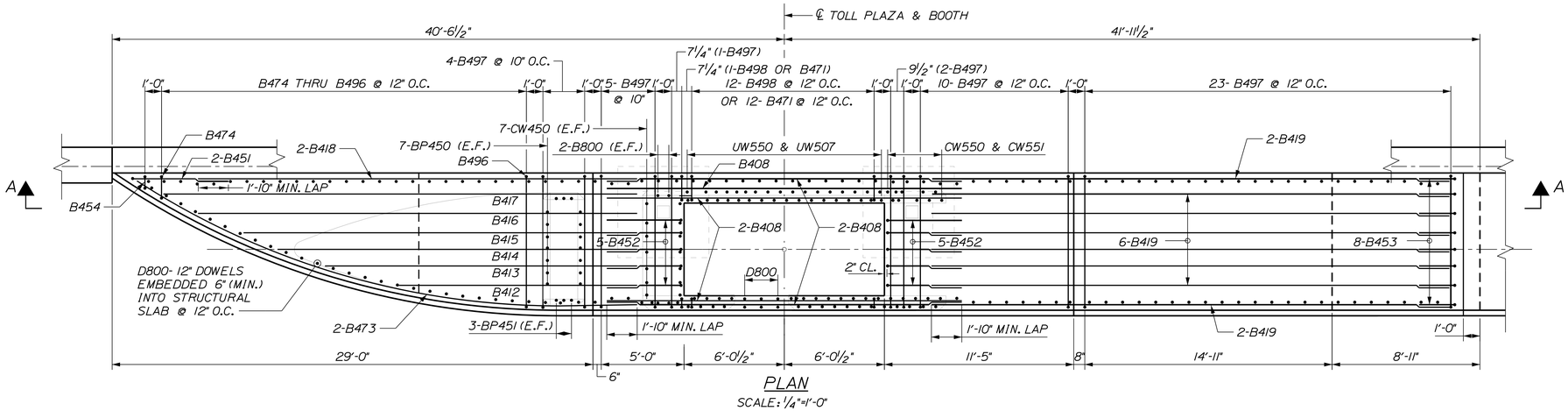
CASH LANES
ISLAND TYPE C LAYOUT

SHEET NUMBER: S-28

CONTRACT:2018.20

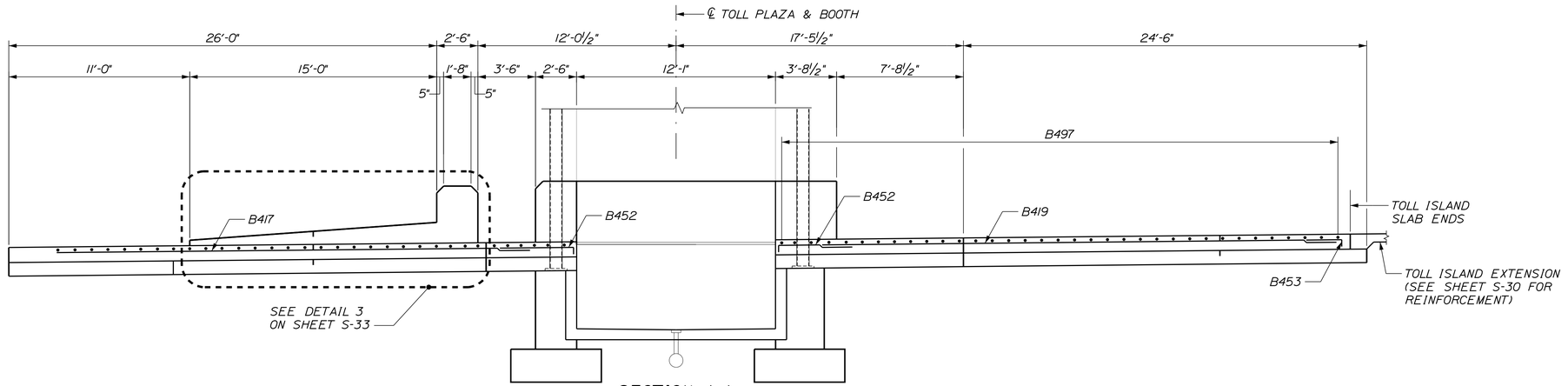
Date:7/23/2018

Filename: ...\321_(S-28) Cash Lanes Island Type C Layout.dgn



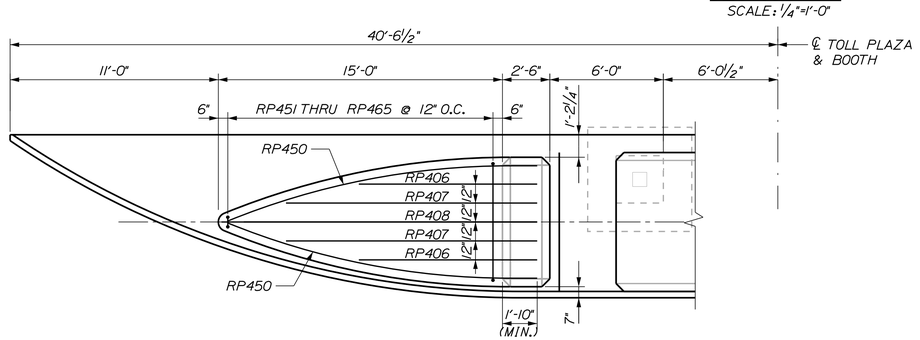
PLAN

SCALE: ¼"=1'-0"



SECTION A-A

SCALE: ¼"=1'-0"



RAMPART REINFORCEMENT LAYOUT

SCALE: ¼" = 1'-0"

NOTES:

1. FOR ISLAND LAYOUT AND SECTION, SEE SHEET S-28.
2. FOR STRUCTURAL SLAB REINFORCING DETAILS, SEE SHEET S-17 THROUGH S-20.
3. FOR CONDUITS BELOW ISLAND AND STRUCTURAL SLAB, SEE TOLLING SYSTEMS PLANS.
4. ISLAND SLAB SHALL HAVE ADDITIONAL CONSTRUCTION OR CONTRACTION JOINTS SPACED AT APPROXIMATELY 8 FEET OR AS DIRECTED BY THE RESIDENT ENGINEER. LOCATE ISLAND SLAB JOINTS DIRECTLY ABOVE STRUCTURAL SLAB JOINTS.
5. FOR BOOTH CURTAIN WALL DETAILS, SEE SHEET S-32.
6. FOR UTILITY PIT REINFORCEMENT, SEE SHEET S-34.

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
ISLAND TYPE C DETAILS 1 OF 2

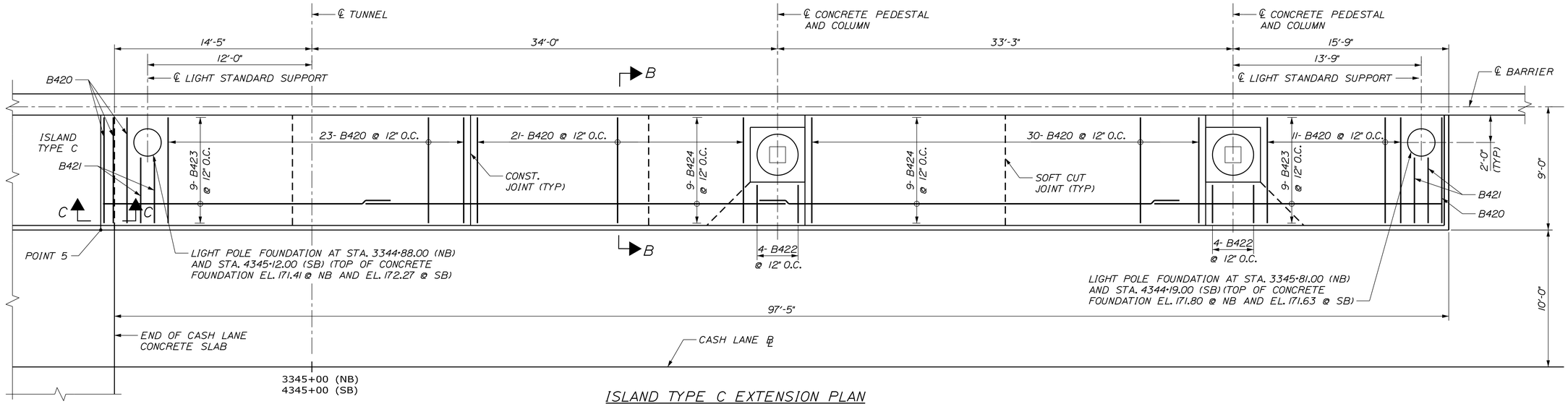
SHEET NUMBER: S-29

CONTRACT: 2018.20

322 OF 489

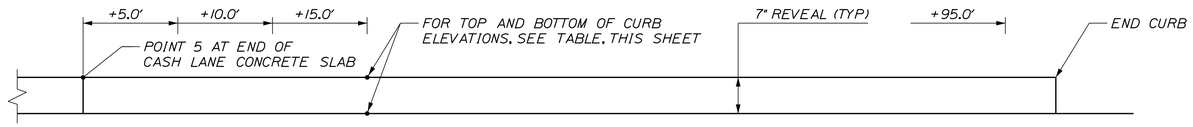
Date: 7/23/2018

Filename: ...\322_(S-29) Cash Lanes Island Type C Details.dgn



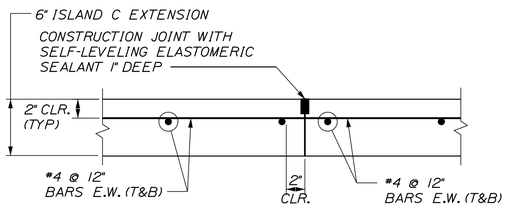
ISLAND TYPE C EXTENSION PLAN

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

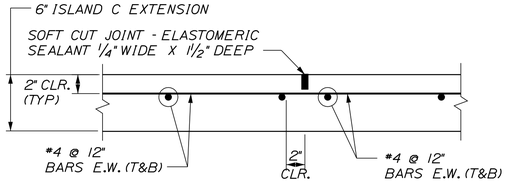


CURB PROFILE

NOT TO SCALE



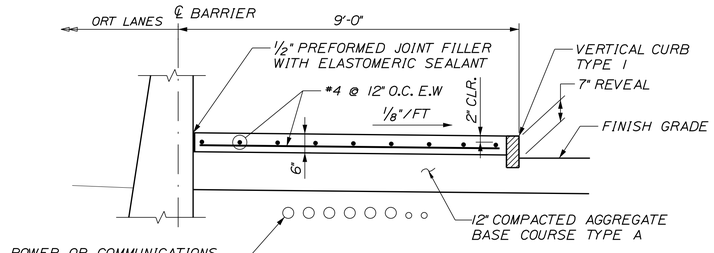
CONSTRUCTION



SOFT CUT

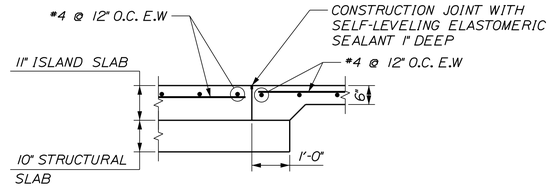
JOINT DETAILS

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



SECTION B-B

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



SECTION C-C

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

ISLAND TYPE C EXTENSION ELEVATIONS TABLE				
POINT LOCATION	SOUTHBOUND		NORTHBOUND	
	TOP OF PVMT.	TOP OF CURB	TOP OF PVMT.	TOP OF CURB
POINT 5	167.41	167.99	167.32	167.91
+5.0'	167.46	168.04	167.40	167.98
+10.0'	167.51	168.09	167.47	168.06
+15.0'	167.56	168.14	167.55	168.13
+20.0'	167.60	168.19	167.62	168.20
+25.0'	167.65	168.24	167.69	168.27
+30.0'	167.70	168.29	167.75	168.33
+35.0'	167.75	168.33	167.81	168.39
+40.0'	167.79	168.37	167.86	168.45
+45.0'	167.83	168.41	167.91	168.50
+50.0'	167.86	168.44	167.96	168.54
+55.0'	167.89	168.47	168.00	168.58
+60.0'	167.92	168.50	168.03	168.62
+65.0'	167.95	168.53	168.06	168.65
+70.0'	167.97	168.55	168.09	168.67
+75.0'	167.99	168.57	168.11	168.69
+80.0'	168.00	168.59	168.13	168.71
+85.0'	168.01	168.60	168.14	168.72
+90.0'	168.02	168.61	168.14	168.73
+95.0'	168.03	168.61	168.15	168.73
END CURB	168.03	168.62	168.14	168.73

NOTE:
SEE TOLLING SYSTEMS PLANS FOR CONDUIT LAYOUT AND SIZES.

Date:7/23/2018

Filename: ...\323_(S-30) Cash Lanes Island Type C Details 2 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
ISLAND TYPE C DETAILS 2 OF 2

SHEET NUMBER: S-30

CONTRACT:2018.20

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ISLAND C SLAB (PER ISLAND)									
B408	4	10	21'-5"	STR					LONGITUDINAL
B412	4	1	14'-1"	STR					LONGITUDINAL
B413	4	1	18'-8"	STR					LONGITUDINAL
B414	4	1	22'-0"	STR					LONGITUDINAL
B415	4	1	24'-5"	STR					LONGITUDINAL
B416	4	1	26'-6"	STR					LONGITUDINAL
B417	4	1	28'-7"	STR					LONGITUDINAL
B418	4	2	27'-7"	STR					LONGITUDINAL
B419	4	10	31'-3"	STR					LONGITUDINAL
B451	4	2	5'-6 1/2"	17	7 1/2"	4'-11"			LONGITUDINAL
B452	4	10	5'-1 1/2"	17	7 1/2"	4'-6"			LONGITUDINAL
B453	4	8	2'-10"	17	7 1/2"	2'-2 1/2"			LONGITUDINAL
B454	4	1	2'-2"	17	8"	10"	8"		TRANSVERSE
B471	4	13	1'-10 1/2"	17	8"	6 1/2"	8"		TRANSVERSE
B473	4	2	32'-1 1/2"	17E	7'-8 1/2"	25'-11"	4'-8 1/2"		R=47'-5" (INSIDE RADIUS)
B474	4	1	2'-9"	17	8"	1'-5"	8"		TRANSVERSE
B475	4	1	3'-4"	17	8"	2'-0"	8"		TRANSVERSE
B476	4	1	3'-10 1/2"	17	8"	2'-6 1/2"	8"		TRANSVERSE
B477	4	1	4'-4 1/2"	17	8"	3'-0 1/2"	8"		TRANSVERSE
B478	4	1	4'-10"	17	8"	3'-6"	8"		TRANSVERSE
B479	4	1	5'-3 1/2"	17	8"	3'-11 1/2"	8"		TRANSVERSE
B480	4	1	5'-8 1/2"	17	8"	4'-4 1/2"	8"		TRANSVERSE
B481	4	1	6'-1 1/2"	17	8"	4'-9 1/2"	8"		TRANSVERSE
B482	4	1	6'-6"	17	8"	5'-2"	8"		TRANSVERSE
B483	4	1	6'-10"	17	8"	5'-6"	8"		TRANSVERSE
B484	4	1	7'-2"	17	8"	5'-10"	8"		TRANSVERSE
B485	4	1	7'-5 1/2"	17	8"	6'-1 1/2"	8"		TRANSVERSE
B486	4	1	7'-8 1/2"	17	8"	6'-4 1/2"	8"		TRANSVERSE
B487	4	1	7'-11 1/2"	17	8"	6'-7 1/2"	8"		TRANSVERSE
B488	4	1	8'-2 1/2"	17	8"	6'-10 1/2"	8"		TRANSVERSE
B489	4	1	8'-5"	17	8"	7'-1"	8"		TRANSVERSE
B490	4	1	8'-7"	17	8"	7'-3"	8"		TRANSVERSE
B491	4	1	8'-9"	17	8"	7'-5"	8"		TRANSVERSE
B492	4	1	8'-10 1/2"	17	8"	7'-6 1/2"	8"		TRANSVERSE
B493	4	1	9'-0"	17	8"	7'-8"	8"		TRANSVERSE
B494	4	1	9'-1"	17	8"	7'-9"	8"		TRANSVERSE
B495	4	1	9'-2"	17	8"	7'-10"	8"		TRANSVERSE
B496	4	1	9'-2 1/2"	17	8"	7'-10 1/2"	8"		TRANSVERSE
B497	4	45	9'-3"	17	8"	7'-11"	8"		TRANSVERSE
B498	4	13	2'-9 1/2"	17	8"	1'-5 1/2"	8"		TRANSVERSE
B800	8	4	1'-0"	STR					DOWELS
D800	8	149	1'-0"	STR					DOWELS
ISLAND SLAB C EXTENSION (PER ISLAND)									
B420	4	89	7'-10"	STR					TRANSVERSE
B421	4	4	4'-9"	STR					TRANSVERSE
B422	4	8	2'-9"	STR					TRANSVERSE
B423	4	18	21'-0"	STR					LONGITUDINAL
B424	4	18	30'-8"	STR					LONGITUDINAL
ISLAND C RAMPART (PER ISLAND)									
RP406	4	2	9'-5"	STR					LONGITUDINAL
RP407	4	2	13'-3"	STR					LONGITUDINAL
RP408	4	1	16'-8"	STR					LONGITUDINAL
RP450	4	2	16'-5 1/2"	17E	2'-10"	14'-7"	1'-5 1/2"		R=39'-5" (INSIDE RADIUS)
RP451	4	1	1'-9 1/2"	17D	1/4"	8 1/4"	1 1/4"	2 1/4"	TRANSVERSE

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
RP452	4	1	2'-7"	17D	3/4"	8 3/4"	1 1/2"	6 1/2"	TRANSVERSE
RP453	4	1	3'-4 1/2"	17D	1"	9 1/4"	1 1/2"	10 3/4"	TRANSVERSE
RP454	4	1	4'-1 1/2"	17D	1 1/2"	9 3/4"	1 1/2"	1'-2 3/4"	TRANSVERSE
RP455	4	1	4'-9 1/2"	17D	2"	10 1/4"	1 3/4"	1'-6"	TRANSVERSE
RP456	4	1	5'-5 1/2"	17D	2 1/4"	11"	1 3/4"	1'-9 1/4"	TRANSVERSE
RP457	4	1	6'-0"	17D	2 1/2"	11 1/2"	1 3/4"	2'-0"	TRANSVERSE
RP458	4	1	6'-6 1/2"	17D	2 3/4"	1'-1/4"	2"	2'-2 1/2"	TRANSVERSE
RP459	4	1	7'-0"	17D	3"	1'-1"	2"	2'-4 1/2"	TRANSVERSE
RP460	4	1	7'-5 1/2"	17D	3 1/4"	1'-1 3/4"	2 1/4"	2'-6 1/2"	TRANSVERSE
RP461	4	1	7'-10 1/2"	17D	3 1/4"	1'-2 1/2"	2 1/4"	2'-8 1/4"	TRANSVERSE
RP462	4	1	8'-2"	17D	3 1/2"	1'-3 1/4"	2 1/2"	2'-9 1/4"	TRANSVERSE
RP463	4	1	8'-5"	17D	3 1/2"	1'-4"	2 1/2"	2'-10"	TRANSVERSE
RP464	4	1	8'-8 1/2"	17D	3 1/2"	1'-5"	2 3/4"	2'-10 3/4"	TRANSVERSE
RP465	4	1	8'-11"	17D	3 3/4"	1'-6"	3"	2'-11"	TRANSVERSE
ISLAND C BUMPER (PER ISLAND)									
BP450	4	14	4'-2"	17	8"	3'-6"			
BP451	4	6	2'-10"	17G	2"	1'-2"	1'-0"	8"	
BP452	4	3	11'-3 1/2"	17B	3'-1 1/2"	4'-6"	3'-1 1/2"	6'-4"	R=5 1/2" (INSIDE RADIUS)
BP453	4	7	8'-3 1/2"	17A		3'-2"	2'-1"	3'-2"	R=6" (INSIDE RADIUS)
BP454	4	6	10'-4 1/2"	17A		4'-2"	2'-2"	4'-2"	R=7" (INSIDE RADIUS)
ISLAND C UTILITY PIT (PER ISLAND)									
UB506	5	30	6'-11"	STR					
UB507	5	16	13'-5"	STR					
UW506	5	35	4'-0"	STR					
UW507	5	30	9'-2"	STR					
UW508	5	20	4'-6"	STR					
UW509	5	16	4'-3"	STR					
UW510	5	16	13'-5"	STR					
UW511	5	16	11'-9"	STR					
UW550	5	30	8'-11 1/2"	17F	5"	2'-7 3/4"	6'-3 1/2"		
UW551	5	10	3'-4"	17	1'-8"	1'-8"			
ISLAND C CURTAIN WALL BARRIER (PER ISLAND)									
CW506	5	4	4'-4"	STR					
CW507	5	4	5'-2"	STR					
CW508	5	4	8'-4"	STR					
CW509	5	4	9'-2"	STR					
CW510	5	8	9'-10"	STR					
CW450	4	14	4'-2"	17	8"	3'-6"			
CW451	4	7	8'-4 1/2"	17A		3'-2 1/2"	2'-1"	3'-2 1/2"	R=6" (INSIDE RADIUS)
CW452	4	4	12'-4"	17B	3'-4"	5'-1 1/2"	3'-4"	6'-10 1/2"	R=5 1/2" (INSIDE RADIUS)
CW453	4	8	10'-10 1/2"	17A		4'-5"	2'-2"	4'-5"	R=7" (INSIDE RADIUS)
CW550	5	8	5'-3 1/2"	17G	5 1/2"	2'-8 1/2"	1'-8 3/4"	10"	
CW551	5	9	5'-6"	17	10"	4'-8"			
ISLAND C CANOPY FOUNDATIONS (PER ISLAND)									
CF606	6	48	5'-0"	STR					
CF650	6	32	5'-4"	17	1'-0"	4'-4"			
CP606	6	32	4'-6"	STR					
CP350	3	9	9'-7"	100	2'-2"	2'-3 1/2"	4"		
CP351	3	9	10'-5"	100	2'-7"	2'-3 1/2"	4"		
CP352	3	18	2'-11"	110	2'-3 1/2"	3 1/2"	4"		
CP353	3	9	2'-9 1/2"	110	2'-2"	3 1/2"	4"		
CP354	3	9	3'-2 1/2"	110	2'-7"	3 1/2"	4"		

NOTE:
SEE SHEET S-23 FOR BAR BENDING DIAGRAMS.

Date:7/23/2018

Filename: ...\324_(S-31) Cash Lanes Island Type C Reinforcement Schedule.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

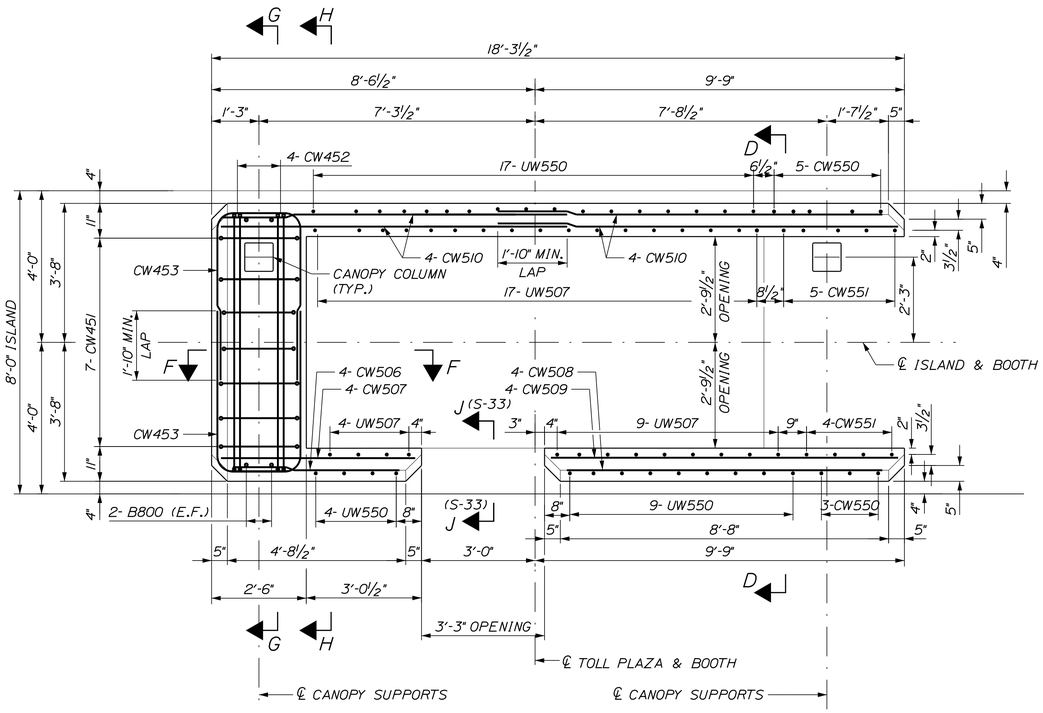
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES ISLAND TYPE C REINFORCEMENT SCHEDULE

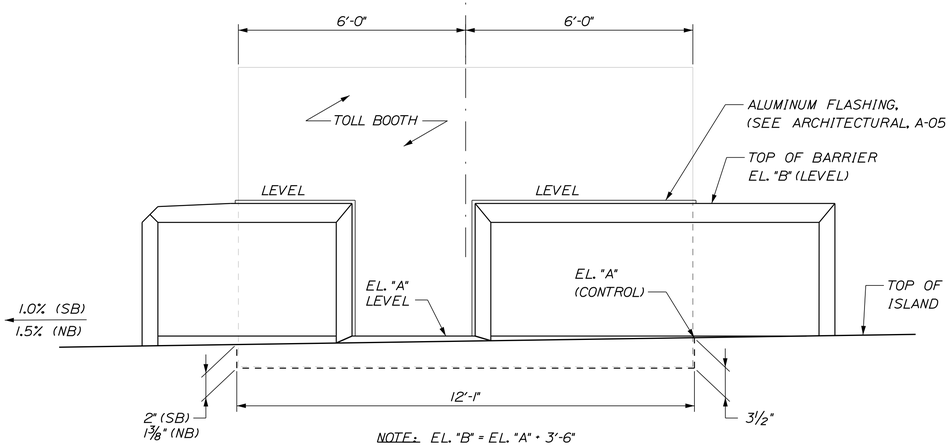
SHEET NUMBER: S-31

CONTRACT:2018.20



SECTION THROUGH CURTAIN WALL (PLAN VIEW)

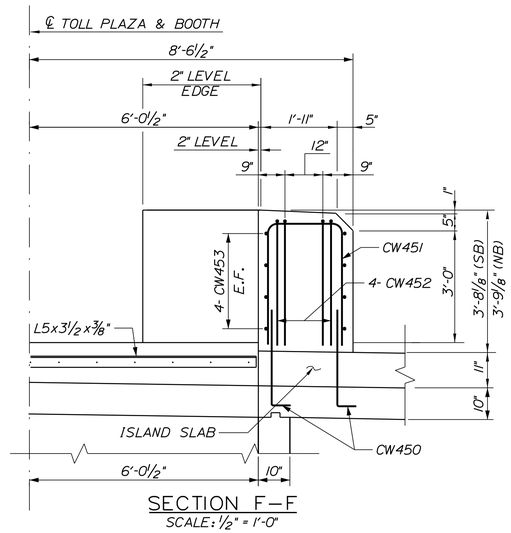
SCALE: ½" = 1'-0"



NOTE: EL. "B" = EL. "A" + 3'-6"

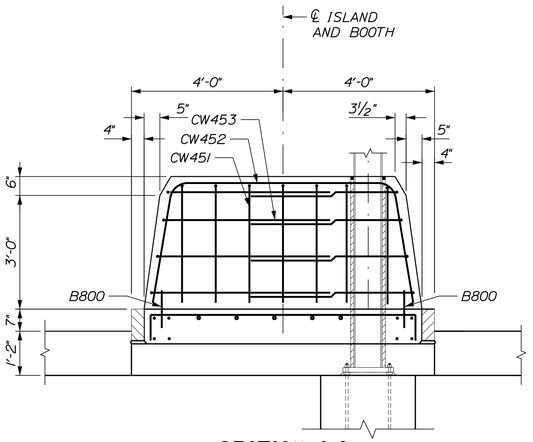
TOLL BOOTH CURTAIN WALL ELEVATION

NOT TO SCALE



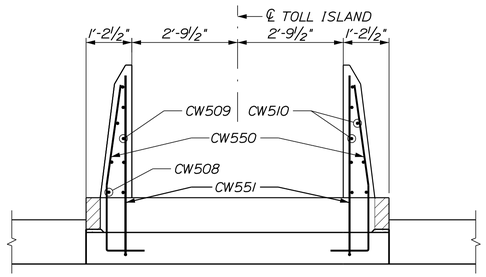
SECTION F–F

SCALE: ½" = 1'-0"



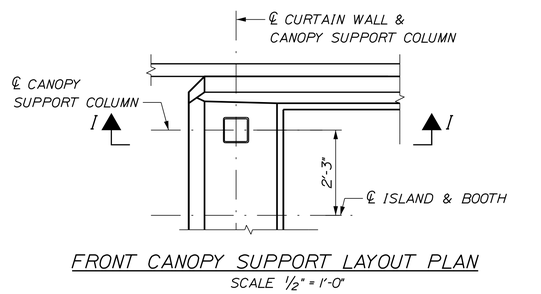
SECTION G-G

SCALE: ½" = 1'-0"



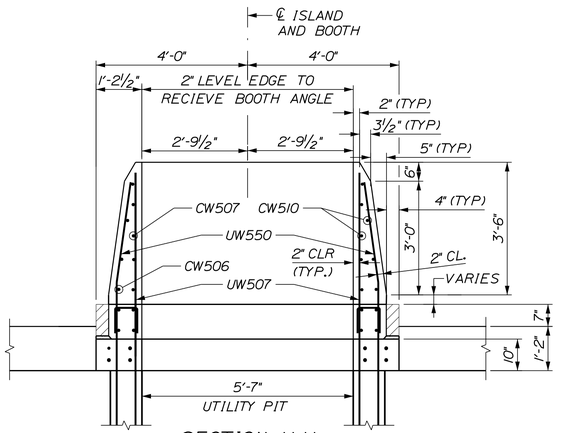
SECTION D-D

SCALE: ½" = 1'-0"



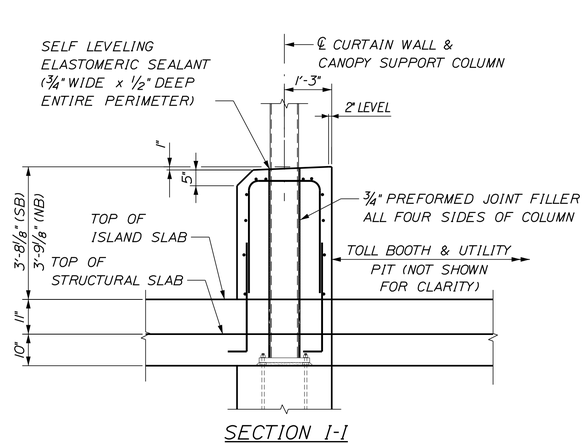
FRONT CANOPY SUPPORT LAYOUT PLAN

SCALE ½" = 1'-0"



SECTION H-H

SCALE: ½" = 1'-0"



SECTION I-I

SCALE: ½" = 1'-0"

Scale: 2 0 2 4 Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

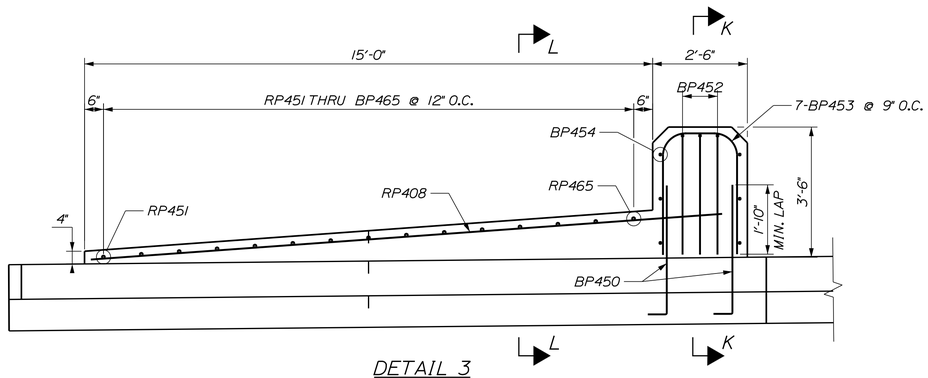
CASH LANES
DETAILS AND SECTIONS 1 OF 3

SHEET NUMBER: S-32

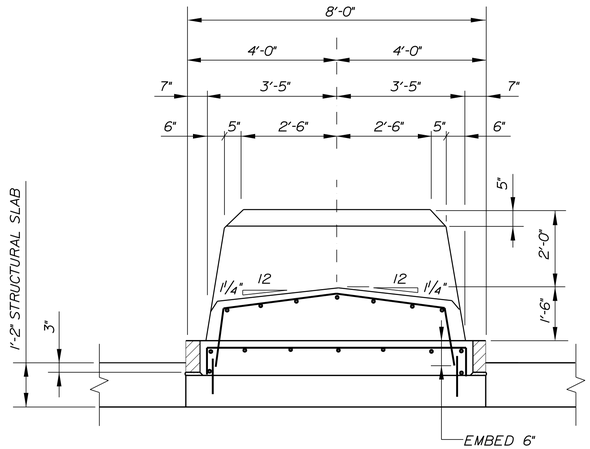
CONTRACT: 2018.20

Date: 7/23/2018

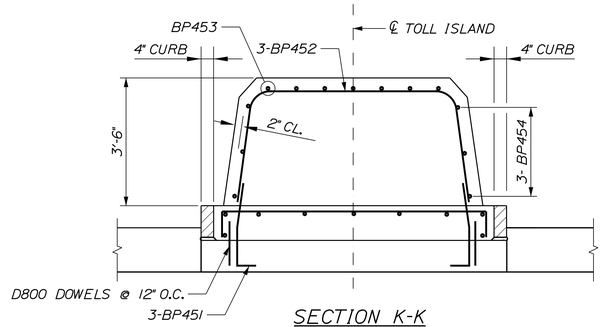
Filename: ...\325_(S-32) Cash Lane Details and Sections 1 of 3.dgn



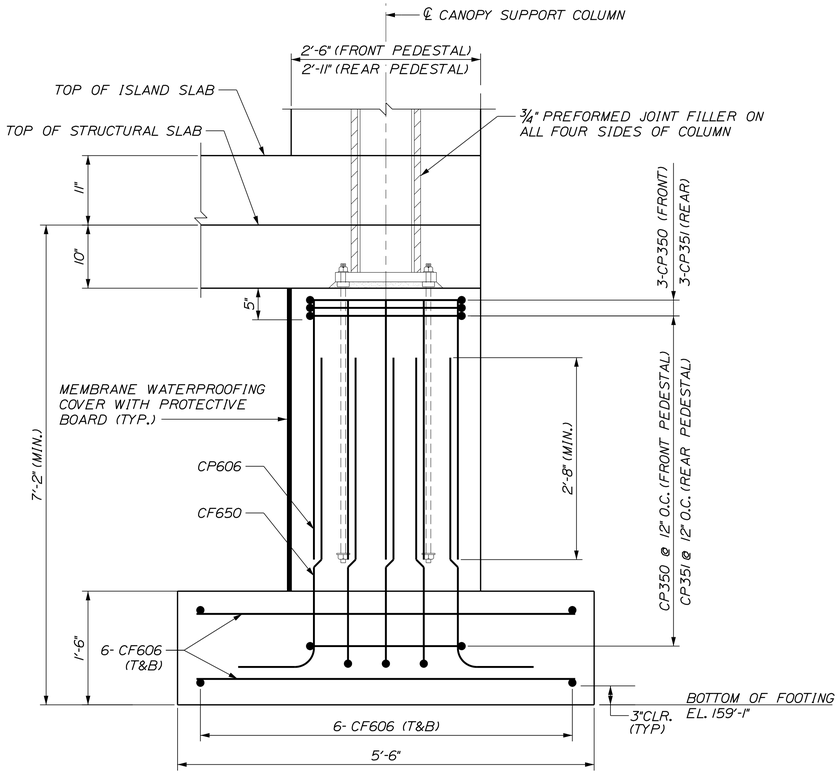
DETAIL 3
SCALE: 1/2" = 1'-0"



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



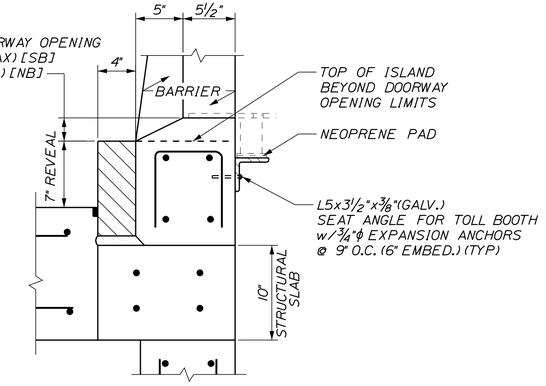
SECTION K-K
SCALE: 1/2" = 1'-0"



NOTE:
CANOPY SUPPORT COLUMN AT FRONT OF BOOTH SHOWN. FOUNDATION FOR COLUMN AT REAR OF BOOTH IS SIMILAR.

CANOPY COLUMN FOUNDATION VERTICAL SECTION
SCALE: 1" = 1'-0

CANOPY COLUMN FOUNDATION SECTION (PLAN VIEW)
SCALE: 1" = 1'-0



SECTION J-J
1 1/2" = 1'-0"

Date: 7/23/2018

Filename: ...\326_(S-33) Cash Lanes Details and Sections 2 of 3.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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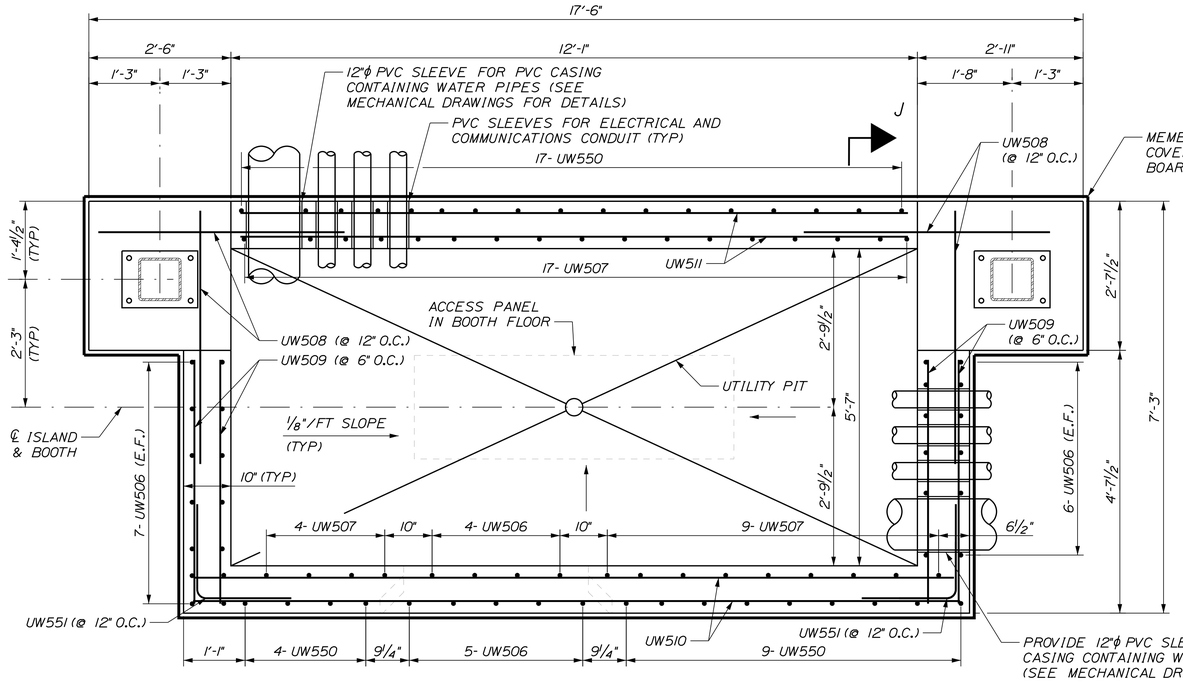
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
DETAILS AND SECTIONS 2 OF 3

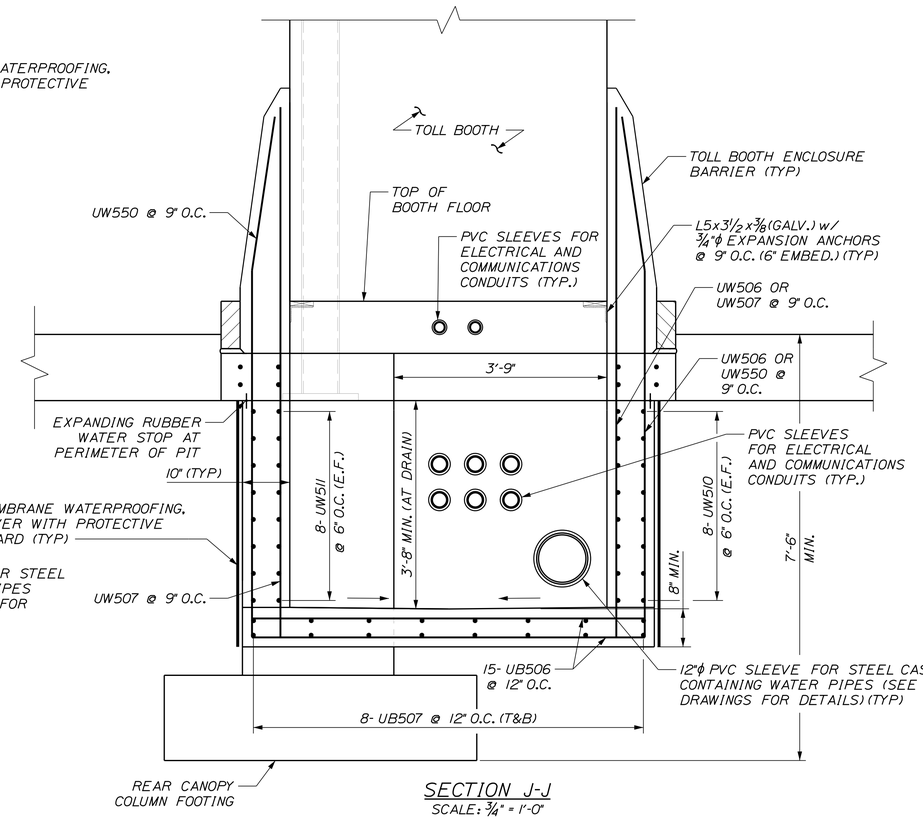
SHEET NUMBER: S-33

CONTRACT: 2018.20



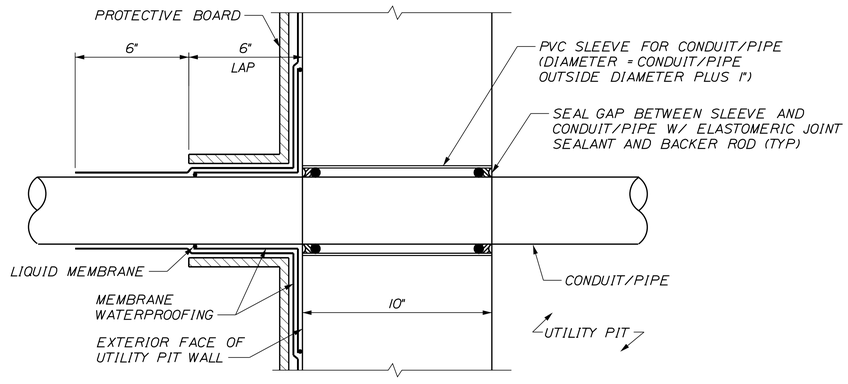
UTILITY PIT LAYOUT AND REINFORCEMENT

SCALE: ¾" = 1'-0"



SECTION J-J

SCALE: ¾" = 1'-0"



TYPICAL DETAIL AT CONDUIT/PIPE PENETRATIONS IN UTILITY PIT WALL

SCALE: 3" = 1'-0"

Date:7/23/2018

Filename: ...\327_(S-34) Cash Lanes Details and Sections 3 of 3.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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Drawn	LLG	7/18	In Charge of	TWM	7/18

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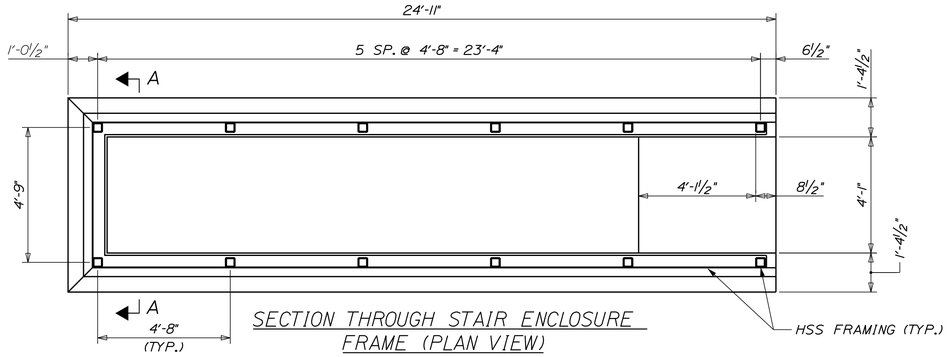
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
DETAILS AND SECTIONS 3 OF 3

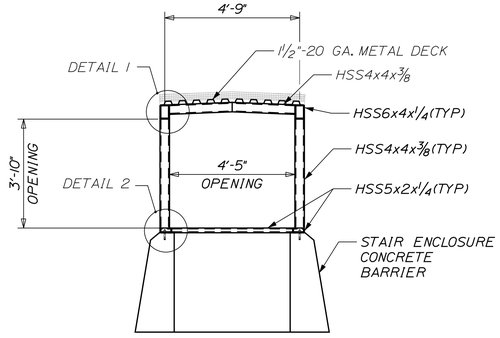
SHEET NUMBER: S-34

CONTRACT:2018.20



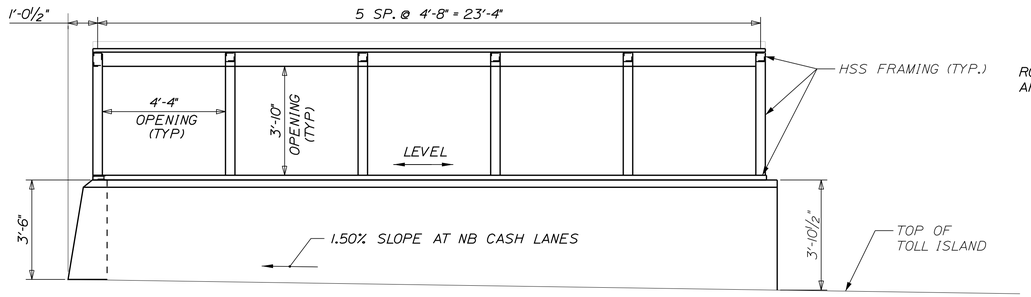
SECTION THROUGH STAIR ENCLOSURE FRAME (PLAN VIEW)

SCALE: 3/8" = 1'-0"



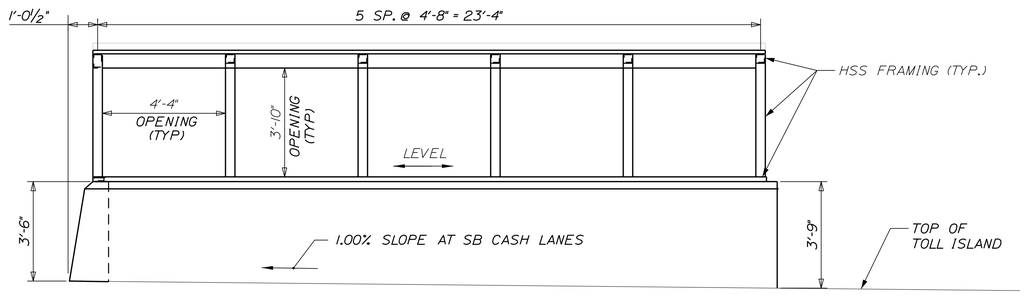
SECTION A-A

SCALE: 3/8" = 1'-0"



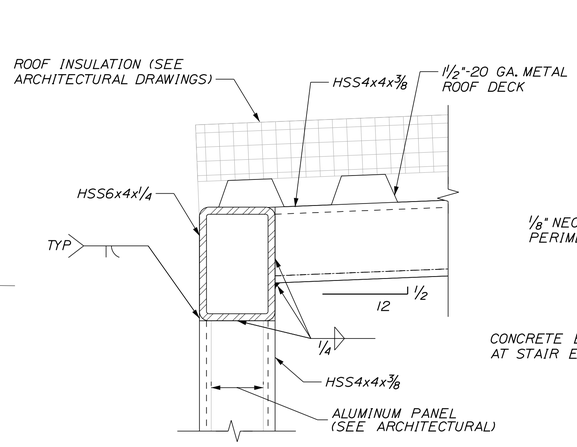
WEST ELEVATION AT NORTHBOUND STAIR ENCLOSURES

SCALE: 3/8" = 1'-0"



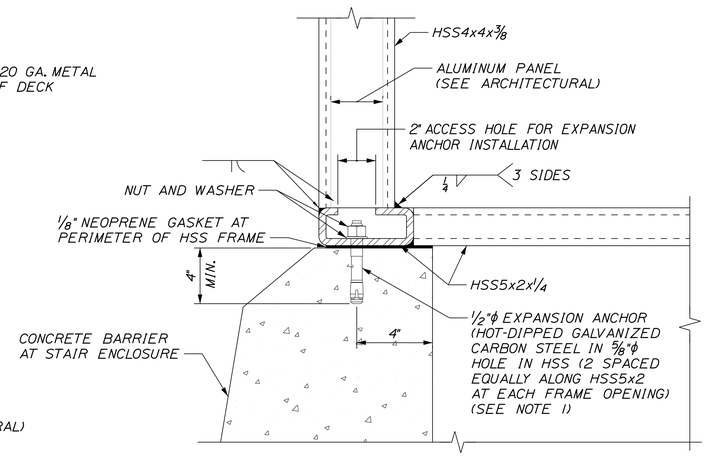
EAST ELEVATION AT SOUTHBOUND STAIR ENCLOSURES

SCALE: 3/8" = 1'-0"



DETAIL 1

SCALE: 3" = 1'-0"



DETAIL 2

SCALE: 3" = 1'-0"

NOTES:

1. PROVIDE EXPANSION ANCHORS WITH A MINIMUM NOMINAL TENSILE RESISTANCE OF 6.0 KIPS AND A MINIMUM NOMINAL SHEAR RESISTANCE OF 6.0 KIPS IN 4000 PSI CONCRETE.
2. STRUCTURAL STEEL FRAMING AND HARDWARE SHALL BE SHOP-PAINTED PER SPECIFICATIONS SECTION 506.
3. REFER TO SHEET S-19, S-25, AND S-27 FOR DETAILS OF BARRIER SUPPORTING STEEL-FRAMED STAIR ENCLOSURES.

Date:7/23/2018

Filename: ...\328_(S-35) Stair Enclosure Details.dgn

Scale: AS NOTED — Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

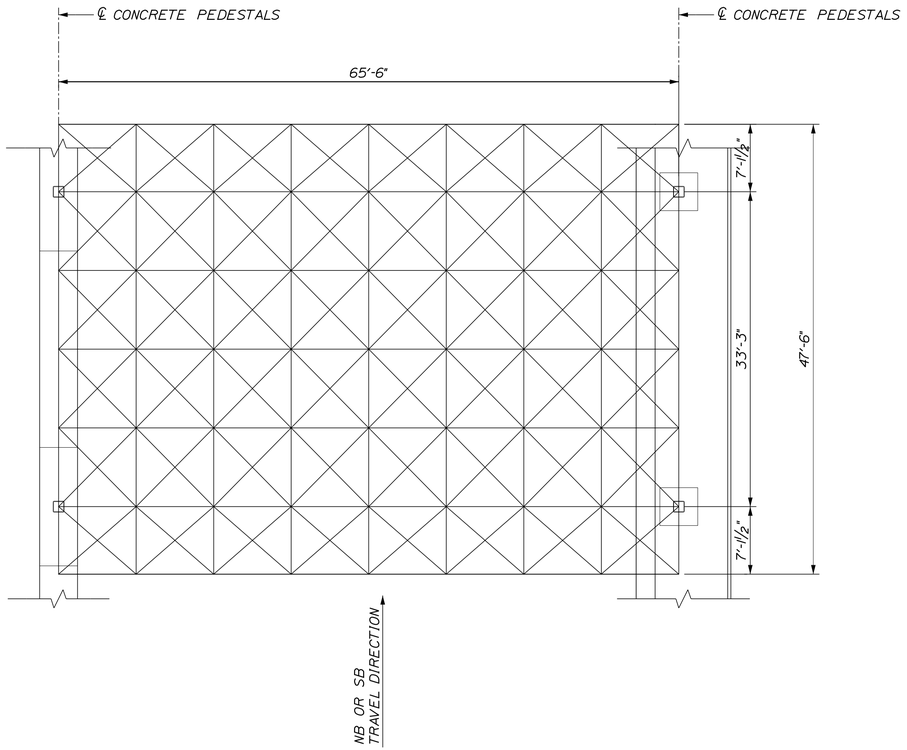
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES
STAIR ENCLOSURE DETAILS

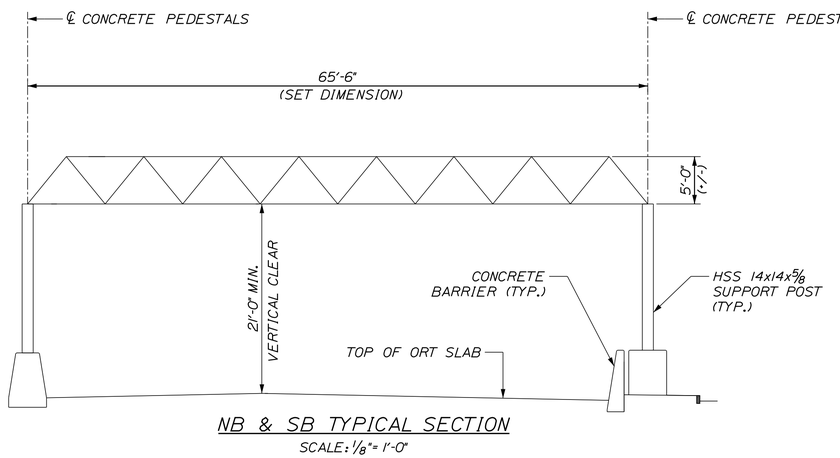
SHEET NUMBER: S-35

CONTRACT:2018.20



TYPICAL SPACE FRAME PLAN (NB & SB)

SCALE: 1/8"= 1'-0"



NB & SB TYPICAL SECTION

SCALE: 1/8"= 1'-0"

GENERAL NOTES:

1. THESE ARE SPACE FRAME DESIGN CRITERIA DOCUMENTS: PRELIMINARY PLANS NOT TO BE USED FOR CONSTRUCTION. THESE PLANS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY, AND INTENDED TO ESTABLISH THE PROPOSED PROJECT'S DESIGN AND CONSTRUCTION INTENT, QUALITY AND CHARACTER. CONTRACTOR SHALL USE THESE PLANS IN ACCORDANCE WITH THE SPECIFICATIONS.
2. SPACE FRAME COLUMNS AND ANCHORAGE ASSEMBLY SHALL BE CENTERED ON CONCRETE PEDESTALS.

SPACE FRAME NOTES:

ALL DESIGN AND DETAILS OF CONSTRUCTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING:

1. 2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, WITH 2015 INTERIMS.
2. 2015 AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 4th EDITION.

WIND LOAD:

1. WIND LOAD:
   DESIGN WIND SPEED, V = 100 MPH
   IMPORTANCE FACTOR, Ip = 1.0
2. A PROVISIONAL AREA FOR SIGN PANELS OF 4' HIGH x 63' LONG AT THE ON-COMING TRAFFIC END OF THE SPACE FRAME.

ICE LOAD:

1. ICE LOAD: 3 PSF APPLIED VERTICALLY ON FULL CIRCUMFERENCE OF ALL MEMBERS AND VERTICAL FACES OF SIGN PANELS.

DEAD LOAD:

1. 10 PSF DEAD LOAD APPLIED OVER THE ENTIRE PLAN AREA OF THE SPACE FRAME IN ADDITION TO THE SELF WEIGHT OF THE STRUCTURE.
2. A SINGLE 200 LB DEAD LOAD APPLIED TO ANY NODE, CHORD OR CONNECTION ON THE SPACE FRAME.
3. A PROVISIONAL DEAD LOAD OF 100 LB PER FOOT FOR SIGN PANELS OVER THE ON-COMING TRAFFIC END OF THE SPACE FRAME.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL PLATES AND SHAPES SHALL BE ASTM A572 GR. 50 AND SHALL MEET THE REQUIREMENTS OF AWS D1.1 SECTION 4 PART D FOR CVN TESTING.
2. HOLLOW STRUCTURAL STEEL SECTIONS SHALL BE MINIMUM ASTM A500, GRADE B (Fy = 46 ksi), DIAMETER PER FABRICATOR DESIGN.
3. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.

WELDING:

AMERICAN WELDING SOCIETY (AWS) D1.1 STRUCTURAL WELDING CODE - STEEL.

BOLTED CONNECTIONS:

UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS SPECIFYING BOLT DIAMETER ½" AND LARGER SHALL BE:
BOLTS - ASTM A325X TYPE 1 (THREADS EXCLUDED FROM SHEAR PLANE).
NUTS - ASTM A563
WASHERS - ASTM F436
NUTS, BOLTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.

ANCHOR RODS:

ANCHOR RODS SHALL CONFORM TO ASTM F1554 GR. 105. NUTS SHALL CONFORM TO ASTM A563 AND PLATE WASHERS SHALL CONFORM TO ASTM A709, GR. 50. NUTS, RODS AND PLATE WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.

SHOP DRAWINGS:

THE SHOP DRAWINGS AND DESIGN CALCULATIONS FOR THE SPACE FRAME SELECTED BY THE CONTRACTOR SHALL BE PREPARED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE AND SHALL HAVE THE SIGNATURE AND SEAL OF THAT PROFESSIONAL ENGINEER. FOR METAL FABRICATION WORK, APPROVED SHOP DRAWINGS SHALL BE AT THE METAL FABRICATOR'S SHOP PRIOR TO COMMENCEMENT OF FABRICATION. THE APPROVED SHOP DRAWINGS SHALL BE AVAILABLE AND ACCESSIBLE TO MAINE TURNPIKE INSPECTORS AT ALL TIMES AND MAY BE PHOTOCOPIED.

CAMBER:

THE SPACE FRAME SHALL HAVE A RESIDUAL UPWARD CAMBER OF SPAN/1000 IN LONGITUDINAL AND TRANSVERSE DIRECTIONS.

MANUFACTURER:

THE DESIGN, FABRICATION AND FURNISHING OF THE SPACE FRAME STRUCTURE SHALL BE PERFORMED BY THE FABRICATORS LISTED IN THE CONTRACT SPECIFICATIONS.

DESIGN LOADS:

THE CONTRACTOR SHALL FURNISH FINAL SPACE FRAME CANOPY DESIGN REACTIONS TO THE RESIDENT WITHIN 30 DAYS OF AWARD OF CONTRACT.

ERECTION NOTES:

1. THE CONTRACTOR AND SPACE FRAME FABRICATOR ARE TO CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS, AND COORDINATE LAYDOWN AREAS FOR SPACE FRAMES PRIOR TO ERECTION.

Date:7/23/2018

Filename: ...\329_(S-36) ORT Space Frame Plan Elevation and Notes.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

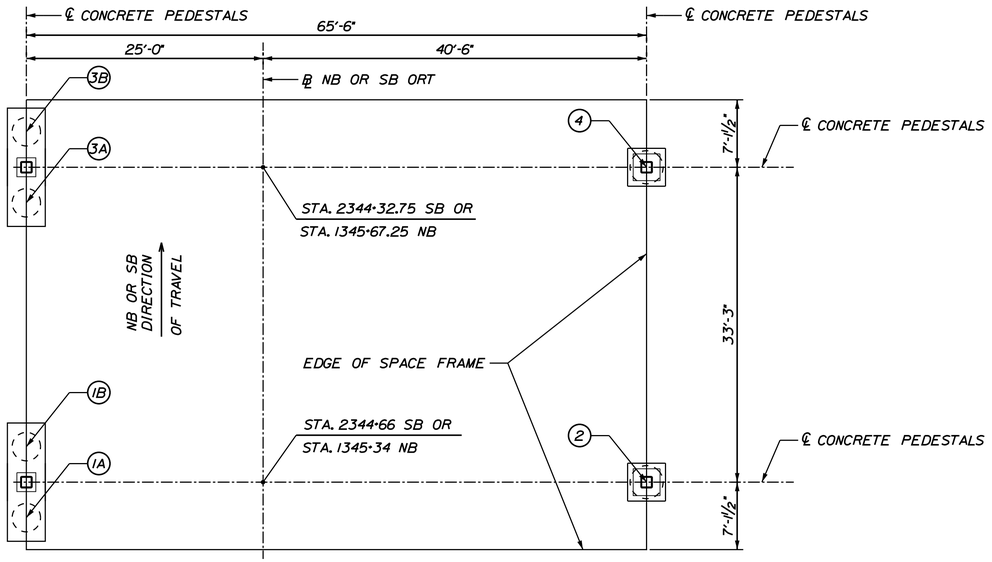
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ORT SPACE FRAME
PLAN, ELEVATION AND NOTES

SHEET NUMBER: S-36

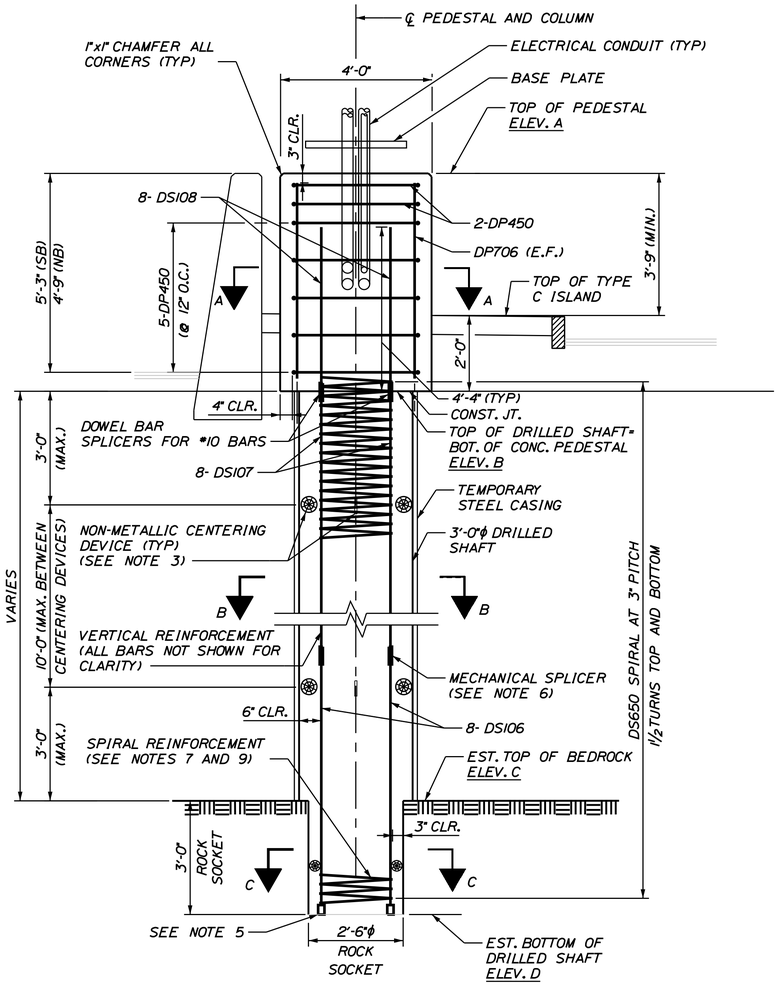
CONTRACT:2018.20



TYPICAL FOUNDATION PLAN

SCALE: 1/8" = 1'-0"

FOUNDATION LOCATIONS AND ELEVATIONS							
ROADWAY	FOUNDATION	STATION	OFFSET	ELEV. A	ELEV. B	ELEV. C	ELEV. D
SB	(1A)	2344+69.75	25.00' RT	171.81'	166.06'	152.5'	149.5'
	(1B)	2344+62.25	25.00' RT	171.76'	166.01'	152.5'	149.5'
	(2)	2344+66.00	40.50' LT	172.22	166.47'	158.3'	155.3'
	(3A)	2344+36.50	25.00' RT	171.56'	165.81'	152.5'	149.5'
	(3B)	2344+29.00	25.00' RT	171.50'	165.75'	152.5'	149.5'
	(4)	2344+32.75	40.50' LT	172.38	166.63'	160.8'	157.8'
NB	(1A)	1345+30.25	25.00' LT	171.93'	166.18'	155.6'	152.6'
	(1B)	1345+37.75	25.00' LT	171.96'	166.21'	155.6'	152.6'
	(2)	1345+34.00	40.50' RT	172.32	166.57'	150.9'	147.9'
	(3A)	1345+63.50	25.00' LT	172.05'	166.30'	155.6'	152.6'
	(3B)	1345+71.00	25.00' LT	172.07'	166.32'	155.6'	152.6'
	(4)	1345+67.25	40.50' RT	172.50	166.75'	150.9'	147.9'

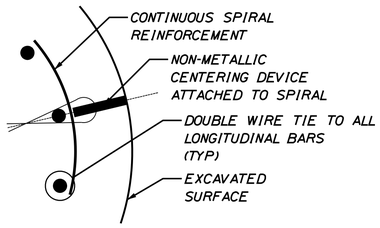


DRILLED SHAFT AT TYPE C ISLAND - VERTICAL SECTION

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

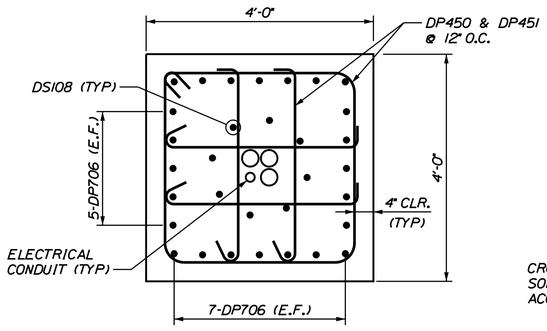
NOTES:

1. CONCRETE SHALL BE CLASS AAA f'c = 4500 PSI.
2. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 AND ASTM A775 (EPOXY-COATED).
3. CENTERING DEVICES SHALL BE CONSTRUCTED OF AN APPROVED NON-METALLIC DURABLE MATERIAL AND SHALL BE OF ADEQUATE SIZE TO INSURE A MINIMUM OF 6" IN 3'-0" SHAFT AND 3" ANNULAR SPACE IN ROCK SOCKET BETWEEN THE OUTSIDE OF THE REINFORCEMENT CAGE AND THE SIDES OF THE EXCAVATED HOLE OR INSIDE OF CASING.
4. SPIRAL SPACING MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE ROTATION OF NON-METALLIC CENTERING DEVICES.
5. EACH VERTICAL BAR SHALL BE SUPPORTED BY A 3" HIGH BOLSTER OF APPROVED NON-METALLIC DURABLE MATERIAL.
6. SPLICES OF VERTICAL REINFORCEMENT SHALL BE ARRANGED IN GROUPS OF TWO DIAGONALLY OPPOSITE PAIRS THAT ARE STAGGERED VERTICALLY AT LEAST 12" ON CENTER.
7. IF SPLICING OF SPIRAL REINFORCEMENT IS NECESSARY, A MINIMUM OF 2" CLEARANCE SHALL BE PROVIDED BETWEEN THE OUTSIDE SURFACE OF MECHANICAL REINFORCED BAR SPLICER AND THE DRILLED SHAFT CASING OR EXCAVATED SURFACE.
8. WELDING OF THE REINFORCEMENT BARS SHALL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. WELDING OF LONGITUDINAL BARS SHALL NOT BE PERMITTED.
9. NO SPLICING OF SPIRAL REINFORCEMENT IS PERMITTED WITHIN 8 FEET OF THE TOP OF ROCK SOCKET OR BOTTOM OF THE DRILLED SHAFT CAP.
10. CONCRETE FOR THE PEDESTALS SHALL BE PAID FOR UNDER ITEM 502.231 - STRUCTURAL CONCRETE SPACE FRAME AND OVERHEAD SIGN STRUCTURE PEDESTALS.
11. FOR DETAILS OF EMBEDDED ANCHOR RODS, BASE PLATES, AND ALL OTHER SPACE FRAME ANCHORAGE DETAILS, SEE SHEET S-39.
12. REFER TO TOLLING SYSTEMS PLANS FOR EMBEDDED CONDUIT LAYOUT AND SIZES, AND FOR LOCATIONS OF CABINETS AND JUNCTION BOXES MOUNTED TO PEDESTALS.
13. CONTRACTOR TO INSTALL SONIC TEST TUBES AND PROVIDE TESTING AND TEST RESULTS FOR 30" AND 36" DRILLED SHAFTS. REFER TO THE SPECIFICATIONS (SP626) FOR ADDITIONAL REQUIREMENTS.



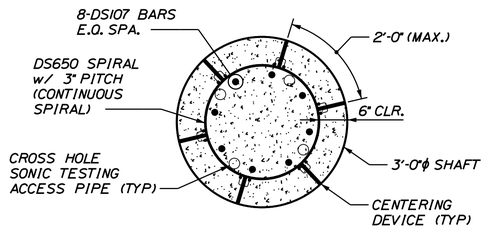
CENTERING DEVICE DETAIL

NOT TO SCALE



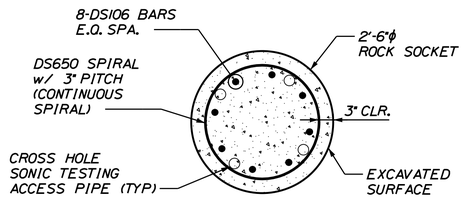
SECTION A-A

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



SECTION B-B

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



SECTION C-C

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

Date:8/21/2018

Filename: ...\330_(S-37) ORT Space Frame Foundation Details 1.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

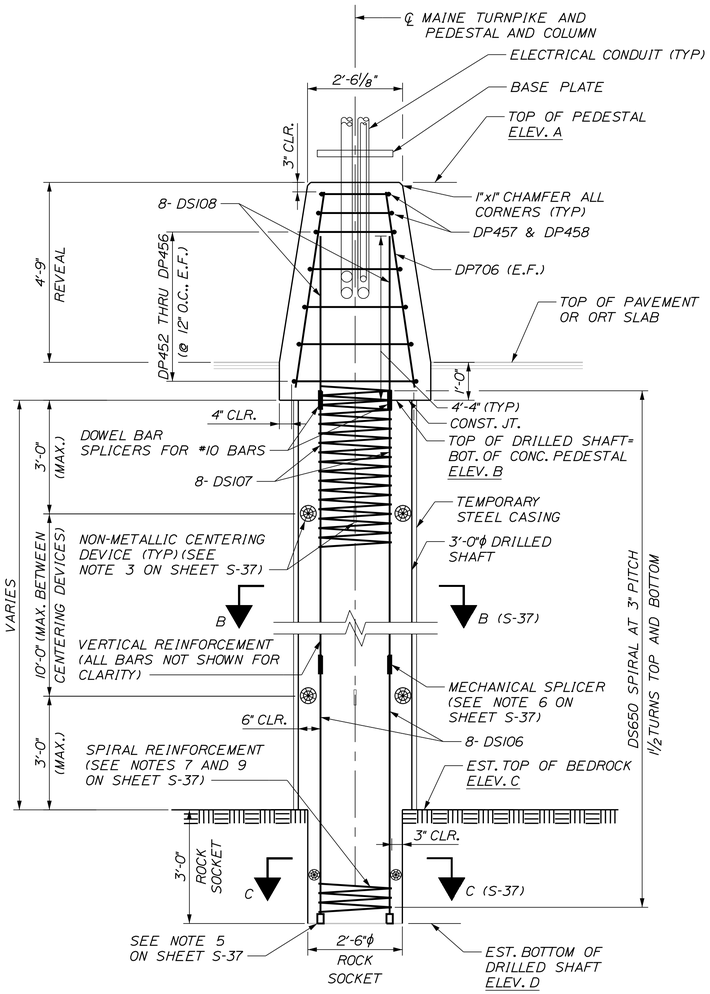
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ORT SPACE FRAME
FOUNDATION DETAILS 1 OF 2

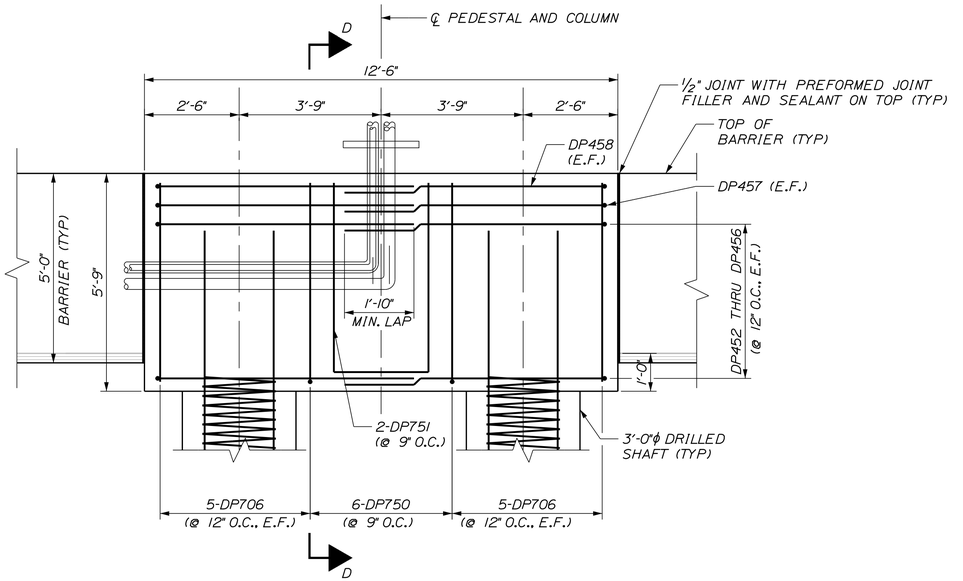
SHEET NUMBER: S-37

CONTRACT:2018.20



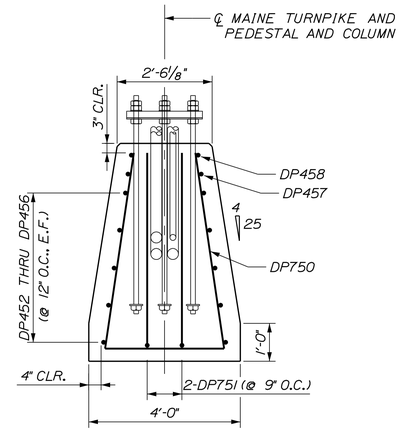
DRILLED SHAFT AT MEDIAN - VERTICAL SECTION

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



DRILLED SHAFT AT MEDIAN- LONGITUDINAL SECTION

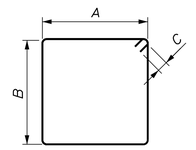
SCALE: 1/2" = 1'-0"



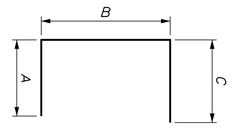
SECTION D-D

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

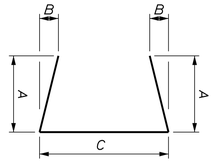
REINFORCING SCHEDULE									
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ORT SPACE FRAME DRILLED SHAFTS AND PEDESTALS (BOTH SPACE FRAMES)									
DS106	10	96	VARIES	STR					SEE NOTE 3
DS107	10	96	VARIES	STR					SEE NOTE 3
DS108	10	96	4'-4"	STR					
DS650	6	12	VARIES	SPIRAL					R=11 1/4" (INSIDE RADIUS)
DP706	7	176	5'-2"	STR					
DP750	7	24	13'-8"	17H	5'-2"	9 1/2"	3'-3"		
DP751	7	8	12'-8"	17	5'-1"	2'-6"	5'-1"		
DP450	4	28	14'-1"	100	3'-4"	3'-4"	4 1/2"		
DP451	4	112	4'-0"	110	3'-4"	3 1/2"	4 1/2"		
DP452	4	8	17'-0"	17	6'-10"	3'-4"	6'-10"		
DP453	4	8	16'-8 1/2"	17	6'-10"	3'-0 1/2"	6'-10"		
DP454	4	8	16'-5 1/2"	17	6'-10"	2'-9 1/2"	6'-10"		
DP455	4	8	16'-2"	17	6'-10"	2'-6"	6'-10"		
DP456	4	8	15'-10 1/2"	17	6'-10"	2'-2 1/2"	6'-10"		
DP457	4	8	15'-8 1/2"	17	6'-10"	2'-0 1/2"	6'-10"		
DP458	4	8	15'-7"	17	6'-10"	1'-11"	6'-10"		



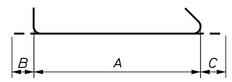
TYPE 100



TYPE 17



TYPE 17H



TYPE 110

NOTES:

1. FOR PEDESTAL, DRILLED SHAFT AND ESTIMATED TOP OF BEDROCK ELEVATIONS, SEE SHEET S-37.
2. FOR PEDESTAL AND DRILLED SHAFT NOTES, SEE SHEET S-37.
3. LENGTHS OF VERTICAL AND SPIRAL REINFORCEMENT VARY AT EACH DRILL SHAFT FOUNDATION AND DEPEND ON ACTUAL BOTTOM OF ROCK SOCKET ELEVATIONS. BAR LENGTHS SHALL BE LONG ENOUGH TO PROVIDE THE MINIMUM PEDESTAL EMBEDMENT DEPTHS SHOWN.

Date:7/23/2018

Filename: ...\331_(S-38) ORT Space Frame Foundation Details 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
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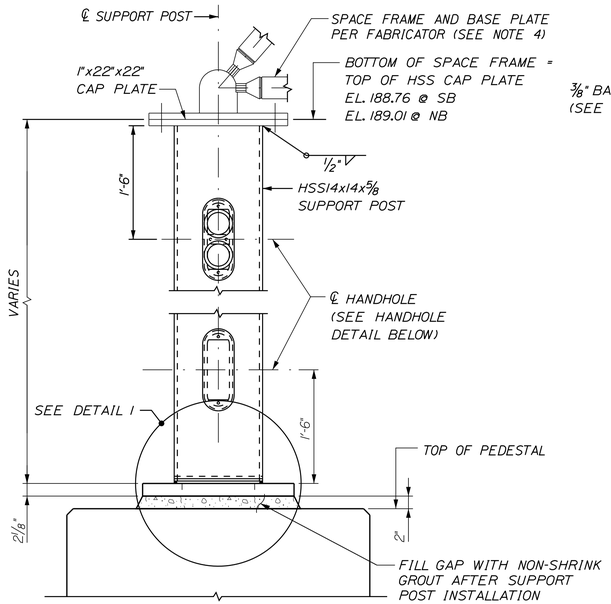
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ORT SPACE FRAME FOUNDATION DETAILS 2 OF 2

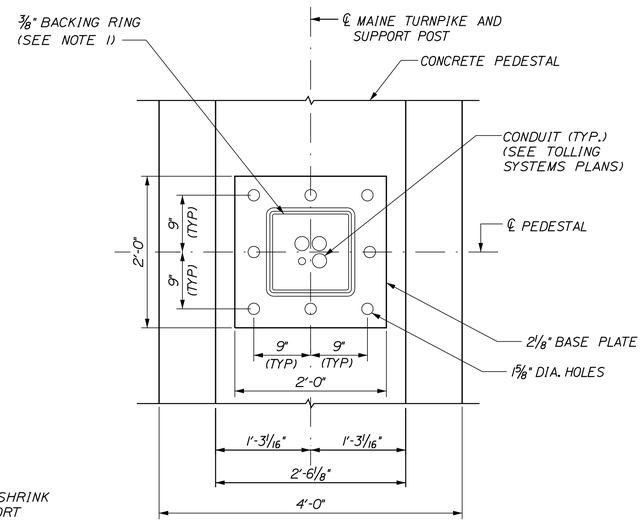
SHEET NUMBER: S-38

CONTRACT:2018.20



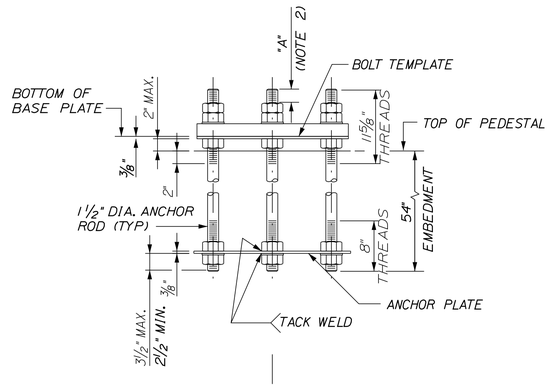
POST ELEVATION

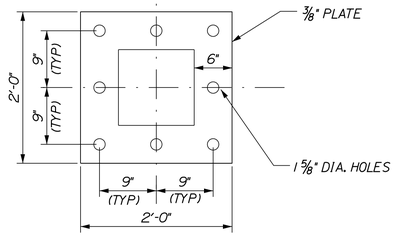
1" = 1'-0"



PEDESTAL PLAN VIEW AT MEDIAN

1" = 1'-0"

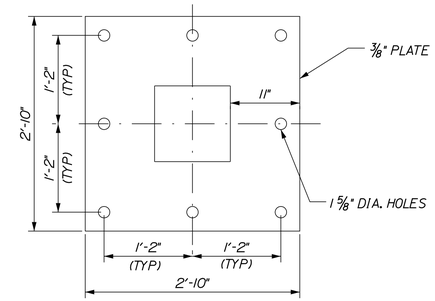




AT MEDIAN

NOTES:

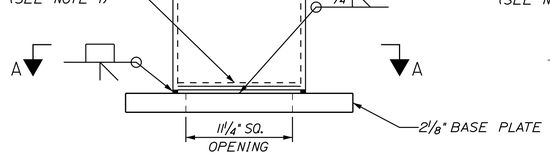
1. FULL PENETRATION WELDED SUPPORT POST TO BASE PLATE CONNECTION WITH THE BACKING RING ATTACHED TO THE BASE PLATE WITH A CONTINUOUS FILLET WELD AROUND THE INTERIOR FACE OF THE BACKING RING. THE THICKNESS OF THE BACKING RING SHALL NOT EXCEED 3/8".
2. DIMENSION "A" SHALL BE BETWEEN 1" MAX. AND 1/2" MIN. ONCE THE 2" BASE PLATE HAS BEEN INSTALLED.
3. ALL STEEL COMPONENTS AND HARDWARE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 AND ASTM A153 AS APPLICABLE.
4. SPACE FRAME AND BASE PLATES SHALL BE SHOP-WELDED. BASE PLATES SHALL BE BOLTED TO THE HSS CAP PLATES ON SITE.



AT TYPE C ISLANDS

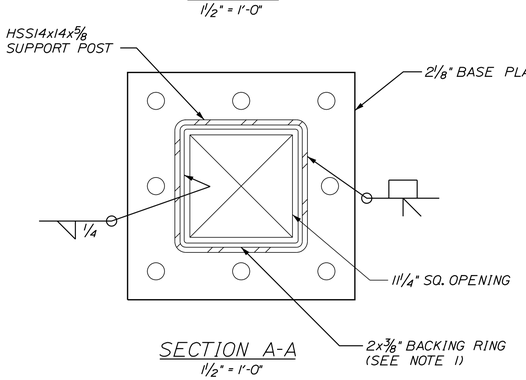
ANCHOR PLATE/ROD TEMPLATE DETAILS

1" = 1'-0"



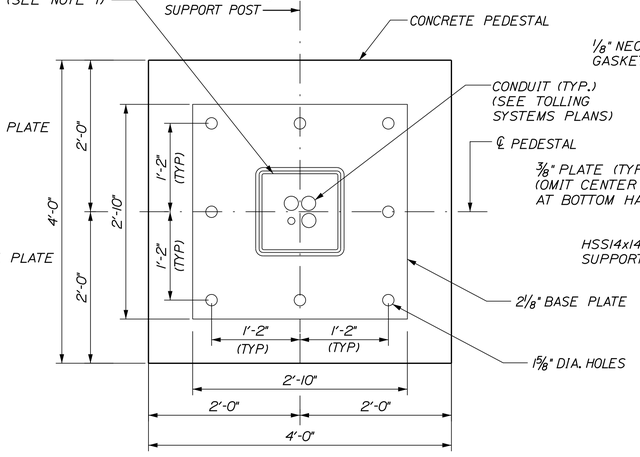
DETAIL 1

1 1/2" = 1'-0"



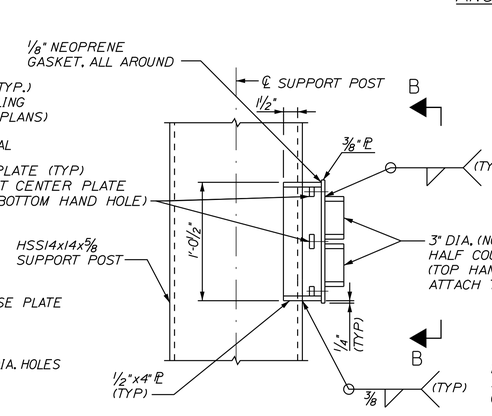
SECTION A-A

1 1/2" = 1'-0"



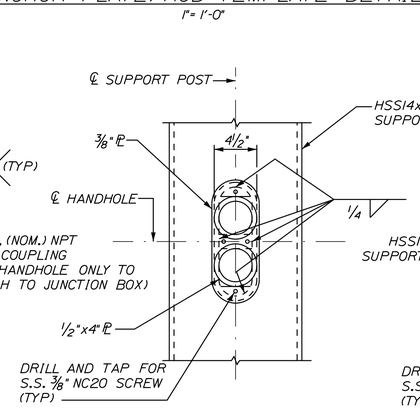
PEDESTAL PLAN VIEW AT TYPE C ISLANDS

1" = 1'-0"

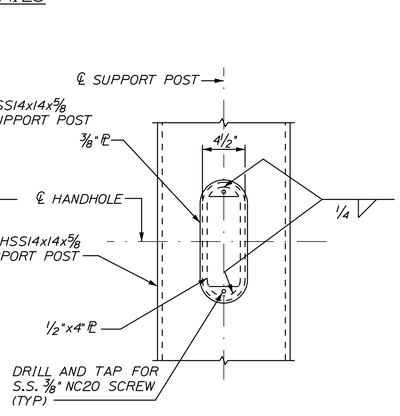


HANDHOLE DETAIL

1 1/2" = 1'-0"



TOP HANDHOLE



BOTTOM HANDHOLE

VIEW B-B

1 1/2" = 1'-0"

Date:7/23/2018

Filename: ...\332_(S-39) ORT Space Frame post.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

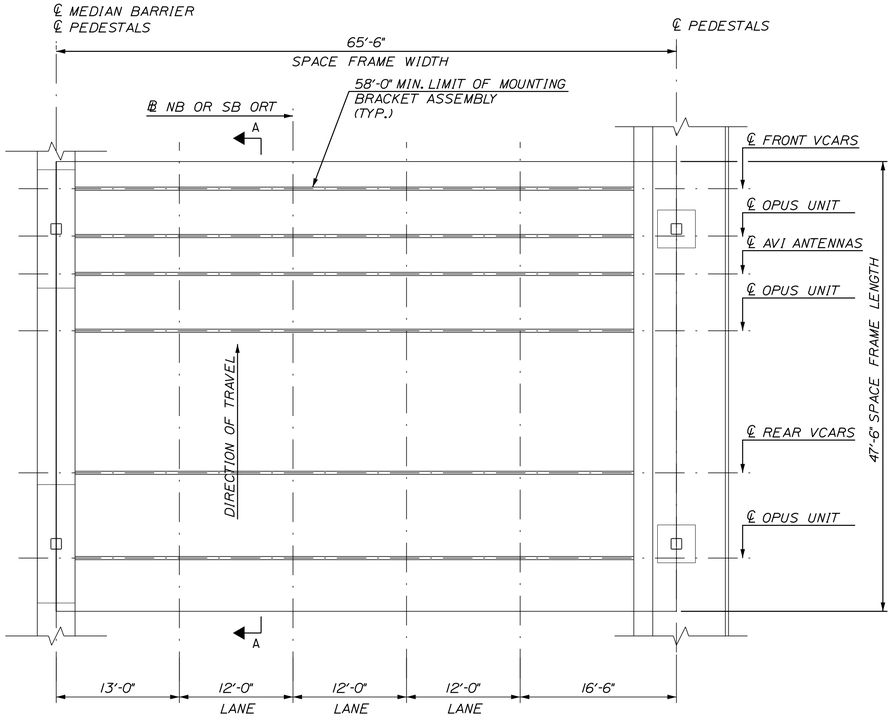
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ORT SPACE FRAME POST DETAILS

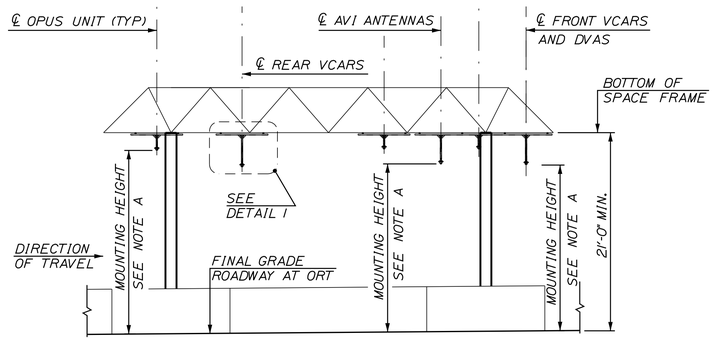
SHEET NUMBER: S-39

CONTRACT:2018.20



NB & SB PLAN

SCALE: 1/8" = 1'-0"



NOTE A:

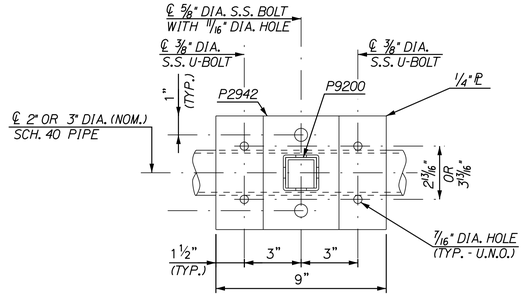
SEE ORT SENSOR LAYOUT SHEET FOR SENSOR LAYOUT AND EQUIPMENT MOUNTING REQUIREMENTS.

SECTION A-A

SCALE: 1/8" = 1'-0"

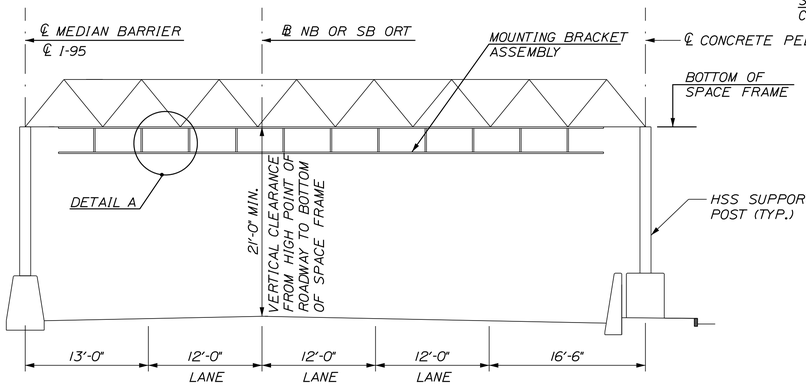
NOTES:

1. MOUNTING BRACKET ASSEMBLIES SHALL BE CONSTRUCTED OF HOT-DIPPED GALVANIZED UNISTRUT BRAND MATERIALS, OR AN APPROVED EQUAL.
2. SEE TOLLING SYSTEMS PLANS FOR EQUIPMENT MOUNTING DETAILS AND LAYOUT OF OPUS, VCARS, AVI ANTENNAS AND DVAS CAMERAS.
3. HORIZONTAL SUPPORTS FOR EQUIPMENT MUST REMAIN WITHIN MOUNTING HEIGHT TOLERANCES. DISCONTINUITY OF 2" DIA. PIPE IS PERMISSIBLE TO ACHIEVE MOUNTING HEIGHTS.
4. PIPE SHALL CONFORM TO ASTM A53, GRADE B GALVANIZED.
5. S.S. U-BOLTS AND BOLTS SHALL CONFORM TO ASTM A276, TYPE 304.
6. STEEL PLATE SHALL CONFORM TO ASTM A572, GRADE 50, GALVANIZED.
7. THE VCARS (REAR AND FRONT) UNITS, DVAS CAMERAS AND OPUS UNITS WILL BE PROVIDED BY TRANSCORE. THE AVI ANTENNAS WILL BE PROVIDED BY MTA.
8. CLEARANCE FOR VCARS UNITS SHALL BE 6" ON THE SIDES AND 2'-0" ABOVE.
9. ℄ OF P1000 FOR AVI SHALL BE 11'-0" FROM FRONT VCARS ℄.
10. ALL MOUNTING BRACKET ASSEMBLIES SHALL BE CAPABLE OF ±1'-0" OF VERTICAL ADJUSTMENT.
11. "P1000" THROUGH "P9200" DESIGNATIONS REFER TO UNISTRUT CHANNEL OR FITTING TYPE. SUBSTITUTIONS ARE PERMITTED PER SPECIFICATION SECTION 504.



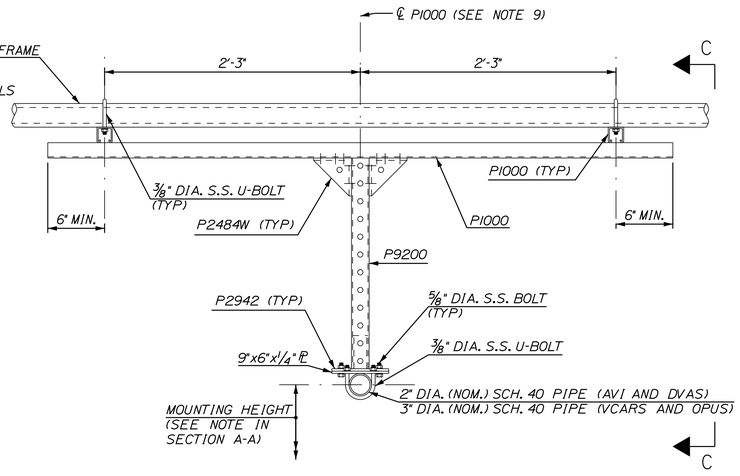
SECTION B-B

SCALE: 3" = 1'-0"



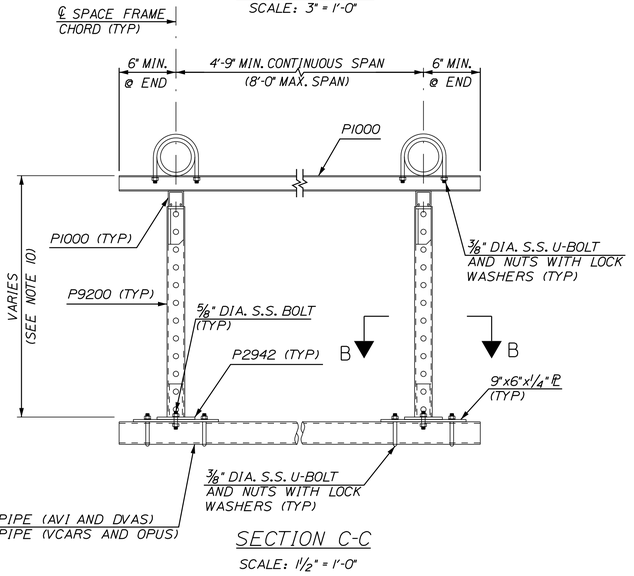
NB & SB TYPICAL SECTION

SCALE: 1/8" = 1'-0"



DETAIL 1

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



SECTION C-C

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

Date: 7/23/2018

Filename: ...\333_(S-40) ORT Space Frame_Mounting Bracket.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

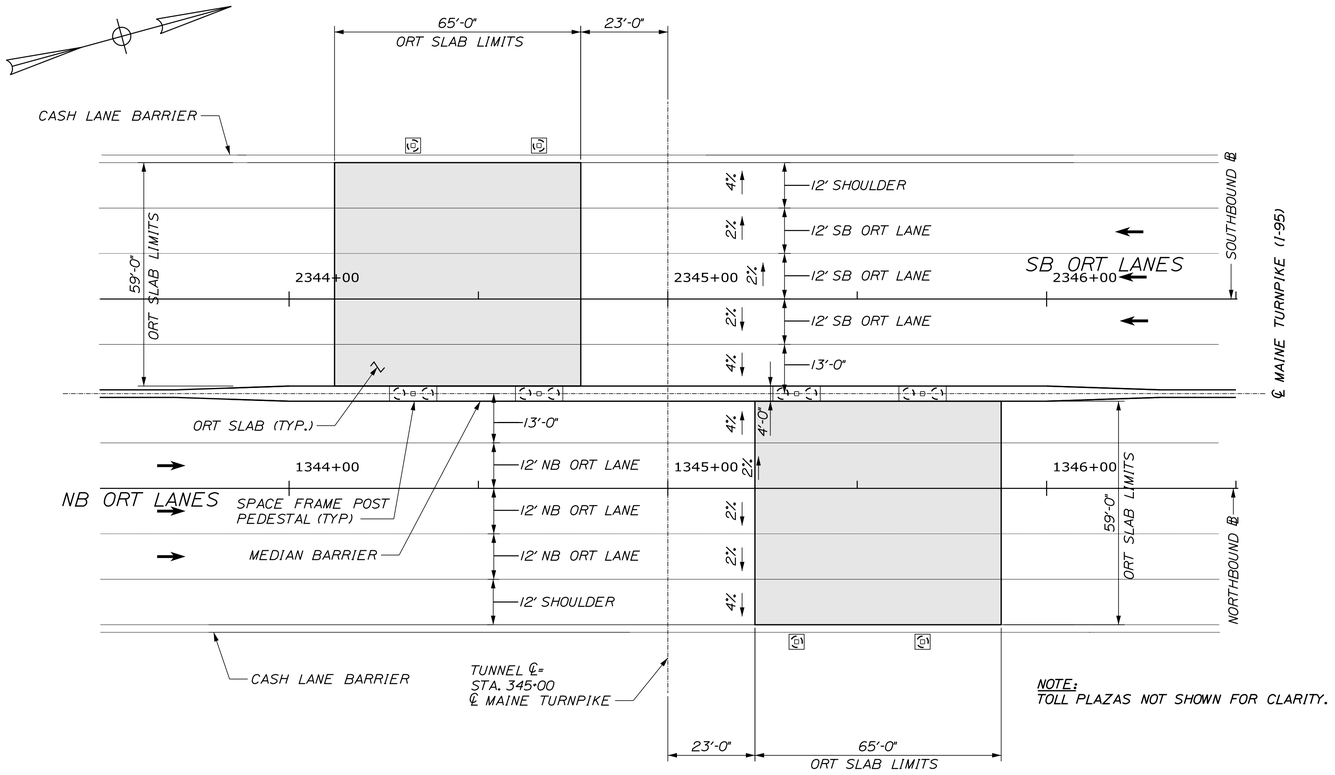
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ORT SPACE FRAME MOUNTING BRACKET ASSEMBLY DETAILS

SHEET NUMBER: S-40

CONTRACT: 2018.20



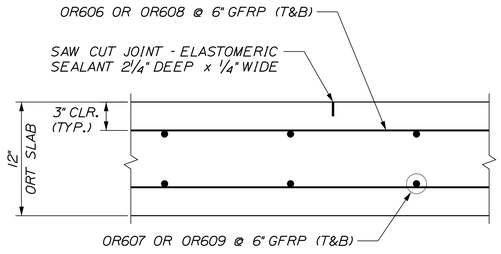
NOTE:
TOLL PLAZAS NOT SHOWN FOR CLARITY.

ORT SLAB PLAN
SCALE: 1" = 20'-0"

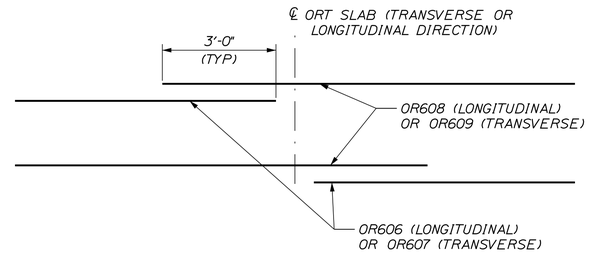
ORT SLAB NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT TWO ORT SLABS. ONE IN EACH DIRECTION NORTHBOUND AND SOUTHBOUND, AS SHOWN ON THE PLANS. EACH SLAB WILL HAVE A CROWN LINE BETWEEN THE HIGH SPEED TRAVEL LANE AND ADJACENT TRAVEL LANES AS PER THE SLOPES SHOWN ON THE PLANS.
2. EACH ORT SLAB SHALL BE PLACED IN ONE CONTINUOUS PLACEMENT. CONSTRUCTION JOINTS ARE NOT ALLOWED. SAW CUT JOINTS SHALL BE CONSTRUCTED AT APPROXIMATE 10-FT SPACING, AS DIRECTED BY THE RESIDENT.
3. FINISHING OF ORT SLABS SHALL ADHERE TO SURFACE TOLERANCES OUTLINED IN THE SPECIAL PROVISIONS.
4. CONCRETE FOR ORT SLABS SHALL BE CLASS AAA WITH 5 LBS/CY OF SYNTHETIC FIBER REINFORCING.
5. ORT SLAB SHALL HAVE A BROOMED FINISH IN TRANSVERSE DIRECTION.
6. ALL REINFORCING BAR SHALL BE GFRP.
7. ALL REINFORCING BAR SUPPORTS AND TIES SHALL BE NON-METALLIC.
8. NORTHBOUND AND SOUTHBOUND TOLL PLAZA NOT SHOWN IN ORT SLAB PLAN FOR CLARITY.
9. PROVIDE 12 INCHES OF TYPE A GRAVEL UNDER THE ORT SLABS. THE MATERIAL SHOULD BE COMPACTED TO AT LEAST 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST.
10. PERFORM PLATE LOAD TESTS ON THE COMPACTED TYPE A GRAVEL IN ACCORDANCE WITH ASTM D1196M. PERFORM ONE PLATE TEST PER SLAB AND VERIFY THE SUBGRADE ACHIEVES A MINIMUM SUBGRADE MODULUS OF 250 PCI.

REINFORCING SCHEDULE									
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
ORT SLAB (BOTH SLABS)									
OR606	6	944	31'-9"	STR					LONGITUDINAL
OR607	6	1040	28'-9"	STR					TRANSVERSE
OR608	6	944	35'-9"	STR					LONGITUDINAL
OR609	6	1040	32'-9"	STR					TRANSVERSE



SLAB LONGITUDINAL SECTION
SCALE: 1½" = 1'-0"



ORT SLAB REINFORCEMENT SPLICE LAYOUT
NOT TO SCALE

Date:7/23/2018

Filename: ...\334_(S-41) ORT Slab Plan.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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Drawn	LLG	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

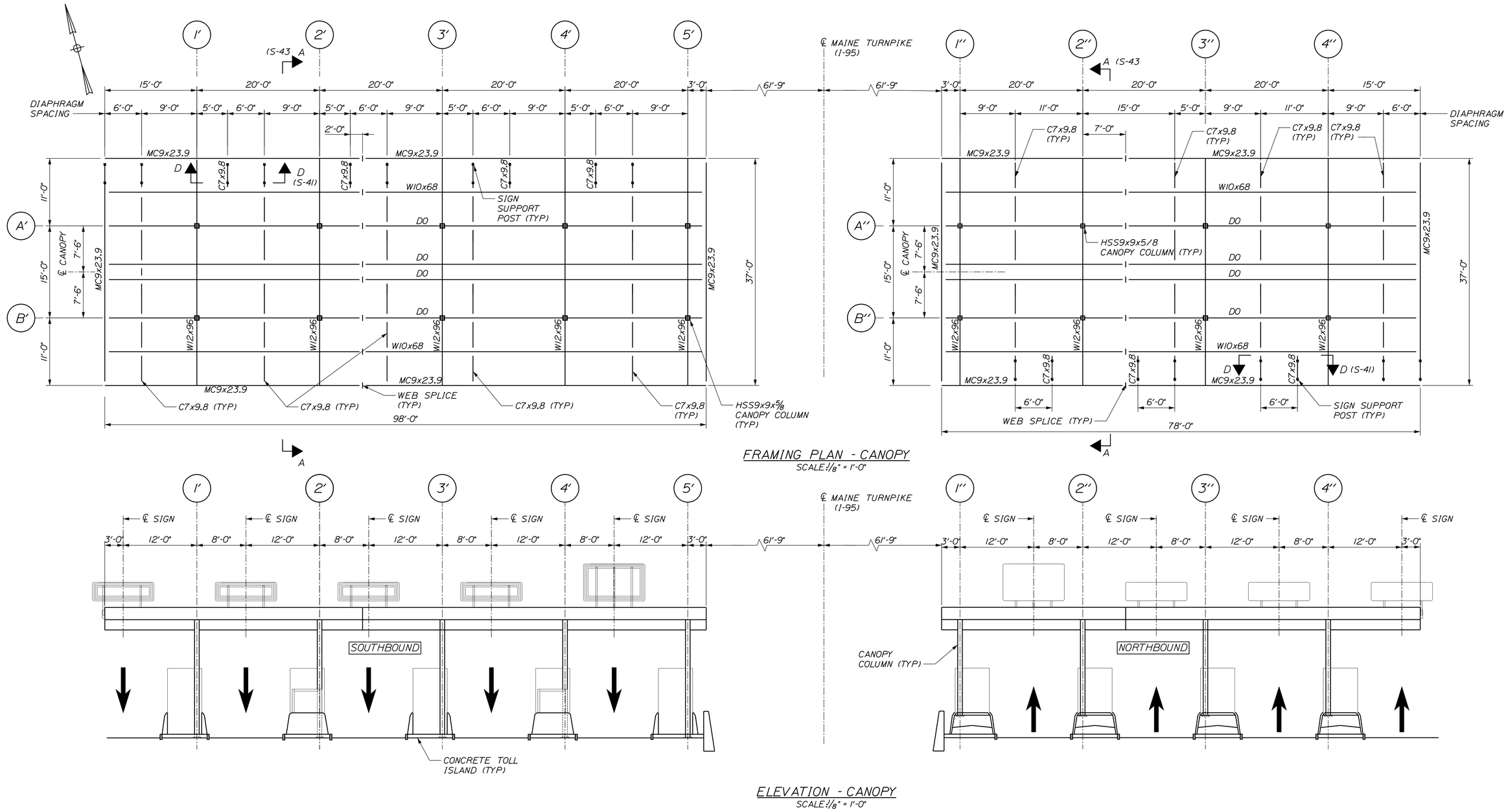
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ORT SLAB
PLAN AND DETAILS

SHEET NUMBER: S-41

CONTRACT:2018.20



FRAMING PLAN - CANOPY
SCALE: 1/8" = 1'-0"

ELEVATION - CANOPY
SCALE: 1/8" = 1'-0"

Date: 7/23/2018

Filename: ...\335_(S-42) Canopy_01.DGN

Scale:
8 0 8 16
Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

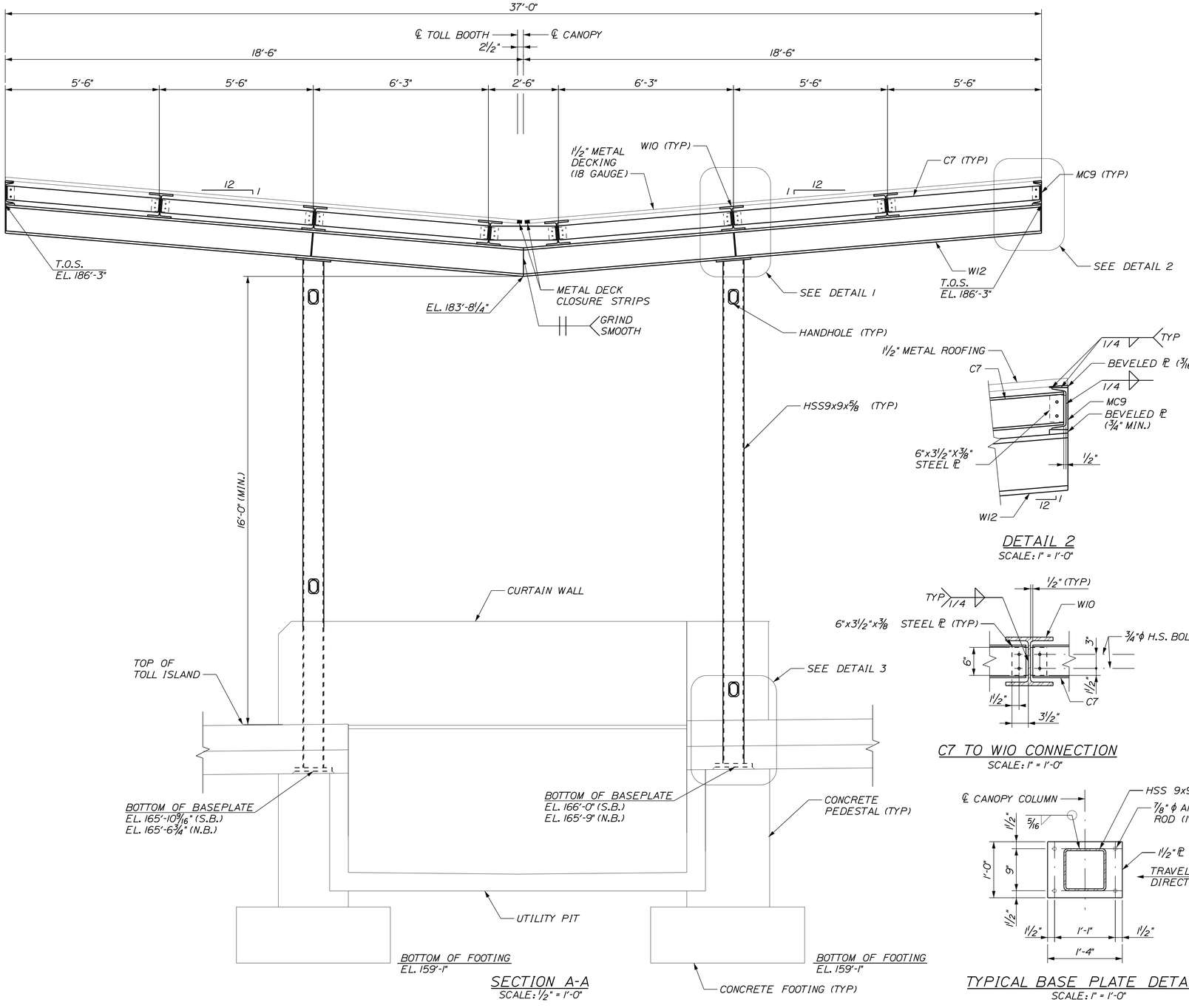
YORK TOLL PLAZA

CANOPY FRAMING PLAN AND ELEVATION

SHEET NUMBER: S-42

CONTRACT: 2018.20

Date:7/23/2018

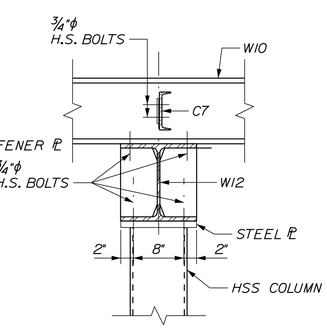


SECTION A-A
SCALE: ½" = 1'-0"

NOTES:

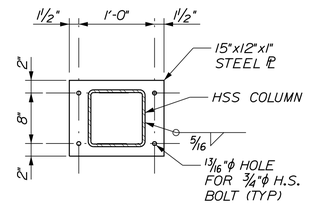
1. FOR CANOPY FRAMING LAYOUT AND ELEVATION VIEW, SEE SHEET S-42.
2. FOR CANOPY ROOFING, FASCIA DETAILS AND ROOF DRAIN, SEE ARCHITECTURAL DRAWINGS.
3. STRUCTURAL STEEL FRAMING AND HARDWARE SHALL BE SHOP-PAINTED PER SPECIFICATIONS SECTION 506.

DETAIL 1
SCALE: 1" = 1'-0"

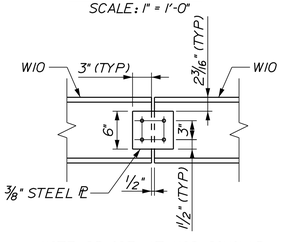


SECTION B-B
SCALE: 1" = 1'-0"

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



SECTION C-C
SCALE: 1" = 1'-0"

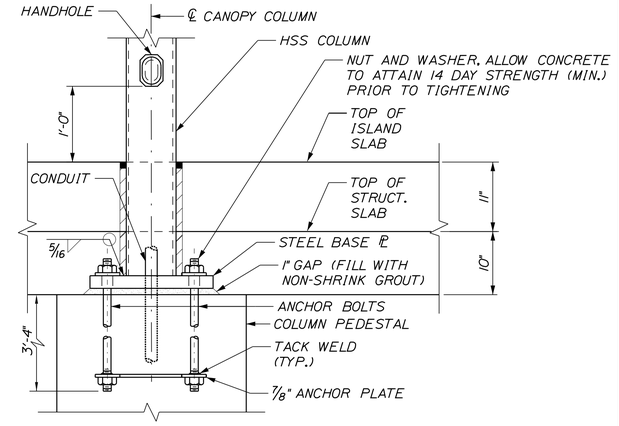


NOTE: SPLICE AT MC9 SIMILAR

WEB SPLICE DETAIL AT W10 BEAMS
SCALE: 1" = 1'-0"

C7 TO W10 CONNECTION
SCALE: 1" = 1'-0"

TYPICAL BASE PLATE DETAIL
SCALE: 1" = 1'-0"



DETAIL 3
SCALE: 1" = 1'-0"

Filename: ...\336_(S-43)_Canopy_02.DGN

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CANOPY
SECTIONS AND DETAILS

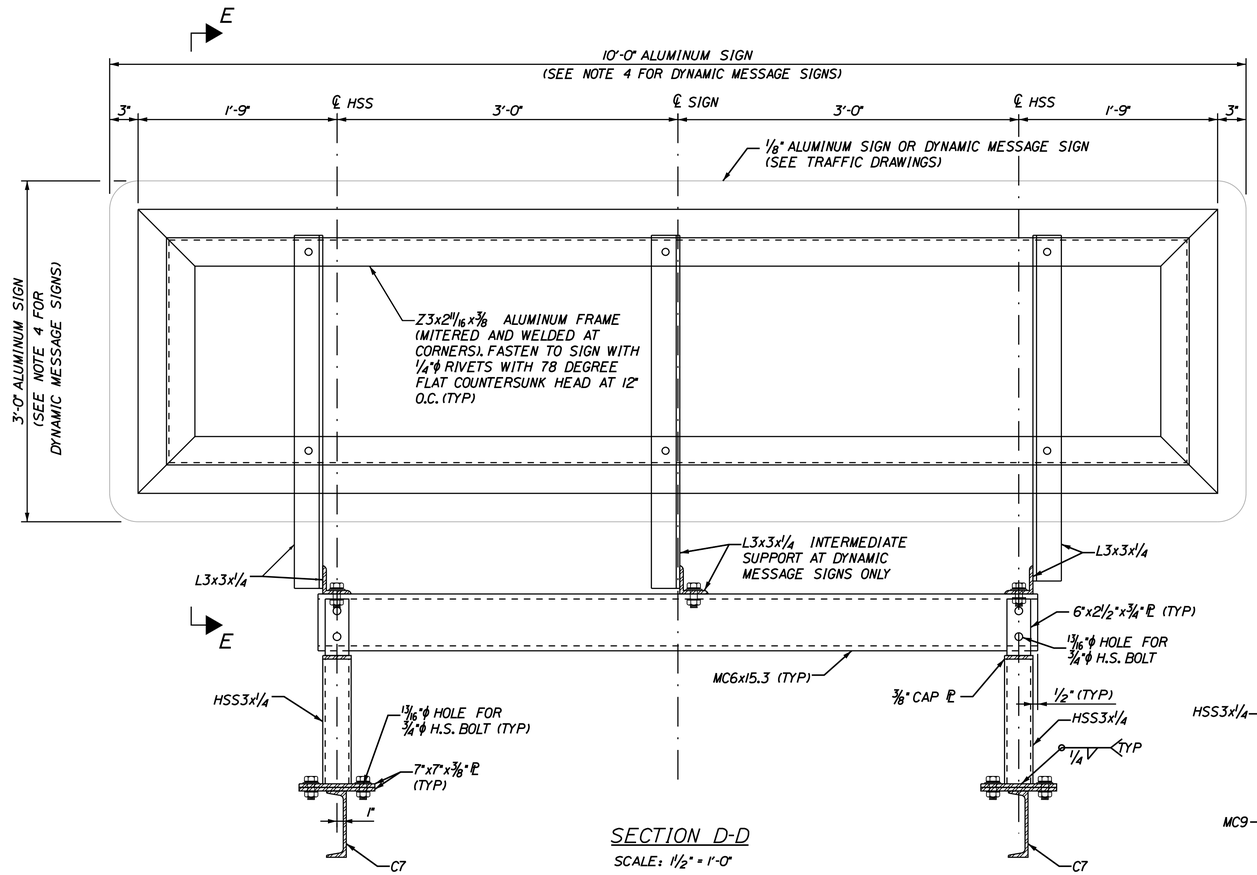
SHEET NUMBER: S-43

CONTRACT:2018.20

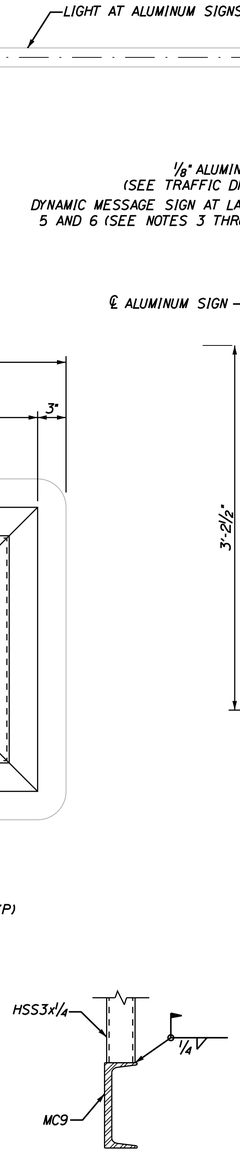
NOTES:

1. ALL SIGN SUPPORT FRAME STRUCTURAL STEEL MEMBERS AND CONNECTIONS SHALL BE HOT-DIPPED GALVANIZED.
2. NEOPRENE ISOLATION WASHERS SHALL BE INSTALLED BETWEEN THE ALUMINUM SIGN FRAME AND GALV. FRAME SUPPORT, AND ALSO BETWEEN THE BOLT HEAD AND ALUMINUM SIGN FRAME.
3. CAREFULLY REMOVE EXISTING DYNAMIC MESSAGES SIGN AT THE MILE 7.3 TOLL PLAZA AND REINSTALL SIGN OVER LANES 5 OR 6 ON NEW SUPPORTS SHOWN ON THIS SHEET. SEE TRAFFIC DRAWINGS FOR ADDITIONAL DETAILS.
4. ADJUST DIMENSIONS OF ALUMINUM FRAME AND LENGTH OF VERTICAL STEEL ANGLES AS REQUIRED TO ACCOMMODATE DYNAMIC MESSAGE SIGN. THE DIMENSIONS OF THE DYNAMIC MESSAGE SIGN AND PROPOSED FRAMING LAYOUT SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL.
5. NEW HOT-DIPPED GALVANIZED BOLTS AND HARDWARE SHALL BE PROVIDED FOR MOUNTING DYNAMIC MESSAGE SIGNS TO NEW ALUMINUM FRAME.
6. SEE SHEET LT-20 FOR MORE INFORMATION ON LIGHT AT ALUMINUM SIGNS.

Date:8/21/2018



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



TYPICAL HSS POST CONNECTION AT MC9 PERIMETER BEAMS
SCALE: 1 1/2" = 1'-0"

NOTE: FASCIA CLADDING AND FLASHING NOT SHOWN FOR CLARITY. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.

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

Filename: ...\337_(S-44) Canopy Sign Support.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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Designed	DJM	7/18	Checked	SBH	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

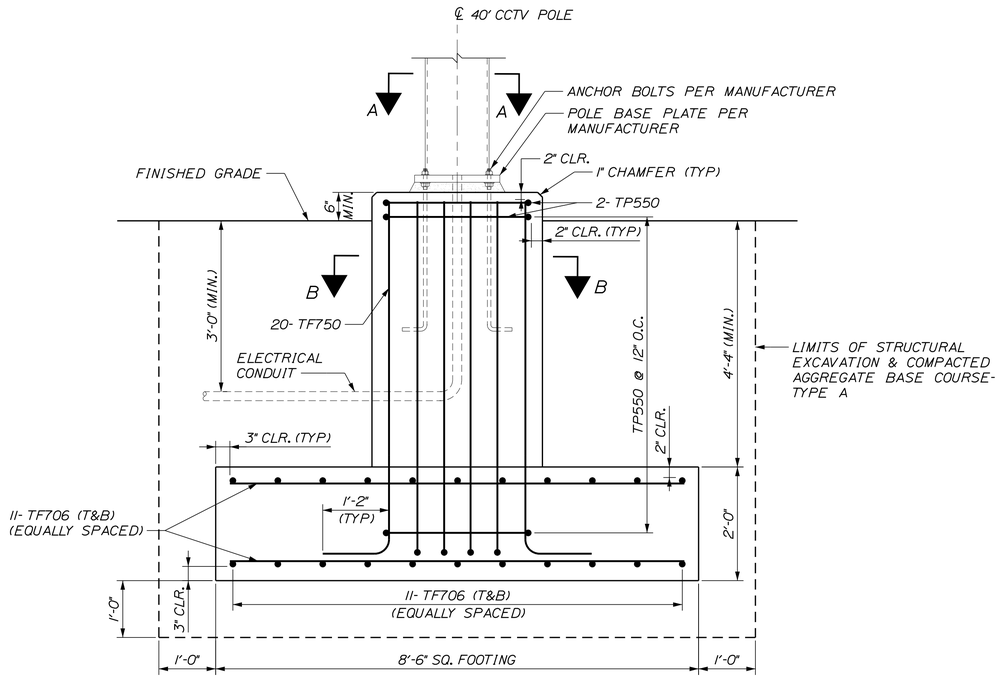
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

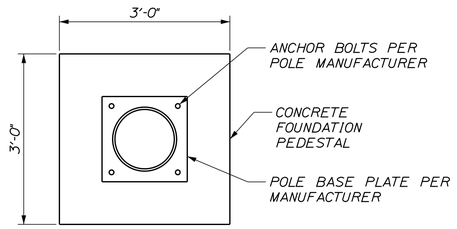
CANOPY SIGN SUPPORT DETAILS

SHEET NUMBER: S-44

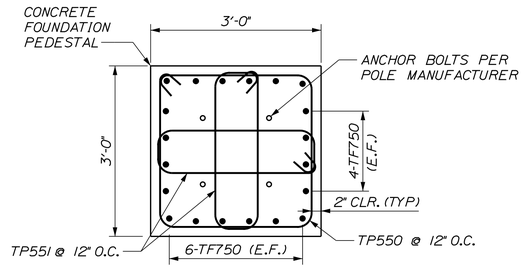
CONTRACT:2018.20



SECTION THROUGH
CCTV POLE FOUNDATION
SCALE: 3/4" = 1'-0"



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



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

REINFORCING SCHEDULE									
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
CCTV FOUNDATIONS (2 FOUNDATIONS)									
TF706	7	88	8'-0"	STR					
TF750	7	40	7'-4"	17	1'-2"	6'-2"			
TP550	5	16	11'-7"	100	2'-8"	2'-8"	5 1/2"		
TP551	5	32	7'-7 1/2"	100	8"	2'-8"	5 1/2"		

NOTE: SEE SHEET S-23 FOR BAR BENDING DIAGRAMS.

Date:7/23/2018

Filename: ...\338_(S-45) CCTV Pole Foundation Sections and Details and Sections.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CCTV POLE FOUNDATION DETAILS

SHEET NUMBER: S-45

CONTRACT:2018.20

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
STRUCTURAL SLAB - TOLL ISLAND TYPE A (PER ISLAND)									
A501	5	4	19'-7"	17E	3'-4"	17'-5"	1'-9 1/2"		LONGITUDINAL, R = 47'- 9" (INSIDE RADIUS)
A502	5	4	8'-0"	STR					LONGITUDINAL
A503	5	4	11'-0"	STR					LONGITUDINAL
A504	5	4	13'-3"	STR					LONGITUDINAL
A505	5	4	15'-1"	STR					LONGITUDINAL
A506	5	4	16'-9"	STR					LONGITUDINAL
A507	5	4	18'-2"	STR					LONGITUDINAL
A508	5	4	19'-3"	STR					LONGITUDINAL
A509	5	2	0'-10"	STR					TRANSVERSE
A510	5	2	1'-7"	STR					TRANSVERSE
A511	5	2	2'-3"	STR					TRANSVERSE
A512	5	2	2'-11"	STR					TRANSVERSE
A513	5	2	3'-6"	STR					TRANSVERSE
A514	5	2	4'-0"	STR					TRANSVERSE
A515	5	2	4'-7"	STR					TRANSVERSE
A516	5	2	5'-0"	STR					TRANSVERSE
A517	5	2	5'-5"	STR					TRANSVERSE
A518	5	2	5'-10"	STR					TRANSVERSE
A519	5	2	6'-2"	STR					TRANSVERSE
A520	5	2	6'-6"	STR					TRANSVERSE
A521	5	2	6'-9"	STR					TRANSVERSE
A522	5	2	7'-2"	STR					TRANSVERSE
A523	5	2	7'-3"	STR					TRANSVERSE
A524	5	2	7'-4"	STR					TRANSVERSE
A525	5	2	7'-5"	STR					TRANSVERSE
A526	5	6	7'-6"	STR					TRANSVERSE
AT501	5	14	5'-0"	STR					LONGITUDINAL
AT502	5	8	28'-6"	STR					LONGITUDINAL
AT503	5	14	10'-11"	STR					LONGITUDINAL
AT504	5	108	7'-6"	STR					TRANSVERSE
AT505	5	18	27'-2"	STR					LONGITUDINAL
STRUCTURAL SLAB - TOLL ISLAND TYPE B (PER ISLAND)									
A501	5	4	19'-9 1/2"	17E	3'-4"	17'-7"	1'-9 1/2"		LONGITUDINAL, R = 47'- 9" (INSIDE RADIUS)
A502	5	4	8'-0"	STR					LONGITUDINAL
A503	5	4	11'-0"	STR					LONGITUDINAL
A504	5	4	13'-3"	STR					LONGITUDINAL
A505	5	4	15'-1"	STR					LONGITUDINAL
A506	5	4	16'-9"	STR					LONGITUDINAL
A507	5	4	18'-2"	STR					LONGITUDINAL
A508	5	4	19'-3"	STR					LONGITUDINAL
A509	5	2	0'-10"	STR					TRANSVERSE
A510	5	2	1'-7"	STR					TRANSVERSE
A511	5	2	2'-3"	STR					TRANSVERSE
A512	5	2	2'-11"	STR					TRANSVERSE
A513	5	2	3'-6"	STR					TRANSVERSE
A514	5	2	4'-0"	STR					TRANSVERSE
A515	5	2	4'-7"	STR					TRANSVERSE
A516	5	2	5'-0"	STR					TRANSVERSE
A517	5	2	5'-5"	STR					TRANSVERSE
A518	5	2	5'-10"	STR					TRANSVERSE
A519	5	2	6'-2"	STR					TRANSVERSE
A520	5	2	6'-6"	STR					TRANSVERSE
A521	5	2	6'-9"	STR					TRANSVERSE
A522	5	2	7'-2"	STR					TRANSVERSE
A523	5	2	7'-3"	STR					TRANSVERSE
A524	5	2	7'-4"	STR					TRANSVERSE
A525	5	2	7'-5"	STR					TRANSVERSE
A526	5	6	7'-6"	STR					TRANSVERSE
AT501	5	14	5'-0"	STR					LONGITUDINAL
AT502	5	8	28'-6"	STR					LONGITUDINAL
AT504	5	54	7'-6"	STR					TRANSVERSE
AT507	5	14	9'-11"	STR					LONGITUDINAL

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
STRUCTURAL SLAB - TOLL ISLAND TYPE C (PER ISLAND)									
A527	5	2	30'-0 1/2"	17E	8'-1"	26'-7"	1'-9 1/2"		LONGITUDINAL, R = 47'- 9" (INSIDE RADIUS)
A528	5	2	8'-4"	STR					LONGITUDINAL
A529	5	2	11'-1"	STR					LONGITUDINAL
A530	5	2	13'-2"	STR					LONGITUDINAL
A531	5	2	14'-11"	STR					LONGITUDINAL
A532	5	2	16'-6"	STR					LONGITUDINAL
A533	5	2	17'-10"	STR					LONGITUDINAL
A534	5	2	19'-1"	STR					LONGITUDINAL
A535	5	2	20'-3"	STR					LONGITUDINAL
A536	5	2	21'-4"	STR					LONGITUDINAL
A537	5	2	22'-4"	STR					LONGITUDINAL
A538	5	2	23'-4"	STR					LONGITUDINAL
A539	5	2	24'-3"	STR					LONGITUDINAL
A540	5	2	25'-1"	STR					LONGITUDINAL
A541	5	2	25'-11"	STR					LONGITUDINAL
A542	5	2	26'-8"	STR					LONGITUDINAL
A543	5	2	27'-5"	STR					LONGITUDINAL
A544	5	2	28'-2"	STR					LONGITUDINAL
A546	5	2	0'-6"	STR					TRANSVERSE
A547	5	2	1'-1"	STR					TRANSVERSE
A548	5	2	1'-8"	STR					TRANSVERSE
A549	5	2	2'-3"	STR					TRANSVERSE
A550	5	2	2'-9"	STR					TRANSVERSE
A551	5	2	3'-3"	STR					TRANSVERSE
A552	5	2	3'-9"	STR					TRANSVERSE
A553	5	2	4'-2"	STR					TRANSVERSE
A554	5	2	4'-7"	STR					TRANSVERSE
A555	5	2	5'-0"	STR					TRANSVERSE
A556	5	2	5'-4"	STR					TRANSVERSE
A557	5	2	5'-8"	STR					TRANSVERSE
A558	5	2	6'-0"	STR					TRANSVERSE
A559	5	2	6'-3"	STR					TRANSVERSE
A560	5	2	6'-6"	STR					TRANSVERSE
A561	5	2	6'-9"	STR					TRANSVERSE
A562	5	2	7'-0"	STR					TRANSVERSE
A563	5	2	7'-2"	STR					TRANSVERSE
A564	5	2	7'-4"	STR					TRANSVERSE
A565	5	2	7'-6"	STR					TRANSVERSE
A566	5	2	7'-8"	STR					TRANSVERSE
A567	5	2	7'-9"	STR					TRANSVERSE
A568	5	2	7'-11"	STR					TRANSVERSE
A569	5	12	8'-1"	STR					TRANSVERSE
AT501	5	14	5'-0"	STR					LONGITUDINAL
AT502	5	10	28'-6"	STR					LONGITUDINAL
AT503	5	14	10'-11"	STR					LONGITUDINAL
AT505	5	20	27'-2"	STR					LONGITUDINAL
AT506	5	108	8'-1"	STR					TRANSVERSE
STRUCTURAL SLAB- TOLL LANES 1 & 9 (PER LANE)									
AS501	5	4	22'-6"	STR					TRANSVERSE
AS502	5	2	21'-10"	STR					TRANSVERSE
AS503	5	2	21'-8"	STR					TRANSVERSE
AS504	5	2	21'-6"	STR					TRANSVERSE
AS505	5	2	21'-3"	STR					TRANSVERSE
AS506	5	2	21'-1"	STR					TRANSVERSE
AS507	5	2	20'-11"	STR					TRANSVERSE
AS508	5	2	20'-9"	STR					TRANSVERSE
AS509	5	2	20'-8"	STR					TRANSVERSE
AS510	5	2	20'-6"	STR					TRANSVERSE
AS511	5	2	20'-4"	STR					TRANSVERSE
AS512	5	2	20'-3"	STR					TRANSVERSE
AS513	5	2	20'-1"	STR					TRANSVERSE
AS514	5	2	19'-11"	STR					TRANSVERSE
AS515	5	2	19'-10"	STR					TRANSVERSE

NOTES:
SEE SHEET S-23 FOR BAR BENDING DIAGRAMS.

Date:7/23/2018

Filename: ...\339_(S-46) Cash Lanes - StructuralSlab Reinforcement Schedule.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	LLG	7/18	Checked	DJM	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

CASH LANES STRUCTURAL SLAB REINFORCEMENT SCHEDULE 1 OF 2

SHEET NUMBER: S-46

CONTRACT:2018.20

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
AS516	5	2	19'-9"	STR					TRANSVERSE
AS517	5	2	19'-7"	STR					TRANSVERSE
AS518	5	2	19'-6"	STR					TRANSVERSE
AS519	5	2	19'-5"	STR					TRANSVERSE
AS520	5	2	19'-4"	STR					TRANSVERSE
AS521	5	2	19'-3"	STR					TRANSVERSE
AS522	5	2	19'-2"	STR					TRANSVERSE
AS523	5	2	19'-1"	STR					TRANSVERSE
AS524	5	2	19'-0"	STR					TRANSVERSE
AS525	5	2	18'-11"	STR					TRANSVERSE
AS526	5	2	18'-10"	STR					TRANSVERSE
AS527	5	2	18'-9"	STR					TRANSVERSE
AS528	5	2	18'-9"	STR					TRANSVERSE
AS529	5	2	18'-8"	STR					TRANSVERSE
AS530	5	2	18'-8"	STR					TRANSVERSE
AS531	5	2	18'-7"	STR					TRANSVERSE
AS532	5	2	18'-7"	STR					TRANSVERSE
AS533	5	20	18'-6"	STR					TRANSVERSE
AS534	5	76	20'-6"	STR					LONGITUDINAL
AS535	5	2	11'-9"	STR					LONGITUDINAL
AS536	5	2	8'-11"	STR					LONGITUDINAL
AS537	5	2	6'-10"	STR					LONGITUDINAL
AS538	5	2	5'-0"	STR					LONGITUDINAL
AS539	5	2	3'-5"	STR					LONGITUDINAL
AS540	5	2	2'-0"	STR					LONGITUDINAL
AS541	5	2	0'-10"	STR					LONGITUDINAL
G601	6	76	28'-6"	STR					LONGITUDINAL
G602	6	76	27'-5"	STR					LONGITUDINAL
G650	6	214	18'-6"	17F	4"	6'-9"	11'-9"		TRANSVERSE
STRUCTURAL SLAB- TOLL LANES 2, 4, 7 & 8 (PER LANE)									
AS542	5	4	0'-10"	STR					LONGITUDINAL
AS543	5	4	2'-0"	STR					LONGITUDINAL
AS544	5	4	3'-5"	STR					LONGITUDINAL
AS545	5	4	5'-0"	STR					LONGITUDINAL
AS546	5	4	6'-10"	STR					LONGITUDINAL
AS547	5	4	8'-11"	STR					LONGITUDINAL
AS548	5	4	11'-9"	STR					LONGITUDINAL
AS549	5	48	20'-6"	STR					LONGITUDINAL
AS550	5	4	19'-6"	STR					TRANSVERSE
AS551	5	2	18'-3"	STR					TRANSVERSE
AS552	5	2	17'-10"	STR					TRANSVERSE
AS553	5	2	17'-6"	STR					TRANSVERSE
AS554	5	2	17'-1"	STR					TRANSVERSE
AS555	5	2	16'-9"	STR					TRANSVERSE
AS556	5	2	16'-5"	STR					TRANSVERSE
AS557	5	2	16'-1"	STR					TRANSVERSE
AS558	5	2	15'-10"	STR					TRANSVERSE
AS559	5	2	15'-6"	STR					TRANSVERSE
AS560	5	2	15'-3"	STR					TRANSVERSE
AS561	5	2	14'-11"	STR					TRANSVERSE
AS562	5	2	14'-8"	STR					TRANSVERSE
AS563	5	2	14'-5"	STR					TRANSVERSE
AS564	5	2	14'-2"	STR					TRANSVERSE
AS565	5	2	14'-0"	STR					TRANSVERSE
AS566	5	2	13'-9"	STR					TRANSVERSE
AS567	5	2	13'-6"	STR					TRANSVERSE
AS568	5	2	13'-4"	STR					TRANSVERSE
AS569	5	2	13'-2"	STR					TRANSVERSE
AS570	5	2	13'-0"	STR					TRANSVERSE
AS571	5	2	12'-9"	STR					TRANSVERSE
AS572	5	2	12'-8"	STR					TRANSVERSE
AS573	5	2	12'-6"	STR					TRANSVERSE
AS574	5	2	12'-4"	STR					TRANSVERSE
AS575	5	2	12'-3"	STR					TRANSVERSE

MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	LOCATION AND REMARKS
AS576	5	2	12'-1"	STR					TRANSVERSE
AS577	5	2	12'-0"	STR					TRANSVERSE
AS578	5	2	11'-11"	STR					TRANSVERSE
AS579	5	2	11'-10"	STR					TRANSVERSE
AS580	5	2	11'-9"	STR					TRANSVERSE
AS581	5	2	11'-8"	STR					TRANSVERSE
AS582	5	2	11'-7"	STR					TRANSVERSE
AS583	5	18	11'-6"	STR					TRANSVERSE
G603	6	48	28'-6"	STR					LONGITUDINAL
G604	6	48	27'-5"	STR					LONGITUDINAL
G605	6	214	11'-6"	STR					TRANSVERSE
STRUCTURAL SLAB- TOLL LANES 5 & 6 (PER LANE)									
AS584	5	2	12'-0"	STR					LONGITUDINAL
AS585	5	2	9'-4"	STR					LONGITUDINAL
AS586	5	2	7'-3"	STR					LONGITUDINAL
AS587	5	2	5'-6"	STR					LONGITUDINAL
AS588	5	2	4'-0"	STR					LONGITUDINAL
AS589	5	2	2'-7"	STR					LONGITUDINAL
AS590	5	2	1'-4"	STR					LONGITUDINAL
AS591	5	2	19'-3"	STR					TRANSVERSE
AS592	5	2	19'-0"	STR					TRANSVERSE
AS542	5	2	0'-10"	STR					LONGITUDINAL
AS543	5	2	2'-0"	STR					LONGITUDINAL
AS544	5	2	3'-5"	STR					LONGITUDINAL
AS545	5	2	5'-0"	STR					LONGITUDINAL
AS546	5	2	6'-10"	STR					LONGITUDINAL
AS547	5	2	8'-11"	STR					LONGITUDINAL
AS548	5	2	11'-9"	STR					LONGITUDINAL
AS549	5	48	20'-6"	STR					LONGITUDINAL
AS551	5	2	18'-3"	STR					TRANSVERSE
AS552	5	2	17'-10"	STR					TRANSVERSE
AS553	5	2	17'-6"	STR					TRANSVERSE
AS554	5	2	17'-1"	STR					TRANSVERSE
AS555	5	2	16'-9"	STR					TRANSVERSE
AS556	5	2	16'-5"	STR					TRANSVERSE
AS557	5	2	16'-1"	STR					TRANSVERSE
AS558	5	2	15'-10"	STR					TRANSVERSE
AS559	5	2	15'-6"	STR					TRANSVERSE
AS560	5	2	15'-3"	STR					TRANSVERSE
AS561	5	2	14'-11"	STR					TRANSVERSE
AS562	5	2	14'-8"	STR					TRANSVERSE
AS563	5	2	14'-5"	STR					TRANSVERSE
AS564	5	2	14'-2"	STR					TRANSVERSE
AS565	5	2	14'-0"	STR					TRANSVERSE
AS566	5	2	13'-9"	STR					TRANSVERSE
AS567	5	2	13'-6"	STR					TRANSVERSE
AS568	5	2	13'-4"	STR					TRANSVERSE
AS569	5	2	13'-2"	STR					TRANSVERSE
AS570	5	2	13'-0"	STR					TRANSVERSE
AS571	5	2	12'-9"	STR					TRANSVERSE
AS572	5	2	12'-8"	STR					TRANSVERSE
AS573	5	2	12'-6"	STR					TRANSVERSE
AS574	5	2	12'-4"	STR					TRANSVERSE
AS575	5	2	12'-3"	STR					TRANSVERSE
AS576	5	2	12'-1"	STR					TRANSVERSE
AS577	5	2	12'-0"	STR					TRANSVERSE
AS578	5	2	11'-11"	STR					TRANSVERSE
AS579	5	2	11'-10"	STR					TRANSVERSE
AS580	5	2	11'-9"	STR					TRANSVERSE
AS581	5	2	11'-8"	STR					TRANSVERSE
AS582	5	2	11'-7"	STR					TRANSVERSE
AS583	5	18	11'-6"	STR					TRANSVERSE
G603	6	48	28'-6"	STR					LONGITUDINAL
G604	6	48	27'-5"	STR					LONGITUDINAL
G605	6	214	11'-6"	STR					TRANSVERSE

NOTES:
SEE SHEET S-23 FOR BAR BENDING DIAGRAMS.

