



# Washington County, MD

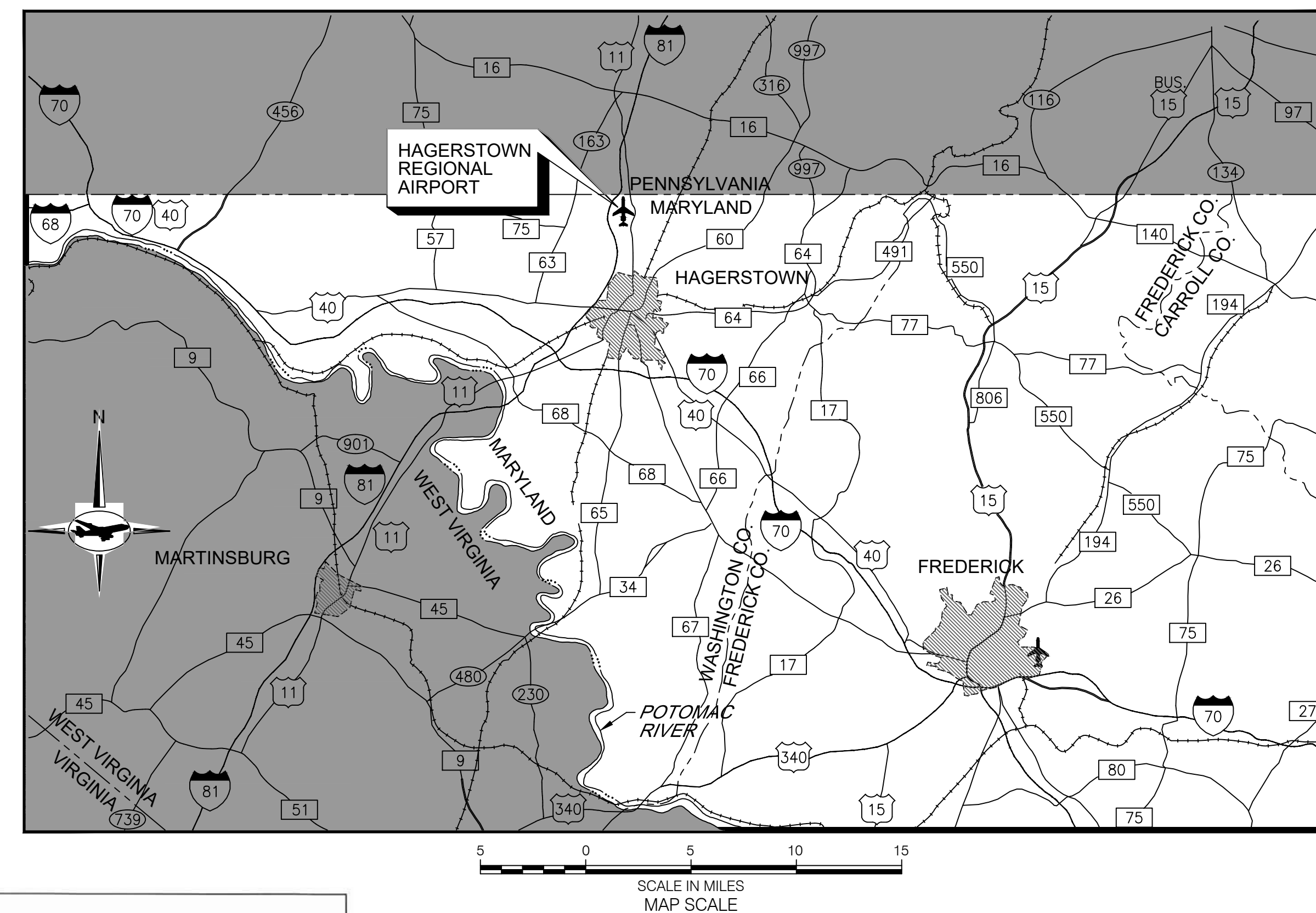
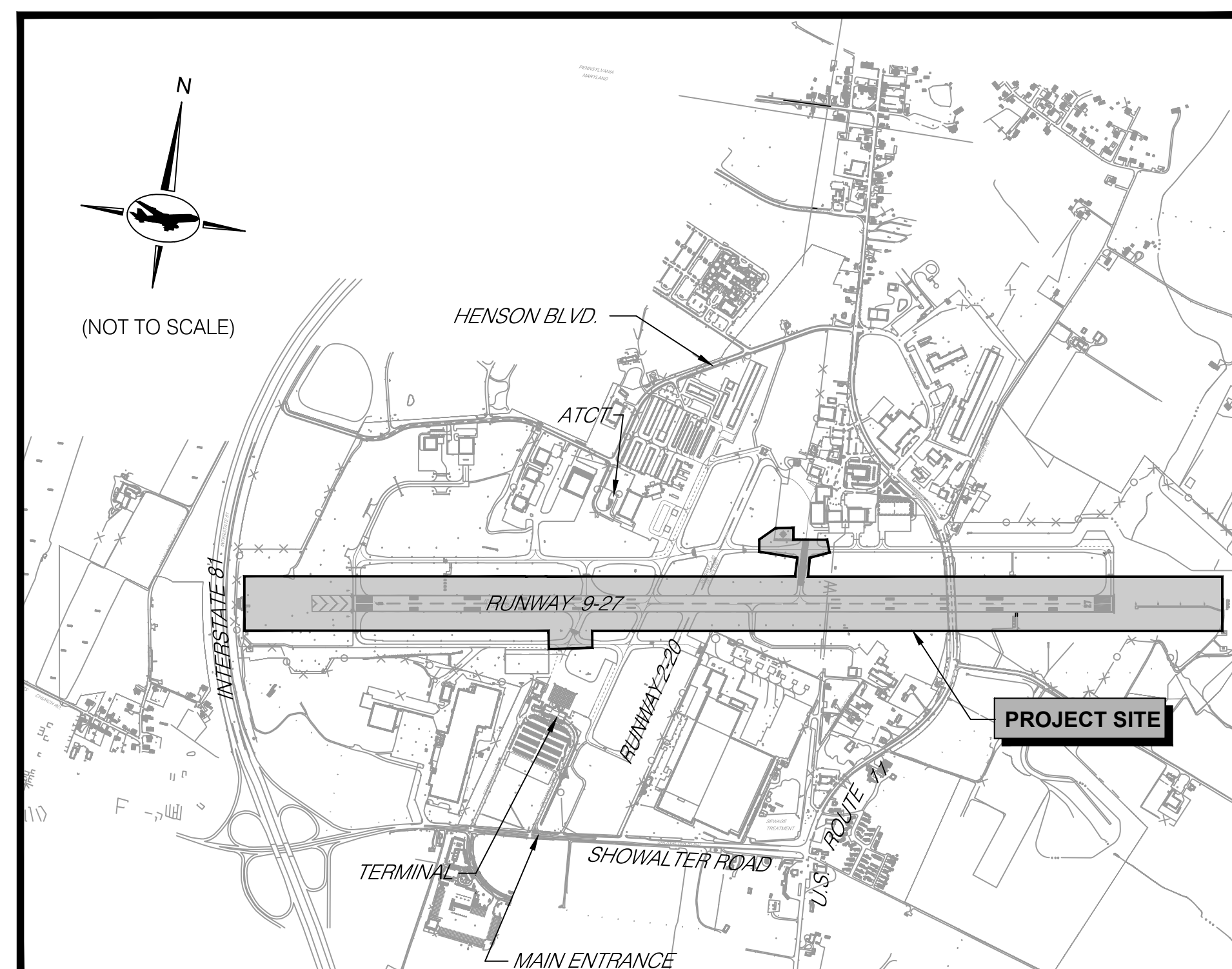
HAGERSTOWN REGIONAL AIRPORT

## RUNWAY 9-27 REHABILITATION A.I.P. No. 3-24-0019-059 (DESIGN) BID No. PUR-1409 BID DOCUMENTS FEBRUARY 2020

MAA GRANT No. : MAA-GR-19-009 (DESIGN)  
GRADING PERMIT No. : GP-19-005

VICINITY MAP

LOCATION MAP



WASHINGTON COUNTY SOIL CONSERVATION DISTRICT  
SOIL EROSION AND SEDIMENT CONTROL PLAN APPROVAL  
BY: *Clare Weiss*  
DATE: 1/21/19  
(PLAN IS VALID FOR TWO YEARS FROM DATE OF APPROVAL)

**DISTURBED AREA QUANTITIES**  
THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 1.2 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 2,400 C.Y. OF EXCAVATION AND 500 C.Y. OF FILL.  
\* THESE QUANTITIES ARE APPROXIMATE AND SHALL NOT BE USED BY THE CONTRACTOR FOR BIDDING PURPOSES.

**OWNER/DEVELOPER CERTIFICATION**  
I/WE CERTIFY ALL/ANY PARTIES RESPONSIBLE FOR CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT.  
1-3-2020 GARRISON PLESSINGER, AIRPORT DIRECTOR  
DATE NAME SIGNATURE

APPROVED:  
WASHINGTON COUNTY DIVISION OF PLAN REVIEW & PERMITTING  
*Stephane* DATE: 1/17/2020  
SIGNATURE DATE

**UTILITY NOTIFICATION**  
THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE. SHOWN ON THESE CONSTRUCTION DRAWINGS ARE THOSE UTILITIES WHICH HAVE BEEN IDENTIFIED. IT IS THE RESPONSIBILITY OF THE LANDOWNERS OR OPERATORS AND CONTRACTORS TO ASSURE THEMSELVES THAT NO HAZARD EXISTS OR DAMAGE WILL OCCUR TO UTILITIES. CONTRACTOR TO CONTACT MISS UTILITY AT: PHONE No. 1-800-257-7777.

**S.W.M. NARRATIVE**  
THIS PROJECT AREA CURRENTLY IS TREATED BY AN EXISTING BMP (REGIONAL SWM POND B3 ADJACENT TO THE PROPERTY). THE PROJECT WILL DEMOLISH EXISTING TAXIWAY PAVEMENT, MILL EXISTING RUNWAY PAVEMENT, AND CONSTRUCT NEW TAXIWAY PAVEMENT WITHIN AIRPORT LIMITS. THE AFFECTED AREAS WILL BE GRADED TO TIE-IN TO EXISTING SURROUNDING PAVEMENTS AND TURFED AREA LIMITS. THIS WILL RESULT IN A NET IMPERVIOUS AREA REDUCTION CONTRIBUTING TO THE BMP OF APPROXIMATELY 17,236 SQ.FT.  
SUMMARY: THE NET IMPERVIOUS AREA RESULTING FROM THE PROJECT IS AN INCREASE OF 17,236 SQ.FT. IMPERVIOUS SURFACE AND IS TREATED BY AN EXISTING BMP. THEREFORE A VARIANCE IS REQUESTED IN ACCORDANCE WITH 2015 MARYLAND STORM WATER MANAGEMENT AND EROSION AND SEDIMENT CONTROL GUIDELINES FOR STATE AND FEDERAL PROJECTS SECTION 3.4 VARIANCES.

**ENGINEER/ARCHITECT DESIGN CERTIFICATION**  
I HEREBY CERTIFY THIS PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAS BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26.17.01.07, AND MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.  
1-2-20 29904 REG. NO. SIGNATURE  
DATE

**ARORA** Arora Engineers, Inc.  
61 Wilmington-West Chester Pike  
Chadds Ford, PA 19317  
P (610) 459-7900 | F (610) 459-7950 | aroraengineers.com

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12, 22, 2021

**ADCI** AIRPORT DESIGN CONSULTANTS INC.  
6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



HAGERSTOWN REGIONAL AIRPORT - RICHARD A. HENSON FIELD

APPROVED *Stephane* DATE 1-3-2020

FILE NAME: C:\HGR\Projects\2018-1303\CAD\001\SHEETS\002\_GN00.01\_Drawing Index.dwg PLOTTED: Monday, February 17, 2020 - 7:43am USER: gRous

GENERAL			BASE BID	ADD ALTERNATE-1
1	GN00.00	COVER SHEET	•	
2	GN00.01	DRAWING INDEX	•	•
3	GN00.02	QUANTITY TABLE	•	
4	GN01.00	GENERAL PROJECT LAYOUT	•	•
5	GN01.02	BASELINE LAYOUT PLAN	•	
6	GN01.03	GENERAL CONSTRUCTION AND SAFETY NOTES 1	•	
7	GN02.00	OVERALL CONSTRUCTION SAFETY AND PHASING PLAN	•	•
8	GN02.01	PHASE 1 CONSTRUCTION SAFETY AND PHASING PLAN	•	
9	GN02.02	PHASE 2 CONSTRUCTION SAFETY AND PHASING PLAN	•	
10	GN02.03	PHASE 3 CONSTRUCTION SAFETY AND PHASING PLAN	•	
11	GN02.04	PHASE 4 CONSTRUCTION SAFETY AND PHASING PLAN	•	
12	GN02.05	PHASE 5 CONSTRUCTION SAFETY AND PHASING PLAN	•	•
13	GN02.06	PHASE 6 CONSTRUCTION SAFETY AND PHASING PLAN	•	•
14	GN02.07	CONSTRUCTION SAFETY AND PHASING NOTES AND DETAILS	•	
CIVIL			BASE BID	ADD ALTERNATE-1
15	CV01.01	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 1	•	
16	CV01.02	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 2	•	
17	CV01.03	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 3	•	•
18	CV01.04	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 4	•	•
19	CV01.05	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 5	•	
20	CV01.06	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 6	•	
21	CV01.07	EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 7	•	•
22	CV02.01	PAVING AND GEOMETRY PLAN 1	•	
23	CV02.02	PAVING AND GEOMETRY PLAN 2	•	
24	CV02.03	PAVING AND GEOMETRY PLAN 3	•	•
25	CV02.04	PAVING AND GEOMETRY PLAN 4	•	•
26	CV02.05	PAVING AND GEOMETRY PLAN 5	•	
27	CV02.06	PAVING AND GEOMETRY PLAN 6	•	
28	CV02.07	PAVING AND GEOMETRY PLAN 7	•	•
29	CV02.10	TYPICAL SECTIONS AND PAVING DETAILS	•	•
30	CV02.11	PAVEMENT TIE-IN DETAILS	•	•
31	CV03.01	GRADING PLAN AND PROFILE 1	•	
32	CV03.02	GRADING PLAN AND PROFILE 2	•	
33	CV03.03	GRADING PLAN AND PROFILE 3	•	
34	CV03.04	GRADING PLAN AND PROFILE 4	•	
35	CV03.05	GRADING PLAN AND PROFILE 5	•	
36	CV03.06	GRADING PLAN AND PROFILE 6	•	
37	CV03.07	GRADING PLAN AND PROFILE 7	•	
38	CV03.08	GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY A	•	•
39	CV03.09	GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY B	•	•
40	CV03.10	GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY D	•	•
41	CV03.11	DRAINAGE PROFILES	•	•
42	CV03.12	DRAINAGE DETAILS 1	•	•
43	CV03.13	DRAINAGE DETAILS 2 AND SCHEDULES	•	•
44	CV04.01	INITIAL EROSION AND SEDIMENT CONTROL PLAN - TAXIWAY D	•	•
45	CV04.02	FINAL EROSION AND SEDIMENT CONTROL PLAN - TAXIWAY B	•	•
46	CV04.03	FINAL EROSION AND SEDIMENT CONTROL PLAN - TAXIWAY D	•	•
47	CV04.11	EROSION AND SEDIMENT CONTROL NOTES 1	•	•
48	CV04.12	EROSION AND SEDIMENT CONTROL NOTES 2 AND DETAILS	•	•
49	CV05.01	PAVEMENT MARKING AND GROOVING PLAN 1	•	•
50	CV05.02	PAVEMENT MARKING AND GROOVING PLAN 2	•	•
51	CV05.03	PAVEMENT MARKING AND GROOVING PLAN 3	•	
52	CV05.04	PAVEMENT MARKING PLAN - TAXIWAYS A AND B	•	•
53	CV05.05	PAVEMENT MARKING PLAN - TAXIWAY D	•	•
54	CV05.11	PAVEMENT MARKING DETAILS 1	•	•
55	CV05.12	PAVEMENT MARKING DETAILS 2	•	
56	CV05.13	GROOVING NOTES AND DETAILS	•	
57	CV06.00	BORING LOCATION PLAN	•	
58	CV06.01	BORING LOGS 1	•	
59	CV06.02	BORING LOGS 2	•	
60	CV06.03	BORING LOGS 3	•	

ELECTRICAL			BASE BID	ADD ALTERNATE-1
61	E00.01	GENERAL NOTES - 1	•	
62	E00.02	GENERAL NOTES - 2	•	
63	E00.03	LEGEND AND ABBREVIATIONS	•	
64	E02.01	DEMOLITION PLANS - TAXIWAY D	•	•
65	E02.02	DEMOLITION PLANS - TAXIWAY B	•	•
66	E02.03	DEMOLITION PLANS - TAXIWAY A & B INTERSECTION, ROTATING BEACON	•	•
67	E02.04	DEMOLITION PLAN - RUNWAY END IDENTIFER LIGHTS	•	
68	E03.01	AREA PLAN - TAXIWAY D	•	•
69	E03.02	AREA PLAN - TAXIWAY B	•	•
70	E03.03	AREA PLAN - TAXIWAY A & B INTERSECTION, ROTATING BEACON	•	•
71	E03.04	AREA PLAN - RUNWAY 9 RUNWAY END IDENTIFIER LIGHTS	•	
72	E06.01	ELEVATED EDGE LIGHT INSTALLATION DETAIL IN UNPAVED AREA	•	
73	E06.02	IN-PAVEMENT EDGE LIGHT INSTALLATION DETAIL	•	
74	E06.03	IN-PAVEMENT EDGE LIGHT FIXTURE ADJUSTMENT	•	
75	E06.04	COUNTERPOISE INSTALLATION DETAIL	•	
76	E06.05	COUNTERPOISE INSTALLATION DETAIL	•	
77	E06.06	MISCELLANEOUS DETAILS	•	
78	E06.07	CONNECTOR AND CABLE TAG DETAILS	•	
79	E06.08	AIRCRAFT RATED HANDHOLE-MANHOLE	•	
80	E06.09	CONDUIT INSTALLATION DETAILS	•	
81	E06.10	GUIDANCE SIGN INSTALLATION DETAIL	•	
82	E06.11	AIRPORT ROTATING BEACON DETAIL	•	
83	E06.12	RUNWAY 9 RUNWAY END IDENTIFER LIGHT DETAILS	•	
84	E06.13	RUNWAY 9 RUNWAY END IDENTIFER LIGHT DETAILS	•	
85	E07.01	SCHEDULES	•	•
86	E07.02	SIGNAGE SCHEDULE	•	•
CIVIL - CROSS SECTIONS			BASE BID	ADD ALTERNATE-1
87	CV07.01	TAXIWAY A - CROSS SECTIONS 1	•	•
88	CV07.02	TAXIWAY A - CROSS SECTIONS 2	•	•
89	CV07.03	TAXIWAY B - CROSS SECTIONS	•	•
90	CV07.04	TAXIWAY D - CROSS SECTIONS	•	•

TAXIWAY A, B, AND D WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:	N. B. / S. S.		
CHECKED:	B. C. / K. M. F.		
APPROVED:	M. S. K.		

Washington County, MD  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

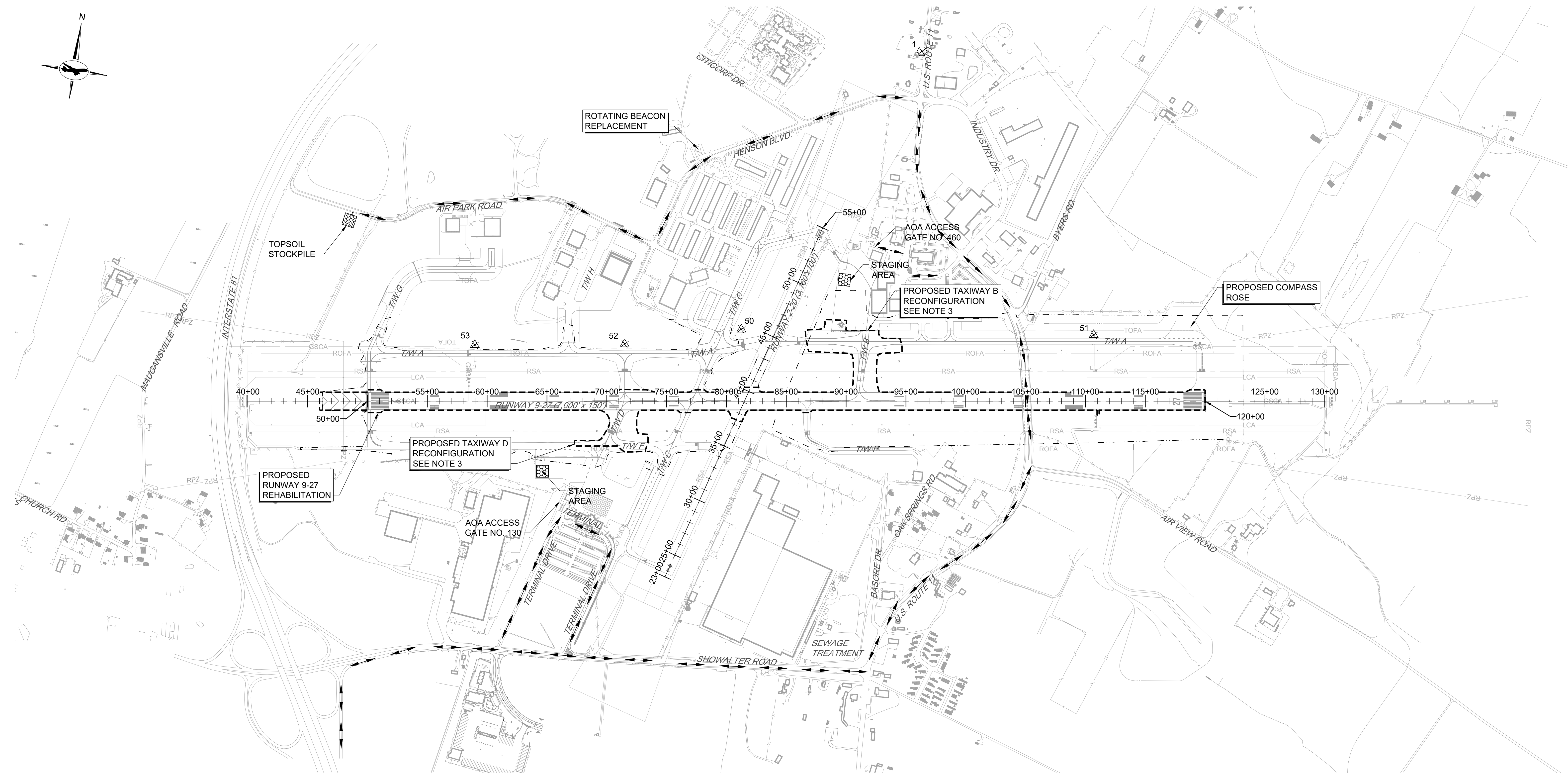
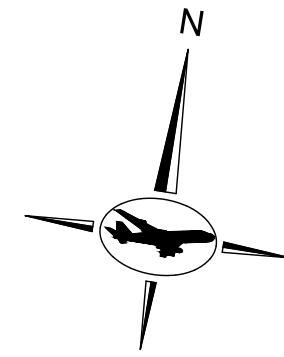
SHEET TITLE: **DRAWING INDEX**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **GN00.01**  
**2 OF 90**





**SURVEY CONTROL POINTS**

POINT #	NORTHING*	EASTING*	ELEVATION**	DESCRIPTION
1	747543.70	1108694.37	735.74'	NGS-MONUMENT/MIDDLE
50	745012.12	1107567.99	693.44'	5/8" REBAR W/CAP
51	745429.72	1110483.56	685.38'	5/8" REBAR W/CAP
52	744738.03	1106623.75	685.64'	5/8" REBAR W/CAP
53	744534.81	1105388.75	669.33'	5/8" REBAR W/CAP

**NOTES:**

- CONTRACTOR WILL NOT BE PERMITTED TO ENTER/ACCESS AOA WITHOUT PROPER CLEARANCES (SEE SHEET GN01.03).
- GENERAL STAGING AREA LOCATION SHOWN. SPECIFIC AREA WILL BE DESIGNATED BY THE RESIDENT PROJECT REPRESENTATIVE (RPR) DURING CONSTRUCTION.
- TAXIWAYS B AND D RECONFIGURATION WORK IS ASSOCIATED WITH EB-75 STANDARDS COMPLIANCE.

**LEGEND:**

- - - - - EXISTING AOA FENCE
- - - - - RPZ
- - - - - RSA
- - - - - ROFA
- - - - - TOFA
- - - - - GSCA
- - - - - LCA
- - - - - LIMIT OF FIELD SURVEY
- → → → → HAUL ROUTE
- --- --- PROJECT WORK LIMITS
- [Staging Area Symbol] STAGING AREA
- [Topsoil Stockpile Symbol] TOPSOIL STOCKPILE
- [Survey Control Point Symbol] SURVEY CONTROL POINT



\*HORIZONTAL DATUM: NAD83 MARYLAND STATE PLANE, US FOOT  
 \*\*VERTICAL DATUM: NAVD88

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



SEAL:	Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 32405 Expiration Date: 12.22.2021	DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
		DRAWN: N.B./S.S.			
		CHECKED: B.C./K.M.F.			
		APPROVED: M.S.K.			

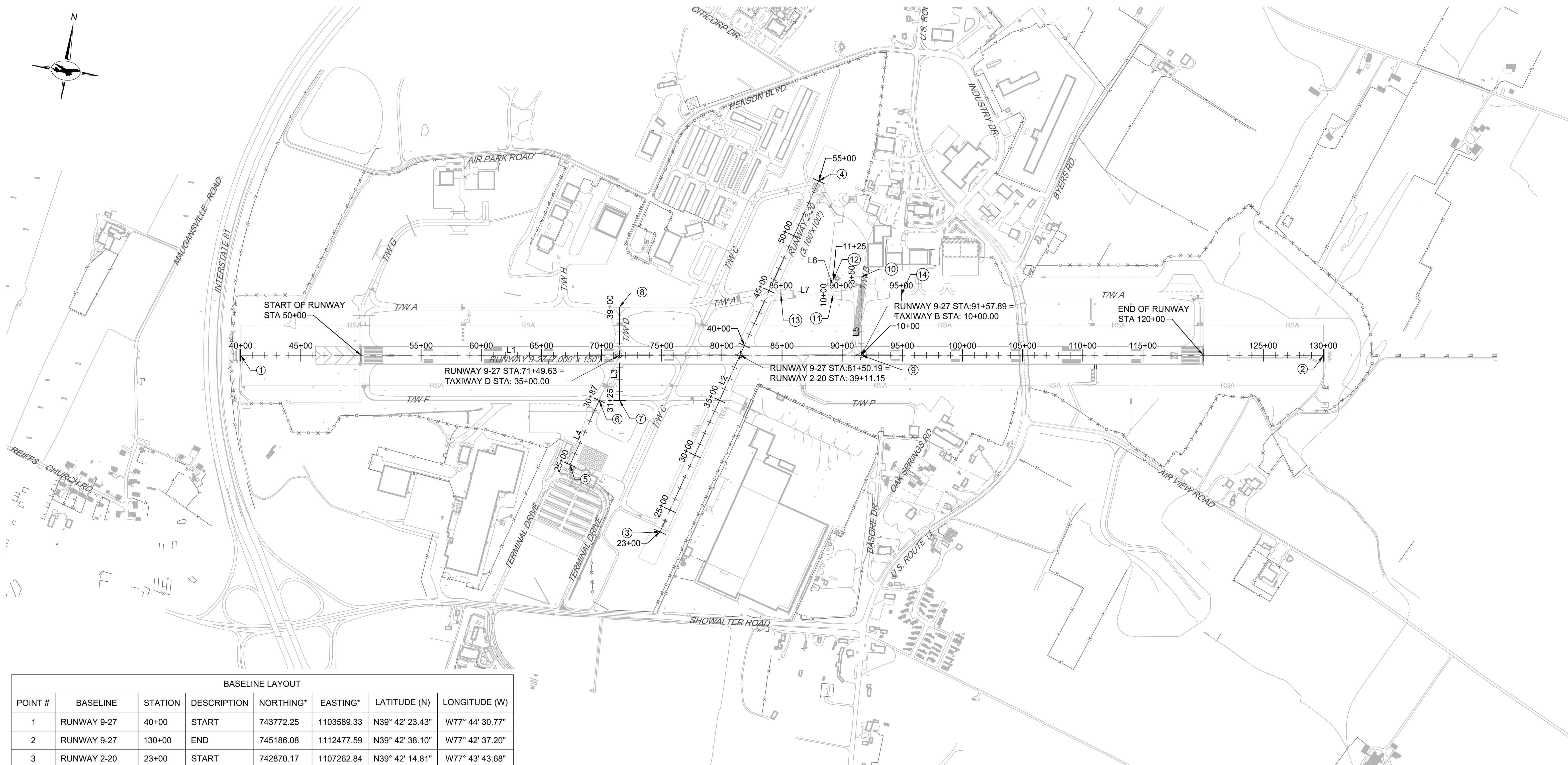
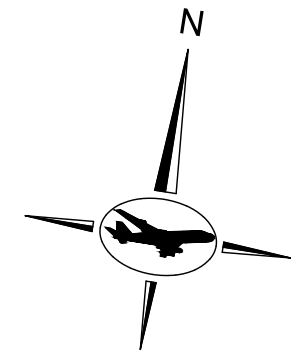
**BID DOCUMENTS**



PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>GENERAL PROJECT LAYOUT</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>GN01.00</b>
<b>4 OF 90</b>

FILE NAME: O:\HGR\Projects\2018-19\303\CAD\SHEETS\004\_GN01.00\_General Project Layout.dwg PLOTTED: Monday, February 17, 2020 - 7:24am USER: GROSS



BASELINE LAYOUT							
POINT #	BASELINE	STATION	DESCRIPTION	NORTHING*	EASTING*	LATITUDE (N)	LONGITUDE (W)
1	RUNWAY 9-27	40+00	START	743772.25	1103589.33	N39° 42' 23.43"	W77° 44' 30.77"
2	RUNWAY 9-27	130+00	END	745186.08	1112477.59	N39° 42' 38.10"	W77° 42' 37.20"
3	RUNWAY 2-20	23+00	START	742870.17	1107262.84	N39° 42' 14.81"	W77° 43' 43.68"
4	RUNWAY 2-20	55+00	END	745956.74	1108107.27	N39° 42' 45.38"	W77° 43' 33.19"
5	TAXIWAY D (OLD)	25+00	START	743303.65	1106436.30	N39° 42' 19.03"	W77° 43' 54.30"
6	TAXIWAY D (OLD)	30+87.21	END	743870.04	1106591.25	N39° 42' 24.64"	W77° 43' 52.38"
7	TAXIWAY D	31+25	START	743896.69	1106758.77	N39° 42' 24.91"	W77° 43' 50.24"
8	TAXIWAY D	39+00	END	744662.07	1106637.02	N39° 42' 32.47"	W77° 43' 51.87"
9	TAXIWAY B	10+00	START	744582.51	1108683.18	N39° 42' 31.84"	W77° 43' 25.68"
10	TAXIWAY B	16+50	END	745224.44	1108581.02	N39° 42' 38.18"	W77° 43' 27.06"
11	TAXIWAY B1	10+00	START	745039.47	1108373.08	N39° 42' 36.33"	W77° 43' 29.70"
12	TAXIWAY B1	11+25	END	745162.92	1108353.45	N39° 42' 37.55"	W77° 43' 29.96"
13	TAXIWAY A	85+00	START	744971.53	1107945.94	N39° 42' 35.63"	W77° 43' 35.16"
14	TAXIWAY A	95+00	END	745128.61	1108933.53	N39° 42' 37.26"	W77° 43' 22.54"

LINE TABLE				
SEGMENT	BASELINE	STATION	BEARING	LENGTH
L1	RUNWAY 9-27	40+00.00 TO 130+00.00	N80° 57' 42.44"E	9000.00'
L2	RUNWAY 2-20	23+00.00 TO 55+00.00	N15° 18' 02.63"E	3200.00'
L3	TAXIWAY D	31+25.00 TO 39+00.00	N9° 02' 17.57"W	775.00'
L4	TAXIWAY D (OLD)	25+00.00 TO 30+87.21	N15° 18' 02.71"E	587.21'
L5	TAXIWAY B	10+00.00 TO 16+50.00	N9° 02' 33.53"W	650.00'
L6	TAXIWAY B1	10+00.00 TO 11+25.00	N9° 02' 17.57"W	125.00'
L7	TAXIWAY A	85+00.00 TO 95+00.00	N80° 57' 46.01"E	1000.00'

**LEGEND:**  
 - - - - - EXISTING AOA FENCE  
 - - - - - RSA  
 - - - - - RUNWAY SAFETY AREA



\*HORIZONTAL DATUM: NAD83 MARYLAND STATE PLANE, US FOOT

FILE NAME: O:\HGR\Projects\2018-1303\CAD\Sheets\005\_GN01.02\_Baseline Layout\_Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:24am USER: gRass

**ADCI**  
 AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL:  
 Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 32405  
 Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>BASELINE LAYOUT PLAN</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

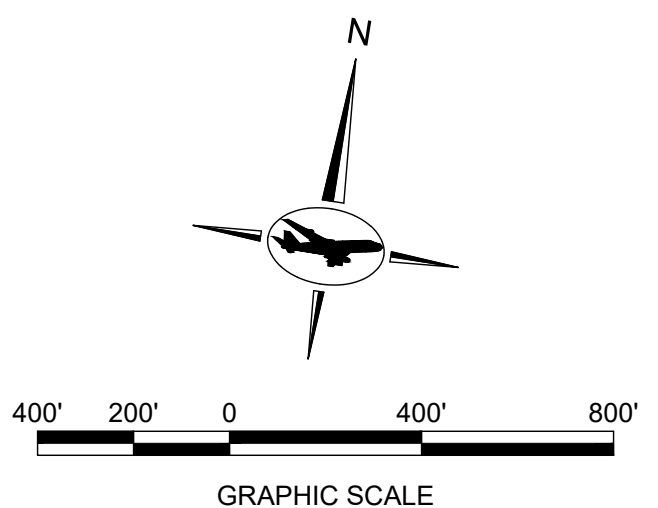
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005  
 SHEET No.: **GN01.02**  
 5 OF 90



**CONSTRUCTION WORK HOURS:**  
 DAY: 7AM - 8PM (EST) FOR RUNWAY REHABILITATION (PHASES 1 AND 3)  
 NIGHT: 8PM - 7AM (EST) FOR RUNWAY REHABILITATION (PHASE 4 AND ANY RSA WORK)  
 \*PHASE 2 RUNWAY INTERSECTION WORK SHALL BE 7AM TO 10PM (EST)  
 \*PHASES 5 AND 6 RSA WORK SHALL BE NIGHT WORK ONLY  
 \*PHASES 5 AND 6 NON-RSA WORK SHALL BE UNRESTRICTED

**LIQUIDATED DAMAGES:**  
 OVERALL COMPLETION - \$2,500 PER CONSECUTIVE CALENDAR DAY (OR PART THEREOF)  
 RUNWAY OPENING - \$2,500 PER 15 MINUTES (OR PART THEREOF)

STOCKPILE AREA SHALL BE AVAILABLE TO CONTRACTOR FOR TOPSOIL ONLY. SURROUND WITH SILT FENCE. INSTALL STONE CONSTRUCTION ENTRANCE. SEE SHEET CV04.12 FOR DETAILS.

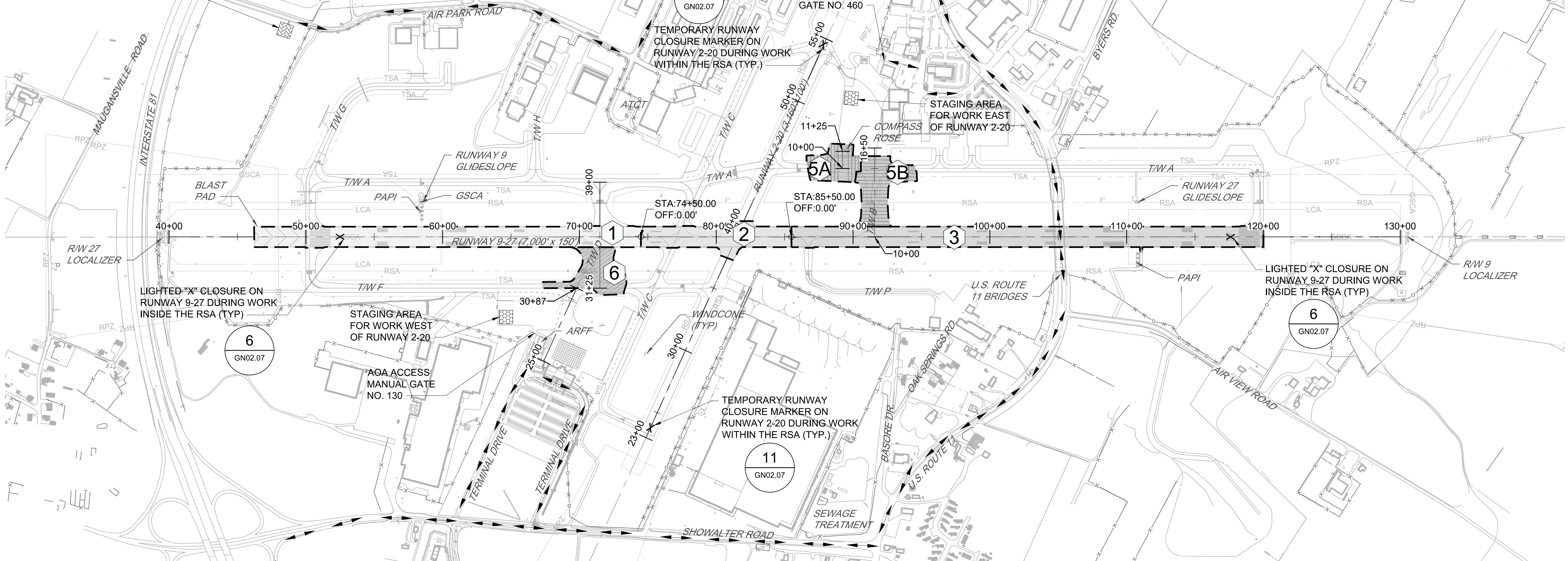


**NOTES:**

- SEE SHEETS GN02.01 - GN02.07 FOR INDIVIDUAL HAUL ROUTES, BARRICADE LOCATIONS, AND ADDITIONAL REQUIREMENTS.
- MAXIMUM EQUIPMENT HEIGHTS GOVERNED BY THE OFZ DURING ACTIVE WORK. SEE INDIVIDUAL PHASE SHEETS FOR DETAILS ON ALLOWABLE HEIGHTS. ALSO SEE SHEET GN02.07 FOR CONSTRUCTION SAFETY AND PHASING NOTES AND DETAILS.
- LIGHTED "X" CLOSURE MARKER REQUIRED ON CLOSED RUNWAY DESIGNATION NUMERALS DURING WORK WITHIN RSA. SUPPLIED BY AIRPORT.
- PHASE 4 (NOT SHOWN) WILL BE PERMANENT MARKING AND GROOVING AND OCCUR 30 DAYS AFTER FINAL PAVING.

**LEGEND:**

- [Pattern] PHASE 1
- [Pattern] PHASE 2
- [Pattern] PHASE 3
- [Pattern] PHASE 5A
- [Pattern] PHASE 5B
- [Pattern] PHASE 6
- [Pattern] STAGING AREA
- [Pattern] STOCKPILE AREA
- [Arrow] HAUL ROUTE
- [Line] GSCA - GLIDE SLOPE CRITICAL AREA
- [Line] LCA - LOCALIZER CRITICAL AREA
- [Line] RPZ - RUNWAY PROTECTION ZONE
- [Line] RSA - RUNWAY SAFETY AREA
- [Line] TSA - TAXIWAY SAFETY AREA
- [Circle with 1] PHASE IDENTIFIER



**OVERALL PHASING SEQUENCE:**

- PHASE 1 - RUNWAY 9 END STA. 50+00 TO STA. 74+50**
  - PAVEMENT REHABILITATION
  - TEMPORARY MARKING
  - REIL REPLACEMENT
- PHASE 2 - RUNWAY 9-27 STA. 74+50 TO 85+50**
  - PAVEMENT REHABILITATION
  - TEMPORARY MARKING
- PHASE 3 - RUNWAY 9-27 STA. 85+50 TO RUNWAY 27 END STA. 120+00**
  - PAVEMENT REHABILITATION
  - TEMPORARY MARKING
  - COMPASS ROSE RELOCATION
- PHASE 4 - RUNWAY 9-27 (SEE NOTE 4)**
  - PERMANENT MARKING
  - GROOVE RUNWAY
  - ROTATING BEACON REPLACEMENT
- PHASE 5 - TAXIWAY B**
  - EROSION & SEDIMENT CONTROLS
  - PAVEMENT DEMOLITION AND RECONSTRUCTION
  - DRAINAGE/GRADING
  - LIGHTING/SIGNAGE
  - PERMANENT MARKING

- PHASE 6 - TAXIWAY D**
  - EROSION & SEDIMENT CONTROLS
  - TEMPORARY MARKING
  - PAVEMENT DEMOLITION AND RECONSTRUCTION
  - DRAINAGE/GRADING
  - LIGHTING/SIGNAGE
  - PERMANENT MARKING

PHASE	1	2	3	4	5A	5B	6
1		NO	NO	NO	YES	NO*	NO*
2	NO		NO	NO	YES	YES	YES
3	NO	NO		NO	YES	NO*	NO*
4	NO	NO	NO		YES	YES	YES
5A	YES	YES	YES	YES		NO	YES
5B	NO*	YES	NO*	YES	NO		YES
6	NO*	YES	NO*	YES	YES	YES	

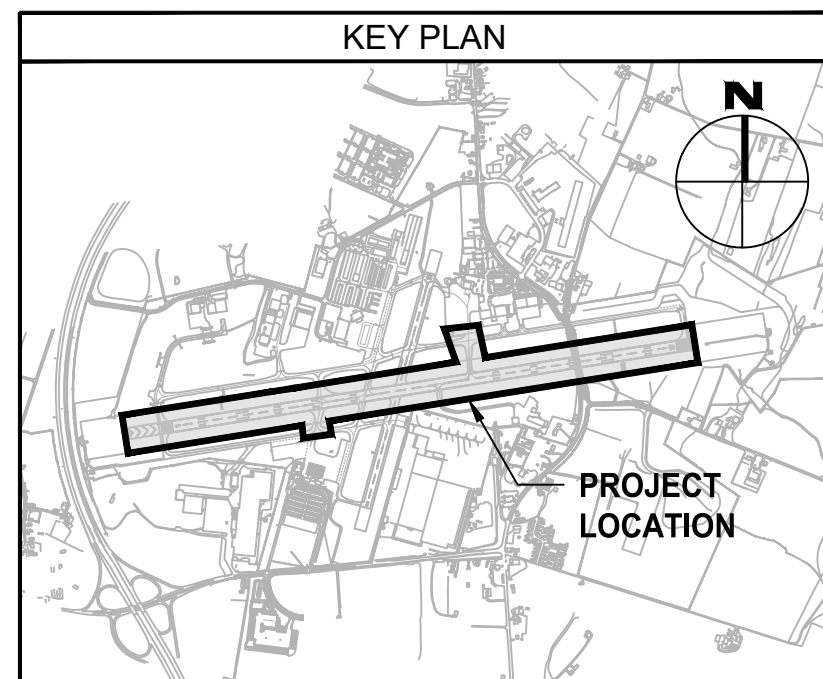
\*FOR WORK WITHIN THE RSA

PHASE	CALENDAR DAYS
MOBILIZATION	30
1	7
2	1
3	10
4	12*
5A, 5B & 6	85
CLOSEOUT	15
TOTAL	160

ALL DURATIONS ARE CONSECUTIVE CALENDAR DAYS

\*NIGHT WORK ONLY  
 \*\*TOTAL CONSTRUCTION DURATION IS BASED UPON SEQUENTIAL COMPLETION OF EACH PHASE AND AWARD OF ADD ALTERNATE-1. IF THE CONTRACTOR STARTS PHASES 5A, 5B & 6 OUT OF SEQUENCE, THE 85 DAY DURATION BEGINS ON THE DAY WORK STARTS.

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\007\_GN02.00\_Overall Construction Phasing Plan and Notes.dwg PLOTTED: Monday, February 17, 2020 - 7:24am USER: GROSS

<p>6031 UNIVERSITY BLVD. SUITE 330 ELLICOTT CITY, MD 21043 PHONE: 410-465-9600 FAX: 410-465-9602</p>	SEAL:	Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 32405 Expiration Date 12/22/2021	DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
			DRAWN: N.B./S.S.			
			CHECKED: B.C./K.M.F			
			APPROVED: M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

SHEET TITLE: **OVERALL CONSTRUCTION SAFETY AND PHASING PLAN**

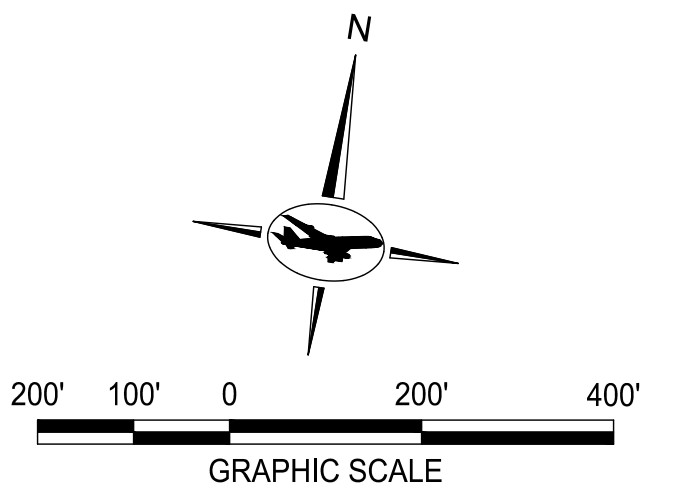
SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005

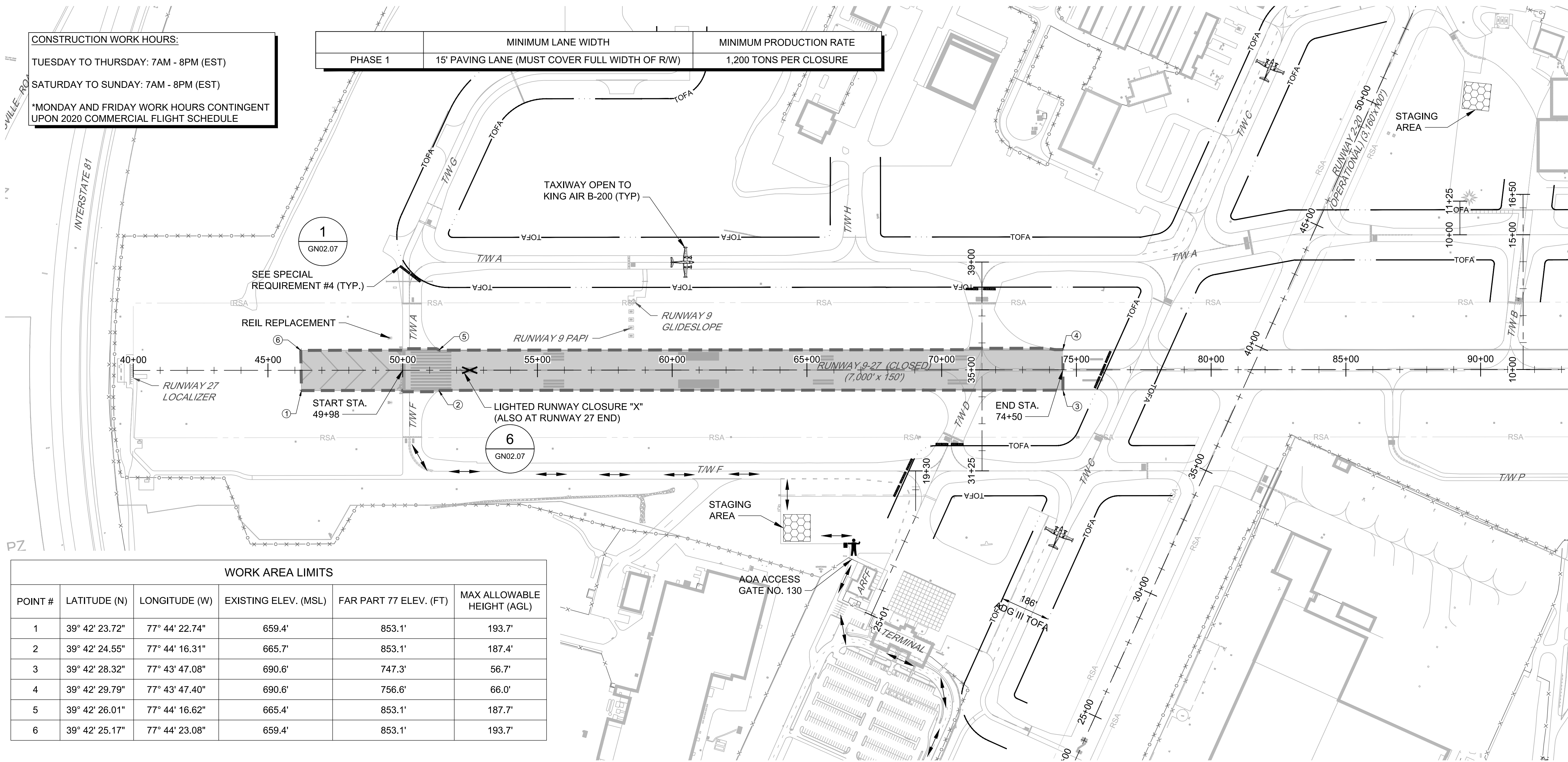
SHEET No.: **GN02.00**  
 7 OF 90

**CONSTRUCTION WORK HOURS:**  
 TUESDAY TO THURSDAY: 7AM - 8PM (EST)  
 SATURDAY TO SUNDAY: 7AM - 8PM (EST)  
 \*MONDAY AND FRIDAY WORK HOURS CONTINGENT UPON 2020 COMMERCIAL FLIGHT SCHEDULE

PHASE	MINIMUM LANE WIDTH	MINIMUM PRODUCTION RATE
PHASE 1	15' PAVING LANE (MUST COVER FULL WIDTH OF R/W)	1,200 TONS PER CLOSURE



- NOTES:**
- SEE SHEET GN02.00 FOR OVERALL CONSTRUCTION SAFETY AND PHASING PLAN.
  - SEE CV01 SERIES FOR EXISTING CONDITIONS AND DEMOLITION PLANS.
  - SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS.



WORK AREA LIMITS					
POINT #	LATITUDE (N)	LONGITUDE (W)	EXISTING ELEV. (MSL)	FAR PART 77 ELEV. (FT)	MAX ALLOWABLE HEIGHT (AGL)
1	39° 42' 23.72"	77° 44' 22.74"	659.4'	853.1'	193.7'
2	39° 42' 24.55"	77° 44' 16.31"	665.7'	853.1'	187.4'
3	39° 42' 28.32"	77° 43' 47.08"	690.6'	747.3'	56.7'
4	39° 42' 29.79"	77° 43' 47.40"	690.6'	756.6'	66.0'
5	39° 42' 26.01"	77° 44' 16.62"	665.4'	853.1'	187.7'
6	39° 42' 25.17"	77° 44' 23.08"	659.4'	853.1'	193.7'

- LEGEND:**
- CURRENT PHASE
  - STAGING AREA
  - HAUL ROUTE
  - RSA - RUNWAY SAFETY AREA
  - TOFA - TAXIWAY OBJECT FREE AREA
  - LOW-PROFILE BARRICADES
  - FLAGGER

**MAJOR WORK ITEMS:**

- PAVEMENT REHABILITATION
- TEMPORARY PAVEMENT MARKING
- REIL REPLACEMENT
- COMPASS ROSE MAGNETIC SURVEY AND SITE VERIFICATION

**SUGGESTED SEQUENCE OF CONSTRUCTION:**

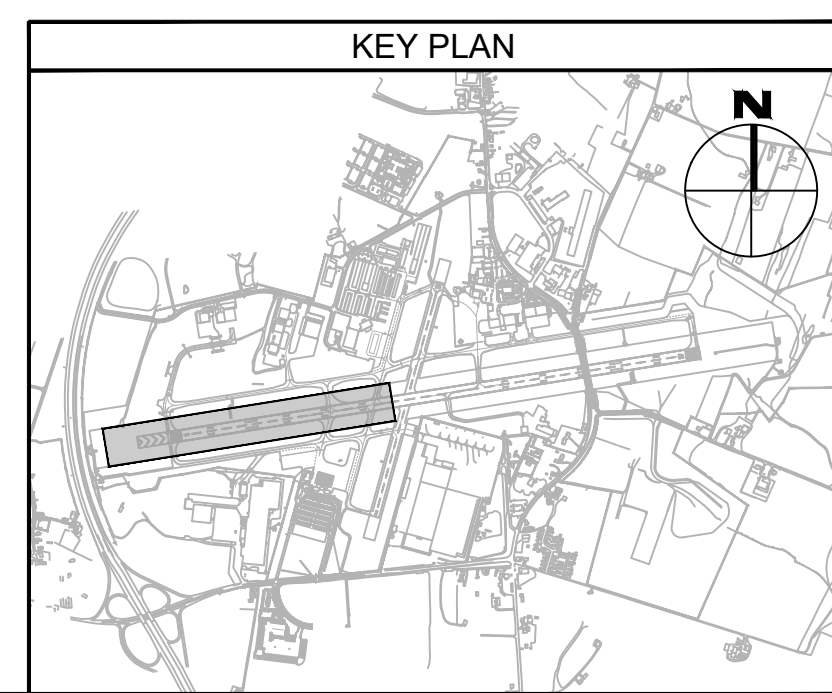
- CLOSE RUNWAY 9-27.
- INSTALL RUNWAY CLOSURE MARKERS AND SAFETY MEASURES.
- MILL AND PAVE RUNWAY 9-27.
- INSTALL TEMPORARY LONGITUDINAL RAMP.
- REIL REPLACEMENT.
- INSTALL TEMPORARY PAVEMENT MARKINGS.
- RE-OPEN RUNWAY 9-27.

**AIRFIELD IMPACTS:**

- RUNWAY 9-27 CLOSED
- TAXIWAY A CLOSED FROM RUNWAY 9 END TO TAXIWAY A/G INTERSECTION
- TAXIWAY D CLOSED
- TAXIWAY F CLOSED FROM RUNWAY 9 END TO TAXIWAY D

**SPECIAL REQUIREMENTS:**

- RUNWAY 2-20 SHALL REMAIN OPEN AT ALL TIMES.
- TAXIWAY A (OUTSIDE OF RUNWAY 9-27 RSA), TAXIWAY C, AND TAXIWAY F (EAST OF TAXIWAY D) SHALL REMAIN OPEN AT ALL TIMES.
- FLAGGER SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC NEAR THE TERMINAL/ARFF AREA.
- BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET GN02.07 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL MAINTAIN A MINIMUM OF 93' CLEARANCE BETWEEN BARRICADES AND PROTECTED TAXIWAY CENTERLINE OR A MINIMUM OF 250' CLEARANCE BETWEEN BARRICADES AND PROTECTED RUNWAY CENTERLINE.
- RUNWAY 9-27 REIL REPLACEMENT SHALL TAKE PLACE WITHIN 2 CONSECUTIVE NIGHTTIME CLOSURES.
- CONTRACTOR SHALL COMPLETELY REHABILITATE THE FULL WIDTH OF THE RUNWAY PAVEMENT DURING THE SCHEDULED RUNWAY CLOSURE PERIOD.
- CONTRACTOR SHALL COMPLETE COMPASS ROSE MAGNETIC SURVEY AND SITE VERIFICATION PRIOR TO COMPLETION OF PHASE WORK.



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\008\_GN02.01\_Phase 1 Construction Safety and Phasing Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:24am USER: gress

**ADCI**  
 AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL:

Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 32405  
 Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

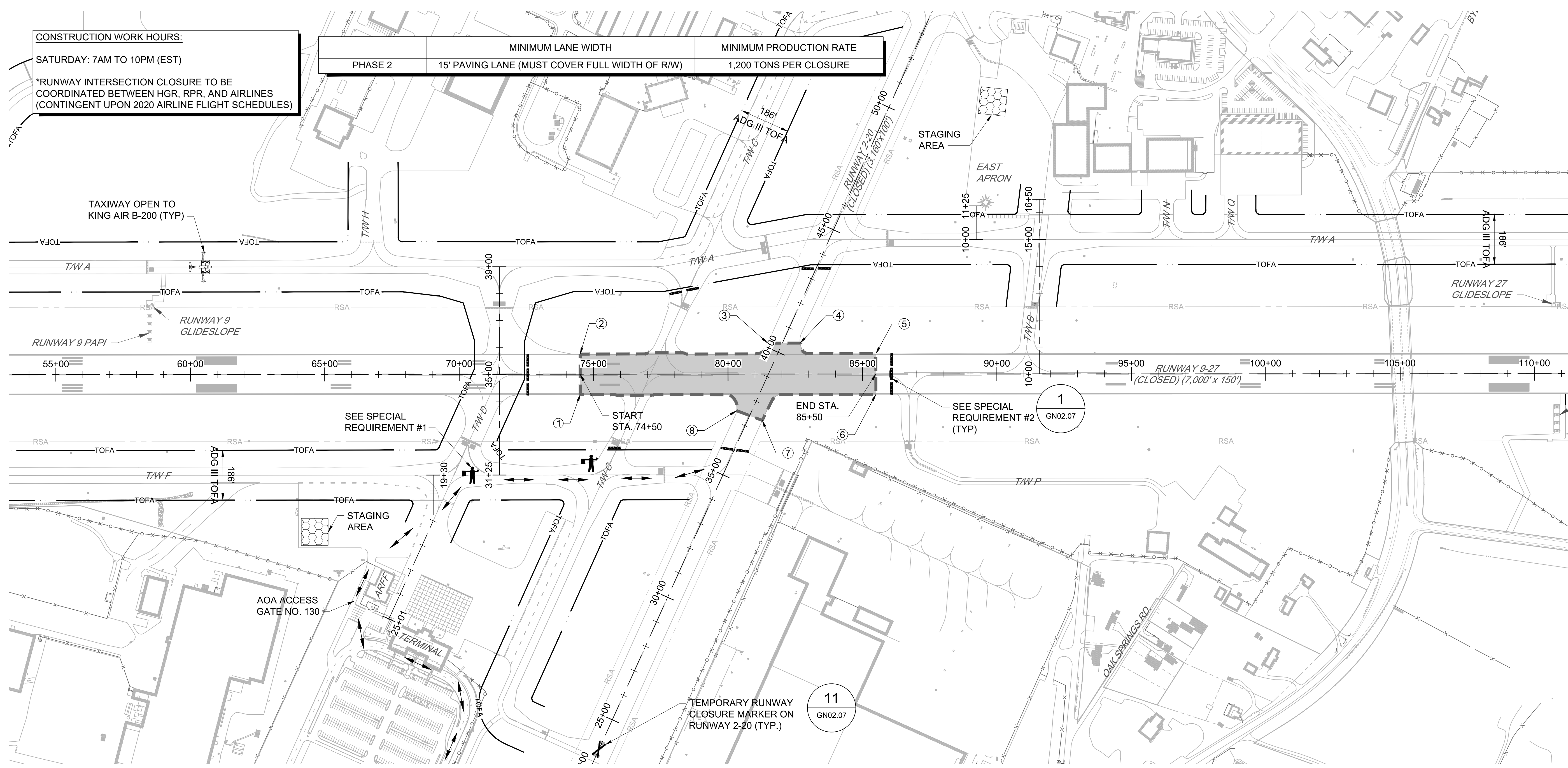
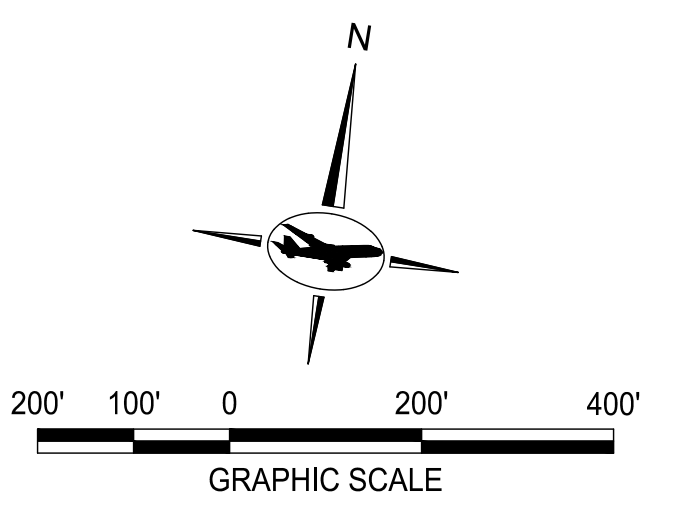
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**  
 SHEET TITLE:  
**PHASE 1 CONSTRUCTION SAFETY AND PHASING PLAN**  
 SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005  
 SHEET No.:  
**GN02.01**  
 8 OF 90



**CONSTRUCTION WORK HOURS:**  
 SATURDAY: 7AM TO 10PM (EST)  
 \*RUNWAY INTERSECTION CLOSURE TO BE COORDINATED BETWEEN HGR, RPR, AND AIRLINES (CONTINGENT UPON 2020 AIRLINE FLIGHT SCHEDULES)

PHASE 2	MINIMUM LANE WIDTH	MINIMUM PRODUCTION RATE
	15' PAVING LANE (MUST COVER FULL WIDTH OF R/W)	1,200 TONS PER CLOSURE



- NOTES:**
- SEE SHEET GN02.00 FOR OVERALL CONSTRUCTION SAFETY AND PHASING PLAN.
  - SEE CV01 SERIES FOR EXISTING CONDITIONS AND DEMOLITION PLANS.
  - SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS.

- LEGEND:**
- CURRENT PHASE
  - STAGING AREA
  - HAUL ROUTE
  - RUNWAY SAFETY AREA
  - TAXIWAY OBJECT FREE AREA
  - LOW-PROFILE BARRICADES
  - FLAGGER

WORK AREA LIMITS					
POINT #	LATITUDE (N)	LONGITUDE (W)	EXISTING ELEV. (MSL)	FAR PART 77 ELEV. (FT)	MAX ALLOWABLE HEIGHT (AGL)
1	39° 42' 28.32"	77° 43' 47.08"	690.6'	853.1'	*
2	39° 42' 29.79"	77° 43' 47.40"	690.6'	853.1'	*
3	39° 42' 31.32"	77° 43' 38.68"	696.0'	853.1'	*
4	39° 42' 31.52"	77° 43' 37.16"	696.4'	853.1'	*
5	39° 42' 31.59"	77° 43' 33.52"	696.8'	853.1'	*
6	39° 42' 30.12"	77° 43' 33.20"	696.6'	853.1'	*
7	39° 42' 28.49"	77° 43' 38.33"	695.8'	853.1'	*
8	39° 42' 28.68"	77° 43' 39.61"	695.3'	853.1'	*

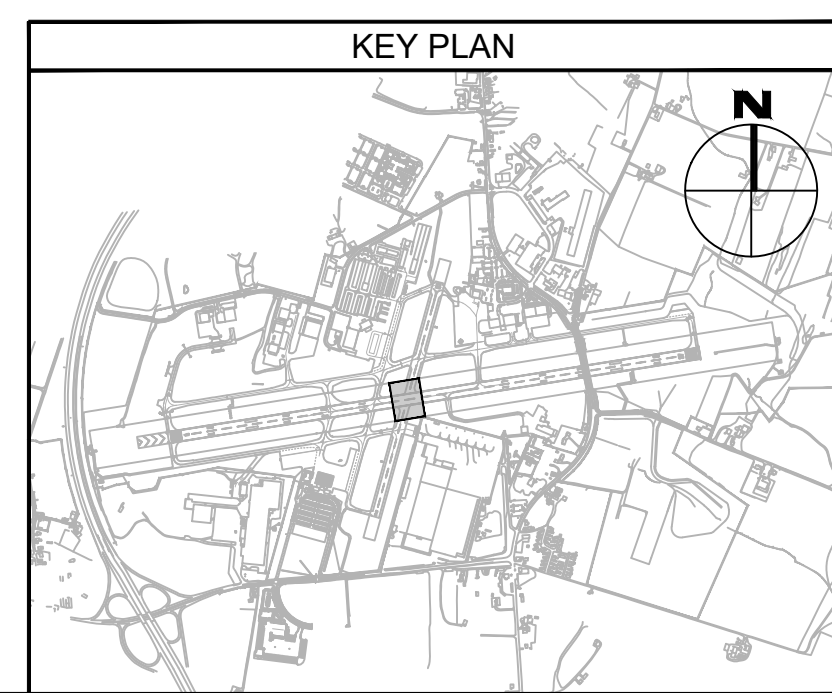
\*RUNWAY 9-27 AND RUNWAY 2-20 SHALL BE CLOSED; NO MAXIMUM EQUIPMENT HEIGHT RESTRICTIONS

- MAJOR WORK ITEMS:**
- PAVEMENT REHABILITATION
  - TEMPORARY PAVEMENT MARKING

- SUGGESTED SEQUENCE OF CONSTRUCTION:**
- CLOSE RUNWAY 9-27 AND RUNWAY 2-20.
  - INSTALL RUNWAY CLOSURE MARKERS AND SAFETY MEASURES.
  - MILL AND PAVE INTERSECTION.
  - INSTALL TEMPORARY MARKINGS.
  - RE-OPEN RUNWAY 9-27 AND RUNWAY 2-20.

- AIRFIELD IMPACTS:**
- RUNWAY 9-27 AND RUNWAY 2-20 CLOSED (EXPECTED DURATION: CUMULATIVE 1 CALENDAR DAY OVER ENTIRE CONTRACT DURATION)

- SPECIAL REQUIREMENTS:**
- FLAGGERS SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC ACROSS TAXIWAYS C, D, AND F.
  - BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET GN02.07 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL MAINTAIN A MINIMUM OF 93' CLEARANCE BETWEEN BARRICADES AND PROTECTED TAXIWAY CENTERLINE OR A MINIMUM OF 250' CLEARANCE BETWEEN BARRICADES AND PROTECTED RUNWAY CENTERLINE.



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\009\_GN02.02\_Phase 2\_Construction Safety and Phasing\_Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:25am USER: gRosa

**ADCI** AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL:  
 Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 32405  
 Expiration Date: 12/22/2021

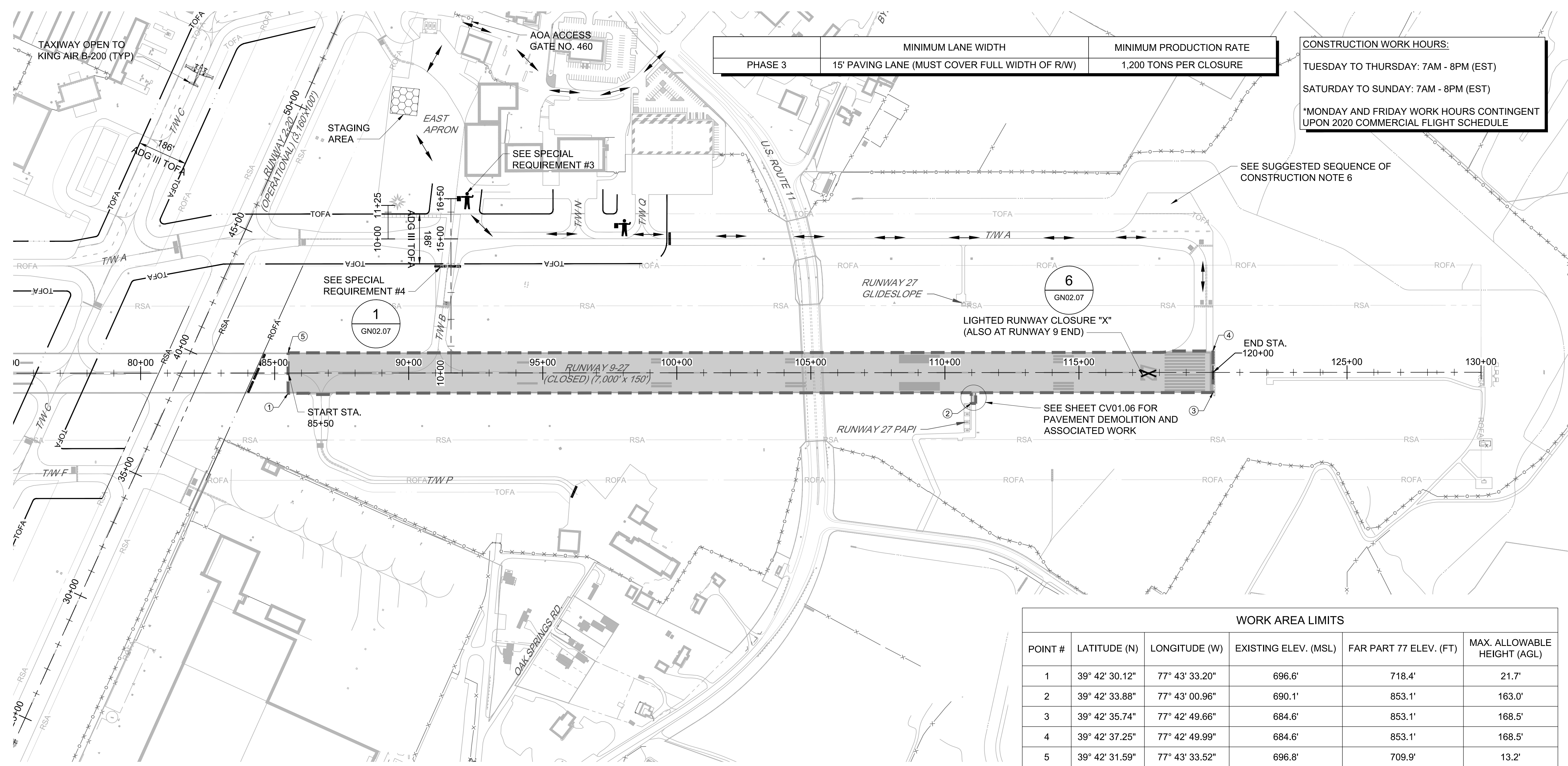
DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
DRAWN: N.B./S.S.			
CHECKED: B.C./K.M.F.			
APPROVED: M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
 SHEET TITLE: **PHASE 2 CONSTRUCTION SAFETY AND PHASING PLAN**  
 SCALE: AS SHOWN DATE: FEBRUARY 2020

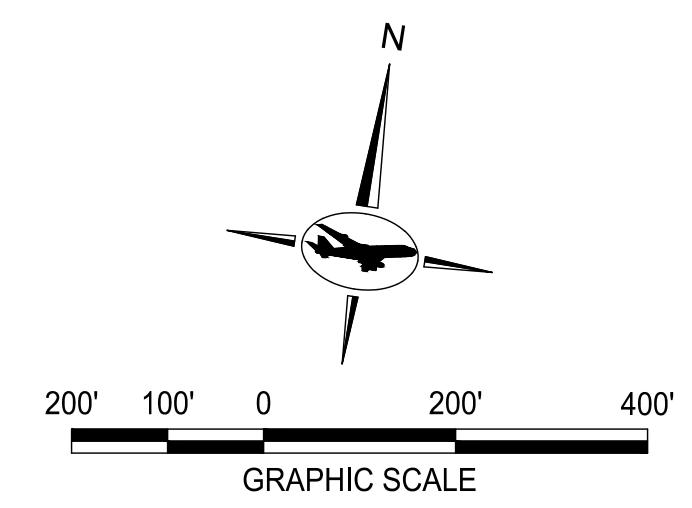
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005  
 SHEET No.: **GN02.02**  
**9 OF 90**

FILE NAME: O:\HGR\Projects\2018-1303\CAD\Drawings\010\_GN02.03\_Phase 3 Construction Safety and Phasing Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:25am USER: gRass



PHASE 3	MINIMUM LANE WIDTH	MINIMUM PRODUCTION RATE
	15' PAVING LANE (MUST COVER FULL WIDTH OF R/W)	1,200 TONS PER CLOSURE

**CONSTRUCTION WORK HOURS:**  
 TUESDAY TO THURSDAY: 7AM - 8PM (EST)  
 SATURDAY TO SUNDAY: 7AM - 8PM (EST)  
 \*MONDAY AND FRIDAY WORK HOURS CONTINGENT UPON 2020 COMMERCIAL FLIGHT SCHEDULE



- NOTES:**
- SEE SHEET GN02.00 FOR OVERALL CONSTRUCTION SAFETY AND PHASING PLAN.
  - SEE CV01 SERIES FOR EXISTING CONDITIONS AND DEMOLITION PLANS.
  - SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS.

POINT #	LATITUDE (N)	LONGITUDE (W)	EXISTING ELEV. (MSL)	FAR PART 77 ELEV. (FT)	MAX. ALLOWABLE HEIGHT (AGL)
1	39° 42' 30.12"	77° 43' 33.20"	696.6'	718.4'	21.7'
2	39° 42' 33.88"	77° 43' 00.96"	690.1'	853.1'	163.0'
3	39° 42' 35.74"	77° 42' 49.66"	684.6'	853.1'	168.5'
4	39° 42' 37.25"	77° 42' 49.99"	684.6'	853.1'	168.5'
5	39° 42' 31.59"	77° 43' 33.52"	696.8'	709.9'	13.2'

- LEGEND:**
- CURRENT PHASE
  - STAGING AREA
  - HAUL ROUTE
  - RSA - RUNWAY SAFETY AREA
  - TOFA - TAXIWAY OBJECT FREE AREA
  - LOW-PROFILE BARRICADES
  - FLAGGER

**MAJOR WORK ITEMS:**

- PAVEMENT REHABILITATION
- PAVEMENT DEMOLITION
- TOPSOIL & HYDROSEED
- TEMPORARY PAVEMENT MARKING
- COMPASS ROSE RELOCATION

**SUGGESTED SEQUENCE OF CONSTRUCTION:**

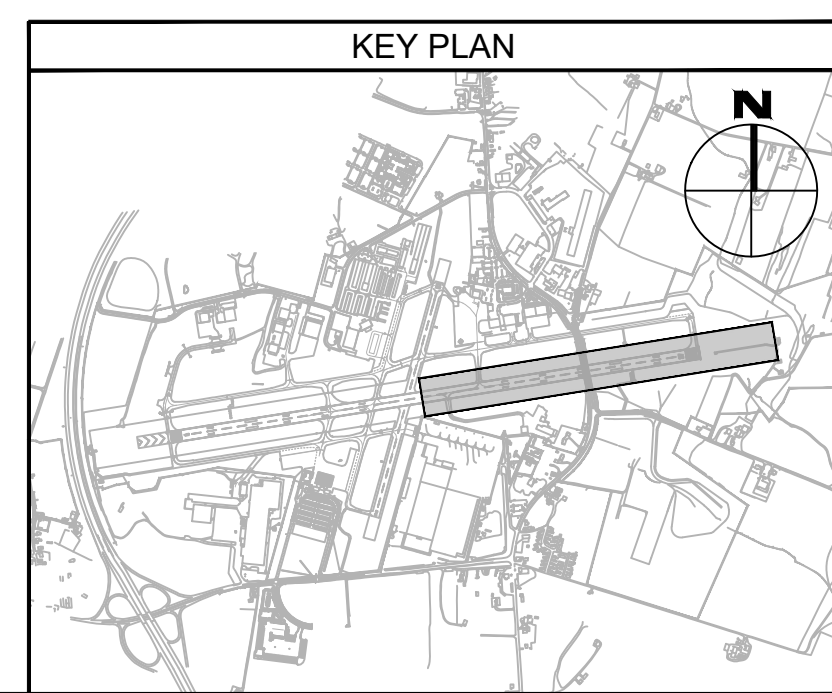
- CLOSE RUNWAY 9-27.
- INSTALL RUNWAY CLOSURE MARKERS AND SAFETY MEASURES.
- MILL AND PAVE RUNWAY 9-27.
- DEMOLISH VSR PAVEMENT; TOPSOIL & HYDROSEED.
- INSTALL TEMPORARY LONGITUDINAL RAMP.
- INSTALL TEMPORARY PAVEMENT MARKINGS.
- RE-OPEN RUNWAY 9-27.
- COMPASS ROSE RELOCATION.

**AIRFIELD IMPACTS:**

- RUNWAY 9-27 CLOSED
- TAXIWAY A CLOSED FROM RUNWAY 27 END TO TAXIWAY Q
- TAXIWAY B CLOSED WITHIN RUNWAY 9-27 RSA
- TAXIWAY P CLOSED
- TAXIWAYS A, B, N, AND Q CROSSED BY HAUL ROUTE

**SPECIAL REQUIREMENTS:**

- RUNWAY 2-20 SHALL REMAIN OPEN AT ALL TIMES.
- TAXIWAYS A (OUTSIDE OF LIMITS SHOWN), C, AND F SHALL REMAIN OPEN AT ALL TIMES.
- FLAGGERS SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC ACROSS ACTIVE TAXIWAYS A, B, N, AND Q.
- BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET GN02.07 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL MAINTAIN A MINIMUM OF 93' CLEARANCE BETWEEN BARRICADES AND PROTECTED TAXIWAY CENTERLINE OR A MINIMUM OF 250' CLEARANCE BETWEEN BARRICADES AND PROTECTED RUNWAY CENTERLINE.
- CONTRACTOR SHALL COMPLETELY REHABILITATE THE FULL WIDTH OF THE RUNWAY PAVEMENT DURING THE SCHEDULED RUNWAY CLOSURE PERIOD.



**ADCI**  
 AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL:  
 Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 32405  
 Expiration Date: 12.22.2021

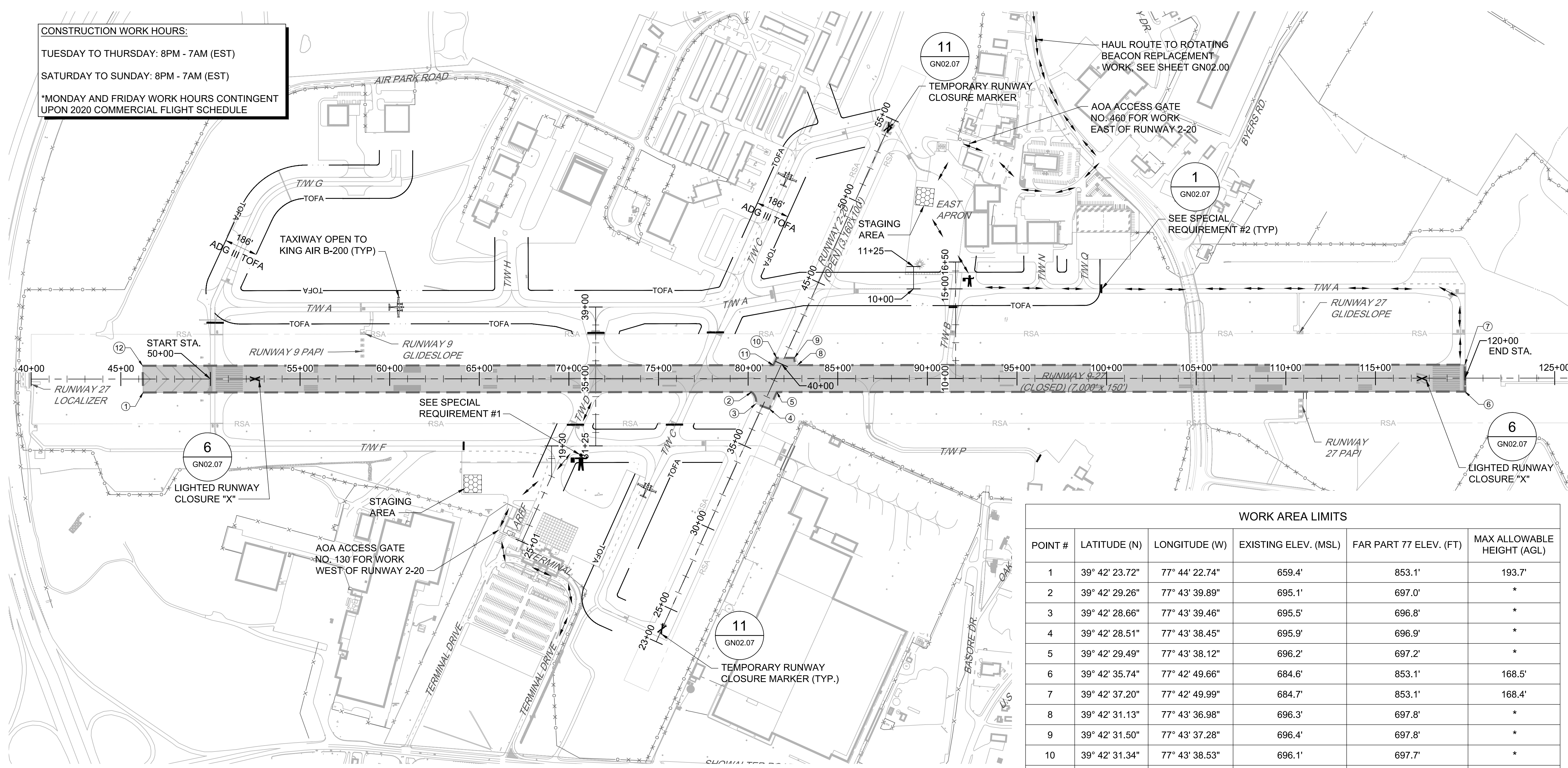
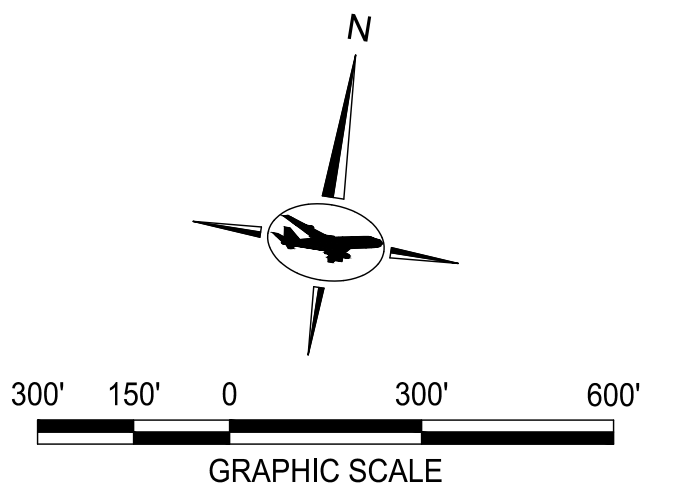
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**  
 SHEET TITLE:  
**PHASE 3 CONSTRUCTION SAFETY AND PHASING PLAN**  
 SCALE: AS SHOWN  
 DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005  
 SHEET No.:  
**GN02.03**  
 10 OF 90

**CONSTRUCTION WORK HOURS:**  
 TUESDAY TO THURSDAY: 8PM - 7AM (EST)  
 SATURDAY TO SUNDAY: 8PM - 7AM (EST)  
 \*MONDAY AND FRIDAY WORK HOURS CONTINGENT UPON 2020 COMMERCIAL FLIGHT SCHEDULE



- NOTES:**
- SEE SHEET GN02.00 FOR OVERALL CONSTRUCTION SAFETY AND PHASING PLAN.
  - SEE CV01 SERIES FOR EXISTING CONDITIONS AND DEMOLITION PLANS.
  - SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS.

WORK AREA LIMITS					
POINT #	LATITUDE (N)	LONGITUDE (W)	EXISTING ELEV. (MSL)	FAR PART 77 ELEV. (FT)	MAX ALLOWABLE HEIGHT (AGL)
1	39° 42' 23.72"	77° 44' 22.74"	659.4'	853.1'	193.7'
2	39° 42' 29.26"	77° 43' 39.89"	695.1'	697.0'	*
3	39° 42' 28.66"	77° 43' 39.46"	695.5'	696.8'	*
4	39° 42' 28.51"	77° 43' 38.45"	695.9'	696.9'	*
5	39° 42' 29.49"	77° 43' 38.12"	696.2'	697.2'	*
6	39° 42' 35.74"	77° 42' 49.66"	684.6'	853.1'	168.5'
7	39° 42' 37.20"	77° 42' 49.99"	684.7'	853.1'	168.4'
8	39° 42' 31.13"	77° 43' 36.98"	696.3'	697.8'	*
9	39° 42' 31.50"	77° 43' 37.28"	696.4'	697.8'	*
10	39° 42' 31.34"	77° 43' 38.53"	696.1'	697.7'	*
11	39° 42' 30.91"	77° 43' 38.68"	696.1'	697.6'	*
12	39° 42' 25.17"	77° 44' 23.08"	659.4'	853.1'	193.7'

- LEGEND:**
- CURRENT PHASE
  - STAGING AREA
  - HAUL ROUTE
  - RUNWAY SAFETY AREA
  - TAXIWAY OBJECT FREE AREA
  - LOW-PROFILE BARRICADES
  - FLAGGER

\*RUNWAY 9-27 AND RUNWAY 2-20 SHALL BE CLOSED; NO MAXIMUM EQUIPMENT HEIGHT RESTRICTIONS. SEE PHASES 1 AND 3 MAXIMUM EQUIPMENT HEIGHT RESTRICTIONS FOR WORK ON RUNWAY 9-27 (CLOSED) AND RUNWAY 2-20 (OPEN).

**MAJOR WORK ITEMS:**

- GROOVE RUNWAY 9-27
- PERMANENT RUNWAY MARKING
- ROTATING BEACON REPLACEMENT

**SUGGESTED SEQUENCE OF CONSTRUCTION:**

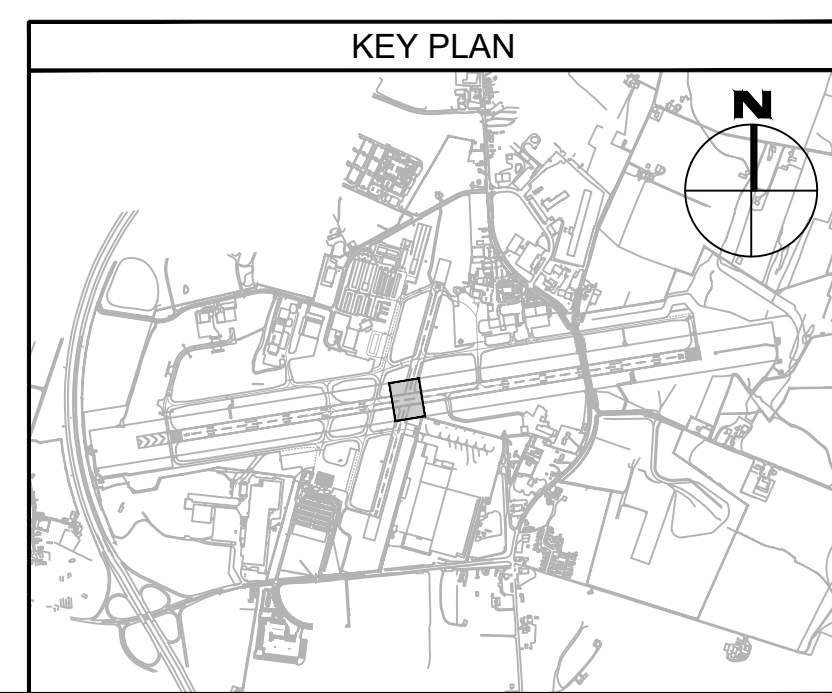
- CLOSE RUNWAY 9-27 (CLOSE RUNWAY 2-20 DURING INTERSECTION WORK ONLY).
- INSTALL RUNWAY CLOSURE MARKERS AND SAFETY MEASURES.
- GROOVE RUNWAY 9-27.
- APPLY PERMANENT RUNWAY AND BLAST PAD PAVEMENT MARKINGS.
- RE-OPEN RUNWAY 9-27. (RE-OPEN RUNWAY 2-20 AFTER INTERSECTION WORK).

**AIRFIELD IMPACTS:**

- RUNWAY 9-27 CLOSED
- RUNWAY 2-20 CLOSED (DURING INTERSECTION MARKING AND GROOVING WORK ONLY)
- TAXIWAYS A, B, C, D, F, N AND Q CROSSED BY HAUL ROUTE
- TAXIWAY P CLOSED

**SPECIAL REQUIREMENTS:**

- FLAGGERS SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC ACROSS TAXIWAYS A, B, C, D, F, N AND Q.
- BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET GN02.07 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL MAINTAIN A MINIMUM OF 63' CLEARANCE BETWEEN BARRICADES AND PROTECTED TAXIWAY CENTERLINE OR A MINIMUM OF 250' CLEARANCE BETWEEN BARRICADES AND PROTECTED RUNWAY CENTERLINE. CLOSURE AREAS MUST BE LIMITED TO ANTICIPATED PRODUCTION AREA EACH NIGHT.
- WORK SHALL BE PERFORMED A MINIMUM OF 30 DAYS AFTER COMPLETION OF PHASES 1, 2, AND 3.
- ROTATING BEACON REPLACEMENT WORK SHALL BE CLOSELY COORDINATED WITH THE RUNWAY INTERSECTION CLOSURE TO PROVIDE ADDITIONAL WORK TIME.



**ADCI**  
 AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL:  
 Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 32405  
 Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

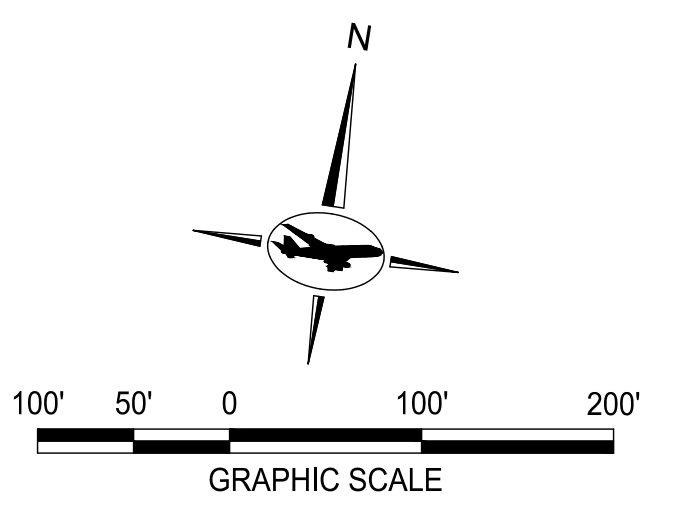
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**  
 SHEET TITLE:  
**PHASE 4 CONSTRUCTION SAFETY AND PHASING PLAN**  
 SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005  
 SHEET No.:  
**GN02.04**  
 11 OF 90

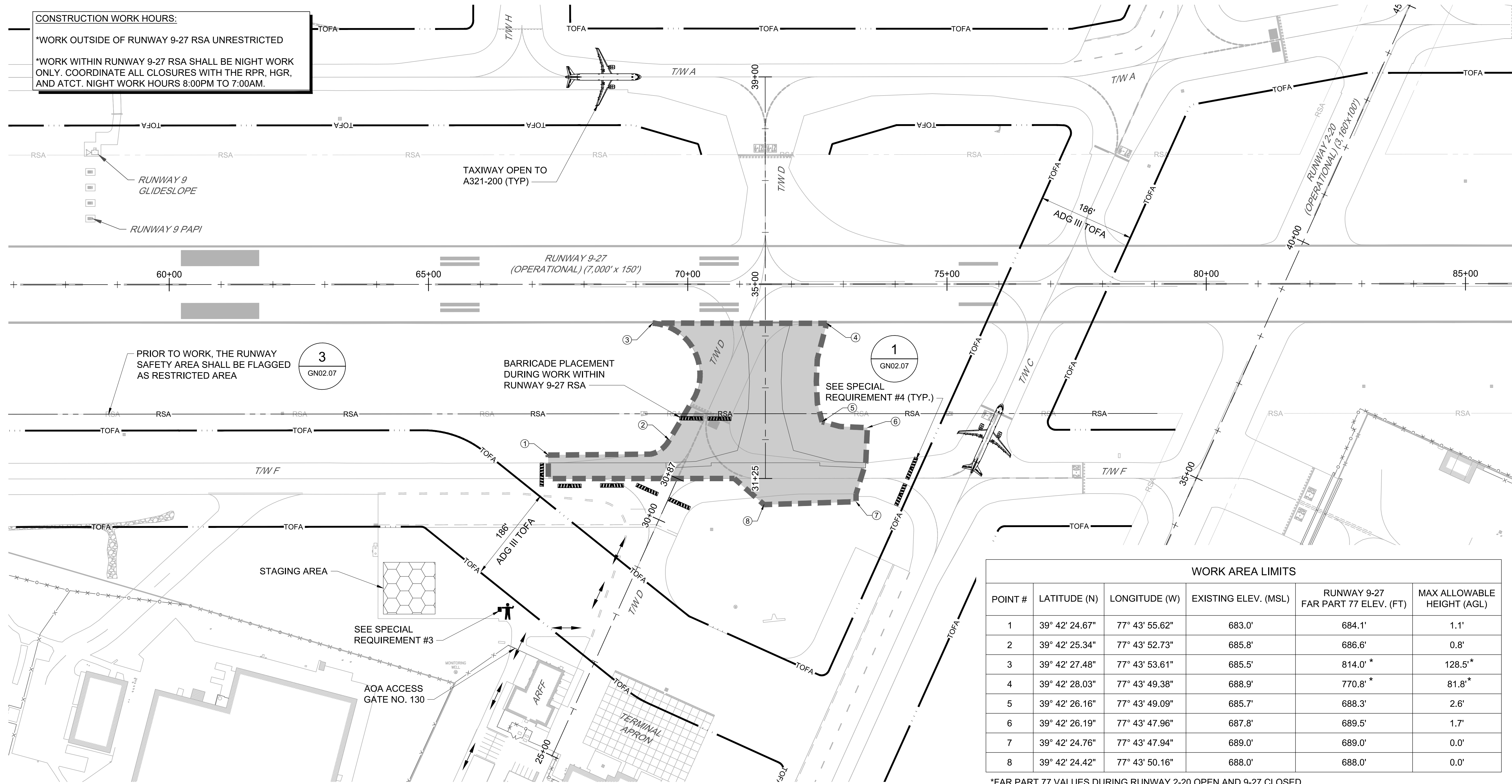
FILE NAME: O:\HGR\Projects\2018-1303\CAD\Drawings\011\_GN02.04\_Phase 4 Construction Safety and Phasing Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:25am USER: gRosa



**CONSTRUCTION WORK HOURS:**  
 \*WORK OUTSIDE OF RUNWAY 9-27 RSA UNRESTRICTED  
 \*WORK WITHIN RUNWAY 9-27 RSA SHALL BE NIGHT WORK ONLY. COORDINATE ALL CLOSURES WITH THE RPR, HGR, AND ATCT. NIGHT WORK HOURS 8:00PM TO 7:00AM.



- NOTES:**
- SEE SHEET GN02.00 FOR OVERALL CONSTRUCTION SAFETY AND PHASING PLAN.
  - SEE CV01 SERIES FOR EXISTING CONDITIONS AND DEMOLITION PLANS.
  - SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS.



WORK AREA LIMITS					
POINT #	LATITUDE (N)	LONGITUDE (W)	EXISTING ELEV. (MSL)	RUNWAY 9-27 FAR PART 77 ELEV. (FT)	MAX ALLOWABLE HEIGHT (AGL)
1	39° 42' 24.67"	77° 43' 55.62"	683.0'	684.1'	1.1'
2	39° 42' 25.34"	77° 43' 52.73"	685.8'	686.6'	0.8'
3	39° 42' 27.48"	77° 43' 53.61"	685.5'	814.0' *	128.5'*
4	39° 42' 28.03"	77° 43' 49.38"	688.9'	770.8' *	81.8'*
5	39° 42' 26.16"	77° 43' 49.09"	685.7'	688.3'	2.6'
6	39° 42' 26.19"	77° 43' 47.96"	687.8'	689.5'	1.7'
7	39° 42' 24.76"	77° 43' 47.94"	689.0'	689.0'	0.0'
8	39° 42' 24.42"	77° 43' 50.16"	688.0'	688.0'	0.0'

\*FAR PART 77 VALUES DURING RUNWAY 2-20 OPEN AND 9-27 CLOSED

- LEGEND:**
- CURRENT PHASE
  - STAGING AREA
  - HAUL ROUTE
  - RUNWAY SAFETY AREA
  - TAXIWAY OBJECT FREE AREA
  - LOW-PROFILE BARRICADES
  - FLAGGER

**MAJOR WORK ITEMS:**

- EROSION & SEDIMENT CONTROLS
- TEMPORARY PAVEMENT MARKING
- PAVEMENT DEMOLITION & RECONSTRUCTION
- ELECTRICAL DEMOLITION
- DRAINAGE/GRADING
- LIGHTING/SIGNAGE
- PERMANENT PAVEMENT MARKING

**SUGGESTED SEQUENCE OF CONSTRUCTION:**

- INSTALL EROSION & SEDIMENT AND SAFETY MEASURES.
- INSTALL TEMPORARY TAXIWAY D AND F PAVEMENT MARKINGS.
- DEMOLISH PAVEMENT AND TAXIWAY EDGE LIGHTS.
- INSTALL DRAINAGE FEATURES.
- CONSTRUCT TAXIWAY PAVEMENT.
- INSTALL TEMPORARY PAVEMENT MARKINGS.
- INSTALL LIGHTING AND ASSOCIATED SIGNAGE.
- GRADE.
- TOPSOIL/SOD OR SEED/MULCH.
- INSTALL PERMANENT PAVEMENT MARKING.