Date:7/23/2018

Filename: ...\340_(S-47) Cash Lanes - StructuralSlab Reinforcement Schedule 2 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	LLG	7/18	Checked	DJM	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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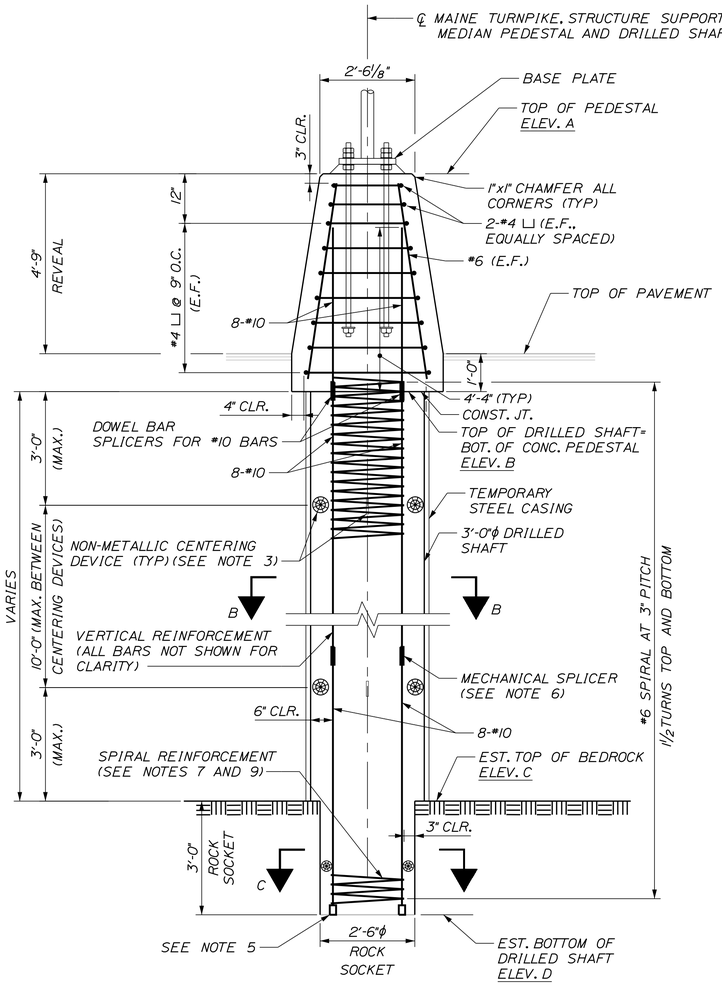
YORK TOLL PLAZA

CASH LANES STRUCTURAL SLAB REINFORCEMENT SCHEDULE 2 OF 2

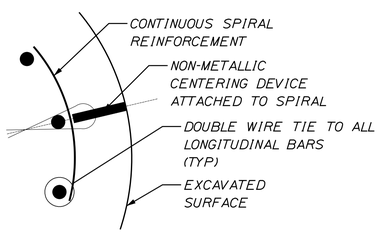
SHEET NUMBER: S-47

CONTRACT:2018.20



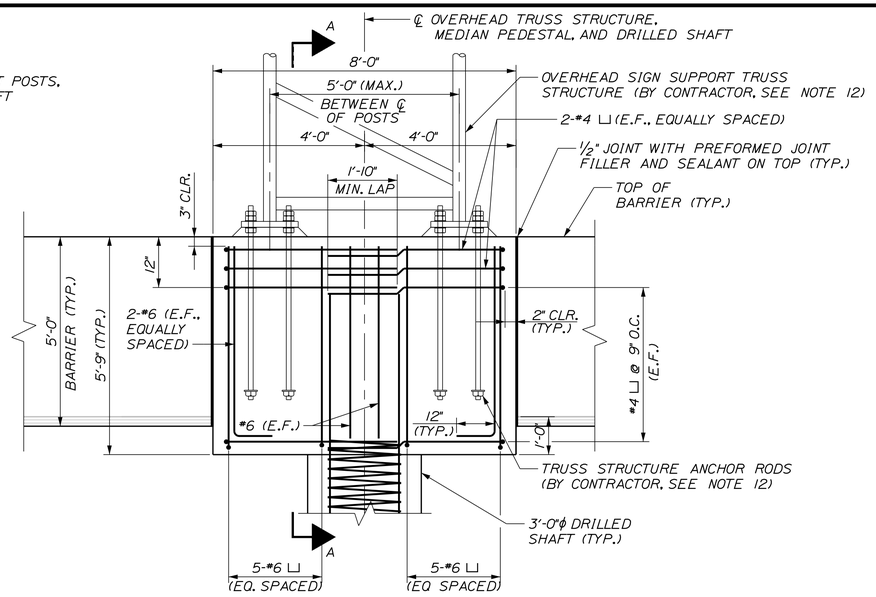
DRILLED SHAFT AT MEDIAN - VERTICAL SECTION

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



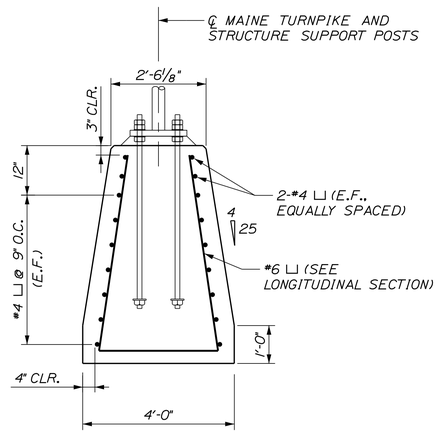
CENTERING DEVICE DETAIL

NOT TO SCALE



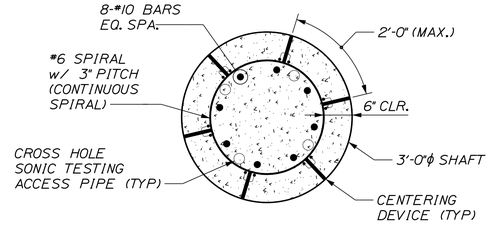
DRILLED SHAFT AT MEDIAN - LONGITUDINAL SECTION

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



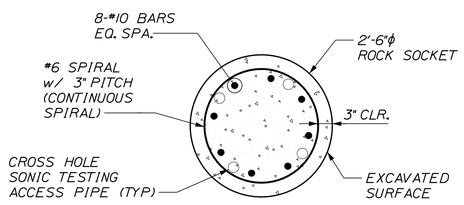
SECTION A-A

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



SECTION B-B

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



SECTION C-C

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

NOTES:

1. CONCRETE SHALL BE CLASS AAA f'c = 4500 PSI.
2. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60 AND ASTM A775 (EPOXY-COATED).
3. CENTERING DEVICES SHALL BE CONSTRUCTED OF AN APPROVED NON-METALLIC DURABLE MATERIAL AND SHALL BE OF ADEQUATE SIZE TO INSURE A MINIMUM OF 6" IN 3'-0" SHAFT AND 3" ANNULAR SPACE IN ROCK SOCKET BETWEEN THE OUTSIDE OF THE REINFORCEMENT CAGE AND THE SIDES OF THE EXCAVATED HOLE OR INSIDE OF CASING.
4. SPIRAL SPACING MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE ROTATION OF NON-METALLIC CENTERING DEVICES.
5. EACH VERTICAL BAR SHALL BE SUPPORTED BY A 3" HIGH BOLSTER OF APPROVED NON-METALLIC DURABLE MATERIAL.
6. SPLICES OF VERTICAL REINFORCEMENT SHALL BE ARRANGED IN GROUPS OF TWO DIAGONALLY OPPOSITE PAIRS THAT ARE STAGGERED VERTICALLY AT LEAST 12" ON CENTER.
7. IF SPLICING OF SPIRAL REINFORCEMENT IS NECESSARY, A MINIMUM OF 2" CLEARANCE SHALL BE PROVIDED BETWEEN THE OUTSIDE SURFACE OF MECHANICAL REINFORCED BAR SPLICER AND THE DRILLED SHAFT CASING OR EXCAVATED SURFACE.
8. WELDING OF THE REINFORCEMENT BARS SHALL NOT BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. WELDING OF LONGITUDINAL BARS SHALL NOT BE PERMITTED.
9. NO SPLICING OF SPIRAL REINFORCEMENT IS PERMITTED WITHIN 8 FEET OF THE TOP OF ROCK SOCKET OR BOTTOM OF THE DRILLED SHAFT CAP.
10. CONCRETE FOR THE PEDESTALS SHALL BE PAID FOR UNDER ITEM 502.231 - STRUCTURAL CONCRETE SPACE FRAME AND OVERHEAD SIGN STRUCTURE PEDESTALS. STEEL REINFORCEMENT FOR PEDESTALS SHALL BE PAID FOR UNDER ITEM NO. 530.14 - EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED AND ITEM 503.15 - EPOXY COATED REINFORCING STEEL, PLACING. DRILLED SHAFTS SHALL BE PAID FOR UNDER ITEM NO. 626.3321 - 36-INCH DIAMETER DRILLED SHAFT AND ITEM NO. 626.3322 - 30-INCH DIAMETER DRILLED SHAFT - ROCK SOCKET.
11. LENGTHS OF VERTICAL AND SPIRAL REINFORCEMENT VARY AT EACH DRILL SHAFT FOUNDATION AND DEPEND ON ACTUAL BOTTOM OF ROCK SOCKET ELEVATIONS. BAR LENGTHS SHALL BE LONG ENOUGH TO PROVIDE THE MINIMUM PEDESTAL EMBEDMENT DEPTHS SHOWN.
12. DESIGN FOR OVERHEAD SIGN SUPPORT TRUSS STRUCTURE INCLUDING ANCHOR RODS SHALL BE PROVIDED BY THE CONTRACTOR PER SPECIFICATION SECTION 645. SUBMIT DESIGN CALCULATIONS INCLUDING TRUSS POST SUPPORT REACTIONS TO THE ENGINEER FOR REVIEW AND APPROVAL.
13. REFER TO SIGNING AND STRIPING PLANS AND SIGN BRIDGE CROSS SECTIONS FOR MOUNTED SIGN TYPES AND STRUCTURE SPANS.
14. CONTRACTOR TO PROVIDE REINFORCEMENT SCHEDULES FOR ALL REINFORCEMENT AT CONCRETE PEDESTALS AND DRILLED SHAFT FOUNDATIONS FOR OVERHEAD SIGN SUPPORT STRUCTURES.
15. FOR ADDITIONAL NOTES, TOP OF PEDESTAL, DRILLED SHAFT AND ESTIMATED TOP OF BEDROCK ELEVATIONS, SEE SHEET S-49.
16. CONTRACTOR SHALL REVIEW THE FINAL GEOTECHNICAL DESIGN REPORT DATED JANUARY 2017 REGARDING EXPECTED BEDROCK TYPES, QUALITY AND STRENGTHS. TESTS PERFORMED ON REPRESENTATIVE ROCK SAMPLES IN THE VICINITY OF THE PROPOSED TOLL PLAZA INDICATE COMPRESSIVE ROCK STRENGTHS BETWEEN APPROXIMATELY 12,000 TO 33,000 PSI. HOWEVER SOME VARIABILITY SHOULD BE EXPECTED AT LOCATIONS OF DRILLED SHAFT FOUNDATIONS FOR OVERHEAD SIGN SUPPORT STRUCTURES. THE CONTRACTOR SHOULD ANTICIPATE HARD TO VERY HARD BEDROCK CONDITIONS AND PLAN HIS WORK ACCORDINGLY.
17. FOR ADDITIONAL NOTES AND REQUIREMENTS FOR THE OVERHEAD SIGN STRUCTURES AND FOUNDATIONS, SEE SHEET GN-02.
18. CONTRACTOR TO INSTALL SONIC TEST TUBES AND PROVIDE TESTING AND TEST RESULTS FOR 30" AND 36" DRILLED SHAFTS. REFER TO THE SPECIFICATIONS (SP626) FOR ADDITIONAL REQUIREMENTS.

Date: 7/23/2018

Filename: ...\341_(S-48) Overhead Sign Support Foundation Details 1.dgn

Scale: AS NOTED

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Designed	DJM	7/18	Checked	SBH	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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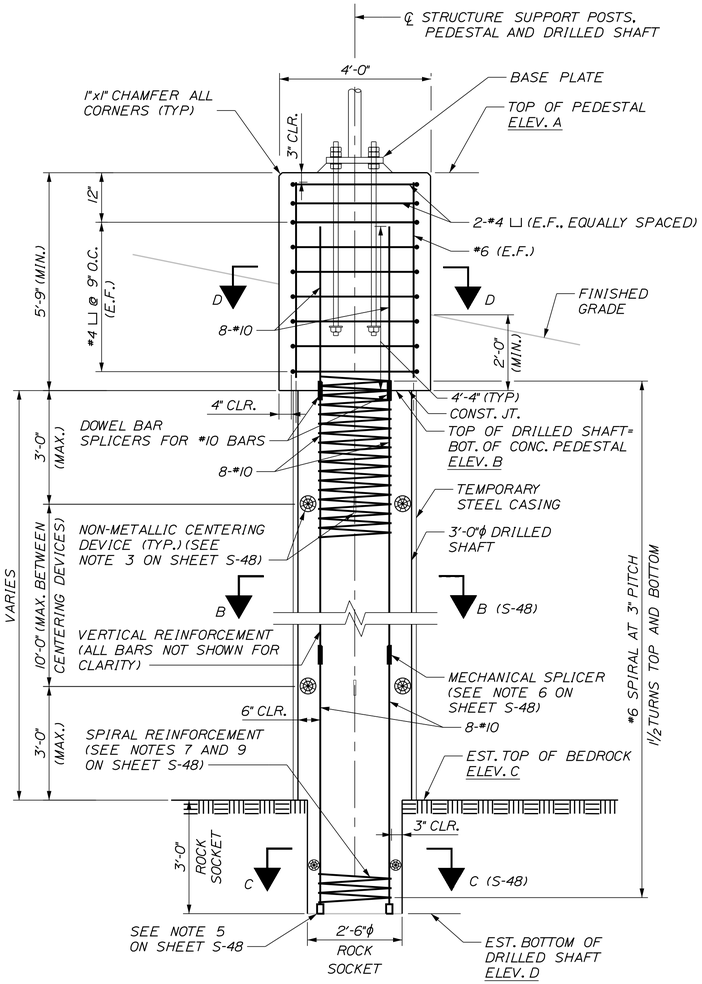
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

OVERHEAD SIGN STRUCTURE FOUNDATION DETAILS 1 OF 2

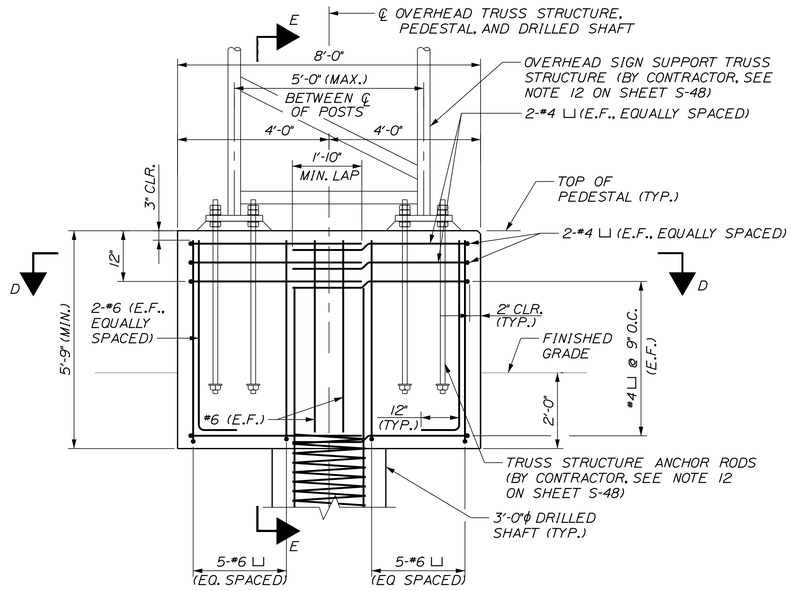
SHEET NUMBER: S-48

CONTRACT: 2018.20



DRILLED SHAFT AND PEDESTAL AT TRUSS FOUNDATIONS BEHIND GUARDRAIL - VERTICAL SECTION

SCALE: ½" = 1'-0"

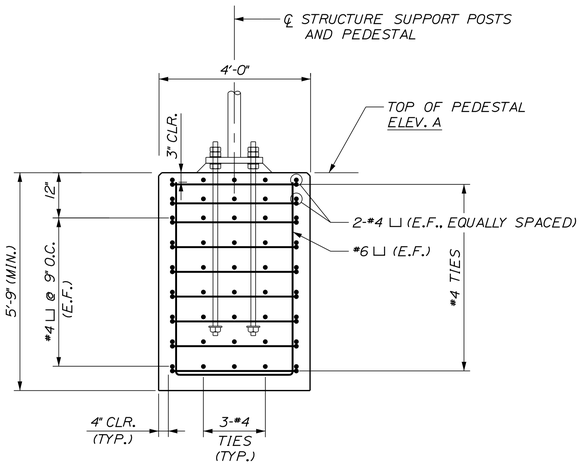


DRILLED SHAFT BEHIND GUARDRAIL - LONGITUDINAL SECTION

SCALE: ½" = 1'-0"

SECTION D-D

SCALE: ½" = 1'-0"



SECTION E-E

SCALE: ½" = 1'-0"

NOTES:

1. FOR ADDITIONAL OVERHEAD SIGN STRUCTURE, PEDESTAL, AND DRILLED SHAFT NOTES, SEE SHEET S-48.
2. CONTRACTOR SHALL DETERMINE TOP OF SHAFT AND TOP OF PEDESTAL ELEVATIONS BASED ON 2'-0" MINIMUM PEDESTAL EMBEDMENT AND 5'-9" MINIMUM PEDESTAL HEIGHT REQUIREMENTS SHOWN IN THE DETAILS ON SHEETS S-48 AND S-49.
3. DRILLED SHAFTS SHALL HAVE A MINIMUM EMBEDMENT LENGTH OF 30'-0", OR SOCKETED INTO BEDROCK A MINIMUM OF 3 FEET, WHICHEVER COMES FIRST.
4. 'ELEV. C' AND 'ELEV. D' IN THE TABLE BELOW ARE ESTIMATED ELEVATIONS AND SUBJECT TO CHANGE BASED ON FIELD CONDITIONS. THE ACTUAL BEDROCK ELEVATIONS SHOULD BE VERIFIED IN THE FIELD BY EXPERIENCED GEOTECHNICAL OR GEOLOGICAL ENGINEERING PERSONNEL.

FOUNDATION LOCATIONS AND ELEVATIONS

ROADWAY	POST/FDN.	LOCATION	STATION	ELEV. A	ELEV. B	ELEV. C	ELEV. D
STRUCTURES OVER N.B. LANES	SB-1	BEHIND GUARDRAIL	281+50	SEE NOTE 2	SEE NOTE 2	30.0	27.0
	SB-2	AT MEDIAN		58.87	53.12	37.0	34.0
	SB-3	BEHIND GUARDRAIL	306+65	SEE NOTE 2	SEE NOTE 2	112.5	109.5
	SB-4	AT MEDIAN		127.40	121.65	109.5	106.5
	SB-5	BEHIND GUARDRAIL	318+81	SEE NOTE 2	SEE NOTE 2	126.5	123.5
	SB-6	AT MEDIAN		142.64	136.89	126.5	123.5
	SB-7	BEHIND GUARDRAIL	332+00	SEE NOTE 2	SEE NOTE 2	142.0	139.0
	SB-8	AT MEDIAN		154.08	148.33	127.0	124.0
STRUCTURES OVER S.B. LANES	SB-9	AT MEDIAN	359+50	150.28	144.53	141.0	138.0
	SB-10	BEHIND GUARDRAIL		SEE NOTE 2	SEE NOTE 2	132.0	129.0
	SB-11	AT MEDIAN	374+50	134.39	128.64	NOT ENCOUNTERED	-
	SB-12	BEHIND GUARDRAIL		SEE NOTE 2	SEE NOTE 2	NOT ENCOUNTERED	-
	SB-13	AT MEDIAN	382+50	150.69	144.94	141.0	138.0
	SB-14	BEHIND GUARDRAIL		SEE NOTE 2	SEE NOTE 2	138.0	135.0
	SB-15*	BEHIND GUARDRAIL AT MEDIAN	414+90	SEE NOTE 2	SEE NOTE 2	144.5	141.5
	SB-16	BEHIND GUARDRAIL		SEE NOTE 2	SEE NOTE 2	138.5	136.5

* "BEHIND GUARDRAIL" DETAILS TO BE USED AT THIS MEDIAN LOCATION

Date:7/23/2018

Filename: ...\342_(S-49) Overhead Sign Support Foundation Details 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MTA PROJECT MANAGER: R. NORWOOD

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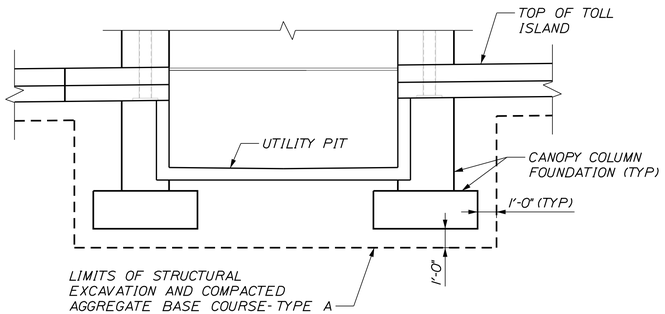
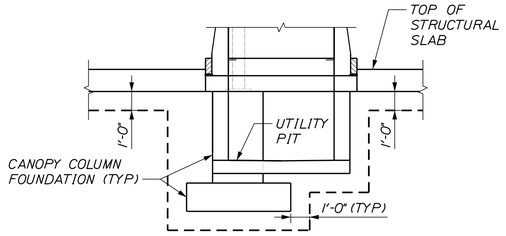
OVERHEAD SIGN STRUCTURE FOUNDATION DETAILS 2 OF 2

SHEET NUMBER: S-49

CONTRACT:2018.20



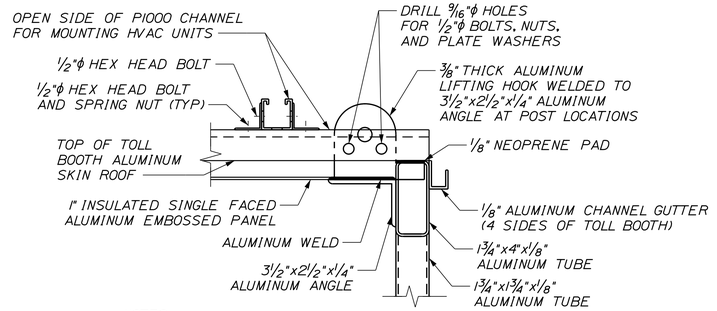
LONGITUDINAL SECTION



TRANSVERSE SECTION

PAY LIMITS FOR EXCAVATION AND BACKFILL AT CANOPY FOUNDATIONS AND UTILITY PITS

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



NOTES:
1. DRILL HOLES IN LIFTING HOOK AFTER TOLL BOOTH IS INSTALLED.
2. ALL STEEL AND HARDWARE SHALL BE HOT-DIPPED GALVANIZED.
3. PROVIDE CHANNEL STRUT BELOW HVAC UNIT MOUNTING CLIPS.
4. SUBMIT STRUT CHANNEL LAYOUT AND CONNECTION DETAILS FOR APPROVAL BY THE ENGINEER AFTER HVAC UNITS MANUFACTURER AND MODEL IS SELECTED.
5. SEE MECHANICAL PLANS FOR UNIT LOCATIONS AND TYPE.
6. "PI000" DESIGNATION REFERS TO UNISTRUT CHANNEL. SUBSTITUTION IS PERMITTED PER SPECIFICATION SECTION 504.

TYPICAL SUPPORT DETAIL FOR HVAC UNITS MOUNTED ON TOLL BOOTH ROOFS

SCALE: 3" = 1'-0"

Date:7/23/2018

Filename: ...\343_(S-50) Miscellaneous Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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YORK TOLL PLAZA

MISCELLANEOUS DETAILS

SHEET NUMBER: S-50

CONTRACT:2018.20

ADMINISTRATION BUILDING STRUCTURAL NOTES:

DESIGN CODES AND SPECIFICATIONS:

ALL WORK SHALL CONFORM TO THE FOLLOWING:

- INTERNATIONAL BUILDING CODE (2015)
- ASCE 7 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (2010)
- ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (2014)
- ACI 530/530.1 BUILDING CODE REQUIREMENTS AND SPECIFICATIONS FOR MASONRY STRUCTURES (2013)
- "STATE OF MAINE GROUND SNOW LOAD BY TOWN" (2015)

DESIGN LOADS:

- ROOF DEAD LOAD: (EXCLUDING TRUSS SELF-WEIGHT):	22 PSF
- ROOF LIVE LOAD:	20 PSF
- ROOF SNOW LOADS:	
FLAT ROOF SNOW LOAD (Pf):	42 PSF
SLOPED ROOF SNOW LOAD (Ps):	42 PSF
GROUND SNOW LOAD (Pg):	50 PSF
- SNOW EXPOSURE FACTOR (Ce):	1.00
- SNOW LOAD IMPORTANCE FACTOR:	1.00
- THERMAL FACTOR (Ct):	1.20
- FIRST FLOOR DEAD LOAD:	46 PSF
- FIRST FLOOR LIVE LOAD:	100 PSF
- WIND DESIGN DATA	
ULTIMATE DESIGN WIND SPEED (V-ULT.):	121 MPH
NOMINAL DESIGN WIND SPEED (V-ASD):	93 MPH
RISK CATEGORY:	II
WIND EXPOSURE:	C
- EARTHQUAKE DESIGN DATA	
SEISMIC IMPORTANCE FACTOR:	1.0
Ss:	0.264g
S1:	0.079g
SITE CLASS:	C
SDS:	0.211g
SD1:	0.090g
SEISMIC DESIGN CATEGORY:	B
SEISMIC FORCE-RESISTING SYSTEM:	ORDINARY REINFORCED MASONRY SHEAR WALLS AND STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE
RESPONSE MODIFICATION COEFFICIENT, R	2.0
ANALYSIS PROCEDURE USED:	EQUIVALENT LATERAL FORCE PROCEDURE

GENERAL NOTES:

1. COLUMNS, FOOTINGS, AND OTHER FOUNDATION ELEMENTS SHALL BE CENTERED ON GRID LINES, UNLESS NOTED OTHERWISE.
2. STRUCTURAL DRAWINGS SHALL NOT BE SCALED. REFERENCE SCALES INDICATED ON THE DRAWINGS ARE INTENDED FOR INFORMATIONAL USE ONLY AND SHALL NOT BE USED TO DETERMINE SPECIFIC DIMENSIONS OR QUANTITIES OF MATERIALS.
3. THE STRUCTURAL DRAWINGS SHALL BE USED IN COMBINATION WITH THE ARCHITECTURAL, MECHANICAL, HVAC, ELECTRICAL AND CIVIL DRAWINGS. THE CONTRACTOR SHALL COORDINATE ALL DISCIPLINE DRAWINGS FOR THE LOCATION AND SIZE OF OPENINGS, BLOCKOUTS, FLOOR DEPRESSIONS, CURBS, EQUIPMENT PADS, ETC. NOT SHOWN ON THE STRUCTURAL DRAWINGS.
4. THE STRUCTURAL DRAWINGS REPRESENT THE FINAL COMPLETED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND PROVIDING ALL FORMING, SHORING, BRACING, GUYING, OR OTHER TEMPORARY SUPPORTS REQUIRED TO PERFORM THE WORK. SUCH MATERIALS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
5. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.
6. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS SHALL BE FOLLOWED INCLUDING OSHA REQUIREMENTS.

FOUNDATION WORK NOTES:

1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT, DATED JANUARY 31, 2017.
2. THE ALLOWABLE SOIL BEARING PRESSURE IS 5000 PSF.
3. DRAIN EXCAVATIONS TO REMOVE WATER AND PLACE CONCRETE "IN THE DRY". NO CONCRETE SHALL BE PLACED IN WATER OR ON FROZEN GROUND.
4. THE SOIL BELOW FOOTINGS SHALL BE PROTECTED FROM FREEZING DURING CONSTRUCTION.
5. PROVIDE PVC SLEEVES AND/OR OPENINGS IN THE CONCRETE SLABS AND FOUNDATION WALLS FOR PLUMBING, ELECTRICAL, AND OTHER SERVICES AS REQUIRED. REFER TO SHEET NO. S-06, "TUNNEL UTILITY PENETRATION DETAIL" FOR WATERPROOFING DETAILS AT UTILITY PENETRATIONS IN FOUNDATION WALLS.
6. SLABS ON GRADE SHALL BEAR ON A MINIMUM OF 12" OF COMPACTED STRUCTURAL FILL OR COMPACTED ¾" CRUSHED STONE. A 6 MIL POLYETHYLENE VAPOR BARRIER SHALL BE PROVIDED BELOW THE SLAB ON GRADE.
7. STRUCTURAL FILL SHALL BE USED AT ALL LOCATIONS BELOW FOOTINGS, BELOW SLABS, AND ADJACENT TO FOUNDATION WALLS. COMPACTED STRUCTURAL FILL SHALL CONSIST OF CLEAN GRANULAR MATERIAL FREE OF ORGANICS, LOAM, TRASH, SNOW, ICE, FROZEN SOIL OR ANY OTHER OBJECTIONABLE MATERIAL.
8. UNDERDRAINS SHALL BE PLACED AS SHOWN ON THE SITE DRAWINGS. UNDERDRAINS SHALL BE INSTALLED TO POSITIVELY DRAIN TO A SUITABLE DISCHARGE POINT AWAY FROM THE STRUCTURE.
9. BACKFILL BOTH SIDES OF THE FOUNDATION WALL SIMULTANEOUSLY.

CONCRETE NOTES:

1. DESIGN AND CONSTRUCTION OF CAST-IN-PLACE CONCRETE SHALL BE IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 318).
2. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 4000 PSI FOR FLOOR DECK SLAB, FOUNDATION WALLS, SLABS ON GRADE, PEDESTALS AND FOOTINGS.
3. ALL CONCRETE SHALL BE AIR-ENTRAINED 4% TO 6%.
4. FIBER-REINFORCED CONCRETE SHALL CONFORM TO ASTM C-1116.
5. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. SPLICES AND HOOKS SHALL CONFORM TO ACI 318. SPLICES SHALL BE CLASS B UNLESS NOTED OTHERWISE AND TIE HOOKS SHALL HAVE 135 DEGREE BENDS.
6. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A1064 AND SHALL BE PROVIDED IN FLAT SHEETS. WELDED WIRE FABRIC MUST HAVE END LAPS AND EDGE LAPS OF ONE FULL MESH AND SHALL BE HELD IN PLACE BY WIRING ALL LAPS SECURELY TOGETHER.
7. ALL REINFORCING, ANCHOR RODS, DOWELS, AND INSERTS SHALL BE WELL SECURED IN POSITION AND INSPECTED PRIOR TO PLACING CONCRETE. ALL COLUMN ANCHOR RODS SHALL BE SET BY TEMPLATE.
8. CONFORM TO "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" (ACI 315) FOR DETAILING, FABRICATION AND PLACEMENT REQUIREMENTS.
9. SUBMIT SHOP DRAWINGS TO THE ENGINEER SHOWING ALL REINFORCEMENT STEEL, SCHEDULES, AND ALL ACCESSORIES USED TO HOLD REINFORCING STEEL IN PLACE.
10. PROVIDE CONSTRUCTION JOINTS IN FOUNDATION WALLS AT MAXIMUM SPACING OF 15 FEET FROM ANY CORNER OR 30 FEET ALONG LENGTH OF WALL, UNLESS NOTED OTHERWISE. AT CONSTRUCTION JOINTS, ALL REINFORCING SHALL BE CONTINUOUS THROUGH THE JOINT.

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION (FOURTEENTH EDITION).
2. STRUCTURAL STEEL AND HARDWARE SHALL CONFORM TO THE FOLLOWING:

- W-SHAPES	ASTM A992
- ANGLES AND PLATES:	ASTM A 36
- HOLLOW STRUCTURAL STEEL (HSS):	ASTM A500, GRADE B, Fy=46 KSI
- ANCHOR RODS:	ASTM F1554, GRADE 55 (U.N.O)
- HIGH STRENGTH BOLTS:	ASTM A325
- NUTS:	ASTM A563
- WASHERS:	ASTM F436

3. SUBMIT SHOP DRAWINGS TO THE ENGINEER SHOWING STEEL SECTIONS, FABRICATED ASSEMBLIES, AND ACCESSORIES. SHOW MEMBER DESIGNATIONS, SIZES, AND CONNECTIONS. THE FABRICATOR SHALL DESIGN CONNECTIONS FOR THE REACTIONS SHOWN ON THE DRAWINGS OR THE MAXIMUM END REACTION THAT CAN BE PRODUCED BY A LATERALLY SUPPORTED UNIFORMLY-LOADED BEAM FOR EACH GIVEN BEAM AND SPAN.
4. FIELD CONNECTIONS SHALL BE BOLTED USING ¾" DIAMETER ASTM A325 HIGH STRENGTH BOLTS EXCEPT WHERE FIELD WELDING IS INDICATED ON THE DRAWINGS.
5. ALL WELDING SHALL CONFORM TO AWS D1.1 (2015). WELDING ELECTRODES SHALL BE E70XX.
6. ALL STEEL LINTELS AND MOMENT FRAME BEAMS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A123.

STEEL JOIST NOTES:

1. THE JOIST MANUFACTURER SHALL DESIGN ALL JOISTS FOR THE UNIFORM DEAD AND LIVE LOADS SPECIFIED UNDER THE "DESIGN LOADS" SECTION. THE DESIGN, DETAILING, FABRICATION AND ERECTION OF STEEL JOISTS SHALL COMPLY WITH THE LATEST "STANDARD SPECIFICATION FOR OPEN WEB STEEL JOISTS, K-SERIES", AS ADOPTED BY THE STEEL JOIST INSTITUTE.
2. JOIST SHOP DRAWINGS SHALL PROVIDE DETAILS FOR ANY BRIDGING REQUIRED TO PREVENT LATERAL MOVEMENT OF TOP AND BOTTOM CHORDS OF JOISTS DURING CONSTRUCTION.

TIMBER FRAMING NOTES:

1. ALL TIMBER FRAMING SHALL BE IN ACCORDANCE WITH AITC TIMBER CONSTRUCTION MANUAL OR THE NATIONAL DESIGN SPECIFICATIONS (NDS) LATEST EDITION.
2. INDIVIDUAL WOOD FRAMING MEMBERS SHALL BE VISUALLY GRADED WITH MINIMUM GRADE #2 SPRUCE-PINE-FIR, KILN DRIED TO 19% MAXIMUM MOISTURE CONTENT.
3. TIMBER SHALL BE SOUTHERN YELLOW PINE.
4. METAL CONNECTORS SHALL BE USED AT ALL TIMBER-TO-TIMBER CONNECTIONS OR AS NOTED ON THE DRAWINGS.
5. PROVIDE SIMPSON H2.5A HURRICANE ANCHORS WHERE TIMBER FRAMING AND/OR TRUSSES BEAR ON MASONRY WALLS.
6. NAILS AND SCREWS NOT SPECIFIED SHALL CONFORM TO CHAPTER 23 OF IBC 2015.

Date: 7/23/2018

Filename: ...\344_(S-51) Notes_Building01.dgn

Scale:

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ADMINISTRATION BUILDING
STRUCTURAL NOTES - SHEET 1

SHEET NUMBER: S-51

CONTRACT: 2018.20

ADMINISTRATION BUILDING STRUCTURAL NOTES (CONT.):

MASONRY NOTES:

1. CONCRETE MASONRY UNITS SHALL BE NORMAL WEIGHT AND CONFORM TO ASTM C 90. MINIMUM COMPRESSIVE STRENGTH OF MASONRY, f'm = 1,800 PSI PER ASTM C 90.
2. MORTAR SHALL CONFORM TO ASTM C 270, TYPE M OR S.
3. GROUT FOR FILLING MASONRY UNIT CELLS SHALL CONFORM TO ASTM C 476 (FINE GROUT) AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
4. CONCRETE MASONRY UNITS SHALL BE LAID IN RUNNING BOND.
5. WALL PENETRATIONS SHALL BE COORDINATED WITH THE ARCHITECTURAL DRAWINGS AND ALL OTHER DISCIPLINE DRAWINGS.
6. SPLICE AND DEVELOPMENT LENGTHS FOR REINFORCEMENT SHALL CONFORM TO ACI 530 EXPECT AS OTHERWISE SHOWN. ALL BARS SHALL BE LAPPED A MINIMUM OF 48 BAR DIAMETERS.
7. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60 AND SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH ACI 315.
8. REINFORCING STEEL IN MASONRY BOND BEAMS SHALL BE SUPPORTED PRIOR TO GROUT PLACEMENT WITH NON-METALLIC SPACERS TO PROVIDE A MINIMUM CLEARANCE OF ½" AROUND THE BARS.
9. CELLS OF MASONRY UNITS CONTAINING VERTICAL REINFORCEMENT SHALL BE FILLED WITH GROUT UNLESS NOTED OTHERWISE. MAXIMUM GROUT LIFT WITHOUT CLEANOUTS AND INSPECTION SHALL BE 4'-0".
10. PROVIDE STEEL LINTELS FOR ALL MASONRY UNIT OPENINGS UNLESS MASONRY BOND BEAM LINTELS ARE INDICATED.
11. PROVIDE CONTROL JOINTS IN MASONRY WALLS AT A MAXIMUM SPACING OF 30' ON CENTER OR AS NOTED ON THE DRAWINGS.
12. AT CELLS OF MASONRY UNITS ADJACENT TO DOOR JAMBS AND WINDOWS, PROVIDE 2-#5 VERTICAL REINFORCEMENT SHALL EXTEND FULL HEIGHT OR TO BOTTOM OF MOMENT FRAME BEAMS, AS APPLICABLE.
13. PROVIDE 2-#5 HORIZONTAL BARS BELOW WINDOW OPENINGS. EXTEND BARS A MINIMUM OF 40 BAR DIAMETERS OR 2'-0", WHICHEVER IS LARGER. AT LOCATIONS WHERE HSS COLUMNS ARE PRESENT ON SIDES OF WINDOW OPENINGS, TERMINATE HORIZONTAL BARS WITH AN A.C.I. HOOK.

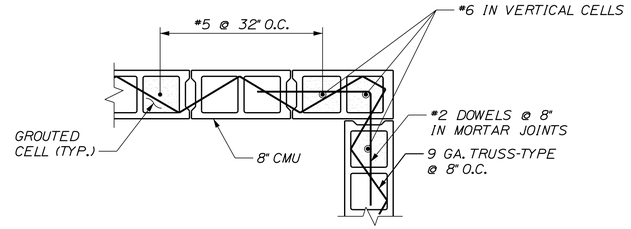
TRUSS NOTES:

1. ALL WOOD TRUSSES SHALL COMPLY WITH THE FOLLOWING CODES AND REGULATIONS:
   - A. "TIMBER CONSTRUCTION MANUAL" BY THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
   - B. "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
   - C. "DESIGN SPECIFICATIONS FOR METAL PLATE CONNECTED WOOD TRUSSES" BY THE TRUSS PLATE INSTITUTE.
2. CHORD MEMBERS SHALL COMPLY WITH ONE OF THE FOLLOWING:
   2x6 MINIMUM SIZE:
   - A. SELECT STRUCTURAL SOUTHERN PINE (E=1,800,000 PSI; Fb=2550 PSI SINGLE MEMBER USE)
   - B. MACHINE STRESS RATED (MSR) 2100f-1.8E (E=1,800,000 PSI; Fb=2100 PSI SINGLE MEMBER USE)
   - C. MACHINE EVALUATED LUBMER (MEL) MI9 (E=1,600,000 PSI; Fb=2000 PSI SINGLE MEMBER USE)
   - D. APPROVED EQUAL OR BETTER THAN ABOVE.
3. WEB MEMBERS SHALL COMPLY WITH ONE OF THE FOLLOWING:
   2x4 MINIMUM SIZE:
   - A. NO. 2 SOUTHERN PINE (E=1,600,000 PSI; Fb=1500 PSI SINGLE MEMBER USE)
   - B. MACHINE STRESS RATED (MSR) 1650f-1.5E (E=1,500,000 PSI; Fb=1650 PSI SINGLE MEMBER USE)
   - C. MACHINE EVALUATED LUBMER (MEL) MI3 (E=1,400,000 PSI; Fb=1500 PSI SINGLE MEMBER USE)

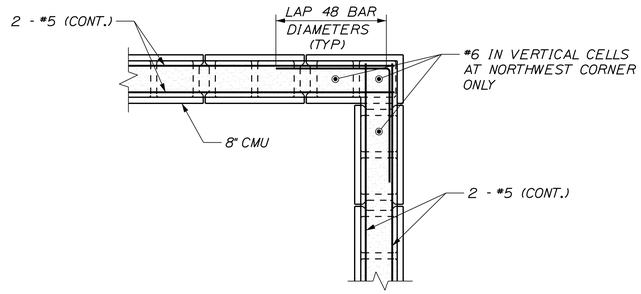
TRUSS NOTES (CONTINUED):

4. PREFABRICATED WOOD TRUSSES SHALL BE FABRICATED IN AN ENCLOSED STRUCTURE UNDER CONTROLLED CONDITIONS BY AN EXPERIENCED FABRICATOR. THE TRUSS FABRICATOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD PRIOR TO COMMENCING FABRICATION. TRUSSES SHALL NOT BE FABRICATED UNTIL ALL SHOP DRAWINGS HAVE BEEN APPROVED. ALL SHOP DRAWINGS MUST BEAR THE STAMP OF A PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF MAINE.
5. THE TRUSS FABRICATOR SHALL DESIGN THE TRUSSES BASED ON THE DESIGN LOADS AND THE CONFIGURATION GIVEN ON PLANS. CONTRACTOR AND FABRICATOR TO COORDINATE ALL SHIPPING OPTIONS, ACCESS TO SITE, AND ERECTION PROCEDURES.
6. THE TRUSS FABRICATOR SHALL SELECT THE GUSSET PLATE TO BE USED AT EACH JOINT AS WELL AS PLATES REQUIRED TO FIELD-SPLICE THE TRUSS. ALL PLATES MUST HAVE A WORKING CAPACITY OF AT LEAST 125% OF THE DESIGN LOADS.
7. THE TRUSS FABRICATOR SHALL ACCOUNT FOR THE COMBINED EFFECTS OF BENDING AND AXIAL STRESSES IN CHORD MEMBERS DUE TO UNIFORMLY APPLIED LOADS.
8. WOOD TRUSSES SHALL BE HANDLED, INSTALLED, AND BRACED IN ACCORDANCE WITH "HANDLING, INSTALLING AND BRACING METAL PLATE CONNECTED WOOD TRUSSES HIB-91" OF THE TRUSS PLATE INSTITUTE. THE TRUSS FABRICATOR SHALL FURNISH A COPY OF THIS MANUAL AND SHALL SHIP IT IN A WATERTIGHT CONTAINER WITH THE TRUSSES.
9. SHOP DRAWINGS SHALL SHOW TRUSS CONFIGURATION, MEMBER SIZES, MEMBER FORCES AND SPECIES, GRADE AND STRESSES OF LUMBER. A DIMENSIONED PLACEMENT PLAN SHALL BE SUBMITTED WITH THE TRUSS SHOP DRAWINGS SHOWING TRUSSES AND TRUSS BRACING.
10. THE CONTRACTOR SHALL INSTALL ALL TEMPORARY BRACING AS RECOMMENDED BY HIB-91. THIS TEMPORARY BRACING SHALL BECOME PERMANENT BRACING WHEREVER POSSIBLE. PERMANENT BRACING SHALL MEET ALL REQUIREMENTS OF HIB-91 AND THE WORKING DRAWINGS AND SPECIFICATIONS, WHICHEVER ARE THE MORE STRINGENT.
11. ROOF DIAPHRAGM:

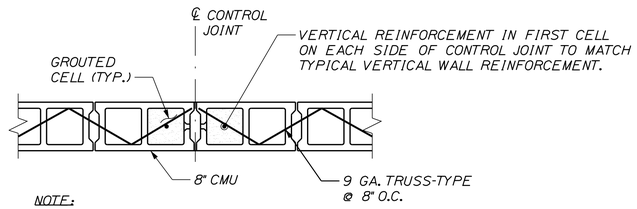
    ALL ROOF SHEATHING SHALL BE ⅝" THICK APA-RATED, EXTERIOR GRADE PLYWOOD. SHEATHING SHALL BE ORIENTED WITH LONG SPAN OF SHEET PERPENDICULAR TO SUPPORTING MEMBERS AND VERTICAL SEAMS. STAGGERED AT 48" ON CENTER. BLOCKING SHALL BE USED TO SUPPORT ALL DIRECT EDGES OF THE PANEL. ROOF SHEATHING SHALL BE FASTENED WITH 10d COMMON NAILS AT 4" ON CENTER MAXIMUM AROUND ALL DIRECT EDGES AND 6" ON CENTER MAXIMUM AT ALL INTERMEDIATE SUPPORTS.
12. FASTENING PER IBC 2015, CHAPTER 23, UNLESS OTHERWISE NOTED.
13. TRUSS CONFIGURATIONS SHOWN ARE DIAGRAMMATIC. FINAL CONFIGURATION SHALL BE BY TRUSS MANUFACTURER. WHERE REQURIED, TRUSSES SHALL BE FABRICATED IN MULTIPLE PIECES TO FACILITATE TRANSPORTATION TO THE SITE, AND SHALL BE FIELD-SPLICED AT THE SITE. IN ACCORDANCE WITH MANUFACTURERS' REQUIREMENTS.



TYPICAL C.M.U. REINFORCEMENT DETAIL
NOT TO SCALE



REINFORCING AT BOND BEAM DETAIL
NOT TO SCALE



NOTE:
GROUT, REINFORCING BARS, JOINT REINFORCEMENT, AND BOND BEAMS SHALL BE DISCONTINUOUS DOWN TO TOP OF FOUNDATION WALL. DO NOT LOCATE CONTROL JOINTS WITHIN 2'-0" OF OPENINGS.

MASONRY WALL CONTROL JOINT DETAIL
NOT TO SCALE

Date: 7/23/2018

Filename: ...\345_(S-52) Notes_Building02.dgn

Scale: AS NOTED

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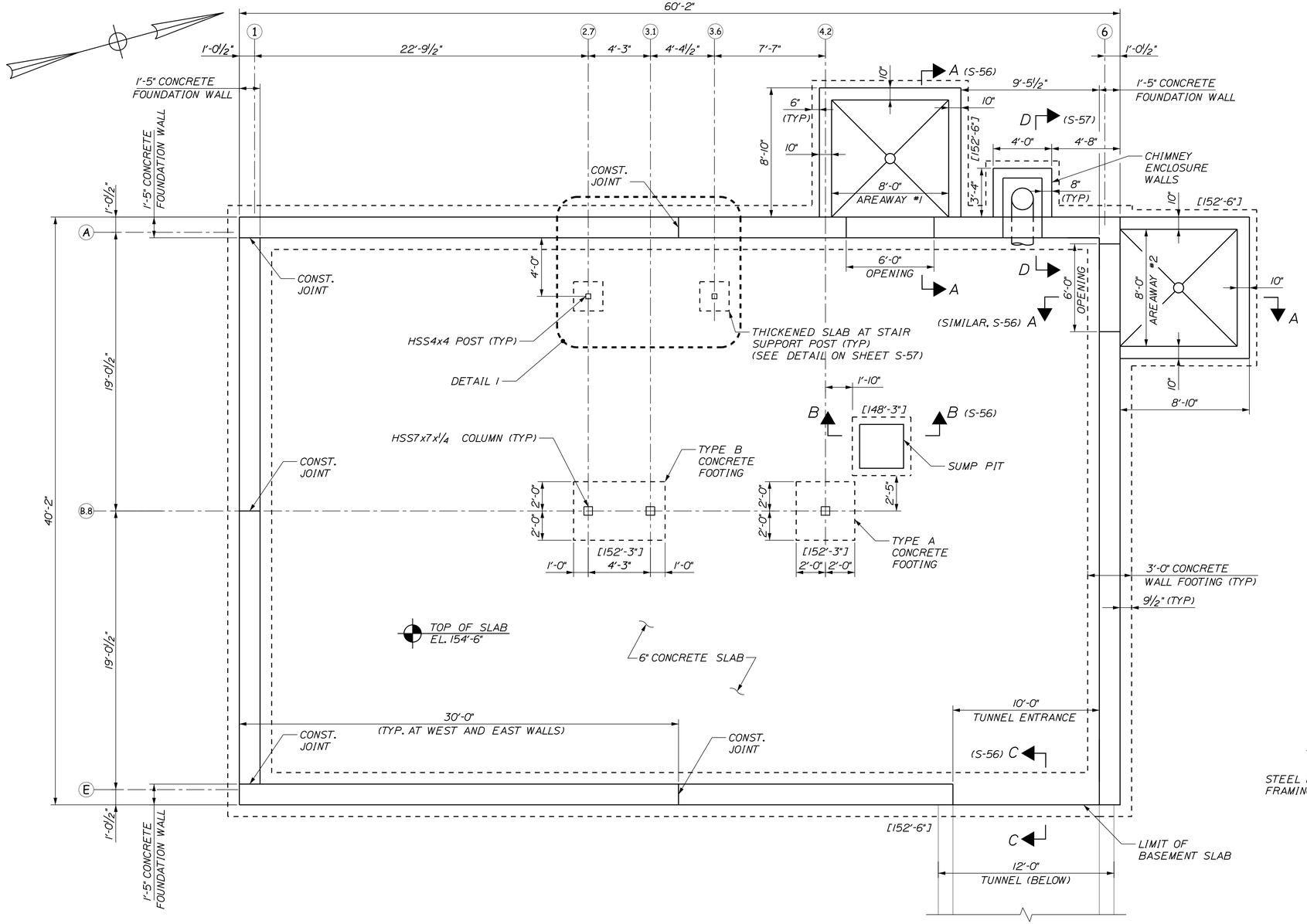
ADMINISTRATION BUILDING
STRUCTURAL NOTES - SHEET 2

SHEET NUMBER: S-52

CONTRACT: 2018.20



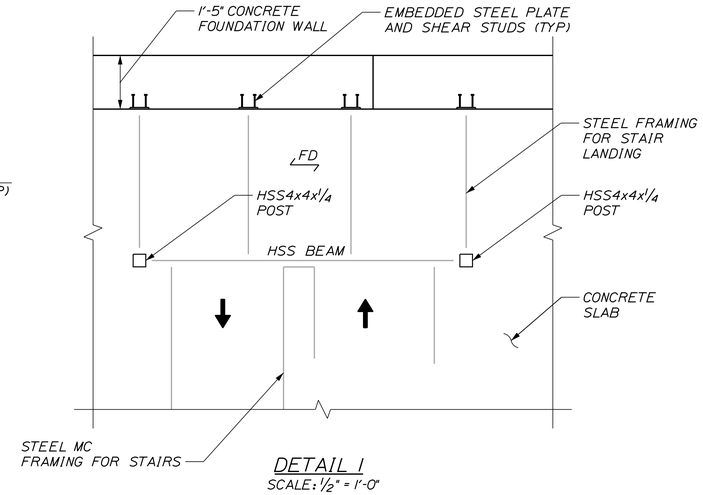
BASEMENT AND FOUNDATION PLAN
SCALE: ¼" = 1'-0"

NOTES:

1. FOR ADMINISTRATION BUILDING STRUCTURAL NOTES, SEE SHEETS S-51 AND S-52.
2. [X'-X"] INDICATES BOTTOM OF FOOTING ELEVATION.
3. STEEL FRAMING AND EMBEDDED CONNECTIONS FOR STAIRS AND LANDING SHALL BE DESIGNED AND PROVIDED BY THE STEEL FABRICATOR. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.

STAIR FRAMING DESIGN:

1. STEEL FRAMING INCLUDING CONNECTIONS AND SUPPORTS FOR STAIRCASES AND LANDING SHALL BE DESIGNED AND PROVIDED BY THE STAIR FABRICATOR. DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE AND SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
2. EMBEDDED PLATES AND SHEAR STUDS SHALL BE INCLUDED IN THE DESIGN.
3. STAIRS SHALL BE DESIGNED FOR THE FOLLOWING LOADS:
   -DEAD LOAD: ALL STEEL COMPONENTS AND CONCRETE INFILL
   -LIVE LOAD: 100 PSF UNIFORM LOAD OR 300 LB CONCENTRATED LOAD APPLIED OVER AN AREA OF 4 SQUARE INCHES. WHICHEVER RESULTS IN A LARGER SIZE. THE CONCENTRATED LOAD NEED NOT BE APPLIED CONCURRENTLY WITH THE UNIFORM LOAD.
4. REFER TO THE SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.



DETAIL 1
SCALE: ½" = 1'-0"

Date: 7/23/2018

Filename: ...\346_(S-53) Administration Building Basement and Foundation Plan.dgn

No.	Revision	By	Date

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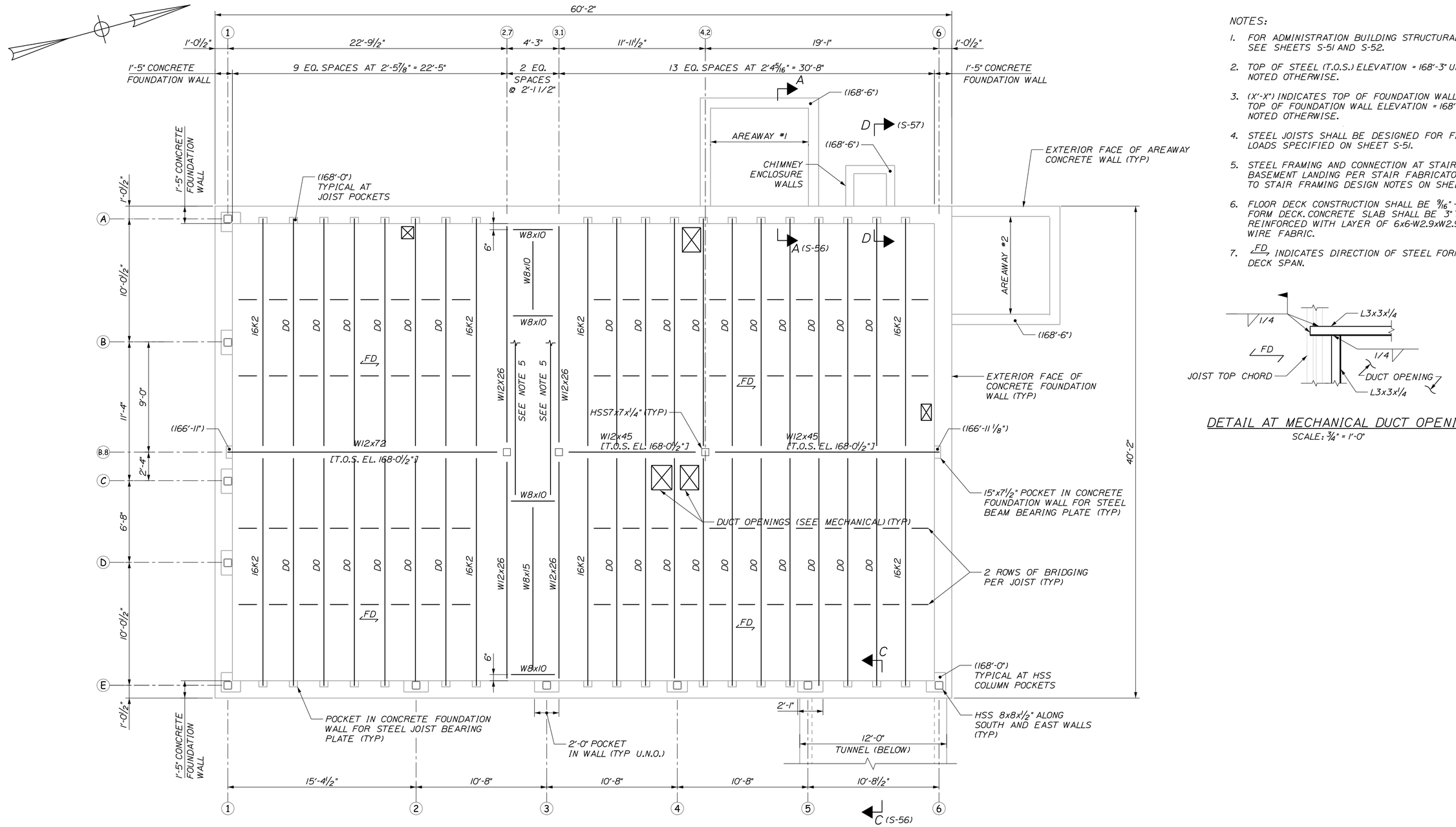
ADMINISTRATION BUILDING
BASEMENT AND FOUNDATION PLAN

SHEET NUMBER: S-53

CONTRACT: 2018.20

Date:7/23/2018



FIRST FLOOR FRAMING PLAN

SCALE: ¼" = 1'-0"

NOTES:

1. FOR ADMINISTRATION BUILDING STRUCTURAL NOTES, SEE SHEETS S-51 AND S-52.
2. TOP OF STEEL (T.O.S.) ELEVATION = 168'-3" UNLESS NOTED OTHERWISE.
3. (X'-X") INDICATES TOP OF FOUNDATION WALL. TOP OF FOUNDATION WALL ELEVATION = 168'-6" UNLESS NOTED OTHERWISE.
4. STEEL JOISTS SHALL BE DESIGNED FOR FLOOR LOADS SPECIFIED ON SHEET S-51.
5. STEEL FRAMING AND CONNECTION AT STAIRS AND BASEMENT LANDING PER STAIR FABRICATOR. REFER TO STAIR FRAMING DESIGN NOTES ON SHEET S-53.
6. FLOOR DECK CONSTRUCTION SHALL BE 9/16" - 26 GA. FORM DECK. CONCRETE SLAB SHALL BE 3" THICK, REINFORCED WITH LAYER OF 6x6-W2.9xW2.9 WELDED WIRE FABRIC.
7. FD INDICATES DIRECTION OF STEEL FORM DECK SPAN.

DETAIL AT MECHANICAL DUCT OPENINGS

SCALE: ¾" = 1'-0"

Filename: ...\347_(S-54) Administration Building First Floor Framing Plan.dgn

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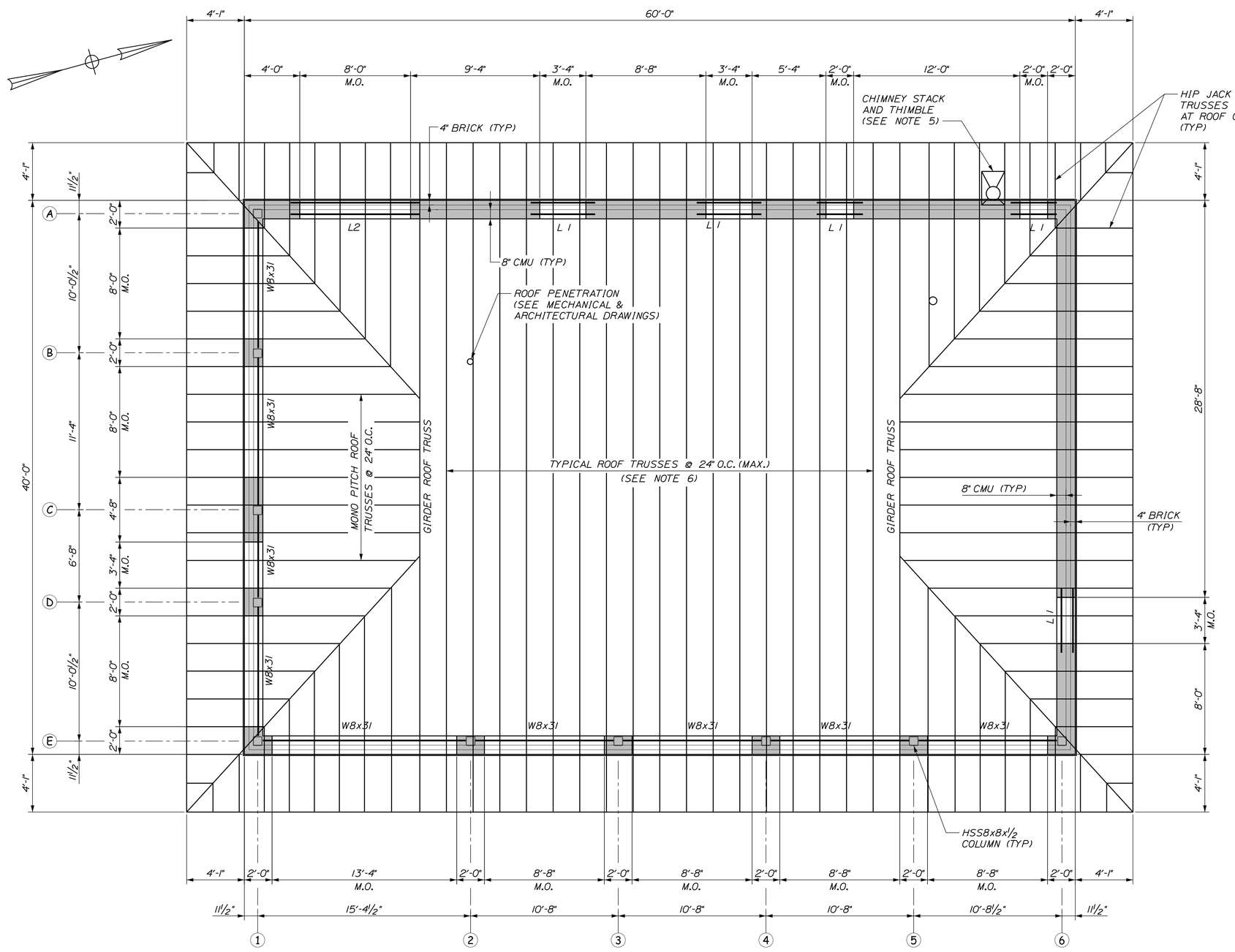
ADMINISTRATION BUILDING
FIRST FLOOR FRAMING PLAN

SHEET NUMBER: S-54

CONTRACT:2018.20



ROOF FRAMING PLAN
SCALE: ¼" = 1'-0"

NOTES:

1. FOR ADMINISTRATION BUILDING STRUCTURAL NOTES, SEE SHEETS S-51 AND S-52.
2. "M.O." INDICATES MASONRY OPENING.
3. "L1" AND "L2" INDICATES STEEL LINTELS OVER MASONRY OPENINGS.
4. FOR ELEVATIONS OF BEAMS AND COLUMNS AT MOMENT FRAMES ALONG COLUMN LINE 1 AND C, SEE SHEET S-60.
5. PROVIDE L3x3x⅜ STAINLESS STEEL FRAMING AT EACH STACK SUPPORT. REFER TO DETAIL BELOW FOR STACK SUPPORT CONNECTION AT MASONRY AND CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR STACK SUPPORT LAYOUT AND LOCATIONS.
6. COORDINATE MECHANICAL DUCT LOCATIONS WITH ROOF TRUSS LAYOUT SHOWN ON THIS SHEET.

CMU LINTEL SCHEDULE	
LINTEL TYPE	LINTEL SIZE
L1	(2) - L3½x3½x5/16
L2	(2) - L4x3½x⅜" (LLV)

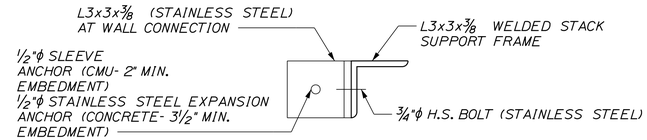
BRICK LINTEL SCHEDULE	
LINTEL TYPE	LINTEL SIZE
L1	L3½x3½x5/16
L2	L4x3½x5/16 (LLV)

NOTE:
PROVIDE 8" OF BEARING AT EACH END OF LINTELS.

ROOF TRUSS DESIGN NOTES:

1. MAXIMUM PERMISSIBLE SNOW LOAD DEFLECTION SHALL BE L/360.
2. TRUSS DESIGNER SHALL DESIGN TRUSSES FOR APPLICABLE GRAVITY AND LATERAL LOADS IN ACCORDANCE WITH IBC 2015. SEE TABLE BELOW FOR TYPICAL UNIFORM LOADING.
3. PROVIDE TEMPORARY AND PERMANENT TRUSS BRACING AS REQUIRED BY THE MANUFACTURER AND IN ACCORDANCE WITH THE HIB-LATEST EDITION PUBLISHED BY THE TRUSS PLATE INSTITUTE.

ROOF TRUSS LOADING	
TCLL	42 P.S.F.
TCDL	7 P.S.F.
BCLL	0 P.S.F.
BCDL	15 P.S.F.



TYPICAL STACK SUPPORT CONNECTION DETAIL
SCALE: 3" = 1'-0"

Date:7/23/2018

Filename: ...\348_(S-55) Administration Building Roof Framing Plan.dgn

Scale:
4 0 4 8
Scale of Feet

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MTA PROJECT MANAGER: R. NORWOOD

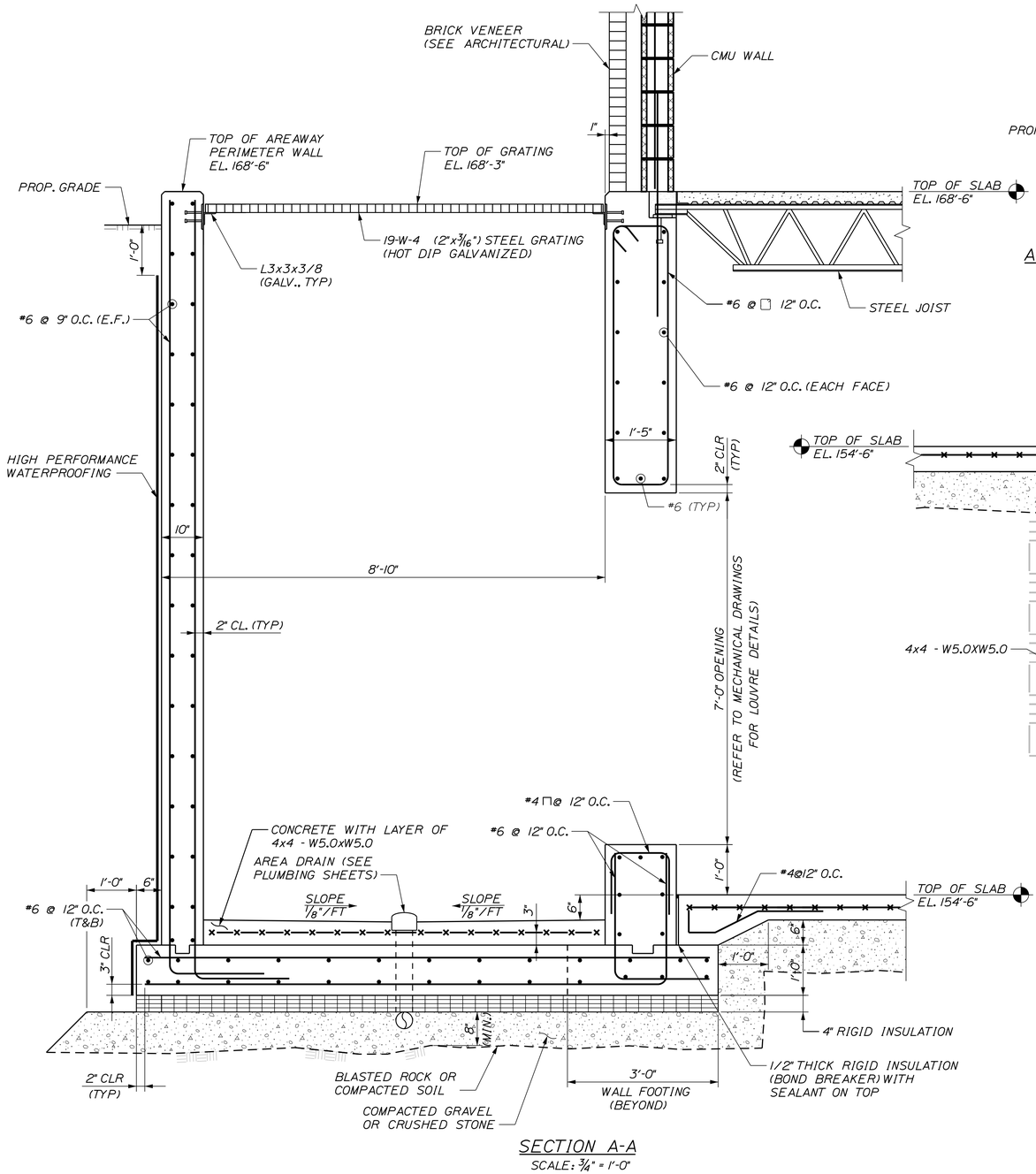
YORK TOLL PLAZA

ADMINISTRATION BUILDING
ROOF FRAMING PLAN

SHEET NUMBER: S-55

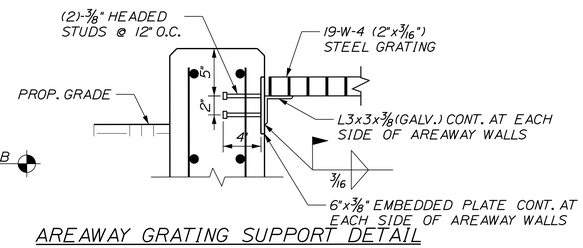
CONTRACT:2018.20

Date:7/23/2018



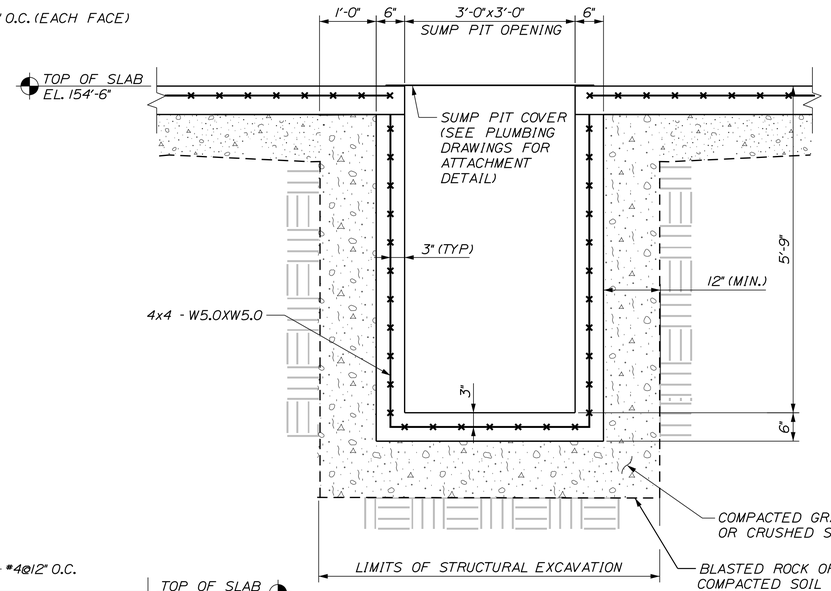
SECTION A-A

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



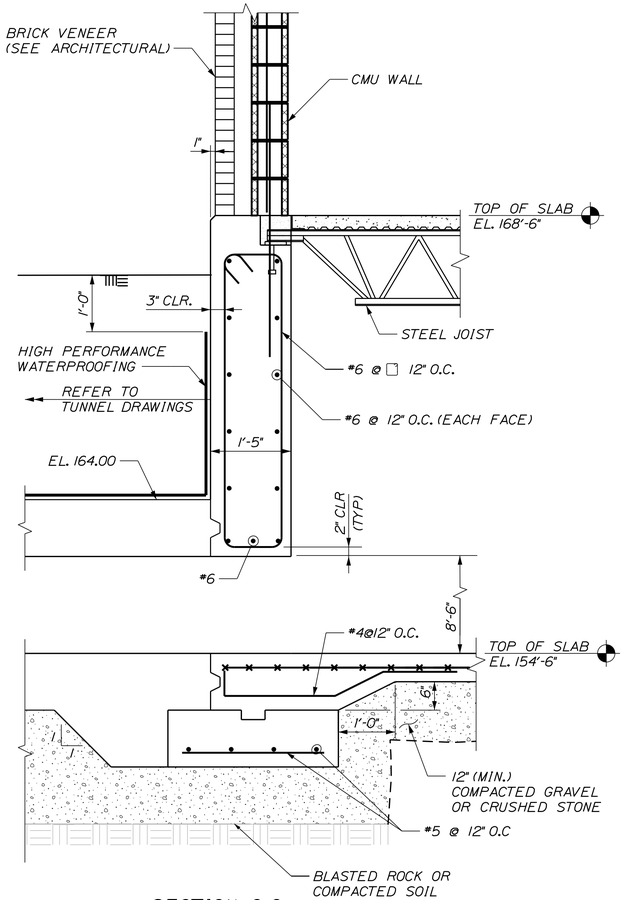
AREAWAY GRATING SUPPORT DETAIL

NOT TO SCALE



SECTION B-B

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



SECTION C-C

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

Filename: ...\349_(S-56) Administration Building Foundation Wall Sections 1 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

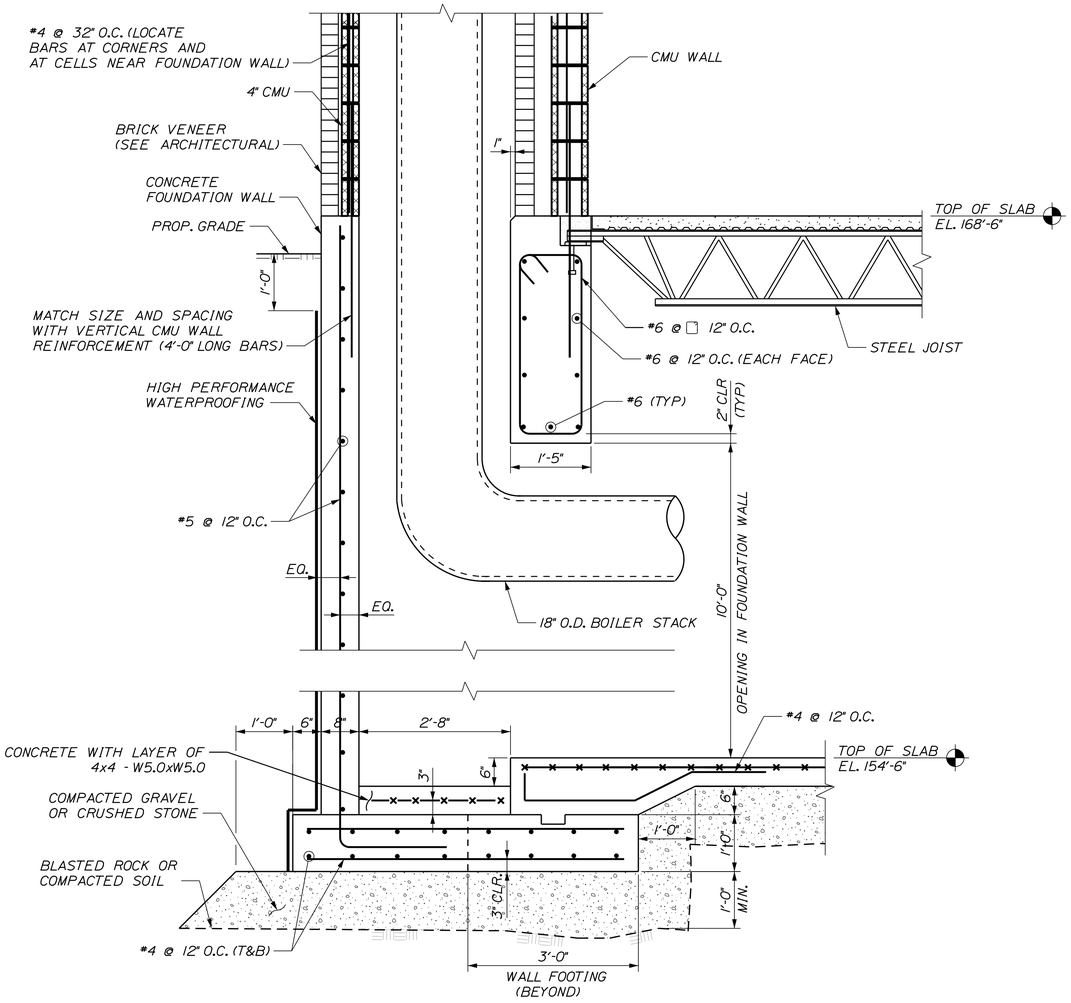
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
FOUNDATION WALL SECTIONS 1 OF 2

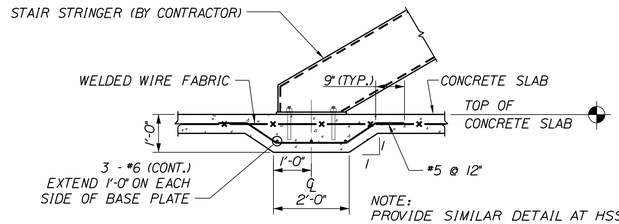
SHEET NUMBER: S-56

CONTRACT:2018.20



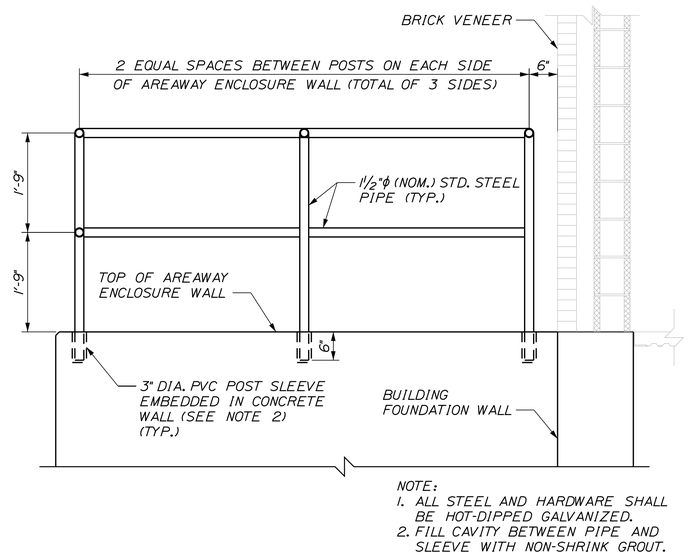
SECTION D-D

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



THICKENED SLAB DETAIL AT STAIR STRINGERS AND HSS POSTS

NOT TO SCALE



TYPICAL SECTION THROUGH AREAWAY WALLS

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

Date:7/23/2018

Filename: ...\350_(S-57) Administration Building Foundation Wall Sections 2 of 2.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

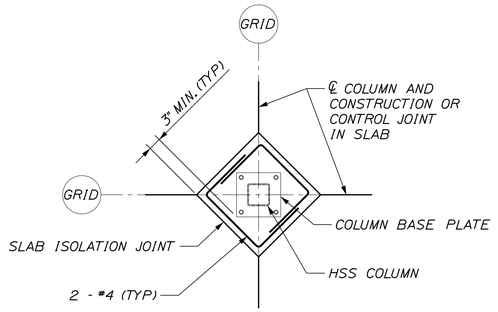
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

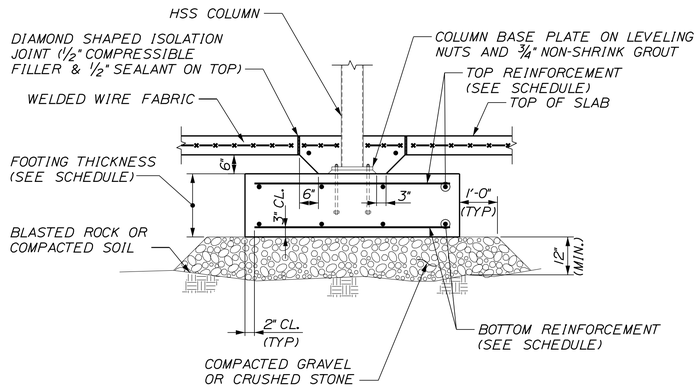
ADMINISTRATION BUILDING
FOUNDATION WALL SECTIONS 2 OF 2

SHEET NUMBER: S-57

CONTRACT:2018.20

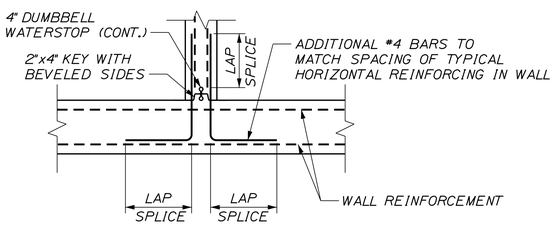


TYPICAL INTERIOR COLUMN BLOCKOUT DETAIL
NOT TO SCALE

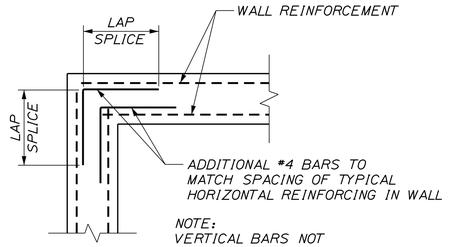


FOOTING SCHEDULE			
TYPE	THICKNESS	TOP	BOTTOM
A	15"	-	7-#4 E.W.
B	15"	12-#4 (SHORT DIRECTION) 7-#4 (LONG DIRECTION)	

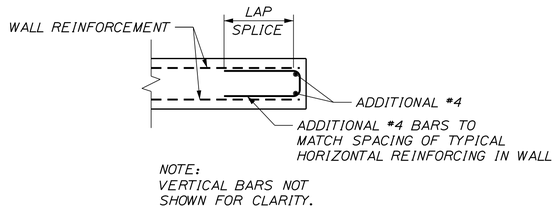
TYPICAL SPREAD FOOTING SECTION
NOT TO SCALE



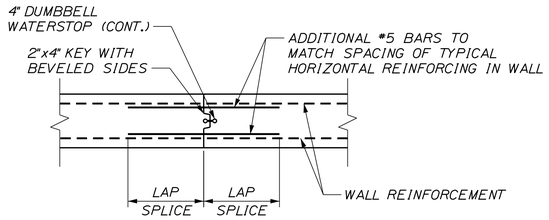
TYPICAL WALL INTERSECTION REINFORCING DETAIL
NOT TO SCALE



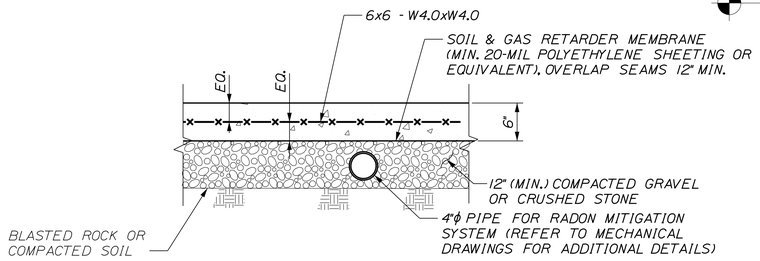
TYPICAL WALL CORNER DETAIL
NOT TO SCALE



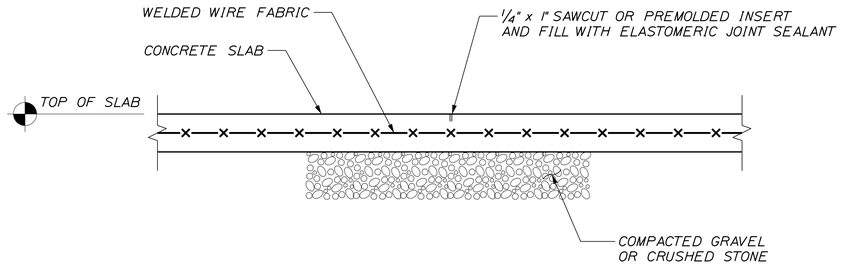
WALL END REINFORCING DETAIL
NOT TO SCALE



TYPICAL WALL CONSTRUCTION JOINT DETAIL
NOT TO SCALE



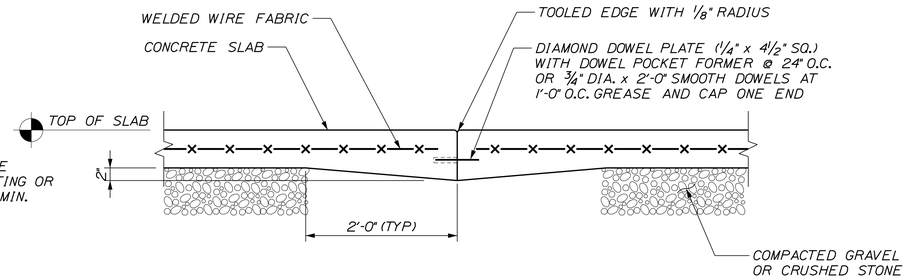
TYPICAL SLAB REINFORCEMENT DETAIL
NOT TO SCALE



CONTROL JOINT NOTES:

1. SLAB CUTTING REQUIRED THE SAME DAY AS THE POUR.
2. ALL SAW-CUTTING SHALL BE ACCOMPLISHED WITH A SOFT-CUT SAW AS SOON AS THE SLAB WILL SUPPORT THE WEIGHT OF THE SAW AND THE OPERATOR. CEMENT DUST SHALL BE REMOVED COMPLETELY AND IMMEDIATELY AFTER SAWING.
3. AT POUR STRIP:
   A. PROVIDE 10' (MAX) x 10' (MAX) INTERVALS FOR CONTROL JOINTS
   B. ALIGN SAW-CUT JOINTS WITH COLUMN GRID LINES AT BASEMENT LEVEL.
   C. DO NOT LOCATE SAW-CUTS AT OPENINGS.
4. COORDINATE LOCATIONS WITH ARCHITECT PRIOR TO POURING SLAB.

TYPICAL SLAB CONTROL JOINT DETAIL
NOT TO SCALE



CONSTRUCTION JOINT NOTES:

1. CONSTRUCTION JOINTS SHALL OCCUR AT BUILDING GRID LINES.
2. COORDINATE LOCATIONS WITH ARCHITECT PRIOR TO POURING SLAB.

TYPICAL SLAB CONSTRUCTION JOINT DETAIL
NOT TO SCALE

Date:7/23/2018

Filename: ...\351_(S-58) Admin Building Foundation Details .dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

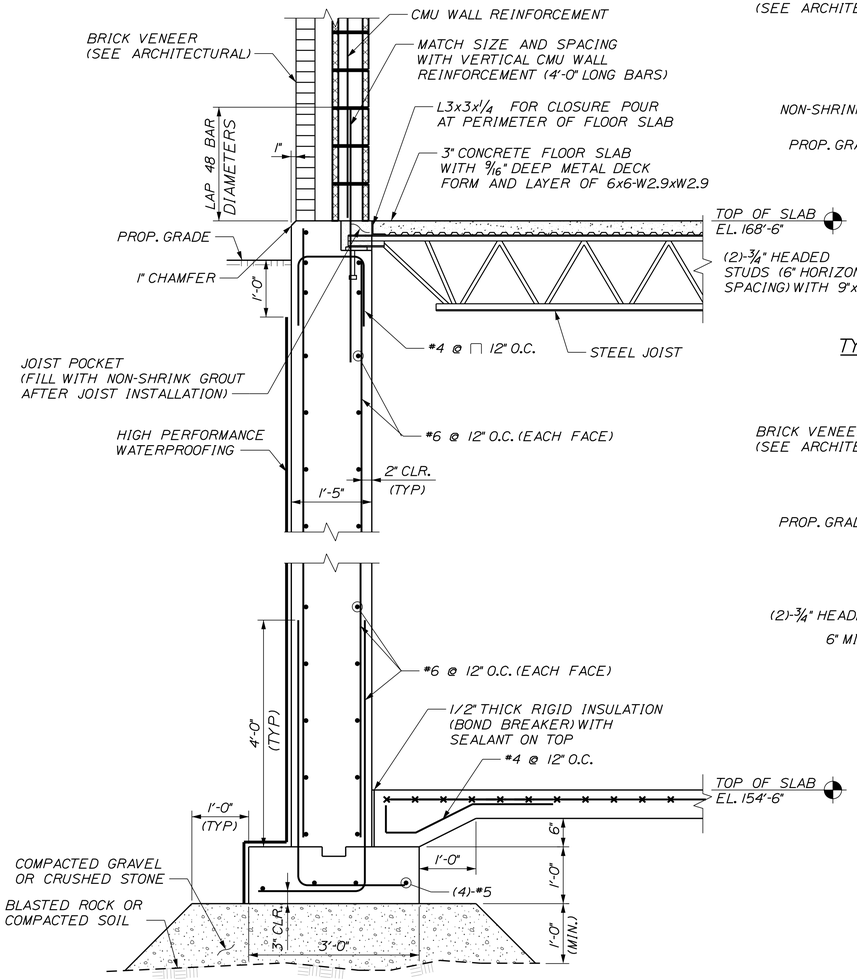
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING FOUNDATION DETAILS

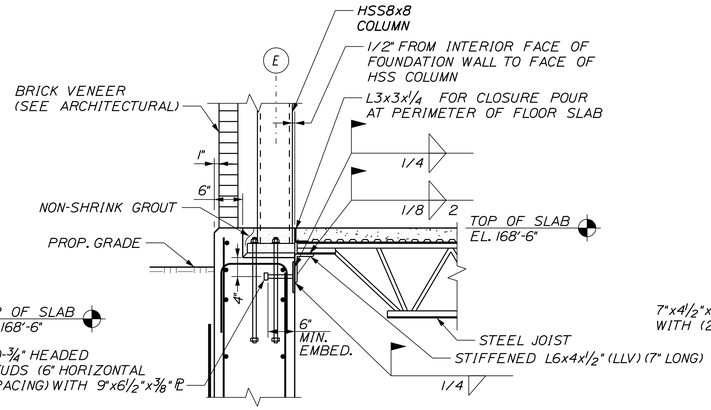
SHEET NUMBER: S-58

CONTRACT:2018.20



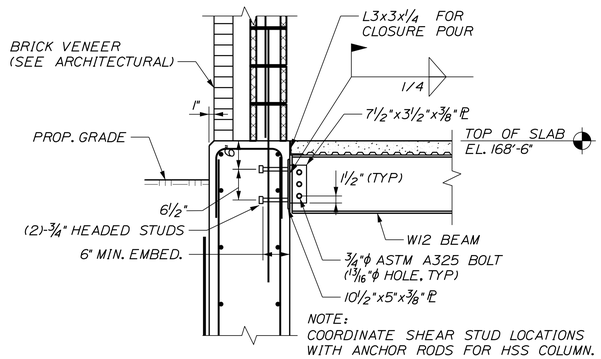
TYPICAL FOUNDATION WALL SECTION

NOT TO SCALE



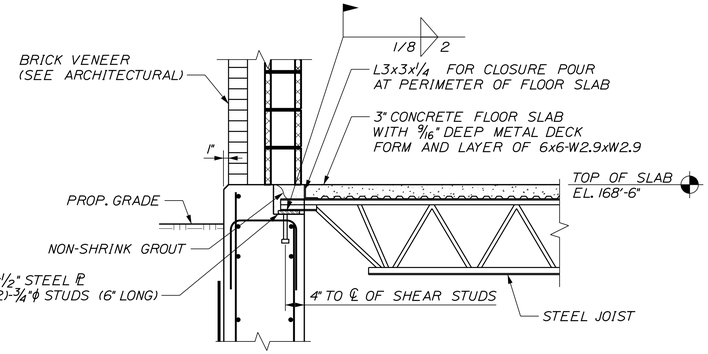
TYPICAL HSS COLUMN BEARING DETAIL

NOT TO SCALE



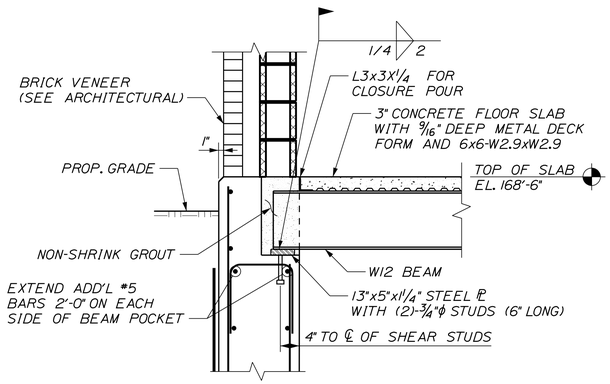
W-SHAPE BEAM BEARING DETAIL AT EAST & WEST WALLS

NOT TO SCALE



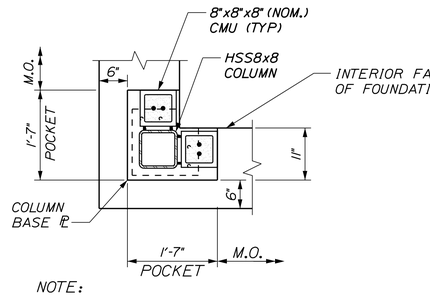
JOIST BEARING DETAIL

NOT TO SCALE



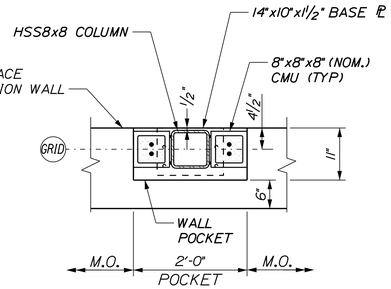
W-SHAPE BEAM BEARING DETAIL AT NORTH & SOUTH WALLS

NOT TO SCALE

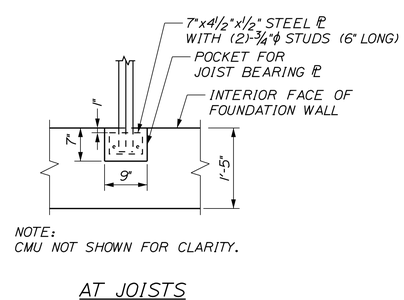


NOTE:
SOUTHEAST CORNER SHOWN. NORTHEAST AND
SOUTHWEST CORNERS ARE SIMILAR.

AT CORNER COLUMNS



AT TYPICAL COLUMNS



NOTE:
CMU NOT SHOWN FOR CLARITY.

AT JOISTS

COLUMN AND JOIST BEARING DETAILS

NOT TO SCALE

Date:7/23/2018

Filename: ...\352_(S-59) Admin Building Foundation & First Floor Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

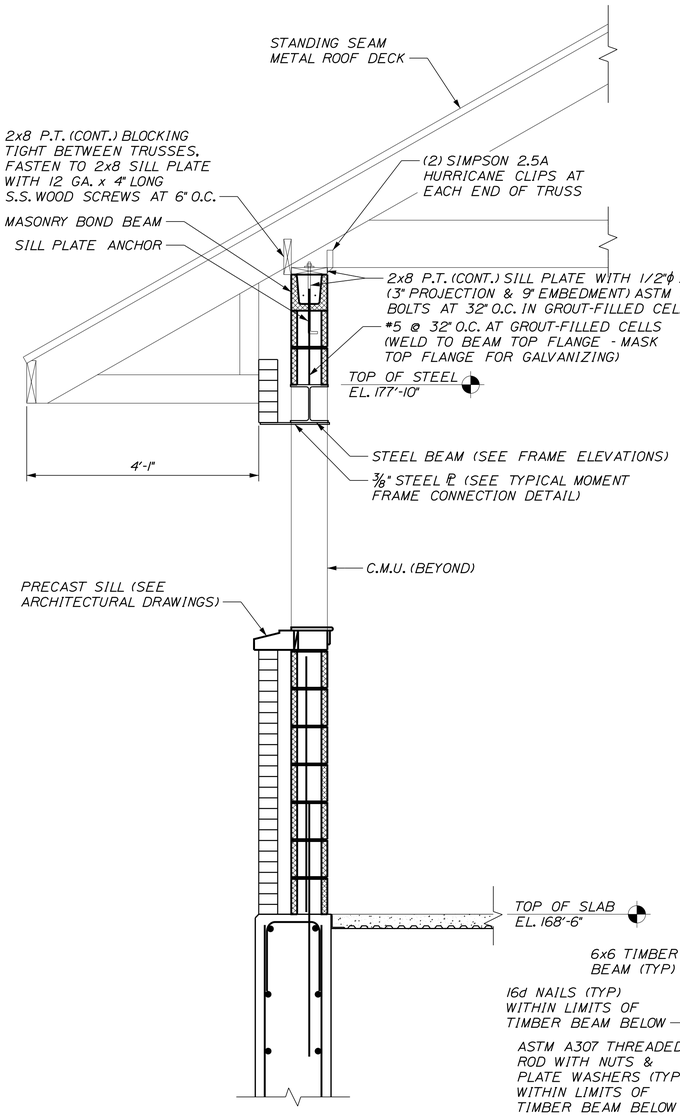
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
FOUNDATION AND FIRST FLOOR DETAILS

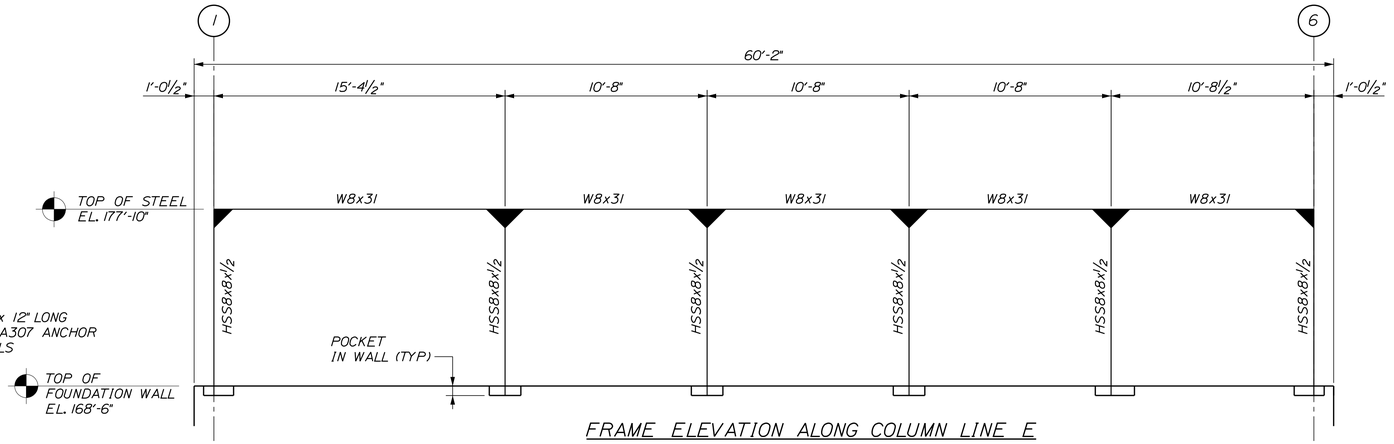
SHEET NUMBER: S-59

CONTRACT:2018.20



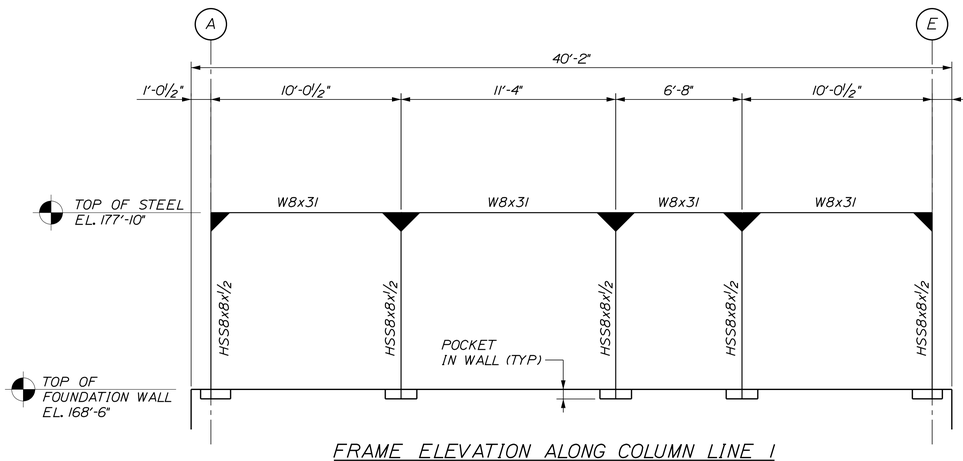
TYPICAL SECTION AT ROOF TRUSSES

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



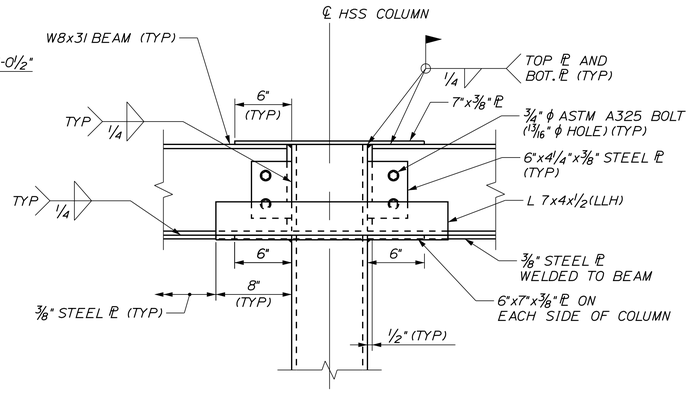
FRAME ELEVATION ALONG COLUMN LINE E

NOT TO SCALE



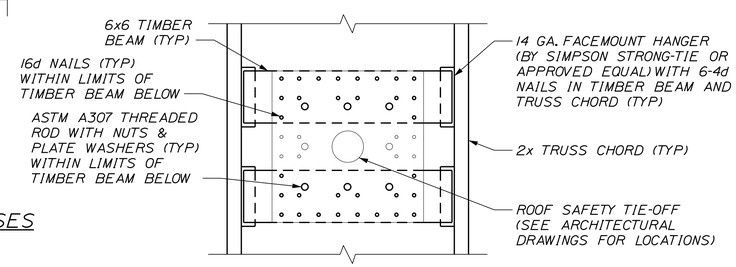
FRAME ELEVATION ALONG COLUMN LINE I

NOT TO SCALE

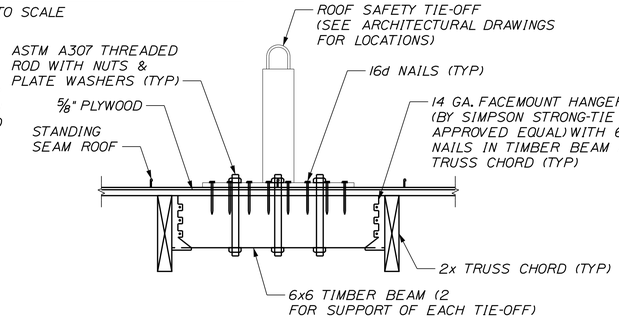


TYPICAL MOMENT FRAME CONNECTION DETAIL

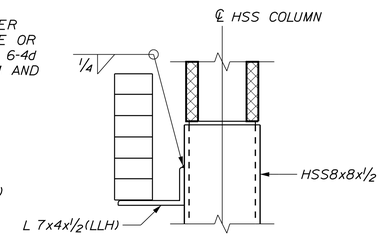
SCALE: 1 1/2" = 1'-0"



PLAN VIEW



SECTION THRU TIMBER BEAMS



SECTION THRU MOMENT FRAME COLUMN

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

TYPICAL ROOF SAFETY TIE-OFF BASE CONNECTION

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

Date:7/23/2018

Filename: ...\353_(S-60) Admin Building Section & Frame Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

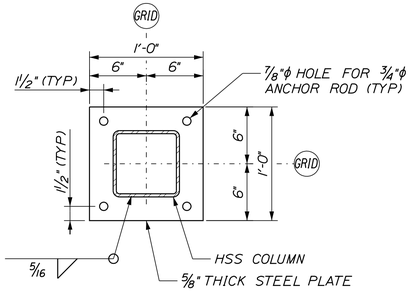
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

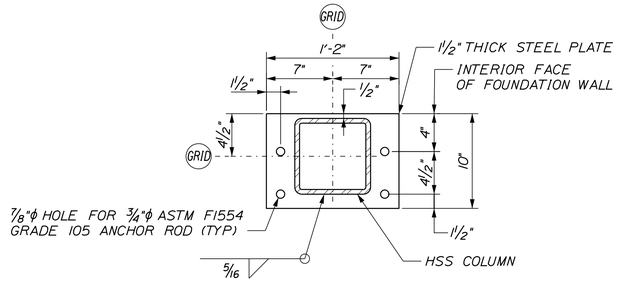
ADMINISTRATION BUILDING
SECTION AND FRAME DETAILS

SHEET NUMBER: S-60

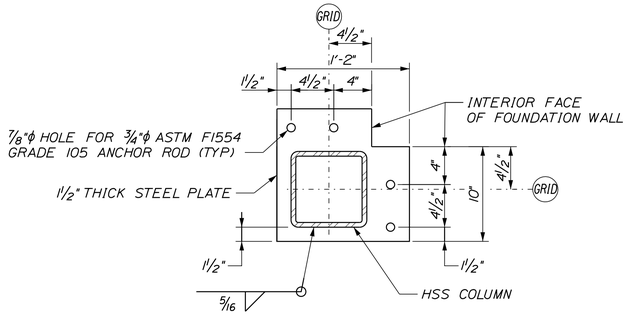
CONTRACT:2018.20



AT INTERIOR COLUMNS



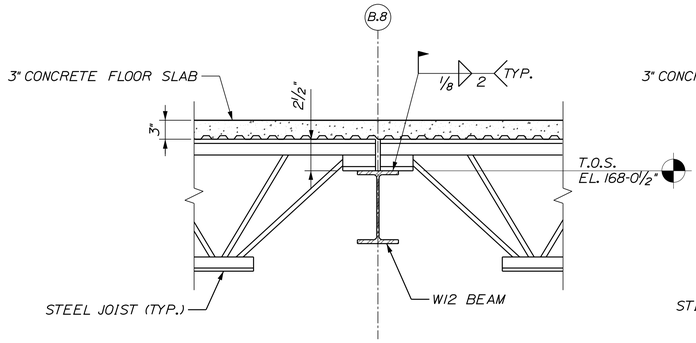
AT TYPICAL MOMENT FRAME COLUMNS



AT CORNER MOMENT FRAME COLUMNS

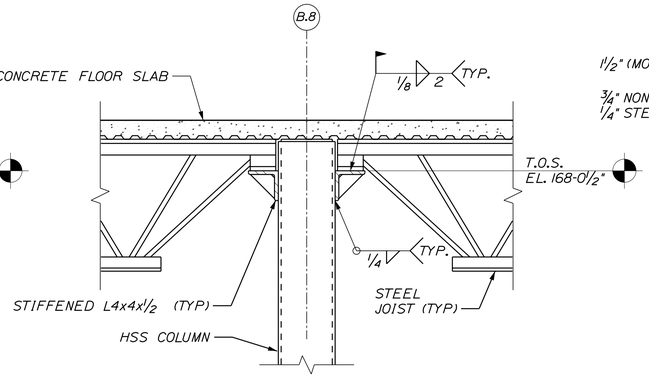
TYPICAL COLUMN BASE PLATE DETAILS

SCALE 1½" = 1'-0"



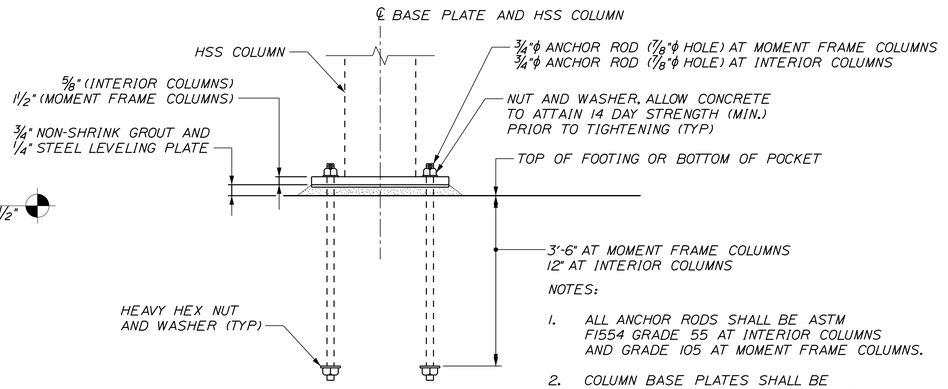
JOIST TO W12 BEAM CONNECTION DETAIL

NOT TO SCALE



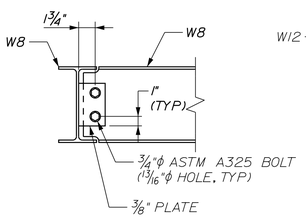
JOIST TO COLUMN CONNECTION DETAIL

NOT TO SCALE

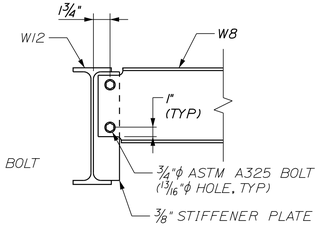


TYPICAL BASE PLATE AND ANCHOR ROD SECTION

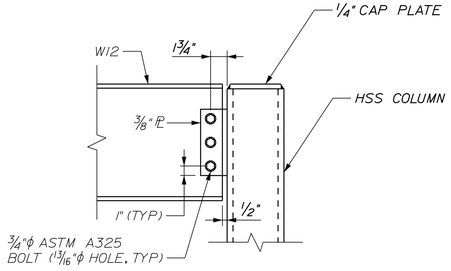
SCALE 1½" = 1'-0"



W8 TO W8 CONNECTION



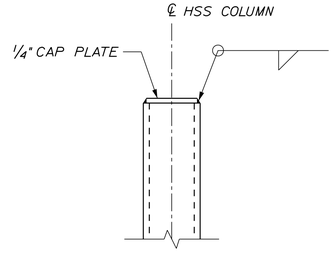
W8 TO W12 CONNECTION



W12 TO HSS CONNECTION

W-SHAPE BEAM CONNECTION DETAILS

SCALE: 1½" = 1'-0"



TYPICAL HSS CAP PLATE DETAIL

SCALE 1½" = 1'-0"

Date:7/23/2018

Filename: ...\354_(S-61) Admin Building Steel Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DJM	7/18	Checked	SBH	7/18
Drawn	LLG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
STEEL DETAILS

SHEET NUMBER: S-61

CONTRACT:2018.20

POWER LEGEND

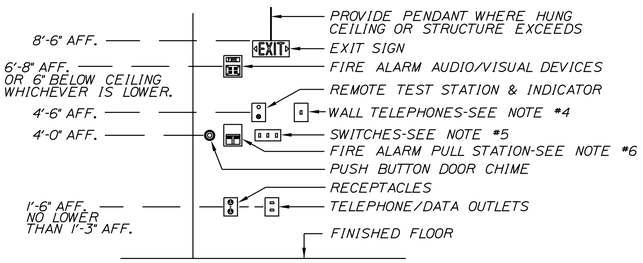
- FLOOR BOX WITH QUADRUPLEX RECEPTACLE
- STANDARD SINGLE RECEPTACLE
- STANDARD DUPLEX RECEPTACLE (18" A.F.F. UNLESS OTHERWISE NOTED)
- GFI GROUND FAULT INTERRUPT DUPLEX RECEPTACLE (18" A.F.F. UNLESS OTHERWISE NOTED)
- WP GROUND FAULT INTERRUPT DUPLEX RECEPTACLE WITH WEATHERPROOF IN-USE COVER (18" A.F.G. UNLESS OTHERWISE NOTED)
- CM STANDARD DUPLEX RECEPTACLE, CEILING MOUNTED
- STANDARD QUADRUPLEX RECEPTACLE
- TL STANDARD SIMPLEX, TWIST-LOCK (TL), RECEPTACLE
- SPECIALTY SINGLE RECEPTACLE (TYPE NOTED ON DRAWING)
- SPECIALTY SINGLE RECEPTACLE ON 2' SJOOW CORD WITH STRAIN RELIEF FROM JUNCTION BOX (TYPE NOTED ON DRAWING)
- J JUNCTION BOX
- HOMERUN
- UNFUSED SAFETY DISCONNECT SWITCH. SEE HVAC SCHEDULES FOR DISCONNECT SWITCHES PROVIDED BY HVAC CONTRACTOR.
- F FUSIBLE SAFETY DISCONNECT SWITCH
- OR FINAL CONNECTION TO EQUIPMENT
- P PHOTO CONTROL/PHOTOCELL
- M METER SOCKET
- GROUNDING ELECTRODE
- GROUNDING ELECTRODE TRIAD
- GROUND TEST WELL (SEE DETAIL 1/E-601)
- TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR UNIT
- WP WEATHER PROOF

LIGHTING LEGEND

- LED LIGHTING - SEE SHEET E-503 FOR LIGHTING FIXTURE SCHEDULE.
- LED NIGHT/EMERGENCY LIGHT
- EXIT LIGHT: 'EX1' (WALL MOUNTED)
- EXIT LIGHT: 'EX2' (CEILING MOUNTED)
- $ WALL CONTROL SWITCH FOR REMOTE SENSORS
- (M) SUSPENDED CEILING MOUNTED OCCUPANCY SENSOR
- (U) OPEN CEILING MOUNTED OCCUPANCY SENSOR
- $ SWITCH

FIRE ALARM LEGEND

- (D) DUCT SMOKE DETECTOR AND SAMPLING TUBE
- (S) SMOKE DETECTOR
- (H) HEAT DETECTOR
- RI LED REMOTE INDICATOR
- F HORN/STROBE UNIT. MOUNT AT 80" ABOVE FLOOR OR 6" BELOW CEILING, WHICHEVER IS LOWER UNLESS NOTED OTHERWISE. 75 CANDELA UNLESS NOTED OTHERWISE. "LD" INDICATES LOW DECIBEL. RECESSED.
- V STROBE ONLY UNIT. MOUNT AT 80" ABOVE FLOOR OR 6" BELOW CEILING, WHICHEVER IS LOWER UNLESS NOTED OTHERWISE. 75 CANDELA UNLESS NOTED OTHERWISE. RECESSED.
- V HORN/STROBE UNIT. SURFACE CEILING MOUNTED. 115 CANDELA.
- F RECESSED ALARM MANUAL PULL STATION
- K RECESSED "KNOX" BOX
- RAP REMOTE ANNUNCIATOR PANEL WITH KEYED FACP RESET. RECESSED. (DUCT SMOKE DETECTORS SHALL BE ABLE TO BE RESET FROM "RAP").
- FACP FIRE ALARM CONTROL PANEL
- RED FIRE ALARM BEACON
- M MASTER BOX
- FR FAN RELAY



NOTES:

1. ALL MOUNTING HEIGHTS SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS.
2. DEVICES SHALL BE INSTALLED ON A COMMON VERTICAL CENTERLINE WHEREVER POSSIBLE.
3. ALL DEVICES SHALL BE INSTALLED AT MOUNTING HEIGHTS AS INDICATED ON THIS DETAIL UNLESS OTHERWISE NOTED.
4. TELEPHONE OUTLET MOUNTING HEIGHTS:
   FORWARD REACH-MAXIMUM HIGH FORWARD REACH SHALL BE 48"AFF. MINIMUM LOW FORWARD REACH SHALL BE 15"AFF.
   FORWARD REACH OVER OBSTRUCTION-WHEN LENGTH OF OBSTRUCTION IS LESS THAN 20". FORWARD REACH SHALL BE 48"AFF MAXIMUM. WHEN LENGTH OF OBSTRUCTION IS BETWEEN 20" AND 25". FORWARD REACH SHALL BE 44"AFF MAXIMUM.
   SIDE REACH-MAXIMUM HIGH SIDE REACH SHALL BE 54"AFF. LOW SIDE REACH SHALL BE NO LESS THAN 9"AFF.
   SIDE REACH OVER OBSTRUCTION-WHEN THE OBSTRUCTION IS 24" WIDE. THE SIDE REACH SHALL BE A MAXIMUM OF 46"AFF WITH A MINIMUM OF 34"AFF.
5. SWITCHES SHALL BE NO HIGHER THAN 48"AFF AND NO LOWER THAN 36"AFF.
6. FIRE ALARM PULL STATION MOUNTING HEIGHTS:
   FRONT ACCESS SHALL BE 48"AFF.
   SIDE ACCESS SHALL BE 54"AFF.

ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ARCH	ARCHITECT
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT - RACEWAY
CAT	CATALOG
CKT	CIRCUIT
COL	COLUMN
CU	COPPER
CB	CIRCUIT BREAKER
C/T	CURRENT TRANSFORMER
P/T	POTENTIAL TRANSFORMER
DWG	DRAWING
EC	ELECTRICAL SUBCONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
EWC	ELECTRIC WATER COOLER
F	FUSE
FA	FIRE ALARM
FT	FEET
G	GROUND OR GROUNDING
GC	GENERAL CONTRACTOR
HVAC	HEATING, VENTILATION & AIR COND.
KVA	KILOVOLT AMPERES
KW	KILOWATTS
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
KCMIL	THOUSAND CIRCULAR MILS
LTG	LIGHTING
MCP	MOTOR CIRCUIT PROTECTOR
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MH	MOUNTING HEIGHT
MTD	MOUNTED
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NEC	NATIONAL ELECTRICAL CODE-NFPA 70
NL	NIGHT LIGHT
NTS	NOT TO SCALE
P	POLE
PC	PLUMBING SUBCONTRACTOR
POS	PROVIDED UNDER OTHER SECTIONS
PNL	PANEL OR PANELBOARD
PVC	POLYVINYL CHLORIDE
PWR	POWER
REC	RECEPTACLE
RGS	RIGID GALVANIZED STEEL CONDUIT
RTU	ROOF TOP UNIT
SP	SPARE
SPR	SPRINKLER SUBCONTRACTOR
SW	SWITCH
TEL	TELEPHONE
THD	TOTAL HARMONIC DISTORTION
TL	TWIST LOCK
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSORS
TYP	TYPICAL
UG	UNDERGROUND OR UNDER GRADE
UNO	UNLESS OTHERWISE NOTED
V	VOLT
W	WIRE
WH	WATER HEATER
WP	WEATHERPROOF
XFMR	TRANSFORMER
Δ	DELTA
Y	WYE
ø	PHASE
℄	CENTERLINE

Date:7/23/2018

Filename: ...\355_E-001 Electrical Symbols and Abbreviations.DGN

Scale:

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ELECTRICAL SYMBOLS AND ABBREVIATIONS

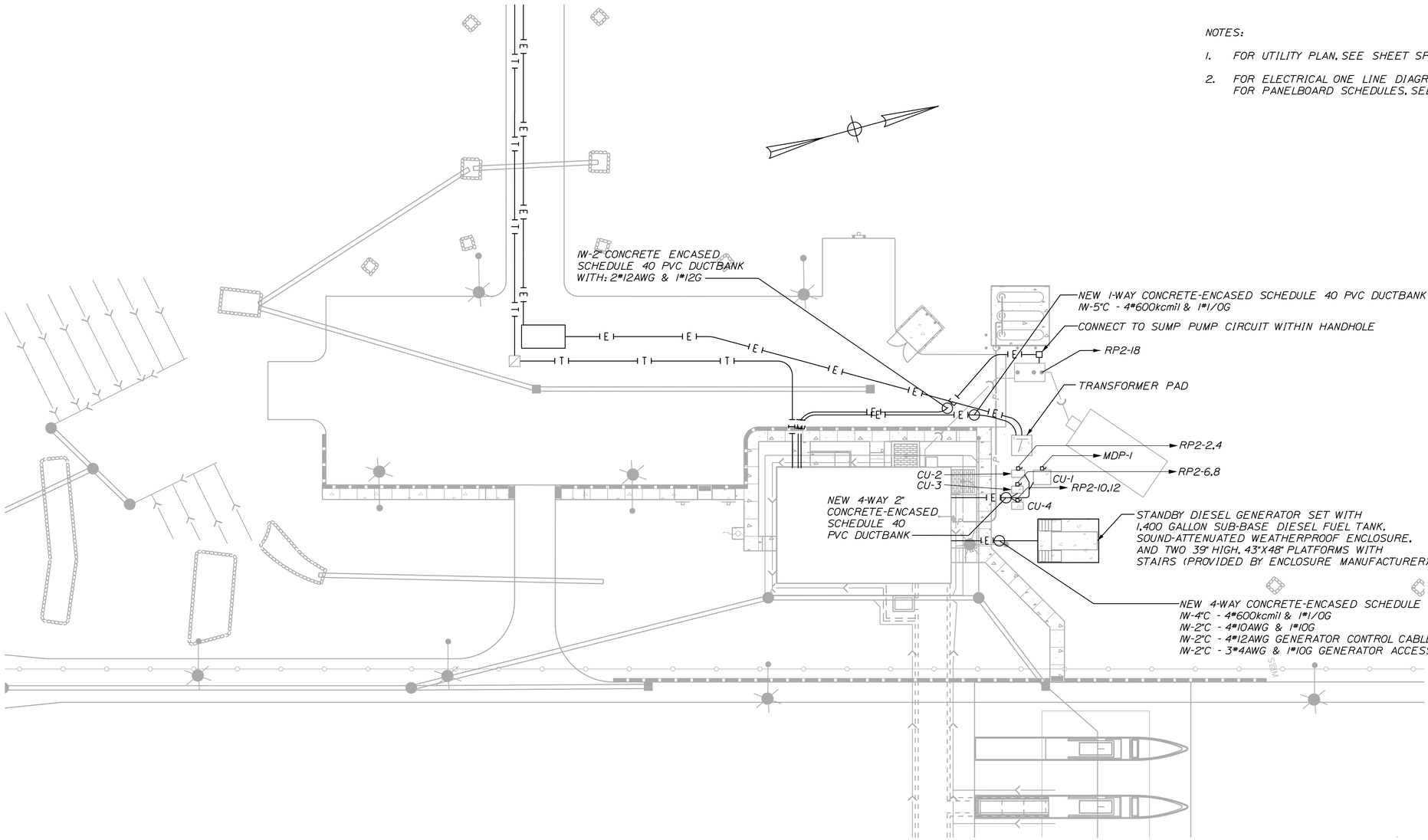
SHEET NUMBER: E-001

CONTRACT:2018.20

Date:8/29/2018

NOTES:

1. FOR UTILITY PLAN, SEE SHEET SP-04.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.



Scale: 20 0 20 40 AS NOTED Scale of Feet

No.	Revision	By	Date

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MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

SITE POWER PLAN

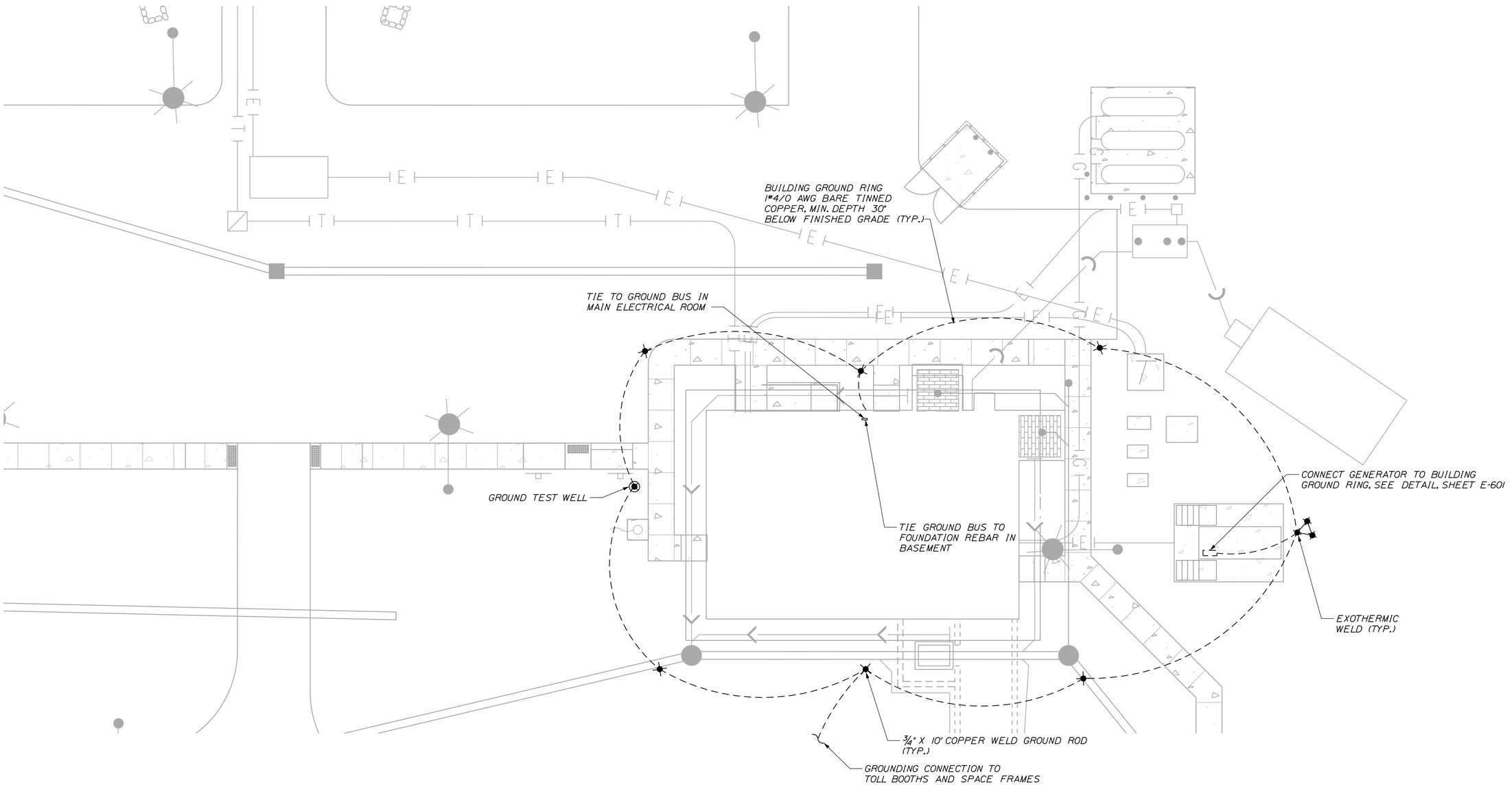
SHEET NUMBER: E-002

CONTRACT:2018.20

Filename: ...\356_E-002 Site Power Plan.DGN

NOTES:

1. FOR UTILITY PLAN, SEE SHEET SP-04.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501, FOR PANELBOARD SCHEDULES, SEE SHEET E-502.



Date:7/23/2018

Filename: ...\357_E-003 ElectricalSite Grounding Plan.DGN

Scale:

10 0 10 20

Scale of Feet

No.	Revision	By	Date

Designed by:

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MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ELECTRICAL SITE GROUNDING PLAN

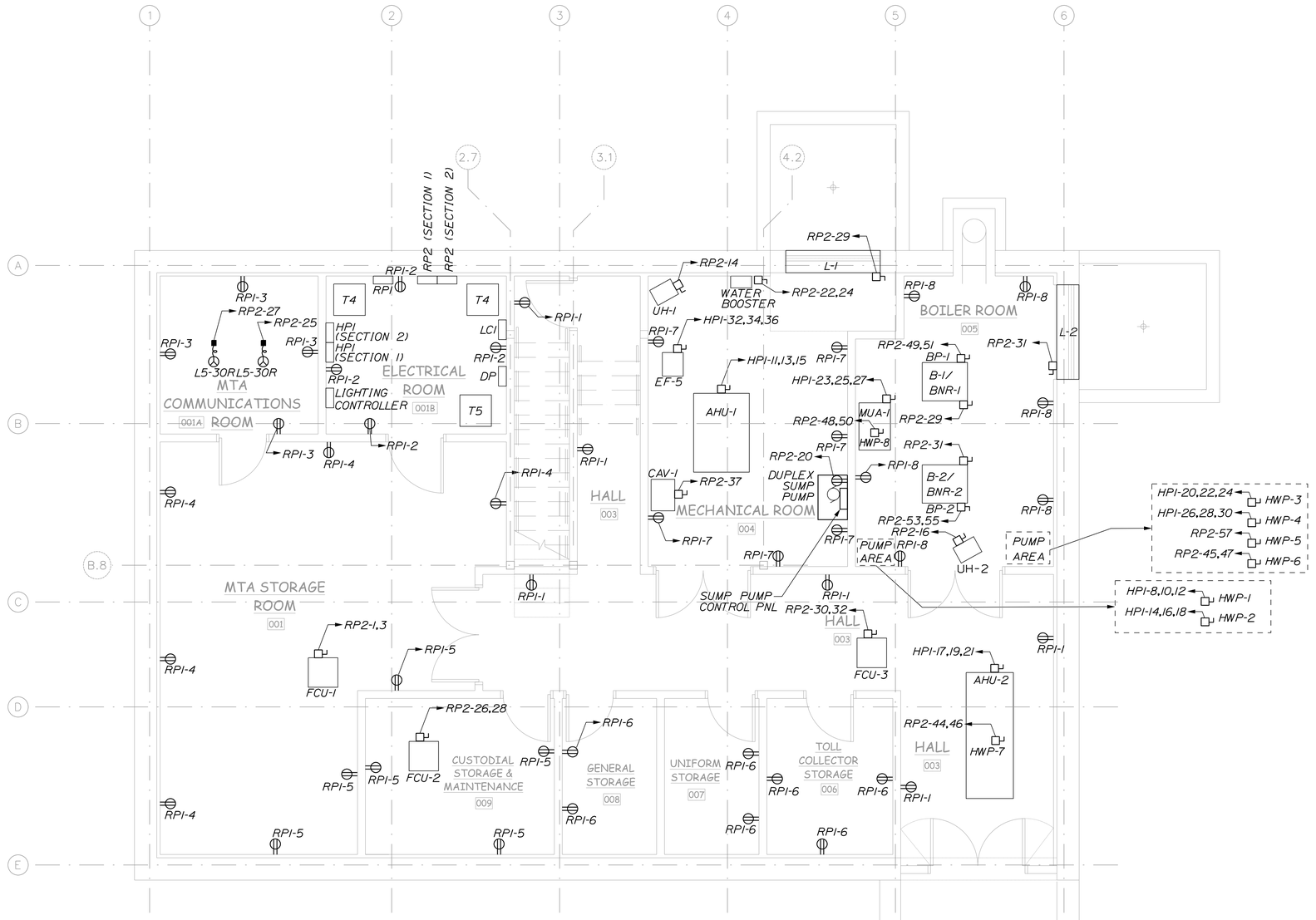
SHEET NUMBER: E-003

CONTRACT:2018.20

Date:7/23/2018

NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.



1 - BASEMENT POWER PLAN

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

Filename: ...\358_E-101 Basement Power Plan.DGN

Scale: 0 4' 8' 12 — Scale of Feet

No.	Revision	By	Date

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MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
BASEMENT POWER PLAN

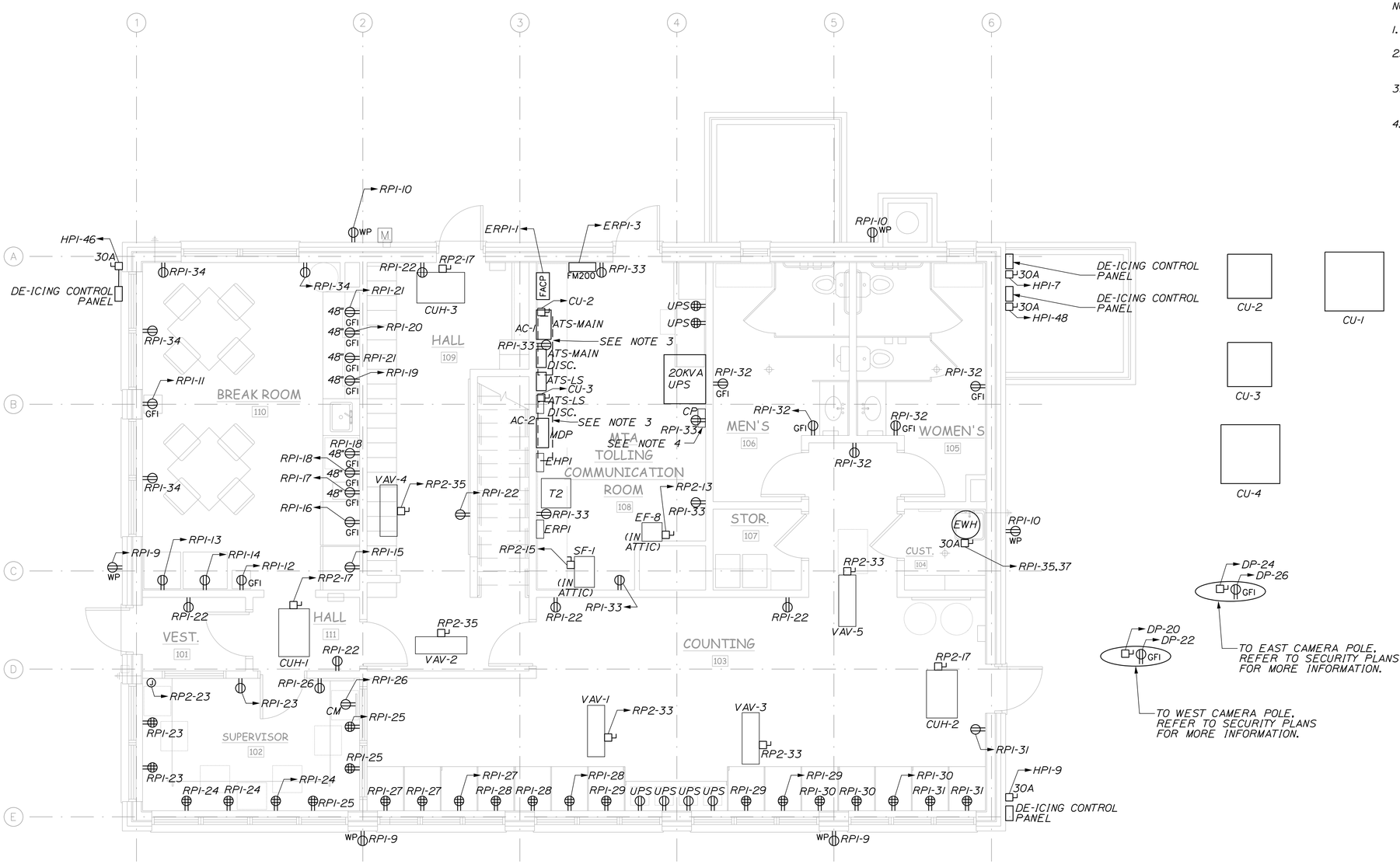
SHEET NUMBER: E-101

CONTRACT:2018.20

Date:8/29/2018

NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
3. INSTALL DRIP PAN UNDER AIR CONDITIONING UNITS AND PIPING TO PROTECT ELECTRICAL EQUIPMENT UNDERNEATH.
4. REFER TO TOLLING DRAWINGS FOR "CP" UPS PANEL SCHEDULE INFORMATION.



1 - FIRST FLOOR POWER PLAN

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

N

Filename: ...\359_E-102 First Floor Power Plan.DGN

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

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YORK TOLL PLAZA

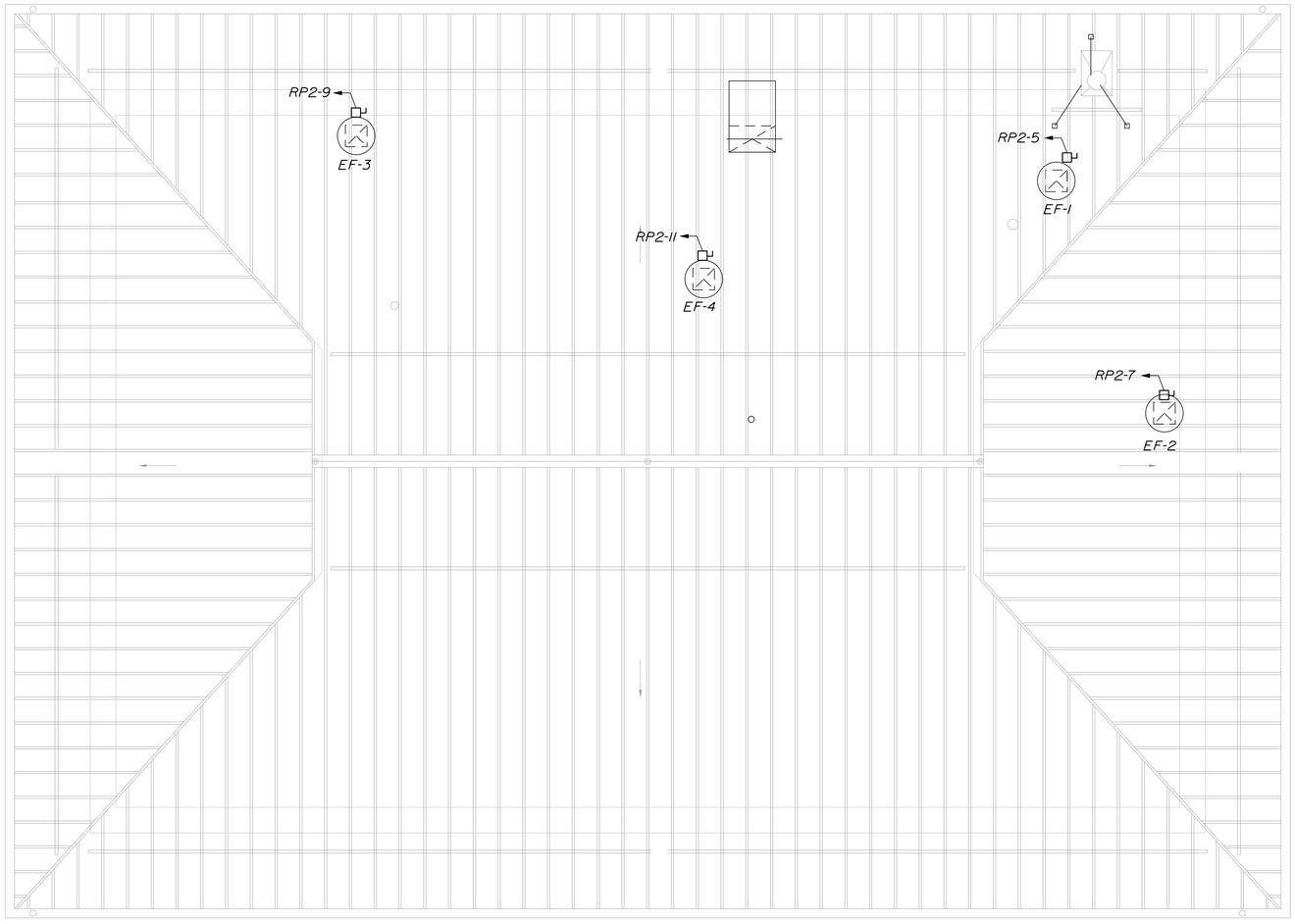
ADMINISTRATION BUILDING
FIRST FLOOR POWER PLAN

SHEET NUMBER: E-102

CONTRACT:2018.20

NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501.
   FOR PANELBOARD SCHEDULES, SEE SHEET E-502.



1 ROOF POWER PLAN
SCALE: 1/4"= 1'-0"

N

Date:7/23/2018

Filename: ...\360_E-103 Roof Power Plan.DGN

Scale:
0 4' 8' 12'
Scale of Feet

No.	Revision	By	Date

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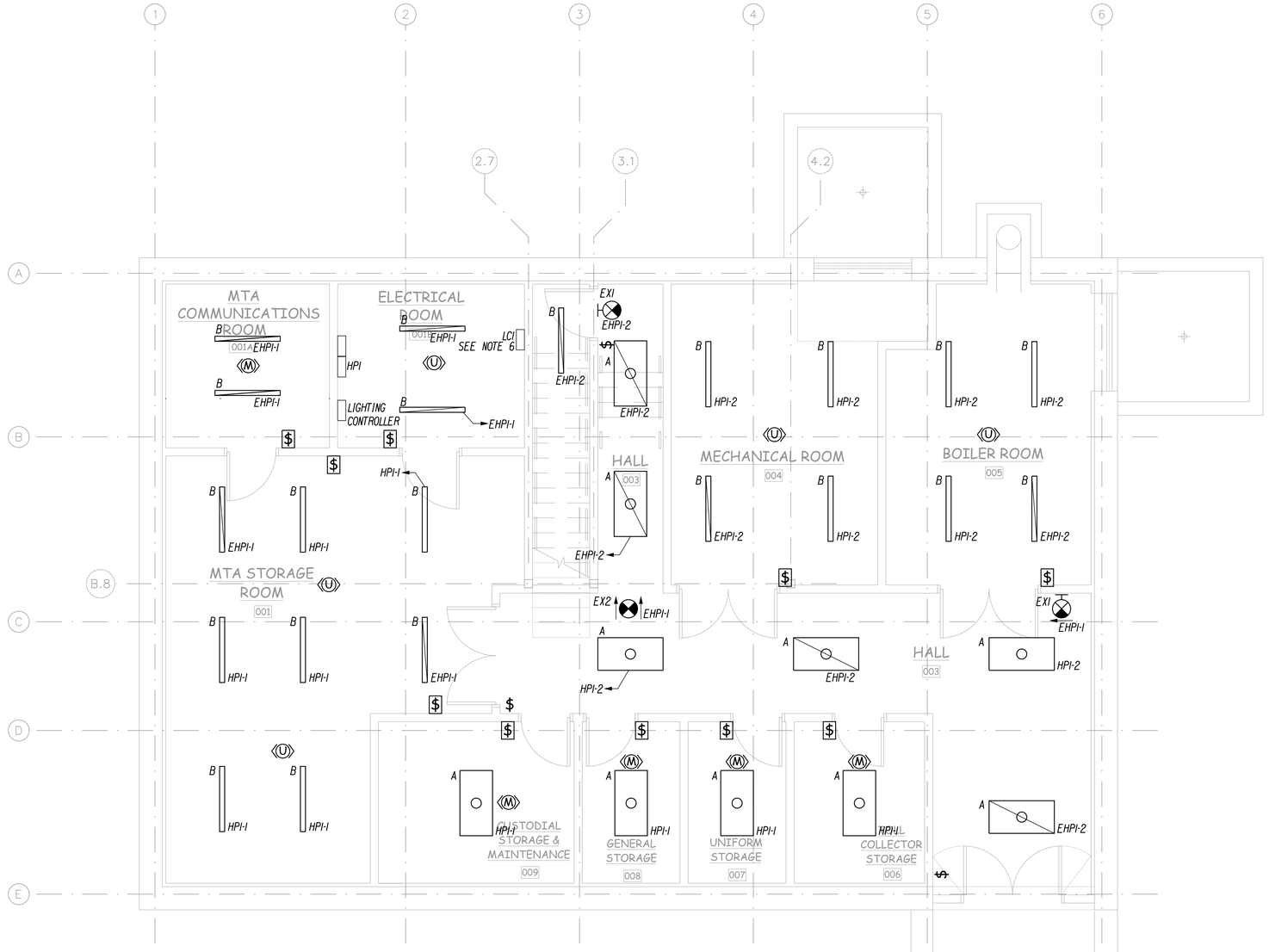
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
ROOF POWER PLAN

SHEET NUMBER: E-103

CONTRACT:2018.20



1 / - BASEMENT LIGHTING PLAN

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

N

NOTES:

1. FOR LIGHTING FIXTURE SCHEDULE, SEE SHEET E-503. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
2. ADJUST OCCUPANCY SENSORS TO AVOID AIR VENTS AND FANS.
3. OCCUPANCY SENSORS IN STAIRWELLS AND CORRIDORS SHALL RAISE LIGHTING BRIGHTNESS FROM 50% TO 100% UPON ACTIVATION.
4. ALL SWITCHES FOR A GIVEN ROOM ARE LOCATED WITHIN THAT ROOM.
5. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES.
6. CONNECT LCI HIGHWAY LIGHTING CIRCUITS TO LIGHTING CONTROLLER.

Date:7/23/2018

Filename: ...\361_E-201 Basement Lighting Plan.DGN

Scale: 0 4' 8' 12 — Scale of Feet

No.	Revision	By	Date

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

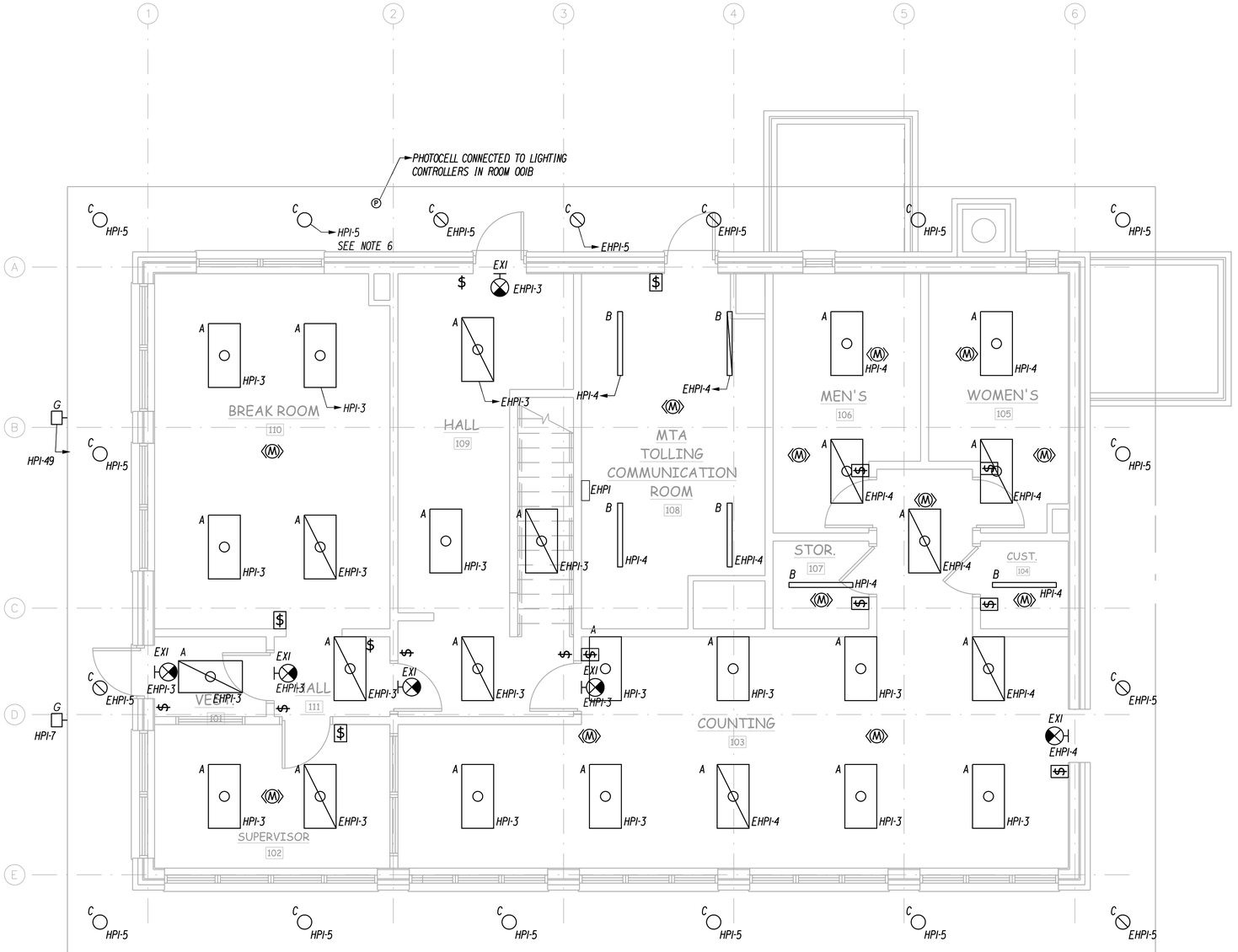
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
BASEMENT LIGHTING PLAN

SHEET NUMBER: E-201

CONTRACT:2018.20



1 - FIRST FLOOR LIGHTING PLAN

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

N

NOTES:

1. FOR LIGHTING FIXTURE SCHEDULE, SEE SHEET E-503. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
2. ADJUST OCCUPANCY SENSORS TO AVOID AIR VENTS AND FANS.
3. OCCUPANCY SENSORS IN STAIRWELLS AND CORRIDORS SHALL RAISE LIGHTING BRIGHTNESS FROM 50% TO 100% UPON ACTIVATION.
4. ALL SWITCHES FOR A GIVEN ROOM ARE LOCATED WITHIN THAT ROOM.
5. SEE ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES.
6. CANOPY FIXTURES CIRCUIT CONNECTED TO LIGHTING CONTROLLER IN ROOM 001B.
7. FINAL AIMING OF FLAG LIGHTING FIXTURES SHALL BE DONE IN THE FIELD.

Date:7/23/2018

Filename: ...\362_E-202 First Floor Lighting Plan.DGN

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

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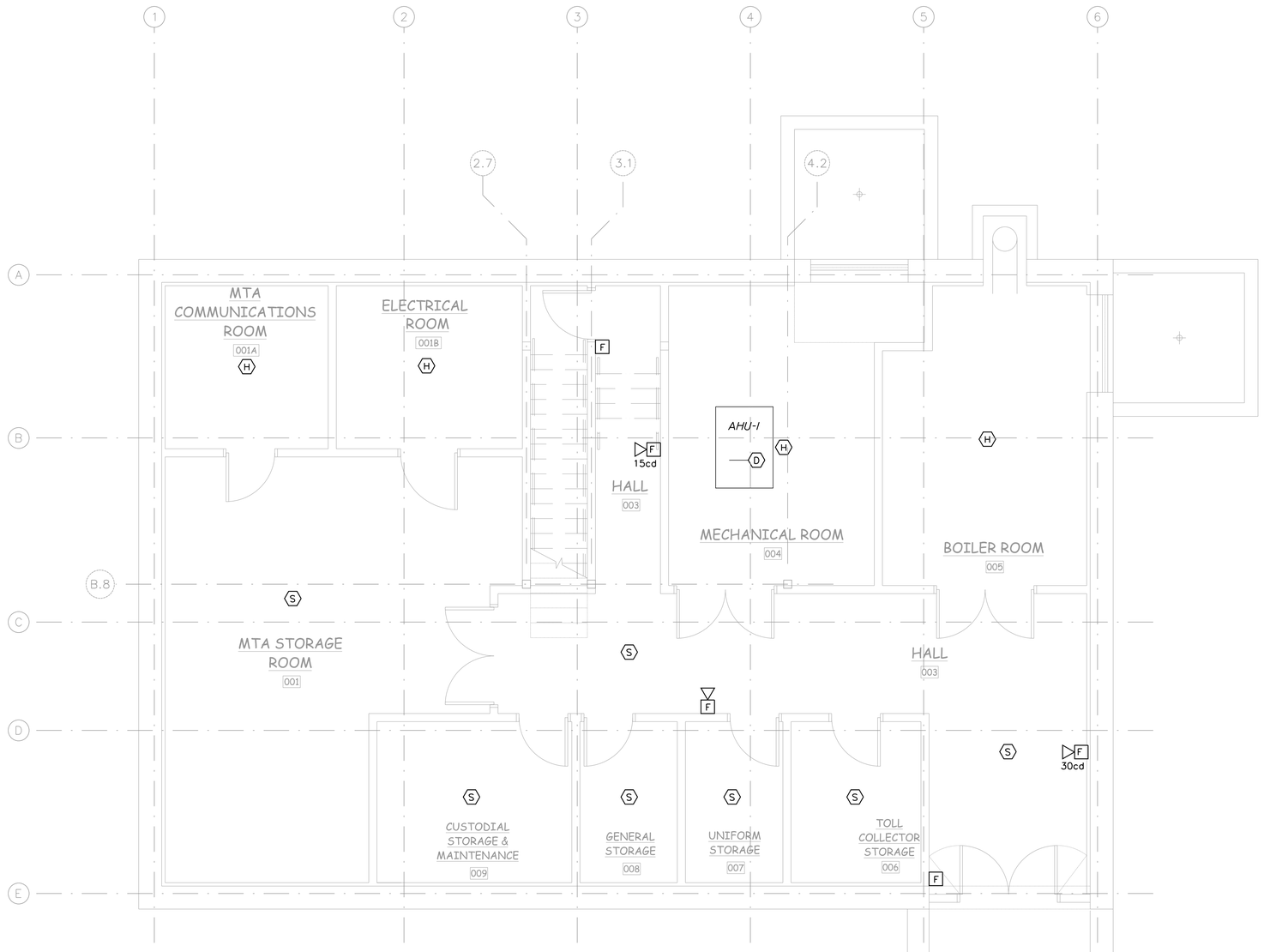
YORK TOLL PLAZA

ADMINISTRATION BUILDING
FIRST FLOOR LIGHTING PLAN

SHEET NUMBER: E-202

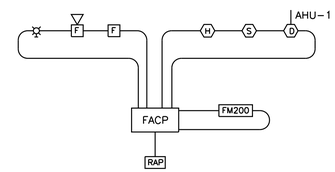
CONTRACT:2018.20

Date:7/23/2018



1 - BASEMENT FIRE ALARM PLAN

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



2 - FIRE ALARM RISER DIAGRAM

SCALE: N.T.S.

Filename: ...\363_E-301 Basement Fire Alarm Plan.DGN

Scale: 0 4' 8' 12 — Scale of Feet

No.	Revision	By	Date

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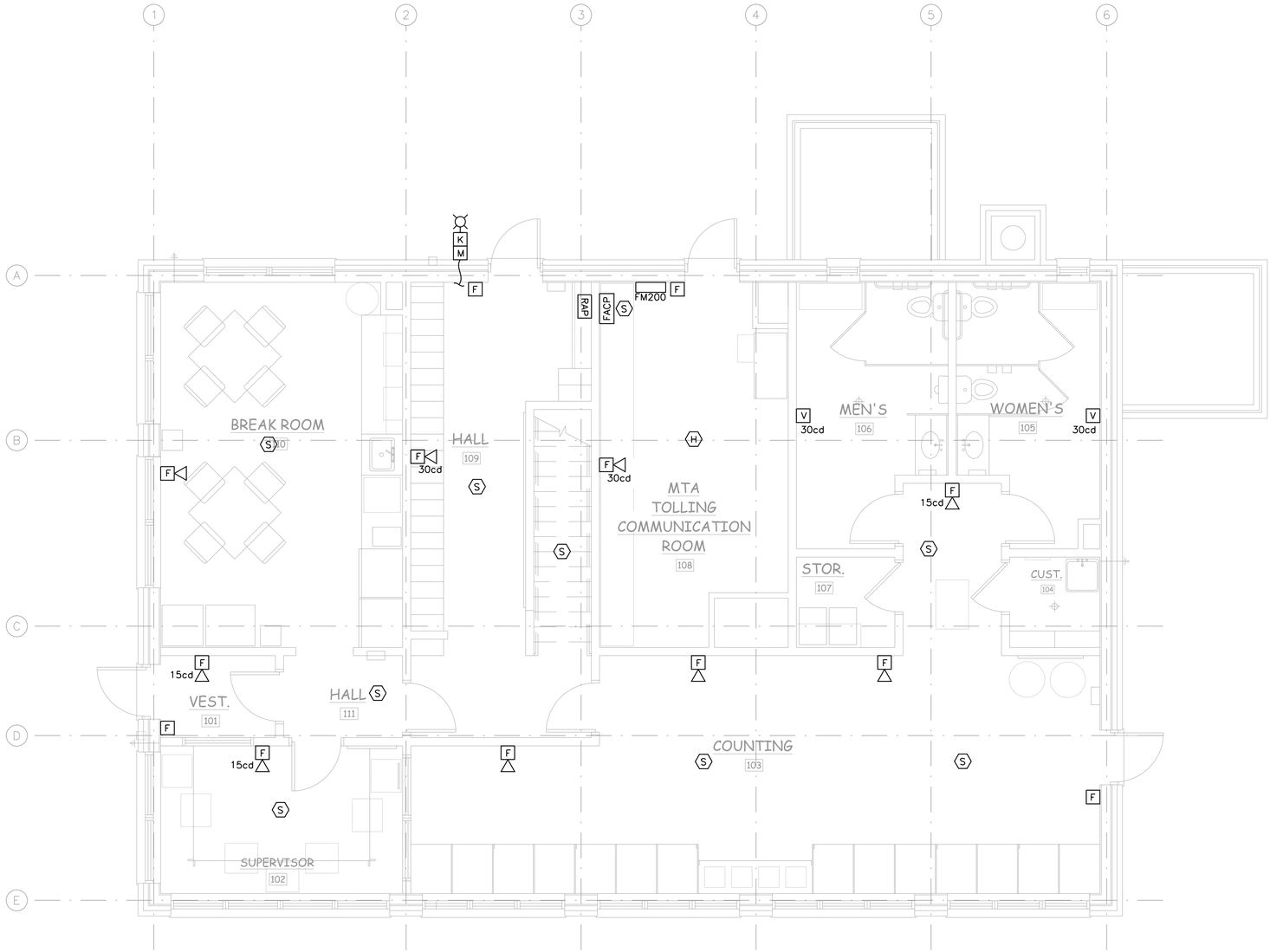
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
BASEMENT FIRE ALARM PLAN

SHEET NUMBER: E-301

CONTRACT:2018.20



1 - FIRST FLOOR FIRE ALARM PLAN

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

N

NOTE:

1. FOR FIRE ALARM RISER DIAGRAM, SEE SHEET E-301.

Date:7/23/2018

Filename: ...\364_E-302 First Floor Fire Alarm Plan.DGN

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.B.	7/18	Checked	D.B.	7/18
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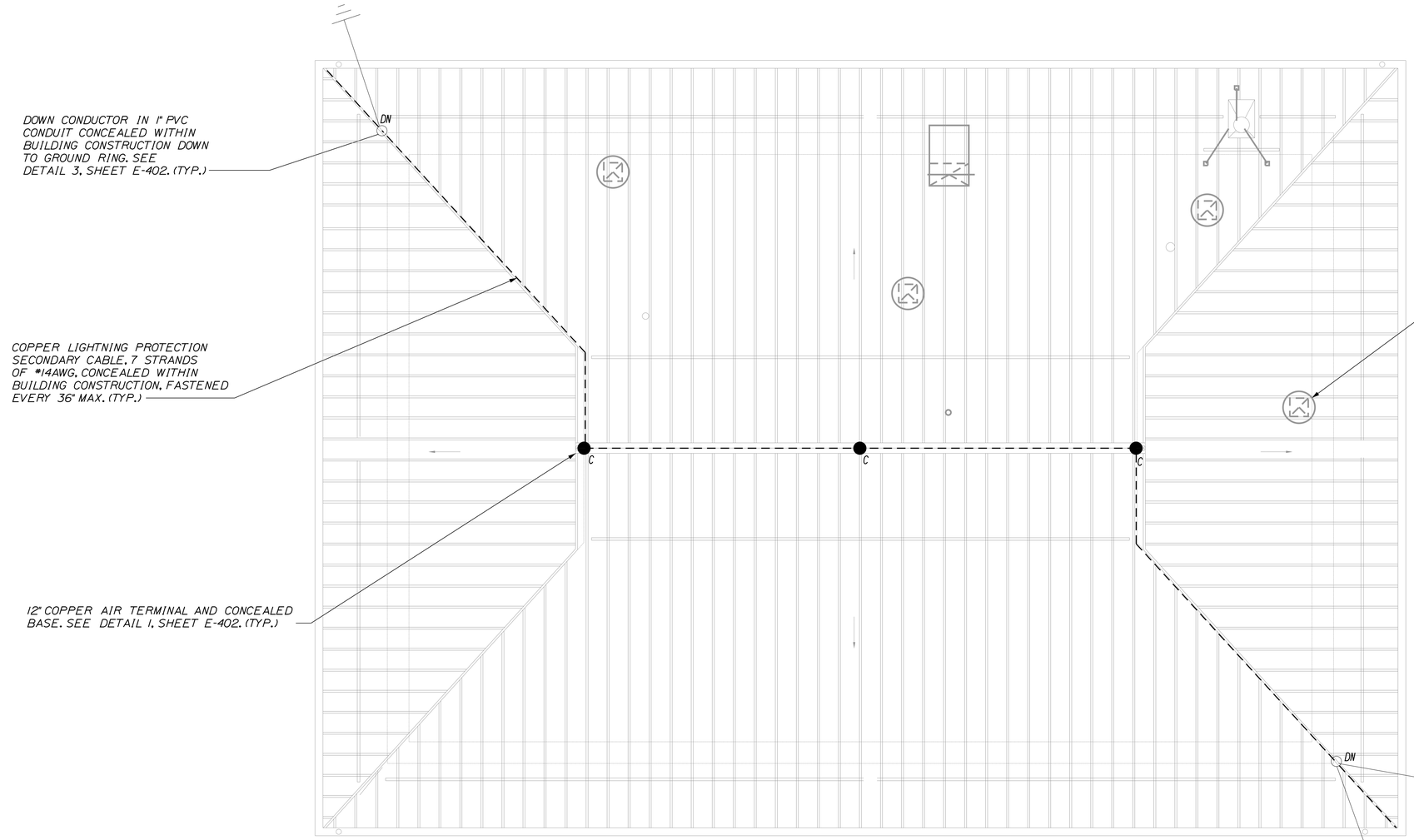
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
FIRST FLOOR FIRE ALARM PLAN

SHEET NUMBER: E-302

CONTRACT:2018.20



1 / - LIGHTNING PROTECTION PLAN

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

N

NOTES:

1. FOR DETAILS, SEE SHEET E-402.
2. INSTALL AIR TERMINAL FOR ANY ROOFTOP EXHAUST FAN OR VENTILATOR THAT IS NOT WITHIN A ZONE OF PROTECTION AND BOND TO NEAREST LIGHTNING PROTECTION CABLE PER DETAIL 2 ON SHEET E-402.
3. FOR TOLL PLAZA LIGHTNING PROTECTION, SEE SHEETS T-28 THROUGH T-30. LIGHTNING PROTECTION SYSTEMS ARE INTERCONNECTED.

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING LIGHTNING PROTECTION PLAN

SHEET NUMBER: E-401

CONTRACT:2018.20

365 OF 489

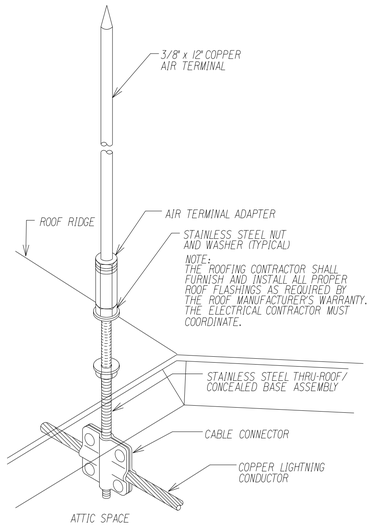
Date:7/23/2018

Filename: ...\365_E-401 Building Lightning Protection Plan.DGN

Date:7/23/2018

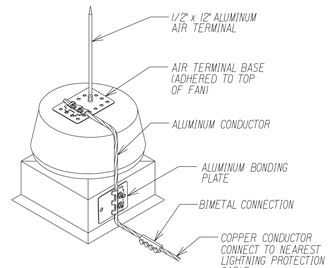
LIGHTNING PROTECTION MATERIALS LIST

———	COPPER LIGHTNING PROTECTION MAIN CONDUCTOR	
	ALUMINUM LIGHTNING PROTECTION CONDUCTOR (24 STRANDS OF #14AWG (AT ALUM. MECH. EQUIP. ONLY)	
	COPPER LIGHTNING PROTECTION SECONDARY CABLE, 7 STRANDS OF #14AWG•	
	BIMETAL CONNECTOR	
	COPPER CABLE FASTENERS (FASTEN CABLE EVERY 3FT. MAX.) ALUM. CABLE FASTENERS (FASTEN CABLE EVERY 3FT. MAX.)	
•C	3/8" x 12" COPPER AIR TERMINAL AND CONCEALED BASE	
	1/2" x 12" ALUMINUM AIR TERMINAL AND ADHESIVE BASE	
△	THRU-ROOF ROD	
	SECONDARY BONDING: •FLASHING CONNECTOR •METAL VENT PIPE CONNECTOR •METAL ROOF DRAIN / GUTTER CONNECTOR	
	BONDING PLATE (AT RTU & FANS)	
	BONDING PLATE (TO BASE OF STEEL AT EACH DOWNLEAD)	
	PIPE CLAMP (ANTENNAS, RAILINGS, ETC.)	
	BONDING "C" CLAMP (LADDERS)	
	CABLE CONNECTOR	
	STRAIGHT SPLICER	
	CROSSOVER CABLE CONNECTOR	
	WATERLINE CONNECTOR (FIRE WATER & DOMESTIC WATER)	
—||—	3/4" x 10'-0" COPPERBOND GROUND RODS AND CONNECTOR	

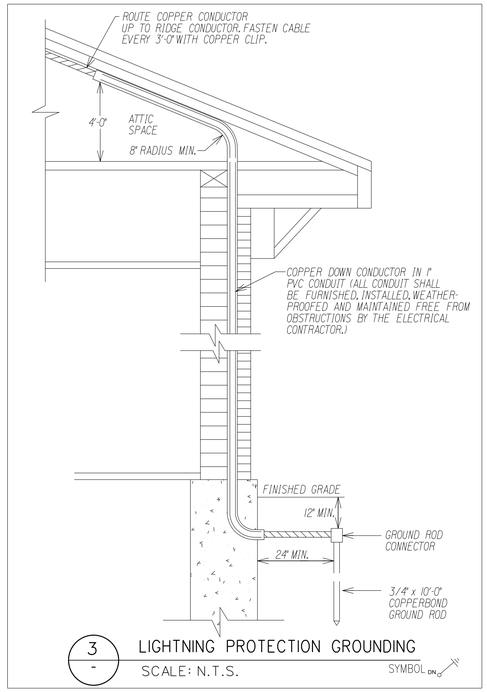


1 - AIR TERMINAL MOUNTING DETAIL
SCALE: N.T.S. SYMBOL •C

NOTE: AIR TERMINALS ARE REQUIRED ON ROOF VENTILATORS/EXH. FANS THAT ARE NOT WITHIN A ZONE OF PROTECTION OR WHEN HIGHER THAN ADJACENT AIR TERMINALS.



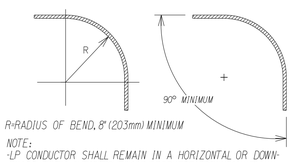
2 - AIR TERMINAL AT EXH. FAN
SCALE: N.T.S.



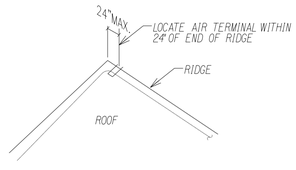
3 - LIGHTNING PROTECTION GROUNDING
SCALE: N.T.S. SYMBOL •C

LIGHTNING PROTECTION NOTES

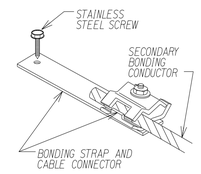
1. ALL MATERIALS SHOWN ARE MANUFACTURED BY HEARY BROS. LIGHTNING PROTECTION CO., INC. OR EQUIVALENT, AS APPROVED BY ENGINEER.
2. THE LIGHTNING PROTECTION SYSTEM AS SHOWN ON DRAWING HAS BEEN DESIGNED IN ACCORDANCE WITH UL96A & NFPA-780 LIGHTNING PROTECTION SYSTEM STANDARDS.
3. CONDUCTORS SHALL MAINTAIN A HORIZONTAL OR DOWNWARD COURSE. FREE FROM "U" OR "V" (DOWN AND UP) POCKETS.
4. NO BEND OF CONDUCTOR SHALL FORM AN ANGLE OF LESS THAN 90° NOR SHALL HAVE A RADIUS OF BEND LESS THAN 8".
5. AIR TERMINALS SHALL BE SPACED AS SHOWN ON THE ADMINISTRATION BUILDING LIGHTNING PROTECTION PLAN ON SHEET E-401.
6. AIR TERMINALS SHALL BE SPACED EVERY 50'-0" MAXIMUM IN CENTER ROOF AREAS.
7. ACTUAL JOBSITE CONDITIONS MAY REQUIRE SLIGHT ALTERATIONS IN AIR TERMINAL, DOWN CONDUCTOR AND GROUND ROD LOCATIONS.
8. BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM OR GALVALUM SURFACES, AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACES.
9. ALL LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED EVERY 3'-0" MAX.
10. ALL BOLTS ON BOLT-PRESSURE CONNECTORS SHALL BE TORQUED AT 150 POUND-INCHES. OR PER MANUFACTURER'S RECOMMENDATIONS.
11. ALL CONNECTIONS MUST BE USED WITH UL LISTED CABLE OF SAME METAL TYPE.
12. METALLIC BODIES OF INDUCTANCE SITUATED WITHIN 6'-0" OF A LIGHTNING CONDUCTOR OR ANOTHER BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM, UNLESS INHERENTLY GROUNDED.
13. BOND ALL METAL BODIES TO THE MAIN LIGHTNING PROTECTION CONDUCTOR. (I.E.; EXHAUST FANS, ROOF VENTS, METAL COOLING TOWERS, HVAC UNITS, LADDERS, RAILINGS, ANTENNAS, SKYLIGHTS, METAL STACKS AND ANY OTHER LARGE METAL BODY WHOSE HEIGHT EXCEEDS THAT OF THE AIR TERMINAL IN USE, UNLESS PROTECTED BY HIGHER ROOF ELEVATIONS.
14. CONNECTIONS TO GROUND RODS SHALL BE MADE AT A POINT NOT LESS THAN 1'-0" BELOW FINISHED GRADE AND 2'-0" AWAY FROM FOUNDATION WALL.
15. BOND TO WATERLINES (DOMESTIC & FIRE).
16. A LIGHTNING ARRESTOR, PROTECTOR OR ANTENNA DISCHARGE UNIT SHALL BE INSTALLED ON EACH ELECTRIC AND TELEPHONE SERVICE AND RADIO AND TELEVISION ANTENNA LEAD-IN BY THE ELECTRICAL CONTRACTOR, IN ACCORDANCE WITH NFPA-70.
17. TRANSIENT VOLTAGE SURGE SUPPRESSION (TVSS) OF SERVICES SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. (I.E. COMPUTERS, COPIERS, TELEPHONE, ETC.).
18. UPON COMPLETION OF INSTALLATION UL MASTER LABEL SHALL BE ISSUED.



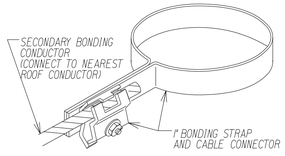
8" MIN. RADIUS BEND IN CABLE



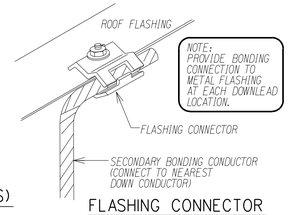
AIR TERMINALS SHALL BE LOCATED WITHIN 24" OF END OF RIDGE & CORNERS
SCALE: N.T.S.



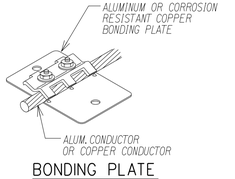
BONDING LUG (ROOF DRAINS)
SCALE: N.T.S.



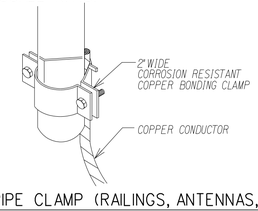
BONDING STRAP AT (VENT PIPES)
SCALE: N.T.S.



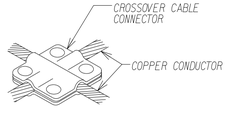
FLASHING CONNECTOR
SCALE: N.T.S.



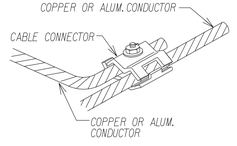
BONDING PLATE
SCALE: N.T.S.



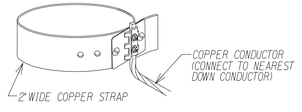
PIPE CLAMP (RAILINGS, ANTENNAS, ETC.)
SCALE: N.T.S.



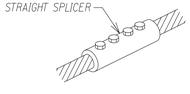
CROSSOVER CABLE CONNECTOR
SCALE: N.T.S.



CABLE CONNECTOR
SCALE: N.T.S.



WATERLINE BONDING STRAP
SCALE: N.T.S.



STRAIGHT SPLICER
SCALE: N.T.S.

Filename: ...\366_E-402 Lightning Protection Details.DGN

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.B.	7/18	Checked	D.B.	7/18
Drawn	R.B.	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

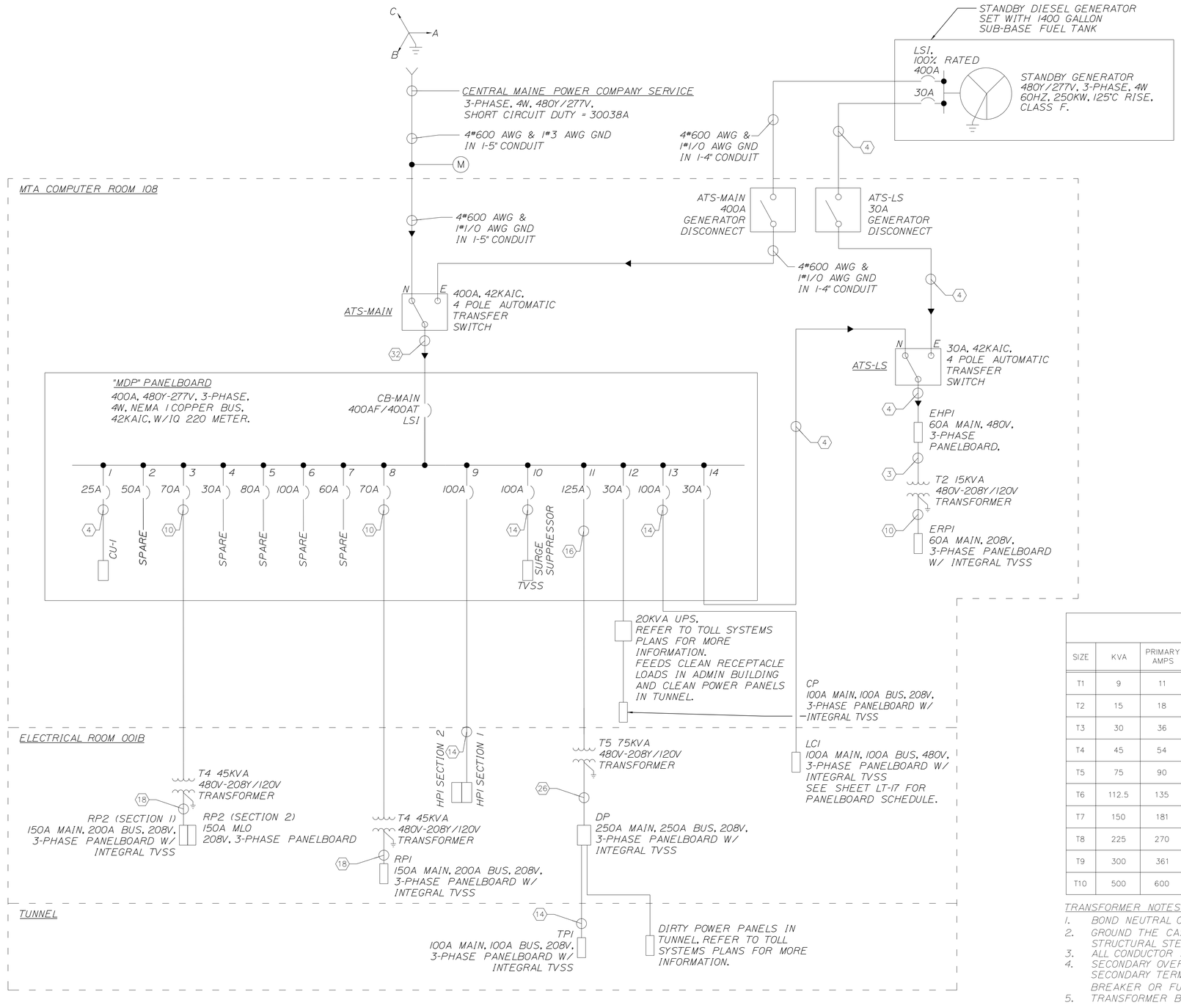
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

LIGHTNING PROTECTION DETAILS

SHEET NUMBER: E-402

CONTRACT:2018.20



FEEDER SCHEDULE
(COPPER CONDUCTORS - REFER TO NOTE 1)

FEEDER SYMBOL	CONDUCTORS (3 PHASE, 3 WIRE) WITH GROUND	RACEWAY SIZE CONDUIT	CONDUCTORS (3 PHASE, 4 WIRE) WITH GROUND	RACEWAY SIZE CONDUIT	NOMINAL AMPERE RATING
1	3#12 & 1#12G.	3/4"			20
2			4#12 & 1#12G.	3/4"	
3	3#10 & 1#10G.	3/4"			30
4			4#10 & 1#10G.	3/4"	
5	3#8 & 1#10G.	1"			40
6			4#8 & 1#10G.	1"	
7	3#6 & 1#10G.	1"			50
8			4#6 & 1#10G.	1 1/4"	
9	3#4 & 1#8G.	1 1/4"			60-70
10			4#4 & 1#8G.	1 1/4"	
11	3#3 & 1#8G.	1 1/4"			80
12			4#3 & 1#8G.	1 1/2"	
13	3#2 & 1#8G.	1 1/4"			90-100
14			4#2 & 1#8G.	1 1/2"	
15	3#1 & 1#6G.	1 1/2"			125
16			4#1 & 1#6G.	2"	
17	3#1/0 & 1#6G.	2"			150
18			4#1/0 & 1#6G.	2"	
19	3#2/0 & 1#6G.	2"			175
20			4#2/0 & 1#6G.	2"	
21	3#3/0 & 1#6G.	2"			200
22			4#3/0 & 1#6G.	2 1/2"	
23	3#4/0 & 1#4G.	2 1/2"			225
24			4#4/0 & 1#4G.	2 1/2"	
25	3#250 KCMIL & 1#4G.	2 1/2"			250
26			4#250 KCMIL & 1#4G.	3"	
27	3#350 KCMIL & 1#4G.	3"			300
28			4#350 KCMIL & 1#4G.	3 1/2"	
29	3#500 KCMIL & 1#3G.	3 1/2"			350
30			4#500 KCMIL & 1#3G.	4"	
31	3#600 KCMIL & 1#3G.	3 1/2"			400
32			4#600 KCMIL & 1#3G.	4"	

NOTES:
1. THIS SCHEDULE IS BASED ON TYPE "TW" CONDUCTORS AT 60°C AND NEC 310.15 FOR FEEDERS LESS THAN 100 AMPS; AND AT 75°C FOR FEEDERS AT 100 AMPS AND LARGER.
2. THIS SCHEDULE SHALL NOT BE USED FOR SERVICE ENTRANCE CONDUCTOR SIZING.

DRY TYPE TRANSFORMER SCHEDULE

SIZE	KVA	PRIMARY AMPS	SECONDARY AMPS	480 VOLT OVERCURRENT	208 VOLT (4) OVERCURRENT	480V FEEDER	120/208V FEEDER	GROUNDING SEE NOTE #5
T1	9	11	25	20A, 3P	40A, 3P	3#12 & 1#12G - 3/4"C.	4#8 & 1#10G - 1"C.	1#8 - 3/4"C
T2	15	18	42	30A, 3P	60A, 3P	3#10 & 1#10G - 3/4"C.	4#6 & 1#10G - 1 1/4"C.	1#8 - 3/4"C
T3	30	36	83	70A, 3P	110A, 3P	3#4 & 1#8G - 1 1/4"C.	4#2 & 1#6G - 1 1/2"C.	1#8 - 3/4"C
T4	45	54	125	100A, 3P	175A, 3P	3#2 & 1#8G - 1 1/2"C.	4#2/0 & 1#6G - 2"C.	1#4 - 3/4"C
T5	75	90	208	175A, 3P	300A, 3P	3#2/0 & 1#6G - 2"C.	4#350 KCMIL & 1#4G - 3 1/2"C.	1#1/0 - 3/4"C
T6	112.5	135	313	250A, 3P	400A, 3P	3#250 KCMIL & 1#4G - 3"C.	4#600 KCMIL & 1#3G - 4"C.	1#2/0 - 3/4"C.
T7	150	181	417	350A, 3P	600A, 3P	3#500 KCMIL & 1#3G - 4"C.	8#350 KCMIL & 2#1G 2-3"C.	1#2/0 - 3/4"C
T8	225	270	625	500A, 3P	800A, 3P	6#250 KCMIL & 2#2G 2-3"C	12#300 KCMIL & 3#1/0G 3-3"C.	1#2/0 - 3/4"C
T9	300	361	834	700A, 3P	1200A, 3P	9#300 KCMIL & 3#1/0G 3-3 1/2"C.	12#600 KCMIL & 3#3/0G 3-4"C.	1#250 KCMIL-1"C
T10	500	600	1400	1200A, 3P	2000A, 3P	9#600 KCMIL & 3#3/0G 3-4"C.	20#600 KCMIL & 5#4/0G 5-4"C.	1#400KCMIL - 1 1/4"C.

TRANSFORMER NOTES:
1. BOND NEUTRAL OF TRANSFORMER SECONDARY TO THE TRANSFORMER CASE WITH BONDING JUMPER.
2. GROUND THE CASING OF THE TRANSFORMER TO NEAREST AVAILABLE EFFECTIVELY GROUNDED WATER PIPE, STRUCTURAL STEEL AND/OR DRIVEN GROUND ROD IN ACCORDANCE WITH N.E.C. 250.50 AND 250.52.
3. ALL CONDUCTOR SIZES ARE FOR COPPER CONDUCTORS. N.E.C. TABLE 310.15, 75°C RATING.
4. SECONDARY OVERCURRENT PROTECTION SHALL BE LOCATED WITHIN TEN (10) FEET OF THE TRANSFORMER SECONDARY TERMINALS EITHER IN A PANELBOARD (MAIN BREAKER), AN INDIVIDUALLY MOUNTED CIRCUIT BREAKER OR FUSED DISCONNECT.
5. TRANSFORMER BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR.

Date:7/23/2018

Filename: ...\367_E-501 Electrical One Line Diagram.DGN

Scale: NOT TO SCALE

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.B.	7/18	Checked	D.B.	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ELECTRICAL ONE LINE DIAGRAM

SHEET NUMBER: E-501

CONTRACT:2018.20

PANEL SCHEDULE

PANEL ID : EHP1 — **VOLTAGE, PHASE, WIRES :** 480/277V, 3PH,4 W
LOCATION : MTA TOLLING COMM ROOM 108 — **MAIN:** 60A MCB/100A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 42K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
1	1	20	248			BSMT EMERG LTG	476			BSMT EMERG LTG			228	1	20	2
3	1	20	185			1ST FL EMERG LTG		357		1ST FL EMERG LTG			172	1	20	4
5	1	20	120			EXTERIOR EMERG LTG			1196	TUNNEL EMERG LTG			1076	1	20	6
7	1	20				SPARE	0			SPARE				1	20	8
9	1	20				SPARE		0		SPARE				1	20	10
11	1	20				SPARE			0	SPARE				1	20	12
13	1	20				SPARE	400			ERP1	400			3		14
15	1	20				SPARE		0								16
17	1	20				SPARE			0						30	18
19	1	20				SPARE	0			SPARE				1	20	20
21	1	20				SPARE		0		SPARE				1	20	22
23	1					SPACE			0	SPACE				1		24
25	1					SPACE	0			SPACE				1		26
27	1					SPACE		0		SPACE				1		28
29	1					SPACE			0	SPACE				1		30
31	1					SPACE	0			SPACE				1		32
33	1					SPACE		0		SPACE				1		34
35	1					SPACE			0	SPACE				1		36
37	1					SPACE	0			SPACE				1		38
39	1					SPACE		0		SPACE				1		40
41	1					SPACE			0	SPACE				1		42
SUM			553	0	0	CONN. WATTS	876	357	1196	CONN. WATTS	400	0	1476		WATTS	
TOTAL						**WATTS:**	**2429**		**KW:**	**2.4**	**AMPS:**	**2.9**				

PANEL SCHEDULE

PANEL ID : RP1 — **VOLTAGE, PHASE, WIRES :** 120/208V, 3PH,4 W
LOCATION : ELECTRICAL ROOM 001B — **MAIN:** 150A MCB/200A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 22K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
1	1	20		1080		BSMT HALL REC	1800			ELEC RM REC		720		1	20	2
3	1	20		720		MTA COMM RM REC		1620		MTA STORAGE REC		900		1	20	4
5	1	20		1080		MTA & CUST STOR REC			2340	GEN/UNI/TOLL ST REC		1260		1	20	6
7	1	20		1080		MECH RM REC	2160			BOILER RM REC		1080		1	20	8
9	1	20		540		EXTERIOR REC		1080		EXTERIOR REC		540		1	20	10
11	1	20		400		WATER DISPENSER			800	WATER DISPENSER		400		1	20	12
13	1	20		500		VENDING 1	1460			VENDING 2		960		1	20	14
15	1	20		960		REFRIGERATOR		1920		REFRIGERATOR		960		1	20	16
17	1	20		1670		COFFEE			2030	KITCHEN REC		360		1	20	18
19	1	20		1300		MICROWAVE	2600			MICROWAVE		1300		1	20	20
21	1	20		360		KITCHEN REC		1440		1ST FL HALL REC		1080		1	20	22
23	1	20		900		SUPERVISOR REC			1980	SUPERVISOR REC		1080		1	20	24
25	1	20		1080		SUPERVISOR REC	1680			SUPERVISOR REC		600		1	20	26
27	1	20		1080		COUNTING STATN REC		2160		COUNTING STATN REC		1080		1	20	28
29	1	20		1080		COUNTING STATN REC			2160	COUNTING STATN REC		1080		1	20	30
31	1	20		900		COUNTING STATN REC	1800			RESTROOM REC		900		1	20	32
33	1	20		1080		MTA TOLL RM REC		1800		BREAK RM REC		720		1	20	34
35	2				2500	EWH-1			2500	SPARE				1	20	36
37		30			2500		2500			SPARE				1	20	38
39	1	20				SPARE		0		SPARE				1	20	40
41	1	20				SPARE			0	SPARE				1	20	42
SUM			0	15810	5000	CONN. WATTS	14000	10020	11810	CONN. WATTS	0	15020	0		WATTS	
TOTAL						**WATTS:**	**35830**		**KW:**	**35.8**	**AMPS:**	**99.5**				

PANEL SCHEDULE

PANEL ID : HP1 (SECTION 1) — **VOLTAGE, PHASE, WIRES :** 480/277V, 3PH,4 W
LOCATION : ELECTRICAL ROOM 001B — **MAIN:** 100A MCB/100A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 42K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
1	1	20				BASEMENT LIGHTING	648			BASEMENT LIGHTING			298	1	20	2
3	1	20				1ST FLOOR LIGHTING		569		1ST FLOOR LIGHTING			257	1	20	4
5	1	20				EXTERIOR LIGHTING			1036	TUNNEL LIGHTING			816	1	20	6
7	1	30				HEAT TRACE	5020					4560				8
9	1	30				HEAT TRACE		5020		HWP-1		4560				10
11	3											1164				12
13						AHU-1						1164				14
15		15						1624		HWP-2		1164				16
17	3											554				18
19						AHU-2	1696					554				20
21		15						1696		HWP-3		554				22
23	3											554				24
25						MUA-1	1696					554				26
27		15						1696		HWP-4		554				28
29	3															30
31						SPARE	355									32
33		20						355		EF-5						34
35	1	20				SPARE			355							36
37	1	20				SPARE	0									38
39	1	20				SPARE		0		SPARE						40
41	1	20				SPARE			0							42
SUM			882	0	15936	CONN. WATTS	11039	10960	6867	CONN. WATTS	10677	0	1371		WATTS	
TOTAL						**WATTS:**	**28866**		**KW:**	**28.9**	**AMPS:**	**34.7**				

PANEL SCHEDULE

PANEL ID : ERP1 — **VOLTAGE, PHASE, WIRES :** 120/208V, 3PH,4 W
LOCATION : MTA TOLLING COMM ROOM 108 — **MAIN:** 60A MCB/100A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 22K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
1	1	20			400	FIRE ALARM CTRL PNL	400			SPARE				1	20	2
3	1	20			400	FM200 PANEL		400		SPARE				1	20	4
5	1	20							0	SPARE				1	20	6
7	1	20				SPARE	0			SPARE				1	20	8
9	1	20				SPARE		0		SPARE				1	20	10
11	1	20				SPARE			0	SPARE				1	20	12
13	1	20				SPARE	0			SPARE				1	20	14
15	1	20				SPARE		0		SPARE				1	20	16
17	1	20				SPARE			0	SPARE				1	20	18
19	1	20				SPARE	0			SPARE				1	20	20
21	1	20				SPARE		0		SPARE				1	20	22
23	1					SPACE			0	SPACE				1		24
25	1					SPACE	0			SPACE				1		26
27	1					SPACE		0		SPACE				1		28
29	1					SPACE			0	SPACE				1		30
31	1					SPACE	0			SPACE				1		32
33	1					SPACE		0		SPACE				1		34
35	1					SPACE			0	SPACE				1		36
37	1					SPACE	0			SPACE				1		38
39	1					SPACE		0		SPACE				1		40
41	1					SPACE			0	SPACE				1		42
SUM			0	0	800	CONN. WATTS	400	400	0	CONN. WATTS	0	0	0		WATTS	
TOTAL						**WATTS:**	**800**		**KW:**	**0.8**	**AMPS:**	**2.2**				

PANEL SCHEDULE

PANEL ID : RP2 (SECTION 1) — **VOLTAGE, PHASE, WIRES :** 120/208V, 3PH,4 W
LOCATION : ELECTRICAL ROOM 001B — **MAIN:** 150A MCB/200A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 22K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
1	2				915	FCU-1	3515			CU-2	2600			2		2
3		20			915			3515			2600				20	4
5	1	20			334	EF-1			2934	CU-3	2600			2		6
7	1	20			668	EF-2	3268				2600				30	8
9	1	20			668	EF-3		1916		CU-4	1248			2		10
11	1	20			506	EF-4			1754		1248				30	12
13	1	20			668	EF-8	1028			UH-1	360			1	20	14
15	1	20			668	SF-1		1028		UH-2	360			1	20	16
17	1	20			300	CUH-1			1740	SEPTIC EFFLU. PUMP	1440			1	20	18
19	1	20			500	B-1/BNR-1	1172			SUMP PUMP	672			1	20	20
21	1	20			500	B-2/BNR-2		1280		WATER BOOSTER PUMP	780			2		22
23	1	20			400	ACCESS CONTROL			1180		780				20	24
25	1	30				DATA RACK (SPARE)	915			FCU-2	915			2		26
27	1	30		2000		DATA RACK		2915			915				20	28
29	1	20			720	L-1			1635	FCU-3	915			2		30
31	1	20			720	L-2	1635				915				20	32
33	1	20			300	VAV-1, VAV-3, VAV-5		300		SPARE				1	20	34
35	1	20			200	VAV-2, VAV-4			200	SPARE				1	20	36
37	1	20			100	CAV-1	100			SPARE				1	20	38
39	1	20				SPARE		0		SPARE				1	20	40
41	1	20				SPARE			0	SPARE				1	20	42
SUM			0	2000	9082	CONN. WATTS	11633	10954	9443	CONN. WATTS	20948	0	0		WATTS	
TOTAL						**WATTS:**	**32030**		**KW:**	**32.0**	**AMPS:**	**89.0**				

PANEL SCHEDULE

PANEL ID : HP1 (SECTION 2) — **VOLTAGE, PHASE, WIRES :** 480/277V, 3PH,4 W
LOCATION : ELECTRICAL ROOM 001B — **MAIN:** 100A MLO
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 42K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
43	1	20				SPARE	0			SPARE				1	20	44
45	1	20				SPARE		2640		HEAT TRACE	2640			1	30	46
47	1	20				SPARE			2640	HEAT TRACE	2640			1	30	48
49	1	20	160			FLAGPOLE LIGHTING	160									50
51	1					SPACE		0		SPARE						52
53	1					SPACE			0							54
55	1					SPACE	0									56
57	1					SPACE		0		SPARE						58
59	1					SPACE			0							60
61	1					SPACE	0			SPACE				1		62
63	1					SPACE		0		SPACE				1		64
65	1					SPACE			0	SPACE				1		66
67	1					SPACE	0			SPACE				1		68
69	1					SPACE		0		SPACE				1		70
71	1					SPACE			0	SPACE				1		72
73	1					SPACE	0			SPACE				1		74
75	1					SPACE		0		SPACE				1		76
77	1					SPACE			0	SPACE				1		78
79	1					SPACE	0			SPACE				1		80
81	1					SPACE		0		SPACE				1		82
83	1					SPACE			0	SPACE				1		84
SUM			160	0	0	CONN. WATTS	160	2640	2640	CONN. WATTS	5280	0	0		WATTS	
TOTAL						**WATTS:**	**5440**		**KW:**	**5.4**	**AMPS:**	**6.5**				

PANEL SCHEDULE

PANEL ID : DP — **VOLTAGE, PHASE, WIRES :** 120/208V, 3PH,4 W
LOCATION : ELECTRICAL ROOM 001B — **MAIN:** 250A MCB/250A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 22K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
	3						0							3		2
3						TP1		0								4
5	100								0							6
7	3						0							3		8
9								0								10
11									0							12
13	3						0							3		14
15								0								16
17									0							18
19	2				4000	GENERATOR	4500			WEST CAMERA	500			1	20	20
21	60				4000	ACCESSORY PANEL		4180		WEST CAMERA REC		180		1	20	22
23	1	20				SPARE			500	EAST CAMERA	500			1	20	24
25	1	20				SPARE	180			EAST CAMERA REC		180		1	20	26
27	1	20				SPARE		0		SPARE				1	20	28
29	1	20				SPARE			0	SPARE				1	20	30
31						SPACE	0			SPACE						32
33						SPACE		0		SPACE						34
35						SPACE			0	SPACE						36
37						SPACE	0			SPACE						38
39						SPACE		0		SPACE						40
41						SPACE			0	SPACE						42
SUM			0	0	8000	CONN. WATTS	4680	4180	500	CONN. WATTS	1000	360	0		WATTS	
TOTAL						**WATTS:**	**9360**		**KW:**	**9.4**	**AMPS:**	**26.0**				

PANEL SCHEDULE

PANEL ID : RP2 (SECTION 2) — **VOLTAGE, PHASE, WIRES :** 120/208V, 3PH,4 W
LOCATION : ELECTRICAL ROOM 001B — **MAIN:** 150A MLO
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 22K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
43	1	20				SPARE	333			HWP-7	333			2		44
45	2				790	HWP-6		1123			333				20	46
47		20			790				1123	HWP-8	333			2		48
49	2				915	BP-1	1248				333				30	50
51		20			915			915		SPARE				2		52
53	2				915	BP-2			915						30	54
55		20			915		915			SPARE				1	20	56
57	1	20			1590	HWP-5		1590		SPARE				1	20	58
59	1	20				SPARE			0	SPARE				1	20	60
61	1	20				SPARE	0			SPARE				1	20	62
63	1	20				SPARE		0		SPARE				1	20	64
65	1	20				SPARE			0	SPARE				1	20	66
67	1	30				SPARE	0			SPARE				1	20	68
69	1	30				SPARE		0		SPARE				1	20	70
71	1	20				SPARE			0	SPARE				1	20	72
73	1	20				SPARE	0			SPARE				1	20	74
75	1	20				SPACE		0		SPACE						76
77	1	20				SPACE			0	SPACE						78
79	1	20				SPACE	0			SPACE						80
81	1	20				SPACE		0		SPACE						82
83	1	20				SPACE			0	SPACE						84
SUM			0	0	6830	CONN. WATTS	2496	3628	2038	CONN. WATTS	1332	0	0		WATTS	
TOTAL						**WATTS:**	**8162**		**KW:**	**8.2**	**AMPS:**	**22.7**				

PANEL SCHEDULE

PANEL ID : TP1 — **VOLTAGE, PHASE, WIRES :** 120/208V, 3PH,4 W
LOCATION : TUNNEL — **MAIN:** 100A MCB/100A BUS
MOUNTING : SURFACE — **BUS BRACING & AIC RATINGS:** 22K

CKT BKR			WATTS			LOAD	PHASE			LOAD	WATTS			CKT BKR		
CK	P	AMP	LTG	REC	MISC	DESCRIPTION	A	B	C	DESCRIPTION	MISC	REC	LTG	P	AMP	CK
1	1	20		540		TUNNEL REC	1260			TUNNEL REC		720		1	20	2
3	1	20		720		TUNNEL REC		1440		UH-3, UH-4	720			1	20	4
5	1	20			720	UH-5, UH-6	720			UH-7, UH-8	720			1	20	6
7	1	20			720	UH-9, UH-10	1440			UH-11, UH-12	720			1	20	8
9	1	20			100	HOT WTR HEAT TRACE		200		HOT WTR HEAT TRACE	100			1	20	10
11	1	20			100	HOT WTR HEAT TRACE			200	HOT WTR HEAT TRACE	100			1	20	12
13	1	20			100	HOT WTR HEAT TRACE	1780			CANOPY HEAT TRACE	1680			1	20	14
15	1	20			1320	CANOPY HEAT TRACE		1988		EF-6	668			1	20	16
17	1	20				SPARE			668	EF-7	668			1	20	18
19	1	20				SPARE	0			SPARE				1	20	20
21	1	20				SPARE		0		SPARE				1	20	22
23	1	20				SPARE			0	SPARE				1	20	24
25	1	20				SPARE	0			SPARE				1	20	26
27	1	20				SPARE		0		SPARE				1	20	28
29	1	20				SPARE			0	SPARE				1	20	30
31	1	20				SPARE	0			SPARE				1	20	32
33	1	20				SPARE		0		SPARE				1	20	34
35						SPACE			0	SPACE						36
37						SPACE	0			SPACE						38
39						SPACE		0		SPACE						40
41						SPACE			0	SPACE						42
SUM			0	1260	3060	CONN. WATTS	4480	3628	2308	CONN. WATTS	5376	720	0		WATTS	
TOTAL						**WATTS:**	**10416**		**KW:**	**10.4**	**AMPS:**	**28.9**				

Date:7/27/2018

Filename: ...\368_E-502 Electrical Panelboard Schedules.DGN

Scale:
Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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Drawn	R.B.	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ELECTRICAL PANELBOARD SCHEDULES

SHEET NUMBER: E-502

CONTRACT:2018.20

Date:7/23/2018

LIGHTING FIXTURE SCHEDULE

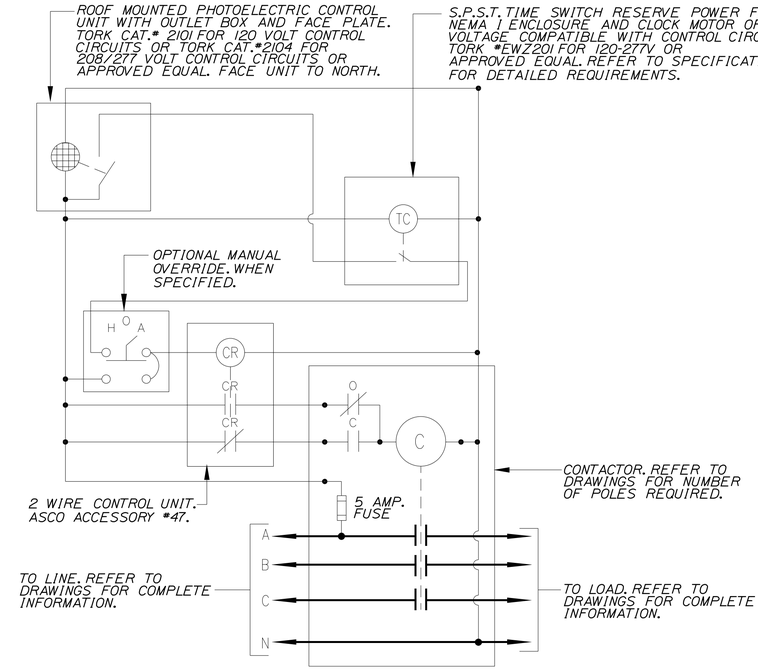
TYPE	TYPE	PART #	MANUFACTURER	VOLTAGE	INPUT WATTAGE	MOUNTING
A	2'X4'	ZR24-40LHE-35K-10V	CREE (OR EQUAL)	277V	26W	SEE ARCH. RCP
B	STRIP LIGHT	LS4-40L-35K-10V	CREE (OR EQUAL)	277V	41W	MH 9' TO UNDERSIDE OF FIXTURE
C	EXTERIOR SOFFIT DOWNLIGHT	LR6-18L-35K-277V	CREE (OR EQUAL)	277V	20W	RECESSED IN EXTERIOR SOFFIT
EX1	EXIT SIGN	E.XPL2RBW	E-CONOLIGHT (OR EQUAL)	277V	0.8W	CEILING MOUNTED
EX2	EXIT SIGN	E.XPL2RBW	E-CONOLIGHT (OR EQUAL)	277V	0.8W	WALL MOUNTED
F	1'X4' WATERTIGHT	WS4-50L-35K-10V-FD-SSL	CREE (OR EQUAL)	277V	51W	CEILING MOUNTED
G	EXTERIOR FLAGPOLE FLOODLIGHT	AL-U-36L-80-4K7-2X2-UNV-FV-WM-GNT	BEACON (OR EQUAL)	277V	80W	MOUNT VIA J-ARM TENON TO UNDERSIDE OF SOFFIT. SEE DETAIL 4/E-601 FOR MOUNTING DETAILS.

OCCUPANCY SENSOR SCHEDULE

MOTION SENSOR TYPE	CATALOG NUMBER	MANUFACTURER	VOLTAGE	MOUNTING	REMARKS
(M)	LOS-CDT-XXXX-WH	LUTRON OR EQUAL	277VAC	MOUNT ON CEILING	SEE NOTES 2 & 3
(U)	LOS-CDT-XXXX-WH	LUTRON OR EQUAL	277VAC	MOUNT ON CEILING LOWER THAN OBSTRUCTIONS	SEE NOTES 2 & 3
$	NTGRX-IS-WH	LUTRON OR EQUAL	277VAC	MOUNT ON WALL 42" A.F.F.	SEE NOTE 2

NOTES:

1. ALL SENSORS ARE DUAL TECHNOLOGY (PASSIVE INFRARED AND ULTRASONIC).
2. WIRE TO LUTRON POWER PACK MODEL* PP-DV-M (OR EQUAL) MOUNTED TO JUNCTION BOX. WITH MANUAL INPUT VIA 24V DC CLASS 2 LOW VOLTAGE WIRING.
3. COVERAGE RANGE AND ANGLE SHALL MEET THE REQUIREMENTS OF THE SENSOR SPACING ON THE PLANS. MODEL NUMBER SHALL REFLECT COVERAGE RANGE AND ANGLE.



1 - PHOTOCELL AND TIME SWITCH CONTROL DETAIL

SCALE: N.T.S.

Filename: ...\369_E-503 Electrical Lighting Fixture Schedule & Details.DGN

Scale: AS NOTED

No.	Revision	By	Date

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

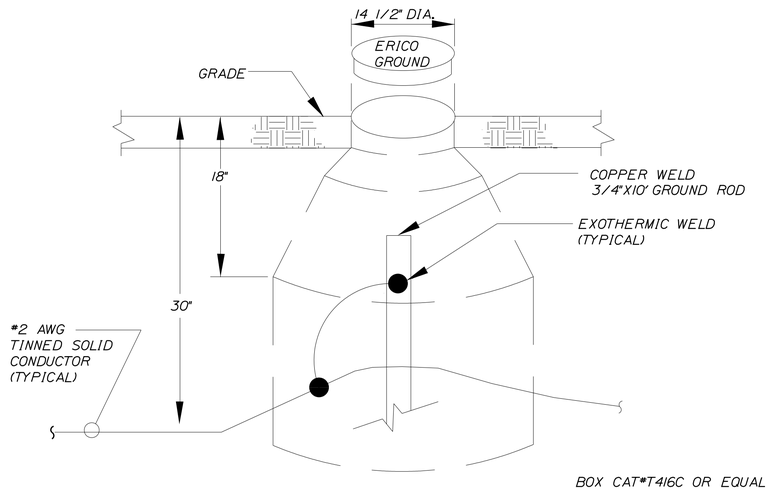
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ELECTRICAL LIGHTING FIXTURE SCHEDULE & DETAILS

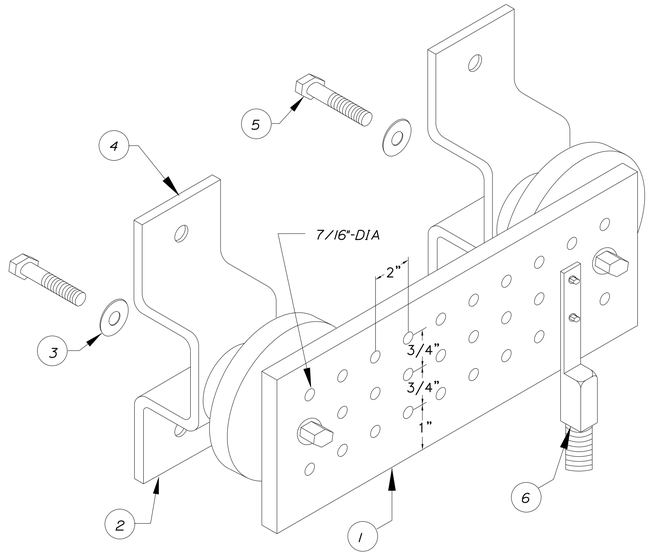
SHEET NUMBER: E-503

CONTRACT:2018.20



1 - GROUND INSPECTION TEST WELL

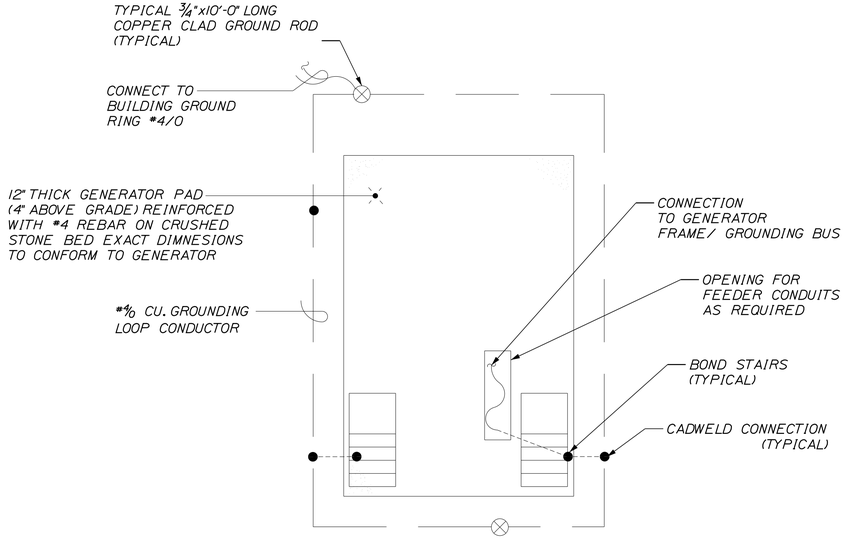
SCALE: N.T.S.



2 - GROUND BUS DETAIL

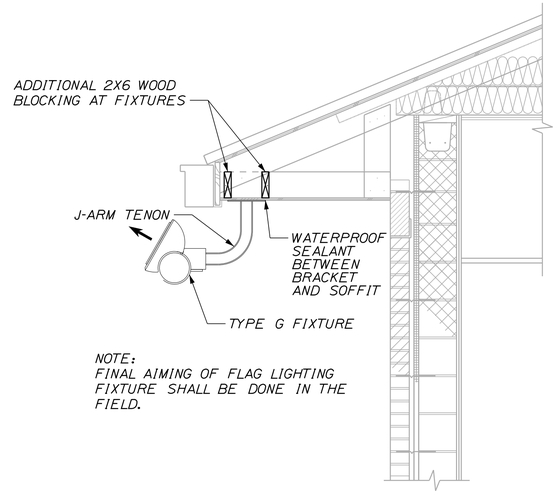
SCALE: N.T.S.

1. COPPER GROUND BAR, 1/4"x5"x24" NEWTON INSTRUMENT CO. OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
2. INSULATORS. NEWTON INSTRUMENT CO CAT#3061-4 OR EQUAL.
3. 5/8"LOCKWASHERS. NEWTON INSTRUMENT CO. CAT. #3015-8 OR EQUAL.
4. WALL MOUNTING BRACKET. NEWTON INSTRUMENT CO. CAT. #A-6056 OR EQUAL.
5. 5/8-11 X 1" H.H.C.S. BOLTS. NEWTON INSTRUMENT CO. CAT. #3012-1 OR EQUAL.
6. LONG BARREL DOUBLE HOLE COMPRESSION LUG.



3 - GENERATOR PAD AND GROUNDING DETAIL

SCALE: N.T.S.



4 - FLAGPOLE FLOODLIGHT MOUNTING DETAIL

SCALE: N.T.S.

Date:7/23/2018

Filename: ...\370_E-601 Electrical Details.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

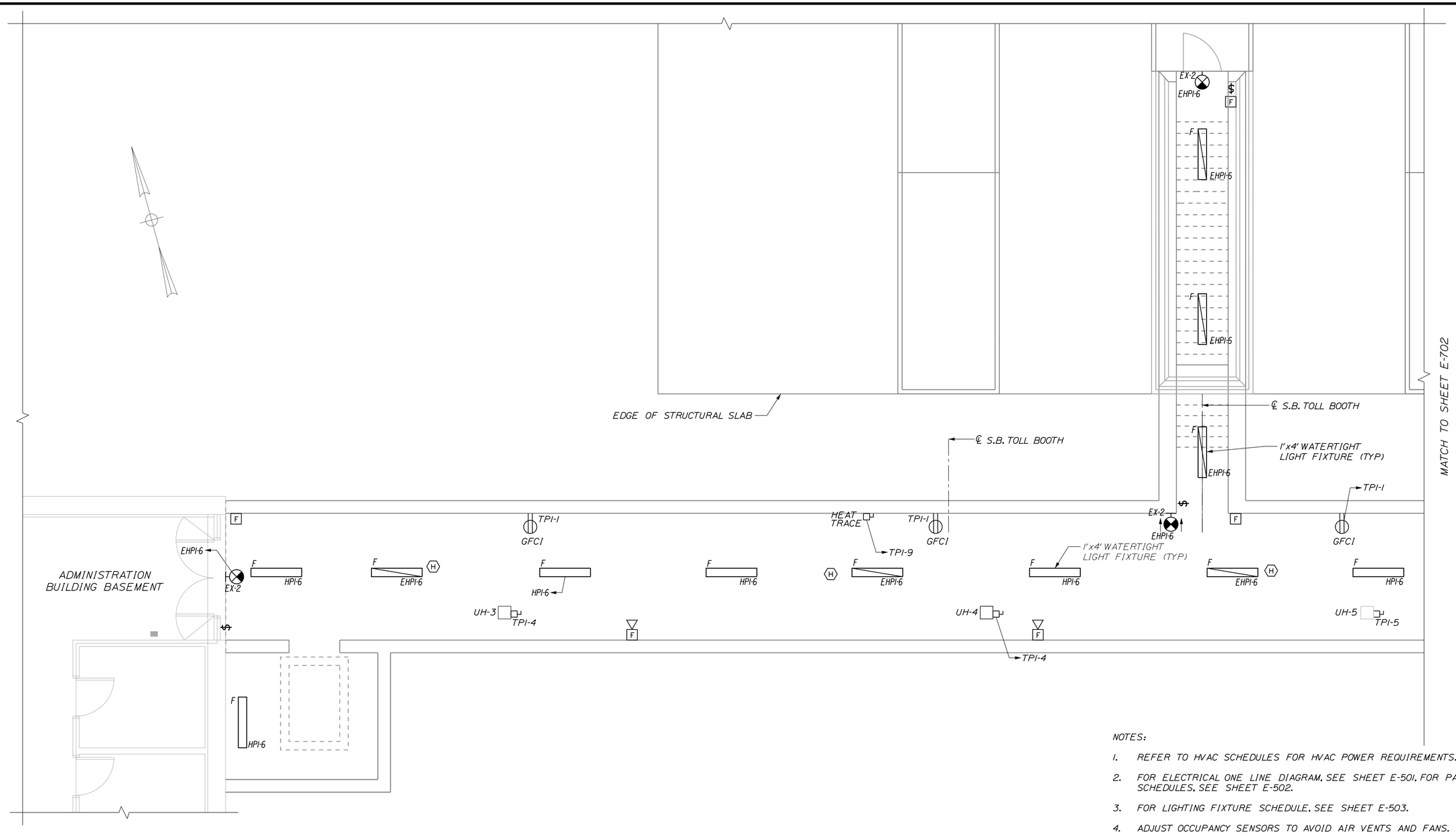
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ELECTRICAL DETAILS

SHEET NUMBER: E-601

CONTRACT:2018.20



NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
3. FOR LIGHTING FIXTURE SCHEDULE, SEE SHEET E-503.
4. ADJUST OCCUPANCY SENSORS TO AVOID AIR VENTS AND FANS.
5. OCCUPANCY SENSORS IN STAIRWELLS AND CORRIDORS SHALL RAISE LIGHTING BRIGHTNESS FROM 50% TO 100% UPON ACTIVATON.
6. ALL SWITCHES FOR A GIVEN ROOM ARE LOCATED WITHIN THAT ROOM.
7. FOR FIRE ALARM RISER DIAGRAM, SEE SHEET E-301.
8. LOCATIONS OF ALL EQUIPMENT SHOWN AND CONDUIT FEEDS TO BE APPROVED AFTER PRE-UTILITY MEETING.

Date:7/23/2018

Filename: ...\371_E_701 Electrical Tunnel Plan 1.dgn

Scale:

4 0 4 8

Scale of Feet

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

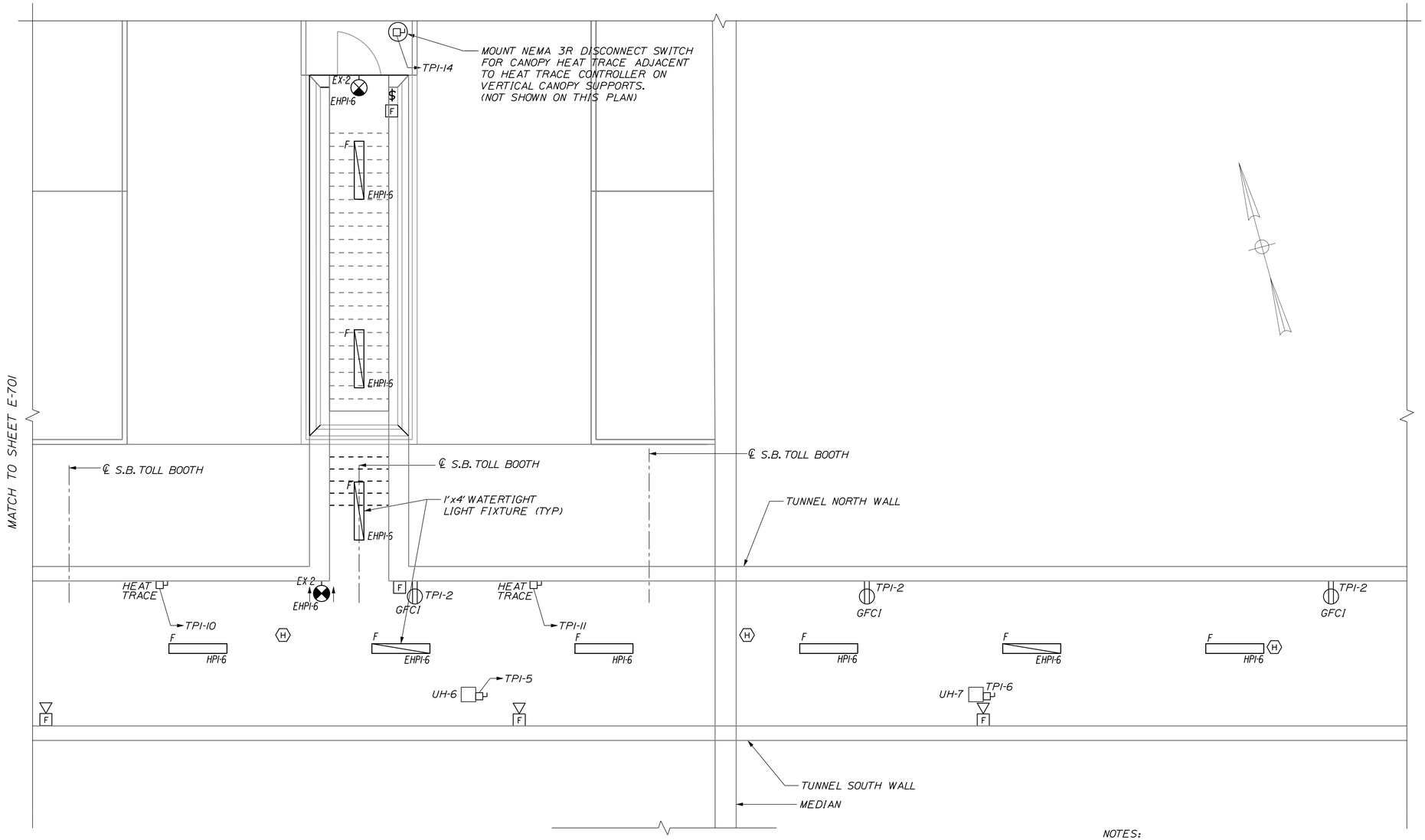
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL ELECTRICAL PLAN 1

SHEET NUMBER: E-701

CONTRACT:2018.20



NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501, FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
3. FOR LIGHTING FIXTURE SCHEDULE, SEE SHEET E-503.
4. ADJUST OCCUPANCY SENSORS TO AVOID AIR VENTS AND FANS.
5. OCCUPANCY SENSORS IN STAIRWELLS AND CORRIDORS SHALL RAISE LIGHTING BRIGHTNESS FROM 50% TO 100% UPON ACTIVATON.
6. ALL SWITCHES FOR A GIVEN ROOM ARE LOCATED WITHIN THAT ROOM.
7. FOR FIRE ALARM RISER DIAGRAM, SEE SHEET E-301.
8. LOCATIONS OF ALL EQUIPMENT SHOWN AND CONDUIT FEEDS TO BE APPROVED AFTER PRE-UTILITY MEETING.

Scale: 4 0 4 8 Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.B.	7/18	Checked	D.B.	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

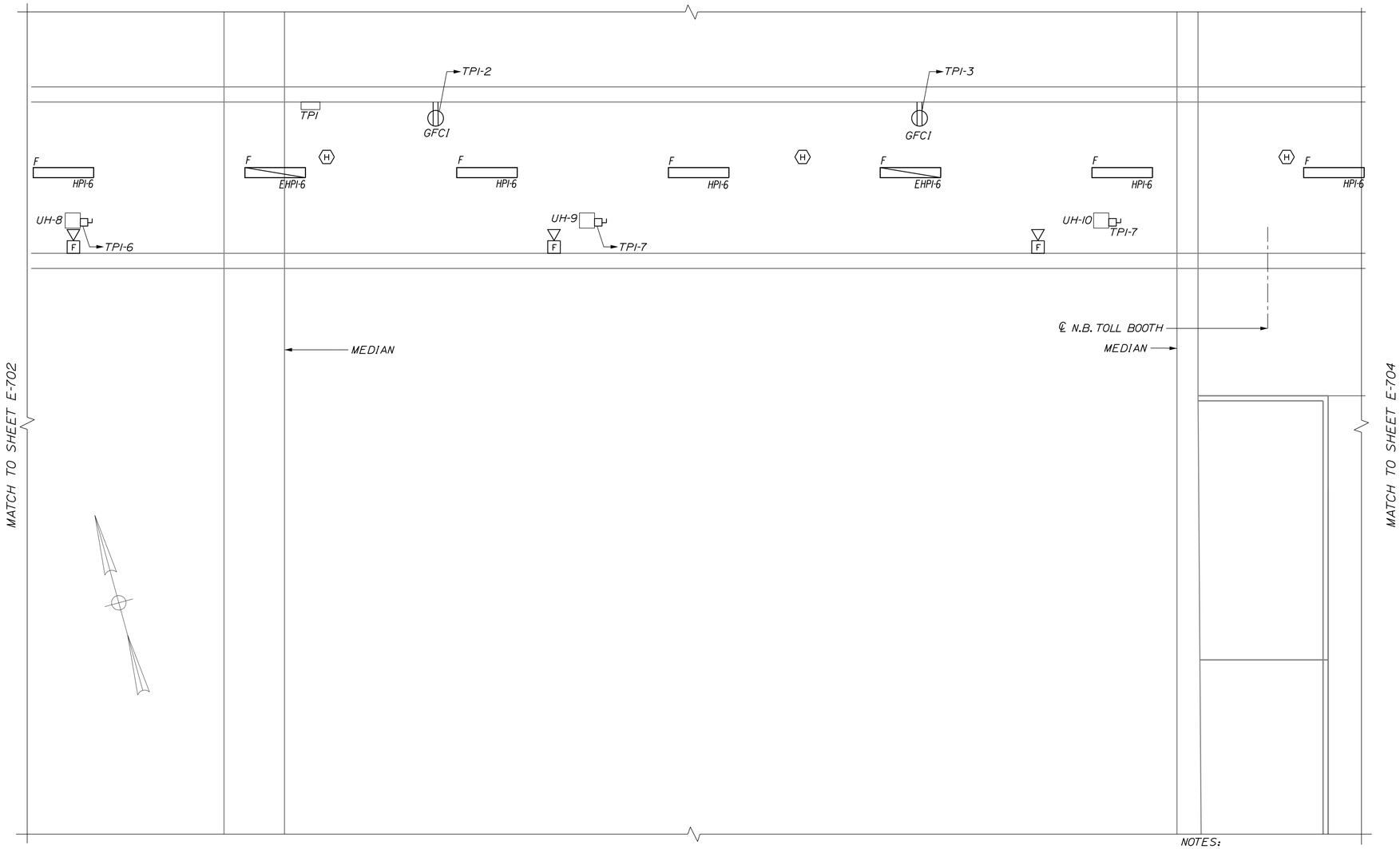
TUNNEL ELECTRICAL PLAN 2

SHEET NUMBER: E-702

CONTRACT:2018.20

Date:7/23/2018

Filename: ...\372_E-702 Electrical TunnelPlan 2.dgn



NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501, FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
3. FOR LIGHTING FIXTURE SCHEDULE, SEE SHEET E-503.
4. ADJUST OCCUPANCY SENSORS TO AVOID AIR VENTS AND FANS.
5. OCCUPANCY SENSORS IN STAIRWELLS AND CORRIDORS SHALL RAISE LIGHTING BRIGHTNESS FROM 50% TO 100% UPON ACTIVATON.
6. ALL SWITCHES FOR A GIVEN ROOM ARE LOCATED WITHIN THAT ROOM.
7. FOR FIRE ALARM RISER DIAGRAM, SEE SHEET E-301.
8. LOCATIONS OF ALL EQUIPMENT SHOWN AND CONDUIT FEEDS TO BE APPROVED AFTER PRE-UTILITY MEETING.

Scale: 4 0 4 8 Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.B.	7/18	Checked	D.B.	7/18
Drawn	R.B.	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL ELECTRICAL PLAN 3

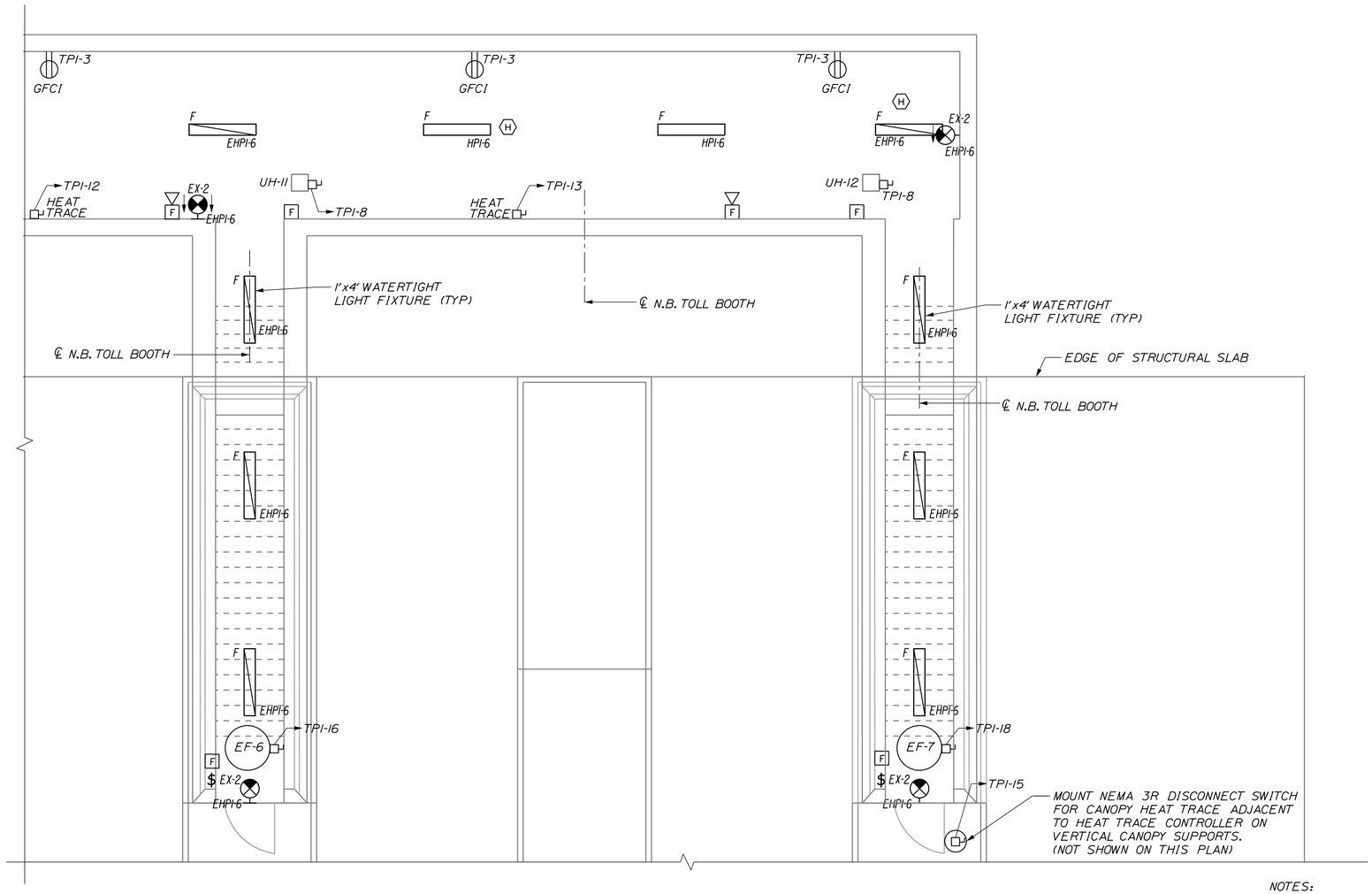
SHEET NUMBER: E-703

CONTRACT:2018.20

373 OF 489

Date:7/23/2018

Filename: ...\373_E-703 Electrical Tunnel Plan 3.dgn



NOTES:

1. REFER TO HVAC SCHEDULES FOR HVAC POWER REQUIREMENTS.
2. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE SHEET E-502.
3. FOR LIGHTING FIXTURE SCHEDULE, SEE SHEET E-503.
4. ADJUST OCCUPANCY SENSORS TO AVOID AIR VENTS AND FANS.
5. OCCUPANCY SENSORS IN STAIRWELLS AND CORRIDORS SHALL RAISE LIGHTING BRIGHTNESS FROM 50% TO 100% UPON ACTIVATON.
6. ALL SWITCHES FOR A GIVEN ROOM ARE LOCATED WITHIN THAT ROOM.
7. FOR FIRE ALARM RISER DIAGRAM, SEE SHEET E-301.
8. LOCATIONS OF ALL EQUIPMENT SHOWN AND CONDUIT FEEDS TO BE APPROVED AFTER PRE-UTILITY MEETING.

Scale:
4 0 4 8
Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL ELECTRICAL PLAN 4

SHEET NUMBER: E-704

CONTRACT:2018.20

374 OF 489

Date:7/23/2018

Filename: ...\374_E-704 Electrical Tunnel Plan 4.dgn

Date:7/23/2018

PLUMBING NOTES

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AS APPROVED AND AMENDED BY THE GOVERNING CITY, INCLUDING APPLICABLE SECTIONS OF ANY INTERIM AMENDMENTS AT THE TIME OF THE PROPOSAL PURCHASE ALL PERMITS ASSOCIATED WITH THE WORK. OBTAIN ALL INSPECTIONS REQUIRED BY CODE.

2. CONTRACTOR SHALL PAY ALL FEES AND OBTAIN ALL PERMITS.

3. REFER TO PLUMBING SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

4. CONTRACTORS SHALL CAREFULLY REVIEW THE CONSTRUCTION DOCUMENTS PRIOR TO START OF WORK. INFORMATION REGARDING THE COMPLETE WORK IS DISPERSED THROUGHOUT THE DOCUMENT SET AND CANNOT BE ACCURATELY DETERMINED WITHOUT REFERENCE TO THE COMPLETE DOCUMENT SET.

5. REFER TO ARCHITECTURAL CODE ANALYSIS FOR THE OCCUPANCY AND PLUMBING FIXTURE COUNT CALCULATION.

6. DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE PIPING, CONNECTIONS, FITTINGS, VALVES, OFFSETS, ETC. AND ALL MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

7. SUBMIT SHOP DRAWINGS PER THE SPECIFICATIONS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO START OF WORK OR PURCHASE OF MATERIALS. SEE PLUMBING SPECIFICATIONS FOR SHOP DRAWING REQUIREMENTS.

8. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES.

9. CONTRACTOR SHALL VERIFY ALL INVERTS, LOCATE FLOOR PENETRATIONS AND UTILITIES, AND COORDINATE CONDITIONS PRIOR TO THE INSTALLATION OF THE WORK. CONTRACTOR SHALL NOTIFY ENGINEER IF INSTALLATION OF WORK CAN NOT BE MET.

10. CONTRACTOR SHALL PROVIDE FINAL CONNECTION TO ALL EQUIPMENT REQUIRING PLUMBING CONNECTIONS.

11. AT THE END OF EACH DAY, BROOM SWEEP ALL WORK AREAS AND REMOVE ALL EQUIPMENT AND DISCARD DEBRIS.

12. COORDINATE UTILITY WORK WITH LOCAL WATER AUTHORITIES AND INSTALL PER THEIR REQUIREMENTS.

13. COORDINATE LOCATION OF FLOOR DRAINS IN MECHANICAL ROOMS WITH FINAL EQUIPMENT LAYOUT.

14. PLUMBING DRAWINGS DO NOT INDICATE LOCATION AND SIZES OF STRUCTURAL FOOTINGS. SOME DEVIATIONS TO THE PIPING LAYOUT MAY BE REQUIRED. CONTRACTOR SHALL REFER TO STRUCTURAL FOUNDATION PLANS AND ADJUST LAYOUT AS REQUIRED.

15. CONTRACTOR SHALL NOT RUN PIPING ABOVE ELECTRICAL PANELS OR EQUIPMENT. REFER TO ELECTRICAL DRAWINGS. COORDINATE WITH ELECTRICAL CONTRACTOR AND COMPLY WITH REQUIREMENTS OF NFPA 70.

PIPING NOTES:

1. VERIFY SERVICE CONNECTION POINTS, SIZES, ELEVATIONS AND METERING LOCATIONS FOR PROJECT WITH LOCAL UTILITIES CO. AND/OR CIVIL ENGINEER. SERVICES TO INCLUDE BUT NOT LIMITED TO (DOMESTIC WATER, SANITARY SEWER, STORM SEWER, PROPANE, ETC.)

2. PLUMBING CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION.

3. COORDINATE WITH THE WORK OF OTHER SECTIONS, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINTS OF THE EXISTING CONDITIONS OF THE PROJECT SITE. PROVIDE PIPE RISES, DROPS, AND OFFSETS, AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.

4. SUSPEND ALL HORIZONTAL SERVICE PIPING SHOWN ON THIS PROJECT SUCH AS, BUT NOT LIMITED TO, WATER, SANITARY, WASTE/VENT, STORM WATER, PROPANE, ETC. FROM STRUCTURAL MEMBERS, UNLESS OTHERWISE NOTED OR INDICATED. HOLD SUCH PIPING AS HIGH AS POSSIBLE. EXTEND PIPING DOWN IN WALLS, PARTITIONS, CHASES, ETC. TO SERVE FIXTURES AND EQUIPMENT AS SHOWN ON PLANS.

5. PROVIDE BACKFLOW PREVENTION DEVICES, (BPD) IN WATER LINES FEEDING PLUMBING FIXTURES AND/OR EQUIPMENT, AS SHOWN ON PLANS AND ELSEWHERE AS REQUIRED BY LOCAL AUTHORITIES. USE DEVICES OF APPROVED TYPE AND MANUFACTURER (ATMOSPHERIC VACUUM, PRESSURE VACUUM, DOUBLE CHECK, AND REDUCED PRESSURE).

6. PROVIDE ITEMS AND WORK AS REQUIRED TO COMPLETE THE INSTALLATION OF PLUMBING SYSTEMS TO FIXTURES AND EQUIPMENT: TRAPS, STRAINERS, GAUGES, GAS AND WATER PRESSURE REGULATORS, FLEXIBLE CONNECTIONS, STOP VALVES, UNIONS, ETC. PROVIDE AND CONNECT PLUMBING PIPE FROM ROUGH-INS TO ITEMS AS SHOWN, SPECIFIED AND REQUIRED.

7. PURGE AND DISINFECT ALL WATER LINES BEFORE FINAL CONNECTIONS.

8. ALL PIPING TO BE CONCEALED UNLESS OTHERWISE NOTED.

9. PROVIDE & INSTALL SERVICE CHECK, SHUT-OFF VALVES, COCKS STOPS, AIR CUSHIONS, VACUUM BREAKERS & SAFETY SERVICES AS REQUIRED BY CODE, SPECIFICATIONS AND DRAWINGS FOR ALL EQUIPMENT & FIXTURES.

10. PROVIDE VALVE STOPS AT ALL PLUMBING FIXTURE CONNECTIONS.

11. WATER HAMMER ARRESTER SHALL BE INSTALLED THROUGHOUT PLUMBING WATER SYSTEMS AS REQUIRED.

12. ALL PIPE PENETRATIONS THROUGH SLAB SHALL BE SLEEVED AND FIRE STOPPED. CONTRACTOR SHALL PROVIDE 3M FIRE STOPPING MATERIAL AT ALL CORE DRILLED LOCATIONS.

13. PERFORM ALL CUTTING & PATCHING REQUIRED FOR INSTALLATION OF THE WORK, INCLUDING CUTTING & PATCHING OF DRAINS, PROPANE UNIT PIPING, & WALLS & CEILINGS AS REQUIRED. PROVIDE GAS COCKS ON ALL EQUIPMENT & BRANCH LINES.

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	CW	DOMESTIC COLD WATER PIPING
	HW	DOMESTIC HOT WATER PIPING (140°)
W	W	SITE DOMESTIC WATER
P	P	PROPANE GAS PIPING
P	P	PROPANE GAS PIPING BELOW GRADE
WP	WP	WASTE PIPING ABOVE SLAB
WP	WP	WASTE PIPING BELOW SLAB
	V	WASTE VENT PIPING ABOVE SLAB
	V	WASTE VENT PIPING BELOW SLAB
ST	ST	STORM PIPING BELOW GRADE
		FLOW ARROW
		UNION JOINT
		TEE UP, BRANCH OUT OF TOP
		TEE DOWN, BRANCH OUT OF BOTTOM
		ELBOW UP
		ELBOW DOWN
		BALL VALVE
		BACK WATER VALVE
		MIXING VALVE
		TEMPERATURE / PRESSURE RELIEF VALVE
	GPR	GAS PRESSURE REGULATOR
M		METER
	RPZ BFP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
	WCO	WALL CLEANOUT
	FD	FLOOR DRAIN WITH TRAP PRIMER
	FCO	FLOOR CLEANOUT
		PUMP
	VTR	VENT THROUGH ROOF
		FLOOR PENETRATION ISO
	CO	CLEANOUT
	AFF / AFG	ABOVE FINISHED FLOOR / GRADE
	BPD	BACKFLOW PREVENTER DEVICE
	TP	TRAP PRIMER
	WHA	WATER HAMMER ARRESTOR
	TYP	TYPICAL
	UF	UNDER FLOOR
	LPC	LIMIT OF PLUMBING CONTRACT
	W/T	WASTE AND TRAP

PLUMBING DRAWING INDEX

Filename: ...\375_(P-001)_Notes_PLUMB-AB.DGN

Scale:

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	D.S.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

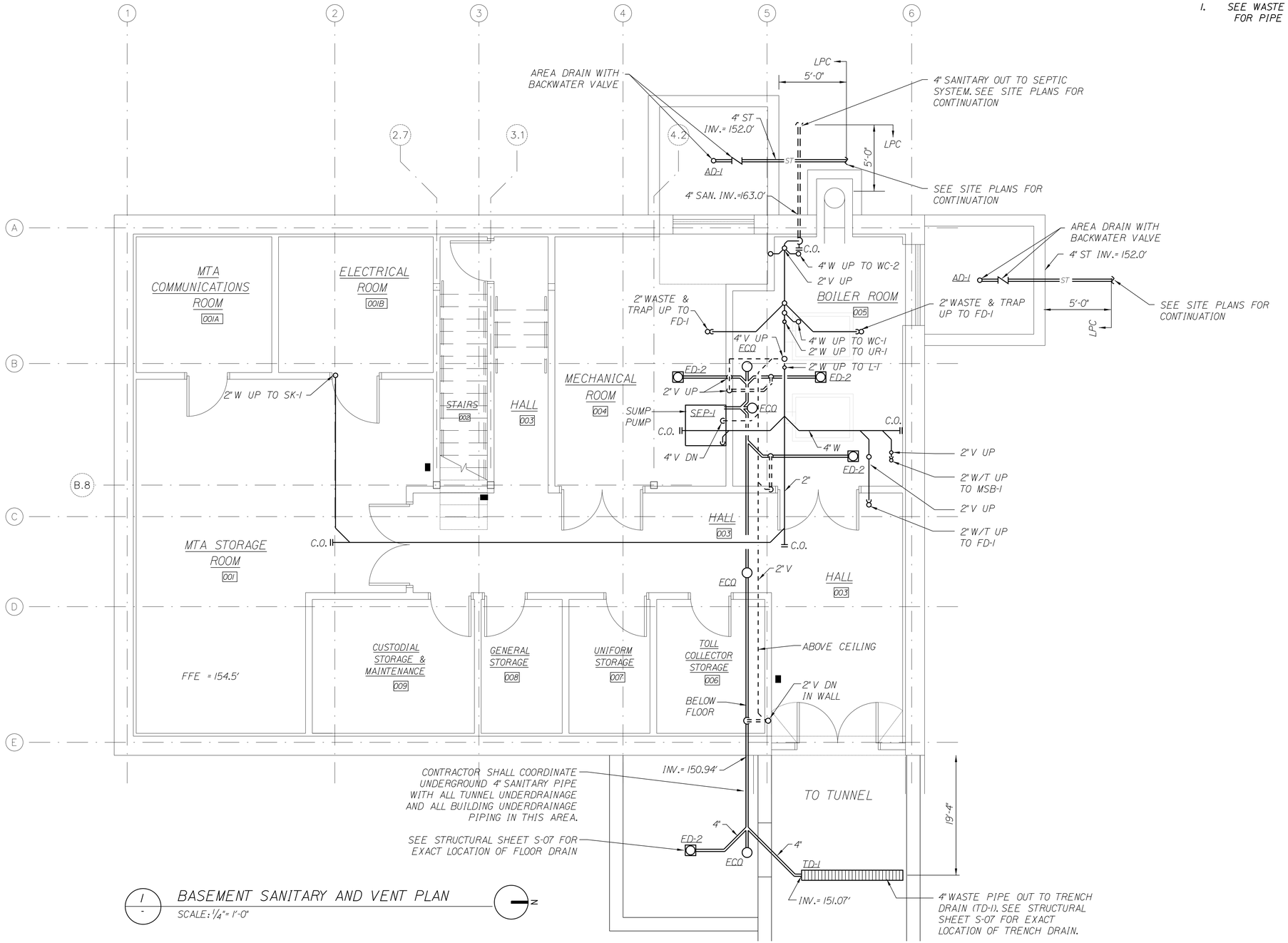
GENERAL PLUMBING NOTES, LEGEND, AND ABBREVIATIONS

SHEET NUMBER: P-001

CONTRACT:2018.20

NOTES:

1. SEE WASTE PIPING AND VENT PIPING RISER DIAGRAM ON DRAWING P-602 FOR PIPE SIZES NOT INDICATED ON FLOOR PLAN.



1 BASEMENT SANITARY AND VENT PLAN
SCALE: 1/4" = 1'-0"

Date: 7/23/2018

Filename: ...\376_(P-101)_Layout_01_PLUMB-AB.DGN

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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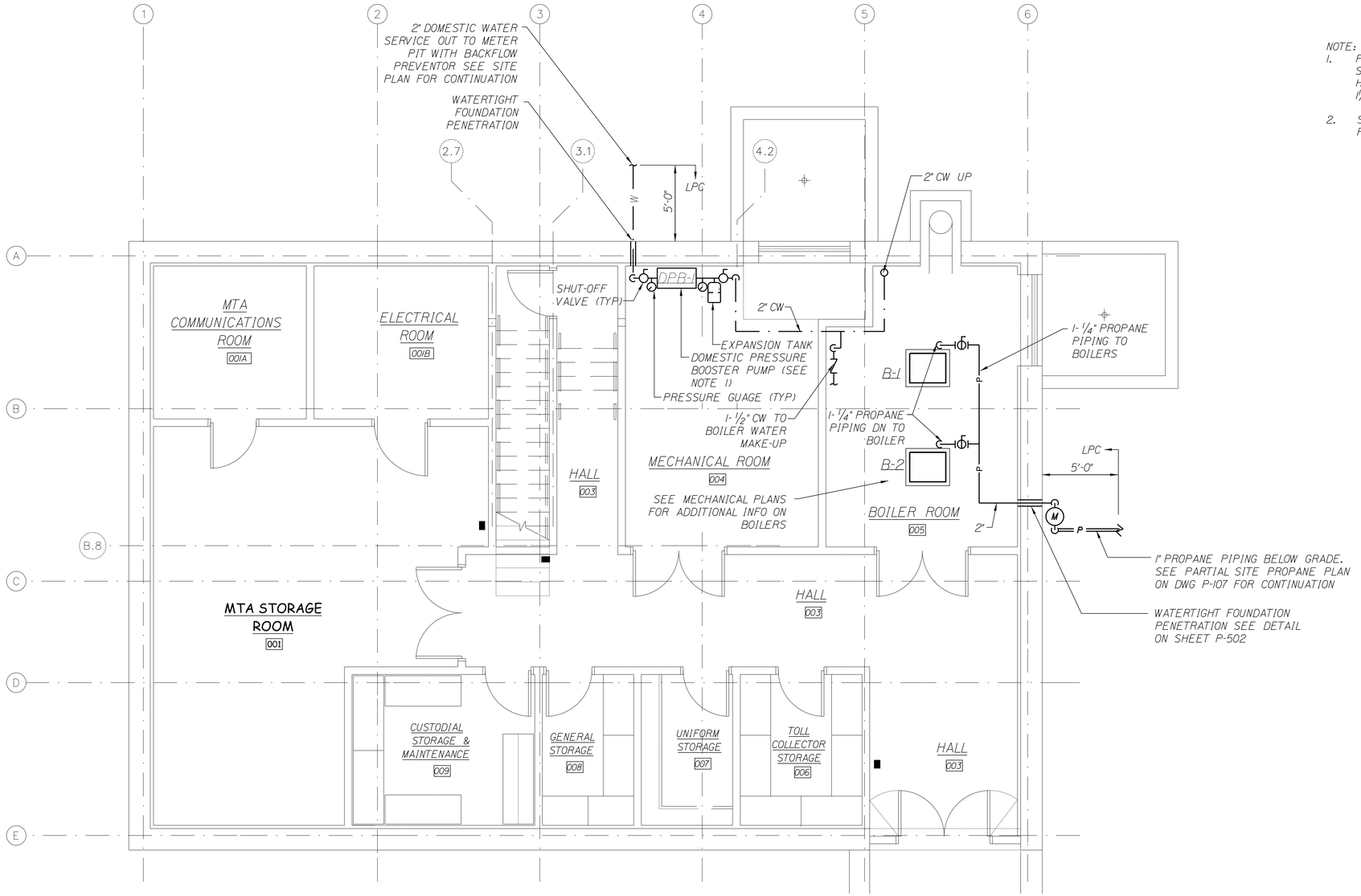
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
BASEMENT SANITARY AND VENT PLAN

SHEET NUMBER: P-101

CONTRACT: 2018.20



1 - BASEMENT DOMESTIC WATER AND PROPANE PLAN

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

NOTE:

1. PROVIDE A SINGLE PUMP VARIABLE SPEED PACKAGED PUMPING SYSTEM SIMILAR TO GRUNDFOS MODEL CRE-10 - CAPABLE OF HANDLING 66 GPM AND A PRESSURE BOOST OF 50 PSI. WITH 1½" HP PUMP 208 1Φ 7.5 AMPS
2. SEE HOT AND COLD WATER RISER DIAGRAM ON DRAWING P-602 FOR PIPE SIZES NOT INDICATED ON FLOOR PLAN.

Date:7/23/2018

Filename: ...\377_(P-102)_Layout_02_PLUMB-AB.DGN

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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Designed	D.S.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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THE GOLD STAR MEMORIAL HIGHWAY

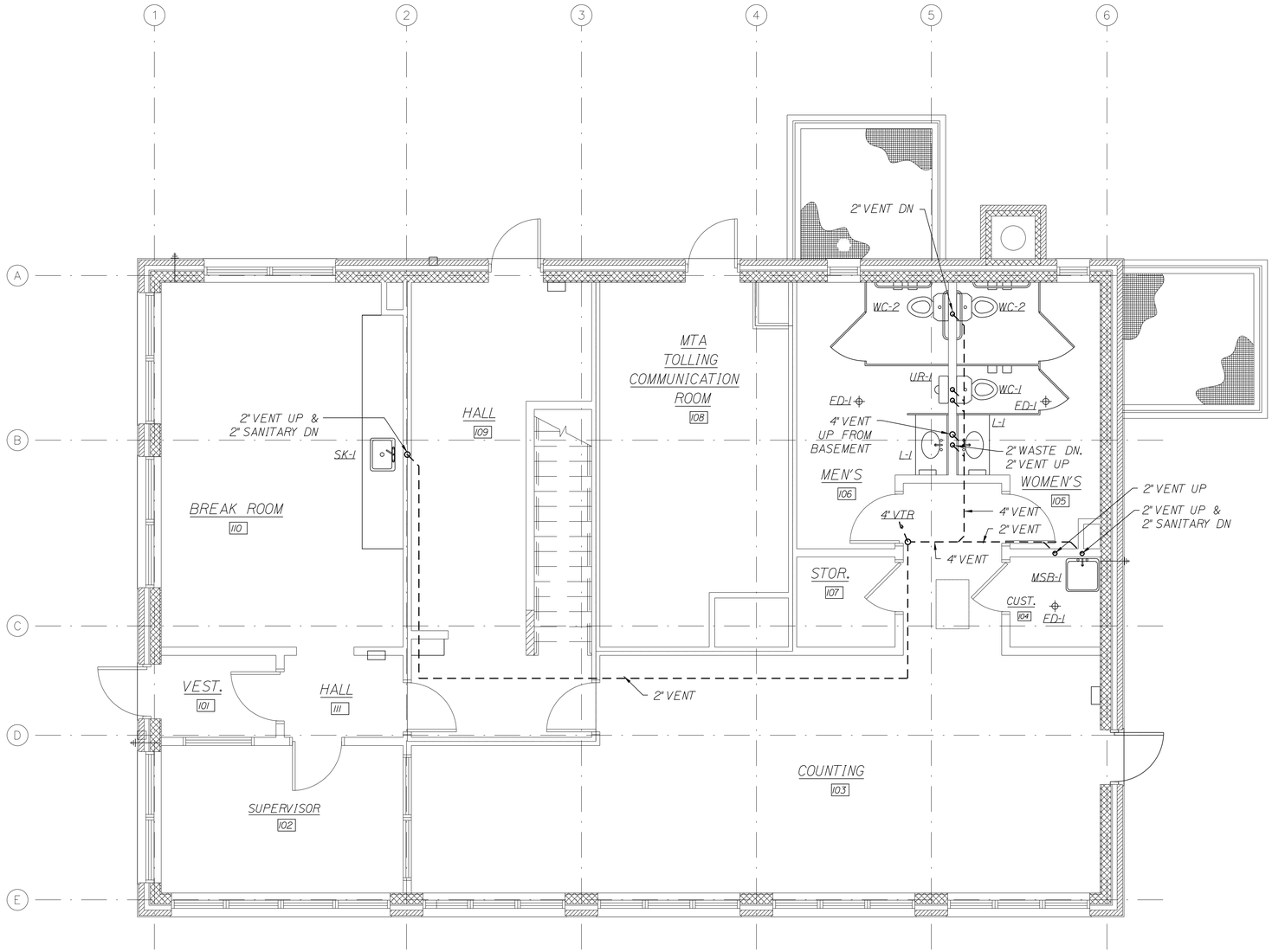
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING - BASEMENT DOMESTIC WATER AND PROPANE PLAN

SHEET NUMBER: P-102

CONTRACT:2018.20



1 / - FIRST FLOOR SANITARY AND VENT PLAN

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

NOTES:

1. SEE WASTE PIPING AND VENT PIPING RISER DIAGRAM ON DRAWING P-602 FOR PIPE SIZES NOT INDICATED ON FLOOR PLAN.

Date:7/23/2018

Filename: ...\378_(P-103)_Layout_03_PLUMB-AB.DGN

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by:

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	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

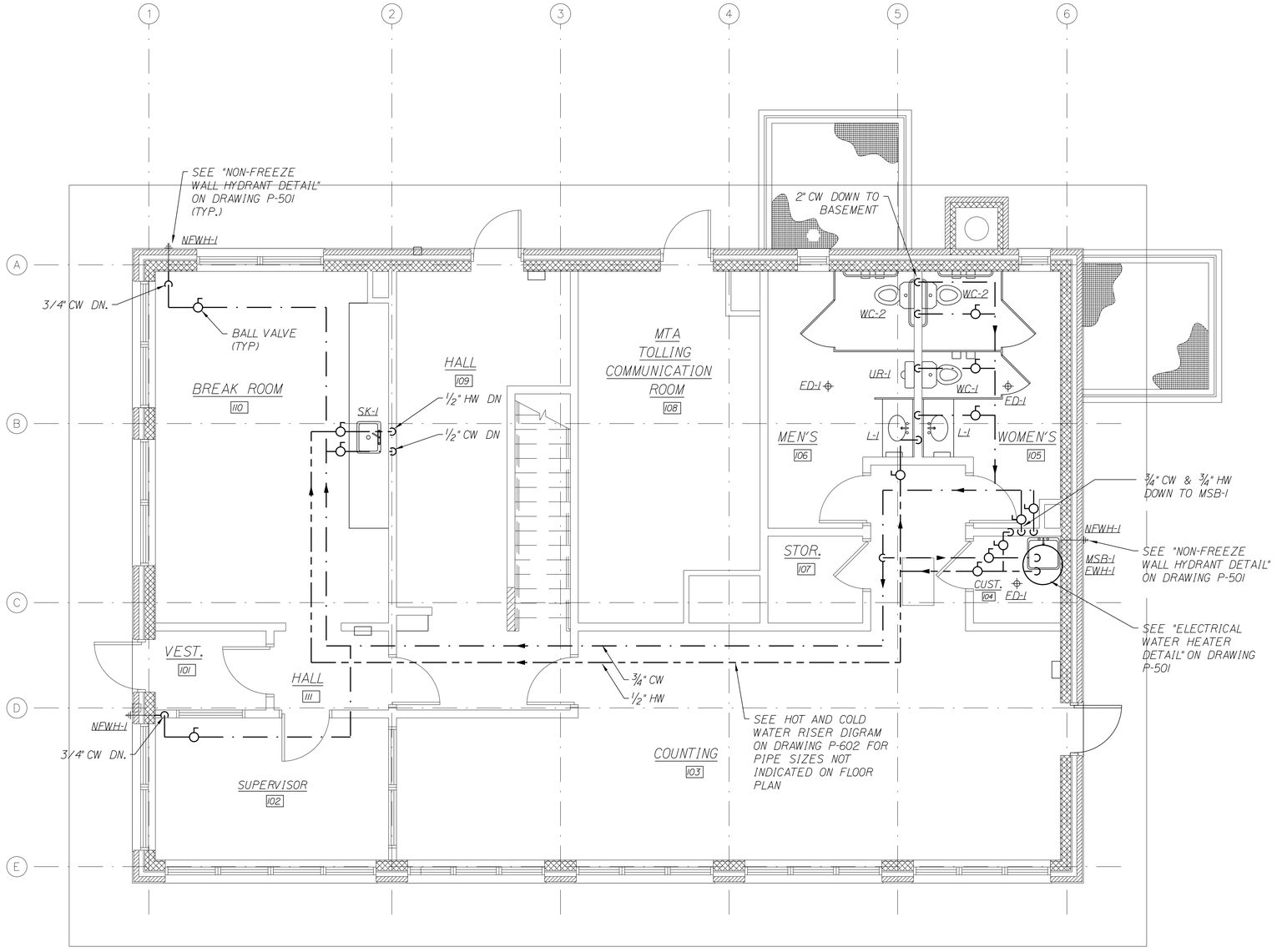
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING - FIRST FLOOR SANITARY AND VENT PLAN

SHEET NUMBER: P-103

CONTRACT:2018.20



1 - FIRST FLOOR DOMESTIC WATER PLAN

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

Date:7/23/2018

Filename: ...\379_(P-104)Layout_04_PLUMB-AB.DGN

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

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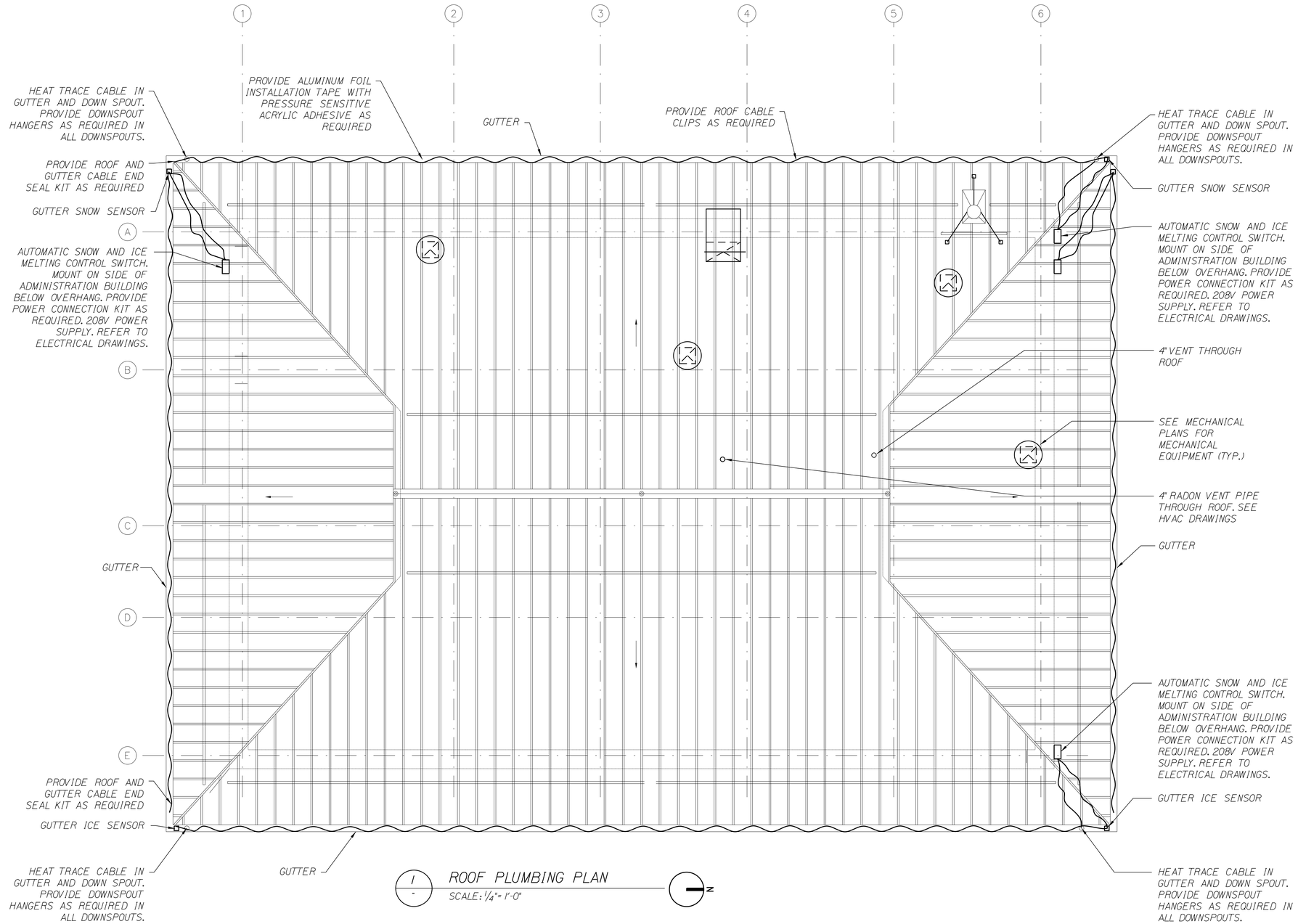
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING - FIRST FLOOR DOMESTIC WATER PLAN

SHEET NUMBER: P-104

CONTRACT:2018.20



1/- ROOF PLUMBING PLAN

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

N

Date: 7/23/2018

Filename: ...\380_(P-105)_Layout_ROOF_PLUM-AB.DGN

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by:

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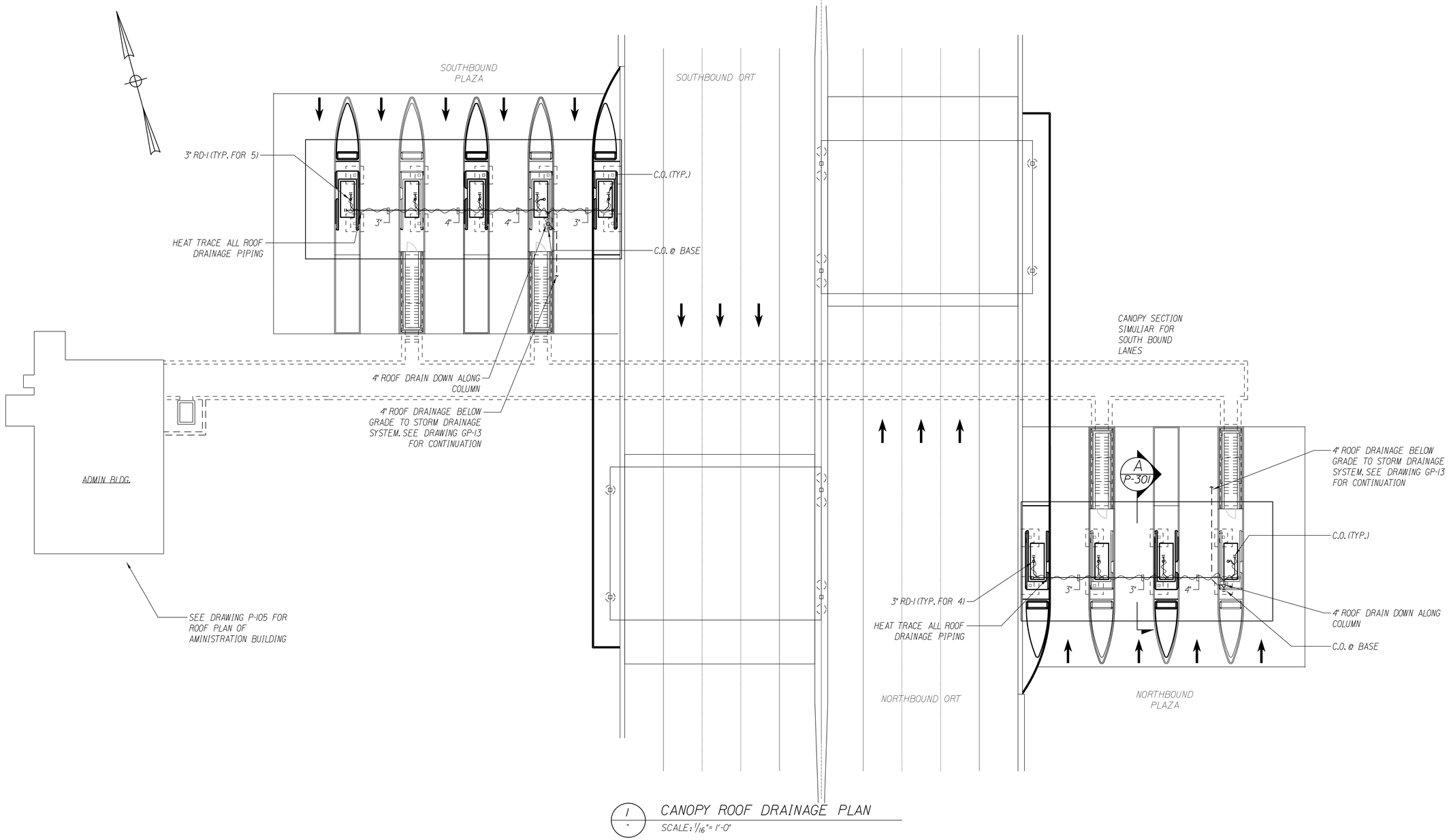
YORK TOLL PLAZA

ADMINISTRATION BUILDING ROOF PLUMBING PLAN

SHEET NUMBER: P-105

CONTRACT: 2018.20

Date:7/23/2018



1 / - CANOPY ROOF DRAINAGE PLAN

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

Filename: ...\381_(P-106)_Layout_01_Canopy-TB.DGN

Scale:

0 16' 32' 48'

Scale of Feet

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

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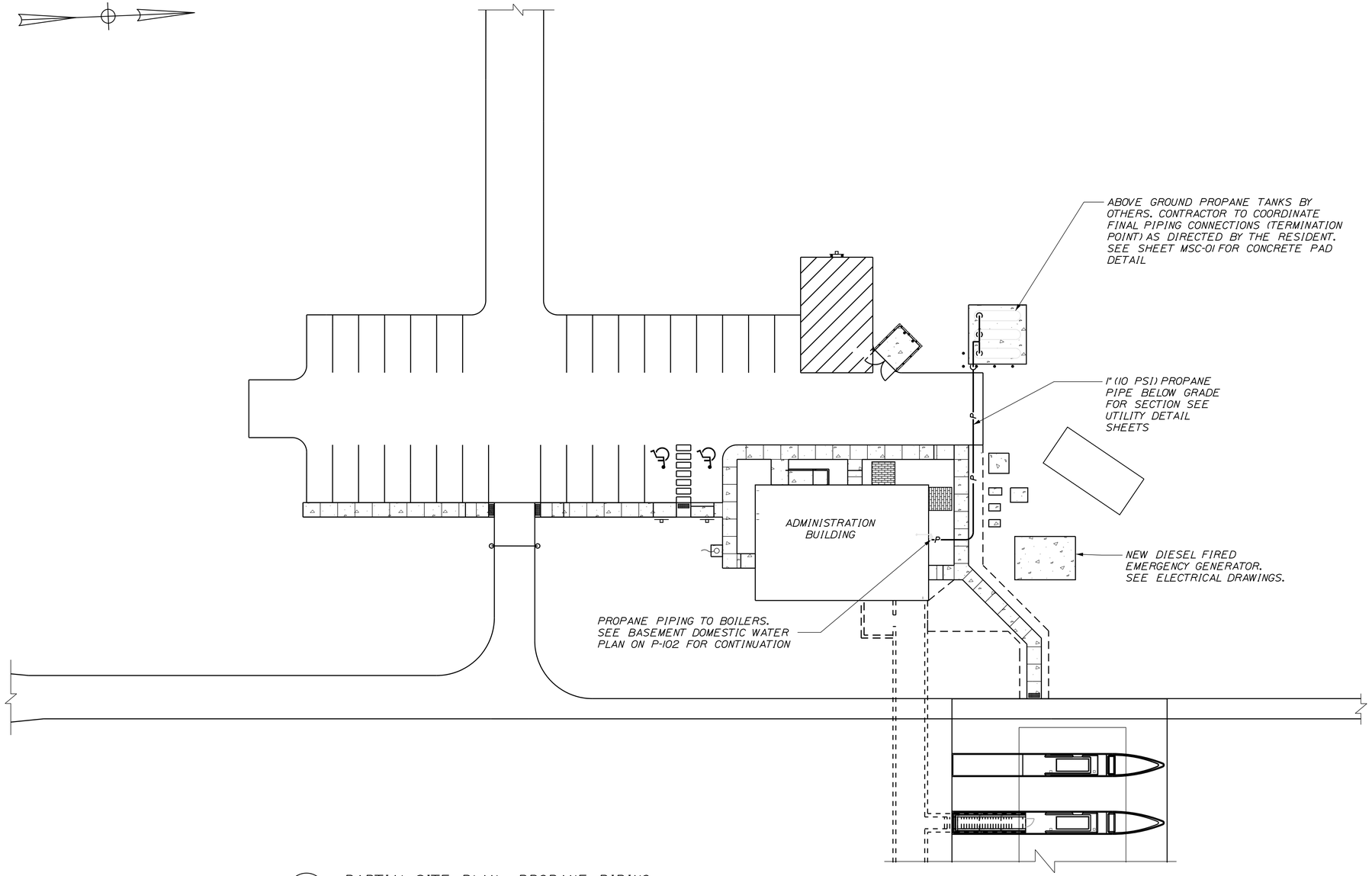
YORK TOLL PLAZA

CANOPY ROOF DRAINAGE PLAN

SHEET NUMBER: P-106

CONTRACT:2018.20

Date:8/28/2018



1 - PARTIAL SITE PLAN - PROPANE PIPING

SCALE: 1"=20'

Scale: 20' 0 20' 40' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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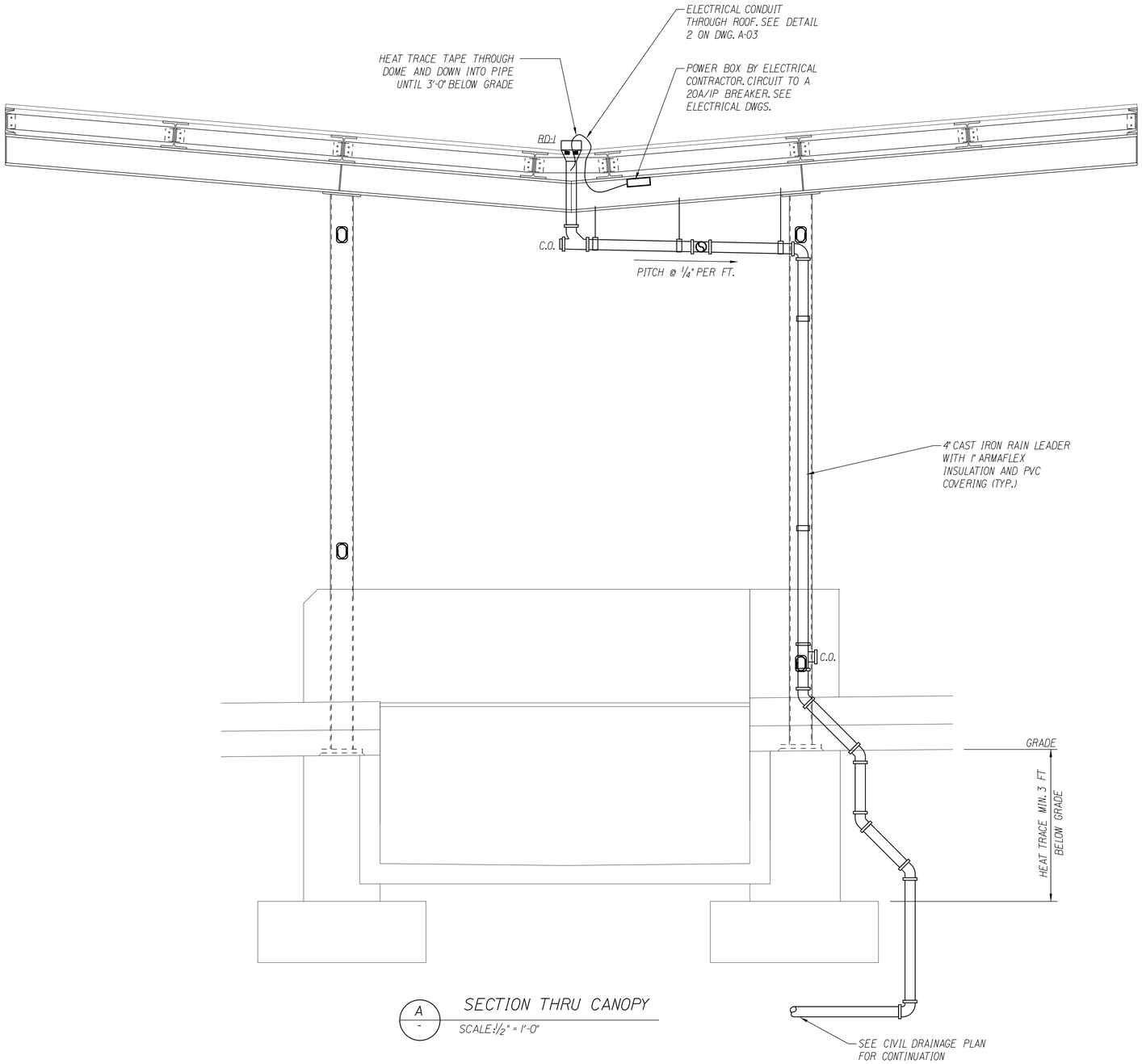
PARTIAL SITE PLAN - PROPANE PIPING

SHEET NUMBER: P-107

CONTRACT:2018.20

382 OF 489

Filename: ...\382_(P-107)_Admin_Site_Plan_propane.dgn



A / - SECTION THRU CANOPY

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

Date: 7/23/2018

Filename: ...\383_(P-301)_Section_canopy.DGN

Scale: 0 1' 2' 4'

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

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MTA PROJECT MANAGER: R. NORWOOD

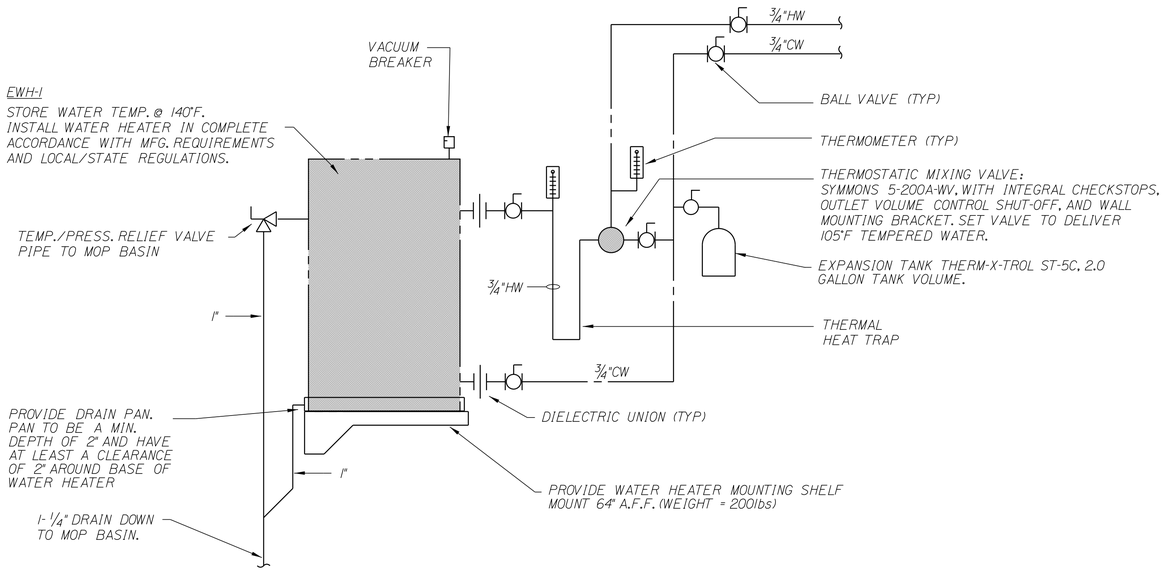
YORK TOLL PLAZA

CANOPY SECTION

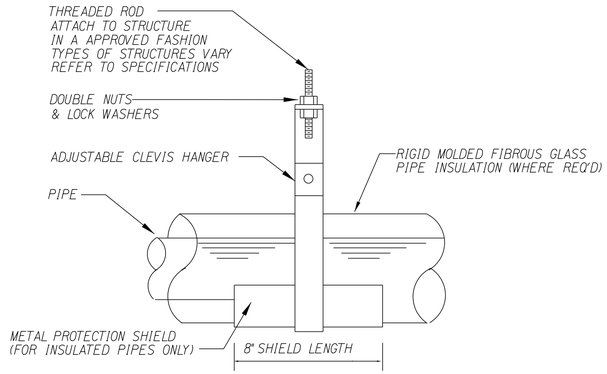
SHEET NUMBER: P-301

CONTRACT: 2018.20

Date:7/23/2018



1 ELECTRIC WATER HEATER DETAIL
N.T.S.



2 CLEVIS TYPE HANGER DETAIL
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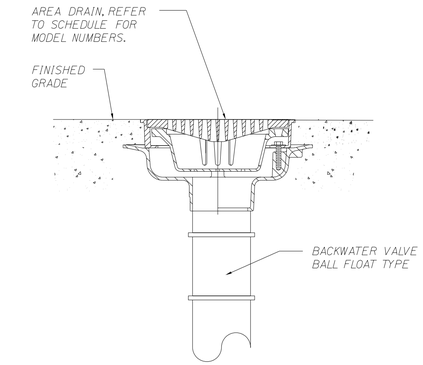
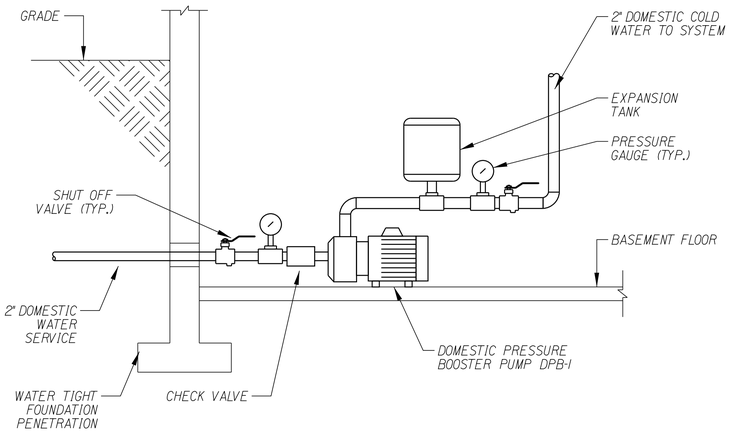
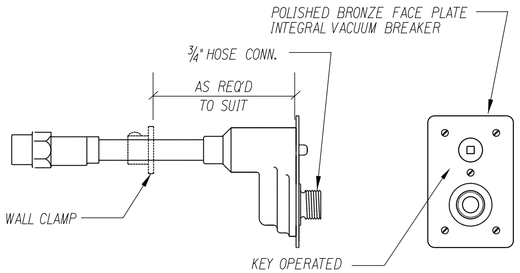


3 AREA DRAIN WITH BACKWATER VAVLE DETAIL
N.T.S.

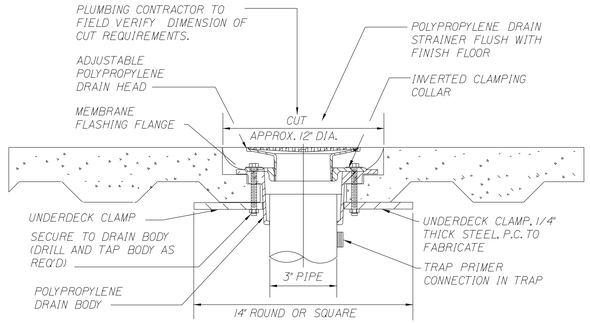


4 DOMESTIC PRESSURE BOOSTER PUMP DETAIL
N.T.S.

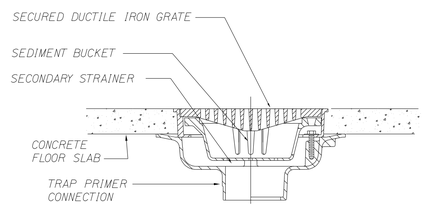


NON-FREEZE, EXPOSED (EXTERIOR), ANTI-SIPHON WALL HYDRANTS SHALL BE EQUAL TO ZURN MODEL Z-1310-4-6-13-RK WITH 3/4" HOSE CONN.