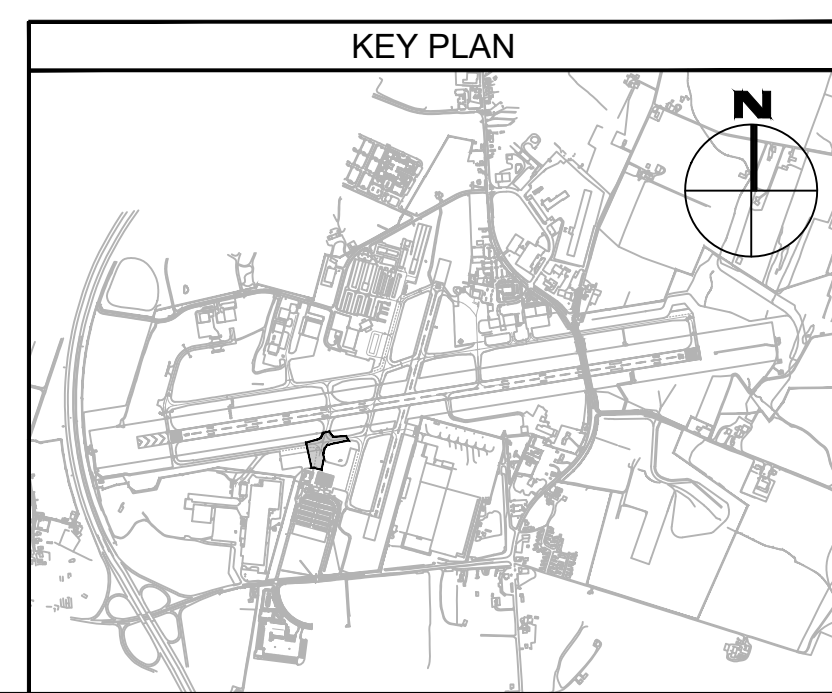
**AIRFIELD IMPACTS:**

- RUNWAY 9-27 CLOSED DURING WORK WITHIN RSA
- TAXIWAY D CLOSED FROM RUNWAY 9-27 TO TERMINAL
- TAXIWAY F CLOSED FROM EAST OF TAXIWAY D TO TAXIWAY C
- TAXIWAY D AND TAXIWAY F CENTERLINE MARKING TEMPORARILY RELOCATED

**SPECIAL REQUIREMENTS:**

- RUNWAY 2-20 SHALL REMAIN OPEN AT ALL TIMES.
- TAXIWAYS A, C, AND F (OUTSIDE OF LIMITS SHOWN) SHALL REMAIN OPEN AT ALL TIMES.
- FLAGGERS SHALL BE PROVIDED TO COORDINATE HAUL ROUTE TRAFFIC ACROSS ACTIVE TAXIWAY D. BARRICADES SHALL BE PLACED AND REMOVED AT THE START AND END OF EACH SHIFT (SEE SHEET GN02.07 FOR SPACING REQUIREMENTS). CONTRACTOR SHALL MAINTAIN A MINIMUM OF 93' CLEARANCE BETWEEN BARRICADES AND PROTECTED TAXIWAY CENTERLINE OR A MINIMUM OF 250' CLEARANCE BETWEEN BARRICADES AND PROTECTED RUNWAY CENTERLINE.
- THE WORK IN THE RUNWAY SAFETY AREA (RSA) WILL REQUIRE CLOSURE OF RUNWAY 9-27. AFTER EACH WORK PERIOD, THE RUNWAY WILL BE RE-OPENED EACH MORNING AT 7:00AM. TO MEET THE OPERATIONAL SAFETY REQUIREMENTS FOR RE-OPENING THE RUNWAY, THE MAXIMUM DROP-OFF FROM THE RUNWAY SURFACE TO THE TAXIWAY WORK AREA SURFACE CANNOT EXCEED 3 INCHES. SEE DETAIL 2 ON SHEET GN02.07. IN ADDITION, THERE CAN BE NO OPEN TRENCHES, EQUIPMENT OR STOCKPILES IN THE RSA WHEN THE RUNWAY IS OPERATIONAL.

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\013\_GN02.06\_Phase 6 Construction Safety and Phasing Planning\_PLOTTED: Monday, February 17, 2020 - 7:26am USER: gRess

**ADCI**  
 AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

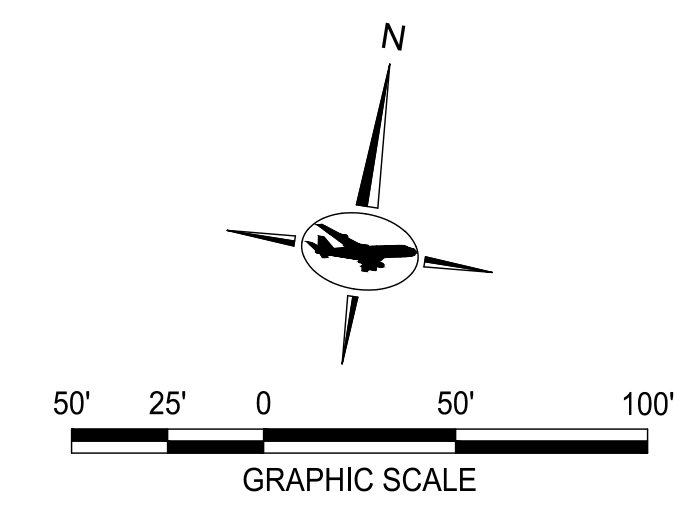
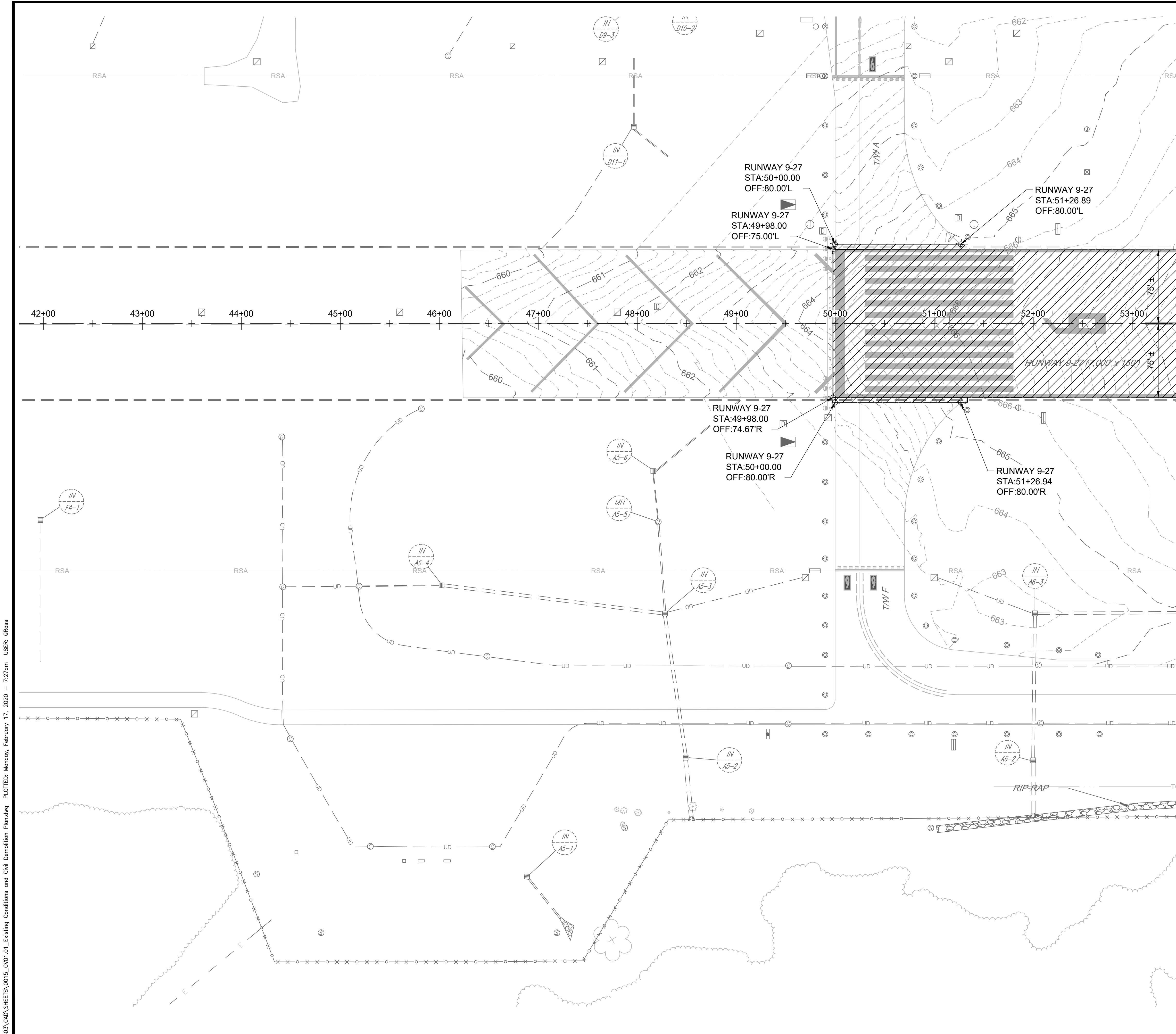
SEAL:	Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 32405 Expiration Date: 12/22/2021	DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
		DRAWN: N.B./S.S.			
		CHECKED: B.C./K.M.F.			
		APPROVED: M.S.K.			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PHASE 6 CONSTRUCTION SAFETY AND PHASING PLAN</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>GN02.06</b>
	13 OF 90

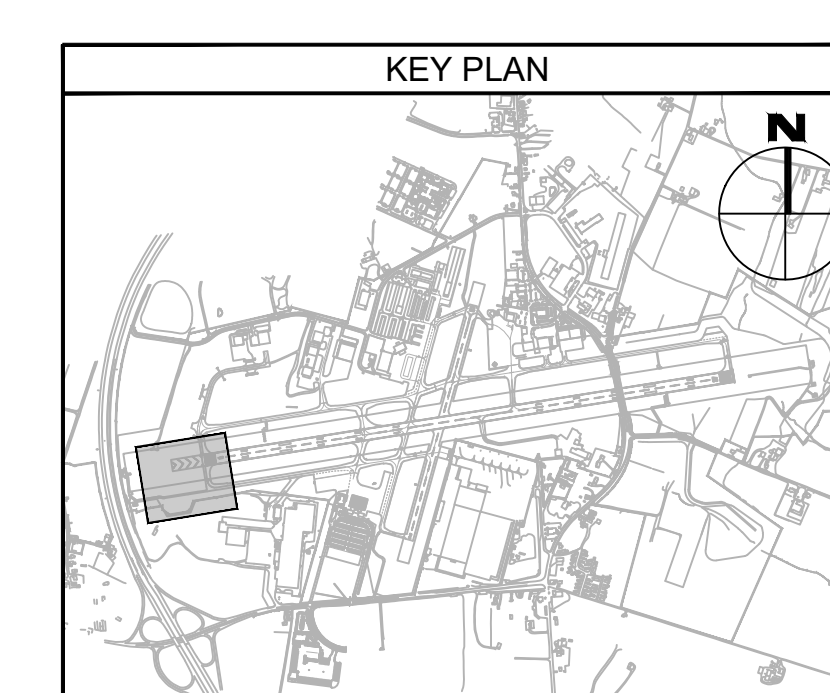




- NOTES:**
- SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
  - SEE CV03 SERIES FOR PROFILES.
  - SEE CV06 SERIES FOR BORING PLANS AND LOGS.
  - ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
  - SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.

- EXISTING LEGEND:**
- ⊗ ELECTRICAL MANHOLE
  - ⊠ ELECTRICAL HANDHOLE
  - ▣ DUCT MARKER
  - ⊙ ELECTRICAL JUNCTION BOX
  - ⊕ ELEVATED TAXIWAY EDGE LIGHT
  - ⊖ ELEVATED RUNWAY EDGE LIGHT
  - ⊘ ELEVATED APPROACH LIGHT BAR
  - ⊙ ELEVATED RUNWAY THRESHOLD LIGHT
  - ⊞ AIRFIELD GUIDANCE SIGN
  - ⊗ AOA FENCE
  - ~ TREE LINE
  - 665 MAJOR CONTOUR
  - 664 MINOR CONTOUR
  - === DRAINAGE PIPE

- LEGEND:**
- COLD MILLING, 2" DEPTH (P-101-5.2)



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\0015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:27am USER: GReas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

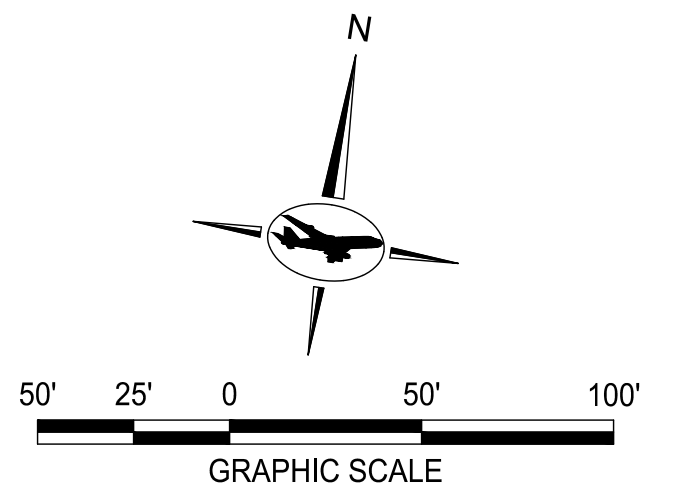
DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S. S.			
CHECKED:			
B. C. / K. M. F.			
APPROVED:			
M. S. K.			

**BID DOCUMENTS**

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 1</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

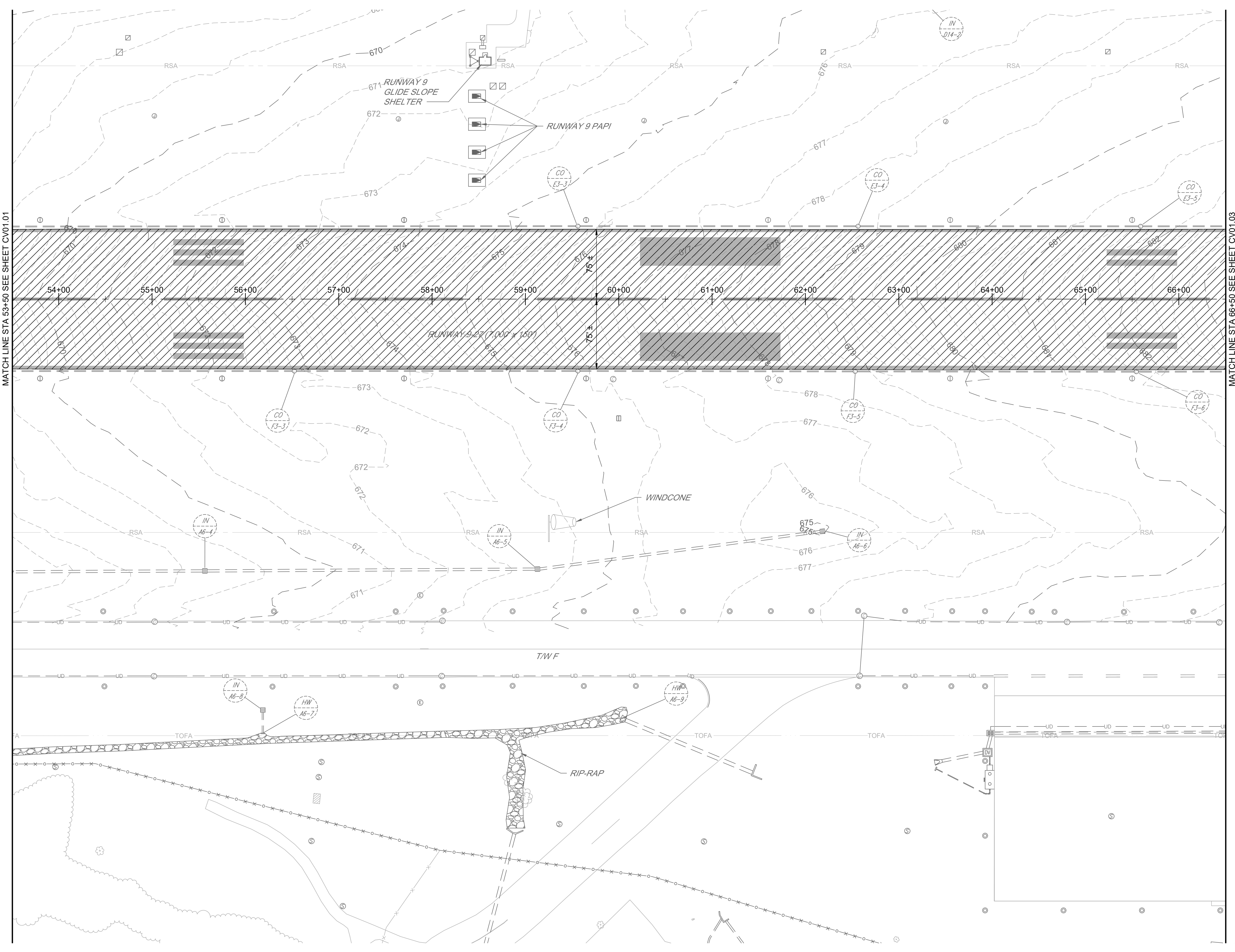
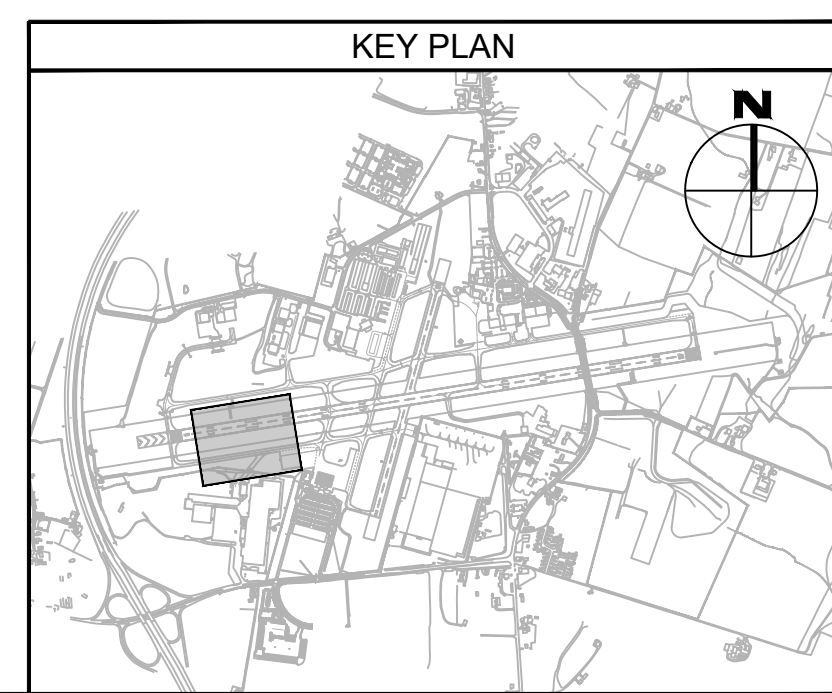
FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV01.01</b> 15 OF 90



- NOTES:**
- SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
  - SEE CV03 SERIES FOR PROFILES.
  - SEE CV06 SERIES FOR BORING PLANS AND LOGS.
  - ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
  - SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.

- EXISTING LEGEND:**
- ⊙ ELECTRICAL MANHOLE
  - ⊠ ELECTRICAL HANDHOLE
  - ⊞ DUCT MARKER
  - ⊕ ELECTRICAL JUNCTION BOX
  - ⊙ ELEVATED TAXIWAY EDGE LIGHT
  - ⊕ ELEVATED RUNWAY EDGE LIGHT
  - ELEVATED APPROACH LIGHT BAR
  - ⊙ ELEVATED RUNWAY THRESHOLD LIGHT
  - ⊞ AIRFIELD GUIDANCE SIGN
  - ⊗ AOA FENCE
  - ~ TREE LINE
  - - - 665 - MAJOR CONTOUR
  - - - 664 - MINOR CONTOUR
  - == DRAINAGE PIPE

- LEGEND:**
- COLD MILLING, 2" DEPTH (P-101-5.2)



FILE NAME: O:\HGR\Projects\2018-1303\CA0\Sheets\0015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:27am USER: GRESS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F			
APPROVED:			
M.S.K.			

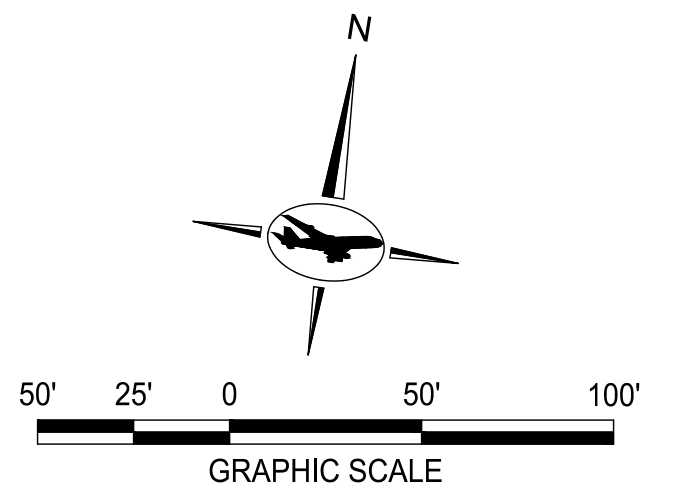
**BID DOCUMENTS**

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 2</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV01.02</b> 16 OF 90

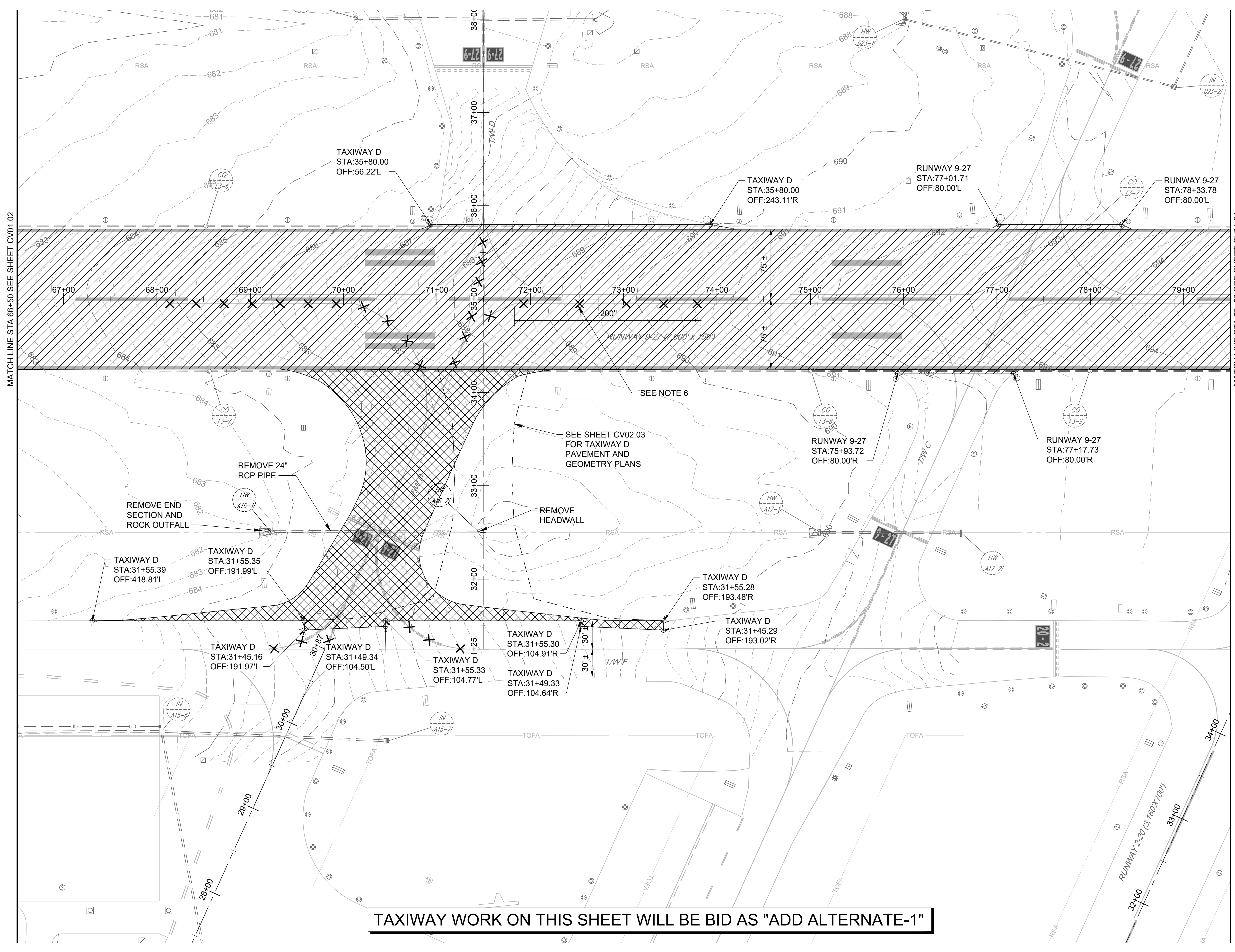
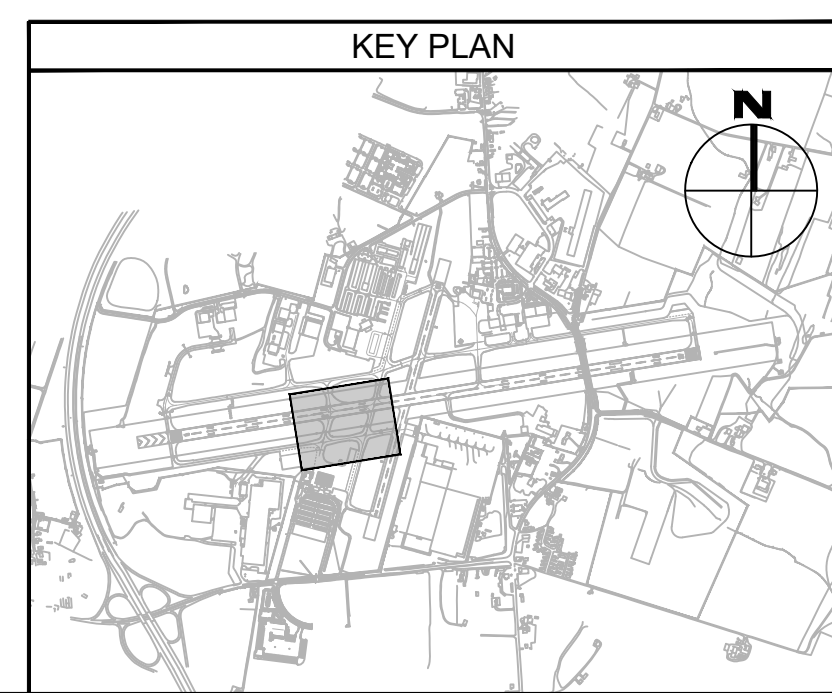




- NOTES:**
- SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
  - SEE CV03 SERIES FOR PROFILES.
  - SEE CV06 SERIES FOR BORING PLANS AND LOGS.
  - ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
  - SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.
  - IF TAXIWAY D IS TO BE DEMOLISHED PRIOR TO RUNWAY MILLING WORK, ASSOCIATED TAXIWAY D MARKING SHALL BE REMOVED.

- EXISTING LEGEND:**
- ⊙ ELECTRICAL MANHOLE
  - ⊕ ELECTRICAL HANDHOLE
  - ▣ DUCT MARKER
  - ⊖ ELECTRICAL JUNCTION BOX
  - ⊙ ELEVATED TAXIWAY EDGE LIGHT
  - ⊙ ELEVATED RUNWAY EDGE LIGHT
  - ⊙ ELEVATED APPROACH LIGHT BAR
  - ⊙ ELEVATED RUNWAY THRESHOLD LIGHT
  - ⊙ AIRFIELD GUIDANCE SIGN
  - ⊙ AOA FENCE
  - TREE LINE
  - - - 665 - - - MAJOR CONTOUR
  - - - 664 - - - MINOR CONTOUR
  - == DRAINAGE PIPE

- LEGEND:**
- ▨ ASPHALT PAVEMENT DEMOLITION (P-101-5.1)
  - ▨ COLD MILLING, 2" DEPTH (P-101-5.2)
  - NEW TAXIWAY PAVEMENT
  - × × × MARKING REMOVAL (P-620-5.1A)



FILE NAME: O:\HGR\Projects\2018-1303\CAO\SHEETS\0015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:27am USER: GReas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

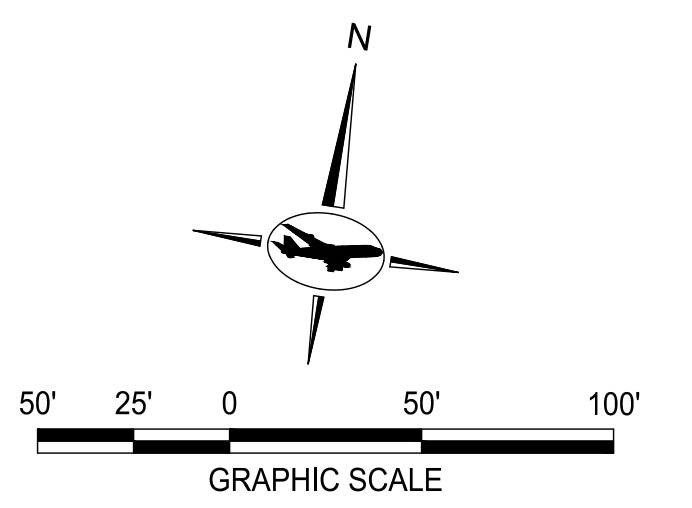
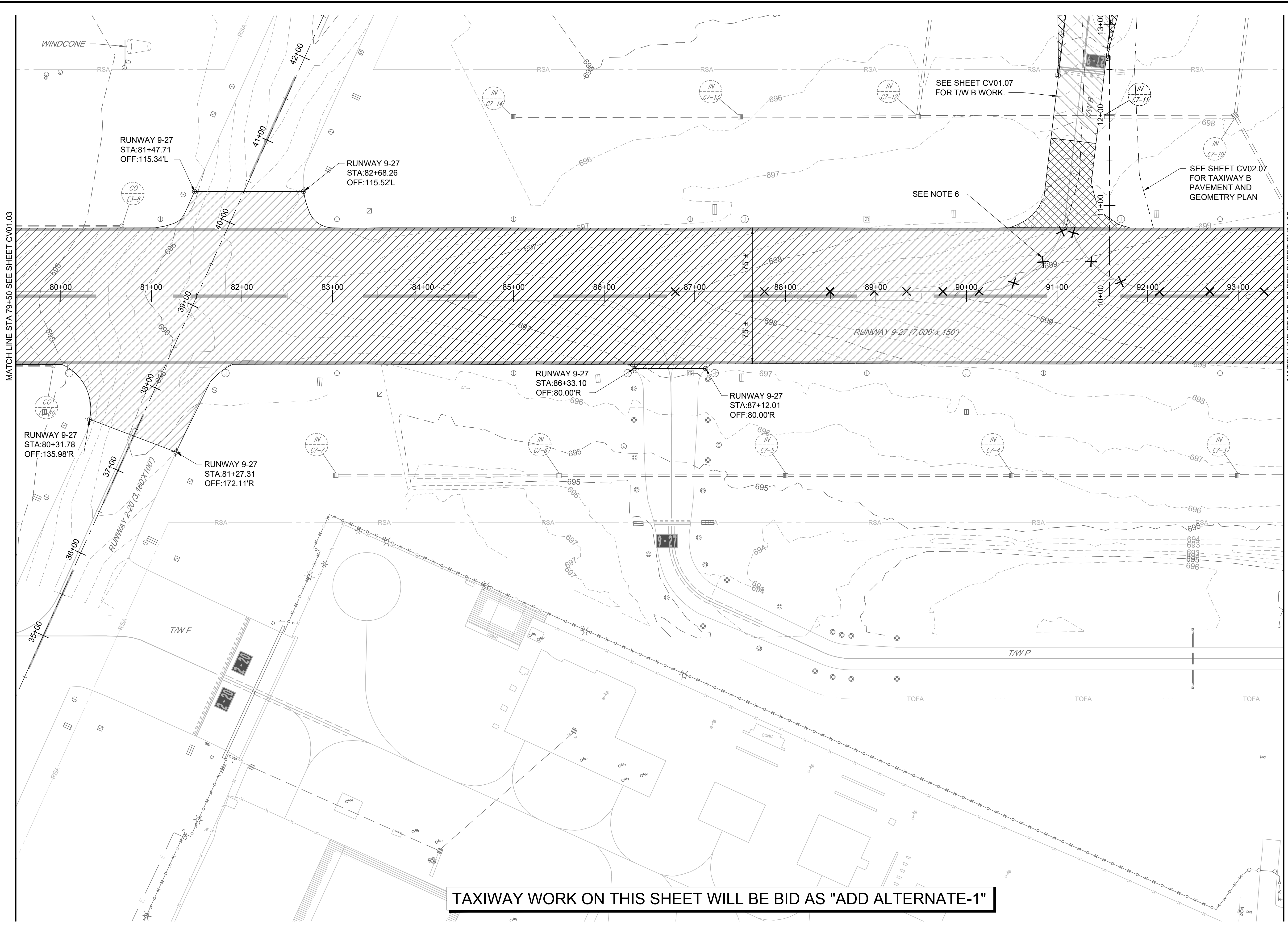
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 3</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV01.03</b> 17 OF 90

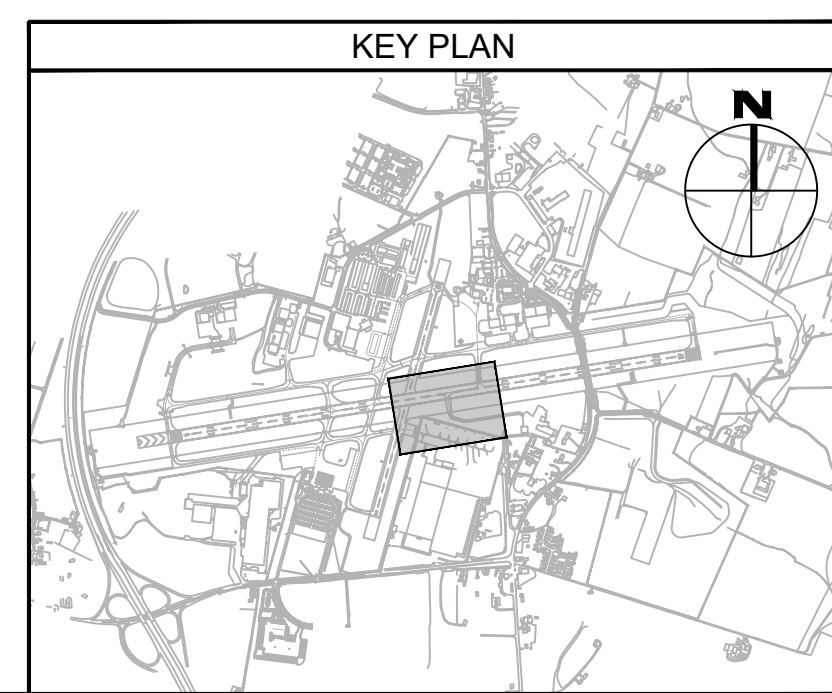
FILE NAME: O:\HGR\Projects\2018-1303\CAO\SHEETS\015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:27am USER: GReas



- NOTES:**
- SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
  - SEE CV03 SERIES FOR PROFILES.
  - SEE CV06 SERIES FOR BORING PLANS AND LOGS.
  - ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
  - SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.
  - IF TAXIWAY B IS TO BE DEMOLISHED PRIOR TO RUNWAY MILLING WORK, ASSOCIATED TAXIWAY B MARKING SHALL BE REMOVED.

- EXISTING LEGEND:**
- ⊙ ELECTRICAL MANHOLE
  - ⊕ ELECTRICAL HANDHOLE
  - ▣ DUCT MARKER
  - ⊕ ELECTRICAL JUNCTION BOX
  - ⊕ ELEVATED TAXIWAY EDGE LIGHT
  - ⊕ ELEVATED RUNWAY EDGE LIGHT
  - ⊕ ELEVATED APPROACH LIGHT BAR
  - ⊕ ELEVATED RUNWAY THRESHOLD LIGHT
  - ⊕ AIRFIELD GUIDANCE SIGN
  - \*—\*—\*—\*—\*— AOA FENCE
  - ~ TREE LINE
  - - - 665 - MAJOR CONTOUR
  - - - 664 - MINOR CONTOUR
  - == DRAINAGE PIPE

- LEGEND:**
- PCC PAVEMENT DEMOLITION (P-101-5.1)
  - ASPHALT PAVEMENT DEMOLITION (P-101-5.1)
  - COLD MILLING, 2" DEPTH (P-101-5.2)
  - COLD MILLING, VARIABLE DEPTH, (0.25" TO 2") (P-101-5.3)
  - - - NEW TAXIWAY PAVEMENT
  - X X X MARKING REMOVAL (P-620-5.1A)



**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

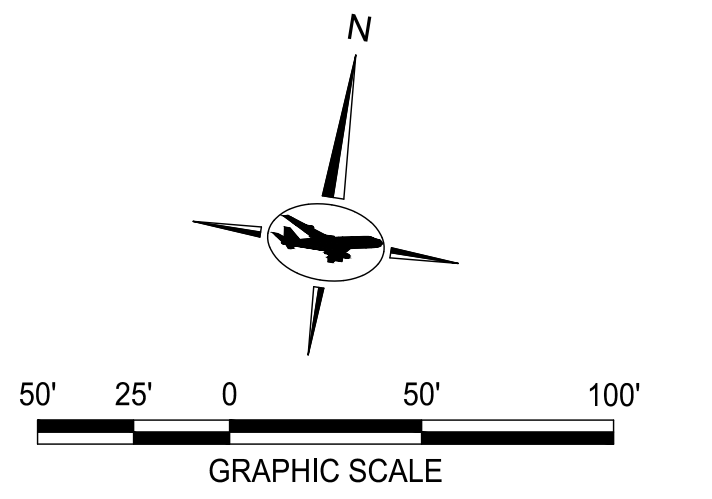
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 4**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV01.04**  
18 OF 90



**NOTES:**

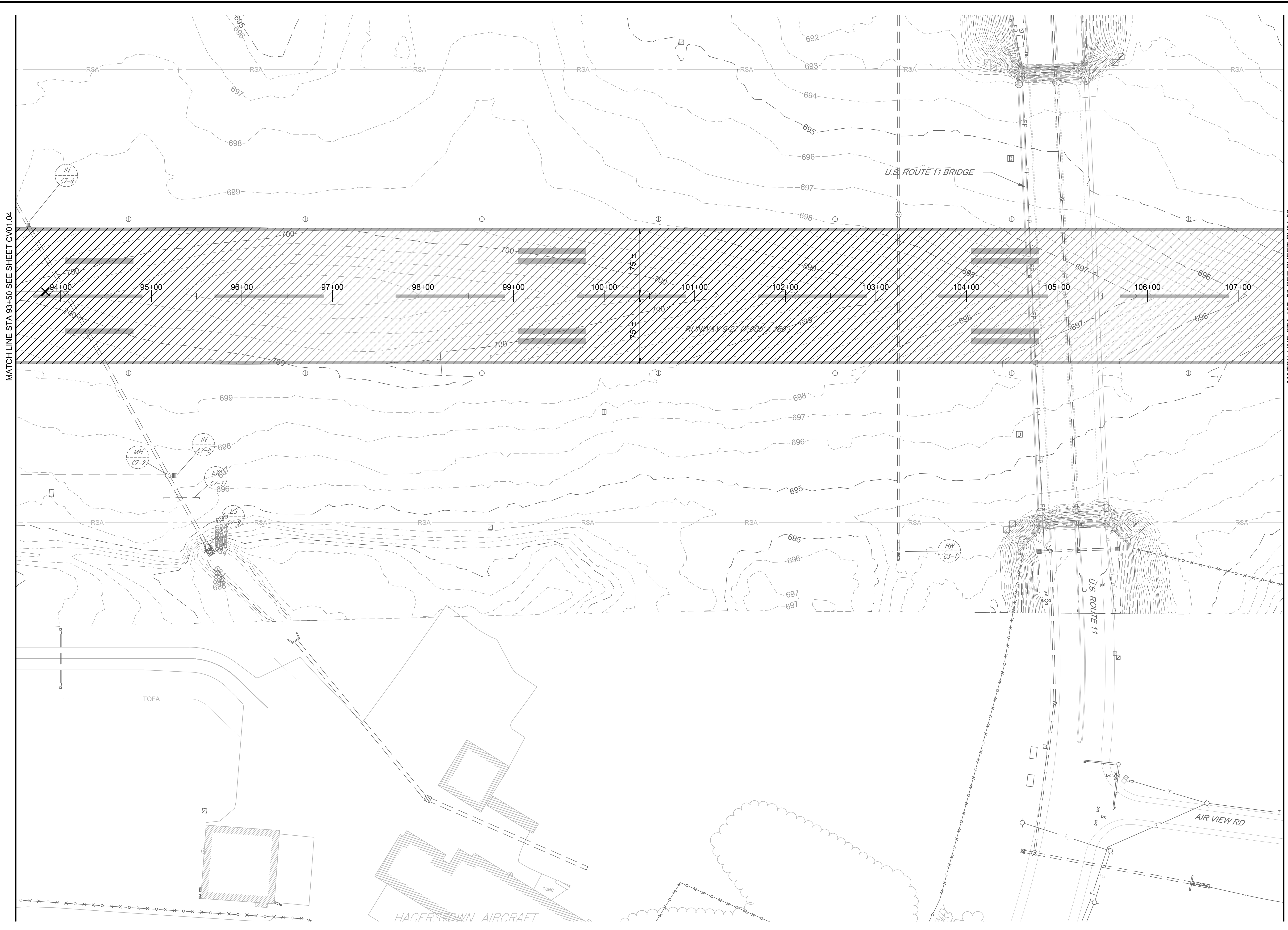
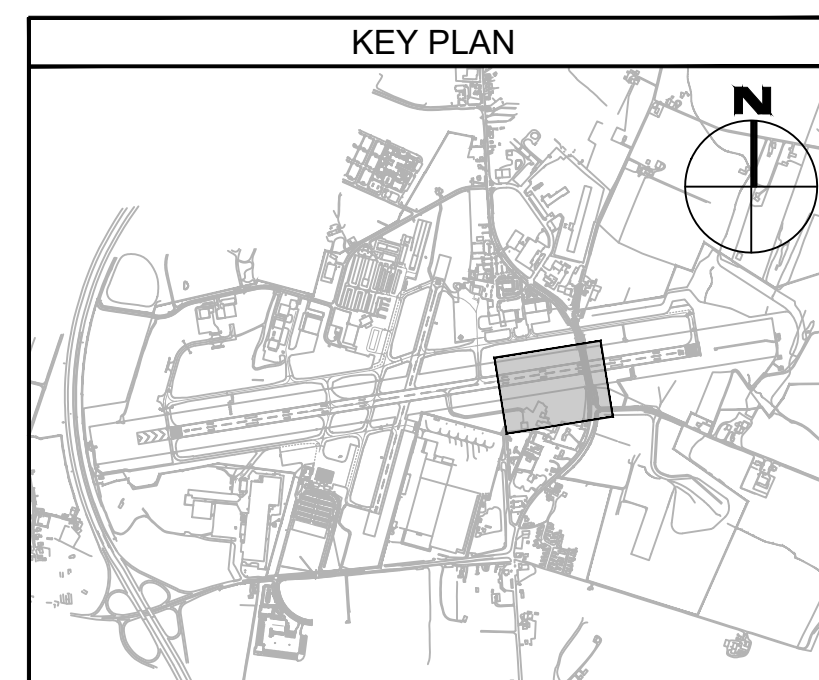
1. SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
2. SEE CV03 SERIES FOR PROFILES.
3. SEE CV06 SERIES FOR BORING PLANS AND LOGS.
4. ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
5. SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.
6. IF TAXIWAY B IS TO BE DEMOLISHED PRIOR TO RUNWAY MILLING WORK, ASSOCIATED TAXIWAY B MARKING SHALL BE REMOVED.

**EXISTING LEGEND:**

- ⊗ ELECTRICAL MANHOLE
- ⊕ ELECTRICAL HANDHOLE
- DUCT MARKER
- ⊙ ELECTRICAL JUNCTION BOX
- ⊖ ELEVATED TAXIWAY EDGE LIGHT
- ⊕ ELEVATED RUNWAY EDGE LIGHT
- ELEVATED APPROACH LIGHT BAR
- ELEVATED RUNWAY THRESHOLD LIGHT
- ≡ AIRFIELD GUIDANCE SIGN
- x — x — x AOA FENCE
- ~~~~~ TREE LINE
- 665 --- MAJOR CONTOUR
- 664 --- MINOR CONTOUR
- ==== DRAINAGE PIPE

**LEGEND:**

- COLD MILLING, 2" DEPTH (P-101-5.2)
- MARKING REMOVAL (P-620-5.1A)



MATCH LINE STA 93+50 SEE SHEET CV01.04

MATCH LINE STA 107+50 SEE SHEET CV01.06

FILE NAME: C:\HGR\Projects\2018-1303\CAD\SHEETS\015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: gress

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

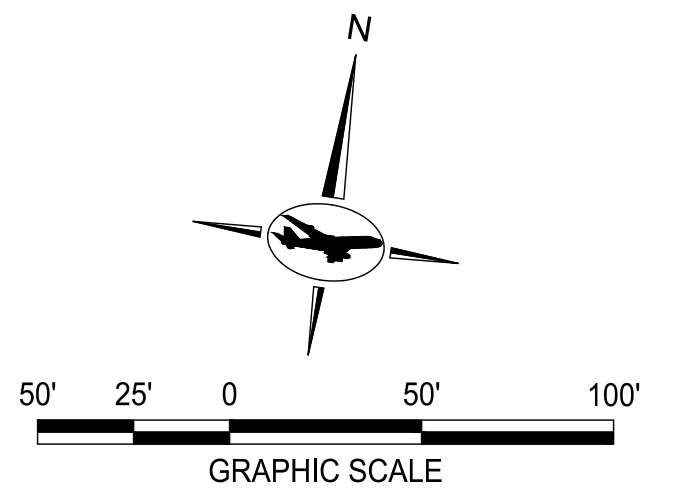
Washington County, MD  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 5</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

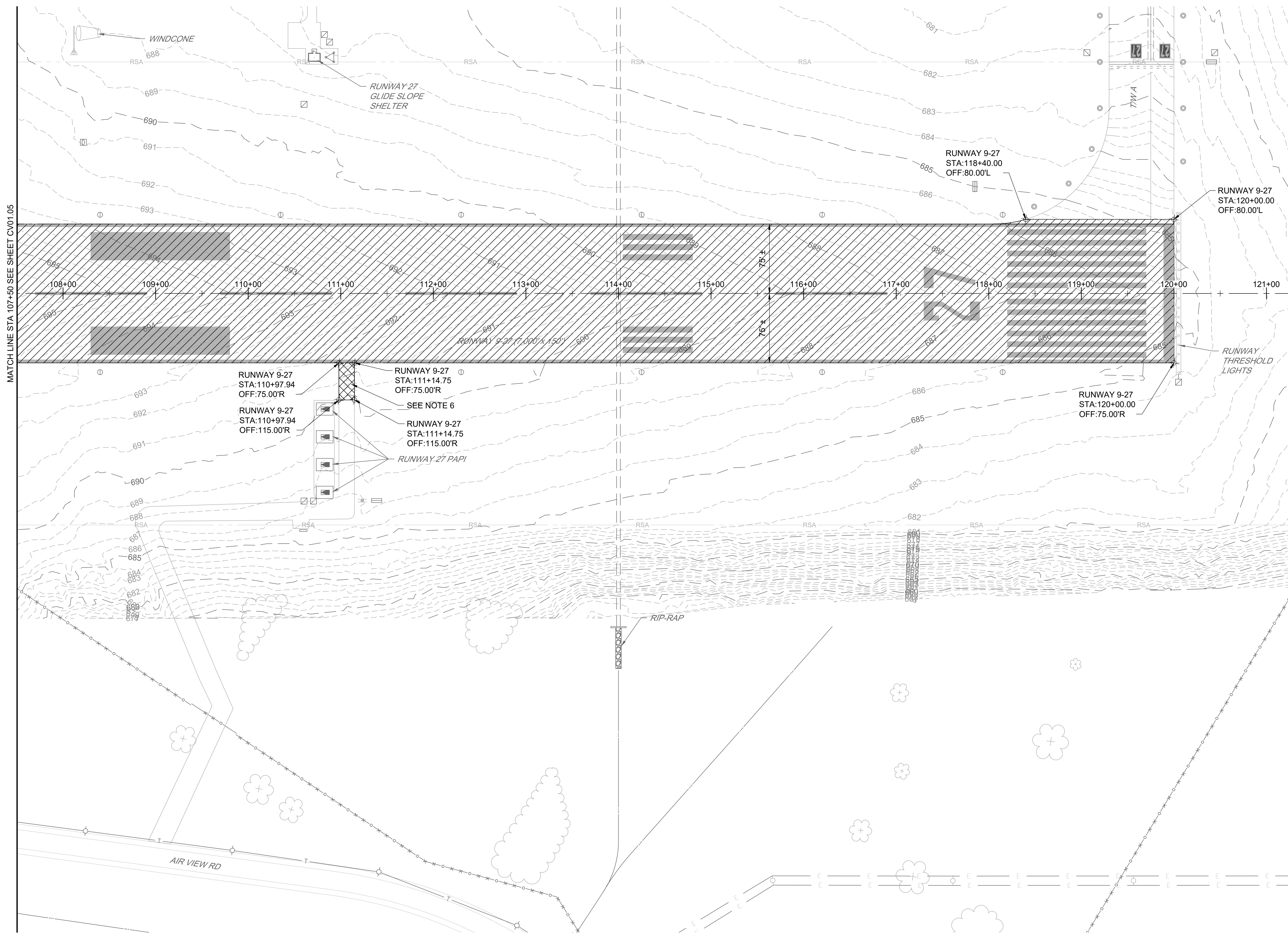
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV01.05**  
19 OF 90

**BID DOCUMENTS**



MATCH LINE STA. 107+50 SEE SHEET CV01.05



**NOTES:**

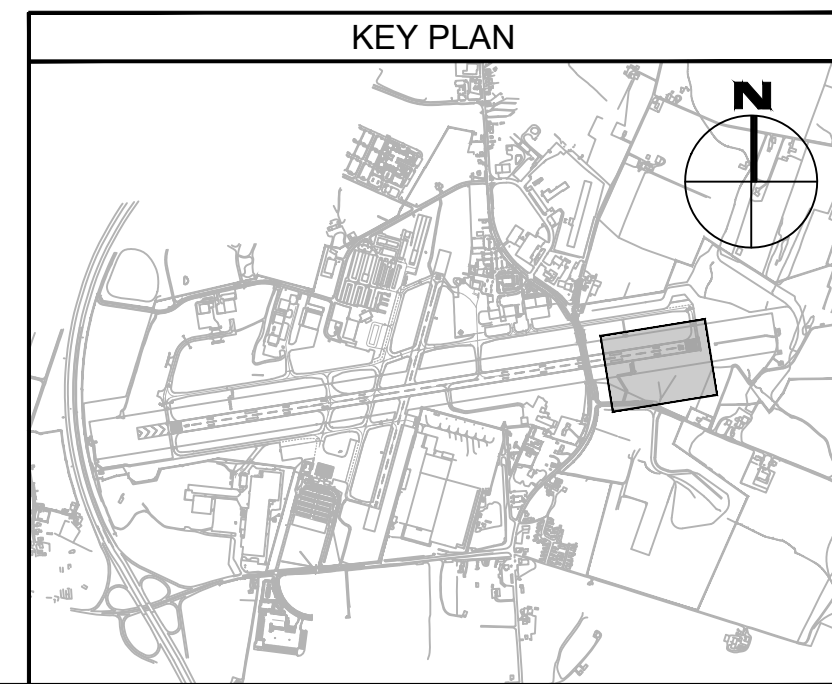
1. SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
2. SEE CV03 SERIES FOR PROFILES.
3. SEE CV06 SERIES FOR BORING PLANS AND LOGS.
4. ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
5. SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.
6. UPON COMPLETION OF PAVEMENT DEMOLITION, CONTRACTOR SHALL BACKFILL, TOPSOIL, SOD (6' FROM RUNWAY EDGE), AND HYDROSEED.

**EXISTING LEGEND:**

- ⊙ ELECTRICAL MANHOLE
- ⊠ ELECTRICAL HANDHOLE
- ⊞ DUCT MARKER
- ⊙ ELECTRICAL JUNCTION BOX
- ⊙ ELEVATED TAXIWAY EDGE LIGHT
- ⊙ ELEVATED RUNWAY EDGE LIGHT
- ⊙ ELEVATED APPROACH LIGHT BAR
- ⊙ ELEVATED RUNWAY THRESHOLD LIGHT
- ⊞ AIRFIELD GUIDANCE SIGN
- x-x-x-x- AOA FENCE
- TREE LINE
- - - 665 - MAJOR CONTOUR
- - - 664 - MINOR CONTOUR
- == DRAINAGE PIPE

**LEGEND:**

- ⊞ ASPHALT PAVEMENT DEMOLITION (P-101-5.1)
- ⊞ COLD MILLING, 2" DEPTH (P-101-5.2)



FILE NAME: O:\HGR\Projects\2018-1303\CAO\SHEETS\0015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GReas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

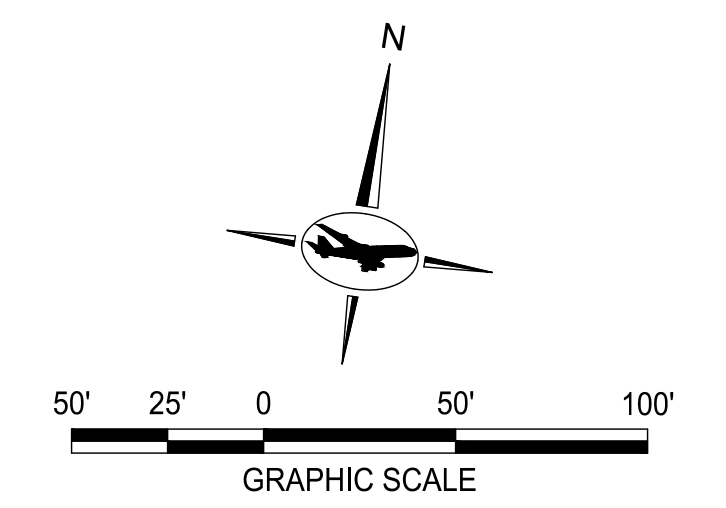
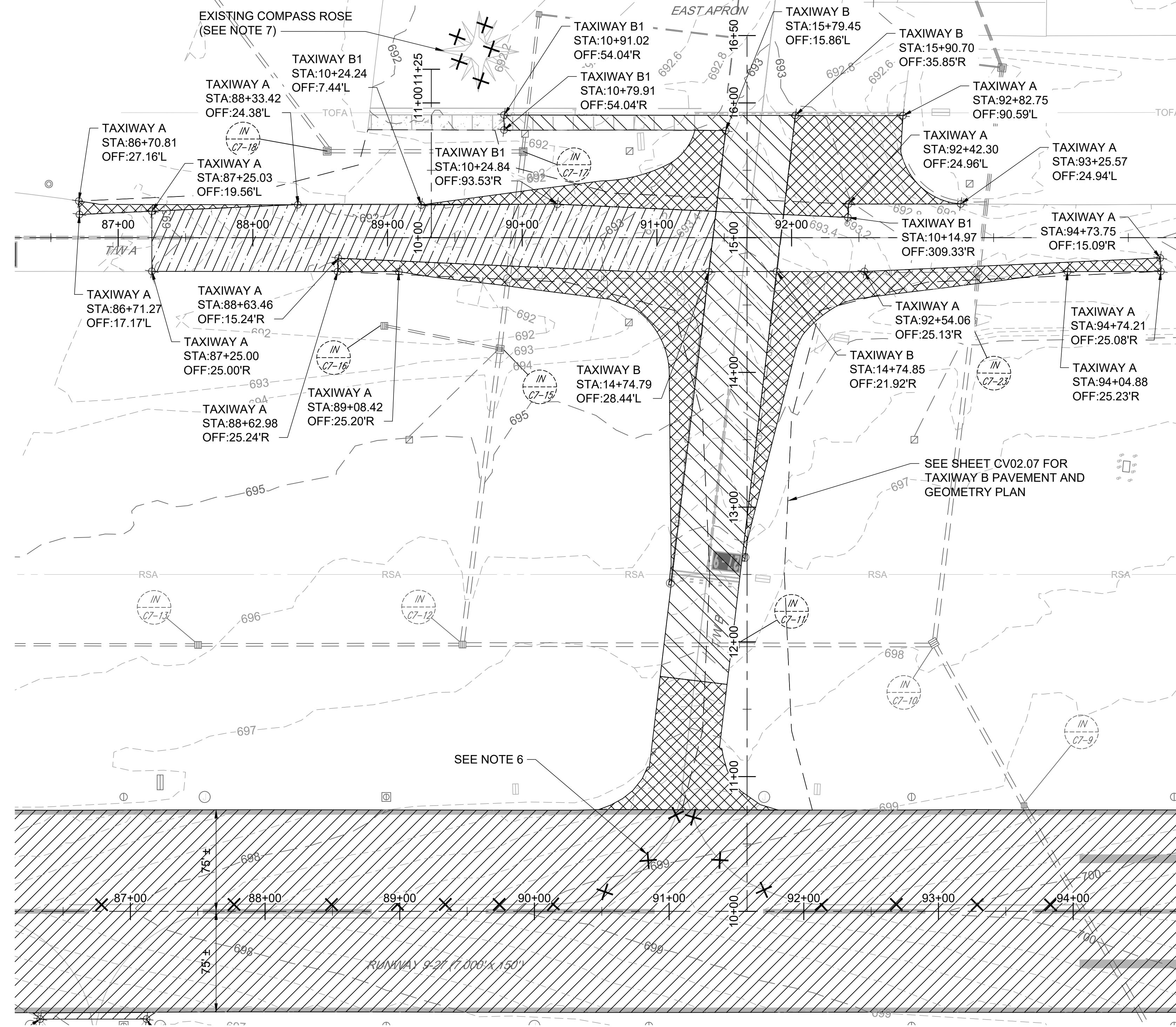
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 6</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV01.06**  
20 OF 90

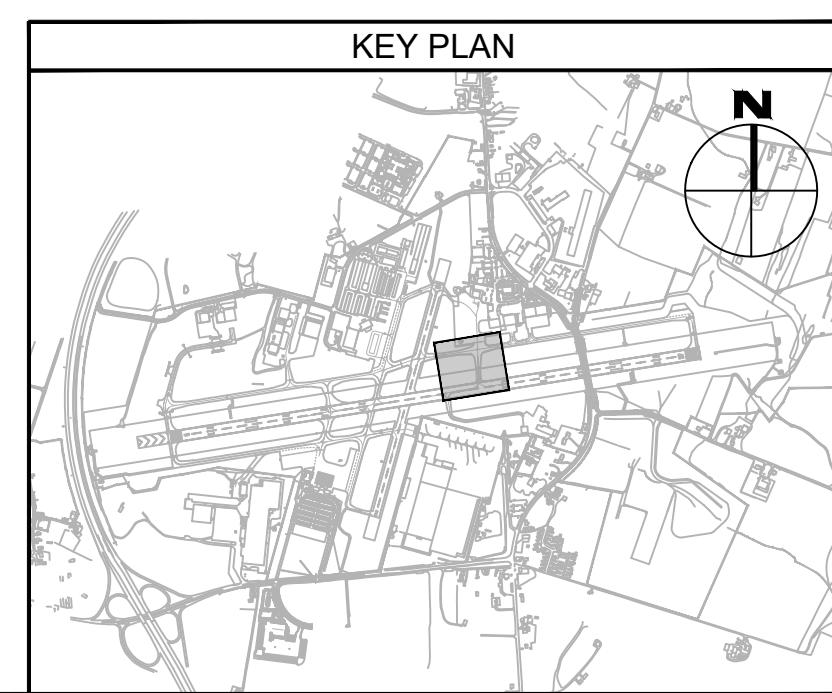
**BID DOCUMENTS**



- NOTES:**
- SEE CV02 SERIES FOR PAVING AND GEOMETRY PLANS AND DETAILS AND EXISTING PAVEMENT SECTIONS.
  - SEE CV03 SERIES FOR PROFILES.
  - SEE CV06 SERIES FOR BORING PLANS AND LOGS.
  - ALL UTILITIES SHALL REMAIN IN PLACE AND IN SERVICE, UNLESS OTHERWISE NOTED.
  - SEE ELECTRICAL SERIES E02 FOR LIGHTING AND SIGNAGE DEMOLITION.
  - IF TAXIWAY B IS TO BE DEMOLISHED PRIOR TO RUNWAY MILLING WORK, ASSOCIATED TAXIWAY B MARKING SHALL BE REMOVED.
  - REMOVE COMPASS ROSE AFTER MARKING NEW COMPASS ROSE.

- EXISTING LEGEND:**
- ⊙ ELECTRICAL MANHOLE
  - ⊕ ELECTRICAL HANDHOLE
  - ▣ DUCT MARKER
  - ⊙ ELECTRICAL JUNCTION BOX
  - ⊙ ELEVATED TAXIWAY EDGE LIGHT
  - ⊙ ELEVATED RUNWAY EDGE LIGHT
  - ⊙ ELEVATED APPROACH LIGHT BAR
  - ⊙ ELEVATED RUNWAY THRESHOLD LIGHT
  - ⊙ AIRFIELD GUIDANCE SIGN
  - ⊙ AOA FENCE
  - TREE LINE
  - - - 665 MAJOR CONTOUR
  - - - 664 MINOR CONTOUR
  - == DRAINAGE PIPE

- LEGEND:**
- ▨ PCC PAVEMENT DEMOLITION (P-101-5.1)
  - ▩ ASPHALT PAVEMENT DEMOLITION (P-101-5.1)
  - ▨ COLD MILLING, 2" DEPTH (P-101-5.2)
  - ▨ COLD MILLING, VARIABLE DEPTH, (0.25" TO 2") (P-101-5.3)
  - - - NEW TAXIWAY PAVEMENT
  - X X X MARKING REMOVAL (P-620-5.1A)



TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"

FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHETS\015\_CV01.01\_Existing Conditions and Civil Demolition Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

HGR

PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

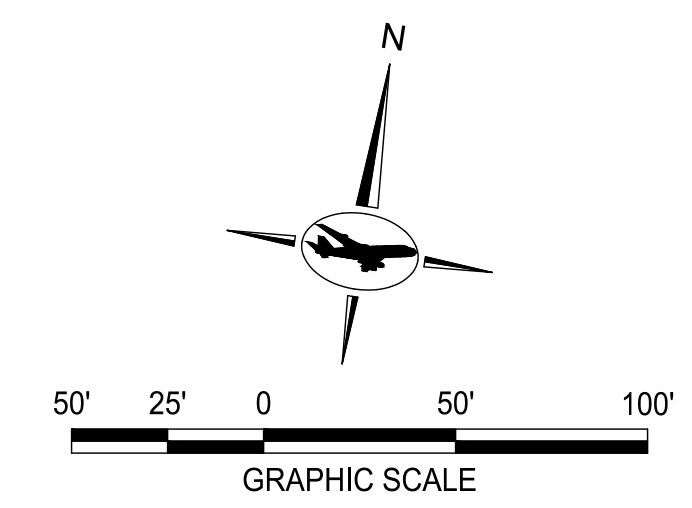
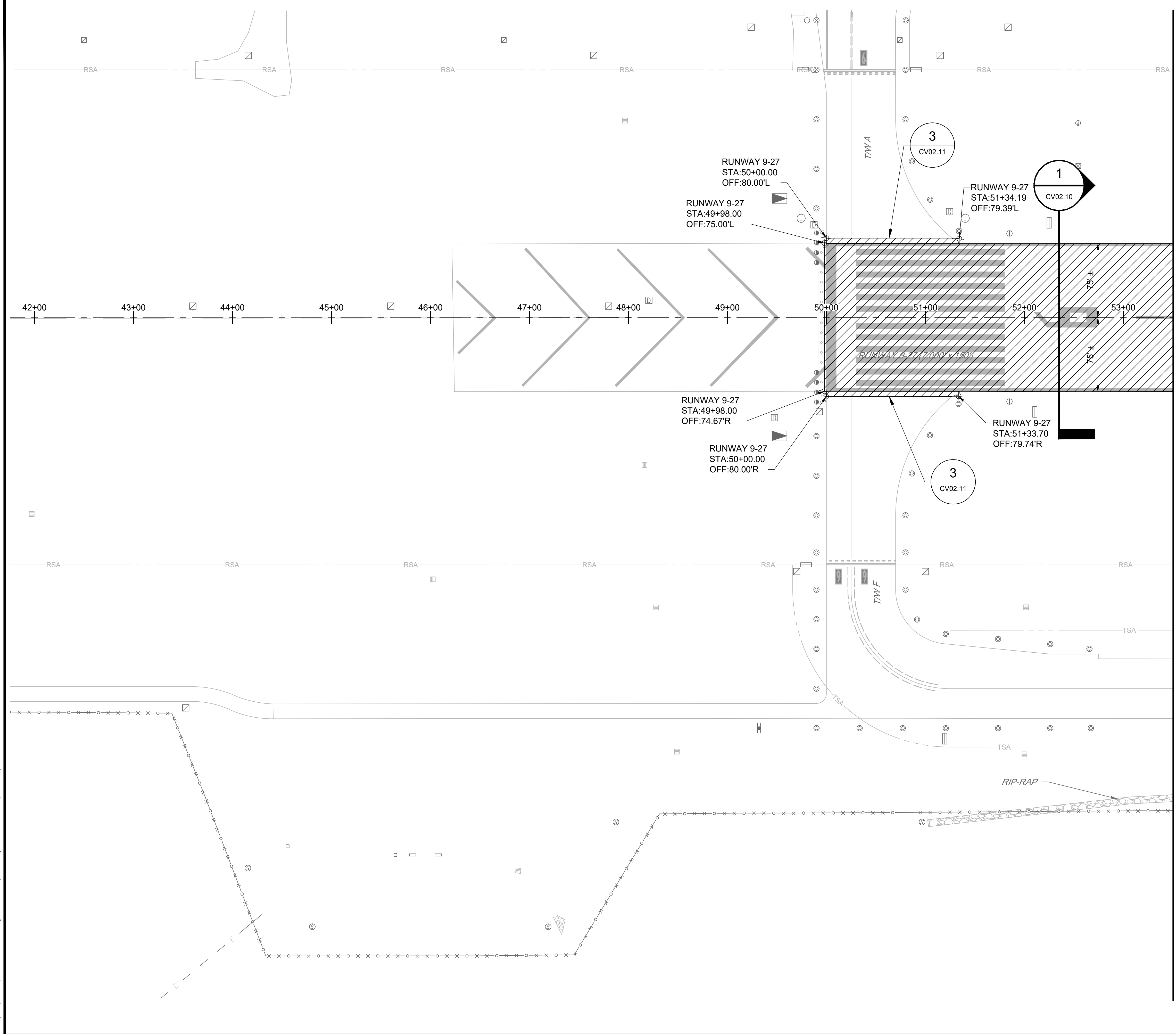
SHEET TITLE:  
**EXISTING CONDITIONS AND CIVIL DEMOLITION PLAN 7**

SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

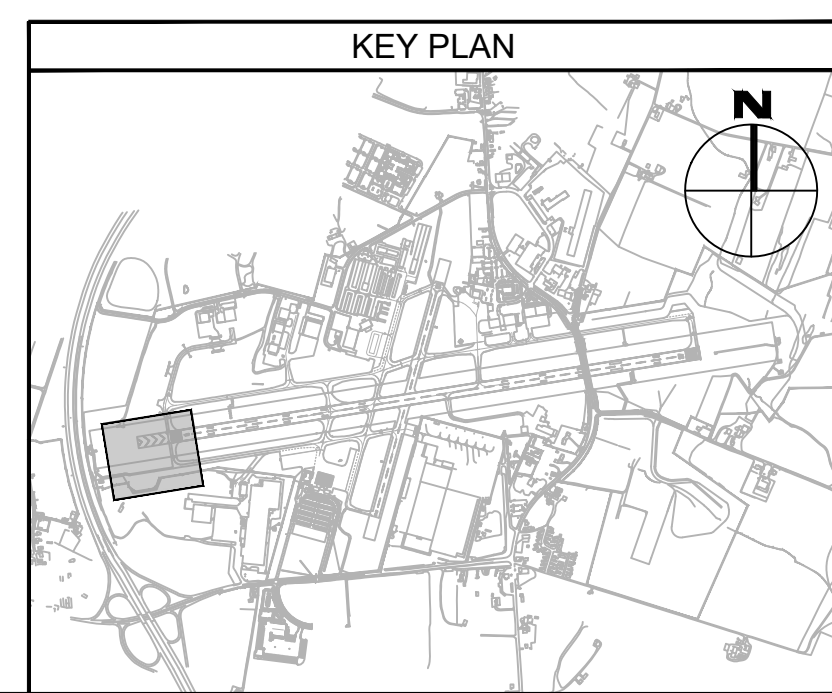
SHEET NO.:  
**CV01.07**  
21 OF 90

FILE NAME: O:\HGR Projects\2018-1303\CAD\SHEETS\002\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GROSS



- NOTES:**
1. FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
  2. FOR GRADING PLANS AND PROFILES SEE SHEETS CV03.01 TO CV03.10.
  3. FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
  4. SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

- LEGEND:**
- 3" DEPTH ASPHALT OVERLAY
  - EXISTING INLET
  - EXISTING AOA FENCE



**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

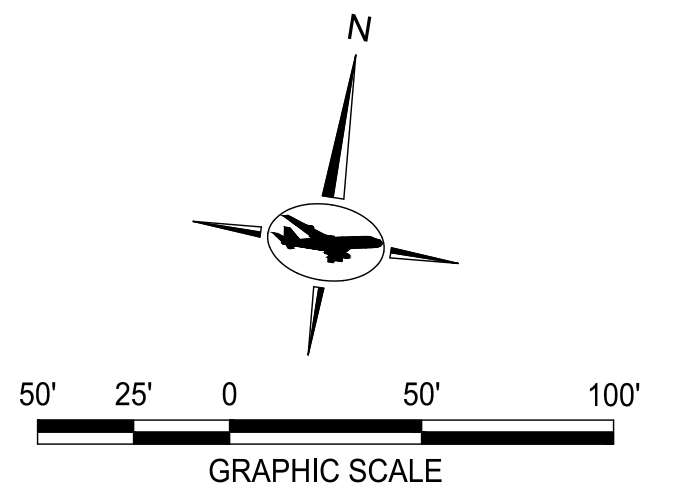
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**BID DOCUMENTS**

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVING AND GEOMETRY PLAN 1</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV02.01</b> 22 OF 90



**NOTES:**

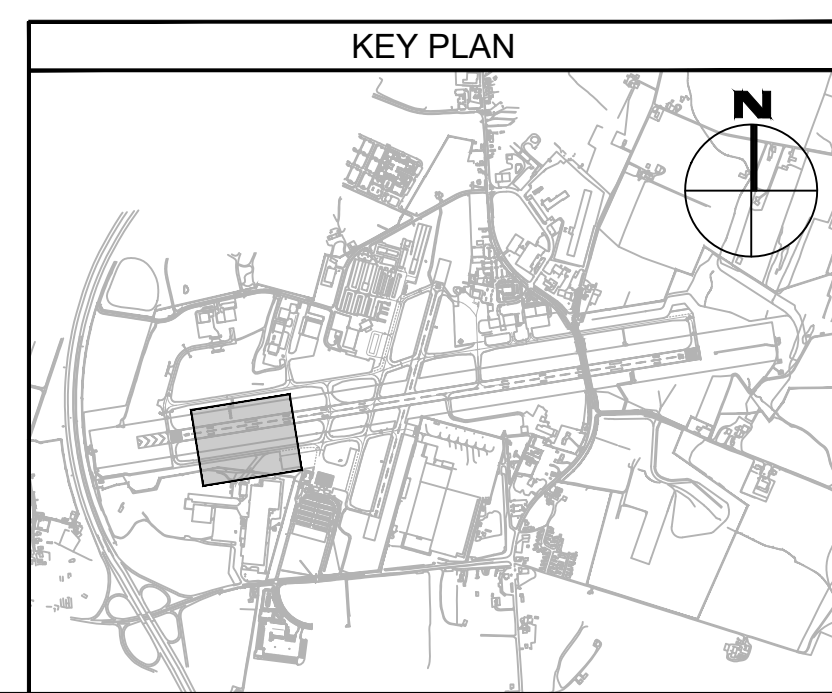
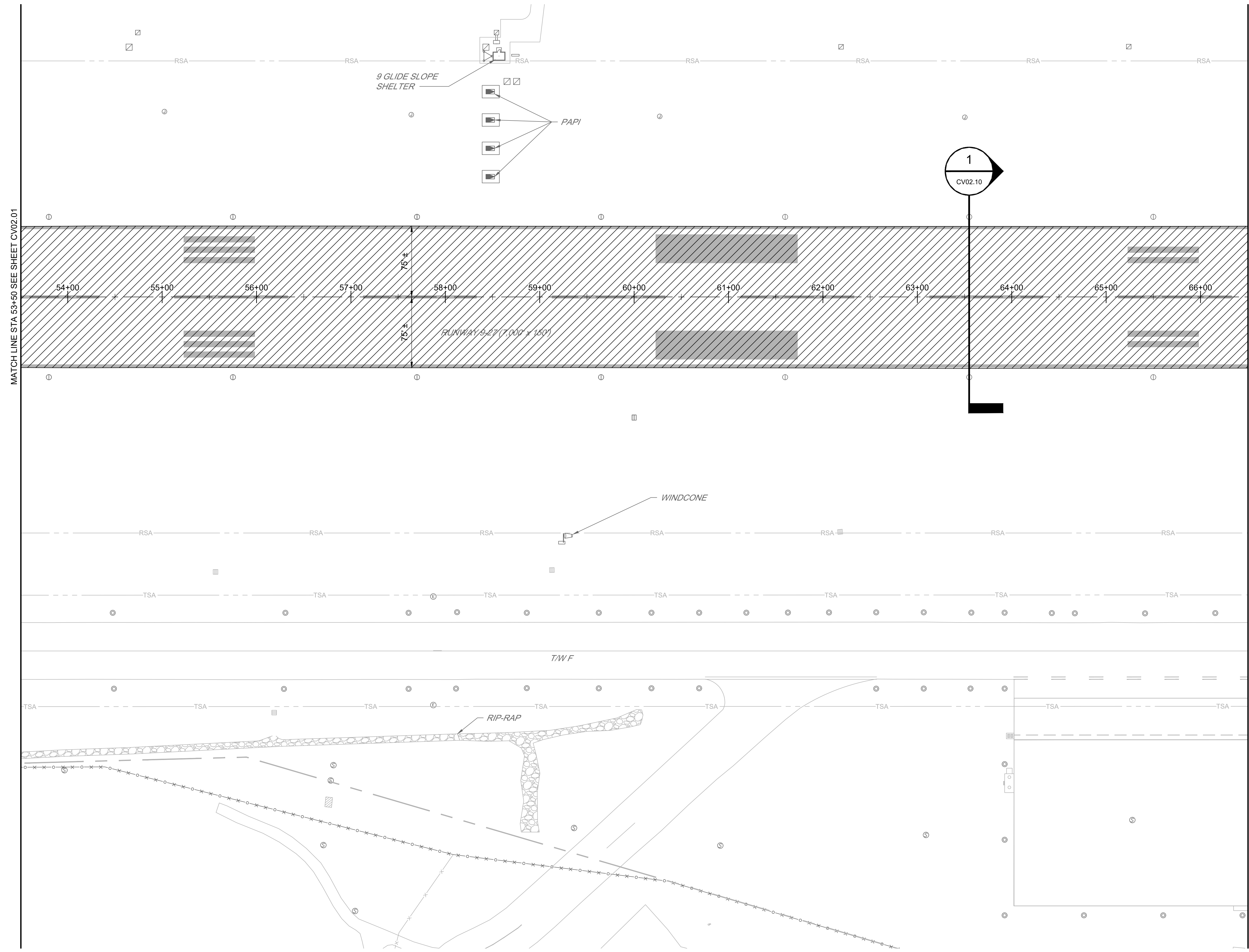
1. FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
2. FOR GRADING PLANS AND PROFILES SEE SHEETS CV03.01 TO CV03.10.
3. FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
4. SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

**LEGEND:**

- 3" DEPTH ASPHALT OVERLAY
- EXISTING INLET
- EXISTING AOA FENCE

MATCH LINE STA 53+50 SEE SHEET CV02.01

MATCH LINE STA 66+50 SEE SHEET CV02.03



FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\002\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GROSS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

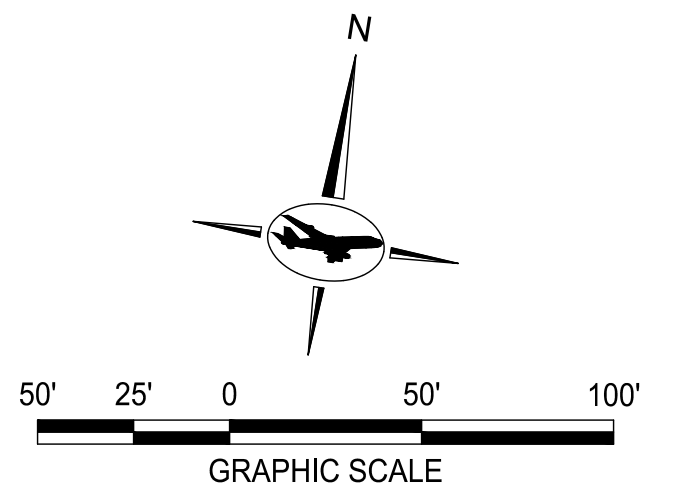
**BID DOCUMENTS**

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVING AND GEOMETRY PLAN 2</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

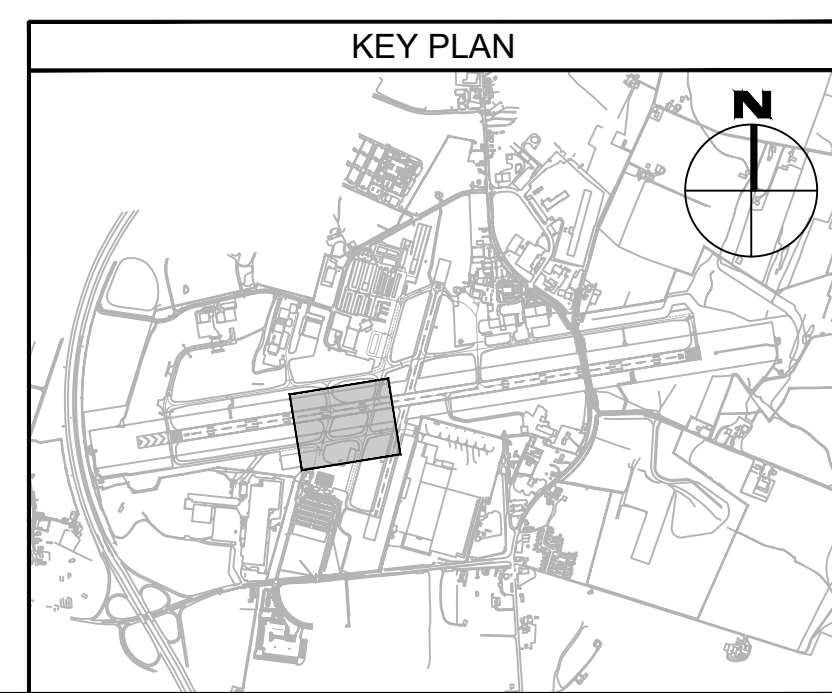
SHEET No.:  
**CV02.02**  
23 OF 90



- NOTES:**
- FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
  - FOR GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY D SEE SHEET CV03.10.
  - FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
  - SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

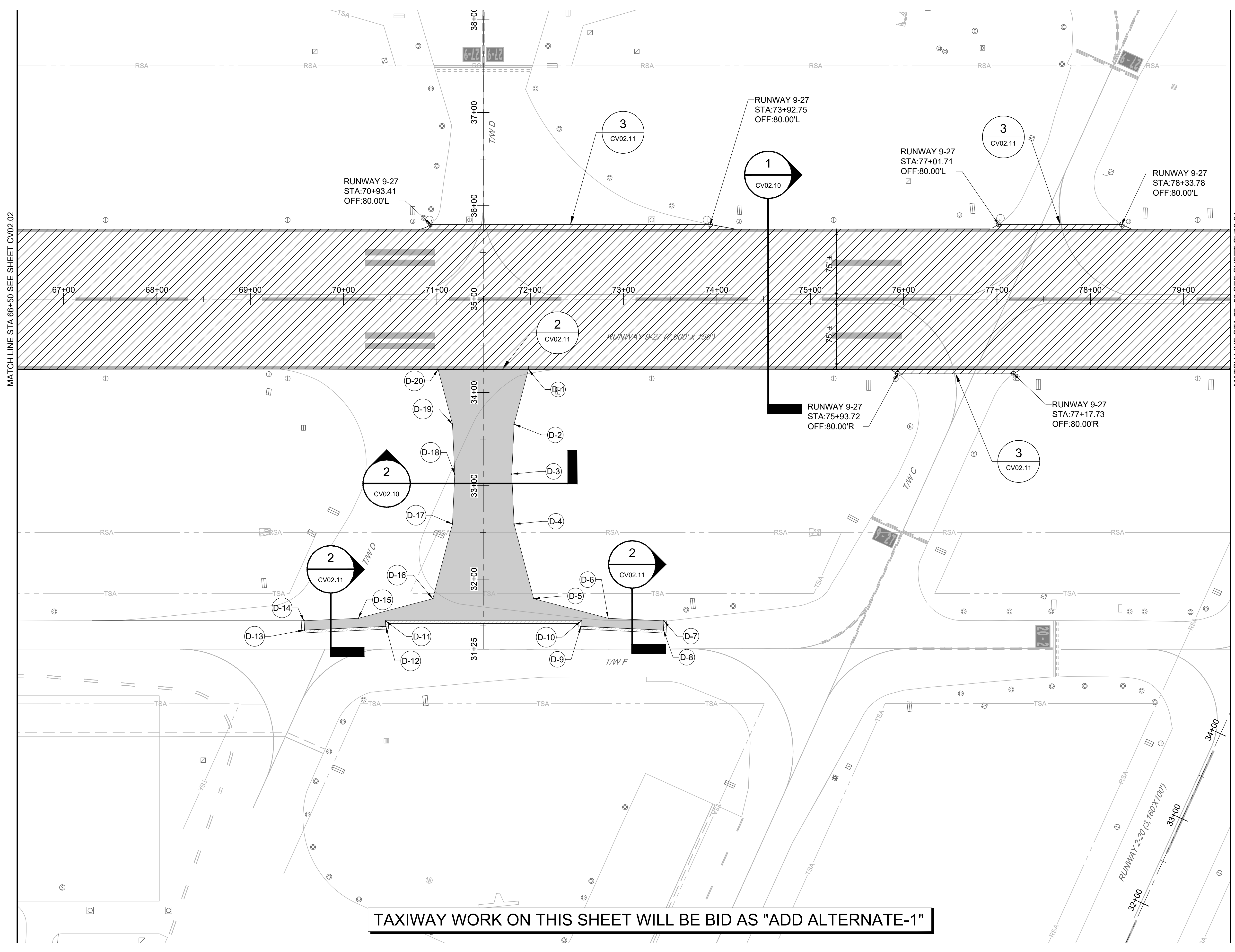
- LEGEND:**
- 3" DEPTH ASPHALT OVERLAY
  - FULL DEPTH ASPHALT CONSTRUCTION
  - EXISTING INLET
  - EXISTING AOA FENCE

PAVING AND GEOMETRY STATION AND OFFSET TABLE			
POINT	BASELINE	STATION	OFFSET
D-1	TAXIWAY D	34+24.46	48.35' R
D-2	TAXIWAY D	33+66.00	33.00' R
D-3	TAXIWAY D	33+12.50	30.55' R
D-4	TAXIWAY D	32+59.00	33.00' R
D-5	TAXIWAY D	31+79.00	54.00' R
D-6	TAXIWAY D	31+58.00	134.00' R
D-7	TAXIWAY D	31+55.28	193.48' R
D-8	TAXIWAY D	31+45.29	193.02' R
D-9	TAXIWAY D	31+49.33	104.64' R
D-10	TAXIWAY D	31+55.30	104.91' R
D-11	TAXIWAY D	31+55.33	104.77' L
D-12	TAXIWAY D	31+49.34	104.50' L
D-13	TAXIWAY D	31+45.36	191.53' L
D-14	TAXIWAY D	31+55.35	191.99' L
D-15	TAXIWAY D	31+58.00	134.00' L
D-16	TAXIWAY D	31+79.00	54.00' L
D-17	TAXIWAY D	32+59.00	33.00' L
D-18	TAXIWAY D	33+12.50	30.55' L
D-19	TAXIWAY D	33+66.00	33.00' L
D-20	TAXIWAY D	34+24.65	48.39' L



MATCH LINE STA 66+50 SEE SHEET CV02.02

MATCH LINE STA 79+50 SEE SHEET CV02.04



**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**

FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\002\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GROSS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**

HAGERSTOWN REGIONAL AIRPORT

HGR

PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**PAVING AND GEOMETRY PLAN 3**

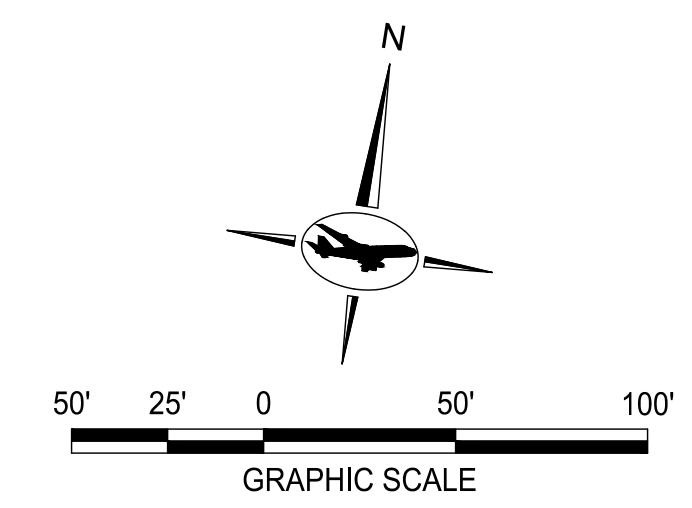
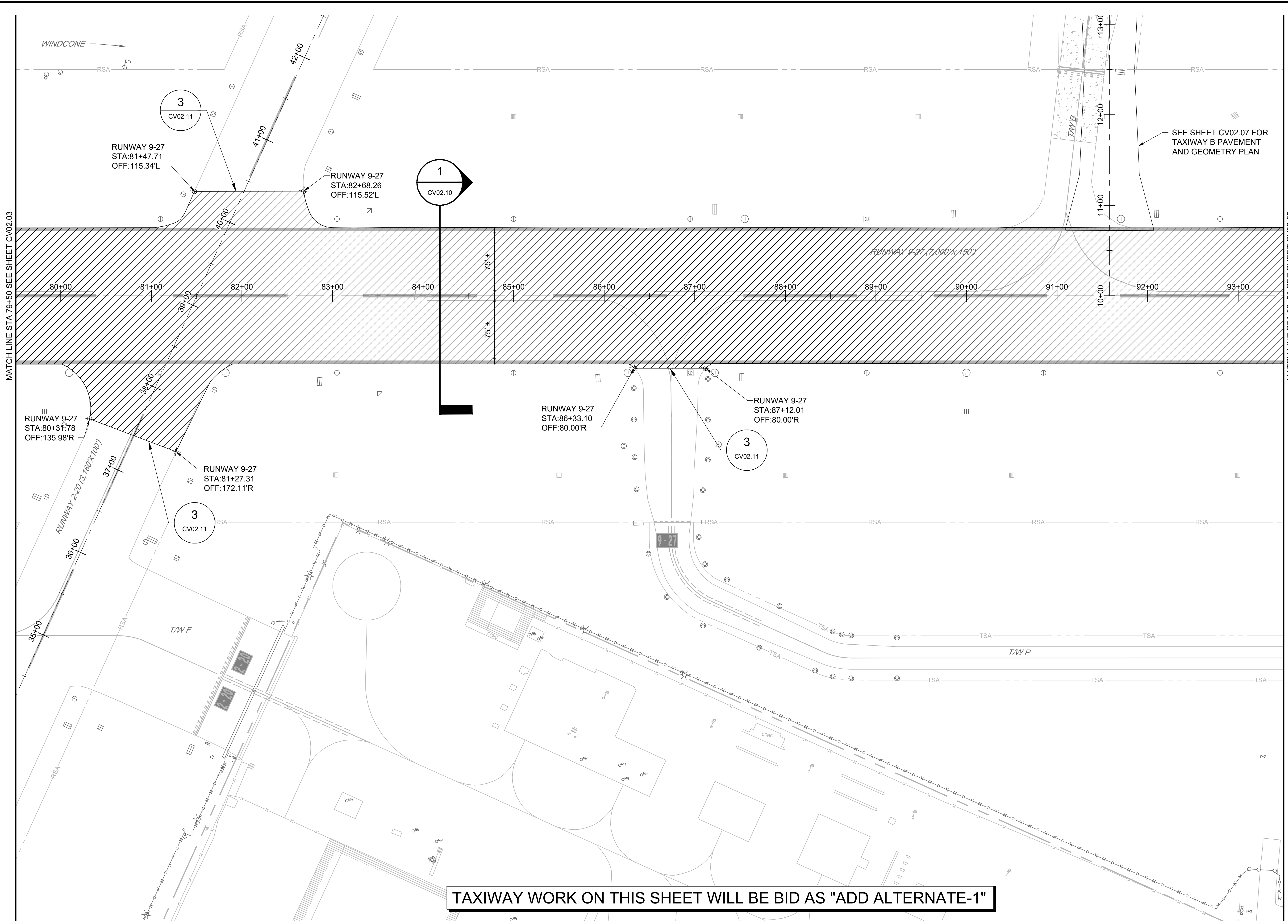
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV02.03**  
24 OF 90



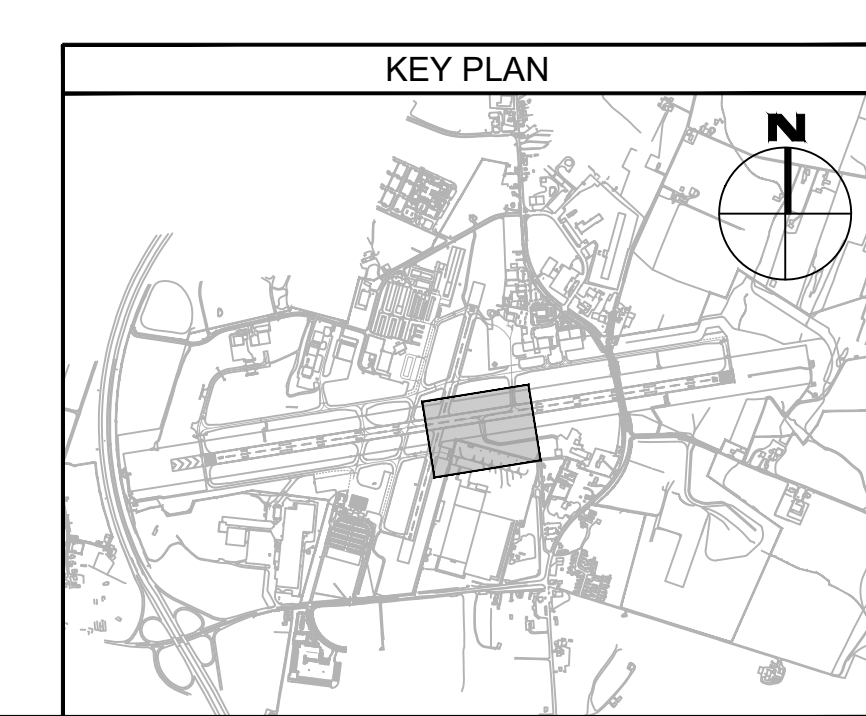
FILE NAME: O:\HGR\Projects\2018-1303\CAD\Drawings\022\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GROSS



- NOTES:**
1. FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
  2. FOR GRADING PLANS AND PROFILES SEE SHEETS CV03.01 TO CV03.10.
  3. FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
  4. SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

- LEGEND:**
- 3' DEPTH ASPHALT OVERLAY
  - EXISTING INLET
  - EXISTING AOA FENCE

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S. S.			
CHECKED:			
B. C. / K. M. F.			
APPROVED:			
M. S. K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

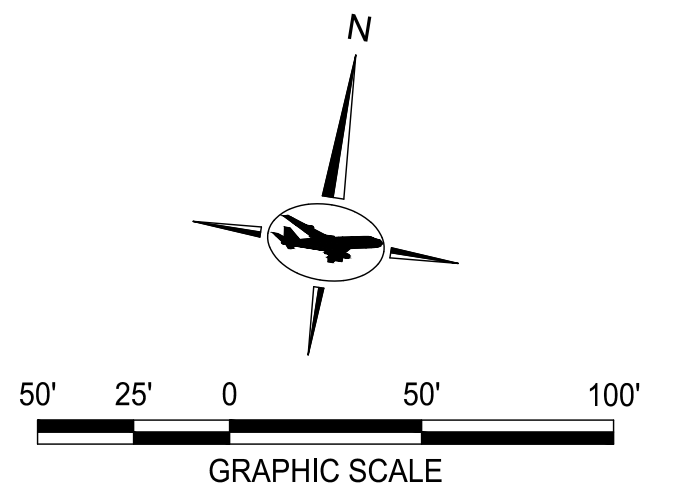
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**PAVING AND GEOMETRY PLAN 4**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV02.04**  
25 OF 90

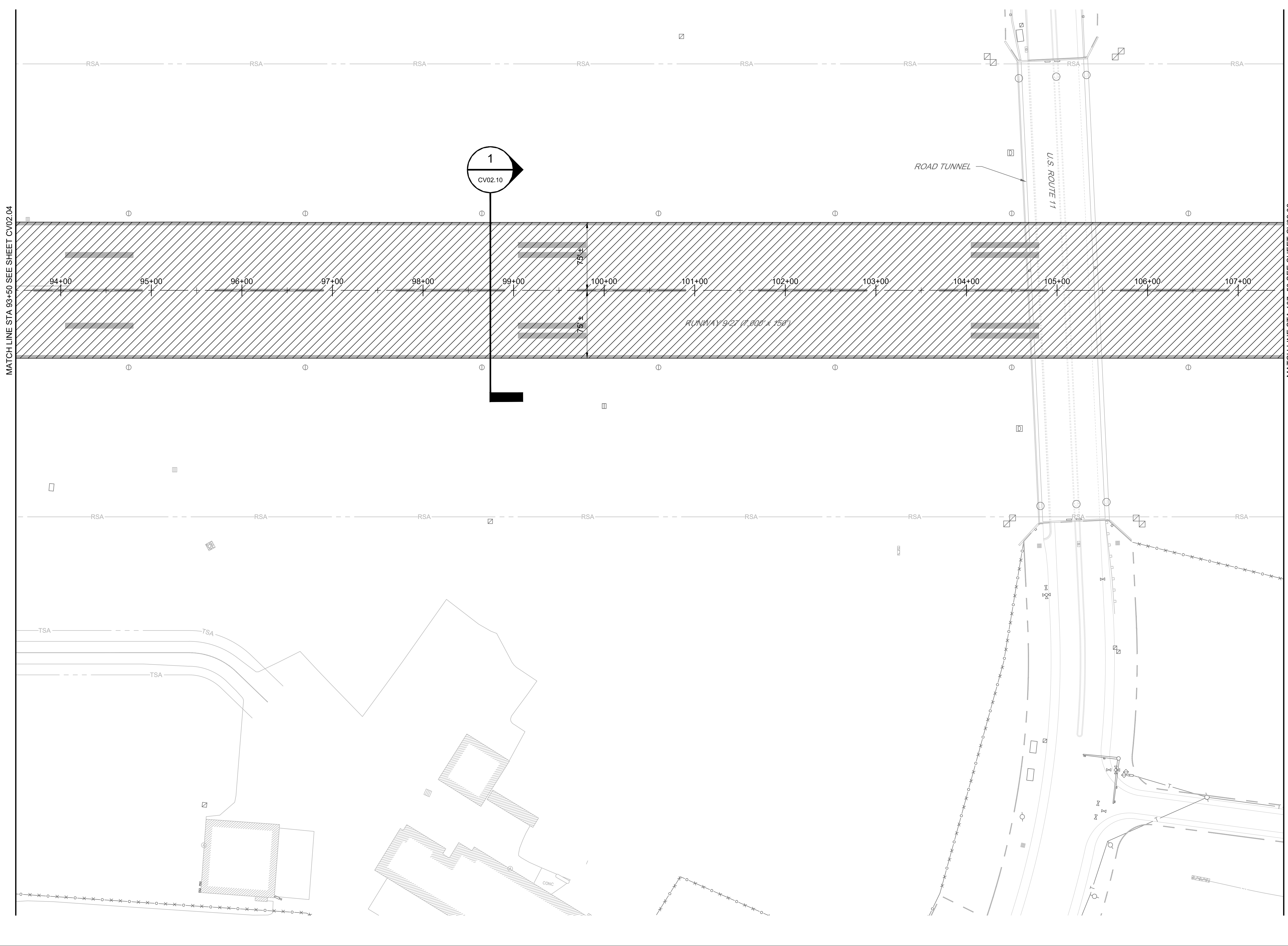
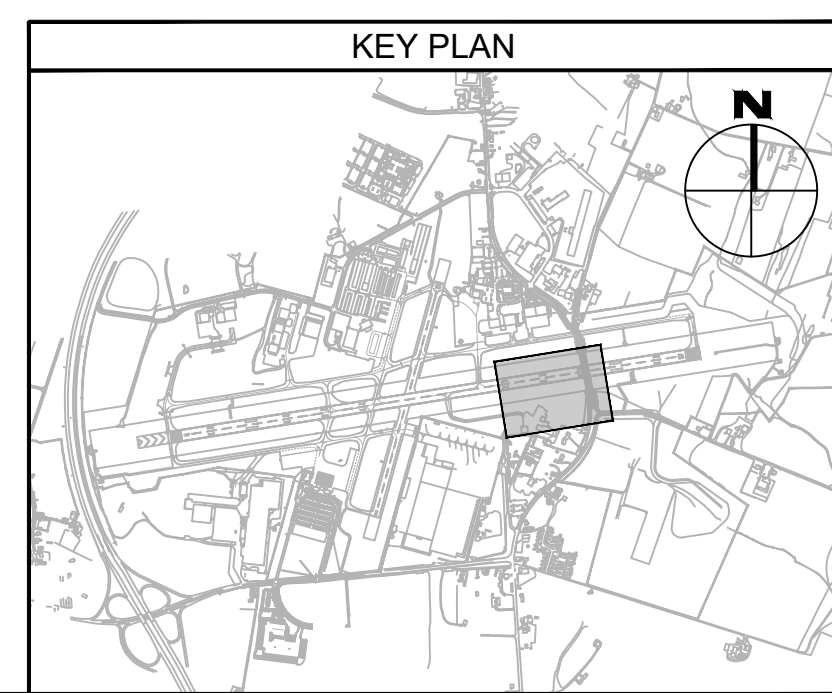


**NOTES:**

1. FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
2. FOR GRADING PLANS AND PROFILES SEE SHEETS CV03.01 TO CV03.10.
3. FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
4. SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

**LEGEND:**

- 3" DEPTH ASPHALT OVERLAY
- EXISTING INLET
- EXISTING AOA FENCE



MATCH LINE STA 93+50 SEE SHEET CV02.04

MATCH LINE STA 107+50 SEE SHEET CV02.06

1  
CV02.10

RUNWAY 9-27 (7,000' x 750')

ROAD TUNNEL

U.S. ROUTE 11

FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\002\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:29am USER: GROSS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

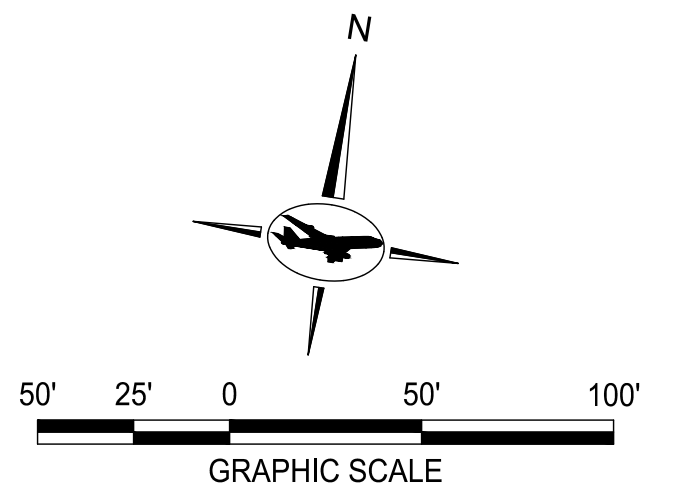
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**BID DOCUMENTS**

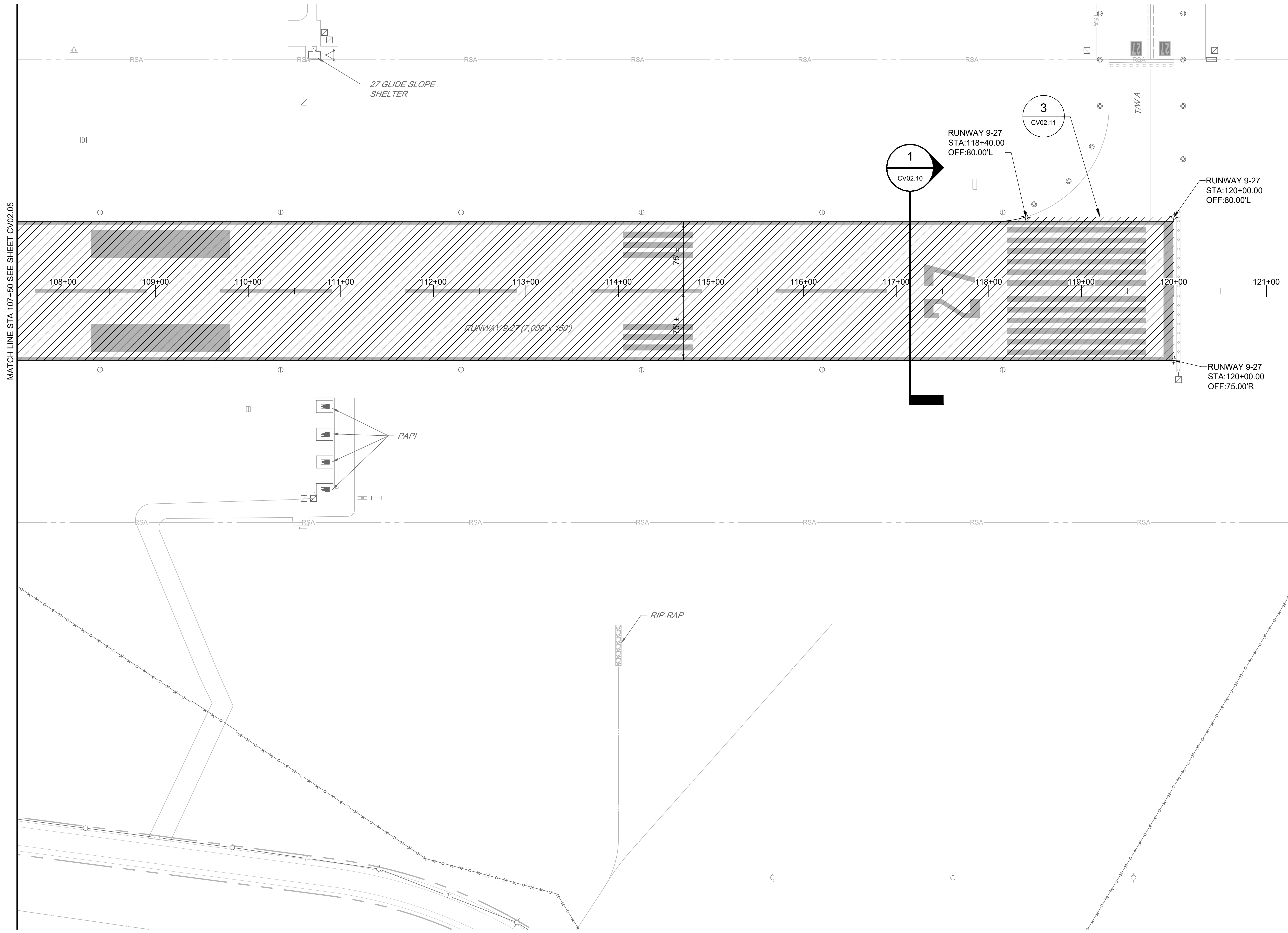
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVING AND GEOMETRY PLAN 5</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV02.05</b> 26 OF 90



MATCH LINE STA. 107+50 SEE SHEET CV02.05

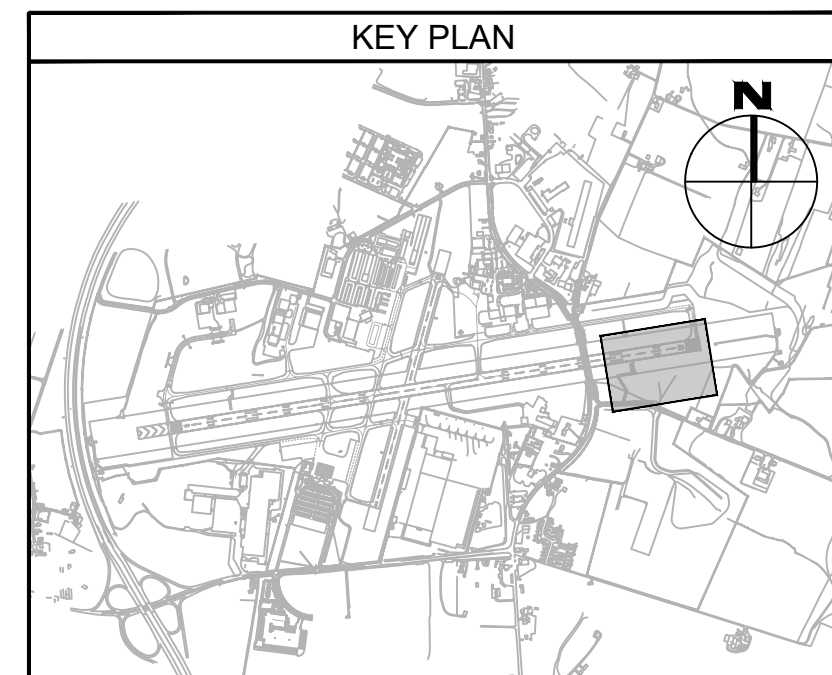


**NOTES:**

1. FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
2. FOR GRADING PLANS AND PROFILES SEE SHEETS CV03.01 TO CV03.10.
3. FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
4. SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

**LEGEND:**

- 3" DEPTH ASPHALT OVERLAY
- EXISTING INLET
- EXISTING AOA FENCE



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\002\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:29am USER: GROSS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

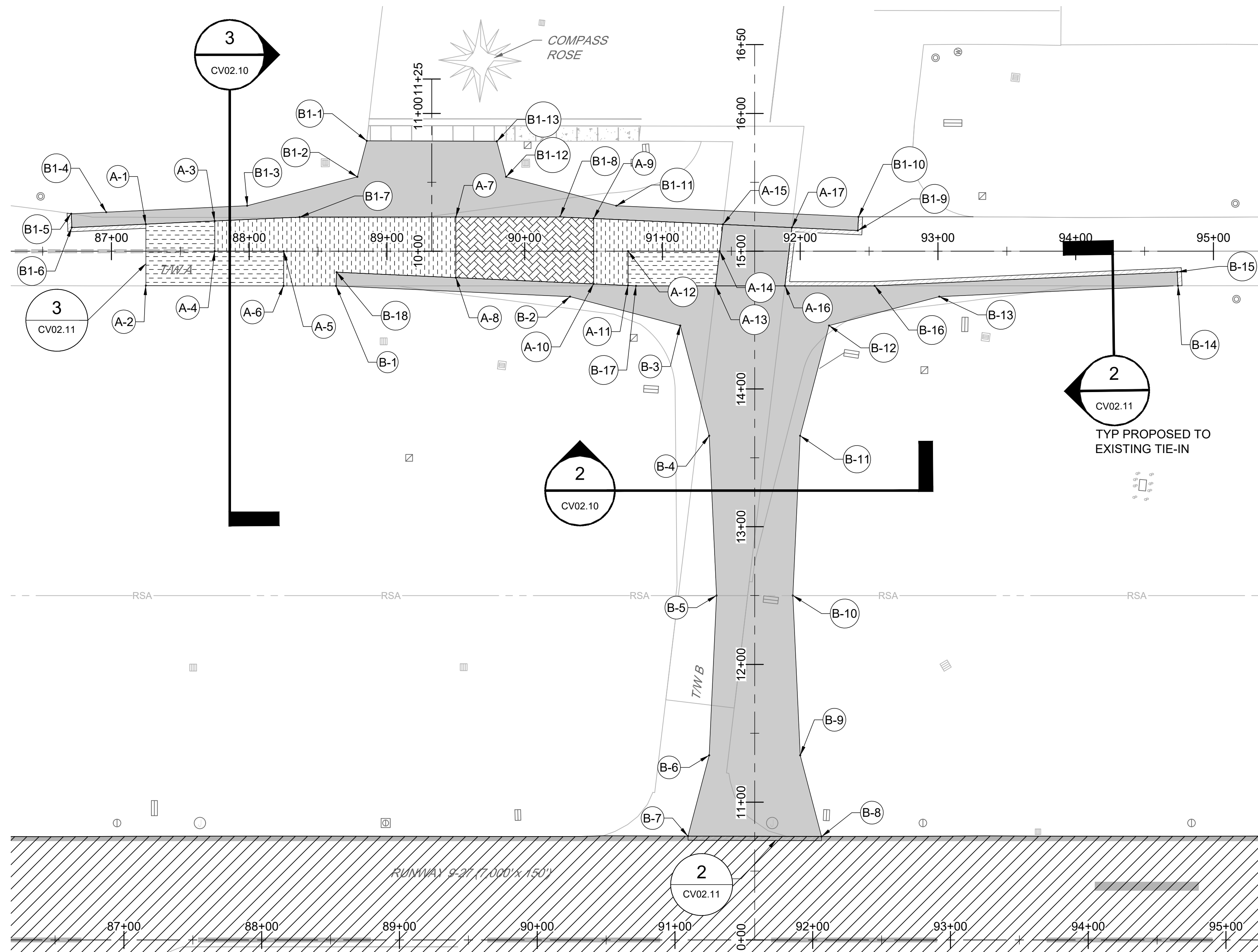
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

BID DOCUMENTS

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVING AND GEOMETRY PLAN 6</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

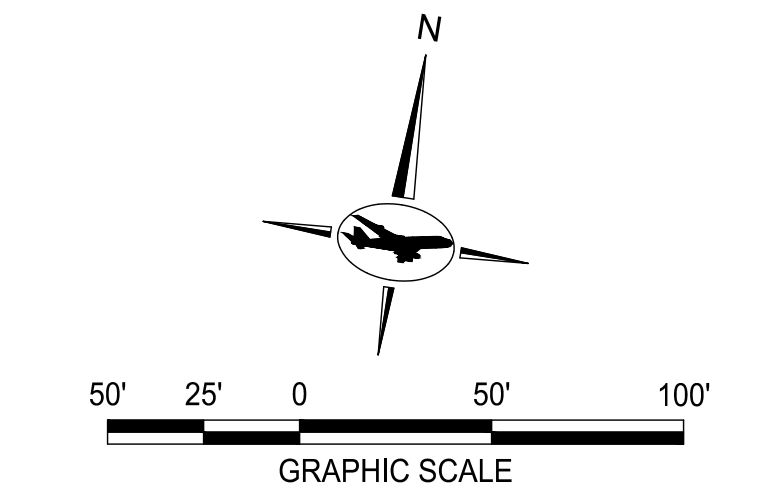
FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV02.06</b> 27 OF 90



POINT	BASELINE	STATION	OFFSET
A-1	TAXIWAY A	87+25.00	19.56' L
A-2	TAXIWAY A	87+25.00	25.00' R
A-3	TAXIWAY A	87+75.00	21.91' L
A-4	TAXIWAY A	87+75.00	0.00'
A-5	TAXIWAY A	88+25.00	0.00' R

POINT	BASELINE	STATION	OFFSET
B-1	TAXIWAY B	14+74.79	303.95' L
B-2	TAXIWAY B	14+67.01	134.00' L
B-3	TAXIWAY B	14+46.00	54.00' L
B-4	TAXIWAY B	13+66.00	33.01' L
B-5	TAXIWAY B	12+50.00	27.71' L
B-6	TAXIWAY B	11+34.00	33.02' L
B-7	TAXIWAY B	10+75.38	48.41' L
B-8	TAXIWAY B	10+75.06	48.50' R
B-9	TAXIWAY B	11+34.00	33.02' R
B-10	TAXIWAY B	12+50.00	27.71' R
B-11	TAXIWAY B	13+66.00	33.01' R
B-12	TAXIWAY B	14+46.00	54.00' R
B-13	TAXIWAY B	14+66.99	134.00' R
B-14	TAXIWAY B	14+74.90	307.27' R
B-15	TAXIWAY B	14+84.89	306.78' R
B-16	TAXIWAY B	14+74.86	87.08' R
B-17	TAXIWAY B	14+74.83	86.15' L
B-18	TAXIWAY B	14+84.78	303.48' L

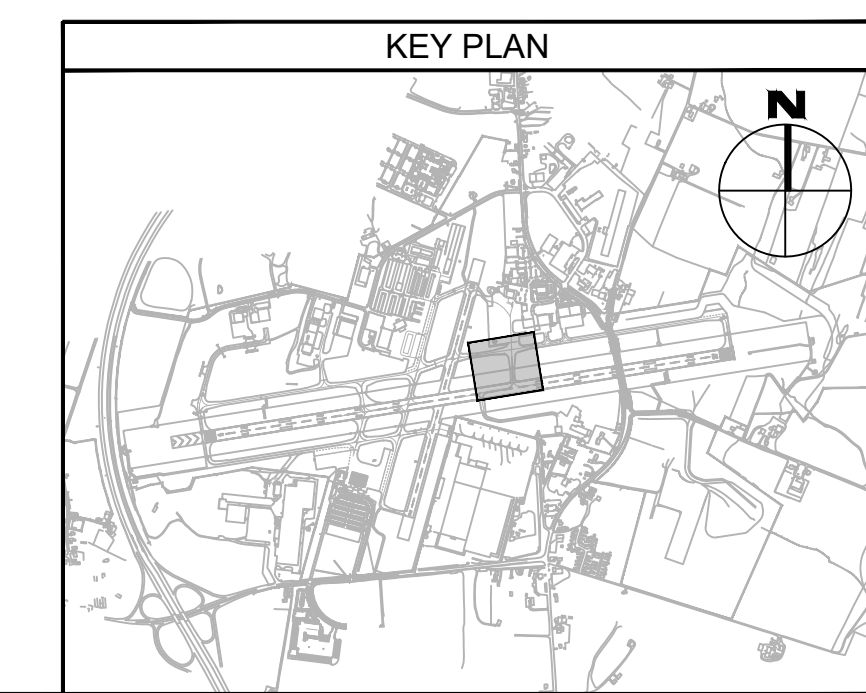
POINT	BASELINE	STATION	OFFSET
B1-1	TAXIWAY B1	10+80.13	47.14' L
B1-2	TAXIWAY B1	10+54.00	54.00' L
B1-3	TAXIWAY B1	10+33.00	134.00' L
B1-4	TAXIWAY B1	10+28.33	236.26' L
B1-5	TAXIWAY B1	10+27.16	261.70' L
B1-6	TAXIWAY B1	10+17.17	261.25' L
B1-7	TAXIWAY B1	10+24.73	95.91' L
B1-8	TAXIWAY B1	10+25.24	93.23' R
B1-9	TAXIWAY B1	10+14.97	309.33' R
B1-10	TAXIWAY B1	10+24.96	309.79' R
B1-11	TAXIWAY B1	10+33.00	134.00' R
B1-12	TAXIWAY B1	10+54.00	54.00' R
B1-13	TAXIWAY B1	10+79.78	47.23' R



- NOTES:
- FOR RUNWAY MARKING SEE SHEETS CV05.01 TO CV05.05.
  - FOR GRADING AND DRAINAGE PLANS AND PROFILES SEE SHEETS CV03.08 AND CV03.09.
  - FOR RUNWAY GROOVING, SEE SHEETS CV05.01 TO CV05.03.
  - SEE ELECTRICAL SERIES E06 FOR LIGHTING & SIGNAGE INSTALLATION

- LEGEND:
- 2" DEPTH ASPHALT OVERLAY
  - 3" DEPTH ASPHALT OVERLAY
  - 4" DEPTH ASPHALT OVERLAY
  - 4" TO 6" DEPTH ASPHALT OVERLAY
  - FULL DEPTH ASPHALT CONSTRUCTION
  - EXISTING INLET
  - EXISTING AOA FENCE

TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\002\_CV02.01\_Paving and Geometry Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GROSS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**

HAGERSTOWN REGIONAL AIRPORT

HGR

PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**PAVING AND GEOMETRY PLAN 7**

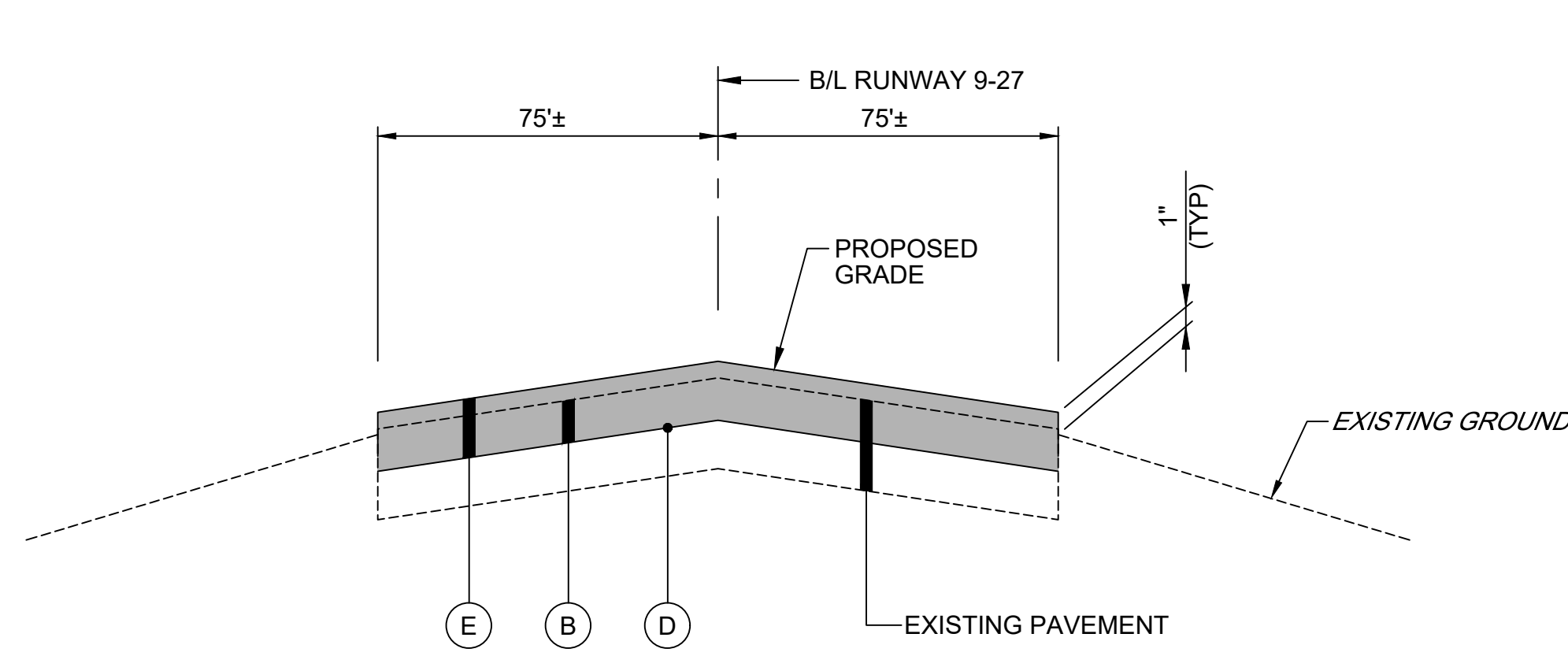
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

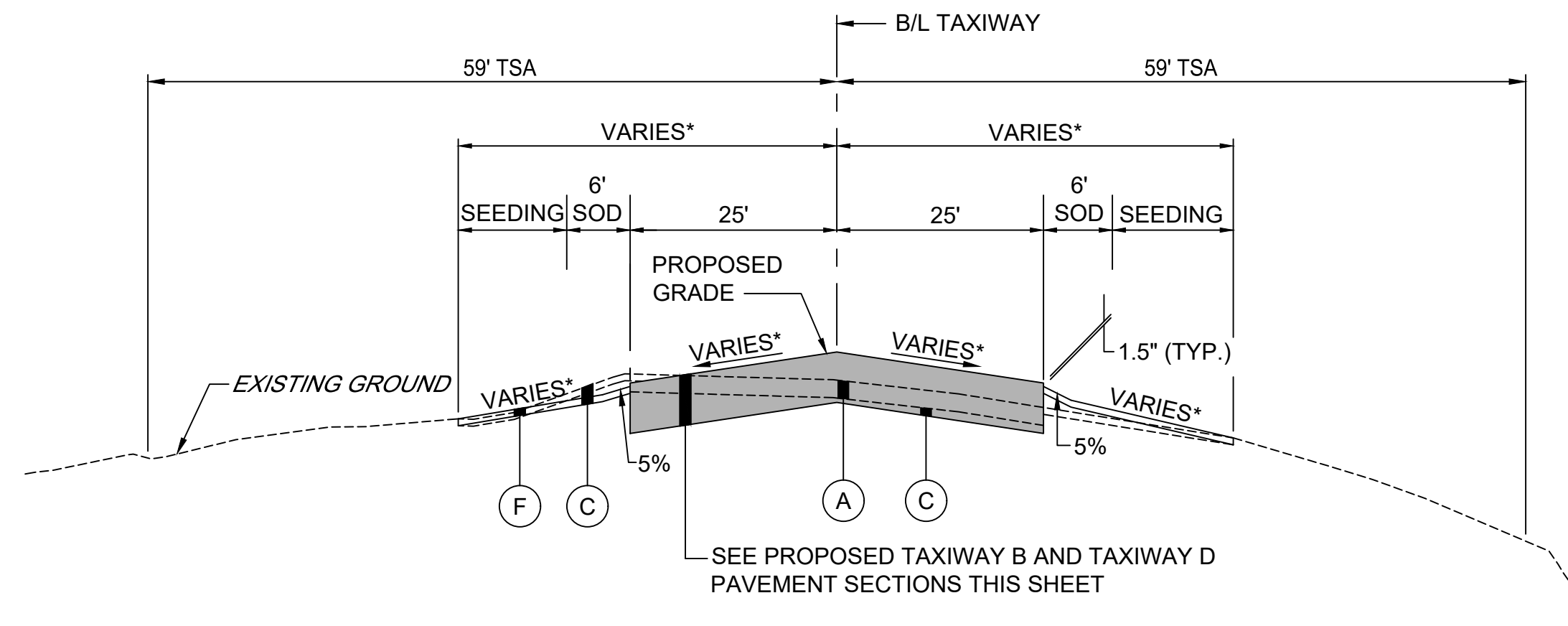
SHEET No.:  
**CV02.07**  
28 OF 90

**TYPICAL SECTIONS LEGEND:**

- (A) PAVEMENT REMOVAL (P-101-5.1)
- (B) COLD MILLING, 2" DEPTH (P-101-5.2)
- (C) UNCLASSIFIED EXCAVATION (P-152-4.1)
- (D) EMULSIFIED ASPHALT TACK COAT (P-603-5.1)
- (E) 3" ASPHALT SURFACE COURSE (P-401-8.1)
- (F) TOPSOIL PLACEMENT, 4" DEPTH (T-905-5.1)

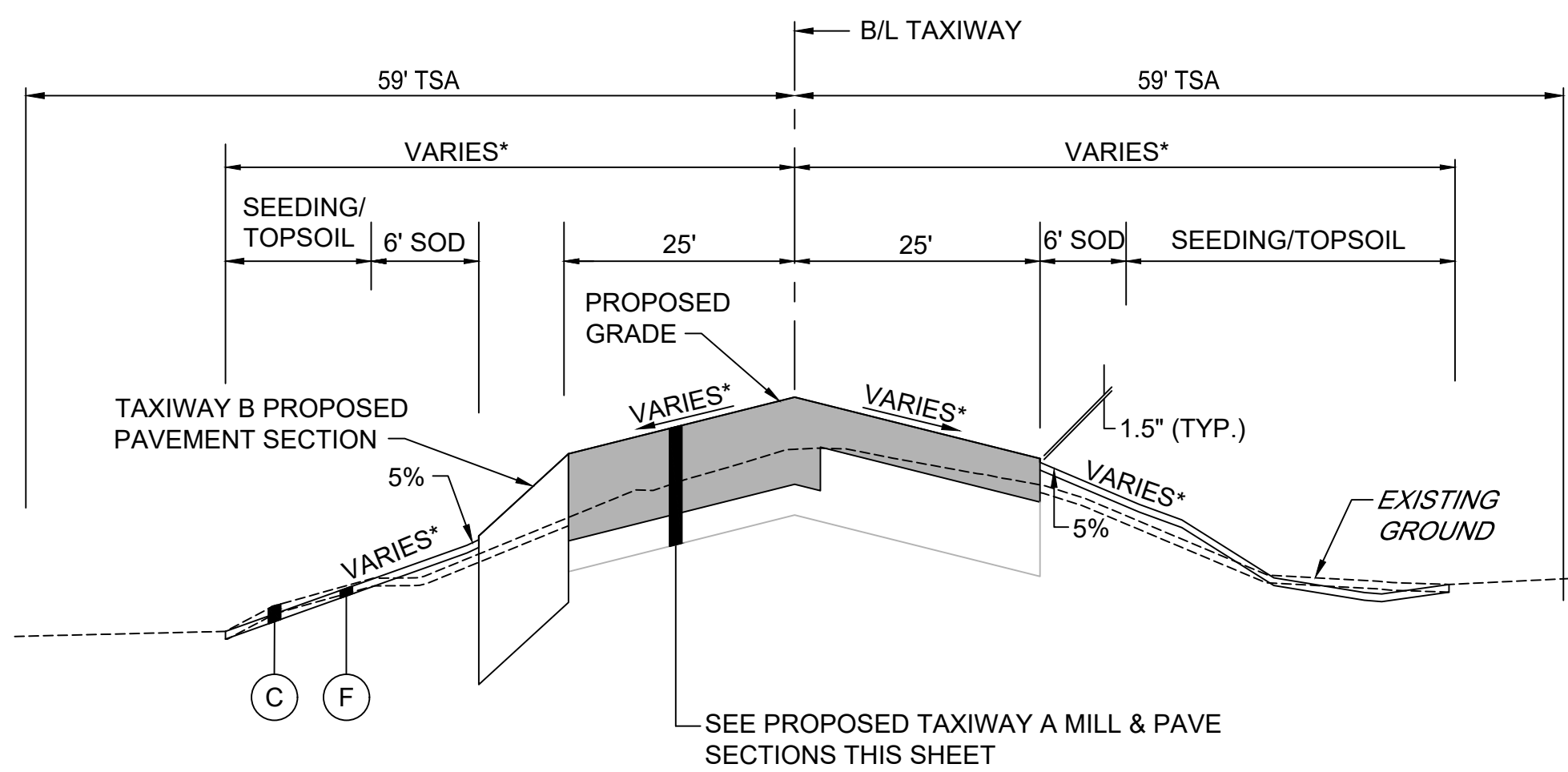


**1** TYPICAL SECTION - RUNWAY 9-27  
MILL AND OVERLAY  
CV02.10 SCALE: NTS



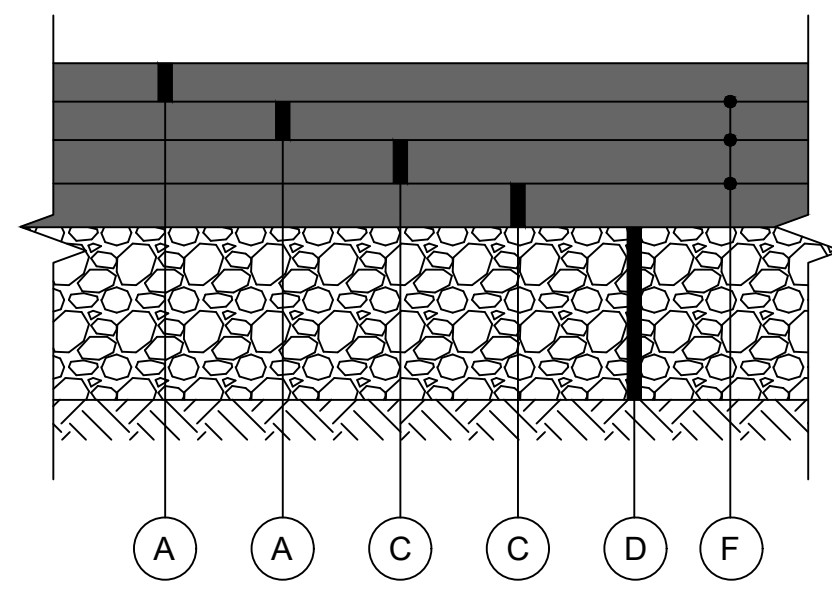
**2** TYPICAL SECTION - TAXIWAY B AND D  
CV02.10 SCALE: NTS

\* SEE CROSS SECTIONS FOR CROSS SLOPES, ELEVATIONS, AND LIMITS

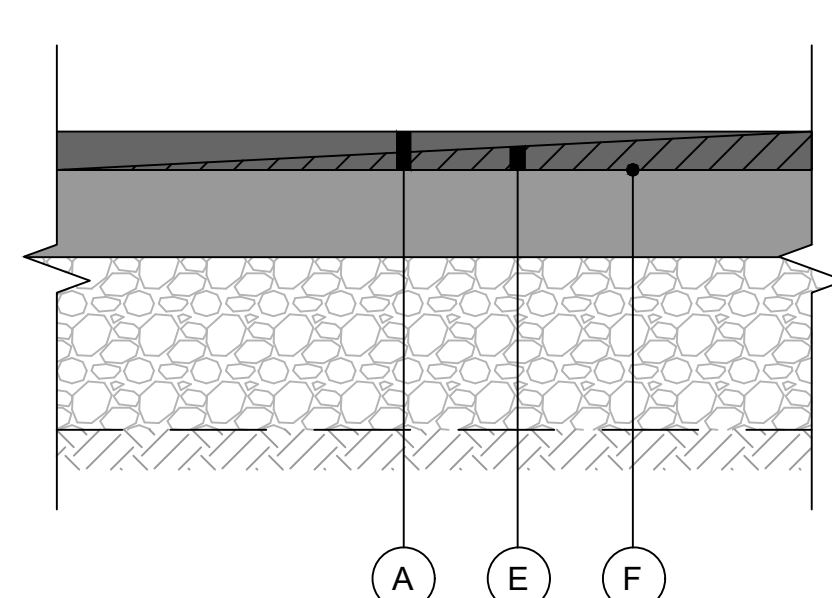


**3** TYPICAL SECTION - TAXIWAY A  
CV02.10 SCALE: NTS

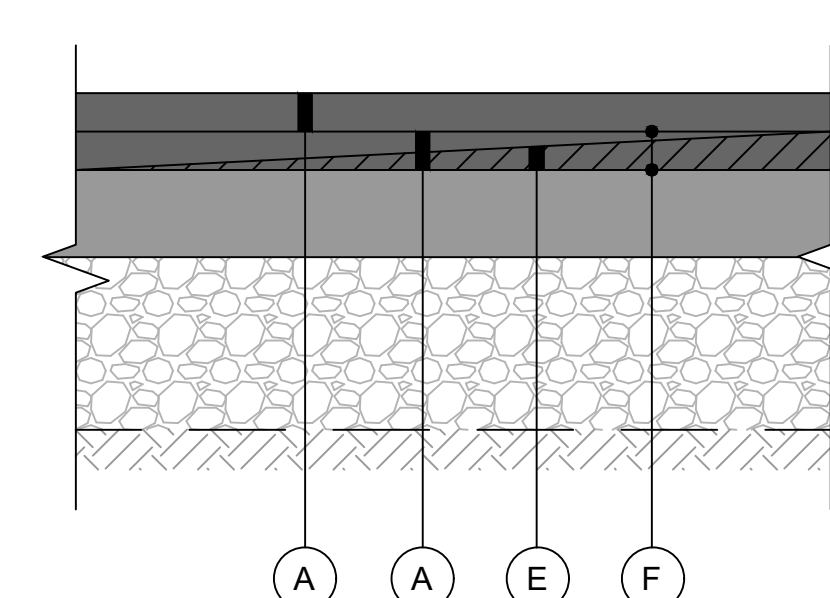
**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



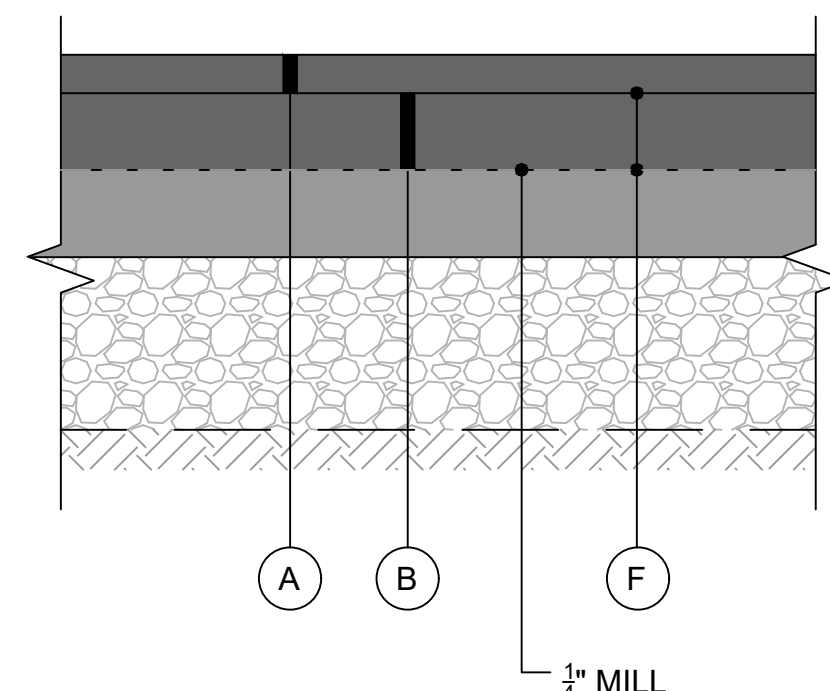
**4** PROPOSED TAXIWAY B AND D  
PAVEMENT SECTION  
CV02.10 SCALE: NTS



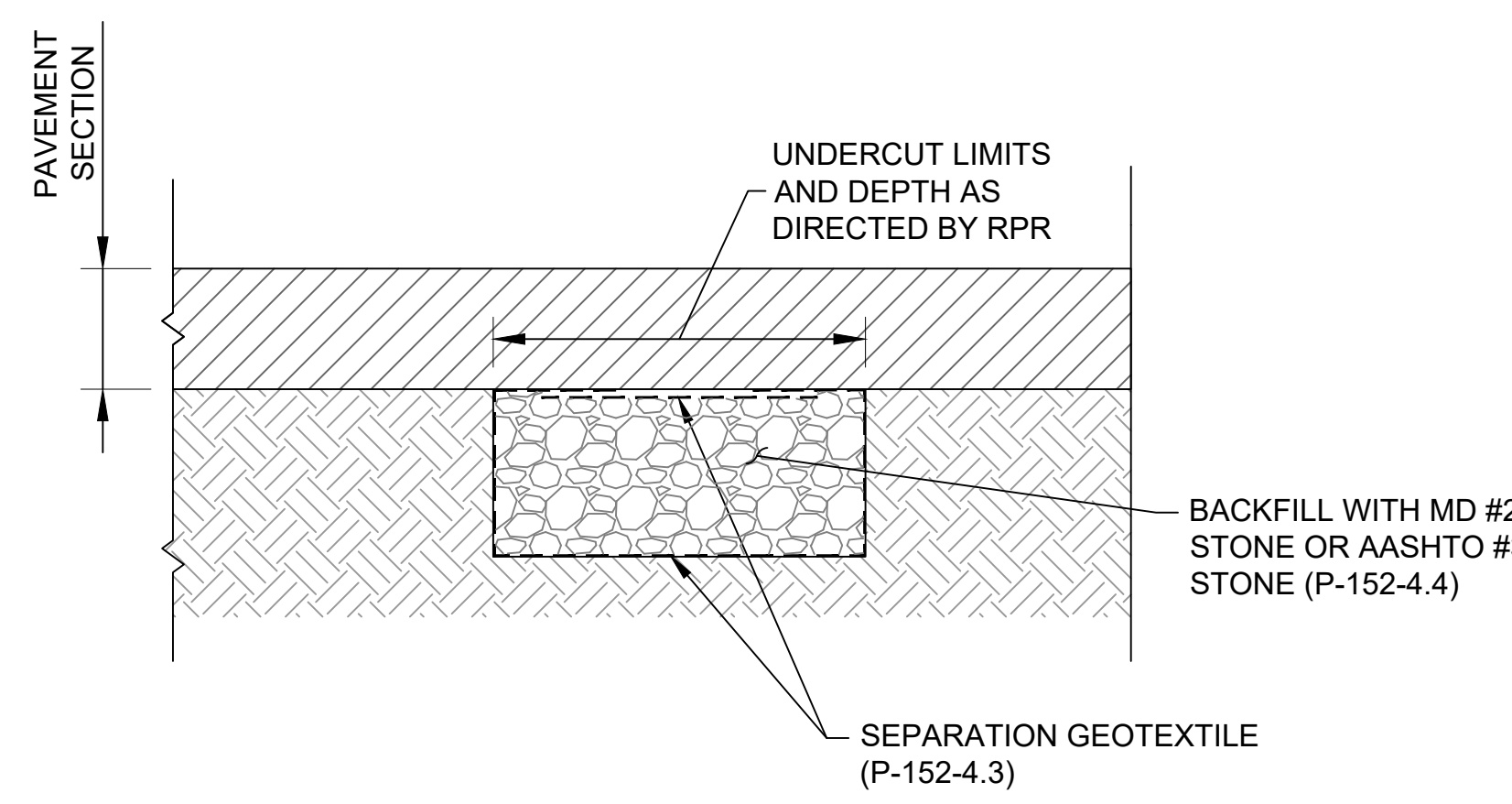
**5** TAXIWAY A VARIABLE MILL &  
2 INCH DEPTH OVERLAY  
CV02.10 SCALE: NTS



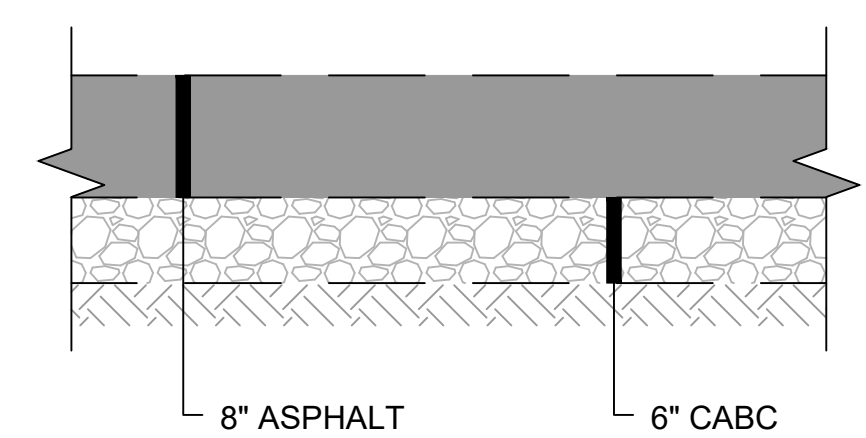
**6** TAXIWAY A VARIABLE MILL &  
4 INCH DEPTH OVERLAY  
CV02.10 SCALE: NTS



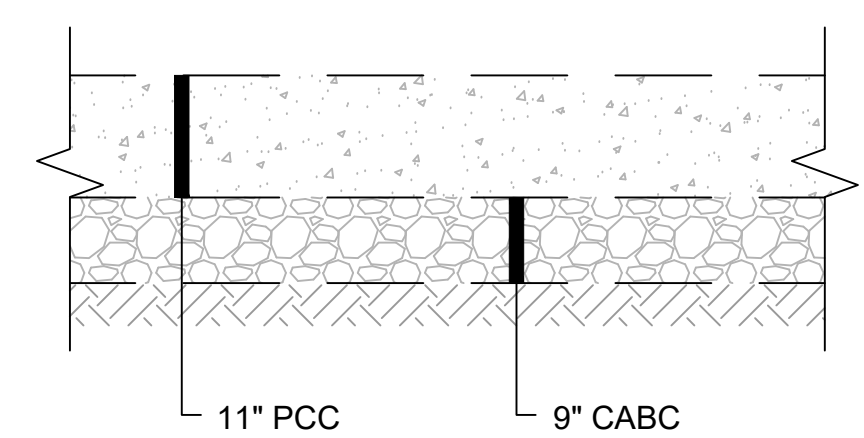
**7** TAXIWAY A MILL & 4 TO 6 INCH  
VARIABLE DEPTH OVERLAY  
CV02.10 SCALE: NTS



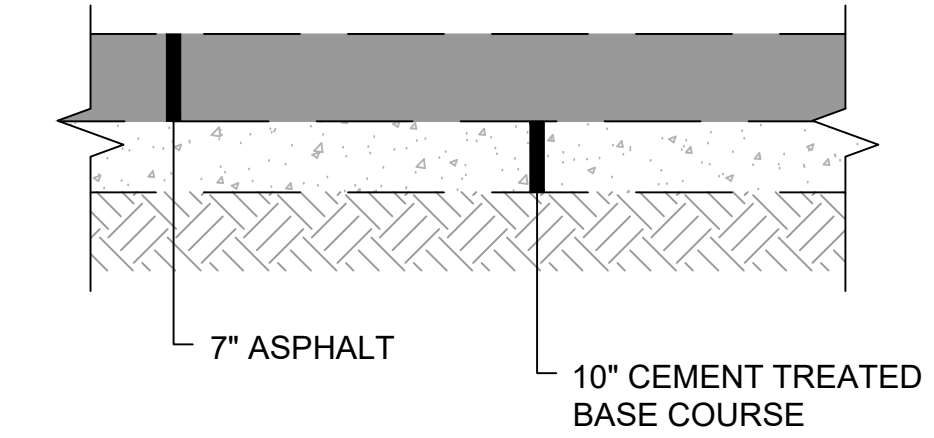
**8** UNSUITABLE SOIL UNDERCUT  
AND REPLACEMENT  
CV02.10 SCALE: NTS



**9** EXISTING TAXIWAY A  
PAVEMENT SECTION  
CV02.10 SCALE: NTS



**10** EXISTING TAXIWAY B  
PAVEMENT SECTION  
CV02.10 SCALE: NTS



**11** EXISTING TAXIWAY D PAVEMENT  
SECTION (SOUTH OF RUNWAY 9-27)  
CV02.10 SCALE: NTS

**PAVING DETAILS LEGEND:**

- (A) 2" ASPHALT SURFACE COURSE (P-401-8.1)
- (B) VARIABLE DEPTH ASPHALT SURFACE COURSE (2" MIN, 4" MAX) (P-401-8.1)
- (C) 3" ASPHALT BASE COURSE (P-403-8.1)
- (D) 14" CRUSHED AGGREGATE BASE COURSE (P-209-5.1) (5" LIFT MAXIMUM)
- (E) COLD MILLING, VARIABLE DEPTH, (0.25" TO 2") (P-101-5.3)
- (F) EMULSIFIED ASPHALT TACK COAT (P-603-5.1)

**NOTE:**  
ALL EXISTING PAVEMENT SECTION STATION LIMITS/ MATERIALS/DEPTHS ARE APPROXIMATED USING AVAILABLE AS-BUILT DRAWINGS AND SUBSURFACE INVESTIGATION INFORMATION.

FILE NAME: O:\HGR\Projects\2018-1303\CAD\Drawings\CV02.10\_Typical Sections and Paving Details.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: Gross



SEAL: Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 32405 Expiration Date: 12/22/2021

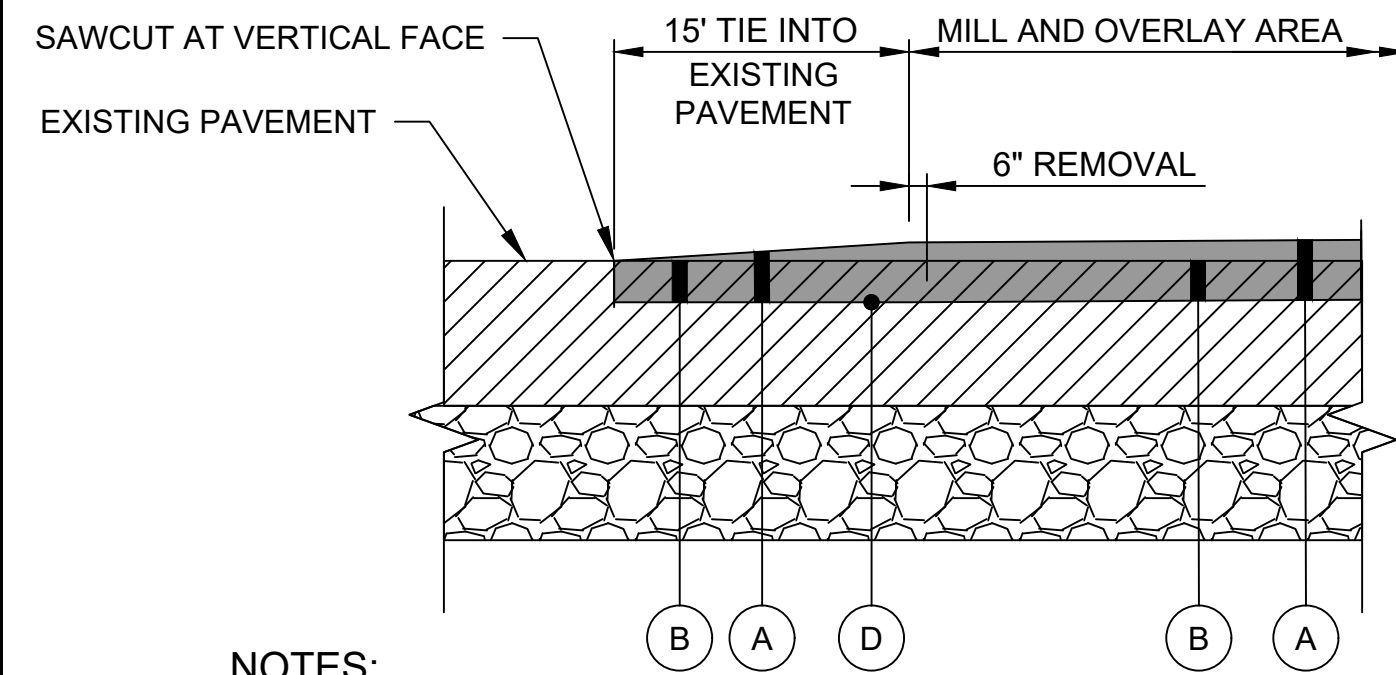
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			



PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
SHEET TITLE: **TYPICAL SECTIONS AND PAVING DETAILS**  
SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: **CV02.10**  
**29 OF 90**

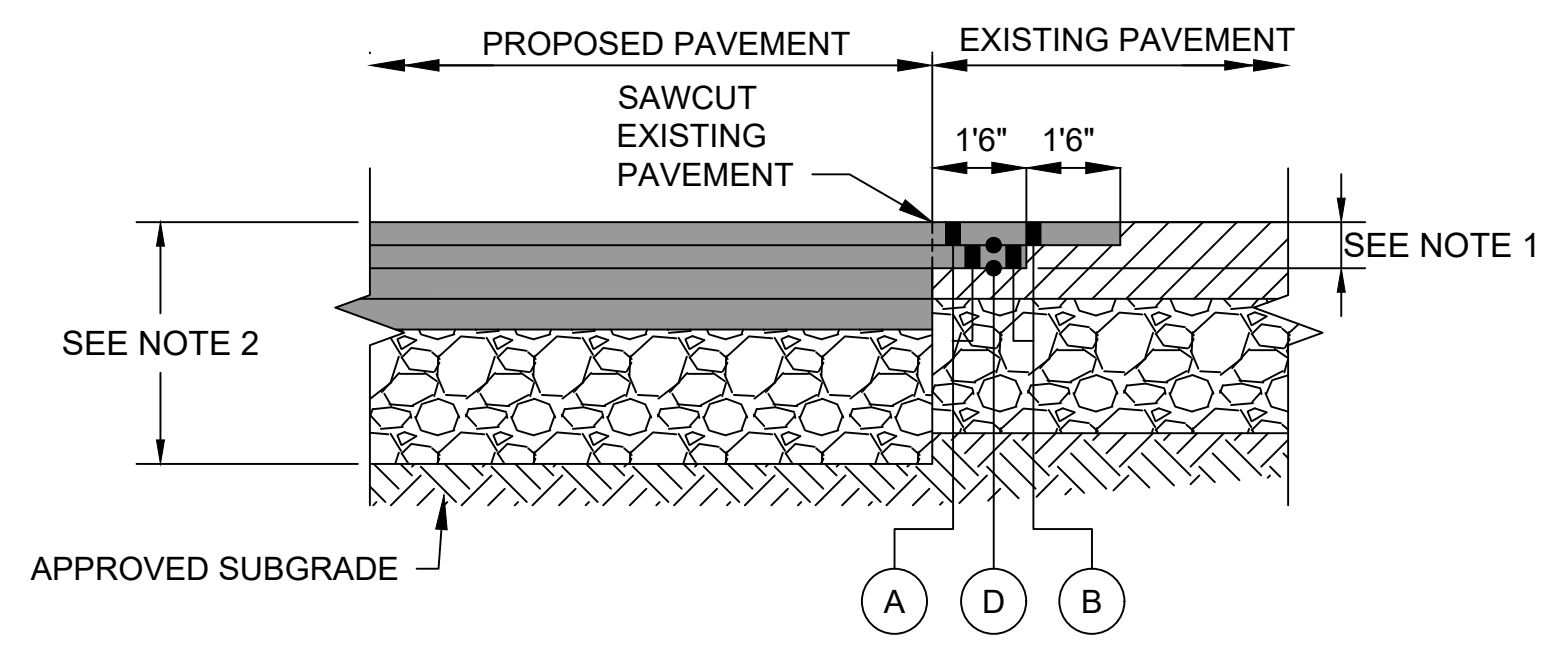
FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\029\_CV02.10\_Typical Sections and Paving Details.dwg PLOTTED: Monday, February 17, 2020 - 7:28am USER: GROSS



**NOTES:**

- 15' TRANSITIONAL TIE-IN AREA WILL BE PAID UNDER ITEM P-401-8.2. THE UNIT COST SHOULD INCLUDE MILLING TO PLACE AND REMOVE THE MATERIAL.
- REMOVAL OF THE TRANSITION RAMP SHALL EXTEND 6" INTO THE PREVIOUSLY PLACED MILL AND OVERLAY AREA.
- TACK COAT ALL VERTICAL SURFACES.

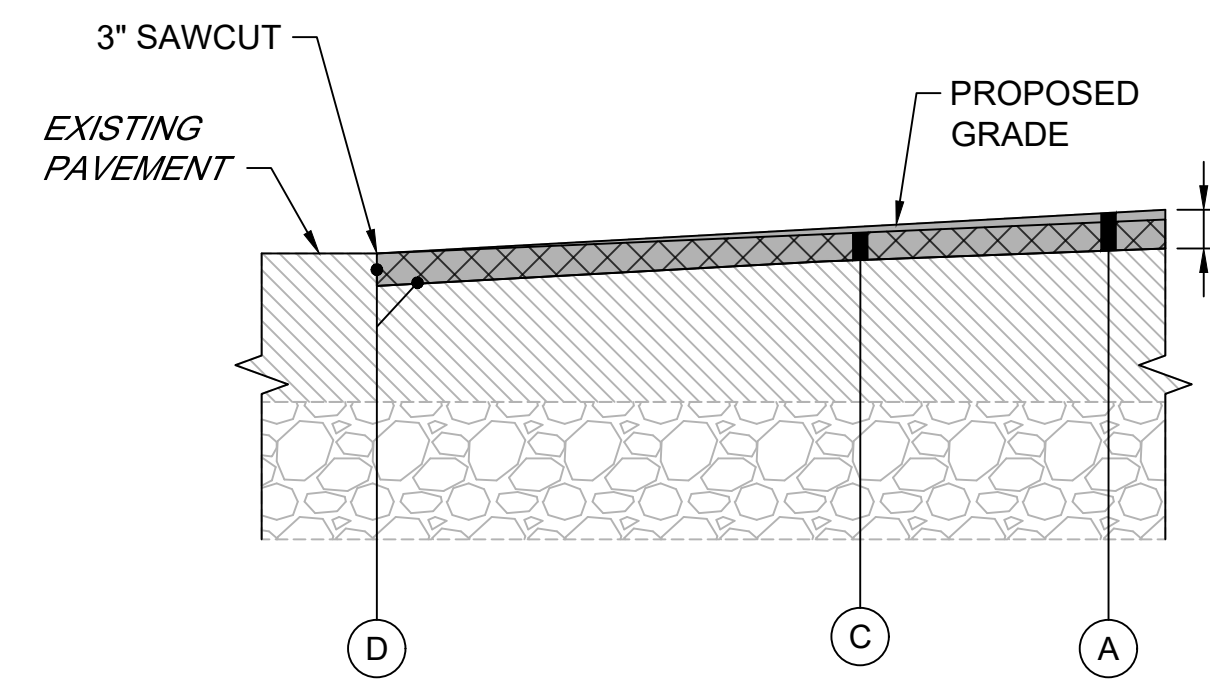
**1**  
TEMPORARY LONGITUDINAL ASPHALT TRANSITION RAMP  
CV02.11 SCALE: NTS



**NOTE:**

- MILLING AND OVERLAY TIE-IN SHOULD MATCH THICKNESS OF TOP 2 LIFTS.
- SEE SHEET CV02.10 FOR EXISTING PAVEMENT SECTIONS.

**2**  
PROPOSED FULL-DEPTH TAXIWAY ASPHALT TIE-IN  
CV02.11 SCALE: NTS



**3**  
MILL AND OVERLAY ASPHALT PAVEMENT TIE-IN  
CV02.11 SCALE: NTS

**PAVING LEGEND:**

- (A) ASPHALT SURFACE COURSE (P-401-8.1)
- (B) COLD MILLING, 2" DEPTH (P-101-5.2)
- (C) COLD MILLING, 2" DEPTH (UP TO 3" DEPTH AT TIE-IN) (P-101-5.2)
- (D) EMULSIFIED ASPHALT TACK COAT (P-603-5.1)

TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"



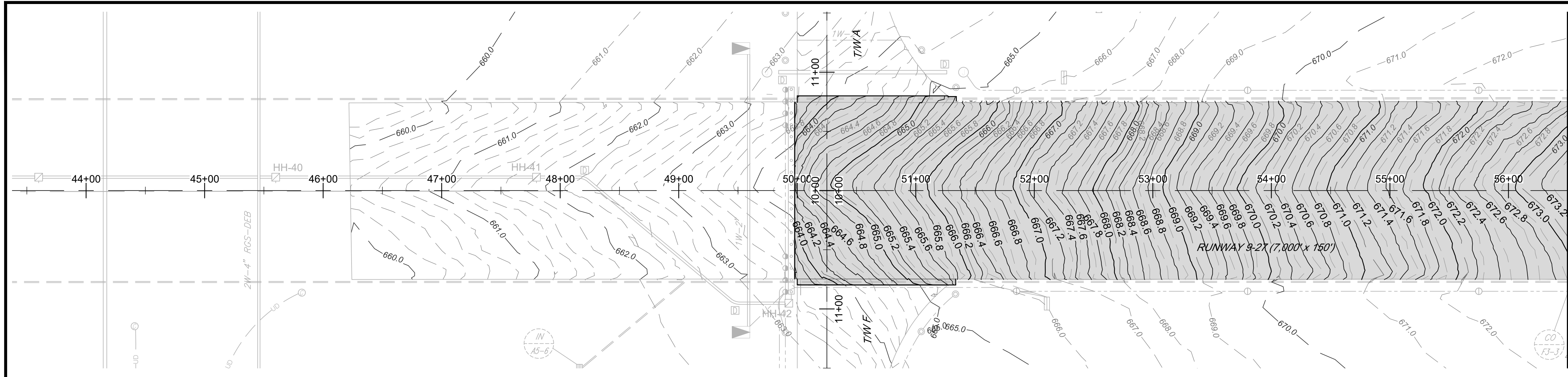
SEAL:  
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

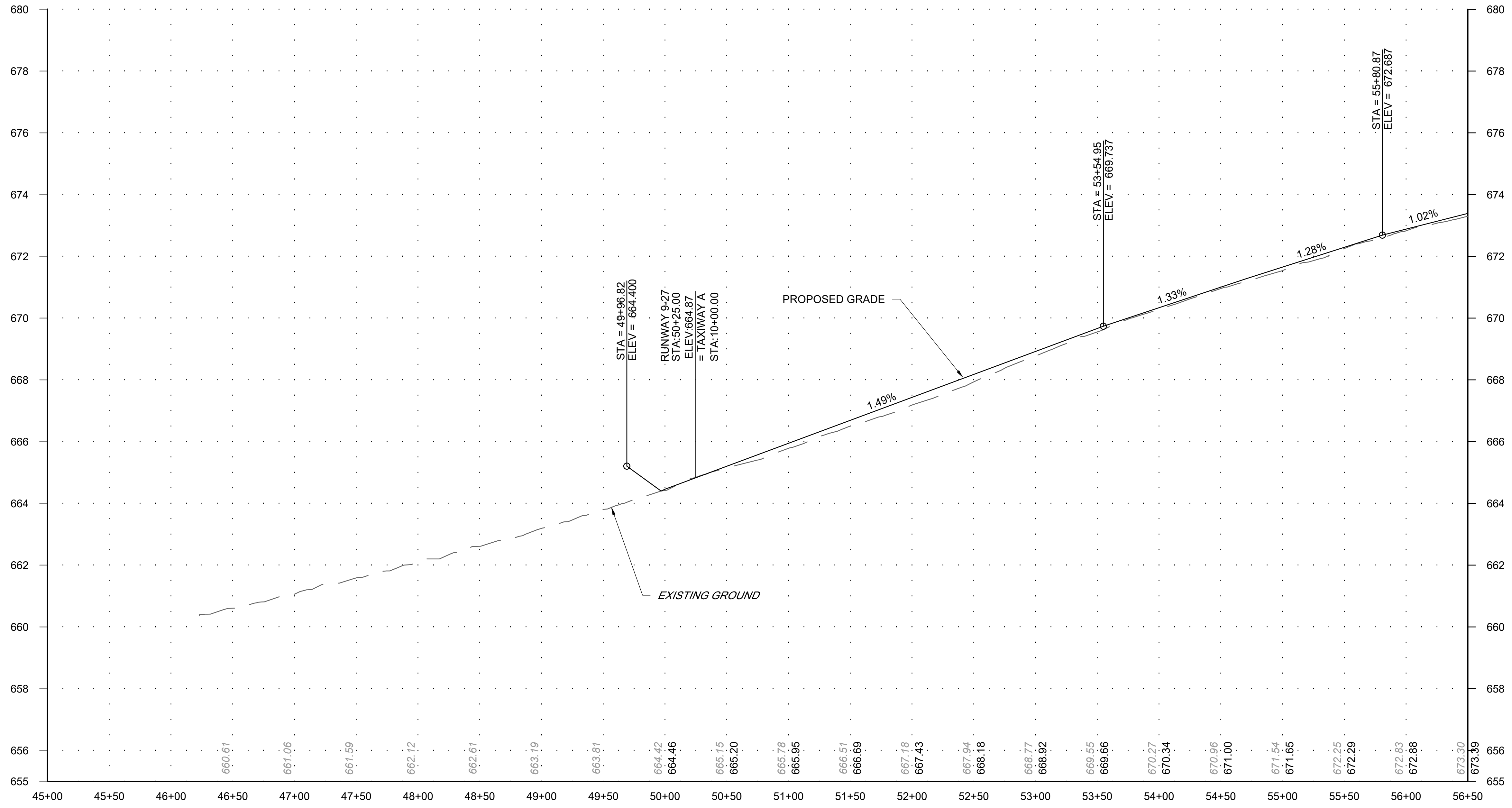
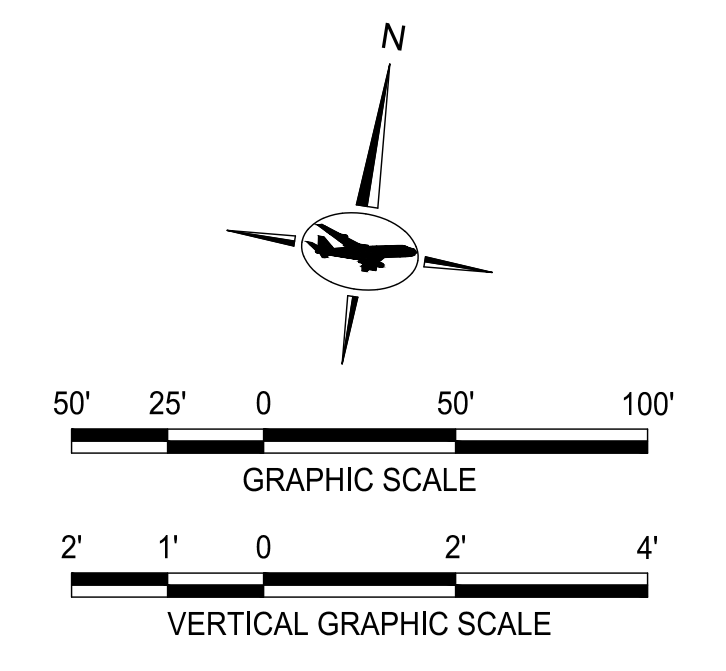


PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVEMENT TIE-IN DETAILS</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.:  
**CV02.11**  
30 OF 90

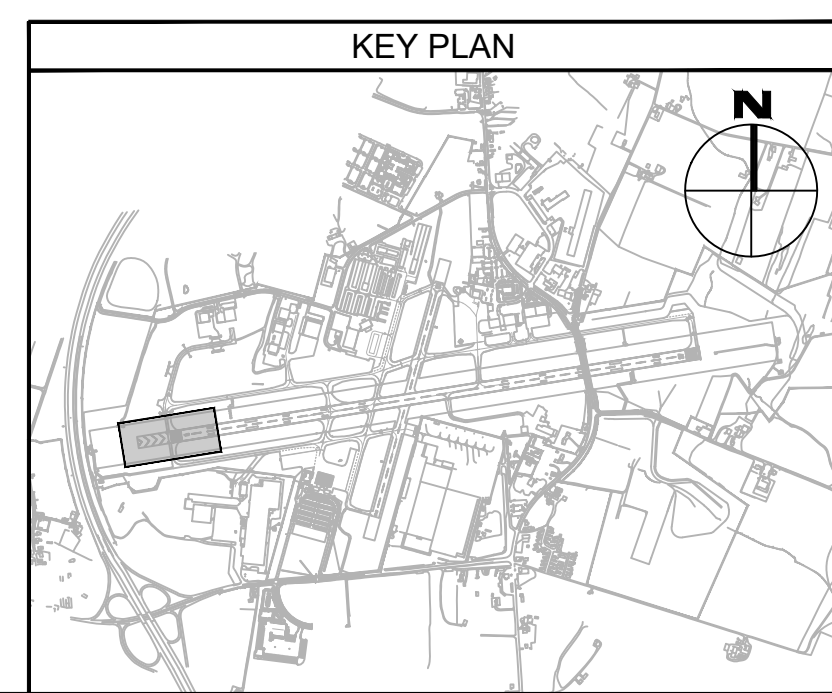


PLAN



RUNWAY 9-27 PROFILE  
STA 45+00 TO STA 56+50

- LEGEND:
- 670.0 PR. MAJOR CONTOURS
  - 670.2 PR. MINOR CONTOURS
  - 660.0 EX. MAJOR CONTOURS
  - 660.2 EX. MINOR CONTOURS
  - ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1303\CAO\SHEETS\031\_CV03.01\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:30am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

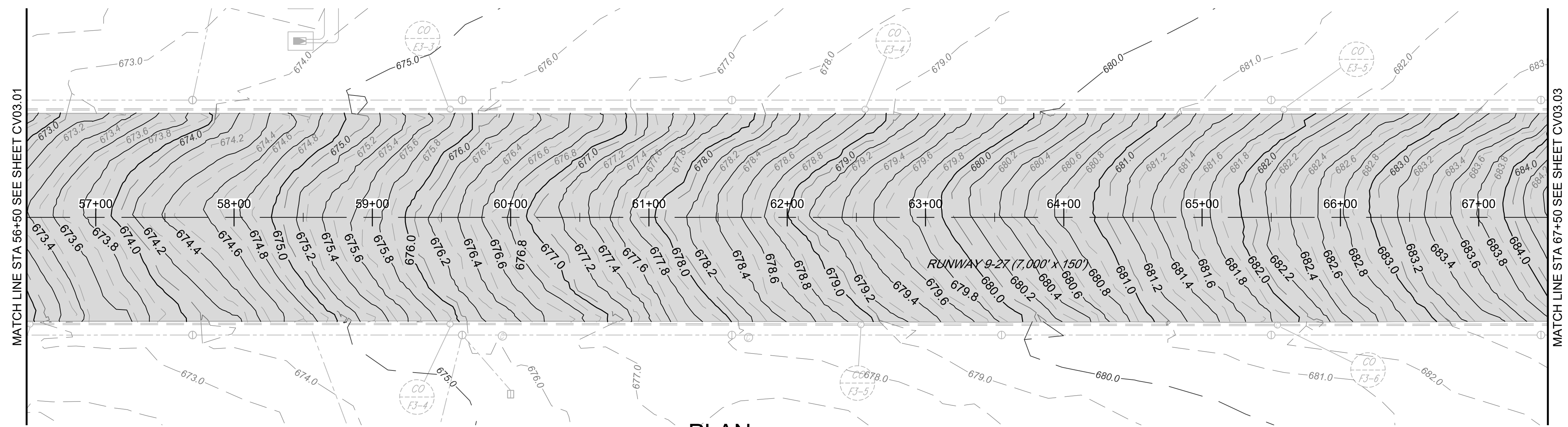
PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

SHEET TITLE: **GRADING PLAN AND PROFILE 1**

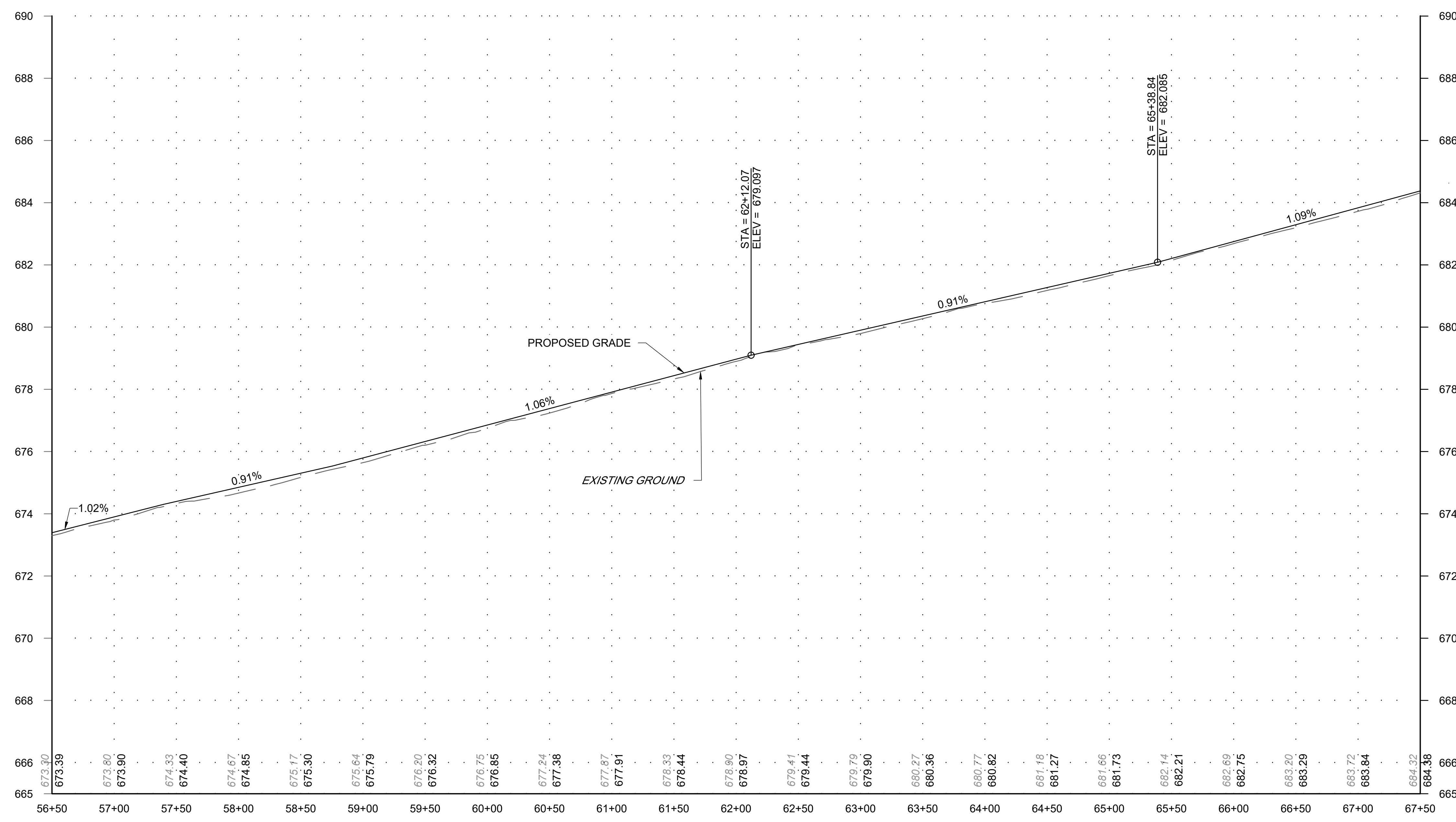
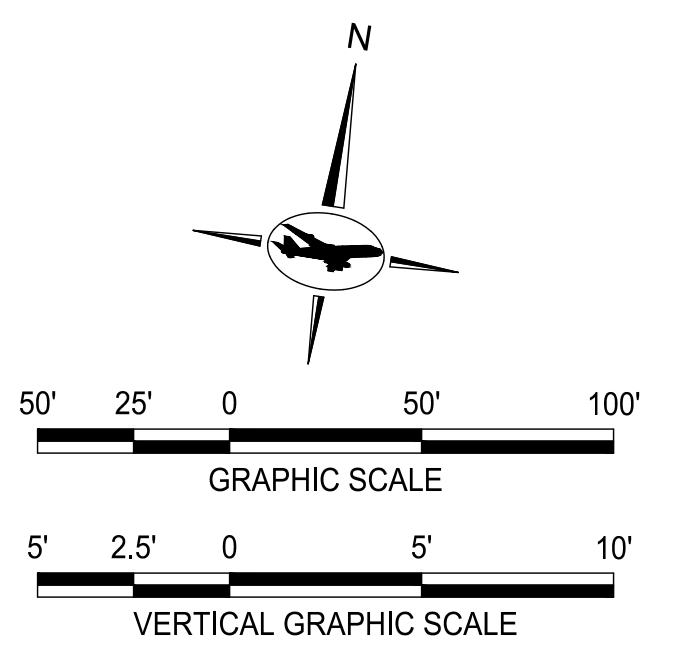
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **CV03.01**  
**31 OF 90**

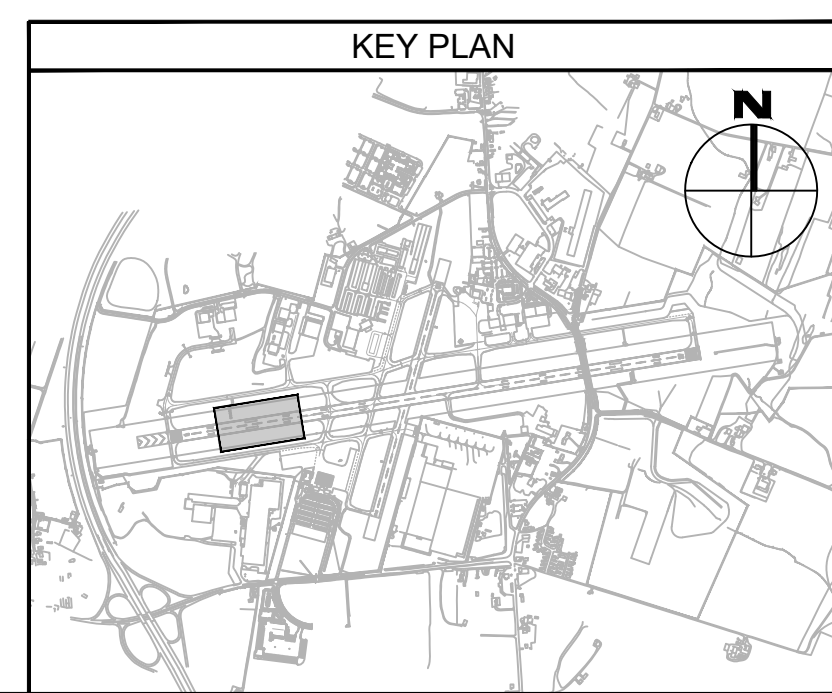


PLAN



RUNWAY 9-27 PROFILE  
STA 56+50 TO STA 67+50

- LEGEND:
- 670.0 — PR. MAJOR CONTOURS
  - 670.2 — PR. MINOR CONTOURS
  - 660.0 — EX. MAJOR CONTOURS
  - 660.2 — EX. MINOR CONTOURS
  - ▭ ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1903\CA0\SHEETS\CV03.01\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:30am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F			