5 NON FREEZE WALL HYDRANT DETAIL
N.T.S.



6 FLOOR DRAIN DETAIL - BATHROOMS
N.T.S.



7 HEAVY DUTY FLOOR DRAIN DETAIL - BOILER ROOM
N.T.S.

Filename: ...\384_(P-501)_Utypical_01_PLUMB-AB.DGN

Scale: AS NOTED

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

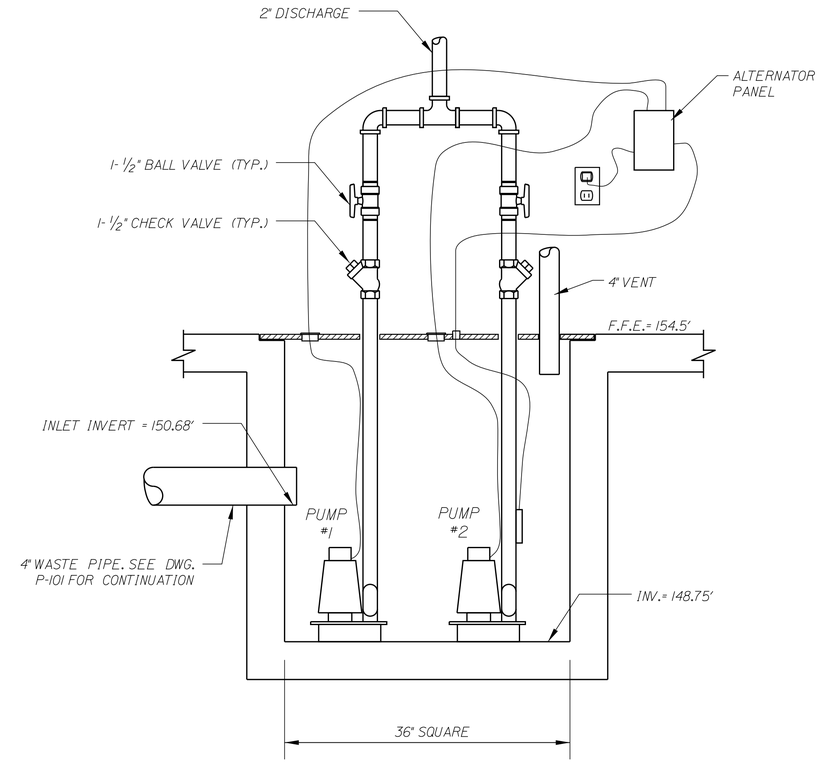
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

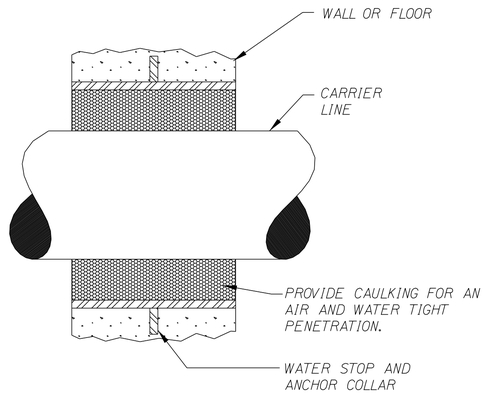
PLUMBING DETAILS 1

SHEET NUMBER: P-501

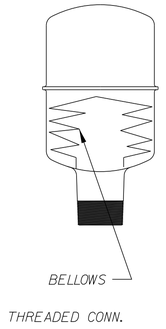
CONTRACT:2018.20



1 SUMP PUMP DETAIL
N.T.S.



2 PIPE PENETRATION DETAIL
N.T.S.

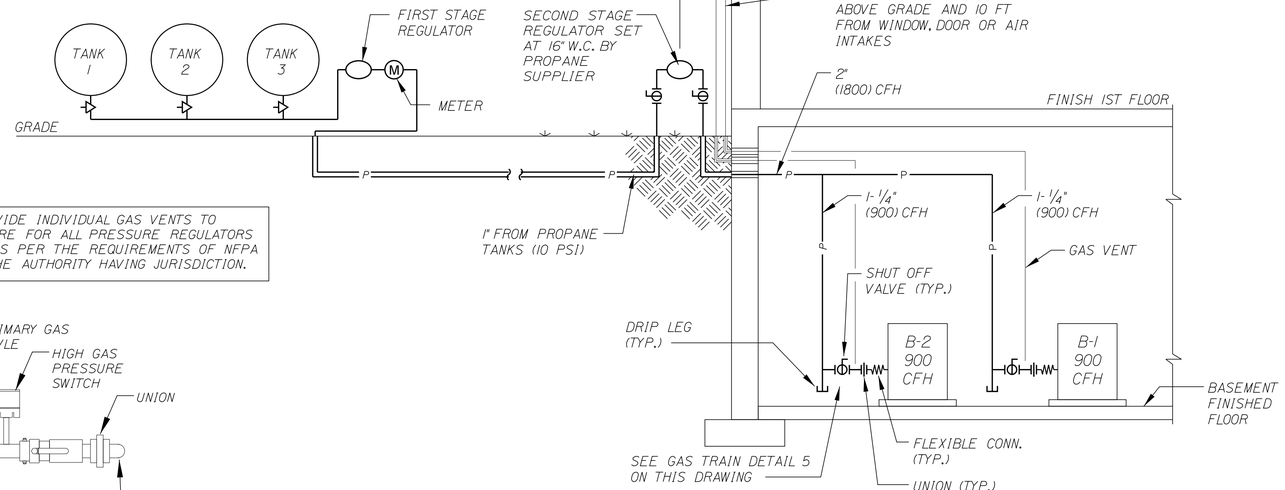


SPECIFICATIONS & NOTES

1. ALL H & CW PIPING, FIXTURES & EQUIPMENT SHALL BE PROTECTED FROM WATER HAMMER EITHER BELLOWS TYPE; HAMMER ARRESTORS OR SHOCK ARRESTORS.
2. ARRESTORS SHALL BE LOCATED IN AN ACCESSIBLE LOCATIONS. PROVIDE RATED ACCESS PANELS WHERE REQ'D.
3. ALL BRANCH PIPING SUPPLYING FLUSH VALVES SHALL BE PROTECTED BY BELLOWS TYPE SHOCK ARRESTORS MANUFACTURED BY ZURN, J.R. SMITH, AMTROL OR WADE.
4. LOCATE & SIZE BELLOWS TYPE SHOCK ARRESTORS AS PER SELECTED MANUFACTURER'S & PDI-WH201 RECOMMENDATIONS.
5. SUBMIT FOR APPROVAL: MANUFACTURERS DATA, SIZE AND LOCATIONS.

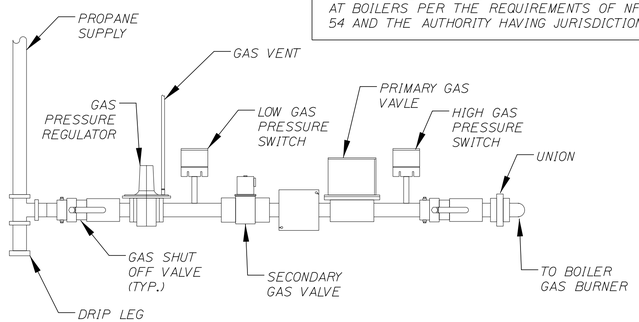
ZURN SHOKTROL Z-1700 SERIES OR APPROVED EQUAL.	#100	#200	#300	#400
P.D.I. UNITS	A	B	C	D
W.S.F.U.'S	1-11	12-32	33-60	61-113

3 SHOCK/HAMMER ARRESTOR DETAIL
N.T.S.



4 PROPANE RISER DIAGRAM
N.T.S.

NOTE: PROVIDE INDIVIDUAL GAS VENTS TO ATMOSPHERE FOR ALL PRESSURE REGULATORS AT BOILERS PER THE REQUIREMENTS OF NFPA 54 AND THE AUTHORITY HAVING JURISDICTION.



5 PROPANE GAS TRAIN DETAIL
N.T.S.

Date:7/23/2018

Filename: ...\385_(P-502)_Utypical_02_PLUMB-AB.DGN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

PLUMBING DETAILS 2

SHEET NUMBER: P-502

CONTRACT:2018.20

Date:7/23/2018

PLUMBING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	CONNECTIONS				FIXTURE	FITTINGS	REMARKS
		WASTE	VENT	HOT WATER	COLD WATER			
WC-1	WATER CLOSET	4"	2"	-	1"	AMERICAN STANDARD MADERA #2858.111	AMERICAN STANDARD #5901.100. OPEN FRONT SEAT LESS COVER.	FLOOR MOUNTED FLUSH VALVE TYPE WATER CLOSET. 1.6 GALLON PER FLUSH. ELONGATED FRONT COMPLETE WITH , BOLT CAPS. PROVIDE AMERICAN STANDARD #6065.161.002 EXPOSED WATER CLOSET FLUSH VALVE
WC-2	WATER CLOSET	4"	2"	-	1"	AMERICAN STANDARD MADERA #2857.111	AMERICAN STANDARD #5901.100. OPEN FRONT SEAT LESS COVER.	FLOOR MOUNTED FLUSH VALVE TYPE WATER CLOSET. 1.6 GALLON PER FLUSH. ELONGATED FRONT COMPLETE WITH , BOLT CAPS. PROVIDE AMERICAN STANDARD #6065.161.002 EXPOSED WATER CLOSET FLUSH VALVE. INSTALL IN COMPLETE ACCORDANCE WITH ADA/HANDICAPPED REQUIREMENTS.
L-1	LAVATORY	1/2	1-1/2"	1/2"	1/2"	AMERICAN STANDARD AQUALYN #0476.028	AMERICAN STANDARD #2506.155 WITH 605 TMV MIXING VALVE, CENTERSET WITH GRID STRAINER DRAIN AND STAINLESS STEEL BRAIDED FLEXIBLE SUPPLIES.	SELF-RIMMING LAVATORY WITH 4" CENTER FAUCET WITH GRID STRAINER DRAIN. PROVIDE 1-1/4" TAILPIECE WITH 1-1/4" X 1-1/2" ADJUSTABLE "P" TRAP WITH CLEANOUT. PROVIDE 1/2" ANGLE SUPPLY VALVES LESS KEY WITH 3/8" O.D. RISERS. PROVIDE 0.5 GPM AERATOR ON LAVATORY FAUCET. INSTALL IN COMPLETE ACCORDANCE WITH ADA/HANDICAPPED REQUIREMNTS
UR-1	URINAL	2"	2"	-	3/4"	AMERICAN STANDARD LYNBROOK #6601.012	AMERICAN STANDARD #6063.051.002, EXPOSED URINAL FLUSH VALVE	WALL HUNG URINAL, BLOWOUT FLUSH ACTION WITH ZURN #Z1221 CHAIR CARRIER SYSTEM. INSTALL URINAL IN COMPLETE ACCORDANCE WITH ADA/HANDICAPPED REQUIREMENTS.
SK-1	KITCHEN SINK	2"	2"	1/2"	1/2"	ELKAY #GECR2521	AMERICAN STANDARD #6830.372 H 8" WIDE SPREAD FAUCET WITH WRISTBLADE HANDELS AND STAILESS STEEL BRAIDED FLEXIBLE SUPPLIES. PROVIDE 0.5 GPM AERATORS	SINGLE COMPARTMENT STAINLESS STEEL SINK COMPLETE WITH 8" LEVER HANDEL SWIVEL SPOUT FAUCET. (1) ELKAY #35 BASKET STRANER WITH 1-1/2" TAILPIECE. PROVIDE (1) 1-1/2" X 1-1/2" ADJUSTABLE "P" TRAPS WITH CLEANOUTS. PROVIDE 1/2" ANGLE SUPPLY VALVES LESS KEY WITH 3/8" O.D. RISERS. INSTALL IN COMPLETE ACCORDANCE WITH ADA/HANDICAPPED REQUIREMENTS
MSB-1	MOP SERVICE BASIN	2"	2"	3/4"	3/4"	FIAT #MSB-2424	CHICAGO FAUCET #897 SERVICE SINK FAUCET WITH VACUUM BREAKER, PAIL HOOK AND INTERGRAL STOPS.	24"X24" MOP SERVICE BASIN WITH FIAT #832-AA, #889-CC HOSE AND MOP HANGER. PROVIDE STAINLESS STEEL WALL GUARDS.
NFWH-1	NON-FREEZE WALL HYDRANT	-	-	-	3/4"	ZURN Z-1310		NON FREEZE WALL HYDRANT WITH 3/4" HOSE CONNECTION

DRAIN SCHEDULE

SYMBOL	TYPE	MANUFACUTURER	MODEL NO.	STRAINER	REMARKS
FD-1	FLOOR DRAIN	ZURN	Z-415-6	6" SQUARE NICKLE BRONZE	WITH TRAP GUARD TG33-ZURN
FD-2	FLOOR DRAIN	ZURN	Z-541	12" ROUND CAST IRON	WITH TRAP GUARD TG33-ZURN
AD-1	AREA DRAIN	ZURN	Z-550-Y	9" MED. DUTY DRAIN	AREA DRAIN WITH Z-1099 BACKWATER VALVE AND STRAINER
RD-1	ROOF DRAIN	ZURN	ZC-100-DP	12" ROUND CAST IRON	WITH CAST IRON DOME, UNDERDECK CLAMP AND ROOF SUMP RECEIVER
TD-1	TRENCH DRAIN	ZURN	Z886-HD	HPDE-E1-E4	HIGH DENSITY POLYETHYLENE (HDPE) TRENCH DRAIN WITH DUCTILE IRON HEELPROOF SLOTTED GRATE

SUMP PUMP SCHEDULE

TAG	MODEL NO.	GPM	HEAD	HP	RPM	VOLTS	HZ	PHASE
PUMP #1	ZOELLER #75	11	16 FEET	1/2	3450	208	60	1
PUMP #2	ZOELLER #75	11	16 FEET	1/2	3450	208	60	1

DOMESTIC PRESSURE BOOSTER PUMP SCHEDULE

TAG	MODEL NO.	GPM	HP	VOLTS	PHASE	AMP
DPB-1	GRUNDFOS CRE-10	66	1-1/2"	208	1	7.5

WATER HEATER SCHEDULE

SYMBOL	MANUFACUTURER	MODEL NO.	LOCATION	STORAGE (GALLONS)	RECOVERY/TEMP RISE (GPH)/(DEG F)	WATER TEMP (DEG F)	ELECTRICAL REQUIREMENTS	REMARKS
EWH-1	BRADFORD WHITE	LE130L3-3	JAN. CLOSET	30	18/100	140	208 VOLT SINGLE PHASE 5KW	

Filename: ...\386_(P-601)_Schedules_01_PLUMB-AB.DGN

Scale:

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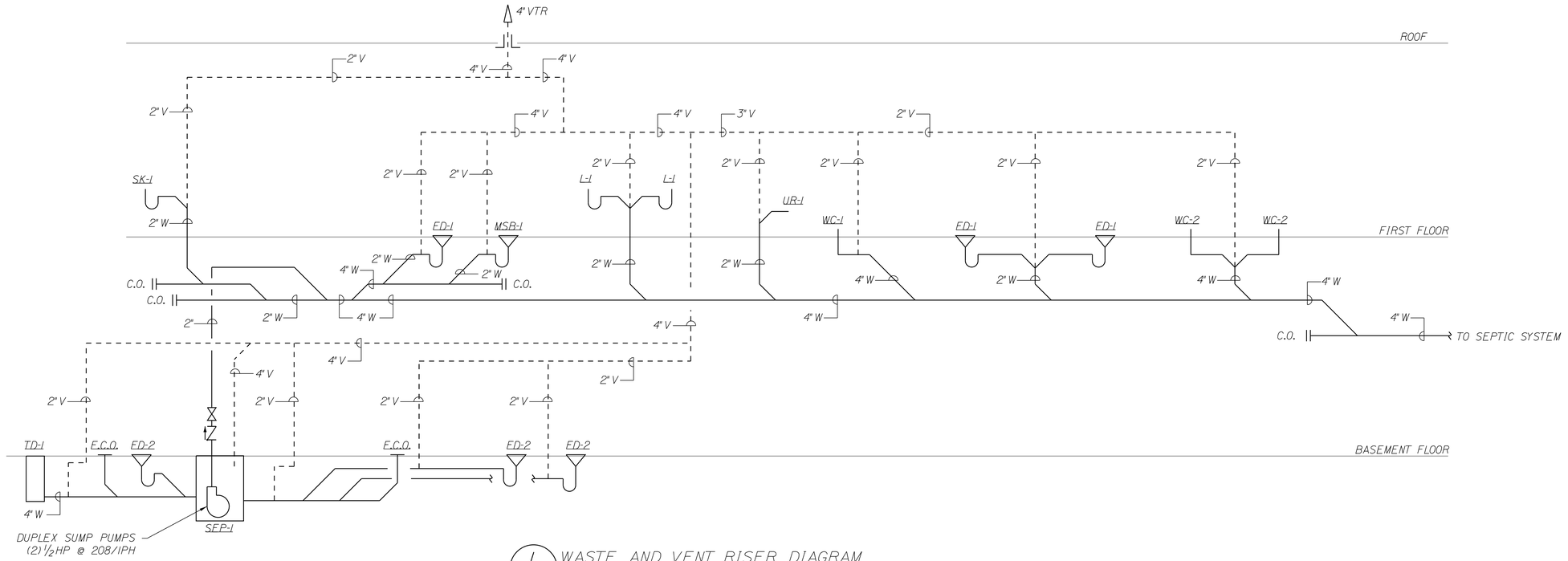
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

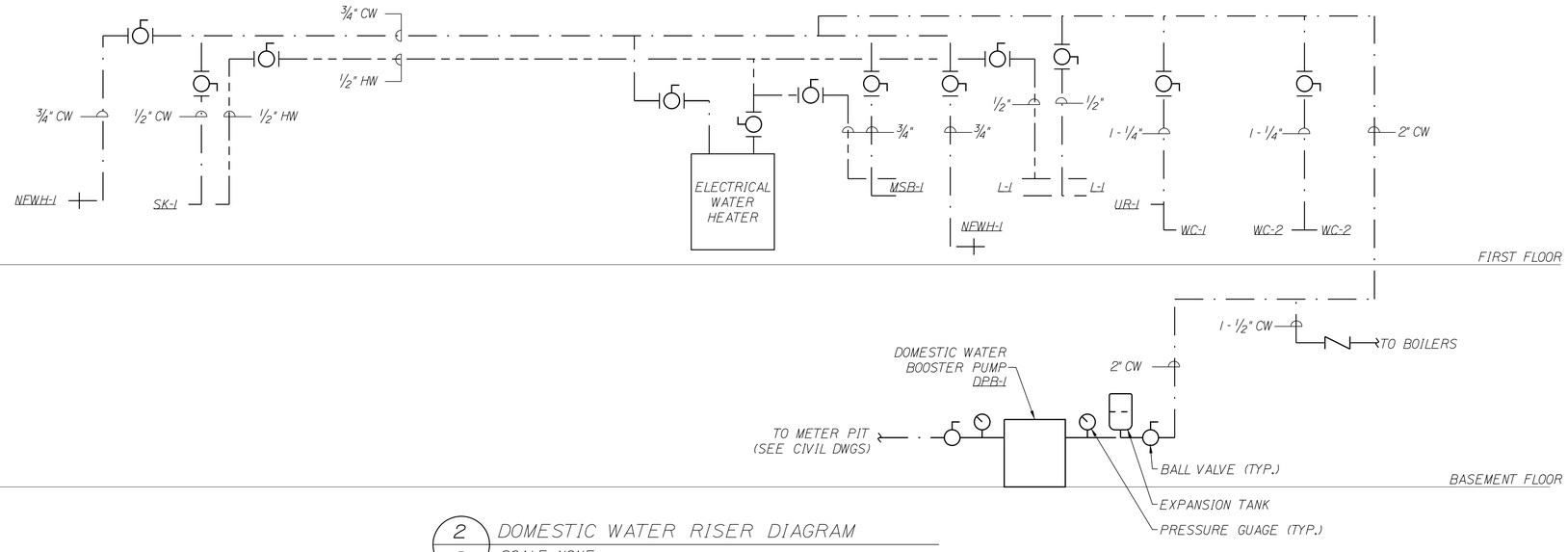
PLUMBING SCHEDULES

SHEET NUMBER: P-601

CONTRACT:2018.20



1 / - WASTE AND VENT RISER DIAGRAM
SCALE: NONE



2 / - DOMESTIC WATER RISER DIAGRAM
SCALE: NONE

Date:7/23/2018

Filename: ...\387_(P-602)_plumbing diagrams_01-AB.DGN

Scale: AS NOTED

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

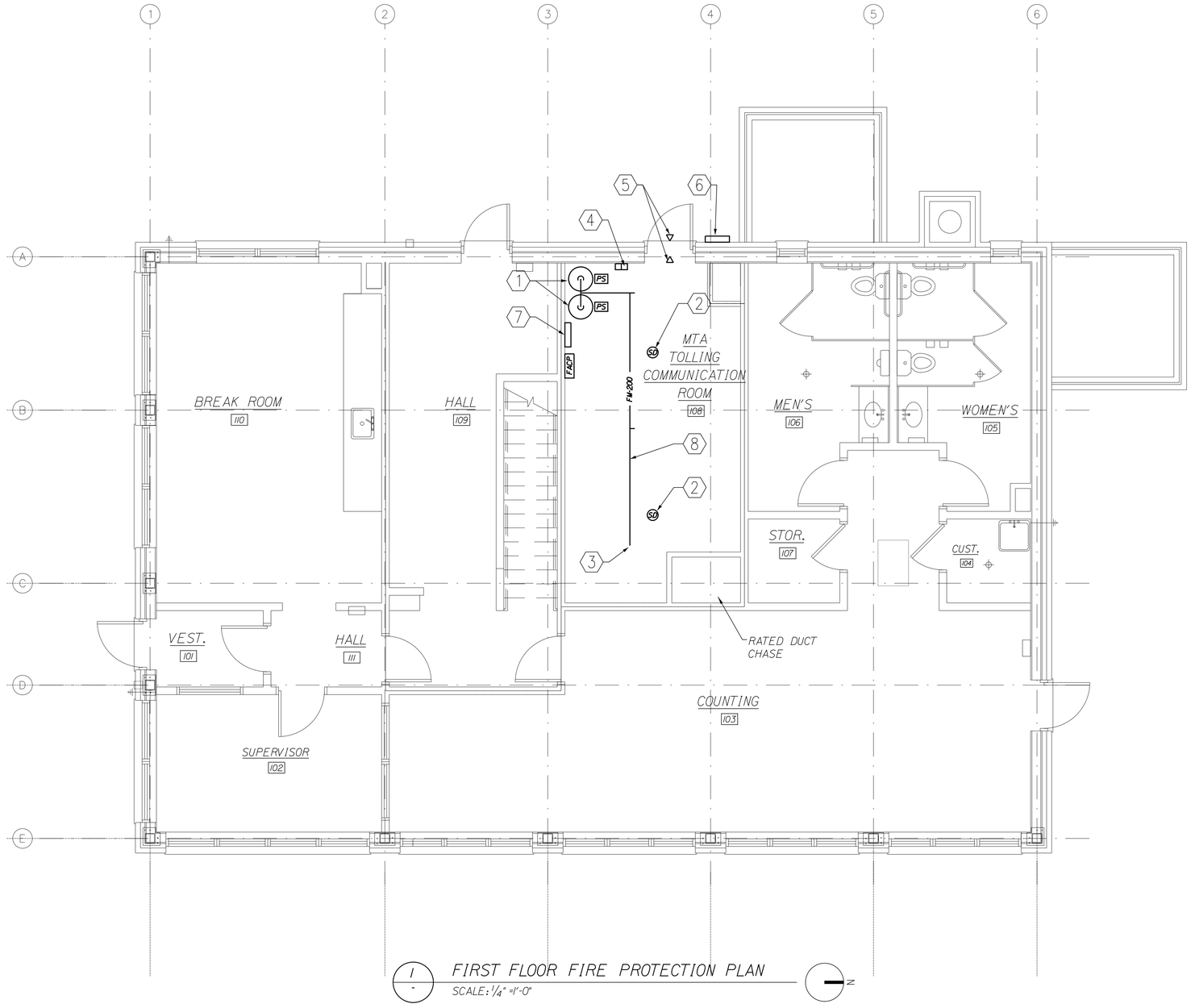
YORK TOLL PLAZA

SANITARY AND DOMESTIC WATER RISER DIAGRAMS

SHEET NUMBER: P-602

CONTRACT:2018.20

Date:7/23/2018



1 / - FIRST FLOOR FIRE PROTECTION PLAN

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

FIRE PROTECTION LEGEND

- FM-200 — NEW FM-200 PIPING
- SD — SMOKE DETECTOR
- PIPE DROP
- PS — PRESSURE SWITCH
- BEACON LIGHT
- # — KEYNOTE

GENERAL SHEET NOTES

1. MTA COMPUTER ROOM 108 SHALL BE A SEALED AIR-TIGHT ENCLOSURE TO ENSURE PROPER FUNCTIONING OF THE CLEAN AGENT TOTAL FLOODING FIRE SUPPRESSION SYSTEM. ALL OPENINGS AND GAPS IN THE ROOM ENCLOSURE SHALL BE SEALED OR EQUIPPED WITH AUTOMATIC OR RE-ENTERABLE CLOSURES; COORDINATE CLOSURES WITH MECHANICALLY RELATED OPENINGS AND VENTS. ENCLOSURE SHALL SATISFY ANY PRESSURIZATION/ DEPRESSURIZATION TESTS OR OTHER REQUIREMENTS AS REQUIRED BY CODE OR BY AUTHORITIES HAVING JURISDICTION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE TO INCLUDE A NEW FACTORY MUTUAL/NFPA 2001 APPROVED FM-200 CLEAN AGENT FIRE SUPPRESSION SYSTEM FOR THE COMPUTER ROOM. THE NEW FM-200 SYSTEM SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:

   A. CLEAN AGENT CYLINDERS WITH ALL CONTROLS, LIQUID LEVEL INDICATORS, VALVE, SOLENOID VALVES, MODULES AND PIPING WITH HANGERS AND SUPPORTS FOR THE FM-200 SYSTEM. INCLUDE A PRESSURE SWITCH ON MAIN DISCHARGE LINE FOR ZONE TO SHUTDOWN POWER TO THAT ZONE WHEN AGENT IS DISCHARGED.

   B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL REQUIRED ITEMS BACK TO THE FM-200 RELEASE PANEL.

   C. CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING THE FM-200 RELEASE PANEL TO THE NEW MAIN FIRE ALARM CONTROL PANEL. THE NEW MAIN BUILDING FIRE ALARM CONTROL PANEL SHALL BE INSTALLED BY CONTRACTOR.

3. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED PIPING OFFSETS AND CORE DRILLING. REVIEW AND EXAMINE THE ARCHITECTURAL FLOOR PLANS, SECTIONS AND REFLECTED CEILING PLANS TO DETERMINE THE FULL EXTENT OF THE WORK REQUIRED. COORDINATION WITH FIRE ALARM, ELECTRICAL, STRUCTURAL, PLUMBING AND MECHANICAL CONTRACTORS IS CRITICAL. ARRANGE FOR A COORDINATION MEETING WITH EACH CONTRACTOR PRIOR TO THE INSTALLATION OF ANY PIPING.

SHEET KEYNOTES (X)

1. PROVIDE NEW FM-200 CLEAN AGENT CYLINDERS. SEE DETAIL ON DRAWING F-501.
2. CONTRACTOR SHALL PROVIDE AND INSTALL AND WIRE COMBINATION IONIZATION/PHOTOELECTRIC SMOKE DETECTORS AS REQUIRED BY NFPA 2001.
3. FM-200 NOZZLE LOCATION AND QUANTITIES SHALL BE DETERMINED AFTER FLOW CALCULATIONS HAVE BEEN PERFORMED BY THE FIRE PROTECTION CONTRACTOR.
4. PROVIDE A NEW HORN STROBE, ALARM BELL, MAINTENANCE SWITCH, ABORT SWITCH AND A MANUAL RELEASE FOR THE FM-200 CLEAN AGENT SYSTEM.
5. PROVIDE A BEACON LIGHT ABOVE THE DOOR BOTH INSIDE & OUTSIDE OF ENTRANCE TO THE NEW SERVER ROOM.
6. PROVIDE A PURGE FAN SWITCH IN NEMA 4 ENCLOSURE FOR PROMPT EVACUATION OF THE FM-200 CLEAN AGENT SYSTEM. REFER TO MECHANICAL DRAWINGS FOR LOCATION OF FAN AND RELIEF DAMPERS.
7. PROVIDE NEW FM-200 RELEASING PANEL.
8. SIZE OF PIPING SHALL BE DETERMINED BY CALCULATIONS PERFORMED BY CONTRACTOR BASED ON SYSTEM PRESSURE

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

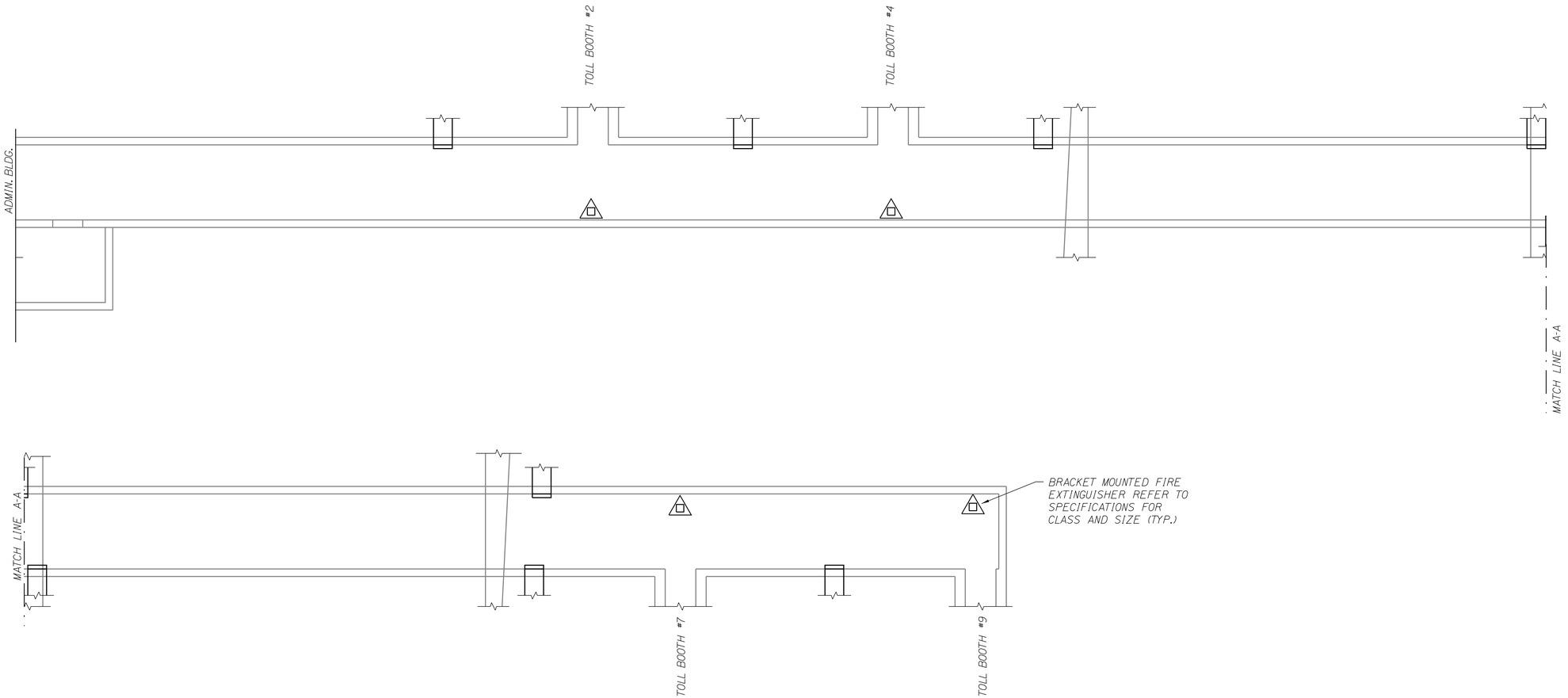
YORK TOLL PLAZA

ADMINISTRATION BUILDING - FIRST FLOOR FIRE PROTECTION PLAN

SHEET NUMBER: F-101

CONTRACT:2018.20

Filename: ...\388_(F-101)_Layout_01_Fire-AB.DGN



1 - TUNNEL - FIRE EXTINGUISHER LOCATION PLAN

SCALE: 1/8"=1'-0"

N

Date: 7/23/2018

Filename: ...\389_(F-102)_FE_Tunnel Plan.dgn

Scale:

0 4' 8' 12'

Scale of Feet

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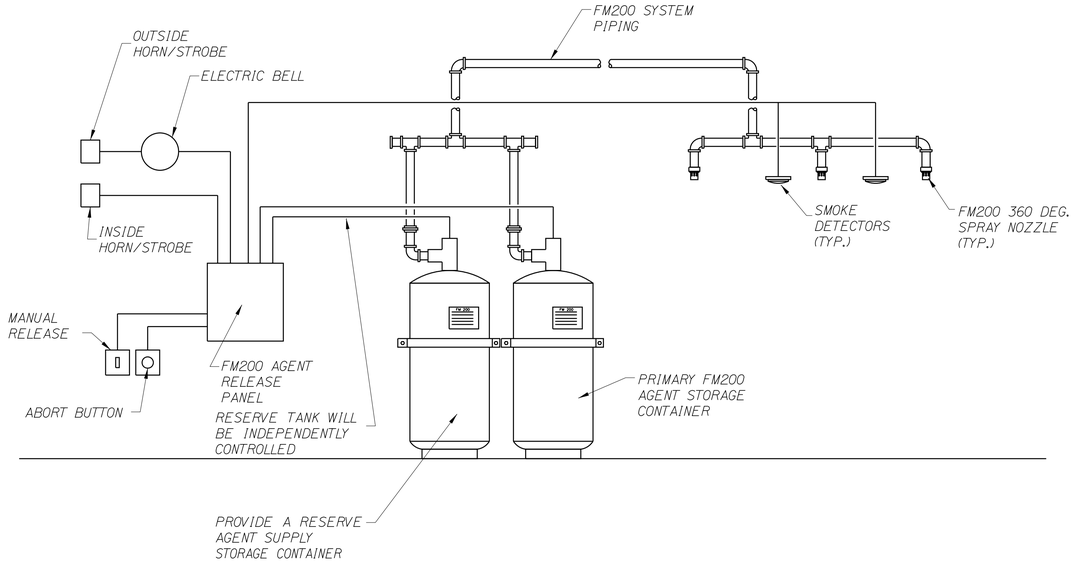
YORK TOLL PLAZA

TUNNEL - FIRE EXTINGUISHER LOCATION PLAN

SHEET NUMBER: F-102

CONTRACT: 2018.20

389 OF 489



1 - FM 200 TANK DETAIL

NOT TO SCALE

FM-200 SEQUENCE OF OPERATION

ALARM:

1. ACTIVATION OF ANY SYSTEM SMOKE DETECTOR WILL CAUSE THE "ALARM" LED ON THE PANEL TO FLASH, CAUSE THE PIEZO ON THE PANEL TO "CHIRP", AND ACTIVATE THE ALARM BELLS

2. ANNUNCIATE TO BUILDING FIRE ALARM

PRE-DISCHARGE:

1. ACTIVATION OF A SECOND SMOKE DETECTOR WILL CAUSE THE PRE-DISCHARGE LED ON THE PANEL TO FLASH, CAUSE THE PIEZO TO CONTINUE TO "CHIRP", THE HORN/ STROBES UNITS TO ACTIVATE AND INITIATE A 30 SECOND TIME DELAY.

2. SHUTDOWN AIR DISTRIBUTION SYSTEM AND CLOSE ALL DAMPERS IN AND TO SPACE. EXISTING AIR DISTRIBUTION CIRCUITS SHALL BE WIRED TO NEW FM-200 RELEASE PANEL. COORDINATE WIRING CONNECTIONS WITH HVAC CONTRACTOR

RELEASE:

UPON EXPIRATION OF THE 30 SECOND TIME DELAY, THE RELEASE LED ON THE PANEL WILL FLASH, THE PIEZO WILL CONTINUE TO "CHIRP", THE DISCHARGE STROBES WILL ACTIVATE. THE AND THE FM-200 WILL BE DISCHARGED.

MAN. REL. STATION:

ACTIVATION OF A MANUAL RELEASE STATION WILL ACTIVATE THE AUDIO/VISUAL DEVICES AND INITIATE ALL SYSTEM FUNCTIONS, INCLUDING IMMEDIATE FM-200 DISCHARGE.

TROUBLE CONDITION:

A TROUBLE CONDITION WILL ILLUMINATE THE YELLOW "TROUBLE" LAMP ON THE PANEL, AND ANNUNCIATE TO BUILDING FIRE ALARM.

ABORT TYPE:

THIS ABORT CONFIGURATION ALLOWS THE SYSTEM TO BE ABORTED AT ANY TIMEDURING "PRE-DISCHARGE" CONDITION. THIS ABORT TYPE WILL RESET ANY TIME DELAY WITHIN THE SYSTEM. UPON RELEASE OF THE ABORT SWITCH. THE SYSTEM WILL COUNTDOWN THE PRE-SET TIME DELAY AND AGENT RELEASE WILL OCCUR (UNLESS THE ABORT SWITCH IS REACTIVATE). THIS ABORT SWITCH DELAYS RELEASE INITIATED BY AUTOMATIC DETECTION SCHEMES. RELEASE INITIATED BY ACTIVATED MANUAL RELEASE INPUT CIRCUITS OVERRIDE THE ABORT SWITCH.

NOTE: THIS IS A MOMENTARY SWITCH WHICH WHEN ACTIVATED MUST BE HELD IN FOR APPROXIMATELY ONE SECOND TO ENGAGE THIS SEQUENCE.

FM-200 NOTES

1. TO PREVENT LOSS OF AGENT THROUGH OPENINGS TO ADJACENT HAZARDS OR WORK AREAS, OPENINGS SHALL BE PERMANENTLY SEALED OR EQUIPPED WITH AUTOMATIC CLOSURES. A DOOR FAN TEST SHALL BE PERFORMED TO CONFIRM THAT THE ROOM IS PROPERLY SEALED.

2. CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL AND HVAC CONTRACTORS SO THAT ALL HVAC EQUIPMENT AND DAMPERS ARE WIRED TO CLOSE PRIOR TO AN FM-200 DISCHARGE.

3. THE FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING ALL REQUIRED ITEMS BACK TO THE FM-200 RELEASE PANEL. CONTRACTOR SHALL BE RESPONSIBLE FOR WIRING THE FM-200 RELEASE PANEL TO THE NEW MAIN BUILDING FIRE ALARM CONTROL PANEL. THE NEW MAIN BUILDING FIRE ALARM CONTROL PANEL SHALL BE INSTALLED BY THE CONTRACTOR.

4. CONTRACTOR SHALL PERFORM CALCULATIONS TO DETERMINE REQUIRED AGENT QUANTITY, TANK QUANTITY, TANK SIZE AND PIPE SIZE. ALL INERT GAS SYSTEM SHALL BE DESIGNED AND INSTALLED IN COMPLIANCE WITH NFPA 2001

5. WHERE REQUIRED, A RESERVE AGENT SUPPLY SHALL CONSIST OF AS MANY MULTIPLES OF THE PRIMARY AGENT SUPPLY AS THE AUTHORITY HAVING JURISDICTION CONSIDERS NECESSARY.

Date: 7/23/2018

Filename: ...\390_(F-501)_UTYPICAL_01_FIRE.DGN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

FIRE PROTECTION - DETAILS

SHEET NUMBER: F-501

CONTRACT: 2018.20

Date:7/23/2018

MECHANICAL GENERAL NOTES

1. ALL MECHANICAL EQUIPMENT, INSTALLATIONS AND WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE STATE OF MAINE UNIFORM CONSTRUCTION CODE AND ITS SUBCODES, INCLUDING BUT NOT LIMITED TO THE 2015 INTERNATIONAL MECHANICAL CODE, 2015 ASHRAE STANDARD 90.1-2007, 2015 INTERNATIONAL BUILDING CODE - INTERNATIONAL ENERGY CONSERVATION CODE 2015 AND INTERNATIONAL FUEL GAS CODE 2015.
2. ALL WORK SHOWN ON THE DRAWING IS DIAGRAMMATIC. IT IS NOT INTENDED TO SHOW EVERY OFFSET, EVERY FITTING, EVERY LENGTH OR EQUIPMENT. DO NOT SCALE THE DRAWINGS. FIELD VERIFY THE EXACT WORK, EXAMINE ALL DIMENSIONS AND EXISTING CONDITIONS
3. PERFORM ALL CUTTING AND PATCHING OF THE STRUCTURE AS REQUIRED AND TO BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN SITE CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE TO NOTIFY THE ENGINEER WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO PERFORM THE WORK INTENDED BY THE CONTRACT DOCUMENTS. CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ENGINEER
4. PROTECT AND PRESERVE ALL ITEMS AND REPAIR OR REPLACE ANY ITEM DAMAGED DURING THE COURSE OF WORK TO THE SATISFACTION AND APPROVAL OF THE ENGINEER WITHOUT ANY ADDITIONAL COST TO MAINE DOT.
5. ALL EQUIPMENT SHALL BE ARRANGED TO PERMIT EASY ACCESS FOR MAINTENANCE AND SERVICING. ALL BRACKETS, PLATES, CHANNELS, ETC. SHALL BE GALVANIZED STEEL OR PAINTED, UNLESS OTHERWISE SPECIFIED.
6. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. ALL WALL MOUNTED EQUIPMENT SHALL BE INSTALLED WITH GALVANIZED STEEL CHANNELS.
8. ALL PANELS AND CABINETS SHALL BE CLEARLY LABELED AFTER INSTALLATIONS.
9. PROVIDE ALL NECESSARY CONTROLS, RELAYS, AND DEVICES AS NECESSARY FOR A COMPLETE AND OPERATIVE SYSTEM.
10. CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN.
11. DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.
12. LOCATE CEILING AIR DEVICES / EQUIPMENT ACCORDING TO THE ARCHITECTURAL REFLECTED CEILING PLANS. CONTRACTOR SHALL CONFIRM CEILING TYPES SHOWN ON ARCHITECTURAL DRAWINGS AND INSTALL CEILING TYPE SUPPLY, RETURN, OR EXHAUST AIR DEVICES TO SUIT CONDITIONS.
13. REFER TO OTHER DISCIPLINES IN THESE CONTRACT DOCUMENTS PRIOR TO ANY WORK. THE WORK CONTAINED IN THESE DRAWINGS MAY BE IMPACTED BY WORK OF OTHER TRADES. COORDINATE WITH THE WORK OF OTHER DISCIPLINES, EQUIPMENT FURNISHED BY OTHERS, REQUIREMENTS OF THE OWNER, AND WITH THE CONSTRAINS OF THE SITE CONDITIONS OF THE PROJECT SITE. PROVIDE DUCT RISES AND DROPS AS REQUIRED FOR FIELD INSTALLATION AND TRADE COORDINATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE STARTING WORK.
14. FURNISH ALL LABOR, MATERIAL, EQUIPMENT NECESSARY TO COMPLETE THE INSTALLATION AND REPAIR OF THE SYSTEMS INDICATED ON THE DRAWING AND IN THE SPECIFICATIONS TO RESULT IN A COMPLETE OPERABLE SYSTEM THAT IS IN COMPLIANCE WITH ALL APPLICABLE CODES AND STANDARDS.
15. MATERIAL TO BE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR.
16. LOCATIONS AND SIZES OF EQUIPMENT ARE APPROXIMATE.
17. DO NOT INTERRUPT ANY OF THE SERVICES OF THE FACILITY, NOR INTERFERE WITH THE SERVICES IN ANY WAY WITHOUT EXPRESSED PERMISSION OF THE OWNER'S REPRESENTATIVE. SUCH INTERRUPTIONS AND INTERFERENCES SHALL BE MADE AS BRIEF AS POSSIBLE, AND ONLY AT AGREED DESIGNATED TIMES.
18. WHERE FLEXIBLE CONNECTORS ARE USED, THEY SHALL BE EQUAL TO OR GREATER THAN CROSS-SECTIONAL AREA OF DUCTS SHOWN. FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. MAXIMUM ALLOWABLE LENGTH SHALL BE 5'-0".
19. MOUNT THERMOSTATS 48" AFF MAX FOR ADA UNLESS OTHERWISE NOTED.
20. ALL WALL, FLOOR, OR CEILING SURFACES THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL BE REPAIRED TO MATCH NEW AND/OR SITE CONDITIONS.
21. MINIMIZE SHUT DOWN TIME FOR HVAC SYSTEMS DURING ALTERATIONS TO MECHANICAL SYSTEMS. FOR PROLONGED SHUT-DOWN WORK INVOLVING HVAC SYSTEMS AT OCCUPIED SPACES, PROVIDE TEMPORARY SYSTEMS, AS APPLICABLE, IN ORDER TO MAINTAIN PROPER CODE COMPLIANT SYSTEM. PROVIDE TEMPORARY HEATING OR COOLING IN AREAS DURING CONSTRUCTION.
22. PROVIDE TESTING, ADJUSTING, AND BALANCING (TAB) OF ALL HVAC SYSTEMS AS PER DRAWINGS AND SPECIFICATIONS.
23. PROVIDE CLEANING OF ALL DUCTWORK SYSTEMS AS PART OF THIS CONTRACT.
24. PROVIDE ASSISTANCE FOR COMMISSIONING SERVICES AS PER THE SPECIFICATIONS.
25. REFER TO THE CONTRACT PHASING PLANS ON DRAWINGS G-002, M-002, AND M-003 FOR PHASING ALL MECHANICAL WORK. ALSO REFER TO ALL DISCIPLINES PHASING PLANS FOR MORE INFORMATION.
26. IN ADDITION TO THESE MECHANICAL NOTES, ANY OTHER NOTES REFERRING TO THE MECHANICAL WORK IN THIS CONTRACT SHALL BE APPLICABLE.

MECHANICAL SYMBOLS

- RELIEF, EXHAUST AIR DUCT SECTION
- SUPPLY AIR SECTION
- RETURN AND OUTSIDE AIR SECTION
- R — DUCT RISE
- D — DUCT DROP
- XXX / XX — EQUIPMENT TAG; EQPM TYPE; EQPM NUMBER
- CD-# / ### — CEILING SUPPLY DIFFUSER, 4-WAY; TYPE; FLOW RATE (CFM)
- CEILING SUPPLY DIFFUSER, 2-WAY
- CEILING RETURN
- EXHAUST GRILLE
- 20x10 — DUCT WIDTH BY DEPTH (FIRST DIMENSION IS SIDE SHOWN)
- ELBOW WITH TURNING VANES
- ROUND DUCT BRANCH TAKE-OFF FROM RECTANGULAR MAIN WITH CONICAL TAP
- SMOOTH RADIUS ELBOW, ROUND OR RECTANGULAR
- W — FLEXIBLE CONNECTION
- S — DUCT MOUNTED SMOKE DETECTOR (FURNISHED BY FAC, INSTALLED BY MC, WIRED BY FAC). PROVIDE ACCESS DOOR IN DUCT AT EACH LOCATION.
- T XXX — WALL MOUNTED THERMOSTAT OR TEMPERATURE SENSOR; EQUIPMENT SERVED
- T C — TEMPERATURE SENSOR AT CEILING
- C — CARBON DIOXIDE DETECTOR
- LEAVING AIRFLOW
- ENTERING AIRFLOW
- U — 1" UNDERCUT DOOR
- DL / #x# — DOOR LOUVER; DOOR LOUVER SIZE (IN. x IN.)
- MANUAL VOLUME DAMPER
- M — MOTORIZED DAMPER
- BDD — BACKDRAFT DAMPER
- FD — FIRE DAMPER WITH ACCESS DOOR IN DUCT
- SD — SMOKE DAMPER WITH ACCESS DOOR IN DUCT
- FD/SD — COMBINATION FIRE AND SMOKE DAMPER WITH ACCESS DOOR IN DUCT

PIPING SYMBOLS

- PIPE TURNING UP
- PIPE TURNING DOWN
- LINE BREAK / CONTINUATION
- THREADED CAP
- UNION
- GATE VALVE
- BALL VALVE
- CHECK VALVE
- CIRCUIT SETTER VALVE / BALANCING VALVE
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- M — AUTOMATIC 2-WAY CONTROL VALVE
- M — AUTOMATIC 3-WAY CONTROL VALVE
- STRAINER
- STRAINER WITH BLOW DOWN HOSE CONNECTION
- PUMP
- REGULATOR VALVE
- PRESSURE RELIEF VALVE
- PIPE REDUCER
- PRESSURE GAUGE
- THERMOMETER
- CD — CONDENSATE DRAIN LINE
- RL — REFRIGERANT LIQUID LINE
- RS — REFRIGERANT SUCTION LINE
- HWS — HOT WATER SUPPLY PIPING
- HWR — HOT WATER RETURN PIPING

HVAC DRAWING INDEX

ABBREVIATIONS

AC	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
AS	AIR SEPARATOR
AVG	AVERAGE
BCCP	BACK PRESSURE CONTROL VALVE
BDD	BACKDRAFT DAMPER
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BP	BOILER PUMP
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
BV	BALANCING VALVE
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CD	CONDENSATE DRAIN, CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CONTR	CONTROL
CL	CENTERLINE
CLG	CEILING
CONN	CONNECTION
CP	CONDENSATE PUMP
CR	CEILING RETURN
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CHECK VALVE
DB	DRY BULB TEMPERATURE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DIA.	DIAMETER
DN	DOWN
DPCV	DIFFERENTIAL PRESSURE CONTROL VALVE
DWG	DRAWING
DX	DIRECT EXPANSION
(E)	EXISTING
EA	EXHAUST AIR, EACH
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ENT	ENTERING
EQPM	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
F	FILTER
FAC	FIRE ALARM CONTRACTOR
FC	FLEX CONNECTION
FD	FIRE DAMPER, FLOOR DRAING
FLA	FULL LOAD AMPS
FLR	FLOOR
FP	FREEZE PROTECTION
FPM	FEET PER MINUTE
FT	FEET
GAL	GALLONS
GC	GENERAL CONTRACTOR
GOB	GENERAL OFFICE BUILDING
GPM	GALLONS PER MINUTE
HP	HEAT PUMP, HORSE POWER
HC	HEATING COIL
HWP	HOT WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HZ	FREQUENCY - HERTZ
I.D.	INNER DIAMETER
KW	KILOWATTS
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LD	LINEAR DIFFUSER
LDB	LEAVING DRY BULB TEMPERATURE
LR	LINEAR RETURN DIFFUSER
LVG	LEAVING
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MUA	MAKE UP AIR UNIT
MBH	THOUSAND BTU PER HOUR
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MFR	MANUFACTURER
NC	NORMALLY CLOSED
NO	NORMALLY OPEN, NUMBER
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
O.D.	OUTER DIAMETER
PD	PRESSURE DROP
PS	PIPE SUPPORT
PSI	POUNDS PER SQUARE INCH
RA	RETURN AIR
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RL	REFRIGERANT LIQUID LINE
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RS	REFRIGERANT SUCTION LINE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SENS	SENSIBLE
SF	SUPPLY FAN
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
STR	STRAINER

ABBREVIATIONS CONTINUED

T	THERMOSTAT
TA	THROW AWAY (FILTERS)
TCV	TEMPERATURE CONTROL VALVE
TDH	TOTAL DYNAMIC HEAD
TG	TRANSFER GRILLE
TP	TRANSITION PIECE
(TYP. 3)	TYPICAL AT 3 PLACES
V	VOLTAGE
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
WB	WET BULB
WT	WEIGHT

CONTROLS & INSTRUMENTATION

- TS 1 — MEASURED VARIABLE OR CONTROL DEVICE; INSTRUMENT OR DEVICE IDENTIFICATION NUMBER; INSTRUMENT OR DEVICE NOT LOCATED IN AN ENCLOSURE
- AX — MEASURED VARIABLE OR CONTROL DEVICE; INSTRUMENT OR DEVICE LOCATED IN AN ENCLOSURE
- DI — DIGITAL INPUT TO DDC
- DO — DIGITAL OUTPUT FROM DDC
- AI — ANALOG INPUT TO DDC
- AO — ANALOG OUTPUT FROM DDC
- PI — PULSE INPUT TO DDC
- X — DDC NETWORK CONNECTION
- CM — CONTROL MODULE
- SW — MANUAL SWITCH
- ELECTRONIC INTERLOCK WIRING
- DDC CONTROL SYSTEM WIRING
- T S — TEMPERATURE SPACE
- TS 1 — TEMPERATURE AVERAGING SENSOR
- M — MOTORIZED DAMPER
- F — FILTER
- FAN
- M — MOTORIZED CONTROL VALVE
- SD 1 — SMOKE DETECTOR

CONTROL ABBREVIATIONS

AAC	ADVANCED APPLICATION CONTROLLER
AFS	AIR FLOW/AIR FLOW SWITCH
AFMS	AIR FLOW MEASURING STATION
ASC	APPLICATION SPECIFIC CONTROLLER
AX	AUXILIARY CONTACT
BMS	BUILDING MANAGEMENT SYSTEM
C	COMMON / CARBON DIOXIDE SENSOR
CD	CONTROL DAMPER
CI	CURRENT INPUT
CO2	CARBON DIOXIDE
CS	CURRENT SENSOR
CV	CONTROL VALVE
DI	DAMPER POSITION INDICATOR
DP	DIFFERENTIAL PRESSURE SWITCH
DDC	DIRECT DIGITAL CONTROL
ED	ENABLE/DISABLE
EH	ELECTRIC HEATER
FR	FIELD MOUNTED RELAY
FZ	FREEZESTAT
HS	HUMIDITY SENSOR
LS	LEVEL SWITCH
M	MOTOR/ACTUATOR
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OA	OUTDOOR AIR
OC	OCCUPANCY SENSOR
PD	PRESSURE DIFFERENTIAL SENSOR
PDI	PRESSURE DIFFERENTIAL INDICATOR
PI	PRESSURE INDICATOR / PULSE INPUT
PS	PRESSURE SENSOR
PT	PRESSURE TRANSMITTER
S	SMOKE DETECTOR
SS	START/STOP CONTROL
T	THERMOSTAT/VAV BOX SPACE TEMPERATURE SENSOR
TCV	TEMPERATURE CONTROL VALVE
TI	TEMPERATURE INDICATOR
TS	TEMPERATURE SENSOR

Filename: ...\391_(M-001)_MECH_NOTES_SYMBOLS_ABBREVIATIONS.DGN

Scale:

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MTA PROJECT MANAGER: R. NORWOOD

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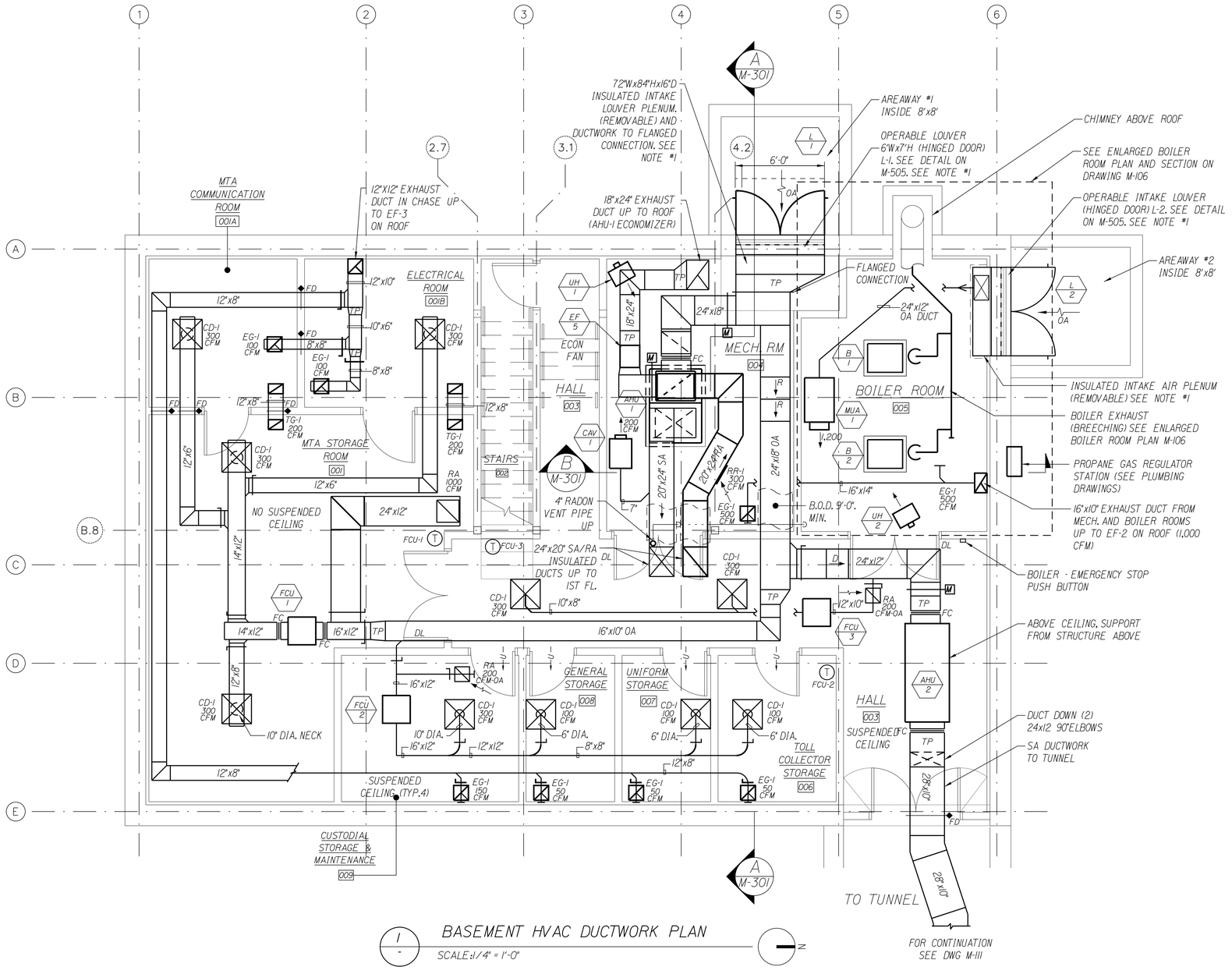
MECHANICAL GENERAL NOTES, SYMBOLS AND ABBREVIATIONS

SHEET NUMBER: M-001

CONTRACT:2018.20



BASEMENT HVAC DUCTWORK PLAN

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

SHEET NOTES

1. OPERABLE LOUVERS L-1 AND L-2 SHALL BE HINGED TO OPEN/CLOSE AS A DOOR. PROVIDE REMOVABLE INTAKE AIR PLENEUM. CONSTRUCT TO BE MADE REMOVABLE FOR ACCESS FROM MECHANICAL AND BOILER ROOMS TO AREAWAYS FOR MOBILIZATION OF HVAC EQUIPMENT. SEE DETAIL OF LOUVER ON DRAWING M-505.

Date: 7/23/2018

Filename: ...\392_(M-101)_Layout_01_HVAC-AB.DGN

Scale: 0 4' 8' 12' Scale of Feet

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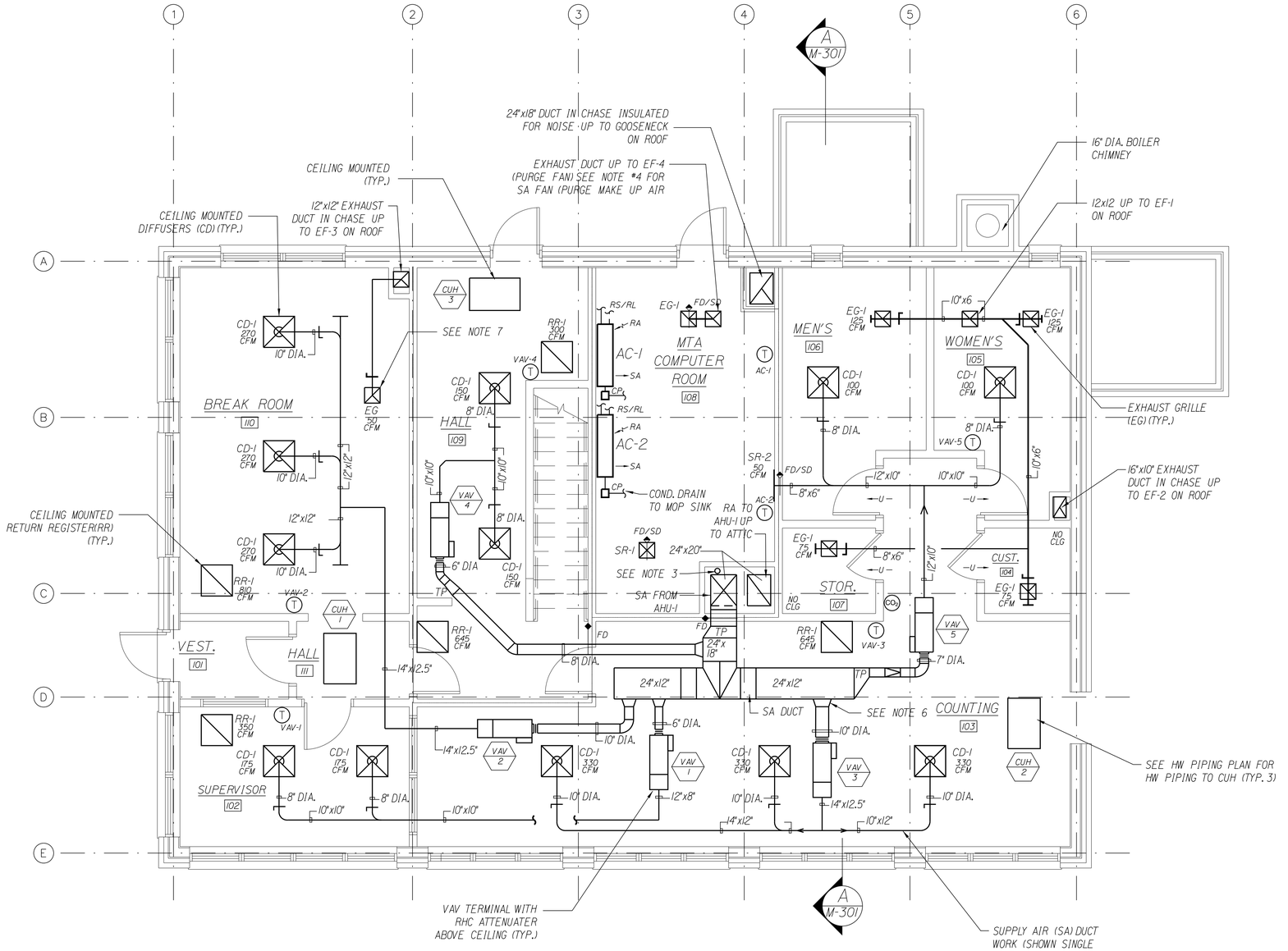
ADMINISTRATION BUILDING
BASEMENT HVAC DUCTWORK PLAN

SHEET NUMBER: M-101

CONTRACT: 2018.20

SHEET NOTES

1. REFER TO PARTIAL PLAN FOR DUCTWORK IN ATTIC ON M-107.
2. REFER TO HW PIPING PLANS M-103 AND M-104 FOR RHC. CUH & BBH PIPING CONFIGURATION FROM BASEMENT.
3. 4" DIAMETER DUCT UP TO EF-8 FOR RADON MITIGATION SYSTEM.
4. SEE RA DUCTWORK, SF-1 AND SUPPLY DUCTWORK ON M-107 AND M-301.
5. REFER TO DWG M-104 FOR REFRIGERANT PIPING LAYOUT.
6. PROVIDE BELLMOUTH CONNECTOR. REFER TO DETAIL 1/M501 FOR VAV BOX INSULATION.
7. EXHAUST GRILLE ABOVE SINK AREA. THERE IS NO KITCHEN HOOD



CONDENSING UNIT 1 IS FOR AHU-1

CU 1

CONDENSING UNITS 2 & 3 ARE FOR AC-1 & AC-2

CU 2

CU 3

CU 4 — CONDENSING UNIT 4 IS FOR BASEMENT FAN COIL FCU-1

1/- FIRST FLOOR HVAC DUCTWORK PLAN

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

N

Date:7/23/2018

Filename: ...\393_(M-102)_Layout_02_HVAC-AB.DGN

Scale: 0 4' 8' 12' Scale of Feet

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MTA PROJECT MANAGER: R. NORWOOD

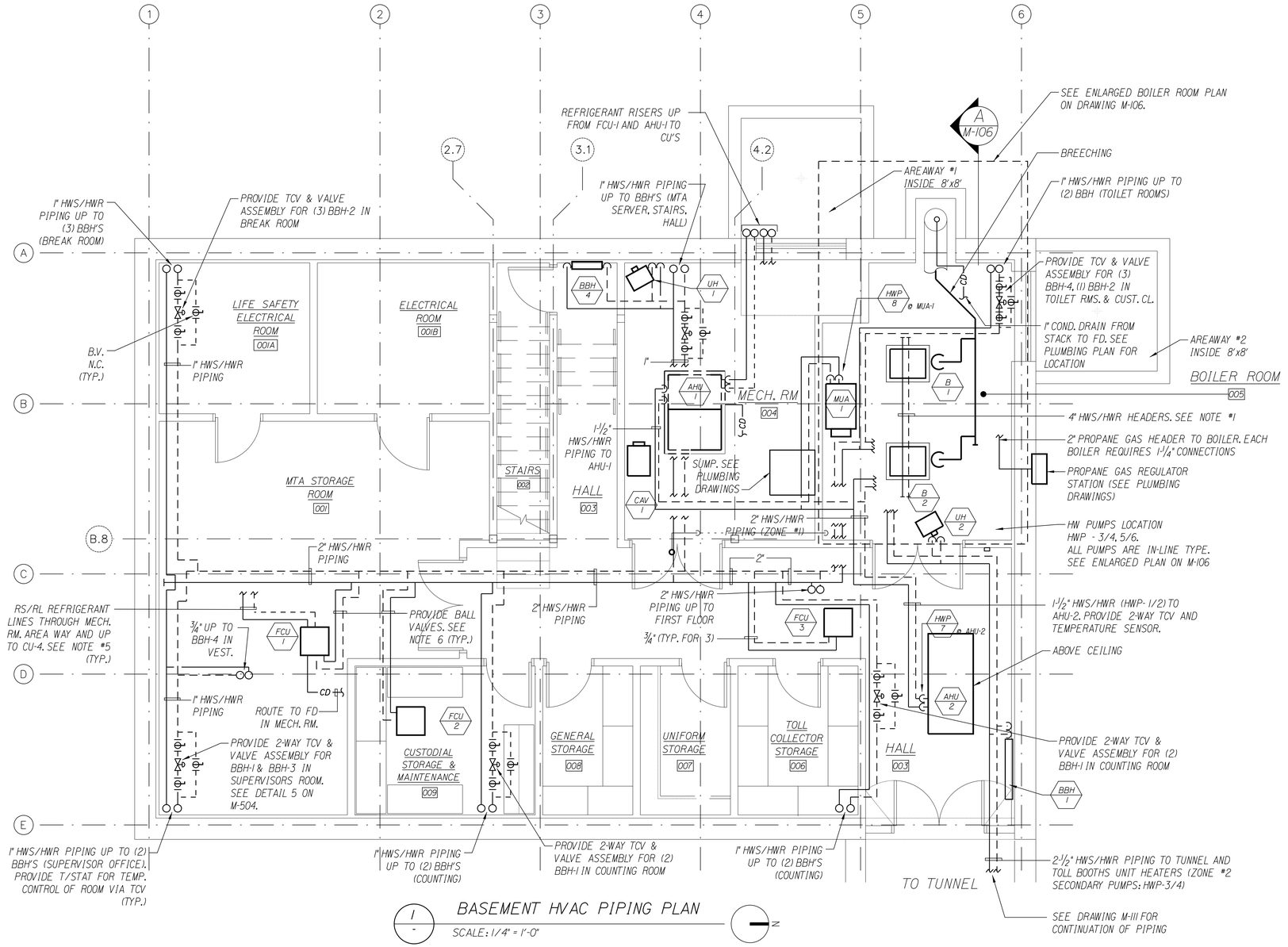
YORK TOLL PLAZA

ADMINISTRATION BUILDING

FIRST FLOOR HVAC DUCTWORK PLAN

SHEET NUMBER: M-102

CONTRACT:2018.20



1 / - BASEMENT HVAC PIPING PLAN

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

SHEET NOTES

1. REFER TO HOT WATER PIPING DIAGRAM DRAWING M-401. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF COMPLETE PIPING DIAGRAM AS ACTUAL LAYOUT WITH PUMPS AND ACCESSORIES.
2. HOT WATER PUMP (ZONE 1) HWP-1/2 SERVE AHU-1, AHU-2, MUA-1 & UH'S.
3. HWP-3/4 (ZONE 2) SERVE TUNNEL UH'S TOLL BOOTH CUH'S 4 THRU 12.
4. HWP-5/6 (ZONE 3) SERVE ALL BBH'S, CUH'S 1-3, VAV RHC'S AND FCU'S.
5. REFER TO CU-SCHEDULES FOR RS AND RL MIN. PIPE SIZES ADD SUCTION RISERS WITH TRAP FOR OIL RETURN.
6. PROVIDE ISOLATION BALL VALVES AT EACH BRANCH CONNECTION. TYPICAL FOR HEATING EQUIPMENT.
7. REFER TO 1ST FLOOR PIPING PLAN FOR ROUTING RS/RL PIPING FROM AHU-1, FCU-1, AC-1/2 TO CONDENSING UNITS OUTSIDE.
8. CONTRACTOR SHALL VERIFY LENGTHS OF REFRIGERANT PIPING FROM DX COIL IN UNITS TO CU'S AND NOT TO EXCEED MAX. DISTANCE AS REQUIRED BY MANUFACTURER. UPSIZE CU'S FOR REFRIGERANT PIPING THAT EXCEED MAX. LENGTH AS REQUIRED.

Date: 7/23/2018

Filename: ...\394_(M-103)_Layout_03_HVAC-AB.DGN

Scale: 0 4' 8' 12 — Scale of Feet

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MTA PROJECT MANAGER: R. NORWOOD

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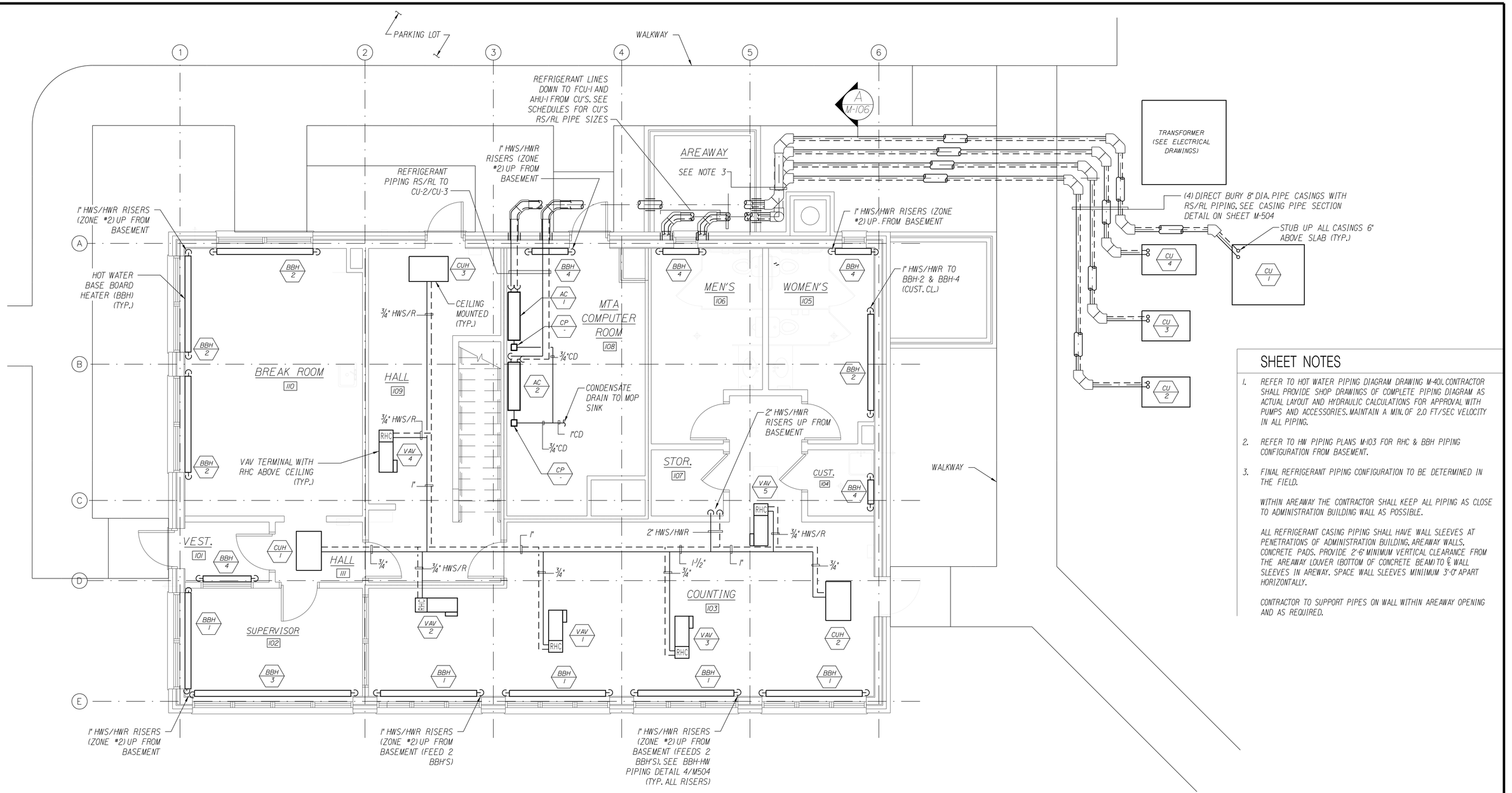
ADMINISTRATION BUILDING
BASEMENT HVAC PIPING PLAN

SHEET NUMBER: M-103

CONTRACT: 2018.20



1/- FIRST FLOOR HVAC PIPING PLAN

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

SHEET NOTES

1. REFER TO HOT WATER PIPING DIAGRAM DRAWING M-401. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF COMPLETE PIPING DIAGRAM AS ACTUAL LAYOUT AND HYDRAULIC CALCULATIONS FOR APPROVAL WITH PUMPS AND ACCESSORIES. MAINTAIN A MIN. OF 2.0 FT/SEC VELOCITY IN ALL PIPING.
2. REFER TO HW PIPING PLANS M-103 FOR RHC & BBH PIPING CONFIGURATION FROM BASEMENT.
3. FINAL REFRIGERANT PIPING CONFIGURATION TO BE DETERMINED IN THE FIELD.

   WITHIN AREAWAY THE CONTRACTOR SHALL KEEP ALL PIPING AS CLOSE TO ADMINISTRATION BUILDING WALL AS POSSIBLE.

   ALL REFRIGERANT CASING PIPING SHALL HAVE WALL SLEEVES AT PENETRATIONS OF ADMINISTRATION BUILDING, AREAWAY WALLS, CONCRETE PADS. PROVIDE 2'-6" MINIMUM VERTICAL CLEARANCE FROM THE AREAWAY LOUVER (BOTTOM OF CONCRETE BEAM) TO ℄ WALL SLEEVES IN AREWAY. SPACE WALL SLEEVES MINIMUM 3'-0" APART HORIZONTALLY.

   CONTRACTOR TO SUPPORT PIPES ON WALL WITHIN AREAWAY OPENING AND AS REQUIRED.

Date:8/28/2018

Filename: ...\395_(M-104)_Layout_04_HVAC-AB.DGN

Scale: AS NOTED

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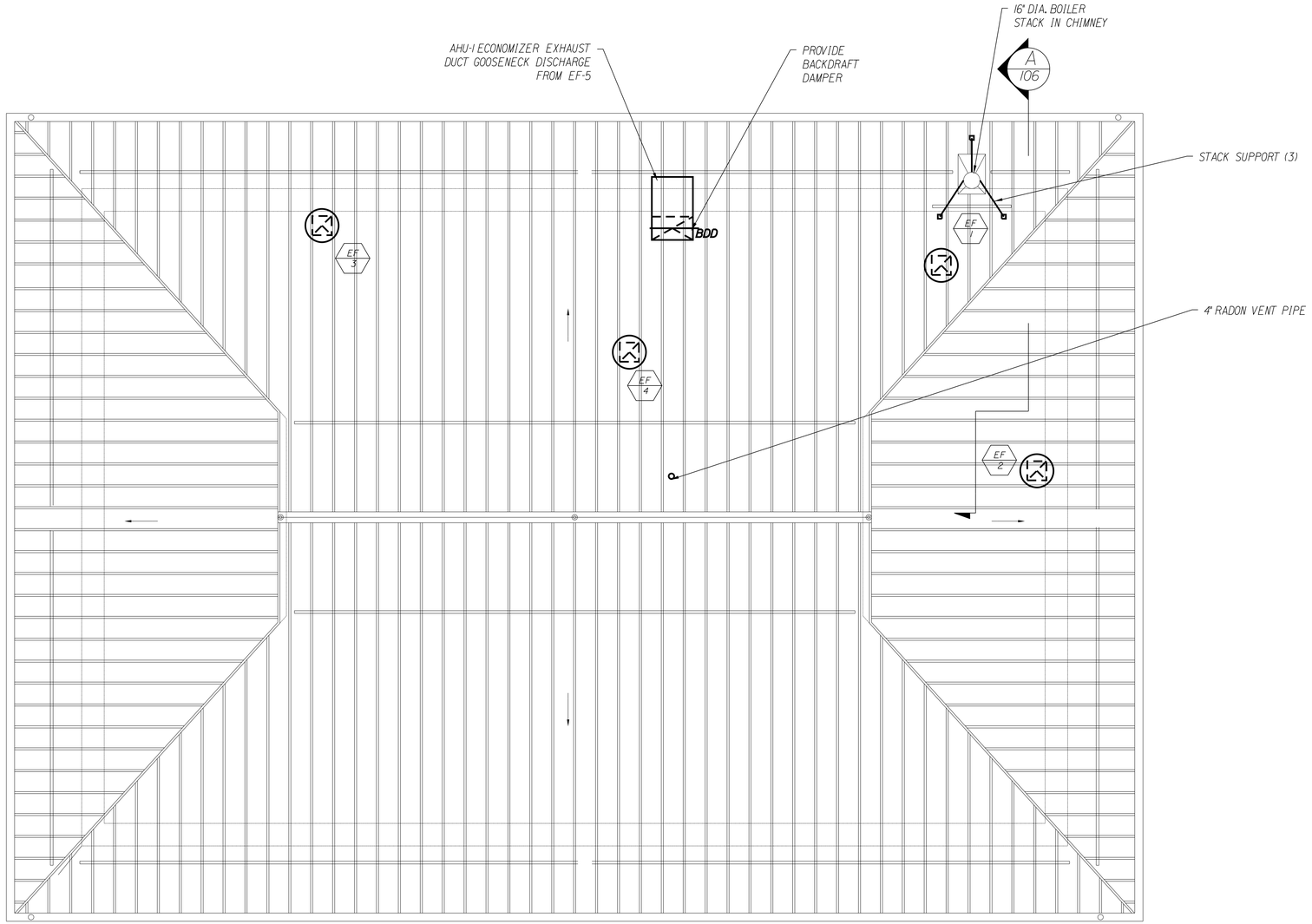
YORK TOLL PLAZA

ADMINISTRATION BUILDING
FIRST FLOOR HVAC PIPING PLAN

SHEET NUMBER: M-104

CONTRACT:2018.20



1 ROOF HVAC PLAN
SCALE: 1/4"= 1'-0"

N

Date:7/25/2018

Filename: ...\396_(M-105)_Layout_05_HVAC-AB.DGN

Scale:

0 4' 8' 12'
Scale of Feet

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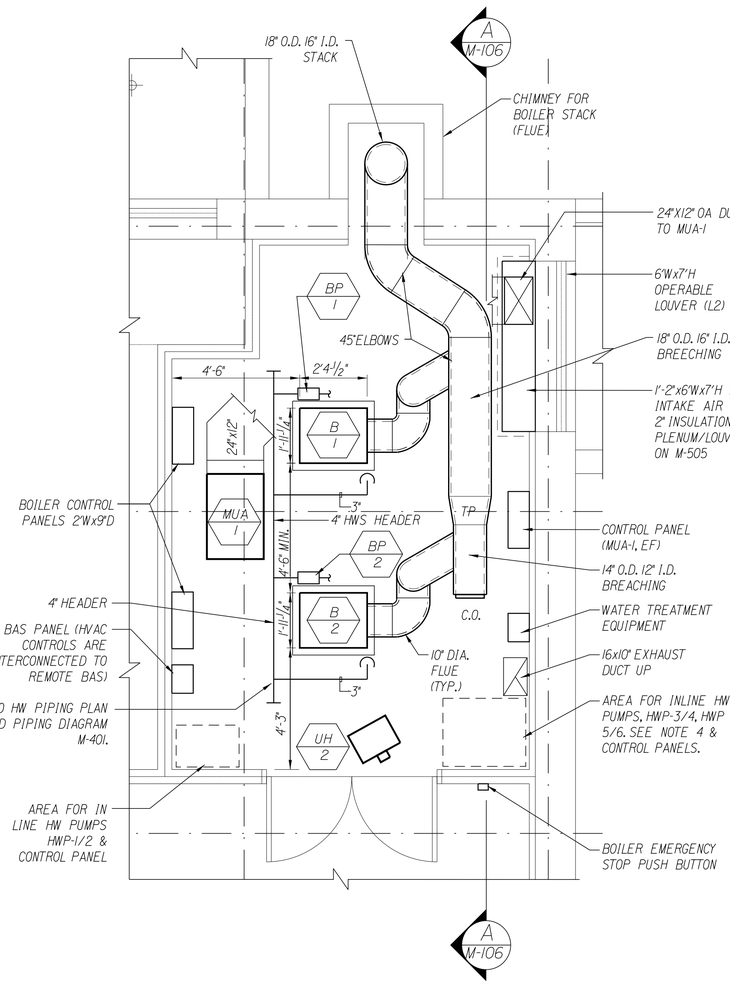
ADMINISTRATION BUILDING
ROOF HVAC PLAN

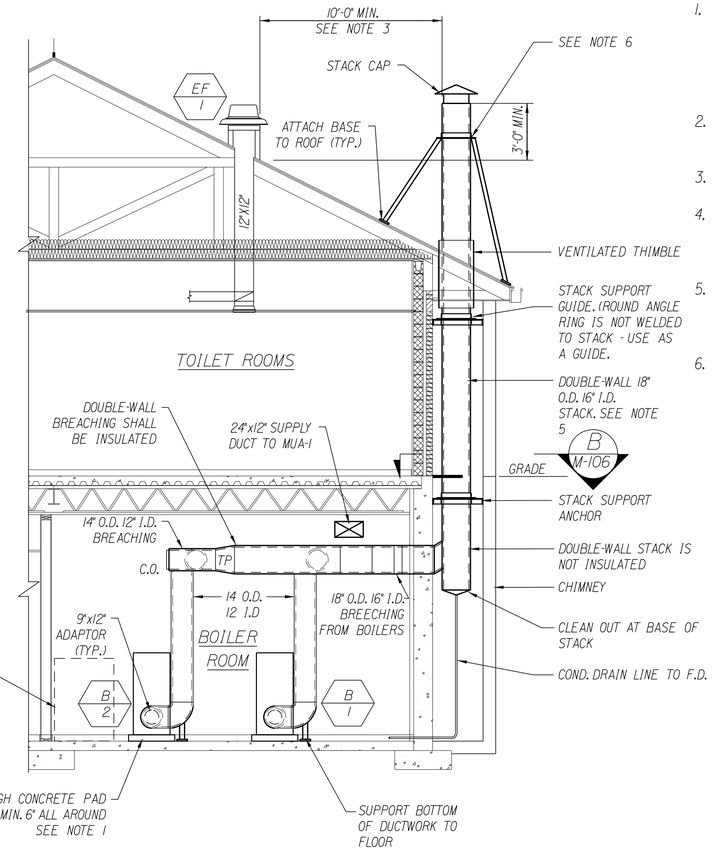
SHEET NUMBER: M-105

CONTRACT:2018.20



1 - ENLARGED BOILER ROOM PLAN

SCALE: 3/8" = 1'-0"

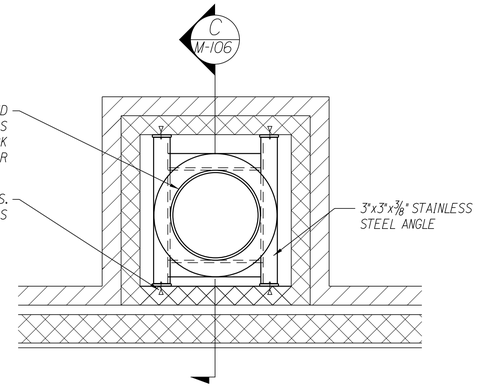


A - SECTION THRU BOILER ROOM

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

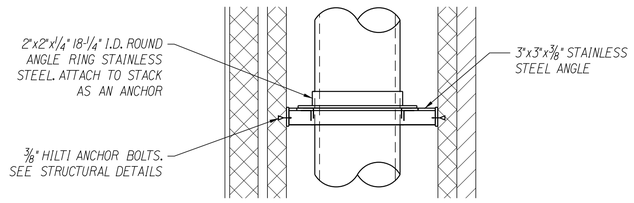
NOTES:

1. CONCRETE PAD SIZED BASED ON BASIS OF DESIGN BOILER SIZE. CONTRACTOR TO LOCATE CONCRETE PAD BASED ON SIZE OF BOILERS AND CLEARANCES AROUND BOILERS PER CODE REQUIREMENTS, HW PIPING, PROPANE GAS PIPING, MAINTENANCE AND AREA FOR REPLACING CAST IRON SECTIONS. CONTRACTOR SHALL PROVIDE SHOP DRAWING OF BOILER LAYOUT WITH DUCTWORK, PIPING CLEARANCE AS REQUIRED FOR APPROVAL BY ENGINEER.
2. BOILER LAYOUT BASED ON BASIS OF DESIGN, LOCHINVAR BOILERS. REFER TO BOILER SCHEDULE FOR DIMENSIONS.
3. STACK TERMINATION IS BASED ON INTERNATIONAL FUEL GAS CODE, IFGC, 2015.
4. CONTRACTOR SHALL LAYOUT HW PUMPS (IN-LINE TYPE). REFER TO HW PIPING DIAGRAM ON M-401. PROVIDE SHOP DRAWINGS FOR PIPING AND PUMP LAYOUT AND HYDRAULIC CALCULATIONS FOR APPROVAL.
5. MINIMUM STACK HEIGHT AS SHOWN IS 25 FT. FROM BASE TO OUTLET. MINIMUM HEIGHT IS REQUIRED FOR DRAFT OF BOILER. CONTRACTOR SHALL VERIFY REQUIRED STACK HEIGHT FOR PURCHASED BOILER.
6. PROVIDE STACK SUPPORT INCLUDING ANGLE RING (GUIDE - NOT CONNECTED TO STACK) AND (3) ANGLE BRACES TO ROOF.



B - SECTION

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



C - SECTION

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

Date:7/23/2018

Filename: ...\397_(M-106)_LAYOUT_06_BOILER-AB.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ENLARGED BOILER ROOM PLAN AND SECTION

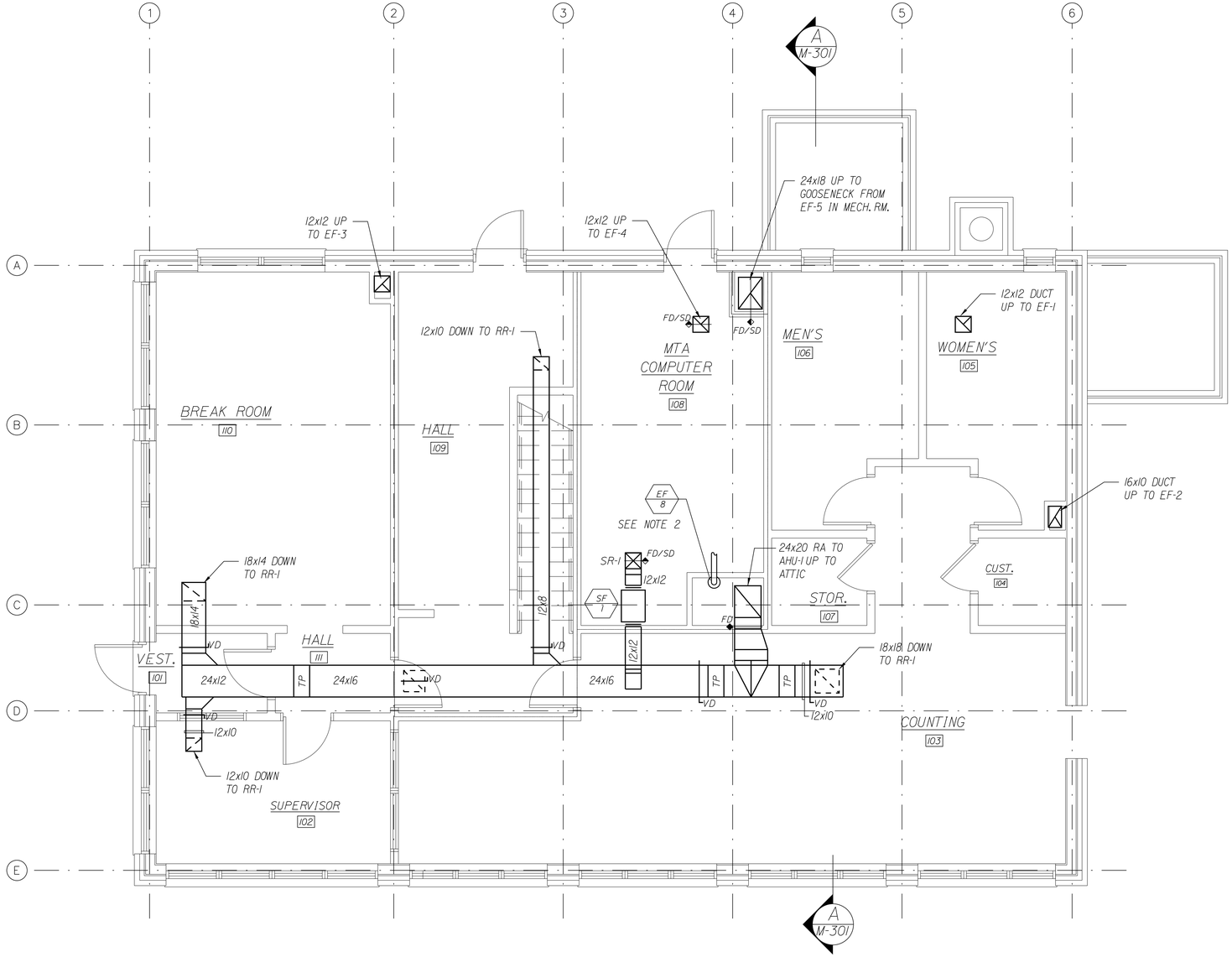
SHEET NUMBER: M-106

CONTRACT:2018.20

Date:7/23/2018

SHEET NOTES

1. REFER TO HW PIPING PLANS M-103 AND M-104 FOR RHC, CUH & BBH PIPING CONFIGURATION FROM BASEMENT.
2. 4" DIAMETER DUCT UP TO EF-8 FOR RADON MITIGATION SYSTEM.
3. SEE RA DUCTWORK,, SF-1 AND SUPPLY DUCTWORK ON M-301



1/- FIRST FLOOR RETURN DUCTWORK PLAN

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

N

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

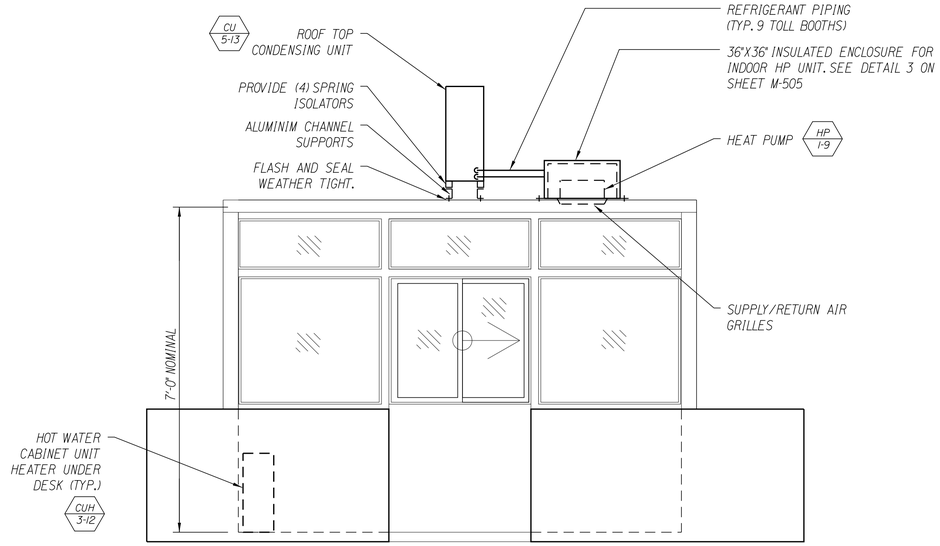
YORK TOLL PLAZA

ADMINISTRATION BUILDING
FIRST FLOOR RETURN DUCTWORK PLAN

SHEET NUMBER: M-107

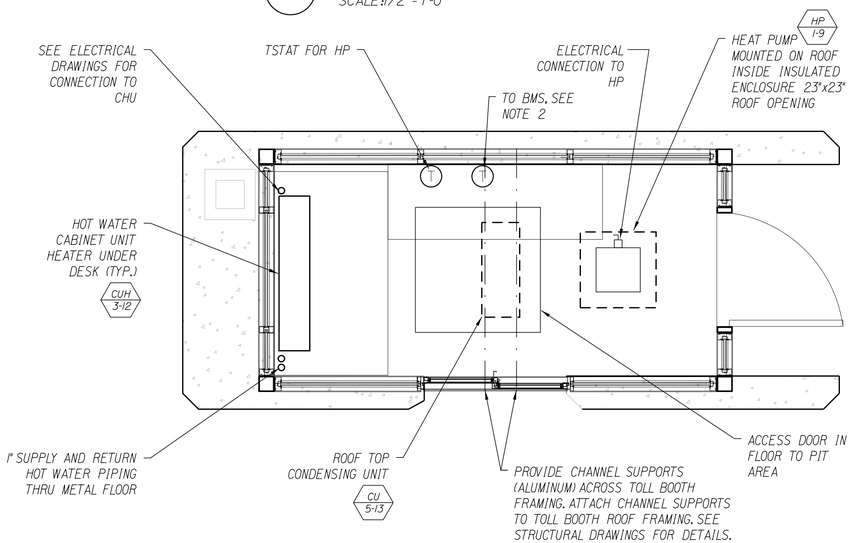
CONTRACT:2018.20

Filename: ...\398_(M-107)_Layout_07_HVAC-AB.DGN



1 - TOLL BOOTH HVAC MECHANICAL ELEVATION

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



2 - TOLL BOOTH HVAC MECHANICAL PLAN

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

TYPICAL (9) TOLL BOOTHS

SHEET NOTES

1. CABINET UNIT HEATERS (CUH's) DO NOT INCLUDE TEMPERATURE SENSOR OR TEMPERATURE CONTROL VALVE. THE HOT WATER RETURN WILL BE WATER BALANCED FOR HEATING CONTROL. ANY CHANGES TO WATER FLOW WILL BE THROUGH THE BALANCING VALVE. THE BMS SHALL MONITOR SPACE TEMPERATURE. OCCUPANTS SHALL BE ABLE TO MANUALLY ADJUST CUH FAN SPEED (3) FOR HEATING CONTROL IN THE SPACE.
2. PROVIDE TEMPERATURE SENSOR AND INTERCONNECT TO BMS. SENSOR IS FOR MONITORING SPACE TEMPERATURE ONLY.

GENERAL NOTES

1. THE ROOF OF THE TOLL BOOTH IS NOT STRUCTURALLY BUILT AND CONTRACTOR IS RESPONSIBLE FOR PROVIDING REQUIRED STAGING AND TEMPORARY SUPPORTS FOR ROOF ACCESS.
2. CONTRACTOR SHALL NOT ACCESS ROOF WITHOUT TEMPORARY SUPPORTS.

Date:7/25/2018

Filename: ...\399_(M-110)_Layout_01-TB_HVAC.DGN

Scale: 0 1' 2' 4'

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

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

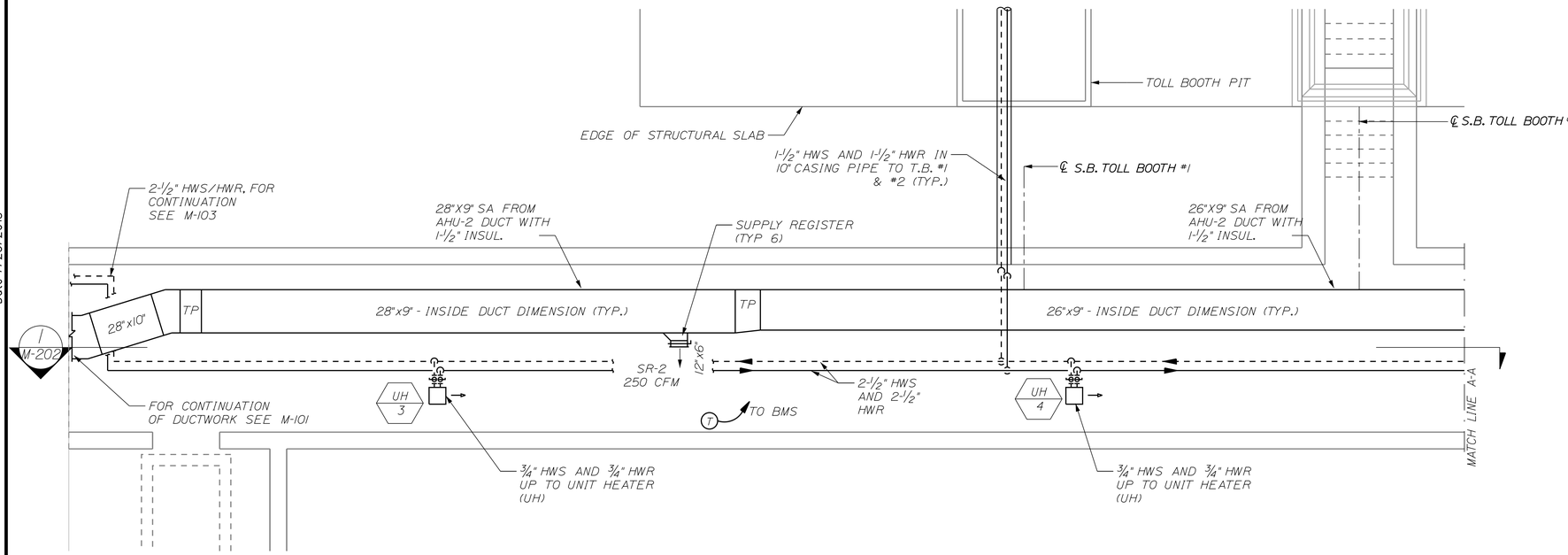
TOLL BOOTH MECHANICAL PLAN AND ELEVATION

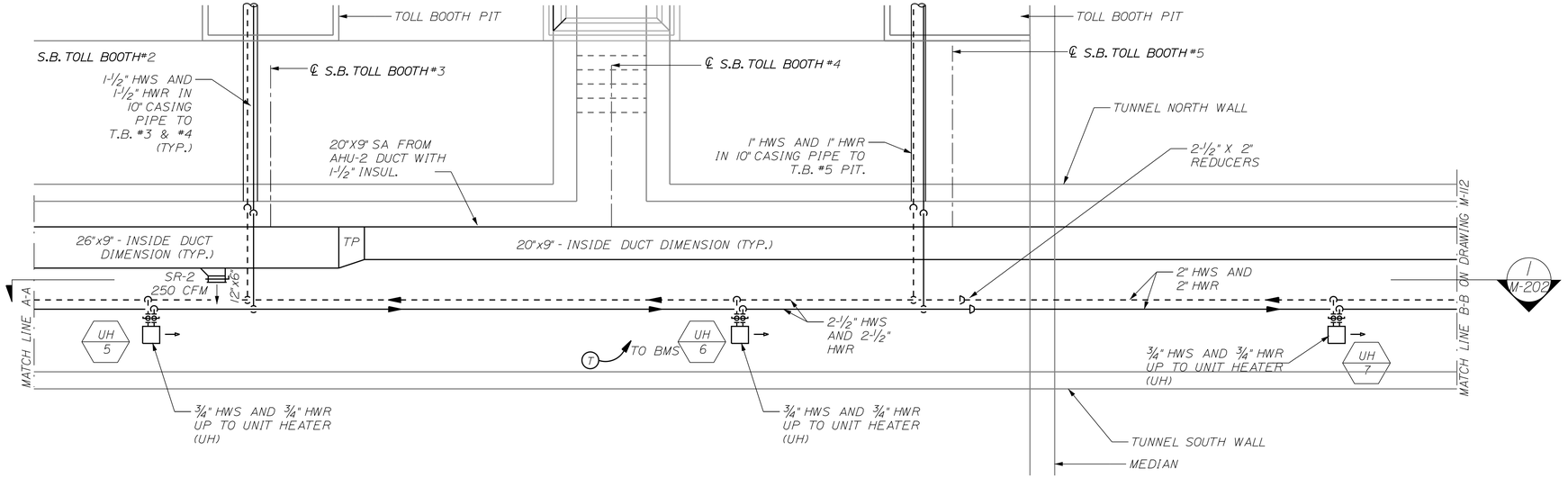
SHEET NUMBER: M-110

CONTRACT:2018.20

SHEET NOTES

(a) AIR HANDLER AHU-2 FEEDS SUPPLY AIR DUCT LOCATED IN UTILITY ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-101.
(b) EXHAUST FANS LOCATED ON ROOF OF STAIRCASE ENCLOSURES AT TOLL BOOTH LANES 7 AND 9. SEE DRAWING M-112
(c) BOILERS FOR HOT WATER PIPING LOCATED IN BOILER ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-103
(d) UNIT HEATERS (FED BY HOT WATER LINE) TO BE LOCATED BELOW CEILING OF THE TUNNEL AT APPROXIMATE LOCATIONS SHOWN. (IO) UH's ARE INDICATED (MIN. QTY.) MAX. SPACING BETWEEN UH's SHALL NOT EXCEED 40 FEET.
(e) SEE PARTIAL TOLL BOOTH AND TUNNEL PLAN AND SECTION ON DRAWINGS M-110 AND M-302 FOR TYPICAL HWS/HWR PIPING TO TOLL BOOTHS.
(f) BOTTOM OF DUCT (B.O.D.) IN TUNNEL MIN 7'-0" AFF.





1/- TUNNEL - HVAC PLAN
SCALE: 1/4"=1'-0"

N

Date: 7/23/2018

Filename: ...\400_(M-111)_HVAC_Composite Utility Plan (1of).dgn

Scale: 0 4' 8' 12' — Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

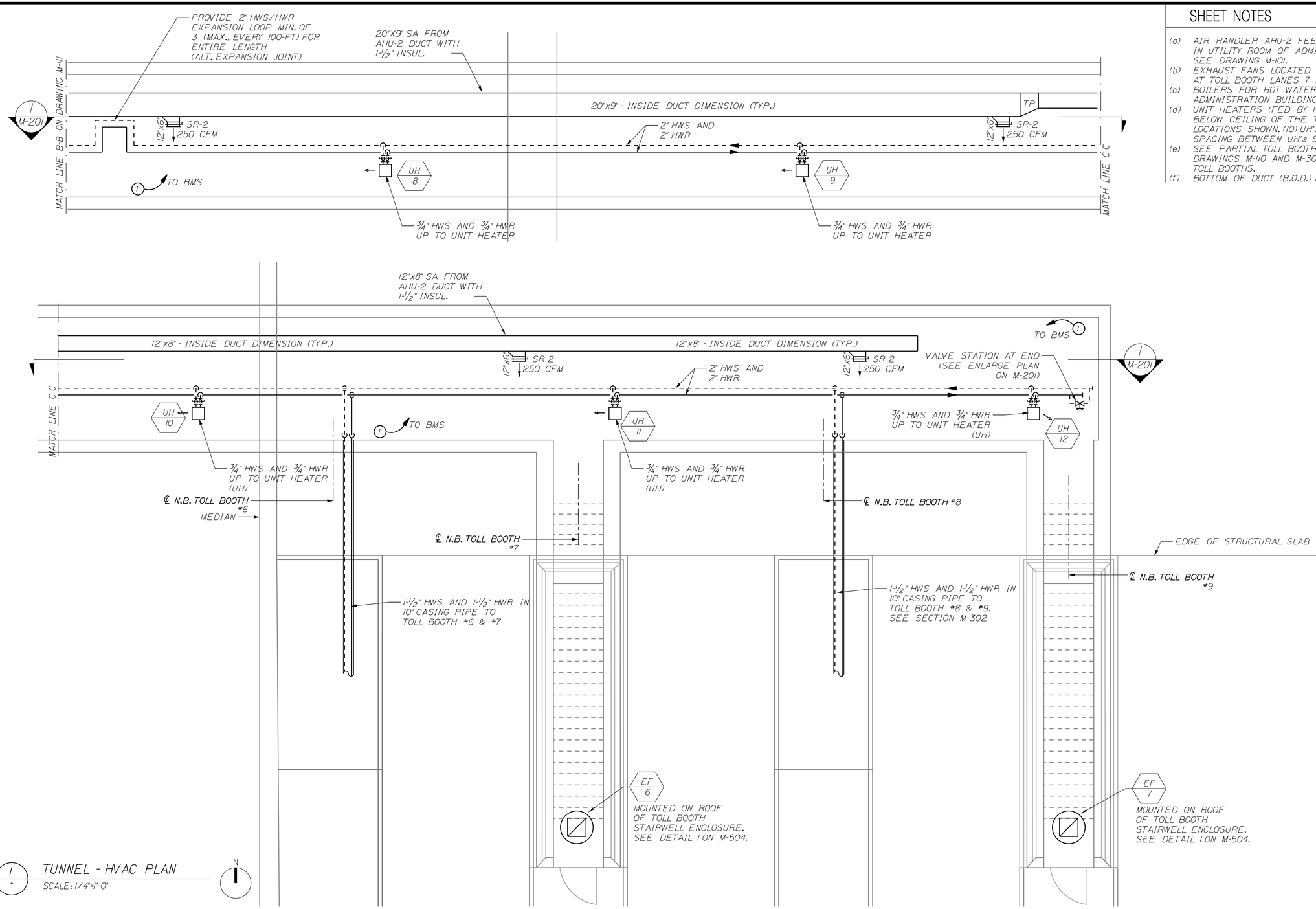
TUNNEL MECHANICAL PLAN SHEET 1 OF 2

SHEET NUMBER: M-111

CONTRACT: 2018.20

SHEET NOTES

(a) AIR HANDLER AHU-2 FEEDS SUPPLY AIR DUCT LOCATED IN UTILITY ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-101.
(b) EXHAUST FANS LOCATED ON ROOF OF STAIRCASE ENCLOSURES AT TOLL BOOTH LANES 7 AND 9. SEE DRAWING M-112
(c) BOILERS FOR HOT WATER PIPING LOCATED IN BOILER ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-103
(d) UNIT HEATERS (FED BY HOT WATER LINE) TO BE LOCATED BELOW CEILING OF THE TUNNEL AT APPROXIMATE LOCATIONS SHOWN. (10) UH's ARE INDICATED (MIN. QTY.) MAX. SPACING BETWEEN UH's SHALL NOT EXCEED 40 FEET.
(e) SEE PARTIAL TOLL BOOTH AND TUNNEL PLAN AND SECTION ON DRAWINGS M-110 AND M-302 FOR TYPICAL HWS/HWR PIPING TO TOLL BOOTHS.
(f) BOTTOM OF DUCT (B.O.D.) IN TUNNEL MIN 7'-0" AFF.



1 / - TUNNEL - HVAC PLAN
SCALE: 1/4"=1'-0"

N

Date: 7/23/2018

Filename: ...\401_(M-112)_HVAC_Composite Utility Plan (2of).dgn

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL MECHANICAL PLAN
SHEET 2 OF 2

SHEET NUMBER: M-112

CONTRACT: 2018.20

401 OF 489

SHEET NOTES

(a) AIR HANDLER AHU-2 THAT FEEDS SUPPLY AIR DUCT LOCATED IN UTILITY ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-101.

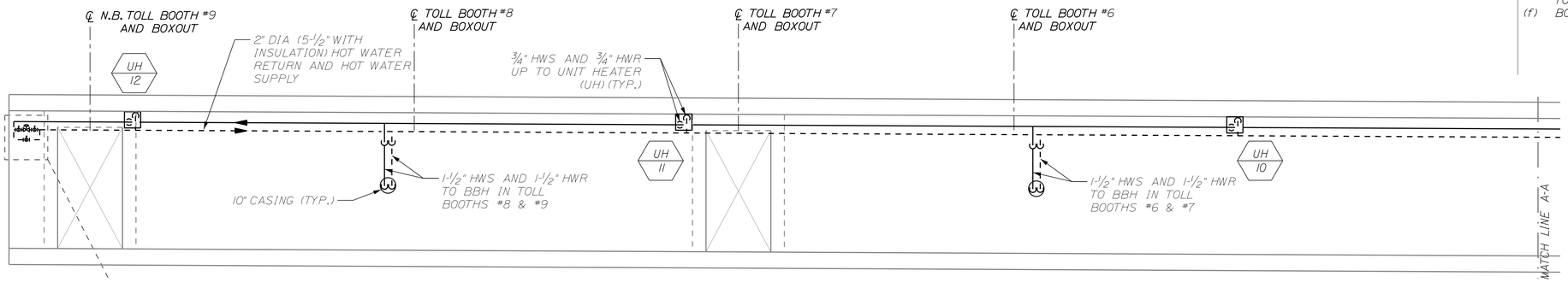
(b) EXHAUST FANS LOCATED ON ROOF OF STAIRCASE ENCLOSURES AT TOLL BOOTH LANES 7 AND 9. SEE DRAWING M-112

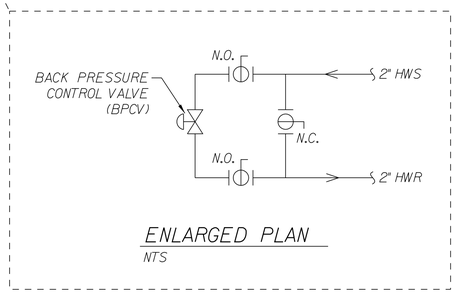
(c) BOILERS FOR HOT WATER PIPING LOCATED IN BOILER ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-103

(d) UNIT HEATERS (FED BY HOT WATER LINE) TO BE LOCATED BELOW CEILING OF THE TUNNEL AT APPROXIMATE LOCATIONS SHOWN. (10) UH's ARE INDICATED (MIN. QTY.) MAX. SPACING BETWEEN UH's SHALL NOT EXCEED 40 FEET.

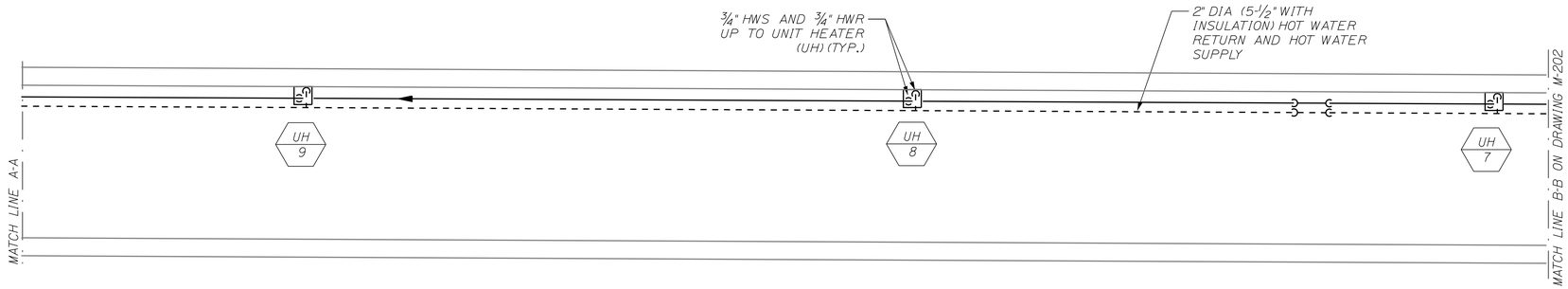
(e) SEE PARTIAL TOLL BOOTH AND TUNNEL PLAN AND SECTION ON DRAWINGS M-110 AND M-302 FOR TYPICAL HWS/HWR PIPING TO TOLL BOOTHS.

(f) BOTTOM OF DUCT (B.O.D.) IN TUNNEL MIN 7'-0" AFF.





ENLARGED PLAN
NTS



1 - TUNNEL - HVAC SOUTH WALL ELEVATION
SCALE: 1/4"=1'-0"

Date: 7/23/2018

Filename: ...\402_(M-201)_HVAC_Composite Utility South Wall Elevations (1of).dgn

Scale: 0 4 8 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

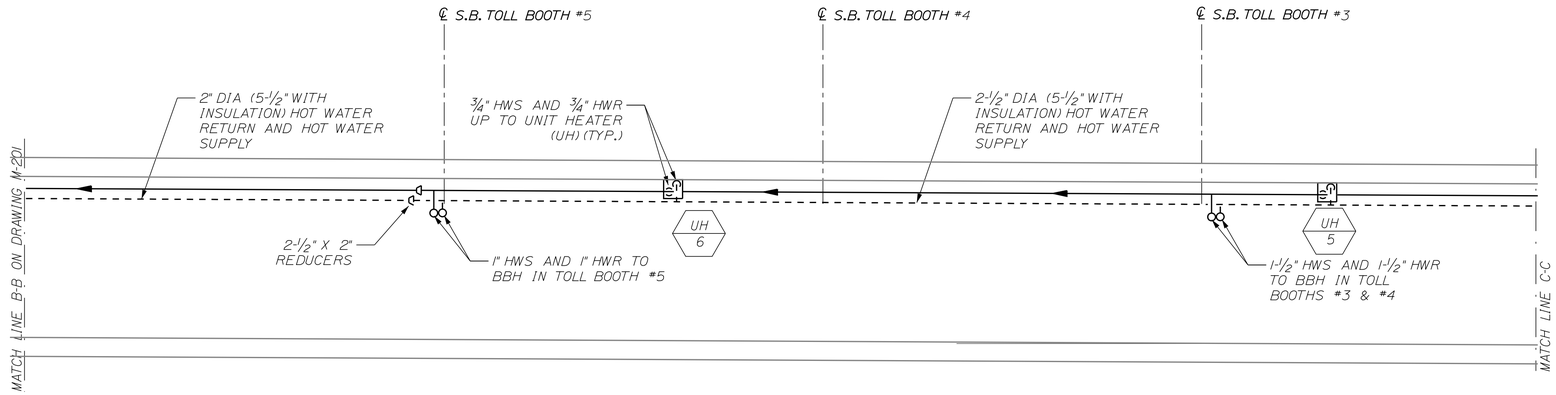
TUNNEL MECHANICAL
SOUTH WALL ELEVATION SHEET 1 OF 2

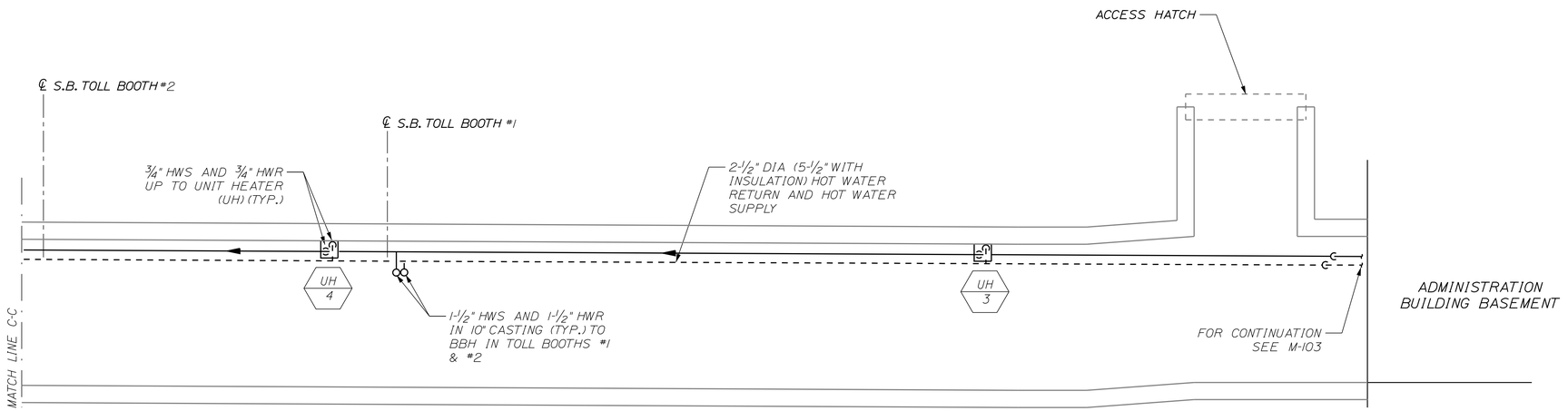
SHEET NUMBER: M-201

CONTRACT: 2018.20

SHEET NOTES

(a) AIR HANDLER AHU-2 THAT FEEDS SUPPLY AIR DUCT LOCATED IN UTILITY ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-101.
(b) EXHAUST FANS LOCATED ON ROOF OF STAIRCASE ENCLOSURES AT TOLL BOOTH LANES 7 AND 9. SEE DRAWING M-112
(c) BOILERS FOR HOT WATER PIPING LOCATED IN BOILER ROOM OF ADMINISTRATION BUILDING BASEMENT. SEE DRAWING M-103
(d) UNIT HEATERS (FED BY HOT WATER LINE) TO BE LOCATED BELOW CEILING OF THE TUNNEL AT APPROXIMATE LOCATIONS SHOWN. (10) UH's ARE INDICATED (MIN. QTY.) MAX. SPACING BETWEEN UH's SHALL NOT EXCEED 40 FEET.
(e) SEE PARTIAL TOLL BOOTH AND TUNNEL PLAN AND SECTION ON DRAWINGS M-110 AND M-302 FOR TYPICAL HWS/HWR PIPING TO TOLL BOOTHS.
(f) BOTTOM OF DUCT (B.O.D.) IN TUNNEL MIN 7'-0" AFF.





1 / - TUNNEL - HVAC SOUTH WALL ELEVATION
SCALE: 1/4"=1'-0"

Date:7/23/2018

Filename: ...\403_(M-202)_HVAC_Composite Utility South Wall Elevations (2of).dgn

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

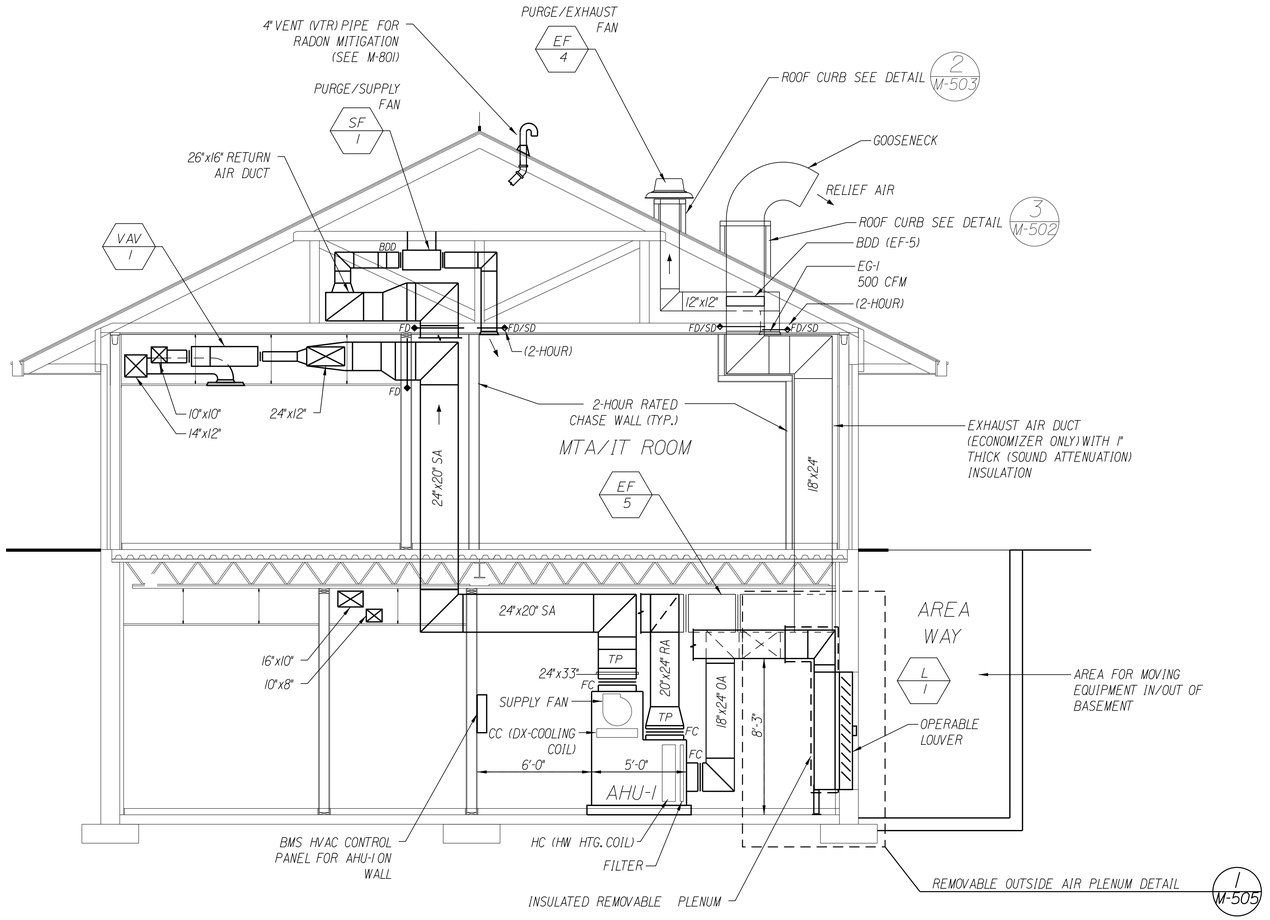
TUNNEL MECHANICAL
SOUTH WALL ELEVATION SHEET 2 OF 2

SHEET NUMBER: M-202

CONTRACT:2018.20

SHEET NOTES

1. INSULATE ALL SUPPLY AIR, RETURN AIR AND OUTSIDE DUCTWORK ABOVE CEILING AND IN ATTIC, WITH 2" THICK INSULATION, AND EF-5 EXHAUST DUCT WITH 1" THICK INSULATION (SOUND ATTENUATION).



A/M-301 ADMIN. BUILDING - HVAC SECTION

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

Date:7/23/2018

Filename: ...\404_(M-301)_HVAC_section_AB.DGN

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
HVAC SECTION

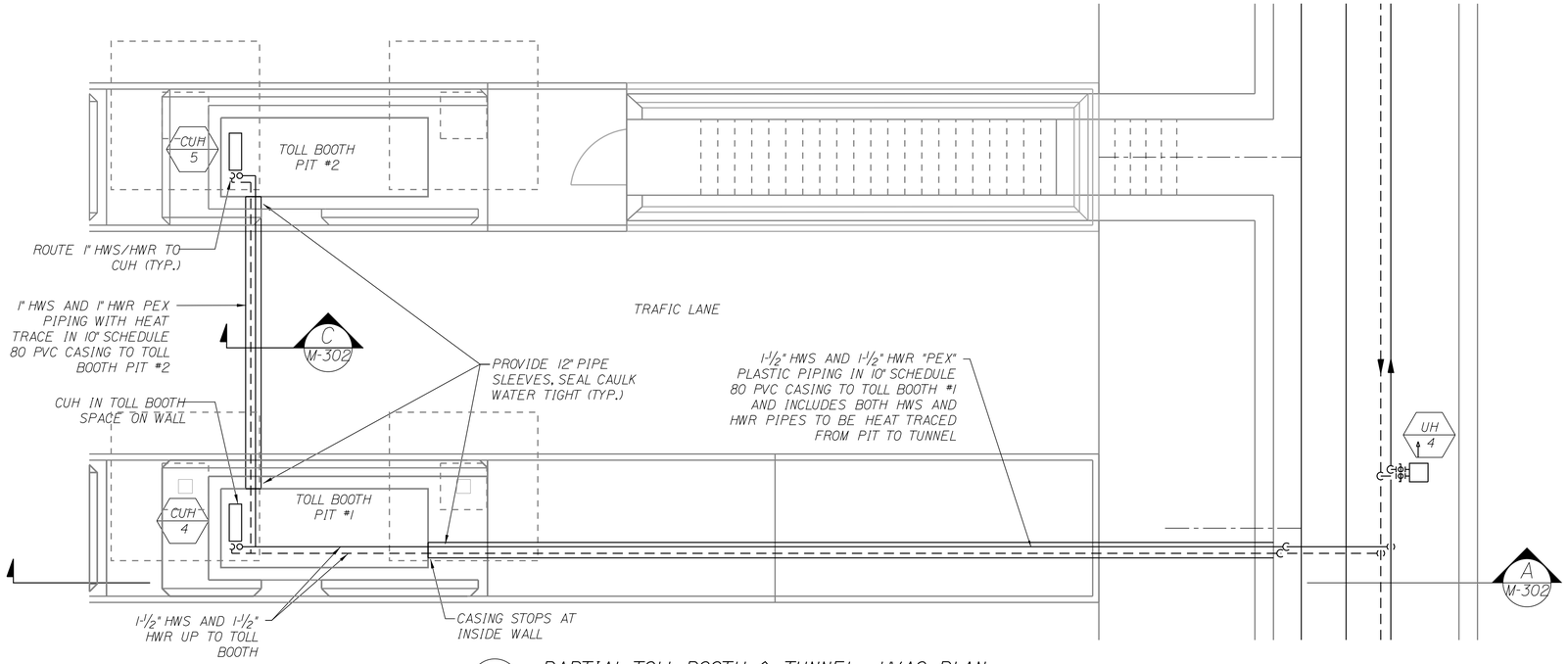
SHEET NUMBER: M-301

CONTRACT:2018.20

Date:7/23/2018

SHEET NOTES

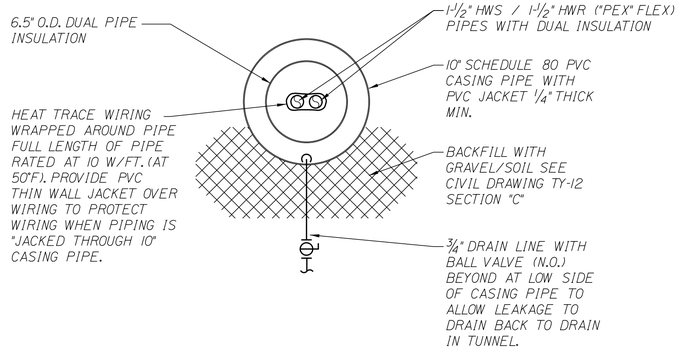
1. REFER TO CIVIL DRAWINGS FOR PIPE DETAIL.
2. REFER TO ELECTRICAL DRAWINGS FOR HEAT TRACING CIRCUIT DETAILS.
3. 10" CASING IS SHOWN ROUTED STRAIGHT. DO NOT PROVIDE MORE THAN ONE (1) 45°ELBOW IN LENGTH AND AS PER MANUFACTURERS RECOMMENDATIONS.
4. PROVIDE EXPANSION COMPENSATION IN 10" CASING PIPES AND 1" HWS AND 1-1/2" HWR.
5. LOCATION OF PIPES AND DUCTS SHOWN ON THIS SHEET ARE SCHEMATIC IN NATURE ONLY. EXACT LOCATIONS TO BE DETERMINED AFTER TUNNEL COORDINATION MEETING. TOLL EQUIPMENT, CONDUIT WIREWAYS, BOXES TO BE INSTALLED PRIOR TO HVAC AND LOCATION OF TOLL EQUIPMENT WILL TAKE PRIORITY OVER HVAC.



1 / - PARTIAL TOLL BOOTH & TUNNEL - HVAC PLAN

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

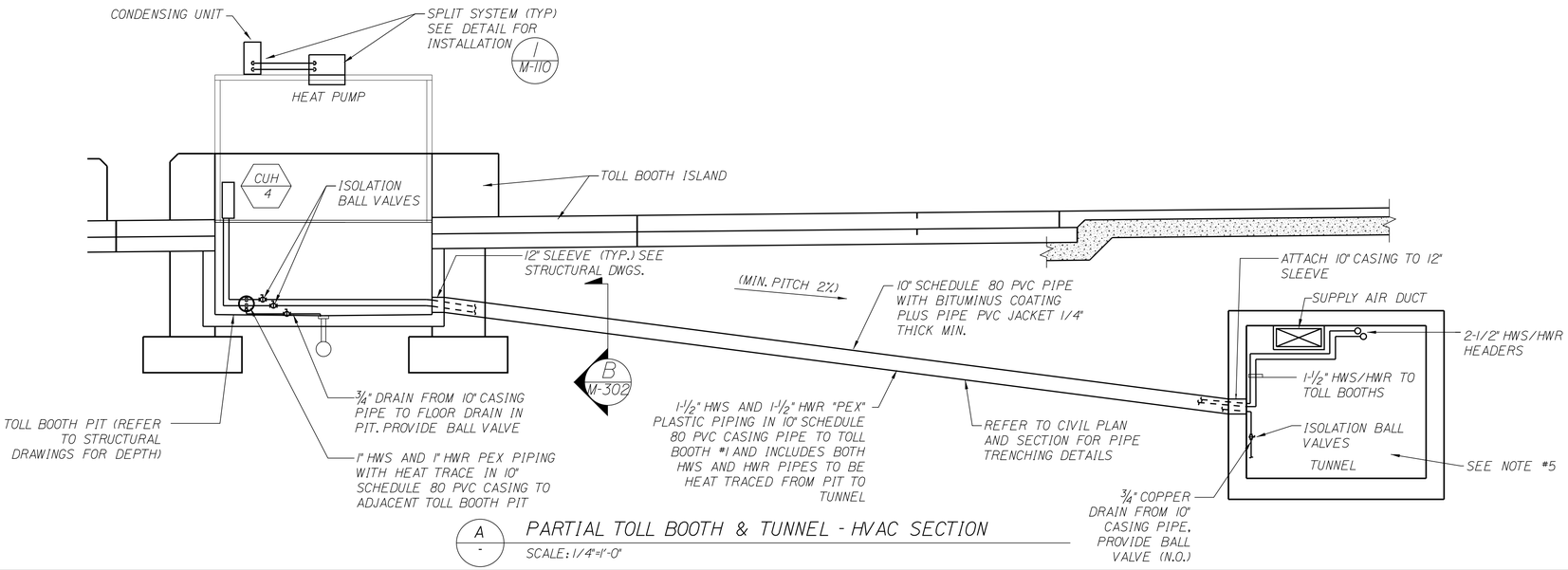
TYPICAL LAYOUT OF HW PIPING FOR ADJACENT TOLL BOOTHS WITH STAIR CASES



B / - HW PIPING SECTION

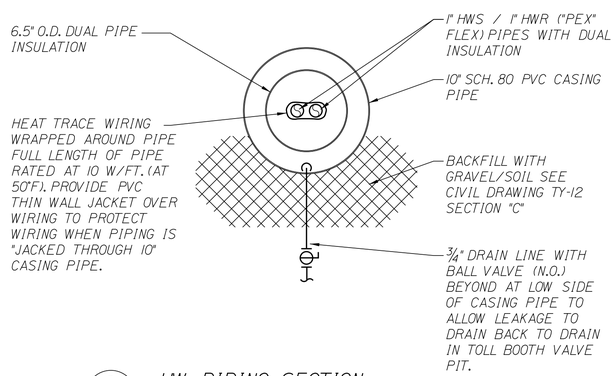
N.T.S.

FOR PIPING BETWEEN TUNNEL AND 1ST TOLL BOOTH PIT



A / - PARTIAL TOLL BOOTH & TUNNEL - HVAC SECTION

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



C / - HW PIPING SECTION

N.T.S.