APPROVED:			
M.S.K.			

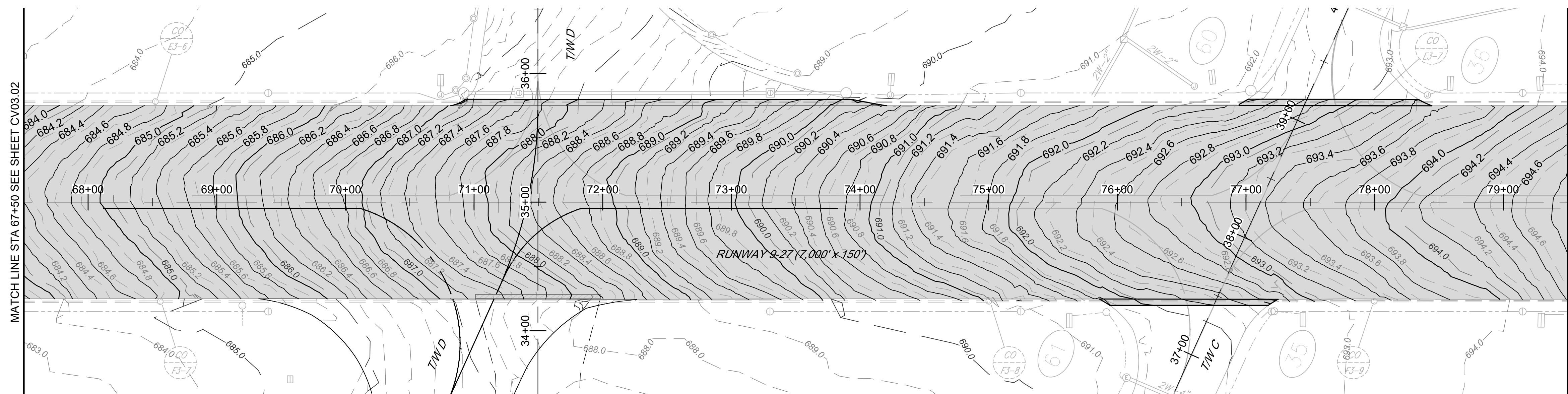
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>GRADING PLAN AND PROFILE 2</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

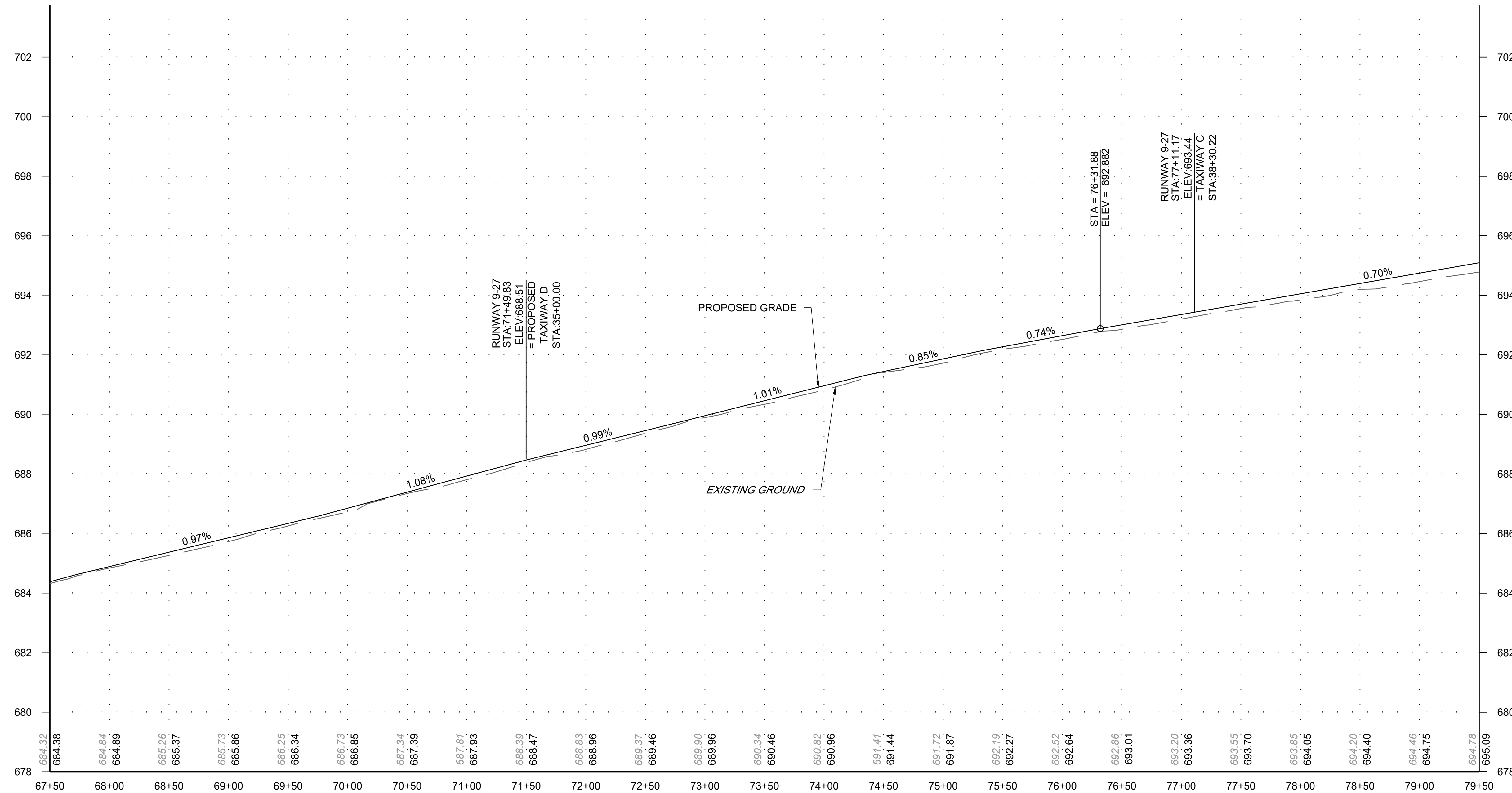
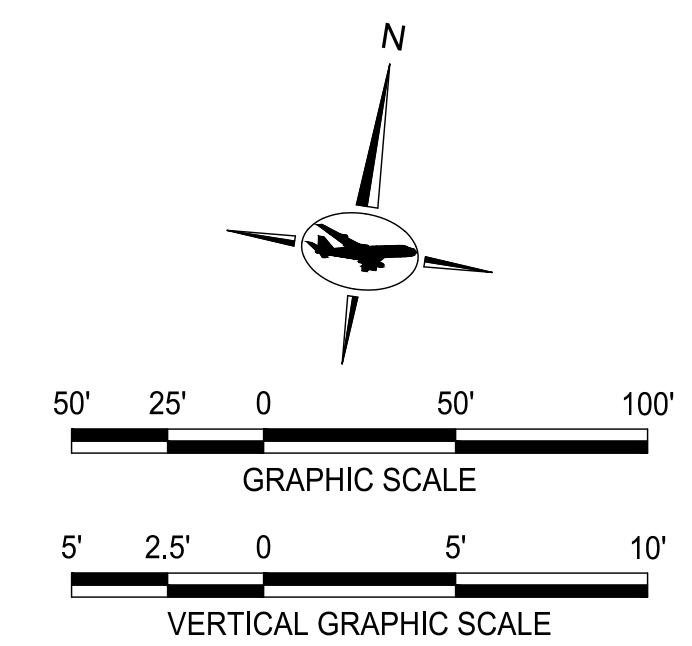
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.02**  
32 OF 90



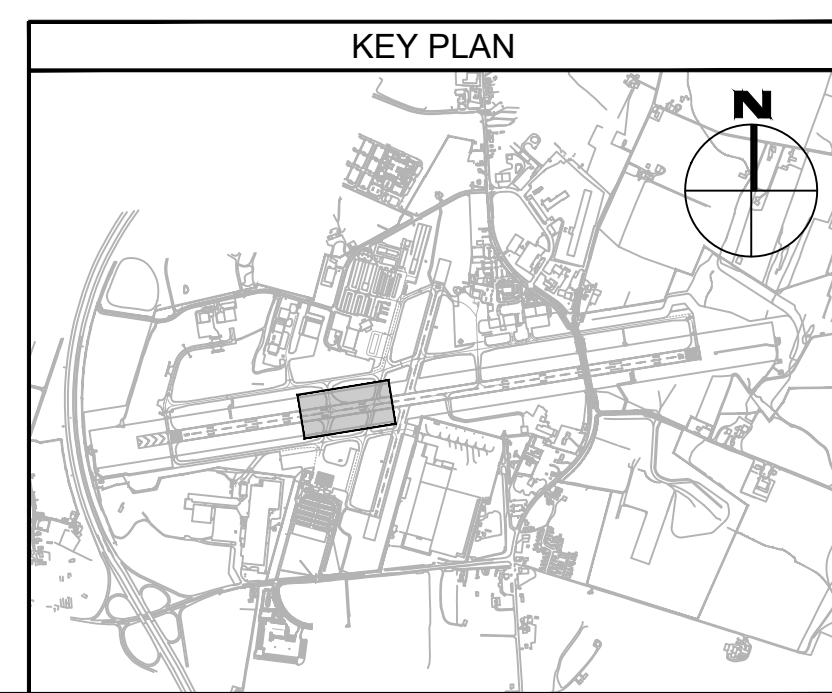


PLAN



RUNWAY 9-27 PROFILE  
STA 67+50 TO STA 79+50

- LEGEND:
- 670.0 — PR. MAJOR CONTOURS
  - 670.2 — PR. MINOR CONTOURS
  - 660.0 — EX. MAJOR CONTOURS
  - 660.2 — EX. MINOR CONTOURS
  - ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1303\CAD\Sheets\CV03.03\_CV03.03\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:30am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

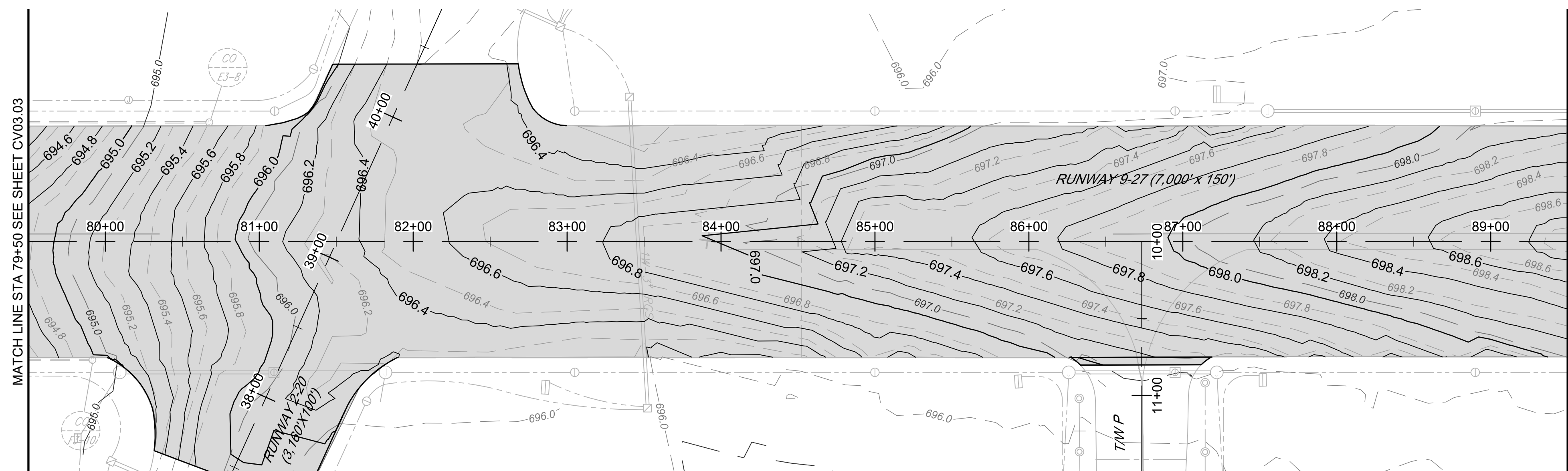
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**GRADING PLAN AND PROFILE 3**

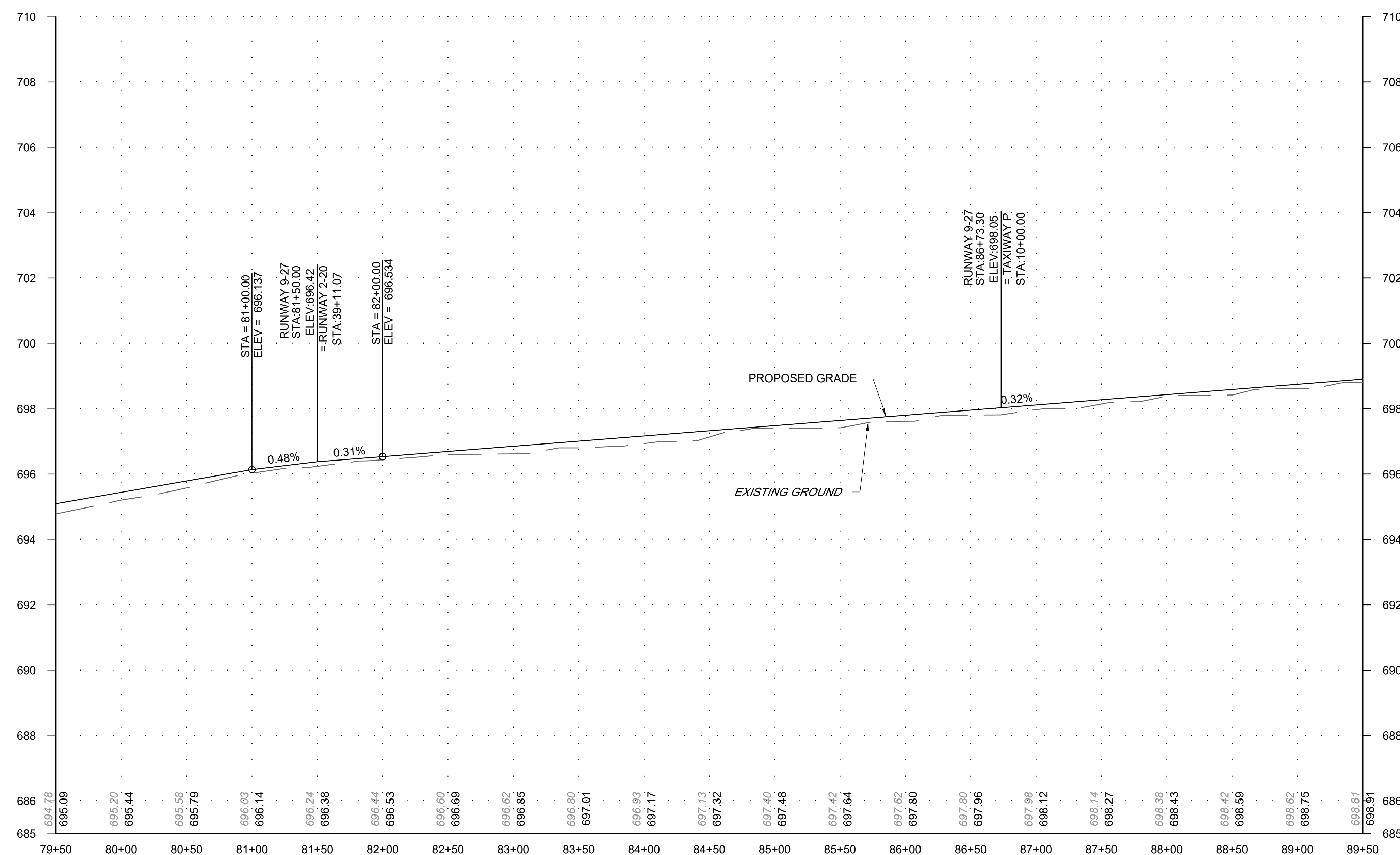
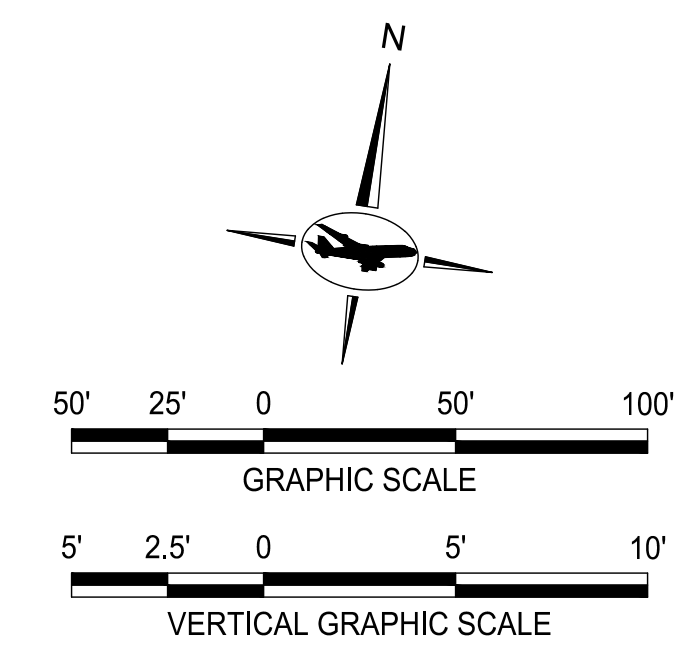
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.03**  
33 OF 90

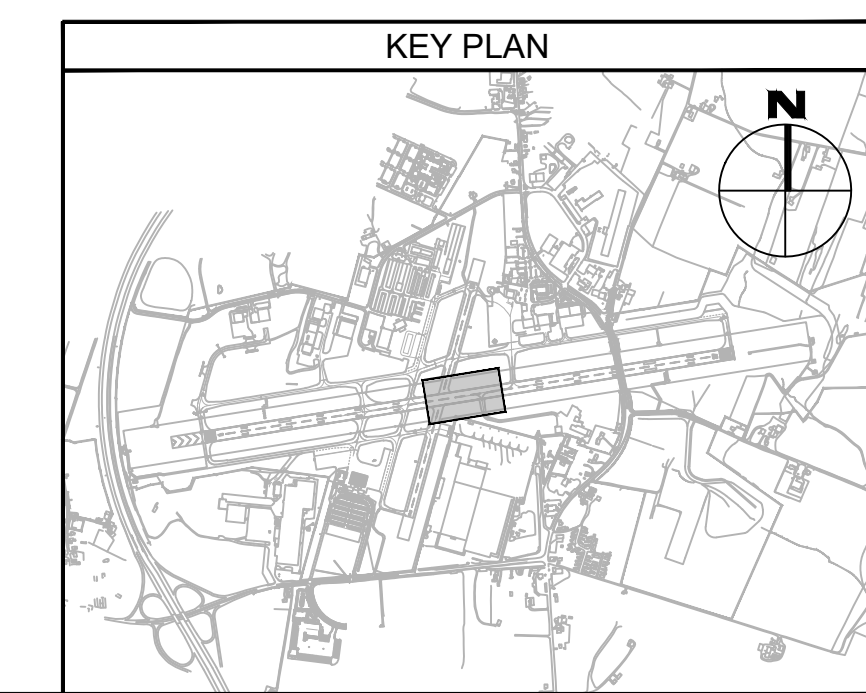


PLAN



RUNWAY 9-27 PROFILE  
STA 79+50 TO STA 89+50

- LEGEND:
- 670.0 — PR. MAJOR CONTOURS
  - 670.2 — PR. MINOR CONTOURS
  - 660.0 — EX. MAJOR CONTOURS
  - 660.2 — EX. MINOR CONTOURS
  - ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\0031\_CV03.01\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:31am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

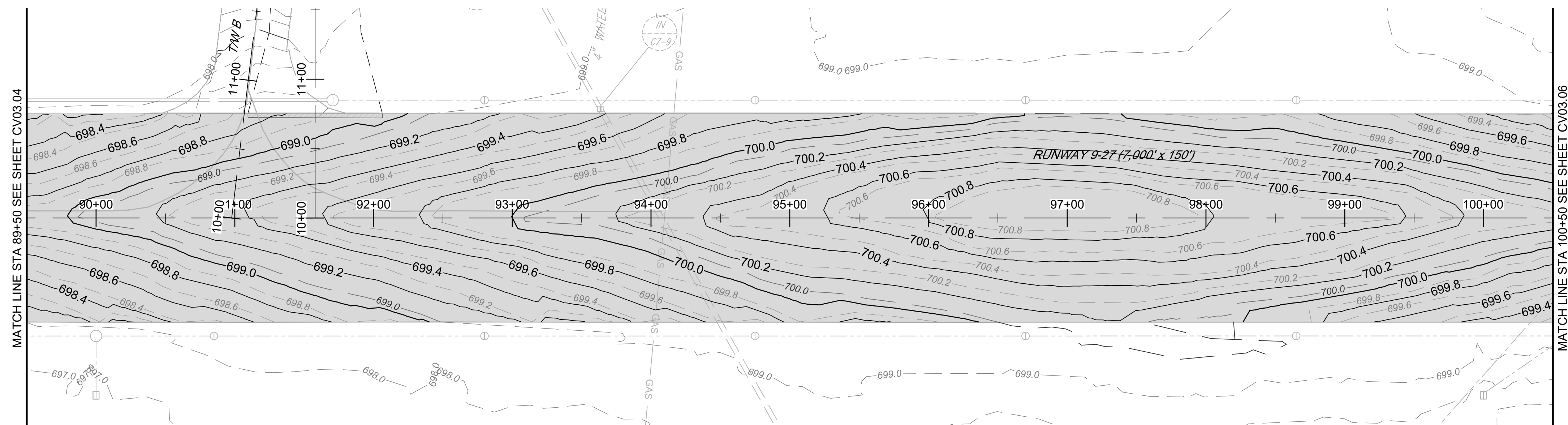
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**GRADING PLAN AND PROFILE 4**

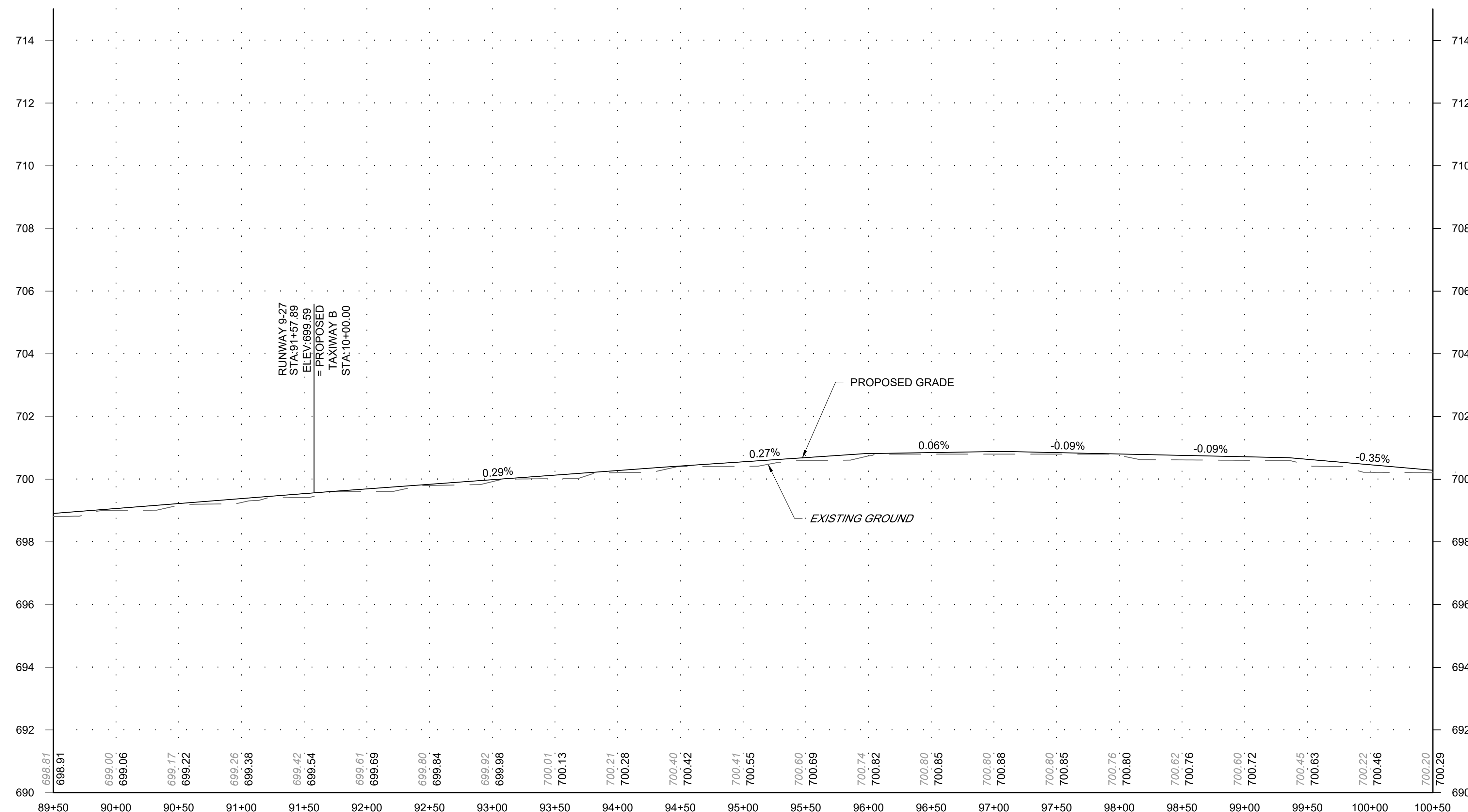
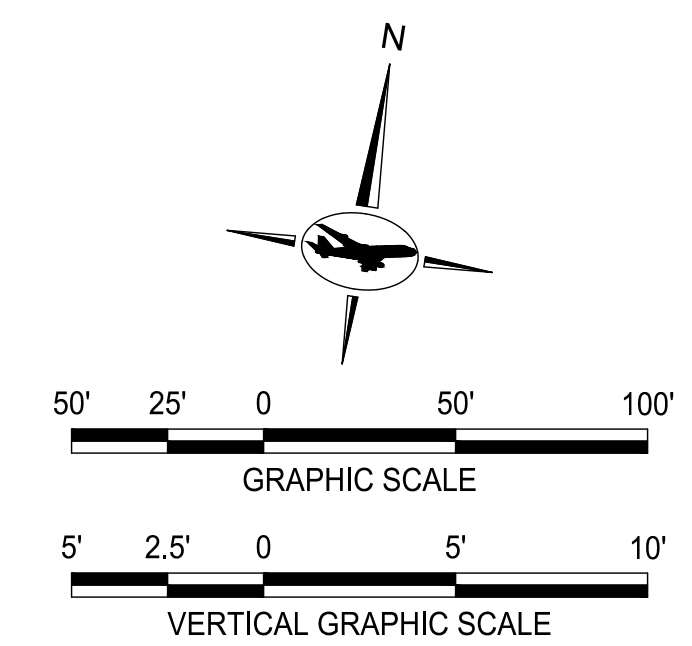
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.04**  
34 OF 90

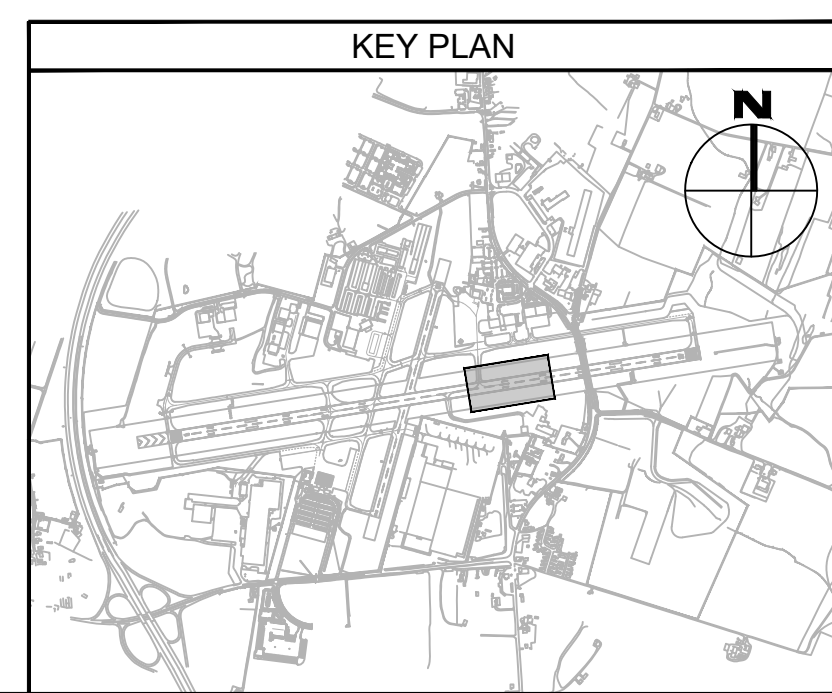


PLAN



RUNWAY 9-27 PROFILE  
STA 89+50 TO STA 100+50

- LEGEND:
- 670.0 — PR. MAJOR CONTOURS
  - 670.2 — PR. MINOR CONTOURS
  - 660.0 — EX. MAJOR CONTOURS
  - 660.2 — EX. MINOR CONTOURS
  - ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1303\CAO\SHEETS\003\_CV03.01\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:31am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
DRAWN: N.B./S.S.			
CHECKED: B.C./K.M.F.			
APPROVED: M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

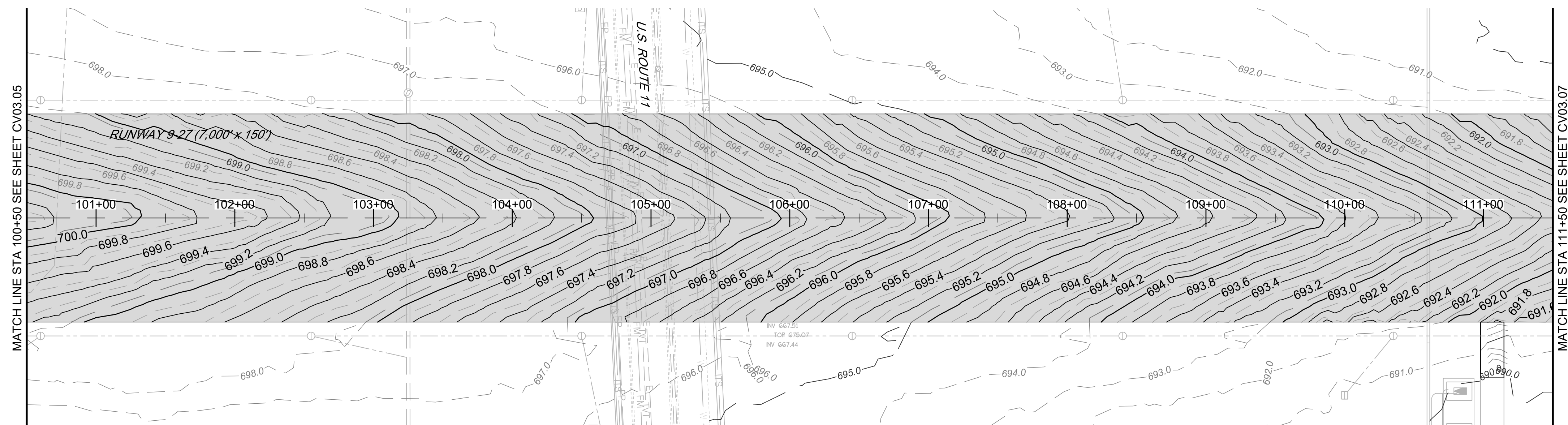
PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

SHEET TITLE: **GRADING PLAN AND PROFILE 5**

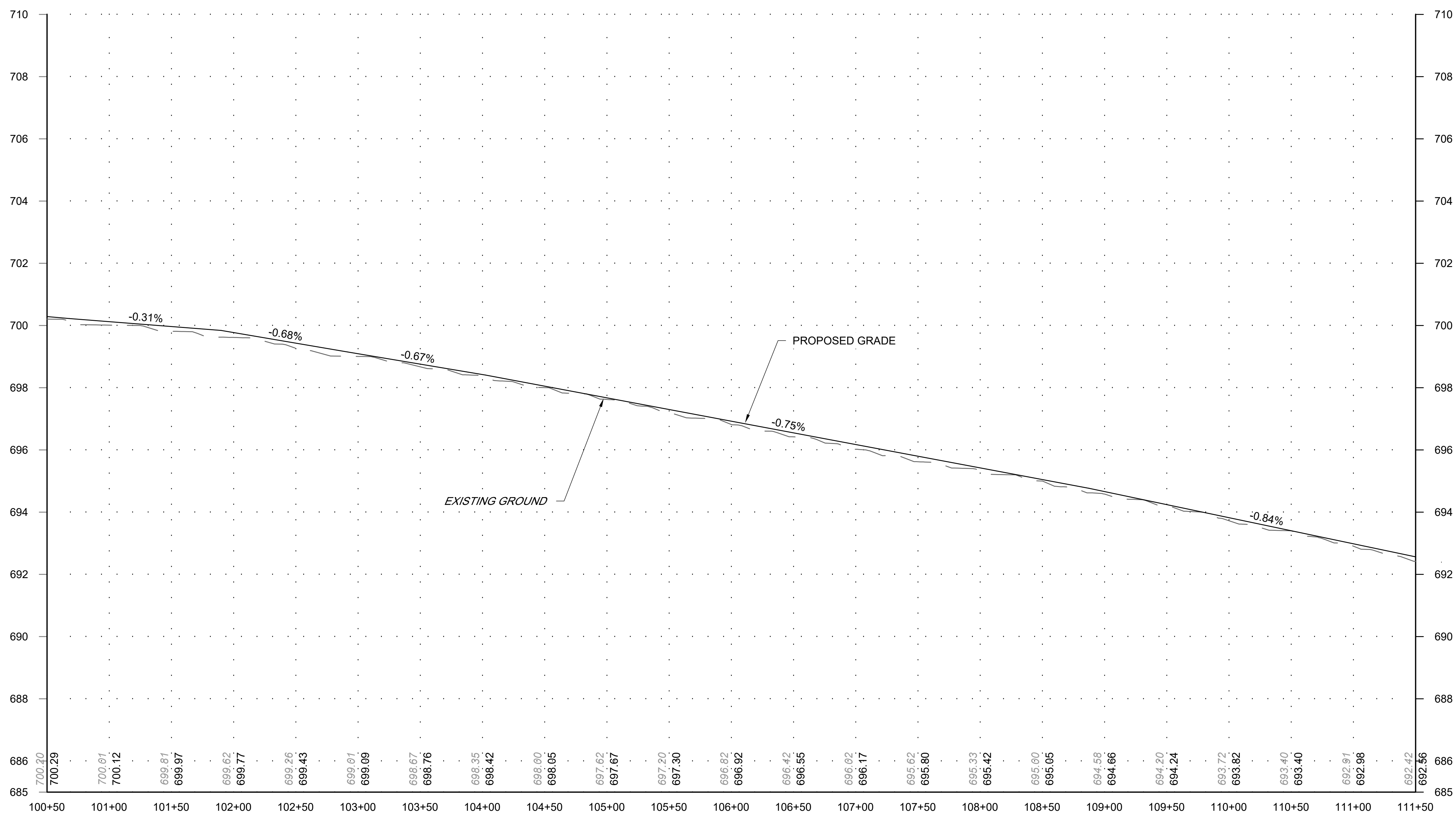
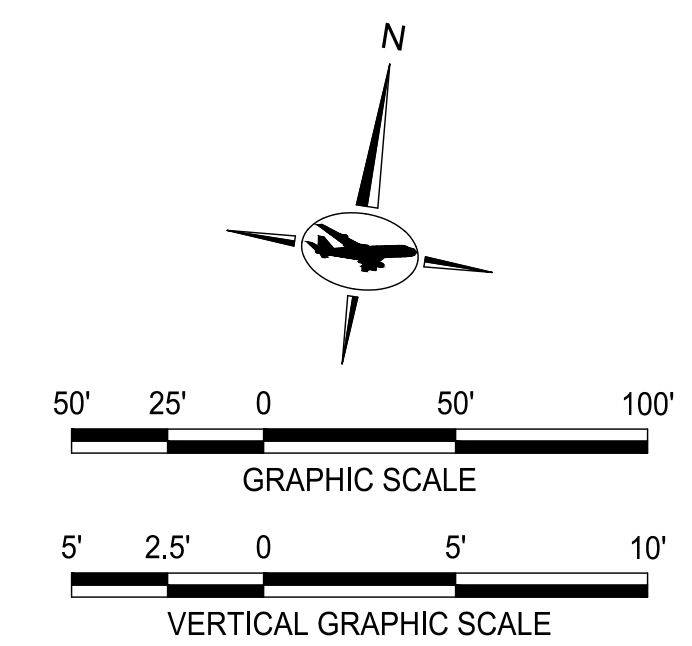
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **CV03.05**  
**35 OF 90**

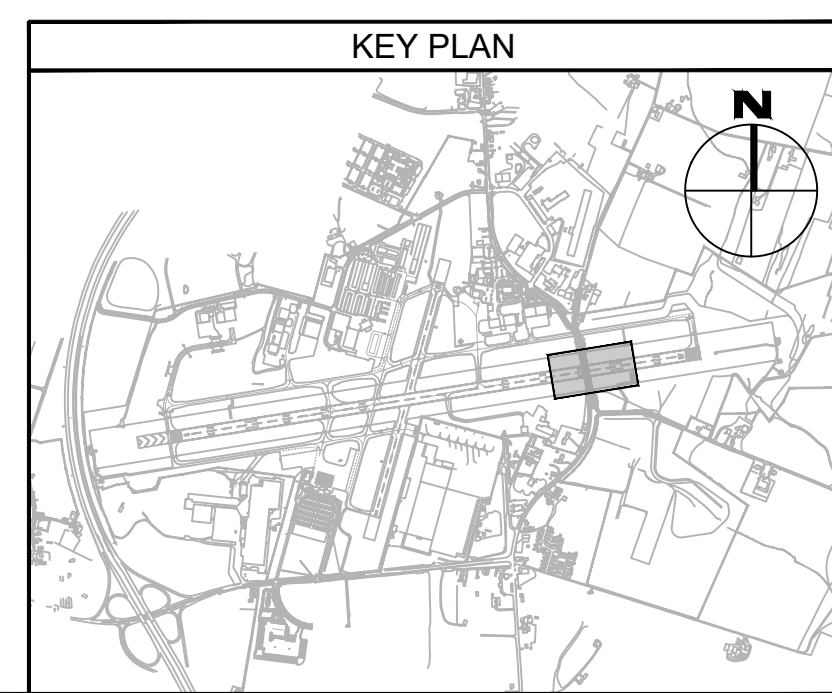


PLAN



RUNWAY 9-27 PROFILE  
STA 100+50 TO STA 111+50

- LEGEND:
- 670.0 PR. MAJOR CONTOURS
  - 670.2 PR. MINOR CONTOURS
  - 660.0 EX. MAJOR CONTOURS
  - 660.2 EX. MINOR CONTOURS
  - ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1303\CAD\Sheets\003\_CV03.01\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:31am USER: Gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M.S.K.			

Washington County, MD  
HAGERSTOWN REGIONAL AIRPORT

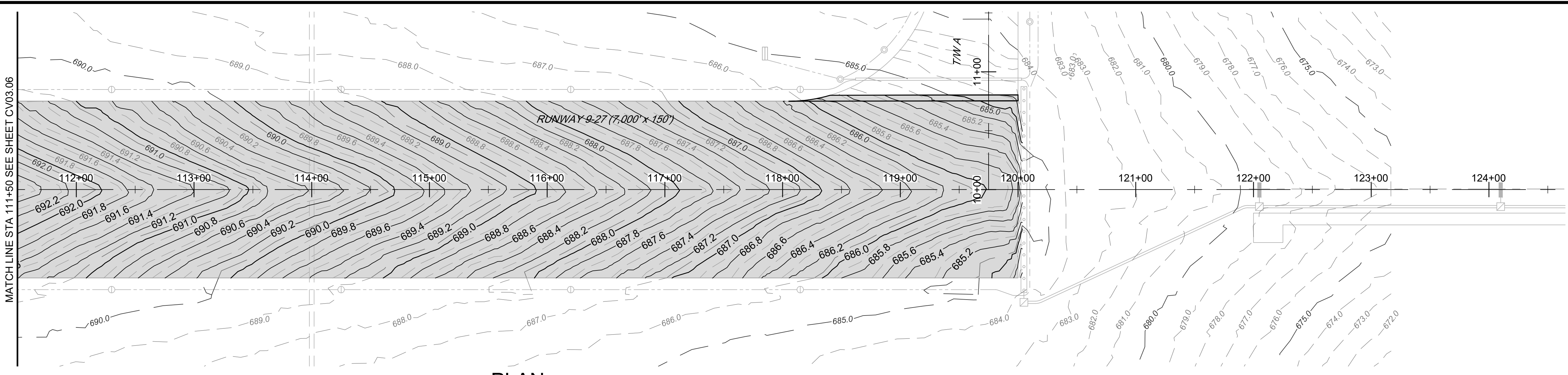
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**GRADING PLAN AND PROFILE 6**

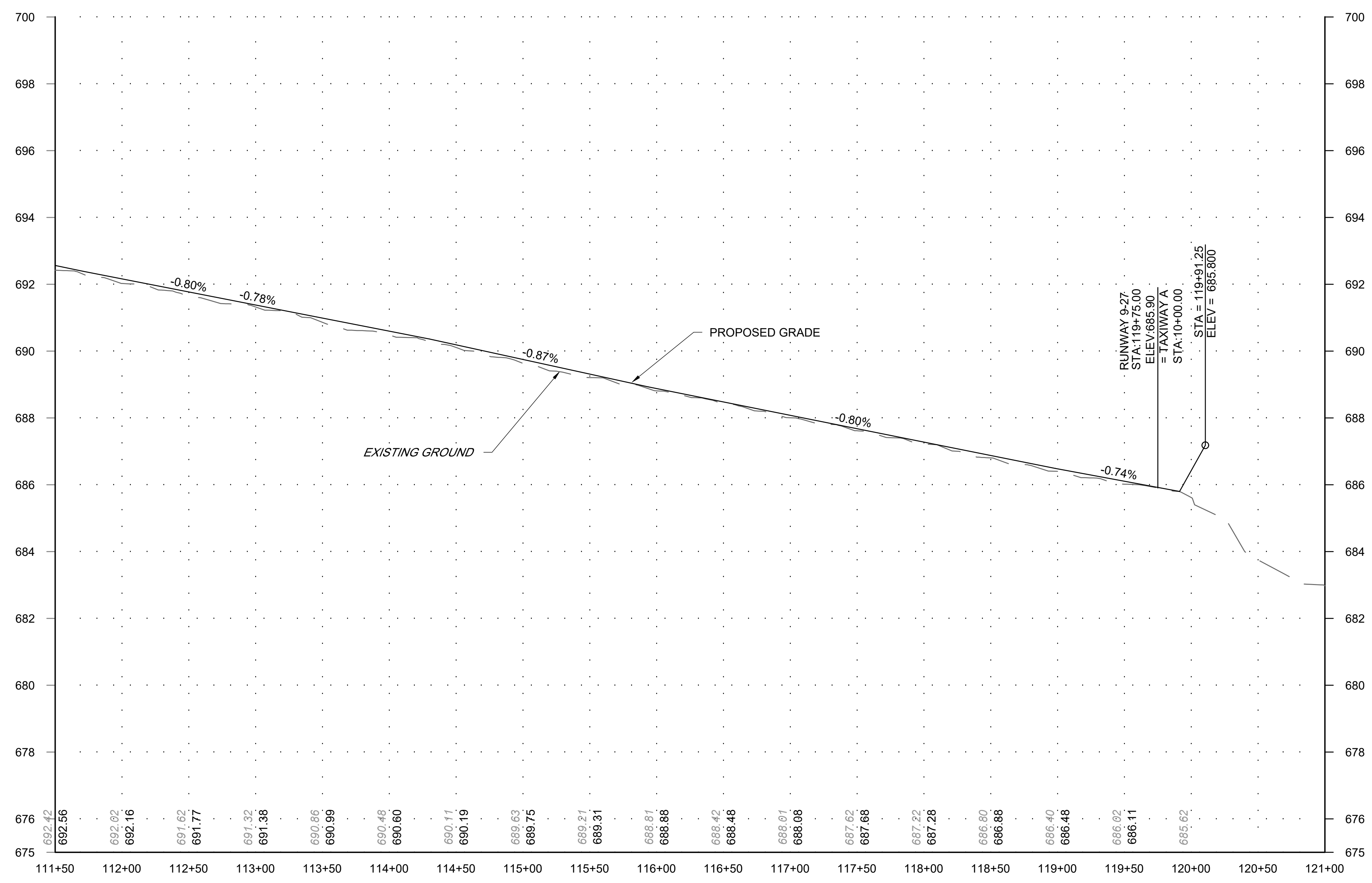
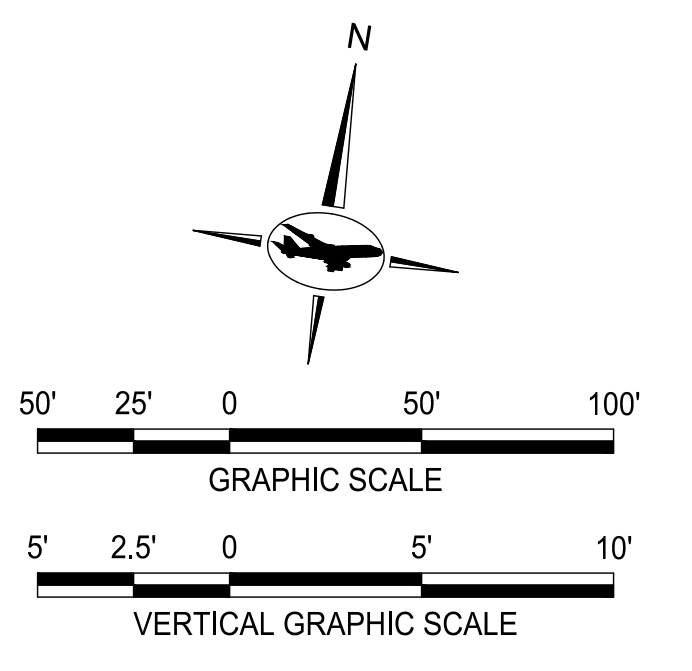
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.06**  
36 OF 90

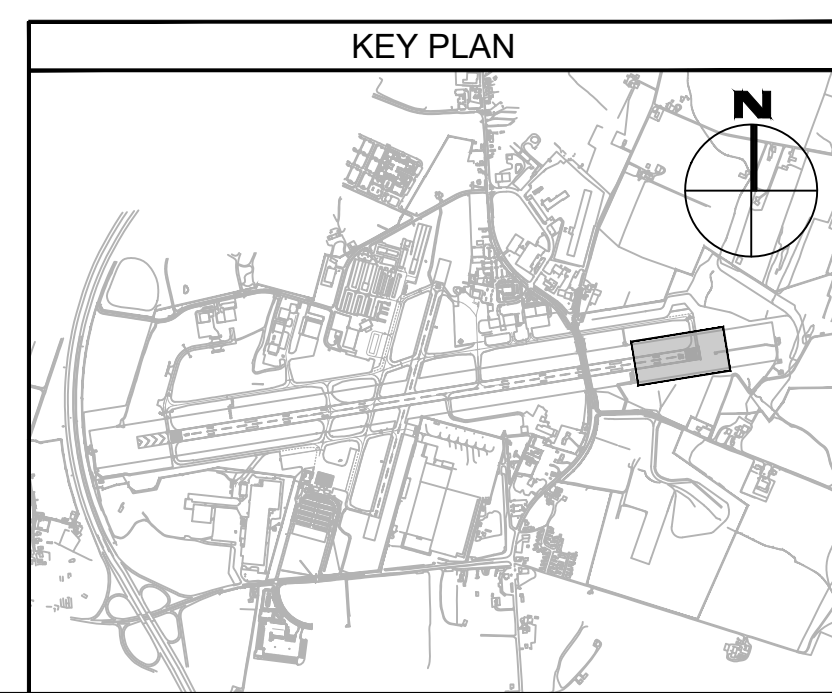


PLAN



RUNWAY 9-27 PROFILE  
STA 111+50 TO STA 121+00

- LEGEND:
- 670.0 — PR. MAJOR CONTOURS
  - 670.2 — PR. MINOR CONTOURS
  - 660.0 — EX. MAJOR CONTOURS
  - 660.2 — EX. MINOR CONTOURS
  - ▭ ASPHALT OVERLAY



FILE NAME: O:\HGR\Projects\2018-1303\CAO\SHEETS\003\_CV03.01\_Grading Plan and Profile.dwg PLOTTED: Monday, February 17, 2020 - 7:32am USER: gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

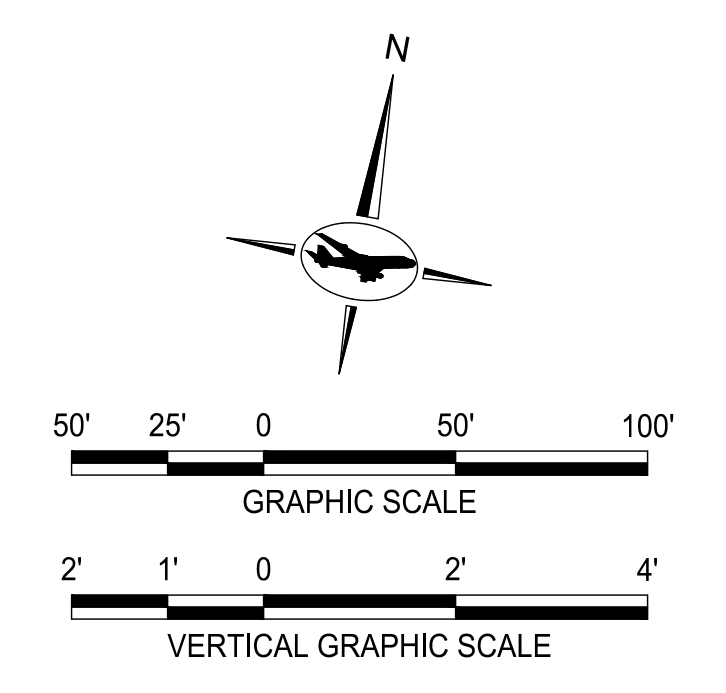
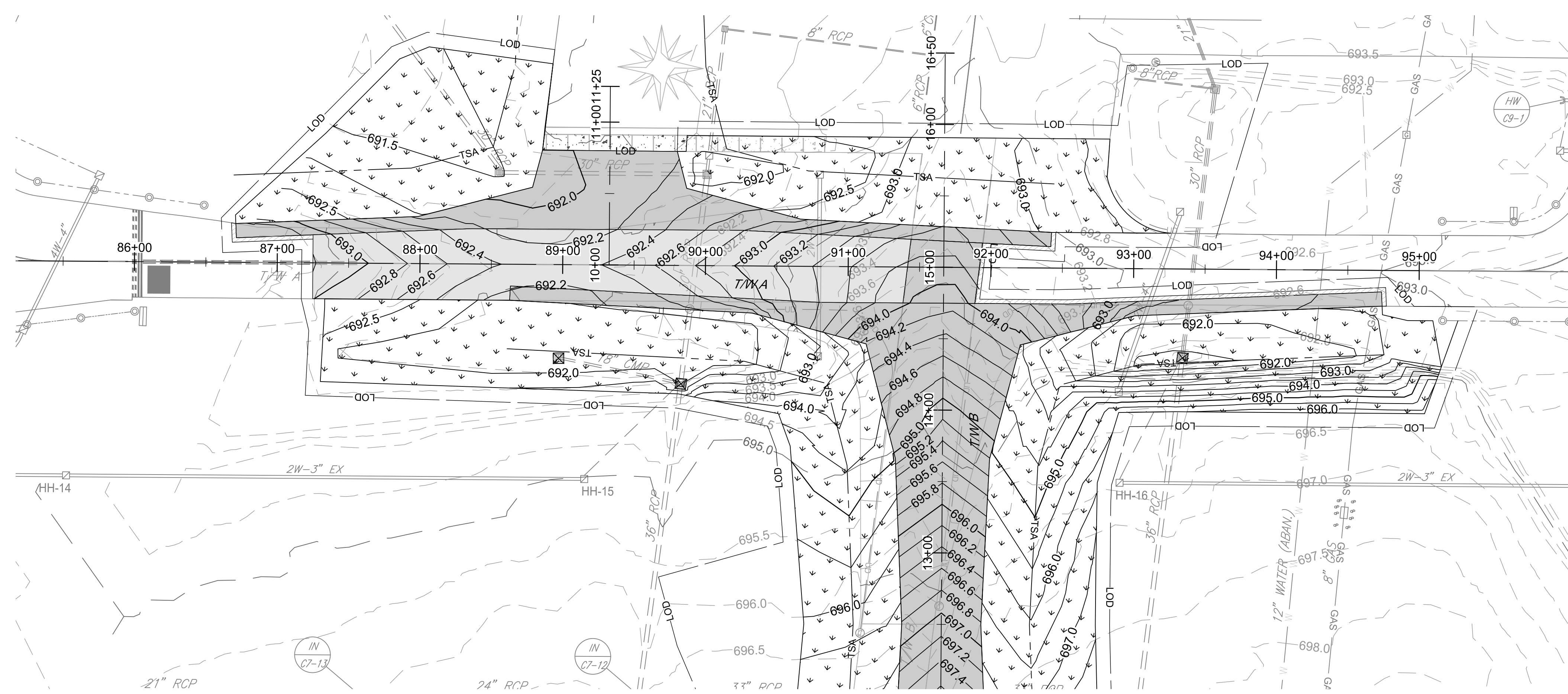
DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S. S.			
CHECKED:			
B. C. / K. M. F.			
APPROVED:			
M. S. K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE:	<b>GRADING PLAN AND PROFILE 7</b>	
SCALE:	AS SHOWN	DATE: FEBRUARY 2020

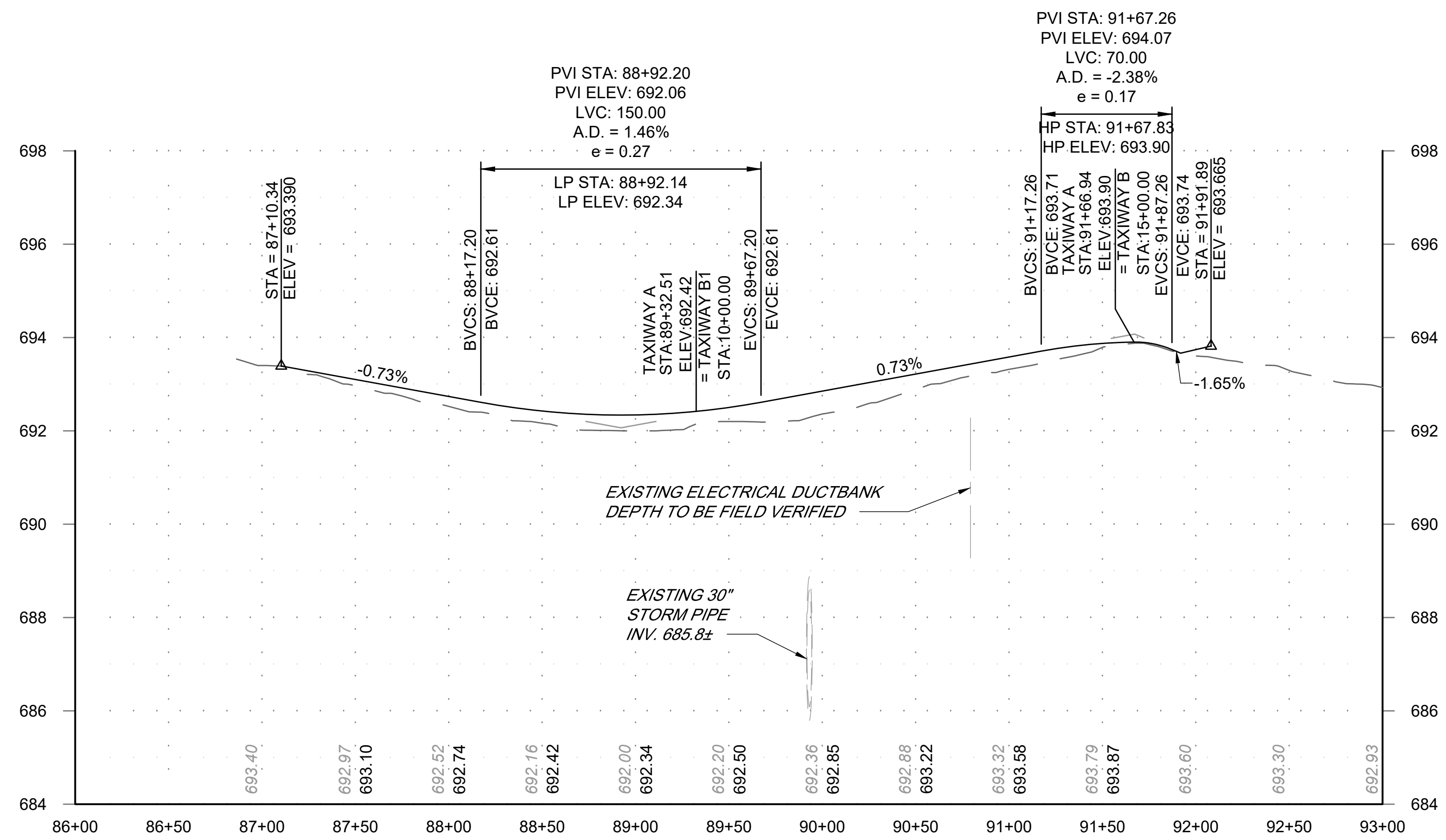
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.07**  
37 OF 90



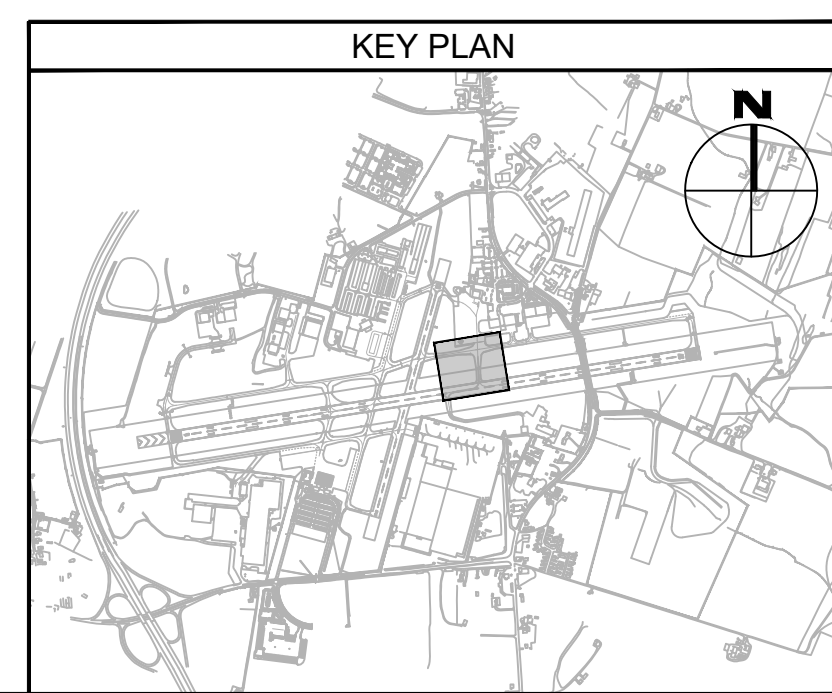
- LEGEND:**
- FULL DEPTH ASPHALT CONSTRUCTION
  - VARIABLE DEPTH MILL AND OVERLAY
  - SEEDING/SODDING
  - LOD — LIMIT OF DISTURBANCE
  - TSA — TAXIWAY SAFETY AREA
  - DRAINAGE INLET TO BE ADJUSTED
  - EXISTING DRAINAGE INLET
  - 390.0 — EXISTING MAJOR CONTOURS
  - 389.5 — EXISTING MINOR CONTOURS
  - 390.0 — PROPOSED MAJOR CONTOURS
  - 389.0 — PROPOSED MINOR CONTOURS

**TAXIWAY A PLAN**



**TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"**

- NOTES:**
1. SEE SHEET CV03.12 AND CV03.13 FOR DRAINAGE DETAILS AND SCHEDULES.
  2. SEE E SERIES DRAWINGS FOR ELECTRICAL.



FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\038\_CV03.08\_Grading & Drainage Plan and Profile - Taxiway A.dwg PLOTTED: Monday, February 17, 2020 - 7:32am USER: GROSS

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: \_\_\_\_\_

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

WASHINGTON COUNTY, MD

HAGERSTOWN REGIONAL AIRPORT

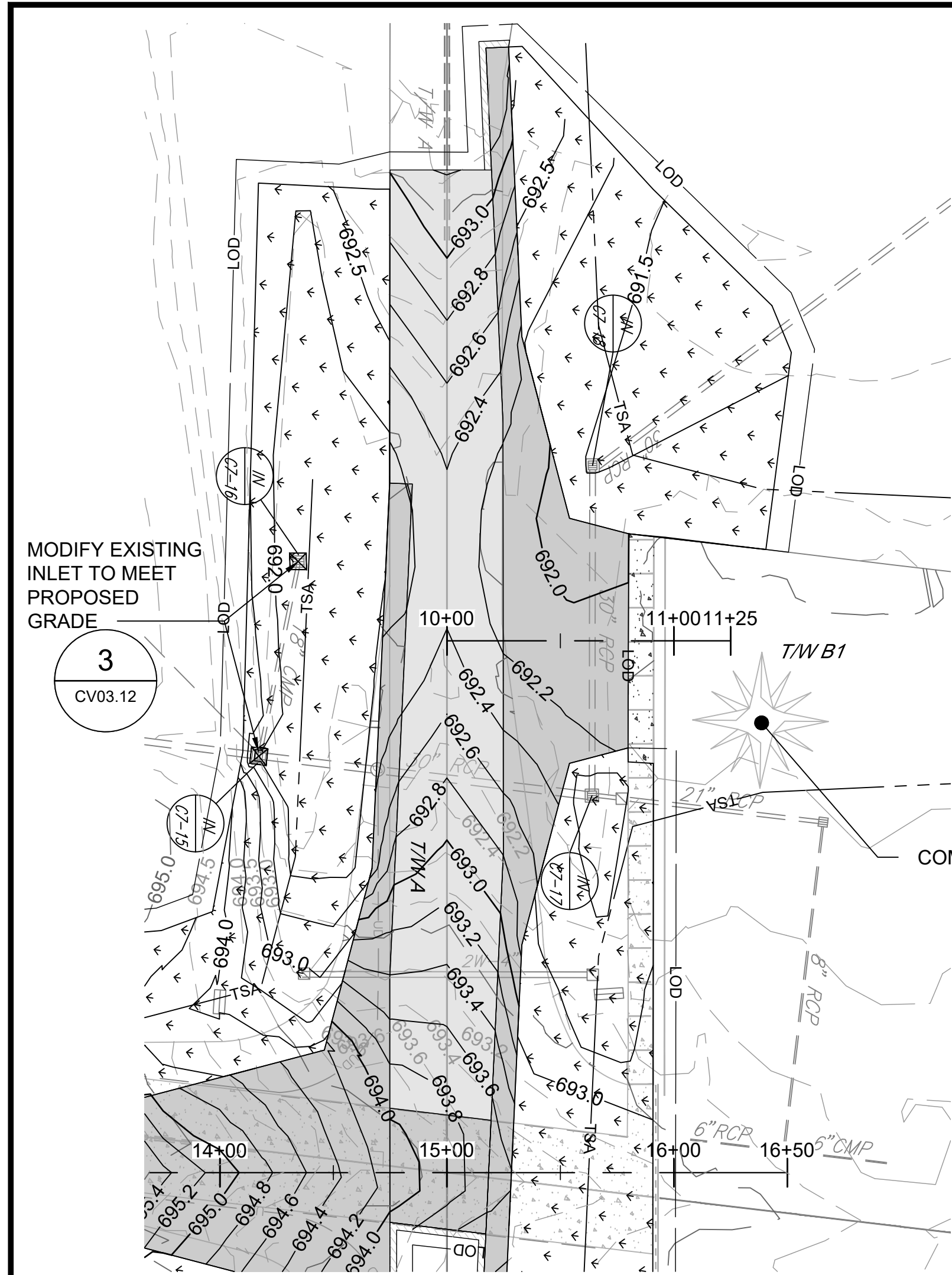
PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

SHEET TITLE: **GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY A**

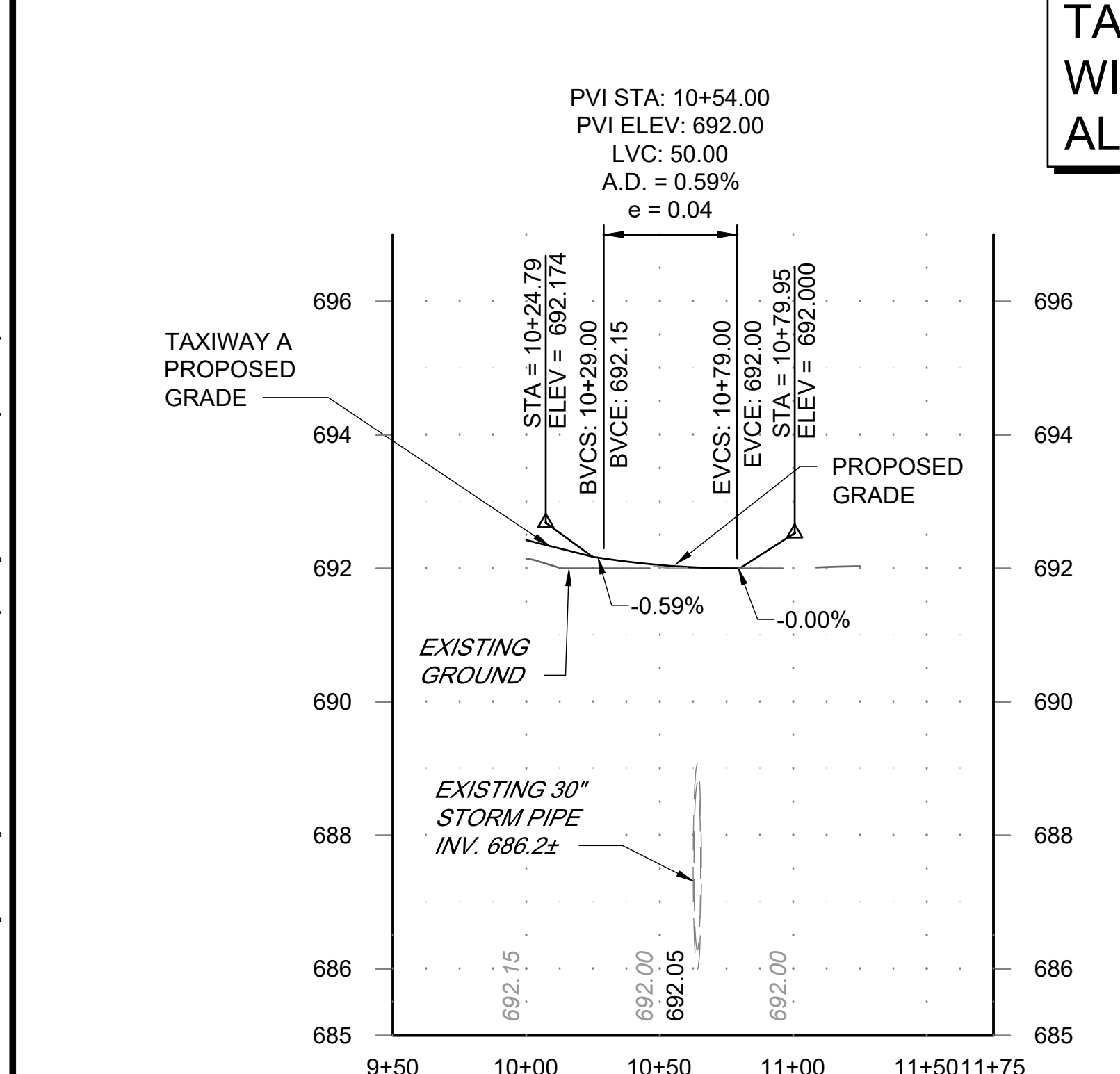
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **CV03.08**  
**38 OF 90**

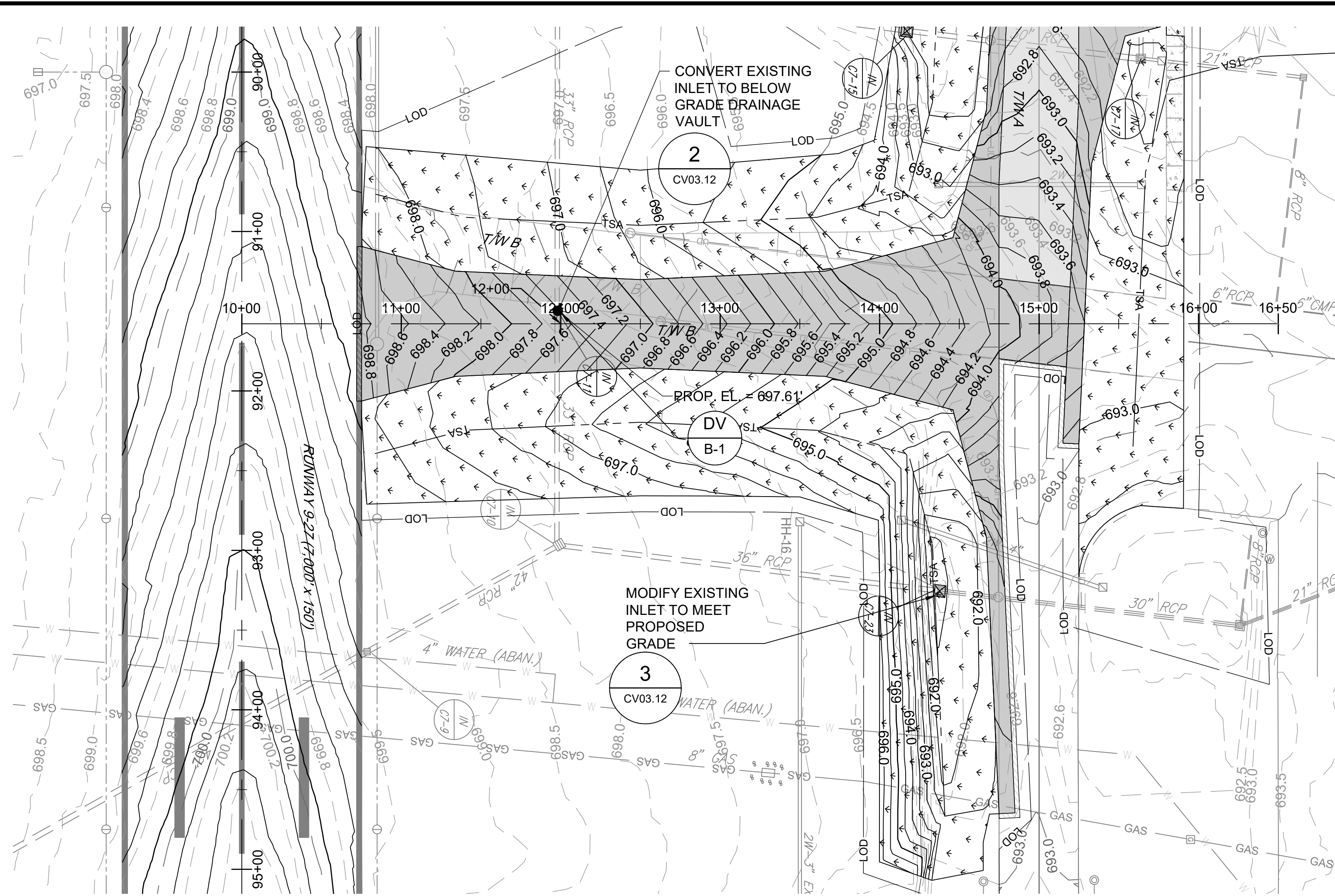


TAXIWAY B 1 PLAN

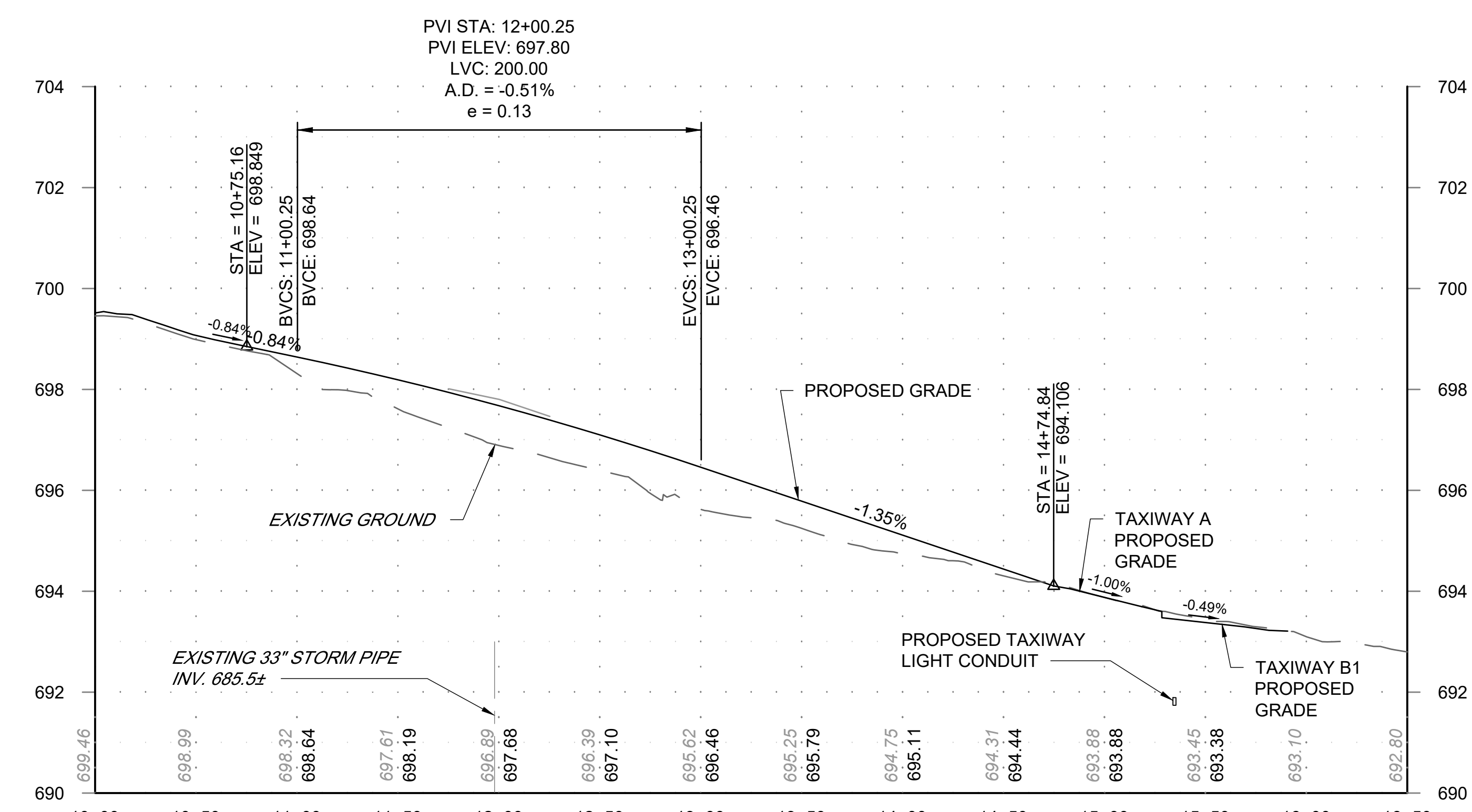


TAXIWAY B1 PROFILE  
STA 9+50 TO STA 11+75

TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"



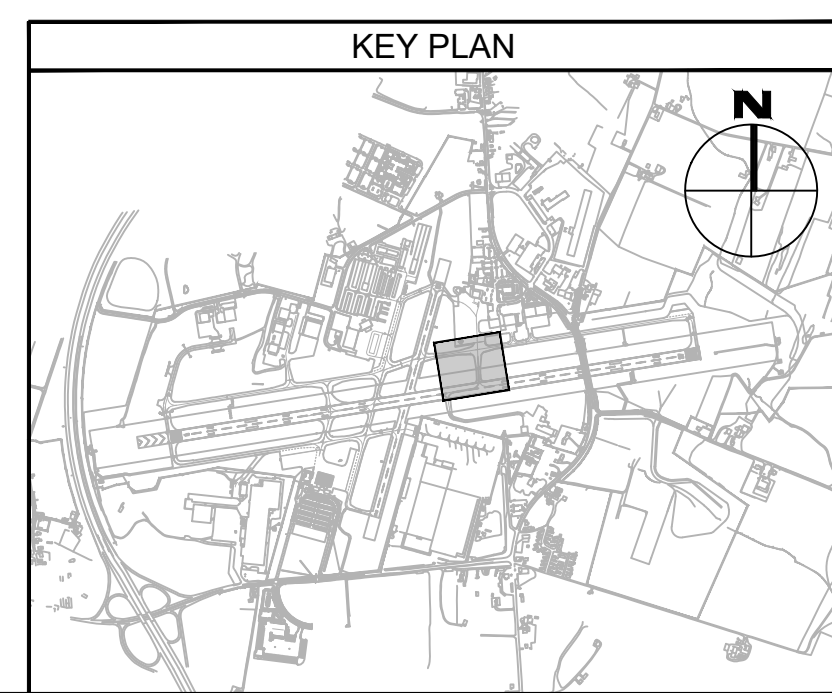
TAXIWAY B PLAN



TAXIWAY B PROFILE  
STA 10+00 TO STA 16+50

- LEGEND:**
- FULL DEPTH ASPHALT CONSTRUCTION
  - VARIABLE DEPTH MILL AND OVERLAY
  - SEEDING/SODDING
  - LOD — LIMIT OF DISTURBANCE
  - TSA — TAXIWAY SAFETY AREA
  - DRAINAGE INLET TO BE ADJUSTED
  - EXISTING DRAINAGE INLET
  - 390.0 — EXISTING MAJOR CONTOURS
  - 389.5 — EXISTING MINOR CONTOURS
  - 390.0 — PROPOSED MAJOR CONTOURS
  - 389.0 — PROPOSED MINOR CONTOURS
  - DV  
B-1 PROPOSED DRAINAGE IDENTIFIER

- NOTES:**
1. SEE SHEET CV03.12 AND CV03.13 FOR DRAINAGE DETAILS AND SCHEDULES.
  2. SEE E SERIES DRAWINGS FOR ELECTRICAL.



**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21104  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: \_\_\_\_\_

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

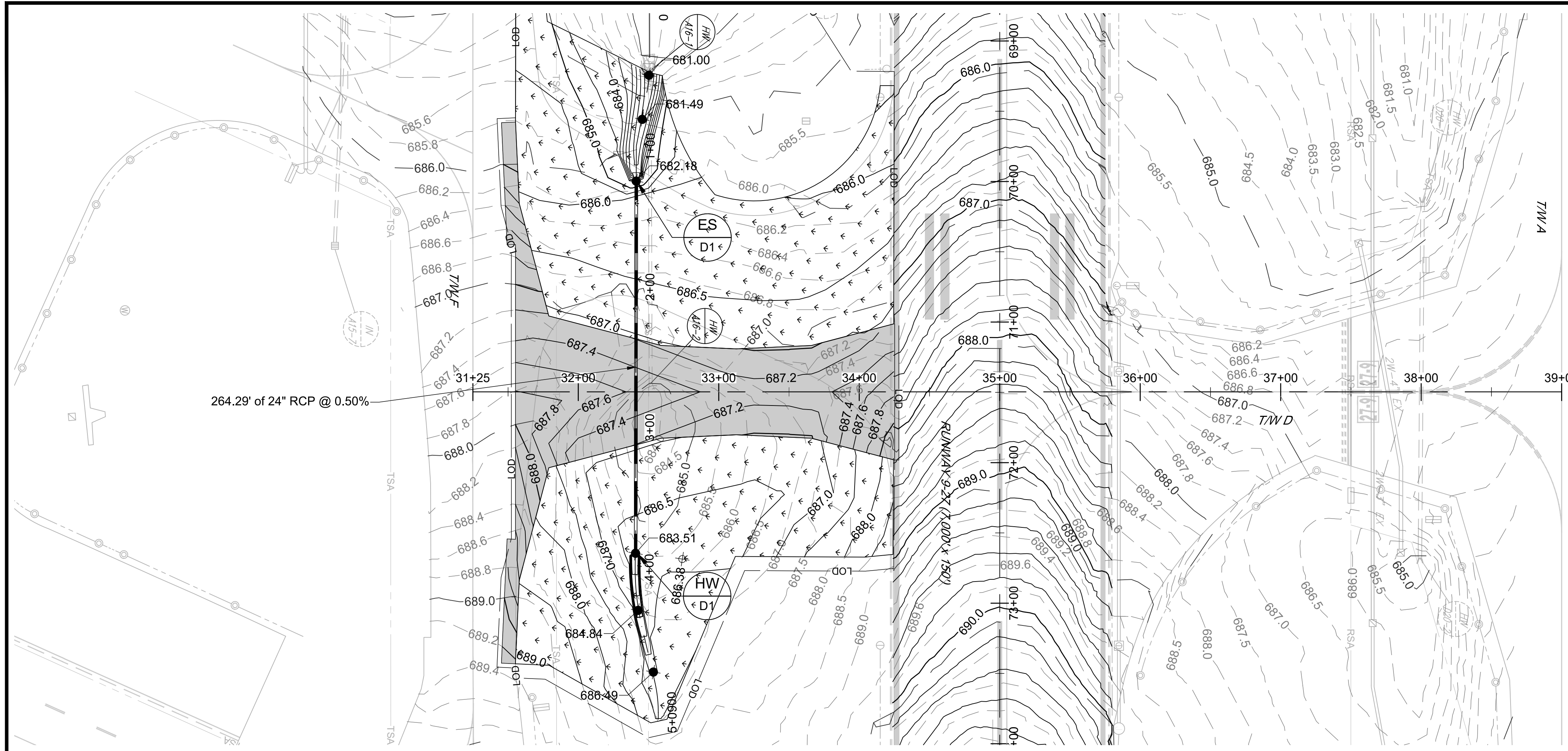
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY B**

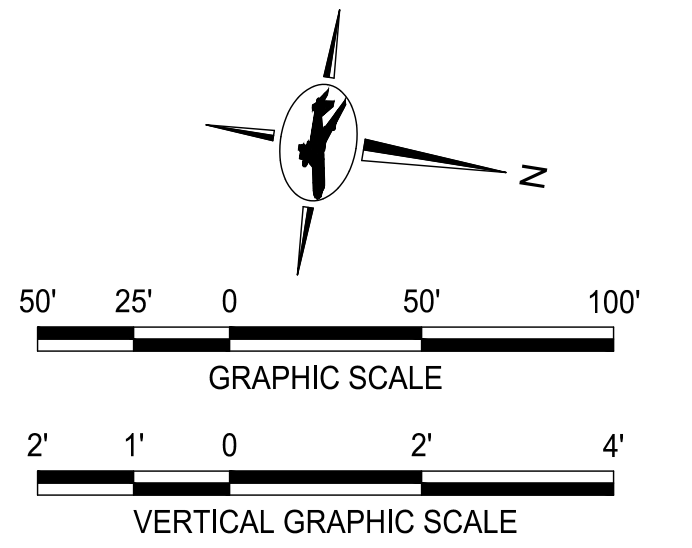
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.09**  
39 OF 90



TAXIWAY D PLAN

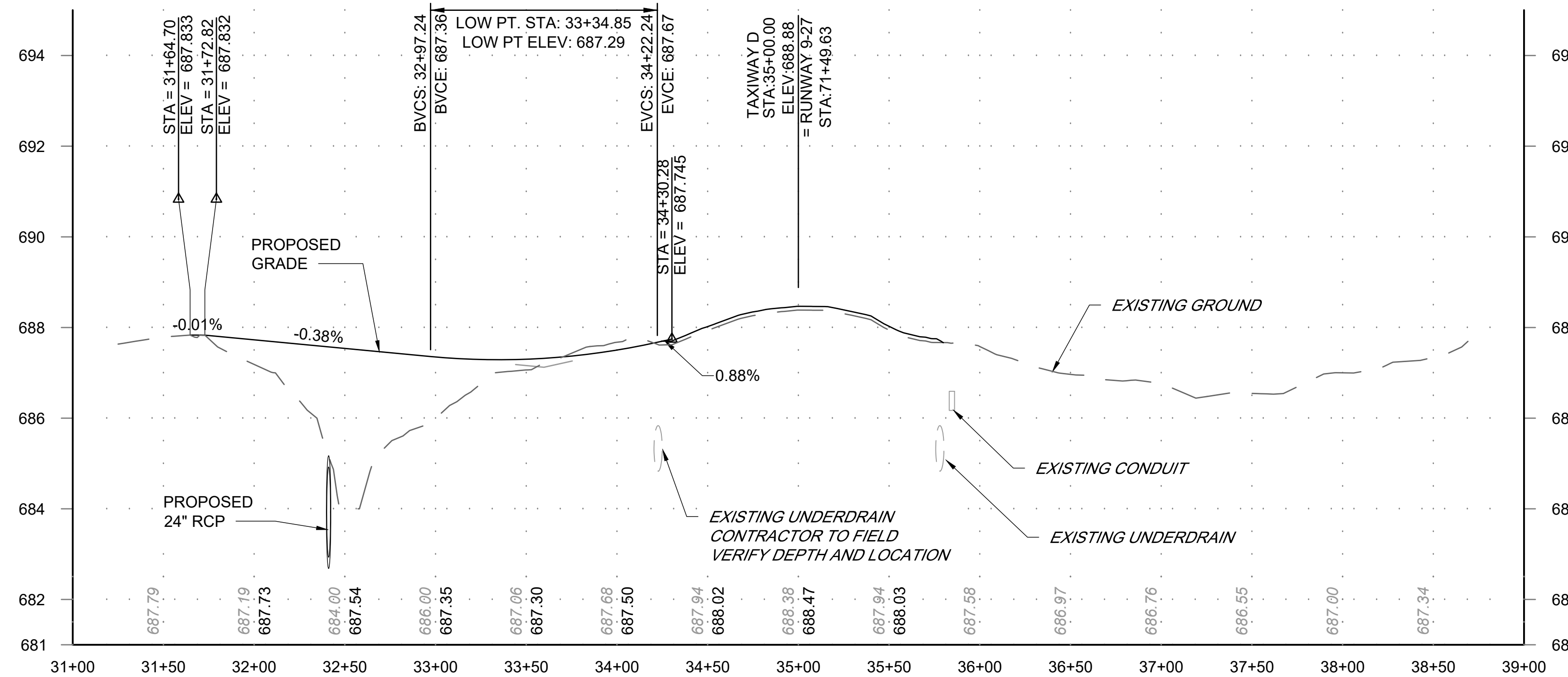


LEGEND:

- FULL DEPTH ASPHALT CONSTRUCTION
- SEEDING/SODDING
- LOD — LIMIT OF DISTURBANCE
- TSA — TAXIWAY SAFETY AREA
- EXISTING DRAINAGE INLET
- 390.0 — EXISTING MAJOR CONTOURS
- 389.5 — EXISTING MINOR CONTOURS
- 390.0 — PROPOSED MAJOR CONTOURS
- 389.0 — PROPOSED MINOR CONTOURS

TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"

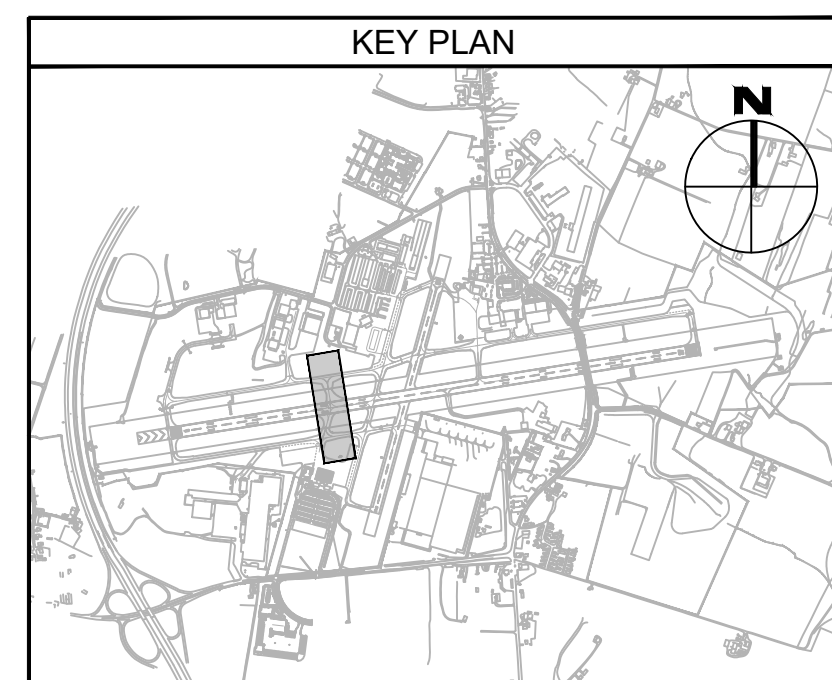
PVI STA: 33+59.74  
PVI ELEV: 687.12  
LVC: 125.00  
A.D. = 1.26%  
e = 0.20



TAXIWAY D PROFILE  
STA 31+00 TO STA 39+00

NOTES:

1. SEE CV03.11 FOR DRAINAGE PROFILES
2. SEE SHEET CV03.12 AND CV03.13 FOR DRAINAGE DETAILS AND SCHEDULES.
3. SEE E SERIES DRAWINGS FOR ELECTRICAL.



FILE NAME: O:\HGR\Projects\2018-1303\CAD\Drawings\040\_CV03.10\_Grading & Drainage Plan and Profile - Taxiway D.dwg PLOTTED: Monday, February 17, 2020 - 7:33am USER: gRass

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: \_\_\_\_\_  
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

**BID DOCUMENTS**

PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

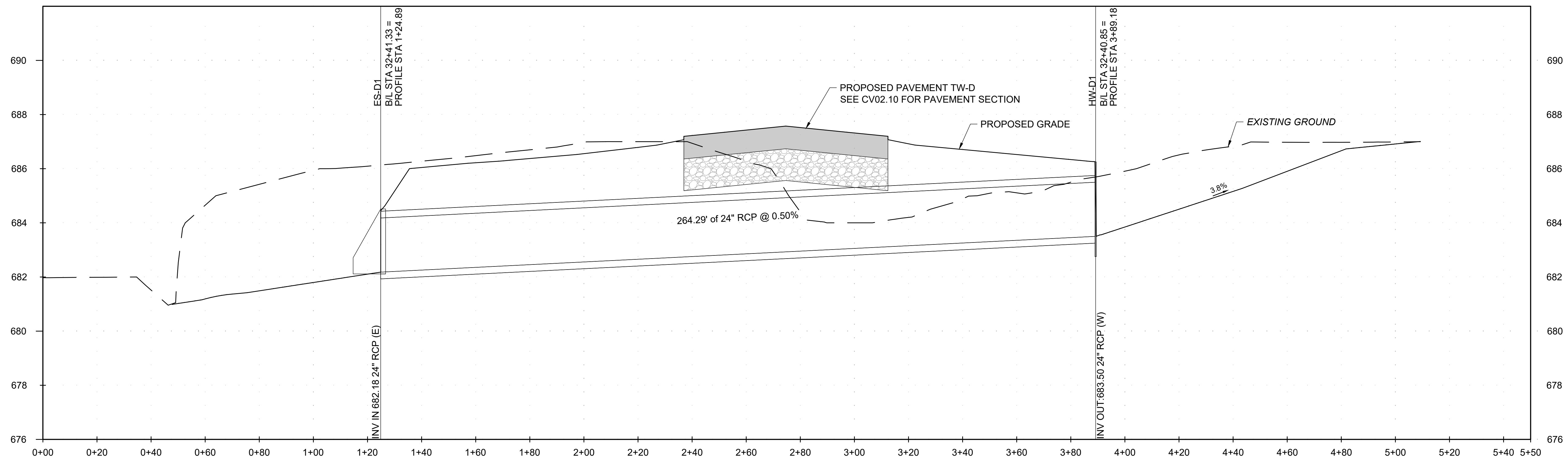
SHEET TITLE:  
**GRADING AND DRAINAGE PLAN AND PROFILE - TAXIWAY D**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

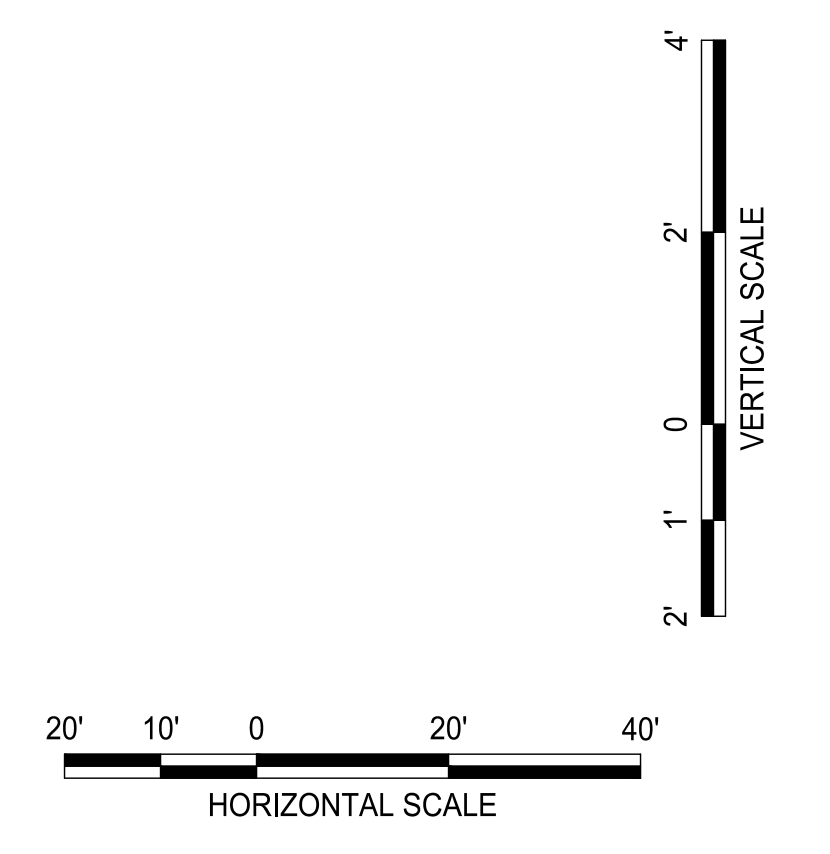
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV03.10**  
40 OF 90





**TW-D DRAINAGE PROFILE**  
STA 0+00 TO STA 5+50



**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**

FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\041\_CV03.11\_Drainage Profiles.dwg PLOTTED: Monday, February 17, 2020 - 7:33am USER: G.Ross



SEAL:

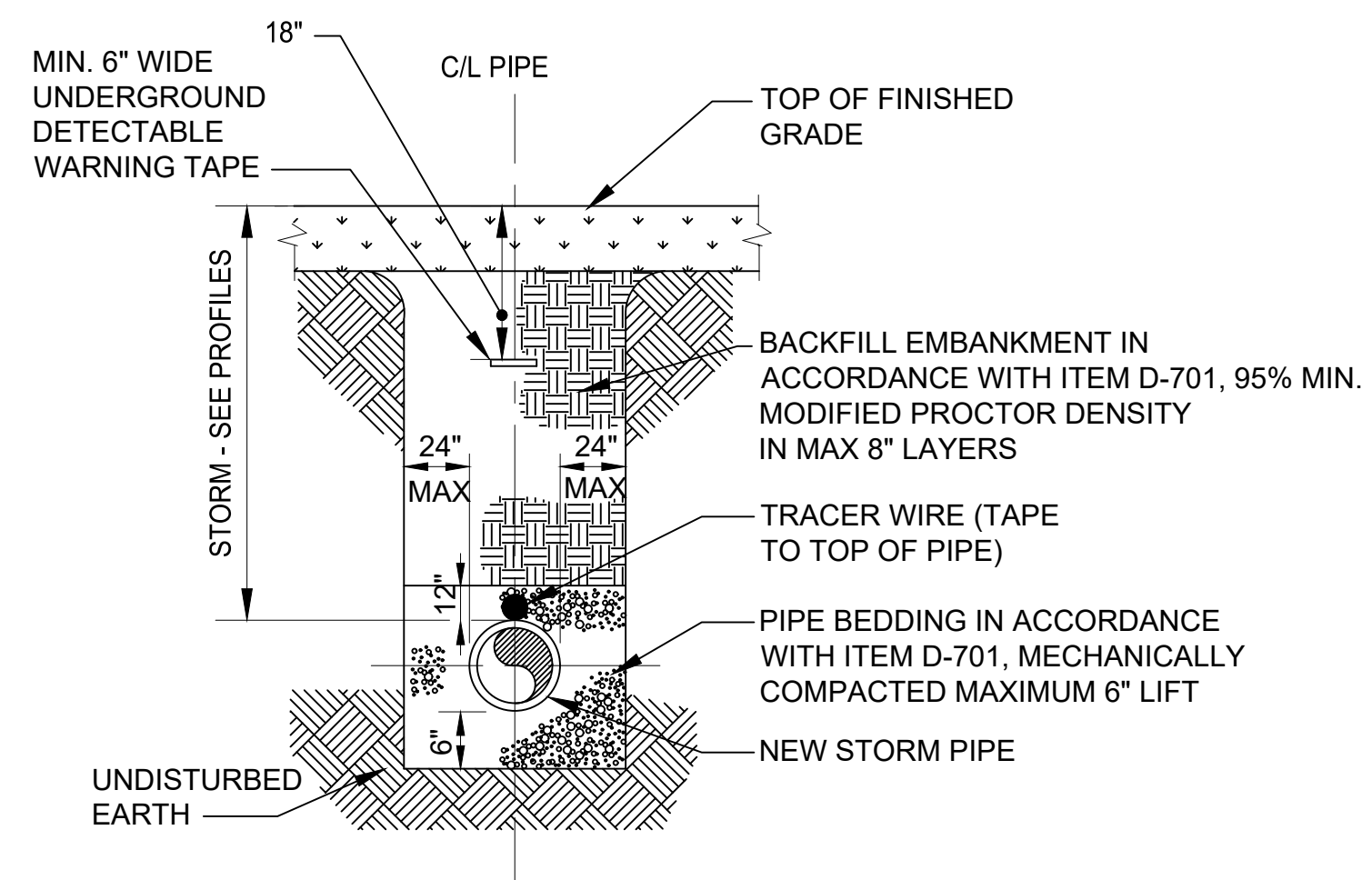
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

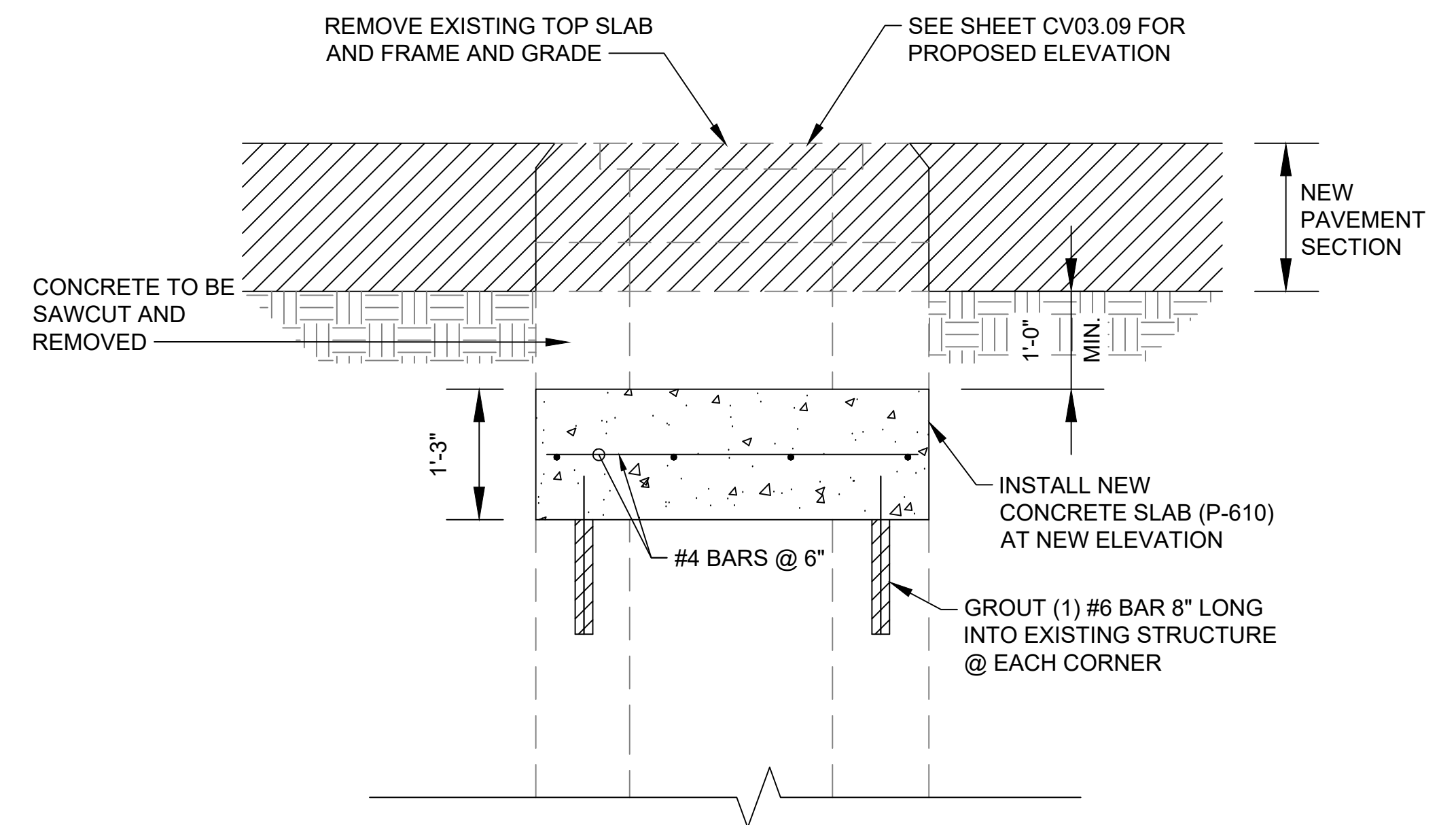


PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>DRAINAGE PROFILES</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

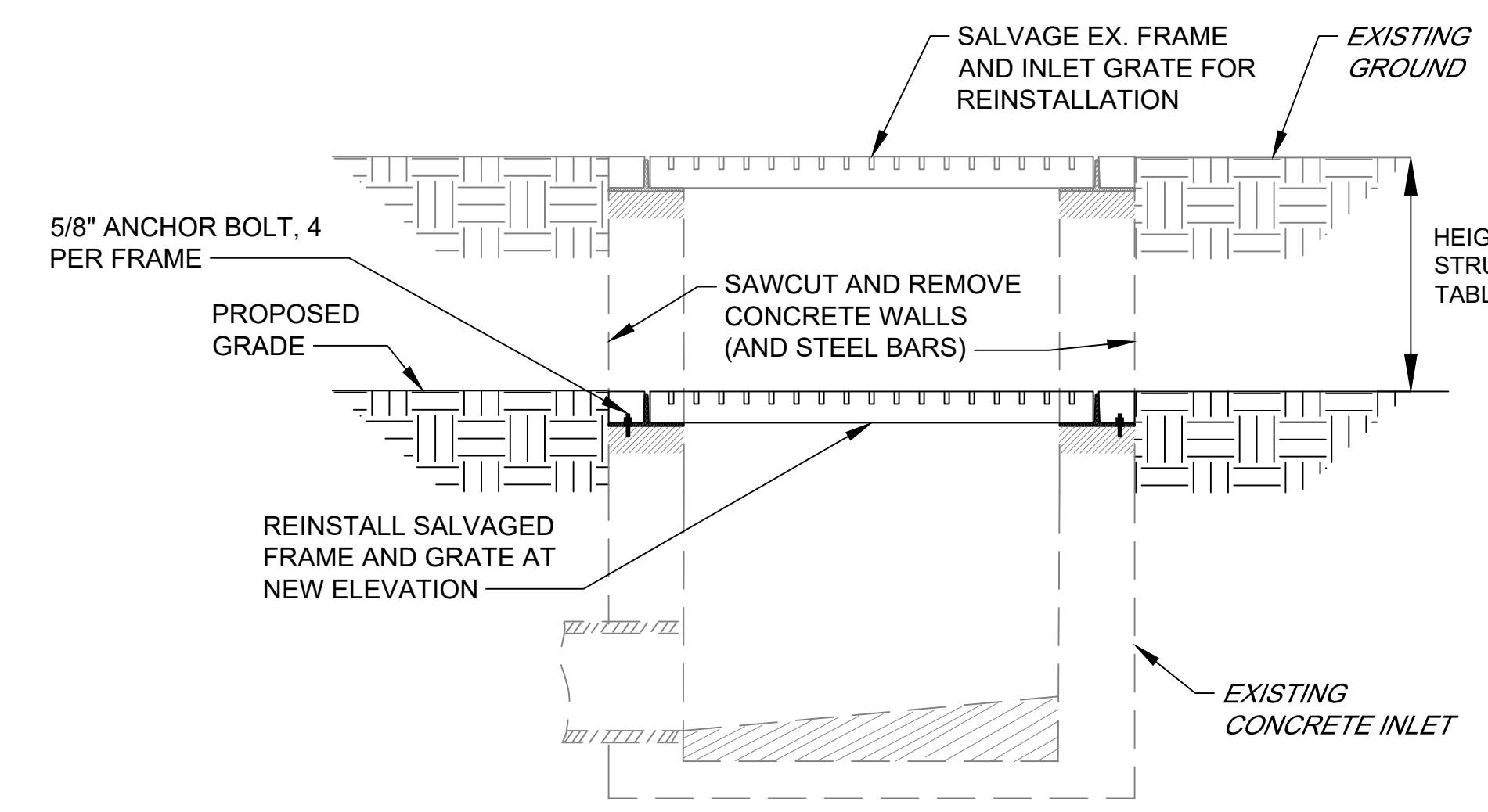
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.:  
**CV03.11**  
41 OF 90



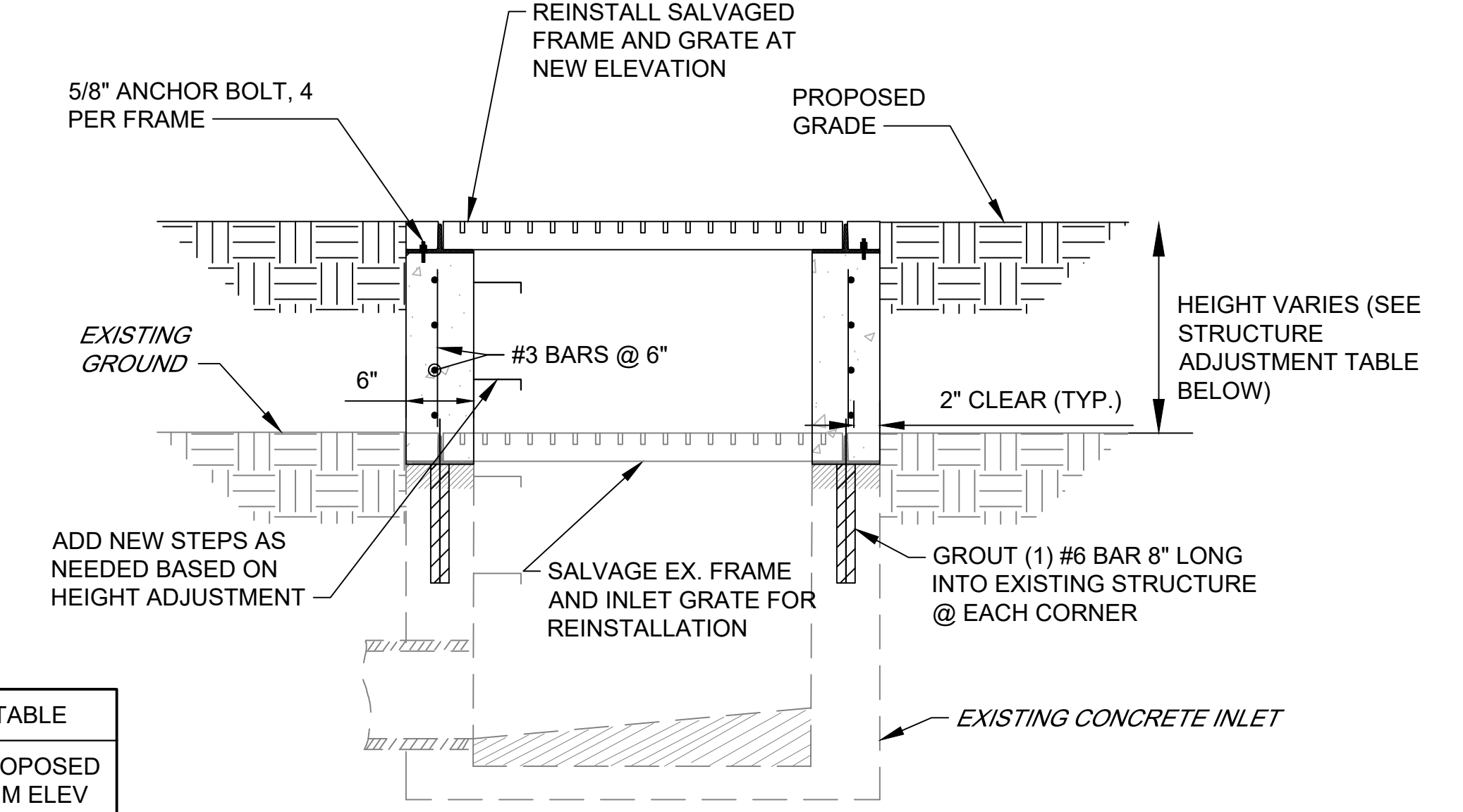
**1** PIPE TRENCH DETAIL  
CV03.12 SCALE: NTS



**2** CONVERT INLET TO DRAINAGE VAULT  
CV03.12 SCALE: NTS



**LOWER**



**RAISE**

STRUCTURE ADJUSTMENT TABLE		
EXISTING STRUCTURE	EXISTING RIM ELEV.	PROPOSED RIM ELEV
C7-15	692.51'	691.95
C7-16	692.00'	691.53
C7-23	691.00'	691.43

**3** RAISE-LOWER EXISTING INLET  
CV03.12 SCALE: NTS

TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"

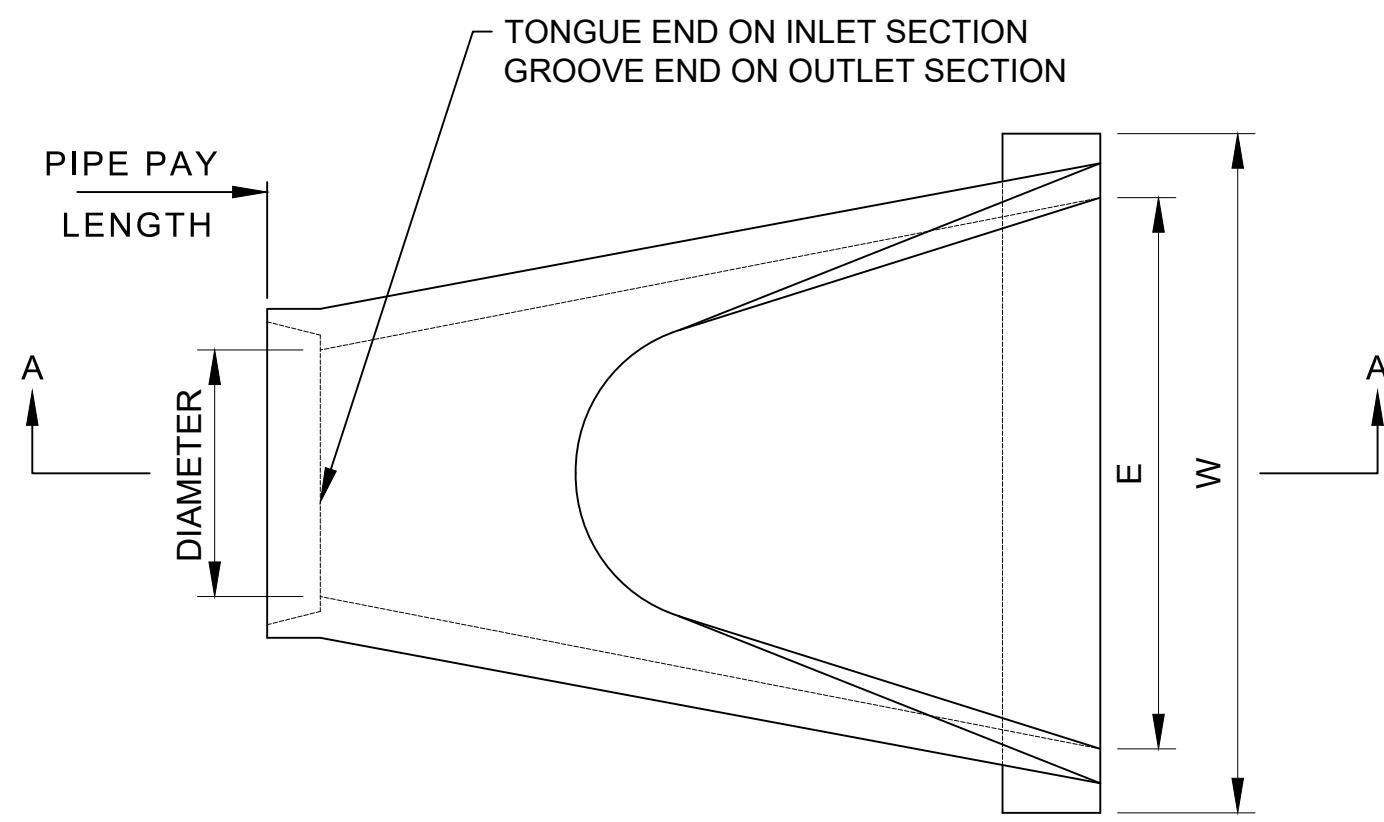
FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\042\_CV03.12\_Drainage\_Details.dwg PLOTTED: Monday, February 17, 2020 - 7:33am USER: Gross



DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
DRAWN: N.B./S.S.			
CHECKED: B.C./K.M.F.			
APPROVED: M.S.K.			



PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET TITLE: <b>DRAINAGE DETAILS 1</b>	SHEET No.: <b>CV03.12</b>
SCALE: AS SHOWN	DATE: FEBRUARY 2020

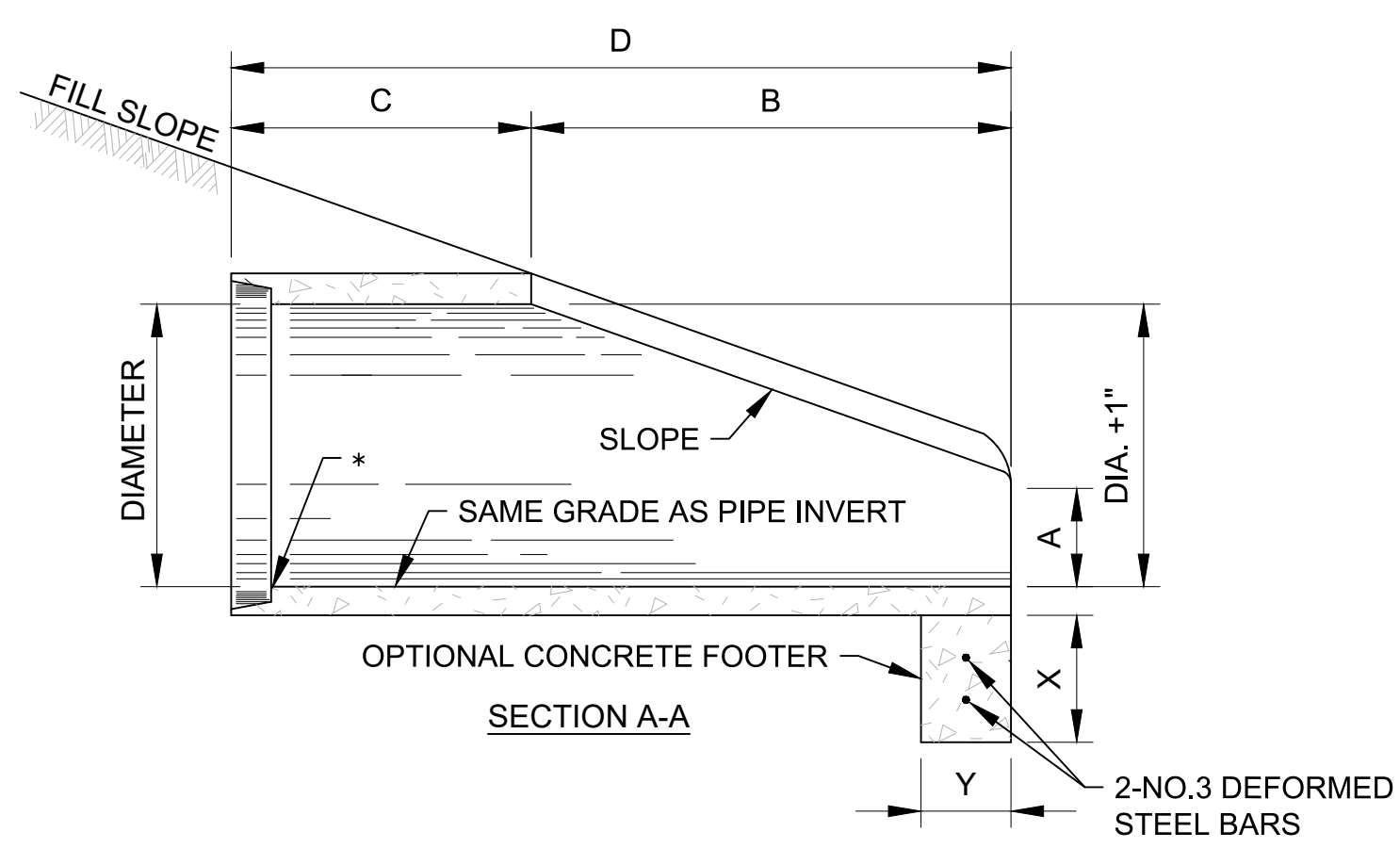


PLAN

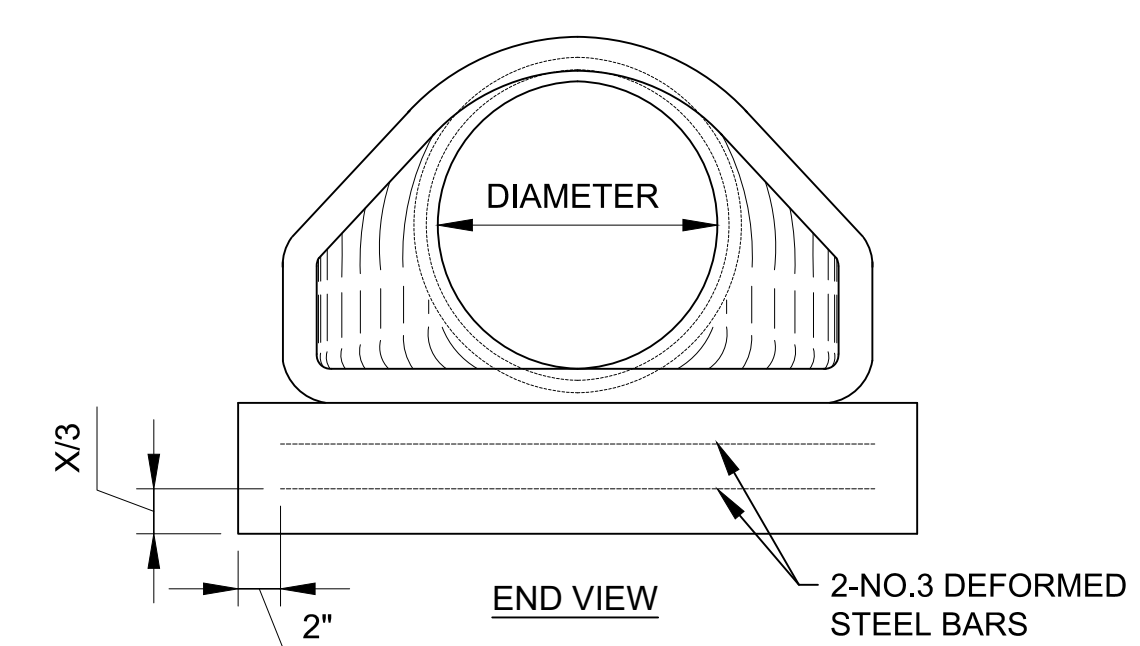
**NOTES:**

1. CONTRACTOR HAS OPTION OF FURNISHING END SECTIONS CONFORMING TO DETAILS ON THIS SHEET OR END SECTIONS CONFORMING TO DETAILS ON STANDARD MD 368.02.
2. END SECTIONS MUST BE REINFORCED TO CONFORM TO CLASS V PIPE.
3. CONCRETE FOOTER SHALL BE USED WHEN SPECIFIED ON THE PLANS. COST OF CONCRETE FOOTER TO BE INCLUDED IN PRICE OF END SECTION. CONCRETE TO BE MIX. NO.2. REINFORCEMENT TO BE NO.3 BARS.

\* INVERT ELEVATION TO BE AT THE PIPE END OF THE STANDARD END SECTION. ELEVATIONS TO BE NOTED ON THE DRAINAGE PROFILES.

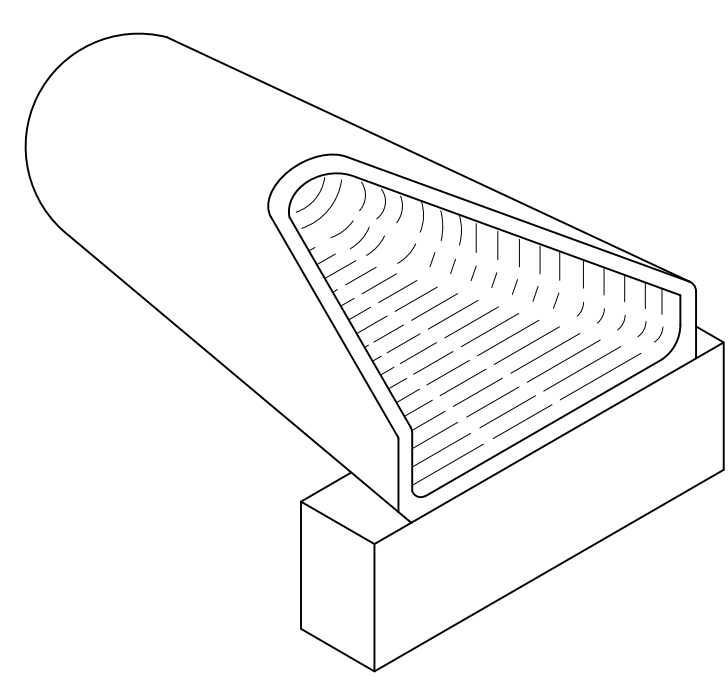


SECTION A-A



END VIEW

SEE NOTE 3 ABOVE FOR CONCRETE FOOTER

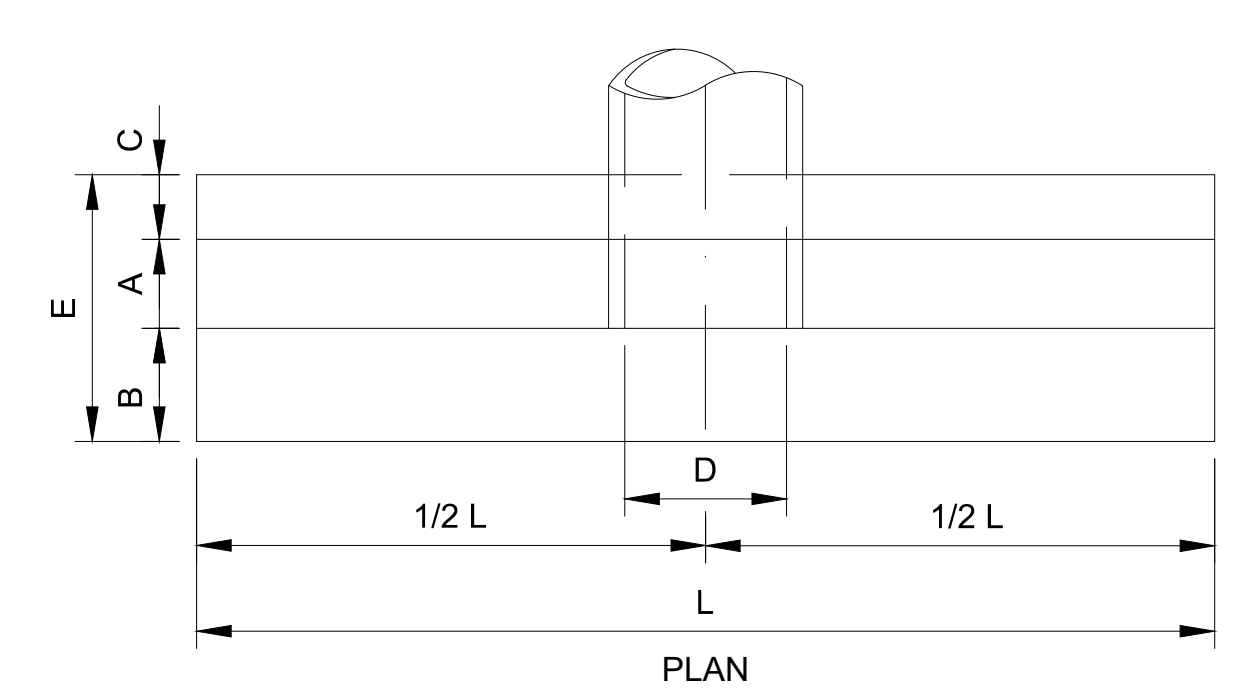


ISOMETRIC VIEW

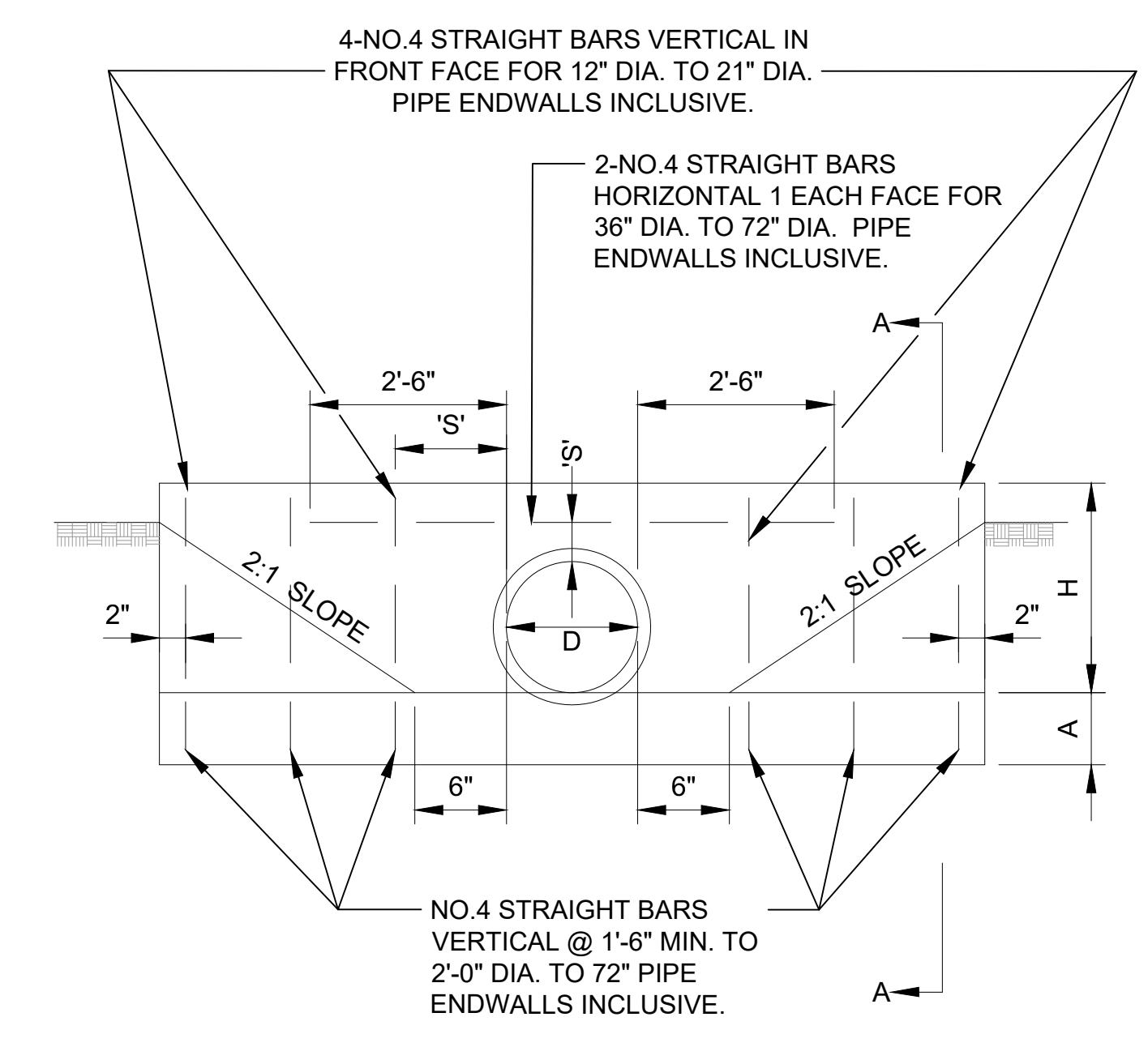
QUANTITIES FOR ESTIMATING PURPOSES ONLY

DIMENSIONS										QUANTITIES	
CONCRETE END SECTION										CONCRETE FOOTER	
DIA.	SLOPE	A	B	C	D	E	W	X	Y	CONC. C.Y.	STEEL LBS.
24"	3:1	11"	3'-7"	2'-8"	6'-3"	4'-0"	5'-0"	15"	9"	0.17	42.00

**1** END SECTION  
CV03.13 SCALE: NTS



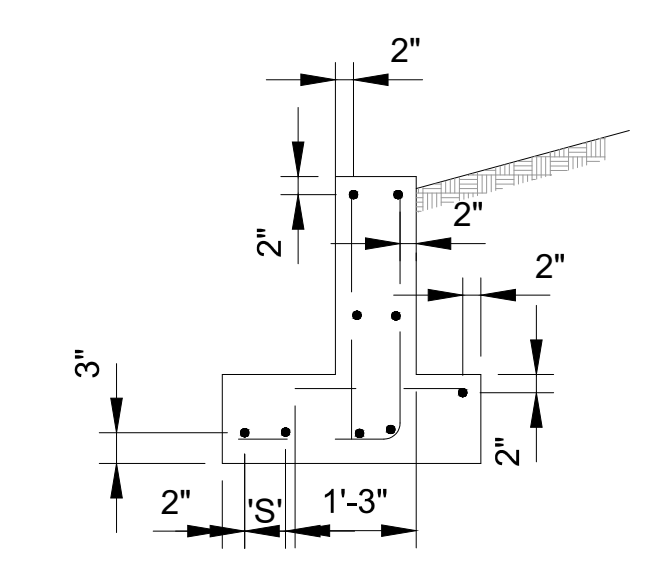
PLAN



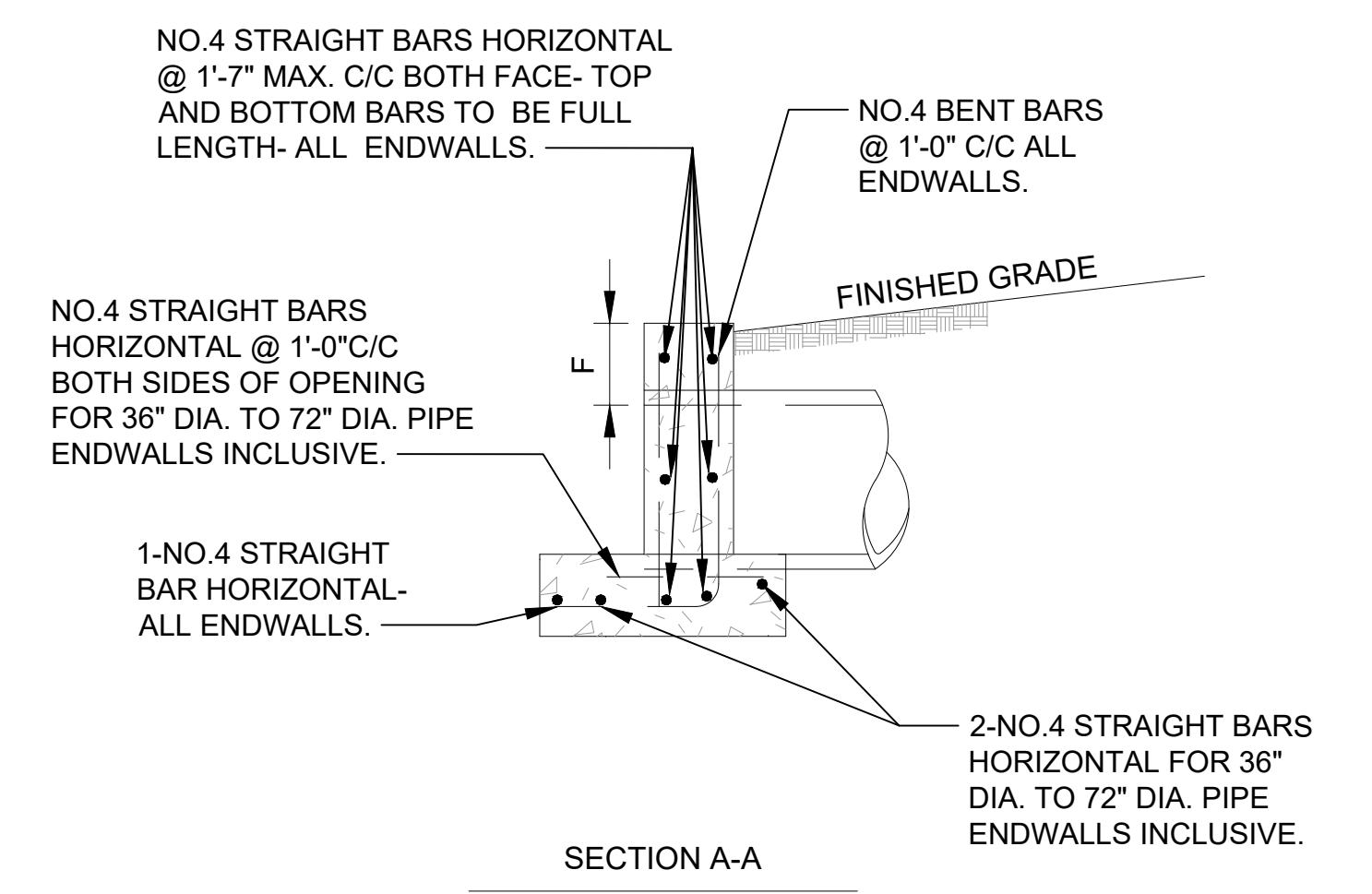
ELEVATION

QUANTITIES FOR ESTIMATING PURPOSES ONLY

OPENING		DIMENSIONS							QUANTITIES	
D	AREA	A	B	C	E	F	H	L	CONC. C.Y.	STEEL LBS.
24	3.14	9"	14"	6"	2'-5"	9"	2'-9"	11'-6"	1.56	80



DISPOSITION OF BARS DETAIL



SECTION A-A

'S' DISTANCES

- 4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
- 6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
- 8" FOR 42" DIA. TO 72" DIA. PIPES INCLUSIVE.

GENERAL NOTES

SPECIFICATIONS: LATEST MDSA  
CONCRETE SHALL BE MIX NO.2  
REINFORCING: DEFORMED STEEL BARS-NO.4  
CHAMFER: ALL EXPOSED EDGES 1"x1" OR AS DIRECTED

**2** HEADWALL  
CV03.13 SCALE: NTS

STRUCTURE	BASELINE	STATION	OFFSET	PROPOSED RIM ELEV.	PIPES IN	PIPES OUT
HW-D1	TAXIWAY D	32+40.85	114.52' R	686.25'		24" RCP INV.683.50'
ES-D1	TAXIWAY D	32+41.33	149.76' L	684.51'	24" RCP INV.682.18'	

\*RCP PIPE SHALL BE CLASS V

NAME	SIZE	LENGTH	SLOPE	MATERIAL	START STRUCTURE	END STRUCTURE
PIPE D1	24"	264.29'	0.50%	RCP	HW-D1	ES-D1

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**

FILE NAME: O:\HGR Projects\2018-1303\CAD\SHEETS\042\_CV03.12\_Drainage Details.dwg PLOTTED: Monday, February 17, 2020 - 7:33am USER: GROSS



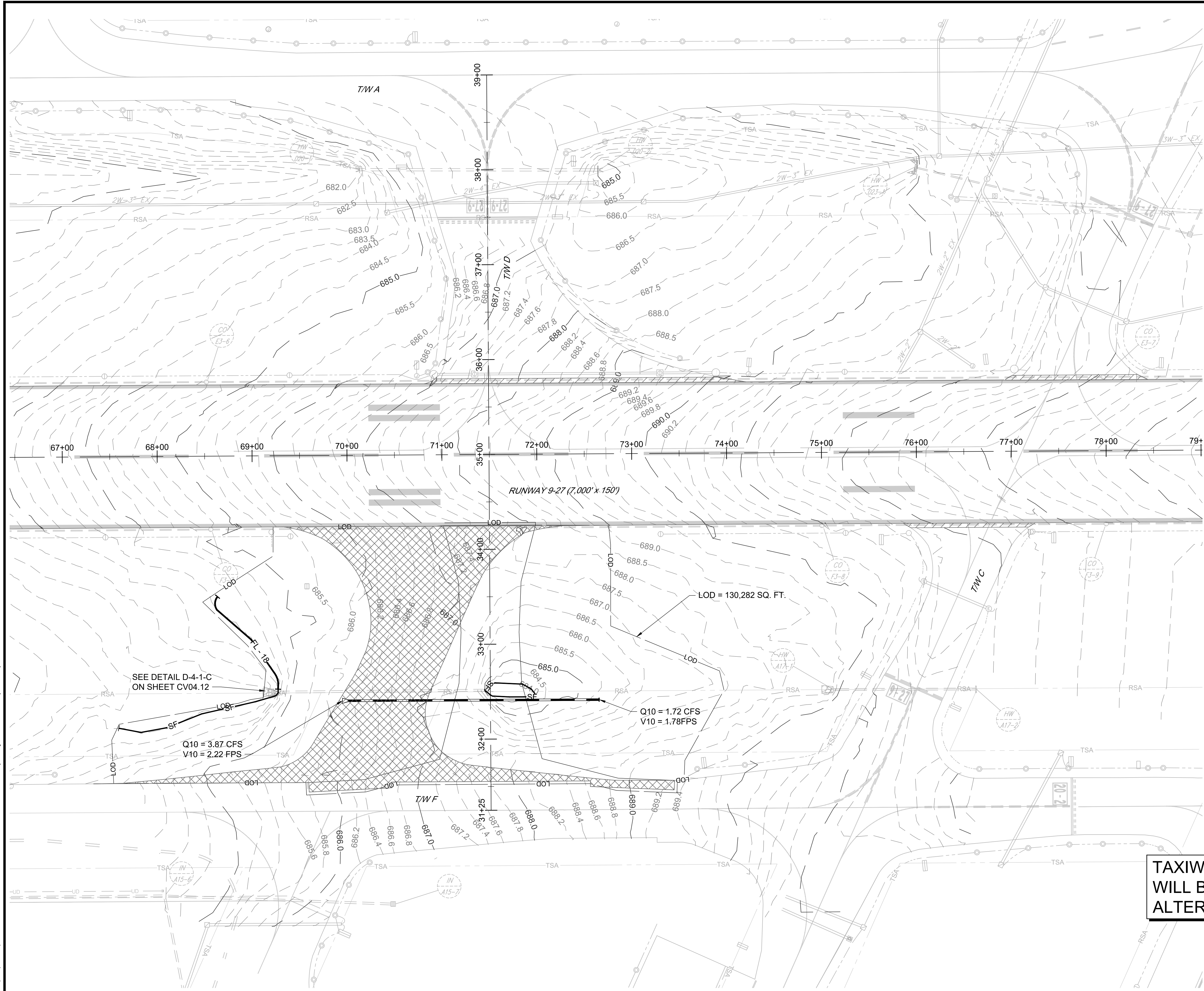
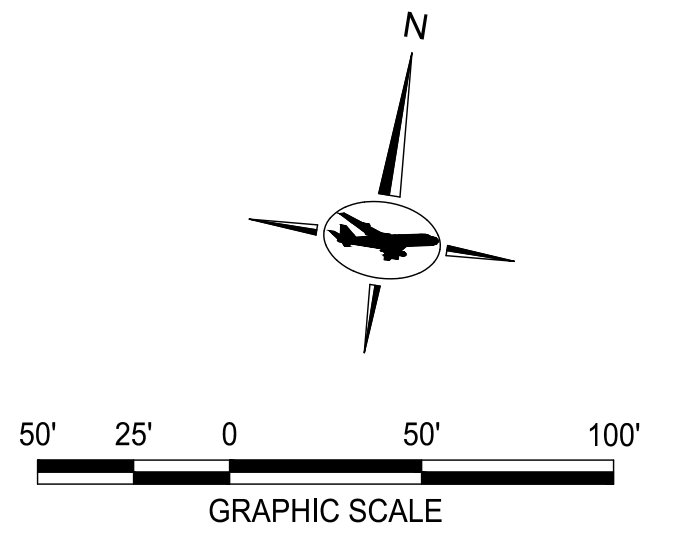
SEAL:  
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			



PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**  
SHEET TITLE:  
**DRAINAGE DETAILS 2 AND SCHEDULES**  
SCALE: AS SHOWN  
DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.:  
**CV03.13**  
**43 OF 90**

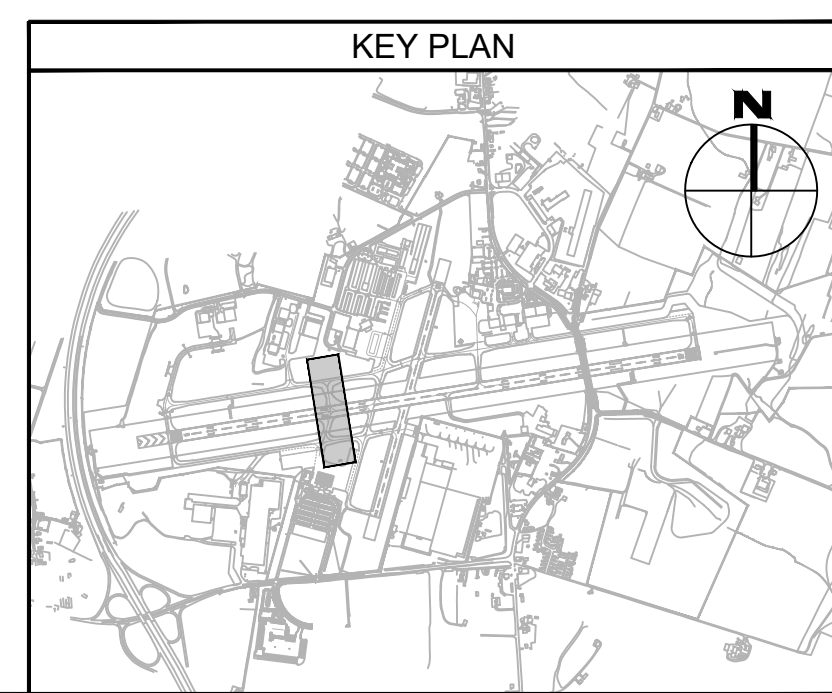


- EROSION AND SEDIMENT CONTROL NOTES:**
1. LOD OFFSET FOR CLARITY.
  2. FOR E&S NOTES SEE SHEET CV04.11.
  3. FOR SEQUENCE OF CONSTRUCTION AND DETAILS SEE SHEET CV04.12.

- LEGEND:**
- ASPHALT REMOVAL
  - AT GRADE INLET PROTECTION
  - SILT FENCE
  - FILTER LOG
  - LIMIT OF DISTURBANCE
  - EXISTING MAJOR CONTOURS
  - EXISTING MINOR CONTOURS
  - PROPOSED MAJOR CONTOURS
  - PROPOSED MINOR CONTOURS
  - PROPOSED DRAINAGE PIPE

**NOTE TO CONTRACTOR:  
SEDIMENT CONTROL WILL BE STRICTLY ENFORCED**

**TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"**



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\004\_CV04.01\_Initial Erosion and Sediment Control Plan - Torrey D.ang PLOTTED: Monday, February 17, 2020 - 7:33am USER: G.Ross

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

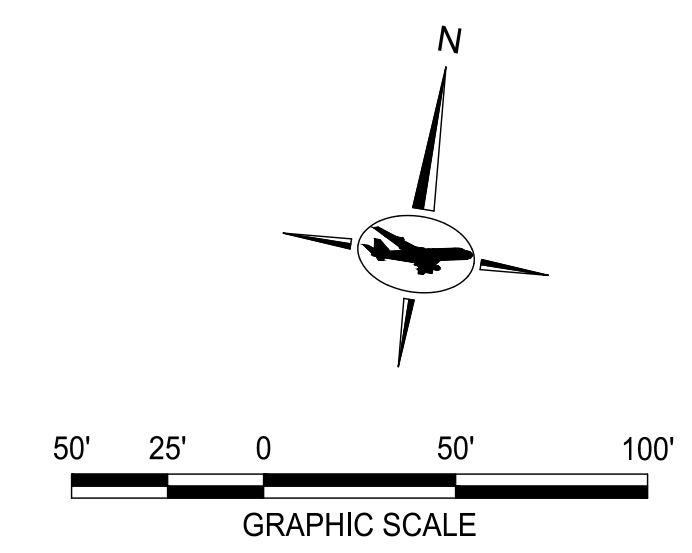
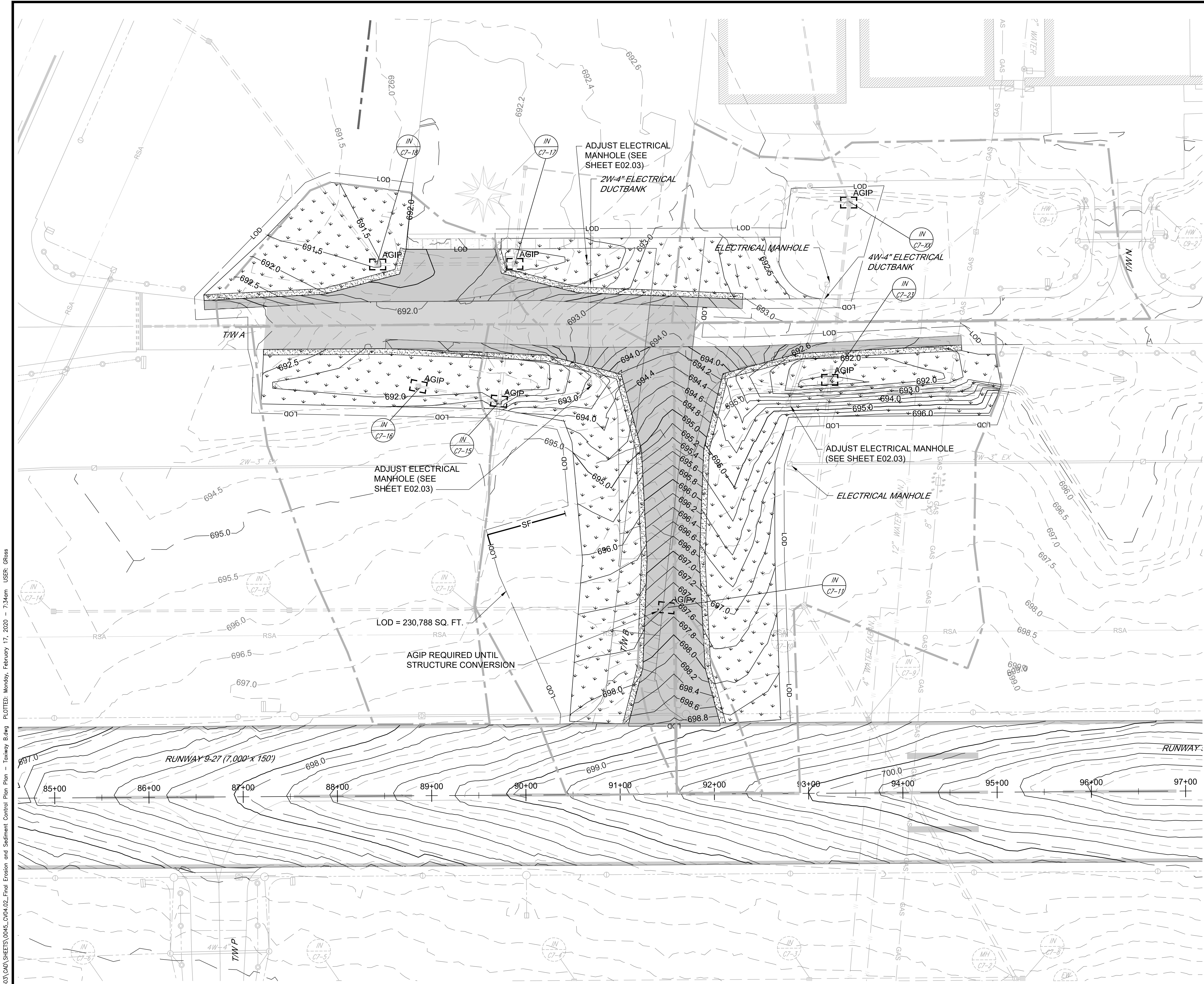
SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET TITLE: <b>INITIAL EROSION AND SEDIMENT CONTROL PLAN - TAXIWAY D</b>	SHEET No.: <b>CV04.01</b>
SCALE: AS SHOWN	DATE: FEBRUARY 2020



**EROSION AND SEDIMENT CONTROL NOTES:**

1. LOD OFFSET FOR CLARITY.
2. FOR E&S NOTES SEE SHEET CV04.11.
3. FOR SEQUENCE OF CONSTRUCTION AND DETAILS SEE SHEET CV04.12.

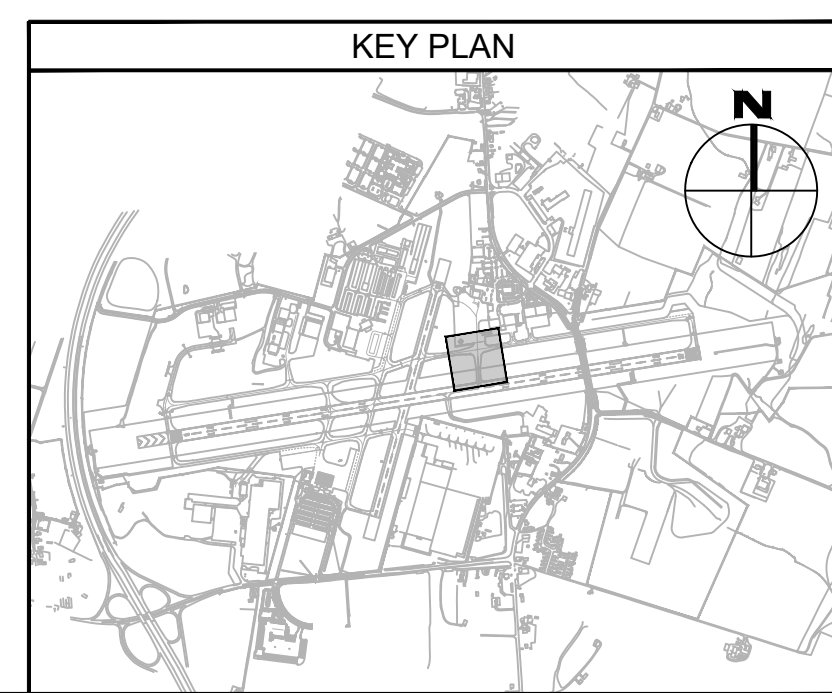
**LEGEND:**

- FULL DEPTH ASPHALT CONSTRUCTION
- MILL AND OVERLAY ASPHALT
- TOPSOIL/SODDING
- TOPSOIL/SEED/MULCH
- AT GRADE INLET PROTECTION
- SILT FENCE
- LIMIT OF DISTURBANCE
- EXISTING MAJOR CONTOURS
- EXISTING MINOR CONTOURS
- PROPOSED MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- DRAINAGE AREA BOUNDARY

DRAINAGE AREA	
INLET	AREA (acre)
C7-11	0.37
C7-15	2.09
C7-16	1.88
C7-17	0.37
C7-18	0.81
C7-23	3.05
C7-XX	2.01

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**

**NOTE TO CONTRACTOR: SEDIMENT CONTROL WILL BE STRICTLY ENFORCED**



FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\0045\_CV04.02\_Final Erosion and Sediment Control Plan - Taxiway B.dwg PLOTTED: Monday, February 17, 2020 - 7:34am USER: GRoas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

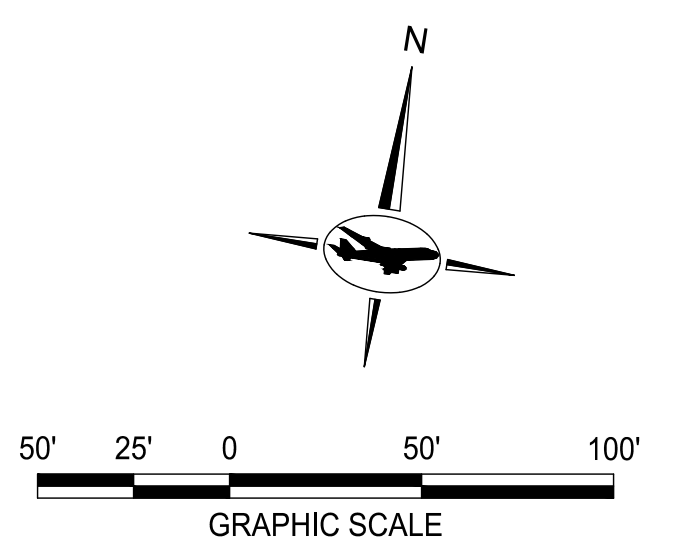
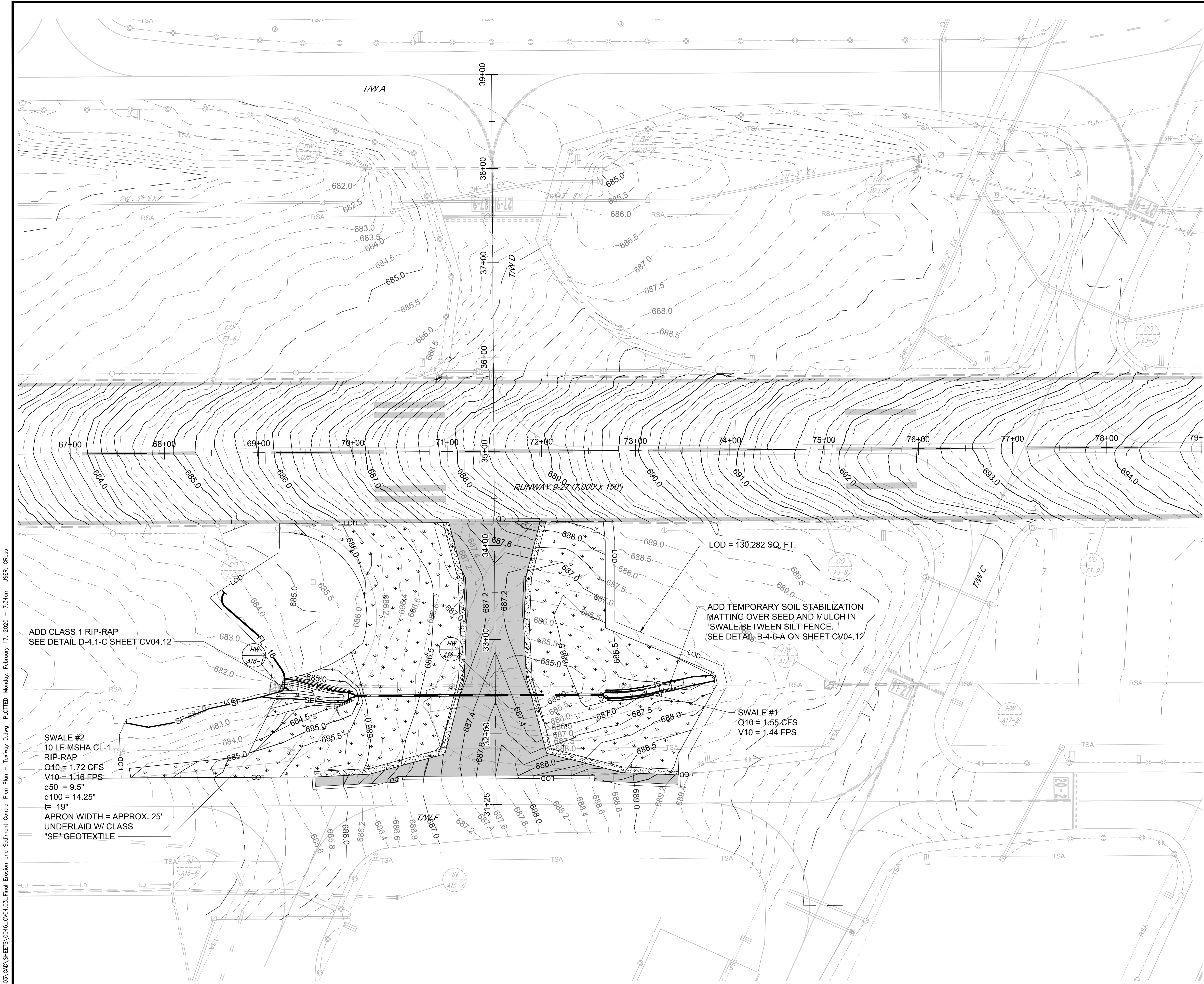
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**FINAL EROSION AND SEDIMENT CONTROL PLAN - TAXIWAY B**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV04.02**  
45 OF 90



- EROSION AND SEDIMENT CONTROL NOTES:**
1. LOD OFFSET FOR CLARITY.
  2. FOR E&S NOTES SEE SHEET CV04.11.
  3. FOR SEQUENCE OF CONSTRUCTION AND DETAILS SEE SHEET CV04.12.

- LEGEND:**
- FULL DEPTH ASPHALT CONSTRUCTION
  - SODDING/TOPSOIL
  - SEEDING/TOPSOIL
  - AT GRADE INLET PROTECTION
  - SILT FENCE
  - FILTER LOG
  - LIMIT OF DISTURBANCE
  - EXISTING MAJOR CONTOURS
  - EXISTING MINOR CONTOURS
  - PROPOSED MAJOR CONTOURS
  - PROPOSED MINOR CONTOURS
  - PROPOSED DRAINAGE PIPE

ADD CLASS 1 RIP-RAP  
SEE DETAIL D-4.1-C SHEET CV04.12

SWALE #2  
10 LF MSHA CL-1  
RIP-RAP  
Q10 = 1.72 CFS  
V10 = 1.16 FPS  
d50 = 9.5"  
d100 = 14.25"  
t = 19"  
APRON WIDTH = APPROX. 25'  
UNDERLAID W/ CLASS  
"SE" GEOTEXTILE

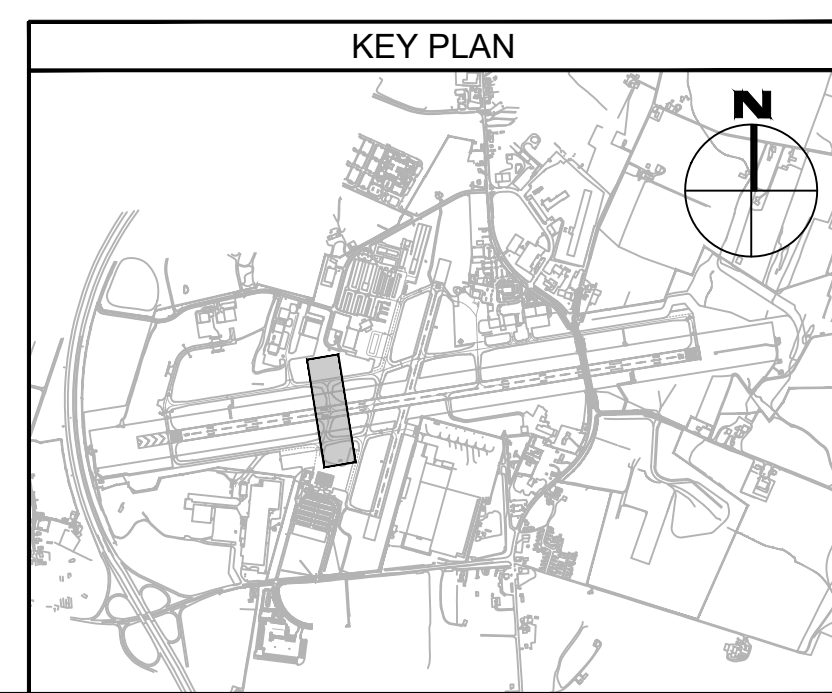
LOD = 130,282 SQ. FT.

ADD TEMPORARY SOIL STABILIZATION  
MATTING OVER SEED AND MULCH IN  
SWALE BETWEEN SILT FENCE.  
SEE DETAIL B-4-6-A ON SHEET CV04.12

SWALE #1  
Q10 = 1.55 CFS  
V10 = 1.44 FPS

**TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"**

**NOTE TO CONTRACTOR:  
SEDIMENT CONTROL WILL BE  
STRICTLY ENFORCED**



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\0046\_CV04.03\_Final Erosion and Sediment Control Plan - Taxiway D.dwg PLOTTED: Monday, February 17, 2020 - 7:34am USER: GRoas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**FINAL EROSION AND SEDIMENT CONTROL  
PLAN - TAXIWAY D**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV04.03**  
46 OF 90

**BID DOCUMENTS**

**SOIL EROSION, SEDIMENT CONTROL, & SEEDING NOTES**

1. ALL SOIL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE PROVISIONS OF THE APPROVED PLAN.
2. ALL GRADING AND STABILIZATION SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", "SECTION B - GRADING AND STABILIZATION" AND THE PROVISIONS OF THE APPROVED PLAN.
3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) ARE TO BE CONSTRUCTED AND/OR INSTALLED PRIOR TO OR AT THE INITIATION OF GRADING IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND THE APPROVED PLAN.
4. A GRADING UNIT IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME AND IS LIMITED TO 20 ACRES. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY AND/OR THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (APPROVAL AUTHORITY). UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
5. FOR INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, TEMPORARY OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN:
  - a) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
  - b) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
6. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITHIN THE 7 DAY STABILIZATION REQUIREMENT, AS WELL AS, STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION (AS APPLICABLE).
7. ALL CONSTRUCTED CHANNELS AND SWALES SHALL HAVE SPECIFIED TREATMENT INSTALLED TO THE DESIGN FLOW DEPTH COMPLETED DOWNSTREAM TO UPSTREAM AS CONSTRUCTION PROGRESSES. SEE SHEET CV04.12 FOR E&S INSTALLATION DETAILS.
8. ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 3 DAYS OF INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
9. ELECTRIC POWER, TELEPHONE, AND GAS LINES ARE TO BE COMPACTED, SEEDED, AND MULCHED WITHIN 3 DAYS AFTER INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
10. NO SLOPE SHALL BE GREATER THAN 2:1.
11. CONTRACTOR TO USE EXISTING PAVED ROADS /TAXIWAYS TO ACCESS SITE. IF ANY DIRT IS TRACKED ONTO ROADWAYS, A STABILIZED CONSTRUCTION ENTRANCE WILL BE REQUIRED.
12. ANY SPOIL OR BORROW, MUST COME FROM OR GO TO A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.
13. AS REQUIRED BY SECTION B, OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, "ADEQUATE VEGETATIVE STABILIZATION", IS DEFINED AS 95 PERCENT GROUND COVER. THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE PROJECT ADHERE TO THIS FOR SCHEDULING OF THE FINAL SITE CLOSEOUT REVIEW, AND/OR RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL.

FOR SITES 1.0 ACRE OR MORE, THE FOLLOWING ARE REQUIRED:

- A. MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH A CONSTRUCTION ACTIVITY, NPDES PERMIT NUMBER MDRC, STATE DISCHARGE PERMIT NUMBER 14GP, OR AN INDIVIDUAL PERMIT.
- B. THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT- NOI) APPLICATION AND PERMIT SHALL BE POSTED AND/OR AVAILABLE ON-SITE AT ALL TIMES.
- C. DURING CONSTRUCTION, ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) SHALL BE INSPECTED AND RECORDED ON THE "STANDARD INSPECTION FORM", "GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY" PER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT - NOI).
- D. FOLLOWING CONSTRUCTION AND RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, I.E., ALL PORTIONS OF A SITE HAVE BEEN PERMANENTLY STABILIZED, AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE AUTHORIZED PERMITTEE SHALL SUBMIT THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL/INDIVIDUAL PERMIT - NOTICE OF TERMINATION-NOT.

**STANDARD UTILITY NOTES:**

1. CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED AND BACKFILLED IN ONE WORK SHIFT.
2. CONTRACTOR TO PLACE WASTED MATERIALS IN A DUMP TRUCK AND DISPOSE OF AT AN APPROVED LOCATION. COORDINATE WITH RPR.
3. CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE DISTURBED AREAS THE SAME WORK SHIFT.
4. IN AREAS WHERE THE CONSTRUCTION TAKES PLACE OUTSIDE OF THE EXISTING ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM THE TRENCH ON THE UPHILL SIDE.
5. IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER.
6. CONTRACTOR TO SWEEP RUNWAY, TAXIWAYS, OR STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION. COORDINATE WITH RPR.
7. CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH HYDROSEED & MULCH OR APPROPRIATE PAVEMENT REPAIR.

**PERMANENT SEEDING SUMMARY**

SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.3					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATE	SEEDING DEPTHS	N	P205	K20	
6	TALL FESCUE WHITE CLOVER PERENNIAL RYE GRASS	40 8 25	$\frac{3}{15} - \frac{6}{15}$ $\frac{8}{15} - \frac{10}{15}$	$\frac{1}{4} - \frac{1}{2}$ "	45 LB/AC (1.0 LB/ 1000 S.F.)	90 LB/AC (2LB/ 1000 S.F.)	90 LB/AC (2LB/ 1000 S.F.)	2 TONS/AC (90LB/ 1000 S.F.)
PERMANENT SEEDING SHALL COMPLY WITH SECTION B-4-5 THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL								

**TEMPORARY SEEDING SUMMARY**

SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.1					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATE	SEEDING DEPTHS		
2	BARLEY (HORDEUM VULGARE)	96	$\frac{1}{15} - \frac{2}{15}$ $\frac{1}{15} - \frac{3}{15}$	1.0"	436 LBS./AC. (10 LBS/ 1000 S.F.)	2 TONS/AC (90LBS/ 1000 S.F.)
TEMPORARY SEEDING SHALL COMPLY WITH SECTION B-4-4 THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL						

**TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"**

**GRADING PERMIT NO. GP-19-005  
NOTE TO CONTRACTOR:  
SEDIMENT CONTROL WILL BE  
STRICTLY ENFORCED**

FOR EROSION AND SEDIMENT CONTROL ONLY.

FILE NAME: D:\HGR\Projects\2018-1303\CAD\Sheets\0047\_004\_11\_Erosion and Sediment Control Notes 1.dwg PLOTTED: Monday, February 17, 2020 - 7:34am USER: GReas



SEAL:

Professional Certification:  
I hereby certify that these documents  
were prepared or approved by me,  
and that I am a duly licensed  
professional engineer under the laws  
of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED: G.F.R.	No.	DATE	DESCRIPTION
DRAWN: N.B. / S.S.			
CHECKED: B.C. / K.M.F.			
APPROVED: M.S.K.			

BID DOCUMENTS



PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE: EROSION AND SEDIMENT CONTROL NOTES 1	
SCALE: AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.:  
**CV04.11**  
47 OF 90

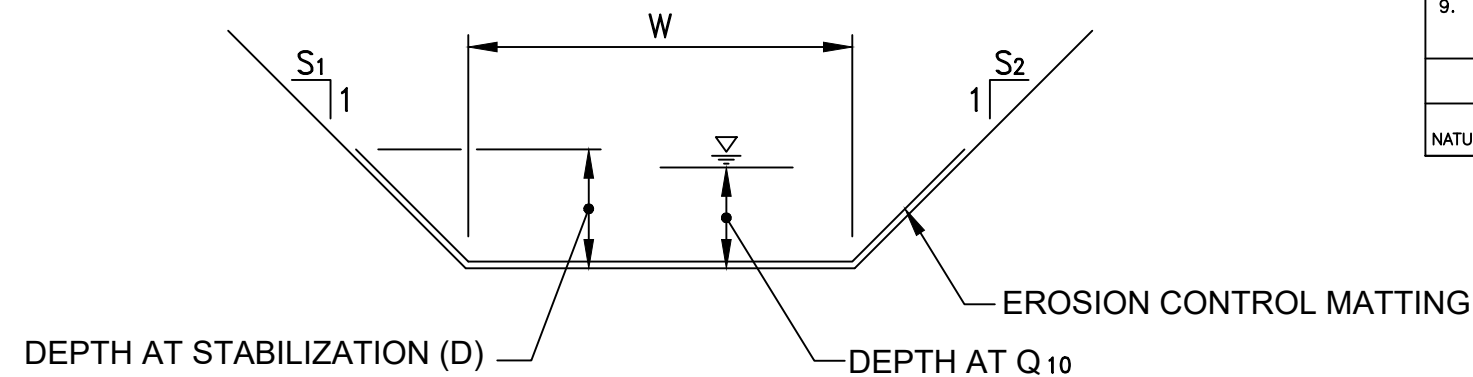
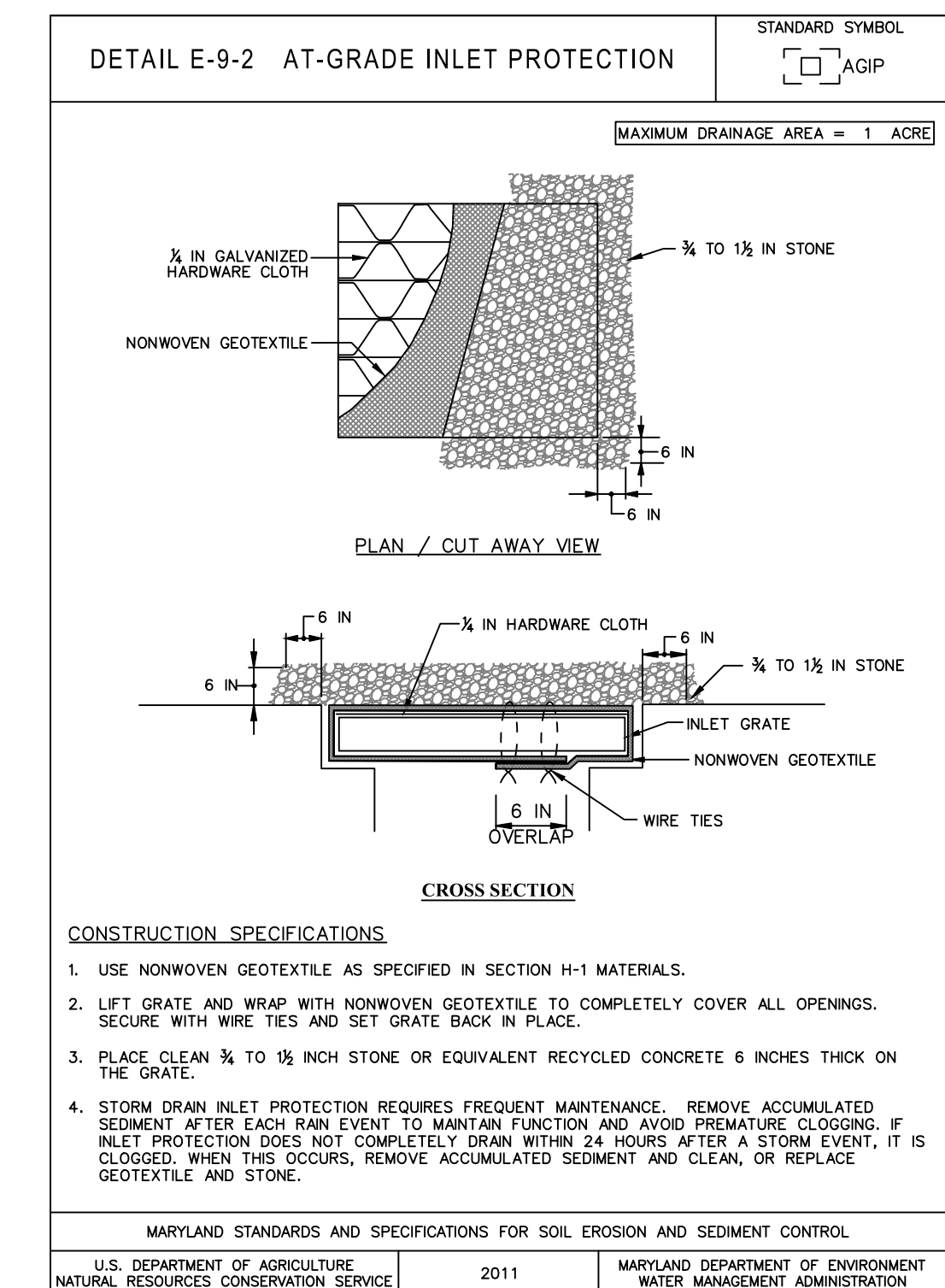
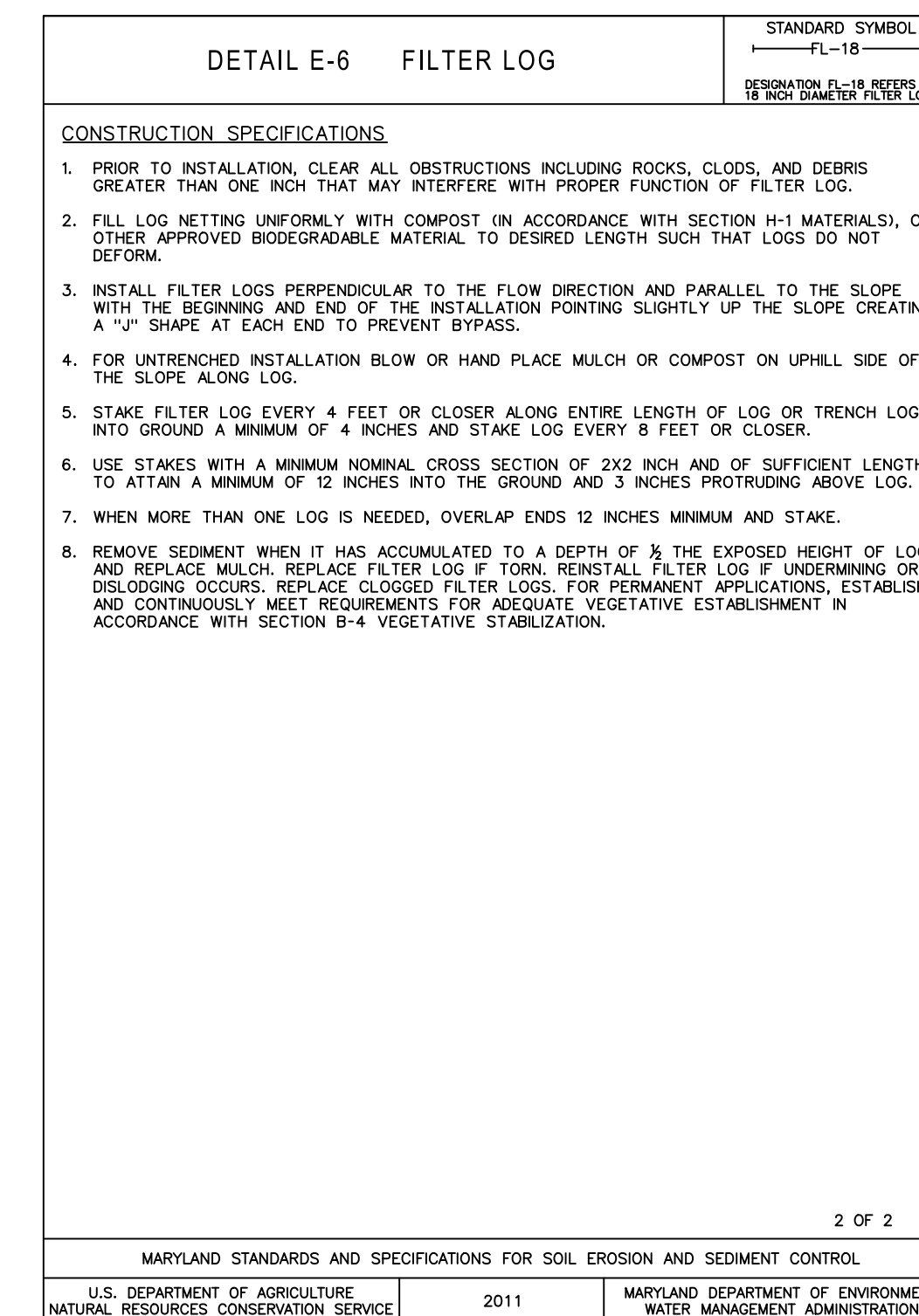
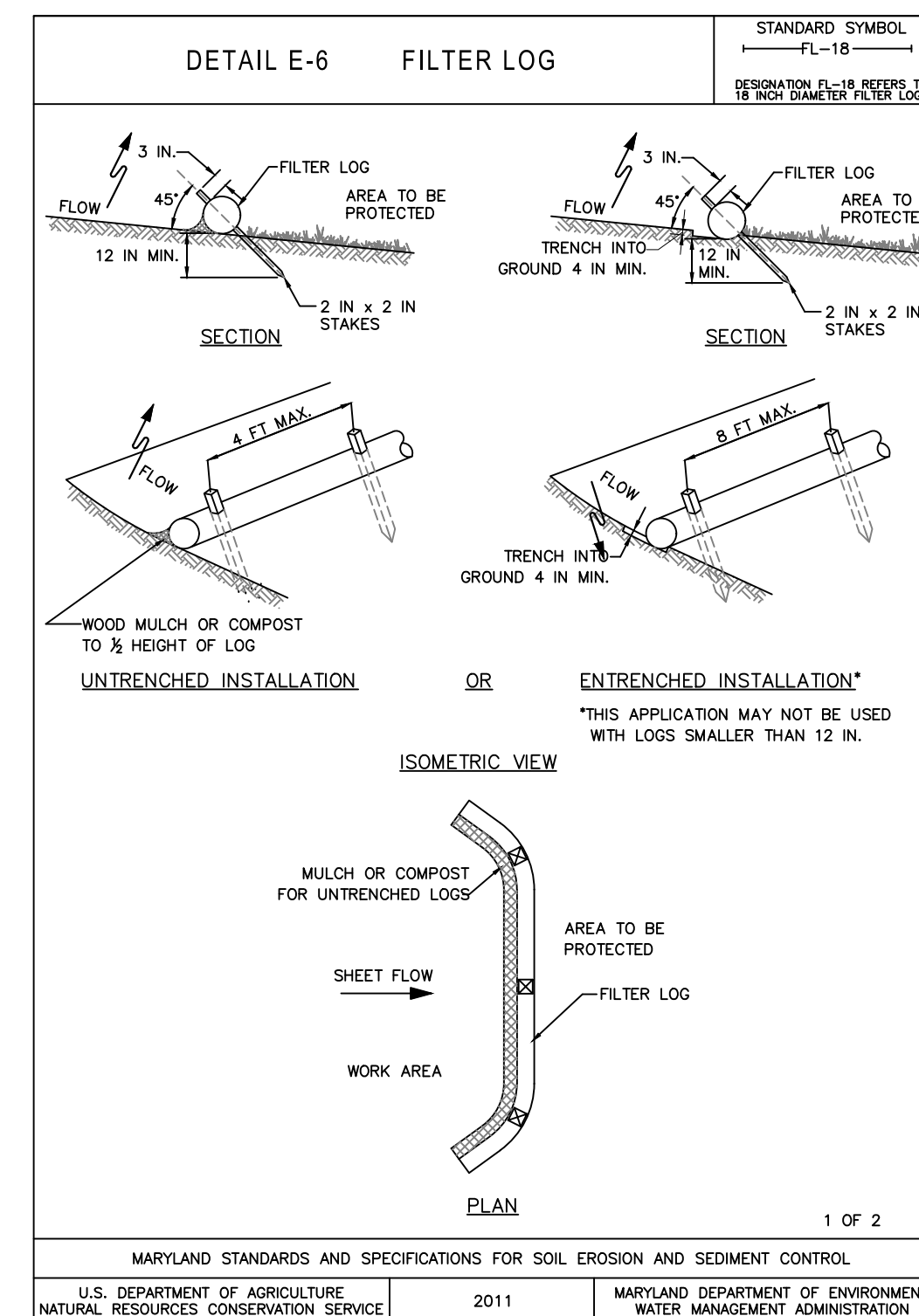
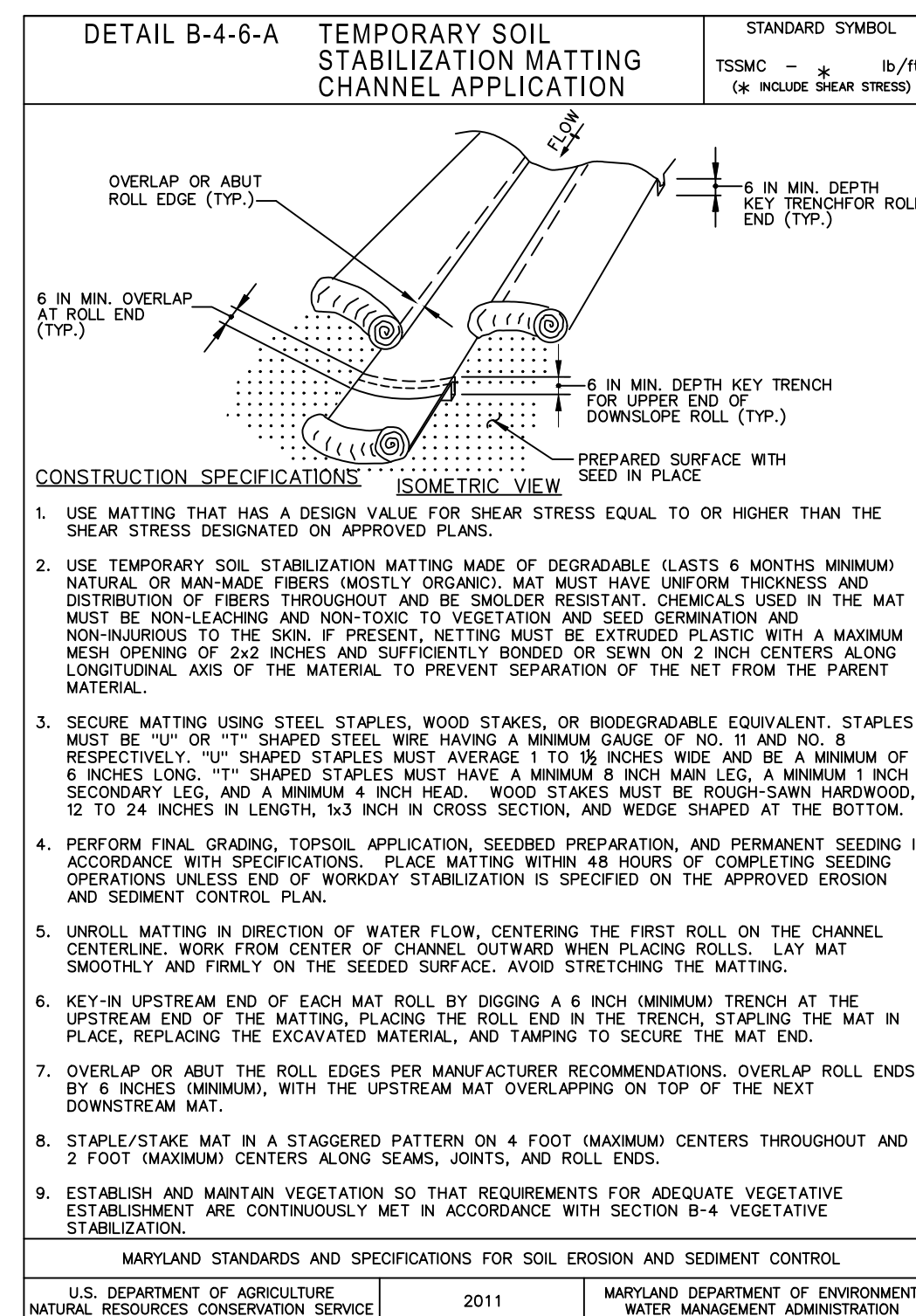
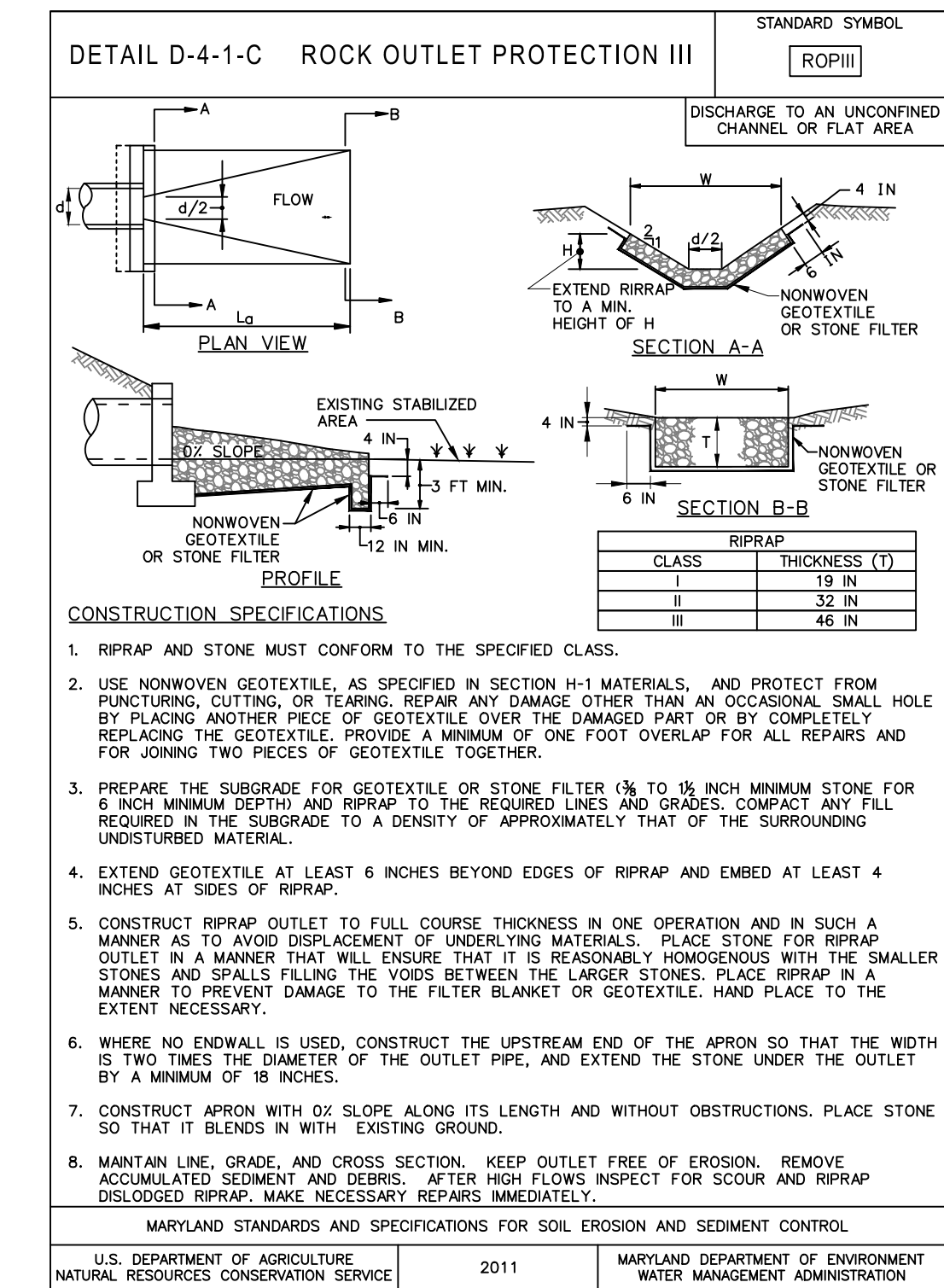
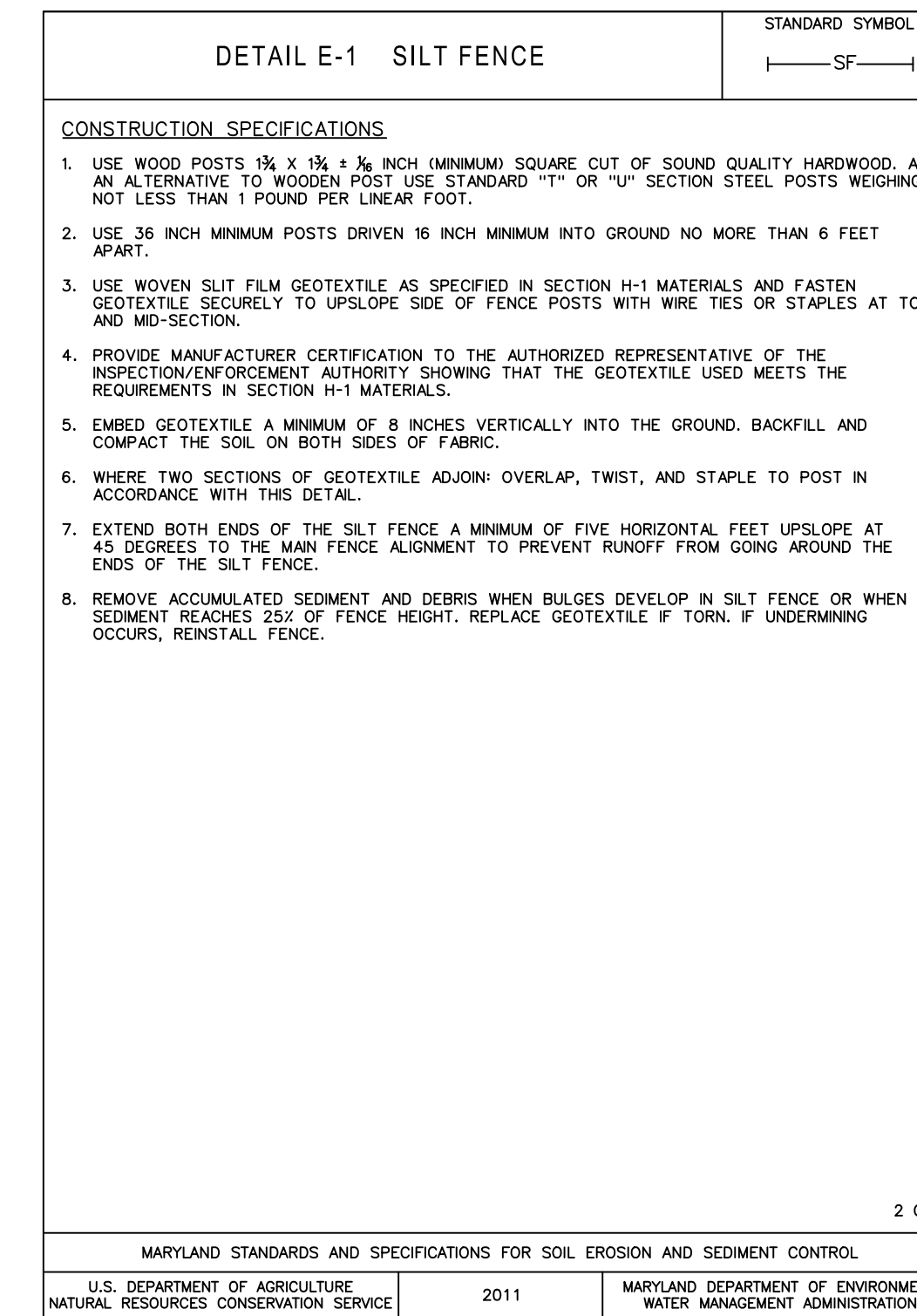
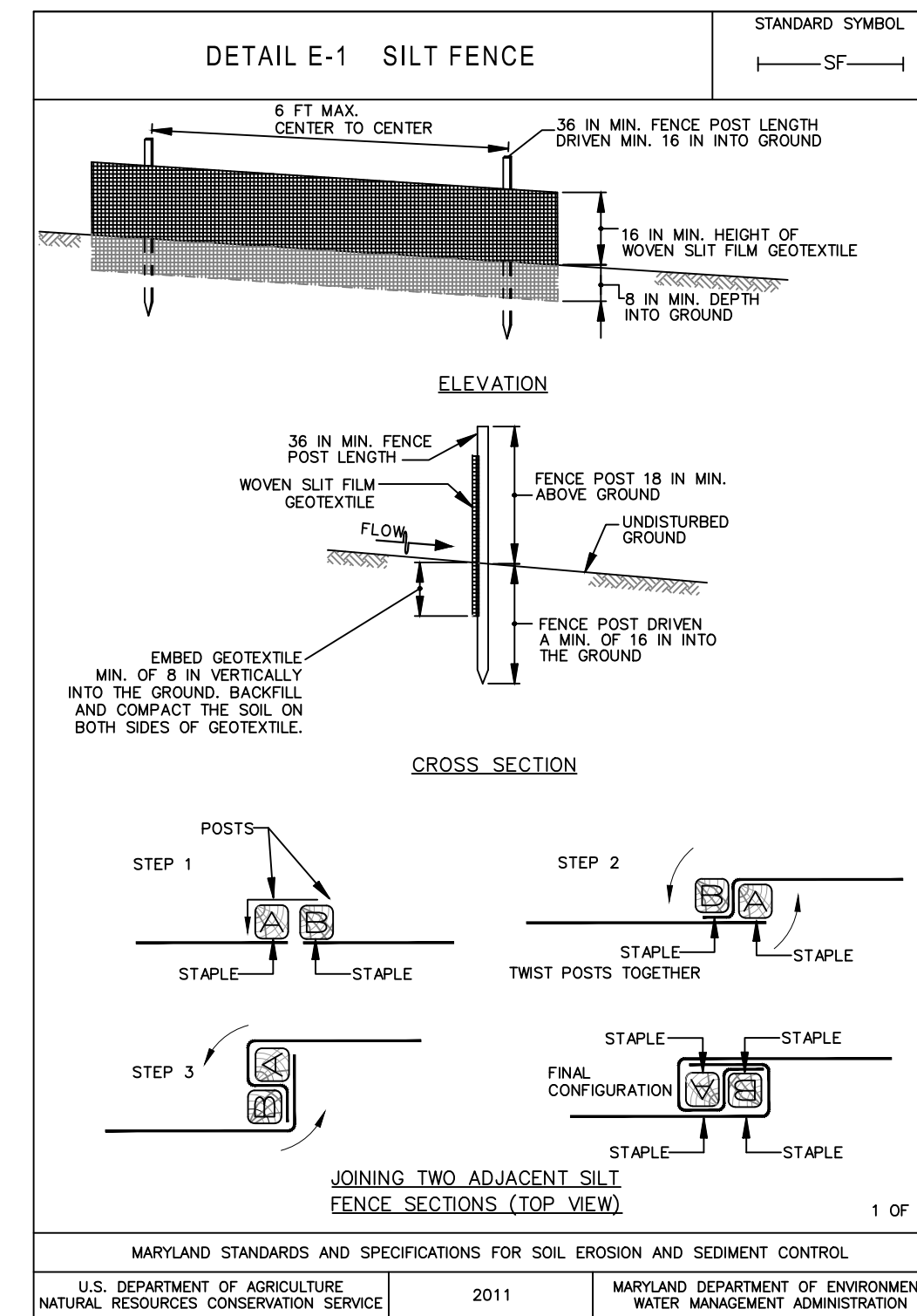
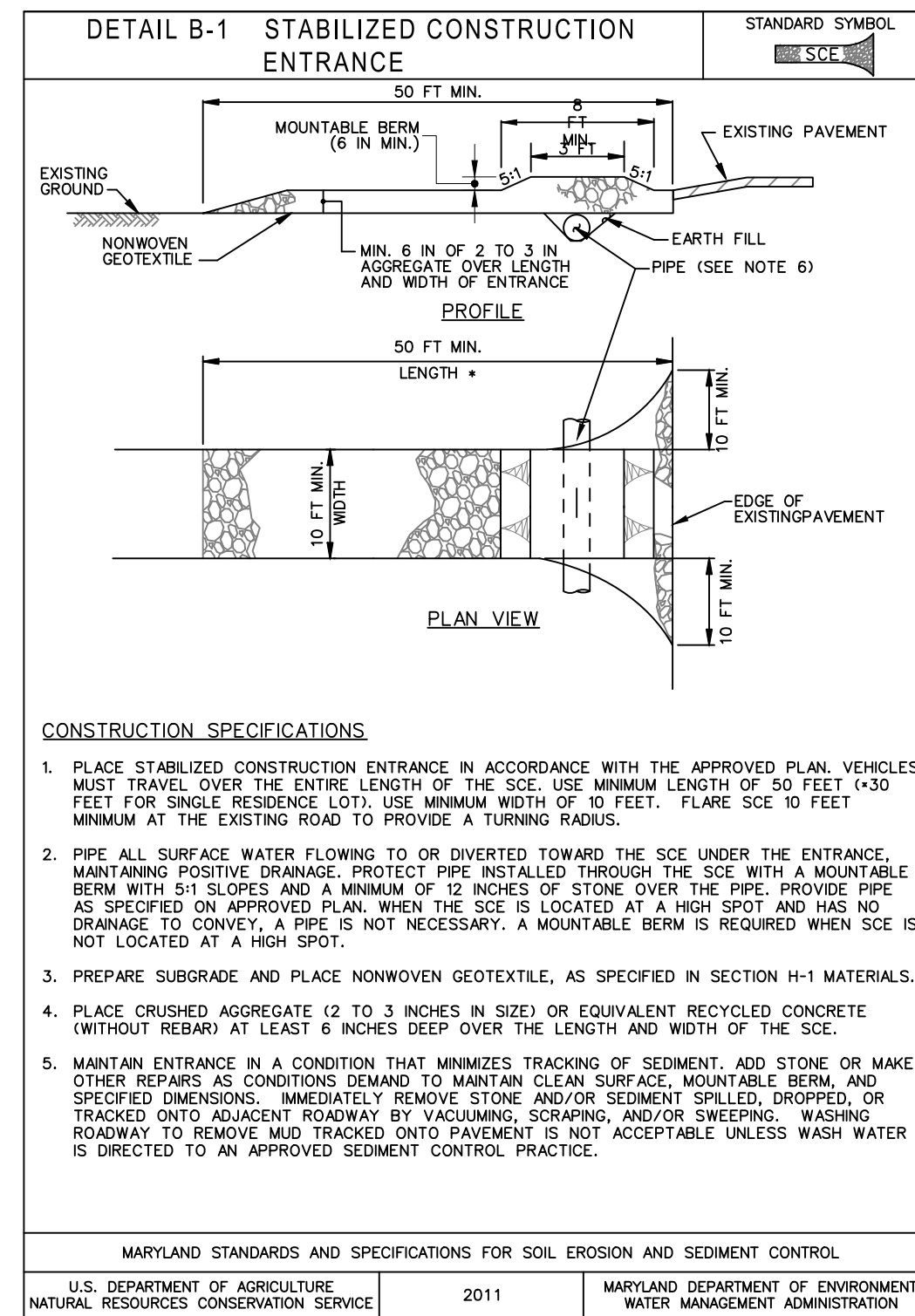
SEQUENCE OF CONSTRUCTION:

TAXIWAY B / B1

1. NOTIFY WSCSD AT 301-797-6821 (EXT. 3) AT LEAST (5) DAYS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. NOTIFY THE COUNTY AT 240-313-2460 AT LEAST (5) DAYS PRIOR TO START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE) AS NEEDED.
3. INSTALL ALL PERIMETER SEDIMENT CONTROLS : INLET PROTECTION, SILT FENCE, FILTER LOG, ETC. TEMPORARILY SEED AND MULCH ALL TOPSOIL STOCKPILES LOCATED AS SHOWN ON SHEET GN01.00 IN ACCORDANCE WITH THE SOIL EROSION, SEDIMENT CONTROL, & SEEDING NOTES AND SUMMARIES.
4. CONVERT EXISTING INLET IN C-7-11 TO DRAINAGE VAULT DV-1
5. DEMOLISH EXISTING PAVEMENT AND CONSTRUCT NEW TAXIWAY B PAVEMENT AND COMPLETE GRADING.
6. INSTALL ELECTRICAL CONDUITS AND SIGNAGE COMPONENTS.
7. PERFORM PERMANENT SODDING, SEEDING, AND MULCHING IN ACCORDANCE WITH THE SOIL EROSION, SEDIMENT CONTROL, & SEEDING NOTES AND SUMMARIES.
8. NOTIFY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT 301-797-6821, EXT. 3 AND THE COUNTY AT 240-313-2460 AT LEAST (5) DAYS PRIOR TO THE REMOVAL OF ANY SOIL EROSION AND SEDIMENT CONTROL FEATURES TO SCHEDULE A FINAL SITE CLOSEOUT REVIEW MEETING (VEGETATION MUST MEET THE 95% OVERALL STABILIZATION REQUIREMENT PER 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL PRIOR TO SCHEDULING SAID MEETING.)
9. STABILIZE AREAS OF SOIL EROSION AND SEDIMENT CONTROL REMOVAL.

TAXIWAY D

1. NOTIFY WSCSD AT 301-797-6821 (EXT. 3) AT LEAST (5) DAYS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING. NOTIFY THE COUNTY AT 240-313-2460 AT LEAST (5) DAYS PRIOR TO START OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE) AS NEEDED.
3. INSTALL ALL PERIMETER SEDIMENT CONTROLS (LIKE SILT FENCE, FILTER LOG, ETC.)
4. TEMPORARILY SEED AND MULCH ALL TOPSOIL STOCKPILES IN ACCORDANCE WITH THE SOIL EROSION, SEDIMENT CONTROL, & SEEDING NOTES AND SUMMARIES.
5. DEMOLISH EXISTING PAVEMENT.
6. INSTALL NEW STORM DRAINAGE PIPE AND STRUCTURES.
7. INSTALL ELECTRICAL CONDUITS AND SIGNAGE COMPONENTS.
8. CONSTRUCT NEW TAXIWAY D PAVEMENT AND COMPLETE GRADING.
9. PERFORM PERMANENT SODDING, SEEDING, AND MULCHING IN ACCORDANCE WITH THE SOIL EROSION, SEDIMENT CONTROL, & SEEDING NOTES AND SUMMARIES.
10. NOTIFY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT 301-797-6821, EXT. 3 AND THE COUNTY AT 240-313-2460 AT LEAST (5) DAYS PRIOR TO THE REMOVAL OF ANY SOIL EROSION AND SEDIMENT CONTROL FEATURES TO SCHEDULE A FINAL SITE CLOSEOUT REVIEW MEETING (VEGETATION MUST MEET THE 95% OVERALL STABILIZATION REQUIREMENT PER 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL... PRIOR TO SCHEDULING SAID MEETING.)
11. STABILIZE AREAS OF SOIL EROSION AND SEDIMENT CONTROL REMOVAL.



LOCATION	Q10 (CFS)	V10 (FPS)	DEPTH AT Q10 (FT.)	D (FT.)	W (FT.)	S1 (FT.)	S2 (FT.)	CHANNEL SLOPE	REMARKS
SWALE 1 (ES/D1)	1.55	1.44	.24	1.00	4	2	2	3.5%	SEE SHEET CV04.03
SWALE 2 (ES/D1)	1.72	1.16	.32	1.00	4	2	2	1.6%	SEE SHEET CV04.03

TYPICAL CROSS SECTION FOR DITCH NOT TO SCALE

TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"

GRADING PERMIT NO: GP-19-005  
NOTE TO CONTRACTOR:  
SEDIMENT CONTROL WILL BE STRICTLY ENFORCED

FOR EROSION AND SEDIMENT CONTROL ONLY.



SEAL: Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 32405 Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

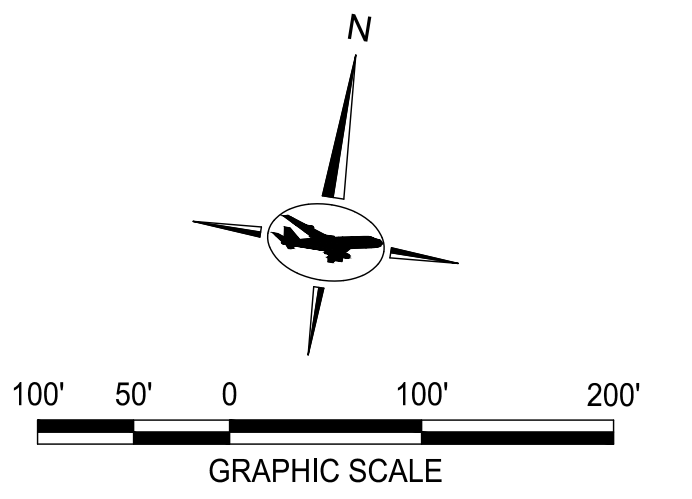


PROJECT TITLE: RUNWAY 9-27 REHABILITATION  
SHEET TITLE: EROSION AND SEDIMENT CONTROL NOTES 2 AND DETAILS  
SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: CV04.12  
48 OF 90



TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"

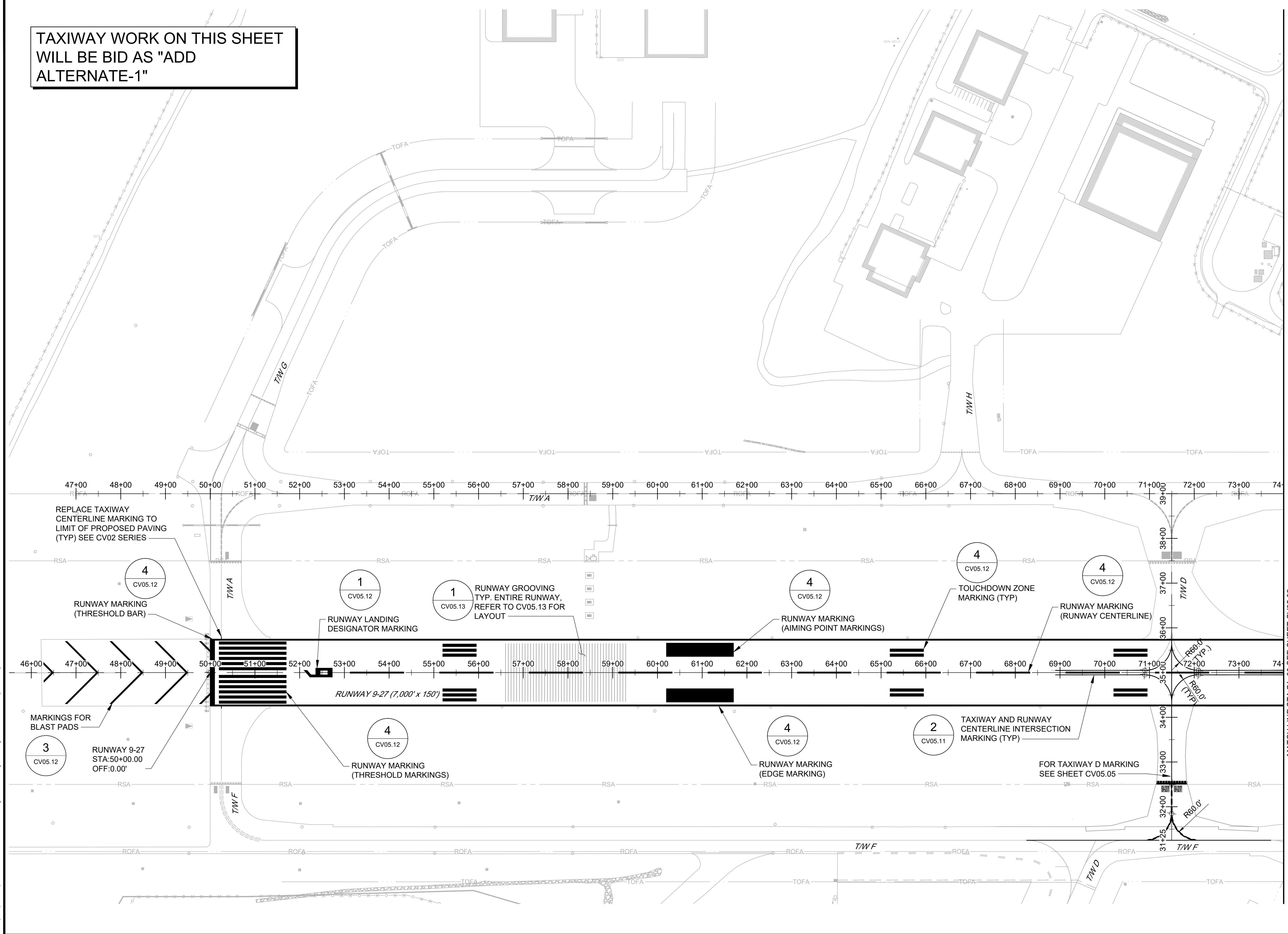


NOTES:

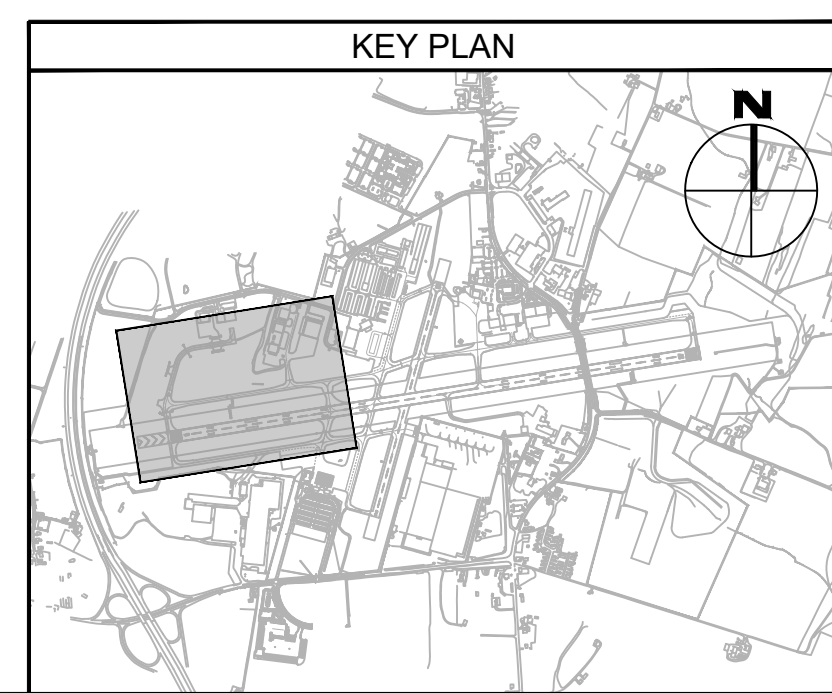
- SEE SHEETS CV05.11 AND CV05.12 FOR PAVEMENT MARKING DETAILS.
- SEE SHEET CV05.13 FOR GROOVING NOTES AND DETAILS.

LEGEND:

- PROPOSED MARKING
- PROPOSED GROOVING (P-621-5.1)



MATCH LINE STA 74+00 SEE SHEET CV05.02



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\049\_CV05.01\_Pavement Marking and Grooving Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: gRoas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S. S.			
CHECKED:			
B. C. / K. M. F.			
APPROVED:			
M. S. K.			

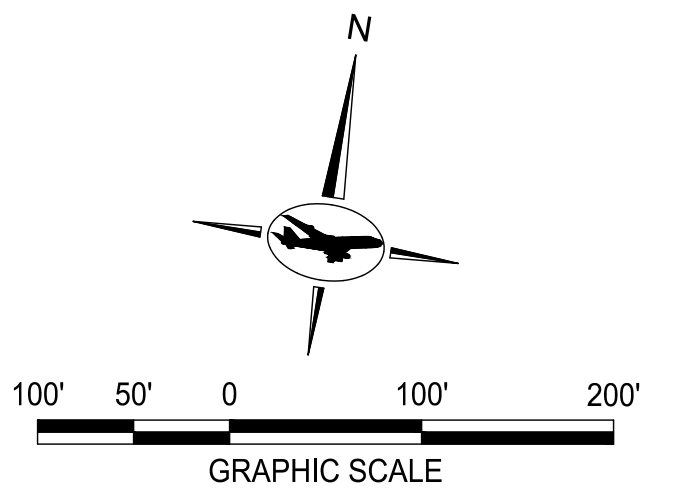
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVEMENT MARKING AND GROOVING PLAN 1</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

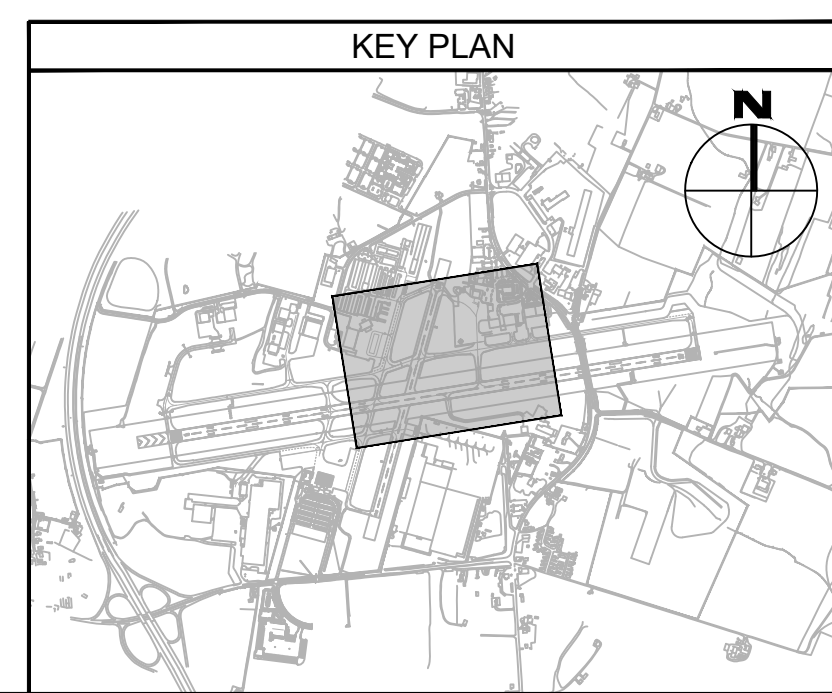
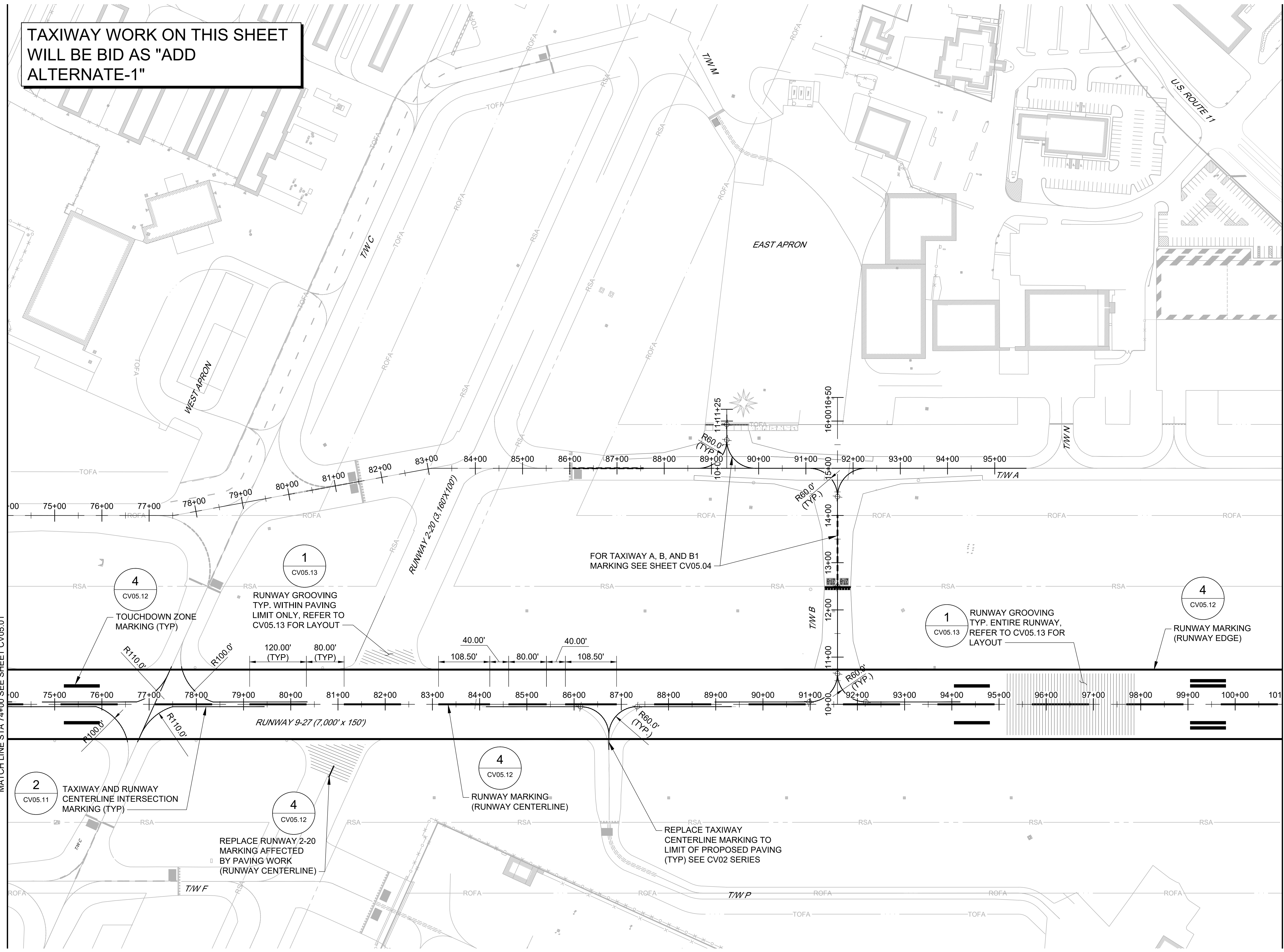
SHEET No.:  
**CV05.01**  
49 OF 90

TAXIWAY WORK ON THIS SHEET  
WILL BE BID AS "ADD  
ALTERNATE-1"



- NOTES:
- SEE SHEETS CV05.11 AND CV05.12 FOR PAVEMENT MARKING DETAILS.
  - SEE SHEET CV05.13 FOR GROOVING NOTES AND DETAILS.

- LEGEND:
- PROPOSED MARKING
  - PROPOSED GROOVING (P-621-5.1)



FILE NAME: O:\HGR Projects\2018-1303\CAD\SHEETS\049\_CV05.02\_Pavement Marking and Grooving Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: gRass

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.  
6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:  
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

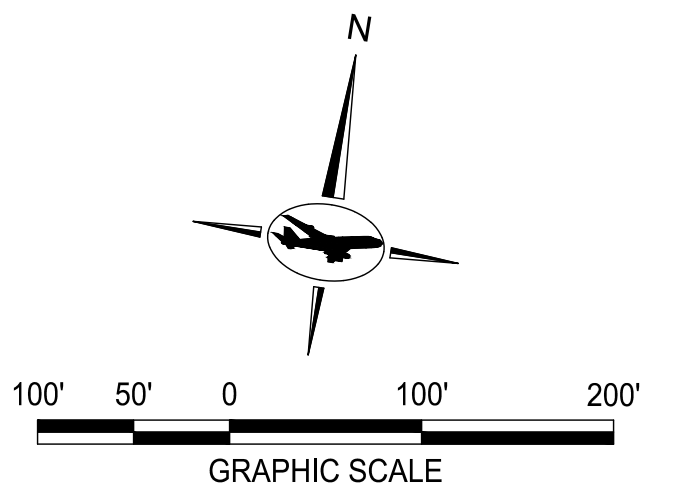
PROJECT TITLE:  
**RUNWAY 9-27 REHABILITATION**

SHEET TITLE:  
**PAVEMENT MARKING AND GROOVING PLAN 2**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

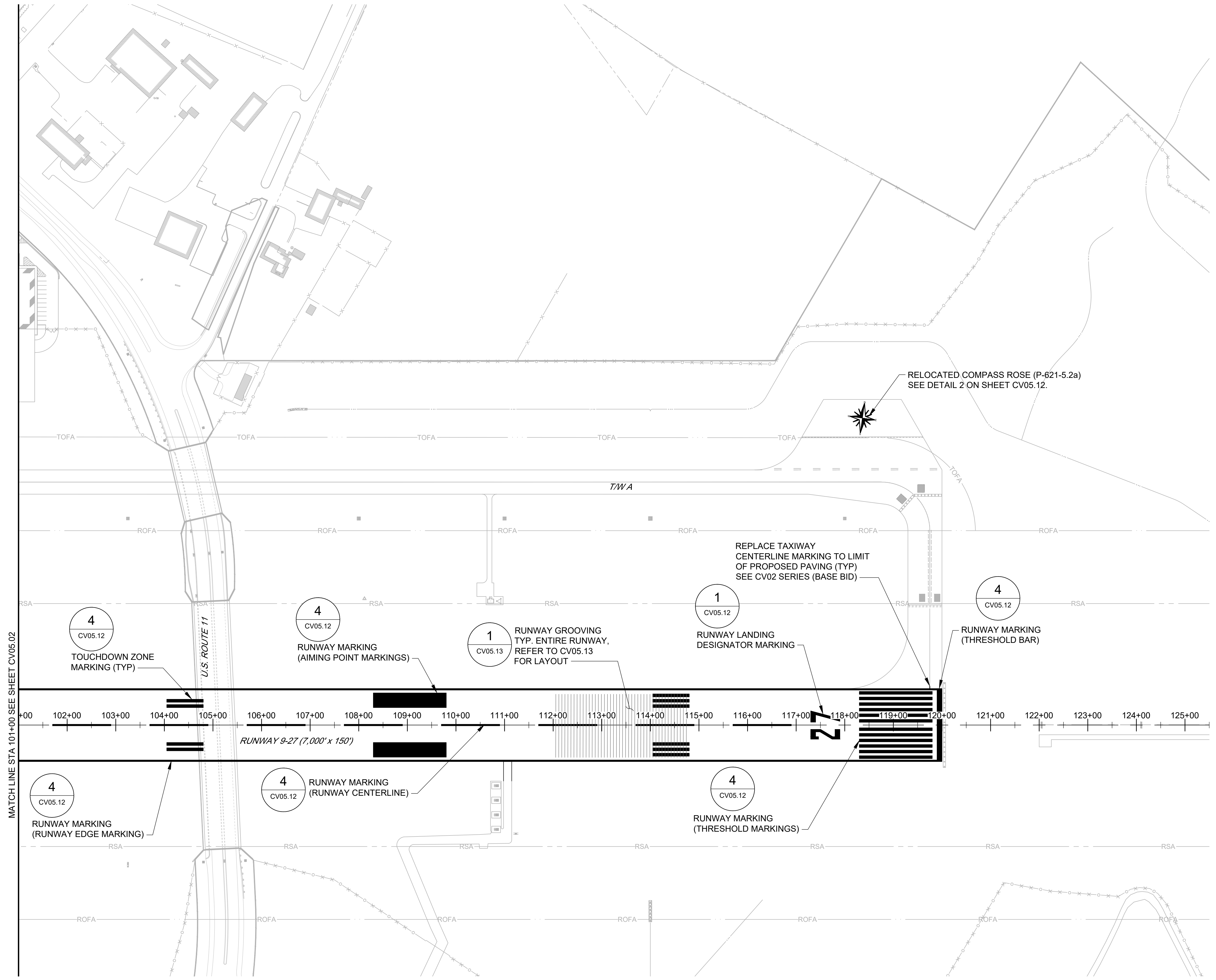
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV05.02**  
50 OF 90

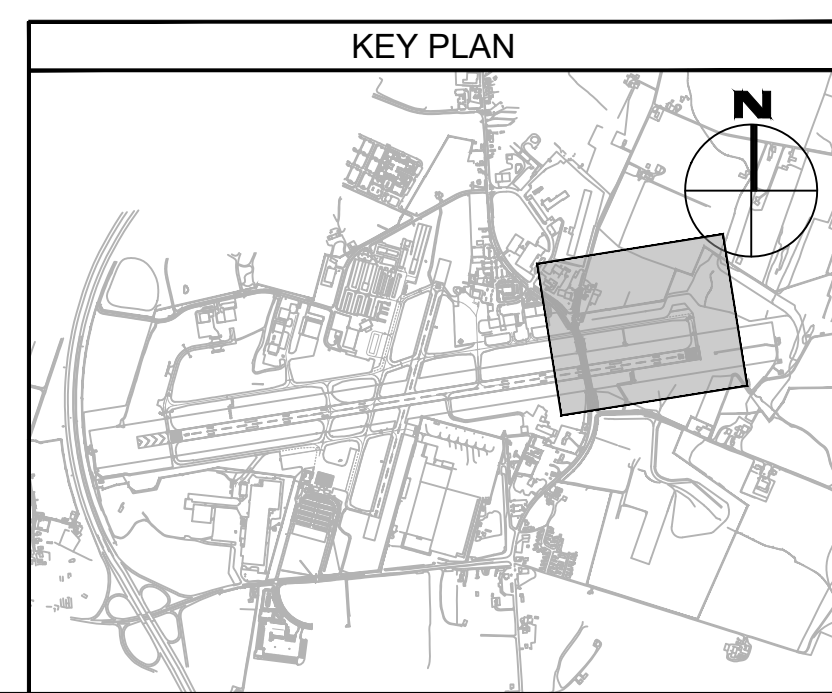


- NOTES:**
- SEE SHEETS CV05.11 AND CV05.12 FOR PAVEMENT MARKING DETAILS.
  - SEE SHEET CV05.13 FOR GROOVING NOTES AND DETAILS.

- LEGEND:**
- PROPOSED MARKING
  - ||||| PROPOSED GROOVING (P-621-5.1)



MATCH LINE STA. 101+00 SEE SHEET CV05.02



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\049\_CV05.01\_Pavement Marking and Grooving Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: gRoas

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: \_\_\_\_\_

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

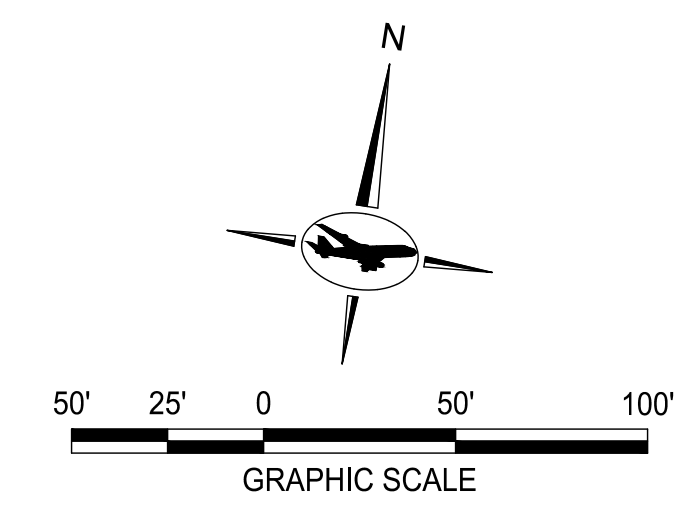
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE:	<b>PAVEMENT MARKING AND GROOVING PLAN 3</b>	
SCALE:	AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **CV05.03**  
51 OF 90



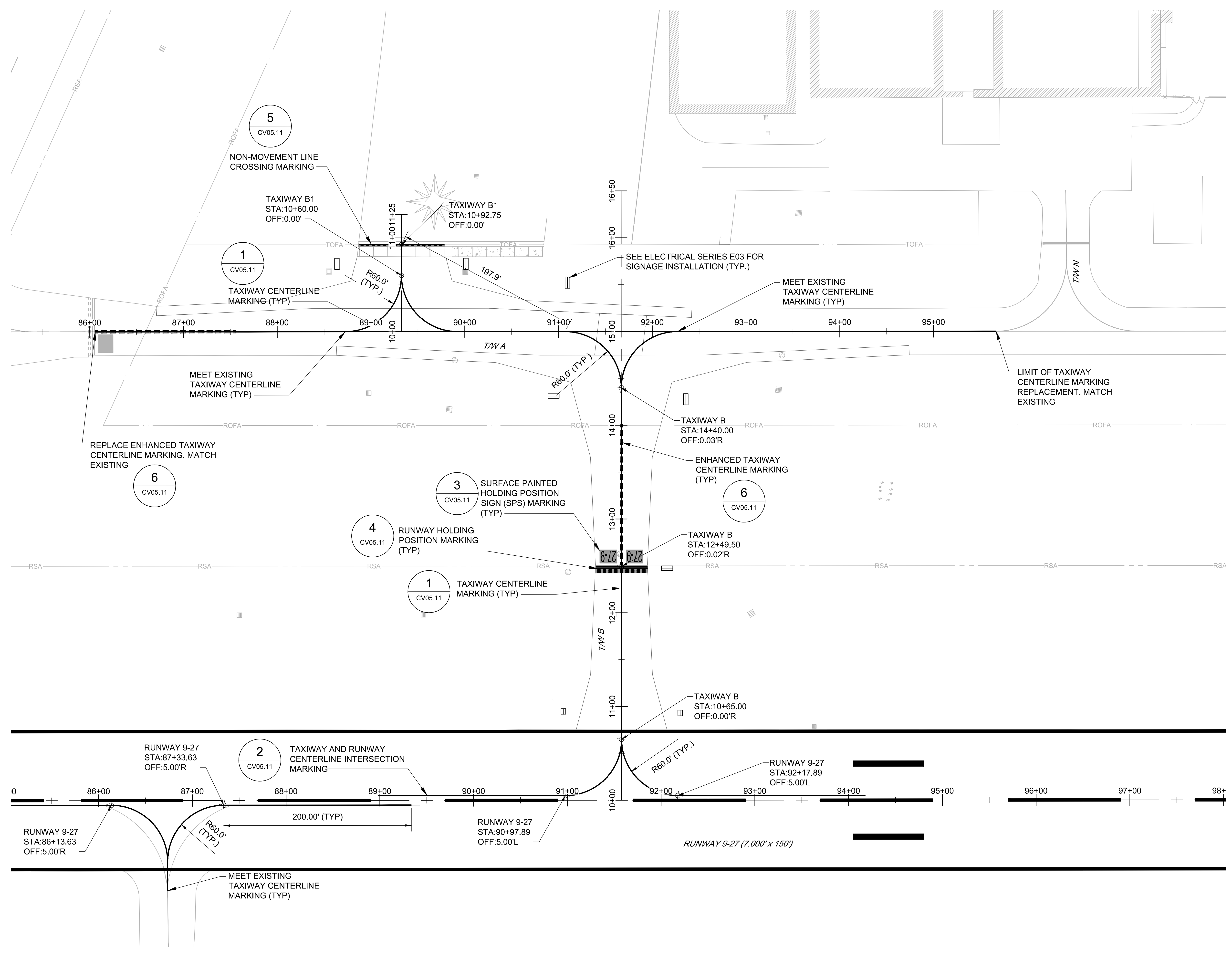
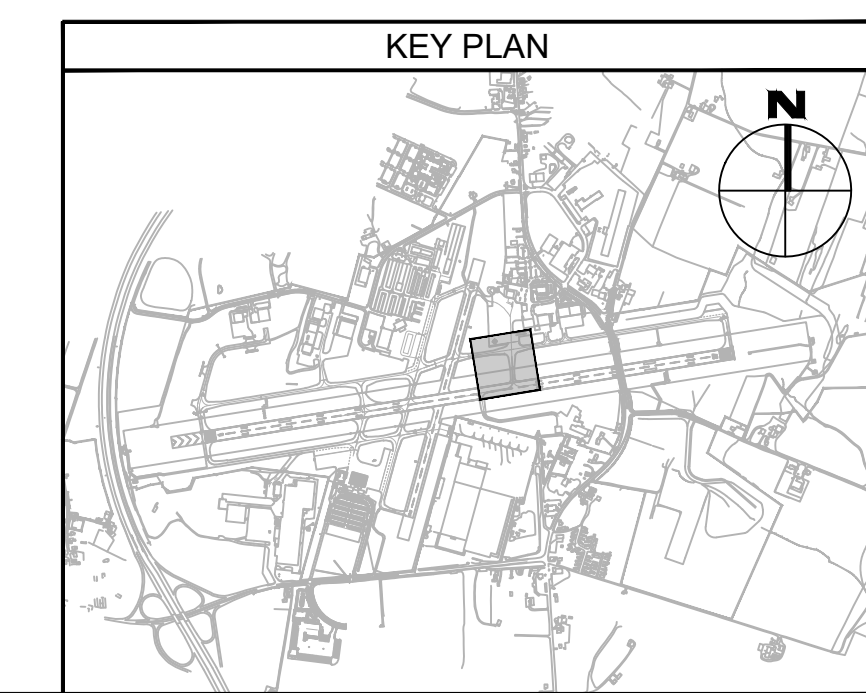
**NOTES:**

1. SEE SHEETS CV05.11 AND CV05.12 FOR PAVEMENT MARKING DETAILS.
2. SEE SHEET CV05.13 FOR GROOVING NOTES AND DETAILS.
3. IF ADD ALTERNATE-1 IS NOT EXECUTED, CONTRACTOR SHALL REPLACE EXISTING TAXIWAY B CENTERLINE MARKING ON RUNWAY 9-27 IN PRE-CONSTRUCTION LOCATION. CONTRACTOR TO OBTAIN RPR APPROVAL BEFORE FINAL MARKING.

**LEGEND:**

— PROPOSED MARKING

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\049\_Pavement Marking and Grooving Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: gRass

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

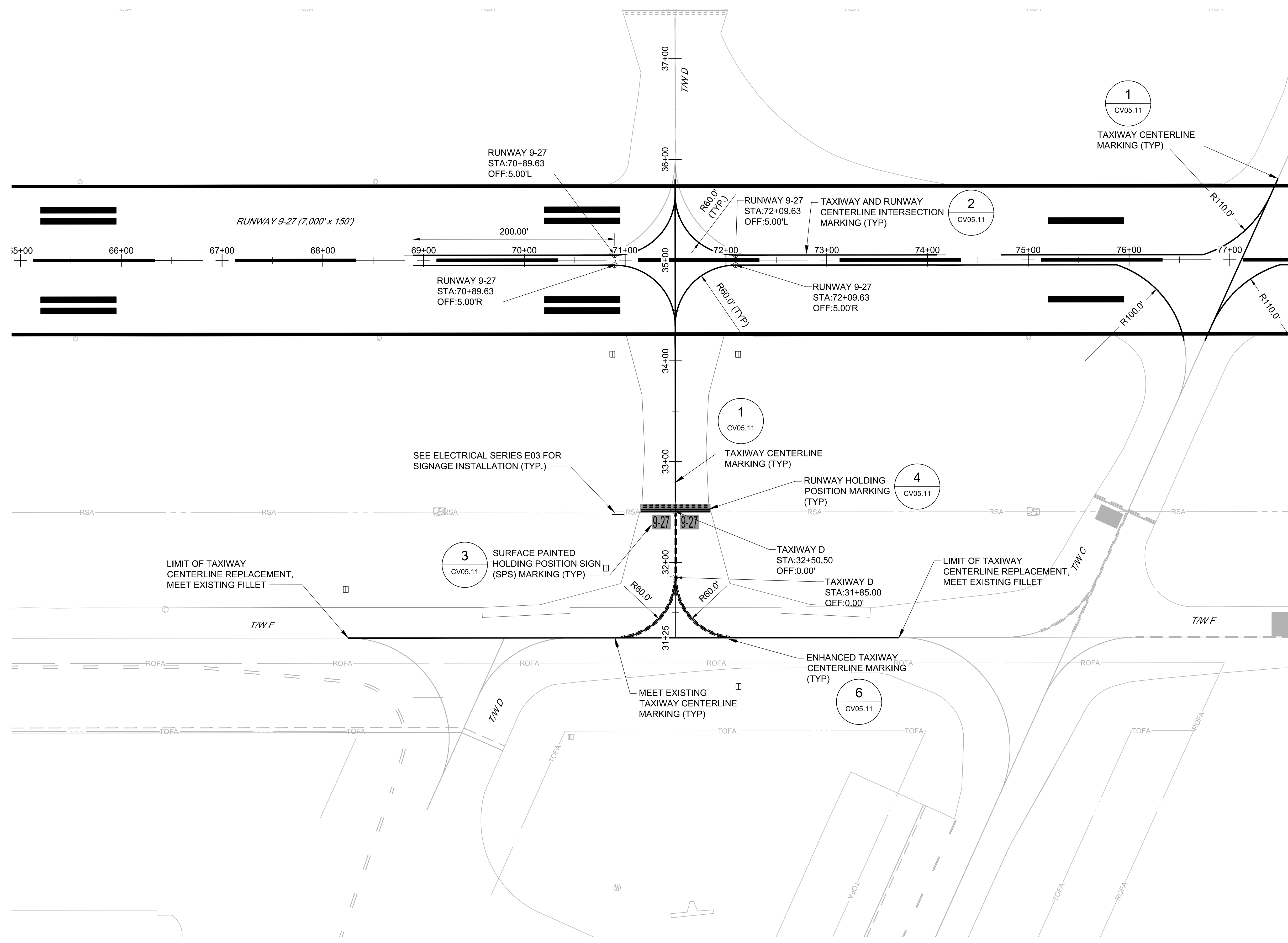
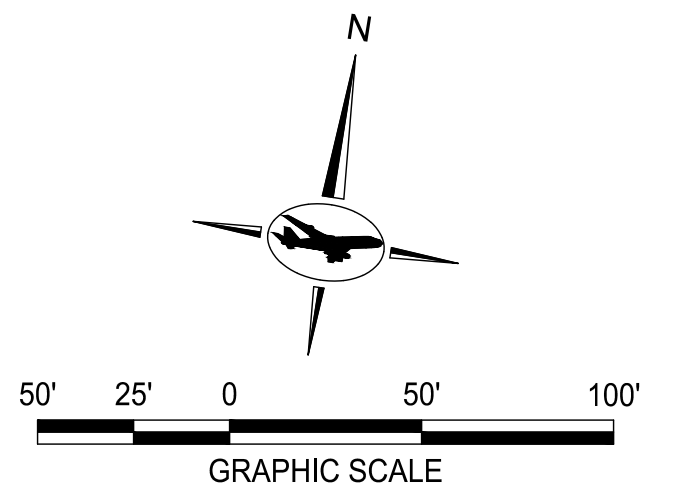
DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE: <b>PAVEMENT MARKING PLAN - TAXIWAYS A AND B</b>	
SCALE: AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**CV05.04**  
52 OF 90

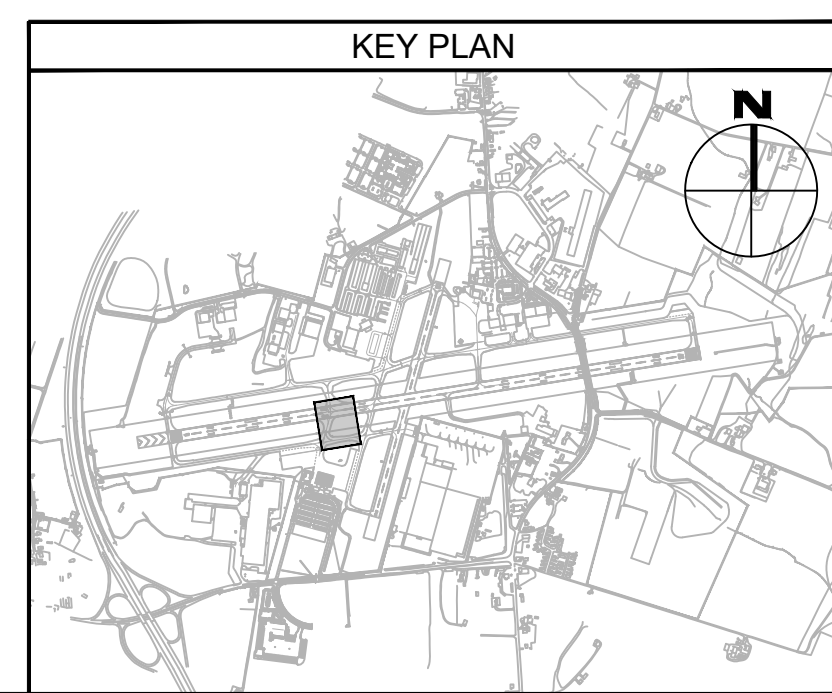


- NOTES:**
- SEE SHEETS CV05.11 AND CV05.12 FOR PAVEMENT MARKING DETAILS.
  - SEE SHEET CV05.13 FOR GROOVING NOTES AND DETAILS.
  - IF ADD ALTERNATE-1 IS NOT EXECUTED, CONTRACTOR SHALL REPLACE EXISTING TAXIWAY D CENTERLINE MARKING ON RUNWAY 9-27 IN PRE-CONSTRUCTION LOCATION. CONTRACTOR TO OBTAIN RPR APPROVAL BEFORE FINAL MARKING.

**LEGEND:**

— PROPOSED MARKING

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



FILE NAME: O:\HGR\Projects\2018-1303\CAD\Sheets\0049\_CV05.01\_Pavement Marking and Grooving Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: gRass

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

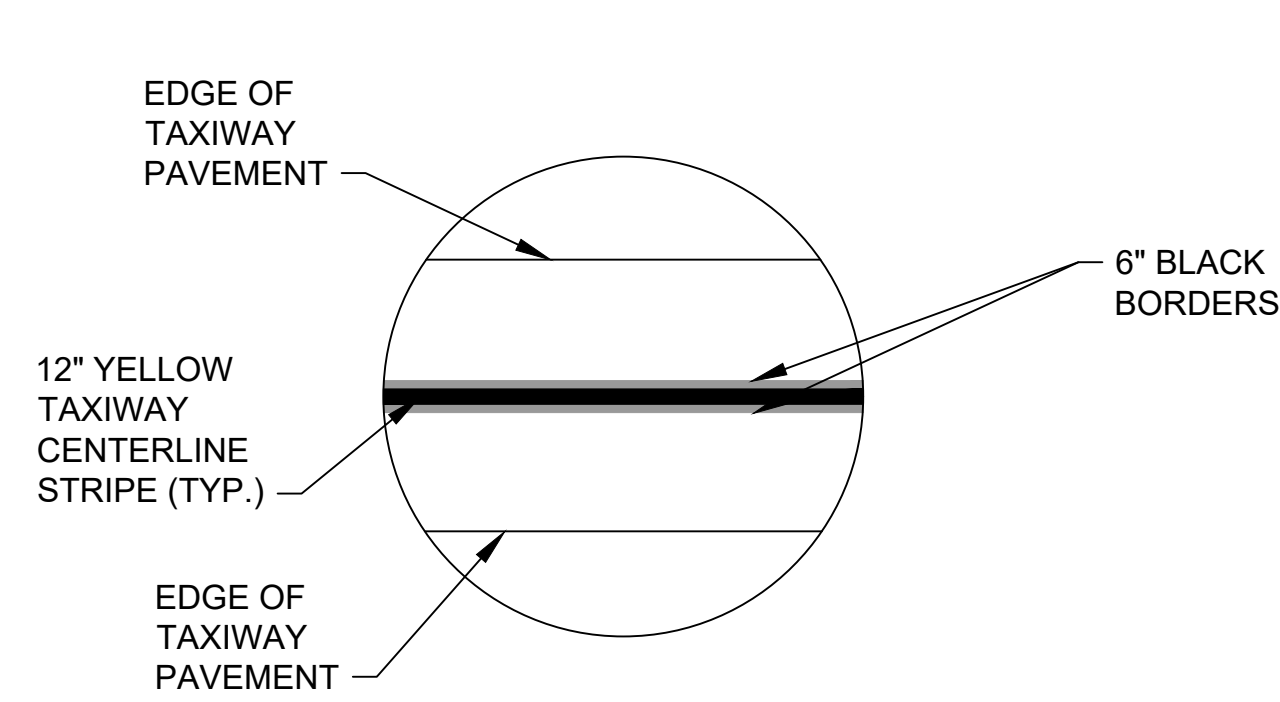
SHEET TITLE: **PAVEMENT MARKING PLAN - TAXIWAY D**

SCALE: AS SHOWN DATE: FEBRUARY 2020

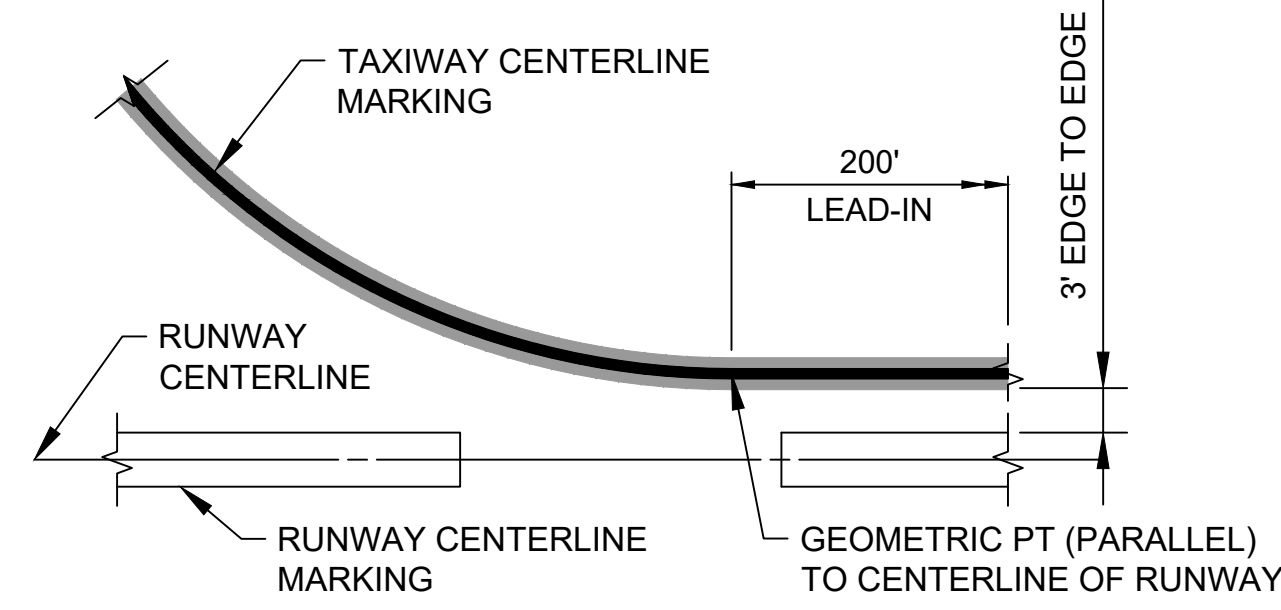
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **CV05.05**  
53 OF 90

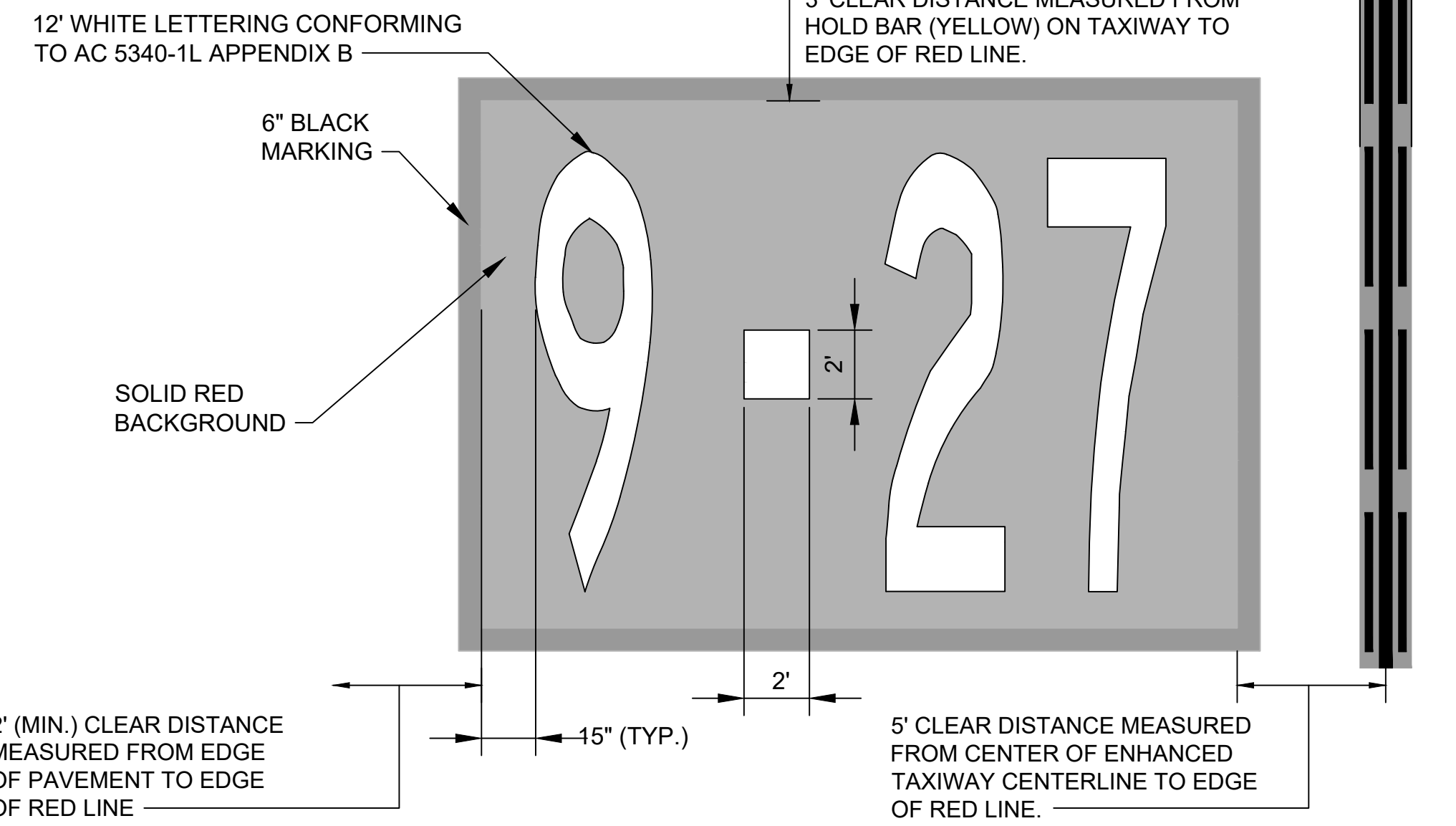
\*\* ALL BLACK PAINT IS ONLY REQUIRED FOR MARKING APPLIED TO ASPHALT SURFACES OLDER THAN 2 YEARS.



**1 TAXIWAY CENTERLINE MARKING\***  
CV05.11 SCALE: NTS



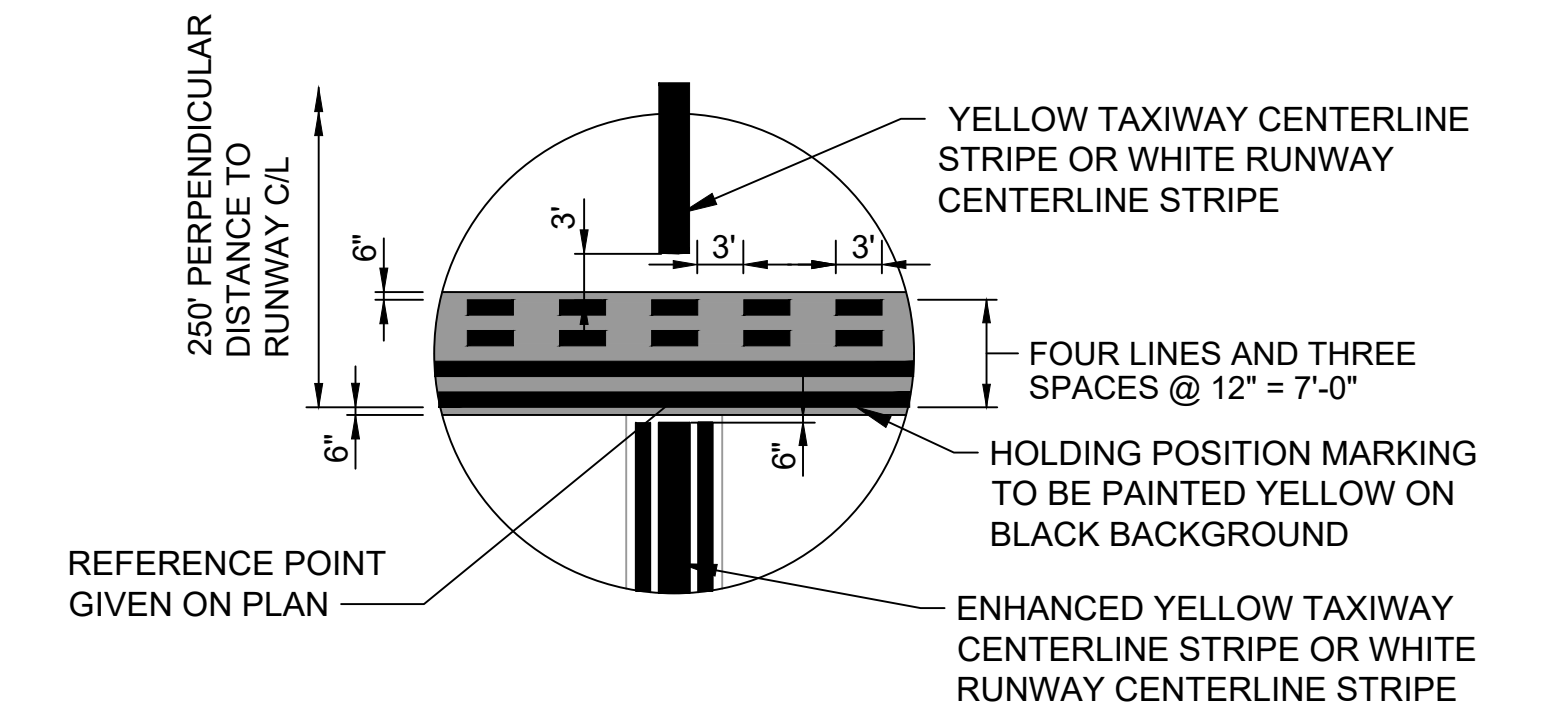
**2 TAXIWAY AND RUNWAY CENTERLINE INTERSECTION MARKING\***  
CV05.11 SCALE: NTS



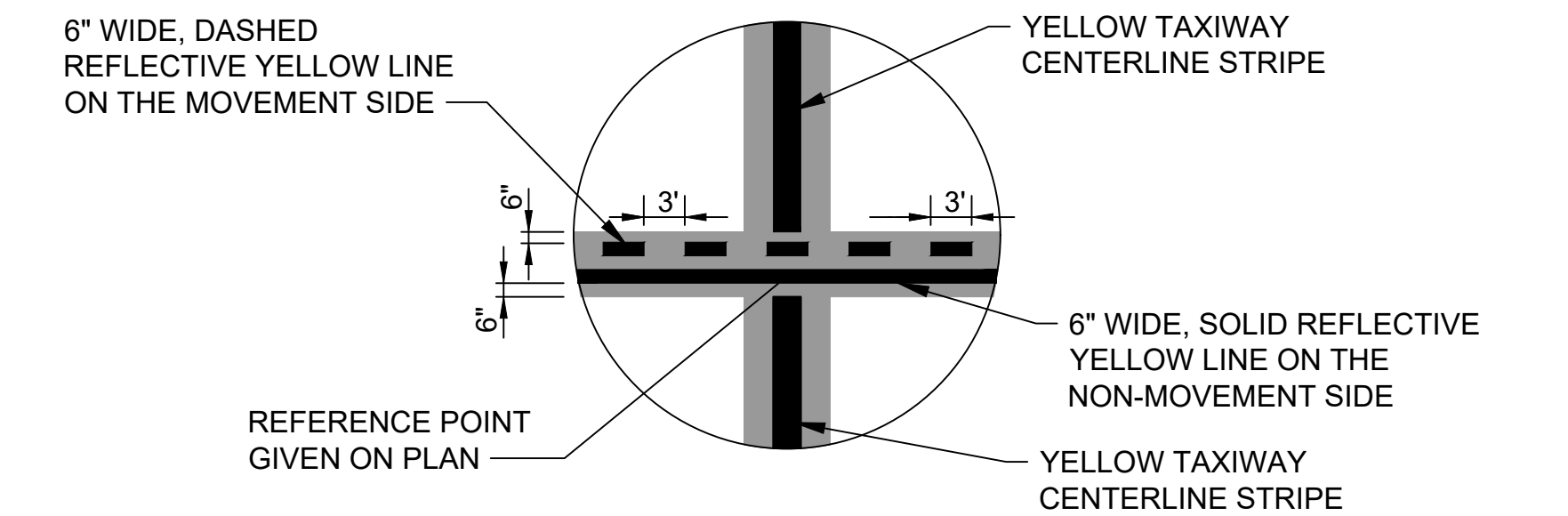
**3 SURFACE PAINTED HOLDING POSITION SIGN (SPS) MARKING**  
CV05.11 SCALE: NTS

**NOTES:**

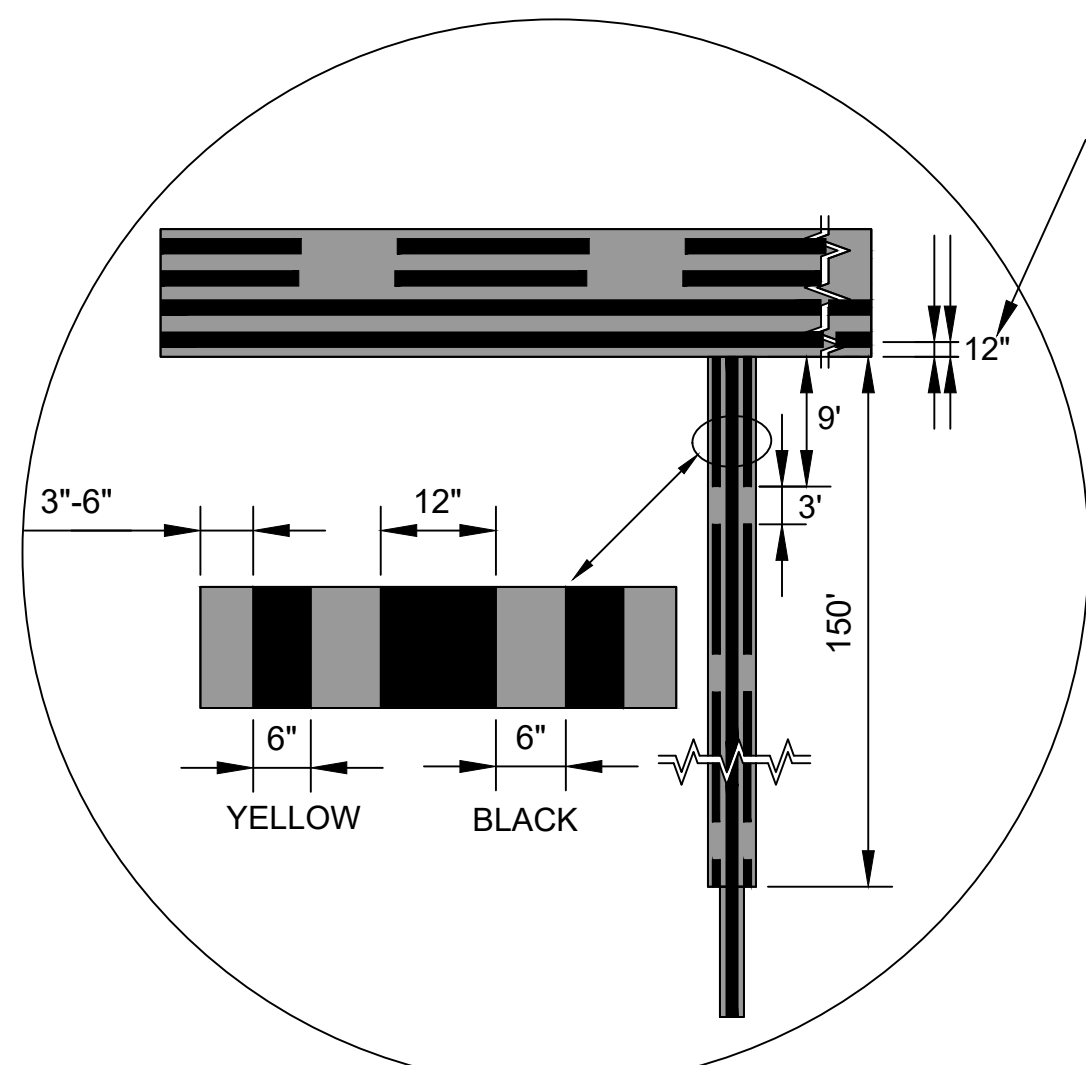
1. MARKING/NUMERALS SHALL MATCH EXISTING SIGNAGE ORIENTATION.
2. NO MARKING SHALL BE CLOSER THAN 2' FROM EDGE OF PAVEMENT.
3. NO TYPE III GLASS BEADS ALLOWED IN SURFACE PAINTED SIGN.
4. SEE SURFACE PAINTED SIGN GEOMETRY TABLE THIS SHEET FOR ADDITIONAL INFORMATION.
5. CONTRACTOR SHALL TURN OVER ALL STENCILS USED FOR SPS MARKING TO THE AIRPORT, UPON ACCEPTANCE FROM THE AIRPORT OPERATIONS MANAGER.



**4 RUNWAY HOLDING POSITION MARKING**  
CV05.11 SCALE: NTS



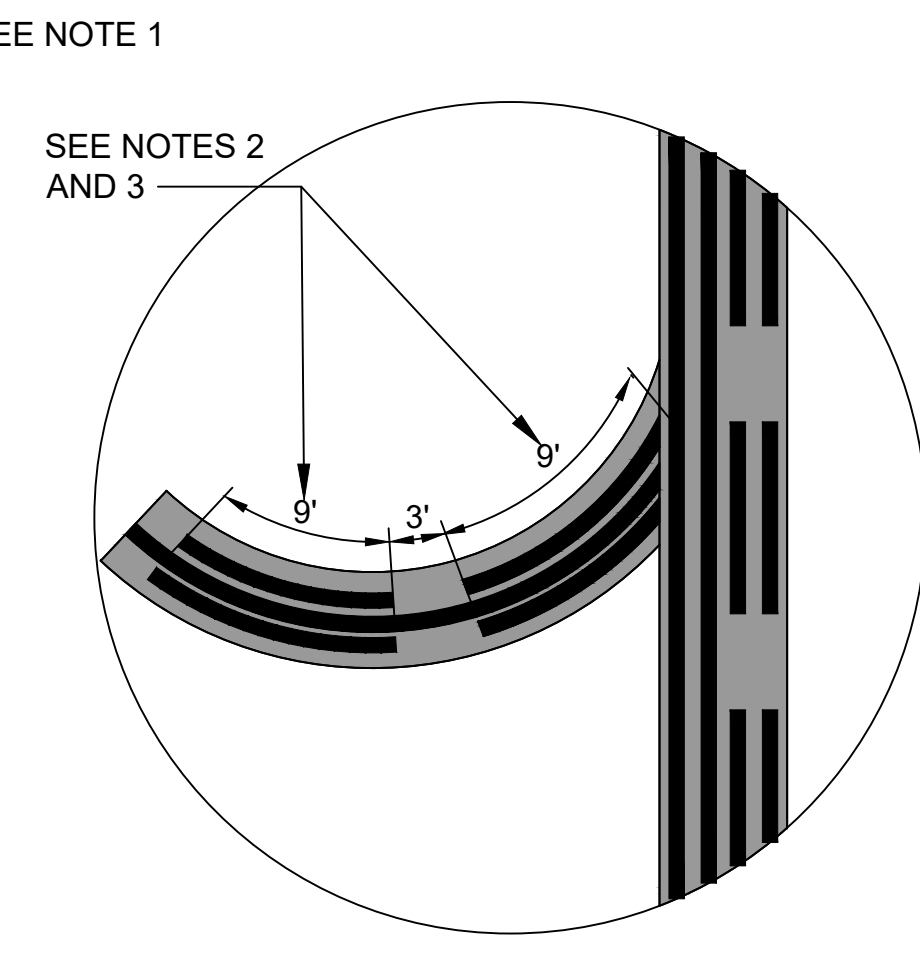
**5 NON-MOVEMENT LINE CROSSING MARKING**  
CV05.11 SCALE: NTS



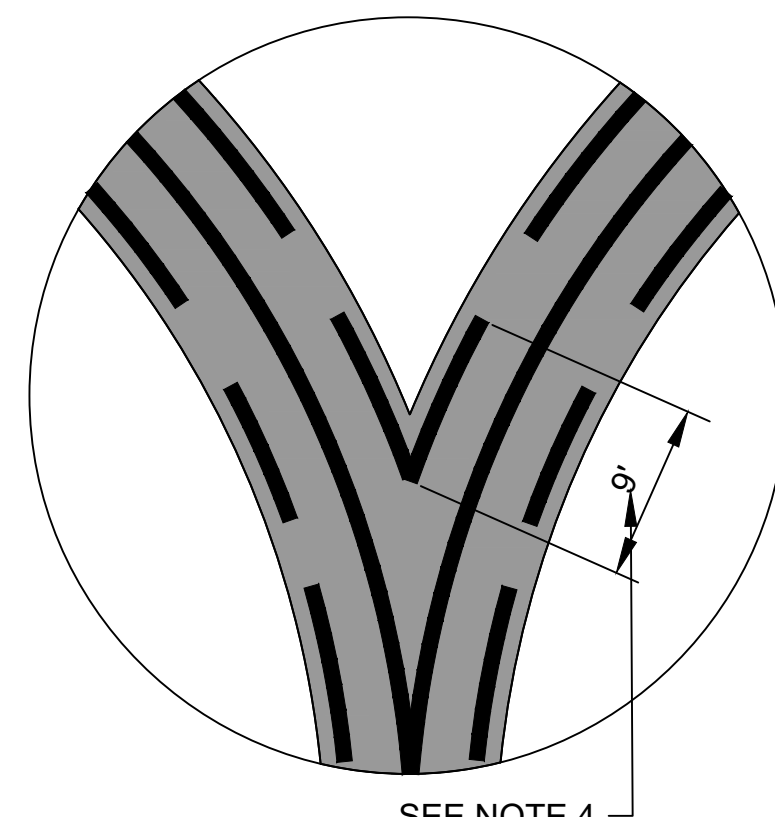
**6 ENHANCED TAXIWAY CENTERLINE MARKING**  
CV05.11 SCALE: NTS

**NOTES:**

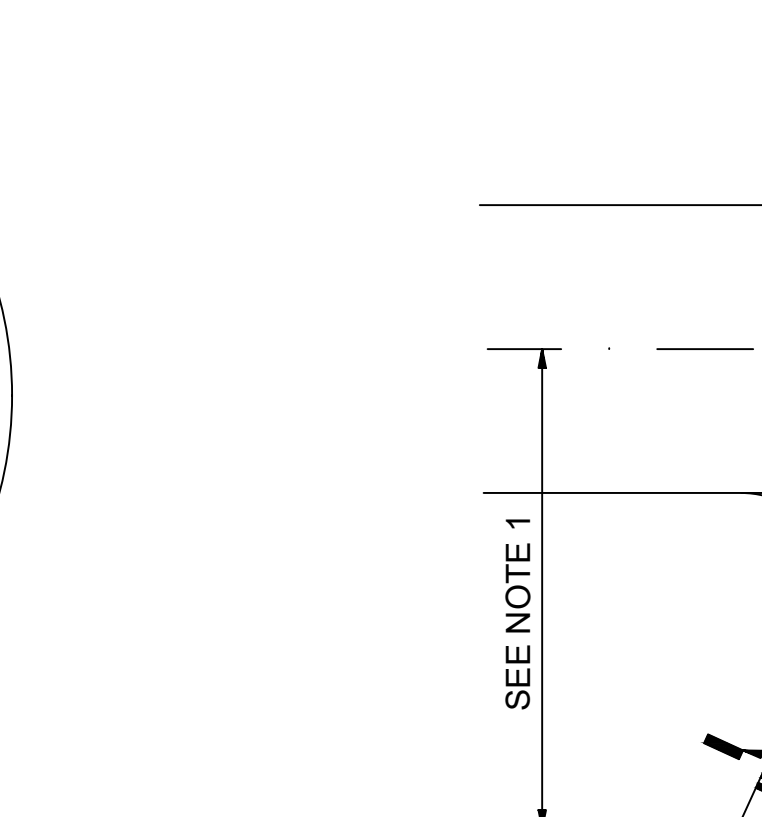
1. THE DISTANCE BETWEEN THE YELLOW HOLD LINE AND YELLOW TAXIWAY CENTERLINE IS 12".
2. THE 9' IS MEASURED ALONG CENTERLINE WITH THE INNER CHORD BEING SLIGHTLY SHORTER THAN 9' THE OTHER CHORD BEING SLIGHTLY LONGER.
3. THE NUMBER OF DASHES SHALL ALWAYS BE EQUAL.
4. THERE MUST BE NO PARTIAL DASHED LINES LESS THAN 9' AT THE POINT OF CONVERGENCE. THE FIRST INSIDE DASHED LINE MUST BE ALIGNED WITH THE OUTSIDE DASHED LINE.
5. THE 150' DISTANCE IS MEASURED ALONG THE ENHANCED CENTERLINE.



**DETAIL A**

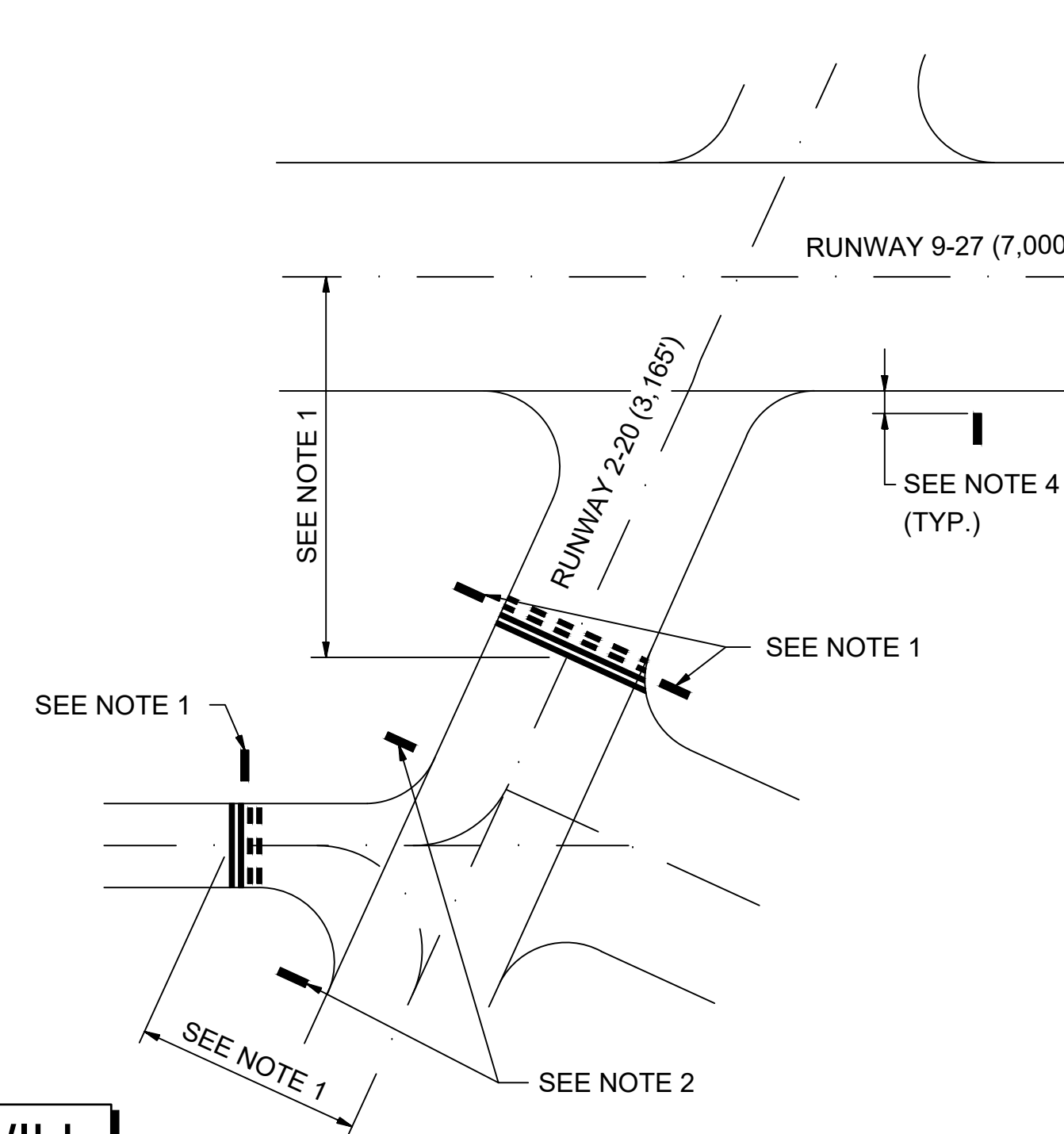


**DETAIL B**



**DETAIL C**

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



**7 TYPICAL SIGN LOCATION PLAN AND NOTES**  
CV05.11 SCALE: NTS

SURFACE PAINTED SIGN GEOMETRY					
#	LOCATION	SIGN	LETTER SIZE	ARROW ROTATION	DESCRIPTION
1	T/W B	27-9	12'	N/A	HOLDING POSITION SIGN
2	T/W D	9-27	12'	N/A	HOLDING POSITION SIGN

**NOTES:**

1. ALL HOLDING POSITION MARKINGS ARE LOCATED AND PAINTED AT THE OFFSET DISTANCE AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5340-1(CURRENT EDITION), ENTITLED "STANDARDS FOR AIRPORT MARKINGS". SIGNS ASSOCIATED TO THOSE MARKINGS SHALL BE LOCATED ADJACENT TO AND IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5340-18 (CURRENT EDITION), ENTITLED "STANDARDS FOR AIRPORT SIGN SYSTEMS". HOLD LINES FOR R/W 2/20 ARE LOCATED 200' FROM CENTERLINE. HOLD LINES FOR R/W 9/27 ARE LOCATED 250' FROM CENTERLINE.
2. ALL TAXIWAY DIRECTION SIGNS ARE LOCATED 93 FEET FROM THE INTERSECTING TAXIWAY CENTERLINE FOR TAXIWAYS DESIGNED FOR AIRPLANE DESIGN GROUP III AIRCRAFT AND 65.5 FEET FOR TAXIWAYS DESIGNED FOR AIRPLANE DESIGN GROUP II AIRCRAFT.
3. ALL RUNWAY EXIT SIGNS ARE LOCATED AT THE POINT OF TANGENCY AND INSTALLED PRIOR TO THE EXIT ON THE SIDE OF THE RUNWAY WHERE THE AIRCRAFT IS EXPECTED TO EXIT. FOR SIGNS BEING SHARED BETWEEN TWO EXIT TAXIWAYS, THE SIGN(S) ARE LOCATED AT THE APPROXIMATE MIDPOINT BETWEEN THE TANGENTS OF THE TWO EXITS.
4. THE PERPENDICULAR DISTANCE FROM THE DEFINED TAXIWAY OR RUNWAY EDGE TO THE NEAR SIDE OF ALL TAXIWAY GUIDANCE SIGNS IS 15 FEET.
5. ALL TAXIWAY AND RUNWAY GUIDANCE SIGNS ARE L-858, SIZE 1, STYLE 2 OR 3, CLASS 2.

FILE NAME: O:\HGR\Projects\2018-1303\CA0\Sheets\0054\_CV05.11\_Pavement\_Marking\_Details.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: Gross



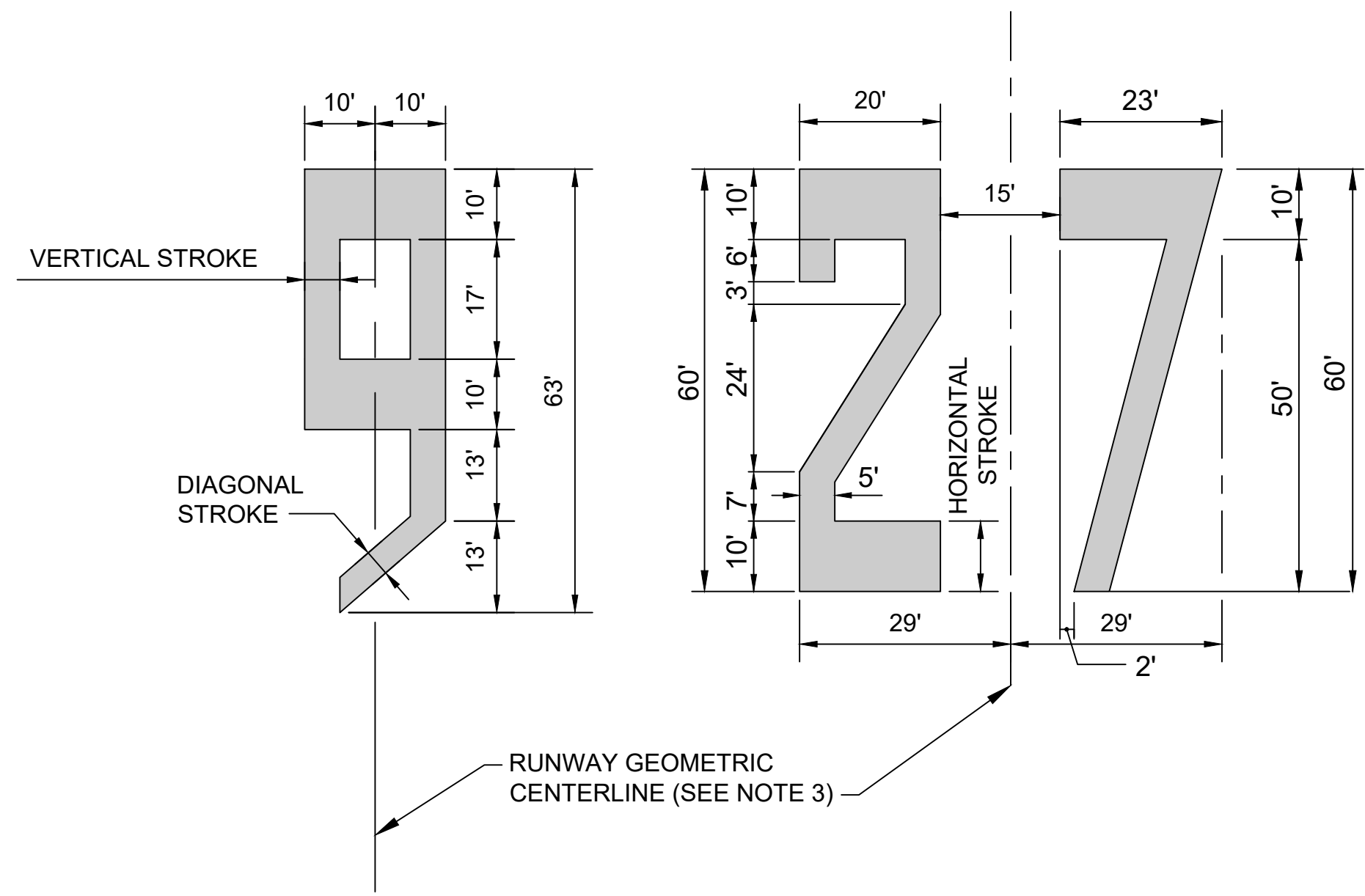
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S. S.			
CHECKED:			
B. C. / K. M. F.			
APPROVED:			
M. S. K.			



PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVEMENT MARKING DETAILS 1</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

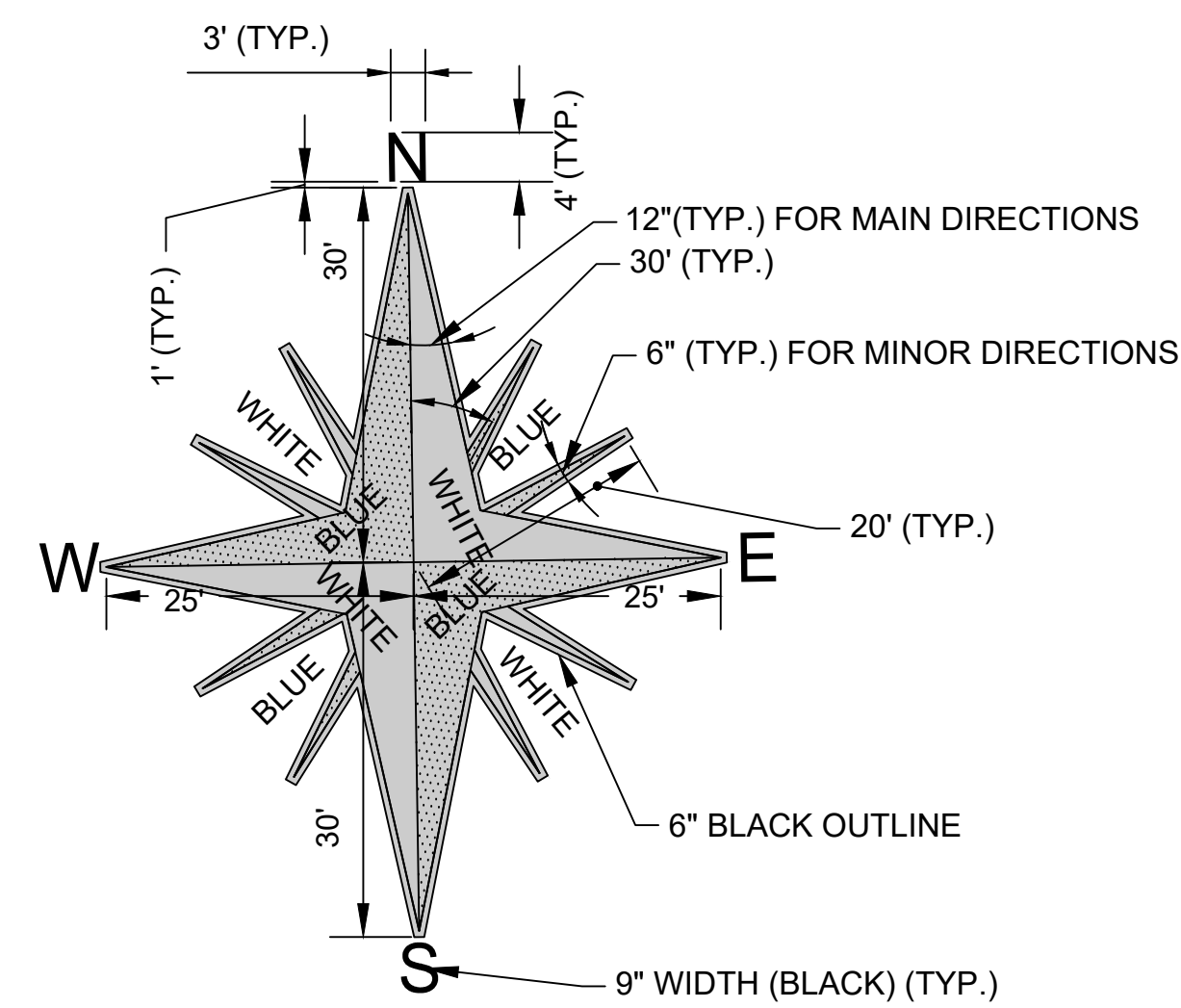
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: **CV05.11**  
54 OF 90



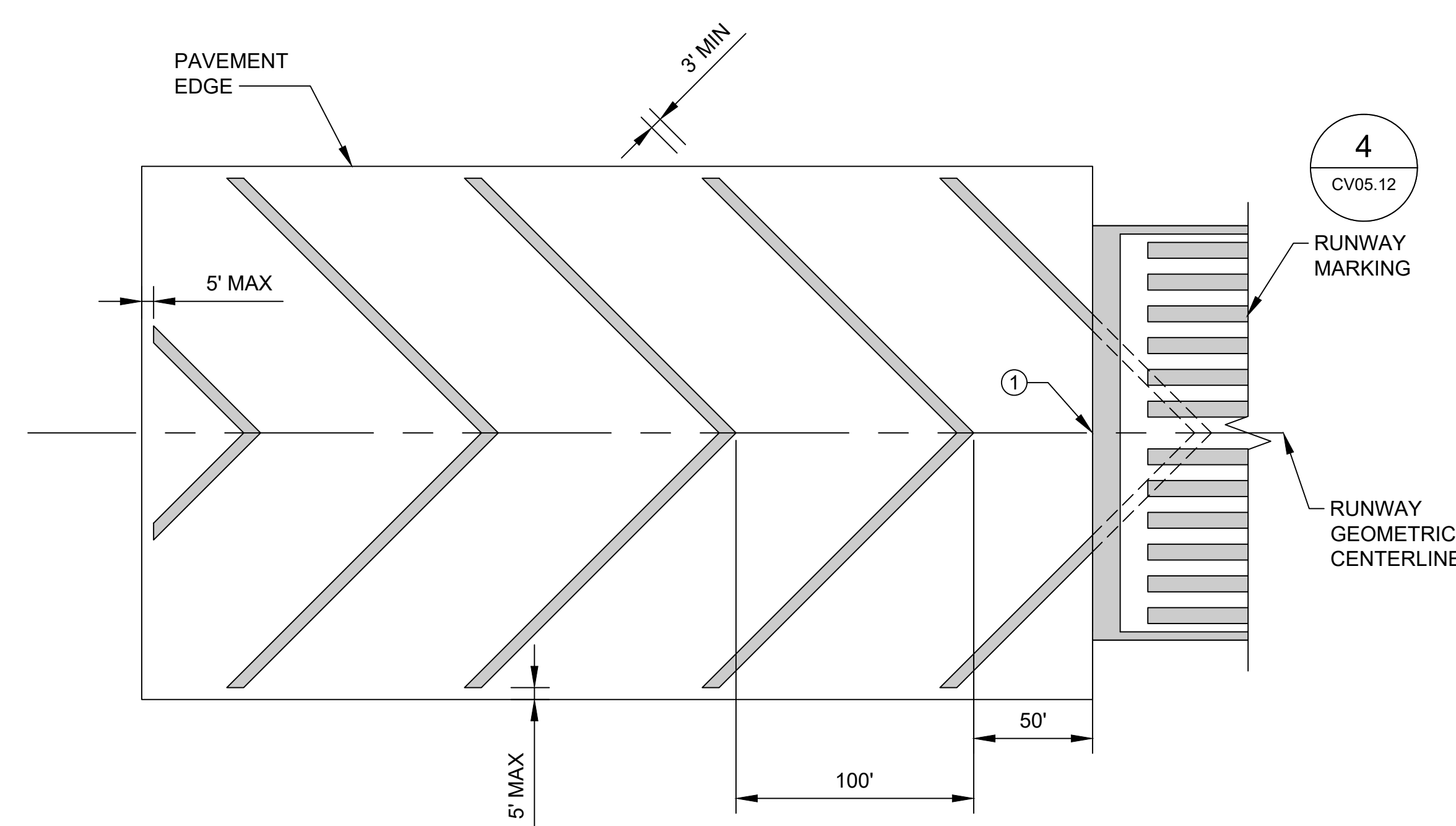
**NOTES:**

1. RUNWAY DESIGNATOR NUMERALS AND LETTERS ARE WHITE WITH 6" BLACK BORDERS (NOT SHOWN). ALL DIMENSIONS ARE MEASURED TO THE EDGE OF THE WHITE CHARACTER.
2. ALL CHARACTERS SHALL BE 60' TALL AND 20' WIDE, UNLESS OTHERWISE SPECIFIED.
3. SINGLE DESIGNATIONS ARE CENTERED ON THE RUNWAY PAVEMENT CENTERLINE. FOR DOUBLE DESIGNATIONS, THE CENTER OF THE OUTER EDGES OF THE TWO NUMERALS IS CENTERED ON THE RUNWAY PAVEMENT CENTERLINE.

VERTICAL STROKE = 5'  
HORIZONTAL STROKE = 10'  
DIAGONAL STROKE = 5'



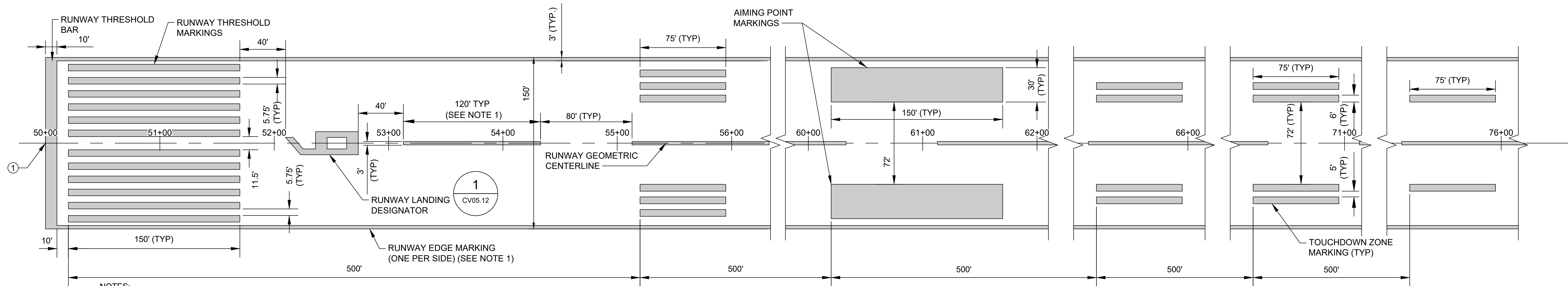
**2 COMPASS ROSE**  
CV05.12 SCALE: NTS



**3 MARKINGS FOR BLAST PADS**  
CV05.12 SCALE: NTS

\*① GEOMETRY REFERENCE POINT

**1 RUNWAY LANDING DESIGNATOR MARKING**  
CV05.12 SCALE: NTS



**NOTES:**

1. RUNWAY 2-20 MARKING SHALL BE INTERRUPTED BY RUNWAY 9-27. RUNWAY 2-20 CENTERLINE MARKING AND SIDE STRIPES SHALL CEASE AT THE EDGE OF RUNWAY 9-27 AS DEFINED BY ITS SIDE STRIPES.
2. ALL RUNWAY MARKINGS SHALL BE WHITE AND OUTLINED IN 6" BLACK BORDERS (NOT SHOWN).

\*① GEOMETRY REFERENCE POINT

**4 RUNWAY MARKING**  
CV05.12 SCALE: NTS

FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\0054\_CV05.11\_Pavement\_Marking\_Details.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: Gross

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.  
6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

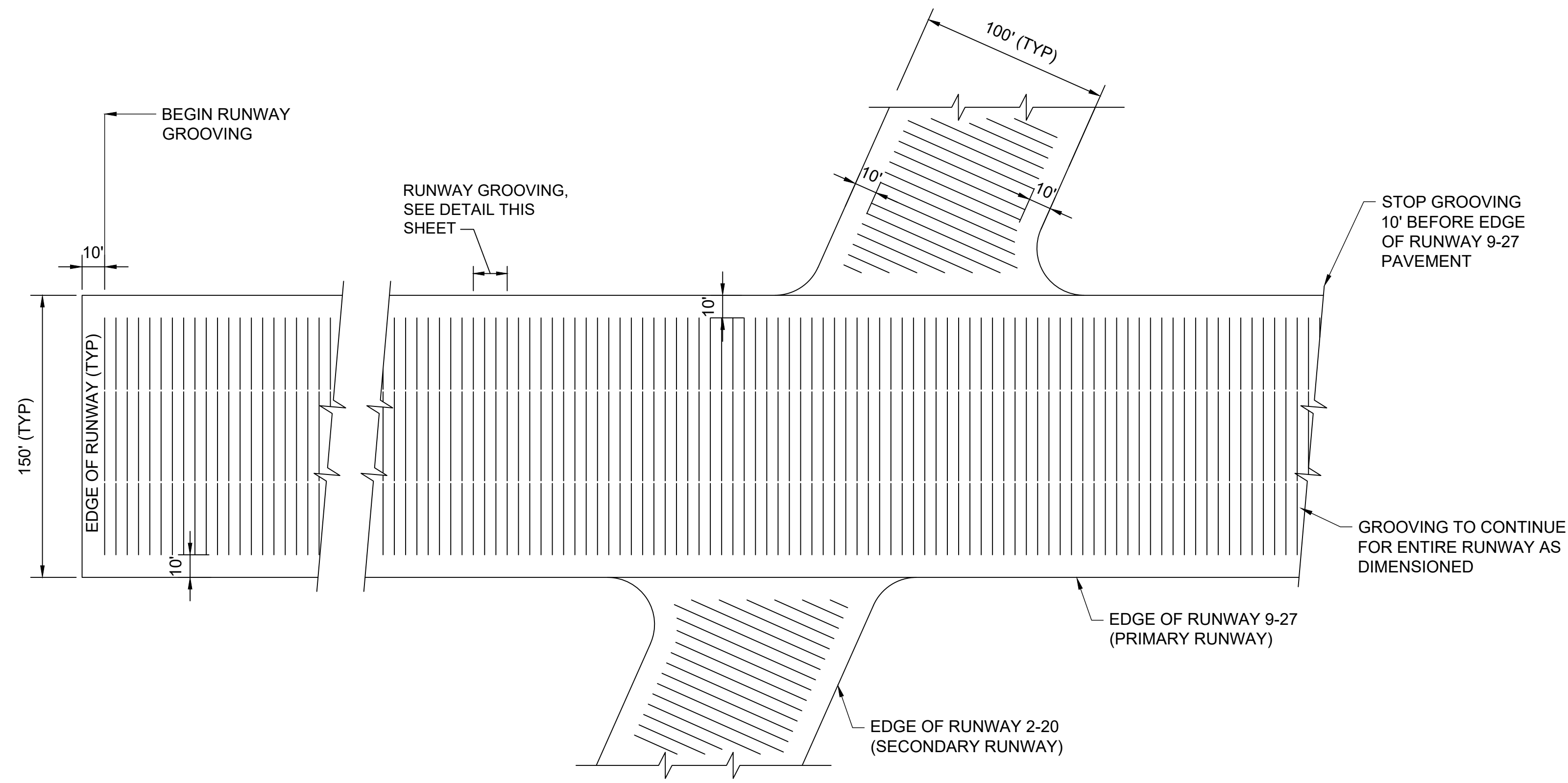
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