FOR PIPING BETWEEN TUNNEL AND 1ST TOLL BOOTH PIT

Scale:

0 4' 8' 12'

Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

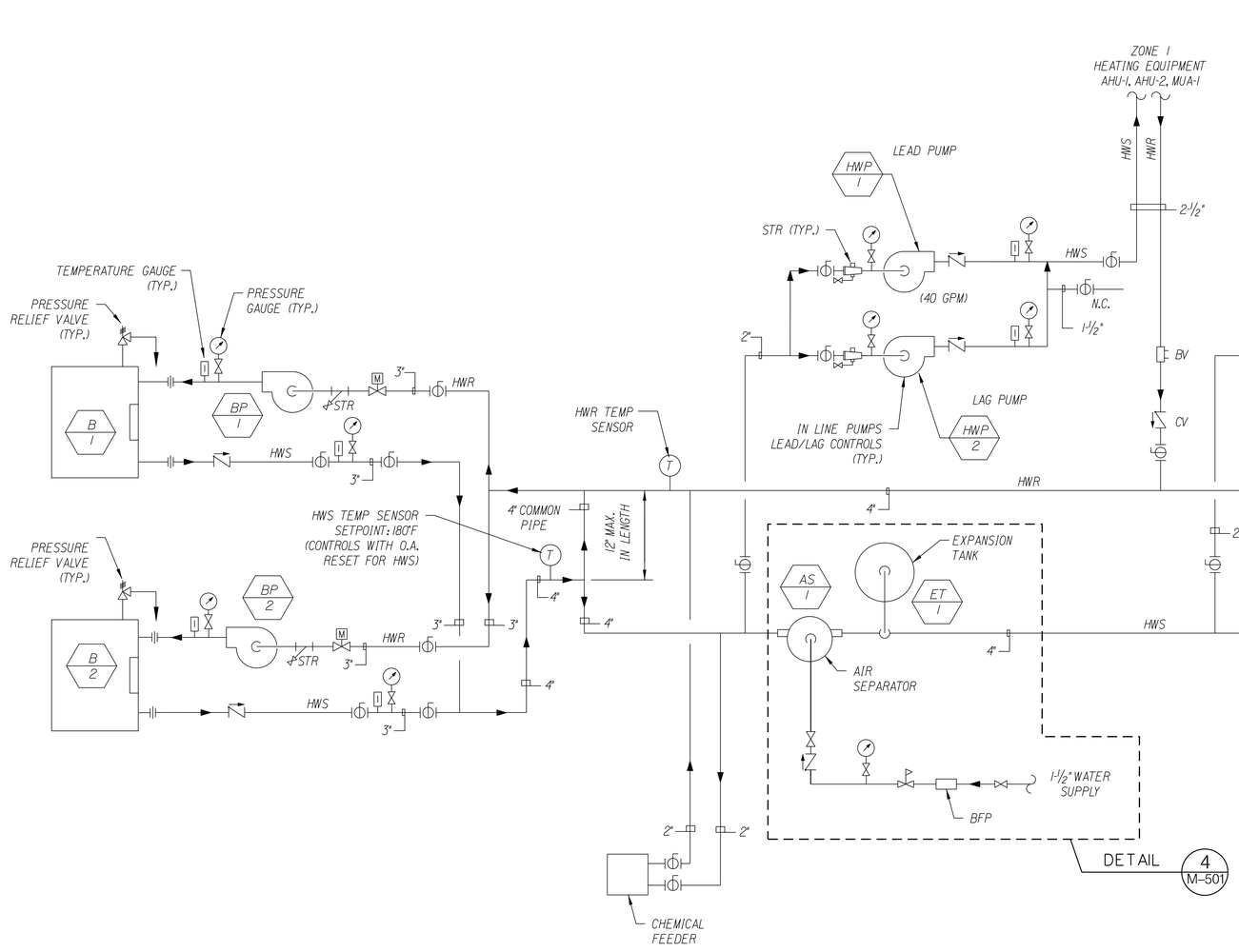
PARTIAL TOLL BOOTH HVAC PLAN AND SECTION

SHEET NUMBER: M-302

CONTRACT:2018.20

405 OF 489

Filename: ...\405_(M-302)_HVAC_Partial TunnelPlan.dgn



1 - HOT WATER PIPING DIAGRAM

NOT TO SCALE

SHEET NOTES

1. SEE HW DISTRIBUTION PIPING FOR ALL ZONES (3) ON HW PIPING PLANS, DRAWINGS M-103, M-104, M-111, M-112 AND M-301. HW PUMPING SYSTEM IS ARRANGED AS PRIMARY / SECONDARY PUMPING.
2. EACH HW ZONE CONTAINS 2 - HW PUMPS. 1ST PUMP IS LEAD AND 2ND PUMP IS LAG. ONLY ONE PUMP SHALL OPERATE AT ONCE. LEAD/LAG CONTROLLER FOR BOTH PUMPS WILL CONTROL LEAD/LAG OPERATION BASED ON TIME OF OPERATION, AND IF LEAD PUMP SHUTS DOWN FOR ANY REASON, PUMPS, STARTERS, AND LEAD/LAG CONTROLLER SHALL BE MONITORED AND CONTROLLED V/A BMS. SECONDARY HW PUMPS HWP-1/2/3/4/5/6 SHALL INCLUDE VFD FOR VARIABLE FLOW FOR EACH ZONE.
3. AHU-2 AND MUA-1 HW TO HW COIL SHALL CONTAIN 2-WAY CONTROL VALVES PLUS BYPASS PUMP (NOT SHOWN ABOVE) FOR FREEZE PROTECTION.
4. REFER TO CONTROLS DIAGRAM FOR ADDITIONAL CONTROLS REQUIREMENTS AND SEQUENCES OF OPERATION OF PUMPS.
5. AIR SEPARATOR LOCATED AS PER BOILER MANUFACTURER RECOMMENDATIONS PER HW SYSTEM LAYOUT.
6. REFER TO HW SYSTEM CONTROL DIAGRAM M-703.
7. ALL HVAC HEATING SHALL HAVE 2-WAY TEMPERATURE CONTROL VALVES (TCV), 3-WAY VALVE AT AHU-2 AND MAU-1 ONLY FOR FREEZE PROTECTION.
8. PROVIDE BALANCING VALVES AT EACH BRANCH CONNECTION TO RETURN MAIN AND AT HWR FOR EACH HEATING EQUIPMENT AND AFTER EACH PUMP DISCHARGE.
9. PROVIDE TRIPLE DUTY VALVE AS SUBSTITUTED FOR CHECK/ISOLATION/BALANCING VALVES.
10. REFER TO HW EQUIPMENT AND PIPING INSTALLATION DETAILS ON M-501 THRU M-505.
11. HW PIPING DIAGRAM IS ARRANGED FOR BOILERS DESIGNED AND CONSTRUCTED FOR UP TO 160 PSIG WORKING PRESSURE. WHERE BOILER PUMPS ARE DISCHARGING TOWARDS BOILER(S). THE DESIGN WORKING PRESSURE OF THE HOT WATER SYSTEM IS 50 PSIG. LOWER PRESSURE BOILERS DESIGNED AND CONSTRUCTED FOR 30 PSIG WORKING PRESSURE ARE NOT ACCEPTED. THE PUMP WOULD BE ARRANGED TO DISCHARGE TOWARDS SYSTEM.

Date: 7/23/2018

Filename: ...\406_(M-401)_Piping_Diagrams_01_HVAC.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

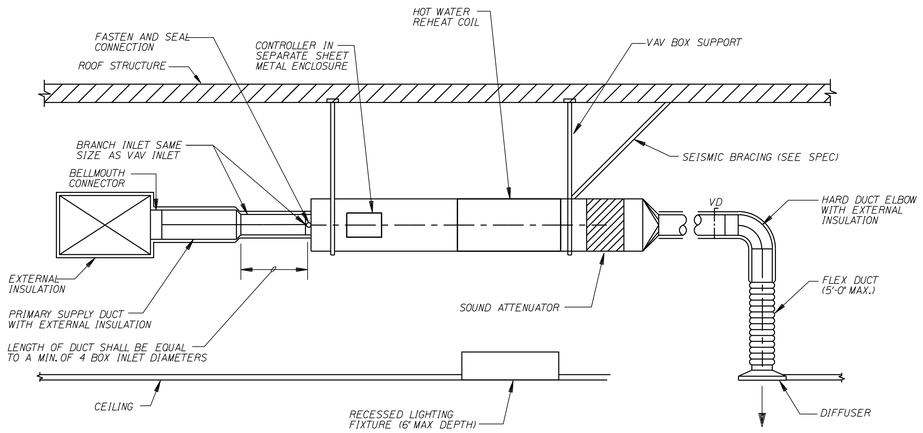
HOT WATER PIPING DIAGRAM

SHEET NUMBER: M-401

CONTRACT: 2018.20

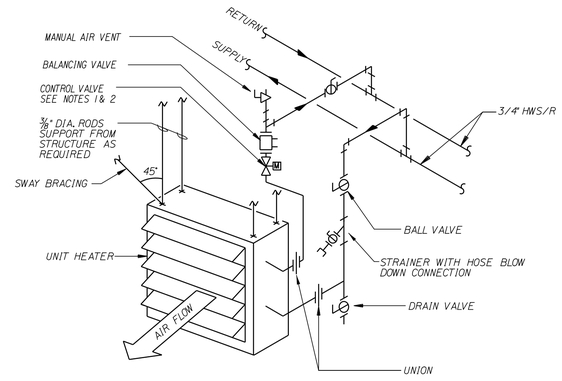
406 OF 489

Date:7/25/2018



1 / - TERMINAL UNIT CONCEALED - (VAV) VARIABLE VOLUME

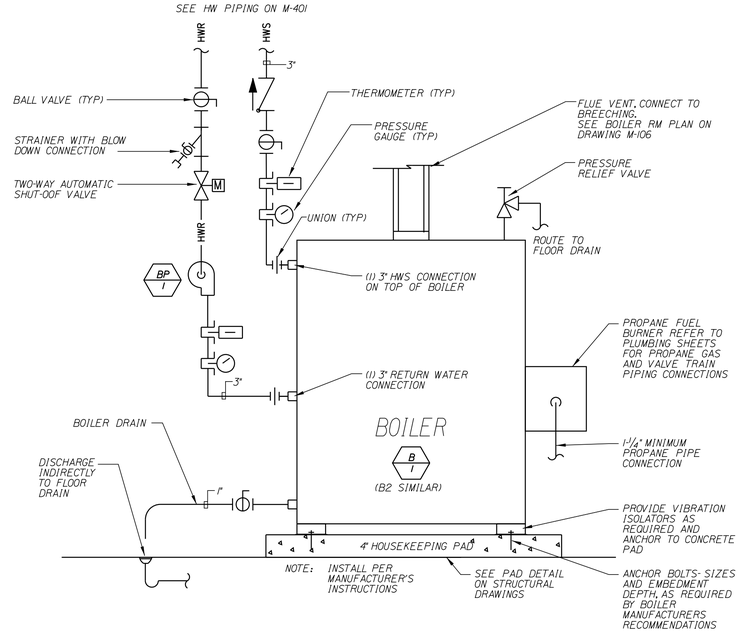
SCALE: NONE



2 / - HOT WATER UNIT HEATER DETAIL

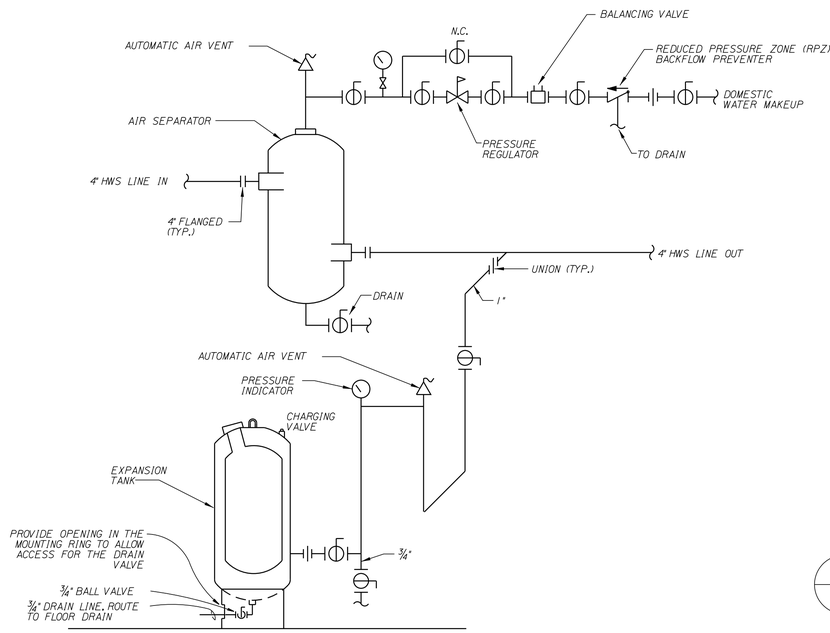
SCALE: NONE

NOTES:
1. CU-1/2/3 ADMIN BLDG - INCLUDE TCV
2. CU-4 THRU 12 - TOLL BOOTHS - DO NOT INCLUDE T. CONTROL VALVE.
3. ALL UH TO HAVE SIDE CONNECTIONS FOR HWS/HWR.



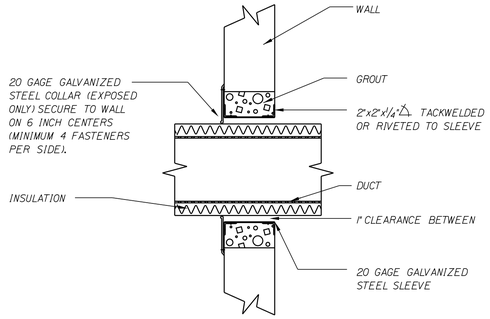
3 / - BOILER PIPING DETAIL

SCALE: NONE



4 / - HOT WATER EXPANSION TANK DETAIL

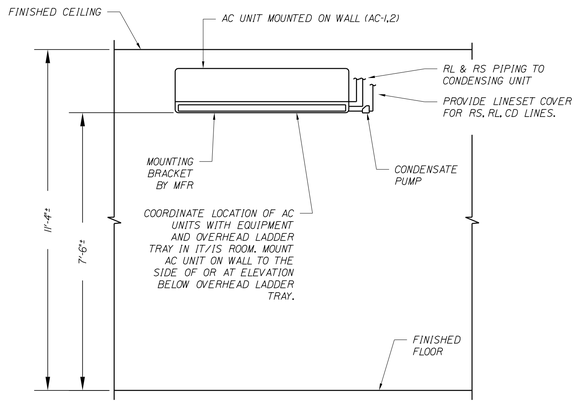
SCALE: NONE



DUCT PENETRATION THROUGH WALL

5 / - NOT APPLICABLE TO FIRE RATED WALLS

SCALE: NONE



6 / - DUCTLESS AC UNIT DETAIL (INDOOR UNIT)

SCALE: NONE

AC-1
AC-2

Filename: ...\407_(M-501)_Utypical_01_HVAC.DGN

Scale: AS NOTED			
No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

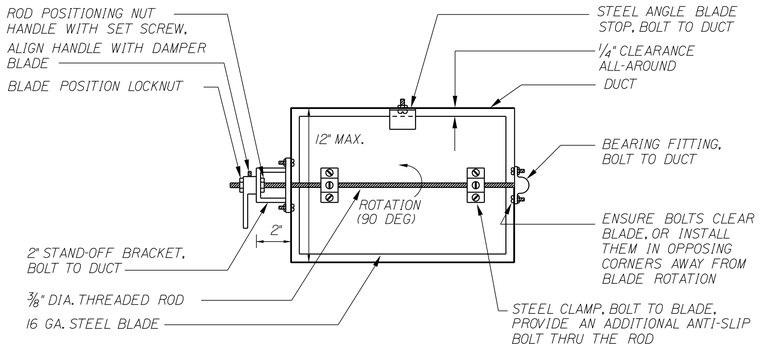
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL DETAILS 1

SHEET NUMBER: M-501

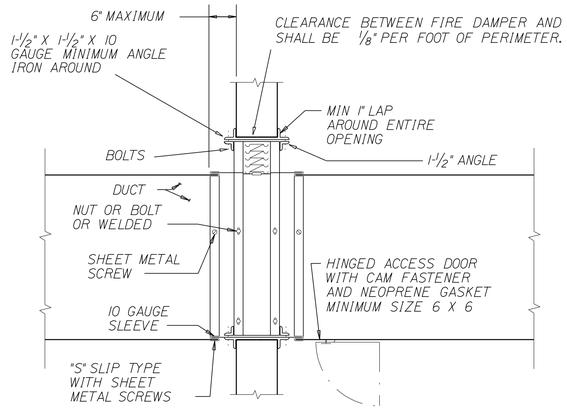
CONTRACT:2018.20



NOTES:
1. DAMPERS FOR ROUND DUCTS SHALL BE SIMILAR TO THE DAMPER SHOWN ABOVE WITH ROUND CROSS-SECTION.
2. ENSURE THAT FULL 90° DAMPER BLADE MOVEMENT IS UNOBSTRUCTED.
3. FOR DUCT HEIGHTS MORE THAN 12". PROVIDE FACTORY-FABRICATED OPPOSED BLADE DAMPERS

1 - MANUAL DAMPER (ADJUSTABLE SINGLE-BLADE BALANCING TYPE)

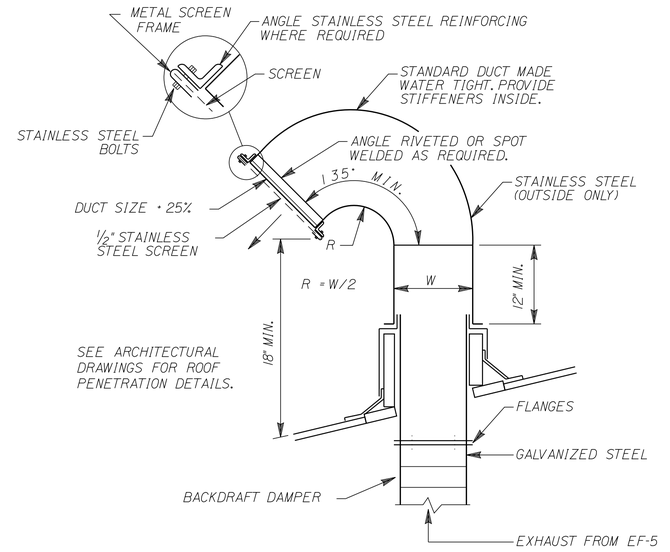
SCALE: NONE



NOTE:
1. PROVIDE FIRE DAMPER FOR ROUND DUCT OR USE TRANSITIONS FOR ROUND TO SQUARE DUCT.

2 - FIRE DAMPER WITH FUSIBLE LINK

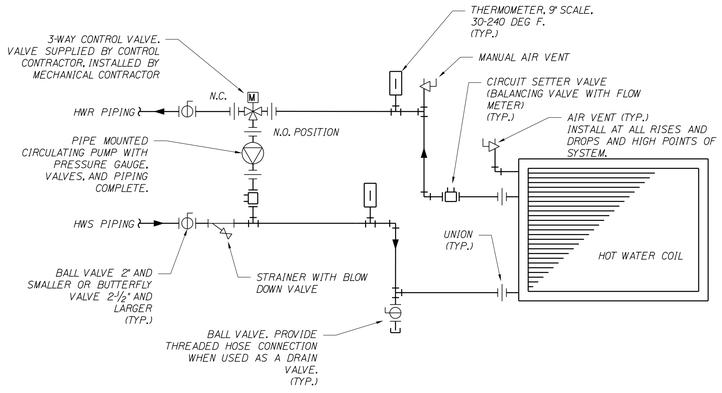
SCALE: NONE



NOTES:
1. AHU-1 ECONOMIZER EXHAUST ON ROOF (RELIEF AIR).
2. PROVIDE FLANGED FLEX CONNECTION BELOW ROOF.

3 - TYPICAL GOOSENECK DETAIL

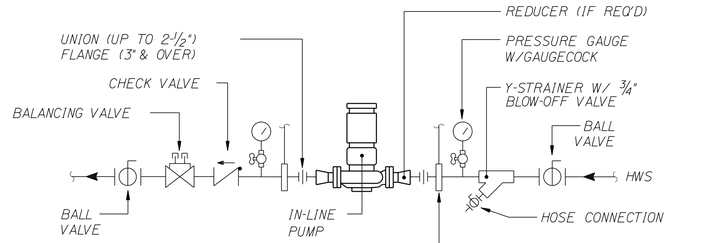
SCALE: NONE



NOTES:
1. BOTH UNITS PROVIDE 100% OUTSIDE AIR.
2. AHU-1 (2-WAY CONTROL VALVE) SIMILAR WITHOUT FREEZE PUMP.

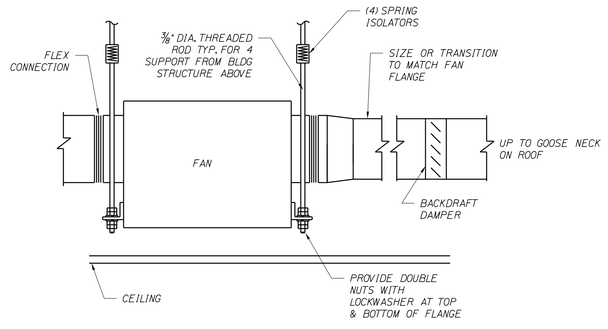
4 - HOT WATER COIL PIPING TYPICAL FOR AHU-2 & MUA-1

SCALE: NONE



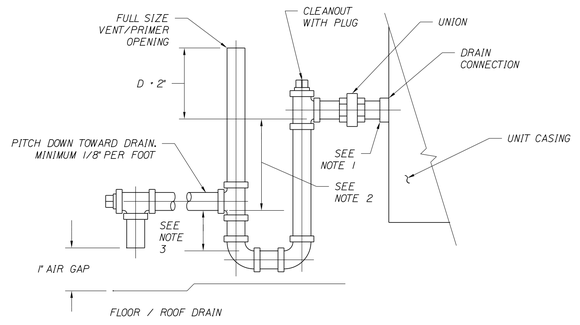
5 - IN-LINE PUMP DETAIL

SCALE: NONE



6 - IN-LINE FAN DETAIL

SCALE: NONE



NOTES:
1. MINIMUM DRAIN PIPE SIZE (D) EQUAL TO CONNECTION PROVIDED WITH EQUIPMENT.
2. MINIMUM DISTANCE EQUAL TO NEGATIVE STATIC PRESSURE (IN.W.C.) +1" OR 1/2x POSITIVE STATIC PRESSURE (IN.W.C.) +1".
3. DISTANCE EQUAL TO 1/2 NEGATIVE STATIC PRESSURE (IN.W.C.) +1" OR POSITIVE STATIC PRESSURE (IN.W.C.) +1".

7 - CONDENSATE DRAIN TRAP DETAIL

SCALE: NONE

AHU-1
FCU-1
HP-1 THRU 9

Date: 7/25/2018

Filename: ...\408_(M-502)_Utypical_02_HVAC.DGN

Scale: AS NOTED

No.	Revision	By	Date

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

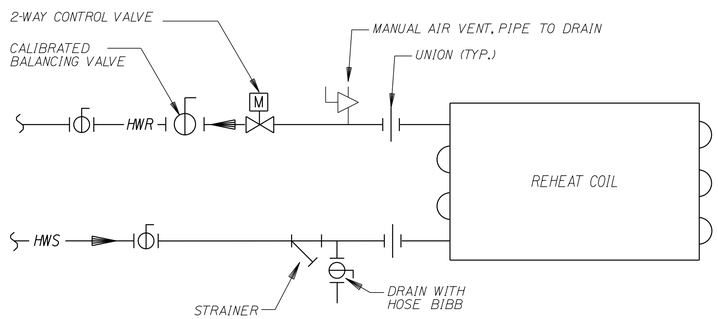
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

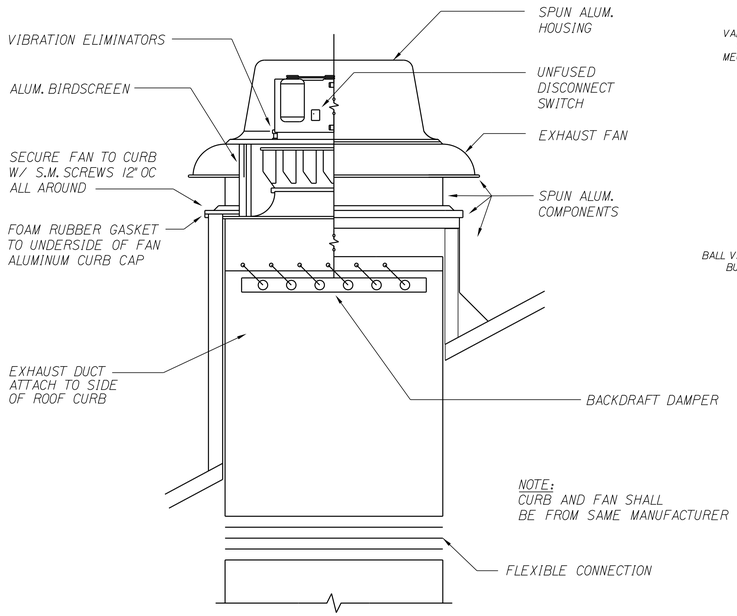
MECHANICAL DETAILS 2

SHEET NUMBER: M-502

CONTRACT:2018.20



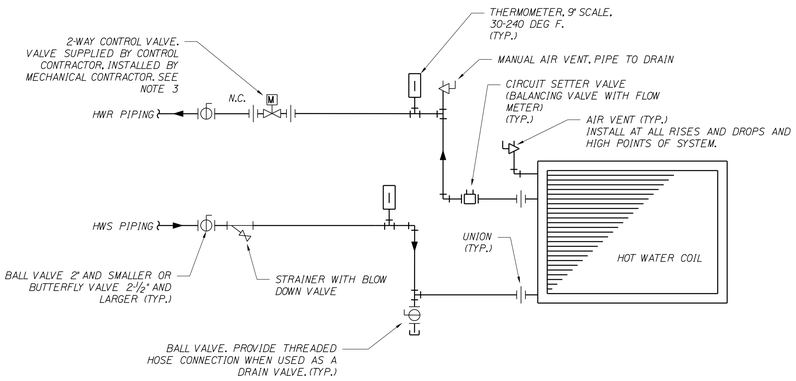
1 / - VAV REHEAT COIL PIPING
SCALE: NONE



NOTE:
CURB AND FAN SHALL BE FROM SAME MANUFACTURER

2 / - ROOF MOUNTED EXHAUST FAN DETAIL
SCALE: NONE

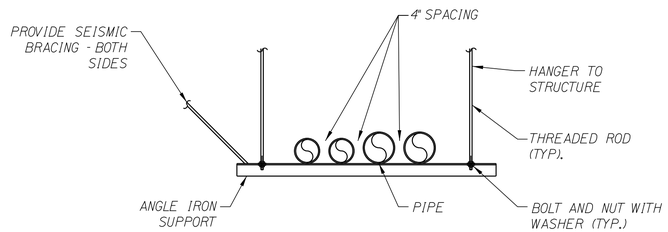
NOTES:
1) TYPICAL FOR EF-1/2/3/4



3 / - HOT WATER COIL PIPING TYPICAL FOR AHU-1, CUHs, FCUs
SCALE: NONE

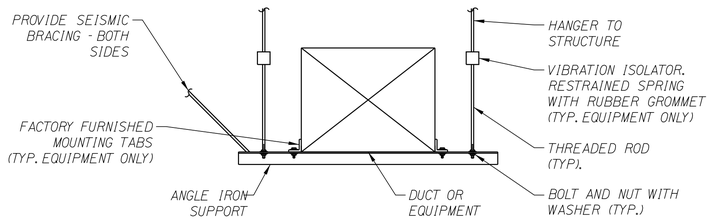
NOTES:

1) 2-WAY T. CONTROL VALVES FOR ALL HEATING COILS.
2) TYPICAL COILS FOR UH-1 THRU 12, FCU-1/2/3 AND AHU-1.
3) CUH IN TOLL BOOTHS DO NOT HAVE CONTROL VALVES. WATER IS BALANCED. FAN SPEEDS (3) PROVIDE MANUAL ADJUSTMENT BY OCCUPANTS.



NOTES:

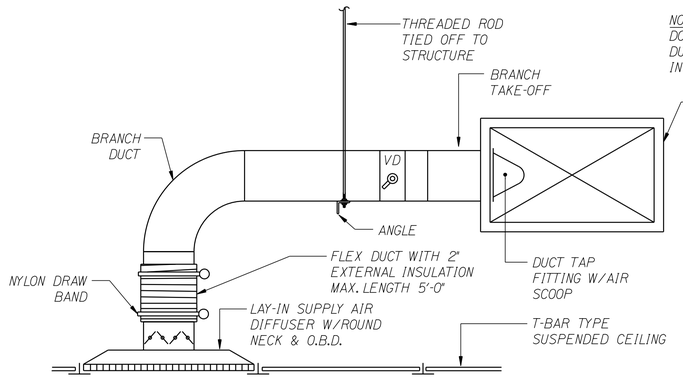
1) SIZE BEAM CLAMPS, THREADED RODS, AND ANGLE IRON SUPPORTS IN ACCORDANCE WITH ANSI/MSS SP-69: PIPE HANGERS AND SUPPORTS - SELECTION AND APPLICATION.
2) HW PIPES ARE INSULATED AND INCLUDE 12" LONG PIPE SADDLES.
3) SEE PIPE SUPPPORTS TO TUNNEL HW PIPING DETAIL 2/M-505.



NOTES:

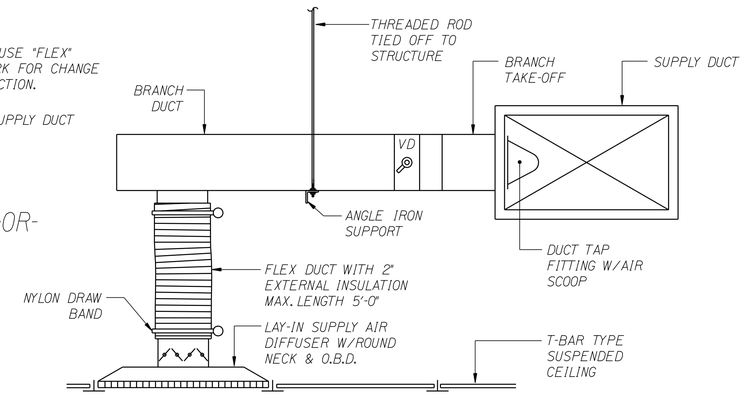
1) SIZE BEAM CLAMPS, THREADED RODS, AND ANGLE IRON SUPPORTS IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS: METAL AND FLEXIBLE.

4 / - DUCT/EQUIPMENT/PIPE HANGER DETAIL
SCALE: NONE



NOTE:
DO NOT USE "FLEX" DUCTWORK FOR CHANGE IN DIRECTION.

-OR-



5 / - SUPPLY AIR DIFFUSER AND DUCTED RETURN DETAILS
SCALE: NONE

Date:7/25/2018

Filename: ...\409_(M-503)_Utypical_03_HVAC.DGN

Scale: AS NOTED

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

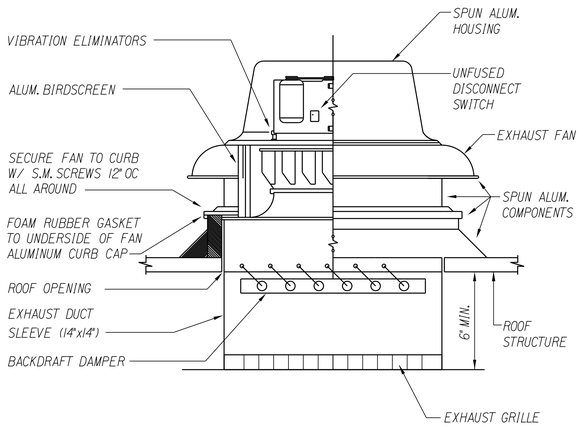
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL DETAILS 3

SHEET NUMBER: M-503

CONTRACT:2018.20



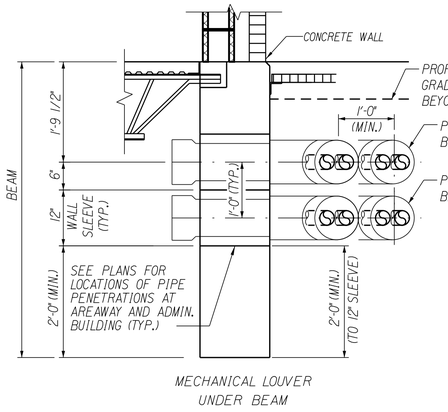
NOTES:

1. CURB AND FAN SHALL BE FROM SAME MANUFACTURER.
2. REFER TO ARCHITECTURAL DETAIL FOR ATTACHING CURB TO STAIR ENCLOSURE ROOF STRUCTURE.
3. PROVIDE EXHAUST FANS WITH 12"x12" BACKDRAFT DAMPERS AND 14½"x14½" ROOF OPENING.
4. PROVIDE 14"x14" EXHAUST GRILLE AT BOTTOM OF SLEEVE.

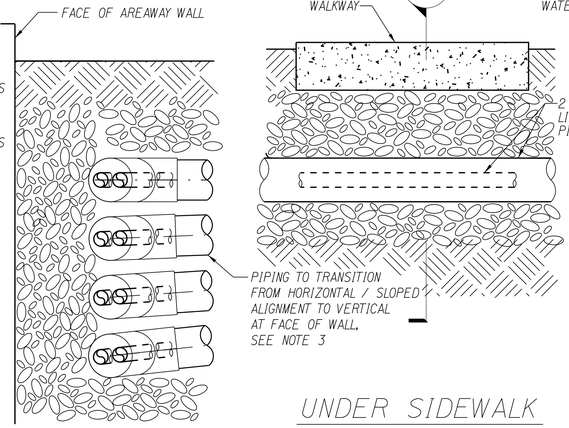
1 - ROOF MOUNTED EXHAUST FAN DETAIL

SCALE: NONE

EF-6, 7

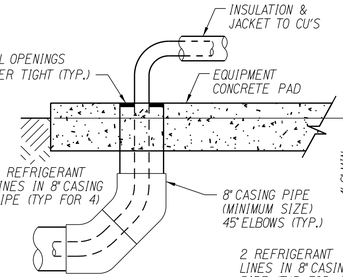


AT ADMINISTRATION BUILDING



ALIGNMENT TRANSITION ALONG AREAWAY WALL

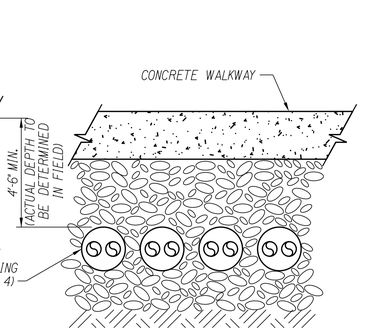
UNDER SIDEWALK



AT EQUIPMENT PAD

3 - DIRECT BURY CASING PIPE DETAIL

SCALE: NONE

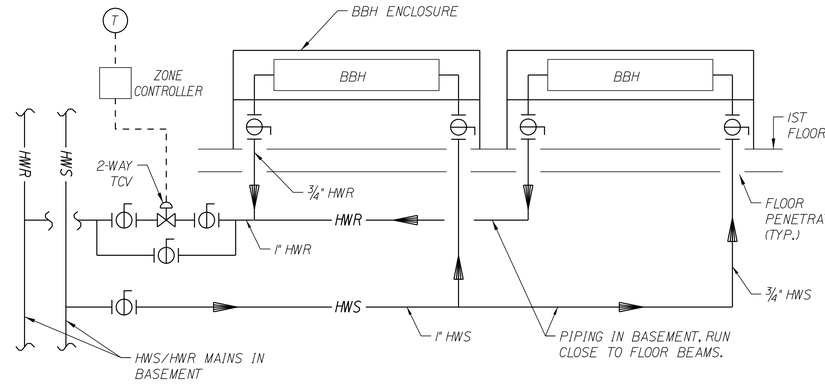


A - SECTION DETAIL FOR INSULATED RS & RL LINES

SCALE: NONE

NOTES:

1. RS AND RL TO BE VERIFIED WITH CU MANUFACTURER.
2. COORDINATE CASING LOCATIONS WITH STRUCTURAL DRAWINGS AND HVAC EQUIPMENT LOCATIONS PRIOR TO CONCRETE POURS FOR HVAC PADS.
3. PROVIDE SUPPORTS AND MEANS OF FLEXIBILITY OF REFRIGERANT LINES IN CASING, AND ALSO FLEXIBILITY OF CASING PIPE.
4. CONTRACTOR TO VERIFY CASING SIZE FOR INSULATED RS/RL PIPING.
5. INSULATE BOTH RS & RL PIPING IN CASING. INSULATE BOTH RS & RL LINES OUTSIDE OF CASING TO CU'S WITH INSULAION JACKET.
6. UNLESS DIRECTED OTHERWISE USE 45° ELBOWS FOR ALL CASING BENDS.

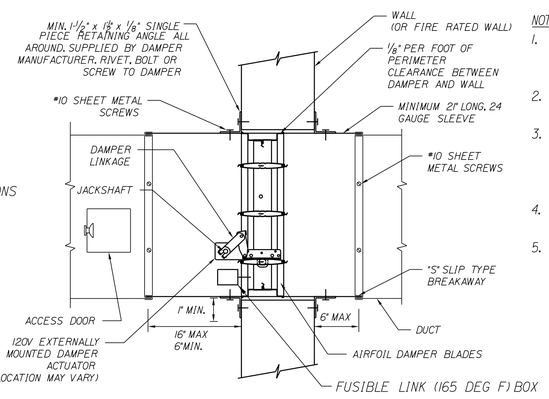


4 - BBH - HOT WATER BASE BOARD RISER DETAIL

SCALE: NONE

NOTE:

1. BBH'S IN OTHER ROOMS WITH 1, 2, OR 3 UNITS IN PARALLEL ARE TYPICAL

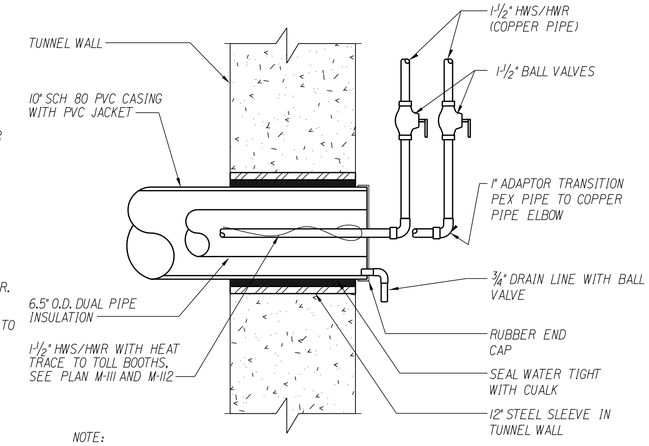


5 - COMBINATION FIRE / SMOKE DAMPER DETAIL

SCALE: NONE

NOTES:

1. PROVIDE UL555S LEAKAGE CLASS I SMOKE DAMPER WITH AIRFOIL BLADES, AND UL555 FOR FIRE DAMPER.
2. RUSKIN FSD60 (COMBINATION FIRE/SMOKE DAMPER) OR APPROVED EQUAL.
3. DAMPER BUILT WITH JACK SHAFT (ACTUATOR OFFSET FROM DAMPER). MOTOR ACTUATOR SIZED AND INSTALLED BY DAMPER MANUFACTURER.
4. FOR FIRE/SMOKE DAMPER, PROVIDE RE-SETTABLE LINK WITH 165°F RATING.
5. PROVIDE ACCESS DOOR IN ALL GYPSUM CEILINGS. WHERE NECESSARY, TO OBTAIN ACCESS TO SMOKE (OR FIRE/SMOKE) DAMPER. PROVIDE LABEL ON ALL ACCESS DOORS AND SUSPENDED CEILING TILE SUPPORT FRAME TO IDENTIFY THAT AD ON ADJACENT CEILING PROVIDES ACCESS TO SMOKE DAMPER.



NOTE:

1. ATTACH 10" CASING TO PIPE SLEEVE.

2 - PIPE PENETRATION THRU TUNNEL WALL

SCALE: NONE

Date:8/28/2018

Filename: ...\410_(M-504)_Utypical_04_HVAC.DGN

Scale: AS NOTED

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

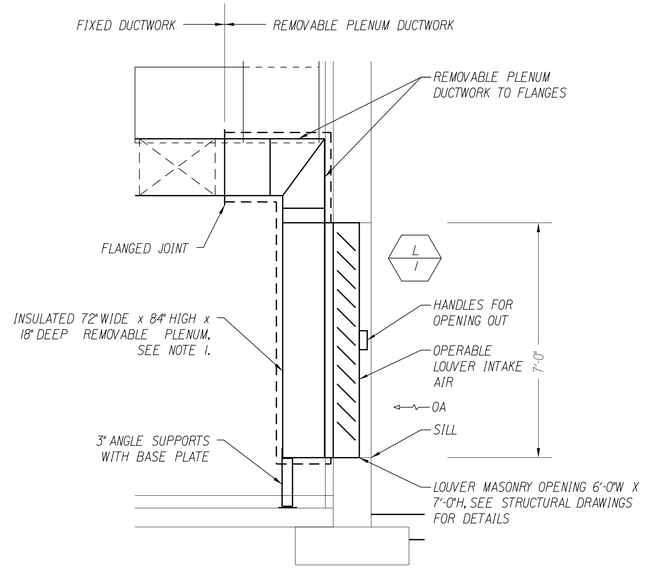
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL DETAILS 4

SHEET NUMBER: M-504

CONTRACT:2018.20



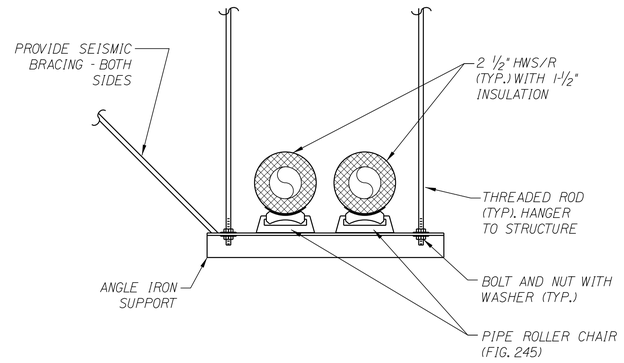
NOTES:

1. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE CONSTRUCTION OF THE REMOVABLE SECTIONS OF THE INTAKE AIR LOUVER, PLENUM, DUCTWORK AND HINGED LOUVER OPENABLE AS (2) 3'-0" WIDE (NOMINAL) DOORS. REMOVABLE PLENUM DUCTWORK AND LOUVER SHALL PROVIDE ACCESS INTO BOILER AND AHU MECH ROOMS FROM THE AREAWAYS. REFER TO LOUVER AND DUCT PLAN, M-101 FOR MORE DETAILS ON REMOVABLE SECTION.

2. THIS DETAIL IS APPLICABLE TO LOUVERS TO BOILER ROOM AND MECHANICAL ROOMS

1 / - REMOVABLE OUTSIDE AIR PLENUM DETAIL

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



NOTES:

1) SIZE BEAM CLAMPS, THREADED RODS, AND ANGLE IRON SUPPORTS IN ACCORDANCE WITH ANSI/MSS SP-69: PIPE HANGERS AND SUPPORTS - SELECTION AND APPLICATION.

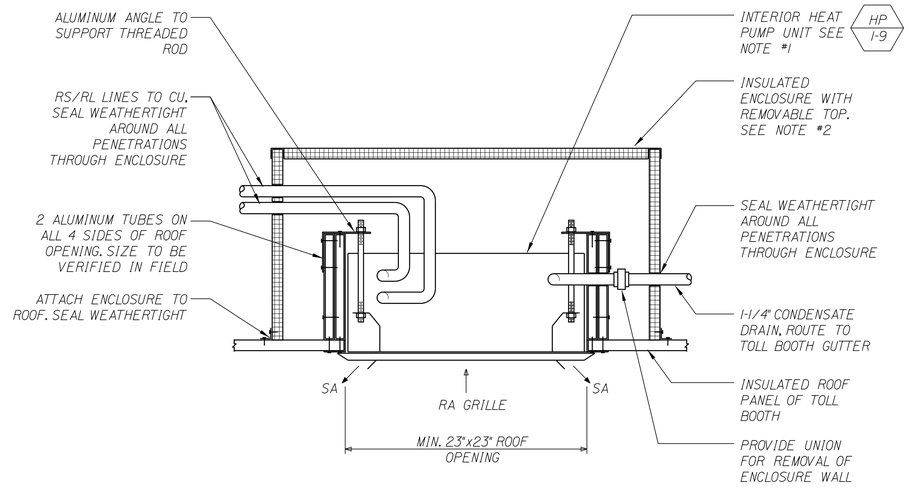
2) HW PIPES ARE INSULATED AND INCLUDE 12" LONG PIPE SHIELDS.

3) USE THIS PIPE SUPPORT WITH PIPE ROLLERS FOR 4" HWS/HWR HEADERS IN BOILER ROOM.

4) ALL SUPPORT MATERIAL SHALL BE HOT DIP GALVANIZED.

2 / - TUNNEL PIPE SUPPORT DETAIL

N.T.S.



NOTES:

1: INSTALL INTERIOR HEAT PUMP UNIT (HP), AS NOTED. SUSPEND UNIT FROM ROOF FRAMING, OR ADD ALUMINUM (TUBES OR CHANNELS), AS NOTED. PROVIDE ISOLATION OF UNIT AS REQUIRED BY MANUFACTURER.

2: PROVIDE WEATHERPROOF REMOVABLE INSULATED ENCLOSURE FOR HEAT PUMP UNIT. PROVIDE MEANS TO REMOVE ENCLOSURE TO SERVICE THE HEAT PUMP UNIT, AND CHANGE AIR FILTERS. SEAL CAULK AND ADD GASKETS BETWEEN THE ENCLOSURE BOTTOM FLANGE AND THE ROOF. PROVIDE R-19 INSULATION INSIDE THE ENCLOSURE AND VAPOR BARRIER. THE ALUMINUM ENCLOSURE SHALL BE MINIMUM OF 14 GAUGE, WELDED CONSTRUCTION. VERIFY ROOF OPENING SIZE FOR HP UNIT. PROVIDE SHOP DRAWINGS OF ENCLOSURE FOR APPROVAL.

3 / - HEAT PUMP DETAIL

N.T.S.

Date:7/25/2018

Filename: ...\411_(M-505)_Utypical_05_HVAC.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL DETAILS 5

SHEET NUMBER: M-505

CONTRACT:2018.20

411 OF 489

Date:7/25/2018

INDOOR AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	SERVICE	SUPPLY AIR FAN							PRE-HEATING COIL							DX COOLING COIL							ELECTRIC					AHU				
			TOTAL (CFM)	MIN. O.A. (CFM)	MAX. O.A. (CFM)	E.S.P. (IN. WG.) (EST.)	RPM	MOTOR (HP)	BHP	T.H. (MBH)	HTG CFM	EAT/LAT (°F)	EWT/LWT (°F)	FACE AREA (SF)	ROWS/ FPI	GPM	WPD	T.C. (MBH)	S.H.C. (MBH)	EDB/EWB (°F)	LDB/LWB (°F)	FACE AREA (SF)	ROWS/FPI	FLA	MCA	MAX FUSE	(V/HZ/PH)	CU No.	WEIGHT (LBS)	ECONOMIZER	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
AHU 1	MECH RM	ADMIN. IST FLOOR	3,000	1,040	3,000	2.0	1,784	5	3.0	152	2,000	40/96	180/152	7.2	2	15.0	2.1	107	80.0	79.6/66.9	55.0/53.9	7.1	6/12	4.2	5.0	15.0	460V/3PH	CU-1	800	INCLUDED	AAON	V3-CRB-3-0 I62C	SEE NOTES 1-6,9
AHU 2	BASEMENT	TUNNEL	1,500	750	1,500	2.0	2,367	2	1.5 HP	84	750	-3/87	180/157	3.54	2	8.4	2.0	-	-	-	-	-	-	2.0	5.0	15.0	460V/3PH			-	AAON	H3-BRB-3	SEE NOTES 1-4,7,9,10 NO COOLING
MUA 1	BASEMENT	COMBUST. AIR BOILER RM VENTILATION	1,200	1,200	1,200	1.0		2	1.5 HP	110	1,200	-3/80	180/160			9.2		-	-	-	-	-	-	2.0	5.0	15.0	460V/3PH			-	AAON		SEE NOTES 8,10 NO COOLING

NOTES:
1. SUMMER DESIGN CONDITIONS: 86°F.DB / 71°F.WB.
2. WINTER DESIGN CONDITIONS: 3.0° F.DB.
3. PROVIDE UNIT MOUNTED, FACTORY WIRED DISCONNECT SWITCH.
4. PROVIDE FACTORY WIRED DDC CONTROLS.
5. PROVIDE SEISMIC ISOLATION FOR CONCRETE PAD.
6. AHU-1 SHALL BE VERTICAL DRAW THRU TYPE LOCATED ON CONCRETE HOUSE KEEPING PAD ON A SEISMIC ISOLATION CURB
7. AHU-2 SHALL BE HORIZONTAL DRAW THRU TYPE SUSPENDED FROM CONCRETE DECK ABOVE UNIT. PROVIDE SPRING ISOLATION FOR SEISMIC CONDITIONS.
8. MUA-1 WILL BE SUSPENDED FROM CONCRETE DECK ABOVE
9. PROVIDE FACTORY RETURN AIR STREAM SMOKE DETECTOR (COMPATIBLE WITH FIRE ALARM SYSTEM).
10. AHU-2 & MUA- SHALL INCLUDE FREEZE PROTECTION PUMP UNITS. FOR HOT WATER COIL.
11. PROVIDE STATIC PRESSURE CONTROLS FOR VAV FOR AHU-1.
12. AHU-1 TO INCLUDE VFD FOR SUPPLY FAN(S)

FAN COIL UNIT SCHEDULE

MARK	SERVICE	SUPPLY AIR FAN					HOT WATER HEATING COIL				ELECTRIC (V/HZ/PH)	MFR	MODEL	REMARKS
		TOTAL CFM	MIN. O.A. (CFM)	E.S.P. (IN. WG.)	F.L. AMPS	MOTOR (HP)	EAT/LAT (°F)	EWT/LWT (°F)	MBH	GPM				
FCU 1	MTA STORAGE	1200	300	1.0	7.73	1.0	53/93	180/160	50	2.0	208V/1PH	TRANE	BCHD 54	SEE NOTES 1-4
FCU 2	STORAGE	600	150	1.0	7.73	1.0	53/93	180/160	30	1.0	208V/1PH	TRANE	BCHD 24	SEE NOTES 1-3
FCU 3	HALL	600	150	1.0	7.73	1.0	53/93	180/160	30	1.0	208V/1PH	TRANE	BCHD 24	SEE NOTES 1-3

NOTES:
1. PROVIDE UNIT MOUNTED, FACTORY WIRED DISCONNECT SWITCH.
2. PROVIDE FACTORY WIRED DDC CONTROLS.
3. PROVIDE FULLY MODULATING 2-WAY HW CONTROL VALVE.
4. FCU-1 CONTAINS A DX COOLING COIL RATED AT EAT/LAT = 80/67°F. 18 MBH TOTAL COOLING 30.0 MBH.
5. FCU-1 TO INCLUDE CONDENSATE PUMP UNIT AND OVERFLOW SENSOR.
6. FCU'S INCLUDE WITH TA FILTERS (MERV 8).

OPERABLE LOUVER SCHEDULE

MARK	LOCATION	SERVICE	SIZE			MIN. FREE AREA (SQ FT)	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
			WIDTH (IN)	HEIGHT (IN)	DEPTH (IN)				
L 1	MECH. ROOM AREA WAY	AHU's OA	72"	84"	6"	22.0	RUSKIN	ELM 6375-DX	OPERABLE LOUVER
L 2	BOILER ROOM AREA WAY	BOILERS OA	72"	84"	6"	22.0	RUSKIN	ELM 6375-DX	OPERABLE LOUVER

NOTES:
1. PROVIDE OPERABLE LOUVER OF ALUMINUM CONSTRUCTION. DRAINABLE.
2. LOUVER OPERATORS SHALL BE DESIGNED/CONSTRUCTED FOR SPRING TO OPEN (FAIL OPEN) AND POWER TO CLOSE
3. PROVIDE 120V-1PH POWER TO BOTH LOUVER OPERATORS. PROVIDE A MINIMUM OF 2 OPERATORS PER LOUVER RATED AT 3 AMPS, EACH
4. PROVIDE FLANGED FRAMED CONSTRUCTION. MAXIMUM OF 4 SECTIONS (2 HIGH x 2 WIDE)
5. PROVIDE INSECT SCREEN - 1/4" MESH.
6. PROVIDE OPERABLE LOUVER WITH HINGES. LOUVERS SHALL BE USED TO OPEN/CLOSE AS A DOOR FOR ACCESS TO MECH AND BOILER ROOMS THROUGH THE LOUVER.
7. PROVIDE REMOVABLE LOUVER PLENUM BEHIND LOUVER FOR ACCESS THROUGH LOUVER & AREAWAY. SEE LOUVER DETAIL ON M-505.
8. PROVIDE END/JAMB AND BLADE SEALS.

SUPPLY AND EXHAUST FAN SCHEDULE

MARK	LOCATION	SERVICE	CFM	E.S.P. (IN.WG.)	DRIVE	FAN (RPM)	ROOF OPENING	MOTOR		ELECTRIC (V/HZ/PH)	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
								RPM	(EST) HP				
EF 1	ROOF	TOILET ROOMS	350	0.375	BELT	1,101	14.5"x14.5"	1,725	1/8	120V/1PH	GREENHECK	G-098-VG	SEE NOTES 1-6,8,9
EF 2	ROOF	BOILER ROOM	1,000	0.50	DIRECT		14.5"x14.5"	1,725	1/4	120V/1PH	GREENHECK	GB-180	SEE NOTES 1,2,4,5,6,8,9
EF 3	ROOF	ELECTRICAL AND STORAGE ROOM	550	0.50	BELT	1,031	18.5"x18.5"	1,725	1/4	120V/1PH	GREENHECK	GB-141HP-4 -V-099-B	SEE NOTES 1-6,8,9
EF 4	ROOF	MTA SERVER ROOM PURGE EXH. FAN	500	0.375	DIRECT	1,098	14.5"x14.5"	1,725	1/6	120V/PHI	GREENHECK	G-098-VG	SEE NOTES 1,2,4,5,6,8,9
EF 5	MECH. ROOM	AHU-1 ECONOMIZER EXHAUST FAN	3,000	0.50	BELT	751		1,725	3/4	460V/3PH	GREENHECK	-	SEE NOTES 1-6,8,9,10
EF 6	STAIR CASES	TUNNEL VENTILATION	700	0.375	DIRECT	1,668	14.5"x14.5"	1,725	1/4	120V/1PH	GREENHECK	G-098-VG	SEE NOTES 1,2,4,5,6,8,9
EF 7	STAIR CASES	TUNNEL VENTILATION	700	0.375	DIRECT	1,668	14.5"x14.5"	1,725	1/4	120V/1PH	GREENHECK	G-098-VG	SEE NOTES 1,2,4,5,6,8,9
EF 8	ATTIC	RADON GAS MITIGATION SYSTEM	100	0.50	DIRECT		-		1/4	120V/1PH	GREENHECK		SEE NOTE 11
SF 1	ATTIC	MTA SERVER ROOM PURGE SUPPLY	500	0.375	DIRECT	1,438	-	1,725	1/4	120V/1PH	GREENHECK	SQ-95-VG	SEE NOTES 1,7,9,10

NOTES:
1. PROVIDE UNIT MOUNTED, FACTORY WIRED DISCONNECT SWITCH.
2. PROVIDE ROOF CURB.
3. PROVIDE SPARE BELTS.
4. PROVIDE GRAVITY BACKDRAFT DAMPER.
5. DISCONNECT SWITCH ENCLOSURE NEMA RATING 3R @ 600V.
6. PROVIDE WEATHERPROOF ENCLOSURE AND BELT FAN GUARD.
7. PROVIDE SPARK PROOF FAN. NO RUBBING FEROUS PARTS, AND INLET CONE.
8. MOTORS: ODP
9. VG- ARE HIGH EFFICIENT MOTORS.
10. FANS ARE IN-LINE TYPE.
11. CONTRACTOR SHALL DESIGN/BUILD RADON MITIGATION SYSTEM. SEE DRAWING M-801.
12. PROVIDE BACK-UP FAN CF-8A FOR RADON MITIGATION. STORE FAN IN APPROVED STORAGE AREA

BASEBOARD UNIT HEATER SCHEDULE

MARK	NOMINAL LENGTH (FT)	RATED HEATING (BTUH/FT)	HW-GPM	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
BBH 1	8'-0"	400	3.2	MODINE	"P"	SEE NOTES 1,3,4,5,6,7
BBH 2	8'-0"	200	1.6	MODINE	"P"	SEE NOTES 1,3,4,5,6,7
BBH 3	13'-0"	400	5.2	MODINE	"P"	SEE NOTES 1-6
BBH 4	3'-0", 4'-0"	200	0.8	MODINE	"P"	SEE NOTES 1-7

BBH NOTES:
1. BBH LENGTHS ARE NOMINAL SIZES TO FIT IN AREAS UNDER WINDOWS.
2. LENGTH IN SUPERVISORS ARE (1) 8'-0" LONG (NOMINAL) AND (1) 13'-0" LONG (NOMINAL).
3. BBH ARE FINNED TUBE TYPE. RADIATORS, COPPER PIPE WITH ALUMINUM FINS.
4. BBH'S ARE PIPED WITH (2) BBH IN SERIES IN SPACES SHOWN. PIPED FROM HWS/HWR MAINS WITH 2-WAY CONTROL, UNLESS OTHERWISE NOTED ON DRAWINGS.
5. REFER TO PLANS FOR BBH LAYOUT AND DESIGN.
6. BBH ARE SIZED BASED ON EWT/LWT = 180/160°F.
7. BBH ARE PEDESTAL MOUNTED MODINE MODEL P FIN-TUBE HW RADIATORS.

Filename: ...\412_(M-601)_Schedules_01_HVAC.DGN

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL SCHEDULES 1

SHEET NUMBER: M-601

CONTRACT:2018.20

Date:7/25/2018

HOT WATER CABINET UNIT HEATER SCHEDULE

MARK	LOCATION	SERVICE	FAN		HOT WATER COIL				ELECTRIC (V/HZ/PH)	MTG	BASIS OF DESIGN MANUFACTURER	MODEL	SIZES	REMARKS
			CFM	RPM	MBH	EAT/LAT (°F)	EWT/LWT (°F)	GPM						
CUH 1	CEILING ADMIN. VESTIBLE	ADMIN. VESTIBLE			9.0	65/95	180/160	1.0	120V/1PH	CLG	MODINE	CW-002		SEE NOTES 1,2,5,7
CUH 2	CEILING ADMIN. NORTH ENTRANCE	ADMIN. NORTH ENTRANCE			9.0	65/95	180/160	1.0	120V/1PH	CLG	MODINE	CW-002		SEE NOTES 1,2,5,7
CUH 3	CEILING ADMIN. WEST ENTRANCE	ADMIN. WEST ENTRANCE			9.0	65/95	180/160	1.0	120V/1PH	CLG	MODINE	CW-002		SEE NOTES 1,5,7
CUH 4-12	FLOOR MTD. TOLL BOOTHS	TOLL BOOTH	450		30.0	65/95	180/160	3.0	120V/1PH	FLOOR	MODINE	C-004		SEE NOTES 1,3,4,6,7 QTY. 9

NOTES:
1. PROVIDE UNIT MOUNTED, FACTORY WIRED DISCONNECT SWITCH.
2. CUH HEATING WILL NOT INCLUDE SPACE TEMPERATURE CONTROL. UNITS WILL BE PRE BALANCED WITH BALANCING VALVE IN BHW RETURN LINE.
3. PROVIDE UNIT MTD THERMOSTAT WITH 3-SPEED SELECTION (CONTROLS)
4. PROVIDE OSHA FAN GUARD.
5. PROVIDE CEILING MOUNTING BRACKETS.
6. PROVIDE FLOOR MOUNTING BRACKET.
7. CUH 1-3 ARRANGE 58, CUH 4-12 ARRANGE 08.

EXPANSION TANK SCHEDULE

MARK	LOCATION	SERVICE	ACCEPTANCE VOLUME (GAL)	DIMENSION (IN)		WEIGHT LBS.		MIN. SIZE GAL.	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
				LENGTH	DIA.	SHIP.	OP.				
ET 1	BOILER ROOM	HOT WATER SYSTEM	22.0	56.0	16	110	520	44.0	B&G	D-80V	SEE NOTES

NOTES:
1. VERTICAL PRE-CHARGED DIAPHRAGM TYPE.
2. CONTRACTOR SHALL SIZE ET-1 FOR ENTIRE HW SYSTEM BASED ON FINAL INSTALL PIPING CONFIGURATION. SIZED FOR 60°F COLD WATER UP TO 200°F HOT WATER
3. PROVIDE BLOWDOWN TANK WITH WATER SUPPLY, PRESSURE REGULATING VALVE BFP. AND TEMP. CONTROL FOR MAX OF 140°F OUTPUT TEMPERATURE PER PLUMBING CODE.

CONDENSING UNIT SCHEDULE

MARK	ACCESSORY DESCRIPTION	RATED COOLING CAPACITY (MBH)	AMB. TEMP (°F)	ELECTRIC (V/HZ/PH)	MCA AMPS	MOP AMPS	BASIS OF DESIGN MANUFACTURER	MODEL	SIZE	WEIGHT	REFRIG'T.	REMARKS
CU 1	AHU-1 ADMIN. BLDG.	107.0	95°F	460V/3PH	22.0	25.0	AAON	CFA-009	95"L x 46"W	1,070	R-410A	SEE NOTE 2
CU 2	AC-1 SERVER/ IT ROOM	34.2	95°F	208V/1PH	25.0	30.0	MITSUBISHI	PUY-A36NH6	-	-	R-410A	SEE NOTE 1
CU 3	AC-2 SERVER/ IT ROOM	34.2	95°F	208V/1PH	25.0	30.0	MITSUBISHI	PUY-A36NH6	-	-	R-410A	SEE NOTE 1
CU 4	FAN COIL UNIT #1	18.0	95°F	208V/1PH	12.0	20	TRANE	4TTR 401	-	-	R-410A	SEE NOTES 2,

NOTES:
1. PROVIDE SINGLE POWER SUPPLY TO CU-2 AND CU-3. ACI/2 ARE WIRED TO CU-2/3 FOR POWER SOURCE.
2. CU-1: RS= 7/8", RL= 1/2". CU-2/3/4: RS= 5/8", RL= 3/8".
3. CU WILL BE LOCATED ON CONCRETE PADS AS NOTED ON PLANS

BOILER SCHEDULE

MARK	LOCATION	SERVICE	CAPACITY			WORKING PRESSURE PSIG	MIN. HEATING SURFACE (SQ FT)	APPROX. SHIP WT (LBS)	DIMENSIONS		GPM	EWT (°F)	LWT (°F)	FLUE SIZE	ELECTRIC (V/HZ/PH)	WEIGHT	BASIS OF DESIGN MFR.	MODEL	REMARKS
			INPUT (MBH)	GROSS OUTPUT	(BHP)				OVERALL LENGTH (IN)	JACKET WIDTH (IN)									
B 1	BOILER ROOM	HOT WATER SYSTEM	900	720	21.0	50.0	88	2,400	4'-6"	29"	75	180	160	10" DIA.	120/60/1	2,500	LOCHINVAR	PBL-1002	SEE NOTES
B 2	BOILER ROOM	HOT WATER SYSTEM	900	720	21.0	50.0	88	2,400	4'-6"	29"	75	180	160	10" DIA.	120/60/1	2,500	LOCHINVAR	PBL-1002	SEE NOTES

NOTES:
1. BOILERS ARE WATER TUBE TYPE. FIRED WITH PROPANE BURNERS. REFER TO BURNER SCHEDULE FOR DETAILS
2. EACH BOILER SHALL BE SIZED FOR 60% OF TOTAL HEATING REQUIREMENTS. GROSS OUTPUT INCLUDES PICK-UP AND HEAT LOSSES THROUGHOUT SYSTEM.
3. BOILER SHALL BE WIRED TO BURNER PANEL.
4. BOILERS SHALL BE DESIGNED FOR 160 PSIG.
5. SAFETY RELEIF VALVE SHALL BE SIZED FOR 75 PSIG.
6. INLET GAS CONNECTION: 1-1/4" AT 7-14" WG.
7. BOILER SHALL HAVE CAT. 1 - NON-CONDENSING VENT.
8. BOILER TO HAVE A MINIMUM OF 82% THERMAL EFFICIENCY.
9. BURNERS SHALL HAVE A MINIMUM 5:1 TURN DOWN MODULATING TYPE BOILER.

PROPANE BURNER SCHEDULE

MARK	LOCATION	SERVICE	INPUT	COMBUSTION CONTROL	MOTOR (HP)	FIRING SYSTEM PROPANE GAS	PROPANE GAS TRAIN			ELECTRIC (V/HZ/PH)	AMPS	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
			GAS (MBH)				SIZE IN	MIN. PRESSURE (IN. WC.)	MAX PRESSURE (IN. WC.)					
BNR 1	BOILER ROOM	BOILER 1	900	FORCED DRAFT	1/6	5:1	1"	7.0	14.0	115/60/1	3.0	LOCHINVAR	301	SEE NOTES
BNR 2	BOILER ROOM	BOILER 2	900	FORCED DRAFT	1/6	5:1	1"	7.0	14.0	115/60/1	3.0	LOCHINVAR	301	SEE NOTES

NOTES:
1. PROVIDE PROPANE GAS VALVE TRAIN FOR EACH BOILER IN COMPLIANCE WITH IRI AND NFPA 58.
2. GAS BURNER - FORCED DRAFT TYPE.
3. PROVIDE 120V - 1PH, 20 AMP FUSE FOR BURNER PANEL.
4. PROVIDE MODULATING BURNER UNIT AT 5:1 RATIO.
5. BURNERS SHALL BE PROVIDED WITH BOILER PACKAGE AND BE OF THE SAME MANUFACTURER AS BOILER.

AIR SEPARATOR SCHEDULE

MARK	LOCATION	SERVICE	FLOW (GPM)	MAX. PD (FT)	FLOODED WEIGHT (LBS)	INLET SIZE	BASIS OF DESIGN MANUFACTURER	MODEL	REMARKS
AS 1	BOILER ROOM	HOT WATER SYSTEM	150	5	-	4"	B & G	R-4F	SEE NOTES

NOTES:
1. PROVIDE STRAINER.
2. BOD. BASED ON ITT ROLAIRTROL

Scale:

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL SCHEDULES 2

SHEET NUMBER: M-602

CONTRACT:2018.20

Filename: ...\413_(M-602)_Schedules_02_HVAC.DGN

Date:7/25/2018

VARIABLE AIR VOLUME (VAV) BOX SCHEDULE

SYSTEM	MARK	AREA SERVED	INLET SIZE (DIA. IN)	DISCHARGE SIZE (WxH)	PRIMARY INLET			HOT WATER HEATING COIL (REHEAT)							NC LEVEL	ELECTRIC (V/HZ/PH)	BASIS OF DESIGN MFR	MODEL	REMARKS
					MIN CFM COOLING 30%	HEATING CFM	COOLING CFM	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	MBH	GPM	ROWS	RADIATED				
AHU-1	VAV 1	SUPERVISOR	6"	12"x8"	90	180	350	60	90	180	160	6.0	0.6		25	24V-DC	TITUS	DESV	1-2
AHU-1	VAV 2	BREAK AREA	10"	14"x12.5"	180	300	810	60	90	180	160	12.0	1.2		25	24V-DC	TITUS	DESV	1-2
AHU-1	VAV 3	COUNTING AREA	10"	14"x12.5"	300	600	1,000	60	90	180	160	20.0	2.0		25	24V-DC	TITUS	DESV	1-2
AHU-1	VAV 4	HALL	6"	10"x10"	90	180	300	60	90	180	160	6.0	0.6		25	24V-DC	TITUS	DESV	1-2
AHU-1	VAV 5	TLT RMS/ MTA SERVER	7"	12"x10"	120	200	400	60	90	180	160	8.0	0.8		25	24V-DC	TITUS	DESV	1-2
AHU-1	CAV 1	MECHANICAL ROOM	7"	12"x10"	200	-	400			-	-	-	-		-	24V-DC	TITUS	DESV	COOLING ONLY

VAV BOX NOTES:
1. EACH VAV REQUIRES 120V-1PH TO 24V-DC TRANSFORMER.
2. PROVIDE SOUND ATTENUATOR AS BASIS OF DESIGN, OR APPROVED EQUAL
3. PROVIDE (1) ELECTRIC CIRCUIT PER VAV BOX

SPLIT SYSTEM HEAT PUMP SCHEDULE (HP 1THRU 9)

	INDOOR EVAP UNIT					OUTDOOR									
TAG	SPACE SERVED	ENTERING AIR TEMP (°F)	RATED CAPACITY (MBH)	AIR FLOW (CFM)	FAN MOTOR (FLA)	AMB. TEMP. (°F)	No. OF COMP.	MCA (A)	MOCP (A)	ELECTRIC (V/HZ/PH)	BASIS OF DESIGN MFR	INDOOR UNIT MODEL	OUTDOOR COND. UNIT MODEL	CU	REMARKS
HP 1	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-5	1-11
HP 2	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-6	1-11
HP 3	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-7	1-11
HP 4	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-8	1-11
HP 5	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-9	1-11
HP 6	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-10	1-11
HP 7	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-11	1-11
HP 8	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-12	1-11
HP 9	TOLL BOOTH	80/67	18	SEE NOTE 8	.33	115	1	12	15	208V/1PH	MITSUBISHI	SLZ-KA15NA	SUZ-KA15NA	CU-13	1-11

HP NOTES:
1. PROVIDE UNIT MOUNTED, FACTORY WIRED DISCONNECT SWITCH.
2. PROVIDE LOW AMBIENT KIT FOR UNIT OPERATION DOWN TO -10°F.
3. PROVIDE ALL AIR CONDITIONING DEVICES AND APPURTENANCES SUCH AS THERMAL EXPANSION VALVES, ACCUMULATORS, OIL SEPERATORS, STRAINERS, FILTERS, DRYERS, CHARGING PORTS, SIGHT GLASSES, ETC. REQUIRED BY THEMANUFACTURER FOR A COMPLETE INSTALLATION.
4. HEAT PUMP TO INCLUDE BOTTOM SA DISCHARGE AND BOTTOM INLET RETURN. (COMBINATION BOX).
5. HEAT PUMPS ARE SPLIT UNITS, AIR COOLED AND CU LOCATED ON TOP OF TOLL BOOTH(S).
6. NOT USED.
7. INDOOR EVAP UNIT SHALL BE LOCATED OUTSIDE ON TOP OF TOLL BOOTH INCLUDING INSULATED OUTDOOR ENCLOSURE.
8. HP TO HAVE 3 SPEEDS: 250, 320 AND 390 CFM
9. SINGLE POWER CONNECTION TO CU AND SHALL PROVIDE POWER ALSO TO HEAT PUMP (EVAP) UNIT.
10. RATED CAPACITIES INCLUDE: COOLING: 17,700 BTU/HR. HEATING AT 17°F-OA: 10,200 BTU/HR. SEER: 16.0 BTU/HR/WATT. INDOOR TEMPERATURE FOR COOLING: 80°F.
11. UNIT SIZES: HEAT PUMP (INDOOR UNIT): 23"Wx23"Dx9"H. CONDENSING UNIT: 32"Wx12"Dx22"H.

HOT WATER UNIT HEATER SCHEDULE

MARK	LOCATION	SERVICE	HOT WATER COIL				ELECTRIC (V/HZ/PH)	AMPS.	SIZE	BASIS OF DESIGN MFR	MODEL	REMARKS
			MBH	EAT (°F)	EWT/LWT (°F)	GPM						
UH 1	MECH. ROOM	MECH. ROOM	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 2	BOILER ROOM	BOILER ROOM	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 3	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 4	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 5	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 6	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 7	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 8	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 9	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 10	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 11	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5
UH 12	TUNNEL	TUNNEL	30.90	65	180/160	3.2	120V/1PH	3.0	18"W x 15"H	MODINE	HC-47	1, 2, 3, 4, 5

UH NOTES:
1. MAX. WIDTH OF UNIT TO BE 18"
2. UH-1 THRU UH-12 ELEC. 120V-1PH 1/12 HP FAN MOTOR (TEFC) 3.0 AMPS
3. PROVIDE FAN GUARD.
4. PROVIDE ACROSS - LINE HONEY WELL THERMOSTAT MODE T4051A. 50°- 80°F RANGE, 16 AMPS AT 115V-1PH
5. UNIT HEATERS SHALL INCLUDE SIDE CONNECTIONS FOR HWS & HWR.

DUCTLESS AIR CONDITIONING UNIT SCHEDULE SPLIT SYSTEM

MARK	LOCATION	SERVICE	SUPPLY AIR FAN - INDOOR UNIT					DX COOLING COIL				CU-No.	ELECTRIC				WEIGHT (LBS)	BASIS OF DESIGN MANUFACTURER/MODEL	REMARKS
			TOTAL (CFM)	MIN. O.A. (CFM)	E.S.P. (IN. WG.)	RPM	MOTOR (HP)	T.C. (MBH)	S.H.C. (MBH)	EDB/EWB (°F)	LDB/LWB (°F)		FLA	MCA	MAX FUSE	(V/HZ/PH)			
AC 1	MTA IT ROOM	MTA IT ROOM	920 (HI)	0	-	-	-	34.2	34.2	72	58	2	0.76	1.0	SEE CU-3	208V/1PH	50	MITSUBISHI / PKA-A-36K-A6	SEE NOTES
AC 2	MTA IT ROOM	MTA IT ROOM	920 (HI)	0	-	-	-	34.2	34.2	72	58	3	0.76	1.0	SEE CU-4	208V/1PH	50	MITSUBISHI / PKA-A-36K-A6	SEE NOTES

NOTES:
1. PROVIDE UNIT MOUNTED, FACTORY WIRED DISCONNECT SWITCH.
2. PROVIDE WALL MOUNTED PROGRAMMABLE THERMOSTAT.
3. AC-1/2 ARE WALL MOUNTED UNITS
4. SEE CONDENSING UNIT SCHEDULE FOR CU-2 AND CU-3
5. PROVIDE ONE ELECTRIC POWER CONNECTION AT CONDENSING UNIT. THE AC-UNIT IS WIRED TO CU FOR POWER
6. MIN SEER = 14.0
7. UNITS ARE COOLING ONLY
8. EACH UNIT HAS 2-SPEED FAN.
9. REFIGERANT: R410A.

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
Drawn	R.T.	07/18	In Charge of	TWM	07/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL SCHEDULES 3

SHEET NUMBER: M-603

CONTRACT:2018.20

Filename: ...\414_(M-603)_Schedules_03_HVAC.DGN

Date:7/25/2018

PUMP SCHEDULE

MARK	LOCATION	SERVICE	GPM	HEAD (FT)	MOTOR RPM	MOTOR HP	ELECTRIC (V/HZ/PH)	F.L. AMPS	PUMP SIZE	PUMP TYPE	MANUFACTURER	MODEL	REMARKS
HWP 1	MECHANICAL ROOM	AHU-1,2 MUA-1	40.0	40	3550	1.0	460/60/3	4.0	1.5 AB	IN-LINE	BELL & GOSSETT	ECO CIRC-XL-65-13P	LEAD PUMP NOTES 1-6
HWP 2	MECHANICAL ROOM	AHU-1,2 MUA-1	40.0	40	3550	1.0	460/60/3	4.0	1.5 AB	IN-LINE	BELL & GOSSETT	ECO CIRC-XL-65-13P	LAG PUMP NOTES 1-6
HWP 3	MECHANICAL ROOM	TUNNEL, TOLL BOOTH	60.0	70	3600	3.0	460/60/3	0.0	1.25 AAB	IN-LINE	BELL & GOSSETT	E-90	LEAD PUMP NOTES 1-6
HWP 4	MECHANICAL ROOM	TUNNEL, TOLL BOOTH	60.0	70	3600	3.0	460/60/3	0.0	1.25 AAB	IN-LINE	BELL & GOSSETT	E-90	LAG PUMP NOTES 1-6
HWP 5	MECHANICAL ROOM	ADMIN. BLDG RADIATION (BBH), FCU	15	40	3200	3/4	120V/1PH	0.0	1.0"	IN-LINE	BELL & GOSSETT	PL-55	LEAD PUMP NOTES 1-6
HWP 6	MECHANICAL ROOM	ADMIN. BLDG RADIATION (BBH), FCU	15	40	3200	3/4	208V/1PH	0.0	1.0"	IN-LINE	BELL & GOSSETT	PL-55	LAG PUMP NOTES 1-6
HWP 7	AHU-2 HW COIL	AHU-2	15.0	20	3000	1/4	208V/1PH	1.5	1.0"	IN-LINE	BELL & GOSSETT	NRL-36	FREEZE PROTECTION NOTES 1-5
HWP 8	MUA-1 HW COIL	MUA-1	10.0	20	3000	1/4	208V/1PH	1.5	1.0"	IN-LINE	BELL & GOSSETT	NRL-36	FREEZE PROTECTION NOTES 1-5
BP 1	BOILER B1	PRIMARY PUMP	75.0	20		1.0	208V/1PH	0.0	3.0"	IN-LINE	LOCHINVAR		B1 PRIMARY NOTES 1-5
BP 2	BOILER B2	PRIMARY PUMP	75.0	20		1.0	208V/1PH	0.0	3.0"	IN-LINE	LOCHINVAR		B2 PRIMARY NOTES 1-5

NOTES:
1. FURNISH COMBINATION MAGNETIC STARTERS TO ELECTRICAL CONTRACTOR.
2. STARTERS FOR PUMPS TO BE NEMA 3 RATED.
3. ALL PUMPS RATED FOR 150 PSIG HOT WATER (180 DEGREES F).
4. CONTRACTOR SHALL SUBMIT HYDRAULIC CALCULATIONS AND PIPING LAYOUT SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATIONS AND PURCHASE.
5. EACH PUMP SHALL HAVE SEPARATE CIRCUIT AT SCHEDULED VOLTAGES.
6. PROVIDE VFD FOR SECONDARY PUMPS HWP 1/2, 3/4, 5/6

AIR DEVICE SCHEDULE

MARK	SIZE NECK (IN)	SIZE MODULE (IN)	TYPE DIFFUSER	TYPE REGISTER	TYPE GRILLE	CFM RANGE MIN.	CFM RANGE MAX.	CFM RANGE NOISE CRITERIA	MOUNTING LAY-IN	MOUNTING SURFACE	MOUNTING DUCT	DUTY SUPPLY	DUTY RETURN	DUTY EXHAUST	DUTY TRANSFER	MFR	MODEL	REMARKS
CD-1	6	24 x 24	X			0	100	25	X			X						SEE NOTES 1,2
	7	24 x 24	X						X			X						SEE NOTES 1,2
	8	24 x 24	X			175	272	25	X			X						SEE NOTES 1,2
	10	24 x 24	X			273	392	25	X			X						SEE NOTES 1,2
	12	24 x 24	X			393	534	25	X			X						SEE NOTES 1,2
	14	24 x 24	X			535	613	25	X			X						SEE NOTES 1,2
	15	24 x 24	X			614	736	25	X			X						SEE NOTES 1,2
CD-2	8	24 x 24	X			175	272	25	X			X						SEE NOTES 1,2
	10	24 x 24	X			273	392	25	X			X						SEE NOTES 1,2
EG-1	-	12 x 12		X		440	555	25	X					X				SEE NOTES 1,2
RR-1	-	12 x 12		X		440	555	25			X		X					SEE NOTES 1,2
	-	18 x 12		X		675	685	25			X		X					SEE NOTES 1,2
	-	24 x 14		X		1070	1145	25			X		X					SEE NOTES 1,2
	-	24 x 16		X		1230	1375	25			X		X					SEE NOTES 1,2
	-	22 x 22		X		1570	1610	25			X		X					SEE NOTES 1,2
	-	30 x 18		X		1750	1875	25			X		X					SEE NOTES 1,2
	-	36 x 16		X		1980	2150	25			X		X					SEE NOTES 1,2
	-	36 x 20		X		2355	2470	25			X		X					SEE NOTES 1,2
	-	42 x 30		X		0	8000	40			X		X					SEE NOTES 1,2
SR-1	-	12 x 12		X		440	555	25			X	X						SEE NOTES 1,2
	-	18 x 12		X		675	685	25			X	X						SEE NOTES 1,2
	-	24 x 12		X		910	1035	25			X	X						SEE NOTES 1,2
	-	24 x 14		X		1070	1145	25			X	X						SEE NOTES 1,2
	-	24 x 16		X		1230	1375	25			X	X						SEE NOTES 1,2
	-	30 x 16		X		1555	1570	25			X	X						SEE NOTES 1,2
	-	30 x 18		X		1750	1875	25			X	X						SEE NOTES 1,2
	-	36 x 20		X		2355	2470	25			X	X						SEE NOTES 1,2
SR-2	-	12 x 6		X		0	100	25			X	X						SEE NOTES 1,2

NOTES:
1. PROVIDE OPPOSED BLADE DAMPER.
2. ALUMINUM CONSTRUCTION.

Filename: ...\415_(M-604)_Schedules_04_HVAC.DGN

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

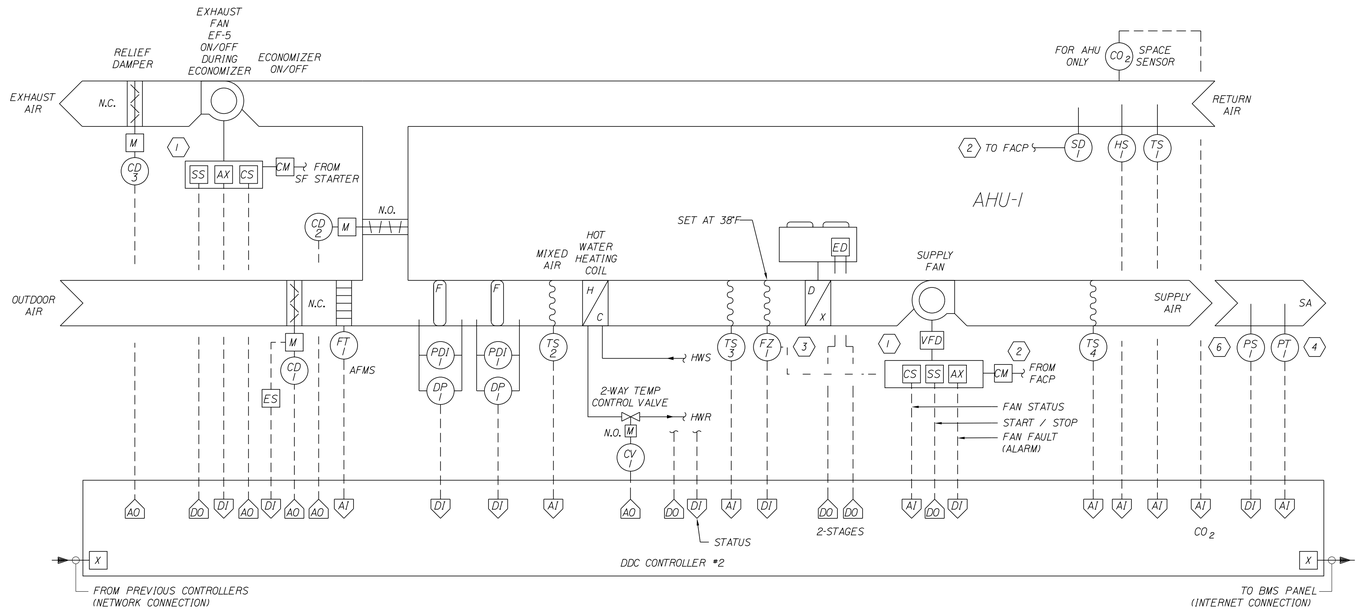
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

MECHANICAL SCHEDULES 4

SHEET NUMBER: M-604

CONTRACT:2018.20



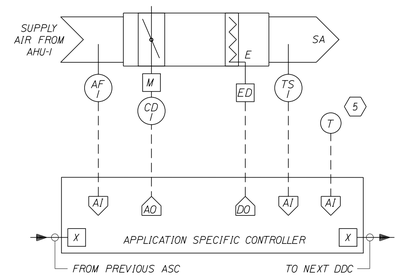
1 / - INDOOR AIR HANDLING UNIT - CONTROL DIAGRAM

SCALE: NONE

AHU-1

KEY NOTES

1. MOTOR STARTER.
2. PROVIDE INTERLOCK WIRING BETWEEN FAN AND FIRE ALARM SYSTEM THROUGH CONTROL MODULE (CM). WHEN A DUCT SMOKE DETECTOR ASSOCIATED WITH THE UNIT SENSES PARTICLES OF COMBUSTION, FAN SHALL STOP. THIS INTERLOCK SHALL BE HARD WIRED. CONTROL MODULE AND DUCT SMOKE DETECTORS FURNISHED AND INSTALLED UNDER DIVISION 28.
3. INTERLOCK FAN WITH FREEZESTAT TO STOP FAN AND CLOSE OA DAMPER WHEN FREEZESTAT IS ACTIVATED.
4. PRESSURE TRANSMITTER (VAV SP CONTROLLER). SET AT 1.5" W.C. (ADJ.) AND LOCATE 2/3 DISTANCE IN DUCT.
5. SPACE THERMOSTAT / TEMPERATURE SENSOR. REFER TO MECHANICAL FLOOR PLANS FOR LOCATIONS.
6. HIGH STATIC. SET AT 3.0" W.C.



2 / - SINGLE DUCT TERMINAL UNIT WITH H.W. REHEAT - CONTROL DIAGRAM

SCALE: NONE

TYPICAL

Date:7/25/2018

Filename: ...\416_(M-701)_Udiagrams_01_HVAC.DGN

Scale: NO SCALE

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

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THE GOLD STAR MEMORIAL HIGHWAY

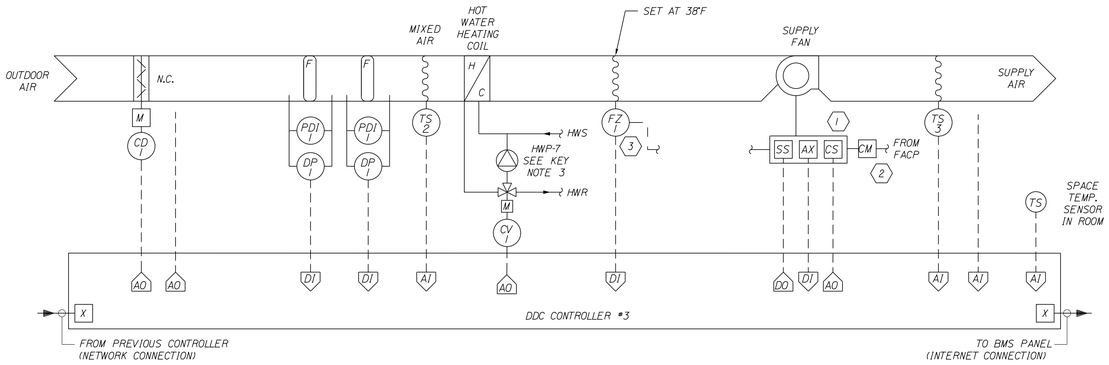
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

HVAC CONTROL DIAGRAMS 1

SHEET NUMBER: M-701

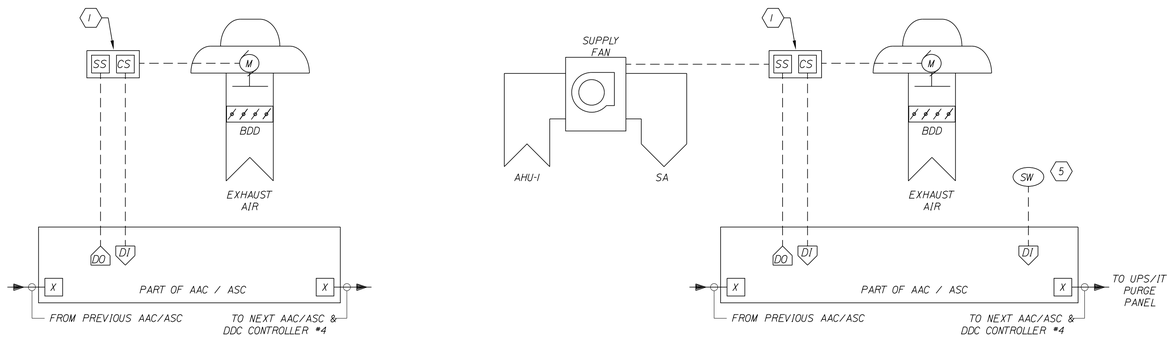
CONTRACT:2018.20



1 - CAV INDOOR AIR HANDLING UNIT - CONTROL DIAGRAM

SCALE: NONE

AHU-2 (MUA-1, SIMILAR)



3 - EXHAUST FAN - CONTROL DIAGRAM

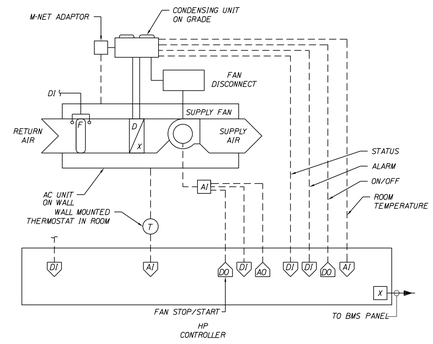
SCALE: NONE

EF-1 - TOILET ROOMS
EF-2 - MECHANICAL AND BOILER ROOMS - INTERLOCK EF-2 WITH MUA-1
EF-3 - ELEC. AND STORAGE ROOMS
EF-6/7 - AHU-2 EXHAUST FANS AT STAIRCASES - INTERLOCK EF-6 & 7 WITH AHU-2 OPERATION

4 - EXHAUST FAN - CONTROL DIAGRAM

SCALE: NONE

1. SF-1 & EF-4 - PURGE FANS FOR MTA/IT ROOM.
2. INTERLOCK EF-4 & SF-1 WITH FM-200 PURGE SYSTEM

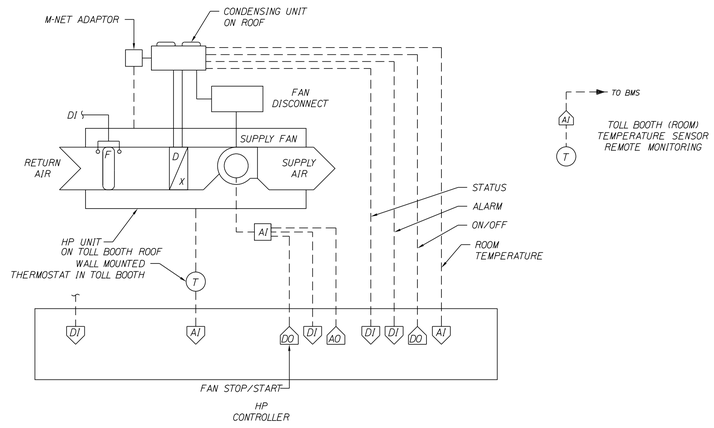


NOTES:
1. MTA/IT SERVER ROOM.

2 - SPLIT - SYSTEM AC UNIT - CONTROL DIAGRAM

SCALE: NONE

AC-1 / AC-2



6 - SPLIT SYSTEM HP UNIT - CONTROL DIAGRAM

SCALE: NONE

NOTES:
1. NINE (9) TOLL BOOTHS - HEAT PUMPS HP-1 THROUGH HP-9
2. BOTH HEAT PUMP AND CONDENSING UNIT EACH SPLIT SYSTEM ARE LOCATED ON ROOF OF TOLL BOOTH.
3. SEE NOTE 4. (SIMILAR TO AC-1/2).
4. EACH TOLL BOOTH SHALL HAVE REMOTE MONITORING SPACE TEMPERATURE SENSOR. THE SENSOR SHALL BE INTERLOCKED TO THE BMS. THE SENSOR IS NOT INTERCONNECTED TO THE HP CONTROLLER

KEY NOTES

1. MOTOR STARTER.
2. PROVIDE INTERLOCKED WIRING BETWEEN FAN AND FIRE ALARM SYSTEM THROUGH CONTROL MODULE (CM). WHEN A DUCT SMOKE DETECTOR ASSOCIATED WITH THE UNIT SENSES PARTICLES OF COMBUSTION, FAN SHALL STOP. THIS INTERLOCK SHALL BE HARD WIRED. CONTROL MODULE AND DUCT SMOKE DETECTORS FURNISHED AND INSTALLED UNDER DIVISION 28.
3. INTERLOCK FAN WITH FREEZESTAT TO STOP FAN WHEN FREEZESTAT IS ACTIVATED. 3-WAY VALVE IS 3-WAY DIVERTING TYPE IN FREEZE PROTECTION POSITION AND 2-WAY MODULATING.
4. SPLIT-SYSTEM AC UNIT CONTROLS SHALL BE PROVIDED BY UNIT MANUFACTURER. FAN STATUS AND ROOM TEMPERATURE OF IN FREEZE PROTECTION POSITION AND 2-WAY MODULATING.
5. MANUAL KEYED SWITCH AT PURGE PANEL. CONTROLLER LOCATED OUTSIDE MTA SERVER ROOM. INTERLOCK WITH FIRE SUPRESSION.

Date: 7/25/2018

Filename: ...\417_(M-702)_Udiagrams_02_HVAC.DGN

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No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	R.H.	07/18	Checked	K.F.	07/18
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

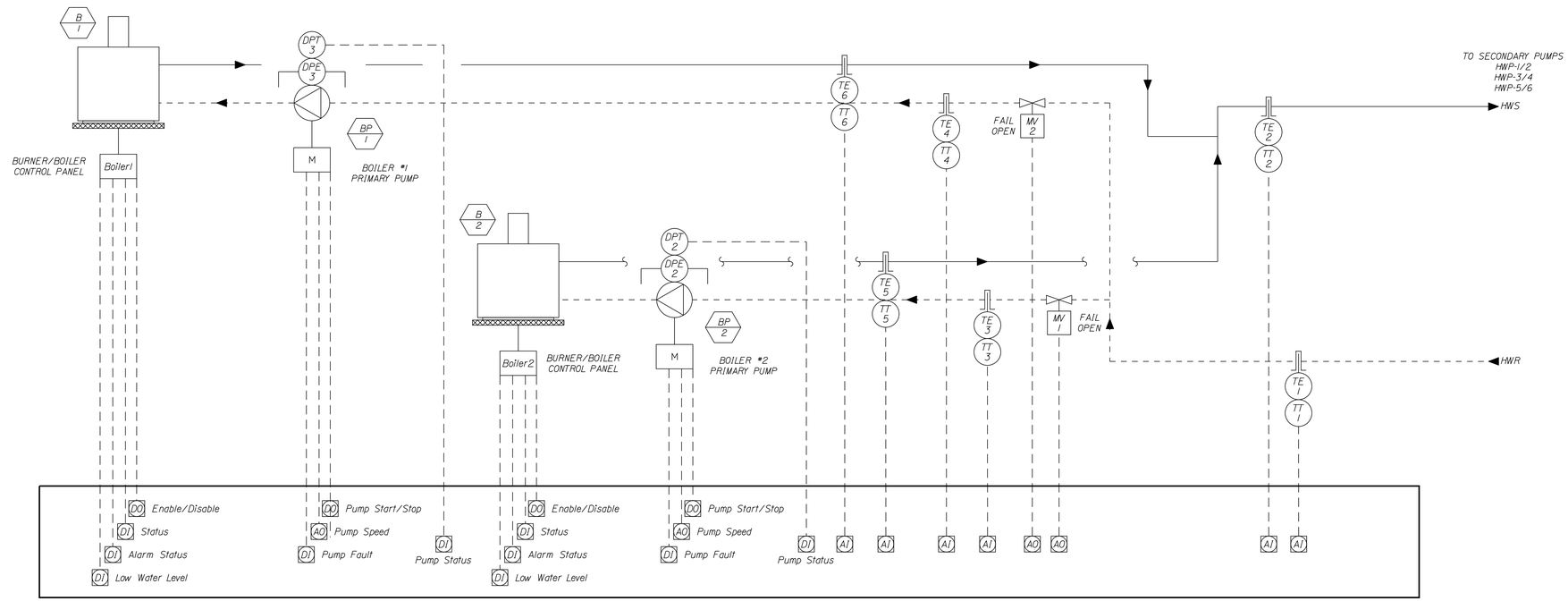
YORK TOLL PLAZA

HVAC CONTROL DIAGRAMS 2

SHEET NUMBER: M-702

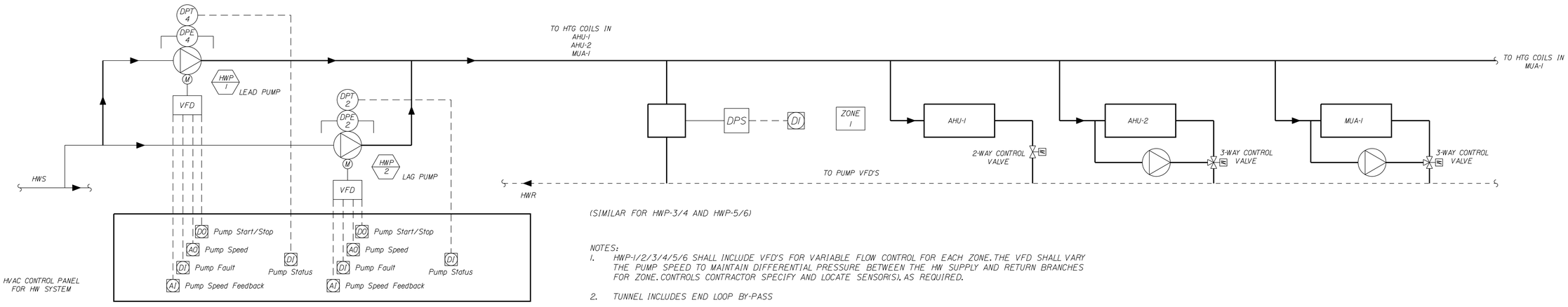
CONTRACT: 2018.20

Date:7/25/2018



1/- HOT WATER SYSTEM - CONTROL DIAGRAM

SCALE: NONE



(SIMILAR FOR HWP-3/4 AND HWP-5/6)

NOTES:
1. HWP-1/2/3/4/5/6 SHALL INCLUDE VFD'S FOR VARIABLE FLOW CONTROL FOR EACH ZONE. THE VFD SHALL VARY THE PUMP SPEED TO MAINTAIN DIFFERENTIAL PRESSURE BETWEEN THE HW SUPPLY AND RETURN BRANCHES FOR ZONE. CONTROLS CONTRACTOR SPECIFY AND LOCATE SENSOR(S), AS REQUIRED.
2. TUNNEL INCLUDES END LOOP BY-PASS

2/- SECONDARY HOT WATER SYSTEM - CONTROL DIAGRAM / ZONE 1

SCALE: NONE

ZONE 1 SHOWN
ZONE 2 SIMILAR - HWP-3/4 TUNNEL / UH'S-3 TO 12 2-WAY TCV, CUH-12
ZONE 3 SIMILAR - HWP-5/6 ADMIN/RADIATION, FCU

Filename: ...\418_(M-703)_Udiagrams_03_HVAC.DGN

Scale: NO SCALE

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: T. MORIN

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Designed	R.H.	07/18	Checked	K.F.	07/18
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THE GOLD STAR MEMORIAL HIGHWAY

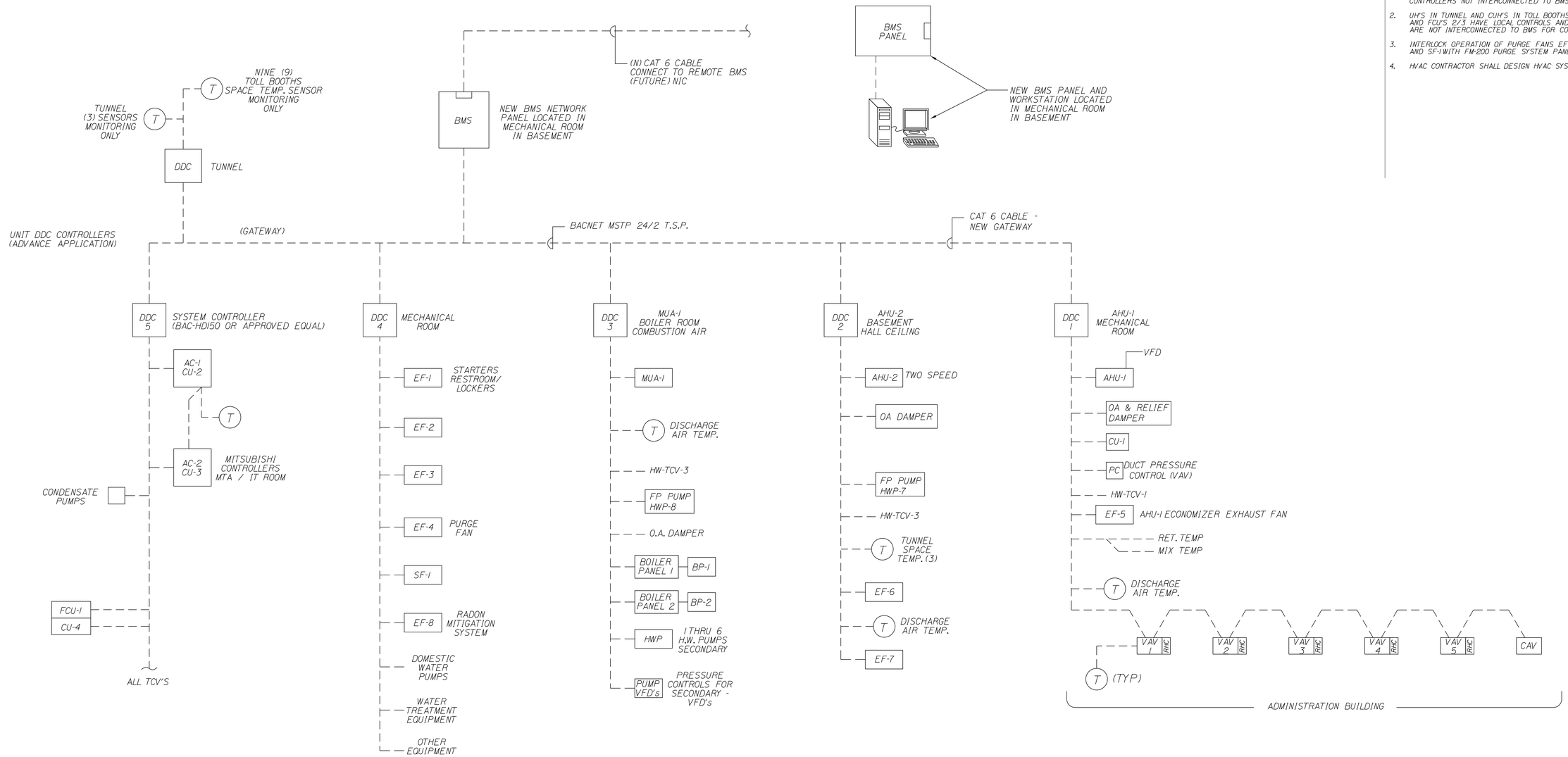
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

HVAC CONTROL DIAGRAMS 3

SHEET NUMBER: M-703

CONTRACT:2018.20



SHEET NOTES

1. HEAT PUMPS IN TOLL BOOTH HAVE LOCAL CONTROLLERS NOT INTERCONNECTED TO BMS FOR CONTROL.
2. UH'S IN TUNNEL AND CUH'S IN TOLL BOOTHS AND FCU'S 2/3 HAVE LOCAL CONTROLS AND ARE NOT INTERCONNECTED TO BMS FOR CONTROL.
3. INTERLOCK OPERATION OF PURGE FANS EF- AND SF-1 WITH FM-200 PURGE SYSTEM PANEL.
4. HVAC CONTRACTOR SHALL DESIGN HVAC SYSTEM AND PANELS

1/- BMS - NETWORK ARCHITECTURE DIAGRAM

SCALE: NONE

YORK TOLL PLAZA

Date:7/25/2018

Filename: ...\419_(M-704)_Udiagrams_04_HVAC.DGN

Scale: NO SCALE

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

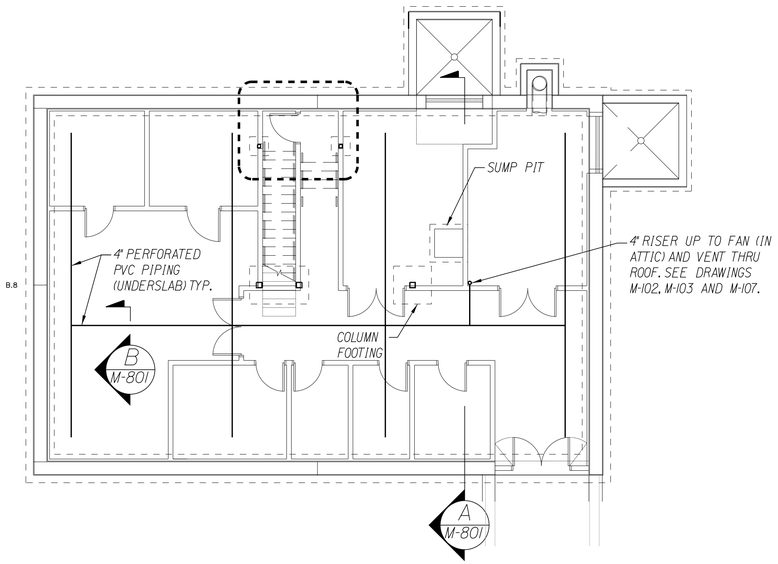
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

HVAC CONTROL DIAGRAMS 4

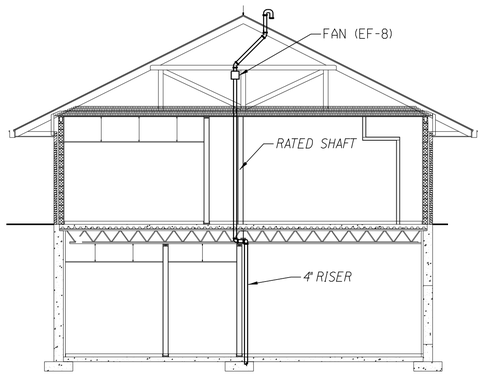
SHEET NUMBER: M-704

CONTRACT:2018.20



1 - BASEMENT RADON PLAN

SCALE: 1/8" = 1'-0"

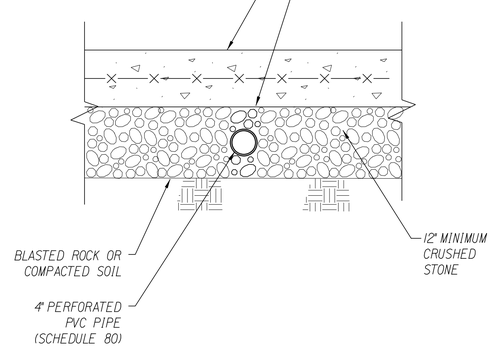


A M-801 SECTION

SCALE: 1/8" = 1'-0"

NOTES:

1. CONTRACTOR SHALL PROVIDE DESIGN/BUILD CONTRACT SERVICES FOR RADON MITIGATION SYSTEM AND SHALL MEET ALL STATE, FEDERAL (EPA) CODES AND REGULATIONS.
2. 4" DIAMETER PERFORATED PIPE SHALL BE INSTALLED WITHIN A MINUMUM 12" THICKNESS OF 3/4" CRUSHED STONE.
3. ALL OPENINGS, GAPS AND JOINTS IN FLOOR AND WALL ASSEMBLIES IN CONTACT WITH SOIL OR GAPS AROUND PIPES OR DRAINS PENETRATING THESE ASSEMBLIES SHALL BE FILLED OR CLOSED WITH MATERIALS THAT PROVIDES A PERMANANT AIR TIGHT SEAL. SEAL LARGE OPENINGS WITH NON-SHRINK MORTAR GROUTS OR EXPANDING FOAM MATERIALS AND SMALLER GAPS WITH AN ELASTOMERIC JOINT SEALANT AS DEFINED IN ASTM C920-87.
4. VENT PIPES SHALL BE INSTALLED SO THAT ANY RAINWATER OR CONDENSATION DRAINS DOWNWARD INTO THE GROUND BENEATH THE SLAB.
5. ADD ELECTRICAL JUNCTION BOXES FOR INSTALLATION OF VENT FAN (EF-8) AND WARNING DEVICES. PROVIDE BACK-UP FAN CF-8A FOR RADON MITIGATION. STORE FAN IN APPROVED STORAGE AREA
6. IF NECESSARY, ALL POSITIVELY PRESSURED PORTIONS OF THE VENT PIPE AND FAN SHALL BE LOCATED OUTSIDE THE HABITABLE SPACE OF THE BUILDING.
7. COORDINATE UNDERGROUND RADON PIPING WITH UNDERGROUND SANITARY WASTE PIPING IN THE AREA OF THE MECHANICAL AND BOILER ROOMS.
8. REFER TO CONTRACT SPEC 15.



B M-801 UNDER SLAB RADON PIPE SECTION

NTS

Date: 7/25/2018

Filename: ...\420_(M-801)_Layout_01_Radon-AB.DGN

Scale: 0 8' 16' 24' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
RADON MITIGATION PLAN AND DETAILS

SHEET NUMBER: M-801

CONTRACT: 2018.20

TOLLING - ORT

1. TRANSCORE SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:
   A. 20 VCARS CAMERA SYSTEMS
   B. ENCLOSURES AND MOUNTING KITS FOR VCARS
   C. IVIS LOOP SENSORS AND ASSOCIATED TEMPLATES FOR CUTTING CONCRETE
   D. EPOXY LOOP SEALANT FOR INSTALLATION OF LOOPS
   E. 2 ORT HOFFMAN CABINETS (TUNNEL ENCLOSURES)
   F. MOUNTING CLEATS FOR ORT CABINETS
   G. COSTAR ENCLOSURES AND PELCO MOUNTING HOOKS FOR DVAS CAMERAS
   H. 30 OPUS SCANNER, MOUNTING HARDWARE AND ENCLOSURE

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING ITEMS:
   A. AVI ANTENNA BRACKETS FOR MOUNTING TO SPACE FRAME
   B. 4 ENCLOSURES FOR AVI READERS
   C. ALL REQUIRED JUNCTION BOXES, CONDUIT AND ASSOCIATED WIRING
   D. LEVELING PAD FOR ORT CABINETS
   E. HOMERUN CABLES FOR IVIS LOOP SENSORS
   F. KLIK-ITS FOR HOME RUN TERMINATION

3. THE MAINE TURNPIKE SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:
   A. 18 AVI ANTENNAS AND LANE KITS
   B. 4 AVI READERS (MTA RESPONSIBLE FOR LANE TUNING AND READER SYNCHRONIZATION)

4. TRANSCORE SHALL PROVIDE, INSTALL AND TERMINATE THE FOLLOWING ITEMS:
   A. DVAS CAMERAS
   B. ORT LANE SERVERS AND ASSOCIATED CONTROLLERS AND SWITCHES

5. ALL IVIS SENSOR LOOPS SHALL HAVE AN EPOXY OVERLAY PER SECTION 515 OF SPECIAL PROVISIONS.

TOLL SYSTEM INTEGRATOR

1. THE CONTRACTOR'S SCHEDULE OF WORK SHALL ACCOUNT FOR THE INSTALLATION OF THE TOLLING EQUIPMENT IN EACH CASH LANE (10 WORKING DAYS PER LANE). ALL CIVIL WORK IN A CASH LANE SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF THE TOLLING EQUIPMENT IN THE RESPECTIVE LANE. TOLLING EQUIPMENT IS TO BE INSTALLED, TERMINATED, AND TESTED BY THE TOLL SYSTEM INTEGRATOR.

2. THE CONTRACTOR'S SCHEDULE OF WORK SHALL ACCOUNT FOR THE INSTALLATION OF THE TOLLING EQUIPMENT IN EACH ORT ZONE (90 WORKING DAYS FOR BOTH ORT ZONES, IF DONE CONCURRENTLY. 90 WORKING DAYS PER ORT ZONE, IF DONE SEPARATELY). ALL CIVIL WORK IN A ORT ZONES SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF THE TOLLING EQUIPMENT IN THE RESPECTIVE ZONES (NB/SB). TOLLING EQUIPMENT IS TO BE INSTALLED, TERMINATED, AND TESTED BY THE TOLL SYSTEM INTEGRATOR.

3. A CASH/ORT LANE SHALL NOT BE OPENED TO TRAFFIC UNTIL ALL TOLLING EQUIPMENT HAS BEEN INSTALLED IN THE RESPECTIVE LANE, HAS BEEN TESTED, AND COMMISSIONING HAS BEEN ACCEPTED BY THE MTA.

4. THE TOLL SYSTEM INTEGRATOR WILL HAVE 10 BUSINESS DAYS PER CASH LANE AND 120 WORKING DAYS PER ORT ZONE (UNLESS DONE CONCURRENTLY). THE CONTRACTOR WILL NEED TO ACCOUNT FOR THE TOLL SYSTEM INTEGRATOR WITHIN THEIR SCHEDULE OF WORK.

TOLLING - CASH LANE

1. TRANSCORE SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:
   A. PELCO MOUNTING HOOK FOR THE DVAS CAMERA
   B. IVIS LOOP SENSORS AND ASSOCIATED TEMPLATES FOR CUTTING CONCRETE
   C. EPOXY LOOP SEALANT FOR INSTALLATION OF LOOPS
   D. 9 LANE CONTROLLER ENCLOSURES
   E. MLT VGA AND AUDIO CABLES
   F. 9 TRAFFIC CONTROL PEDESTALS
   G. 9 CANOPY OVERIDE SWITCHES

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE FOLLOWING ITEMS:
   A. ALL REQUIRED JUNCTION BOXES, CONDUIT AND ASSOCIATED COMMUNICATION AND ELECTRICAL WIRING
   B. RED "X" /GREEN "ARROW" CANOPY LIGHTS ON FRONT OF CANOPY.
   C. TRAFFIC CONTROL PEDESTAL (INSTALL ONLY)
   D. LANE CONTROLLER ENCLOSURES AND METAL CLEATS (INSTALL ONLY)
   E. 2 ENCLOSURES FOR AVI READERS

3. TRANSCORE SHALL PROVIDE, INSTALL AND TERMINATE (DATA ONLY) THE FOLLOWING ITEMS:
   A. DVAS CAMERA
   B. LANE CONTROLLERS
   C. TRAFFIC CONTROL PEDESTAL (PROVIDE TCP AND TERMINATE DATA ONLY)
   D. MANUAL LANE TERMINAL AND STAND
   E. RECEIPT PRINTER

4. THE MAINE TURNPIKE SHALL PROVIDE THE FOLLOWING ITEMS TO BE INSTALLED BY THE CONTRACTOR:
   A. 9 AVI ANTENNAS AND LANE KITS
   B. 2 AVI READER (MTA RESPONSIBLE FOR LANE TUNING AND READER SYNCHRONIZATION)
   C. 9 CANOPY OVERRIDE SWITCHES

5. ALL IVIS SENSOR LOOPS SHALL HAVE AN EPOXY OVERLAY PER SECTION 515 OF SPECIAL PROVISIONS.

ELECTRICAL

1. LOOP GRADIENT SENSOR CONDUIT STUB-UPS WILL BE CONNECTED TO A HOME RUN CONDUIT VIA A 3" SANITARY TEE OR 90 PVC DWV.

2. ALL CONDUIT LOCATED IN THE TOLL LANES SHALL BE INSTALLED IN THE ROADWAY SUBBASE, BELOW THE CONCRETE SLAB. THE ONLY CONDUIT LOCATED WITHIN THE CONCRETE SLAB IS FOR STUB-UPS.

3. "KEY SWITCHES" WILL BE INSTALLED IN EACH CASH LANE FOR THE INLINE CLEAN POWER OF EACH DVAS AND VES. POWER AND DATA CABLES FROM THE CASH LANE CONTROLLERS TO THE DVAS SHALL BE ROUTED UP THROUGH CANOPY SUPPORT COLUMNS. ANY CABLES AND/OR WIRES RUN TO DEVICES ON CANOPIES AND SPACE FRAMES SHALL BE RUN IN CONDUIT.

TOLLING - GENERAL

1. COORDINATE LOOP LOCATIONS WITH SYSTEMS INTEGRATOR (SI) FOR SOFT CUT JOINTS TO PREVENT SOFT CUTS THROUGH LOOPS.

Date:8/28/2018

Filename: 421_Toll General Notes.dgn

Scale: NO SCALE

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	JRD	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

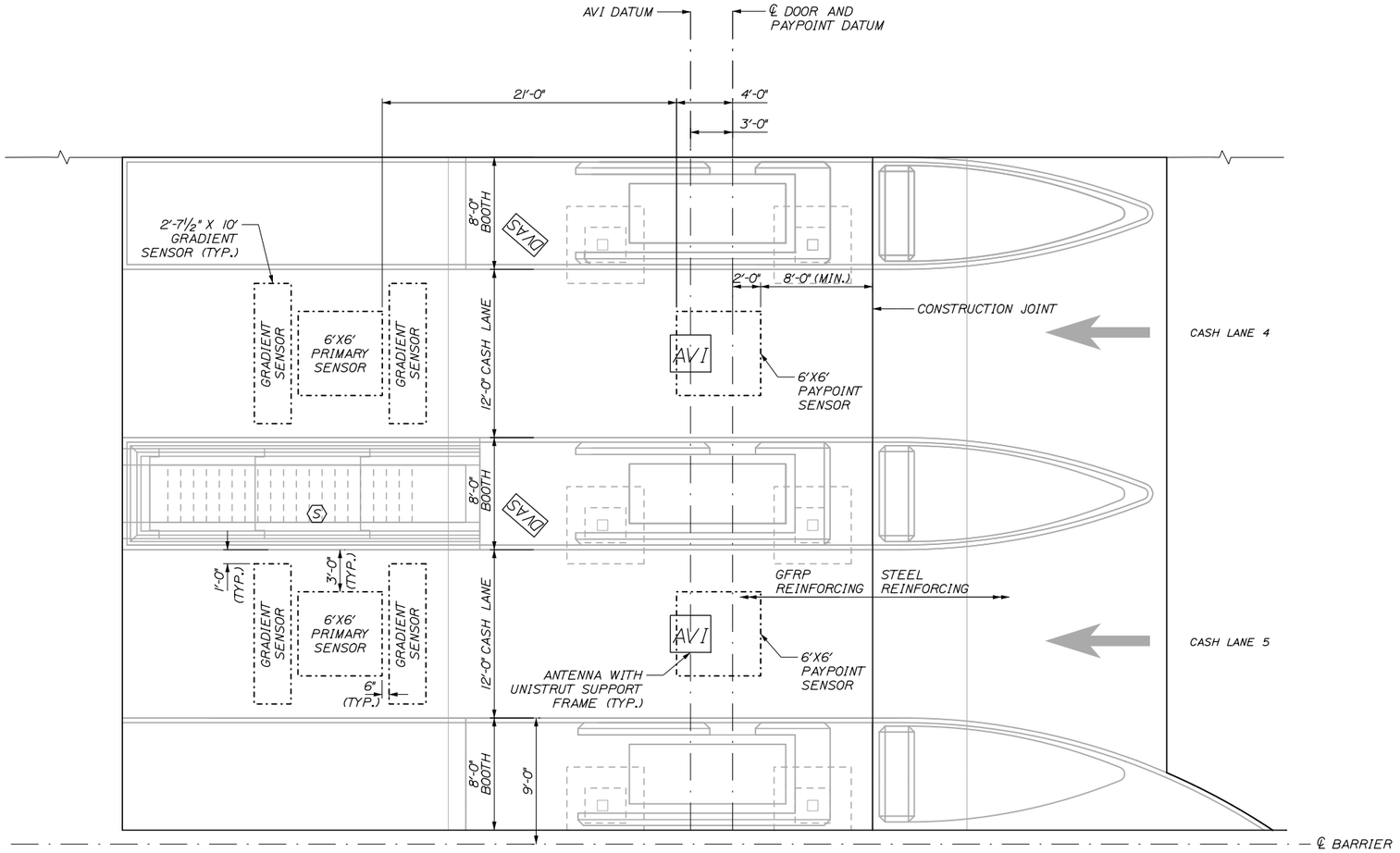
MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

TOLL GENERAL NOTES

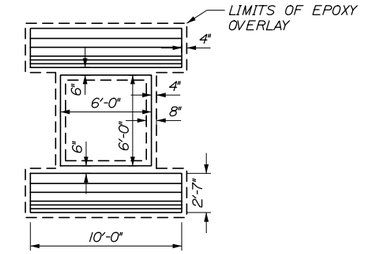
SHEET NUMBER: T-01

CONTRACT:2018.20



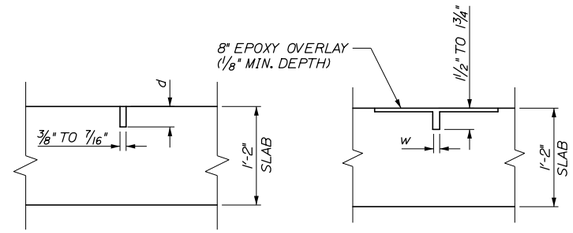
PLAN VIEW

SHOWING CASH LANES 4 & 5
OTHER LANES SIMILAR



LOOP DETAIL AND EPOXY OVERLAY

N.T.S.



d = 1¼" TO 1½" FOR SINGLE LEAD CUT
2½" FOR MULTIPLE LEAD CUT

LEAD-IN CUT

N.T.S.

w = ½" FOR GRADIENT ENDS
⅜" FOR ALL OTHER CUTS

SENSOR CUT

N.T.S.

NOTES:

1. TRANSCORE SHALL INJECT LOOP SEALANT INTO SAW CUT BEFORE INSTALLING SENSORS AND LEADS. TRANSCORE SHALL PROVIDE EQUIPMENT, TEMPLATES AND EPOXY. SEE SPECIAL PROVISIONS SECTION 655 FOR MORE INFORMATION.

2. ALL LAYOUT FOR PRIMARY AND GRADIENT SENSORS SHALL BE VERIFIED BY TRANSCORE PRIOR TO CUTTING CONCRETE.

3. ¼" DEPRESSION FOR EPOXY OVERLAY SHALL BE COMPLETED AFTER SAW CUTTING CONCRETE FOR LOOPS.

4. MEASUREMENT FOR ITEM 515.23 EPOXY OVERLAY SHALL BE BY SQUARE YARD.

5. LOOP LAYOUT IS TYPICAL FOR ALL ENTRY LANES.

6. DVAS MOUNTING HARDWARE AND INSTALLATION IS INCIDENTAL TO ITEM 655.02 DVAS MOUNT INSTALLATION.

Date:8/28/2018

Filename: 422_Cash Lane - Typical Sensor Layout.dgn

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

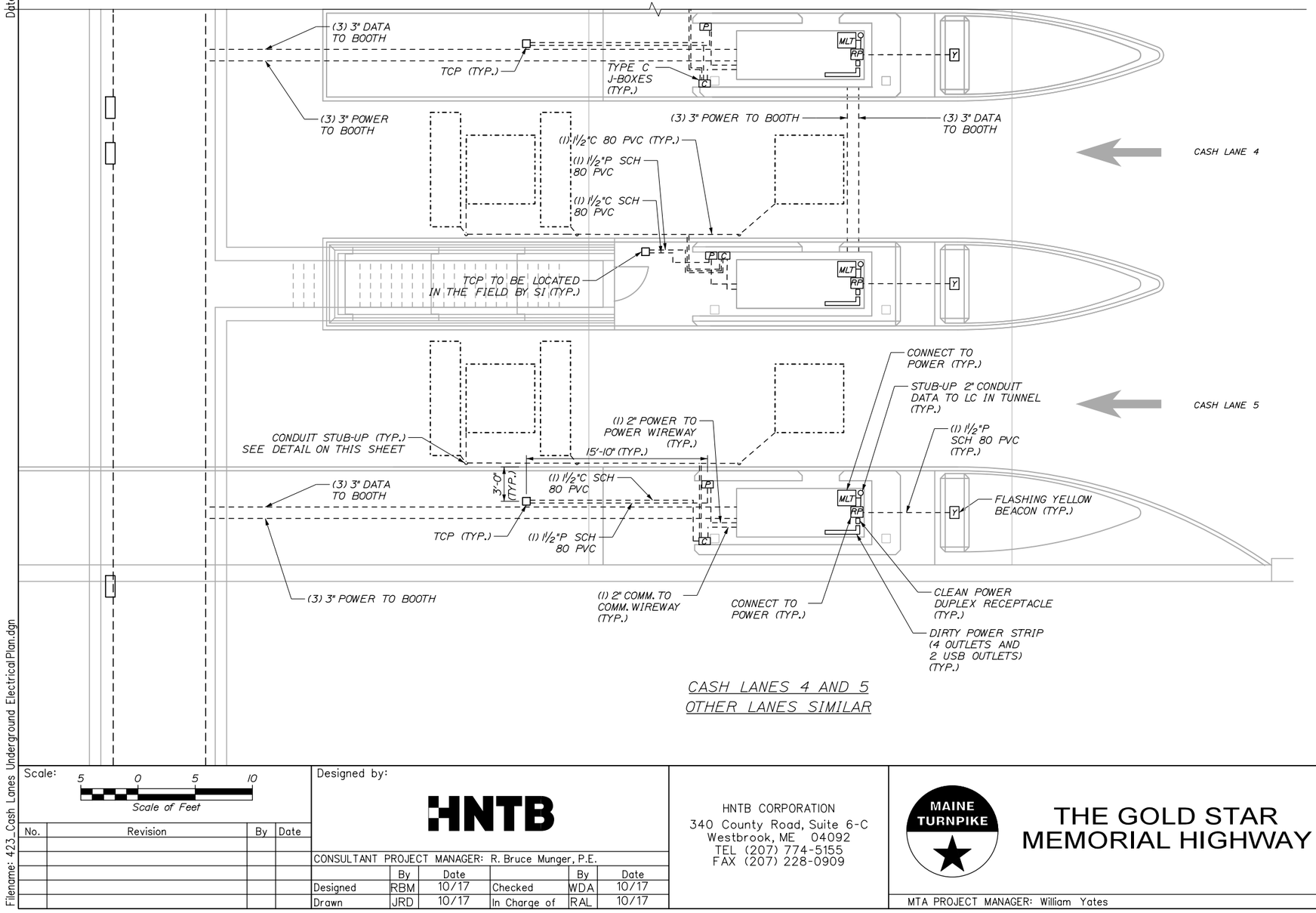
CASH LANE
TYPICAL SENSOR LAYOUT

SHEET NUMBER: T-02

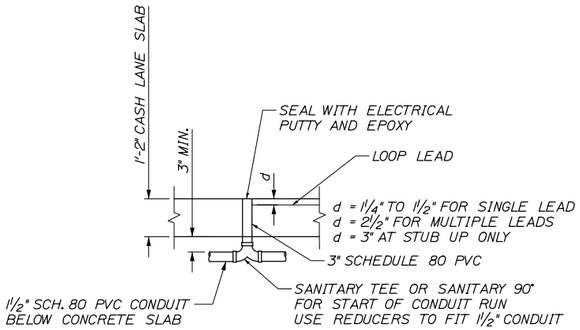
CONTRACT:2018.20

422 OF 489

Date:7/20/2018



CASH LANES 4 AND 5
OTHER LANES SIMILAR



DETAIL A
STUB UP IN CASH LANE SLAB
SECTION VIEW
N.T.S.

NOTE: SEALING STUB-UPS SHALL BE INCIDENTAL TO THE PVC PAY ITEM.

NOTES:

1. SEE GENERAL NOTES FOR ITEMS TO BE SUPPLIED BY MTA, TRANSCORE AND CONTRACTOR.

2. SENSOR LOOP LOCATIONS ARE APPROXIMATE. SEE SHEET T-02 FOR EXACT LOOP LOCATION.

3. THE TRAFFIC CONTROL PEDESTAL SHALL BE LOCATED AT LEAST 36" FROM THE CURB. FINAL LOCATION TO BE VERIFIED BY TRANSCORE AND MTA.

4. KLIK-ITS (POWER & TEL ENTERPRISE PART# C8820) OR APPROVED EQUIVALENT SHALL BE USED AT ALL LOOPWIRE SPLICE LOCATIONS.

5. FOR OVERHEAD LANE LIGHTS SEE SPECIFICATION 655. FEED WITH 1" RMC. LIGHTS ARE SURFACE MOUNTED TO STRUCTURAL STEEL.

6. LED CANOPY LIGHTS SHALL BE CREE BETALED 304 SERIES CAN-301-SL-RD OR APPROVED EQUIVALENT

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

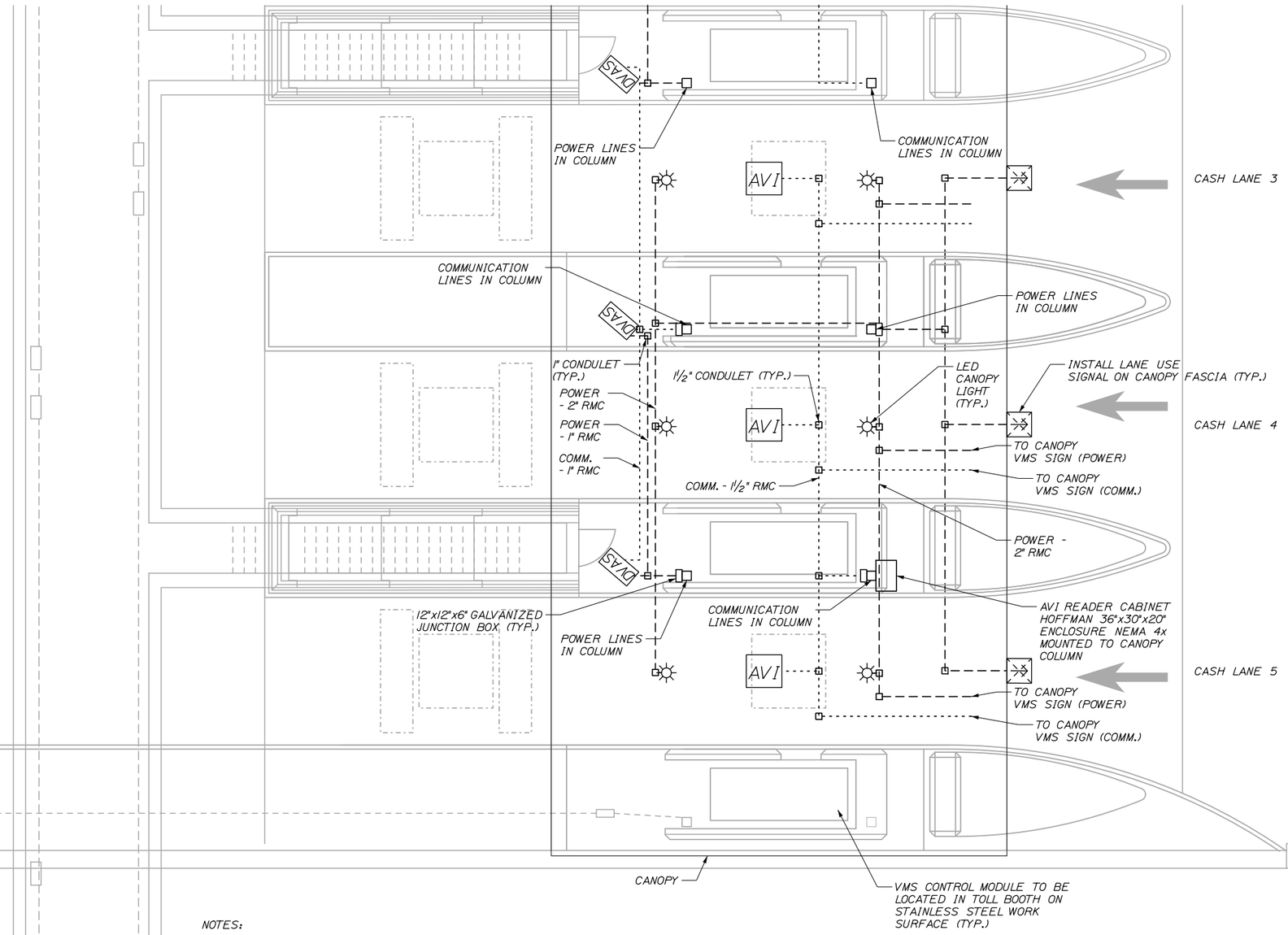
YORK TOLL PLAZA

UNDERGROUND ELECTRICAL PLAN
CASH LANE

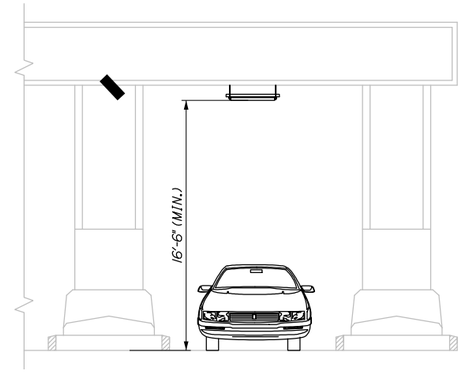
SHEET NUMBER: T-03

CONTRACT:2018.20

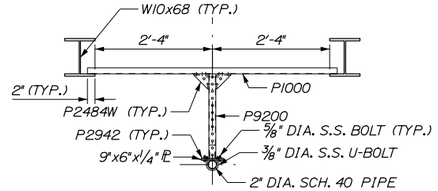
Filename: 423_Cash Lanes Underground ElectricalPlan.dgn



CASH LANES 3, 4, AND 5
OTHER LANES SIMILAR

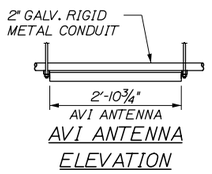


SECTION VIEW



CASH LANE AVI ANTENNA FRAME

N.T.S.



AVI ANTENNA ELEVATION

NOTES:

1. OVERHEAD ELECTRICAL LAYOUT FOR ALL OTHER CASH LANES ARE SIMILAR TO CASH LANES 3, 4, AND 5.

2. MOUNT SB CASH LANE AVI READER ON LANE 4 ISLAND CANOPY COLUMN. MOUNT NB CASH LANE AVI READER ON ISLAND H CANOPY COLUMN.

3. LANE LIGHTS FOR EACH LANE SHALL HAVE AN ON/OFF SWITCH IN THE BOOTH ASSOCIATED WITH THAT LANE'S LIGHTS

Scale: 5 0 5 10
Scale of Feet

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THE GOLD STAR MEMORIAL HIGHWAY

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YORK TOLL PLAZA

OVERHEAD ELECTRICAL PLAN
CASH LANE

SHEET NUMBER: T-04

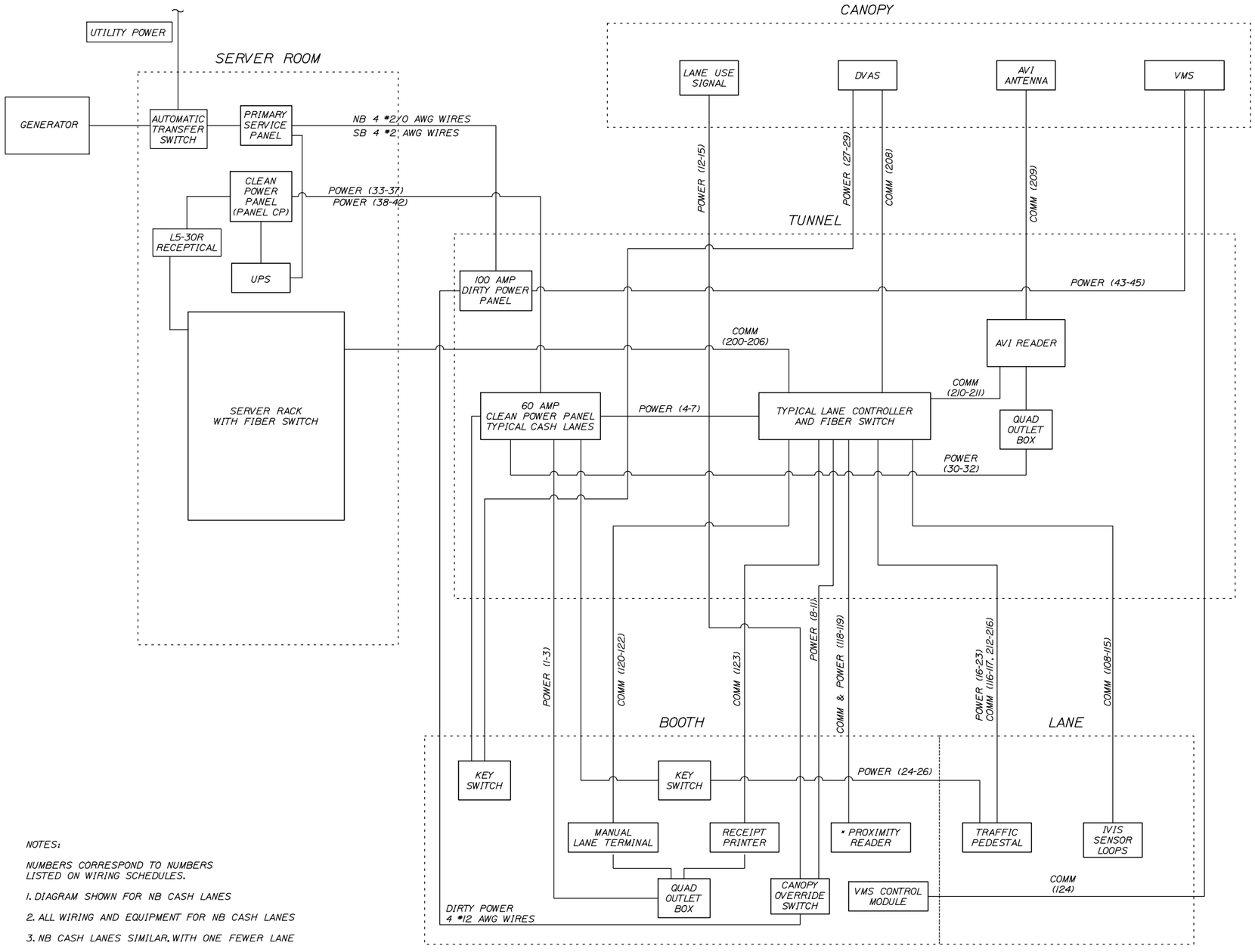
CONTRACT:2018.20

424 OF 489

Date:7/20/2018

Filename: 424_Cash Lanes Overhead Electrical Plan.dgn

Date:7/20/2018



LEGEND

EQUIPMENT

WIRING

NOTES:

NUMBERS CORRESPOND TO NUMBERS LISTED ON WIRING SCHEDULES.