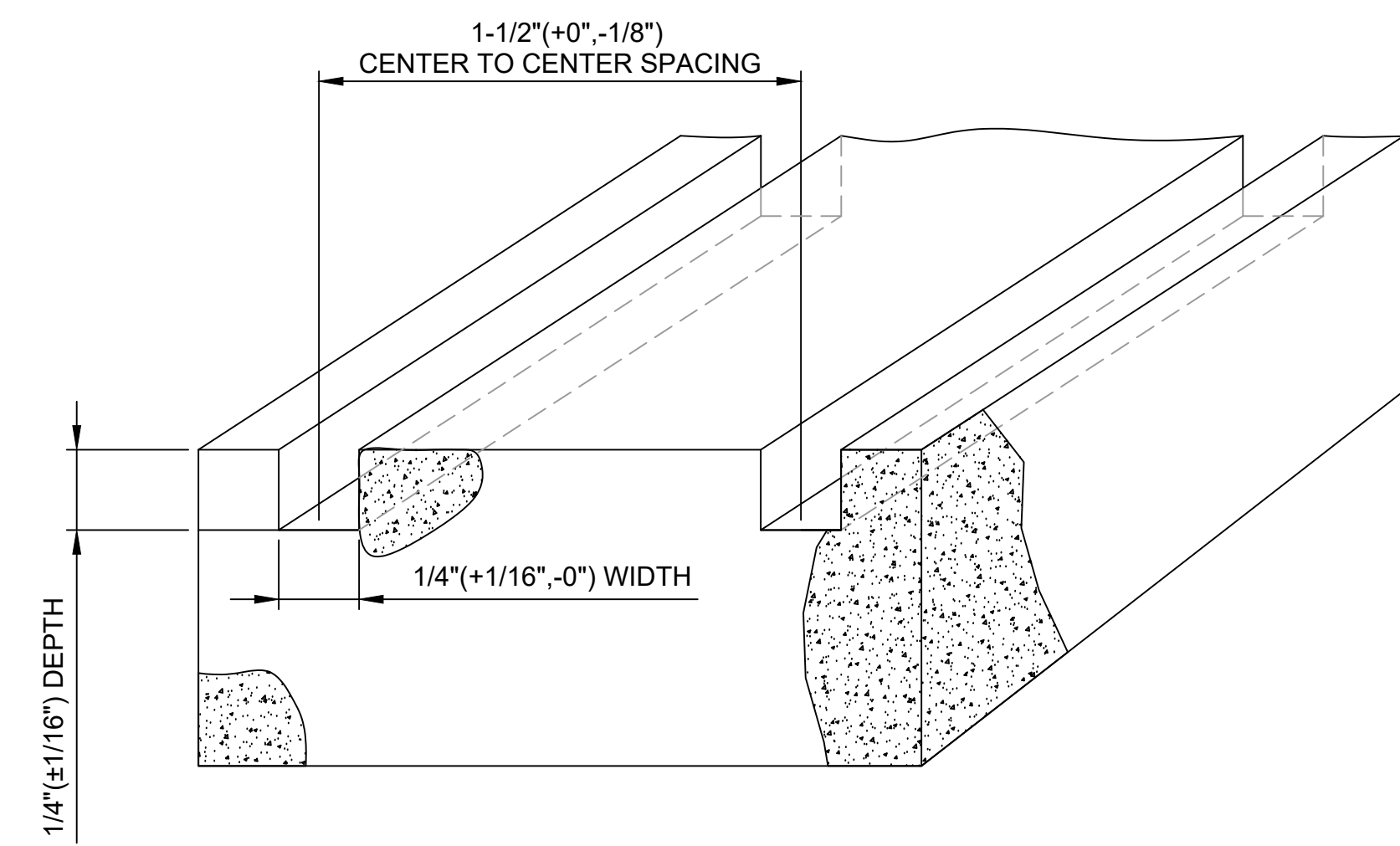
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT  
HGR

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>PAVEMENT MARKING DETAILS 2</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>CV05.12</b>
	<b>55 OF 90</b>



**1** RUNWAY GROOVING  
CV05.13 SCALE: NTS



- NOTES:**
1. THE DEPTH OF 60 PERCENT OR MORE OF THE GROOVES SHALL NOT BE LESS THAN  $\frac{1}{4}$  INCH.
  2. GROOVES SHALL NOT VARY MORE THAN 3 INCHES IN ALIGNMENT FOR 75 FEET ALONG THE RUNWAY LENGTH.

**2** RUNWAY GROOVING ELEVATION DETAIL  
CV05.13 SCALE: NTS

FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\056\_CV05.13\_Grooving Notes and Details.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: gRous

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B. / S.S.			
CHECKED:			
B.C. / K.M.F.			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

**BID DOCUMENTS**

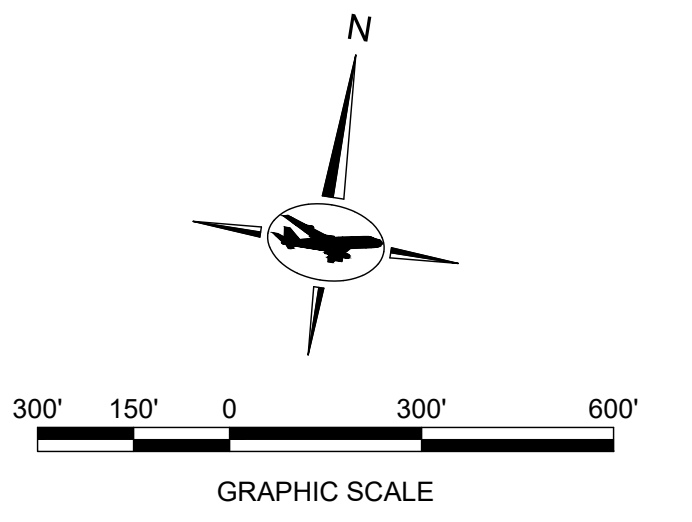
**HGR**

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>GROOVING NOTES AND DETAILS</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

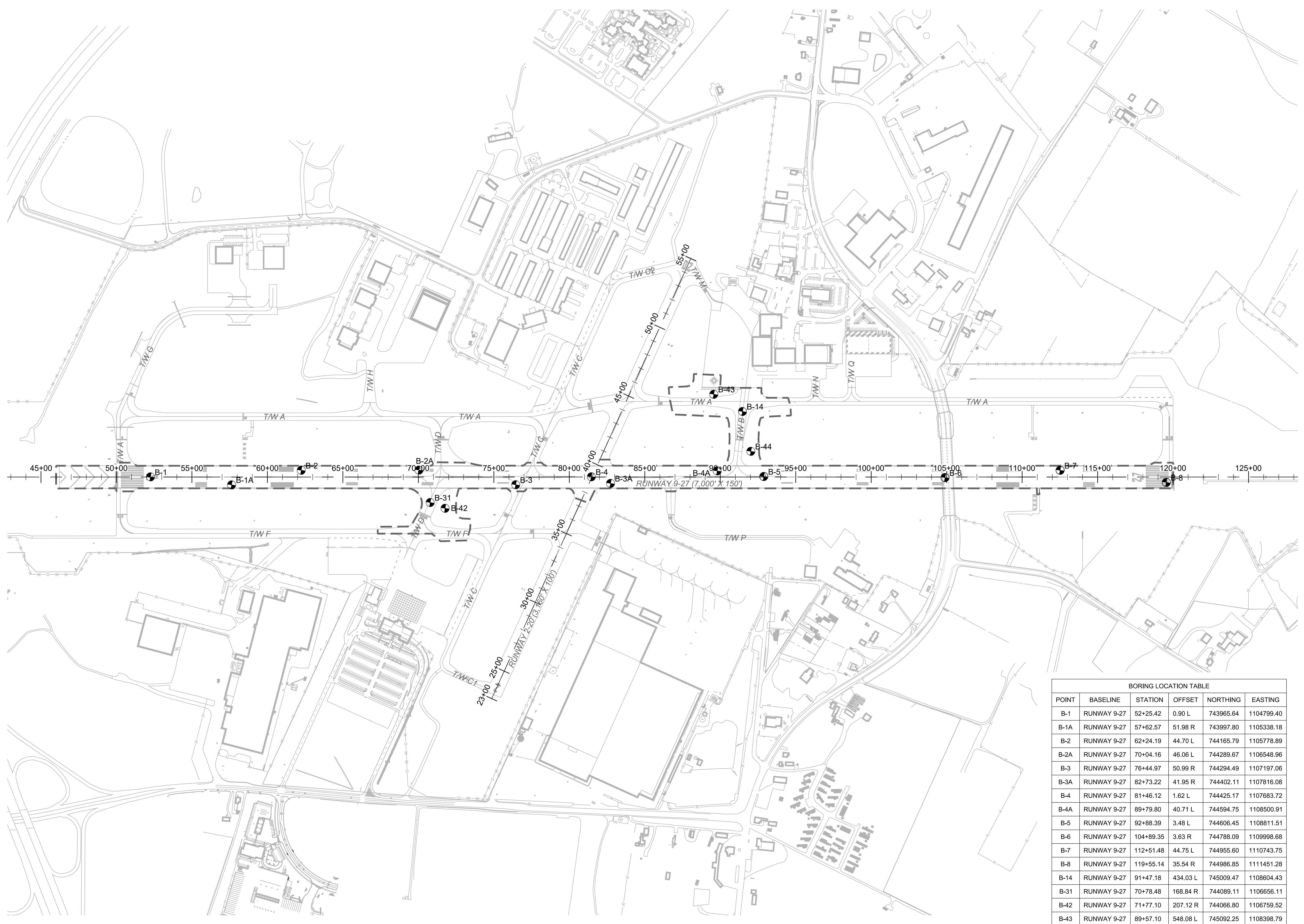
SHEET No.:  
**CV05.13**  
56 OF 90





NOTES:  
 1. SEE CV06 SERIES FOR BORING LOGS.

LEGEND:  
 ● B-1 BORING LOCATION  
 --- WORK AREA



BORING LOCATION TABLE					
POINT	BASELINE	STATION	OFFSET	NORTHING	EASTING
B-1	RUNWAY 9-27	52+25.42	0.90 L	743965.64	1104799.40
B-1A	RUNWAY 9-27	57+62.57	51.98 R	743997.80	1105338.18
B-2	RUNWAY 9-27	62+24.19	44.70 L	744165.79	1105778.89
B-2A	RUNWAY 9-27	70+04.16	46.06 L	744289.67	1106548.96
B-3	RUNWAY 9-27	76+44.97	50.99 R	744294.49	1107197.06
B-3A	RUNWAY 9-27	82+73.22	41.95 R	744402.11	1107816.08
B-4	RUNWAY 9-27	81+46.12	1.62 L	744425.17	1107683.72
B-4A	RUNWAY 9-27	89+79.80	40.71 L	744594.75	1108500.91
B-5	RUNWAY 9-27	92+88.39	3.48 L	744606.45	1108811.51
B-6	RUNWAY 9-27	104+89.35	3.63 R	744788.09	1109998.68
B-7	RUNWAY 9-27	112+51.48	44.75 L	744955.60	1110743.75
B-8	RUNWAY 9-27	119+55.14	35.54 R	744986.85	1111451.28
B-14	RUNWAY 9-27	91+47.18	434.03 L	745009.47	1108604.43
B-31	RUNWAY 9-27	70+78.48	168.84 R	744089.11	1106656.11
B-42	RUNWAY 9-27	71+77.10	207.12 R	744066.80	1106759.52
B-43	RUNWAY 9-27	89+57.10	548.08 L	745092.25	1108398.79
B-44	RUNWAY 9-27	92+02.76	170.25 L	744757.70	1108700.75

FILE NAME: O:\HGR\Projects\2018-1303\CAD\SHEETS\057\_CV06\_00\_Boring\_Location\_Plan.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: GRoss

**ADCI**  
 AIRPORT DESIGN CONSULTANTS INC.  
 6031 UNIVERSITY BLVD.  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL:  
 Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 32405  
 Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G.F.R.			
DRAWN:			
N.B./S.S.			
CHECKED:			
B.C./K.M.F.			
APPROVED:			
M.S.K.			

**BID DOCUMENTS**



PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
 SHEET TITLE: **BORING LOCATION PLAN**  
 SCALE: AS SHOWN  
 DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005  
 SHEET No.: **CV06.00**  
**57 OF 90**



HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-14. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 8/28/2018. Date Completed: 8/28/2018. Description: 11" of Concrete, 9" of Stone, Brown, moist, medium stiff to stiff, sandy silty CLAY, some limestone fragments. (CL-ML). SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-31. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 9/21/2018. Date Completed: 9/21/2018. Description: 6.5" Asphalt, 10.5" Concrete, No groundwater encountered while drilling. Backfilled at completion. SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-42. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 9/21/2018. Date Completed: 9/21/2018. Description: 4" Topsoil, Brown, moist, medium stiff to stiff to medium stiff, silty CLAY, trace sand. (CL-ML). SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-43. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 9/21/2018. Date Completed: 9/21/2018. Description: 4" Topsoil, Brown to dark brown, moist, medium stiff, silty CLAY, some rock fragments. (CL-ML). SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-44. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 9/21/2018. Date Completed: 9/21/2018. Description: 4" Topsoil, Brown to light brown, moist, stiff, clayey SILT, some rock fragments. (ML/CL). SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-1A. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 12/4/2018. Date Completed: 12/4/2018. Description: HMA - 10" Aggregate Base - 5", Gray, moist, very dense, graded aggregate (GPI/GW), Auger Refusal at 2.9', Bottom of Hole at 2.9'. SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-2A. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 12/4/2018. Date Completed: 12/4/2018. Description: HMA - 7" Aggregate Base - 4", Brown, moist, medium stiff, silty CLAY, trace sand. (CL-ML), Auger Refusal at 3.2', Bottom of Hole at 3.2'. SPT Blows/Foot Curve.

HILLIS - CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION. Project Name: HGR Runway Evaluation. Boring No: B-3A. Location: Hagerstown, Maryland. Job #: H18093. Date Started: 12/4/2018. Date Completed: 12/4/2018. Description: HMA - 10" Aggregate Base - 6", Brown, moist, medium stiff, silty CLAY, trace sand. (CL-ML), Auger Refusal at 4.9', Bottom of Hole at 4.9'. SPT Blows/Foot Curve.

FILE NAME: O:\HGR Projects\2018-1303\CAD\SHETS\058\_CV06.01\_Boring Logs.dwg PLOTTED: Monday, February 17, 2020 - 7:35am USER: GRSS



SEAL: Professional Certification: I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No. 32405 Expiration Date: 12.22.2021

Table with columns: DESIGNED: G.F.R., No., DATE, DESCRIPTION, DRAWN: N.B./S.S., CHECKED: B.C./K.M.F., APPROVED: M.S.K.

BID DOCUMENTS



PROJECT TITLE: RUNWAY 9-27 REHABILITATION SHEET TITLE: BORING LOGS 2 SCALE: AS SHOWN DATE: FEBRUARY 2020 SHEET NO.: CV06.02 59 OF 90

HILLIS - CARNES  
ENGINEERING ASSOCIATES, INC.  
RECORD OF SOIL EXPLORATION

Project Name HGR Runway Evaluation Boring No. B-4A  
Location Hagerstown, Maryland Job # H18093  
Datum \_\_\_\_\_ Hammer Wt. 140 lbs. lbs. Hole Diameter 2.25" Foreman C. Leatherman  
Surf. Elev. \_\_\_\_\_ ft Hammer Drop 30" in Rock Core Diameter \_\_\_\_\_ Inspector C. Shepeck  
Date Started 12/4/2018 Pipe Size 2.0" OD in Boring Method HSA Date Completed 12/4/2018

Elevation Depth	SOIL SYMBOLS SAMPLE CONDITIONS	Description	Boring and Sampling Notes	No.	Rec.	SPT Blows	SPT Blows/Foot Curve			NM
							N	10	30	
0		HMA - 10"								
0		Concrete Aggregate Base - 3"								
0		Brown, moist, stiff, silty CLAY, trace sand and organics. (CL-ML)		1	18	8-5-5-5	10			
2			No groundwater encountered while drilling. Backfilled at completion.	2	18	4-6-6-6	12			
5.5		Bottom of Hole at 5.5'								

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED  
PT - PRESSED SHELBY TUBE  
CA - CONTINUOUS FLIGHT AUGER  
RC - ROCK CORE

SAMPLE CONDITIONS: D - DISINTEGRATED  
I - INTACT  
U - UNDISTURBED  
L - LOST

GROUND WATER: AT COMPLETION \_\_\_\_\_ ft  
AFTER 24 HRS. \_\_\_\_\_ ft

CAVE IN DEPTH: \_\_\_\_\_ ft

BORING METHOD: HSA - HOLLOW STEM AUGERS  
CFA - CONTINUOUS FLIGHT AUGERS  
DC - DRIVING CASING  
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.

HILLIS - CARNES  
ENGINEERING ASSOCIATES, INC.  
RECORD OF SOIL EXPLORATION

Project Name HGR Runway Evaluation Boring No. B-5A  
Location Hagerstown, Maryland Job # H18093  
Datum \_\_\_\_\_ Hammer Wt. 140 lbs. lbs. Hole Diameter 2.25" Foreman C. Leatherman  
Surf. Elev. \_\_\_\_\_ ft Hammer Drop 30" in Rock Core Diameter \_\_\_\_\_ Inspector C. Shepeck  
Date Started 12/4/2018 Pipe Size 2.0" OD in Boring Method HSA Date Completed 12/4/2018

Elevation Depth	SOIL SYMBOLS SAMPLE CONDITIONS	Description	Boring and Sampling Notes	No.	Rec.	SPT Blows	SPT Blows/Foot Curve			NM
							N	10	30	
0		HMA - 4"								
0		Concrete Aggregate Base-6"								
0		Brown, moist, medium stiff to very stiff, silty CLAY, trace sand and organics (CL-ML)		1	18	6-4-4-8	8			
2			No groundwater encountered while drilling. Backfilled at completion.	2	13	8-11-9-8	20			
5.5		Bottom of Hole at 5.5'								

SAMPLER TYPE: DRIVEN SPLIT SPOON UNLESS OTHERWISE NOTED  
PT - PRESSED SHELBY TUBE  
CA - CONTINUOUS FLIGHT AUGER  
RC - ROCK CORE

SAMPLE CONDITIONS: D - DISINTEGRATED  
I - INTACT  
U - UNDISTURBED  
L - LOST

GROUND WATER: AT COMPLETION \_\_\_\_\_ ft  
AFTER 24 HRS. \_\_\_\_\_ ft

CAVE IN DEPTH: \_\_\_\_\_ ft

BORING METHOD: HSA - HOLLOW STEM AUGERS  
CFA - CONTINUOUS FLIGHT AUGERS  
DC - DRIVING CASING  
MD - MUD DRILLING

STANDARD PENETRATION TEST-DRIVING 2" O.D. SAMPLER 1" WITH 140# HAMMER FALLING 30"; COUNT MADE AT 6" INTERVALS.



SEAL: \_\_\_\_\_  
Professional Certification:  
I hereby certify that these documents  
were prepared or approved by me,  
and that I am a duly licensed  
professional engineer under the laws  
of the State of Maryland.  
License No. 32405  
Expiration Date 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:	N. B. / S.S.		
CHECKED:	B. C. / K.M.F		
APPROVED:	M.S.K.		



PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
SHEET TITLE: **BORING LOGS 3**  
SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: **CV06.03**  
**60 OF 90**

**GENERAL ELECTRICAL NOTES:**

1. HEAVY LINE WORK INDICATES ELECTRICAL MATERIALS AND EQUIPMENT TO BE FURNISHED AND/OR INSTALLED OR EXISTING ELECTRICAL INSTALLATION TO BE MODIFIED, ADJUSTED AND/OR REINSTALLED AS SHOWN ON THE CONTRACT DRAWINGS. HEAVY LINE WORK ALSO INDICATES EQUIPMENT SPECIFIED ON ALL DRAWINGS OTHER THAN ELECTRICAL DRAWINGS THAT SHALL BE INSTALLED, CONNECTED AND/OR COMMISSIONED PER ELECTRICAL DRAWINGS.
2. LIGHT LINE WORK INDICATES EXISTING ELECTRICAL MATERIALS AND EQUIPMENT TO REMAIN. ALL OTHER NON-ELECTRICAL MATERIALS AND EQUIPMENT, EXISTING OR TO BE FURNISHED AND/OR INSTALLED UNDER THIS CONTRACT, INDICATED ON OTHER THAN ELECTRICAL DRAWINGS, ARE ALSO SHOWN IN LIGHT LINES.
3. CLOSE COORDINATION AND COOPERATION BETWEEN THE TRADES SHALL BE REQUIRED IF ADDITIONAL CONTRACTORS FROM OTHER TRADES ARE WORKING IN THE PROXIMITY OF THIS PROJECT AND WILL SHARE COMMON HAUL ROUTES AND GATE ACCESS. WORK CLOSELY WITH THE RESIDENT PROJECT REPRESENTATIVE, AIRPORT MAINTENANCE, AND AIRPORT IN COORDINATING SCHEDULES IN ORDER TO MINIMIZE CONFLICTS.
4. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS AND LABOR TO RELOCATE, MODIFY AND INSTALL THE AIRFIELD ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS. ITEMS NOT SHOWN BUT NECESSARY FOR COMPLETION OF THE WORK SHALL BE INCLUDED.
5. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL SAFETY CODE, NATIONAL ELECTRICAL CODE, FEDERAL AVIATION ADMINISTRATION SPECIFICATIONS, APPLICABLE LOCAL BUILDING CODES AND LATEST VERSIONS OF THE FAA ADVISORY CIRCULARS.
6. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVALS.
7. ALL MATERIALS SCHEDULED FOR REMOVAL SUCH AS EXISTING RUNWAY AND TAXIWAY LIGHTS, ETC., WHICH ARE DEEMED SALVAGEABLE BY THE AIRPORT SHALL BE DELIVERED TO THE LOCATION ON AIRPORT PROPERTY AS INDICATED BY THE RESIDENT PROJECT REPRESENTATIVE. ALL NON-SALVAGABLE MATERIALS INDICATED TO BE REMOVED SUCH AS CONCRETE FOUNDATIONS, CONDUIT, LIGHT BASES, CABLE, ISOLATION TRANSFORMERS ETC. SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS.
8. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE AIRPORT, FEDERAL AVIATION ADMINISTRATION AND RESIDENT PROJECT REPRESENTATIVE PRIOR TO AND DURING CONSTRUCTION TO ENSURE THAT ALL ELECTRICAL CIRCUITS AND FACILITIES HAVE BEEN LOCATED, FLAGGED AND ACCOUNTED FOR AND THAT ALL NECESSARY CIRCUITS HAVE BEEN DETERMINED PRIOR TO INITIATING CONSTRUCTION IN ANY LOCATION.
9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THAT ALL AIRFIELD LIGHTING CIRCUITS, EXCEPT THOSE THAT ARE SERVING CLOSED TAXIWAYS OR RUNWAYS, ARE OPERATIONAL AND FULLY FUNCTIONAL AT THE END OF EACH WORK DAY AND SHALL SO CERTIFY TO THE RESIDENT PROJECT REPRESENTATIVE BEFORE LEAVING THE SITE EACH DAY.
10. ALL UTILITIES TO REMAIN SHALL BE PROTECTED FROM DAMAGE. REPLACEMENT OF ANY DAMAGED EXISTING SYSTEMS/UTILITIES SHALL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGED ELECTRICAL SYSTEMS AND SHALL MAKE REPAIRS IMMEDIATELY, AT THEIR OWN COST, IN ACCORDANCE WITH APPLICABLE FAA SPECIFICATIONS. DAMAGED ELECTRICAL SYSTEMS SHALL BE IMMEDIATELY REPORTED TO THE RESIDENT PROJECT REPRESENTATIVE.
11. DUCT BANKS AND CONDUITS BETWEEN DEMOLISHED JUNCTION STRUCTURES, BASE CANS ETC. SHALL BE REMOVED EXCEPT WHERE INDICATED.
12. ALL WORK SHOWN TO BE DEMOLISHED ON THE DRAWINGS IS BASED ON FIELD OBSERVATION OF THE ACTUAL EXISTING CONDITIONS AND ON EXISTING RECORD DRAWINGS OF THE AREAS AFFECTED. THEY ARE THEREFORE CONSIDERED TO BE SCHEMATIC. CONTRACTOR SHALL VISIT THE SITE, CAREFULLY EXAMINE EXISTING CONDITIONS AND SHALL PERFORM ALL REMOVAL REQUIRED TO ACHIEVE THE FINAL DESIGN INTENT AS REQUIRED BY THE CONTRACT DOCUMENTS, IT IS THE INTENT OF THE DEMOLITION DRAWINGS THAT ALL EQUIPMENT, DEVICES, FIXTURES, CONDUIT/DUCT, WIRING MATERIALS, SYSTEMS AND APPURTENANCES, ETC. WHICH ARE NO LONGER REQUIRED AS A RESULT OF THE PROJECT BE REMOVED.
13. ELECTRICAL DEMOLITION WORK SHALL BE LIMITED TO THE AREAS AND SCHEDULES IDENTIFIED IN THE PLANS.
14. THERE MUST BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND AND WHERE THEY ENTER THE EQUIPMENT ENCLOSURES (SUCH AS AIRFIELD SIGNAGE). ALL CABLES MUST BE ENCLOSED IN RACEWAY AS SHOWN WITHIN THE APPLICABLE DETAILS.
15. ALL GROUND RODS AND OTHER UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY EXOTHERMIC WELD. EXOTHERMIC WELD CONNECTIONS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES. THE PROPOSED COUNTERPOISE SYSTEM SHALL BE CONNECTED WITH THE EXISTING SYSTEM AT ALL CROSSING POINTS.
16. CIVIL DATA IS SHOWN ON ELECTRICAL DRAWINGS FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR DRAINAGE, PAVING DETAILS, PAVEMENT MARKING PLANS, ETC.
17. THE CONTRACTOR SHALL UTILIZE A UTILITY LOCATING SERVICE AS WELL AS HAVE A TONE GENERATOR TYPE CABLE TRACER AVAILABLE TO LOCATE THE EXISTING CABLES. HAND DIGGING SHALL BE UNDERTAKEN WITHIN FOUR (4) FEET OF ANY KNOWN OR SUSPECTED EXISTING UNDERGROUND CABLES AND UTILITIES WHICH ARE NOT TO BE DISTURBED.
18. THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT TO ENSURE THAT ALL LIGHTING THAT IS REQUIRED FOR THE OPERATION OF THE AIRPORT IS FUNCTIONAL BY END OF SHIFT. SHOULD ANY REQUIRED RUNWAY OR TAXIWAY LIGHTING SYSTEM BE INOPERABLE DUE TO CONTRACTOR'S WORK, AND THE CONTRACTOR IS UNABLE TO RESTORE THE SYSTEM BY END OF SHIFT WITH PERMANENT REPAIRS, THE CONTRACTOR SHALL AT HIS OWN EXPENSE TAKE THE NECESSARY MEASURES TO ENSURE THE OPERATION OF THE SYSTEM DURING NIGHT HOURS. TEMPORARY WORK SHALL BE SUBJECT TO THE RESIDENT PROJECT REPRESENTATIVE'S APPROVAL. IF THE SYSTEM CANNOT BE RESTORED BY END OF SHIFT, THE CONTRACTOR SHALL CONTACT THE RESIDENT PROJECT REPRESENTATIVE TWO HOURS PRIOR TO THE END OF SHIFT. AIRPORT PERSONNEL MAY BE CALLED IN TO MAKE REPAIRS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REPAIRS MADE BY AIRPORT PERSONNEL.
19. ALL JUNCTION STRUCTURES/HANDHOLES/MANHOLES SHALL BE INSTALLED OUTSIDE THE SAFETY AREA UNLESS SHOWN OTHERWISE ON THE PLANS. COORDINATE FINAL LOCATION WITH GRADING AND DRAINAGE PLANS. WHEN EXTENDING EXISTING DUCT TO NEW JUNCTION CANS/HANDHOLES/MANHOLES, PUT STRUCTURE IN LINE WITH EXISTING DUCT. WHEN POSSIBLE DO NOT INSTALL STRUCTURES IN DITCHES OR SWALES OR WHERE WATER WILL POND ON TOP OF THE STRUCTURES.
20. SAW CUT PAVEMENT AS REQUIRED FOR INSTALLATION OF UNDERGROUND CONDUITS AND OTHER SUBSURFACE INSTALLATIONS AND RESTORE SUCH PAVEMENT IN KIND. COORDINATE PAVEMENT CUTTING WITH OVERLAYING OPERATIONS TO AVOID CUTTING OVERLAID PAVEMENT.
21. FURNISH AND INSTALL CONDUIT EXPANSION JOINTS WHEREVER CONDUITS CROSS PAVEMENT EXPANSION JOINTS.
22. MAINTAIN 6" MINIMUM CLEARANCE BETWEEN UNDERGROUND CONDUITS FURNISHED AND INSTALLED UNDER THIS CONTRACT AND EXISTING UNDERGROUND UTILITIES OR OTHER CONDUITS FURNISHED AND INSTALLED UNDER THIS CONTRACT.
23. ELECTRICAL MANHOLES AND HANDHOLES MAY BE FILLED WITH WATER. FURNISH DEWATERING SERVICE, GAS-FREE TESTING, AND PROVIDING SAFETY EQUIPMENT FOR CONFINED SPACE OPERATIONS WHEN ENTERING ALL AFFECTED MANHOLES AND HANDHOLES AT NO ADDITIONAL COST TO THE AIRPORT. COMPLY WITH LOCAL AND OSHA SAFETY REQUIREMENTS FOR ENTERING CONFINED SPACES AND OBTAIN ANY AND ALL PERMITS REQUIRED FOR DEWATERING.
24. PROTECTION OF ALL PERSONS SHALL BE PROVIDED THROUGHOUT THE PROJECT. THE WORK SHALL PROCEED IN SUCH A MANNER AS TO PROVIDE SAFE CONDITIONS FOR ALL WORKERS AND AIRPORT PERSONNEL. PRIOR TO EACH WORK PERIOD A SAFETY JOB BRIEFING SHALL BE CONDUCTED TO DISCUSS CONSTRUCTION DURING THE WORK PERIOD. COORDINATE WITH AIRPORT PERSONNEL FOR SWITCHING AND LOCK-OUT/TAG OUT OF AIRFIELD LIGHTING CIRCUITS. ELECTRICAL EQUIPMENT SHALL BE DE-ENERGIZED PRIOR TO WORK PROCEDURES AND THOSE BEING DE-ENERGIZED OR SWITCHED SHOULD BE LOGGED AND DOCUMENTED.
25. PROJECT PAY ITEMS: THE PROJECT PAY ITEMS ARE PROVIDED TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED AS SHOWN IN THESE PLANS. ALL WORK TO BE IDENTIFIED WITH A SPECIFIC PAY ITEM IS TO BE CONSIDERED REQUIRED WORK TO COMPLETE THE PROJECT AND IS TO BE SUBSIDIARY TO THE COST OF PROJECT PAY ITEMS PROVIDED.
26. THE CONTRACTOR SHALL CONDUCT GROUND INSULATION RESISTANCE TESTS (MEGGER) ON EACH CIRCUIT AFFECTED BY THIS WORK BEFORE COMMENCING WORK ON THAT CIRCUIT. CONTRACTOR SHALL PREPARE AND FORWARD TO THE RESIDENT PROJECT REPRESENTATIVE A WRITTEN REPORT, BY CIRCUIT, OF THESE RESULTS. THE CONTRACTOR SHALL REPEAT THIS TEST ON EACH AFFECTED CIRCUIT AFTER COMPLETION OF THE WORK. RESULTS OF BOTH TESTS SHALL BE PROVIDED TO THE RESIDENT PROJECT REPRESENTATIVE. REFER TO SPECIFICATION "L-108 UNDERGROUND POWER CABLE FOR AIRPORTS" FOR ADDITIONAL INSULATION RESISTANCE REQUIREMENTS.
27. THE IDENTITY AND ROUTING OF ALL CABLES SHOWN ON THE PLANS SHALL BE VERIFIED IN THE FIELD. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT PROJECT REPRESENTATIVE AND RECORDED IN THE AS-BUILT DRAWINGS TO PROVIDE AN ACCURATE RECORD OF CONDITIONS. THE CONTRACTOR SHALL COORDINATE INFORMATION SHOWN ON THE PLAN SHEETS WITH EXISTING RECORD INFORMATION AVAILABLE THROUGH THE RESIDENT PROJECT REPRESENTATIVE. THESE PLANS DO NOT PURPORT TO SHOW ALL EXISTING CABLES AND CONCEALED UTILITIES WHICH WILL REQUIRE STAKE OUT PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY EXISTING CIRCUIT ROUTING PRIOR TO COMMENCING WORK.
28. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE SAFETY, SECURITY AND PHASING PLANS.
29. THERE ARE A NUMBER OF AIRPORT, PUBLIC UTILITIES AND FAA LIGHTING, COMMUNICATIONS, UNDERGROUND CONDUIT, DUCTBANK, AND CIRCUITING TRAVERSING THE AIRFIELD. THE RESIDENT PROJECT REPRESENTATIVE HAS MADE EVERY ATTEMPT TO SHOW THE APPROXIMATE LOCATION OF ALL ITEMS BASED ON AIRPORT "AS BUILT" AND "RECORD" DRAWINGS. HOWEVER, THE RESIDENT PROJECT REPRESENTATIVE IS NOT RESPONSIBLE FOR SHOWING OR LOCATING EVERY ITEM CURRENTLY IN PLACE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EVERY ITEM LOCATED, FLAGGED AND IDENTIFIED PRIOR TO START OF CONSTRUCTION. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL CONTACT ALL LOCAL UTILITIES TO ALLOW THEM TIME TO PROPERLY LOCATE ALL UTILITIES. ANY DAMAGE DONE TO ANY OF THE EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY ITEM DAMAGED, CAUSED BY HIS ACTIONS, WITH NO ADDITIONAL COMPENSATION.

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWGS\00\A\_E\00.00.dwg PLOTTED: Monday, February 03, 2020 - 8:41am USER: jjojen



6031 UNIVERSITY BLVD  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

BID DOCUMENTS



PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE:	GENERAL NOTES - 1	
SCALE:	AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **E00.01**

61 OF 90

**GENERAL ELECTRICAL NOTES (CONTINUED):**

1. FAA L-824 TYPE C CABLE AS SPECIFIED FOR USE ON THIS PROJECT CAN BE A LONG LEAD DELIVERY ITEM FOR THIS PROJECT. CONTRACTOR SHALL COORDINATE THE DELIVERY OF THE CABLE TO ASSURE THAT THE CABLE DELIVERY WILL NOT CAUSE DELAYS IN THE PROJECT. NO EXTRA COST WILL BE ALLOWED, BEYOND THE BID PRICE, FOR THE CABLE DELIVERY.
2. ALL EXISTING LIGHTING FIXTURES, AND AIRFIELD GUIDANCE SIGNS REMOVED FOR RE-INSTALLATION, SHALL BE INVENTORIED, CAREFULLY WRAPPED, PROTECTED IN THE PRESENCE OF THE RESIDENT PROJECT REPRESENTATIVE. THESE LIGHTING FIXTURES AND AIRFIELD GUIDANCE SIGNS SHALL BE STORED ON SIGHT IN WEATHERPROOF STORAGE CONTAINER PROVIDED BY THE CONTRACTOR. ANY EQUIPMENT DAMAGED THAT OCCURS DURING REMOVAL OR STORAGE SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
3. THE CONTRACTOR SHALL MAINTAIN A READILY AVAILABLE SUPPLY OF LIGHT FIXTURE MOUNTING BOLTS, LOCK WASHERS, L-823 CONNECTOR KITS AND ANY OTHER HARDWARE/COMPONENTS TO PROVIDE A COMPLETE LIGHT FIXTURE/ISOLATION TRANSFORMER INSTALLATION OR REINSTALLATION.
4. APPLY A CORROSION INHIBITING, ANTI-SEIZE COMPOUND TO ALL SCREWS, NUTS, BOLTS AND FRANGIBLE COUPLING THREADS. IF COATED BOLTS ARE USED PER FAA ENGINEERING BRIEF #83, DO NOT APPLY ANTI-SEIZE COMPOUND.
5. ALL UNDERGROUND CONDUIT ENCASED IN CONCRETE SHALL BE SCHEDULE 40 PVC.
6. PRIOR TO INSTALLING LIGHT FIXTURES ON EXISTING LIGHT BASE, CLEAN INTERIOR OF LIGHT BASE BY REMOVING DIRT, DEBRIS AND SITTING WATER. TO REMOVE DIRT AND DEBRIS USE A WIRE BRUSH. TO CLEAN A LIGHT BASE OF SITTING WATER, USE A WET/DRY VACUUM.
7. PRIOR TO PULLING 5KV SERIES LIGHTING CABLE AND GROUNDING CABLE, CLEAN EXISTING CONDUIT OF DEBRIS USING WIRE BRUSH, MANDREL OR METHOD ACCEPTABLE TO THE RESIDENT PROJECT REPRESENTATIVE. UTILIZE THE NEXT TRADE SIZE MANDREL IN THE EXISTING CONDUIT TO PROVE ITS INTEGRITY.
8. ANY EXISTING CONDUITS DISCOVERED THAT ARE CONNECTED TO EXISTING LIGHT BASES TO BE DEMOLISHED (OTHER THAN THOSE INDICATED TO BE DEMOLISHED) AND NOT SHOWN ON THE DRAWINGS, ARE TO BE CUT BACK TO A POINT 12" FROM EDGE OF EXISTING PAVEMENT AND EXTENDED WITH NEW 2" PVC CONDUIT TO NEW LIGHT BASE.
9. ALL CABLES SHALL BE TAGGED AT EACH CONNECTION AND AT EACH ENTRANCE TO DUCTS, HANDHOLES, AND JUNCTION BOXES. CABLE MARKERS SHALL BE ALMETEK 'MIN-TAGS' KIT WITH BLACK STAMPED YELLOW POLYETHYLENE LETTERS OR APPROVED EQUIVALENT. ATTACH MARKERS WITH CABLE TIES.
10. UPON REQUEST, SUBMIT TO THE RESIDENT PROJECT REPRESENTATIVE DIMENSIONED INSTALLATION LAYOUT DRAWINGS FOR APPROVAL.
11. ALL 600V OR LESS OVERCURRENT PROTECTIVE DEVICES SHALL HAVE INTERRUPTING CAPACITIES (AIC RATINGS) IN AMPERES RMS SYMMETRICAL. ELECTRICAL DISTRIBUTION POWER AND CONTROL EQUIPMENT SHALL HAVE SHORT CIRCUIT CURRENT RATINGS (SCCR) IN AMPERES RMS SYMMETRICAL. THE INTERRUPTING RATINGS OF MAIN CIRCUIT BREAKERS, BRANCH DEVICES, AND BUS WITHSTAND CAPABILITY, SHALL EACH MEET OR EXCEED THE INDICATED SCCR. SERIES RATED EQUIPMENT WILL NOT BE PERMITTED.
12. EACH BRANCH CIRCUIT SHALL INCLUDE DEDICATED NEUTRAL AND EQUIPMENT GROUNDING CONDUCTORS UNLESS OTHERWISE INDICATED.
13. INSTALLATION OF FLEXIBLE CONNECTIONS SHALL BE LIMITED TO CONNECTIONS TO VIBRATING EQUIPMENT, AND INTERIOR CONNECTIONS TO LIGHTING FIXTURES.
14. WHERE THE FRANGIBLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICONE RUBBER SEAL MUST BE APPLIED COMPLETELY AROUND THE LIGHT STEM OR WIREWAY AT THE FRANGIBLE COUPLING TO PROVIDE A WATERTIGHT SEAL.
15. THE CONTRACTOR SHALL KEEP A COPY OF THE CURRENT SET OF CONTRACT DOCUMENTS WITH AS-BUILT INFORMATION AT THE JOB SITE AT ALL TIMES.
16. VERIFY BY FIELD MEASUREMENTS ALL DIMENSIONS, ELEVATIONS AND CONDITIONS THAT MAY BE REQUIRED TO LOCATE, ALIGN, DIMENSION AND DETAIL THE CONSTRUCTION WITHIN SPECIFIED TOLERANCES. THE FIELD MEASUREMENTS SHALL BE PERFORMED PRIOR TO THE PREPARATION OF SHOP DRAWINGS AND THE MANUFACTURING, FABRICATION AND INSTALLATION OF ALL ITEMS OF CONSTRUCTION. ALL VARIATIONS FROM THE CONTRACT DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT PROJECT REPRESENTATIVE PRIOR TO THE PREPARATION OF SHOP DRAWINGS.
17. AT PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE A TRAINING SESSION FOR AIRPORT MAINTENANCE PERSONNEL. THE SESSION SHALL COVER ALL INSTALLED AIRFIELD ELECTRICAL EQUIPMENT AND ELECTRICAL EQUIPMENT INSTALLED WITHIN THE AIRFIELD LIGHTING VAULT (NO SEPARATE PAY ITEM).
18. AT PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE A COMPLETE MAINTENANCE MANUAL BOUND IN A THREE-RING NOTEBOOK (NO SEPARATE PAY ITEM) THE MANUAL SHALL CONTAIN THE FOLLOWING AS A MINIMUM:
  - AS-BUILT WIRING SCHEMATICS
  - EQUIPMENT SHOP DRAWING SUBMITTALS
  - MANUFACTURERS' EQUIPMENT INSTALLATION INSTRUCTIONS
  - MANUFACTURERS' MAINTENANCE INSTRUCTIONS
  - WARRANTIES
  - SPARE PARTS LISTS
19. WHENEVER, IN THE CONTRACT DOCUMENTS, THE WORDS "PROVIDE", "FURNISH", "INSTALL", "FURNISH AND INSTALL", OR OTHER WORDS OF LIKE IMPORT ARE USED, IT SHALL BE UNDERSTOOD THAT THE INTENT OF THE CONTRACT DOCUMENTS IS TO PROVIDE FOR THE CONSTRUCTION AND COMPLETION IN EVERY DETAIL OF THE WORK DESCRIBED. IT IS FURTHER INTENDED THAT THE

CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, SUPPLIES, TESTING AND INCIDENTALS REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS (PLANS), SPECIFICATIONS AND TERMS OF THE CONTRACT.

**BASE BID AND ADD ALTERNATE NOTES:**

1. THE PROJECT SHALL BE BID AS A BASE BID AND ADD ALTERNATE. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION.
2. THE ELECTRICAL WORK SHALL BE SEPARATED AS FOLLOWS:

**BASE BID**

- A. RUNWAY 9 REILS.
- B. AIRPORT ROTATING BEACON.
- C. RUNWAY IN-PAVEMENT EDGE LIGHTS.

**ADD ALTERNATE**

- A. TAXIWAY EDGE LIGHTS.
- B. CONDUIT AND CABLE.
- C. TAXI GUIDANCE SIGNS.
- D. HANDHOLES AND DUCT BANK.
- E. ALL OTHER WORK

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Remab of Runway 9-27\DWGS\CAD\E\00.00.dwg PLOTTED: Monday, February 03, 2020 - 8:41am USER: jrojen



**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:



STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
53442

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

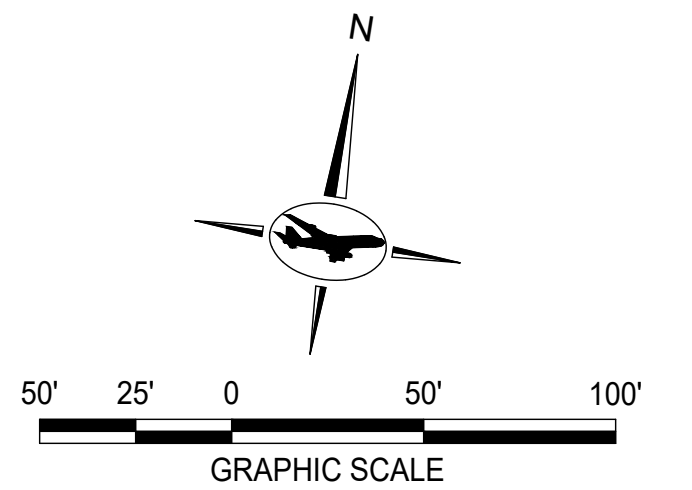


**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE:	GENERAL NOTES - 2	
SCALE:	AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E00.02</b>
62 OF 90





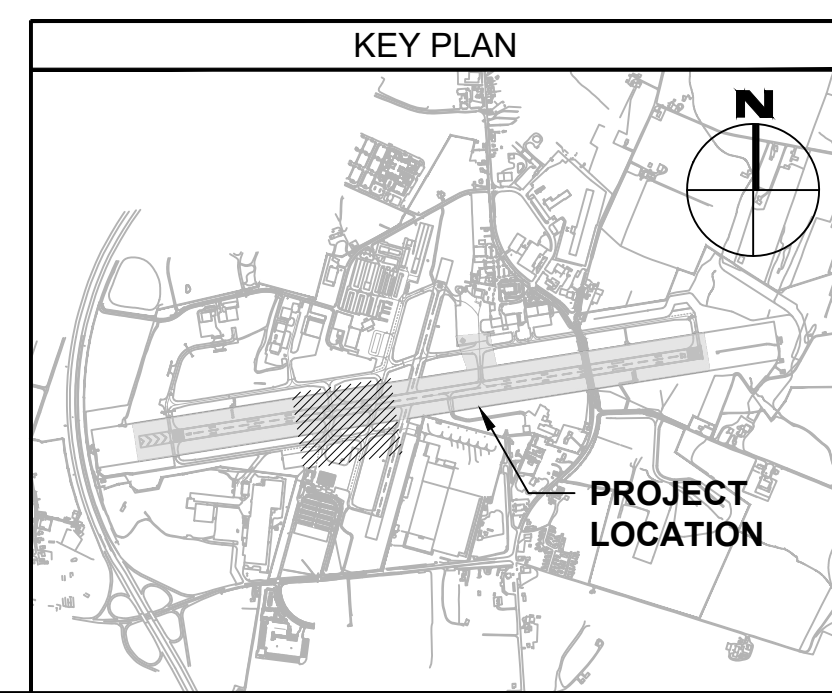
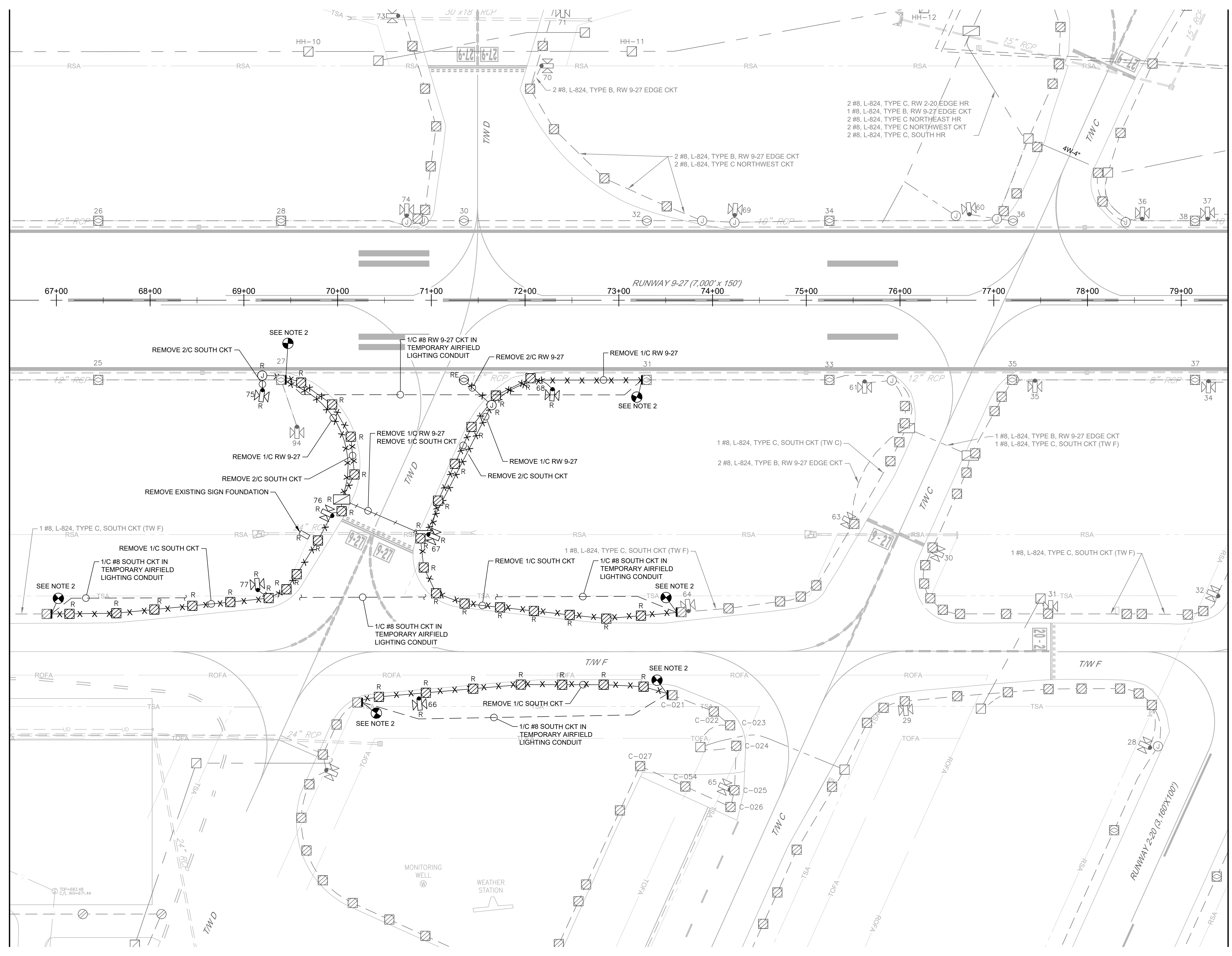
**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL CUT, PROTECT, AND PULL BACK SERIES LIGHTING CABLE TO NEAREST LIGHT FIXTURE. LEAVE A MINIMUM OF 5' SLACK IN FIXTURE FOR FUTURE SPLICING.
- REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.

**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING HAND HOLE
- EXISTING MANHOLE
- EXISTING CONDUIT TO REMAIN
- EXISTING DUCT BANK TO REMAIN
- ELEVATED TAXIWAY EDGE LIGHT TO BE REMOVED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE REMOVED
- GUIDANCE SIGN TO BE REMOVED
- JUNCTION STRUCTURE TO BE REMOVED
- MANHOLE TO BE REMOVED
- HAND HOLE TO BE REMOVED
- CONDUIT TO BE REMOVED
- DUCT BANK TO BE REMOVED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE ADJUSTED TO FINAL GRADE
- REINSTALL EXISTING IN-PAVEMENT RW EDGE LIGHT FIXTURE.

MATCHLINE SEE SHEET E02.02



FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\2018\107318.001.dwg PLOTTED: Monday, February 03, 2020 - 9:42am USER: jroten

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:  
STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
53442

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

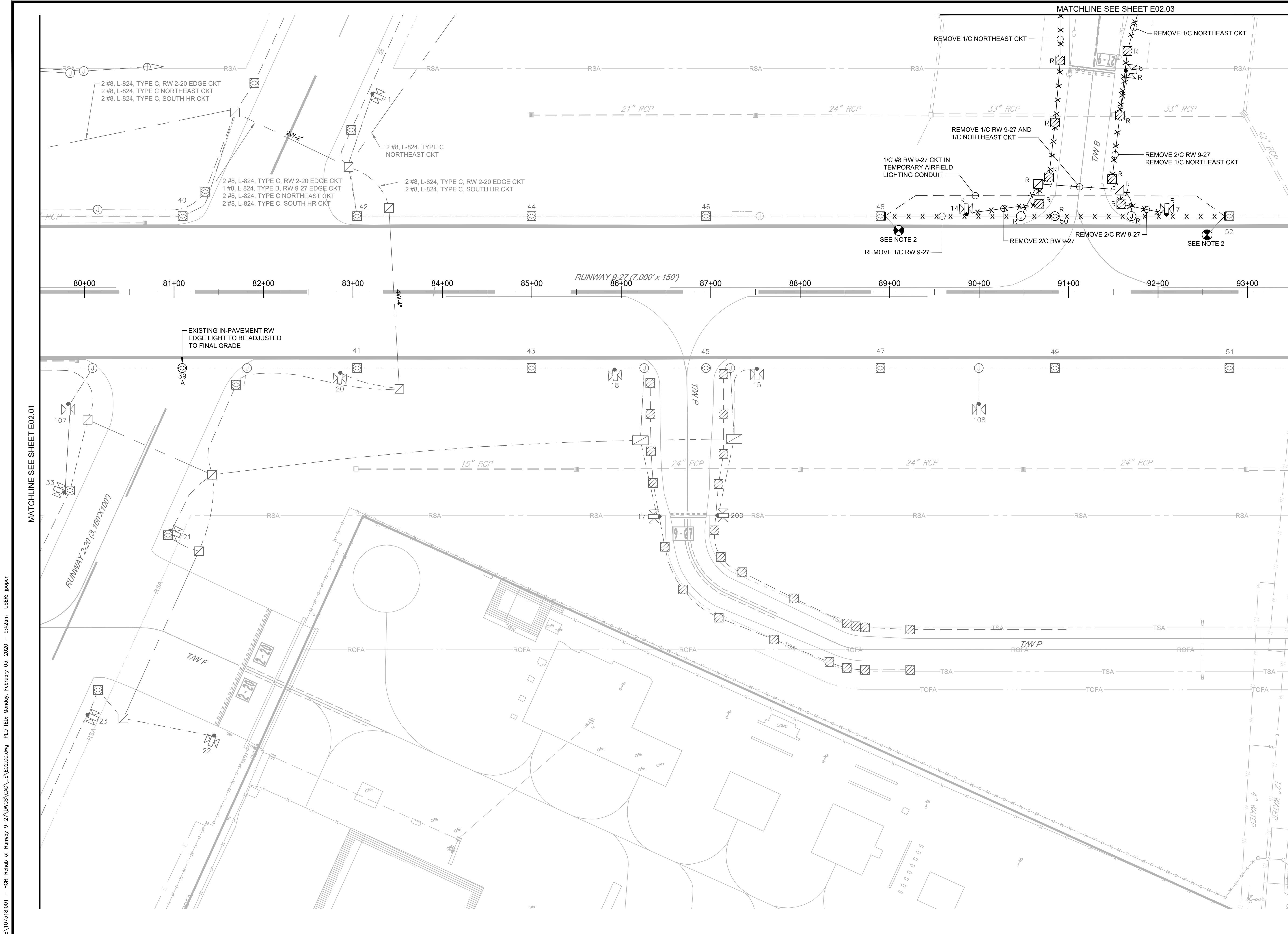
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE: DEMOLITION PLANS - TAXIWAY D	
SCALE: AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E02.01</b> 64 OF 90



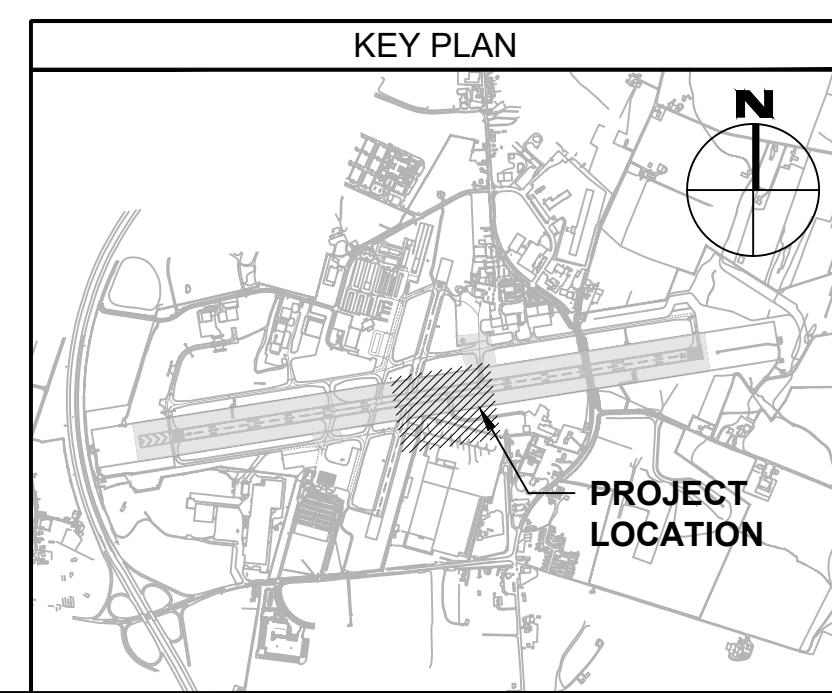


**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL CUT, PROTECT, AND PULL BACK SERIES LIGHTING CABLE TO NEAREST LIGHT FIXTURE. LEAVE A MINIMUM OF 5' SLACK IN FIXTURE FOR FUTURE SPLICING.
- REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.

**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING HAND HOLE
- EXISTING MANHOLE
- EXISTING CONDUIT TO REMAIN
- EXISTING DUCT BANK TO REMAIN
- ELEVATED TAXIWAY EDGE LIGHT TO BE REMOVED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE REMOVED
- GUIDANCE SIGN TO BE REMOVED
- JUNCTION STRUCTURE TO BE REMOVED
- MANHOLE TO BE REMOVED
- HAND HOLE TO BE REMOVED
- CONDUIT TO BE REMOVED
- DUCT BANK TO BE REMOVED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE ADJUSTED TO FINAL GRADE



FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Renab of Runway 9-27\DWGS\CAD\E02.00.dwg PLOTTED: Monday, February 03, 2020 - 9:42am USER: jipjen

MATCHLINE SEE SHEET E02.01

MATCHLINE SEE SHEET E02.03

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

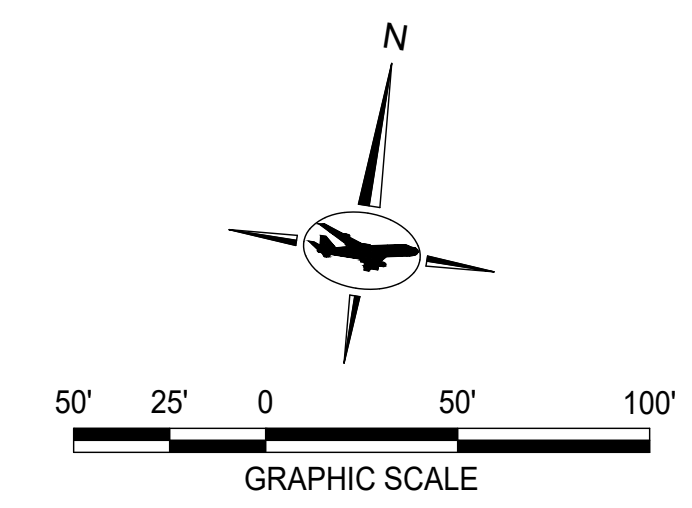
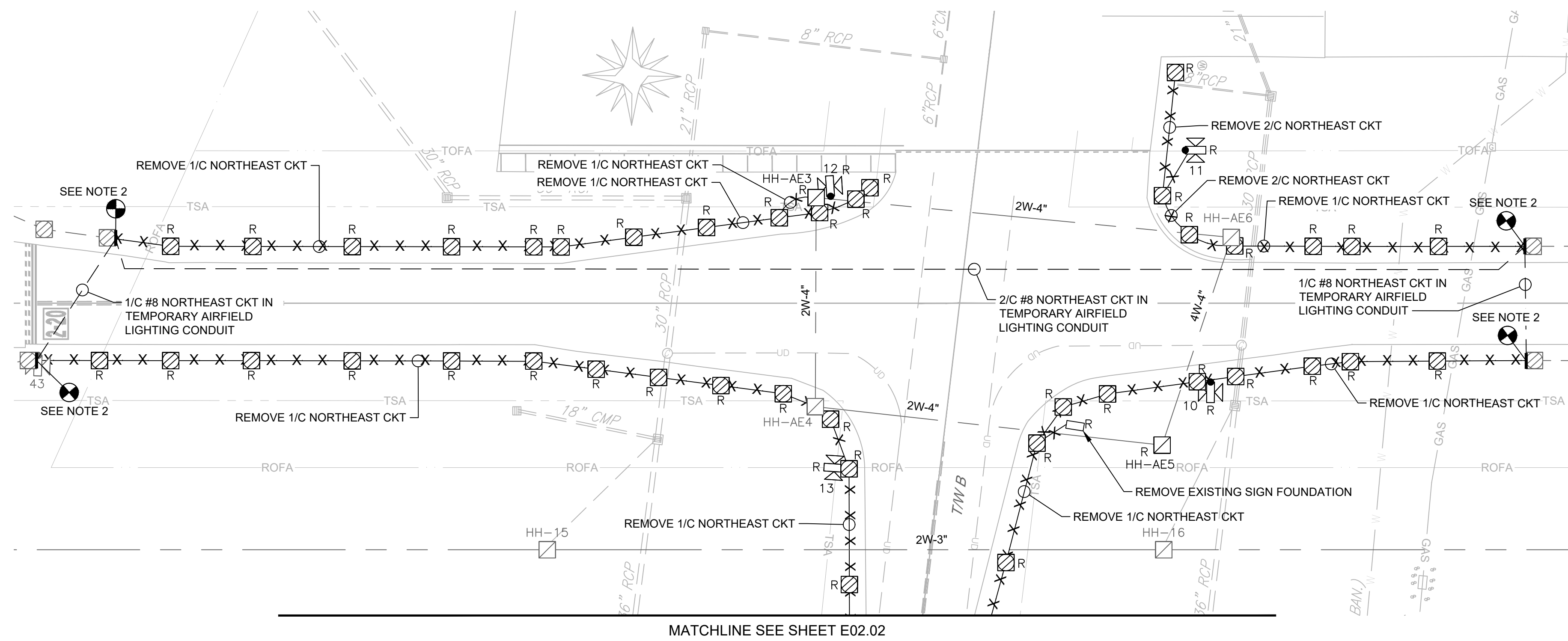
PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

SHEET TITLE: **DEMOLITION PLANS - TAXIWAY B**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **E02.02**  
**65 OF 90**



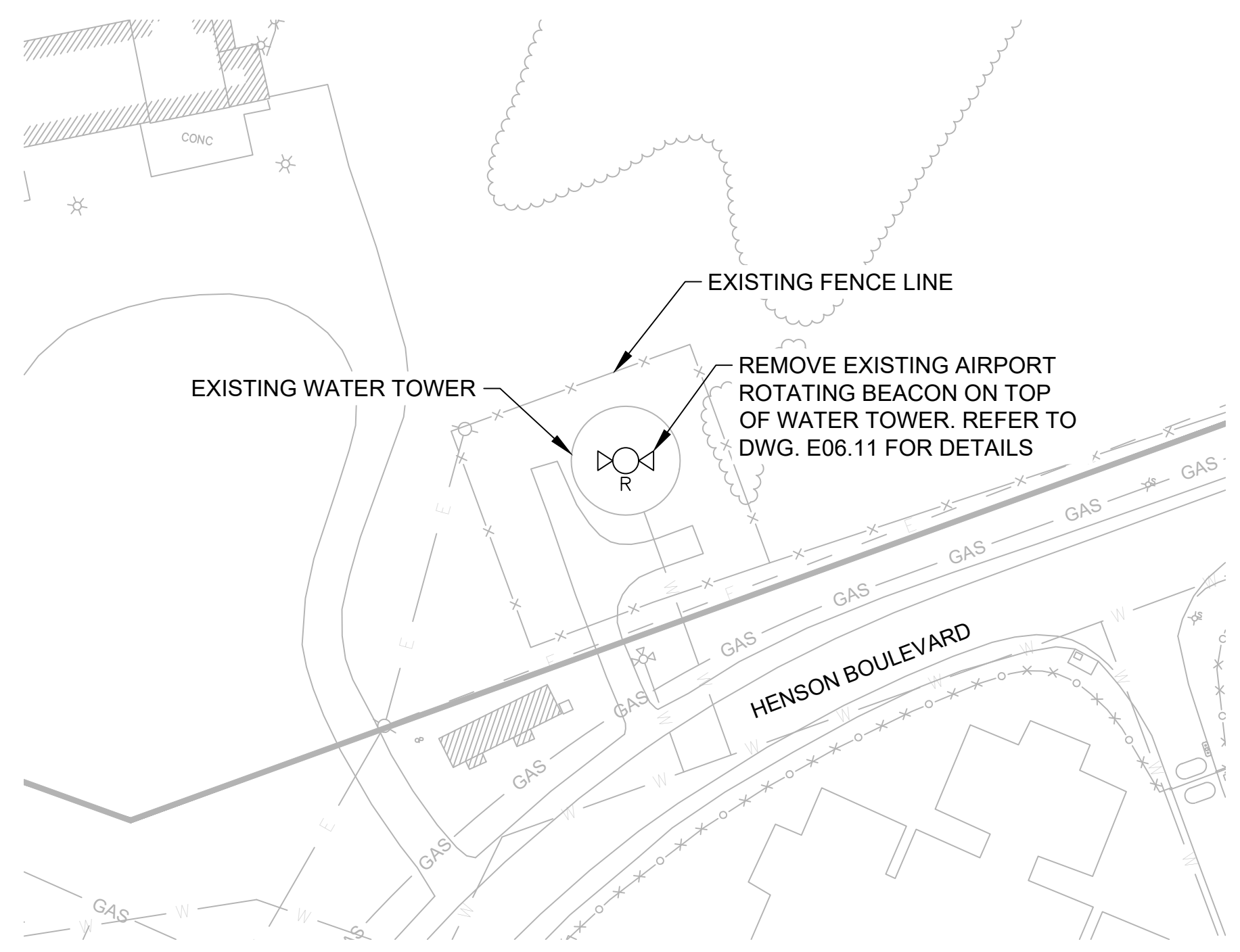
**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL CUT, PROTECT, AND PULL BACK SERIES LIGHTING CABLE TO NEAREST LIGHT FIXTURE. LEAVE A MINIMUM OF 5' SLACK IN FIXTURE FOR FUTURE SPLICING.
- REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.
- REFER TO E06.11 FOR ADDITIONAL AIRPORT ROTATING BEACON INFORMATION.

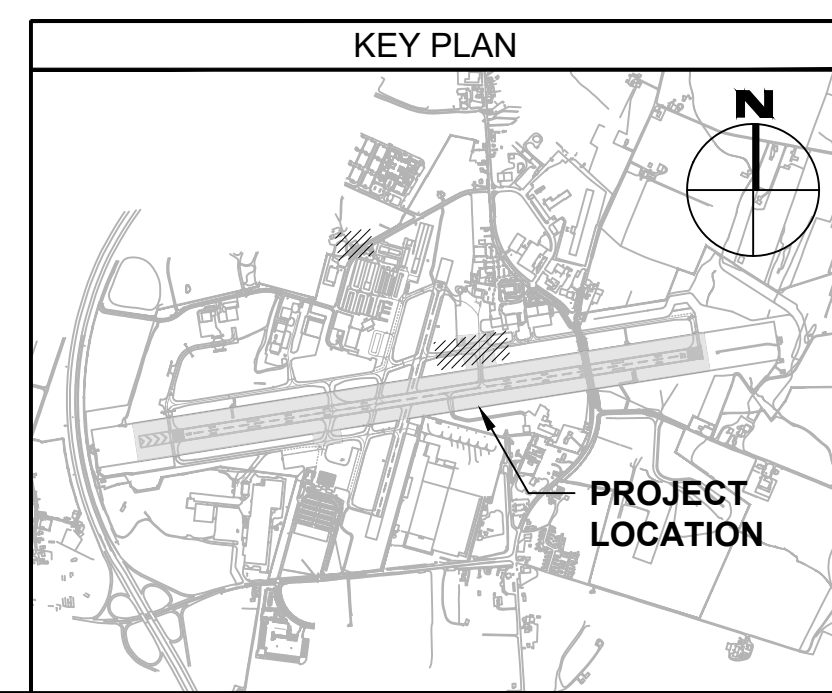
**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING HAND HOLE
- EXISTING MANHOLE
- EXISTING CONDUIT TO REMAIN
- EXISTING DUCT BANK TO REMAIN
- ELEVATED TAXIWAY EDGE LIGHT TO BE REMOVED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE REMOVED
- GUIDANCE SIGN TO BE REMOVED
- CONDUIT TO BE REMOVED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE ADJUSTED TO FINAL GRADE
- EXISTING HANDHOLE TO BE REMOVED

**1 TAXIWAY A AND B INTERSECTION**  
E02.03 SCALE: NTS



**2 AIRPORT ROTATING BEACON REMOVAL**  
E02.03 SCALE: NTS



FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Remob of Runway 9-27\DWGS\CD\1\_E02.00.dwg PLOTTED: Tuesday, February 04, 2020 - 3:58pm USER: jlopm

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

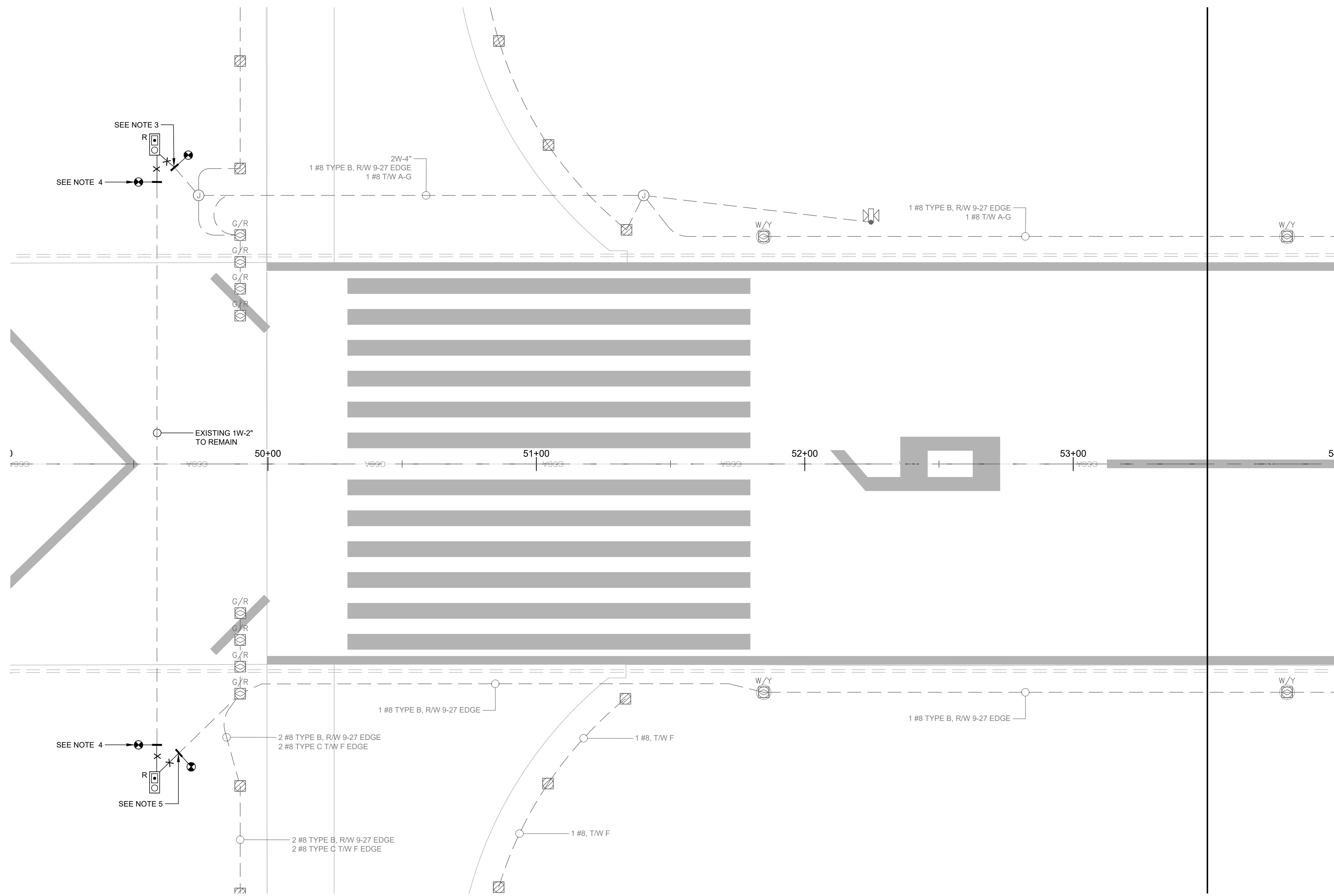
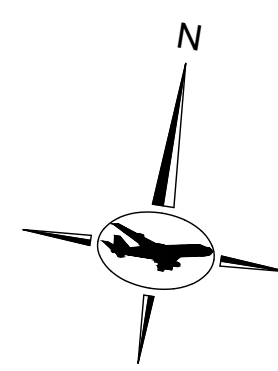
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

**BID DOCUMENTS**

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE: DEMOLITION PLANS - TAXIWAY A & B INTERSECTION, ROTATING BEACON
SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E02.03</b>
<b>66 OF 90</b>

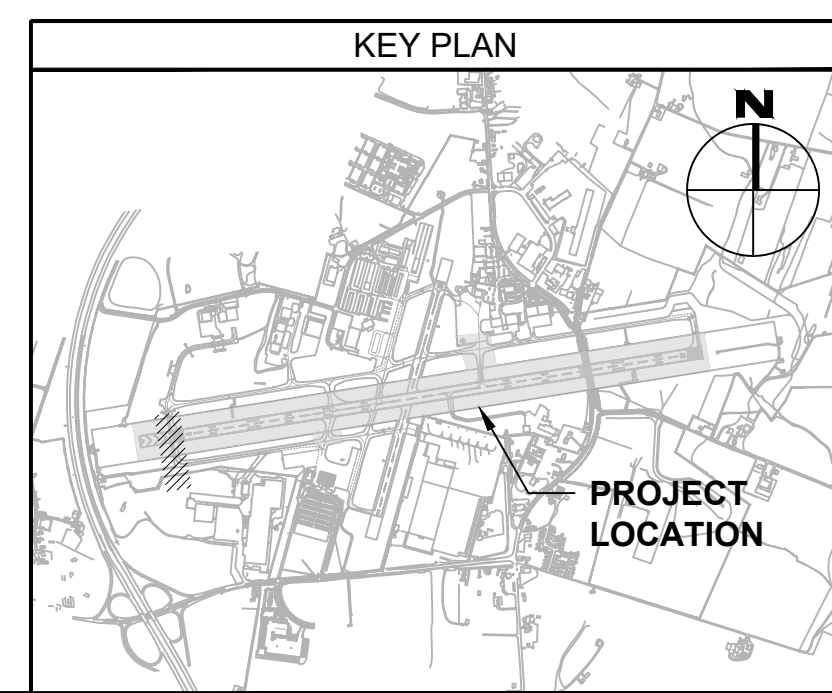


**NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.
3. DISCONNECT EXISTING #8, 5KV SERIES LIGHTING CABLE FROM THE REIL UNIT AND PULL BACK TO THE JUNCTION LIGHT BASE. PROTECT THE CABLE FROM DAMAGE AND WEATHER. EXCAVATE AND LOCATE THE CONNECTING CONDUIT. CUT THE CONDUIT APPROXIMATELY 10-FEET FROM THE REIL UNIT AND REMOVE BACK TO REIL UNIT. INSTALL A TEMPORARY CAP ON THE END OF THE CONDUIT.
4. REMOVE EXISTING REIL CONTROL CABLE. CUT AND REMOVE 10'-0" OF EXISTING 2" CONDUIT FROM THE EXISTING REIL.
5. DISCONNECT EXISTING #8, 5KV SERIES LIGHTING CABLE FROM THE REIL UNIT AND PULL BACK TO THE THRESHOLD END LIGHT. PROTECT THE CABLE FROM DAMAGE AND WEATHER. EXCAVATE AND LOCATE THE CONNECTING CONDUIT. CUT THE CONDUIT APPROXIMATELY 10-FEET FROM THE REIL UNIT AND REMOVE BACK TO REIL UNIT. INSTALL A TEMPORARY CAP ON THE END OF THE CONDUIT.

**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY EDGE/END LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING CONDUIT TO REMAIN
- CONDUIT TO BE REMOVED
- EXISTING REIL UNIT AND CONCRETE FOUNDATION TO BE REMOVED
- POINT OF CONDUIT / DUCT BANK CONNECTION



**1 DEMOLITION - RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS**  
E02.04 SCALE: 1" = 20'-0"

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HSR-Remab of Runway 9-27\DWG\02\00.dwg PLOTTED: Monday, February 03, 2020 - 9:42am USER: jippen

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

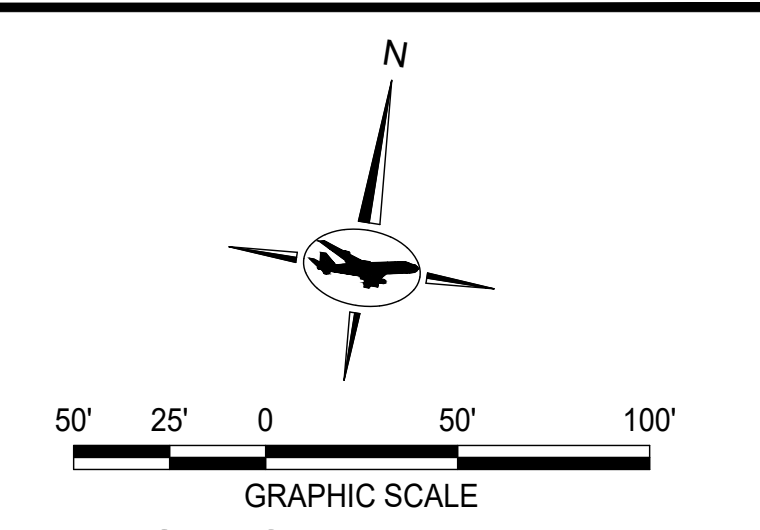
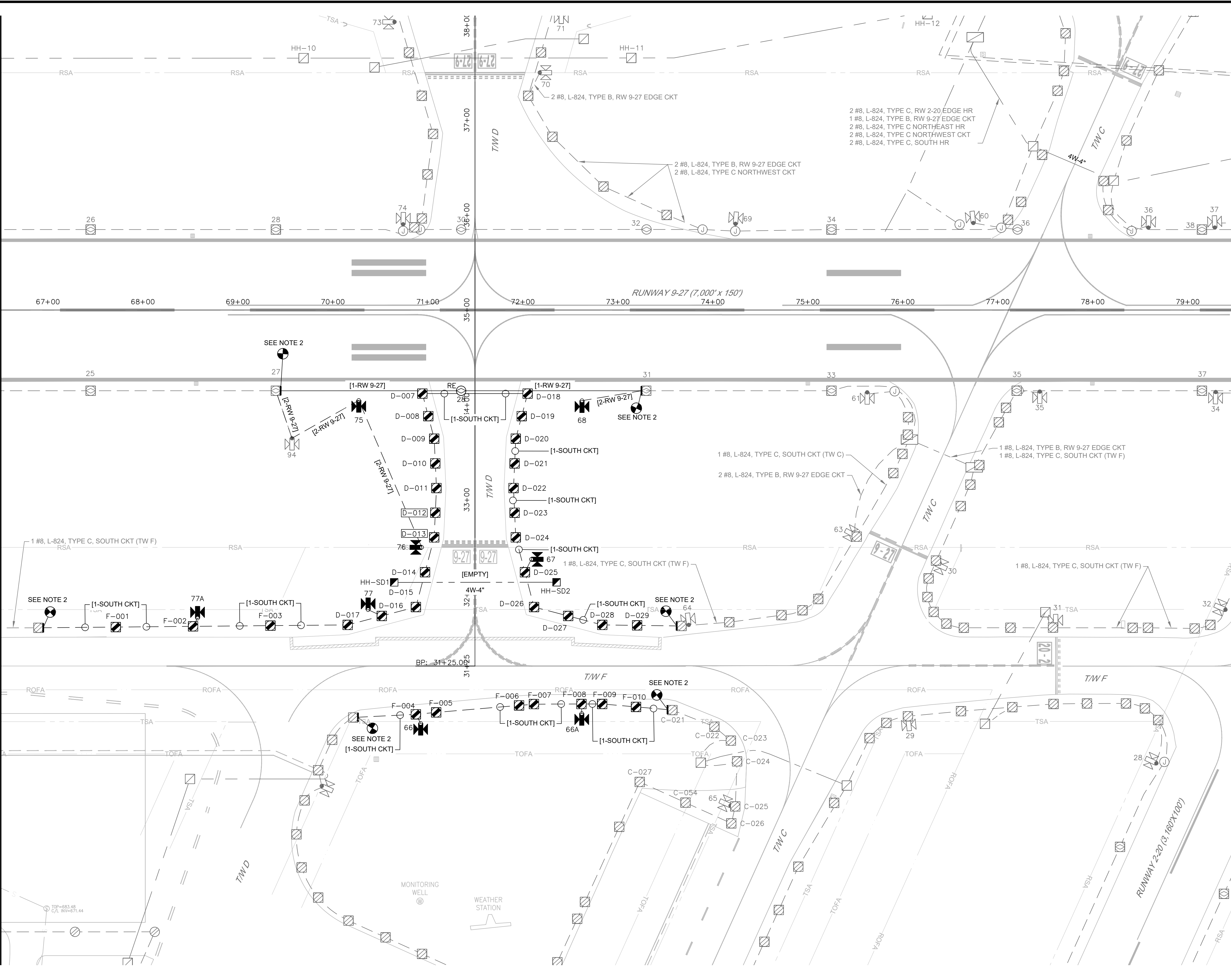


Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	DEMOLITION PLAN - RUNWAY END IDENTIFIER LIGHTS
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E02.04</b>
67 OF 90



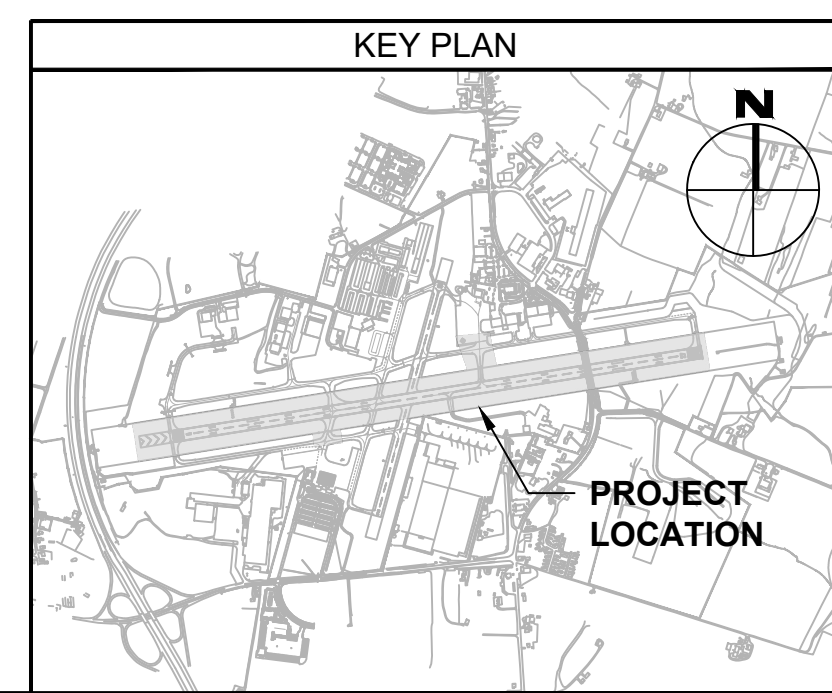
**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL FURNISH AND INSTALL FAA L-824 TYPE "B" 5KV CABLE FOR RW 9-27 CIRCUITS. ALL OTHER FAA L-824 5 KV CABLE SHALL BE TYPE "C." NEW CABLE SHALL BE SPLICED TO EXISTING CABLE LOCATED IN NEAREST LIGHT FIXTURE/JUNCTION STRUCTURE.
- REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.

**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING HAND HOLE
- EXISTING MANHOLE
- EXISTING CONDUIT TO REMAIN
- EXISTING DUCT BANK TO REMAIN
- ELEVATED TAXIWAY EDGE LIGHT TO BE FURNISHED AND INSTALLED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE REINSTALLED
- GUIDANCE SIGN TO BE FURNISHED AND INSTALLED
- HAND HOLE TO BE FURNISHED AND INSTALLED
- 2" CONDUIT TO BE FURNISHED AND INSTALLED
- 2" CONCRETE-ENCASED CONDUIT TO BE FURNISHED AND INSTALLED
- DUCT BANK TO BE FURNISHED AND INSTALLED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE ADJUSTED TO FINAL GRADE
- REINSTALL EXISTING IN-PAVEMENT RW EDGE LIGHT FIXTURE

MATCHLINE SEE SHEET E03.02



FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\03.00.dwg PLOTTED: Monday, February 03, 2020 - 9:42am USER: jrojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

**BID DOCUMENTS**

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

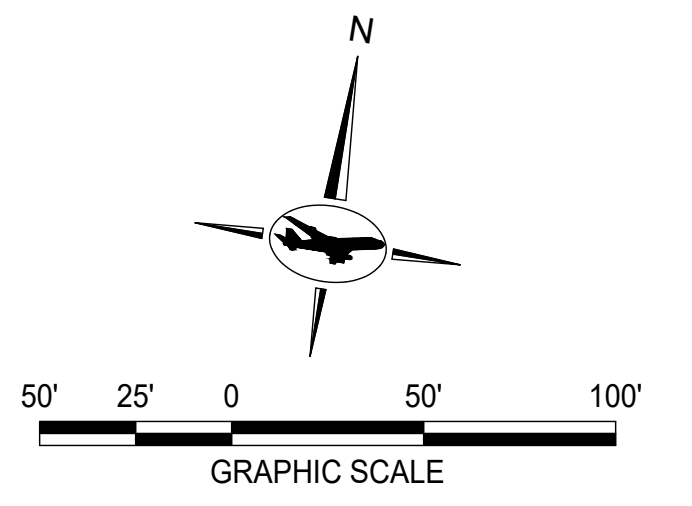
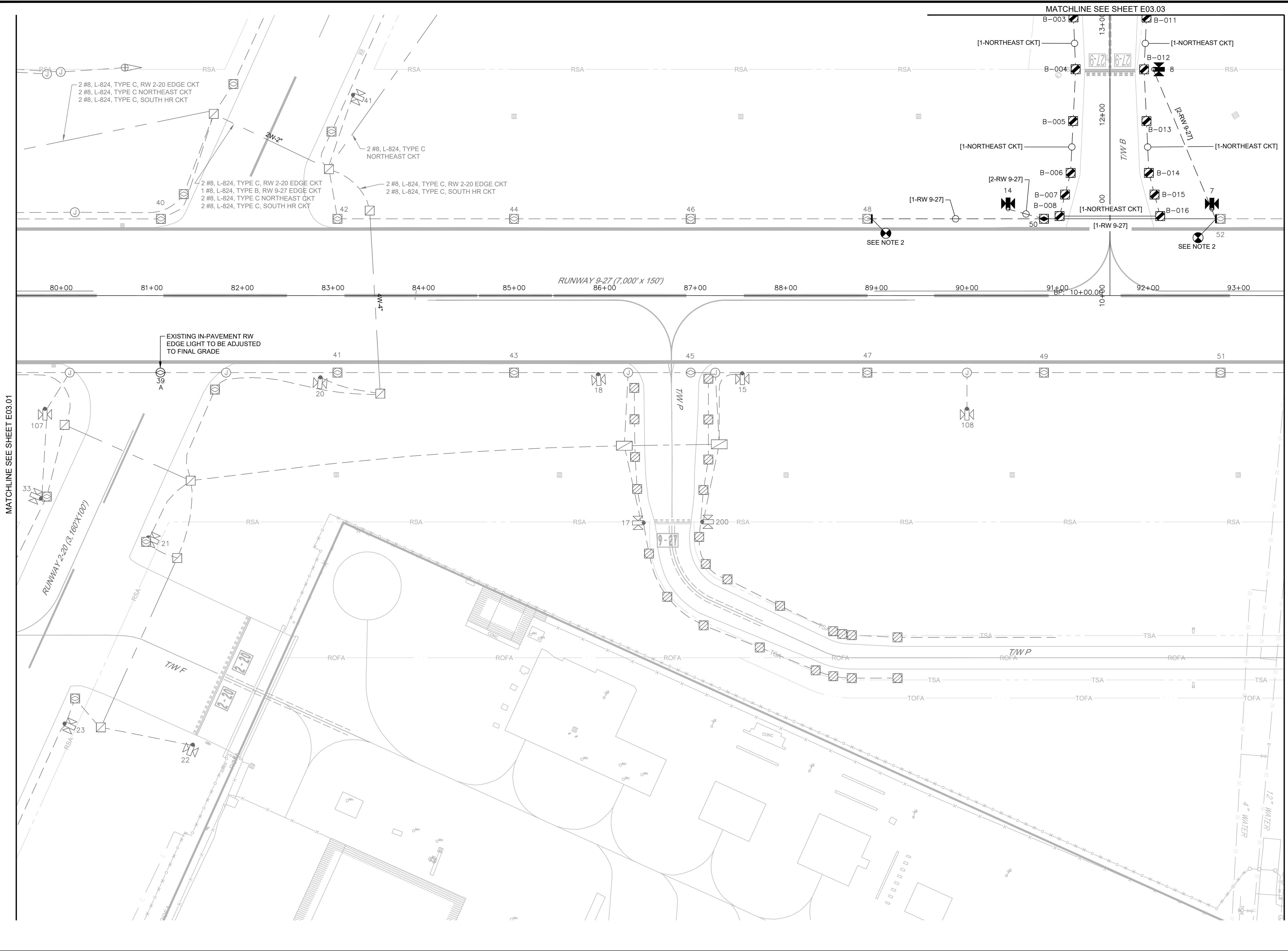
SHEET TITLE: **AREA PLAN - TAXIWAY D**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **E03.01**  
**68 OF 90**

FILE NAME: \\cf-fs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\03\00.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jpojen

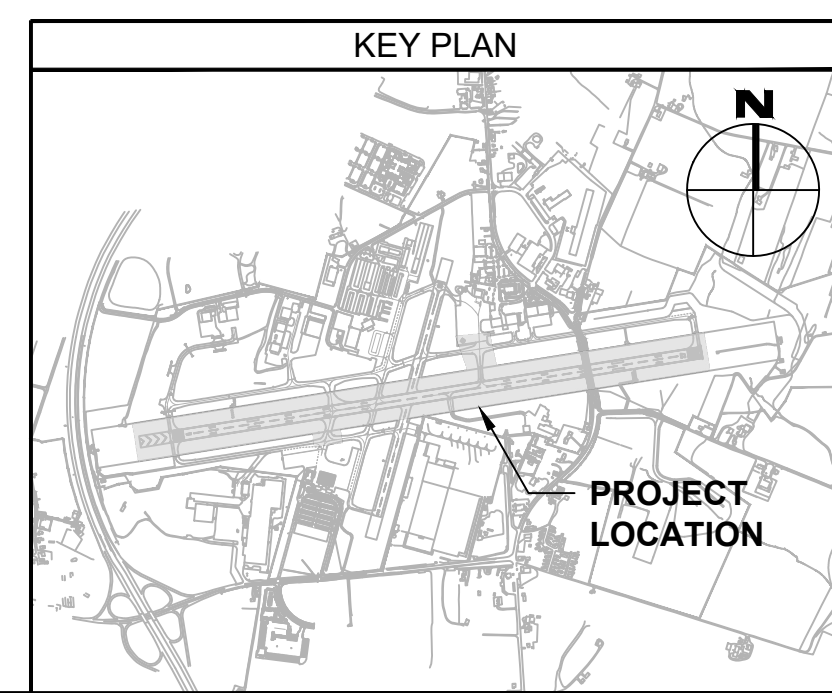


**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL FURNISH AND INSTALL FAA L-824 TYPE "B" 5KV CABLE FOR RW 9-27 CIRCUITS. ALL OTHER FAA L-824 5 KV CABLE SHALL BE TYPE "C." NEW CABLE SHALL BE SPLICED TO EXISTING CABLE LOCATED IN NEAREST LIGHT FIXTURE/JUNCTION STRUCTURE.
- REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.

**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING HAND HOLE
- EXISTING MANHOLE
- EXISTING CONDUIT TO REMAIN
- EXISTING DUCT BANK TO REMAIN
- ELEVATED TAXIWAY EDGE LIGHT TO BE FURNISHED AND INSTALLED
- ELEVATED RUNWAY EDGE LIGHT TO BE FURNISHED AND INSTALLED
- GUIDANCE SIGN TO BE FURNISHED AND INSTALLED
- 2" CONDUIT TO BE FURNISHED AND INSTALLED
- 2" CONCRETE-ENCASED CONDUIT TO BE FURNISHED AND INSTALLED
- IN-PAVEMENT RUNWAY EDGE LIGHT TO BE ADJUSTED TO FINAL GRADE



**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

**BID DOCUMENTS**

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

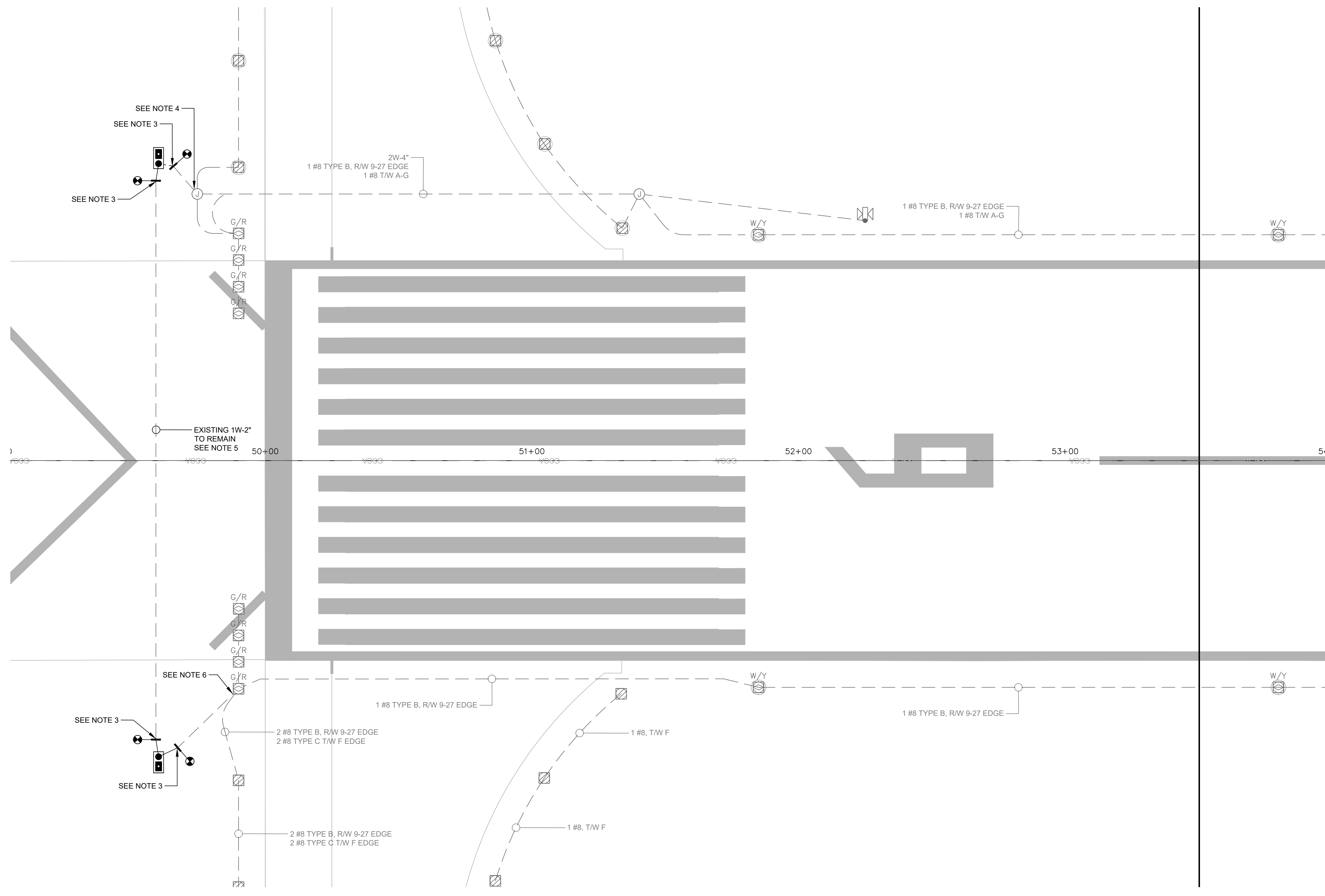
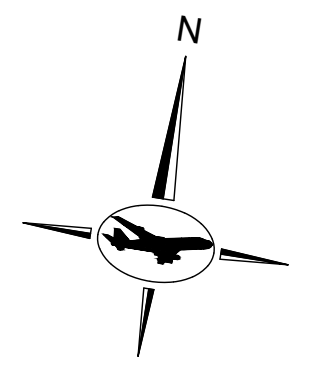
SHEET TITLE: **AREA PLAN - TAXIWAY B**

SCALE: AS SHOWN      DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **E03.02**  
69 OF 90



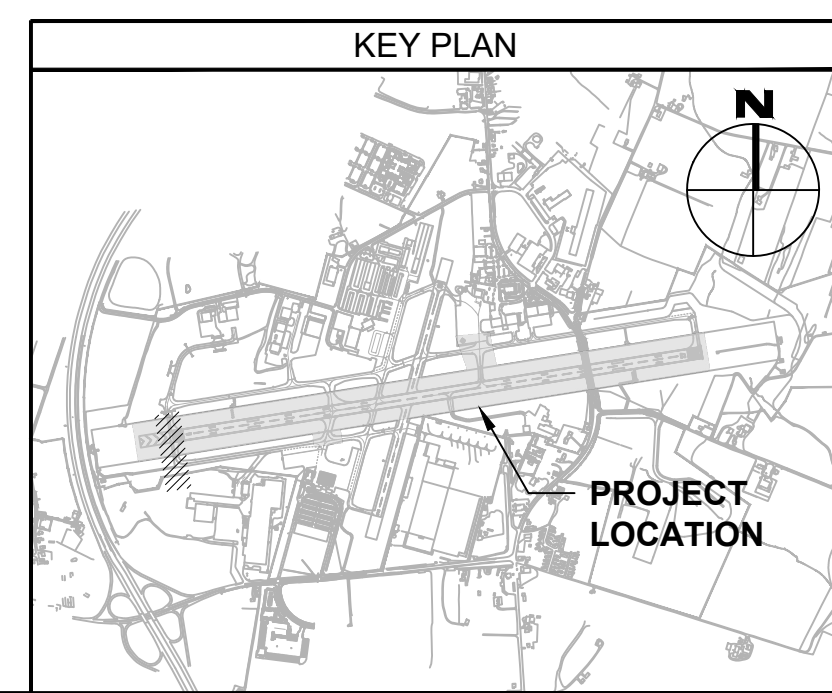


**NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.
3. FURNISH AND INSTALL 2" PVC SCH-40 COUPLING AND EXTEND 2" PVC SCH-40 CONDUIT TO REIL BASE.
4. FURNISH AND INSTALL 2 #8, 5KV L-824 LIGHTING CABLES FROM EXISTING JUNCTION LIGHT BASE TO ISOLATION TRANSFORMER IN REIL BASE.
5. FURNISH AND INSTALL 2 #14 AWG, 600V CONTROL CABLES, BETWEEN PRIMARY AND SECONDARY REILS.
6. FURNISH AND INSTALL 2 #8, 5KV L-824 LIGHTING CABLES FROM EXISTING RUNWAY END LIGHT BASE TO ISOLATION TRANSFORMER WITHIN REIL BASE.

**SYMBOL LEGEND:**

- EXISTING ELEVATED RUNWAY LIGHT FIXTURE
- EXISTING ELEVATED TAXIWAY LIGHT FIXTURE
- EXISTING GUIDANCE SIGN
- EXISTING JUNCTION STRUCTURE
- EXISTING CONDUIT TO REMAIN
- FURNISH AND INSTALL 2" SCH-40 SURROUNDED WITH CONTROLLED LOW-STRENGTH MATERIAL
- FURNISH AND INSTALL L-849(L) REIL LIGHT FIXTURE AND FOUNDATION
- POINT OF CONDUIT / DUCT BANK CONNECTION



**1** RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS PLAN  
E03.04 SCALE: 1" = 20'-0"

FILE NAME: \\hgs01\corporate\shared\11071818\HGR\Drawings\HARLEIGH\Runway\2019\20190203\11071818.dwg (S:\eng\2019\20190203\11071818.dwg) USER: jopen



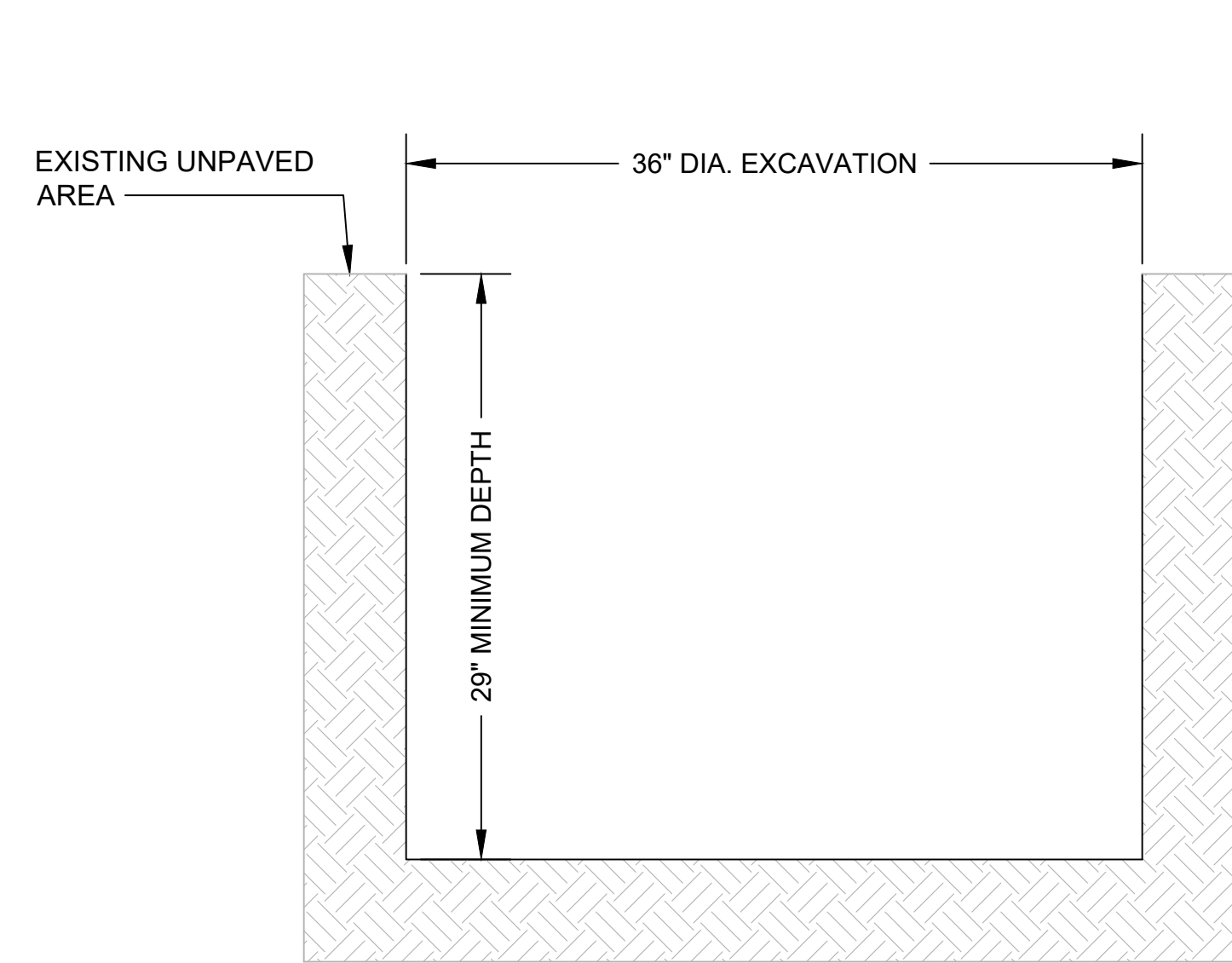
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

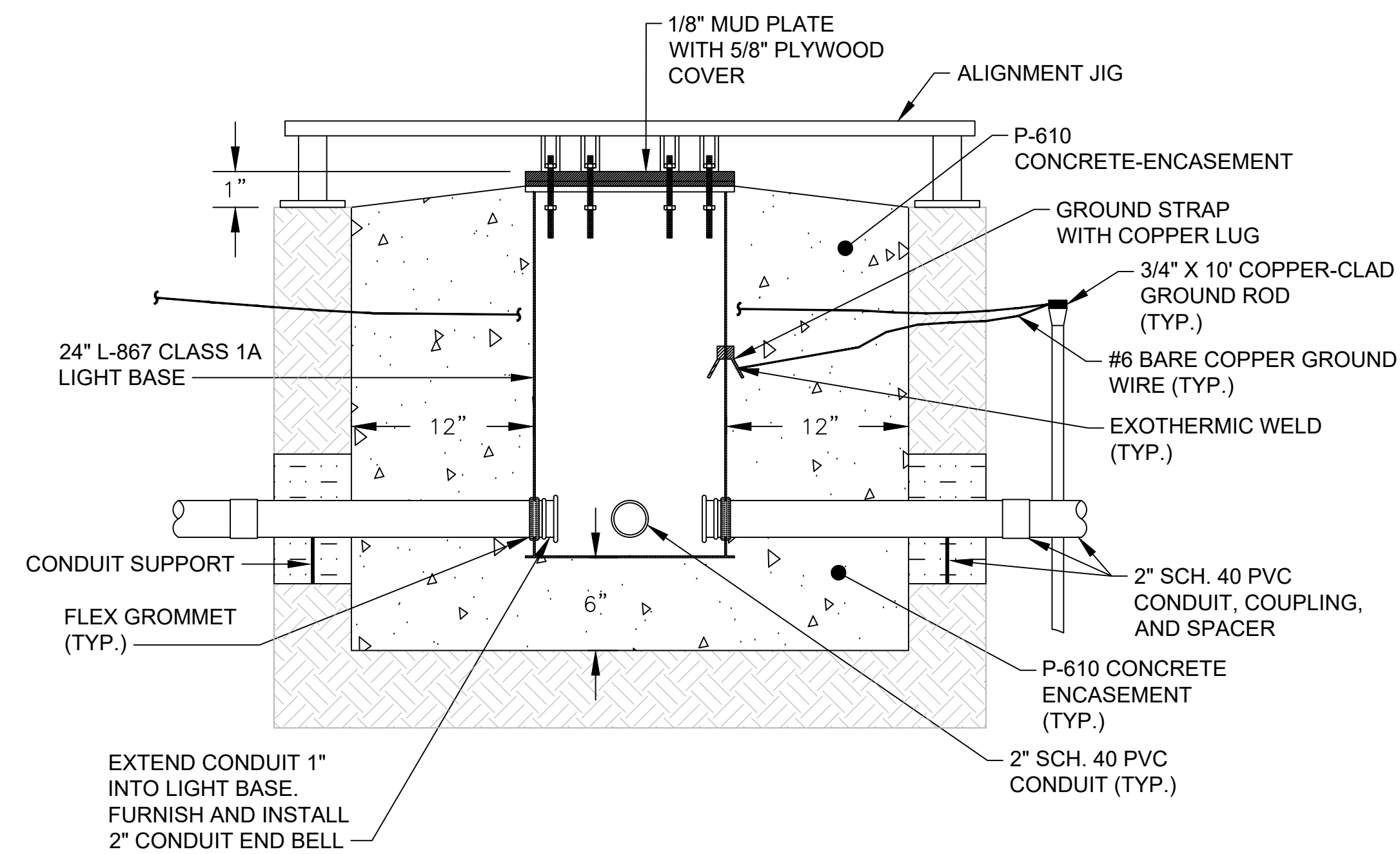


PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
SHEET TITLE: AREA PLAN - RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS  