1. DIAGRAM SHOWN FOR NB CASH LANES

2. ALL WIRING AND EQUIPMENT FOR NB CASH LANES

3. NB CASH LANES SIMILAR. WITH ONE FEWER LANE

*NOT USED AT THIS TIME

TYPICAL CASH LANES
TOLLING EQUIPMENT SYSTEMS DIAGRAM
SCALE: N.T.S.

Filename: 425_WiringDiagram.dgn

Scale: NO SCALE

No.	Revision	By	Date

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YORK TOLL PLAZA

CASH LANE POWER & COMMUNICATION RISER DIAGRAM

SHEET NUMBER: T-05

CONTRACT:2018.20

WIRING SHOWN IS FOR TYPICAL CASH LANE. REPLICATE FOR SIMILAR LANES.

ATT/ETC LANE TYPE POWER WIRING SCHEDULE

	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	AWG	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	LANE SERVER TERMINAL #	TERMINATION REQUIREMENTS	TERMINATIONS
	BOOTH QUAD OUTLET												
1	(LANE CONTROLLER) .L.BQUAD	PERIPHERAL POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW	120 VAC	20	CLEAN POWER PANEL	BOOTH QUAD OUTLET LOCATE WITHIN 3 FT OF ATTENDANT WORK AREA	N/A	QUAD OUTLET	TUNNEL/POWER PANEL
2	(LANE CONTROLLER) .N.BQUAD	PERIPHERAL POWER (NEUTRAL)		WHITE									TUNNEL/POWER PANEL
3	(LANE CONTROLLER) .G.BQUAD	PERIPHERAL POWER (GROUND)		GREEN									TUNNEL/POWER PANEL
	LANE SERVER												
4	(LANE CONTROLLER).LS.T1-1	LANE SERVER POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW	120 VAC	20	BOOTH or MAIN POWER DISTRIBUTION PANEL and ISOLATED GROUND BAR	LANE CONTROLLER FIELD WIRING (T1) TERMINAL BLOCK	T1-1	BARE WIRE (Capped and Taped for termination by UTS)	TUNNEL/POWER PANEL
5	(LANE CONTOLLER) .N.LS.T1-2	LANE SERVER POWER (NEUTRAL)		WHITE							T1-2		TUNNEL/POWER PANEL
6	(LANE CONTROLLER) .LS.T1-3	LANE SERVER POWER (GROUND)		GREEN							T1-4		TUNNEL/POWER PANEL
7	(LANE CONTROLLER)IG.LS.T1-4	LANE SERVER POWER (ISOLATED GROUND)		GREEN W/ WHITE STRIPE							T1-3		TUNNEL/POWER PANEL
	CANOPY LANE USE SIGNAL												
8	COS.CTS-R.SIG	RED CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)	12	RED	STRANDED	THHW	120 VAC	N/A	LANE CONTROLLER (T1) TERMINAL BLOCK	CANOPY OVERRIDE SWITCH (See Note #4)	T1-9	BARE WIRE	TUNNEL/POWER PANEL
9	COS.CTS-G.SIG	GREEN CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)		BLUE							T1-10		TUNNEL/POWER PANEL
10	COS.CTS-N.SIG	CANOPY TRAFFIC SIGNAL POWER (NEUTRAL)		WHITE							T1-11		TUNNEL/POWER PANEL
11	COS.CTS-CG.SIG	CANOPY TRAFFIC SIGNAL POWER (COMMON GROUND)		GREEN							T1-8		TUNNEL/POWER PANEL
12	COS.CTS-R.SIG	RED CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)	12	RED	STRANDED	THHW	120 VAC	N/A	CANOPY OVERRIDE SWITCH (See Note #4)	CANOPY LANE USE SIGNAL		BARE WIRE	COS
13	COS.CTS-G.SIG	GREEN CANOPY TRAFFIC SIGNAL POWER (HOT, SWITCHED)		BLUE									COS
14	COS.CTS-N.SIG	CANOPY TRAFFIC SIGNAL POWER (NEUTRAL)		WHITE									COS
15	COS.CTS-CG.SIG	CANOPY TRAFFIC SIGNAL POWER (COMMON GROUND)		GREEN									COS
	TRAFFIC CONTROL PEDESTAL (TCP)												
16	ITS.LS.T1-12	VIOLATION BEACON (HOT)	12	BLACK	STRANDED	THHW	120 VAC	-	LANE CONTROLLER (T1) TERMINAL BLOCK	TRAFFIC CONTROL PEDESTAL FIELD WIRING TERMINAL BLOCK 'TA'	T1-12	TA - TH BLACK	TUNNEL/POWER PANEL
17	ITS.LS.T1-13	LANE 1 ISLAND TRAFFIC SIGNAL RED LIGHT POWER (HOT, SWITCHED)		RED							T1-13	TA - TH RED	TUNNEL/POWER PANEL
18	ITS.LS.T1-14	LANE 1 ISLAND TRAFFIC SIGNAL AMBER LIGHT POWER (HOT, SWITCHED)		YELLOW							T1-14	TA - TH AMBER	TUNNEL/POWER PANEL
19	ITS.LS.T1-15	LANE 1 ISLAND TRAFFIC SIGNAL GREEN LIGHT POWER (HOT, SWITCHED)		BLUE							T1-15	TA - TH BLUE	TUNNEL/POWER PANEL
20	ITS.LS.T1-16	LANE 1 ISLAND TRAFFIC SIGNAL POWER (NEUTRAL)		WHITE							T1-16	TA - TH (N)	TUNNEL/POWER PANEL
21	PTD.LS.T1-6	LANE 1 PATRON TOLL DISPLAY POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW	120 VAC	-	LANE CONTROLLER (T1) TERMINAL BLOCK	TRAFFIC CONTROL PEDESTAL FIELD WIRING TERMINAL BLOCK 'TA'	T1-6	TA - PTD (H)	TUNNEL/POWER PANEL
22	PTD.LS.T1-7	LANE 1 PATRON TOLL DISPLAY POWER (NEUTRAL)		WHITE							T1-7	TA - PTD (N)	TUNNEL/POWER PANEL
23	PTD.LS.T1-8	LANE 1 PATRON TOLL DISPLAY POWER (GROUND)		GREEN							T1-8	TA - PTD / VIOL (G)	TUNNEL/POWER PANEL
24	(Primary Power Panel).TCP	VES/TCP POWER (HOT, KEY SWITCHED)	12	BLACK	STRANDED	THHW	120 VAC	-	CLEAN POWER FEED	TRAFFIC CONTROL PEDESTAL FIELD WIRING TERMINAL BLOCK 'TB'	N/A	TB - 120V (H)	TUNNEL/POWER PANEL
25	(Primary Power Panel)N.TCP	VES/TCP POWER (NEUTRAL)		WHITE							N/A	TB - 120V (N)	TUNNEL/POWER PANEL
26	(Primary Power Panel)G.TCP	VES/TCP POWER (GROUND)		GREEN							N/A	TB - 120V (G)	TUNNEL/POWER PANEL
	LANE DIGITAL VIDEO AND AUDIT CAMERA (DVAS)												
27	(Primary Power Panel).PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (HOT - KEY SWITCHED)	12	BLACK	STRANDED	THHW	120 VAC	N/A	CLEAN POWER FEED	DVAS CAMERA ENCLOSURE FIELD WIRING POWER STRIP (UP TO 6 CAMERAS ON 1 CIRCUIT)	N/A	BARE WIRE (Capped and Taped for termination by UTS)	TUNNEL/POWER PANEL
28	(Primary Power Panel)N.PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (NEUTRAL)		WHITE									TUNNEL/POWER PANEL
29	(Primary Power Panel)G.PP	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (GROUND)		GREEN									TUNNEL/POWER PANEL
	AUTOMATIC VEHICLE IDENTIFICATION (AVI)												
30	(Primary Power Panel)L.AVI	LANE AVI READER QUAD POWER (AC HOT)	12	BLACK	STRANDED	THHW	120 VAC	20	CLEAN POWER FEED	AVI READER (LANES 6-10)	N/A	QUAD OUTLET	TUNNEL/POWER PANEL
31	(Primary Power Panel)N.AVI	LANE AVI READER QUAD POWER (AC NEUTRAL)		WHITE									TUNNEL/POWER PANEL
32	(Primary Power Panel) G.AVI	LANE AVI QUAD READER (GROUND)		GREEN									TUNNEL/POWER PANEL
	60 AMP PANEL SERVING NB CASH LANE												
33	(Panel#) (Ckt #)H1.UPS	POWER(120V-HOT)	#2/0	BLACK	STRANDED	THHW	240 VAC		UPS	60 AMP CLEAN POWER SUB-PANEL ASSIGNED CIRCUIT BREAKER	N/A	PER LOCAL CODE	60 AMP POWER PANEL
34	(Panel#) (Ckt #)H2.UPS	POWER(120V-HOT)		RED									
35	(Panel#) (Ckt #)N.UPS	POWER(120V-NEUTRAL)		WHITE									
36	(Panel#).G	GROUND		GREEN									
37	(Panel#).IG	ISOLATED GROUND	#2/0	GREEN W/ YELLOW STRIPE									
	60 AMP PANEL SERVING SB CASH LANE												
38	(Panel#) (Ckt #)H1.UPS	POWER(120V-HOT)	#2	BLACK	STRANDED	THHW	240 VAC		UPS	60 AMP CLEAN POWER SUB-PANEL ASSIGNED CIRCUIT BREAKER	N/A	PER LOCAL CODE	60 AMP POWER PANEL
39	(Panel#) (Ckt #)H2.UPS	POWER(120V-HOT)		RED									
40	(Panel#) (Ckt #)N.UPS	POWER(120V-NEUTRAL)		WHITE									
41	(Panel#).G	GROUND		GREEN									
42	(Panel#).IG	ISOLATED GROUND	#2	GREEN W/ YELLOW STRIPE									

Date:7/20/2018

Filename: 426_Cash Lane Power Schedule.dgn

Scale: *NO SCALE*

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

CASH LANE POWER SCHEDULE

SHEET NUMBER: T-06

CONTRACT:2018.20

Date:7/20/2018

WIRING SHOWN IS FOR CASH LANE. REPLICATE FOR SIMILAR LANES.

ATT/ETC DISCRETE WIRING SCHEDULE - DATA: DOOR WIRING LOGIC, SERIAL, VIDEO, AUDIO (Primary Server)

Intelligent Vehicle Identification System (IVIS) (For Wiring Only. Home Run Lead supplied as part of Sensor)

	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	STANDARD	FROM	TO	LANE SERVER TERMINAL #
100	T4-49.G1	NOT USED						SENSORS COME WITH 80' PIGTAIL. IF ADDITIONAL WIRE NEEDED SPLICE TO IMSA-50-2 TYPE CABLE. INSTALL THE HOME RUN CABLE FROM THE LANE GROUND BOX TO THE LANE SERVER CONNECTION SPECIFIED IN THE ADJ COLUMN. ALL SPLICES MUST BE SOLDERED, TIGHTLY TWISTED, AND INSULATED TO BE WATER RESISTANT. FOR LANES NOT HAVING PRE_CLASSIFICATION, DELETE REQUIREMENTS FOR PRE_CLASSIFICATION SENSORS AND INTELLIGENT QUEUING SENSOR	T4-49
101	T4-50.G1								T4-50
102	T4-51.P1	NOT USED							T4-51
103	T4-52.P1								T4-52
104	T4-53.G2	NOT USED							T4-53
105	T4-54.G2								T4-54
106	T4-55.IQ	NOT USED							T4-55
107	T4-56.IQ								T4-56
108	T4-57.PP	PAY POINT PRIMARY SENSOR	16	BLACK	STRANDED	IMSA 50-2	PAY POINT PRIMARY SENSOR		T4-57
109	T4-58.PP								T4-58
110	T4-59.G3	POST CLASSIFICATION GRADIENT SENSOR #1	16	BLACK	STRANDED	IMSA 50-2	POST-CLASSIFICATION GRADIENT SENSOR #1		T4-59
111	T4-60.G3								T4-60
112	T4-61.P4	POST CLASSIFICATION PRIMARY SENSOR	16	BLACK	STRANDED	IMSA 50-2	POST-CLASSIFICATION PRIMARY SENSOR		T4-61
113	T4-62.P4								T4-62
114	T4-63.G4	POST CLASSIFICATION GRADIENT SENSOR #2	16	BLACK	STRANDED	IMSA 50-2	POST-CLASSIFICATION GRADIENT SENSOR #2		T4-63
115	T4-64.G4								T4-64

Toll Booth Peripheral Cables (MLT, Printer, PC Prox, PTD Display)

116	S3.1.PTD	PATRON FORE DISPLAY	Cat5e	BARE WIRE AT PEDESTAL	FIELD WIRED - ONLY FOUR PINS USED: PIN 3 - DEVICE RECEIVE, PIN 5 - GROUND, PINS 7 AND 8 JUMPERED	RS232	PEDESTAL WIRE CENTER TA - PTD DATA PEDESTAL WIRE CENTER TA - PTD DATA	TBD
117	Lane(#)TR	LANE TRIGGER	Cat5e	BARE WIRE	Pin to Pin	TTL(optically Isolated)	(See Note 1 below) Wire to Designated Trigger Terminals for Front and Rear Trigger (+/-) in Pedestal Wire Center	TBD
118	S8.PROX	MANUAL LANE TERMINAL PCPROX CARD READER	Cat5e	DB9 (MALE)	SERIAL	RS232	(See Note 1 below)	S-8
119	PROXPWR	MANUAL LANE TERMINAL PCPROX CARD READER POWER	Cat5e	PS2 (FEMALE)	SERIAL	RS232	(See Note 1 below)	PS/2
120	S9.MLT	TOLL BOOTH MANUAL LANE TERMINAL (MLT) COMMUNICATIONS	Cat5e	RJ-45	SERIAL	RS232	(See Note 1 below)	TBD
121	MLTVGA	TOLL BOOTH MANUAL LANE TERMINAL VIDEO	Cat5e	RJ-45	VGA	RS232	(See Note 1 below)	MONITOR
122	MLTAUDIO	TOLL BOOTH MANUAL LANE TERMINAL SPEAKER	5mm Plug (MAL	3.5mm Plug (MALE)	AUDIO	AUDIO	PREFAB AUDIO CABLE	AUDIO
123	S10.RP	TOLL BOOTH RECEIPT PRINTER COMMUNICATIONS	RJ-45	DB25 (MALE)	NULL MODEM	RS232	PREFAB NULL MODEM CABLE - NOT TO EXCEED 100 FT	TBD

Notes:

1.) Lane Server to peripheral cable pin connections - refer to peripheral Installation Guide. RJ-45 at Lane Server: 1= CTS, 2=CD, 3=RxD, 4=Gnd, 5=Gnd, 6=TxD, 7=DTR, 8=RTS. (No handshaking is used)

2.) Schedule does not include booth access control requirements, booth DVAS or wiring.

Filename: 427_Cash Lane Data Schedule.dgn

Scale: *NO SCALE*

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

CASH LANE DATA SCHEDULE

SHEET NUMBER: T-07

CONTRACT:2018.20

Date:7/20/2018

WIRING SHOWN IS FOR CASH LANE. REPLICATE FOR SIMILAR LANES.

ATT-ETC LANE NETWORK WIRING SCHEDULE

LANE SERVER MULTIMODE FIBER (FOR REMOTE SWITCH ACCESS)

	WIRE LABEL	DESCRIPTION	COLOR	CONNECTOR AT FX PATCH PANEL (COMPUTER ROOM)	COMMUNICATIONS SWITCH IN THE LANE SERVER	WIRING CONVENTION	PROTOCOL	FIELD WIRING INSTRUCTIONS
200	(Ln#)LS	LANE SERVER NETWORK CONNECTION - SEND	BLUE	ST (MALE)	ST (MALE)	6-FIBER (TYP) (4 Min Fiber) MULTI-MODE 100mbs	62.5/125 MICRONS INDOOR/ OUTDOOR RISER RATED	FROM PLAZA COMMUNICATIONS RACK FIBER (FX) PATCH PANEL TO THE BOOTH LANE SERVER FIBER LINE INTERFACE UNIT (LIU) IN THE CABINET OR GUTTER. PROVIDE 1 EA 3M DUPLEX FX PATCH CABLE (STM to STM) FROM THE LIU TO THE LANE 1 LANE SERVER NETWORK SWITCH.
201		LANE SERVER NETWORK CONNECTION - RECEIVE	ORANGE					
202		LANE SERVER NETWORK CONNECTION - SPARE SEND	GREEN					
203		LANE SERVER NETWORK CONNECTION - SPARE RECEIVE	BROWN					
204		LANE SERVER NETWORK CONNECTION - SPARE SEND (optional)	SLATE					
205		LANE SERVER NETWORK CONNECTION - SPARE RECEIVE (optional)	WHITE					
	LANE SERVER ETHERNET CONNECTION (FOR LOCAL SWITCH -SAME ROOM- ACCESS)							
206	(Ln#).LS	LANE SERVER NETWORK CONNECTION (CAT5E/6 CABLE ALTERNATIVE TO FIBER ABOVE IF LOCAL SWITCH PROVIDED AND CONNECTION IS LESS THAN 300 FEET)	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	UTP	CAT5E BULK CABLE FROM THE SERVER ROOM TO THE LANE CABINET FIBER SWITCH LANE SERVER SWITCH. TERMINATE AND TEST CABLE RUN.
	DIGITAL VIDEO AUDIT SYSTEM (DVAS)							
208	DVAS.(Ln#).PP	LANE DVAS PAYPOINT CAMERA NETWORK CONNECTIONS	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE DVAS PAYPOINT CAMERA. TERMINATE AND TEST CABLE RUN. ALLOW 10' OF CABLE TO REACH FROM THE DVAS DATA JUNCTION BOX TO THE LANE 1 CAMERA ENCLOSURE.
	AUTOMATIC VEHICLE IDENTIFICATION (AVI)							
209	ORT(ORT#).AVI.LN(#)	TRAVEL LANE AVI ANTENNA RF CABLE	BLACK	LANE ANTENNA IN THE GANTRY	"N" CONNECTOR (MALE)	LMR 400	PVC	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI 110 JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER
210	(Ln#).AVIE	LANE AVI READER ETHERNET DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI 110 JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER
211	(Ln#).AVIS	LANE AVI READER DATA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	10/100 UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL AVI 110 JACK TO THE LANE AVI READER SERIAL TO ETHERNET CONVERTER
	TRAFFIC CONTROL PEDESTAL (TCP) MAINTENANCE PORT							
212	(Ln#).TCPFVES	LANE TRAFFIC CONTROL PEDESTAL VES CAMERA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL VES 110 JACK TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL FRONT CAMER PORT.
213	(Ln#).TCPRVES	LANE TRAFFIC CONTROL PEDESTAL VES CAMERA CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL VES 110 JACK TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL REAR CAMER PORT.
214	(Ln#).TCPM	LANE TRAFFIC CONTROL PEDESTAL MAINTENANCE NETWORK CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL MAINTENANCE PORT.
215	(Ln#).TCPT	LANE TRAFFIC CONTROL PEDESTAL TRIGGER CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER AND FIBER SWITCH TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL MAINTENANCE PORT.
216	(Ln#).TCPP	LANE TRAFFIC CONTROL PEDESTAL PFD CONNECTION	CAT5E COLOR STANDARD	RJ-45 (MALE)	RJ-45 (MALE)	CAT5E/6 DIRECT BURIAL	GIGABIT UTP	CAT5E BULK CABLE FROM THE LANE CONTROLLER CONNECTION PANEL VES 110 JACK TO THE LANE ISLAND TRAFFIC CONTROL PEDESTAL REAR CAMER PORT.

NOTES:

1). ALL NETWORK CABLES ARE GIGABIT COMPLIANT, SUITABLE FOR OUTDOOR/WET ENVIRONMENT, OSP GRADE FOR DIRECT BURIAL

2). STRADDLE ANTENNAS/READERS ARE LOCATED BETWEEN LANES ABOVE THE STRIPE. IF STRADDLE ANTENNAS/READERS ARE OMITTED BY PLANS, WIRING MAY BE OMITTED

Filename: 428_Cash Lane Network Wiring Schedule.dgn

Scale: *NO SCALE*

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

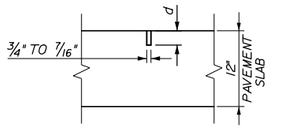
MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

CASH LANE NETWORK WIRING SCHEDULE

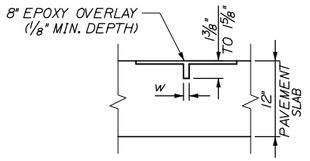
SHEET NUMBER: T-08

CONTRACT:2018.20



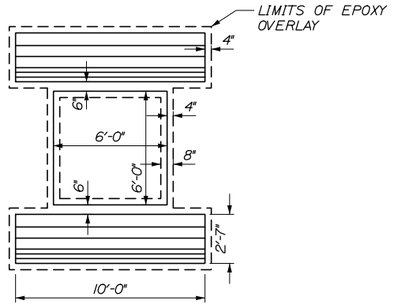
d = 1 1/8" TO 1 3/8" FOR SINGLE LEAD CUT
2 3/8" FOR MULTIPLE LEAD CUT
2 1/8" AT PITCH POCKET ENTRY

LEAD-IN CUT
N.T.S.

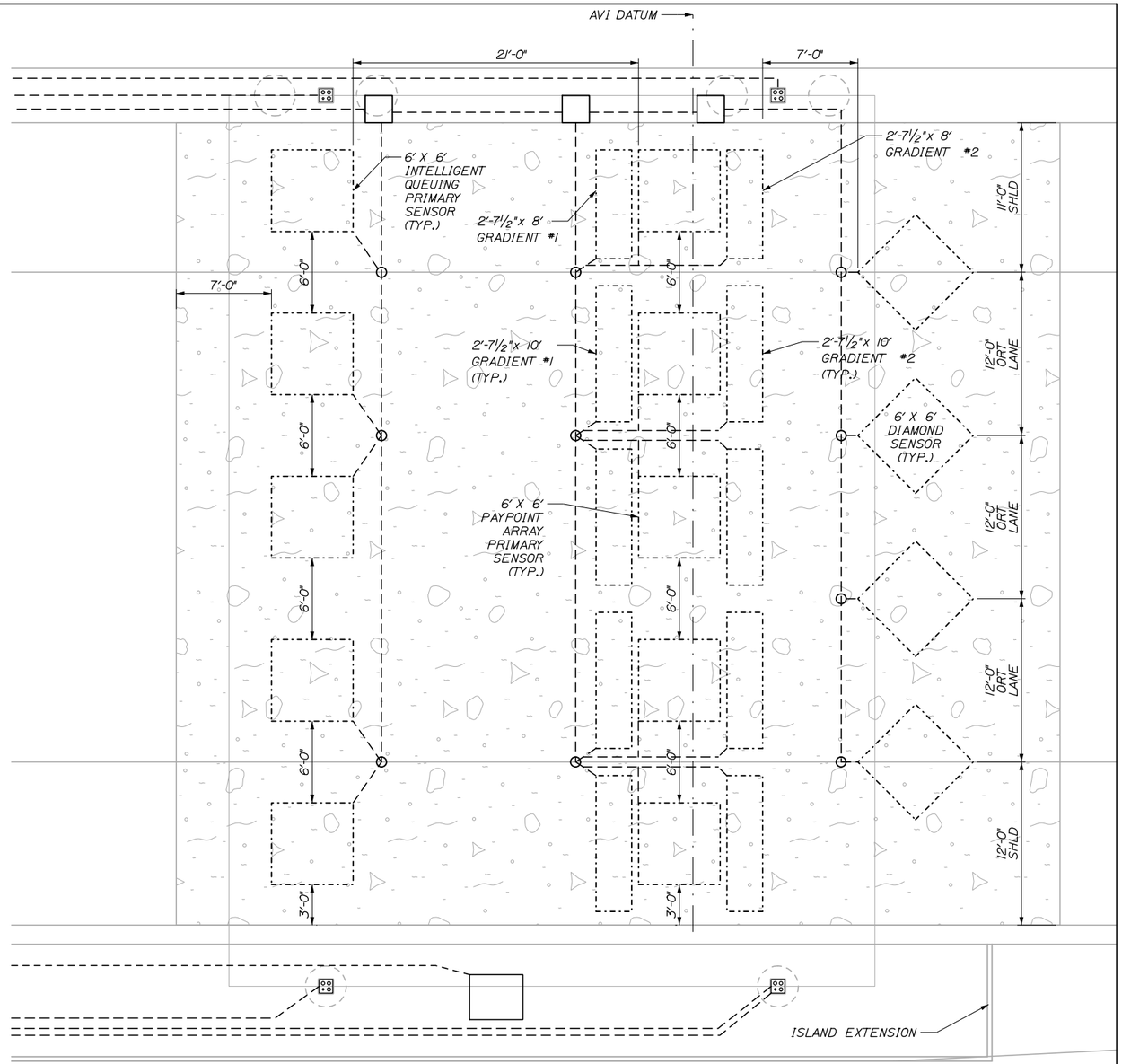


SENSOR CUT
N.T.S.

w = 1/2" FOR GRADIENT ENDS
3/8" FOR ALL OTHER CUTS



LOOP DETAIL AND EPOXY OVERLAY
N.T.S.



NB ORT PLAN
(SB ORT SIMILAR)
SCALE 1" = 10'

NOTES:

1. REFER TO SPACE FRAME PLANS FOR MOUNTING ASSEMBLIES.
2. REFER TO ELECTRICAL PLANS FOR CONNECTIONS OF POWER AND COMMUNICATION LINES.
3. TRANSCORE WILL PROVIDE VCARS UNITS, ENCLOSURES AND MOUNTING KITS. THE CONTRACTOR SHALL INSTALL AND CONNECT UNITS TO POWER AND COMMUNICATIONS LINES.
4. THE MTA WILL PROVIDE AVI ANTENNAS. CONTRACTOR WILL PROVIDE NECESSARY CONNECTION HARDWARE AND CONNECT COMMUNICATION LINES.
5. TRANSCORE WILL PROVIDE DVAS UNITS, ENCLOSURES AND MOUNTING HOOKS. THE CONTRACTOR SHALL CONNECT POWER AND COMMUNICATION LINES.
6. TRANSCORE WILL PROVIDE IVIS SENSOR LOOPS. REFER TO SPECIAL PROVISION 655 FOR MORE INFORMATION.
7. BOTH REAR AND FRONT VCARS MOUNTING POSITIONS ARE FIXED. THE AVI ANTENNA ARRAY SHALL HAVE THE ABILITY TO MOVE 3' LONGITUDINAL TO TRAFFIC AND 1' VERTICALLY.
8. TRANSCORE WILL PROVIDE OPUS SENSORS. ALL OPUS MOUNTING POSITIONS ARE FIXED LONGITUDINALLY TO TRAFFIC AND HAVE THE ABILITY TO MOVE 1' VERTICALLY.
9. FOR THE EPOXY OVERLAY, THE 1/8" DEPRESSION SHALL BE COMPLETED AFTER THE SAW CUTS FOR LOOPS.

CONCRETE CUTTING NOTES:
1. TRANSCORE SHALL INJECT LOCTITE EPOXY INTO SAW CUT BEFORE INSTALLING SENSORS AND LEADS.
TRANSCORE SHALL PROVIDE EQUIPMENT, TEMPLATES, AND EPOXY. SEE SPECIAL PROVISIONS SECTION 655 FOR MORE DETAILS.

Date:7/20/2018

Filename: 429.dgn

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	JRD	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

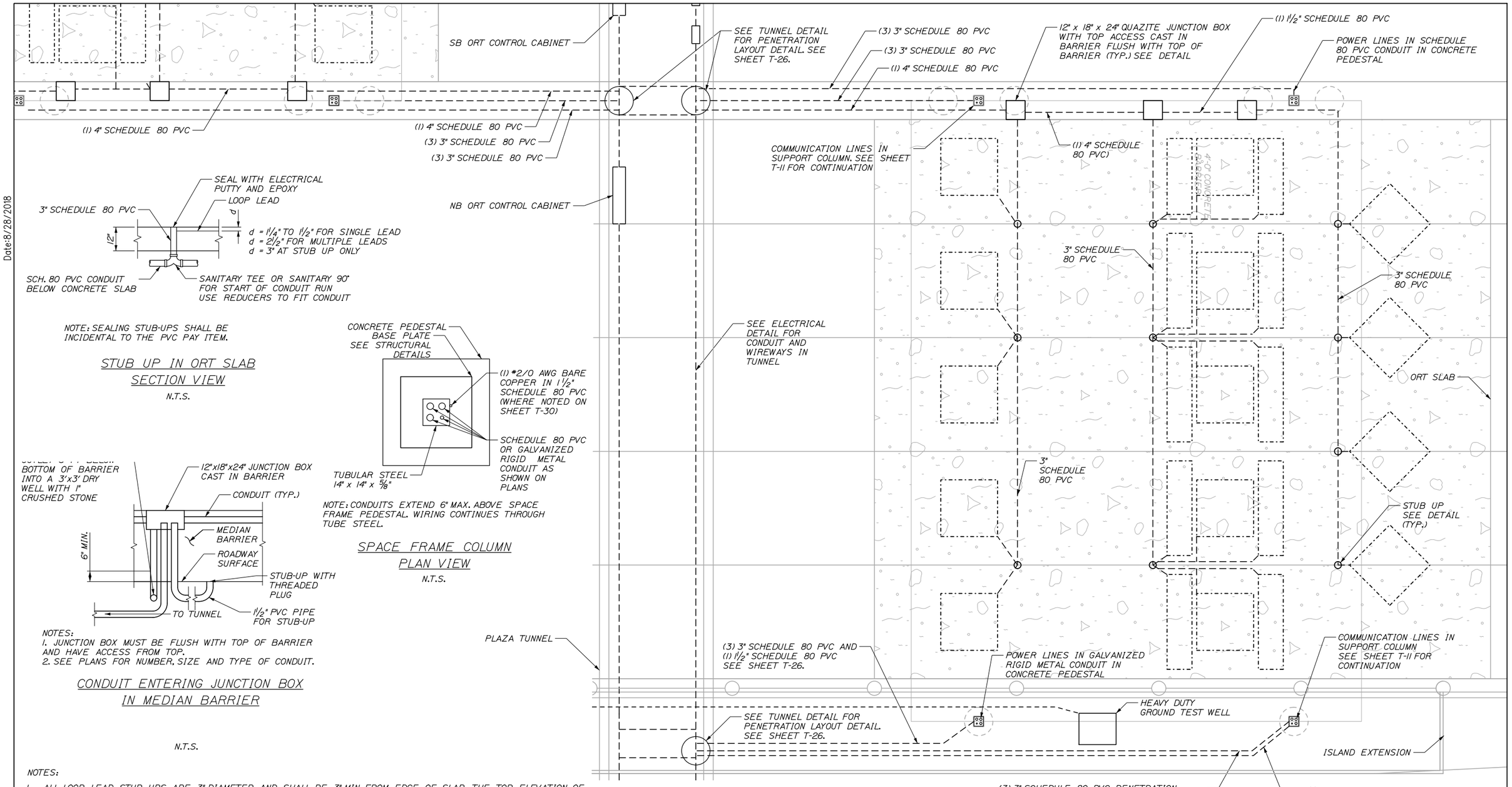
MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT SENSOR LAYOUT

SHEET NUMBER: T-09

CONTRACT:2018.20



NB ORT PLAN
(SB ORT SIMILAR)

NOTE: SEALING STUB-UPS SHALL BE INCIDENTAL TO THE PVC PAY ITEM.

STUB UP IN ORT SLAB
SECTION VIEW
N.T.S.

NOTE: CONDUITS EXTEND 6" MAX. ABOVE SPACE FRAME PEDESTAL. WIRING CONTINUES THROUGH TUBE STEEL.

SPACE FRAME COLUMN
PLAN VIEW
N.T.S.

NOTES:
1. JUNCTION BOX MUST BE FLUSH WITH TOP OF BARRIER AND HAVE ACCESS FROM TOP.
2. SEE PLANS FOR NUMBER, SIZE AND TYPE OF CONDUIT.

CONDUIT ENTERING JUNCTION BOX
IN MEDIAN BARRIER

N.T.S.

NOTES:

1. ALL LOOP LEAD STUB UPS ARE 3" DIAMETER AND SHALL BE 3" MIN. FROM EDGE OF SLAB. THE TOP ELEVATION OF ALL ALL SENSOR LOOP CONDUIT FROM STUB UPS SHALL BE AT BOTTOM OF SLAB. SEE DETAIL ON SHEET T-03.
2. CONTRACTOR SHALL CONFIRM LOCATIONS OF JOINTS AND STUB UPS PRIOR TO SETTING STUB UPS.
3. CONTRACTOR SHALL VERIFY ALL CONDUIT STUB UP LOCATIONS WITH SYSTEM INTEGRATOR PRIOR TO INSTALLATION.
4. ALL SENSOR LOOP JUNCTION BOXES SHALL BE NON-METALLIC.
5. SENSOR LOOP LEAD WIRES MUST NOT CROSS ANY CONCRETE CONSTRUCTION JOINTS.
6. FOR EXACT LOOP SENSOR LOCATIONS SEE SHEET T-09.
7. CONDUITS BETWEEN SPACE FRAME CANOPY FOUNDATIONS TO BE IN THE CAST-IN-PLACE MEDIAN BARRIER.

Date:8/28/2018

Filename: 430_ORT Underground Electrical.DGN

Scale: 10 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	JRD	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

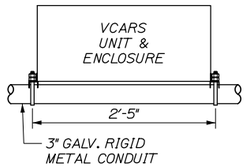
YORK TOLL PLAZA

ORT UNDERGROUND ELECTRICAL PLAN

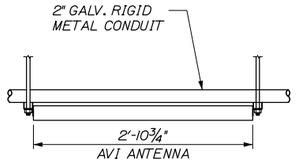
SHEET NUMBER: T-10

CONTRACT:2018.20

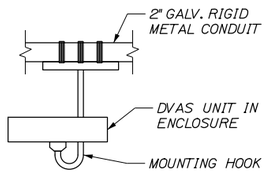
430 OF 489



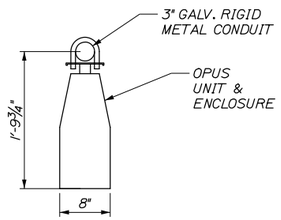
VCARS
ELEVATION
N.T.S.



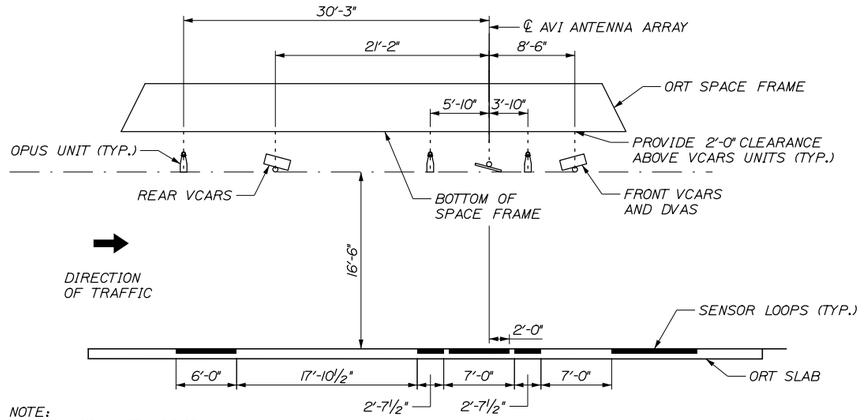
AVI ANTENNA
ELEVATION
N.T.S.



DVAS
ELEVATION
N.T.S.

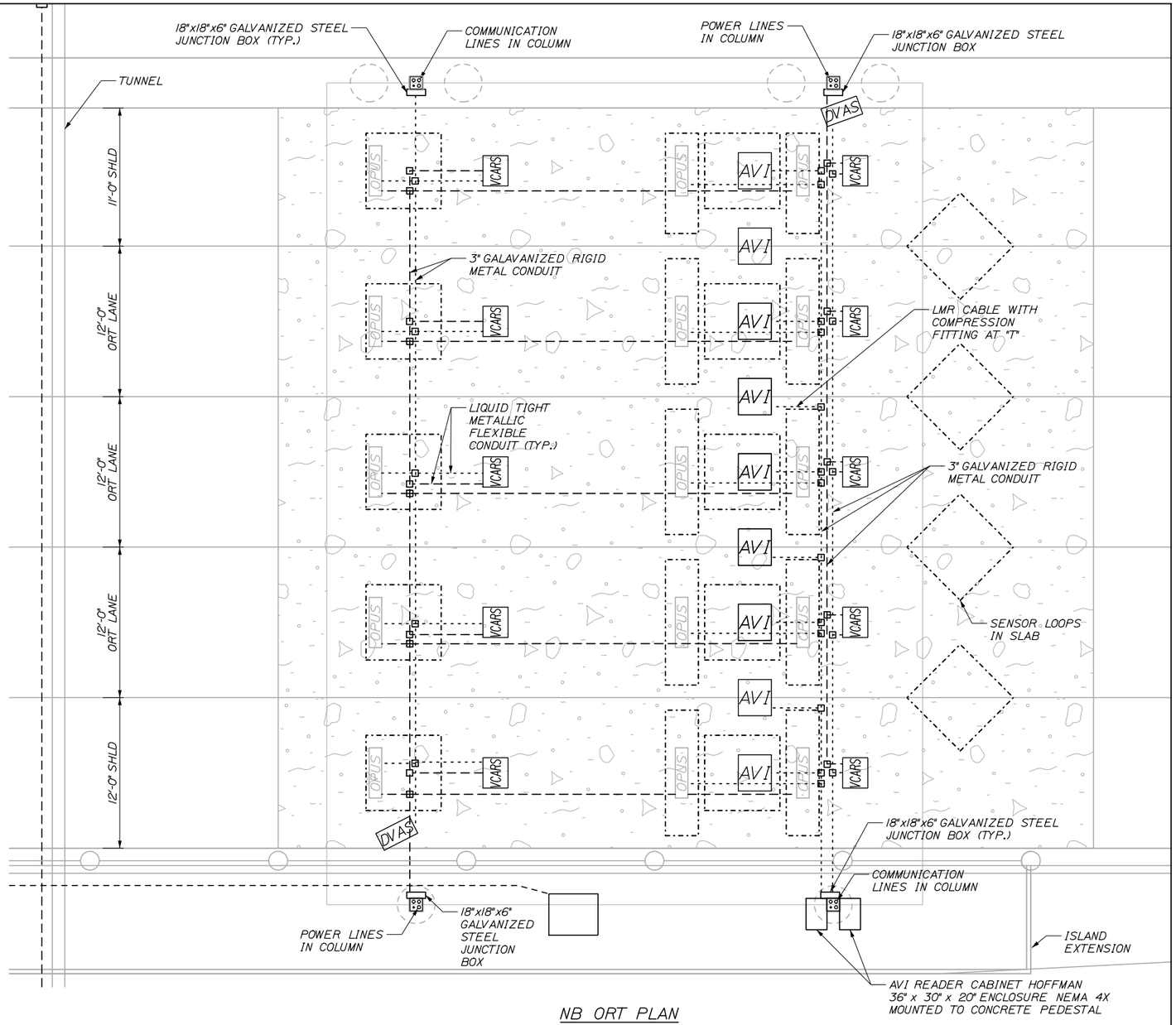


OPUS
ELEVATION
N.T.S.



NOTE:
1. AVI MUST HAVE ABILITY TO ADJUST ±1.5', FROM 16' TO 17'-6".

NB PROFILE VIEW
(MIRROR FOR SB)
N.T.S.



NB ORT PLAN
(SB ORT SIMILAR)

ORT OVERHEAD ELECTRICAL NOTES:

1. SPACE FRAME NOT SHOWN FOR CLARITY. REFER TO STRUCTURAL PLANS FOR SPACE FRAME DETAILS.
2. TRANSCORE SHALL MAKE CONNECTION FROM THE FLEXIBLE CONDUIT TO THE VCARS AND DVAS EQUIPMENT.
3. LIQUID TIGHT METALLIC FLEXIBLE CONDUIT SHALL BE THE FOLLOWING SIZES:

- AVI COMMUNICATION	¾"	- DVAS POWER	½"
- VCARS POWER	½"	- DVAS COMMUNICATION	½"
- VCARS COMMUNICATION	½"	- OPUS POWER	½"
		- OPUS COMMUNICATION	½"

LEGEND

- ------- COMMUNICATION
- — — — POWER
- ▭ GALVANIZED STEEL JUNCTION BOX

Date:7/20/2018

Filename: 431_ORT Overhead Electrical.DGN

Scale: 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	JRD	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT OVERHEAD ELECTRICAL PLAN

SHEET NUMBER: T-11

CONTRACT:2018.20

Date:7/20/2018

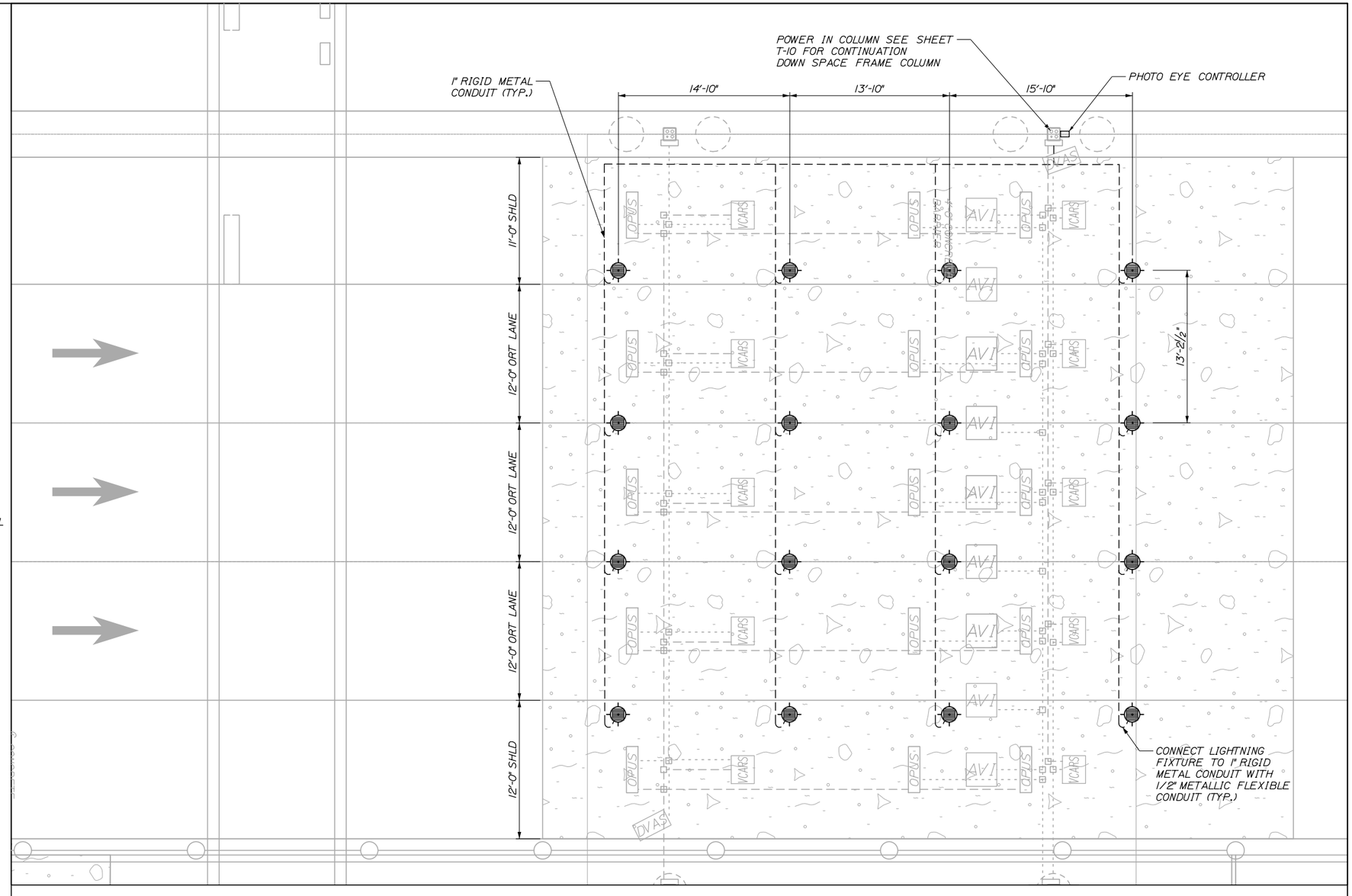
NOTES:

1. LIGHTING FIXTURES TO BE * XPGP-S-LED-S-LED-68-CW-UE-MSV BY LSI LIGHTING OR APPROVED EQUAL.
2. THE CONTRACTOR SHALL SUBMIT A METHOD OF ATTACHING ALL ANCILLARY COMPONENTS TO THE SPACE FRAME TO THE RESIDENT FOR APPROVAL. THE ATTACHMENT METHOD SHALL NOT REQUIRE DRILLING, WELDING OR OTHER ATTACHMENT METHODS THAT WILL DAMAGE THE SPACE FRAME OR ITS GALVANIZED COATING. ANY AREAS OF GALVANIZED COATING THAT ARE DAMAGED BY THE CONTRACTOR DURING INSTALLATION OF ANCILLARY COMPONENTS SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780.
3. FINAL MOUNTING LOCATIONS TO BE APPROVED BY RESIDENT.
4. AN FAA STYLE PHOTOCELL CONTROL SHALL BE PROVIDED FOR BOTH NB & SB ORT SPACE FRAME LIGHTING. PAYMENT WILL BE INCIDENTAL TO ITEM 655.90.

LEGEND

SPACE FRAME LED LIGHT FIXTURE

— — — (3) #12 AWG IN 1" GALVANIZED RIGID METAL CONDUIT



NB ORT PLAN
(SB ORT SIMILAR)

Filename: 432_ORT Space Frame Lighting.DGN

Scale: 5 0 5 10 Scale of Feet

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT SPACE FRAME LIGHTING

SHEET NUMBER: T-12

CONTRACT:2018.20

Date:7/20/2018

LEGEND

EQUIPMENT

WIRING

PLAZA LOCATION

NB SPACE FRAME

(9) AVI

(10) VCARS

(15) OPUS

(2) DVAS

SPACE FRAME LIGHTS

SB SPACE FRAME

SPACE FRAME LIGHTS

(2) DVAS

(15) OPUS

(10) VCARS

(9) AVI

CLEAN POWER (227-235, 244-252, 261-269, 278-286, 298-306)

COMM (172-180)

NB ORT LANES

(2) OPUS POWER CABINET

IVIS SENSOR LOOPS

LOOP LEADS

BARRIER JUNCTION BOXES

NB AVI CABINET

(2) AVI READER NB ORT

QUAD OUTLET BOX

SB AVI CABINET

(2) AVI READER SB ORT

SB ORT LANES

IVIS SENSOR LOOPS

LOOP LEADS

BARRIER JUNCTION BOXES

(2) OPUS POWER CABINET

HOMERUN CABLES (103-126)

CLEAN POWER (216-223, 236-243, 253-260, 270-277, 287-294)

COMM (127-156)

COMM (157-171)

COMM (187-188)

CLEAN POWER (224-226, 295-297)

DIRTY POWER (307-309)

SERVER ROOM IN UTILITY BUILDING

UPS

CLEAN POWER PANEL (PANEL CP)

L5-30R RECEPTACLE

CLEAN POWER (201)

SERVER RACK (WITH FIBER SWITCH)

PRIMARY SERVICE PANEL

AUTOMATIC SWITCH

GENERATOR

UTILITY POWER

TUNNEL

TUNNEL

TUNNEL

NB AVI READERS CASH LANES

AVI SYNC CABLE (192)

COMM (181-186)

CLEAN POWER (310-317)

AVI SYNC CABLE (191)

DIRTY POWER

COMM (194)

COMM (195)

DIRTY POWER PANEL SERVING ORT NB/SB

4 #1 AWG WIRES

AVI SYNC CABLE (193)

SB AVI READER CASH LANES

60 AMP CLEAN POWER PANEL (ORT LANES)

NB ORT LANE CONTROLLER (WITH THREE 20AMP CIRCUITS TO THREE QUAD OUTLET BOXES)

SB ORT LANE CONTROLLER (WITH THREE 20AMP CIRCUITS TO THREE QUAD OUTLET BOXES)

CLEAN POWER (207-215)

CLEAN POWER (207-215)

CLEAN POWER (244-246, 267-269, 290-292)

IVIS SYNC CABLE (189)

CLEAN POWER (202-206)

CLEAN POWER (244-246, 267-269, 290-292)

ORT LAN NETWORK FIBER (102)

ORT LAN NETWORK FIBER (102)

CASH LANE LAN NETWORK FIBER (101)

CASH LANE LAN NETWORK FIBER (101)

IVIS SYNC CABLE (190)

IVIS SYNC CABLE (190)

LANE 1 - 4 LANE CONTROLLERS

LANE 11 - 15 LANE CONTROLLERS

Filename: 433_ORT Riser Diagram.dgn

Scale:	Designed by:
NO SCALE	HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT RISER DIAGRAM

SHEET NUMBER: T-13

CONTRACT:2018.20

Wiring Shown Below is for one Cash Lane only. Duplicate for all Other Lanes

CASH LANE LAN Network Fiber (Install MM Fiber, 6 strands minimum, direct between each ORT and HOST Switch)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	STRAND	COLOR	CORE	JACKET	FROM	TO	TERMINATION
101	(Lane #) (Sw#. /H(Sw#)	PRIMARY LAN NETWORK CONNECTION (Gigabit) (Multimode Fiber 6 Strands(TYP), 62.5/125 MICRONS INDOOR/OUTDOOR RISER RATED) See Notes.	6 Strand	BLUE ORANGE GREEN BROWN (SLATE) (WHITE)	N/A	Direct Burial Grade (see Note)	PLAZA NETWORK SERVER FIBER PATCH PANEL, SWITCH BLADE, OR FIBER LINE TERMINATION UNIT	CASH LANE (LANE #) SERVER CABINET/BACK PANEL FIBER LINE TERMINATION UNIT OR FIBER PATCH PANEL	TERMINATE ST EACH END (ALL STRANDS), SUPPLY DUPLEX 6M ST-ST PATCH CORD

Wiring Shown Below is for one direction of ORT travel only. Duplicate for second ORT direction of travel.

ORT SYSTEMS NETWORK AND DATA WIRING

ORT LAN Network Fiber (Install MM Fiber, 6 strands minimum, direct between each ORT and HOST Switch)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	STRAND	COLOR	CORE	JACKET	FROM	TO	TERMINATION
102	(ORT#)(Sw#. /H(Sw#)	PRIMARY LAN NETWORK CONNECTION (Gigabit) (Multimode Fiber 6 Strands(TYP), 62.5/125 MICRONS INDOOR/OUTDOOR RISER RATED) See Notes.	6 Strand	BLUE ORANGE GREEN BROWN (SLATE) (WHITE)	N/A	Direct Burial Grade (see Note)	PLAZA NETWORK SERVER FIBER PATCH PANEL, SWITCH BLADE, OR FIBER LINE TERMINATION UNIT	LANE EQUIPMENT ROOM ORT SERVER CABINET/BACK PANEL FIBER LINE TERMINATION UNIT OR FIBER PATCH PANEL	TERMINATE ST EACH END (ALL STRANDS), SUPPLY DUPLEX 6M ST-ST PATCH CORD

Intelligent Vehicle Identification System (IVIS™) (Install Home Run Lead between Lane Sensor Junction Box and ORT Lane Server Rack Tip Out - Leave 10' service loop in Electrical Gutter)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	JACKET	FROM	TO	LANE SERVER TERMINAL #
103	ORT(ORT#).L1IQ	MEDIAN SHOULDER ORT INTELLIGENT QUEUING (IQ) PRIMARY SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER IQ PRIMARY SENSOR JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
104	ORT(ORT#).L1G1	MEDIAN SHOULDER ORT PAYPOINT ARRAY GRADIENT SENSOR #1	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #1 JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
105	ORT(ORT#).L1PP	MEDIAN SHOULDER ORT PAYPOINT ARRAY PRIMARY SENSOR					MEDIAN BARRIER PAYPOINT ARRAY PRIMARY SENSOR JUNCTION BOX		Integrator to terminate
106	ORT(ORT#).L1G2	MEDIAN SHOULDER ORT PAYPOINT ARRAY GRADIENT SENSOR #2					MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #2 JUNCTION BOX		Integrator to terminate
107	ORT(ORT#).L1IQ	TRAVEL LANE 1 ORT INTELLIGENT QUEUING (IQ) PRIMARY SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER IQ PRIMARY SENSOR JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
108	ORT(ORT#).L1G1	TRAVEL LANE 1 ORT PAYPOINT ARRAY GRADIENT SENSOR #1	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #1 JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
109	ORT(ORT#).L1PP	TRAVEL LANE 1 ORT PAYPOINT ARRAY PRIMARY SENSOR					MEDIAN BARRIER PAYPOINT ARRAY PRIMARY SENSOR JUNCTION BOX		Integrator to terminate
110	ORT(ORT#).L1G2	TRAVEL LANE 1 ORT PAYPOINT ARRAY GRADIENT SENSOR #2					MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #2 JUNCTION BOX		Integrator to terminate
111	ORT(ORT#).L1IQ	TRAVEL LANE 2 ORT INTELLIGENT QUEUING (IQ) PRIMARY SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER IQ PRIMARY SENSOR JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
112	ORT(ORT#).L1G1	TRAVEL LANE 2 ORT PAYPOINT ARRAY GRADIENT SENSOR #1	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #1 JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
113	ORT(ORT#).L1PP	TRAVEL LANE 2 ORT PAYPOINT ARRAY PRIMARY SENSOR					MEDIAN BARRIER PAYPOINT ARRAY PRIMARY SENSOR JUNCTION BOX		
114	ORT(ORT#).L1G2	TRAVEL LANE 2 ORT PAYPOINT ARRAY GRADIENT SENSOR #2					MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #2 JUNCTION BOX		
115	ORT(ORT#).L1IQ	TRAVEL LANE 3 ORT INTELLIGENT QUEUING (IQ) PRIMARY SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER IQ PRIMARY SENSOR JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
116	ORT(ORT#).L1G1	TRAVEL LANE 3 ORT PAYPOINT ARRAY GRADIENT SENSOR #1	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #1 JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
117	ORT(ORT#).L1PP	TRAVEL LANE 3 ORT PAYPOINT ARRAY PRIMARY SENSOR					MEDIAN BARRIER PAYPOINT ARRAY PRIMARY SENSOR JUNCTION BOX		
118	ORT(ORT#).L1G2	TRAVEL LANE 3 ORT PAYPOINT ARRAY GRADIENT SENSOR #2					MEDIAN BARRIER PAYPOINT ARRAY GRADIENT SENSOR #2 JUNCTION BOX		

FOR ORT DATA WIRING SCHEDULE NOTES, SEE SHEET T-18.

Date:7/20/2018

Filename: 434_ORT Data Wiring Schedule 1.dgn

Scale: *NO SCALE*

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT DATA WIRING SCHEDULE 1

SHEET NUMBER: T-14

CONTRACT:2018.20

Wiring Shown Below is for one direction of ORT travel only. Duplicate for second ORT direction of travel.

Intelligent Vehicle Identification System Continued...(IVIS™) (Install Home Run Lead between Lane Sensor Junction Box and ORT Lane Server Rack Tip Out - Leave 10' service loop in Electrical Gutter)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	JACKET	FROM	TO	LANE SERVER TERMINAL #
119	ORT(ORT#).RSIQ	OUTSIDE SHOULDER ORT INTELLIGENT QUEUING (IQ) PRIMARY SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	SHOULDER IQ PRIMARY SENSOR JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
120	ORT(ORT#).RSG1	OUTSIDE SHOULDER ORT PAYPOINT ARRAY GRADIENT SENSOR #1	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	SHOULDER PAYPOINT ARRAY GRADIENT SENSOR #1 JUNCTION BOX	ORT CABINET - IVIS SENSOR LEADS ARE SPLICED TO A HOME RUN CABLE (IMSA 50-2, 16AWG) AT THE JUNCTION BOX. THE HOME RUN CABLE IS TERMINATED BY UTS AT THE ORT SERVER FIELD WIRING RACK. LEAVE 10' SLACK LOOP IN ELECTRICAL GUTTER.	Integrator to terminate
121	ORT(ORT#).RSPP	OUTSIDE SHOULDER ORT PAYPOINT ARRAY PRIMARY SENSOR					SHOULDER PAYPOINT ARRAY PRIMARY SENSOR JUNCTION BOX		
122	ORT(ORT#).RSG2	OUTSIDE SHOULDER ORT PAYPOINT ARRAY GRADIENT SENSOR #2					SHOULDER PAYPOINT ARRAY GRADIENT SENSOR #2 JUNCTION BOX		
123	ORT(ORT#).MS/1_D1	MEDIAN SHOULDER/ TRAVEL LANE 1 ORT DIAMOND SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	SHOULDER DIAMOND SENSOR JUNCTION BOX		Integrator to terminate
124	ORT(ORT#).1/RS_D2	TRAVEL LANE 1/TRAVEL LANE 2 ORT DIAMOND SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	SHOULDER DIAMOND SENSOR JUNCTION BOX		Integrator to terminate
125	ORT(ORT#).1/RS_D3	TRAVEL LANE 2/TRAVEL LANE 3 ORT DIAMOND SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	SHOULDER DIAMOND SENSOR JUNCTION BOX		Integrator to terminate
126	ORT(ORT#).1/RS_D3	TRAVEL LANE 3/RIGHT SHOULDER ORT DIAMOND SENSOR	IMSA 50-2 #16	BLACK	STRANDED	LDPE (TYP)	SHOULDER DIAMOND SENSOR JUNCTION BOX		Integrator to terminate

Wiring Shown Below is for one direction of ORT travel only. Duplicate for second ORT direction of travel.

ORT SYSTEMS NETWORK AND DATA WIRING (CONTINUED)

Video Capture and Recognition System (VCARS™)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	WIRE	TO	SIGNAL TYPE	ROUTING INSTRUCTIONS	TERMINATION
127	(ORT#)MSH.FVA	MEDIAN SHOULDER VCARS™ FRONT LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
128	(ORT#)MSH.FVST	MEDIAN SHOULDER VCARS™ FRONT UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
129	(ORT#)MSH.FVB	MEDIAN SHOULDER VCARS™ FRONT LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
130	(ORT#)MSH.RVA	MEDIAN SHOULDER VCARS™ REAR LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
131	(ORT#)MSH.RVST	MEDIAN SHOULDER VCARS™ REAR UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
132	(ORT#)MSH.RVB	MEDIAN SHOULDER VCARS™ REAR LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator

FOR ORT DATA WIRING SCHEDULE NOTES, SEE SHEET T-18.

Date:7/20/2018

Filename: 435_ORT Data Wiring Schedule 2.dgn

Scale: NO SCALE

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT DATA WIRING SCHEDULE 2

SHEET NUMBER: T-15

CONTRACT:2018.20

Wiring Shown Below is for one direction of ORT travel only. Duplicate for second ORT direction of travel.

ORT SYSTEMS NETWORK AND DATA WIRING (CONTINUED)

Video Capture and Recognition System (VCARS™)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	WIRE	TO	SIGNAL TYPE	ROUTING INSTRUCTIONS	TERMINATION
133	(ORT#)L1.FVA	LANE 1 VCARS™ FRONT LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
134	(ORT#)L1.FVST	LANE 1 VCARS™ FRONT UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
135	(ORT#)L1.FVB	LANE 1 VCARS™ FRONT LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
136	(ORT#)L1.RVA	LANE 1 VCARS™ REAR LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
137	(ORT#)L1.RVST	LANE 1 VCARS™ REAR UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
138	(ORT#)L1.RVB	LANE 1 VCARS™ REAR LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
139	(ORT#)L1.FVA	LANE 2 VCARS™ FRONT LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
140	(ORT#)L1.FVST	LANE 2 VCARS™ FRONT UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
141	(ORT#)L1.FVB	LANE 2 VCARS™ FRONT LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
142	(ORT#)L1.RVA	LANE 2 VCARS™ REAR LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
143	(ORT#)L1.RVST	LANE 2 VCARS™ REAR UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
144	(ORT#)L1.RVB	LANE 2 VCARS™ REAR LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
145	(ORT#)L1.FVA	LANE 3 VCARS™ FRONT LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
146	(ORT#)L1.FVST	LANE 3 VCARS™ FRONT UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
147	(ORT#)L1.FVB	LANE 3 VCARS™ FRONT LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
148	(ORT#)L1.RVA	LANE 3 VCARS™ REAR LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
149	(ORT#)L1.RVST	LANE 3 VCARS™ REAR UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
150	(ORT#)L1.RVB	LANE 3 VCARS™ REAR LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
151	(ORT#)L1.FVA	OUTSIDE SHOULDER VCARS™ FRONT LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
152	(ORT#)OSH.FVST	OUTSIDE SHOULDER VCARS™ FRONT UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
153	(ORT#)OSH.FVB	OUTSIDE SHOULDER VCARS™ FRONT LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
154	(ORT#)OSH.RVA	OUTSIDE SHOULDER VCARS™ REAR LICENSE PLATE CAMERA A - GIGABIT DATA	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From VCARS™ Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to VCARS™ Junction Box. Extend using flexible weathertight conduit to VCARS™ access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
155	(ORT#)OSH.RVST	OUTSIDE SHOULDER VCARS™ REAR UNIT CONTROL NETWORK AND TRIGGER		RJ45 Both Ends, From VCARS™ Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
156	(ORT#)OSH.RVB	OUTSIDE SHOULDER VCARS™ REAR LICENSE PLATE CAMERA B - GIGABIT DATA		RJ45 Both Ends, From VCARS™ Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator

FOR ORT DATA WIRING SCHEDULE NOTES, SEE SHEET T-18.

Date:7/20/2018

Filename: 436_ORT Data Wiring Schedule 3.dgn

Scale: NO SCALE

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Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT DATA WIRING SCHEDULE 3

SHEET NUMBER: T-16

CONTRACT:2018.20

Wiring Shown Below is for one direction of ORT travel only. Duplicate for second ORT direction of travel.

LASER SCANNER (OPUS) DATA WIRING SCHEDULE

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	WIRE	TO	SIGNAL TYPE	ROUTING INSTRUCTIONS	TERMINATION
157	(ORT#)	MEDIAN SHOULDER OPUS P3 SCANNER 10/100	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From OPUS Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to OPUS Junction Box. Extend using flexible weathertight conduit to OPUS access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
158	(ORT#)	MEDIAN SHOULDER OPUS P4 LEAD SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
159	(ORT#)	MEDIAN SHOULDER OPUS P4 TRAIL SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
160	(ORT#)	LANE 1 OPUS P3 SCANNER 10/100	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From OPUS Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to OPUS Junction Box. Extend using flexible weathertight conduit to OPUS access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
161	(ORT#)	LANE 1 OPUS P4 LEAD SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
162	(ORT#)	LANE 1 OPUS P4 TRAIL SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
163	(ORT#)	LANE 2 OPUS P3 SCANNER 10/100	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From OPUS Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to OPUS Junction Box. Extend using flexible weathertight conduit to OPUS access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
164	(ORT#)	LANE 2 OPUS P4 LEAD SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
165	(ORT#)	LANE 2 OPUS P4 TRAIL SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
166	(ORT#)	LANE 3 OPUS P3 SCANNER 10/100	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From OPUS Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to OPUS Junction Box. Extend using flexible weathertight conduit to OPUS access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
167	(ORT#)	LANE 3 OPUS P4 LEAD SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
168	(ORT#)	LANE 3 OPUS P4 TRAIL SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator
169	(ORT#)	OUTER SHOULDER OPUS P3 SCANNER 10/100	4pr/24AWG CAT-5e Burial Grade	RJ45 Both Ends, From OPUS Connector Panel Blue 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET	In Gantry, route the 3 cables before connector attachment to OPUS Junction Box. Extend using flexible weathertight conduit to OPUS access panel cover. Punch and attach weathertight conduit. Attach end connector (RJ45) each end and test to Gigabit specification.	Termination by Integrator
170	(ORT#)	OUTER SHOULDER OPUS P4 LEAD SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Yellow 110 Jack to Designated Switch Port 110 Jack	10/100 ETHERNET 24V DC SWITCHED		Termination by Integrator
171	(ORT#)	OUTER SHOULDER OPUS P4 TRAIL SCANNER 10/100		RJ45 Both Ends, From OPUS Connector Panel Red 110 Jack to TipOut Designated 110 Jack	GIGABIT ETHERNET		Termination by Integrator

Automatic Vehicle Identification System (AVI) (Specifications are for KAPSCH Reader)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	JACKET	FROM	TO	TERMINATION
172	ORT(ORT#).AVI.LSH	LEFT SHOULDER AVI ANTENNA RF CABLE	LMR 400	BLACK	SOLID	PVC	ORT AVI READER	LANE ANTENNA ON THE SPACE FRAME	"N" CONNECTOR (MALE)
173	ORT(ORT#).AVI.LSH/L	LEFT SHOULDER/LANE 1 STRADDLE AVI ANTENNA RF CABLE							
174	ORT(ORT#).AVI.LN(#)	TRAVEL LANE 1 AVI ANTENNA RF CABLE							
175	ORT(ORT#).AVI.LN(#)/LN(#)	LANE 1/LANE 2 STRADDLE AVI ANTENNA RF CABLE							
176	ORT(ORT#).AVI.LN(#)	TRAVEL LANE 2 AVI ANTENNA RF CABLE							
177	ORT(ORT#).AVI.LN(#)/LN(#)	LANE 2/LANE 3 STRADDLE AVI ANTENNA RF CABLE							
178	ORT(ORT#).AVI.LN(#)	TRAVEL LANE 3 AVI ANTENNA RF CABLE							
179	ORT(ORT#).AVI.LN(#)/LN(#)	LANE 3/RIGHT SHOULDER STRADDLE AVI ANTENNA RF CABLE							
180	ORT(ORT#).AVI.RSH	RIGHT SHOULDER AVI ANTENNA RF CABLE							
181	ORT(ORT#).AVI DATA P	AVI SERIAL DATA PRIMARY	4pr/24	N/A	STRANDED	PVC	ORT AVI READER	CORRESPONDING ORT CABINET SERIAL TO ETHERNET AVI SWITCH PORT	Integrator to terminate
182	ORT(ORT#).AVI DATA S	AVI SERIAL DATA SECONDARY						OPPOSITE DIRECTION ORT CABINET SERIAL TO ETHERNET AVI SWITCH PORT	
183	ORT(ORT#).AVI DATA M	AVI SERIAL DATA MAINTENANCE						CORRESPONDING ORT CABINET SERIAL TO ETHERNET AVI SWITCH PORT	
184	ORT(ORT#).AVI DATA P	AVI SERIAL DATA PRIMARY	4pr/24	N/A	STRANDED	PVC	ORT AVI READER	CORRESPONDING ORT CABINET SERIAL TO ETHERNET AVI SWITCH PORT	Integrator to terminate
185	ORT(ORT#).AVI DATA S	AVI SERIAL DATA SECONDARY						OPPOSITE DIRECTION ORT CABINET SERIAL TO ETHERNET AVI SWITCH PORT	
186	ORT(ORT#).AVI DATA M	AVI SERIAL DATA MAINTENANCE						CORRESPONDING ORT CABINET SERIAL TO ETHERNET AVI SWITCH PORT	

FOR ORT DATA WIRING SCHEDULE NOTES, SEE SHEET T-18.

Date:7/20/2018

Filename: 437_ORT Data Wiring Schedule 4.dgn

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CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT DATA WIRING SCHEDULE 4

SHEET NUMBER: T-17

CONTRACT:2018.20

Date:7/20/2018

Wiring Shown Below is for one direction of ORT travel only. Duplicate for second ORT direction of travel.

Digital Video Audit System (DVAS)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	JACKET	FROM	TO	TERMINATION
187	ORT#.PPDVAS.NET	LEFT SHOULDER ORT PAYPOINT DVAS DATA	4pr/24	BLACK	CAT5e STRANDED	Direct Burial Grade (see Note)	DVAS Camera Housing via Gantry Junction Box (Allow sufficient wire length for flexible conduit extension to camera location)	ORT NB/SB CABINET	RJ-45 both ends
188	ORT#.PPDVAS.NET	RIGHT SHOULDER ORT PAYPOINT DVAS DATA	4pr/24	BLACK	CAT5e STRANDED	Direct Burial Grade (see Note)	DVAS Camera Housing via Gantry Junction Box (Allow sufficient wire length for flexible conduit extension to camera location)	ORT NB/SB CABINET	RJ-45 both ends

System Synchronization Cables (Only one of each required per system. Do not duplicate for second ORT zone)

RISER DIAGRAM NUMBER	WIRE LABEL	DESCRIPTION	AWG	COLOR	CORE	JACKET	FROM	TO	TERMINATION
189	ORTNB/ORTSB SYNC	IVIS SYNCHRONIZATION CABLE	4pr/24 CAT5e	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT NB CABINET (LEAVE 10' SLACK LOOP in CABINET)	ORT SB CABINET (LEAVE 10' SLACK LOOP IN CABINET)	TERMINATION BY INTEGRATOR
190	ORT NB/ CASHLN11 SYNC	IVIS SYNCHRONIZATION CABLE	4pr/24 CAT5e	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT NB/SB CABINET (LEAVE 10' SLACK LOOP in CABINET)	CASH LANE 2/11 LANE CONTROLLER CABINET LOCATION	TERMINATION BY INTEGRATOR
191	ORT NB/ORTSB AVI SYNC	KAPSCH READER SYNCHRONIZATION CABLE NB ORT TO SB ORT	4pr/24	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT NB AVI READER CABINET (LEAVE 6' SLACK LOOP in CABINET)	ORT SB AVI READER CABINET (LEAVE 6' SLACK LOOP IN CABINET)	TERMINATION BY INTEGRATOR
192	ORT NB/ CASH LN2 SYNC	KAPSCH READER SYNCHRONIZATION CABLE NB ORT TO LANE 2	4pr/24	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT NB AVI READER CABINET (LEAVE 6' SLACK LOOP in CABINET)	LANE 2 AVI READER CABINET (LEAVE 6' SLACK LOOP IN CABINET)	TERMINATION BY INTEGRATOR
193	ORT SB/ CASH LN11 SYNC	KAPSCH READER SYNCHRONIZATION CABLE SB ORT TO LANE 11	4pr/24	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT SB AVI READER CABINET (LEAVE 6' SLACK LOOP in CABINET)	LANE 11 AVI READER CABINET (LEAVE 6' SLACK LOOP IN CABINET)	TERMINATION BY INTEGRATOR
194	ORT NB AVI/ORT SB CABINET	KAPSCH READER SYNCHRONIZATION CABLE NB AVI READER TO SB ORT CABINET	4pr/25	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT NB AVI READER CABINET (LEAVE 6' SLACK LOOP in CABINET)	ORT SB CABINET (LEAVE 10' SLACK LOOP IN CABINET)	TERMINATION BY INTEGRATOR
195	ORT SB AVI/ORT NB CABINET	KAPSCH READER SYNCHRONIZATION CABLE SB AVI READER TO NB ORT CABINET	4pr/26	BLACK	STRANDED	Direct Burial Grade (see Note)	ORT SB AVI READER CABINET (LEAVE 6' SLACK LOOP IN CABINET)	ORT NB CABINET (LEAVE 10' SLACK LOOP in CABINET)	TERMINATION BY INTEGRATOR

NOTES:

1) LANE NUMBERING AS SHOWN IN PLAN SET. REPLACE IN LABEL WITH CORRECT LANE #.
2) IVIS HOME RUN: THE SENSOR LEADS ARE TO BE TWISTED TIGHT, SOLDERED, SHRINK-WRAPPED (WATERPROOFED) AND ENCLOSED IN A KLIK-IT WIRING DEVICE TO THE IVIS "HOMERUN" CABLE (IMSA 50-2, # 16AWG) AT THE JUNCTION BOX.
3) ALL WIRE INSTALLED IN CONDUIT MUST BE BURIAL GRADE, SUITABLE FOR WET LOCATIONS.
4) LEAVE 3' SLACK LOOPS IN JUNCTION BOXES. LEAVE 6' CABLE AT JUNCTION BOX IF TERMINATION NOT SPECIFIED. FOR FIBER TO EXISTING CASH LANE CONTROLLERS LEAVE 6' OF SLACK LOOPED TO PREPARE FOR FUTURE INSTALLATIONS.
5) DIRECT BURIAL CABLE MAY NOT BE EXTENDED MORE THAN 50' EXPOSED INTO A STRUCTURE DUE TO FIRE CODES. CHECK WITH LOCAL FIRE/ELECTRICAL CODE BEFORE INSTALLING.

Filename: 438_ORT Data Wiring Schedule 5.dgn

Scale: *NO SCALE*

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT DATA WIRING SCHEDULE 5

SHEET NUMBER: T-18

CONTRACT:2018.20

Date:7/20/2018

Plaza Host Server Equipment Room (Electrician Responsibilities - Includes pull strings, wire, conduit, trays, boxes and termination)											
SERVER RACK PDU (Required when omitting supplied internal server cabinet UPS)											
RISER DIAGRAM NUMBER	**WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)**	**DESCRIPTION**	**AWG or PER CODE**	**COLOR**	**CORE**	**JACKET**	**VOLTAGE**	**CIRCUIT BREAKER**	**FROM**	**TO**	**TERMINATION REQUIREMENTS**
201	N/A	TRIPPLITE 2430 PDU OR EQUIVALENT PDU WITH MINIMUM 8 OUTLETS (1U, 30A PDU with L5-30P, 15' cable). See Note #3	N/A				120 VAC	30A	L5-30R DEDICATED WALL RECEPTACLE	COMMUNICATIONS/SERVER CABINET REAR PANEL	MOUNT IN SEVER CABINET REAR
60 AMP PANEL SERVING ORT CABINETS											
202	(Panel#) (Ckt #)H1.UPS	POWER(120V-HOT)	#1	BLACK	STRANDED	THHW	240 VAC		UPS	60 AMP CLEAN POWER SUB-PANEL ASSIGNED CIRCUIT BREAKER	PER LOCAL CODE
203	(Panel#) (Ckt #)H2.UPS	POWER(120V-HOT)		RED							
204	(Panel#) (Ckt #)N.UPS	POWER(120V-NEUTRAL)		WHITE							
205	(Panel#).G	GROUND		GREEN							
206	(Panel#).IG	ISOLATED GROUND	#1	GREEN W/ YELLOW STRIPE							
NOTES:											
GENERAL NOTES:		**1) WORKSTATION AND LIVE VIEWER STATION, MISC PRINTER POWER WILL UTILIZE EXISTING 120V WALL OUTLETS IN PLAZA BUILDING**									
		2) Electrical installer to provide and install panels, breakers, disconnects, outlets, wire, conduit, junction boxes noted above.									
		3) Deleting the UTS supplied UPS requires installation of a 30A PDU with L5-30P, not supplied by UTS. Cabinet Power Monitoring Function will not be available with PDU.									
LABELING NOTES:		**(Panel#) (Ckt #) will have to be replaced with the Panel ID and circuit/breaker number that this wire is connected to.**									
Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.											
ORT ZONE EQUIPMENT ROOM (Electrician Responsibilities - Includes pull strings, wire, conduit, trays, boxes and termination)											
ORT (Lane Equipment) (APC 3000) RECEPTACLE (3ea 20A circuits to individual Quad Outlet Boxes mounted in ORT cabinet)											
RISER DIAGRAM NUMBER	**WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)**	**DESCRIPTION**	**AWG or PER CODE**	**COLOR**	**CORE**	**JACKET**	**VOLTAGE**	**CIRCUIT BREAKER**	**FROM**	**TO**	**TERMINATION REQUIREMENTS**
207	(Panel#) (Ckt #)H.ORT(#)Q1	ORT TIPOUT 1-4 DEDICATED RECEPTACLE POWER(120V-HOT)	#12	BLACK	STRANDED	THHW	120 VAC	20A	CLEAN POWER SUBPANEL ASSIGNED CIRCUIT BREAKER	ORT CABINET 1 QUAD OUTLET#1	STANDARD QUAD OUTLET WITH RECEPTACLES COLOR CODED FOR CLEAN POWER
208	(Panel#) (Ckt #)N.ORT(#)Q1	ORT TIPOUT 1-4 DEDICATED RECEPTACLE POWER(120V-NEUTRAL)		WHITE							
209	(Panel#).G	GROUND		GREEN							
210	(Panel#) (Ckt #)H.ORT(#)Q2	ORT TIPOUT 5-6 DEDICATED RECEPTACLE POWER(120V-HOT)	#12	BLACK	STRANDED	THHW	120 VAC	20A	CLEAN POWER SUBPANEL ASSIGNED CIRCUIT BREAKER	ORT CABINET 1 QUAD OUTLET#2	STANDARD QUAD OUTLET WITH RECEPTACLES COLOR CODED FOR CLEAN POWER
211	(Panel#) (Ckt #)N.ORT(#)Q2	ORT TIPOUT 5-6 AND SWITCH DEDICATED RECEPTACLE POWER(120V-NEUTRAL)		WHITE							
212	(Panel#).G	GROUND		GREEN							
213	(Panel#) (Ckt #)H.ORT(#)Q3	ACCESSORY/FANS RECEPTACLE POWER(120V-HOT)	#12	BLACK	STRANDED	THHW	120 VAC	20A	CLEAN POWER SUBPANEL ASSIGNED CIRCUIT BREAKER	ORT CABINET 1 QUAD OUTLET#3	STANDARD QUAD OUTLET WITH RECEPTACLES COLOR CODED FOR CLEAN POWER
214	(Panel#) (Ckt #)N.ORT(#)Q3	ACCESSORY/FANS DEDICATED RECEPTACLE POWER(120V-NEUTRAL)		WHITE							
215	(Panel#).G	GROUND		GREEN							
NOTES:											
		1) Electrical installer to provide and install outlets, wire, conduit, junction boxes noted above.									
		2) Lane Server Power Ground (Pin 3 of TipOut connector) should be an isolated ground from plaza UPS Electrical Distribution Panel to avoid electrical noise getting into power distribution. A separate ground is suggested for electrical safety to connect									
LABELING NOTES:		**(Panel#) (Ckt #) will have to be replaced with the Panel ID and circuit/breaker number that this wire is connected to. (#) is to be replaced with ORT NB or SB or ORT designator as assigned.**									

FOR ORT POWER WIRING SCHEDULE NOTES, SEE SHEET T-23

Filename: 439_ORT Power Wiring Schedule 1.dgn

Scale: *NO SCALE*

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Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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THE GOLD STAR MEMORIAL HIGHWAY

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YORK TOLL PLAZA

ORT POWER WIRING SCHEDULE 1

SHEET NUMBER: T-19

CONTRACT:2018.20

Date:7/20/2018

Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.

MEDIAN SHOULDER ORT LANE TYPE GANTRY POWER WIRING SCHEDULE (Electrician Responsibilities - Includes pull strings, wire, conduit, trays, boxes and termination)

FRONT VCARS™

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
216	(Panel#) (Ckt #).(ORT#)FVLMS	FRONT VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
217	(Panel#)-.N.(ORT#)FVLMS	FRONT VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
218	(Panel#).IG.(ORT#)FVLMS	FRONT VCARS™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							V1-3	
219	(Panel#).G.(ORT#)FVLMS	FRONT VCARS™ POWER (ISOLATED (UPS) GROUND)		GREEN W/ YELLOW STRIPE							V1-4	
REAR VCARS™												
220	(Panel#) (Ckt #).(ORT#)RVLMS	REAR VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
221	(Panel#)-.N.(ORT#)RVLMS	REAR VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
222	(Panel#).IG.(ORT#)RVLMS	REAR VCARS™ POWER (FACILITY GROUND)		GREEN							V1-3	
223	(Panel#).G.(ORT#)RVLMS	REAR VCARS™ POWER (UPS ISOLATED GROUND)		GREEN W/ YELLOW STRIPE							V1-4	
LANE DIGITAL VIDEO AND AUDIT CAMERA (DVAS)												
224	(Panel#).H.(ORT#)PPDLMS	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (HOT - NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	DVAS CAMERA VIA POWER JUNCTION BOX INSTALL 3A IN-LINE FUSE, EXTERNAL BELL SWITCH AND TRANSITION TO #14AWG	AC	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN BOX
225	(Panel#).N.(ORT#)PPDLMS	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (NEUTRAL)		WHITE							IN	
226	(Panel#).G.(ORT#)PPDLMS	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	

OPUS SCANNER POWER WIRING SCHEDULE

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
227	(Panel#).H.(ORT#)	MEDIAN OPUS SCANNER AC POWER (HOT-NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	18X18X8 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN	AC	TDK-LAMBDA 48V TRANFORMER
228	(Panel#).N.(ORT#)	MEDIAN OPUS SCANNER AC POWER (NEUTRAL)		WHITE							IN	
229	(Panel#).G.(ORT#)	MEDIAN OPUS SCANNER AC POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	
230-235		MEDIAN OPUS SCANNER DC POWER	10	BLACK AND RED	STRANDED	THHW or SOW	48VDC	10	18X18X8 JUNCTION BOX	OPUS SCANNER(1-3)	OPUS TERMINALS	INDIVIDUAL OPUS SCANNER

FOR ORT POWER WIRING SCHEDULE NOTES, SEE SHEET T-23

Filename: 440_ORT Power Wiring Schedule 2.dgn

Scale: NO SCALE

Designed by: HNTB

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CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MTA PROJECT MANAGER: William Yates

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ORT POWER WIRING SCHEDULE 2

SHEET NUMBER: T-20

CONTRACT:2018.20

Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.

LANE 1 ORT LANE TYPE GANTRY POWER WIRING SCHEDULE

FRONT VCARS™

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
236	(Panel#) (Ckt #).FVL1	FRONT VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
237	(Panel#)-.N.FVL1	FRONT VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
238	(Panel#).IG.FVL1	FRONT VCARS™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							V1-3	
239	(Panel#).G.FVL1	FRONT VCARS™ POWER (ISOLATED (UPS) GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

REAR VCARS™

240	(Panel#) (Ckt #).RVL1	REAR VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
241	(Panel#)-.N.RVL1	REAR VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
242	(Panel#).IG.RVL1	REAR VCARS™ POWER (FACILITY GROUND)		GREEN							V1-3	
243	(Panel#).G.RVL1	REAR VCARS™ POWER (UPS ISOLATED GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

OPUS SCANNER POWER WIRING SCHEDULE

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
244	(Panel#).H.(ORT#)	LANE 1 OPUS SCANNER AC POWER (HOT-NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	18X18X8 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN	AC	TDK-LAMBDA 48V TRANFORMER
245	(Panel#).N.(ORT#)	LANE 1 OPUS SCANNER AC POWER (NEUTRAL)		WHITE							IN	
246	(Panel#).G.(ORT#)	LANE 1 OPUS SCANNER AC POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	
247-252		LANE 1 OPUS SCANNER DC POWER	10	BLACK AND RED	STRANDED	THHW or SOW	48VDC	10	18X18X8 JUNCTION BOX	OPUS SCANNER(1-3)	OPUS TERMINALS	INDIVIDUAL OPUS SCANNER

Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.

LANE 2 ORT LANE TYPE GANTRY POWER WIRING SCHEDULE

FRONT VCARS™

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
253	(Panel#) (Ckt #).FVL1	FRONT VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
254	(Panel#)-.N.FVL1	FRONT VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
255	(Panel#).IG.FVL1	FRONT VCARS™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							V1-3	
256	(Panel#).G.FVL1	FRONT VCARS™ POWER (ISOLATED (UPS) GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

REAR VCARS™

257	(Panel#) (Ckt #).RVL1	REAR VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
258	(Panel#)-.N.RVL1	REAR VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
259	(Panel#).IG.RVL1	REAR VCARS™ POWER (FACILITY GROUND)		GREEN							V1-3	
260	(Panel#).G.RVL1	REAR VCARS™ POWER (UPS ISOLATED GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

OPUS SCANNER POWER WIRING SCHEDULE

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
261	(Panel#).H.(ORT#)	LANE 2 OPUS P3 SCANNER ENCLOSURE POWER (HOT - NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	OPUS SCANNER VIA POWER JUNCTION BOX	AC	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN BOX
262	(Panel#).N.(ORT#)	LANE 2 OPUS P4 LEAD SCANNER ENCLOSURE POWER (NEUTRAL)		WHITE						INSTALL 3A IN-LINE FUSE, EXTERNAL BELL SWITCH AND TRANSITION TO #14AWG	IN	
263	(Panel#).G.(ORT#)	LANE 2 OPUS P4 TRAIL SCANNER ENCLOSURE POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	
264-269		LANE 2 OPUS SCANNER DC POWER	10	BLACK AND RED	STRANDED	THHW or SOW	48VDC	10	18X18X8 JUNCTION BOX	OPUS SCANNER(1-3)	OPUS TERMINALS	INDIVIDUAL OPUS SCANNER

FOR ORT POWER WIRING SCHEDULE NOTES, SEE SHEET T-23

Date:7/20/2018

Filename: 441_ORT Power Wiring Schedule 3.dgn

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CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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ORT POWER WIRING SCHEDULE 3

SHEET NUMBER: T-21

CONTRACT:2018.20

Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.

LANE 3 ORT LANE TYPE GANTRY POWER WIRING SCHEDULE

FRONT VCARS™

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
270	(Panel#) (Ckt #).FVL1	FRONT VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
271	(Panel#)-.N.FVL1	FRONT VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
272	(Panel#).IG.FVL1	FRONT VCARS™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							V1-3	
273	(Panel#).G.FVL1	FRONT VCARS™ POWER (ISOLATED (UPS) GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

REAR VCARS™

274	(Panel#) (Ckt #).RVL1	REAR VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
275	(Panel#)-.N.RVL1	REAR VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
276	(Panel#).IG.RVL1	REAR VCARS™ POWER (FACILITY GROUND)		GREEN							V1-3	
277	(Panel#).G.RVL1	REAR VCARS™ POWER (UPS ISOLATED GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

OPUS SCANNER POWER WIRING SCHEDULE

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
278	(Panel#).H.(ORT#)	LANE 3 OPUS SCANNER AC POWER (HOT-NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	18X18X8 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN	AC	TDK-LAMBDA 48V TRANFORMER
279	(Panel#).N.(ORT#)	LANE 3 OPUS SCANNER AC POWER (NEUTRAL)		WHITE							IN	
280	(Panel#).G.(ORT#)	LANE 3 OPUS SCANNER AC POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	
281-286		LANE 3 OPUS SCANNER DC POWER	10	BLACK AND RED	STRANDED	THHW or SOW	48VDC	10	18X18X8 JUNCTION BOX	OPUS SCANNER(1-3)	OPUS TERMINALS	INDIVIDUAL OPUS SCANNER

Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.

OUTSIDE SHOULDER ORT LANE TYPE GANTRY POWER WIRING SCHEDULE

FRONT VCARS™

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
287	(Panel#) (Ckt #).FVLMS	FRONT VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
288	(Panel#)-.N.FVLMS	FRONT VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
289	(Panel#).IG.FVLMS	FRONT VCARS™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							V1-3	
290	(Panel#).G.FVLMS	FRONT VCARS™ POWER (ISOLATED (UPS) GROUND) *see note 2		GREEN W/ YELLOW STRIPE							V1-4	

REAR VCARS™

291	(Panel#) (Ckt #).RVOSH	REAR VCARS™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	VCARS™ FIELD WIRING TERMINATION CONNECTOR	V1-1	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO VCARS™ LOCATION. LEAVE 8' SLACK IN BOX
292	(Panel#)-.N.RVOSH	REAR VCARS™ POWER (NEUTRAL)		WHITE							V1-2	
293	(Panel#).IG.RVOSH	REAR VCARS™ POWER (FACILITY GROUND)		GREEN							V1-3	
294	(Panel#).G.RVOSH	REAR VCARS™ POWER (UPS ISOLATED GROUND)		GREEN W/ YELLOW STRIPE							V1-4	

LANE DIGITAL VIDEO AND AUDIT CAMERA (DVAS)

295	(Panel#).H.(ORT#)PPDLMS	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (HOT - NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	DVAS CAMERA VIA POWER JUNCTION BOX INSTALL 3A IN-LINE FUSE, EXTERNAL BELL SWITCH AND TRANSITION TO #14AWG	AC	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN BOX
296	(Panel#).N.(ORT#)PPDLMS	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (NEUTRAL)		WHITE							IN	
297	(Panel#).G.(ORT#)PPDLMS	LANE DVAS PAYPOINT CAMERA ENCLOSURE POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	

OPUS SCANNER POWER WIRING SCHEDULE

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINAL #	TERMINATION REQUIREMENTS
298	(Panel#).H.(ORT#)	RIGHT SHOULDER OPUS P3 SCANNER ENCLOSURE POWER (HOT - NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	OPUS SCANNER VIA POWER JUNCTION BOX INSTALL 3A IN-LINE FUSE, EXTERNAL BELL SWITCH AND TRANSITION TO #14AWG	AC	6X6X4 JUNCTION BOX WITH 6' of 1/2" LIQUID TIGHT FLEX CABLE TO CAMERA LOCATION. LEAVE 8' SLACK IN BOX
299	(Panel#).N.(ORT#)	RIGHT SHOULDER OPUS P4 LEAD SCANNER ENCLOSURE POWER (NEUTRAL)		WHITE							IN	
300	(Panel#).G.(ORT#)	RIGHT SHOULDER OPUS P4 TRAIL SCANNER ENCLOSURE POWER (GROUND)		GREEN							Case Gnd Lug Only*/2	
301-306		RIGHT SHOULDER OPUS SCANNER DC POWER	10	BLACK AND RED	STRANDED	THHW or SOW	48VDC	10	18X18X8 JUNCTION BOX	OPUS SCANNER(1-3)	OPUS TERMINALS	INDIVIDUAL OPUS SCANNER

FOR ORT POWER WIRING SCHEDULE NOTES, SEE SHEET T-23

Date:7/20/2018

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CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
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MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT POWER WIRING SCHEDULE 4

SHEET NUMBER: T-22

CONTRACT:2018.20

Date:7/20/2018

Wiring Shown is for one direction of travel only. Duplicate for second ORT direction of travel.

SPACE FRAME LIGHTING POWER WIRING SCHEDULE

SPACE FRAME LIGHTING

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINATION REQUIREMENTS
307	(Panel#) (Ckt #).LHT	SPACE FRAME LIGHTING POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHN	120 VAC	20A	DIRTY POWER PANEL IN TUNNEL SERVING CASH LANE 8	LED LIGHTING FIXUTRES IN CANOPY	ACCORDING TO MANUFACTURERS RECOMMENDATION
308	(Panel#)-.N.LHT	SPACE FRAME LIGHTING POWER (NEUTRAL)		WHITE							
309	(Panel#).G.LHT	SPACE FRAME LIGHTING POWER (GROUND)		GREEN							

AVI READER POWER WIRING SCHEDULE

AVI JANUS SPR READER™

RISER DIAGRAM NUMBER	WIRE LABEL (SOURCE.CIRCUIT.DESTINATION)	DESCRIPTION	MIN AWG *1	COLOR	CORE	JACKET	VOLTAGE	CIRCUIT BREAKER	FROM	TO	TERMINATION REQUIREMENTS
310	(Panel#) (Ckt #).AVI	AVI BADGER READER™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	QUAD OUTLET BOX IN AVI READER CABINET	ACCORDING TO MANUFACTURERS RECOMMENDATION
311	(Panel#)-.N.AVI	AVI BADGER READER™ POWER (NEUTRAL)		WHITE							
312	(Panel#).IG.AVI	AVI BADGER READER™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							
313	(Panel#).G.AVI	AVI BADGER READER™ POWER (ISOLATED (UPS) GROUND)		GREEN W/ YELLOW STRIPE							
314	(Panel#) (Ckt #).AVI	AVI BADGER READER™ POWER (HOT, NON-SWITCHED)	12	BLACK	STRANDED	THHW or SOW	120 VAC	15	CLEAN (UPS) POWER DISTRIBUTION PANEL CIRCUIT BREAKER	QUAD OUTLET BOX IN AVI READER CABINET	ACCORDING TO MANUFACTURERS RECOMMENDATION
315	(Panel#)-.N.AVI	AVI BADGER READER™ POWER (NEUTRAL)		WHITE							
316	(Panel#).IG.AVI	AVI BADGER READER™ POWER (EQUIPMENT/FACILITY GROUND)		GREEN							
317	(Panel#).G.AVI	AVI BADGER READER™ POWER (ISOLATED (UPS) GROUND)		GREEN W/ YELLOW STRIPE							

NOTES:

GENERAL NOTES:	**1) Wire to be sized and colored according to local codes and breaker current limits. VCARS™ requires 10A service minimum. Breakers and Wire Size Shown is typical.**		
	2) Power Ground to VCARS™ should be an isolated ground from plaza UPS electrical distribution panel to avoid electrical noise getting into power distribution. A separate ground is suggested for electrical safety. If only one ground is		
LABELING NOTES:	**Label format identifies: Source Device-Connector-(Pin) . (Hot, Neutral, Ground, Isolated Ground).Destination Device-Connector-(Pin)**		

Filename: 443_ORT Power Wiring Schedule 5.dgn

Scale: *NO SCALE*

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CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
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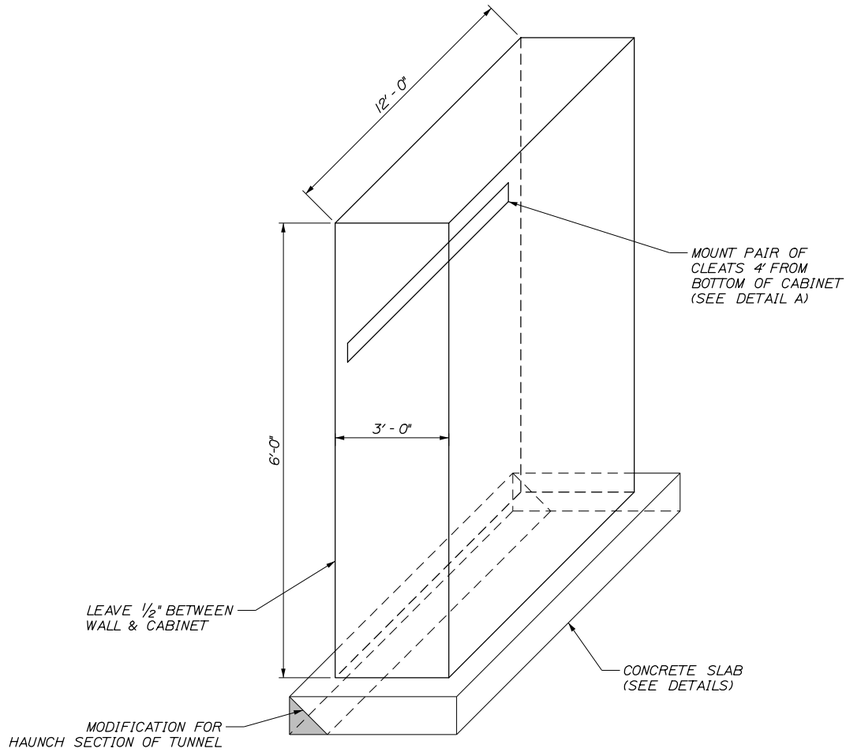
MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT POWER WIRING SCHEDULE 5

SHEET NUMBER: T-23

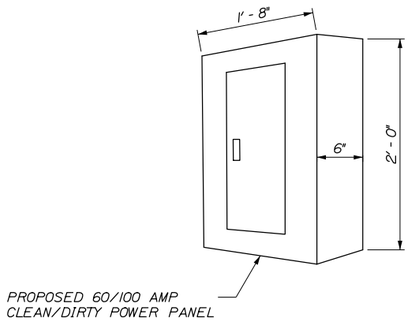
CONTRACT:2018.20



NORTHBOUND & SOUTHBOUND ORT CONTROL CABINET

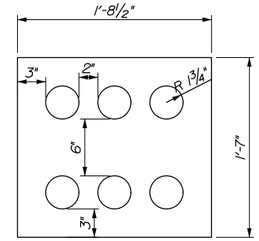
N.T.S.

NOTE: CONTRACTOR SHALL MAINTAIN TUNNEL FLOOR THROUGH LOCATIONS AT ORT CABINET SLABS, SEE TUNNEL PLANS FOR ADDITIONAL INFORMATION



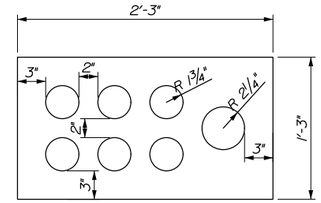
60 AMP CLEAN POWER PANEL BOARD (3-PHASE)
100 AMP DIRTY POWER PANEL BOARD (3-PHASE)

N.T.S.



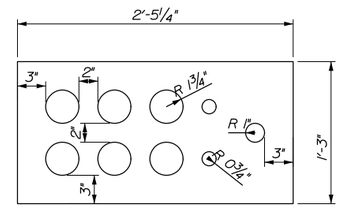
UTILITY CHASE DETAIL A

N.T.S.



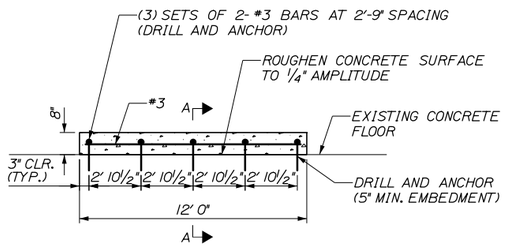
UTILITY CHASE DETAIL B

N.T.S.



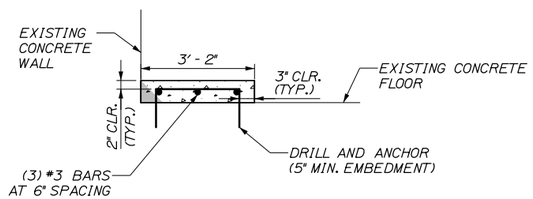
UTILITY CHASE DETAIL C

N.T.S.



ELEVATION

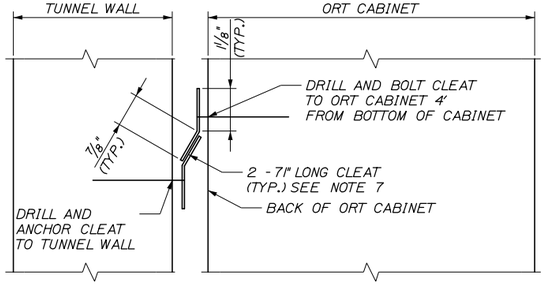
NOTE: ALL CORNERS SHALL BE CHAMFERED ¾".



SECTION A-A

CONCRETE SLAB DETAILS

N.T.S.



DETAIL A
ORT CABINET CLEATS

N.T.S.

NOTES:

1. FINAL LOCATIONS OF ORT CABINETS AND 60 AMP CLEAN POWER PANEL BOARD SHALL BE DETERMINED BY THE RESIDENT, TRANSCORE, AND MTA.
2. PROPOSED CONDUIT AND WIREWAYS ARE NOT SHOWN. SEE ELECTRICAL DETAILS.
3. EACH CABINET WILL CONTAIN SENSITIVE TOLLING EQUIPMENT AND WILL WEIGH AN ESTIMATED 900 POUNDS. THIS SHALL BE INCIDENTAL TO ITEM 655.01, MOUNTING AND INSTALLATION OF ORT LANE CONTROLLER CABINET.
4. CONSTRUCTION OF CONCRETE SLAB, MOVING ORT CABINETS TO FINAL LOCATIONS AND SECURING CABINETS WITH CLEATS TO TUNNEL WALL SHALL BE INCIDENTAL TO ITEM 655.01, MOUNTING AND INSTALLATION OF ORT LANE CONTROLLER CABINET.
5. THE CONTRACTOR SHALL PROTECT ORT CABINETS FROM DAMAGE.
6. TRANSCORE SHALL PROVIDE CONTRACTOR A PAIR OF CLEATS FOR EACH ORT CABINET. CLEATS WILL HAVE FIVE ⅜" HOLES PREDRILLED. CONTRACTOR SHALL ATTACH CLEATS TO TUNNEL WALL AND ORT CABINET BY METHOD APPROVED BY RESIDENT. SCREWS, BOLTS AND NUTS SHALL BE GALVANIZED.
7. 4 STAINLESS STEEL HILTI BOLTS MAY BE SUBSTITUTED FOR CLEATS AS APPROVED BY THE RESIDENT.

Date:7/20/2018

Filename: 444_ORT Cabinet Details.dgn

Scale: NO SCALE

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

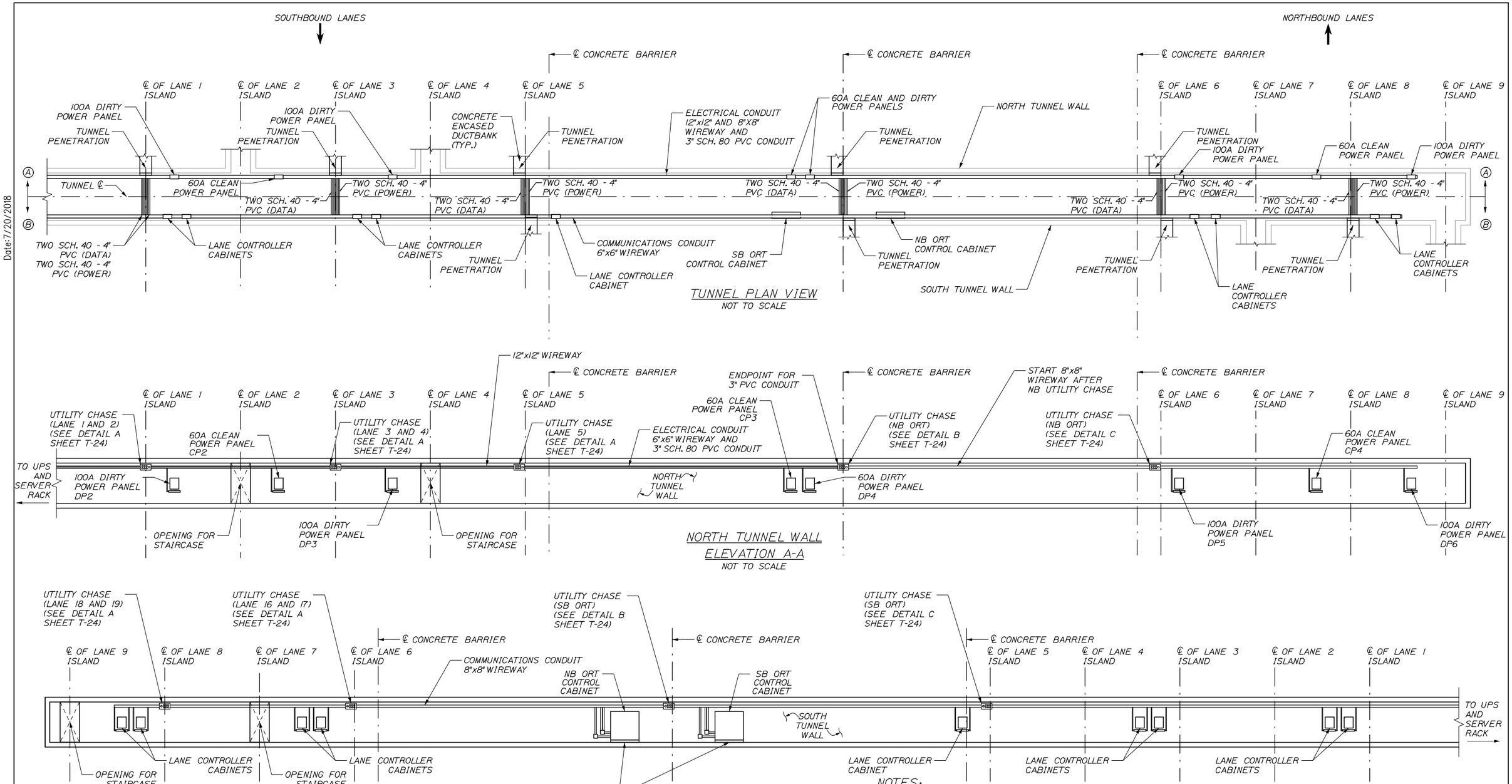
MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT CONTROL CABINET DETAILS

SHEET NUMBER: T-24

CONTRACT:2018.20



NOTES:

1. LOCATIONS OF CABINETS, WIREWAY PANEL BOARDS IS APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED AT OR AFTER A PRE-TUNNEL UTILITY MEETING WITH ALL TRADES INVOLVED. LOCATION OF TOLL SYSTEM ELECTRICAL AND DATA CONDUIT, WIREWAYS, CABINETS, BOXES, ETC. TO TAKE PRIORITY OVER OTHER TRADES.

2. ALL ELECTRICAL INSTALLATION ON THIS SHEET TO BE PAID UNDER 655-UNIT ITEMS.

3. TUNNEL ELECTRICAL PANEL SCHEDULES ARE IN THE 655.43 AND 655.44 SPECIFICATIONS.

Scale: AS NOTED

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

TUNNEL ELECTRICAL DETAILS

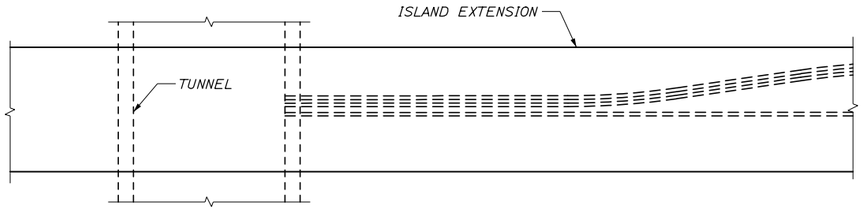
SHEET NUMBER: T-25

CONTRACT:2018.20

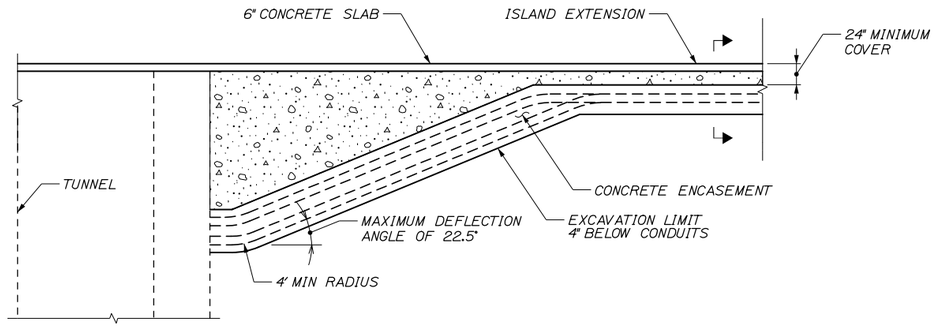
445 OF 489

Date:7/20/2018

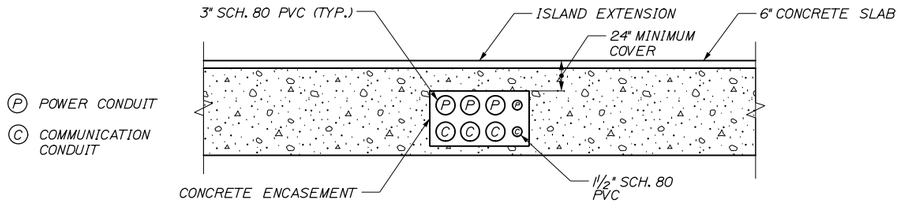
Filename: 445_TunnelElectricalDetails.dgn



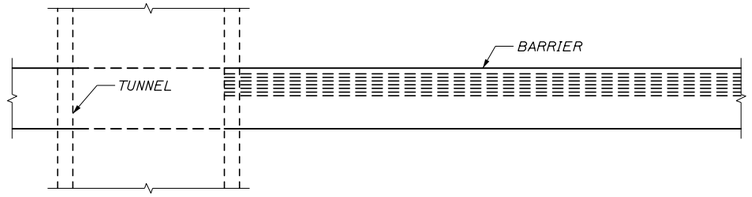
PLAN VIEW



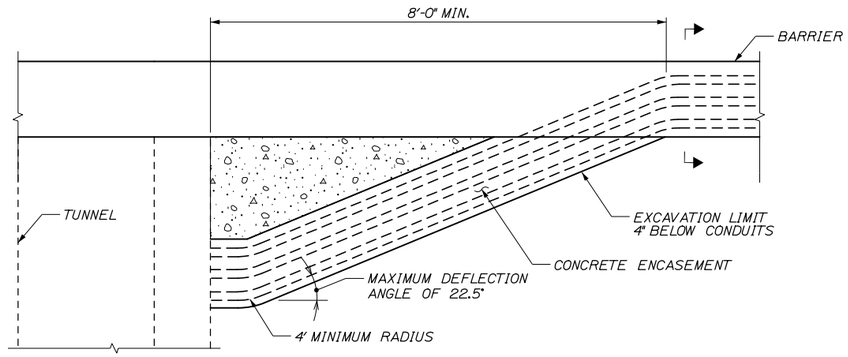
ELEVATION VIEW



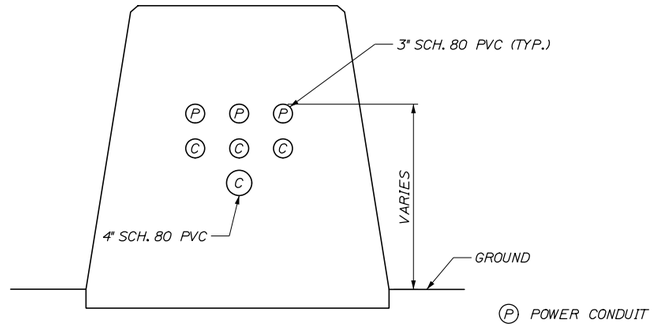
SECTION VIEW
ISLAND EXTENSION CONDUIT SWEEP DETAIL
ISLAND EXTENSION
(NOT TO SCALE)



PLAN VIEW



ELEVATION VIEW



SECTION VIEW
MEDIAN BARRIER CONDUIT SWEEP DETAIL
PROPOSED BARRIER
(NOT TO SCALE)

ISLAND EXTENSION NOTES:

1. HORIZONTAL SPACING BETWEEN CONDUITS SHALL BE 3" MIN. CLEARANCE FROM EDGE OF ISLAND EXTENSION SHALL BE 3".
2. DEPTH OF CONDUIT VARIES AT THE TUNNEL PENETRATION TO ENCASEMENT IN THE ISLAND EXTENSION.
3. CONDUIT INSTALLED IN THE ISLAND EXTENSION SLAB SHALL BE INSTALLED SIDE BY EACH.
4. SEE SPECIFICATION 655.75 CONCRETE ENCASED CONDUIT.

BARRIER NOTES:

1. CONDUIT CONFIGURATION RUN IN CONCRETE BARRIER SHALL BE FIELD DETERMINED.

Date:7/20/2018

Filename: 446_Conduit Detail1.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	JRD	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: WILLIAM YATES

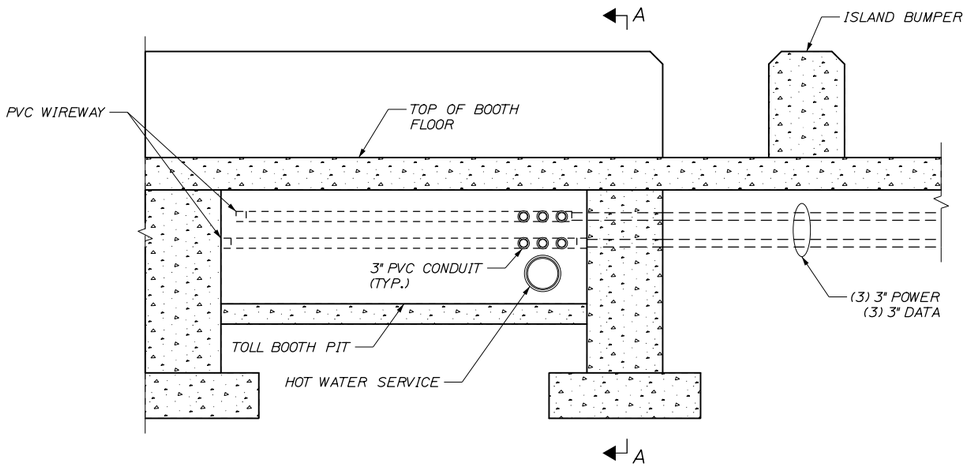
YORK TOLL PLAZA

CONDUIT DETAILS 1

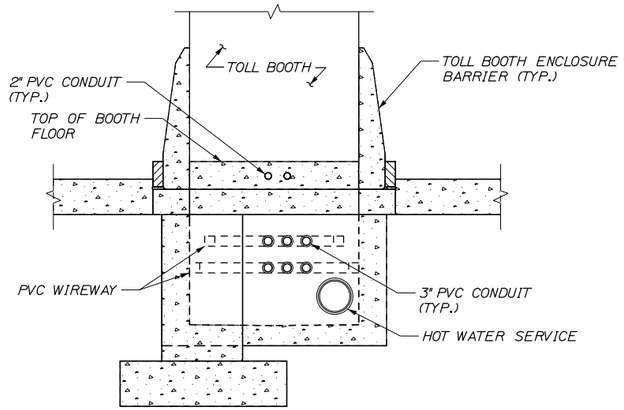
SHEET NUMBER: T-26

CONTRACT:2018.20

Date:7/20/2018



ELEVATION VIEW



SECTION A-A

UTILITY PIT CONDUIT DETAIL

N.T.S.

Filename: 447_Conduit Detail 2.DGN

Scale: AS NOTED

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. BRUCE MUNGER, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

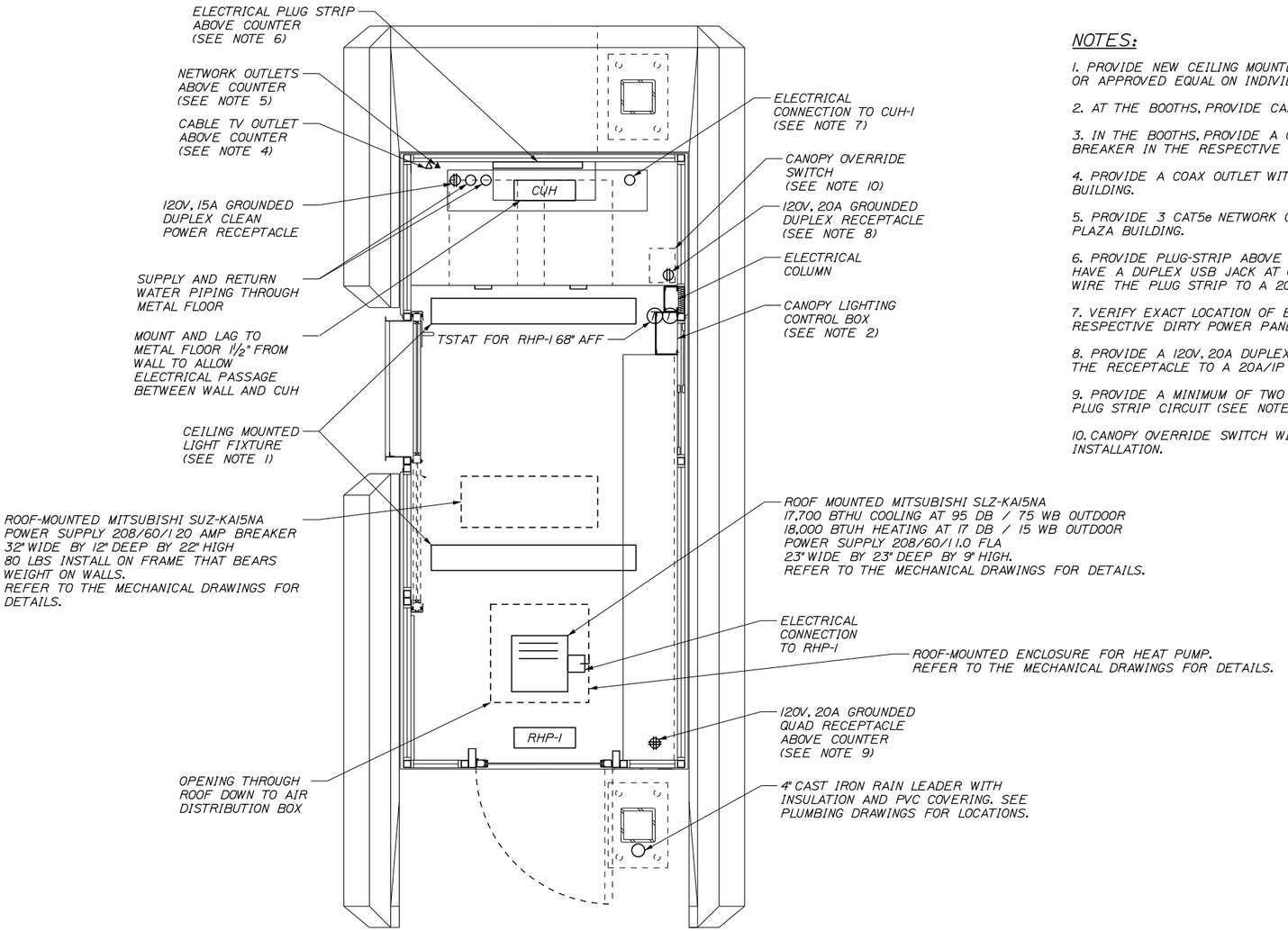
MTA PROJECT MANAGER: WILLIAM YATES

YORK TOLL PLAZA

CONDUIT DETAILS 2

SHEET NUMBER: T-27

CONTRACT:2018.20



TOLL BOOTH
3/4" = 1'-0"

NOTES:

1. PROVIDE NEW CEILING MOUNTED LIGHT FIXTURES IN BOOTHS. LIGHTS SHALL BE CREE *SMK-LE-S/SMK-LE-EC/CR-LE-32L-35K-10V, OR APPROVED EQUAL ON INDIVIDUAL DIMMER SWITCHES.

2. AT THE BOOTHS, PROVIDE CANOPY LIGHTING CONTROL SWITCHES TO BE INSTALLED ADJACENT TO THE ELECTRICAL COLUMN.

3. IN THE BOOTHS, PROVIDE A 0-10 VOLT DIMMER WIRED TO THE CEILING LIGHTS. WIRE THE BOOTH LIGHTS TO A 20A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.

4. PROVIDE A COAX OUTLET WITH RG6 CABLE EXTENDED THROUGH THE TUNNEL TO THE UTILITY ROOM IN THE PLAZA BUILDING.

5. PROVIDE 3 CAT5e NETWORK OUTLETS WITH CAT5e CABLE EXTENDED THROUGH THE TUNNEL TO THE COMMUNICATION DEMARC IN THE PLAZA BUILDING.

6. PROVIDE PLUG-STRIP ABOVE THE BOOTH COUNTER. PLUG STRIP SHALL BE LEGRAND *2000 USB SERIES. PLUG STRIP SHALL HAVE A DUPLEX USB JACK AT ONE END AND FOUR 15A, GROUNDED ELECTRICAL OUTLETS SPACED ALONG THE REMAINING LENGTH. WIRE THE PLUG STRIP TO A 20A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.

7. VERIFY EXACT LOCATION OF ELECTRICAL CONNECTION POINT FOR CUH-1. WIRE CUH-1 TO A 15A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.

8. PROVIDE A 120V, 20A DUPLEX RECEPTACLE TO BE INSTALLED IN THE ELECTRICAL COLUMN 18" ABOVE THE FLOOR. CONNECT THE RECEPTACLE TO A 20A/1P BREAKER IN THE RESPECTIVE DIRTY POWER PANEL.

9. PROVIDE A MINIMUM OF TWO 120V, 20A QUAD RECEPTACLE INSTALLED ABOVE THE COUNTER. CONNECT THE RECEPTACLE TO THE PLUG STRIP CIRCUIT (SEE NOTE 5). FINAL LOCATIONS TO BE FIELD DETERMINED.

10. CANOPY OVERRIDE SWITCH WILL BE PROVIDED BY THE SI. INSTALLATION WILL BE INCIDENTAL TO THE LANE USE SIGNAL INSTALLATION.

Date:8/28/2018

Filename: 448_Booth Lighting.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	JRD	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ELECTRICAL AND MECHANICAL BOOTH DETAILS

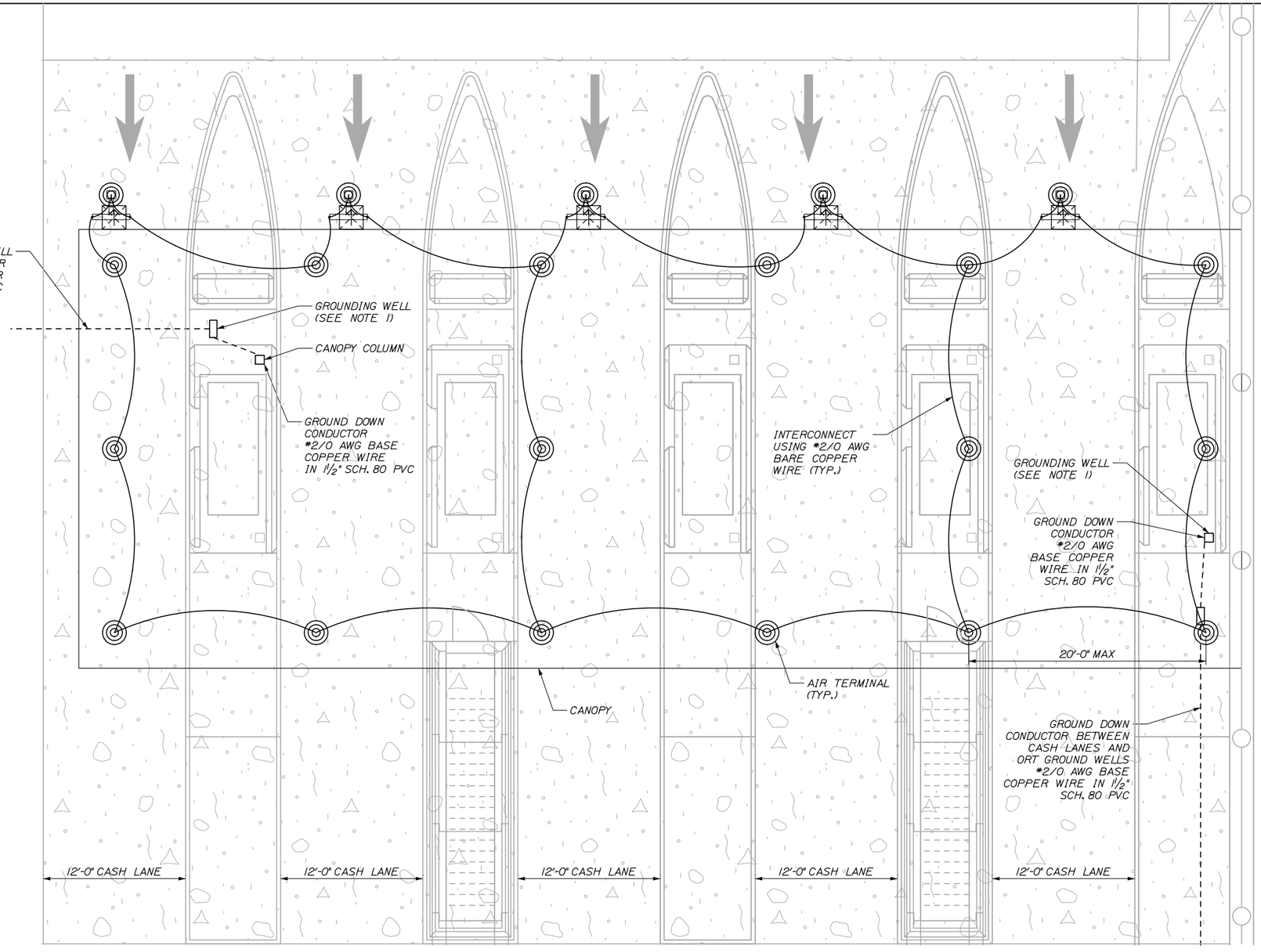
SHEET NUMBER: T-28

CONTRACT:2018.20

Date:7/20/2018

<u>LIGHTNING SUPPRESSION ON TRUNCATED CANOPY NOTES:</u>

1. THE GROUNDING WELLS SHALL CONSIST OF A 17"X10.125"X16.25", TRI5 QUAZITE JUNCTION BOX WITH A SINGLE ¾"X10' COPPER CLAD STEEL GROUNDING ROD UL 467 COMPLIANT CENTERED WITHIN THE WELL.
2. BOND EACH SIGN MOUNTING FRAME MEMBER WITH #2/0 AWG BARE COPPER WIRE (TYP).
3. ALL LIGHTNING PROTECTION WORK SHALL BE PROVIDED IN FULL CONFORMANCE WITH UL 96A AND WITH NFPA 780.
4. LIGHTNING PROTECTION CONDUCTOR BENDS SHALL NOT FORM AN INCLUDED ANGLE LESS THAN 90 DEGREES OR HAVE A RADIUS BEND LESS THAN 8".
5. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE CANOPY SIGN LIGHTING FIXTURES SHALL BE 10 INCHES TALL. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE CANOPY ROOF SHALL BE 24 INCHES TALL.
6. SEE SHEET NUMBER T-30 FOR DETAIL OF HEAVY DUTY GROUND TEST WELL.
7. CONTRACTOR TO PROVIDE LIGHTNING SUPPRESSION SYSTEM FOR ALL LANES.



<u>SB CASH LANES, NB SIMILAR</u>

<u>LEGEND</u>

- AIR TERMINAL
- #2/0 AWG BARE COPPER WIRE

Scale: 5 0 5 10 Scale of Feet

No.	Revision	By	Date

Designed by: HNTB

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: William Yates

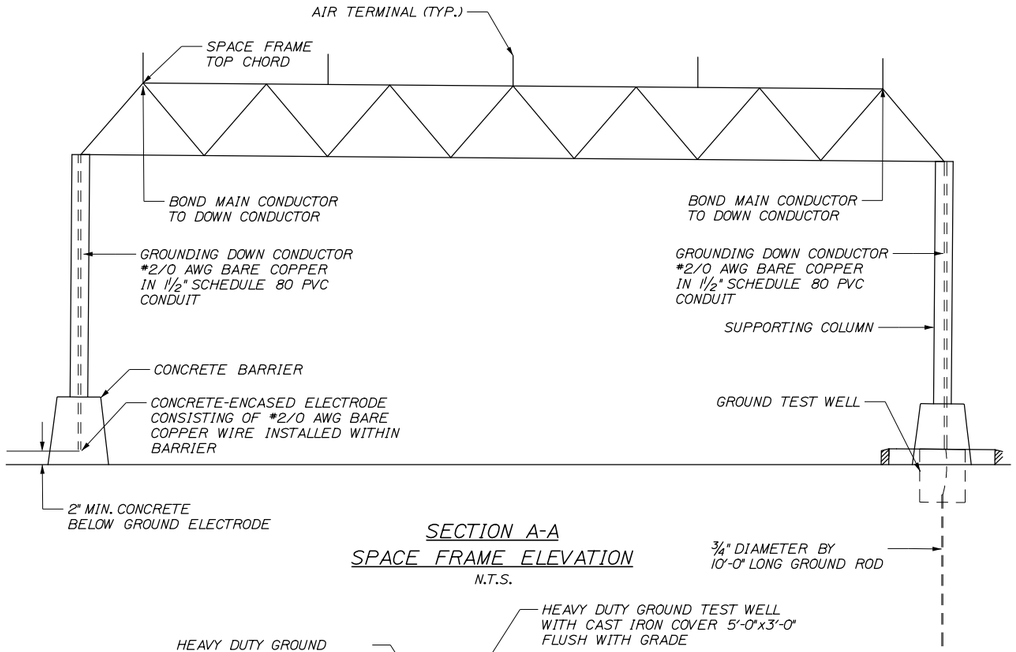
YORK TOLL PLAZA

CASH LIGHTNING SUPPRESSION SYSTEM

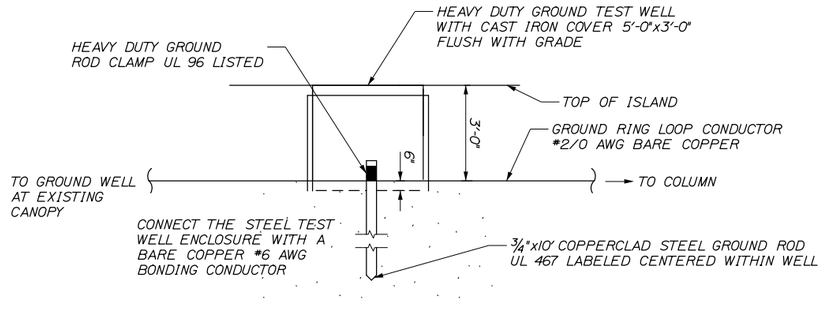
SHEET NUMBER: T-29

CONTRACT:2018.20

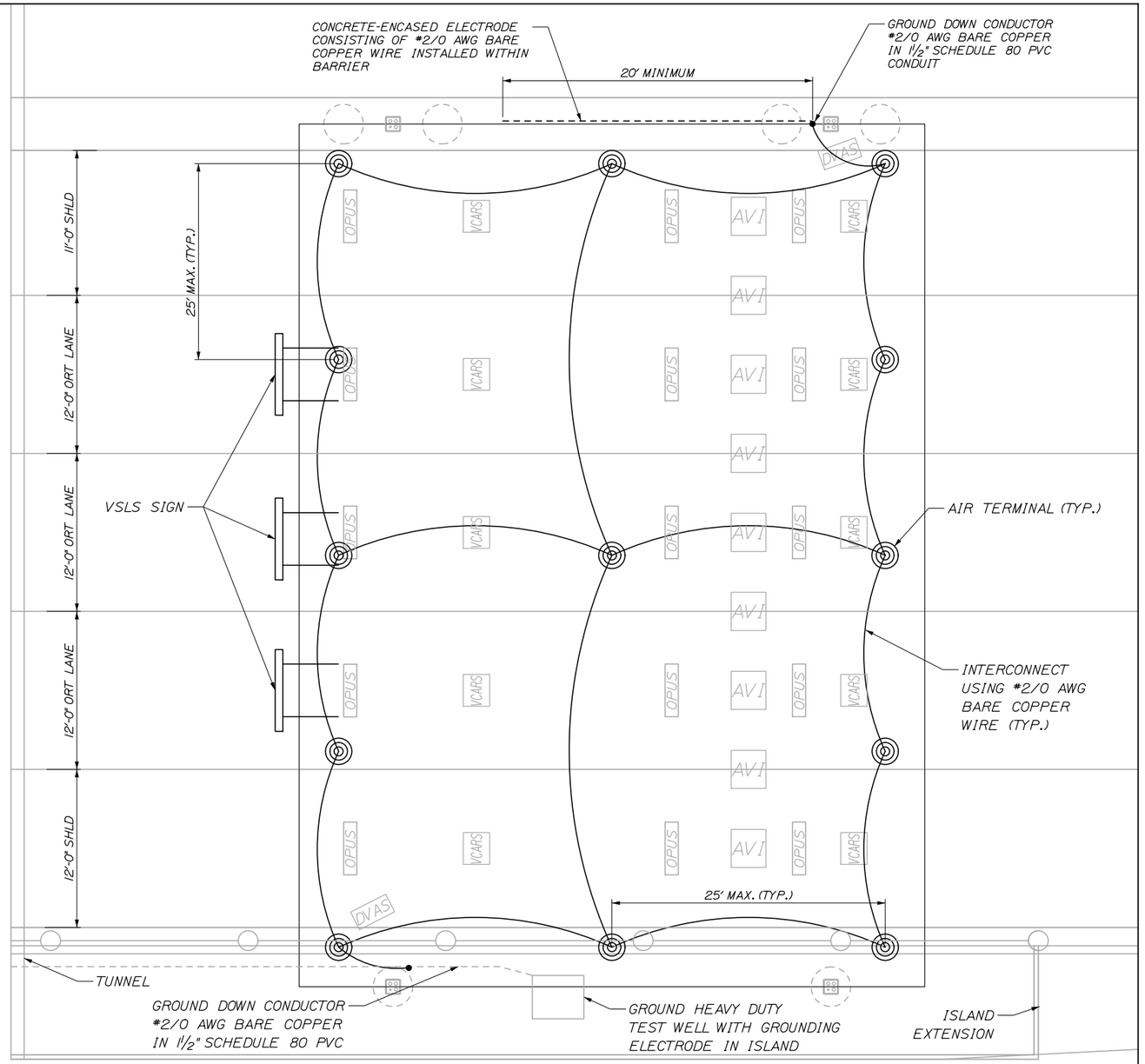
Filename: 449_SB Cash Ligtning Suppression System.DGN



SECTION A-A
SPACE FRAME ELEVATION
N.T.S.



HEAVY DUTY GROUND TEST WELL DETAILS
N.T.S.



NOTES:

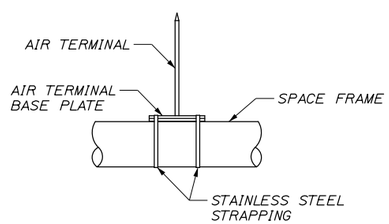
1. ALL WORK SHALL BE PROVIDED IN FULL CONFORMANCE WITH UL96A AND WITH NFPA 780.

2. SPACING OF AIR TERMINALS SHALL NOT EXCEED 25 FEET ON CENTERS.

3. CONDUCTOR BENDS SHALL NOT FORM AN INCLUDED ANGLE LESS THAN 90 DEGREES OR HAVE A RADIUS OF BEND LESS THAN 8 INCHES.

4. PROVIDE A #2/0 AWG BARE COPPER CONDUCTOR IN 1 1/2" SCHEDULE 80 PVC CONDUIT UNDERGROUND TO CONNECT THE GROUNDING ELECTRODES AT THE TEST WELL AT THE SPACE FRAME AND THE TEST WELL AT THE CANOPY.

5. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED AT THE ORT VSLS SIGN SHALL BE 10" TALL. LIGHTNING PROTECTION AIR TERMINALS TO BE INSTALLED ON THE SPACE FRAME SHALL BE 24" TALL.



AIR TERMINAL MOUNTING DETAIL
N.T.S.

LEGEND

- AIR TERMINAL
- #2/0 AWG BARE COPPER WIRE
- CONCRETE-ENCASED ELECTRODE #2/0 AWG BARE COPPER WIRE
- GROUNDING ELECTRODE

NB ORT LANES, SB SIMILAR
SCALE 1" = 5'

Date:7/20/2018

Filename: 450_ORT Ligtning Suppression System.DGN

Scale: AS NOTED

Designed by: HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: R. Bruce Munger, P.E.

	By	Date		By	Date
Designed	RBM	10/17	Checked	WDA	10/17
Drawn	SLR	10/17	In Charge of	RAL	10/17

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

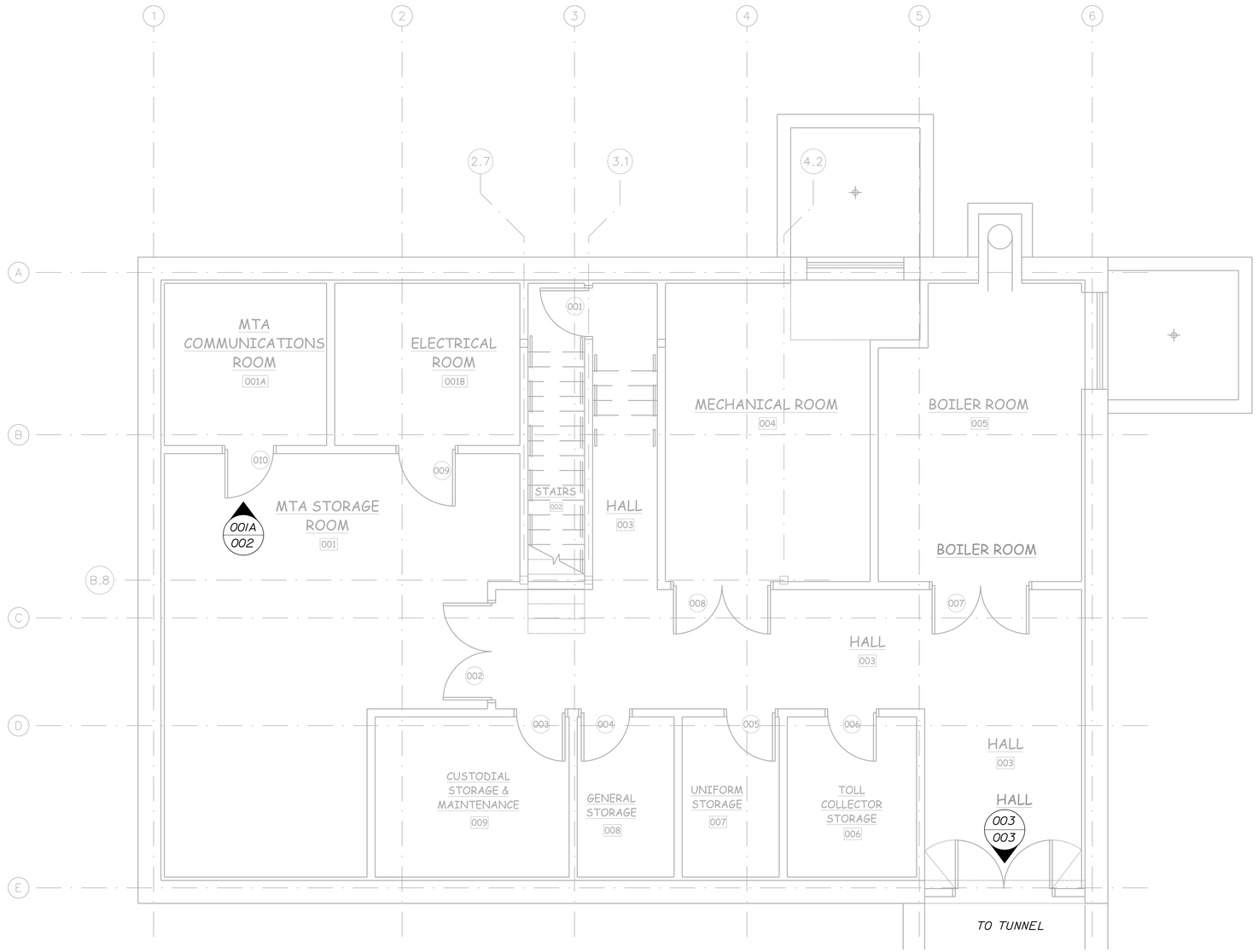
MTA PROJECT MANAGER: William Yates

YORK TOLL PLAZA

ORT LIGHTNING SUPPRESSION SYSTEM

SHEET NUMBER: T-30

CONTRACT:2018.20



1 / - BASEMENT EACS PLAN
SCALE:1/4" = 1'-0"

NOTES:
1. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE ELECTRICAL DETAILS.
2. ALL EACS SUPPORTING INFRASTRUCTURE (PIPE WIRE, DOORS AND DOOR HARDWARE) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. MTA WILL FURNISH AND INSTALL FINAL DOOR CONTROLLERS, DOOR READERS AND CARD READERS.

DOOR TYPES:
001 - SINGLE EXTERIOR
002 - SINGLE INTERIOR
003 - DUAL INTERIOR
004 - TOLL BOOTH STAIRWELL

LEGEND:

ROOM NUMBER — 003
EACS DOOR TYPE — 003
— IDENTIFICATION OF A SECURED EACS DOOR

Date:7/20/2018

Filename: ...\451_SC-1 Basement EACS Plan.DGN

Scale:
0 4' 8' 12
Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	SSG	7/18	Checked	CJC	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

JACOBS ENGINEERING GROUP
120 ST. JAMES AVENUE
BOSTON, MA. 02116
TEL (617) 242-9222
FAX (617) 242-9824

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

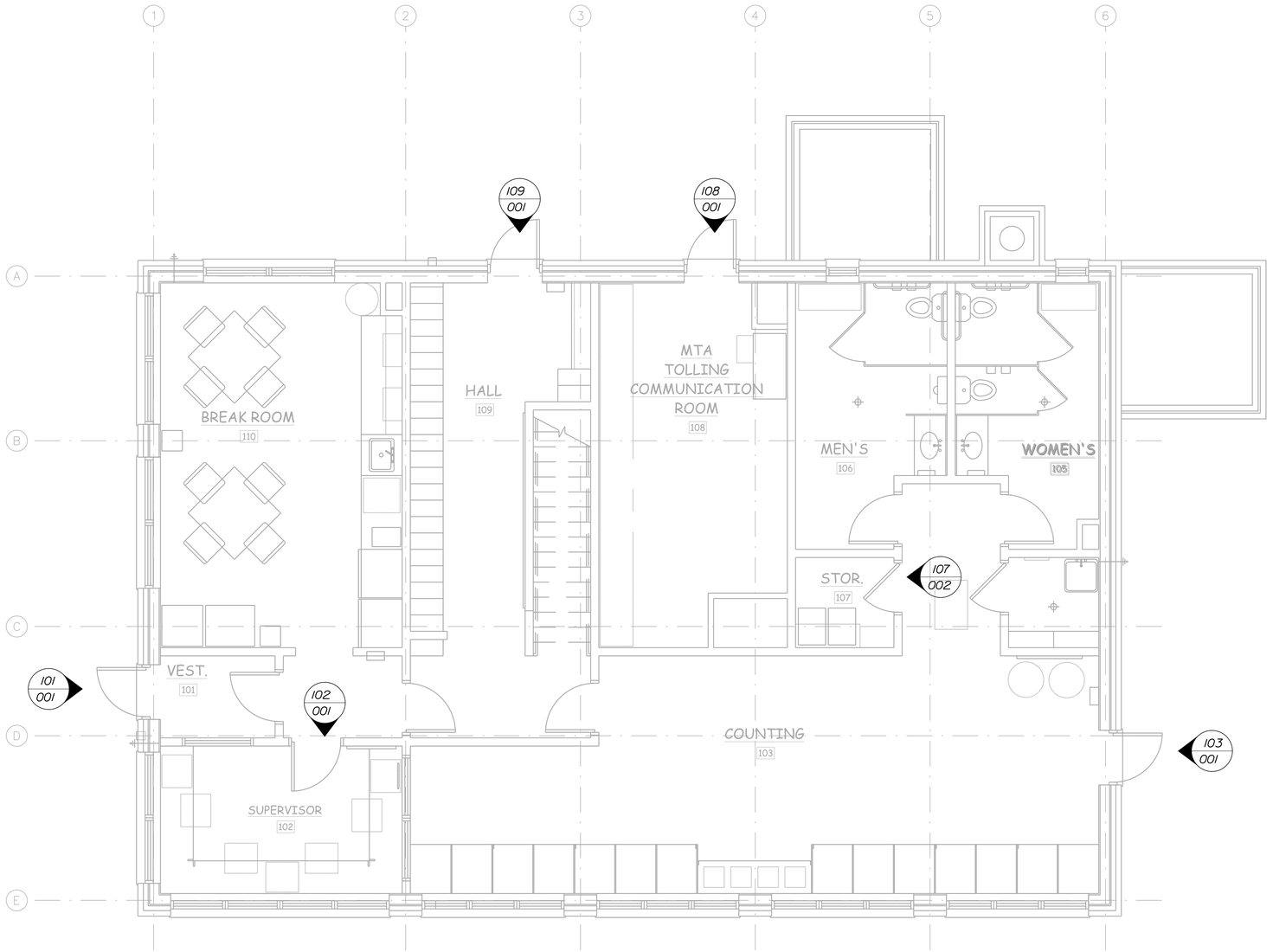
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
BASEMENT EACS PLAN

SHEET NUMBER: SC-1

CONTRACT:2018.20



1 / - FIRST FLOOR EACS PLAN

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

NOTES:

1. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE ELECTRICAL DETAILS.
2. ALL EACS SUPPORTING INFRASTRUCTURE (PIPE WIRE, DOORS AND DOOR HARDWARE) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. MTA WILL FURNISH AND INSTALL FINAL DOOR CONTROLLERS, DOOR READERS AND CARD READERS.

DOOR TYPES:

001 - SINGLE EXTERIOR
002 - SINGLE INTERIOR
003 - DUAL INTERIOR
004 - TOLL BOOTH STAIRWELL

LEGEND:

ROOM NUMBER — 003
EACS DOOR TYPE — 003 — IDENTIFICATION OF A SECURED EACS DOOR

Date:7/20/2018

Filename: ...\452_SC-2 First Floor EACS Plan.DGN

Scale: 0 4' 8' 12' Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	SSG	7/18	Checked	CJC	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

JACOBS ENGINEERING GROUP
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TEL (617) 242-9222
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

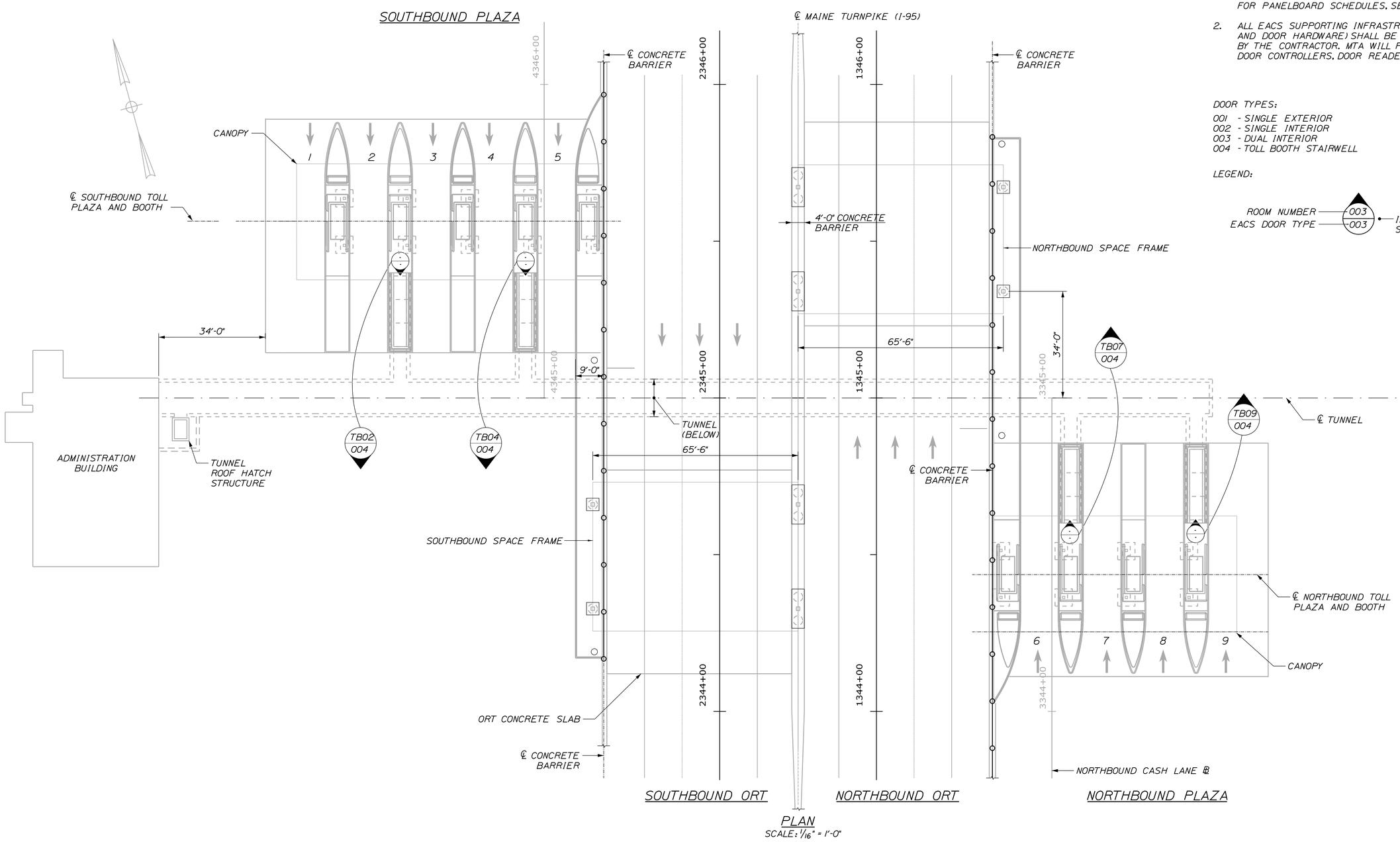
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
FIRST FLOOR EACS PLAN

SHEET NUMBER: SC-2

CONTRACT:2018.20



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

NOTE:

1. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE ELECTRICAL DETAILS.
2. ALL EACS SUPPORTING INFRASTRUCTURE (PIPE WIRE, DOORS AND DOOR HARDWARE) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. MTA WILL FURNISH AND INSTALL FINAL DOOR CONTROLLERS, DOOR READERS AND CARD READERS.

DOOR TYPES:

001 - SINGLE EXTERIOR
002 - SINGLE INTERIOR
003 - DUAL INTERIOR
004 - TOLL BOOTH STAIRWELL

LEGEND:

ROOM NUMBER — 003
EACS DOOR TYPE — 003
IDENTIFICATION OF A SECURED EACS DOOR

Date:7/20/2018

Filename: ...\453_SC-3 Tunnel and Cash Booth EACS Plan.dgn

Scale:
16 0 16 32
Scale of Feet

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	SSG	7/18	Checked	CJC	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

TUNNEL AND CASH BOOTH EACS PLAN

SHEET NUMBER: SC-3

CONTRACT:2018.20

Date:7/20/2018

DOOR NUMBER	ROOM NUMBER	ROOM NAME	DOOR TYPE	LOCATION	DOOR STYLE	MAGNETIC DOOR CONTACT	ELECTRIC CRASH BAR WITH REX BAR	ELECTRIC MORTISE LOCK WITH REX
10	001A	MTA COMMUNICATIONS ROOM	001 - SINGLE INTERIOR	BASEMENT	INTERIOR	X		X
11	003	HALL TO UTILITY TUNNEL	002 - DUAL INTERIOR	BASEMENT / TUNNEL	INTERIOR DOUBLE DOOR	X2	X	
101	101	MAIN VESTIBULE	003 - SINGLE EXTERIOR	1ST FLOOR	EXTERIOR	X	X	
102	103	COUNTING NORTH ENTRANCE	003 - SINGLE EXTERIOR	1ST FLOOR	EXTERIOR	X	X	
103	108	MTA TOLLING COMM ROOM	003 - SINGLE EXTERIOR	1ST FLOOR	EXTERIOR	X	X	
104	109	WEST ENTRANCE TO 1ST FL HALL	003 - SINGLE EXTERIOR	1ST FLOOR	EXTERIOR	X	X	
106	102	SUPERVISORS OFFICE	001 - SINGLE INTERIOR	1ST FLOOR	INTERIOR	X		X
107	107	SAFES - STORAGE	001 - SINGLE INTERIOR	1ST FLOOR	INTERIOR	X		X
TB02	TB02	STAIRWAY TO TUNNEL AT TOLL BOOTH 2	004 - TB STAIRWELL	TOLL PLAZA	EXTERIOR	X	X	
TB04	TB04	STAIRWAY TO TUNNEL AT TOLL BOOTH 4	004 - TB STAIRWELL	TOLL PLAZA	EXTERIOR	X	X	
TB07	TB07	STAIRWAY TO TUNNEL AT TOLL BOOTH 7	004 - TB STAIRWELL	TOLL PLAZA	EXTERIOR	X	X	
TB09	TB09	STAIRWAY TO TUNNEL AT TOLL BOOTH 9	004 - TB STAIRWELL	TOLL PLAZA	EXTERIOR	X	X	

NOTES:
1. ALL EACS CONTROLLED DOORS REQUIRE CARD ACCESS PRIVILEGES TO ENTER AND PROVIDE FREE EXIT FROM THE SECURED SIDE MONITORED BY A DOOR CONTACT.

2. ALL EACS SUPPORTING INFRASTRUCTURE (PIPE WIRE. DOORS AND DOOR HARDWARE) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. MTA WILL FURNISH AND INSTALL FINAL DOOR CONTROLLERS. DOOR READERS AND CARD READERS.

EACS DOOR SCHEDULE

Filename: ...\454_SC-4-EACS DOOR SCHEDULE.dgn

Scale:

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

SECURITY AND COMMUNICATIONS
EACS DOOR SHEDULE

SHEET NUMBER: SC-4

CONTRACT:2018.20

Date:8/30/2018

PARKING LOT

ADMINISTRATION BUILDING

STRUCTURAL SLAB

TOLL BOOTH CANOPY

2" PVC CONDUIT - COMMUNICATIONS (6 STRAND SM FIBER)

2" PVC CONDUIT - ELECTRIC

40' ITS CAMERA MOUNTED ON POLE

SPACE FRAME

ORT SLAB

337+00 338+00 339+00 340+00 341+00 342+00 343+00 344+00 345+00 346+00 347+00 348+00 349+00 350+00 351+00 352+00

ORT SLAB

SPACE FRAME

TUNNEL

40' ITS CAMERA MOUNTED ON POLE

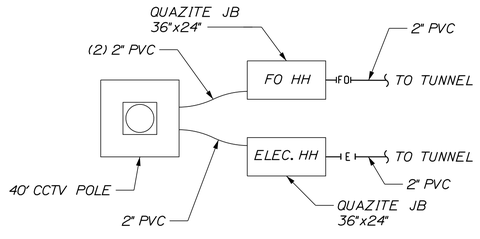
DETAIL A

TOLL BOOTH CANOPY

STRUCTURAL SLAB

2" PVC CONDUIT - COMMUNICATIONS (6 STRAND SM FIBER)

2" PVC CONDUIT - ELECTRIC



DETAIL A
NOT TO SCALE

LEGEND:

FO FIBER OPTIC CONDUIT AND CABLES

E ELECTRIC CONDUIT AND CABLES

Scale: 50 0 50 100 Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	JD	7/18	Checked	CJC	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

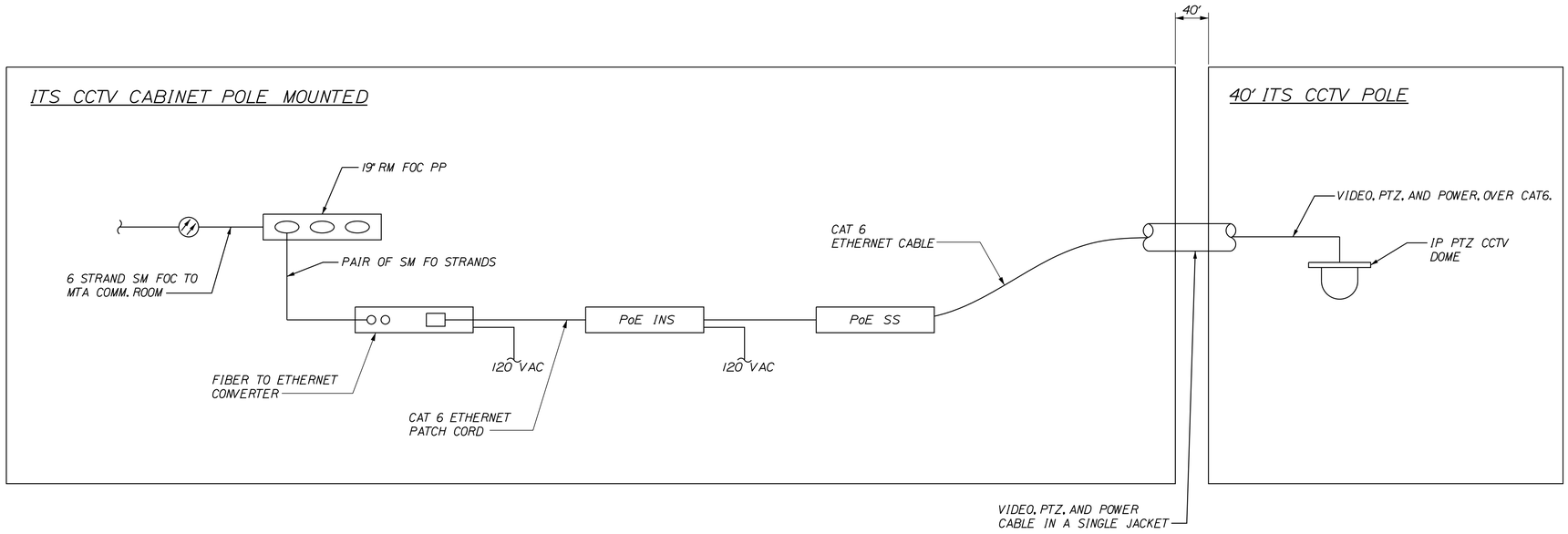
YORK TOLL PLAZA

ITS PLANS - CCTV
GENERAL PLAN AT TOLL PLAZA

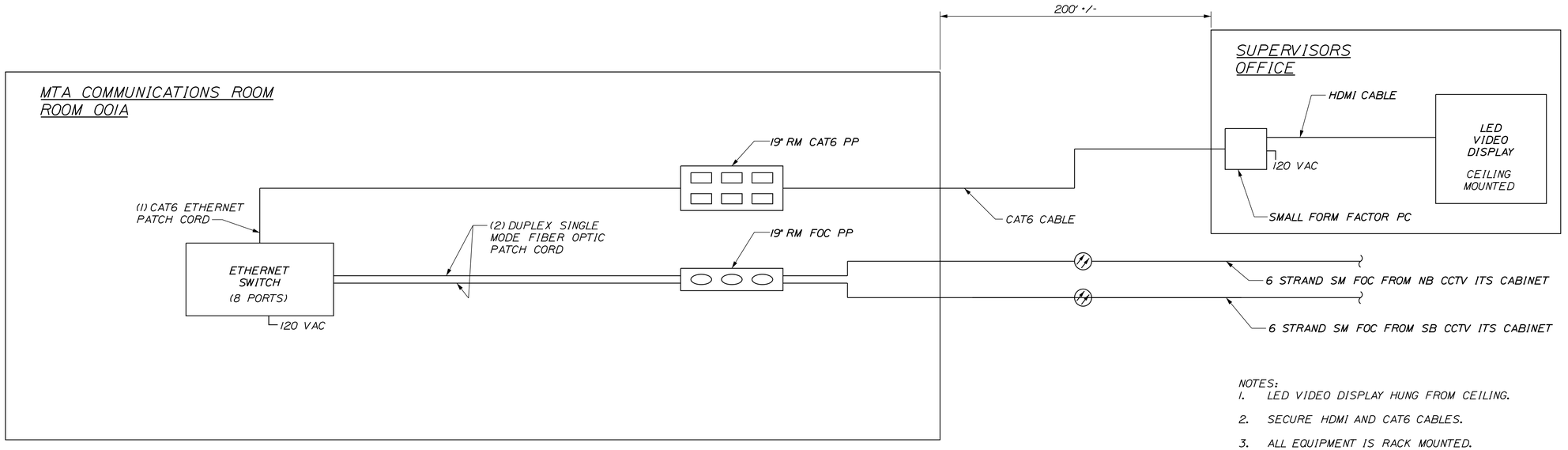
SHEET NUMBER: SC-5

CONTRACT:2018.20

Filename: ...\d0272276\455_SC-5-ITS_01.dgn



TYPICAL CCTV ITS ONE-LINE



NOTES:
1. LED VIDEO DISPLAY HUNG FROM CEILING.
2. SECURE HDMI AND CAT6 CABLES.
3. ALL EQUIPMENT IS RACK MOUNTED.
4. FOR POWER CONNECTIONS SEE ELECTRICAL DETAILS.
5. ALL CCTV EQUIPMENT SHALL BE CONNECTED TO LOCAL UPS.

Date:8/28/2018

Filename: ...\456_SC-6 CCTV ITS ONE-LINE.dgn

Scale:

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	JD	7/18	Checked	CJC	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

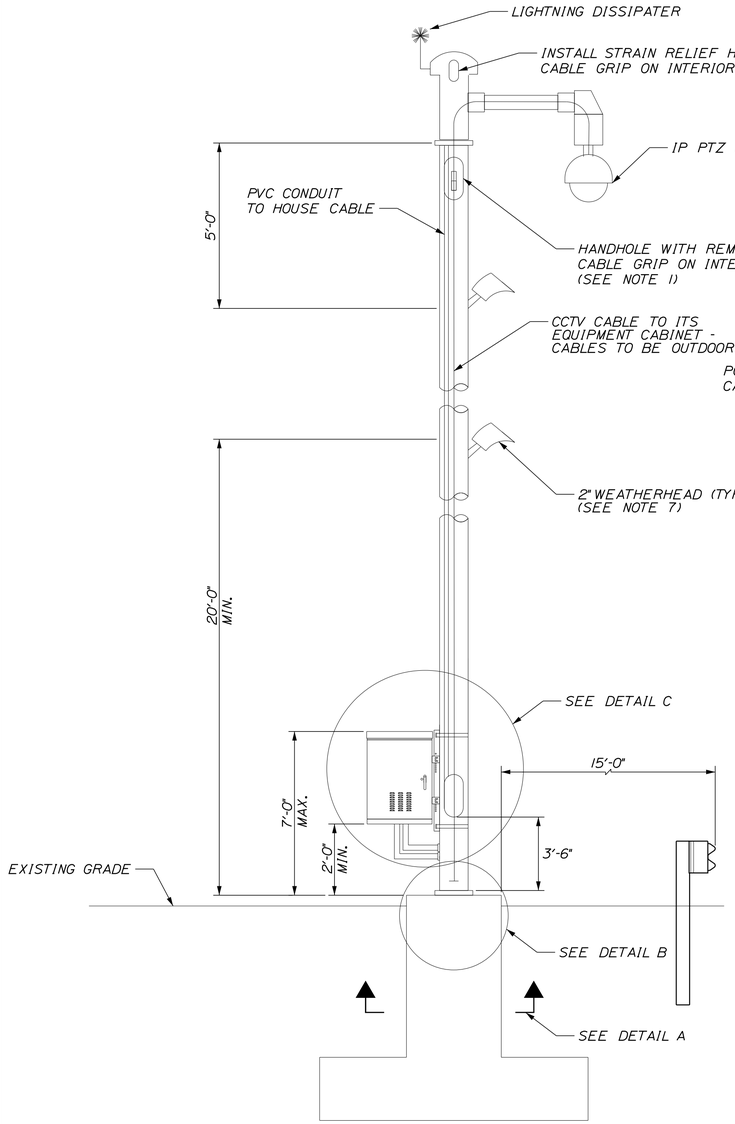
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

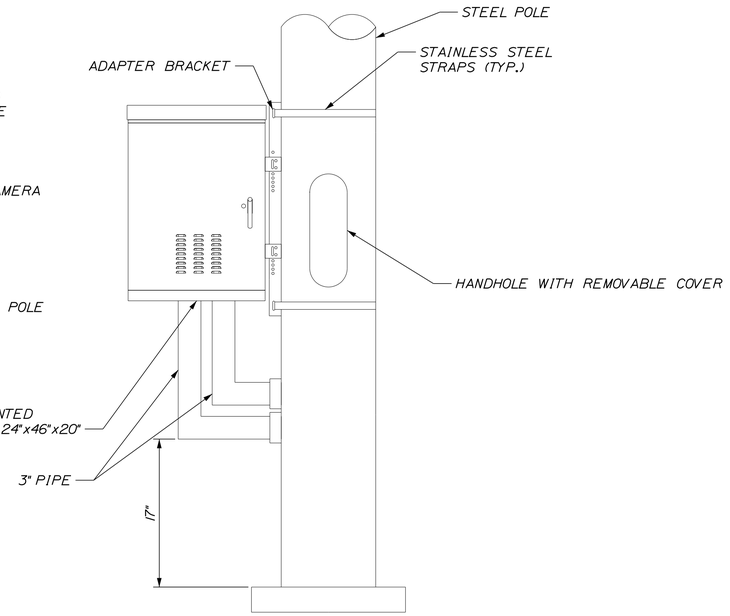
CCTV ITS
ONE-LINE DIAGRAM

SHEET NUMBER: SC-6

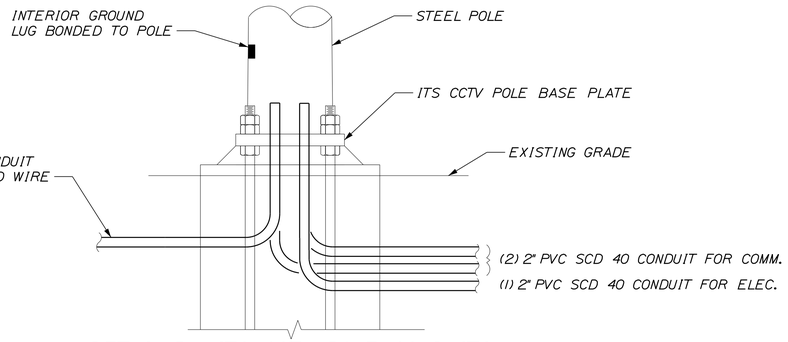
CONTRACT:2018.20



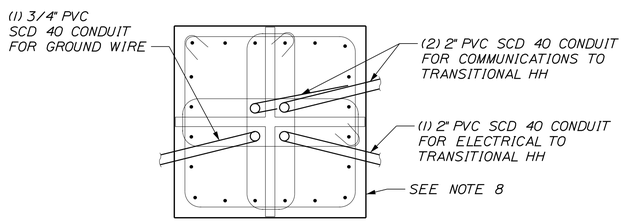
CCTV POLE ELEVATION
NOT TO SCALE



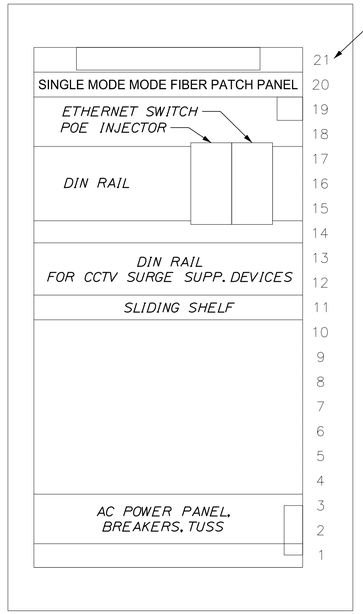
DETAIL C - CABINET VIEW
NOT TO SCALE



DETAIL B - ITS CCTV POLE CONDUITS
NOT TO SCALE



DETAIL A - PLAN VIEW
NOT TO SCALE



CABINET - FRONT

NOTES:
1. POSITION AND SIZE HAND HOLES TO PROVIDE ACCESS TO CABLING AND POLE INTERIOR.
2. ALL POLE, CABINET AND MOUNTING ARM PENETRATIONS SHALL BE WEATHERPROOF TYPE PENETRATIONS.
3. SEE CONTRACT SPECIAL PROVISION FOR ADDITIONAL REQUIREMENTS ON THE ITS POLE DESIGN.
4. FOR FOUNDATION DETAILS AND REINFORCEMENT SEE STRUCTURAL DRAWING S-45.
5. ANCHOR BOLT, BASE PLATE AND POLE SHALL BE DESIGNED BY POLE MANUFACTURER.
6. SEE LIGHTING SHEETS FOR GROUNDING DETAILS.
7. WEATHERHEADS SHALL BE FACTORY INSTALLED AT APPROXIMATELY 20 FEET FROM THE BASE AND 5 FEET FROM THE TOP OF THE POLE AND REINFORCED. FIELD DRILLING WILL NOT BE ALLOWED.
8. EXACT CONDUIT PLACEMENT IN FOUNDATION SHALL BE DETERMINED IN THE FIELD.

Date:8/28/2018

Filename: ...\457_SC-7 ITS DETAILS - CCTV POLE DETAILS.dgn

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	JD	7/18	Checked	CJC	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

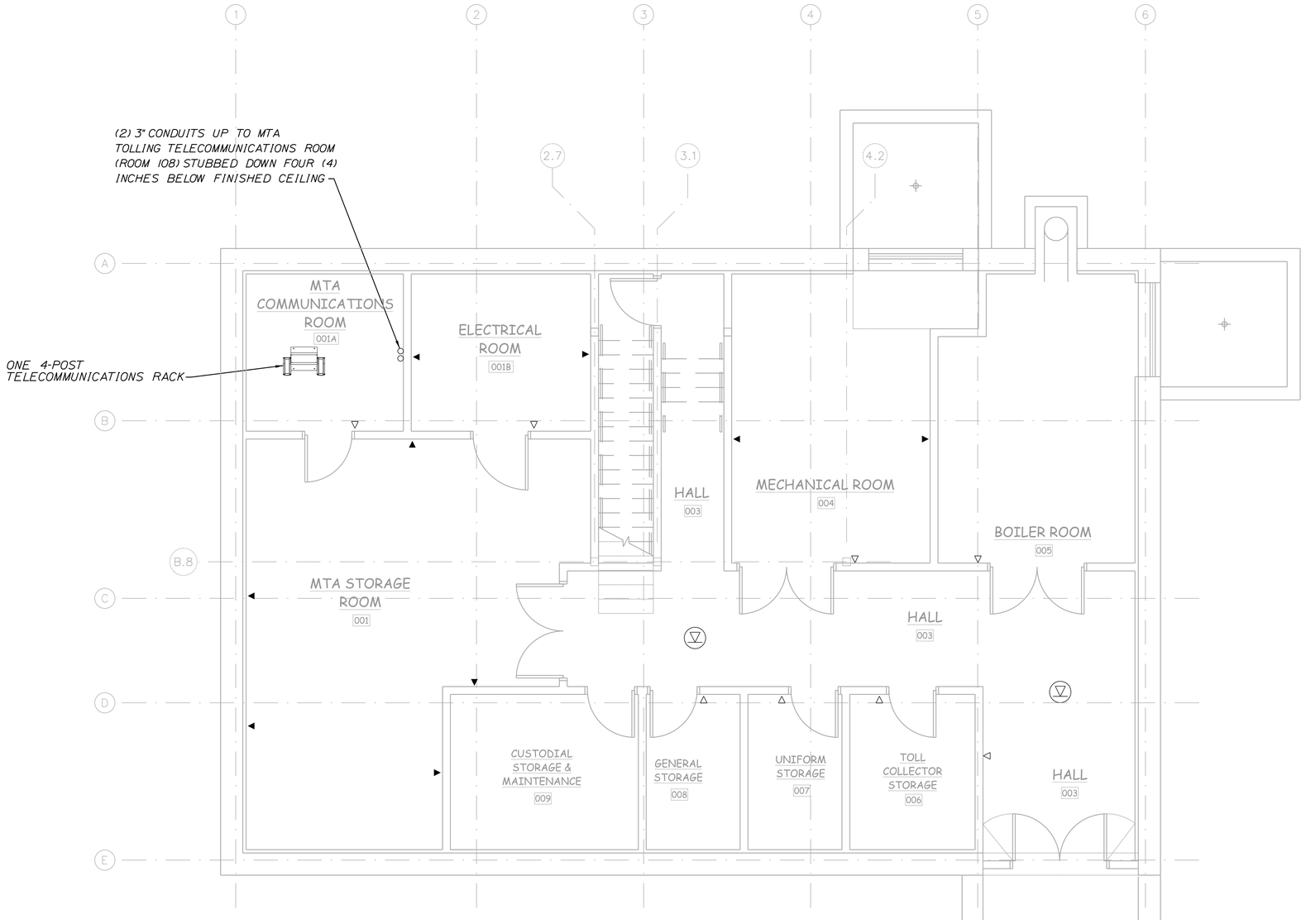
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

SECURITY AND COMMUNICATIONS
CCTV POLE DETAILS

SHEET NUMBER: SC-7

CONTRACT:2018.20



1 / - BASEMENT TELECOMMUNICATIONS PLAN
SCALE:1/4" = 1'-0"

NOTE:

1. FOR ELECTRICAL ONE LINE DIAGRAM, SEE SHEET E-501. FOR PANELBOARD SCHEDULES, SEE ELECTRICAL DETAILS.

LEGEND:

- WALL-MOUNT TELEPHONE OUTLET - ONE (1) CAT-6A JACK WITH ONE (1) CAT-6A CABLE-GREY IN WALL-MOUNTED FACEPLATE WITH RECESSED PORT AND STANDARD MOUNTING RIVETS. 48" AFF.
- ADMINISTRATIVE TELECOMMUNICATIONS OUTLET - TWO (2) CAT-6A JACKS AND CAT-6A CABLES, ONE (1) EACH BLUE-PRIMARY, GREEN-SECONDARY MOUNTED 18" AFF.
- TV CATV OUTLET - ONE (1) RG6V QUAD SHIELD COAX CABLE WITH F-TYPE CONNECTOR AND ONE (1) CAT-6A JACK AND CAT-6A CABLE-BLACK. MOUNTED 72" AFF UNLESS OTHERWISE NOTED.
- WIFI ACCESS POINT - ONE (1) CAT-6A JACK WITH ONE (1) CAT-6A CABLE- YELLOW ABOVE FINISHED CEILING, FOR CEILING-MOUNTED WIFI ACCESS POINT
- SECURITY CAMERA TELECOMMUNICATIONS OUTLET/CONNECTOR - ONE (1) CAT6A JACK WITH ONE (1) CAT6A CABLE - WHITE IN FLUSHMOUNT FACEPLATE WITH DEEP RECESSED PORT. FOR USE WITH FUTURE SECURITY CAMERAS. SECURITY CAMERAS NOT IN CONTRACT.

Date:7/20/2018

Filename: ...\458_SC-8 Basement Telecommunications Plan.DGN

Scale: 0 4' 8' 12 Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	SSG	7/18	Checked	CJC	7/18
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

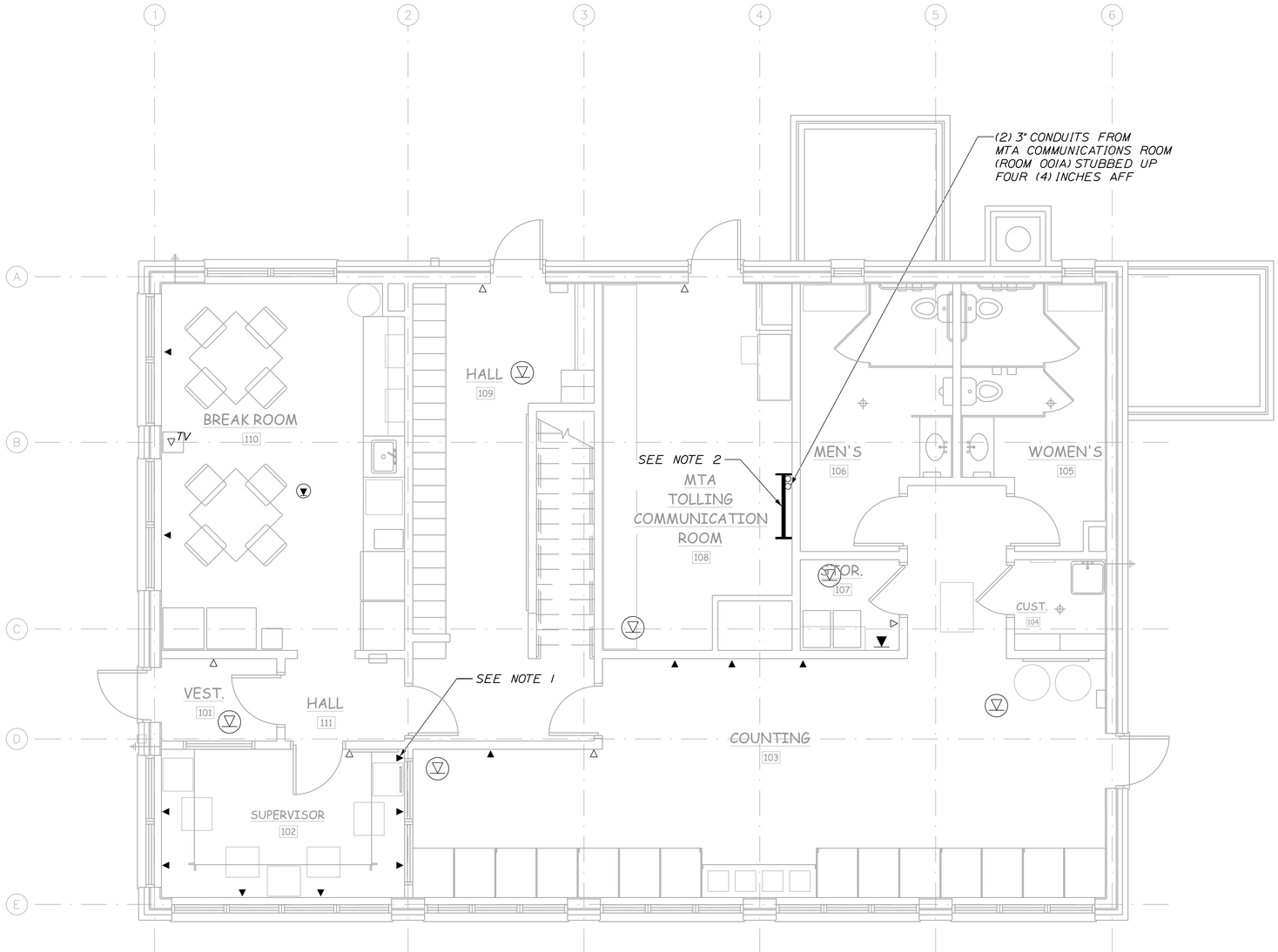
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ADMINISTRATION BUILDING
BASEMENT TELECOMMUNICATIONS PLAN

SHEET NUMBER: SC-8

CONTRACT:2018.20



1 - FIRST FLOOR TELECOMMUNICATIONS PLAN

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

N

NOTE:

1. MOUNT ADMINISTRATIVE TELECOMMUNICATIONS OUTLET/CONNECTOR ABOVE FINISHED CEILING TO SUPPORT VIDEO DISPLAY.
2. PROVIDE A 4'-0" X 8'-0" PRESSURE TREATED 3/4" THICK PLYWOOD (PLACED ON END) FOR MOUNTING EACS EQUIPMENT. COLOR PAINTED BLACK. BOTTOM OF PLYWOOD MOUNTED ON WALL 1'-0" AFF. CONTRACTOR SHALL LOCATE A WALL PLACEMENT AND SUBMIT FOR ENGINEER'S APPROVAL.

LEGEND:

- WALL-MOUNT TELEPHONE OUTLET - ONE (1) CAT-6A JACK WITH ONE (1) CAT-6A CABLE-GREY IN WALL-MOUNTED FACEPLATE WITH RECESSED PORT AND STANDARD MOUNTING RIVETS. 48" AFF.
- ADMINISTRATIVE TELECOMMUNICATIONS OUTLET - TWO (2) CAT-6A JACKS AND CAT-6A CABLES. ONE (1) EACH BLUE-PRIMARY, GREEN-SECONDARY MOUNTED 18" AFF.
- TV — CATV OUTLET - ONE (1) RG6V QUAD SHIELD COAX CABLE WITH F-TYPE CONNECTOR AND ONE (1) CAT-6A JACK AND CAT-6A CABLE-BLACK. MOUNTED 72" AFF UNLESS OTHERWISE NOTED.
- WIFI ACCESS POINT - ONE (1) CAT-6A JACK WITH ONE (1) CAT-6A CABLE-YELLOW ABOVE FINISHED CEILING. FOR CEILING-MOUNTED WIFI ACCESS POINT
- SECURITY CAMERA TELECOMMUNICATIONS OUTLET/CONNECTOR - ONE (1) CAT6A JACK WITH ONE (1) CAT6A CABLE - WHITE IN FLUSHMOUNT FACEPLATE WITH DEEP RECESSED PORT. FOR USE WITH FUTURE SECURITY CAMERAS. SECURITY CAMERAS NOT IN CONTRACT.
- WALL MOUNTED PLYWOOD PAINTED BLACK. BOTTOM OF PLYWOOD MOUNTED ON WALL 1'-0" AFF.

Date:7/20/2018

Filename: ...\459_SC-9 First Floor Telecommunications Plan.DGN

Scale: 0 4' 8' 12' — Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	SSG	7/18	Checked	CJC	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

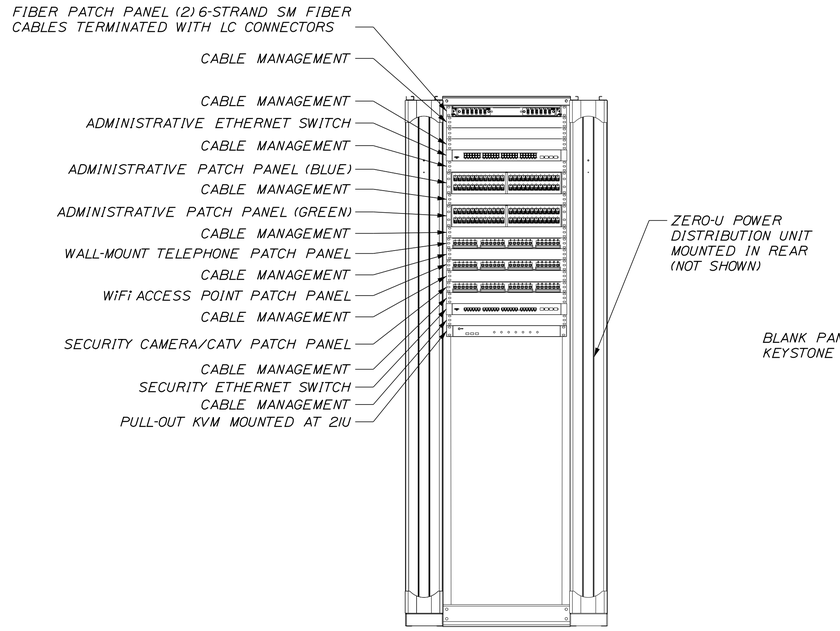
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

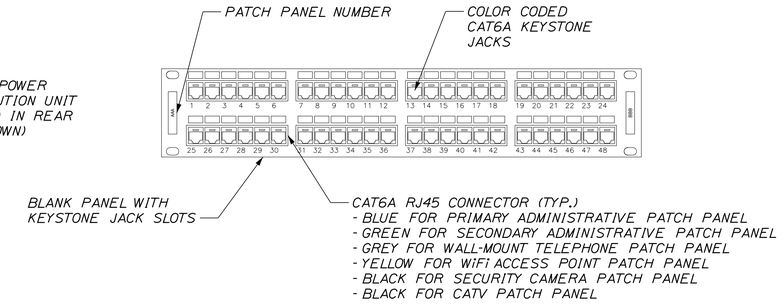
ADMINISTRATION BUILDING
FIRST FLOOR TELECOMMUNICATIONS PLAN

SHEET NUMBER: SC-9

CONTRACT:2018.20



4-POST EQUIPMENT RACK AND EQUIPMENT ELEVATION DETAILS (ROOM 001A)
NOT TO SCALE



CAT6A PATCH PANEL DETAILS (TYP.)
NOT TO SCALE

Date:8/28/2018

Filename: ...\460_SC-10 TELECOM DETAILS 1.DGN.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

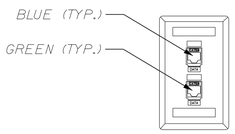
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

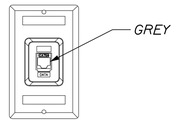
SECURITY AND COMMUNICATIONS
TELECOMMUNICATIONS ELEVATIONS DETAILS

SHEET NUMBER: SC-10

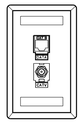
CONTRACT:2018.20



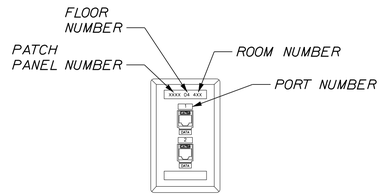
SINGLE GANG FACEPLATE WITH ONE (1) EACH, BLUE CAT6A RJ45 CONNECTOR WITH BLUE CAT6A CABLE AND GREEN CAT6A RJ45 CONNECTOR WITH GREEN CAT6A CABLES FLUSH WALL MOUNT, 18" AFF, UNLESS OTHERWISE NOTED



WALL PHONE OUTLET WITH ONE (1) EACH, GREY CAT6A RJ45 CONNECTOR WITH GREY CAT6A CABLE FLUSH WALL MOUNT, 48" AFF, STAINLESS STEEL WALL PLATE WITH RECESSED PORT AND STANDARD MOUNTING RIVETS

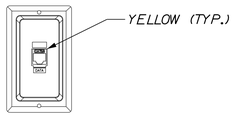


SINGLE GANG FACEPLATE WITH ONE (1) BLACK CAT6A RJ45 CONNECTOR WITH BLACK CAT6A CABLE AND ONE (1) F-TYPE CONNECTOR WITH RG6U QUAD SHIELD COAX CABLE FLUSH WALL MOUNT, 50" AFF, UNLESS OTHERWISE NOTED

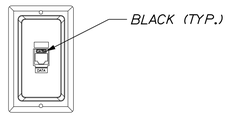


NUMBER OUTLETS CLOCKWISE, STARTING AT DOOR OR AS INDICATED ON DRAWINGS

TELECOM OUTLET/CONNECTOR LABELING DETAIL
NOT TO SCALE

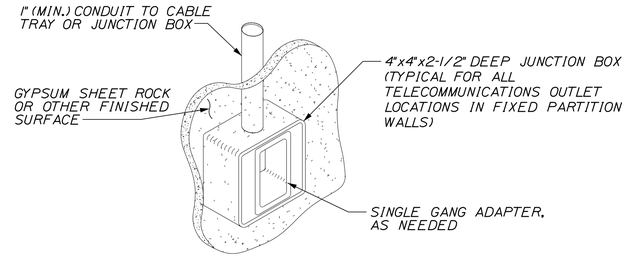


SINGLE GANG BOX AND RECESSED FACEPLATE WITH ONE (1) YELLOW CAT6A RJ45 CONNECTOR WITH YELLOW CAT6A CABLE. SURFACE MOUNT TO INFRASTRUCTURE ABOVE FINISHED CEILING.



SINGLE GANG BOX AND RECESSED FACEPLATE WITH TWO (2) EACH, BLACK CAT6A RJ45 CONNECTOR WITH BLACK CAT6A CABLES. SURFACE MOUNT TO INFRASTRUCTURE ABOVE FINISHED CEILING.

TELECOM OUTLET/CONNECTOR DETAILS
NOT TO SCALE



TELECOM OUTLET/CONNECTOR BOX DETAIL
NOT TO SCALE

Date:7/20/2018

Filename: ...\461_SC-11 TELECOM DETAILS 2.DGN.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	SSG	7/18	Checked	CJC	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

JACOBS ENGINEERING GROUP
120 ST. JAMES AVENUE
BOSTON, MA. 02116
TEL (617) 242-9222
FAX (617) 242-9824

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

SECURITY AND COMMUNICATIONS
TELECOMMUNICATIONS COMPONENT DETAILS

SHEET NUMBER: SC-11

CONTRACT:2018.20

Date:8/28/2018

16"x22.5° BEND AT CONNECTION TO EXISTING 16" MAIN

CAP EXISTING MAIN TO BE ABANDONED IN PLACE

PROPOSED 16" GATE VALVE AT STA. 3999+65

3° MAXIMUM JOINT DEFLECTION

16"x11.25° BEND

EXISTING WATERLINE (TYP.)

INSTALL FIELD LOCK GASKETS IN FIRST SLIP JOINTS EITHER SIDE OF BEND

INSTALL 16"x2" SERVICE SADDLE WITH 2" CORP AND TAP NEW MAIN. TAP TO BE USED FOR TESTING/FILLING OF NEW MAIN.

FIRST THREE PIPE LENGTHS NORTH OF GATE VALVE SHALL HAVE FIELD LOCK GASKETS

TEST PIT TO DETERMINE EXACT LOCATION AND ELEVATION OF EXISTING WATERMAIN. TEST PIT SHALL BE PERFORMED AT LEAST 1 WEEK PRIOR TO SCHEDULED START OF WORK OR MATERIALS ORDERING. RESULTS OF TEST PIT SHALL BE PROVIDED TO OWNER AND ENGINEER WITHIN 24 HOURS OF COMPLETING TEST PIT. CONTRACTOR SHALL NOTIFY YORK WATER DISTRICT (YWD) 1 WEEK IN ADVANCE OF SCHEDULED TEST PIT TO ALLOW A REPRESENTATIVE FROM YWD TO BE PRESENT.

INSTALL FIELD LOCK GASKETS IN FIRST SLIP JOINTS EITHER SIDE OF BEND

16"x11.25° BEND

NGS Control Disk

CONSTRUCT 12' WIDE GRAVEL ACCESS RAMP. SEE DETAIL UT-05

DEFLECT JOINTS MAXIMUM OF 3° TO MAINTAIN ALIGNMENT APPROXIMATE LOCATION OF RELOCATED 16" DUCTILE IRON WATERLINE

INSTALL FIELD LOCK GASKETS IN FIRST SLIP JOINT SOUTH OF 11.25° BEND, NORTH OF 22.5° BEND AND ANY SLIP JOINTS BETWEEN BENDS

16"x11.25° BEND

16"x22.5° BEND

INSTALL FIELD LOCK GASKETS IN FIRST SLIP JOINT SOUTH OF 11.25° BEND, NORTH OF 22.5° BEND AND ANY SLIP JOINTS BETWEEN BENDS

16"x11.25° BEND

16"x22.5° BEND

DEFLECT JOINTS MAXIMUM OF 3°TO MAINTAIN ALIGNMENT

NOTES:

1. CONTRACTOR SHALL INSTALL AND YORK WATER DISTRICT (YWD) MUST ACCEPT NEW 16" WATERMAIN FROM STA. 3999+65 TO STA. 4015+50, INCLUSIVE OF VALVES. PRIOR TO COMMENCING CONNECTION TO EXISTING MAIN. YWD WILL FILL, FLUSH, TEST AND TAKE BACTERIA SAMPLES. ALL PIPES AND FITTINGS INSTALLED FROM ACCEPTED MAIN TO EXISTING MAIN FOR FINAL CONNECTION SHALL BE SWABBED WITH CHLORINE SOLUTION PER DISTRICT STANDARDS. PROPOSED VALVES TO BE INSTALLED ON RELOCATED MAIN AND SOLID SLEEVE CONNECTION TO EXISTING MAIN. WITH APPROPRIATE DI PIPE AND FITTINGS.
2. CONTRACTOR SHALL SCHEDULE CONNECTION TO EXISTING MAIN WITH YORK WATER DISTRICT. TO GIVE THE DISTRICT SUFFICIENT TIME TO SCHEDULE SUPPLY INTERRUPTION.
3. ALL FITTINGS SHALL REQUIRE BOTH RESTRAINED JOINTS AND THRUST BLOCK.
4. FOLLOWING CONNECTION AND ACTIVATION OF RELOCATED WATER MAIN, EXISTING WATER MAIN TO BE CAPPED/PLUGGED AND ABANDONED IN PLACE PER ABANDONED PIPE PLUG DETAIL.

290'
PROPOSED FINISH GRADE
CONSTRUCT 12' WIDE GRAVEL ACCESS ROAD
SEE DETAIL SHEET UT-05

STA. 4005+00

STA. 4007+90

5.5' MIN. COVER

1" AIR RELEASE VALVE

16" WATERMAIN (TYP.)

Scale: Horiz. 50 0 50 100
Vert. 10 0 10 20
Scale of Feet

No.	Revision	By	Date

Designed by: SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM

CONSULTANT PROJECT MANAGER: S. SAWYER, P.E.

	By	Date		By	Date
Designed	DLR	7/18	Checked	DLR	7/18
Drawn	DB	7/18	In Charge of	---	--/--

SEBAGO TECHNICS
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TEL (207) 200-2100

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

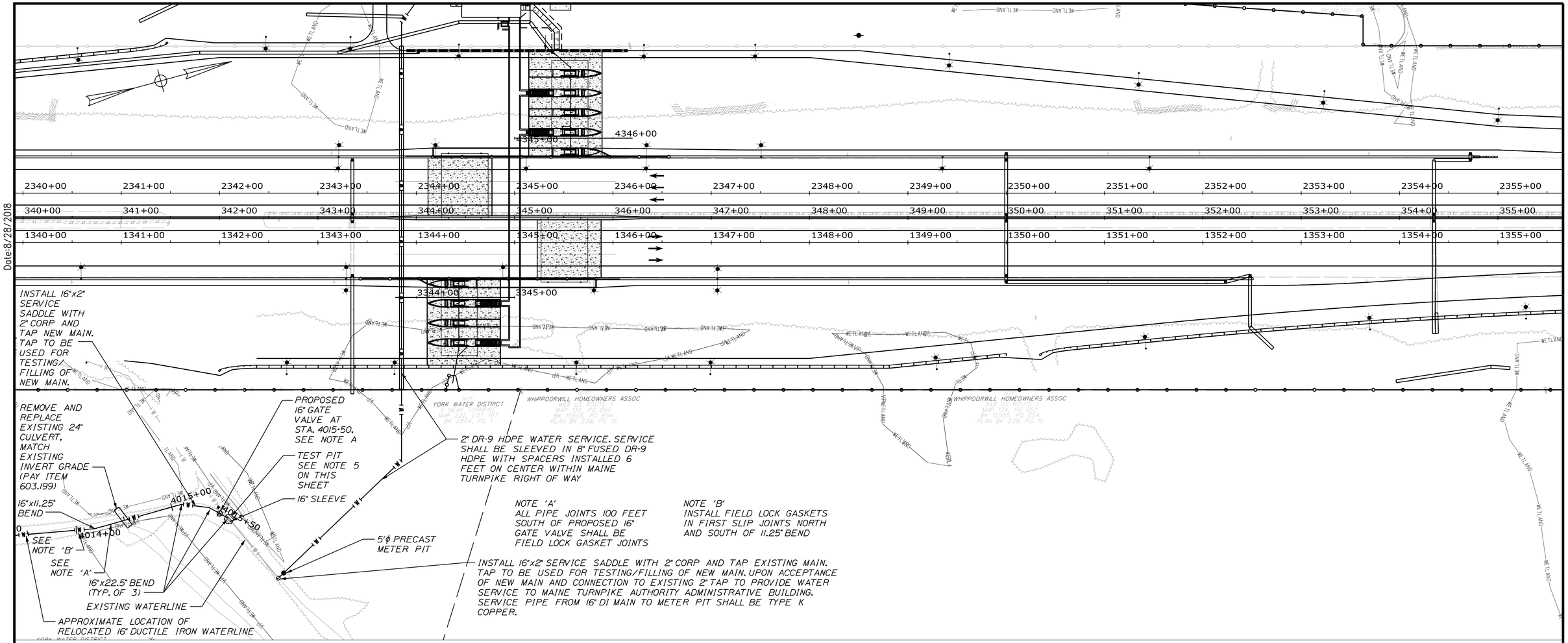
UTILITY PLAN - 1 WATER MAIN

SHEET NUMBER: UT-01

CONTRACT: 2018.20

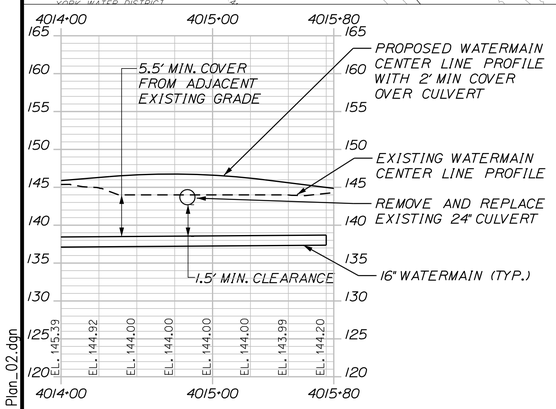
Filename: ...\MSTA\462_Utility Plan_01.dgn

Date:8/28/2018



NOTE 'A'
ALL PIPE JOINTS 100 FEET SOUTH OF PROPOSED 16" GATE VALVE SHALL BE FIELD LOCK GASKET JOINTS

NOTE 'B'
INSTALL FIELD LOCK GASKETS IN FIRST SLIP JOINTS NORTH AND SOUTH OF 11.25° BEND



NOTES:

1. CONTRACTOR SHALL INSTALL AND YORK WATER DISTRICT (YWD) MUST ACCEPT NEW 16" WATERMAIN FROM STA. 3999+65 TO STA. 4015+50, INCLUSIVE OF VALVES. PRIOR TO COMMENCING CONNECTION TO EXISTING MAIN, YWD WILL FILL, FLUSH, TEST AND TAKE BACTERIA SAMPLES. ALL PIPES AND FITTINGS INSTALLED FROM ACCEPTED MAIN TO EXISTING MAIN FOR FINAL CONNECTION SHALL BE SWABBED WITH CHLORINE SOLUTION PER DISTRICT STANDARDS. PROPOSED VALVES TO BE INSTALLED ON RELOCATED MAIN AND SOLID SLEEVE CONNECTION TO EXISTING MAIN. WITH APPROPRIATE DI PIPE AND FITTINGS.
2. CONTRACTOR SHALL SCHEDULE CONNECTION TO EXISTING MAIN WITH YORK WATER DISTRICT. TO GIVE THE DISTRICT SUFFICIENT TIME TO SCHEDULE SUPPLY INTERRUPTION.
3. ALL FITTINGS SHALL REQUIRE BOTH RESTRAINED JOINTS AND THRUST BLOCK.
4. FOLLOWING CONNECTION AND ACTIVATION OF RELOACTED WATER MAIN, EXISTING WATER MAIN TO BE CAPPED/PLUGGED AND ABANDONED IN PLACE PER ABANDONED PIPE PLUG DETAIL.
5. TEST PIT TO DETERMINE EXACT LOCATION AND ELEVATION OF EXISTING WATERMAIN. TEST PIT SHALL BE PERFORMED AT LEAST 4 WEEKS PRIOR TO SCHEDULED START OF WORK OR MATERIALS ORDERING. RESULTS OF TEST PIT SHALL BE PROVIDED TO OWNER AND ENGINEER WITHIN 24 HOURS OF COMPLETING TEST PIT. CONTRACTOR SHALL NOTIFY YORK WATER DISTRICT (YWD) 1 WEEK IN ADVANCE OF SCHEDULED TEST PIT TO ALLOW A REPRESENTATIVE FROM YORK WATER DISTRICT TO BE PRESENT.

Scale: Horiz. 50 0 50 100
Vert. 10 0 10 20
Scale of Feet

No.	Revision	By	Date

Designed by: SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM

CONSULTANT PROJECT MANAGER: S. SAWYER, P.E.

	By	Date		By	Date
Designed	PDO	7/18	Checked	DLR	7/18
Drawn	DB	7/18	In Charge of	---	--/--

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MAINE TURNPIKE

MTA PROJECT MANAGER: R. NORWOOD

THE GOLD STAR MEMORIAL HIGHWAY

YORK TOLL PLAZA

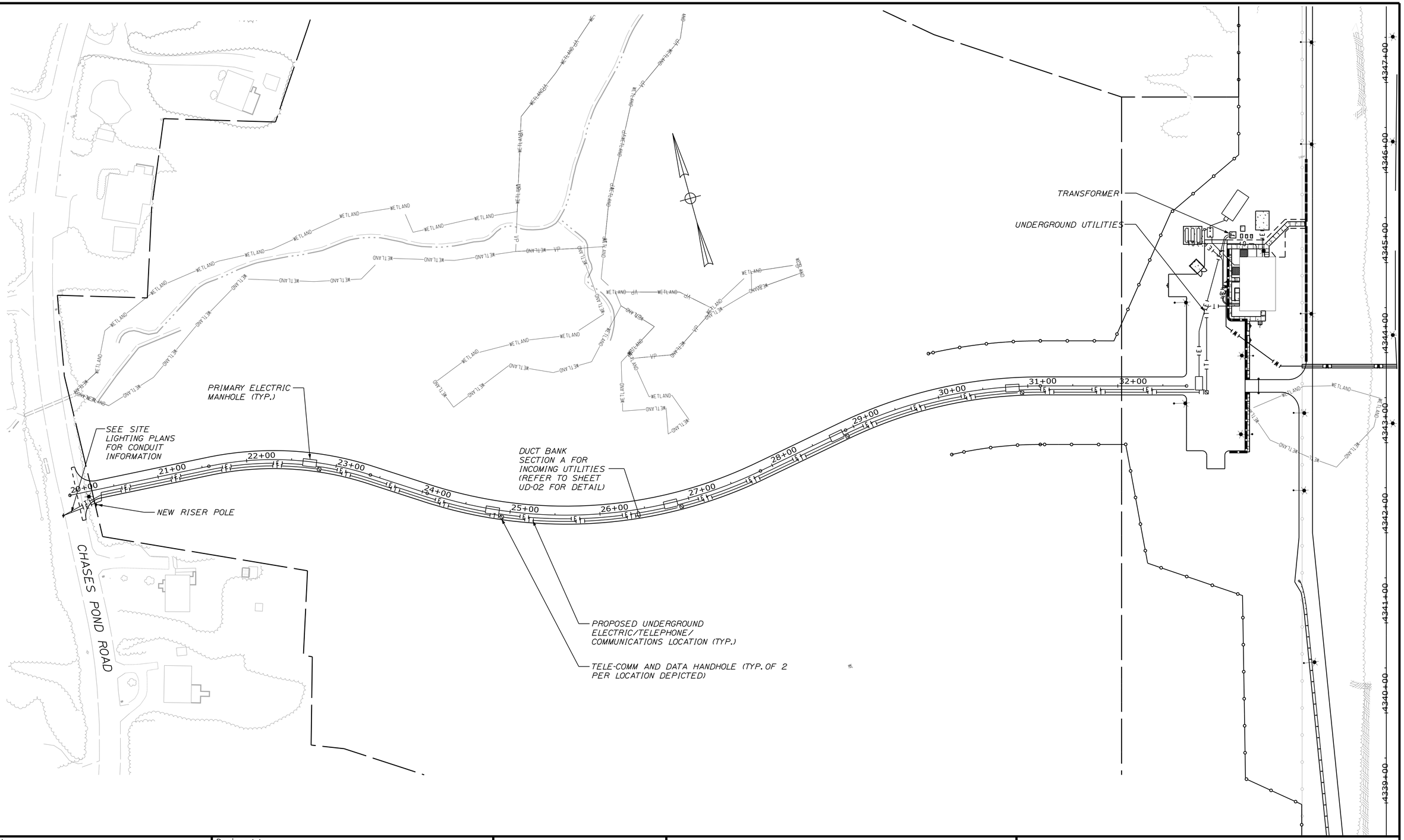
UTILITY PLAN - 2 WATER MAIN

SHEET NUMBER: UT-02

CONTRACT: 2018.20

Filename: ...\MSTA\463_Utility Plan_02.dgn

Date:8/28/2018



Filename: ...\MSTA\464_Utility Plan_03.dgn

Scale:
50 0 50 100
Scale of Feet

No.	Revision	By	Date

Designed by:
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CONSULTANT PROJECT MANAGER: S. SAWYER, P.E.

	By	Date		By	Date
Designed	PDO	7/18	Checked	DLR	7/18
Drawn	DB	7/18	In Charge of	---	--/--

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

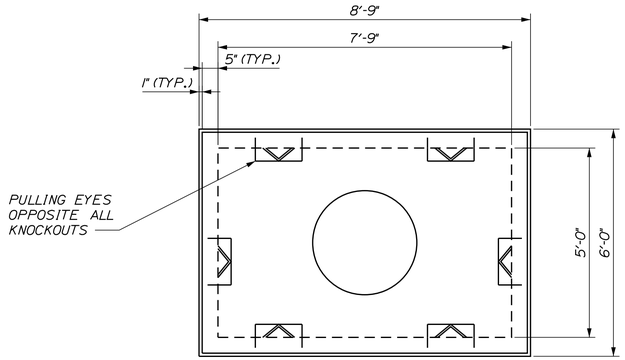
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

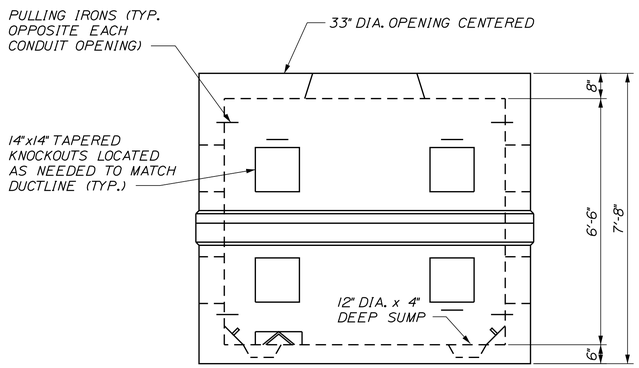
UTILITY PLAN - 3
ACCESS ROAD

SHEET NUMBER: UT-03

CONTRACT: 2018.20



PLAN VIEW

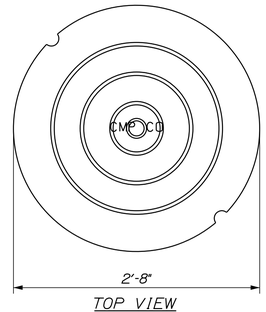


SIDE VIEW

NOTES:

1. VAULT SHALL BE DESIGNED TO WITHSTAND H20 WHEEL LOADING WITH 6 INCHES OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH THE STRENGTH REQUIREMENTS OF NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE LICENSED PROFESSIONAL ENGINEER UPON REQUEST.
2. JOINTS SEALED WITH ASPHALT.
3. MOUNTINGS FOR CABLE RACKS ETC. CAST IN WALL BY FURTHER PLANS OR FIELD LOCATED.
4. MANHOLE SHALL BE SET ON A SUITABLE GRAVEL BASE.
5. CABLES ARE TO BE RACKED ALONG ONE WALL ONLY.
6. CONDUIT ENTERING CONCRETE STRUCTURES SHALL BE SET BACK FROM THE INSIDE WALL 2 INCHES AND THE SPACE WITHIN THE KNOCKOUT SURROUNDING THE CONDUITS COMPLETELY FILLED WITH MORTAR TO PREVENT SOIL FROM ENTERING STRUCTURE. INSIDE THE STRUCTURE THE MORTAR SHALL BE FINISHED AND BEVELED FROM CONDUIT ENDS TO THE INSIDER WALL FACE TO COVER AND SMOOTH THE EDGES OF THE KNOCKOUT.

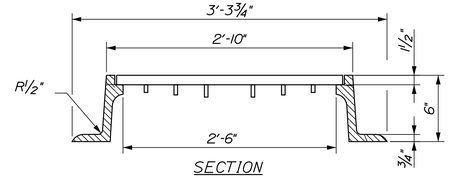
ELECTRICAL MANHOLE DETAIL
N.T.S.



DIAMOND COVER DESIGN SEAT MACHINED ON FRAME AND COVER WEIGHT=553LBS.

2'-8"

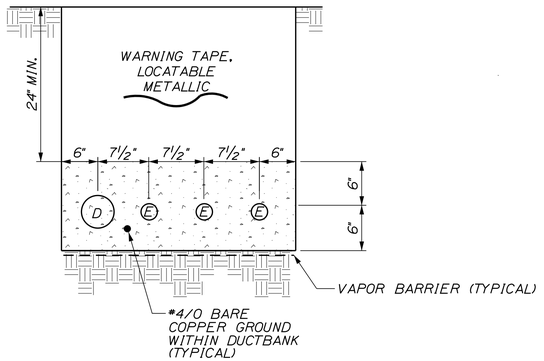
TOP VIEW



SECTION

BRICK AS REQUIRED TO REACH FINISHED GRADE

ELECTRICAL MANHOLE COVER DETAIL
N.T.S.

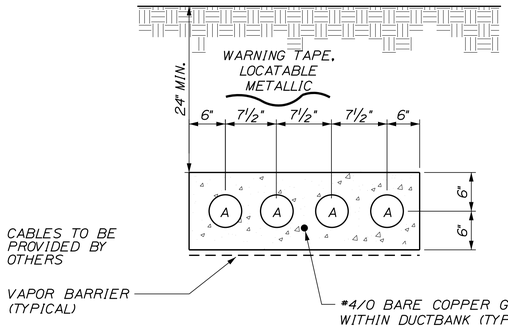


D=4" PVC SCHEDULE 40 (GENERATOR)

E=2" PVC SCHEDULE 40 (GENERATOR)

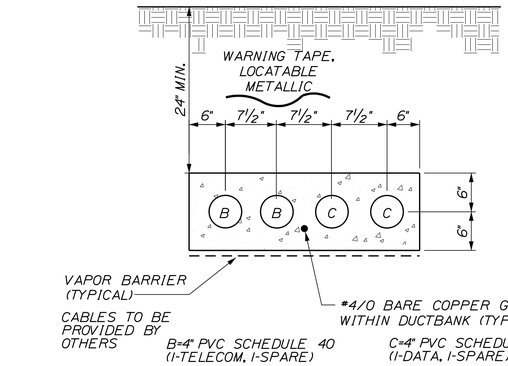
CABLES TO BE PROVIDED BY OTHERS

UTILITY CONDUIT SECTION D - GENERATOR FEED
N.T.S.



A=5" PVC SCHEDULE 40 (2-CMP FEED, 2-SPARE)

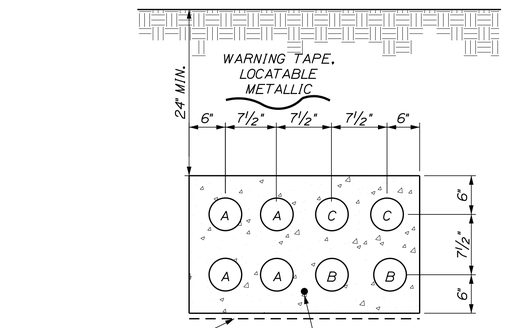
UTILITY DUCT BANK SECTION C - PARKING LOT
N.T.S.



B=4" PVC SCHEDULE 40 (1-TELECOM, 1-SPARE)

C=4" PVC SCHEDULE 40 (1-DATA, 1-SPARE)

UTILITY DUCT BANK SECTION B - PARKING LOT
N.T.S.



A=5" PVC SCHEDULE 40 (2-CMP FEED, 2-SPARE)

B=4" PVC SCHEDULE 40 (1-TELECOM, 1-SPARE)

C=4" PVC SCHEDULE 40 (1-DATA, 1-SPARE)

UTILITY DUCT BANK SECTION A - ACCESS ROAD
N.T.S.

Filename: ...\465_Utility Details_01.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: SEBAGO TECHNICS
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CONSULTANT PROJECT MANAGER: S. SAWYER, P.E.

	By	Date		By	Date
Designed	DLR	7/18	Checked	DLR	7/18
Drawn	DB	7/18	In Charge of	---	--/--

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TEL (207) 200-2100

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

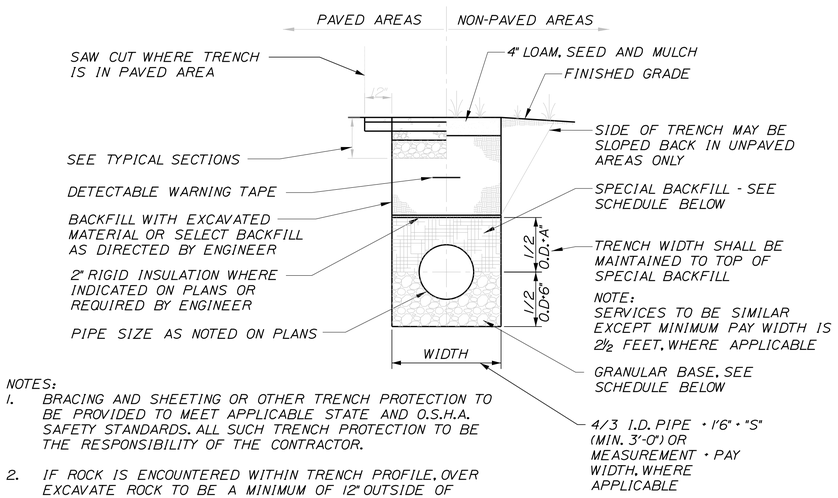
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

UTILITY DETAILS

SHEET NUMBER: UD-01

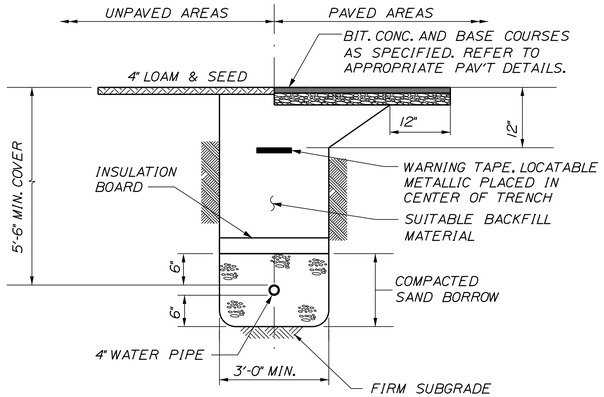
CONTRACT: 2018.20



NOTES:
1. BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. IF ROCK IS ENCOUNTERED WITHIN TRENCH PROFILE, OVER EXCAVATE ROCK TO BE A MINIMUM OF 12" OUTSIDE OF TRENCH PROFILE.

SCHEDULE OF BACKFILL				
TYPE OF PIPE	BEDDING MATERIAL	SPECIAL BACKFILL	SPECIAL BACKFILL COVER 'A' (IN)	SELECT BACKFILL
PVC	¾" CRUSHED STONE	GRANULAR AASHTO M145 A-3 OR BETTER	6	GRANULAR AASHTO M145 A-3 OR BETTER

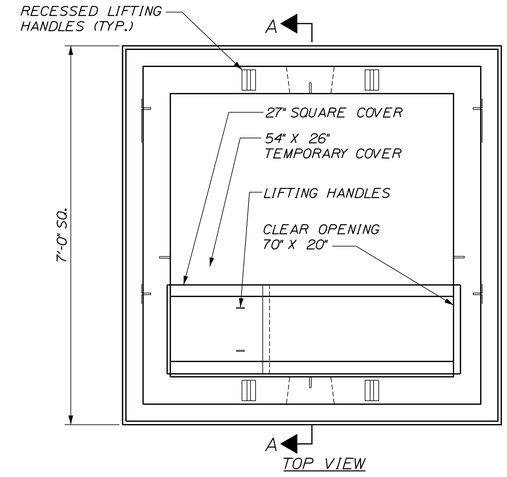
TYPICAL SEWER TRENCH SECTION
NOT TO SCALE



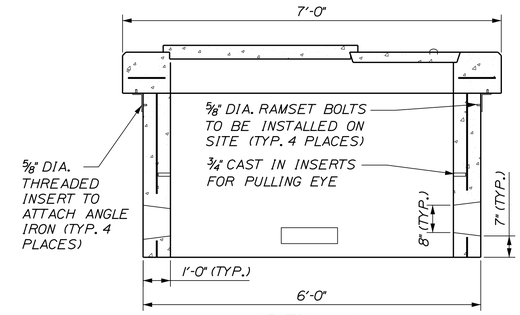
SECTION

WATER SERVICE NOTES:
1. PROVIDE 7 FOOT COVER WHERE LOCATED UNDER PAVEMENT. IF BEDROCK IS ENCOUNTERED, PROVIDE MINIMUM 1 FOOT SEPARATION AND INSULATE AS NOTED BELOW.
2. BEDDING SHALL BE COMPACTED TO A MINIMUM 95% STANDARD PROCTOR DENSITY.
3. FILTER FABRIC SHALL BE INSTALLED AGAINST THE TRENCH WALLS IN THE HAUNCHING AND BEDDING ZONES WHEN FINE SANDS, SILT, CLAY OR ORGANIC MATERIALS ARE ENCOUNTERED AT THE TRENCH BOTTOM.
4. CONTRACTOR SHALL SHORE TRENCH SIDES WHEN REQUIRED OR AS DIRECTED BY THE RESIDENT.
5. MINIMUM 2" THICK INSULATION SHALL BE INSTALLED WHEN WATER PIPING HAS LESS THAN 5'-6" COVER. MINIMUM 4" THICK INSULATION SHALL BE INSTALLED WHEN WATER PIPING HAS LESS THAN 4'-6" COVER. WHEN CROSSING ABOVE OR BESIDE BASINS. INSULATION SHALL BE INSTALLED UTILIZING THE SAME CRITERIA.

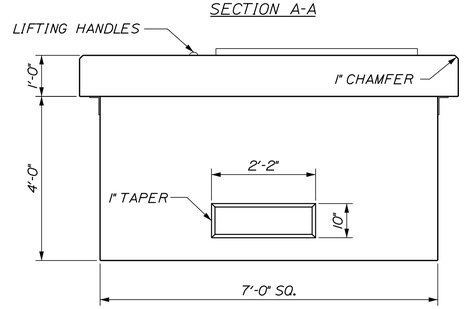
NON-SLEEVED - WATER SERVICE DETAIL
NOT TO SCALE



TOP VIEW



SECTION A-A

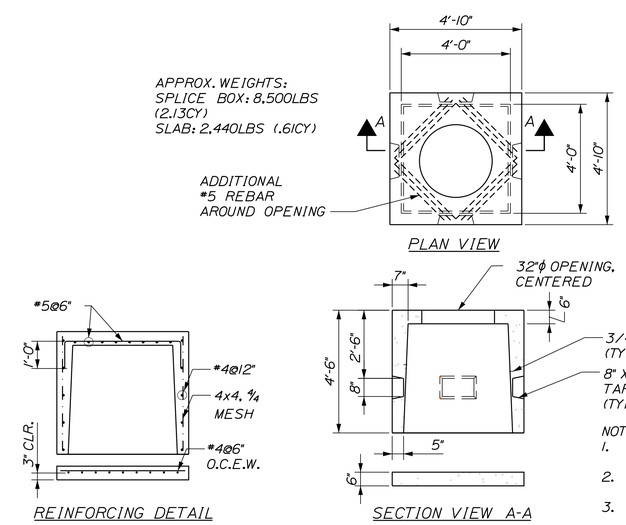


FRONT VIEW

DESIGN NOTES:
1. CONCRETE 4,000 PSI AT 28 DAYS.
2. REINFORCING #4 BARS AT 6" O.C. EACH WAY.
3. DUCT OPENINGS SHOWN ARE TYPICAL AND CAN BE MODIFIED PER REQUEST.
4. TRANSFORMER PAD SHALL MEET CENTRAL MAINE POWER COMPANY SPECIFICATIONS.
5. TEMPORARY COVER HAS (2) ⅝" THREADED LIFTING INSERTS CAST IN.

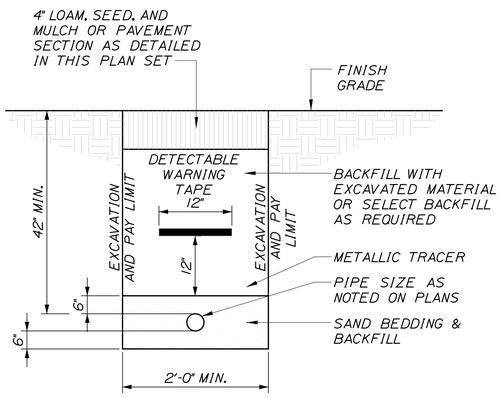
NOTE: CONFIRM TRANSFORMER PAD SIZES WITH OWNER. DIVISION 2 CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING THE TRANSFORMER PAD.

7'-0" TRANSFORMER PAD
NOT TO SCALE



NOTES:
1. CONCRETE TO BE 5,000 PSI AT 28 DAYS.
2. VAULT TO BE RATED FOR H-20 LOADING.
3. REINFORCING TO BE GRADE 60, BLACK.
4. BASE SLAB OPTIONAL.

4'x4' SPLICE BOX STOCK
NOT TO SCALE



PROPANE SERVICE TRENCH SECTION
NOT TO SCALE

Date:8/28/2018

Filename: ...\466_Utility Details_02.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: SEBAGO TECHNICS
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CONSULTANT PROJECT MANAGER: S. SAWYER, P.E.

	By	Date		By	Date
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Drawn	DB	7/18	In Charge of	---	--/--

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TEL (207) 200-2100

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

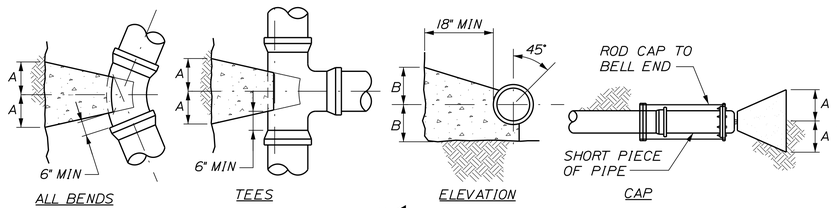
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

UTILITY DETAILS

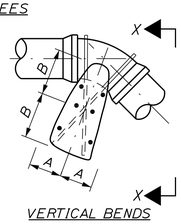
SHEET NUMBER: UD-02

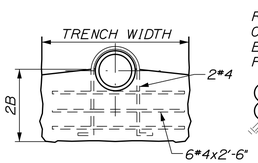
CONTRACT: 2018.20

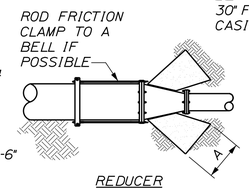


NOTES

1. THRUST BLOCK SIZES SHOWN ARE BASED ON A SOIL BEARING CAPACITY OF 2000 PSF AND TEST PRESSURES OF 180 PSI.
2. ALL BENDS, TEES, WYES, HYDS. & DEAD ENDS SHALL BE BRACED WITH CONCRETE THRUST BLOCKS.
3. RODDING MAY BE REQUIRED

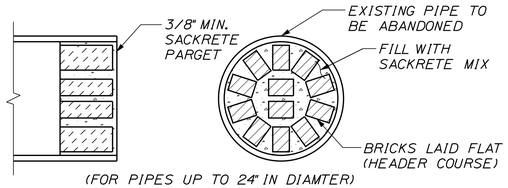




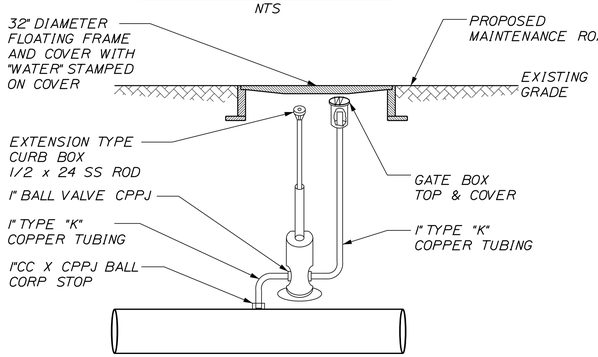


PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND		11 1/4° BEND		TEE		VERTICAL BEND (DOWN)		PLUG		REDUCER	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
4"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	24"	21"	12"	12"	12"	12"
6"	15"	12"	12"	9"	9"	6"	6"	6"	12"	12"	24"	21"	12"	12"	12"	12"
8"	20"	15"	14"	12"	9"	9"	9"	6"	18"	12"	33"	24"	14"	14"	18"	12"
10"	21"	21"	18"	15"	15"	9"	9"	9"	20"	18"	40"	27"	16"	16"	20"	18"
12"	27"	24"	23"	15"	15"	12"	12"	9"	25"	18"	48"	30"	18"	18"	25"	18"
16"	37"	30"	30"	21"	21"	15"	13"	12"	32"	24"	57"	36"	22"	22"	32"	24"

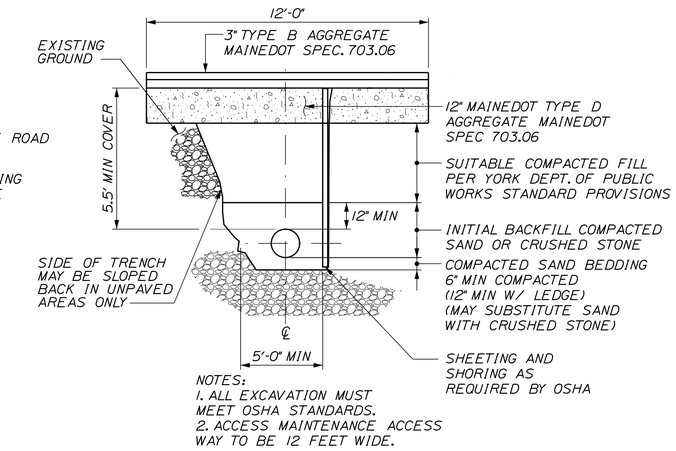
WATER MAIN THRUST BLOCK DETAILS
NOT TO SCALE



ABANDONED PIPE PLUG
NTS

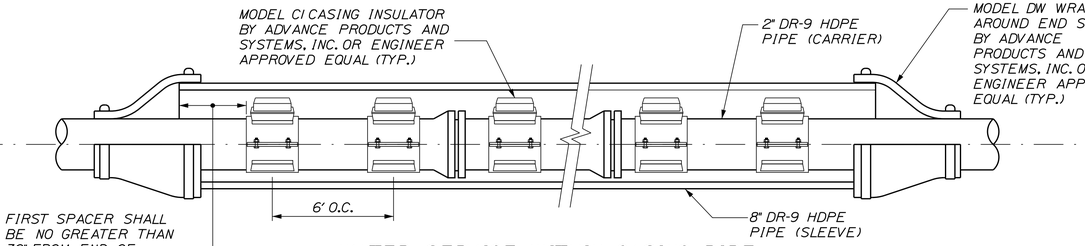


1" AIR RELEASE
NOT TO SCALE

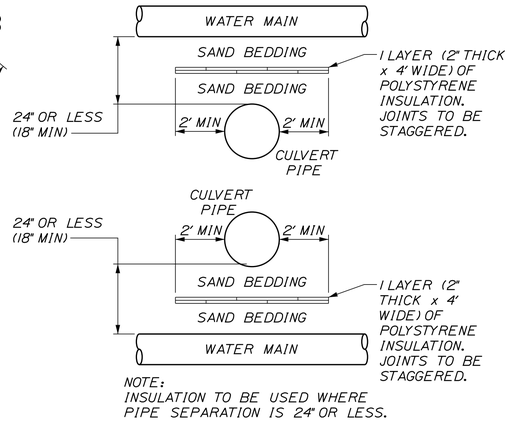


NOTES:
1. ALL EXCAVATION MUST MEET OSHA STANDARDS.
2. ACCESS MAINTENANCE ACCESS WAY TO BE 12 FEET WIDE.

WATER MAIN TRENCH DETAIL
NOT TO SCALE

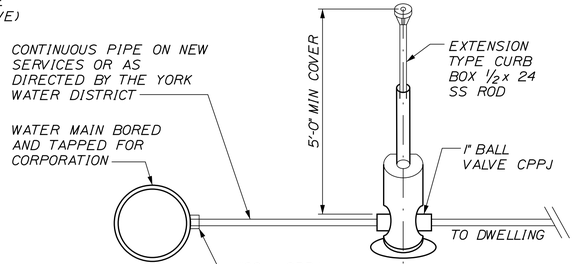


WATER SERVICE WITHIN CASING PIPE
NOT TO SCALE



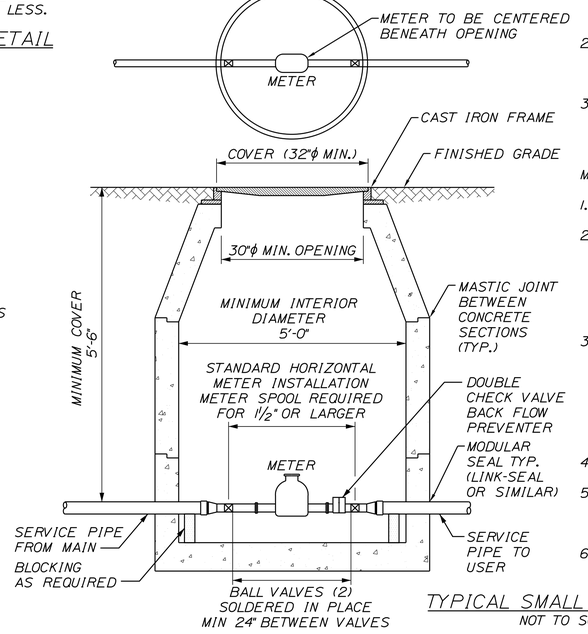
NOTE:
INSULATION TO BE USED WHERE PIPE SEPARATION IS 24" OR LESS.

CULVERT CROSSING DETAIL
NOT TO SCALE



NOTES:
ALL BRASS SHALL BE "NO-LEAD BRASS" AS DESCRIBED IN THE YORK WATER DISTRICT SPECIAL PROVISIONS.

WATER SERVICE CONNECTION
NOT TO SCALE



TYPICAL SMALL METER PIT
NOT TO SCALE

METER NOTES

1. ONLY WATER DISTRICT PERSONNEL ARE AUTHORIZED TO INSTALL WATER METERS. WATER DISTRICT PERSONNEL ARE ADDITIONALLY AUTHORIZED TO OPERATE METER VALVES AS NEEDED FOR INSTALLATION AND MAINTENANCE.
2. GOVERNING WATER DISTRICT WILL SUPPLY THE WATER METER. ALL OTHER FITTINGS, INCLUDING A METER RESETTER FOR 1" OR SMALLER METERS, SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER.
3. CONTRACTOR WILL INSTALL TWO BALL VALVES AT LEAST 24" APART FOR METER INSTALLATION, ALLOWING FOR THE WATER METER TO BE CENTERED UNDER THE METER PIT OPENING. THE BALL VALVES SHALL BE SOLDERED IN PLACE.

METER PIT AND COVER NOTES

1. THE METER PIT SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.
2. THE METER PIT SHALL BE MADE OF PRECAST CONCRETE OF SUFFICIENT SIZE TO PROVIDE 5.5' MINIMUM GROUND COVER FROM FINISHED GRADE TO THE TOP OF THE SERVICE PIPE. ANY SEAMS BETWEEN CONCRETE SECTIONS SHALL BE SEALED WITH MASTIC JOINT. ALL OPENINGS IN THE CONCRETE FOR SERVICE PIPING SHALL BE SEALED WITH A MODULAR SEAL (LINK-SEAL OR SIMILAR).
3. THE INTERIOR OF THE METER PIT SHALL BE A MINIMUM OF 5' IN DIAMETER, AND THE METER PIT OPENING SHALL BE A MINIMUM OF 30" IN DIAMETER WITH A CAST IRON FRAME. THE METER PIT COVER SHALL BE CAST IRON, 32" MINIMUM IN DIAMETER, AND BE EITHER PERMANENTLY LABELED "WATER" OR HAVE NO LABEL. ANY STEEL PLATE MATERIAL SHALL BE COATED WITH A RUST INHIBITOR PAINT.
4. WALL-MOUNTED LADDER RUNGS SHALL NOT BE INSTALLED WITHIN METER PIT.
5. ALL PIPING INSIDE AND EXTENDING THROUGH THE METER PIT SHALL BE MADE OF COPPER, WITH A MINIMUM OF 6" CLEARANCE FROM THE METER PIT FLOOR. BLOCKING SHALL BE INSTALLED AS REQUIRED TO SUPPORT THE PIPE.
6. CONTRACTOR SHALL ENSURE THE METER PIT AND COVER ARE PROPERLY RATED FOR TRAFFIC FLOW, IF APPLICABLE.

Date:8/28/2018

Filename: ...\467_Water Main Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: SEBAGO TECHNICS
WWW.SEBAGOTECHNICS.COM
CONSULTANT PROJECT MANAGER: S. SAWYER, P.E.

	By	Date		By	Date
Designed	DLR	7/18	Checked	DLR	7/18
Drawn	DB	7/18	In Charge of	---	--/--

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TEL (207) 200-2100

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

WATER MAIN DETAILS

SHEET NUMBER: UT-05

CONTRACT: 2018.20

MAINE STATE PLUMBING CODE/UPC

OCCUPANCY CLASSIFICATION:	BUSINESS USE
OCCUPANCY AREA:	4,800 SF NET (ADMIN ONLY)
OCCUPANCY LOAD:	34 OCCUPANTS
OFFICE:	34 OCCUPANTS (17 MALE/17 FEMALE)

FIXTURES	TOILETS	URINALS	LAVS
MEN'S TOILET ROOM	1	1	1
WOMEN'S TOILET ROOM	1	0	1
DRINKING FOUNTAIN:	1 REQUIRED PER 150 OCCUPANTS - BEVERAGE STATION		

NFPA 101 LIFE SAFETY CODE - 2015 EDITION

BUILDING CLASSIFICATION:	BUSINESS - (9,000 SF)
CONSTRUCTION TYPE:	V/000
HAZARD CLASSIFICATION:	ORDINARY HAZARD
OCCUPANT LOADS:	2700 SF OFFICE @ 100 SF/OCCUPANT = 27 OCCUPANTS 2100 SF STORAGE @ 500 SF/OCCUPANT = 5 OCCUPANTS
JANITOR, MECH, STOR RATING:	1 HOUR IF OVER 100 SF
MINIMUM HEADROOM:	7'-6" AT OCCUPIED AREAS

BUILDING USES	BUSINESS
MAX. ALLOWABLE TRAVEL DISTANCE:	150'
MAX. ALLOWABLE COMMON PATH:	75'
MAX. DEAD END CORRIDOR LENGTH:	20'
MINIMUM EGRESS CORRIDOR WIDTH:	44" IF OVER 50 OCCUPANTS; 36" OTHERWISE
MINIMUM NUMBER OF REQUIRED EXITS	2 (1 IF EXIT DISTANCE IS LESS THAN 75')
MINIMUM EXIT ACCESS CORRIDOR RATING:	1 HR
SEPARATION OF EXITS:	0.5 DIAGONAL DISTANCE = 36'-0"
MINIMUM EGRESS DOOR WIDTH:	36"
MINIMUM STAIR WIDTH:	36" IF LESS THAN 50 OCCUPANTS
STAIR RISER:	7" MAXIMUM
STAIR TREAD:	11" MINIMUM
HANDRAILS:	34"-36" AFF WITH 12"/23" EXTENTIONS
EXIT LIGHTING:	REQUIRED
EMERGENCY LIGHTING:	NOT REQUIRED
FIRE ALARM SYSTEM:	NOT REQUIRED
FIRE SPRINKLER SYSTEM:	NOT REQUIRED
PORTABLE FIRE EXTINGUISHERS:	REQUIRED

2015 INTERNATIONAL BUILDING CODE

USE GROUP CLASSIFICATION:	BUSINESS - 9,000 SF (TOTAL PROJECT INCLUDING TOLL PLAZA AND ADMIN. BUILDING)
OCCUPANT LOADS:	100 SF/OCCUPANT @ 2700 SF BUSINESS = 27 OCCUPANTS 300 SF/OCCUPANT @ 2100 SF STORAGE = 7 OCCUPANTS
JANITOR, MECH & STORAGE ROOMS:	1 HOUR IF OVER 50 SF BUT UNDER 100 SF

BUILDING LIMITATIONS	
CONSTRUCTION TYPE:	5B
MAXIMUM HEIGHT:	2 STORY/40'
MAXIMUM AREA / FLOOR:	9,000 SF
FIRE RESISTANCE RATINGS	
STRUCTURAL FRAME:	NONE
LOAD BEARING EXTERIOR WALLS:	NONE
LOAD BEARING INTERIOR WALLS:	NONE
MECHANICAL ROOMS:	1 HOUR
EXIT CORRIDORS:	1 HOUR
ROOF/FLOOR STRUCTURE:	NONE
MINIMUM NUMBER OF EXITS:	2
MAXIMUM EXIT TRAVEL DISTANCE:	200'
MAXIMUM DEAD END CORRIDOR LENGTH:	20'
MAXIMUM COMMON TRAVEL PATH:	75'
MINIMUM CORRIDOR WIDTH:	44" (36" IF UNDER 50 OCCUPANTS)
MINIMUM STAIR WIDTH:	36" IF LESS THAN 50 OCCUPANTS
STAIR RISER:	7" MAXIMUM
STAIR TREAD:	11" MINIMUM
HANDRAILS:	34"-36" AFF WITH 12"/23" EXTENTIONS
FIRE ALARM/DETECTION SYSTEM:	NOT REQUIRED
FIRE SPRINKLER SYSTEM:	NOT REQUIRED
PORTABLE FIRE EXTINGUISHERS:	REQUIRED
EXIT LIGHTS:	REQUIRED
EMERGENCY LIGHTING:	REQUIRED
BUILDING LIVE LOADS	
OFFICES:	100 PSF
CORRIDORS:	80 PSF

Date:7/30/2018

Filename: ...\468_A-01 Architectural Plaza Code Summary Sheet .dgn

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DC	7/18	Checked	BJF	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

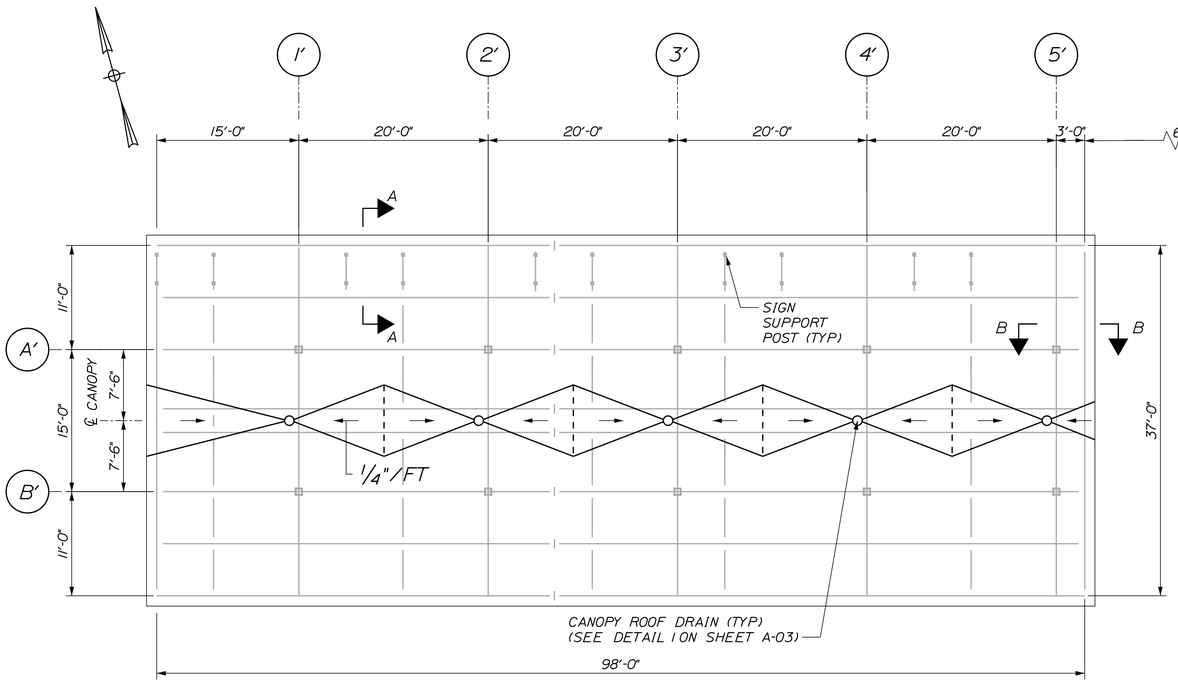
YORK TOLL PLAZA

ARCHITECTURAL PLAZA CODE SUMMARY SHEET

SHEET NUMBER: A-01

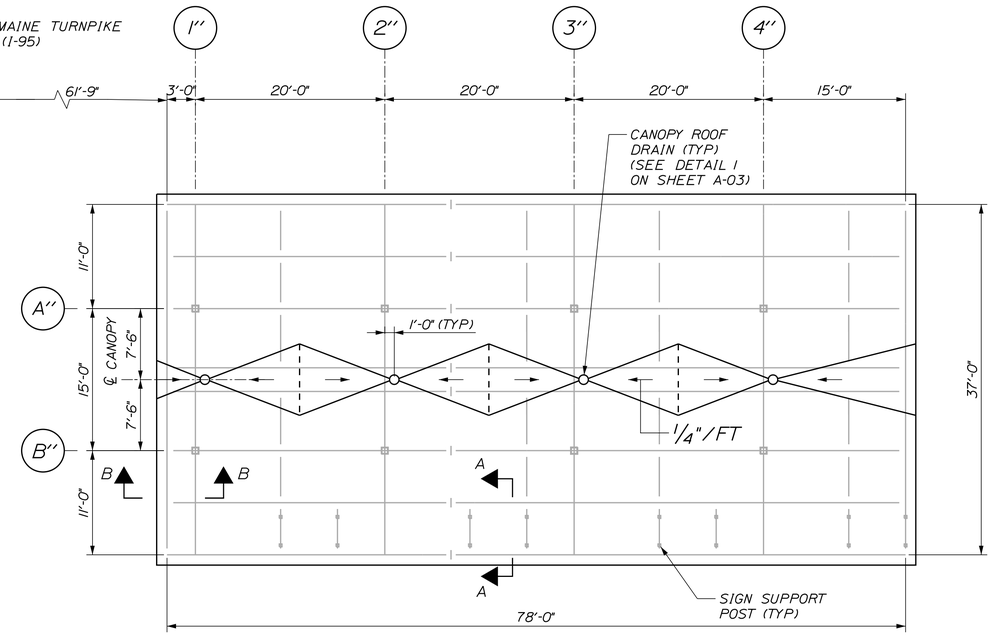
CONTRACT:2018.20

Date:7/20/2018



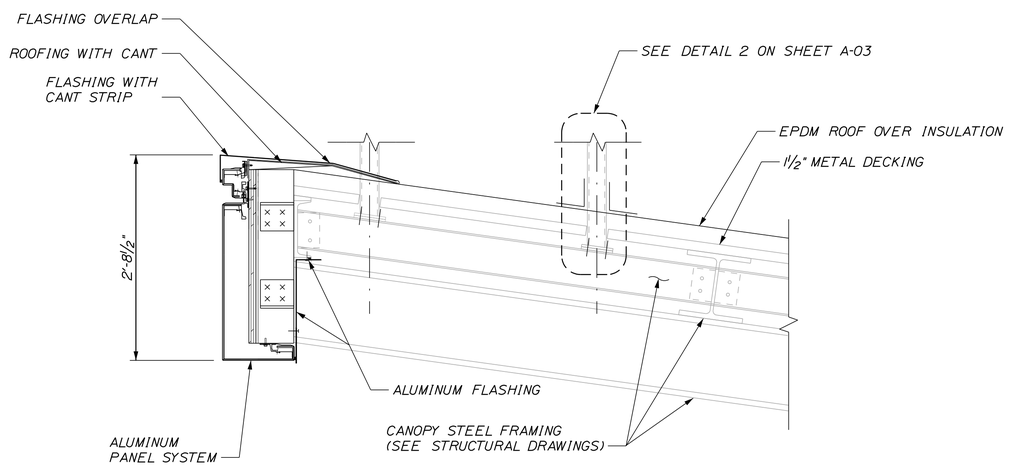
SOUTHBOUND PLAZA CANOPY - ROOF PLAN

SCALE: 1/8" = 1'-0"



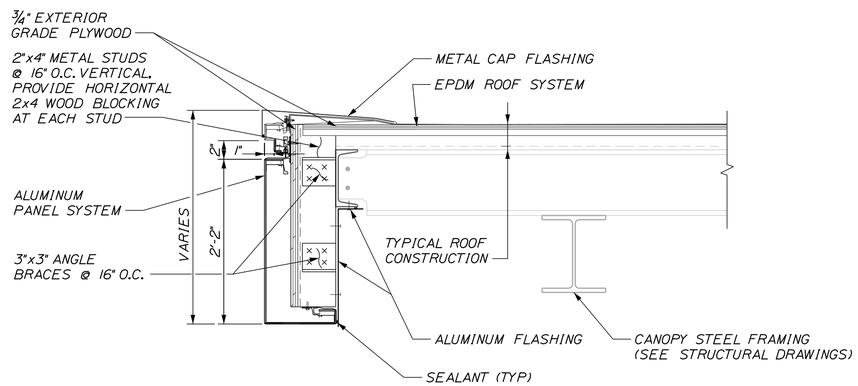
NORTHBOUND PLAZA CANOPY - ROOF FRAMING

SCALE: 1/8" = 1'-0"



SECTION A-A
TYPICAL SECTION AT SIGN SUPPORTS AND FASCIA

SCALE: 1" = 1'-0"



SECTION B-B
TYPICAL SECTION AT CANOPY ROOF ENDS

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

Filename: ...\469_A-02 Architectural Plaza Canopy Roof Plan.dgn.DGN

Scale: 8 0 8 16 — Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DC	7/18	Checked	BJF	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

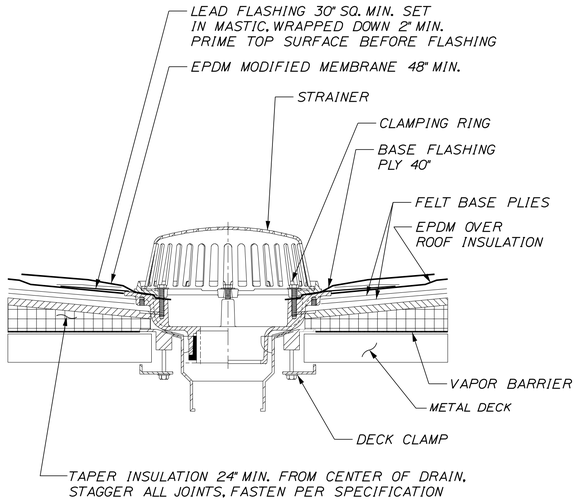
MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ARCHITECTURAL CANOPY ROOF PLAN

SHEET NUMBER: A-02

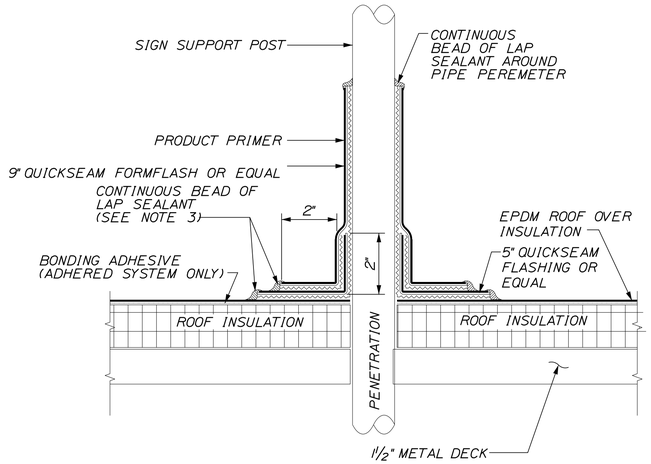
CONTRACT:2018.20



DETAIL 1

CANOPY ROOF DRAIN

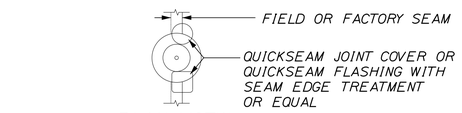
NOT TO SCALE



DETAIL 2

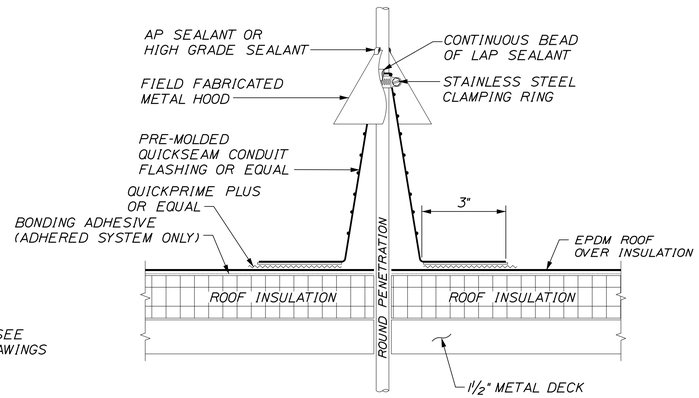
CANOPY ROOF PENETRATION AT SIGN SUPPORT POST

NOT TO SCALE



PLAN VIEW

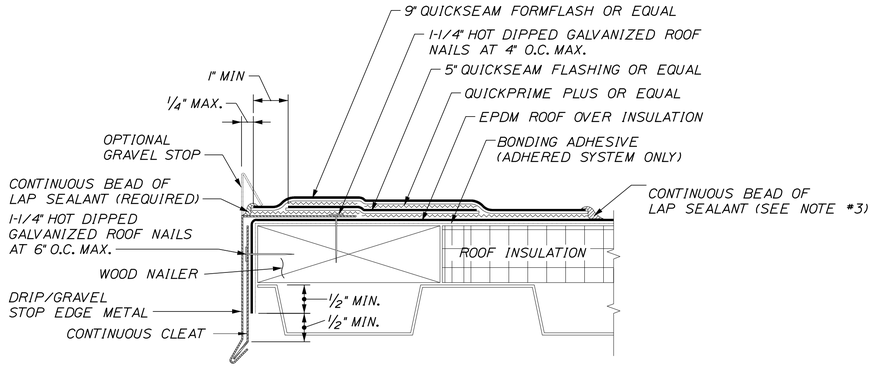
PIPE FLASHING OVER FIELD OR FACTORY SEAM



DETAIL 3

AIR TERMINAL PENETRATION AT CANOPY ROOF

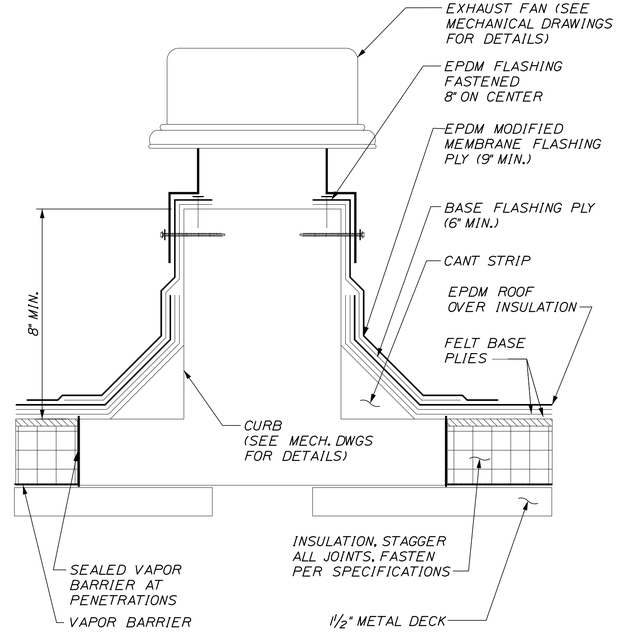
NOT TO SCALE



DETAIL 4

FASCIA AT STAIR ENCLOSURE ROOF

NOT TO SCALE



DETAIL 5

EXHAUST FAN ON TOP OF STAIR ENCLOSURE ROOF

NOT TO SCALE

NOTES:

1. 9" QUICKSEAM FORMFLASH MUST EXTEND TO WITHIN ¼" OF METAL EDGE.
2. INSTALL METAL WORK TO MANUFACTURER'S REQUIREMENTS OR SMACNA RECOMMENDATIONS. IF SHOP FABRICATED METAL EDGE IS USED IT MUST MEET ANSI/SPRI ES-1 OR A FM STANDARD.
3. LAP SEALANT IS REQUIRED ALONG ENTIRE UPSLOPE EDGE OF QUICKSEAM FLASHING WHEN ROOF SLOPE IS 1" PER FOOT OR GREATER.
4. WOOD NAILER MUST BE INSTALLED TO MEET IBC REQUIREMENTS OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.
5. FLANGE OF METAL MUST BE FULLY SUPPORTED BY WOOD AND TERMINATED AT LEAST ½" FROM EDGE OF WOOD.

Date:7/20/2018

Filename: ...\470_A-03 ArchitecturalPlaza Roof Details.dgn

Scale:

No.	Revision	By	Date

Designed by:

JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DC	7/18	Checked	BJF	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

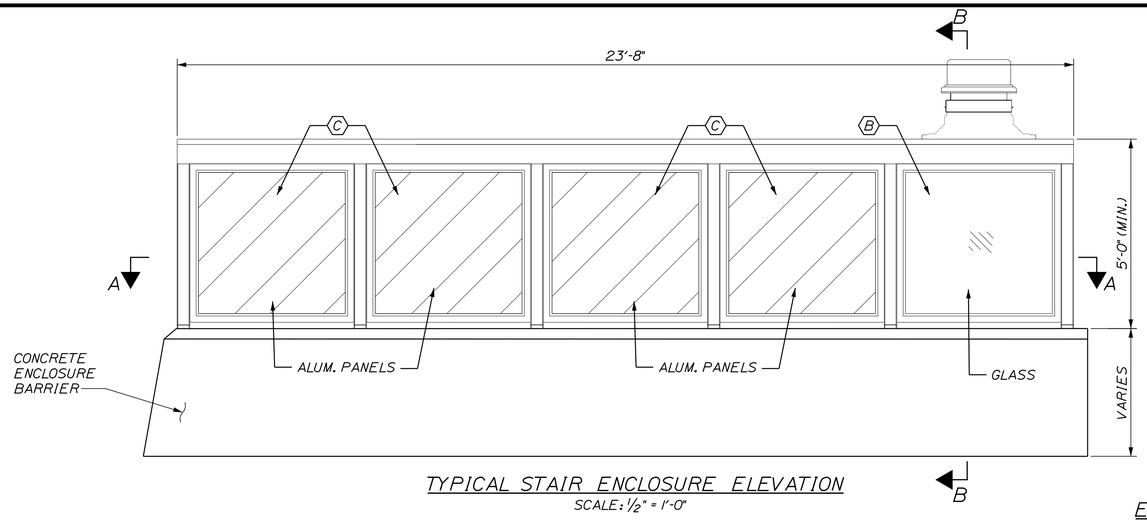
YORK TOLL PLAZA

ARCHITECTURAL ROOF DETAILS

SHEET NUMBER: A-03

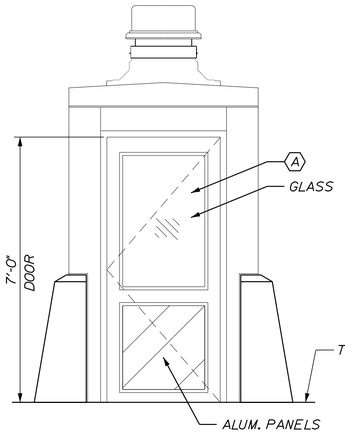
CONTRACT:2018.20

Date:7/20/2018



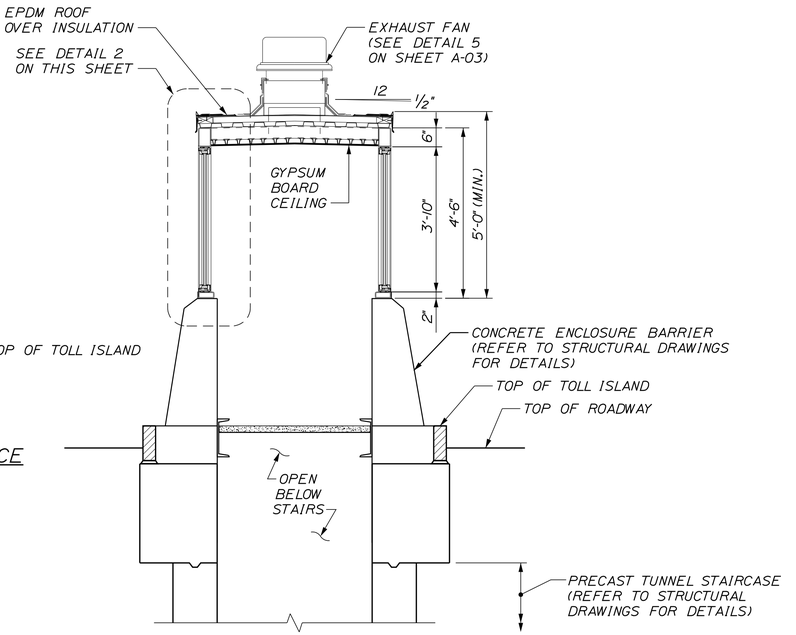
TYPICAL STAIR ENCLOSURE ELEVATION

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



ELEVATION AT ENCLOSURE ENTRANCE

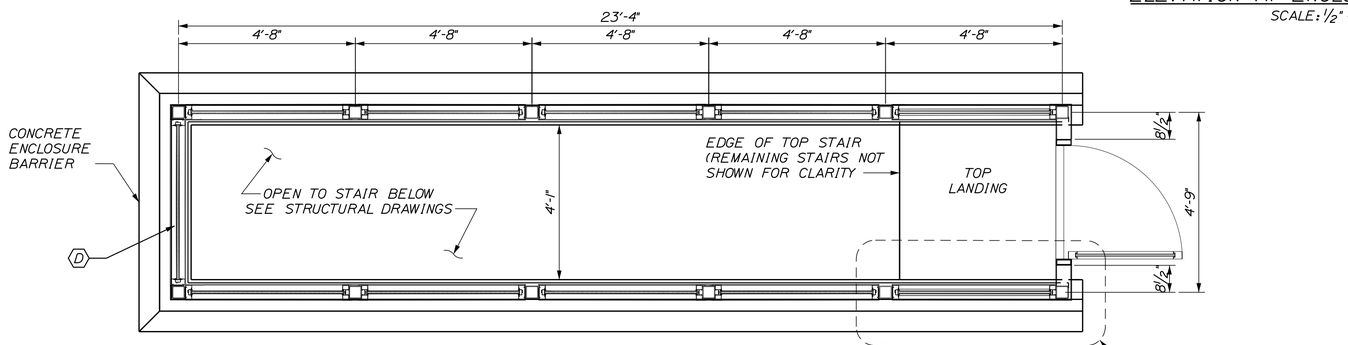
SCALE: 1/2" = 1'-0"



SECTION B-B

TYPICAL STAIR ENCLOSURE SECTION

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



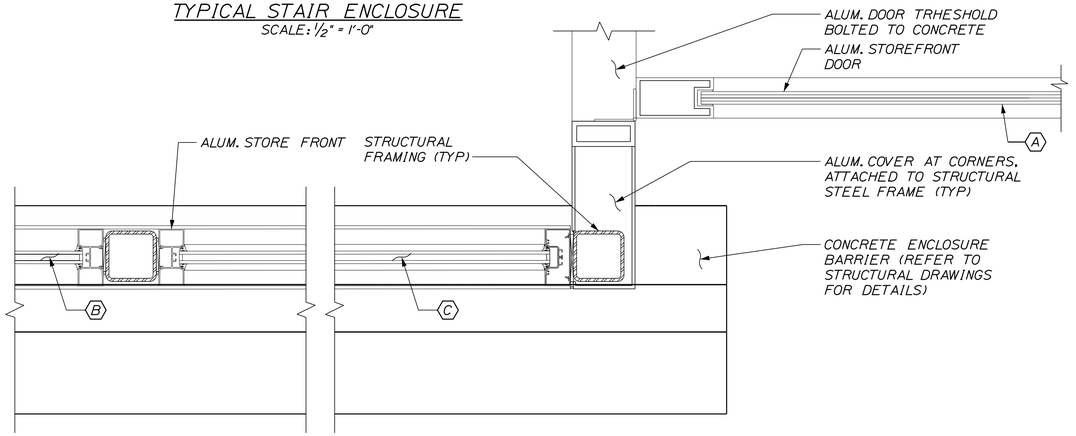
SECTION A-A

TYPICAL STAIR ENCLOSURE

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

SYMBOL LEGEND

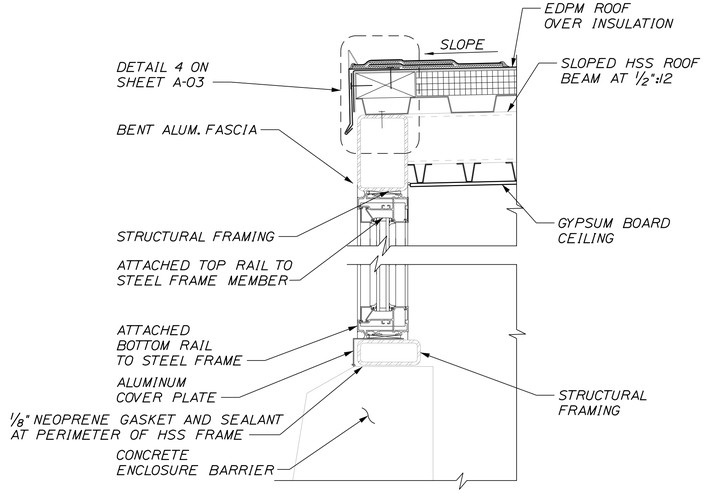
- (A) SEE DOOR SCHEDULE
- (B) SEE WINDOW SCHEDULE
- (C) SEE WINDOW SCHEDULE
- (D) SEE WINDOW SCHEDULE



DETAIL 1

TYPICAL STAIR ENCLOSURE DETAIL AT ENTRANCE

SCALE 1"=6"



DETAIL 2

TYPICAL STAIR ENCLOSURE DETAIL

SCALE 1"=6"

Filename: ...\471_A-04 Architectural Plaza Stair Enclosure Details.dgn

Scale: AS NOTED

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DC	7/18	Checked	BJF	7/18
Drawn	DC	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ARCHITECTURAL
STAIR ENCLOSURE DETAILS

SHEET NUMBER: A-04

CONTRACT:2018.20

DOOR SCHEDULE

DOORS										FRAMES					THRESHOLDS		
QUANTITY	TYPE	SIZE (W X H)	THICKNESS	INSULATION	HARDWARE	FRAME	GLASS TYPE	GLASS SIZE	REMARKS	TYPE	FRAME	PROFILE	DETAILS HEAD	DETAILS JAMB	MATERIAL	DETAILS SILL	DETAILS FIN
4	I	36x84	1¾"	NO	HW-I	NO	TEMP/TH	26"x40.5"	SOLID BOTTOM PANEL	A	N/A	AL	-	-	AL	ADA	-

WINDOW SCHEDULE

QUANTITY	NUMBER	TYPE	MATERIAL	MANUFACTURER	MODEL	NOMINAL SIZE WIDTH	NOMINAL SIZE HIEGHT	HEAD	JAMB	SILL	MUNT	MULL	REMARKS
-	B	FIXED	GLASS	PILKINGTON OR EQUAL	-	4'-4"	3'-10"	-	-	-	-	-	SEE SPECIFICATION 08800, TYPE "A"
-	C	FIXED	ALUMINUM	CITADEL OR EQUAL	-	4'-4"	3'-10"	-	-	-	-	-	SEE SPECIFICATION 08800, TYPE "F"
-	D	FIXED	ALUMINUM	CITADEL OR EQUAL	-	4'-5"	3'-10"	-	-	-	-	-	SEE SPECIFICATION 08800, TYPE "F"

ABBREVIATIONS:

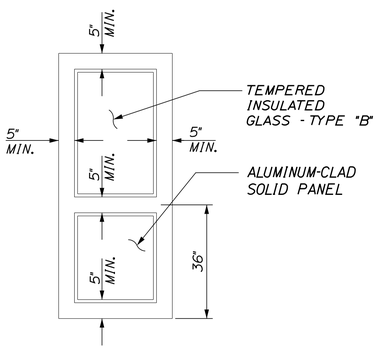
AL	ALUMINUM
CST	CASEMENT
DH	DOUBLE HUNG
DW	DRYWALL
(E)	EXISTING
EMHO	ELECTRO MAGNITIC HOLD OPENER
FIX	FIXED SASH
GL	GLASS
HM	HOLLOW METAL
INSUL	INSULATED
MTL	METAL
SS	STAINLESS STEEL
TEMP	TEMPERED
TB	THERMAL BREAK
TH	THERMAL INSULATED
TS	TRANSITION STRIP
V	VINYL
W	WIRE
WD	WOOD
WG	WIRE GLASS
W/	WITH

HW-1: HARDWARE GROUP NO. 01
(EXTERIOR SINGLE WITH ELECTRIC MORTISE PANIC HARDWARE X CARD READER)

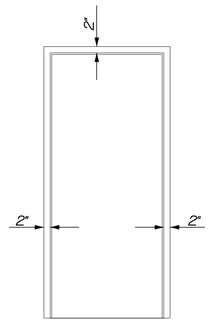
PROVIDE EACH SINGLE DOOR WITH THE FOLLOWING:

3	EA	HINGE
1	EA	POWER TRANSFER
1	EA	ELEC. PANIC HARDWARE
1	EA	MORTISE CYLINDER
1	EA	OVERHEAD STOP
1	EA	SURFACE CLOSER
1	EA	KICK PLATE
1	EA	SEALS
1	EA	DOOR SWEEP - BRUSH
1	EA	THRESHOLD
1	EA	DRIP CAP
1	EA	DOOR CONTACT
1	EA	POWER SUPPLY
1	EA	CARD READER (SPECIFIED ELSEWHERE)

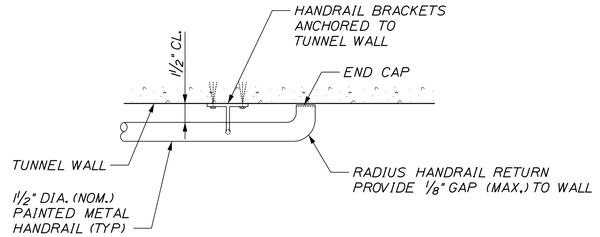
NOTES:
1. ALL WIRING AND CONNECTIONS BY ELECTRICAL TRADE.
2. OPERATIONAL DESCRIPTION: IMMEDIATE EGRESS ALWAYS ALLOWED. ACCESS BY KEY OR BY CARD READER. CARD READER WILL UNLOCK TRIM TO ALLOW ACCESS. REQUEST TO EXIT AND DOOR CONTACT CONNECTED TO BUILDING SECURITY SYSTEM.



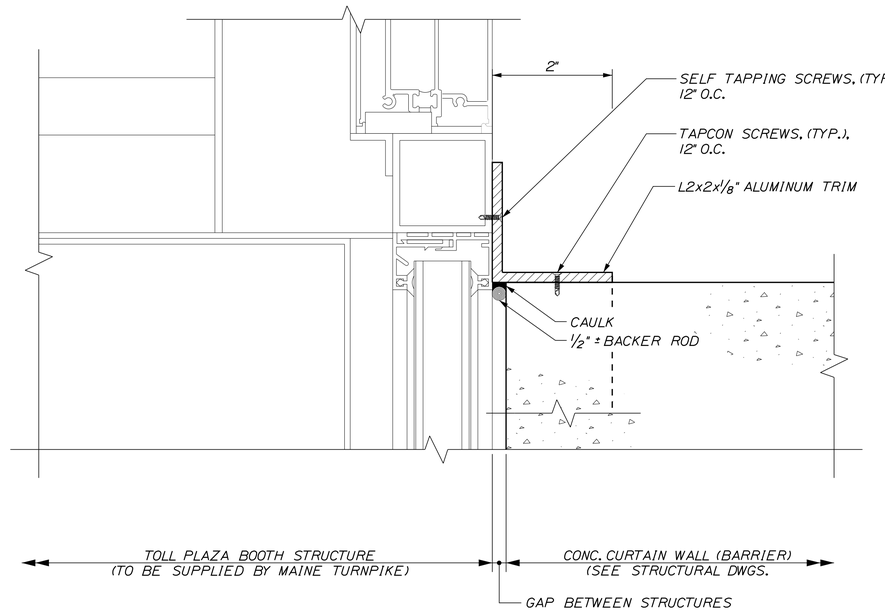
EXTERIOR
(A1) WIDE STILE DOOR
2" x4½" (NOM.)



(A) ALUMINUM FRAME
2" x4½" (NOM.)



TYPICAL METAL HANDRAIL DETAIL
NOT TO SCALE



NOTES:
1. AT TOLL BOOTH DOOR OPENING EXTEND ALUMINUM FLASHING TO CONCRETE TOP OF CONCRETE ISLAND WITH FINISHED EDGE (¼" CLEAR FROM CONCRETE).
2. CONTRACTOR TO COORDINATE WITH TOLL BOOTH MANUFACTURER TO PRE-DRILL HOLES AS REQUIRED FOR FLASHING.

TOLL BOOTH/BARRIER ENCLOSURE DETAIL
NOT TO SCALE

Date:8/30/2018

Filename: ...\472_A-05 Stair Enclosure Details and Schedules.dgn

Scale:
Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DC	07/18	Checked	BJF	07/18
Drawn	DC	07/18	In Charge of	TWM	07/18

JACOBS ENGINEERING GROUP
120 ST. JAMES AVENUE
BOSTON, MA. 02116
TEL (617) 242-9222
FAX (617) 242-9824

MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

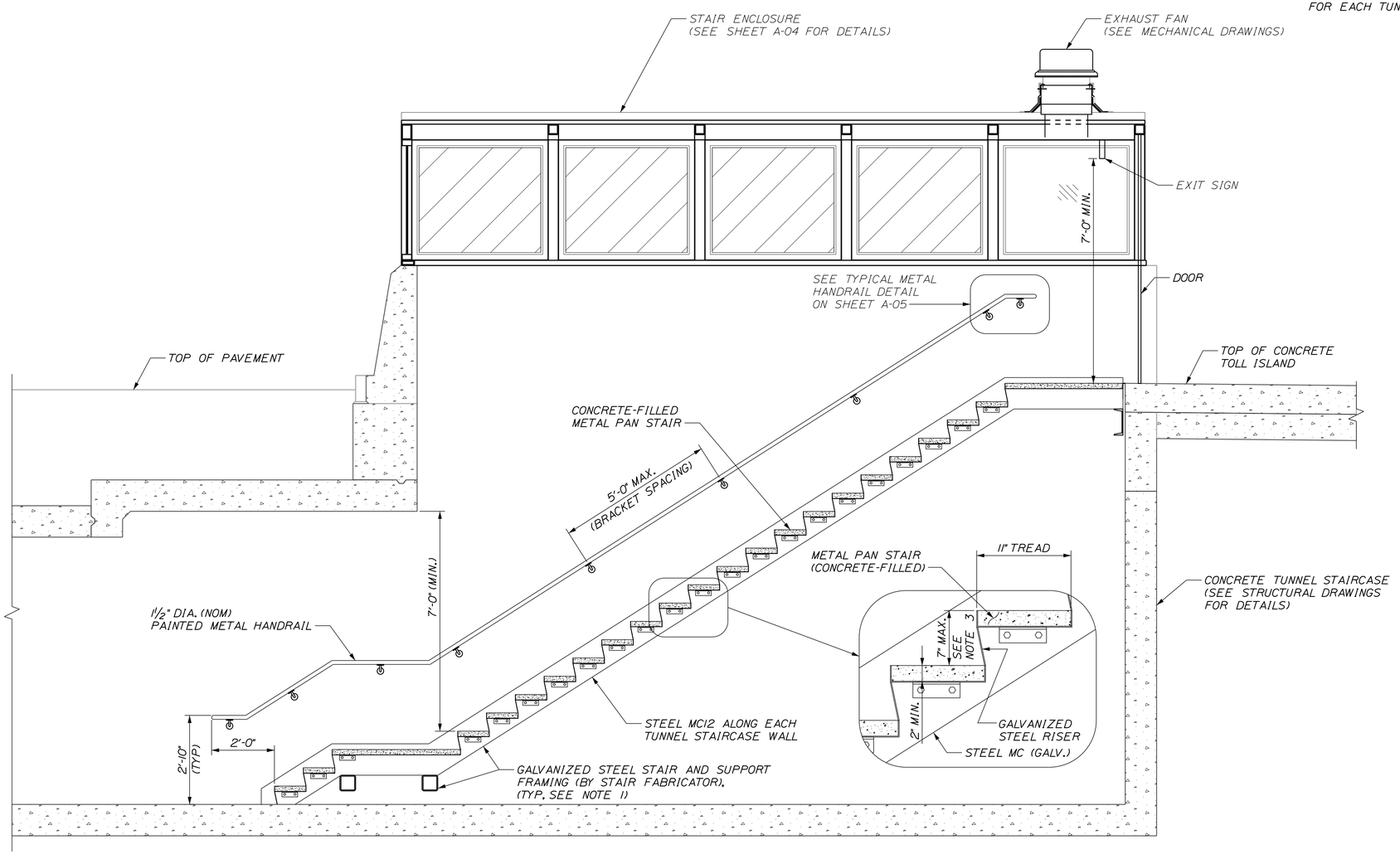
YORK TOLL PLAZA

STAIR ENCLOSURE DETAILS & SCHEDULES

SHEET NUMBER: A-05

CONTRACT:2018.20

NOTES:
1. STEEL STAIR AND SUPPORT FRAMING SHALL BE PROVIDED BY THE STAIR FABRICATOR. REFER TO THE STRUCTURAL DRAWINGS AND THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. STEEL STAIR FRAMING AND SUPPORTS SHALL BE HOT-DIPPED GALVANIZED. HANDRAILS AND SUPPORT BRACKETS SHALL BE PAINTED PER THE SPECIFICATION SECTION 506.
3. FOR NUMBER OF RISERS, RISER HEIGHTS, AND ELEVATIONS FOR EACH TUNNEL STAIRCASE SEE STRUCTURAL DRAWINGS.



TYPICAL SECTION THROUGH TUNNEL STAIRCASES
SCALE: 1/2" = 1'-0"

Date:7/20/2018

Filename: ...\473_A-06_Architectural Plaza Typical Tunnel Staircase Section.dgn

Scale: 16 0 16 32 Scale of Feet

No.	Revision	By	Date

Designed by: JACOBS®

CONSULTANT PROJECT MANAGER: T. MORIN

	By	Date		By	Date
Designed	DC	7/18	Checked	BJF	7/18
Drawn	EFG	7/18	In Charge of	TWM	7/18

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: R. NORWOOD

YORK TOLL PLAZA

ARCHITECTURAL
TYPICAL TUNNEL STAIRCASE SECTION

SHEET NUMBER: A-06

CONTRACT:2018.20

ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
℄	CENTER LINE
~	DIAMETER OR ROUND
#	POUND OR NUMBER
ACOUS	ACOUSTICAL
A.F.F.	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
C.J.	CONTROL JOINT
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CASED OPENING
CONC	CONCRETE
CONSTR	CONSTRUCTION
CONT.	CONTINUOUS
CONTR	CONTRACTOR
CT	CERAMIC TILE
CU. FT.	CUBIC FEET
DET	DETAIL
D.F.	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DS	DOWNSPOUT
DWG	DRAWING
EA	EACH
EXP. JT.	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
EQPT	EQUIPMENT
EXIST.	EXISTING
EXP.	EXPANSION
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FIN. FL.	FINISH FLOOR
GA	GAUGE
GALV	GALVANIZED
GYP BD	GYPSUM BOARD
HT	HEIGHT
HM	HOLLOW METAL
HP	HANDICAPPED
ID	INSIDE DIMENSION
INSUL	INSULATION, INSULATED
INT	INTERIOR
JT	JOINT
LAM	LAMINATE(D)
LAV	LAVATORY
MAX	MAXIMUM
MECH	MECHANICAL
MEMB	MEMBER
MTL	METAL
MFR	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MO	MASONRY OPENING
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OPNG.	OPENING
OPP	OPPOSITE
OVHD	OVERHEAD
P.LAM	PLASTIC LAMINATE
PL	PLATE
PLYWD	PLYWOOD
PTD	PAINTED
R	RISER
RAD	RADIUS
REINF	REINFORCED
REQ'D	REQUIRED
SAF.	SAFETY
SAT	SUSPENDED ACOUSTICAL TILE
SH	SHELF
SHT(S)	SHEET (SHEETS)
SIM	SIMILAR
SPEC	SPECIFICATION
SS	STAINLESS STEEL
ST	STORAGE
STD	STANDARD
STL	STEEL
STRUCT.	STRUCTURAL
SUSP	SUSPENDED
TH	THICK
TOC	TOP OF CURB
TOS	TOP OF SLAB
TOW	TOP OF WALL
TR	TREAD
TS	TUBE SHAPE
TYP	TYPICAL
VCT	VINYL COMPOSITION TILE
W/	WITH
WC	WATER CLOSET
WD	WOOD

NFPA 101 LIFE SAFETY CODE - 2015 EDITION

Building Classification:	Business - (4,800 sf)
Construction Type:	V/000
Hazard Classification:	Ordinary Hazard
Occupant Loads:	2700 sf Office @ 100 sf/occupant = 27 Occupants
	2100 sf Storage @ 500 sf/occupant = 5 Occupants
Janitor, Mech, Stor Rating:	1 hour if over 100 sf
Minimum Headroom:	7'-6" at occupied areas

Building Uses	Business
Max. Allowable Travel Distance:	150'
Max. Allowable Common Path:	75'
Max. Dead End Corridor Length:	20'
Minimum Egress Corridor Width:	44" if over 50 occupants; 36" otherwise
Minimum Number of Required Exits	2 (1 if exit distance is less than 75')
Minimum Exit Access Corridor rating:	1 hr
Separation of exits:	0.5 diagonal distance = 36'-0"
Minimum Egress Door Width:	36"
Minimum Stair Width:	36" if less than 50 occupants
Stair Riser:	7" maximum
Stair Tread:	11" minimum
Handrails:	34"-36" AFF with 12"/23" extensions
Exit Lighting:	Required
Emergency Lighting:	Not Required
Fire Alarm System:	Not Required
Fire Sprinkler System:	Not Required
Portable Fire Extinguishers:	Required

2015 INTERNATIONAL BUILDING CODE

Use Group Classification:	Business - 4,800 sf
Occupant Loads:	100 sf/occupant @ 2700 sf business = 27 occupants
	300 sf/occupant @ 2100 sf storage = 7 occupants
Janitor, Mech & Storage Rooms:	1 hour if over 50 sf but under 100 sf

Building Limitations	
Construction Type:	5B
Maximum Height:	2 Story/40'
Maximum Area / Floor:	9,000 sf

Fire Resistance Ratings	
Structural Frame	None
Load Bearing Exterior Walls:	None
Load Bearing Interior Walls:	None
Mechanical Rooms:	1 hour
Exit Corridors:	1 hour
Roof/Floor Structure	None
Minimum Number of Exits:	2
Maximum Exit Travel Distance:	200'
Maximum Dead End Corridor Length:	20'
Maximum Common Travel Path:	75'
Minimum Corridor Width:	44" (36" if under 50 occupants)
Minimum Stair Width:	36" if less than 50 occupants
Stair Riser:	7" maximum
Stair Tread:	11" minimum
Handrails:	34"-36" AFF with 12"/23" extensions
Fire Alarm/Detection System:	Not Required
Fire Sprinkler System:	Not Required
Portable Fire Extinguishers:	Required
Exit Lights	Required
Emergency Lighting	Required

Building Live Loads	
Offices:	100 psf
Corridors:	80 psf

MAINE STATE PLUMBING CODE/UPC

Occupancy Classification:	Business Office w/ancillary Storage
Occupancy Area:	4,800 sf Net
Occupancy Load:	34 Occupants

Office:	34 Occupants (17 Male/17 Female) (12 max per shift - 6 Male/6 Female)		
FIXTURES	TOILETS	URINALS	LAVS
Men's Toilet Room	1	1	1
Women's Toilet Room	1	0	1
Drinking Fountain:	1 Required per 150 occupants - Beverage Station		

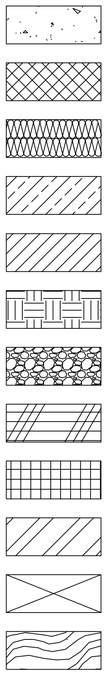
2015 INTERNATIONAL ENERGY EFFICIENCY CODE (IECC)

MUBEC (Maine Uniform Building Energy Code)

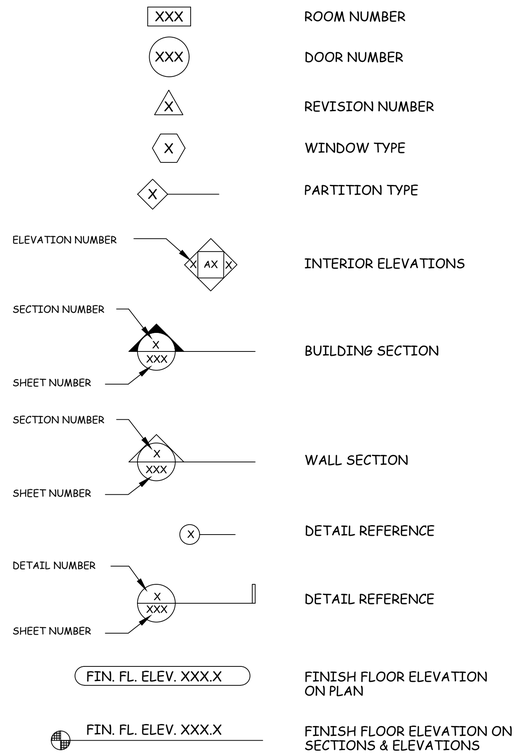
MINIMUM INSULATION VALUES
Per 2009 IECC; Table 502.1.2, 502.2(1) and 502.3

ZONE 6A	R-VALUE	U-FACTOR	SHGC
Exterior wall	13 + 7.5 ci	0.064	NA
Roof	30.0	0.033	NA
Slab (24" band)	10.0	0.100	NA
Frost Wall (ci)	10.0	0.100	NA
Doors - Opaque	1.4	0.70	NA
Windows	1.8	0.55	0.40
Storefront (window)	2.2	0.45	0.40
Storefront (door)	1.25	0.80	0.40

MATERIALS



SYMBOLS



GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK AND REPORT ANY DISCREPANCIES TO THE ARCHITECT. CONTRACTOR SHALL PROCEED WITH THE WORK ONLY AFTER SUCH DISCREPANCIES HAVE BEEN RESOLVED BY THE ARCHITECT. CONTRACTOR SHALL ALLOW A 48 HOUR TIME FRAME FOR RESOLVING DISCREPANCIES ONCE THE ARCHITECT HAS ACKNOWLEDGED THE CONDITION.
2. CONTRACTOR SHALL REVIEW AND VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING THE WORK IN ANY GIVEN AREA.
3. WORK WITH GIVEN DIMENSIONS AND LARGE SCALE DETAILS. DO NOT SCALE THE DRAWINGS AS THE REPRODUCTIVE PROCESS TENDS TO DISTORT THE ACCURACY OF THE GRAPHIC SCALE INDICATED.
4. ALL WOOD IN CONTACT WITH MASONRY OR CONCRETE SHALL BE PRESSURE PRESERVATIVE TREATED.
5. INSTALL SOLID BLOCKING AT WALL FRAMING BEHIND ALL SURFACE MOUNTED FIXTURES, TRIM AND HANDRAILS.
6. ALL GRAB BARS SHALL BE ABLE TO SUPPORT A DEAD WEIGHT OF 250 LBS AT ANY POINT.
7. THE LOCATION OF ANY DOOR JAMBS NOT DIMENSIONED SHALL BE 6" FROM ADJACENT PERPENDICULAR WALL.
8. ALL WALL PARTITIONS SHALL EXTEND FLOOR TO STRUCTURE ABOVE, UNLESS OTHERWISE NOTED.
9. ALL NEW SHEETROCK IN WET AREAS (PLUMBING FIXTURES) SHALL BE MOISTURE RESISTANT TYPE, UNLESS OTHERWISE NOTED.
10. REFER TO ACCESSIBILITY DETAIL SHEET FOR AMERICANS WITH DISABILITIES ACT (ADA) CONSTRUCTION CRITERIA.
11. MAINE TURNPIKE AUTHORITY TOLLING & COMMUNICATION ROOM SHALL BE TWO HOUR (2 HR) FIRE RATED.

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207.871.5900 www.granthays.com

SEAL

REVISIONS

PROJECT NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

ABBREVIATIONS/ LEGENDS/ & SYMBOLS

DATE 07/27/2018
SCALE NONE
DRAWN mgk/MFH
JOB NO. JACOBS/ E2X71602
SHEET 474 OF 489

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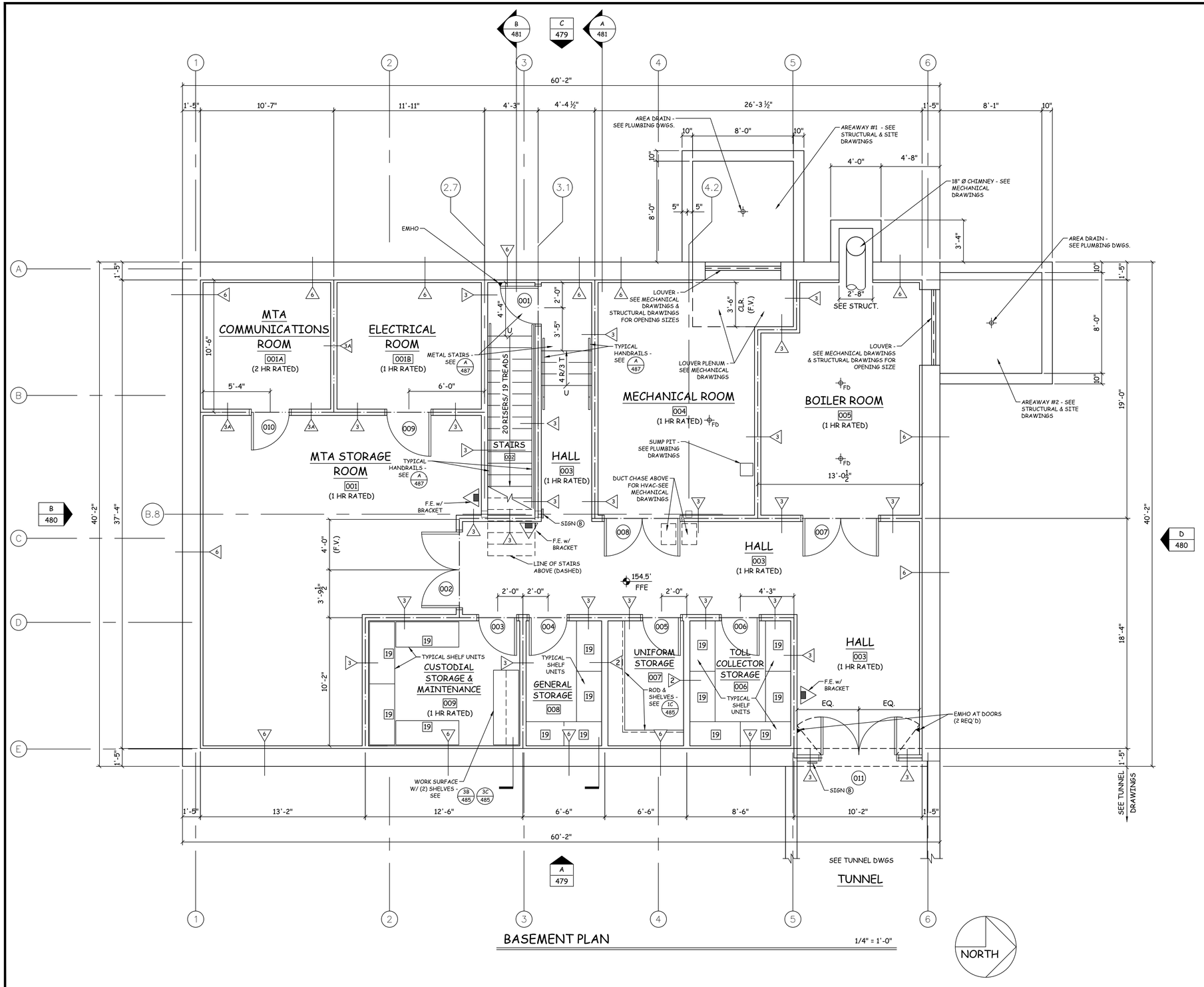

BASEMENT PLAN

1/4" = 1'-0"

EQUIPMENT TYPES:

1	VENDING MACHINE - N.I.C.
2	WATER DISPENSER - N.I.C.
3	REFRIGERATOR
4	MICROWAVE
5	COFFEE MAKER - N.I.C.
6	ROLLING TRASH CONTAINER - N.I.C.
7	SAFE - N.I.C.
8	MONEY DEPOSIT DRAWER - N.I.C.
9	BENCH
10	BULLETIN BOARD
11	CURRENCY SCANNER - N.I.C.
12	COIN SORTER - N.I.C.
13	DISH DRYING RACK - N.I.C.
14	TABLE & CHAIRS - N.I.C.
15	2 - TIER LOCKER
16	6 - TIER LOCKER
17	FILE CABINET - N.I.C.
18	ROLLING CHAIR - N.I.C.
19	STORAGE SHELF UNITS - N.I.C.
20	MOP RACK

1 HR FIRE RATED ASSEMBLY

2 HR FIRE RATED ASSEMBLY

PARTITION TYPES

TAG	DETAIL
1	4 / 482
2	6 / 482
3	7 / 482
4	8 / 482
5	9 / 482
6	2 / 482
7	2 / 484

NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
3. REFER TO ELECTRICAL DRAWINGS FOR HEAT TRACE AT GUTTERS.
4. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.
5. REFER TO SHEET 485 FOR BREAK ROOM 111 KITCHEN CABINETS.
6. REFER TO SHEET 485 FOR CUSTODIAL 104 INTERIOR ELEVATION.
7. REFER TO SHEET 484 FOR WOMEN'S 105 & MEN'S 106 INTERIOR ELEVATIONS.
8. REFER TO SHEET 489 FOR MOUNTING HEIGHTS OF ACCESSORIES AND APURTENANCES.
9. N.I.C. = NOT IN CONTRACT (PROVIDED BY THE AUTHORITY)
10. REFER TO SHEET 489 FOR SIGNAGE.

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SEAL

LICENSED ARCHITECT MICHAEL F. HAYS No. 1724 STATE OF MAINE

Michael F. Hays

REVISIONS

PROJECT NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

BASEMENT FLOOR PLAN

DATE 07/27/2018
SCALE 1/4" = 1'-0"
DRAWN mgk/MFH
JOB NO. JACOBS/E2X71602
SHEET 475 OF 489

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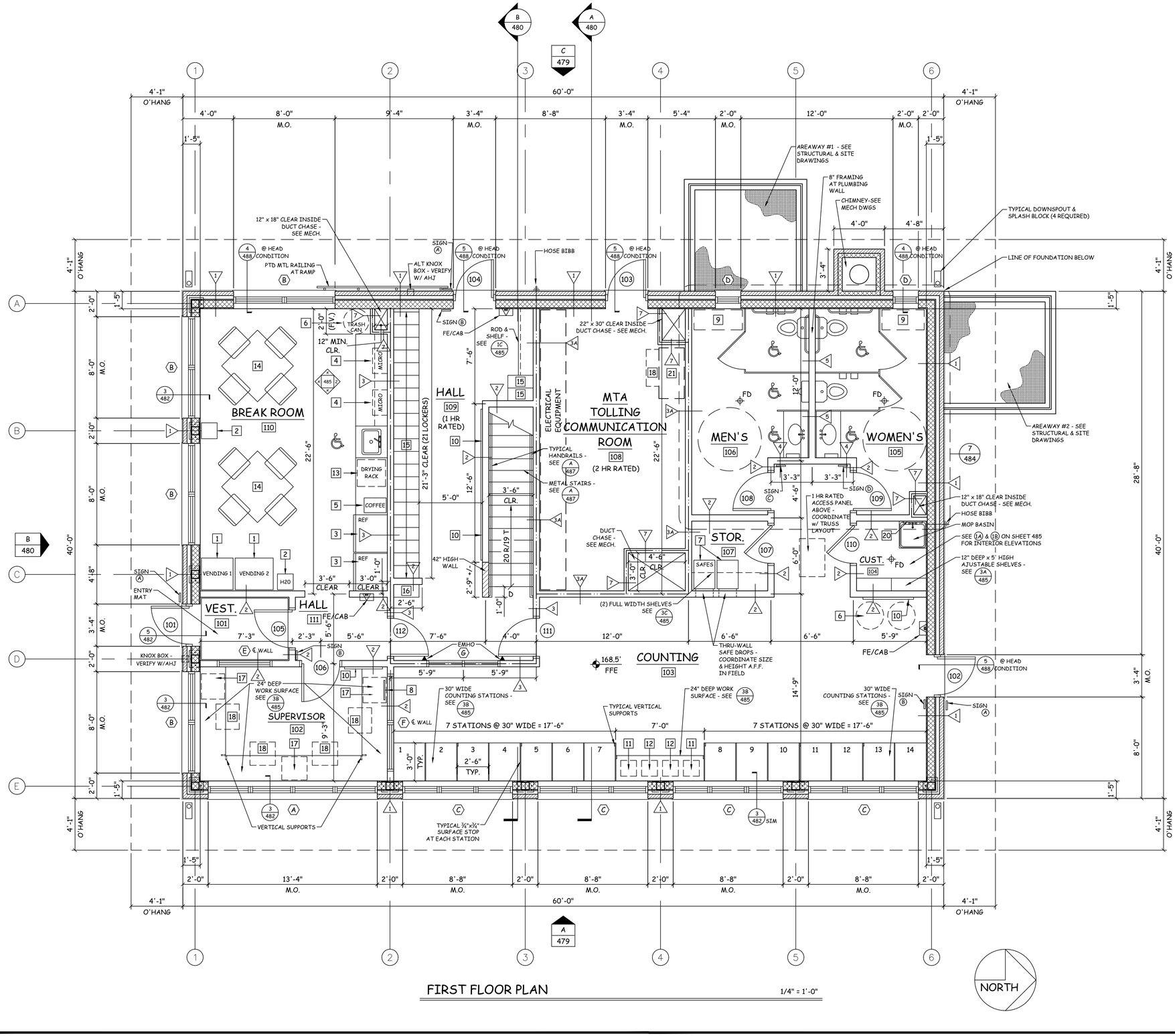

FIRST FLOOR PLAN 1/4" = 1'-0"

EQUIPMENT TYPES:

1	VENDING MACHINE - N.I.C.
2	WATER DISPENSER - N.I.C.
3	REFRIGERATOR
4	OVERHEAD MICROWAVE
5	COFFEE MAKER - N.I.C.
6	ROLLING TRASH CONTAINER - N.I.C.
7	"DAY" & "NIGHT" SAFE - N.I.C.
8	FLAT SCREENS CEILING MOUNTED MONITOR - N.I.C.
9	BENCH - N.I.C.
10	BULLETIN BOARD (N.I.C.) INSTALL BLOCKING @ FRAMING
11	CURRENCY SCANNER - N.I.C.
12	COIN SORTER - N.I.C.
13	DISH DRYING RACK - N.I.C.
14	TABLE & CHAIRS - N.I.C.
15	2 - TIER LOCKER
16	6 - TIER LOCKER
17	FILE CABINET - N.I.C.
18	ROLLING CHAIR - N.I.C.
19	STORAGE SHELF UNITS - N.I.C.
20	MOP RACK
21	DESK/WORKSTATION - N.I.C.

1 HR FIRE RATED ASSEMBLY

2 HR FIRE RATED ASSEMBLY

PARTITION TYPES

TAG	DETAIL
1	4 / 482
2	6 / 482
3A 3	7 / 482
4	8 / 482
5	9 / 482
6	2 / 482
7	2 / 484

NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
3. REFER TO ELECTRICAL DRAWINGS FOR HEAT TAPE AT GUTTERS.
4. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.
5. REFER TO SHEET 485 FOR BREAK ROOM 110 KITCHEN CABINETS.
6. REFER TO SHEET 485 FOR CUSTODIAL 104 INTERIOR ELEVATION.
7. REFER TO SHEET 484 FOR WOMEN'S 105 & MEN'S 106 INTERIOR ELEVATIONS.
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LICENSED ARCHITECT MICHAEL F. HAYS No. 1724 STATE OF MAINE

REVISIONS

PROJECT NAME

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MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK MAINE 03909

SHEET
FIRST FLOOR PLAN

DATE 07/27/2018
SCALE 1/4" = 1'-0"
DRAWN mgk/MFH
JOB NO. JACOBS/E2X71602
SHEET 476 OF 489

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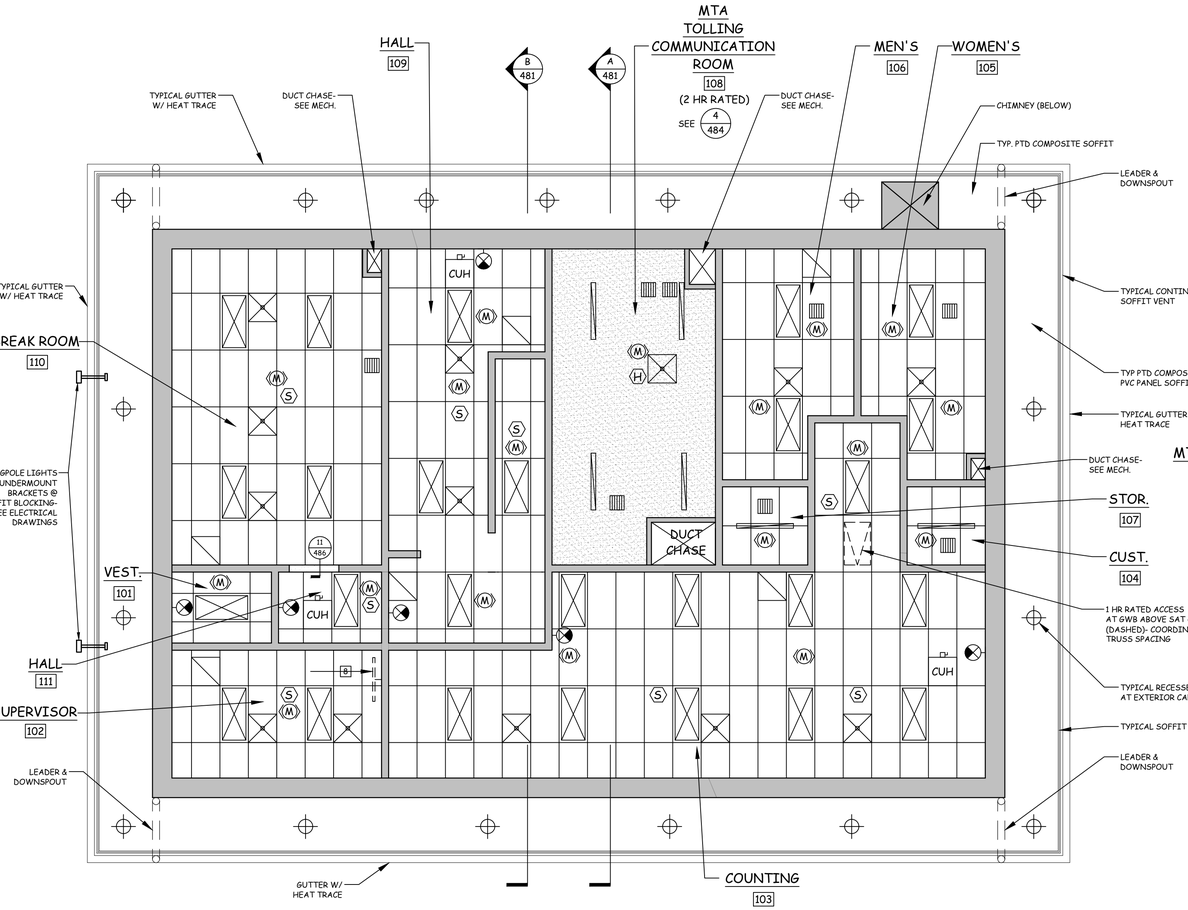
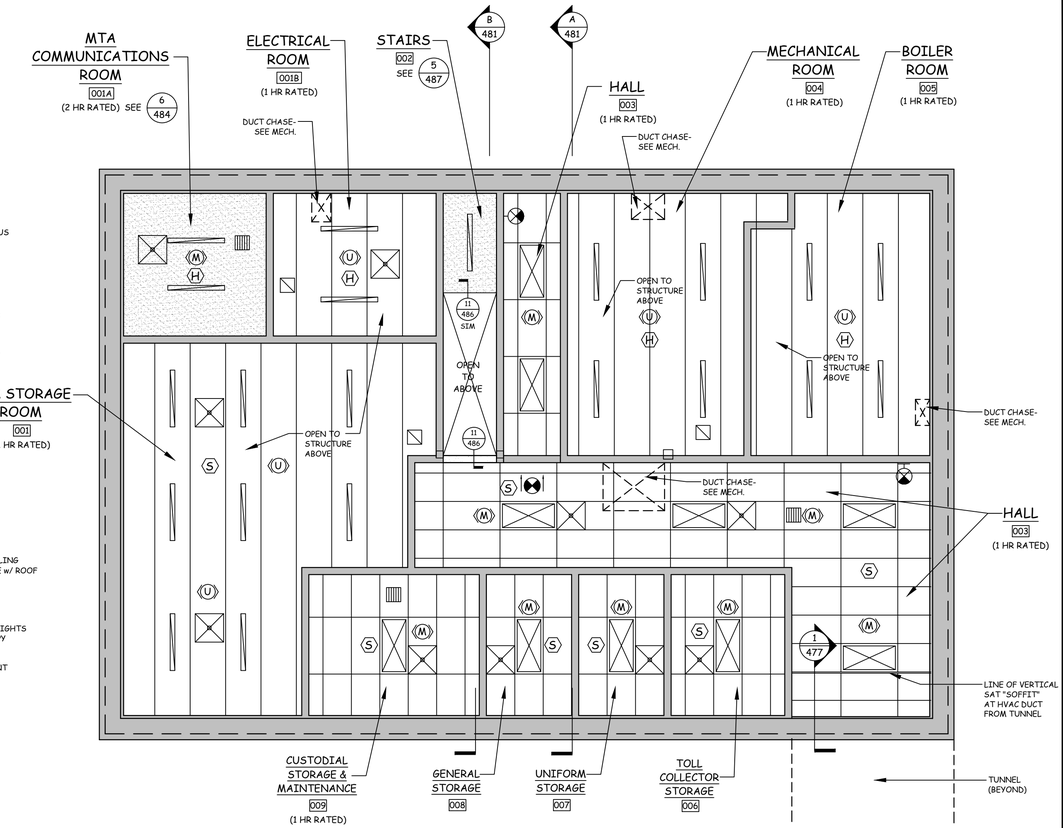


FIRST FLOOR REFLECTED CEILING PLAN

3/16" = 1'-0"

NOTE: SEE 3/484 FOR F.C. GWB / 1 HR RATED ASSEMBLY AT ROOF TRUSSES - ENTIRE BUILDING

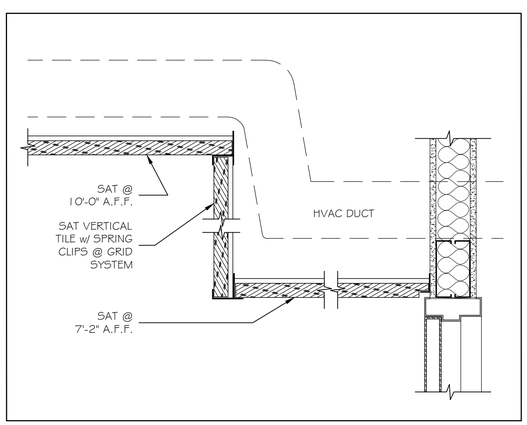
NORTH



BASEMENT REFLECTED CEILING PLAN

3/16" = 1'-0"

NORTH



① SAT SOFFIT AT HVAC DUCT 1 ½"= 1'-0"

NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL DIFFUSERS, GRILLES, & EQUIPMENT.
2. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS & SIZES OF ALL LIGHT FIXTURES & DEVICES.
3. REFER TO ELECTRICAL DRAWINGS FOR HEAT TAPE AT GUTTERS.
4. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF FIRE ALARM DEVICES.

LEGEND:

- PAINTED SHEETROCK CEILING (RATED)
- SUSPENDED ACOUSTICAL CEILING
- PAINTED SHEETROCK SOFFIT @ 7'-4" A.F.F. SEE 11/486
- SOFFIT LIGHT FIXTURE
- EXIT LIGHT FIXTURE
- SURFACE LIGHT FIXTURE
- LAY-IN LIGHT FIXTURE
- CUH — CABINET UNIT HEATER
- HVAC DIFFUSER
- HVAC RETURN
- EXHAUST FAN

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LICENSED ARCHITECT MICHAEL F. HAYS No. 1724 STATE OF MAINE

REVISIONS

PROJECT NAME

CONTRACT NO.: 2018.20

MAINE TURNPIKE TOLL ADMIN/STRATION BUILDING MILE MARKER (MM) 8.8

MAINE 03909

YORK

SHEET

REFLECTED CEILING PLANS

DATE 07/27/2018

SCALE 3/16" = 1'-0"

DRAWN mgk/MFH

JOB NO. JACOBS E2X71602

SHEET 477 OF 489

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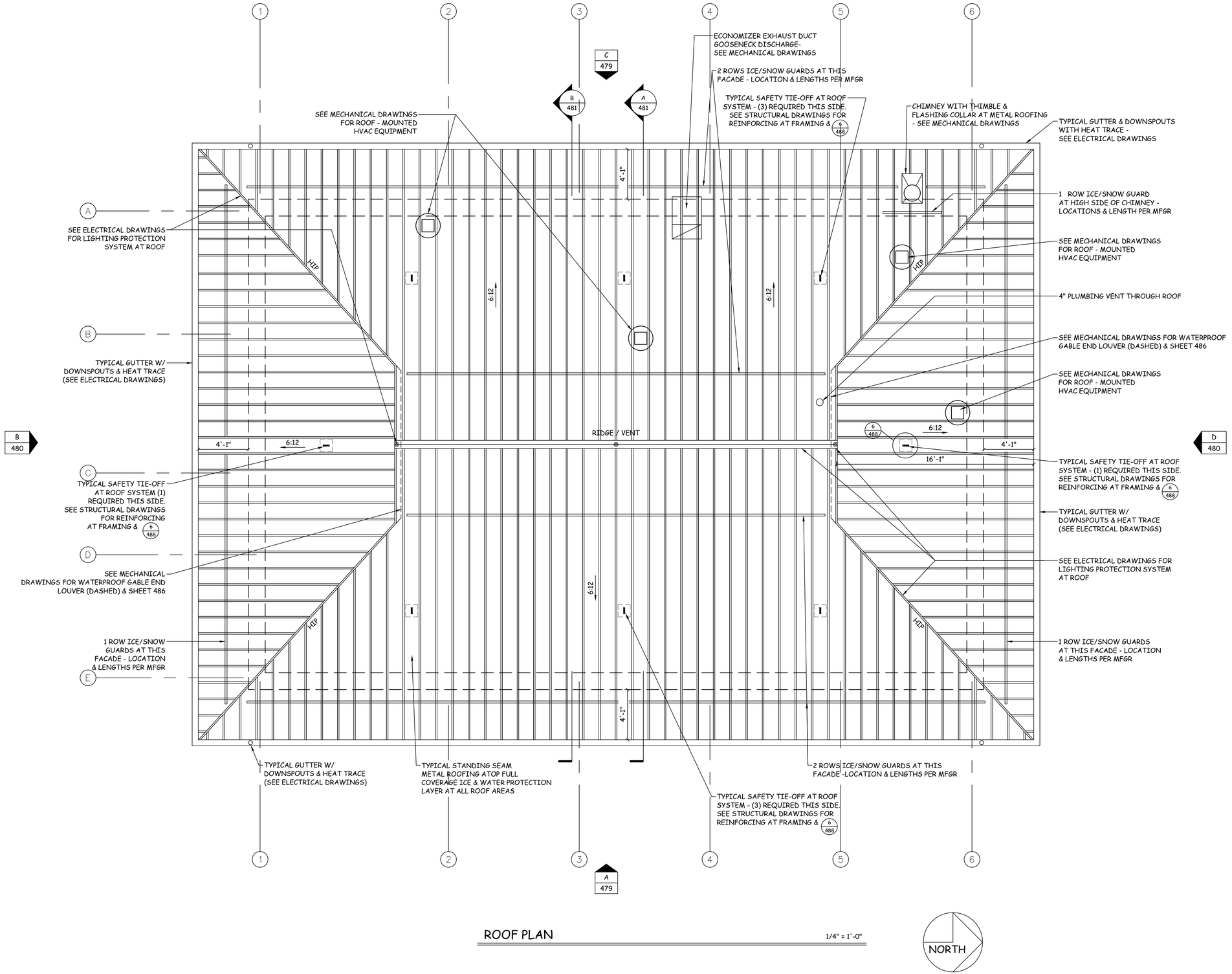

ROOF PLAN

1/4" = 1'-0"

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SEAL

LICENSED ARCHITECT
MICHAEL F. HAYS
No. 1724
STATE OF MAINE
Michael F. Hays

REVISIONS

PROJECT NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET
ROOF PLAN

DATE 07/27/2018
SCALE 1/4" = 1'-0"
DRAWN mgk/MFH
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SHEET 478 OF 489

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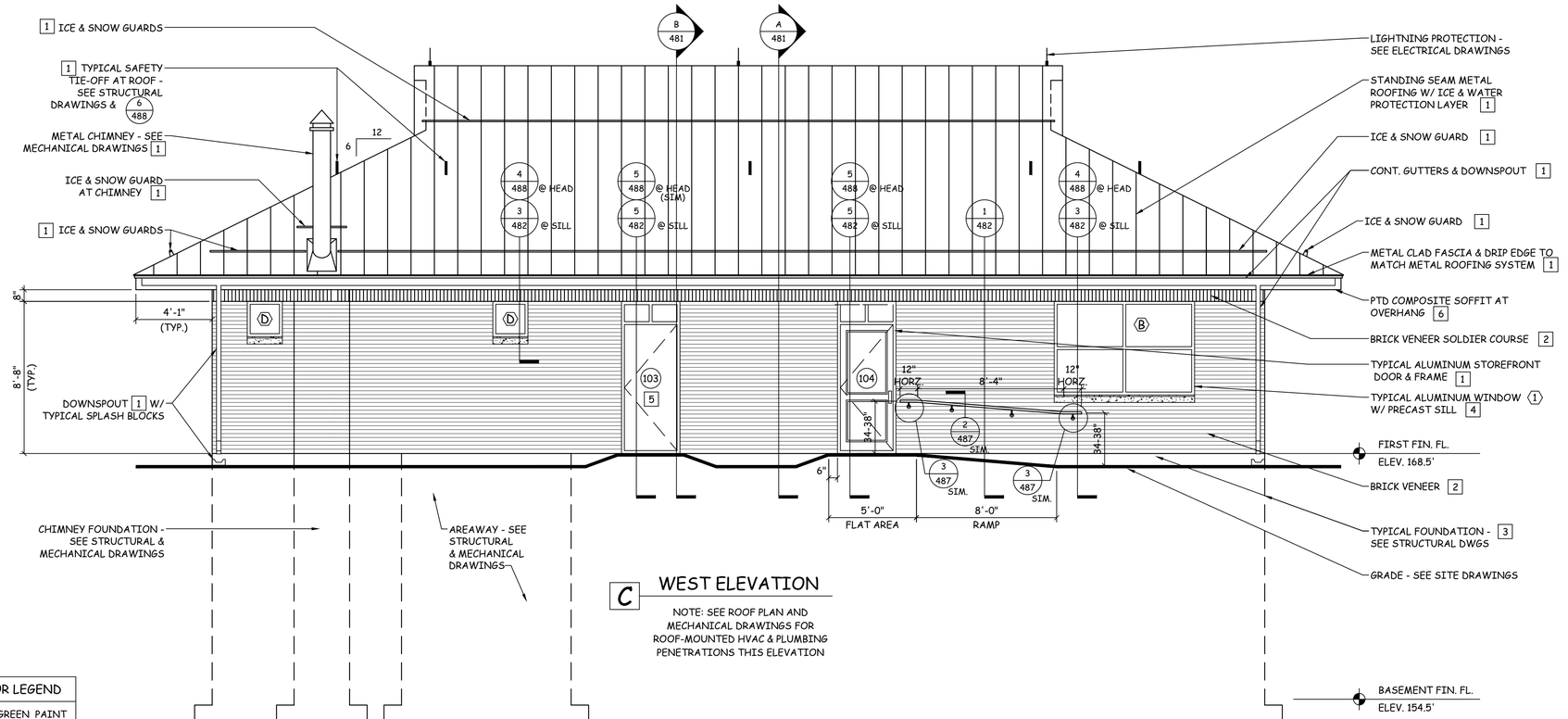
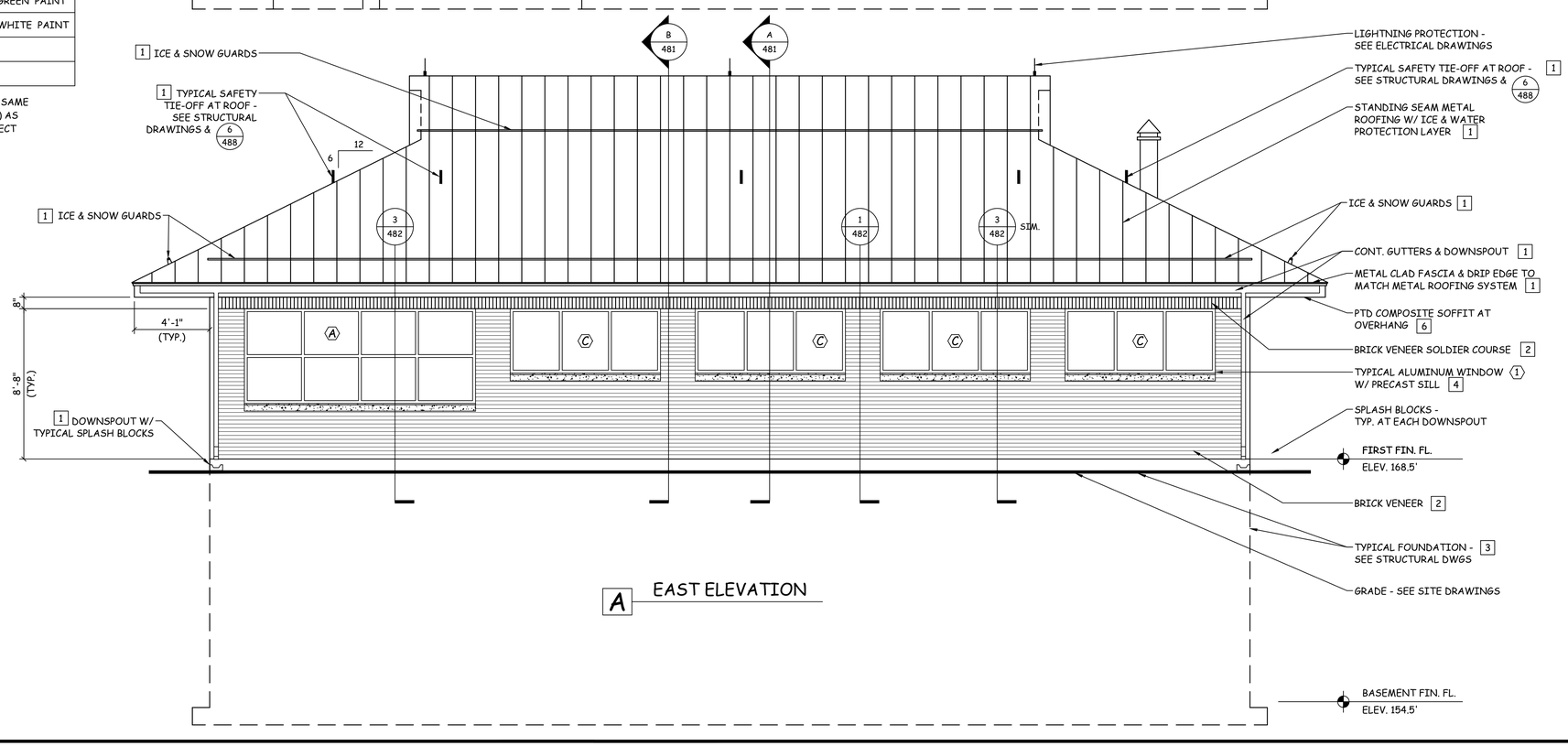


C WEST ELEVATION

NOTE: SEE ROOF PLAN AND MECHANICAL DRAWINGS FOR ROOF-MOUNTED HVAC & PLUMBING PENETRATIONS THIS ELEVATION

EXTERIOR MATERIALS COLOR LEGEND			
1	GREEN KYNAR	5	GREEN PAINT
2	BRICK RED - NATURAL	6	WHITE PAINT
3	CONCRETE - NATURAL		
4	WARM GRAY		

NOTE: ALL 1 ITEMS SHALL BE THE SAME KYNAR COLOR (EXACT MATCH) AS DETERMINED BY THE ARCHITECT



A EAST ELEVATION

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SEAL

LICENSED ARCHITECT
MICHAEL F. HAYS
No. 1724
STATE OF MAINE
Michael F. Hays

REVISIONS

PROJECT NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

EXTERIOR ELEVATIONS

DATE
07/27/2018
SCALE
1/4" = 1'-0"
DRAWN
mgk/MFH
JOB NO. JACOBS E2X71602
SHEET
479
OF 489

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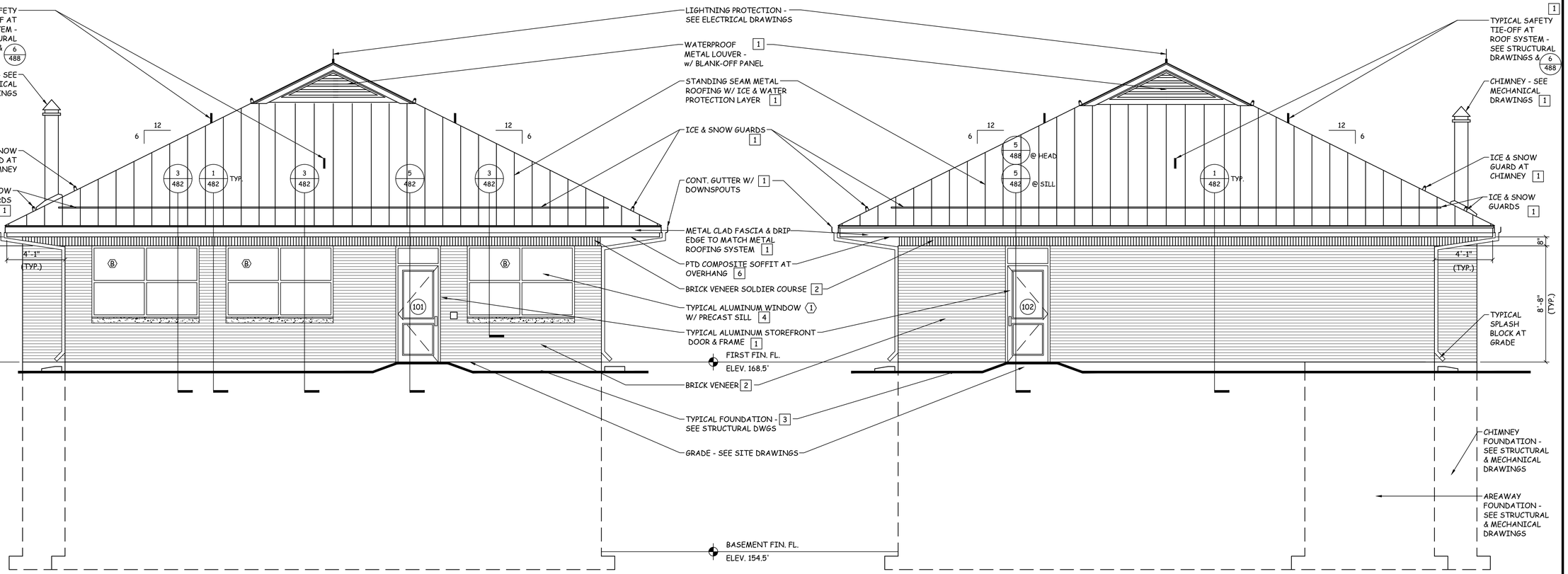

B SOUTH ELEVATION

NOTE: SEE ROOF PLAN AND MECHANICAL DRAWINGS FOR ROOF-MOUNTED HVAC & PLUMBING PENETRATIONS THIS ELEVATION

D NORTH ELEVATION

NOTE: SEE ROOF PLAN AND MECHANICAL DRAWINGS FOR ROOF-MOUNTED HVAC & PLUMBING PENETRATIONS THIS ELEVATION

EXTERIOR MATERIALS COLOR LEGEND			
1	GREEN KYNAR	5	GREEN PAINT
2	BRICK RED - NATURAL	6	WHITE PAINT
3	CONCRETE - NATURAL		
4	WARM GRAY		

NOTE: ALL 1 ITEMS SHALL BE THE SAME KYNAR COLOR (EXACT MATCH) AS DETERMINED BY THE ARCHITECT

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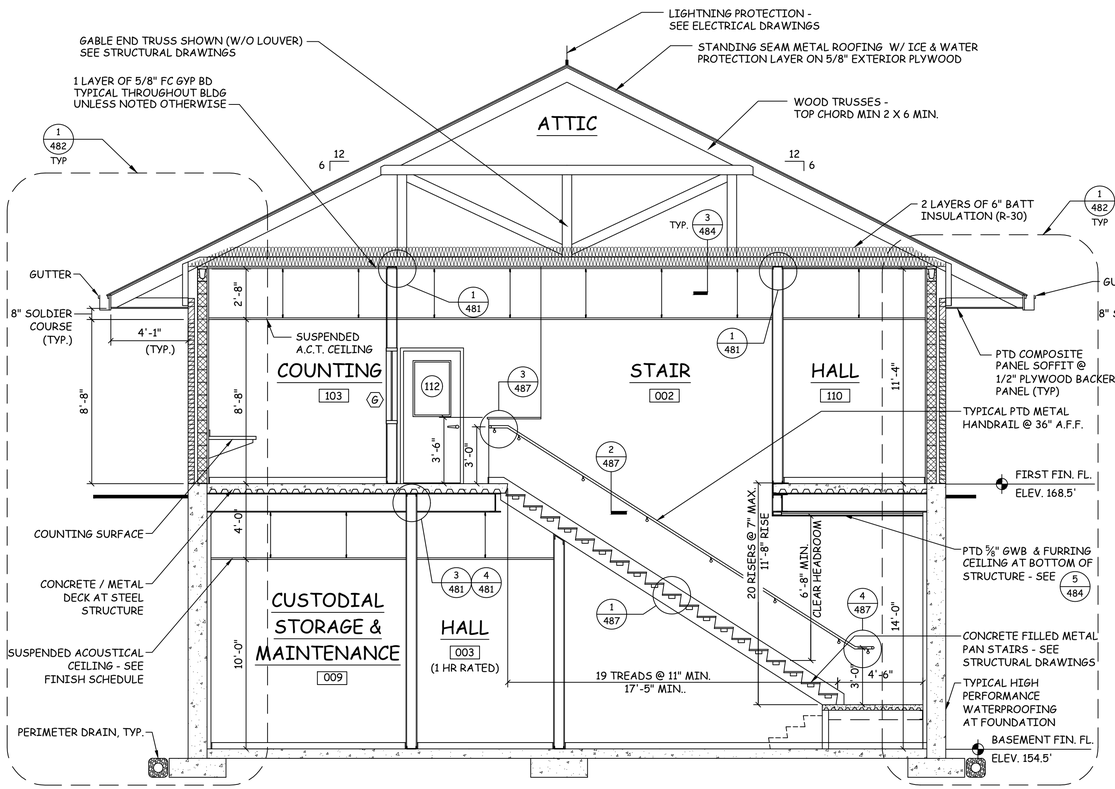
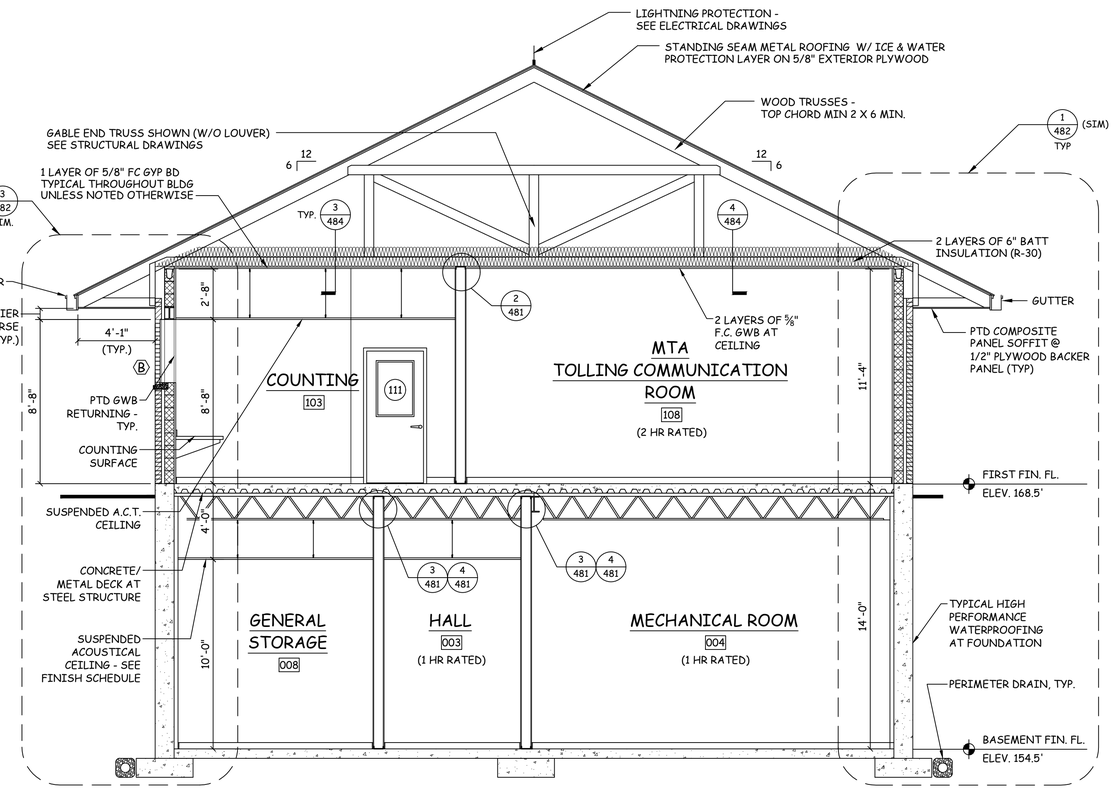
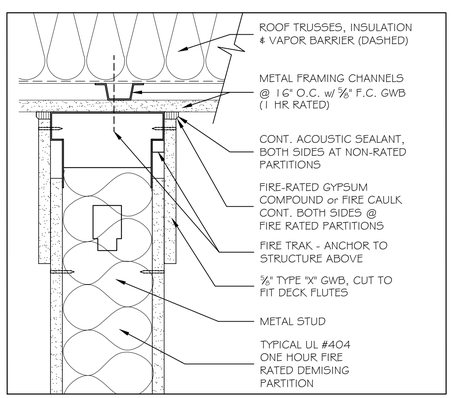


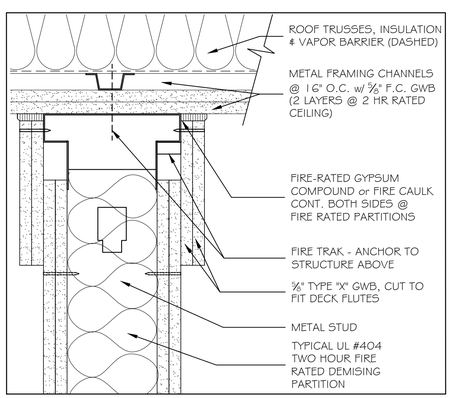
B TYPICAL BUILDING SECTION AT STAIR 002 1/4" = 1'-0"



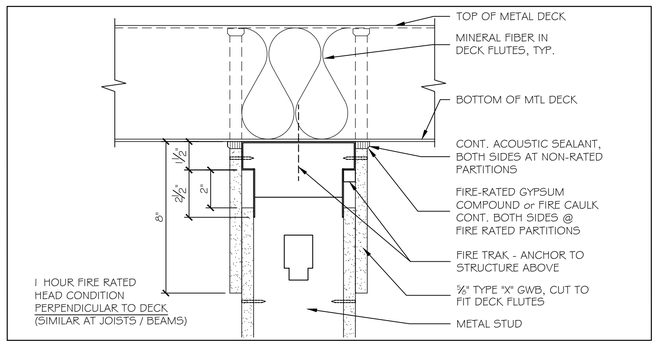
A TYPICAL BUILDING SECTION 1/4" = 1'-0"



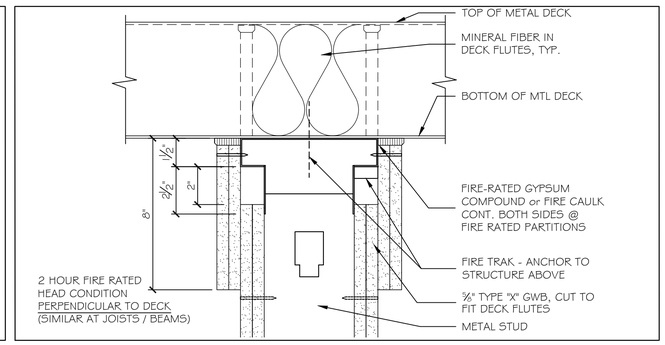
1 1 HR FIRE RATED HEAD CONDITION AT ROOF TRUSSES 3"=1'-0"



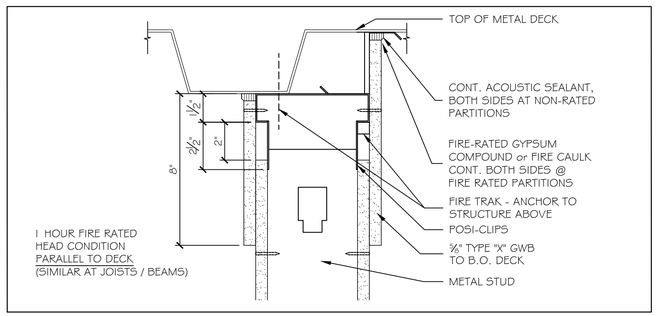
2 2 HR FIRE RATED HEAD CONDITION AT ROOF TRUSSES 3"=1'-0"



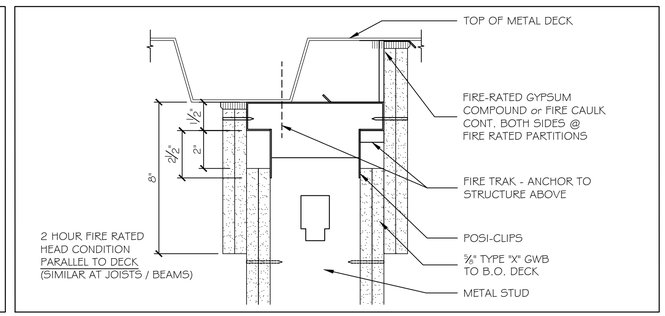
3 1 HR RATED HEAD CONDITION PERPENDICULAR TO DECK 3"=1'-0"



5 2 HR RATED HEAD CONDITION PERPENDICULAR TO DECK 3"=1'-0"



4 1 HR RATED HEAD CONDITION PARALLEL TO DECK 3"=1'-0"



6 2 HR RATED HEAD CONDITION PARALLEL TO DECK 3"=1'-0"

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SEAL

LICENSED ARCHITECT MICHAEL F. HAYS No. 1724 STATE OF MAINE

REVISIONS

PROJECT NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

BUILDING SECTIONS & DETAILS

DATE 07/27/2018
SCALE A/S NOTED
DRAWN mgk/MFH
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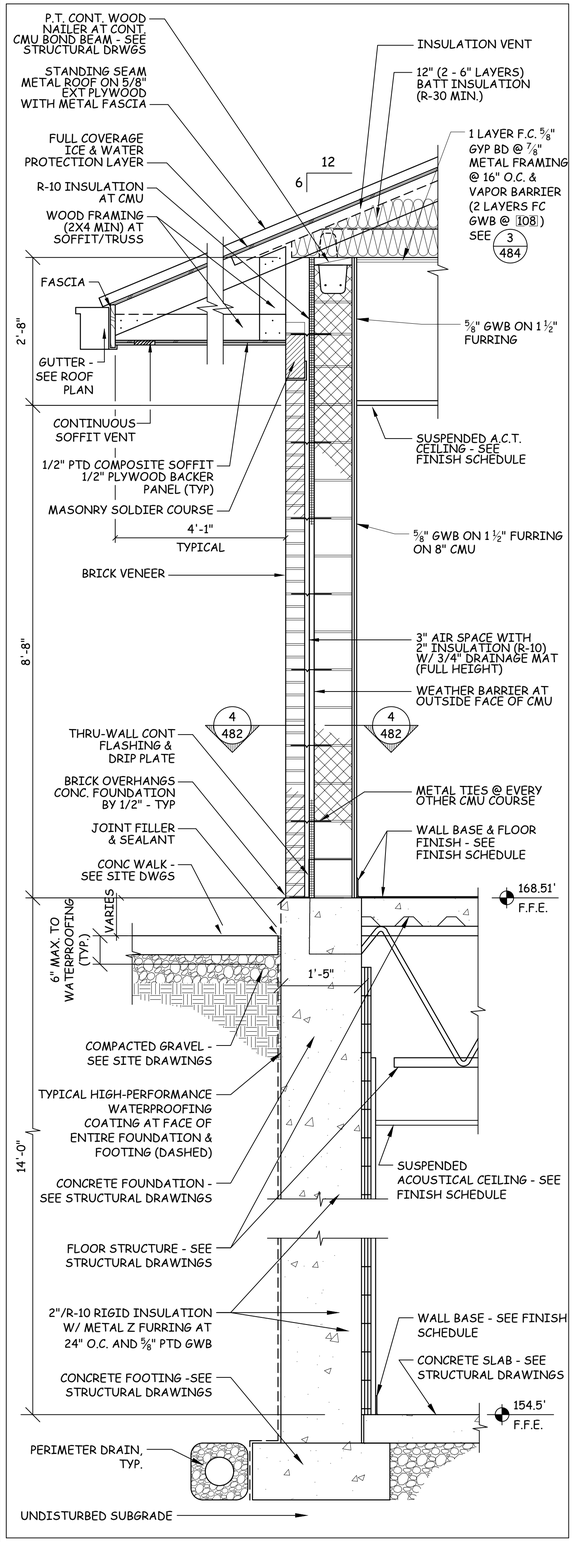
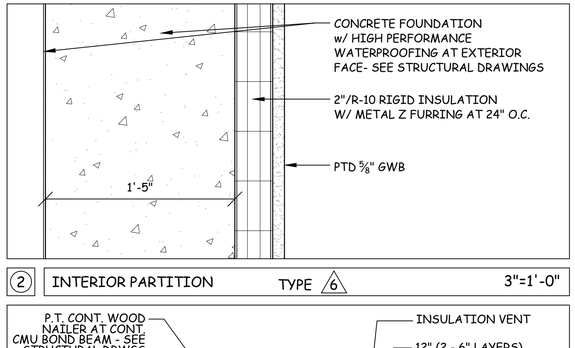
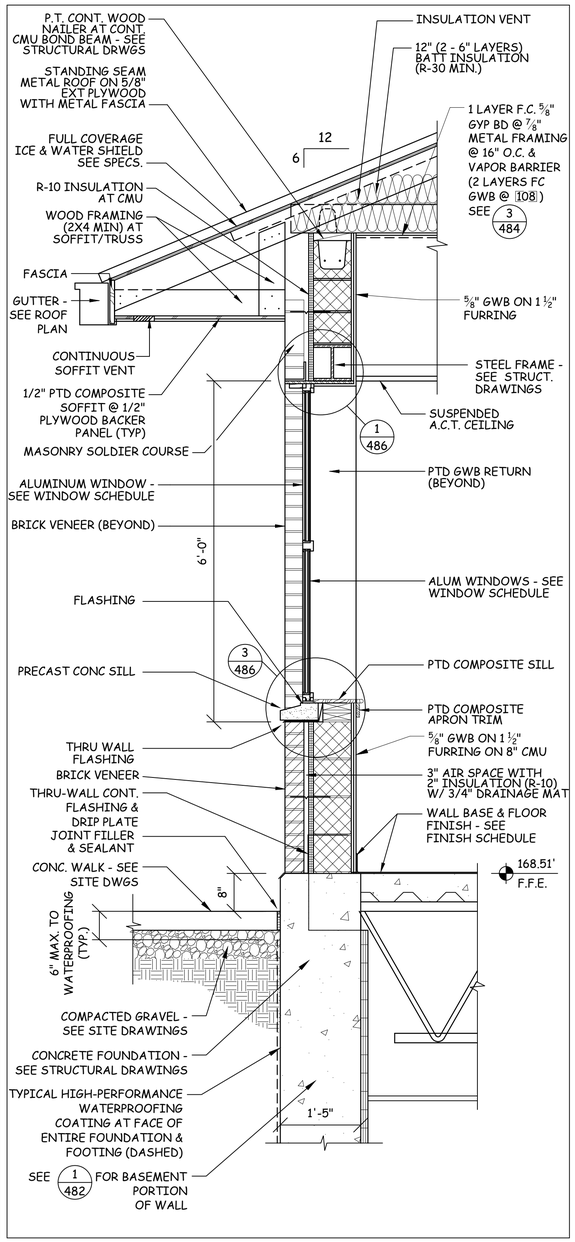


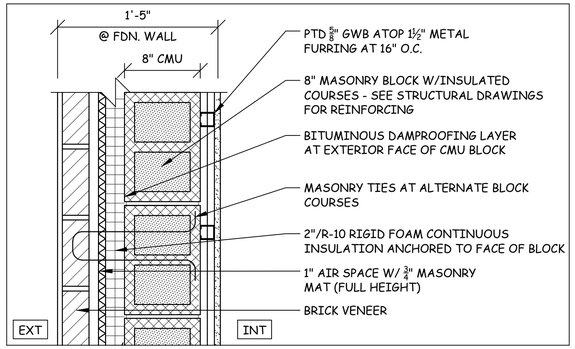
1 TYPICAL EXTERIOR WALL SECTION 3/4"=1'-0"



2 INTERIOR PARTITION TYPE 6 3"=1'-0"



3 EXTERIOR WINDOW WALL SECTION 3/4"=1'-0"



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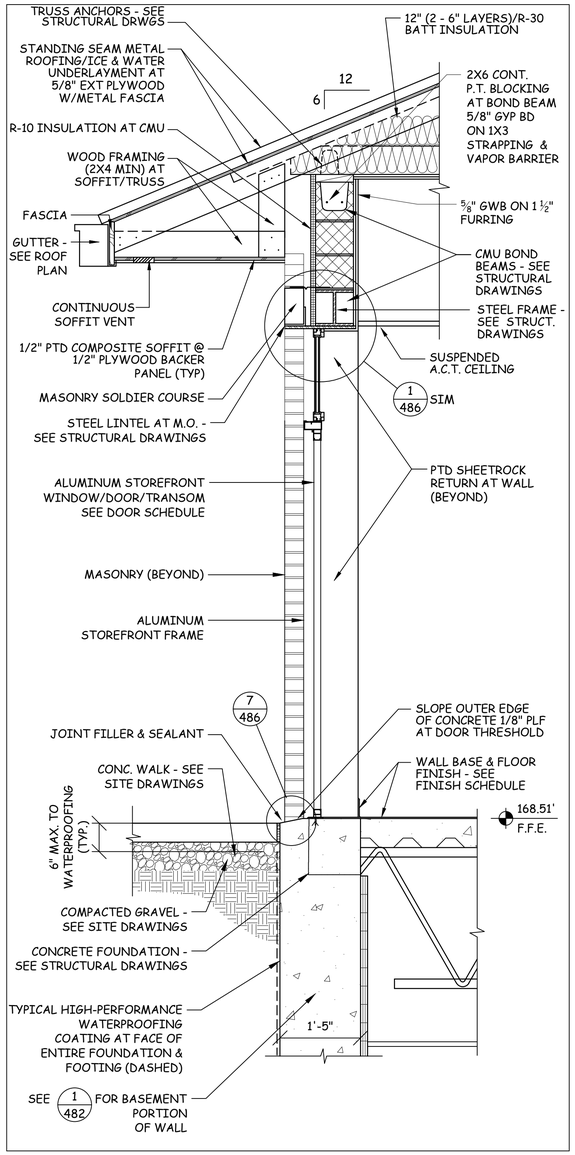
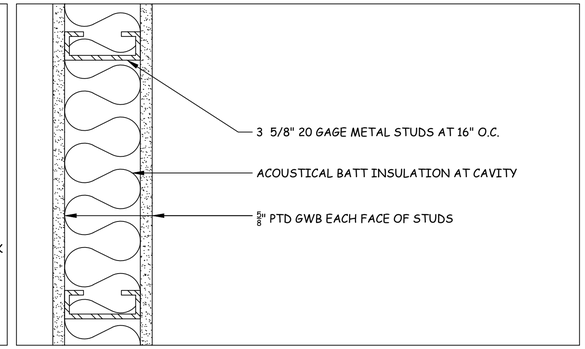
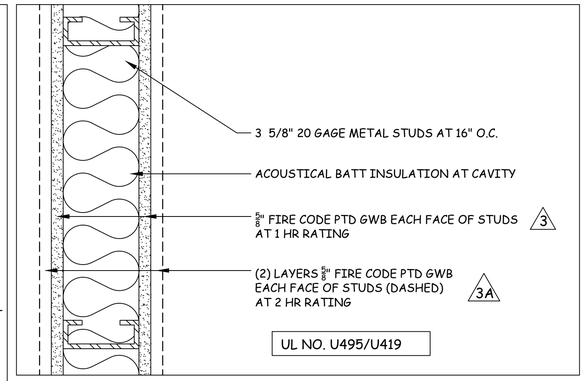


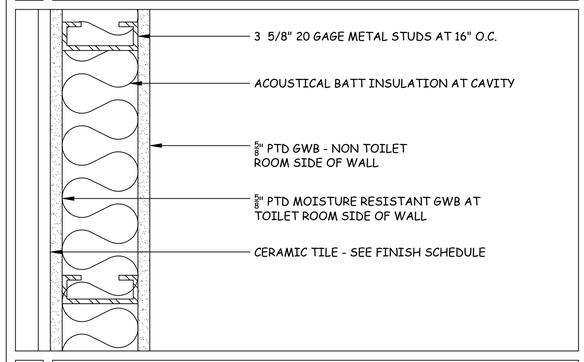
5 EXTERIOR DOOR WALL SECTION 3/4"=1'-0"



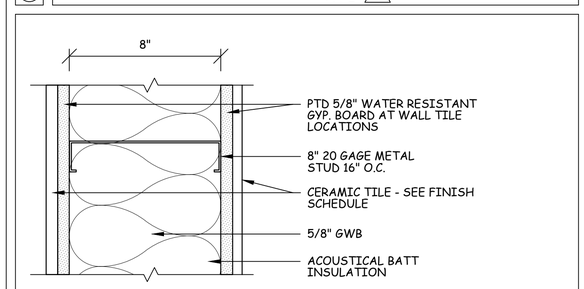
6 INTERIOR PARTITION TYPE 2 3"=1'-0"



7 FIRE RATED PARTITION 1 HR/TYPE 3 2 HR/TYPE 3A 3"=1'-0"



8 WATER RESISTANT PARTITION TYPE 4 3"=1'-0"



9 PLUMBING PARTITION TYPE 5 3"=1'-0"

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YORK MAINE 03909

SHEET

WALL SECTIONS & PARTITION TYPES

DATE 07/27/2018

SCALE AS NOTED

DRAWN mgk/MFH

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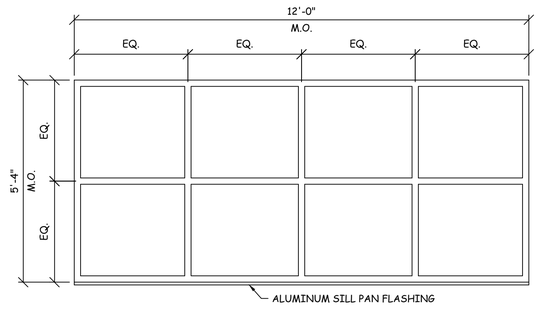
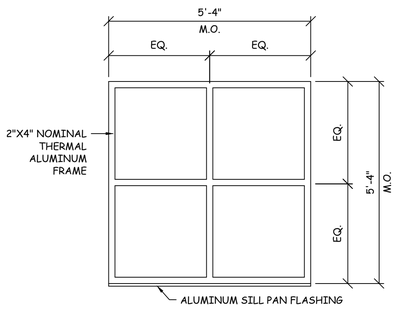
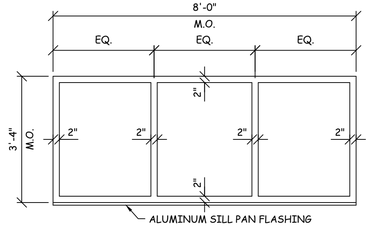


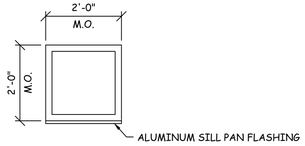
A EXTERIOR FIXED THERMAL BREAK ALUMINUM STOREFRONT WINDOW



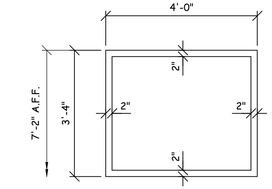
B EXTERIOR FIXED THERMAL BREAK ALUMINUM STOREFRONT WINDOW



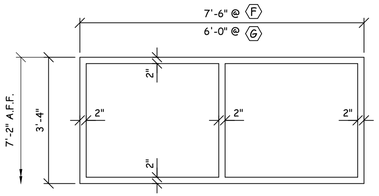
C EXTERIOR FIXED THERMAL BREAK ALUMINUM STOREFRONT WINDOW



D FIXED THERMAL BREAK ALUMINUM STOREFRONT WINDOW

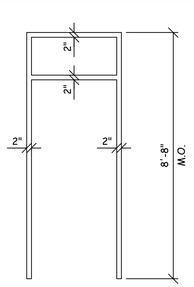


E INTERIOR PAINTED DRYWALL PROFILE HOLLOW METAL BORROWED LITE

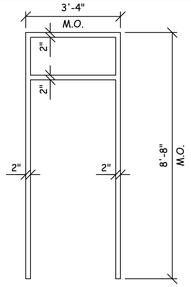


F G INTERIOR PAINTED DRYWALL PROFILE HOLLOW METAL BORROWED LITE

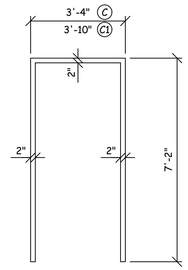
WINDOW TYPES — NO SCALE



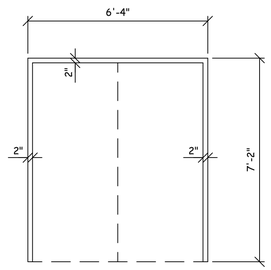
A EXTERIOR THERMAL - BREAK ALUMINUM FRAME W/



B EXTERIOR MASONRY PROFILE PAINTED HOLLOW METAL FRAME

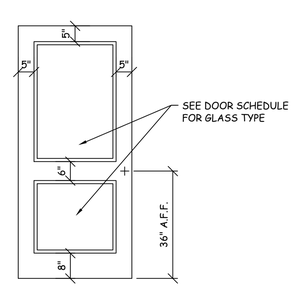


C INTERIOR DRYWALL PROFILE PAINTED HOLLOW METAL FRAME
C1

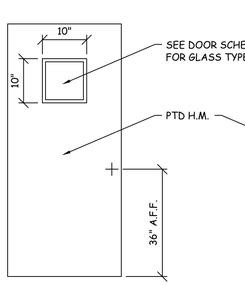


D INTERIOR DRYWALL PROFILE PAINTED HOLLOW METAL FRAME

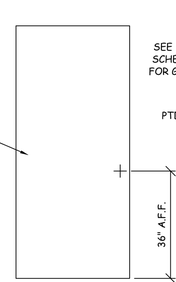
DOOR FRAME TYPES — 3/8" = 1'-0"



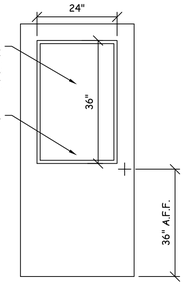
A EXTERIOR ALUMINUM WIDE STYLE FULL LITE DOOR



B FLUSH PTD. H.M. DOOR W/ LITE



C FLUSH PTD H.M. DOOR



D FLUSH PTD. H.M. DOOR W/ LITE

DOOR TYPES — NO SCALE

TYPE "A" - CLEAR TINTED INSULATED GLASS

TYPE "B" - CLEAR TINTED TEMPERED INSULATED GLASS

TYPE "C" - OBSCURE TINTED INSULATED GLASS

TYPE "D" - CLEAR SINGLE PANE TEMPERED GLASS

TYPE "E" - CLEAR FIRE RATED SINGLE PANE GLASS

TYPE "F" - SPANDREL PANEL

3 GLASS TYPES — NO SCALE

DOOR SCHEDULE

ABBREVIATIONS

AL	ALUMINUM	T	TEMPERED
E	EXISTING	TH	THERMAL INSULATED
EMHO	ELECTRO MAGNETIC HOLD OPENER	V	VINYL
GL	GLASS	W	WIRE
HM	HOLLOW METAL	WD	WOOD
INSUL	INSULATED	W/	WITH
SS	STAINLESS STEEL		

DOORS										FRAMES					THRESHHOLDS		
NO.	TYPE	SIZE (w x h)	THK	INSUL	HDWE	FR	GLASS TYPE	GLASS SIZE	REMARKS	TYPE	FR	PROFILE	DETAILS HEAD	DETAILS JAMB	MATERIAL	DETAILS SILL	DETAILS FIN
001	D	3070	1 3/4"	NO	HW-11	1 HR	FIRE	24x36	RATED GLASS "E"	C	1 HR	DW	8-486	8-486	NONE	-	CONC
002	C	6070 PR	1 3/4"	NO	HW-8	1 HR	"	-		D	1 HR	DW	8-486	8-486	NONE	-	CONC
003	C	3070	1 3/4"	NO	HW-7	1 HR	"	-		C	1 HR	DW	8-486	8-486	NONE	-	CONC
004	C	3070	1 3/4"	NO	HW-6	1 HR	"	-		C	1 HR	DW	8-486	8-486	NONE	-	CONC
005	C	3070	1 3/4"	NO	HW-6	1 HR	"	-		C	1 HR	DW	8-486	8-486	NONE	-	CONC
006	C	3070	1 3/4"	NO	HW-6	1 HR	"	-		C	1 HR	DW	8-486	8-486	NONE	-	CONC
007	C	6070 PR	1 3/4"	NO	HW-8	1 HR	"	-		D	1 HR	DW	8-486	8-486	NONE	-	CONC
008	C	6070 PR	1 3/4"	NO	HW-8	1 HR	"	-		D	1 HR	DW	8-486	8-486	NONE	-	CONC
009	C	3670	1 3/4"	NO	HW-9	1 HR	"	-		C1	1 HR	DW	8-486	8-486	NONE	-	CONC
010	C	3070	1 3/4"	NO	HW-9	2 HR	"	-		C	2 HR	DW	8-486	8-486	NONE	-	CONC
011	D	6070 PR	1 3/4"	NO	HW-10	1 HR	FIRE	24x36	RATED GLASS "E"	D	1 HR	DW	8-486	8-486	NONE	-	CONC
101	A	3070	1 3/4"	NO	HW-1	-	T/TH	FULL	GLASS "B"	A	-	ALUM	5-486	6-486	ALUM	7-464	-
102	A	3070	1 3/4"	NO	HW-1	-	T/TH	FULL	GLASS "B"	A	-	ALUM	5-488	6-486	ALUM	7-464	-
103	B	3070	1 3/4"	YES	HW-2	-	T/TH	10x10	GLASS "B"	B	-	MAS	5-488	6-486	ALUM	7-464	-
104	A	3070	1 3/4"	NO	HW-1	-	T/TH	FULL	GLASS "B"	A	-	ALUM	5-488	6-486	ALUM	7-464	-
105	A	3070	1 3/4"	NO	HW-3	-	T	FULL	GLASS "D"	B	-	DW	8-486	8-486	NONE	-	-
106	D	3070	1 3/4"	NO	HW-4	-	T	24x36	GLASS "D"	C	-	DW	8-486	8-486	NONE	-	TILE
107	C	3070	1 3/4"	NO	HW-4	-	-	-		C	-	DW	8-486	8-486	NONE	-	TILE
108	C	3070	1 3/4"	NO	HW-5	-	-	-		C	-	DW	8-486	8-486	NONE	-	TILE
109	C	3070	1 3/4"	NO	HW-5	-	-	-		C	-	DW	8-486	8-486	NONE	-	TILE
110	C	3070	1 3/4"	NO	HW-12	-	-	-		C	-	DW	8-486	8-486	NONE	-	TILE
111	D	3070	1 3/4"	NO	HW-11	1 HR	FIRE	24x36	RATED GLASS "E"	C	1 HR	DW	8-486	8-486	NONE	-	TILE
112	D	3070	1 3/4"	NO	HW-11	1 HR	FIRE	24x36	RATED GLASS "E"	C	1 HR	DW	8-486	8-486	NONE	-	TILE

WINDOW SCHEDULE

ABBREVIATIONS

AL	ALUMINUM	T	TEMPERED
E	EXISTING	TH	THERMAL INSULATED
EMHO	ELECTRO MAGNETIC HOLD OPENER	V	VINYL
GL	GLASS	W	WIRE
HM	HOLLOW METAL	WD	WOOD
SS	STAINLESS STEEL	W/	WITH

NO.	TYPE	MANUFACTURER MATERIAL	MANUFACTURER MODEL	NOMINAL SIZE WIDTH	NOMINAL SIZE HEIGHT	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	DETAILS MUNT	DETAILS MULL	REMARKS
A	FIXED	ALUMINUM	T- BREAK	12'-0"	5'-4"	1-486	2-486	3-486	-	-	TYPE "A" GLASS
B	FIXED	ALUMINUM	T- BREAK	8'-0"	5'-4"	1-486	2-486	3-486	-	-	TYPE "A" GLASS
C	FIXED	ALUMINUM	T- BREAK	8'-0"	3'-4"	1-486	2-486	3-486	-	-	TYPE "A" GLASS
D	FIXED	ALUMINUM	T- BREAK	2'-0"	2'-0"	1-486	2-486	3-486	-	-	TYPE "C" GLASS
E	FIXED	HOLLOW METAL	DW PROFILE	4'-0"	3'-4"	8-486	8-486	8-486	SIMILAR		TYPE "D" GLASS
F	FIXED	HOLLOW METAL	DW PROFILE	7'-6"	3'-4"	8-486	8-486	8-486	SIMILAR		TYPE "D" GLASS
G	FIXED	HOLLOW METAL	DW PROFILE	6'-0"	3'-4"	8-486	8-486	8-486	SIMILAR		TYPE "E" GLASS (1 HR RATED)

FINISH SCHEDULE

ABBREVIATIONS

C	CARPET	FRP	FIBERGLASS REINFORCED PANELS	QT	QUARRY TILE
GH	CONCRETE W/ HARDENER	FV	FIELD VERIFY	ss	stainless steel
CMU	CONCRETE MASONRY UNIT	GL	GLASS	VSB	VINYL STRAIGHT BASE
CT	CERAMIC TILE	GWB	GYPSUM WALL BOARD	VCT	VINYL COMPOSITION TILE
E	EXISTING	P	PAINT	VWC	VINYL WALL COVERING
EP	EPOXY PAINT	PCS	PAINT COAT SYSTEM	WC(1)	WALL COVERING (TYPE)
FCS	FLOOR COATINGS SYSTEM	RCB	RUBBER COVE BASE	WD	WOOD

NO.	NAME	WALLS N	WALLS E	WALLS S	WALLS W	FLOOR MATL	FLOOR BASE	FLOOR MATL	FLOOR BASE	CLG A TYPE	CLG A HT	CLG B TYPE	CLG B HT	REMARKS
001	MTA STORAGE ROOM	P	P	P	P	CONC	VCB	-	-	STRUCT	13'-8+/-	-	-	1 HR RATED
001A	MTA COMM. RM.	P	P	P	P	CONC	VCB	-	-	P	12'-0+/-	-	-	2 HR RATED
001B	ELECTRICAL ROOM	P	P	P	P	CONC	VCB	-	-	STRUCT	13'-8+/-	-	-	1 HR RATED
002	STAIRS	P	P	P	P	RUBBER	VCB	-	-	P	12'-0+/-	-	-	1 HR RATED
003	HALL	P	P	P	P	CONC	VCB	-	-	SAT	10'-0"	-	-	1 HR RATED
004	MECHANICAL ROOM	P	P	P	P	CONC	VCB	-	-	STRUCT	13'-8+/-	-	-	1 HR RATED
005	BOILER ROOM	P	P	P	P	CONC	VCB	-	-	STRUCT	13'-8+/-	-	-	1 HR RATED
006	TOLL COLLECTOR STOR.	P	P	P	P	CONC	VCB	-	-	SAT	10'-0"	-	-	
007	UNIFORM STORAGE	P	P	P	P	CONC	VCB	-	-	SAT	10'-0"	-	-	
008	GENERAL STORAGE	P	P	P	P	CONC	VCB	-	-	SAT	10'-0"	-	-	
009	WST. STOR. & MAINT.	P	P	P	P	CONC	VCB	-	-	SAT	10'-0"	-	-	1 HR RATED
101	VESTIBULE	P	P	P	P	CT	VCB	MAT	-	SAT	8'-9"	-	-	
102	SUPERVISOR	P	P	P	P	CT	VCB	-	-	SAT	8'-9"	-	-	
103	COUNTING	P	P	P	P	CT	VCB	-	-	SAT	8'-9"	-	-	
104	CUSTODIAL	P/FRP	P/FRP	P/FRP	P/FRP	CT	VCB	-	-	SAT	8'-9"	-	-	FRP TO 48" A.F.F.
105	WOMEN'S	P/CT	P/CT	P/CT	P/CT	CT	CT	-	-	SAT	8'-9"	-	-	SEE 1-484 FOR CT. HT.
106	MEN'S	P/CT	P/CT	P/CT	P/CT	CT	CT	-	-	SAT	8'-9"	-	-	SEE 1-484 FOR CT. HT.
107	STORAGE	P	P	P	P	CT	VCB	-	-	SAT	8'-9"	-	-	
108	MTA TOLL COMM. RM.	P	P	P	P	EPOXY	VCB	-	-	P/GWB	11'-4"	-	-	2 HR RATED (AT STRUCTURE)
109	HALL	P	P	P	P	CT	VCB	-	-	SAT	8'-9"	-	-	1 HR RATED
110	BREAK ROOM	P	P	P	P	CT	VCB	-	-	SAT	8'-9"	-	-	
111	HALL	P	P	P	P	CT	VCB	-	-	SAT	8'-9"	-	-	

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PROJECT NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL
ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET
DOOR, WINDOW & FINISH SCHEDULES

DATE
07/27/2018
SCALE
A/ NOTED
DRAWN
mgk/MFH
JOB NO.
JACOBS E2X71602
SHEET
483
OF 489

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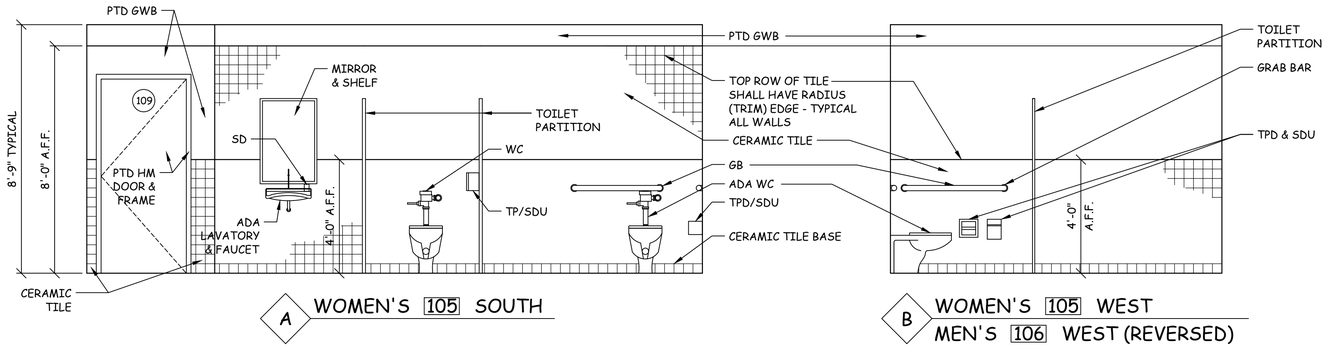
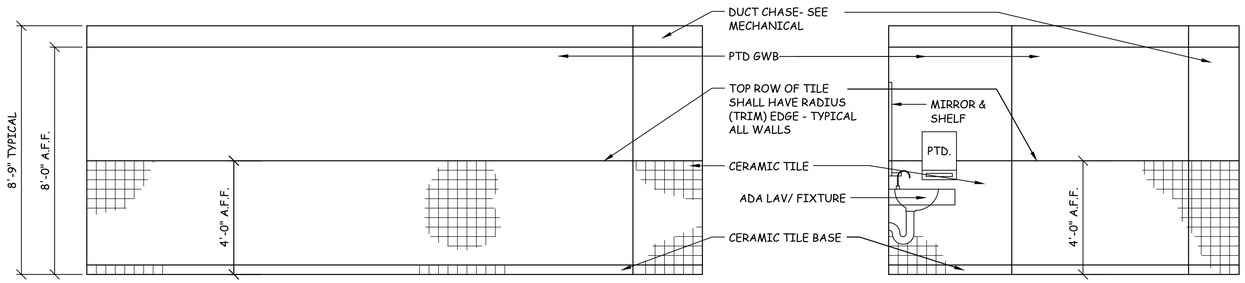


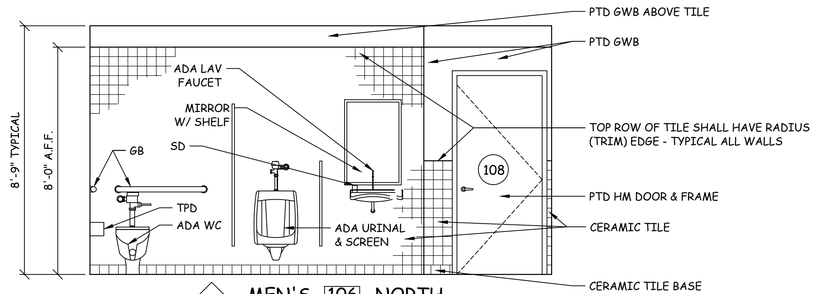
A WOMEN'S 105 SOUTH

B WOMEN'S 105 WEST
MEN'S 106 WEST (REVERSED)



C WOMEN'S 105 NORTH
MEN'S 106 SOUTH (REVERSED)

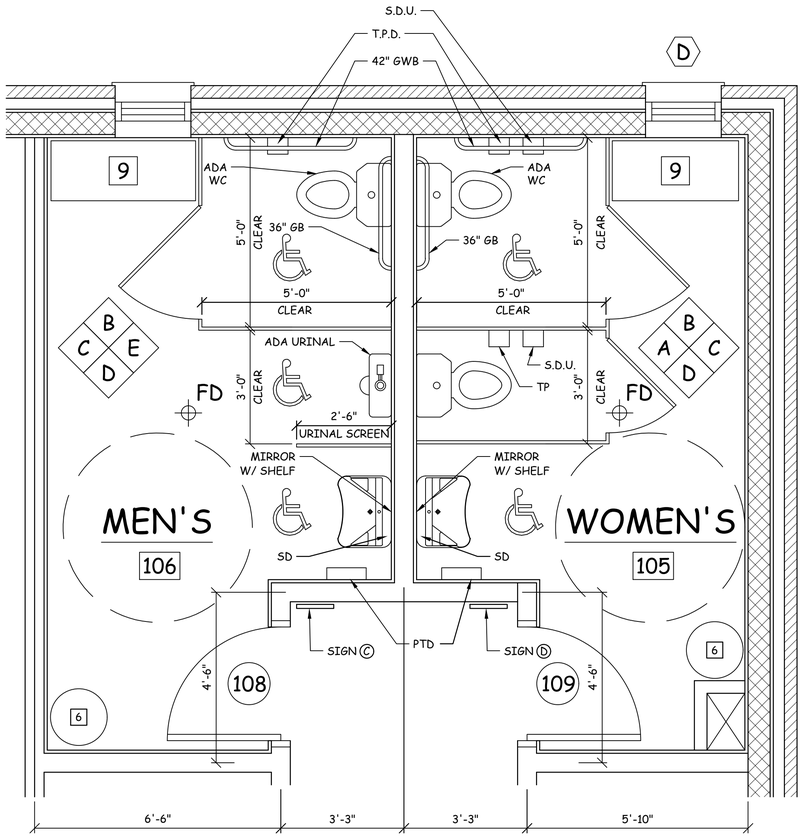
D WOMEN'S 105 EAST
MEN'S 106 EAST (REVERSED)



E MEN'S 106 NORTH

NOTE: PROVIDE S.S. CLOSURE TRIM AT PAPER TOWEL DISPENSER ABOVE CERAMIC TILE AT SHEETROCK WALL- F.V. DEPTH w/ TILE THICKNESS

NOTE: SEE SHEET 489 FOR TOILET ACCESSORIES ADA MOUNTING HEIGHTS.



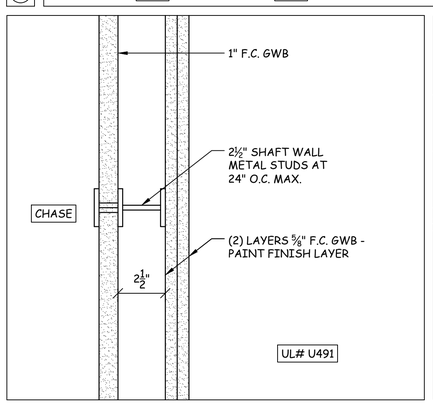
WOMEN'S 105 / MEN'S 106 FLOOR PLAN

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

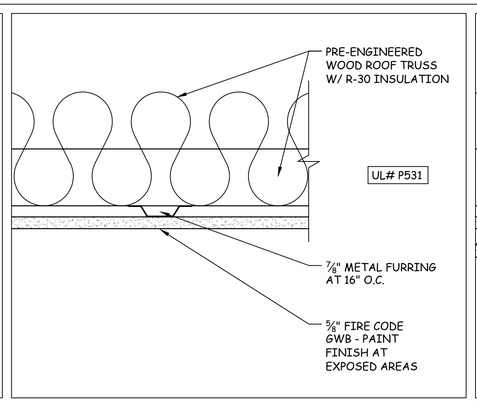
NOTE: SEE SHEET 489 FOR TOILET ACCESSORIES ADA MOUNTING HEIGHTS.

1 WOMEN'S 105 AND MEN'S 106 ELEVATIONS 3/8" = 1'-0"

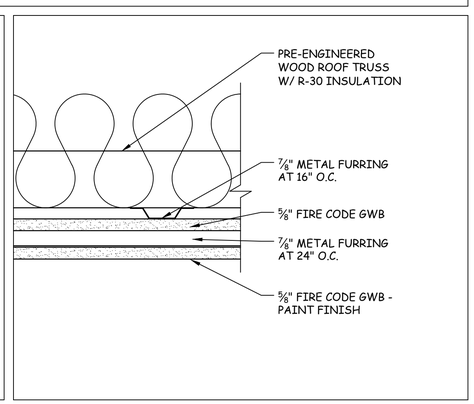
7 WOMEN'S 105 AND MEN'S 106 PLAN 1/2" = 1'-0"



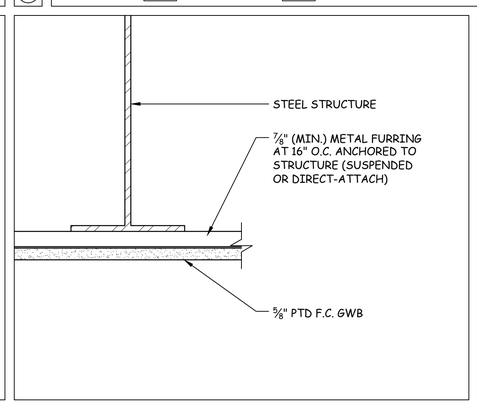
2 2 HR FIRE RATED SHAFT WALL TYPE Ⓐ 3" = 1'-0"



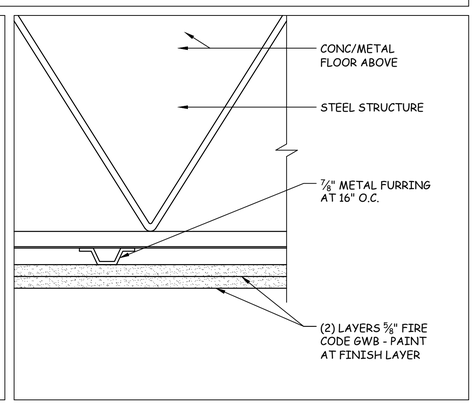
3 ROOF TRUSS 1 HR RATING DETAIL 3" = 1'-0"



4 2 HR RATING CEILING DETAIL AT WOOD TRUSS 3" = 1'-0"



5 CEILING DETAIL AT STAIR 002 3" = 1'-0"



6 2 HR CEILING DETAIL AT STEEL JOIST 3" = 1'-0"

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PROJECT NAME

CONTRACT NO., 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

TOILET ROOMS & DETAILS

DATE 07/27/2018
SCALE AS NOTED
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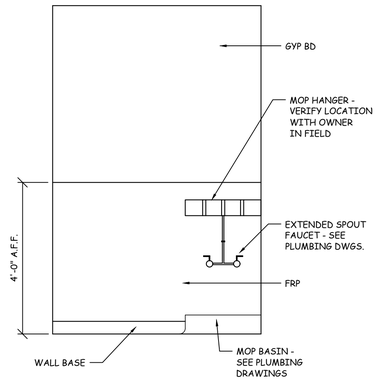
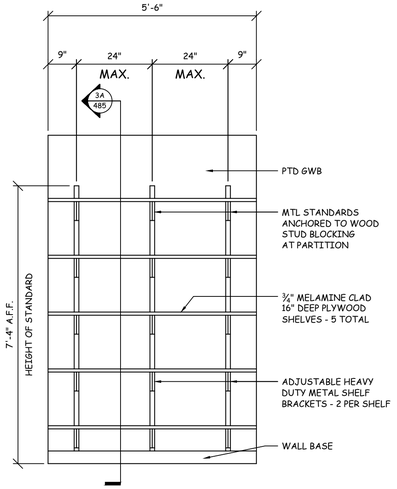
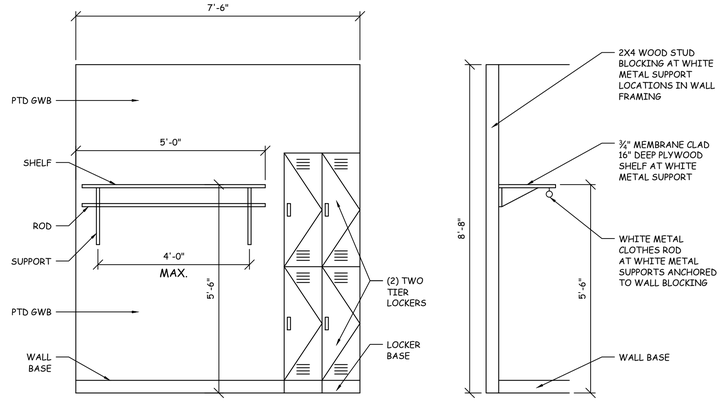


A CUSTODIAL 104 @ MOP BASIN

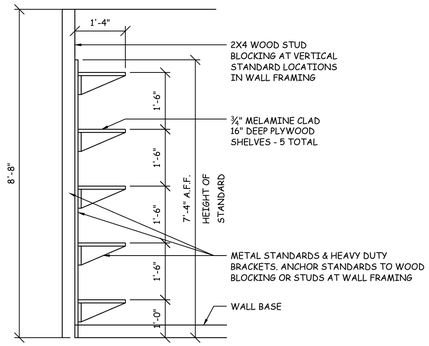
NOTE: 48" HIGH FRP WAINSCOT SHALL EXTEND TO DOOR FRAME EDGE AT WEST WALL & & SIM DIMENSION AT NORTH WALL



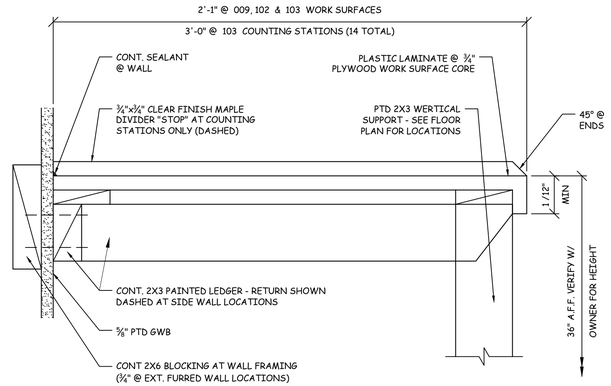
B CUSTODIAL 104 @ SHELVES
SCALE: 1/2" = 1'-0"



C ROD & SHELF AT HALL 109 & UNIFORM STORAGE 007
SCALE: 1/2" = 1'-0"

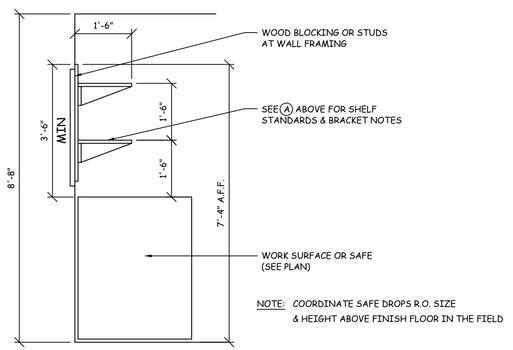


A SECTION AT CUSTODIAL 104 SHELVES
SCALE: 1/2" = 1'-0"



NOTE: INSTALL 3/4"x3/4" CLEAR FINISH MAPLE DIVIDER "STOP" AT COUNTING STATIONS.

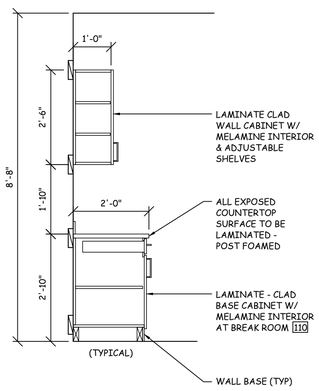
B SECTION AT WORK SURFACES / COUNTING
SCALE: 3" = 1'-0"

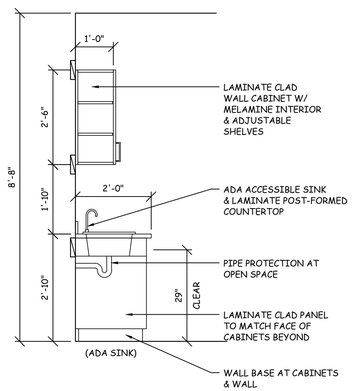


NOTE: COORDINATE SAFE DROPS R.O. SIZE & HEIGHT ABOVE FINISH FLOOR IN THE FIELD

C SECTION AT SHELVING
SCALE: 1/2" = 1'-0"

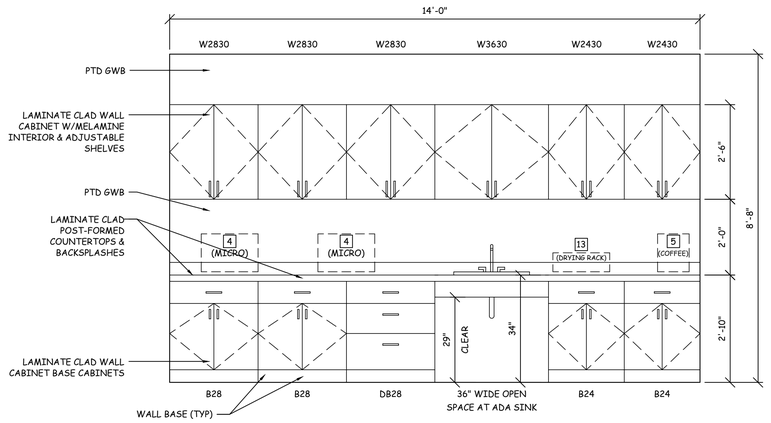
1 INTERIOR ELEVATIONS — 1/2" = 1'-0"





KITCHEN CABINET SECTIONS
SCALE: 1/2" = 1'-0"

NOTE: PROVIDE SOLID WOOD BLOCKING AT WALL FRAMING AT ALL CABINETS



KITCHEN CABINET ELEVATION AT BREAK ROOM 110
SCALE: 1/2" = 1'-0"

2 KITCHEN CABINETS — 1/2" = 1'-0"

3 SHELVES AT 009 WORKBENCH & 107 STORAGE — AS NOTED

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PROJECT NAME

CONTRACT NO.: 2018.20
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MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

INTERIOR ELEVATIONS & SECTIONS

DATE 07/27/2018
SCALE AS NOTED
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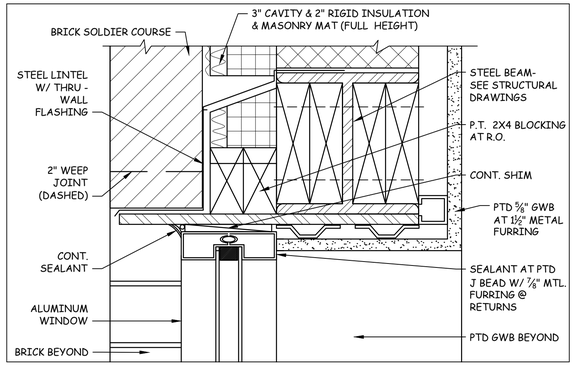
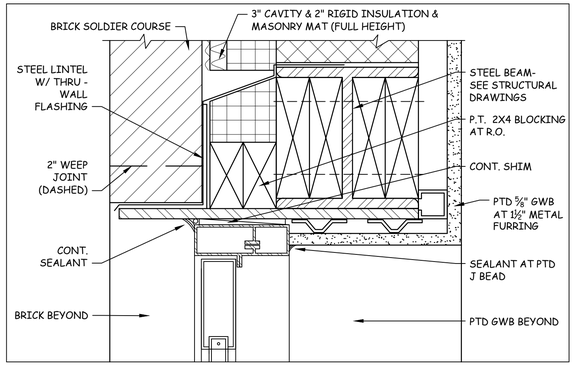
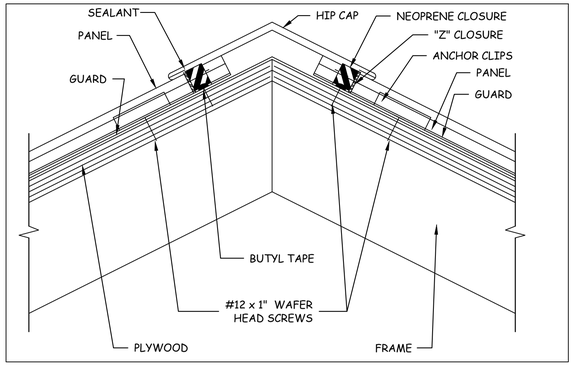


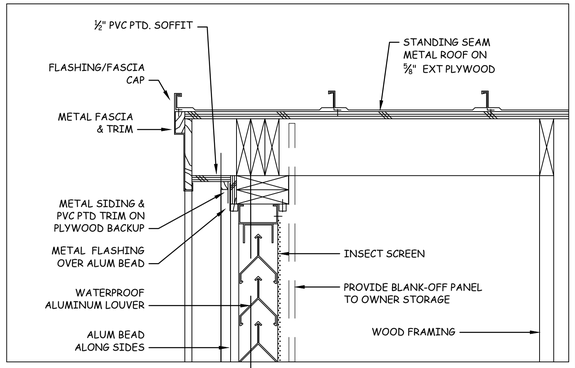
1 EXTERIOR WINDOW HEAD @ STEEL FRAME 3" = 1'-0"



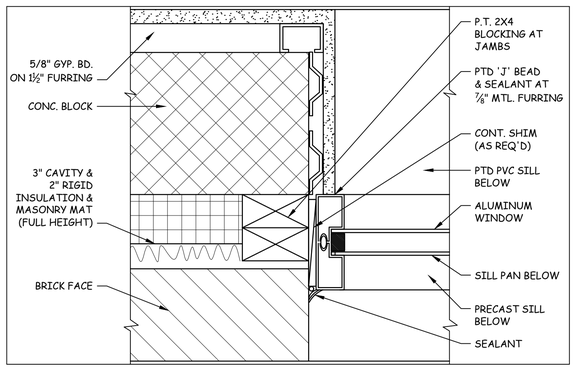
5 EXTERIOR DOOR HEAD @ STEEL FRAME 3" = 1'-0"



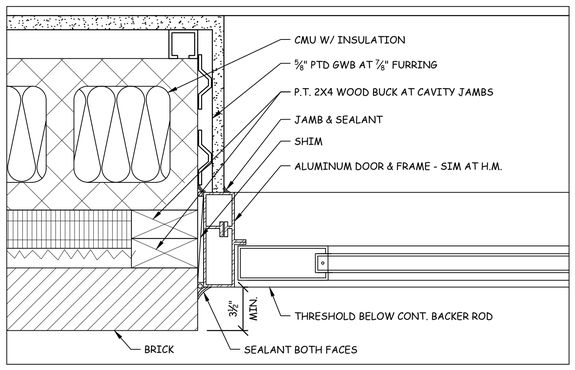
9 ROOF HIP/RIDGE DETAIL 3" = 1'-0"



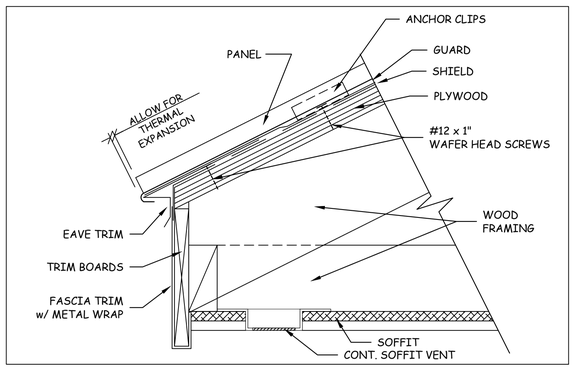
13 GABLE LOUVER RAKE DETAIL 1 1/2" = 1'-0"



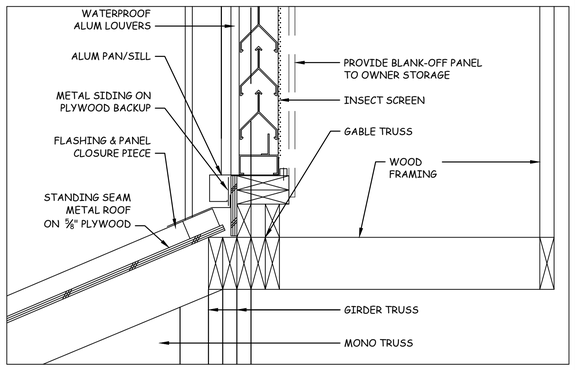
2 EXTERIOR WINDOW JAMB 3" = 1'-0"



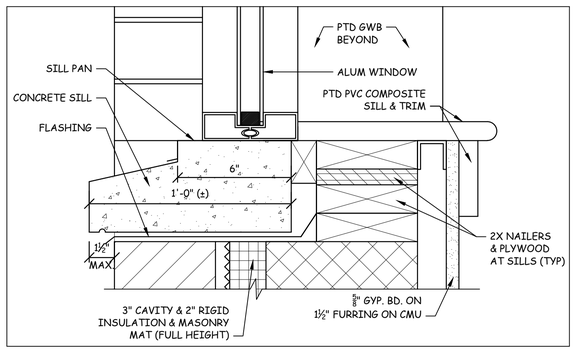
6 EXTERIOR DOOR JAMB DETAIL 3" = 1'-0"



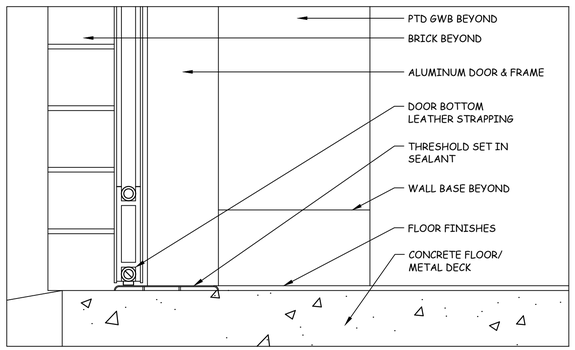
10 ROOF EAVE DETAIL 3" = 1'-0"



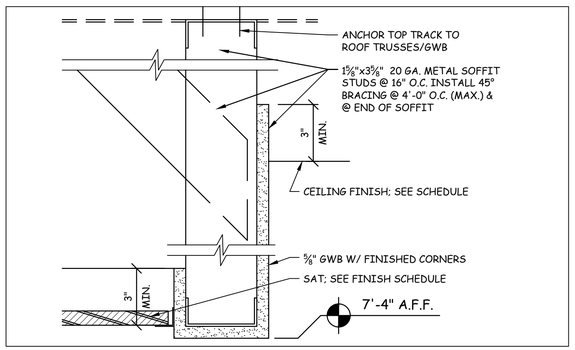
14 GABLE LOUVER SILL DETAIL 1 1/2" = 1'-0"



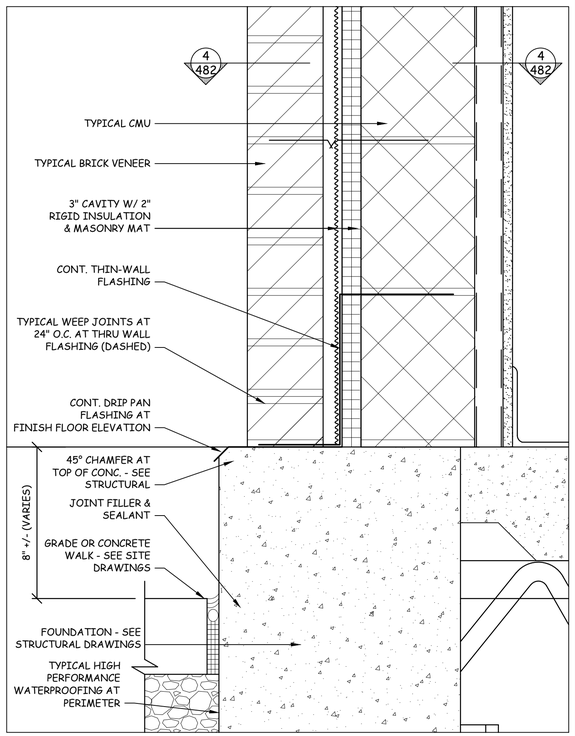
3 EXTERIOR WINDOW SILL 3" = 1'-0"



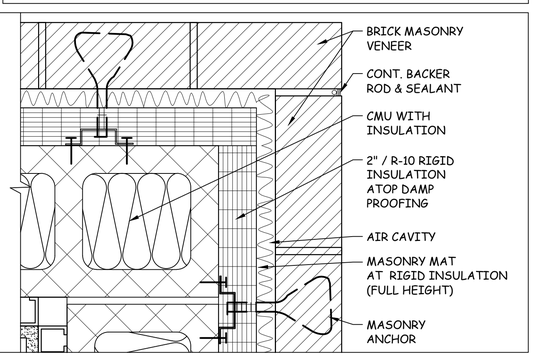
7 THRESHOLD DETAIL 3" = 1'-0"



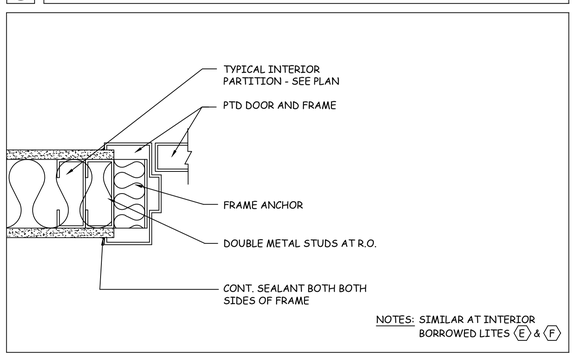
11 SOFFIT DETAIL 3" = 1'-0"



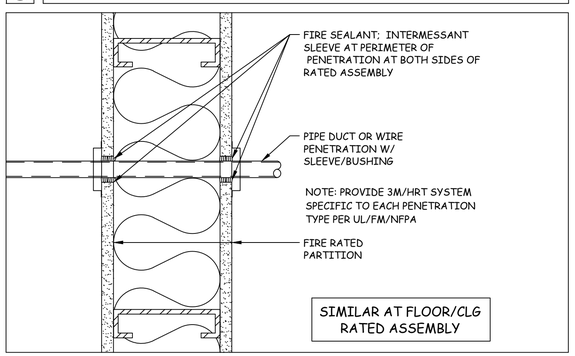
15 CAVITY WALL SECTION DETAIL 1" = 1'-0"



4 MASONRY EXPANSION JOINT DETAIL 3" = 1'-0"



8 TYP. INTERIOR H.M. JAMB (HEAD SIM) 3" = 1'-0"



12 FIRE SEALANT AT PENETRATIONS 3" = 1'-0"

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DETAILS

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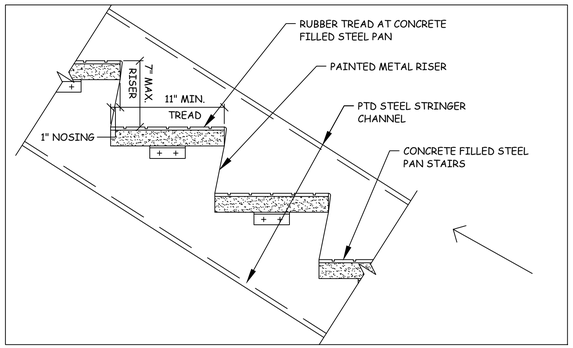
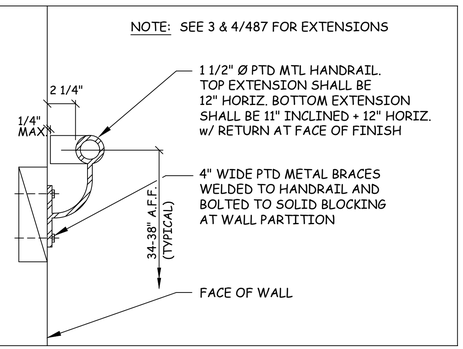
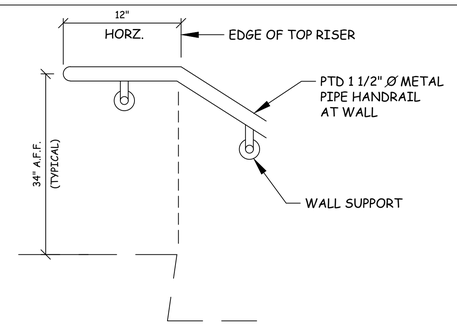


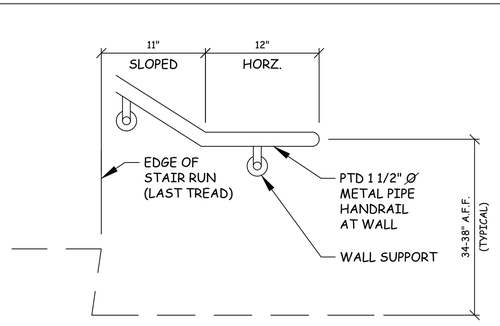
① STAIR RISER / TREAD DETAIL — 1 1/2" = 1'-0"



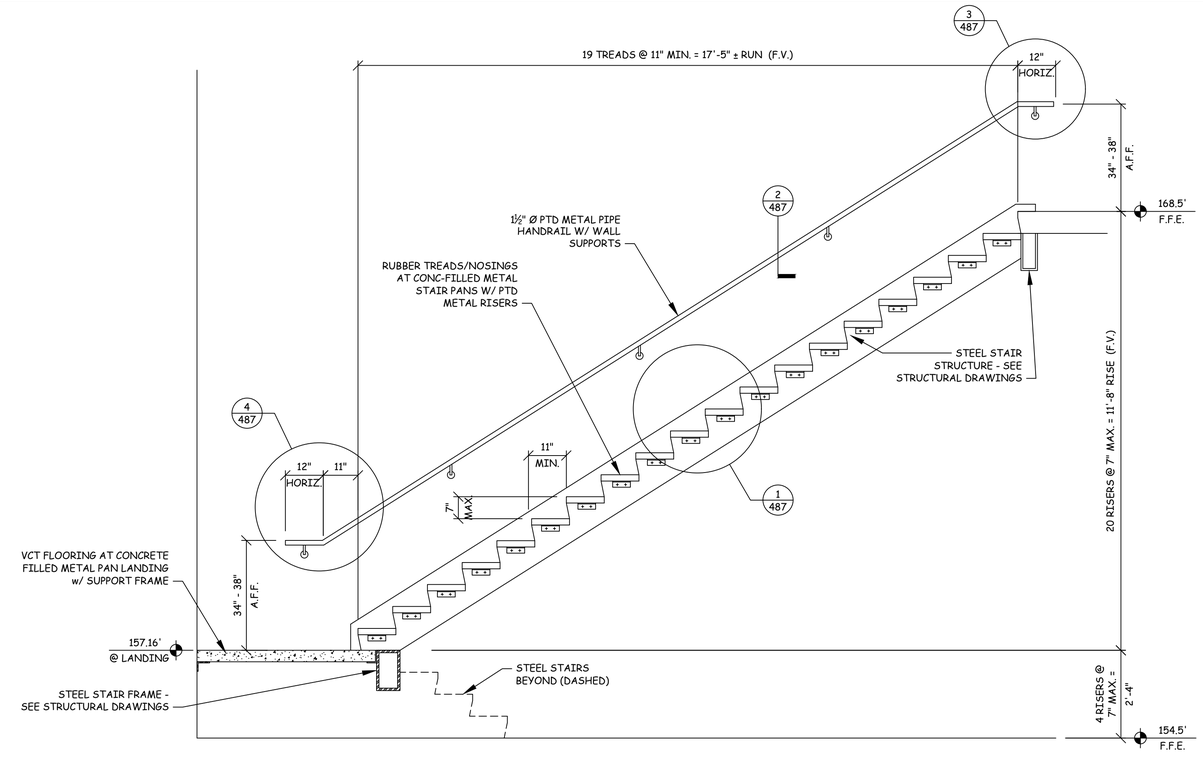
② TYPICAL WALL HANDRAIL SECTION — 3" = 1'-0"



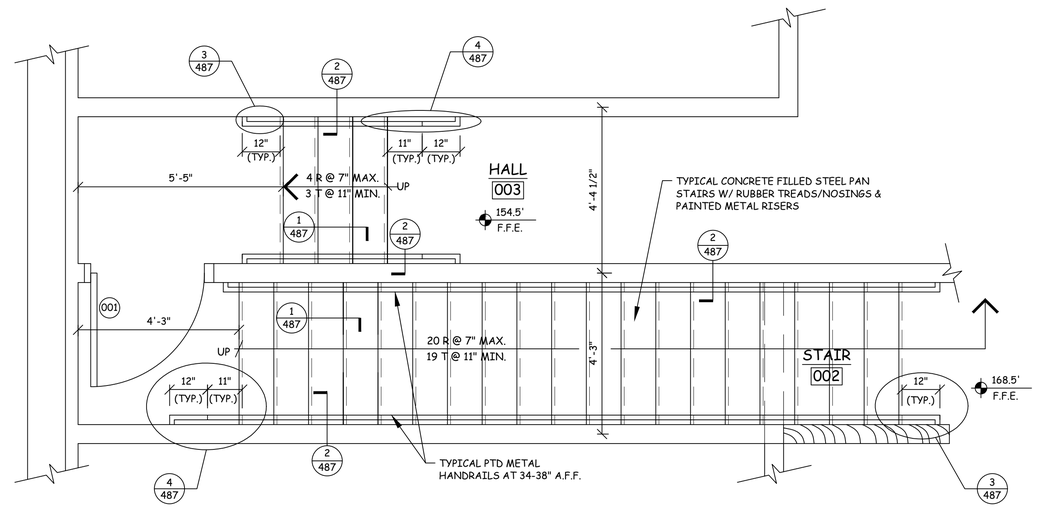
③ TYPICAL WALL HANDRAIL - TOP — 1" = 1'-0"



④ TYPICAL WALL HANDRAIL - BOTTOM — 1" = 1'-0"



STAIR 002 SECTION
SCALE: 1/2" = 1'-0"



STAIR 002 PLAN
SCALE: 1/2" = 1'-0"

Ⓐ STAIR 002 PLAN & SECTION — 1/2" = 1'-0"

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SEAL

LICENSED ARCHITECT MICHAEL F. HAYS No. 1724 STATE OF MAINE

REVISIONS

DRAWING NAME

CONTRACT NO.: 2018.20
MAINE TURNPIKE TOLL ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

STAIR PLAN, SECTION & DETAILS

DATE 07/27/2018
SCALE AS NOTED
DRAWN mgk/MFH
JOB NO. JACOBS E2X71602
SHEET 487 OF 489

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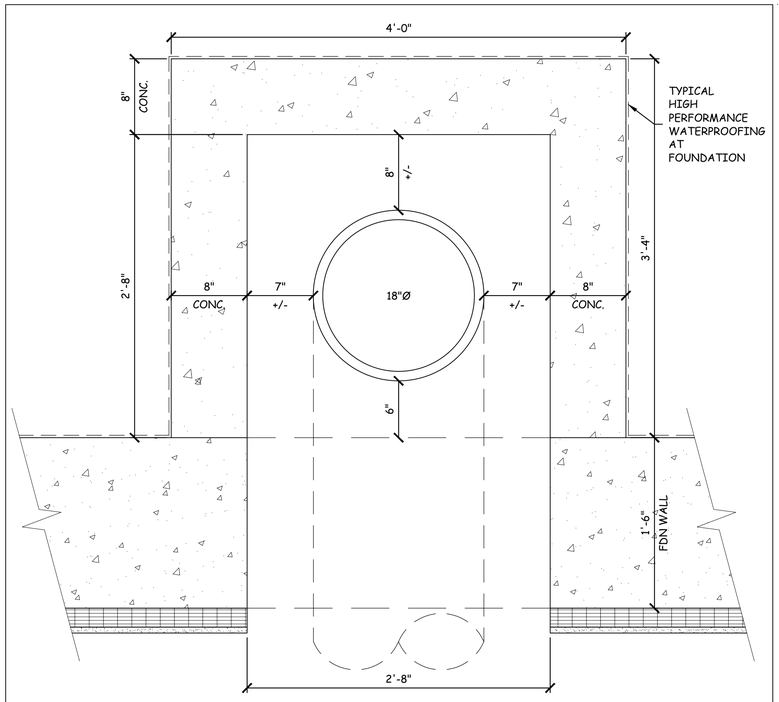
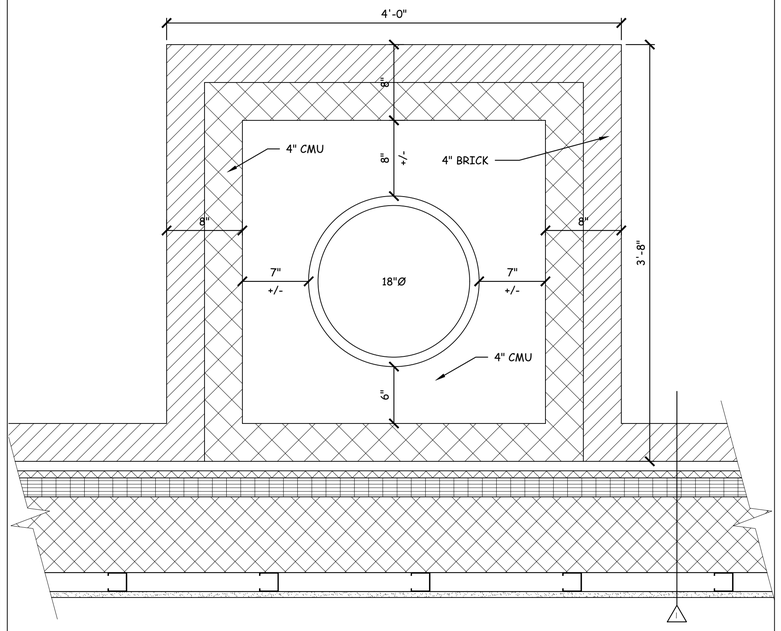
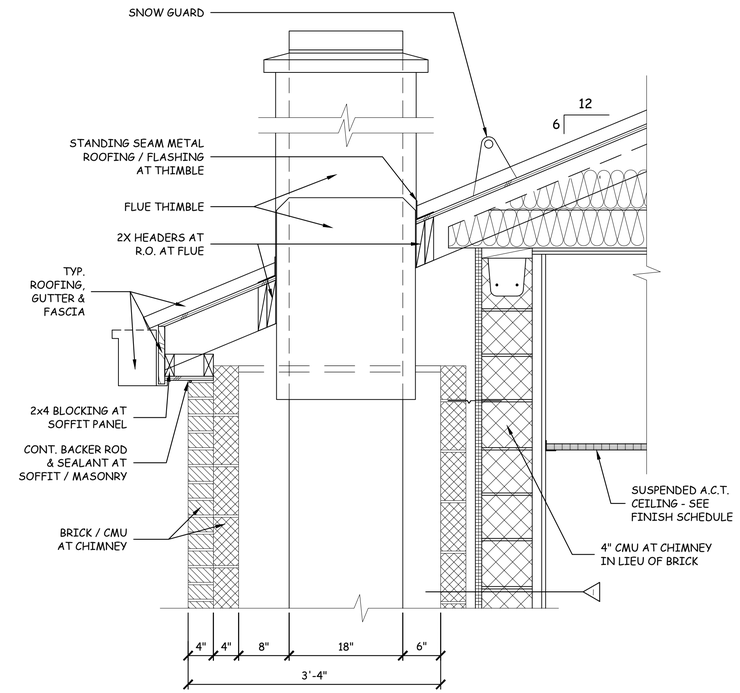


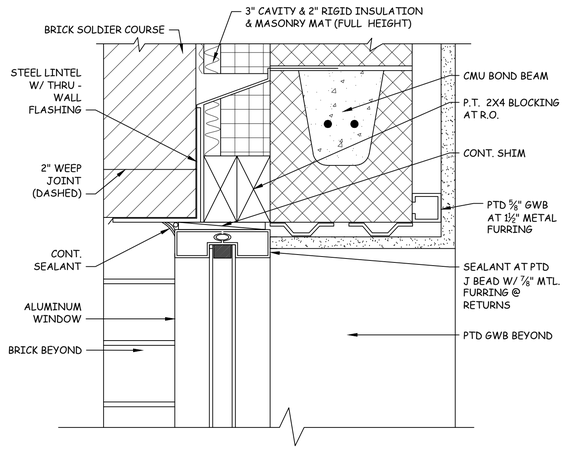
1 PLAN DETAIL - CHIMNEY AT BOILER ROOM 005 — 1 1/2"=1'-0"



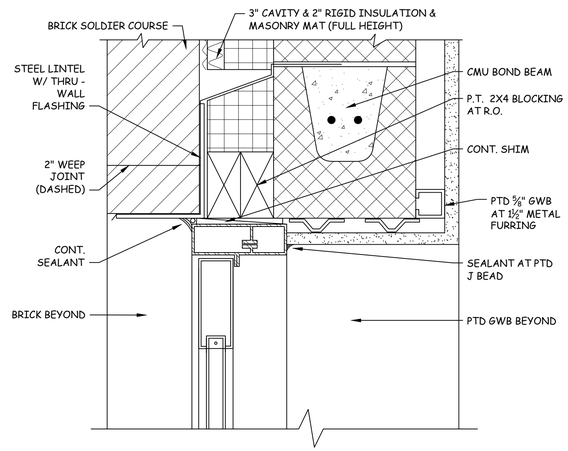
2 PLAN DETAIL - CHIMNEY AT FIRST FLOOR — 1 1/2"=1'-0"



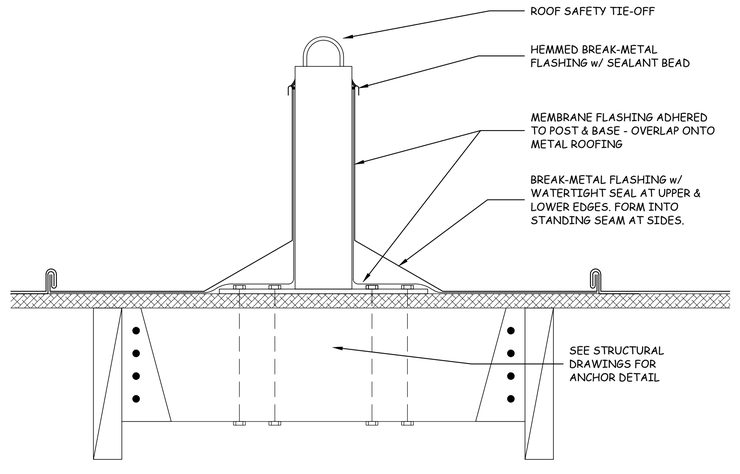
3 SECTION DETAIL - CHIMNEY AT ROOF SOFFIT — 1"=1'-0"



4 EXTERIOR WINDOW HEAD AT MASONRY — 3"=1'-0"



5 EXTERIOR DOOR HEAD AT MASONRY — 3"=1'-0"



6 FLASHING AT ROOF SAFETY TIE-OFF — 3"=1'-0"

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Michael F. Hays

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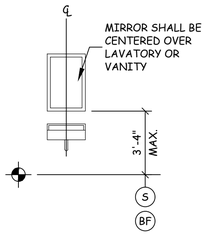
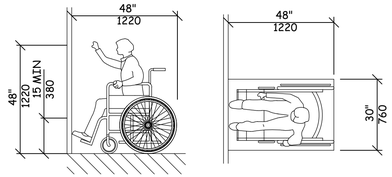
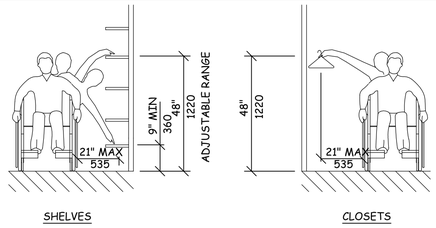


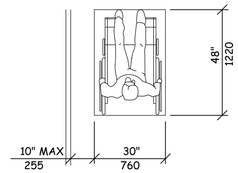
MIRROR OR MEDICINE CABINET
NTS



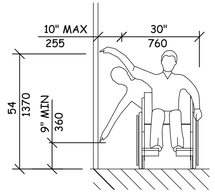
HIGH FORWARD REACH LIMIT
NTS



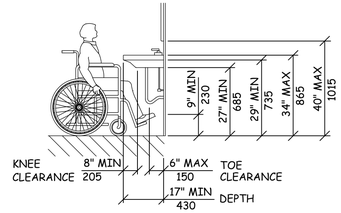
STORAGE SHELVES AND CLOSETS
NTS



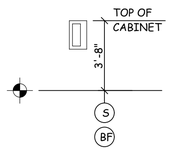
CLEAR FLOOR SPACE
PARALLEL APPROACH
NTS



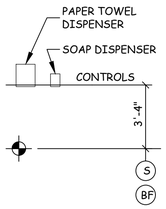
HIGH AND LOW
SIDE REACH LIMITS
NTS



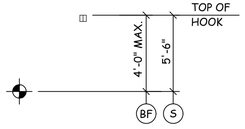
LAVATORY CLEARANCES
NTS



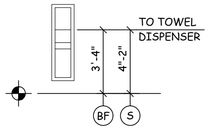
FIRE EXTINGUISHER
CABINET (FEC)
NTS



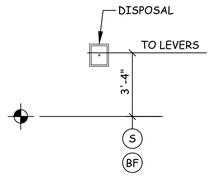
TOWEL & SOAP DISPENSERS
NTS



CLOTHES HOOK
NTS



TOWEL DISPENSER
DISPOSAL UNIT
NTS



SANITARY DISPOSAL UNIT
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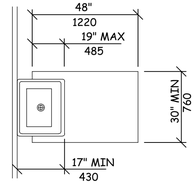
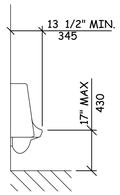
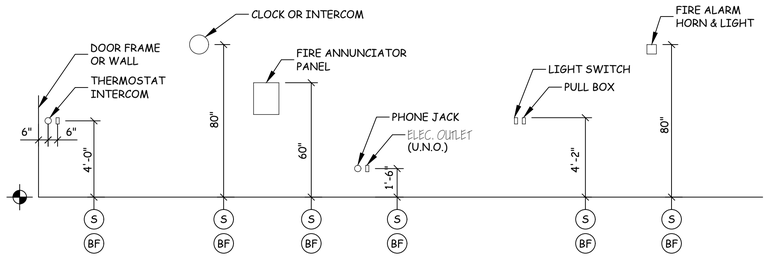


CLEAR FLOOR SPACE
AT LAVATORIES
NTS

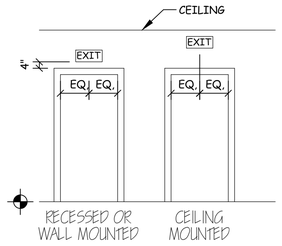


WALL HUNG TYPE

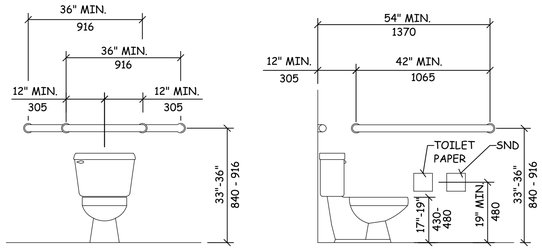
HEIGHT AND DEPTH OF URINAL
NTS



ELECTRICAL & FIRE PROTECTION DEVICES
TYPICAL UNLESS NOTED OTHERWISE
NTS



EXIT SIGNS
TYPICAL UNLESS OTHERWISE NOTED
NTS



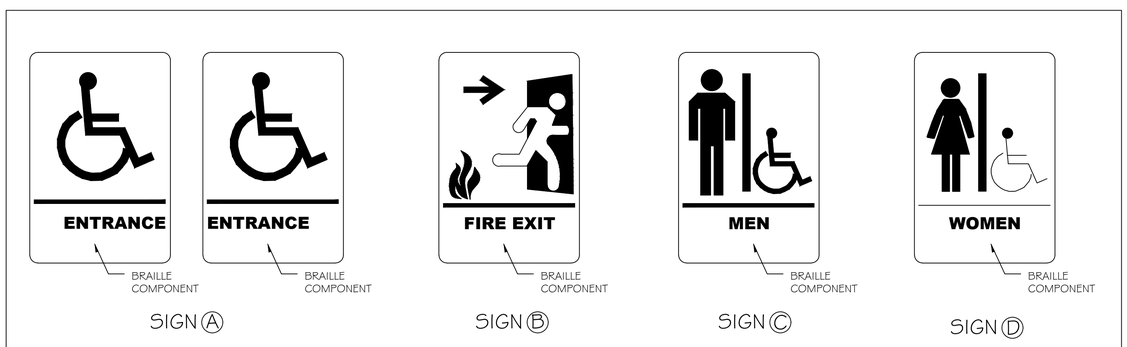
GRAB BARS AT WATER CLOSETS
NTS

LEGEND:

- (S) STANDARD MOUNTING HEIGHT
- (BR) BARRIER FREE ADULT MOUNTING HEIGHT
- FINISH FLOOR LINE

NOTE:

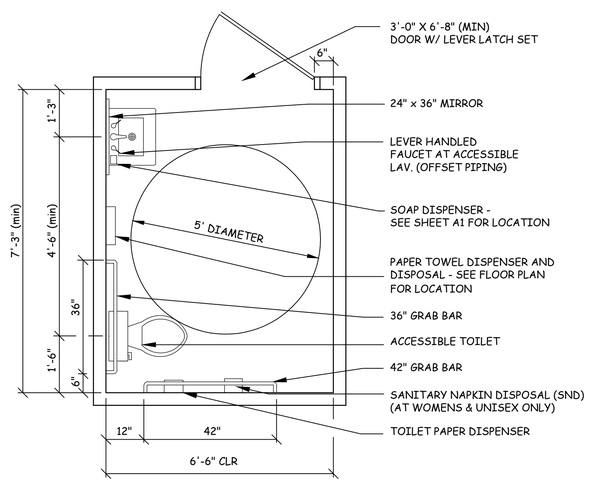
MOUNT ALL FIXTURES AT STANDARD MOUNTING HEIGHT UNLESS INDICATED ON PLAN BY A ♿ SYMBOL. A ♿ SYMBOL AT ANY ROOM SHALL INCLUDE ONE OF ANY FIXTURE AND ACCESSORY WITHIN THE ROOM.



SIGNAGE LOCATIONS

- Ⓐ BRICK EXTERIOR WALL @ DOORS 101, 102 AND 104
- Ⓑ DOOR 011 AND HALL 003
- Ⓒ DOOR 108
- Ⓓ DOOR 109

1 ACCESSIBILITY SIGNAGE DETAILS NO SCALE



1 TYPICAL ACCESSORIES
NTS

ACCESSIBILITY ACCESSORY MOUNTING HEIGHTS

GRAB BARS	33"-36"
TOILET PAPER HOLDER	19" MIN
PAPER TOWEL DISPENSER	48" MAX
SOAP/DISPENSER AT WALL	48" MAX
SANITARY NAPKIN DISPOSAL	19" MAX
MIRROR (BOTTOM)	40" MAX
SHELVES/STORAGE	48" MAX
ELECTRICAL SWITCHES/OUTLECTS	48" MAX
COAT HOOKS/RODS	48" MAX
SIGNAGE (TO BRAILLE COMPONENT)	60" MAX

ACCESSIBILITY GENERAL NOTES

1. DOORWAYS SHALL HAVE A MINIMUM CLEAR WIDTH OF 32" WITH THE DOOR OPEN 90 DEGREES. MEASURED BETWEEN THE FACE OF THE DOOR AND THE OPPOSITE STOP.
2. ALL DOORS SHALL HAVE LEVER HANDLE HARDWARE, EXCEPT AT SECURED STORAGE ROOMS, MECHANICAL ROOMS, AND ELEVATOR MACHINE ROOMS,
3. ALL CLOSERS SHALL BE 5LB PULL MAXIMUM AT DOORS EQUIPPED WITH LEVER HANDLE HARDWARE.
4. ALL DOORS WITH CLOSERS SHALL HAVE 18" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PULL SIDE OF THE OPENING.
5. ALL DOORS WITH CLOSERS SHALL HAVE 12" CLEAR DISTANCE FROM THE LATCHSIDE OF THE OPENING TO ANY ADJACENT WALL OR OBSTRUCTION ON THE PUSH SIDE OF THE OPENING.
6. ALL SIGNAGE SHALL BE MOUNTED 60" AFF TO BRAILLE COMPONENT AT LATCH-SIDE WALL OF DOORS AND OPENINGS.

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SEAL

LICENSED ARCHITECT
MICHAEL F. HAYS
No. 1724
STATE OF MAINE
Michael F. Hays

REVISIONS

PROJECT NAME

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MAINE TURNPIKE TOLL
ADMINISTRATION BUILDING
MILE MARKER (MM) 8.8
YORK
MAINE 03909

SHEET

ACCESSIBILITY
DETAILS & NOTES

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