SCALE: AS SHOWN DATE: FEBRUARY 2020

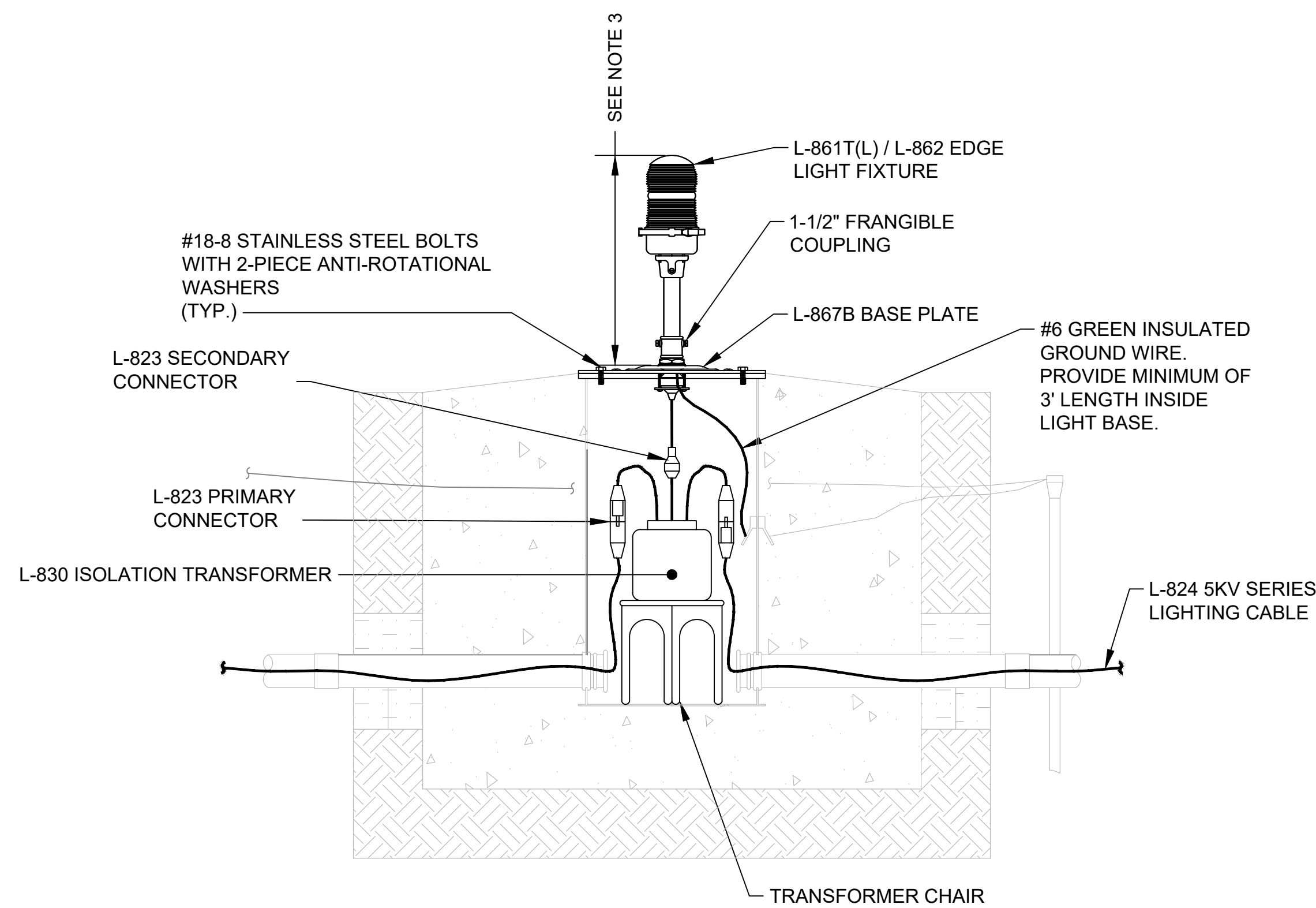
FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: **E03.04**  
71 OF 90



INSTALLATION STEP 1



INSTALLATION STEP 2



INSTALLATION STEP 3

**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- LIGHT FIXTURE MUST BE BONDED TO LIGHT BASE INTERNAL GROUND LUG VIA A #6 AWG STRANDED COPPER WIRE RATED FOR 600V WITH GREEN XHHW INSULATION. THE GROUND WIRE LENGTH MUST BE SUFFICIENT TO ALLOW THE REMOVAL OF THE FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. REFER TO THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING THE GROUND WIRE.
- CONTRACTOR SHALL FIELD VERIFY EXISTING RUNWAY / TAXIWAY ELEVATED EDGE LIGHT HEIGHT AND MATCH EXISTING CONDITIONS.

**INSTALLATION NOTES:**

**STEP 1**

- EXCAVATE A 24-INCH DIAMETER HOLE AT THE DETERMINED DEPTH, REMOVE ALL DEBRIS FROM HOLE WITHOUT DISTURBING THE BOTTOM.
- EXCAVATE TRENCH FOR CONDUIT, REMOVE ALL DEBRIS FROM TRENCH.
- SUBGRADE SHALL BE COMPACTED TO 98% RELATIVE COMPACTION.

**STEP 2**

- FURNISH AND INSTALL GROUND ROD AND A #6 BARE COPPER GROUND WIRE VIA EXOTHERMIC WELD. PROVIDE SUFFICIENT SLACK TO CONNECT TO LIGHT BASE GROUND STRAP.
- UTILIZING AN ALIGNMENT JIG, POSITION THE LIGHT BASE WITHIN EXCAVATED HOLE AT LOCATIONS DESIGNATED WITHIN THE AREA PLANS. THE TOP OF THE LIGHT BASE SHALL BE SET 1" ABOVE THE PROPOSED SURROUNDING GRADE.
- CONNECT A COPPER GROUND WIRE TO LIGHT BASE GROUND STRAP VIA A MECHANICAL CONNECTOR.
- FURNISH AND INSTALL 2-INCH SCH. 40 PVC CONDUIT, COUPLINGS AND SUPPORTS AND TERMINATE INSIDE OF LIGHT BASE. CONDUIT ENDS SHALL BE FREE OF BURRS AND SHARP EDGES AND SHALL PENETRATE A MINIMUM OF 2-INCHES INTO LIGHT BASE. FURNISH AND INSTALL CONDUIT PLUGS.
- PRIOR TO POURING CONCRETE, LIGHT BASE SHALL BE INSPECTED TO ENSURE IT IS LEVEL AND PLUMB. ANY LIGHT BASE IDENTIFIED AS INSTALLED INCORRECTLY SHALL BE REMOVED AND REINSTALLED. POUR THE CONCRETE FOUNDATION TO FILL UNDER AND AROUND THE LIGHT BASE. VIBRATE AND SMOOTH CONCRETE SURFACE TO ENSURE ADEQUATE CONCRETE UNDER LIGHT BASE. PROVIDE A SLOPE FROM EDGE OF LIGHT TO SURROUNDING GRADE FOR DRAINAGE.

**STEP 3**

- REMOVE MUD PLATE.
- REMOVE ALL DIRT, GRIT AND ANY OTHER MATERIAL WHICH MAY HAVE SEEPED INTO THE LIGHT BASE, FLANGE OR COVERS.
- FURNISH AND INSTALL L-824, #8 SERIES LIGHTING CABLES THROUGH THE CONDUIT SYSTEM TO LIGHT BASE. PROVIDE 3 FEET OF CABLE SLACK FOR EACH PRIMARY SIDE WITHIN LIGHT BASE.
- FURNISH AND INSTALL L-830 ISOLATION TRANSFORMER AND L-823 TYPE I CONNECTORS AND CONNECT THE SERIES LIGHTING CABLE TO THE PRIMARY LEADS OF THE ISOLATION TRANSFORMER.
- FURNISH AND INSTALL THE EDGE LIGHT FIXTURE AND BASE PLATE AND GASKET. MAKE CONNECTIONS FROM THE FIXTURE LEAD TO THE L-823 TYPE II SECONDARY CONNECTOR OF THE ISOLATION TRANSFORMER. CONNECT THE GROUND WIRE TO THE LIGHT FIXTURE. SECURE LIGHT FIXTURE TO THE LIGHT BASE WITH (6) #18-8 STAINLESS STEEL BOLTS AND 2-PIECE ANTI-ROTATIONAL WASHERS. USING A CALIBRATED TORQUE WRENCH, HAND-TIGHTEN BOLTS PER MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
- REFER TO SHEET NUMBER E07.01 FOR FIXTURE LENS COLOR.

1 ELEVATED EDGE LIGHT INSTALLATION DETAIL IN UNPAVED AREA  
E06.01 SCALE: NTS

FILE NAME: \\cf-fs-01\Projects\2018\107318.001 - HGR-Renab of Runway 9-27\DWG\06.00.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jippen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

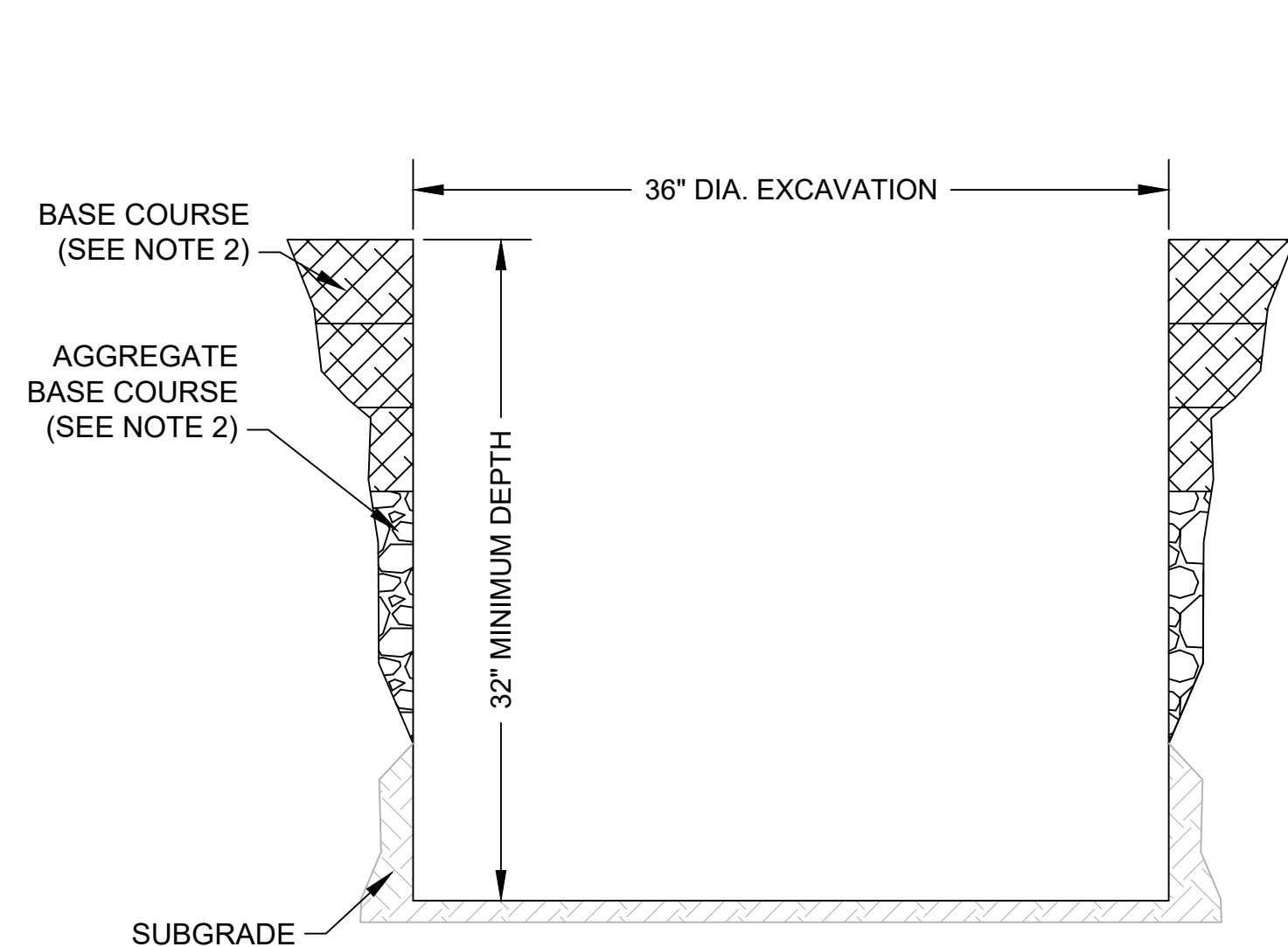
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**BID DOCUMENTS**

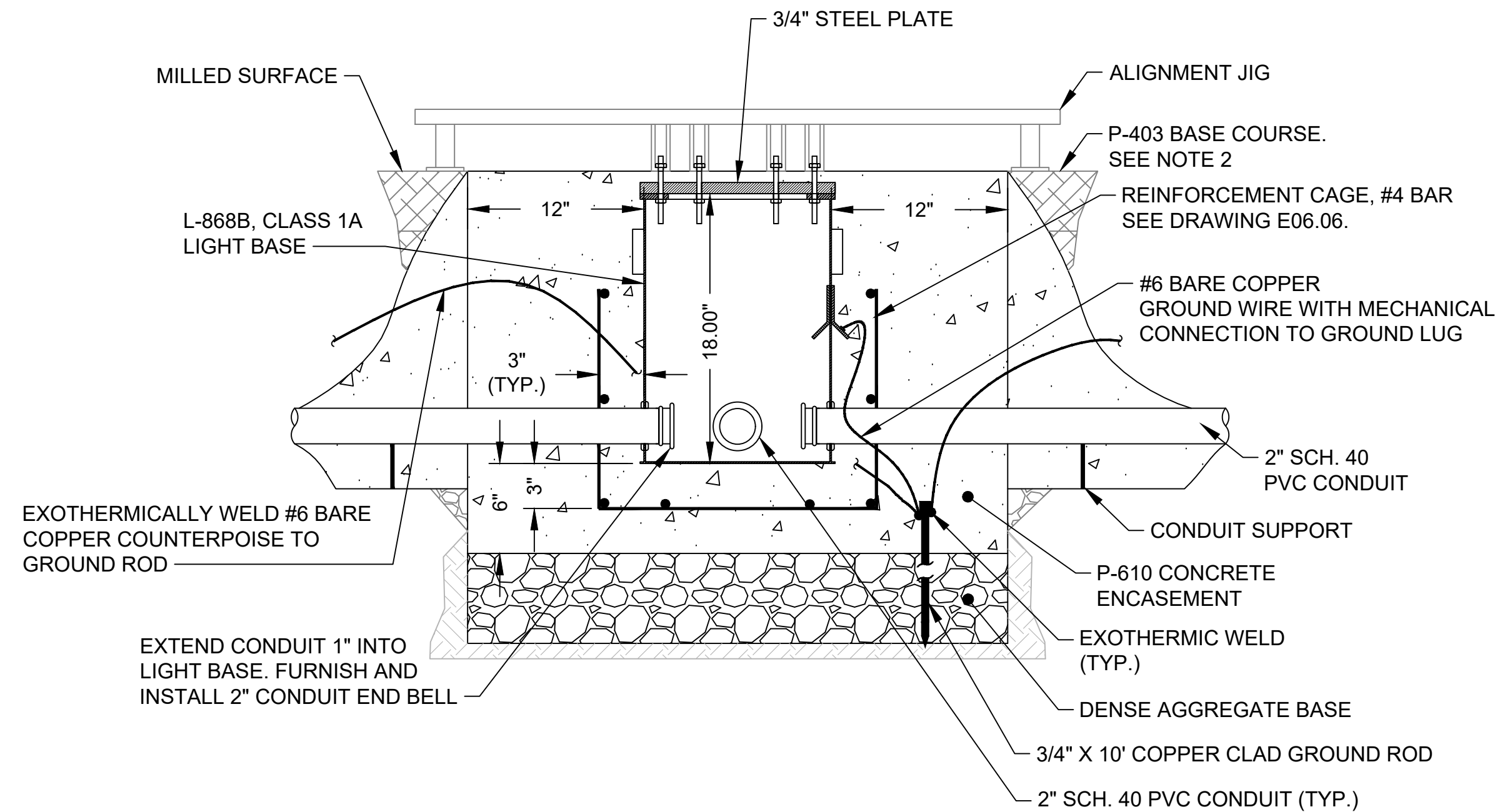
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET TITLE: ELEVATED EDGE LIGHT INSTALLATION DETAIL IN UNPAVED AREA	SHEET No.: <b>E06.01</b>
SCALE: AS SHOWN	DATE: FEBRUARY 2020
72 OF 90	

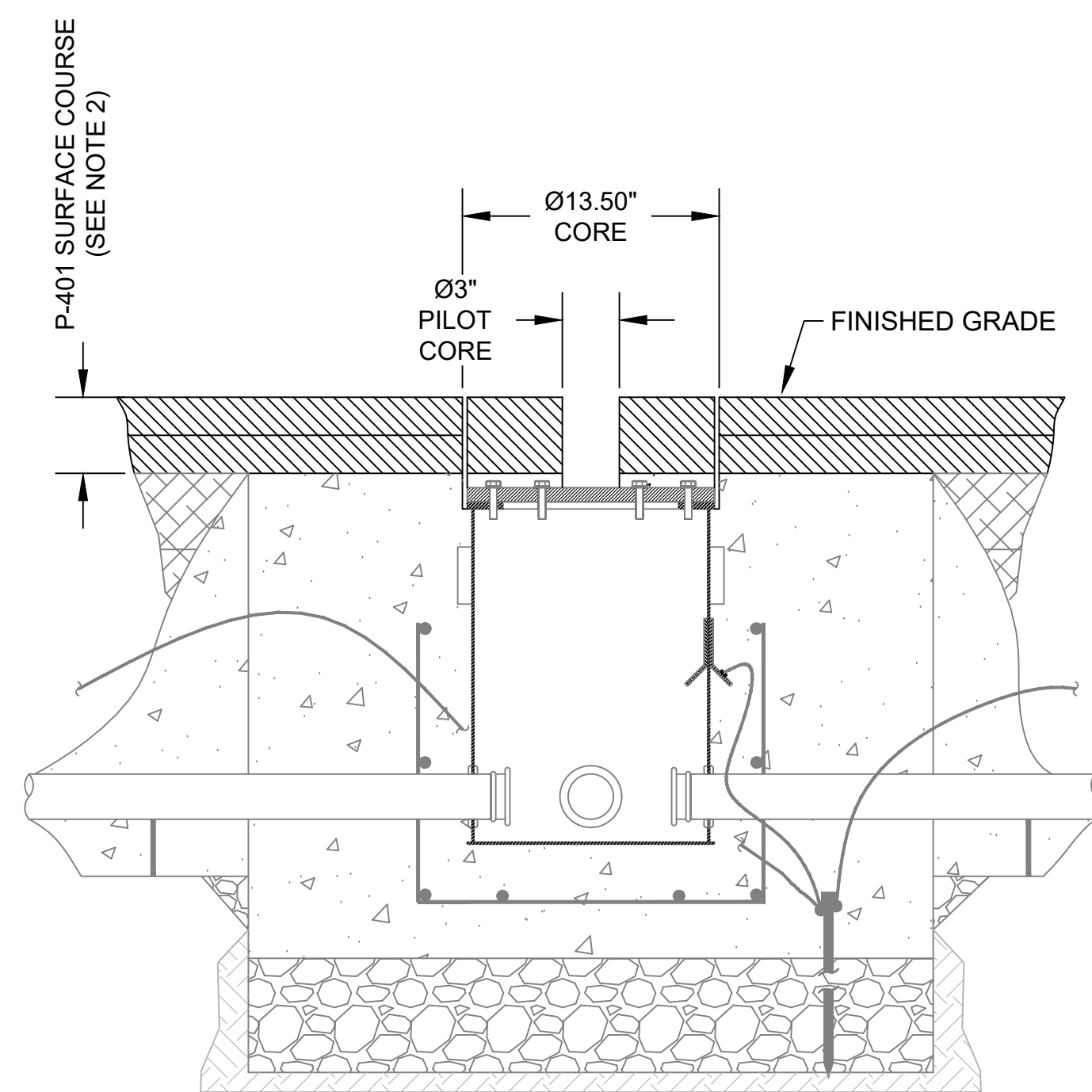




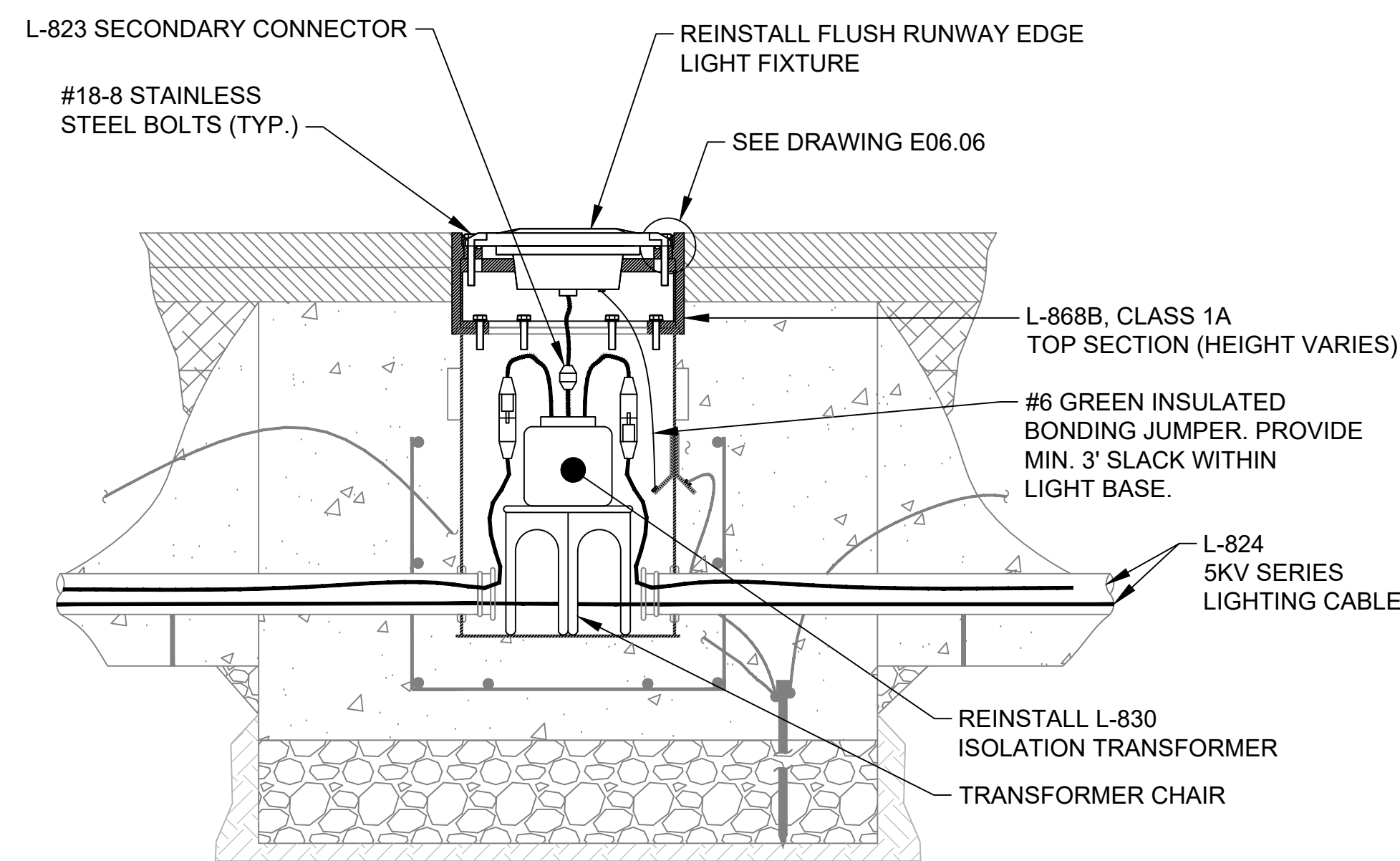
INSTALLATION STEP - 1



INSTALLATION STEP - 2



INSTALLATION STEP - 3



INSTALLATION STEP - 4

1 IN-PAVEMENT EDGE LIGHT INSTALLATION DETAIL  
E06.02 SCALE: NTS

GENERAL NOTES:

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. REFER TO THE CV-SERIES DRAWINGS FOR SECTIONS AND MILL/OVERLAY DEPTHS.

INSTALLATION NOTES:

- STEP 1**
1. AFTER THE CONTRACTOR HAS MILLED THE EXISTING PAVEMENT AND PRIOR TO PLACEMENT OF FINAL ASPHALT COURSE, LOCATE BY SURVEY AND MARK THE PROPOSED LIGHT BASE LOCATIONS. CONFIRM LOCATIONS WITH RESIDENT PROJECT REPRESENTATIVE PRIOR TO CORE DRILLING PAVEMENT FOR L-868 BASE CAN INSTALLATION.
  2. DETERMINE THE TOTAL CORE DEPTH ALLOWING A 4-INCH MINIMUM TO 6" MAXIMUM TOP SECTION WITH THE FINAL PAVEMENT ELEVATION, 3/4-INCH FLANGE RING, SPACER RINGS, A MINIMUM OF 6 INCHES OF NO. 57 CRUSHED STONE, AND 6 INCHES OF P-610 CONCRETE TO BE POURED BENEATH THE BASE CAN.
  3. CORE-DRILL A 36-INCH DIAMETER HOLE THROUGH THE PAVEMENT AT THE DETERMINED DEPTH, REMOVE CORE AND ALL DEBRIS FROM HOLE.
  4. EXCAVATE TRENCH FOR CONDUIT, REMOVE ALL DEBRIS FROM TRENCH.
- STEP 2**
1. FURNISH AND INSTALL GROUND ROD AND A #6 BARE COPPER GROUND WIRE VIA EXOTHERMIC WELD. PROVIDE SUFFICIENT SLACK TO CONNECT TO BOTTOM SECTION GROUND STRAP AND REINFORCEMENT CAGE.
  2. UTILIZING AN ALIGNMENT JIG, POSITION THE BOTTOM SECTION WITHIN CORED HOLE AT LOCATIONS DESIGNATED WITHIN THE AREA PLANS.
  3. CONNECT COPPER GROUND WIRE TO BOTTOM SECTION GROUND STRAP AND TO REINFORCEMENT CAGE VIA A MECHANICAL CONNECTOR.
  4. FURNISH AND INSTALL 2-INCH SCH. 40 PVC CONDUIT, COUPLINGS AND SUPPORTS AND TERMINATE INSIDE OF BOTTOM SECTION. CONDUIT ENDS SHALL BE FREE OF BURRS AND SHARP EDGES AND SHALL PENETRATE A MINIMUM OF 2-INCHES INTO BOTTOM SECTION. FURNISH AND INSTALL CONDUIT PLUGS.
  5. FURNISH AND INSTALL #6 BARE COPPER COUNTERPOISE AND CONNECT TO GROUND ROD VIA EXOTHERMIC WELD.
  6. PRIOR TO POURING P-610 CONCRETE, LIGHT BASE SHALL BE INSPECTED TO ENSURE IT IS LEVEL AND PLUMB. ANY BOTTOM SECTION IDENTIFIED AS INSTALLED INCORRECTLY SHALL BE REMOVED AND REINSTALLED. POUR THE CONCRETE FOUNDATION TO FILL THE CORE UNDER AND AROUND THE BASE CAN AND CONDUIT TRENCH. VIBRATE AND SMOOTH CONCRETE SURFACE TO ENSURE ADEQUATE CONCRETE UNDER BASE CAN.
- STEP 3**
1. FOLLOWING THE INSTALLATION OF PAVEMENT OVERLAY, LOCATE CENTER OF BASE CAN FROM SURVEY.
  2. PERFORM 3-INCH DIAMETER PILOT CORE THROUGH OVERLAY COURSE TO EXPOSE AND LOCATE THE EXACT CENTER OF STEEL PLATE.
  3. MEASURE AND RECORD DISTANCE FROM FINISHED SURFACE GRADE TO STEEL PLATE. CALCULATE THE HEIGHT OF THE TOP SECTION REQUIRED. TOP SECTION HEIGHT IS CALCULATED BY TOTAL HEIGHT MINUS THE FLANGE RING AND SPACERS HEIGHT.
  4. CONFIRM THAT A 13-1/2" DIAMETER CORE IS CENTERED SO THAT THERE EXISTS A CIRCULAR RING THE DIAMETER OF THE TOP SECTION PLUS 1/2" AROUND THE EXTENSION. CORE DRILL CENTERED AROUND BOTTOM SECTION TO 1-INCH BELOW STEEL PLATE.
  5. REMOVE CORE AND STEEL PLATE.
  6. REMOVE ALL DIRT, GRIT AND ANY OTHER MATERIAL WHICH MAY HAVE SEEPED INTO THE BOTTOM SECTION, FLANGE OR COVERS.
- STEP 4**
1. FURNISH AND INSTALL TOP SECTION TO BOTTOM SECTION WITH TYPE 304 STAINLESS STEEL BOLTS AND STAR LOCK WASHERS, AS PER THE MANUFACTURERS RECOMMENDATIONS. TORQUE BOLTS TO 18 FT. POUNDS.
  2. FURNISH AND INSTALL SPACER RINGS AND 3/4-INCH FLANGE RING; ENSURE THAT THE TOP OUTSIDE EDGE OF THE FIXTURE IS +0 TO -1/16" WITH RESPECT TO GRADE. THE MAXIMUM NUMBER OF SPACERS SHALL BE 3 AND APPLIED AT TOP OF THE LIGHT BASE ONLY AS DETAILED ON SHEET E06.06. ADHESIVE SEALANT SHALL BE APPLIED BETWEEN THE HORIZONTAL SURFACES OF THE FIXTURE AND SPACERS.
  3. FURNISH AND INSTALL L-824, #8 SERIES LIGHTING CABLES THROUGH THE CONDUIT SYSTEM TO BOTTOM SECTION. PROVIDE 3 FEET OF CABLE SLACK WITHIN BOTTOM SECTION.
  4. FURNISH AND INSTALL L-830 ISOLATION TRANSFORMER AND L-823 TYPE I CONNECTORS AND CONNECT SERIES LIGHTING CABLE TO THE PRIMARY LEADS OF THE ISOLATION TRANSFORMER.
  5. FURNISH AND INSTALL L-852(L) LIGHT FIXTURE. MAKE CONNECTIONS FROM THE FIXTURE LEAD TO THE L-823 TYPE II SECONDARY CONNECTOR OF THE ISOLATION TRANSFORMER. CONNECT THE GROUND WIRE TO THE LIGHT FIXTURE. SECURE LIGHT FIXTURE TO THE LIGHT BASE WITH (6) 18-8 STAINLESS STEEL BOLTS AND 2-PIECE ANTI-ROTATIONAL WASHERS. USING A CALIBRATED TORQUE WRENCH, HAND-TIGHTEN BOLTS TO 18 FT-POUNDS AS PER MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
  6. FILL THE ANNULAR SPACE AROUND THE COMPLETE ASSEMBLY WITH P-606 SEALANT.

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWGS\CD\LE06.00.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jjojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: [Professional Engineer Seal]

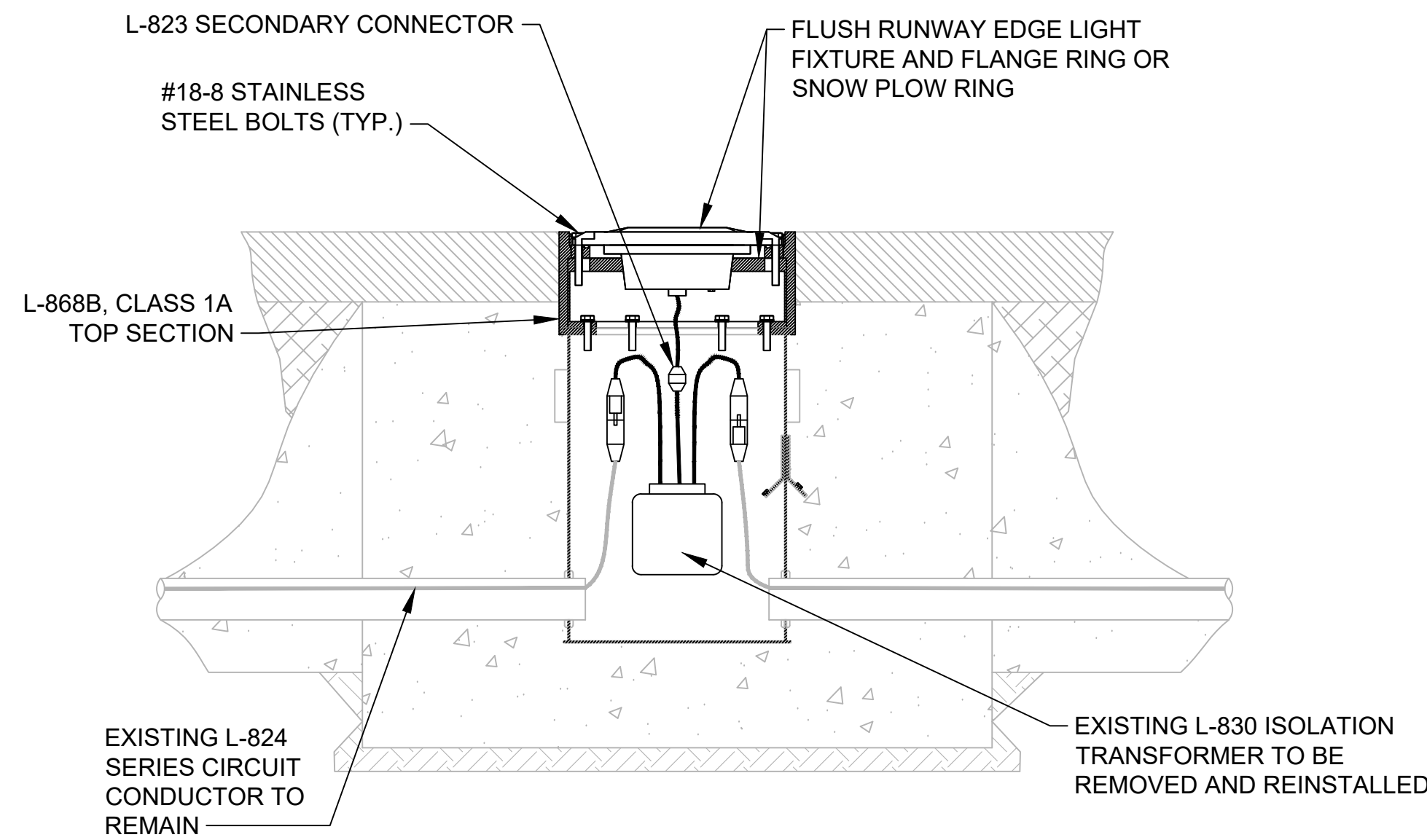
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

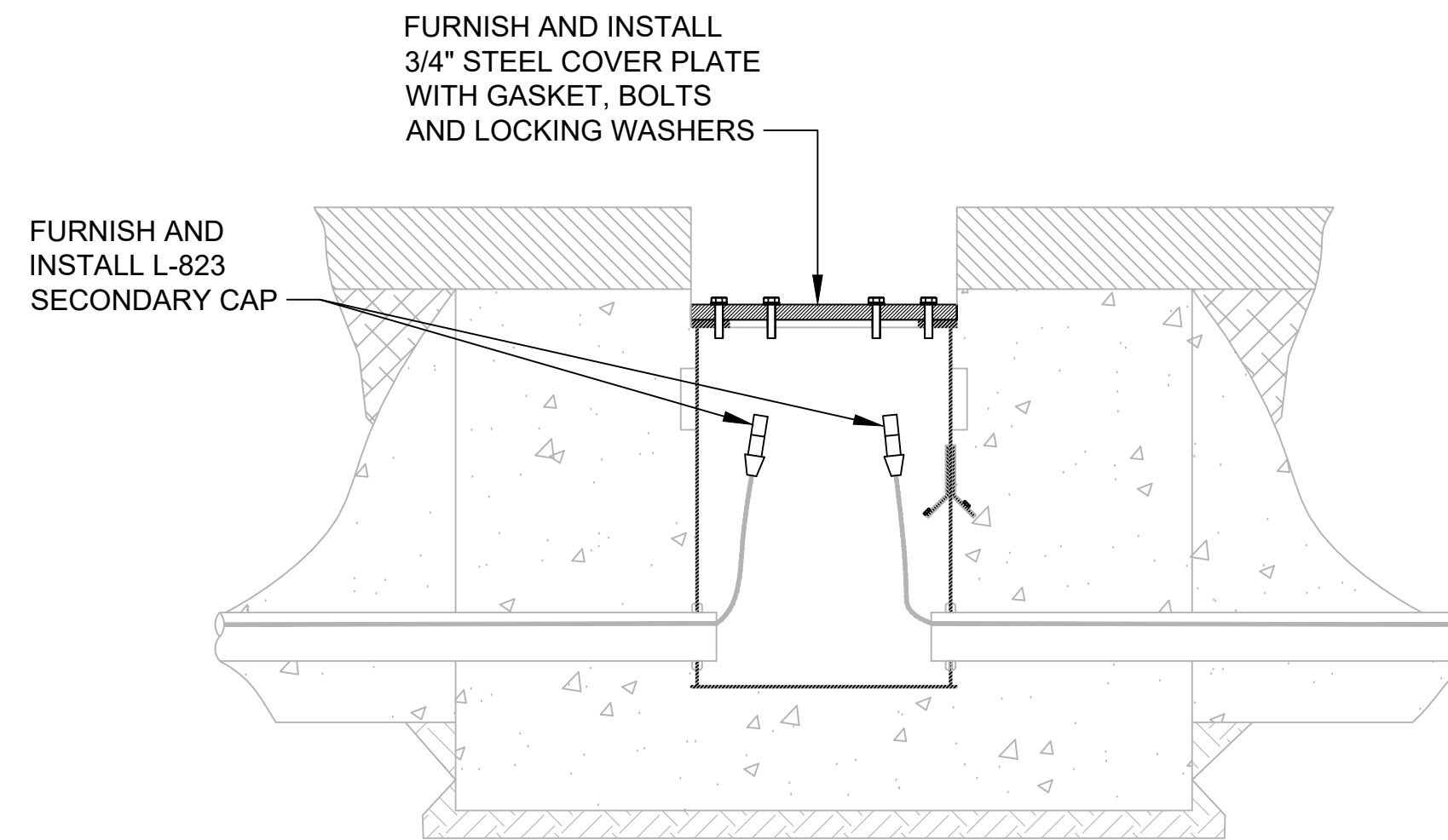
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	IN-PAVEMENT EDGE LIGHT INSTALLATION DETAIL
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

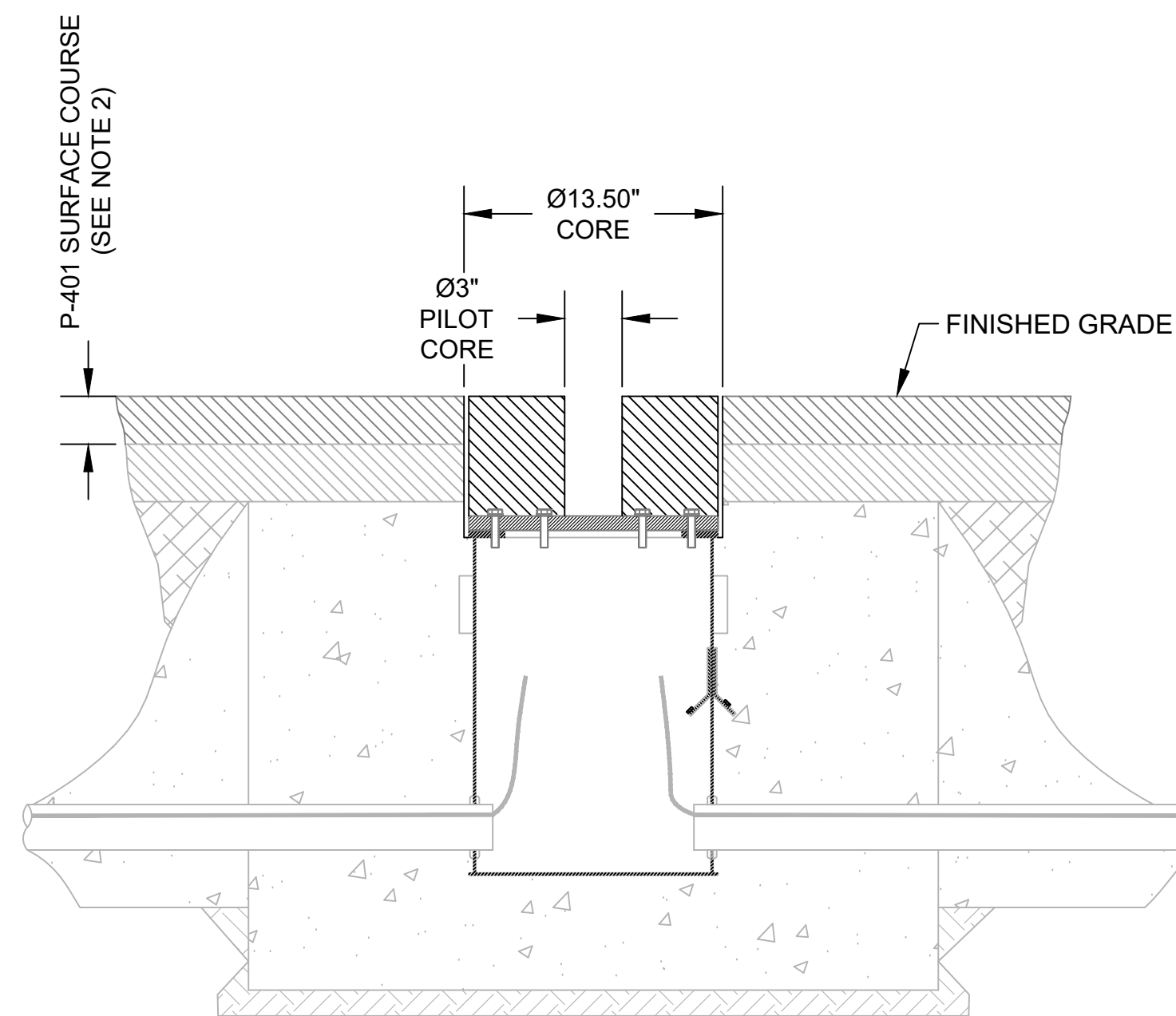
FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>E06.02</b>
	73 OF 90



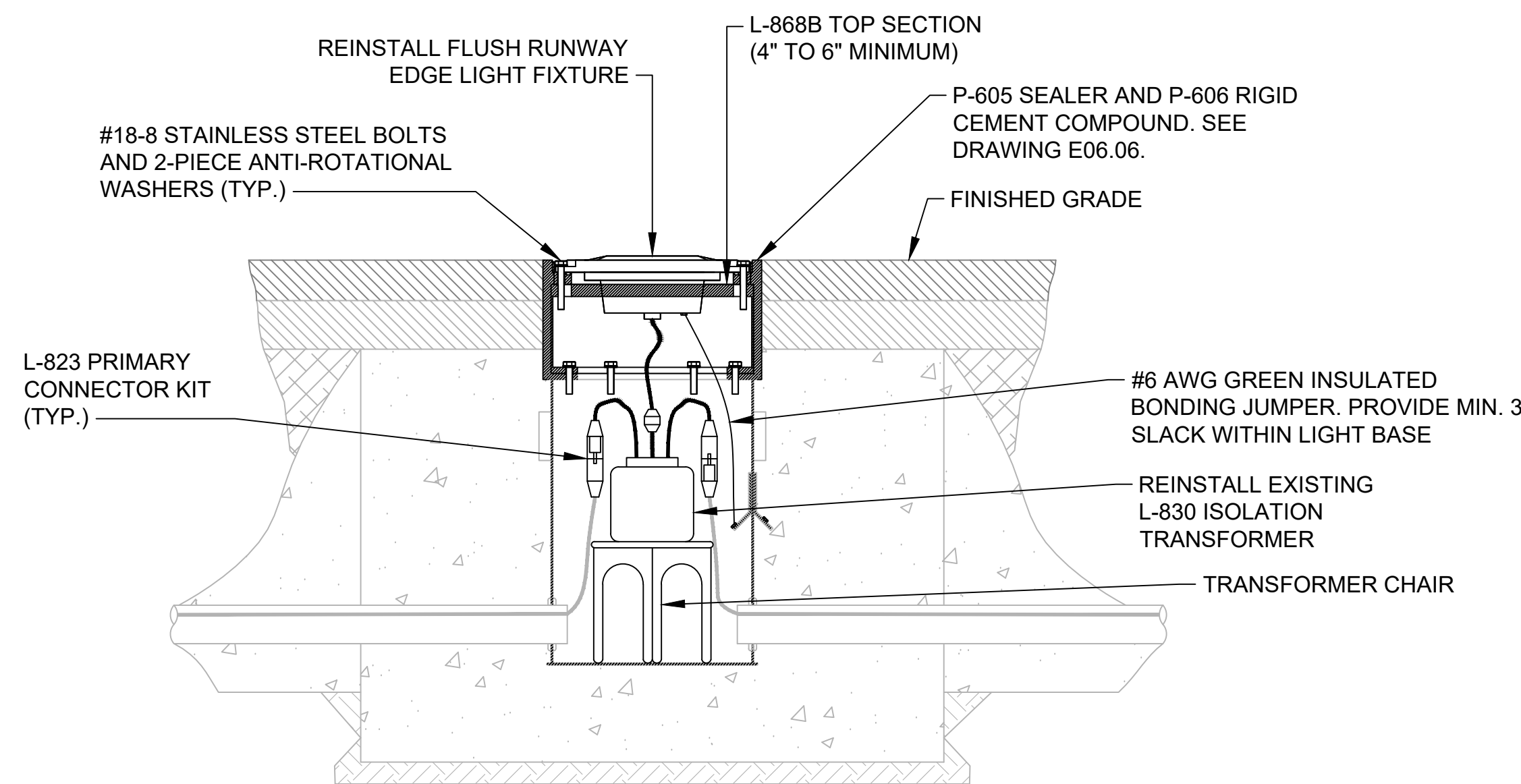
INSTALLATION STEP - 1



INSTALLATION STEP - 2



INSTALLATION STEP - 3



INSTALLATION STEP - 4

**GENERAL NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. REFER TO THE CV-SERIES DRAWINGS FOR SECTIONS AND MILL/OVERLAY DEPTHS.

**INSTALLATION NOTES:**

**STEP 1**

1. REMOVE EXISTING FLUSH RUNWAY EDGE LIGHT FIXTURE, FLANGE RING, ASSOCIATED BOLTS, WASHERS, LIGHT BASE TOP SECTION, L-830 ISOLATION TRANSFORMER AND STORE FOR REINSTALLATION. AT EACH FIXTURE LOCATION, THE CONTRACTOR SHALL RECORD FIXTURE ID TAG AND SERIAL NUMBERS FOR ALL ITEMS BEING REMOVED AT EACH LIGHT BASE, FOR PROPER REINSTALLATION.

**STEP 2**

1. FURNISH AND INSTALL L-823 CABLE SECONDARY CAP TO EXISTING L-823 LIGHTING CABLES.
2. WRAP THE INSTALLED CAP WITH SCOTCH 130C AND SCOTCH 88 TAPES.
3. FURNISH AND INSTALL 3/4\"/>

**STEP 3**

1. PERFORM 3-INCH DIAMETER PILOT CORE THROUGH OVERLAY COURSE TO EXPOSE AND LOCATE THE EXACT CENTER OF THE STEEL PLATE.
2. MEASURE AND RECORD DISTANCE FROM FURNISHED SURFACE GRADE TO STEEL PLATE. CALCULATE THE NEW HEIGHT REQUIRED FOR THE TOP SECTION. HEIGHT SHOULD BE CALCULATED BY TOTAL HEIGHT MINUS ADDITIONAL SPACERS AS NEEDED.
3. CONFIRM THAT A 13.5-INCH DIAMETER CORE IS CENTERED SO THAT THERE EXISTS A CIRCULAR RING FOR THE TOP SECTION PLUS A 1/4-INCH AROUND THE TOP SECTION. CORE DRILL CENTERED AROUND BOTTOM SECTION TO 1-INCH BELOW STEEL PLATE.
4. REMOVE CORE AND STEEL PLATE.
5. REMOVE ALL DIRT, GRIT AND ANY OTHER MATERIAL WHICH MAY HAVE SEEPED INTO THE BOTTOM SECTION, FLANGE OR COVERS.

**STEP 4**

1. FURNISH AND INSTALL TOP SECTION TO BOTTOM SECTION WITH TYPE 304 STAINLESS STEEL BOLTS AND STAR LOCK WASHERS. TORQUE BOLTS PER THE MANUFACTURER'S RECOMMENDATIONS.
2. APPLY A THIN LAYER OF SELF-LEVELING SILICONE (RTV118) BETWEEN ALL HORIZONTAL SURFACES. SECURE TOP SECTION TO THE BOTTOM SECTION USING STAINLESS STEEL BOLTS INSTALLED WITHIN THE LIGHT BASE.
3. FURNISH AND INSTALL L-823 TYPE I CONNECTORS AND REINSTALL L-830 ISOLATION TRANSFORMER CONNECTING SERIES LIGHTING CABLE TO THE PRIMARY LEADS OF THE ISOLATION TRANSFORMER.
3. FURNISH AND INSTALL 1.5-INCH PAVEMENT FLANGE RING TO TOP SECTION.
4. REINSTALL LIGHT L-850C LIGHT FIXTURE AND MAKE CONNECTIONS FROM THE FIXTURE LEAD TO THE L-823 TYPE II SECONDARY SIDE OF THE ISOLATION TRANSFORMER. CONNECT #6 GREEN INSULATED GROUNDING BONDING JUMPER FROM THE LIGHT FIXTURE TO THE INTERNAL GROUND LUG OF THE LIGHT BASE. SECURE LIGHT FIXTURE TO THE LIGHT BASE WITH SIX (6) 18-8 STAINLESS STEEL BOLTS AND 2-PIECE ANTI-ROTATIONAL WASHERS. USING A CALIBRATED TORQUE WRENCH, HAND-TIGHTEN BOLTS TO MANUFACTURE'S INSTALLATION REQUIREMENTS.
5. FILL ANNULAR SPACE AROUND COMPLETE ASSEMBLY WITH P-605 SEALER AND P-606 RIGID CEMENT COMPOUND. SEE DRAWING E06.06 FOR MORE INFORMATION.
6. DELIVER COVER PLATES TO RESIDENT PROJECT REPRESENTATIVE.
7. COORDINATE WITH RESIDENT PROJECT REPRESENTATIVE FOR RE-ENERGIZING OF SYSTEM.

**1 IN-PAVEMENT EDGE LIGHT FIXTURE ADJUSTMENT**  
E06.03 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Renab of Runway 9-27\DWG\06\06.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jjojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.  
6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: [Professional Engineer Seal for Pat Jav]  
STATE OF MARYLAND  
PROFESSIONAL ENGINEER  
53442

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

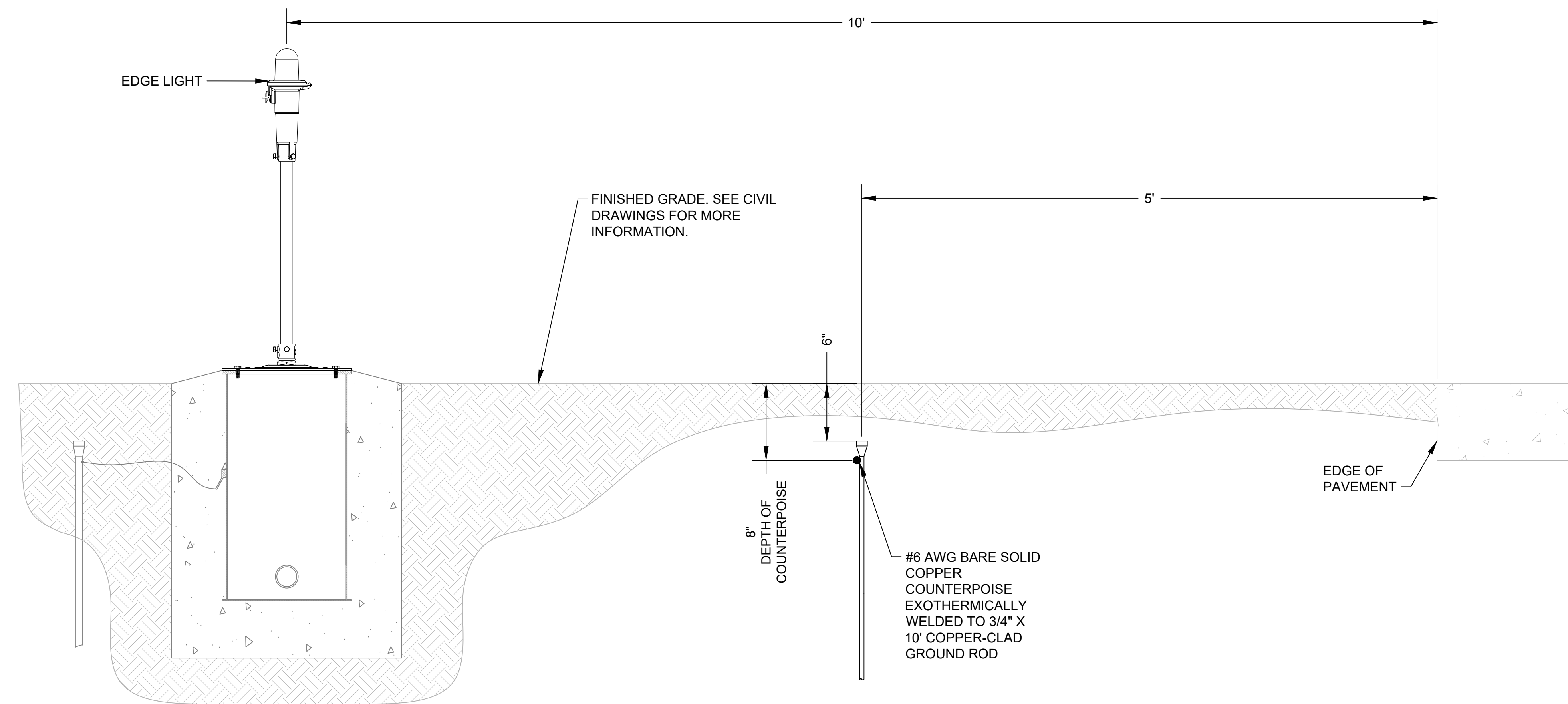
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT  
HGR

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	IN-PAVEMENT EDGE LIGHT FIXTURE ADJUSTMENT
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

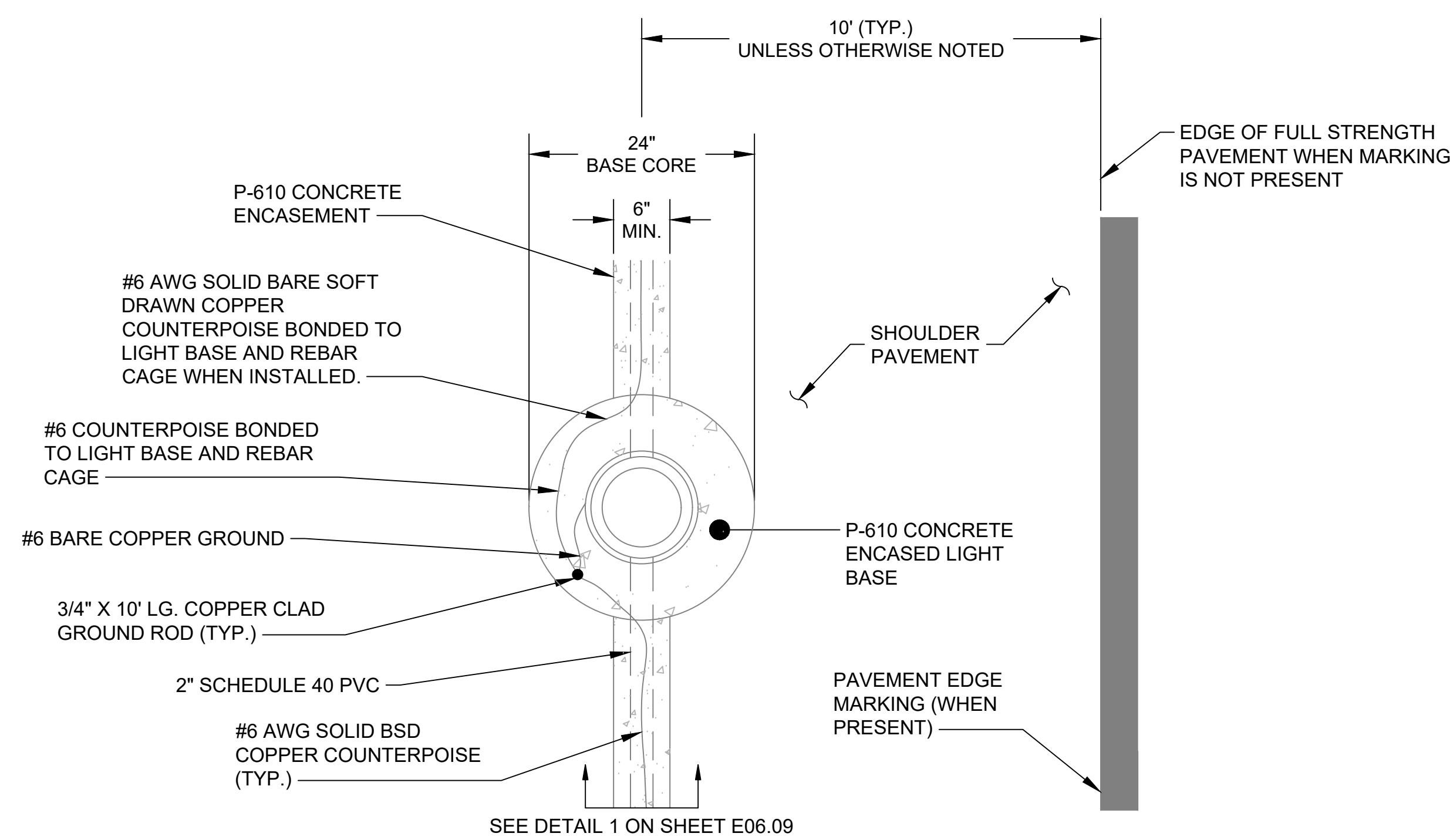
FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>E06.03</b>
	74 OF 90

**GENERAL NOTES:**

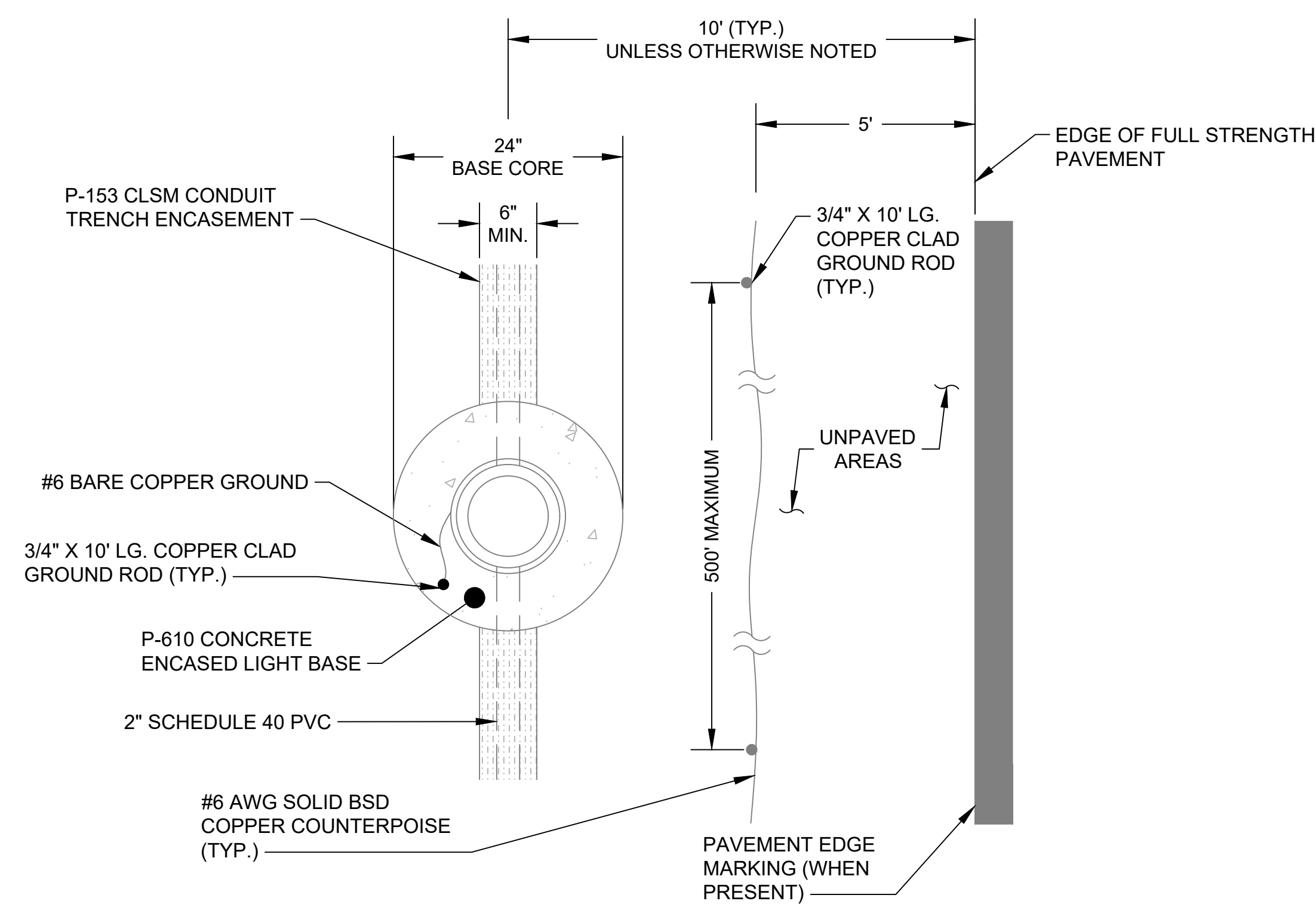
1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. THE LOCATION OF THE COUNTERPOISE GROUND ROD SHALL NOT BE LOCATED ADJACENT TO THE LIGHT BASE AND ITS GROUND ROD. OFFSET A MINIMUM OF 25'.



**ELEVATED FIXTURE MOUNTED IN UNPAVED AREA - ELEVATION**



**IN-PAVEMENT FIXTURE MOUNTED IN PAVED SHOULDERS**



**ELEVATED FIXTURE MOUNTED IN UNPAVED AREA - PLAN**

**1 COUNTERPOISE INSTALLATION DETAIL**  
E06.04 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWGS\001\_E\06.00.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jloren

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.  
6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

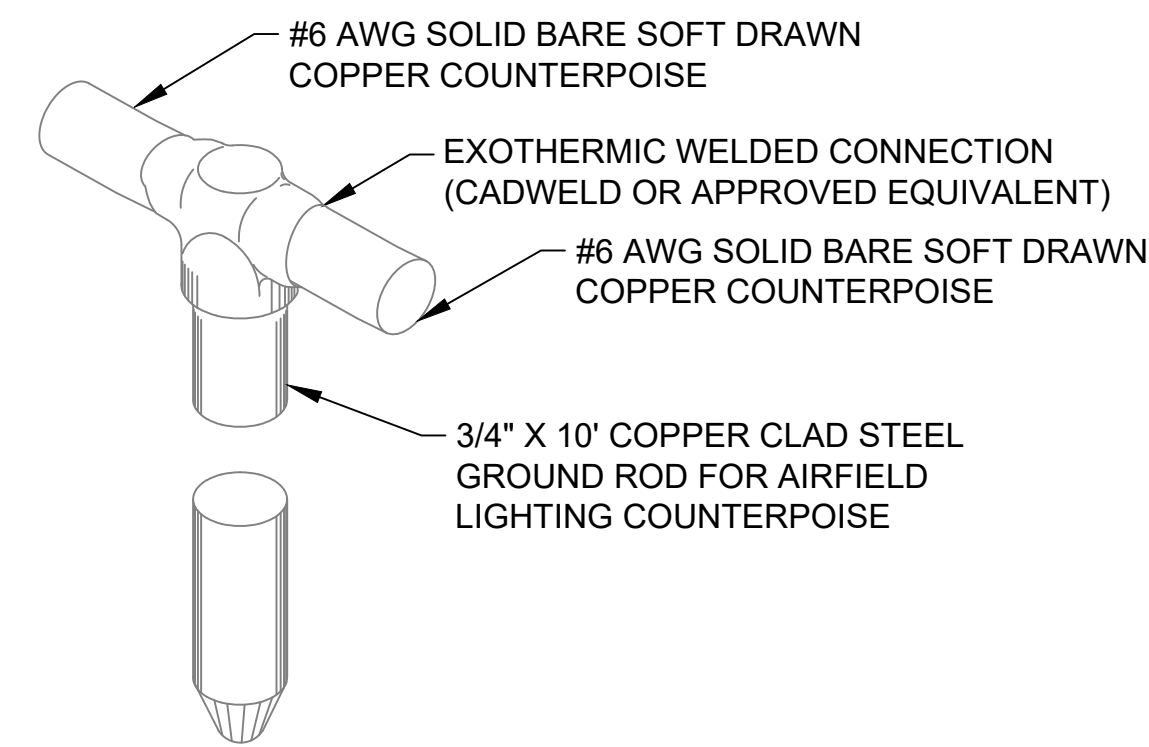
**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT  
HGR

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	COUNTERPOISE INSTALLATION DETAIL
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

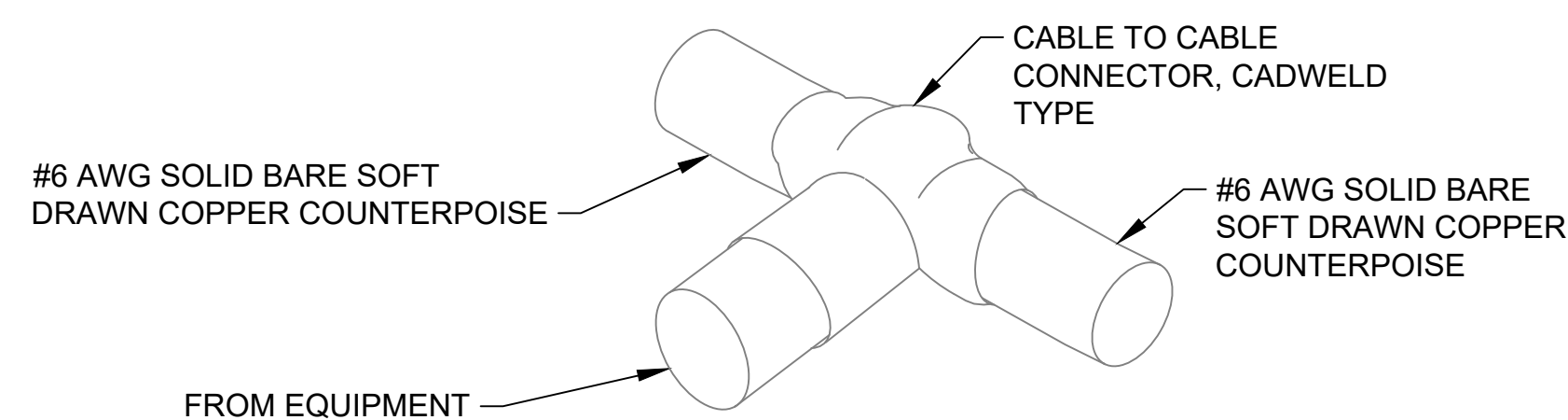
FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>E06.04</b>
	75 OF 90

**GENERAL NOTES:**

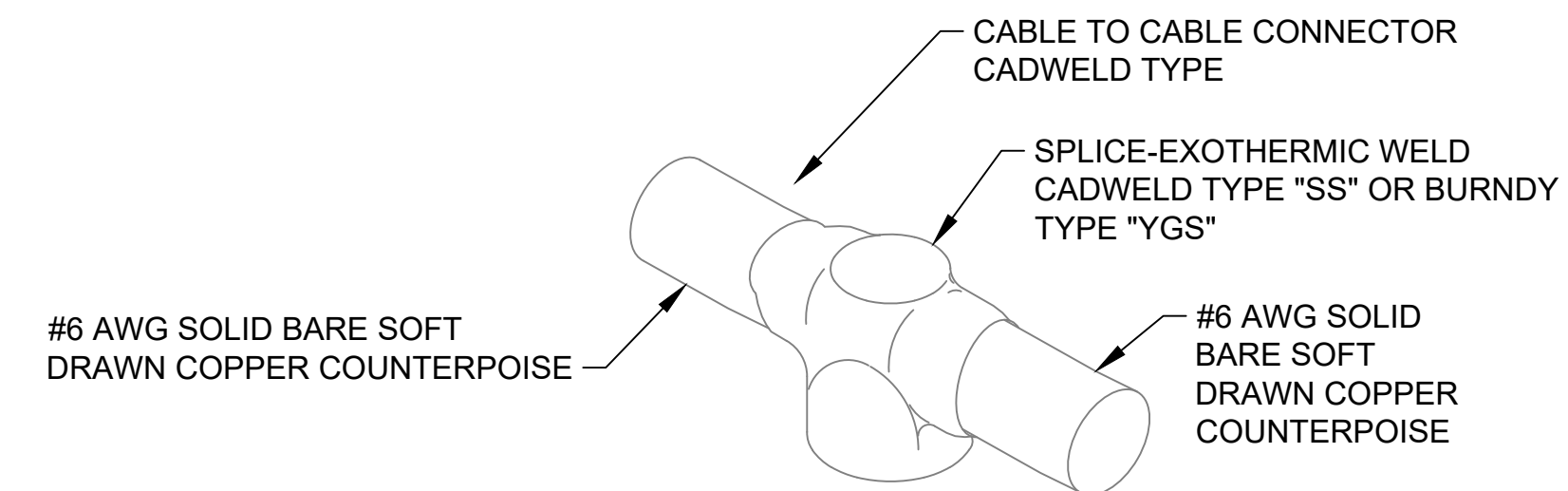
1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. REFER TO THE CV-SERIES DRAWINGS FOR UNDERGROUND UTILITIES OTHER THAN ELECTRICAL UTILITIES NOT SHOWN ON THE ELECTRICAL PLANS.



TYPICAL COUNTERPOISE GROUND ROD CONNECTION



CABLE TO CABLE EQUIPMENT ENLARGEMENT



CABLE TO CABLE SPLICE ENLARGEMENT

**1** COUNTERPOISE INSTALLATION DETAIL  
E06.05 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\06\06.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jrojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

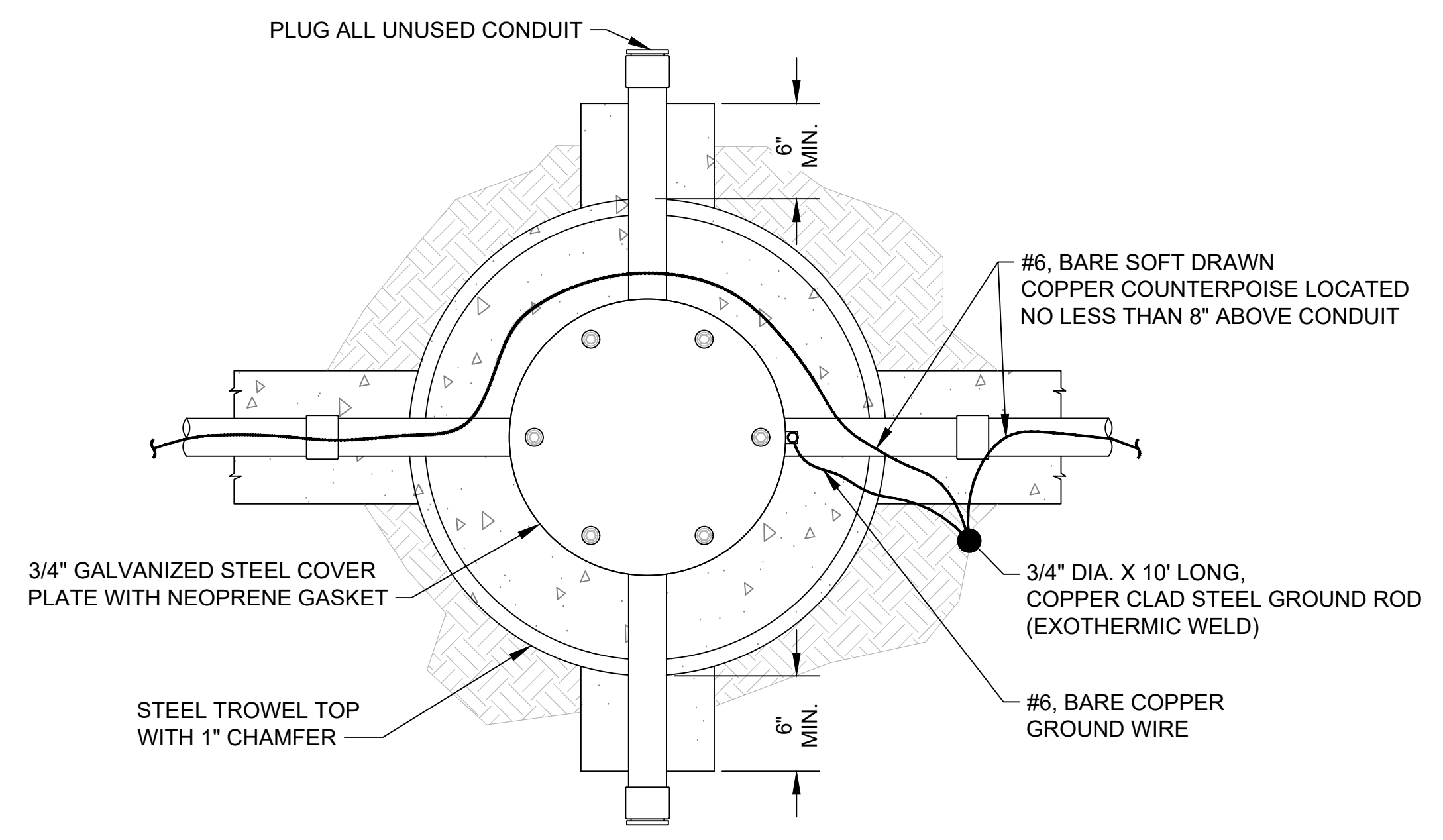
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE: COUNTERPOISE INSTALLATION DETAIL	
SCALE: AS SHOWN	DATE: FEBRUARY 2020

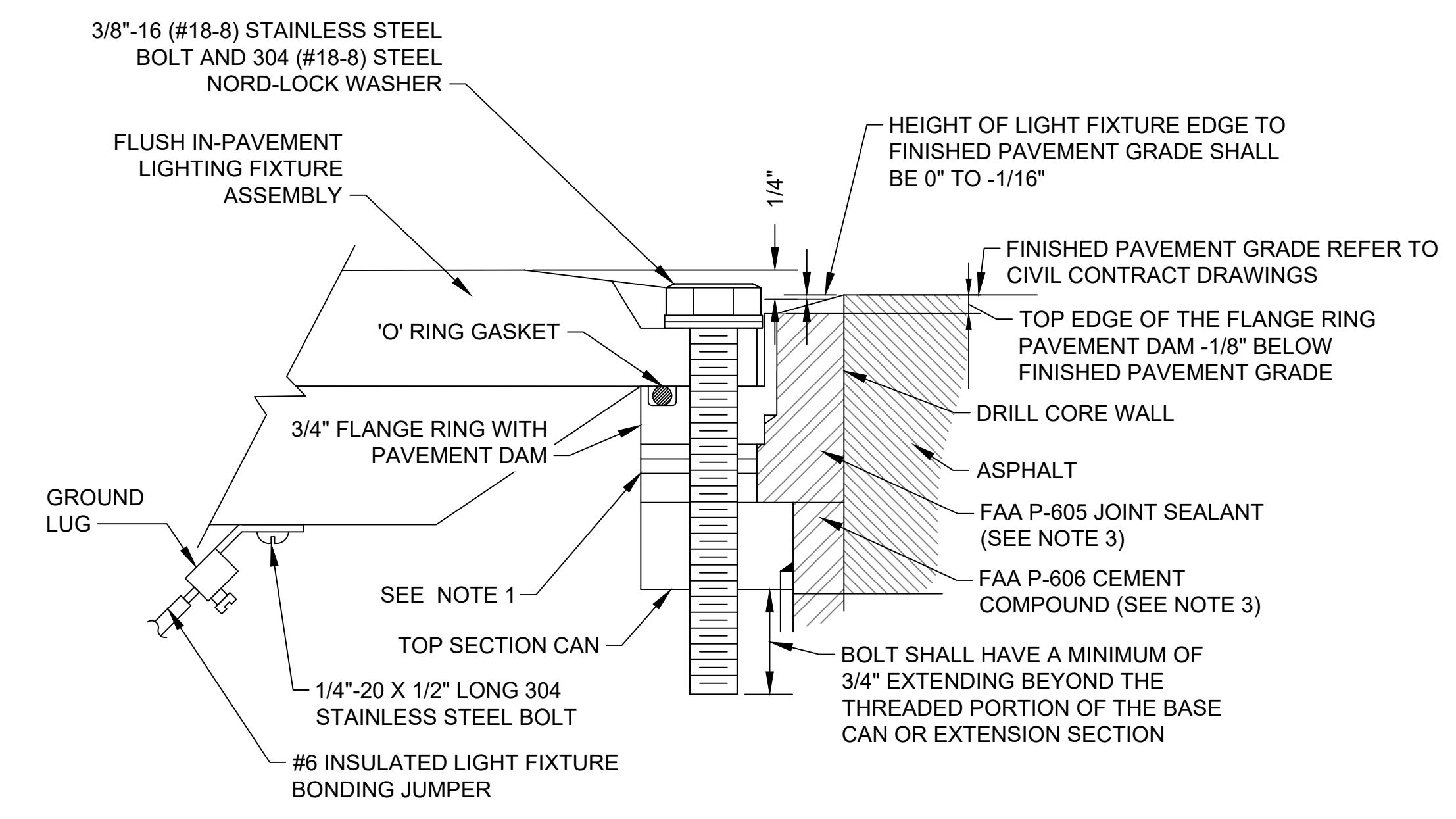
FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E06.05</b>
76 OF 90

GENERAL NOTES:

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- THE BASIC PACKAGE FOR L-868B BASE CANS SHALL INCLUDE: 1 EA 3/4" FLANGE RING WITH PAVEMENT DAM. COAT ALL HORIZONTAL SURFACES WITH A THIN LAYER OF RTV 118.
- FILL THE ANNULAR SPACE AROUND THE TOP SECTION OR ADJUSTABLE BASE WITH P-606 CEMENT COMPOUND. FILL THE ANNULAR SPACE AROUND THE PAVEMENT DAM OR FLANGE RING WITH P-605 SEALANT. USE P-606 AND P-605 PER THE MANUFACTURER'S RECOMMENDATIONS.

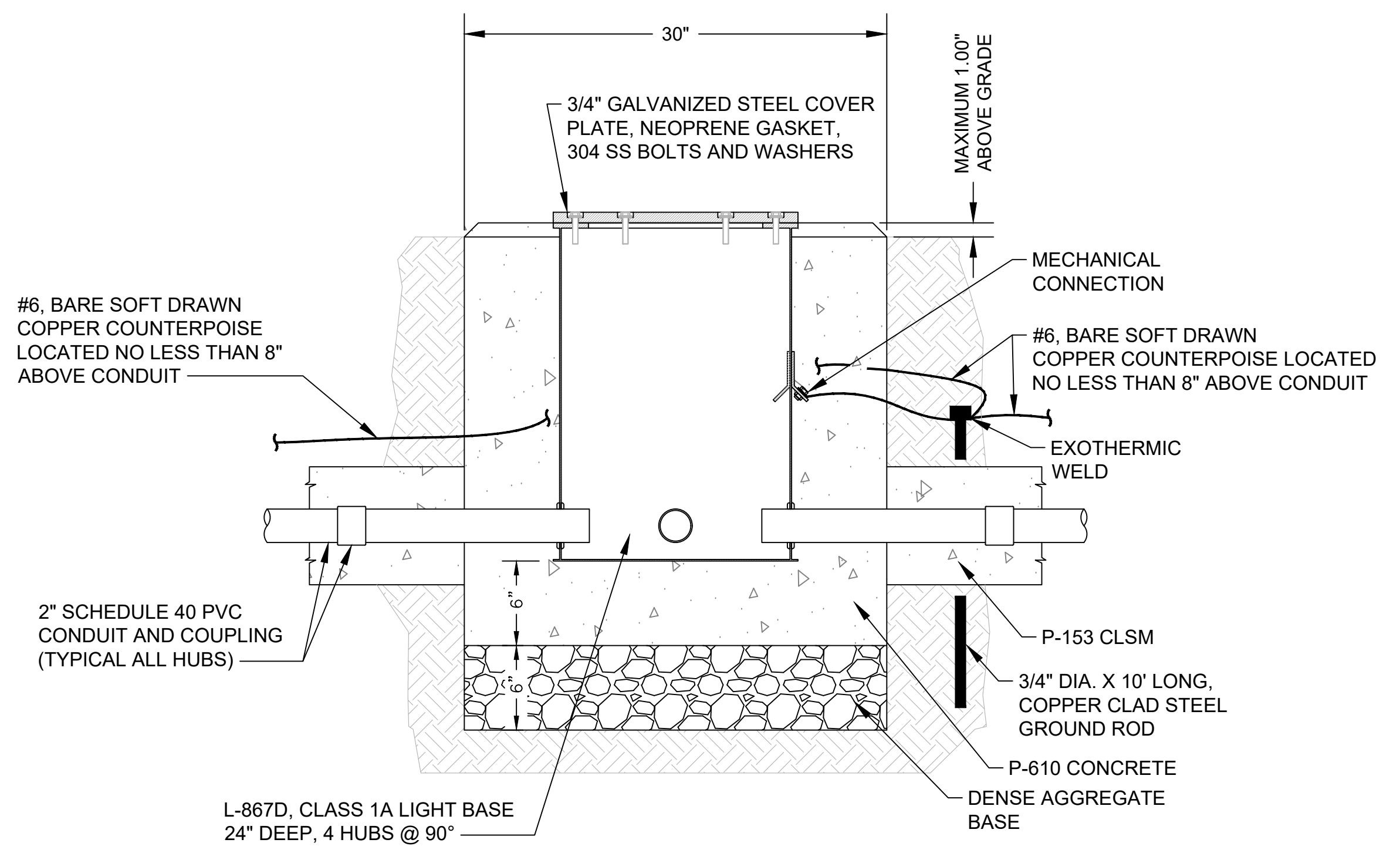


PLAN VIEW



2 IN-PAVEMENT FIXTURE MOUNTING DETAIL

E06.06 SCALE: NTS



FRONT ELEVATION

1 L-867D JUNCTION LIGHT BASE

E06.06 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HSR-Remab of Runway 9-27\DWGS\00\LE06.00.dwg PLOTTED: Monday, February 03, 2020 - 9:43am USER: jippen



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

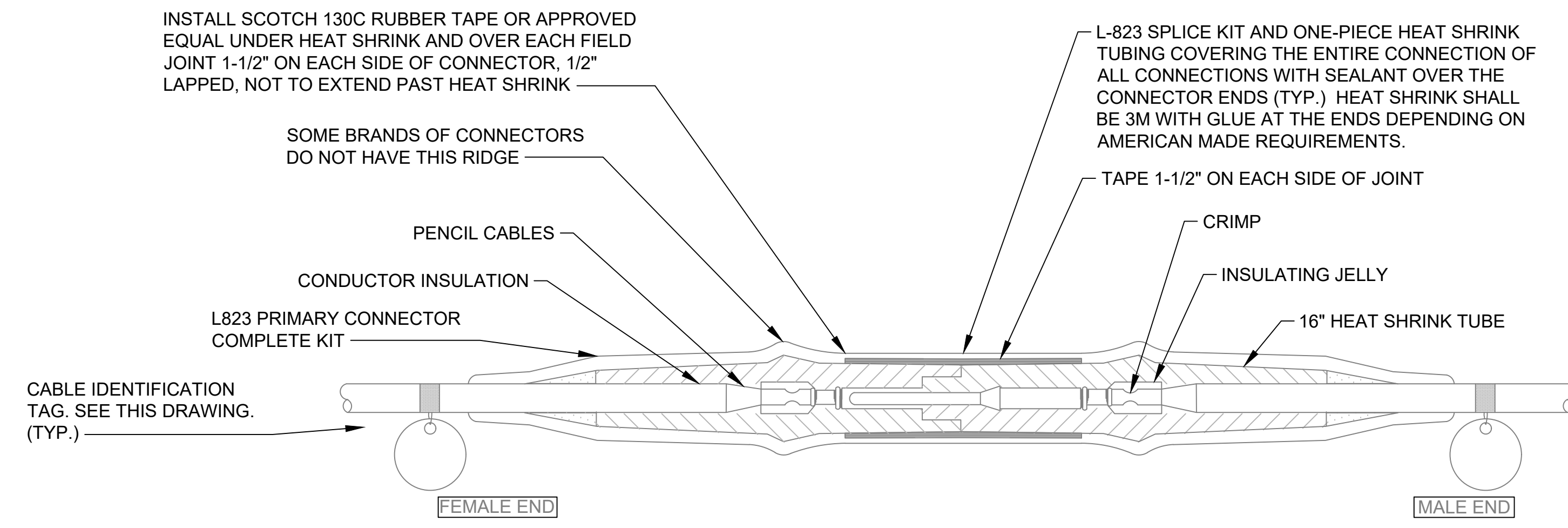


PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE:	MISCELLANEOUS DETAILS	
SCALE:	AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>E06.06</b>
	77 OF 90

**GENERAL NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.

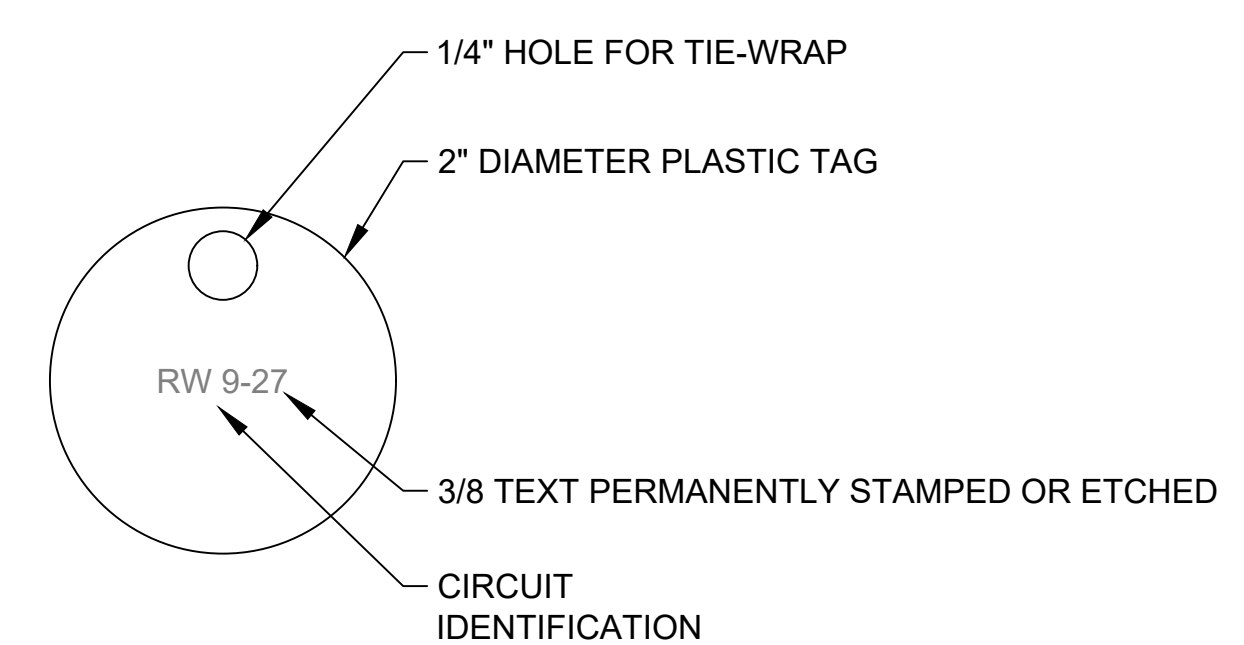


**SUPPLEMENTAL INSTALLATION INSTRUCTIONS**

**DETAIL NOTES:**

1. CLEAN THE CABLE THOROUGHLY 12" MIN. FROM THE END.
2. REMOVE INSULATION WITH A CABLE END PENCILLER TOOL (SIEMENS # WS 49, CROUSE-HINDS # 10036-36 OR RESIDENT PROJECT REPRESENTATIVE APPROVED EQUAL). DO NOT NICK THE CONDUCTOR.
3. CAREFULLY INSERT CABLE INTO CONNECTOR TO THE PROPER DEPTH. INSTALL PIN AND / OR RECEPTACLE WITH A CRIMPING TOOL WHICH MUST BE COMPLETELY CLOSED BEFORE THE TOOL MAY BE REMOVED. (SIEMENS #TMB25S, CROUSE-HINDS #33228 OR RESIDENT PROJECT REPRESENTATIVE APPROVED EQUAL). CRIMPING DIES SHALL BE PROPER SIZED FOR FOR THE CABLE AND CONNECTOR USED.
4. BE SURE CABLE AND CONNECTOR FITTINGS ARE CLEAN. COAT THE CABLE INSULATION WITH INSULATING JELLY FROM THE CONNECTOR.
5. CLEAN CONNECTOR AND CABLE INSULATION WITH WAX OR GREASE SOLVENT TO REMOVE SURFACE SILICONE JELLY.
6. SLIP 16 INCH LENGTH OF HEAT SHRINK TUBING ON LEAD.
7. COMPLETE CONNECTION BY MATING THE PLUG AND RECEPTACLE. CAUTION: BE SURE THE CABLE DOES NOT SLIP OUT WHEN THE CONNECTION IS MADE.
8. APPLY RUBBER TAPE AND VINYL TAPE ONE HALF LAPPED, 1-1/2 INCHES ON EACH SIDE OF JOINT.
9. ANY CONNECTOR WHICH IS CONTAMINATED BY DIRT OR OTHER DAMAGING MATERIAL SHALL BE REMOVED AND NOT REINSTALLED.
10. WRAP SEALANT SECURELY AROUND THE CABLE INSULATION TO EXTEND MIN 1-1/2" BEYOND BOTH ENDS OF CONNECTORS.
11. CENTER HEAT SHRINK OVER THE CONNECTOR. APPLY HEAT EVENLY BEGINNING AT THE CENTER AND WORKING AROUND CABLE TO ENDS. DO NOT OVER HEAT.
12. THE HEAT SOURCE SHALL BE ELECTRIC HEAT GUN OR A PROPANE TORCH WITH A FLAME SPREADER. FLAME SPREADER SHALL BE APPROVED BY THE RESIDENT PROJECT REPRESENTATIVE.

**1 L-823 CONNECTOR INSTALLATION**  
E06.07 SCALE: NTS



**NOTES**

1. THIS TAG SHALL BE USED TO IDENTIFY CABLES IN ALL JUNCTION CANS, LIGHT BASES, HANDHOLES, AND MANHOLES.
2. NUMBERING SYSTEM FOR I.D. TAGS SHALL BE COORDINATED WITH RESIDENT PROJECT REPRESENTATIVE PRIOR TO ORDERING TAGS.

**2 CABLE ID TAG**  
E06.07 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HSR-Remob of Runway 9-27\DWGS\000\1\_E06.00.dwg PLOTTED: Monday, February 03, 2020 - 9:44am USER: jjojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

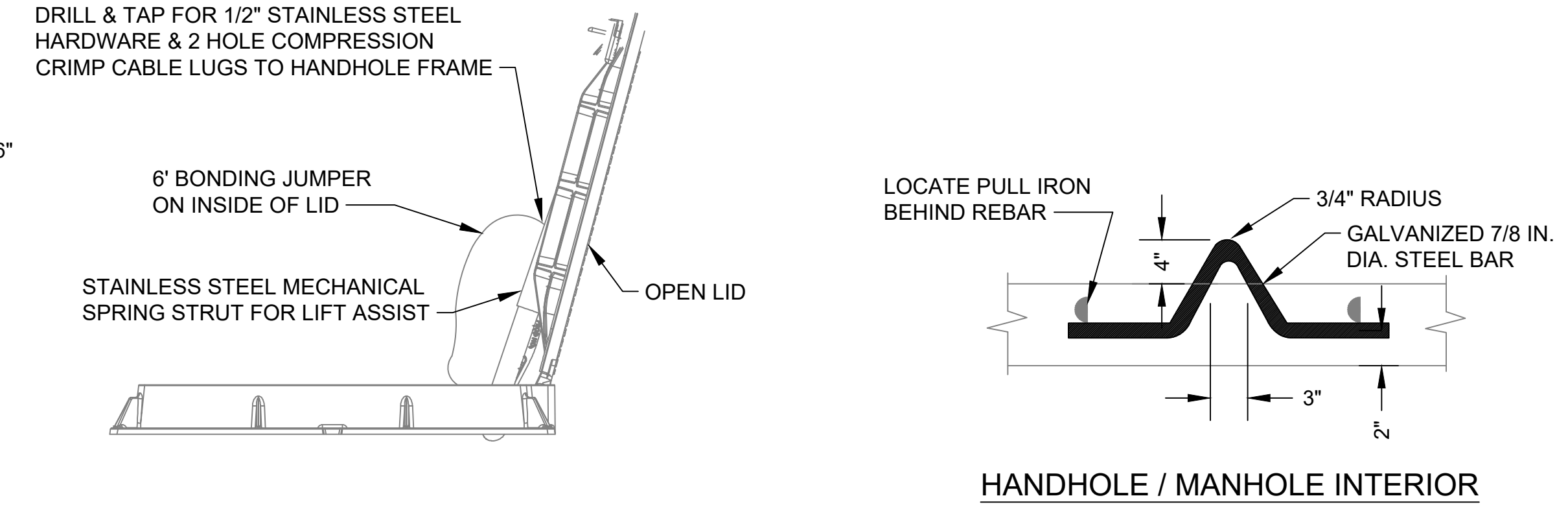
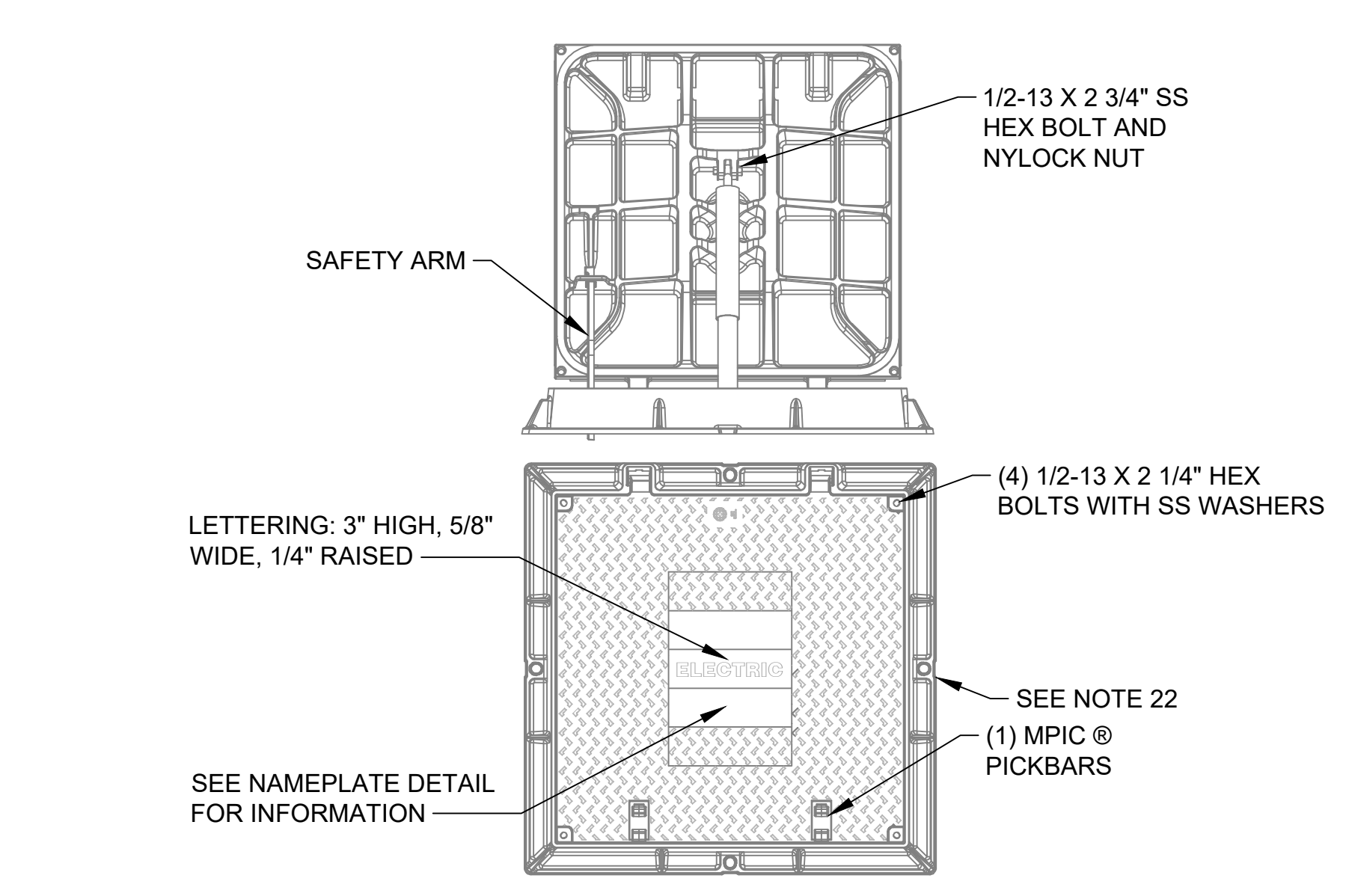
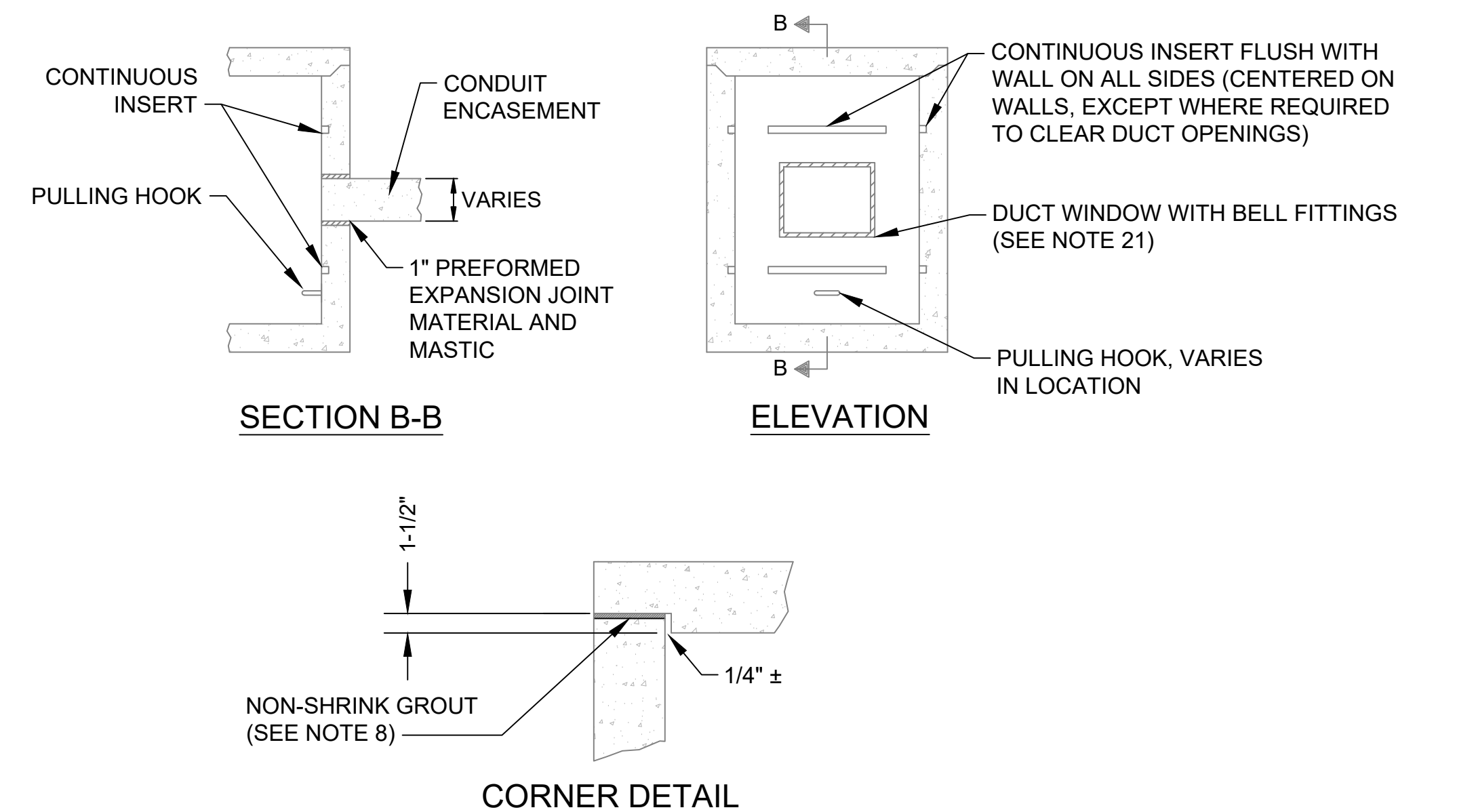
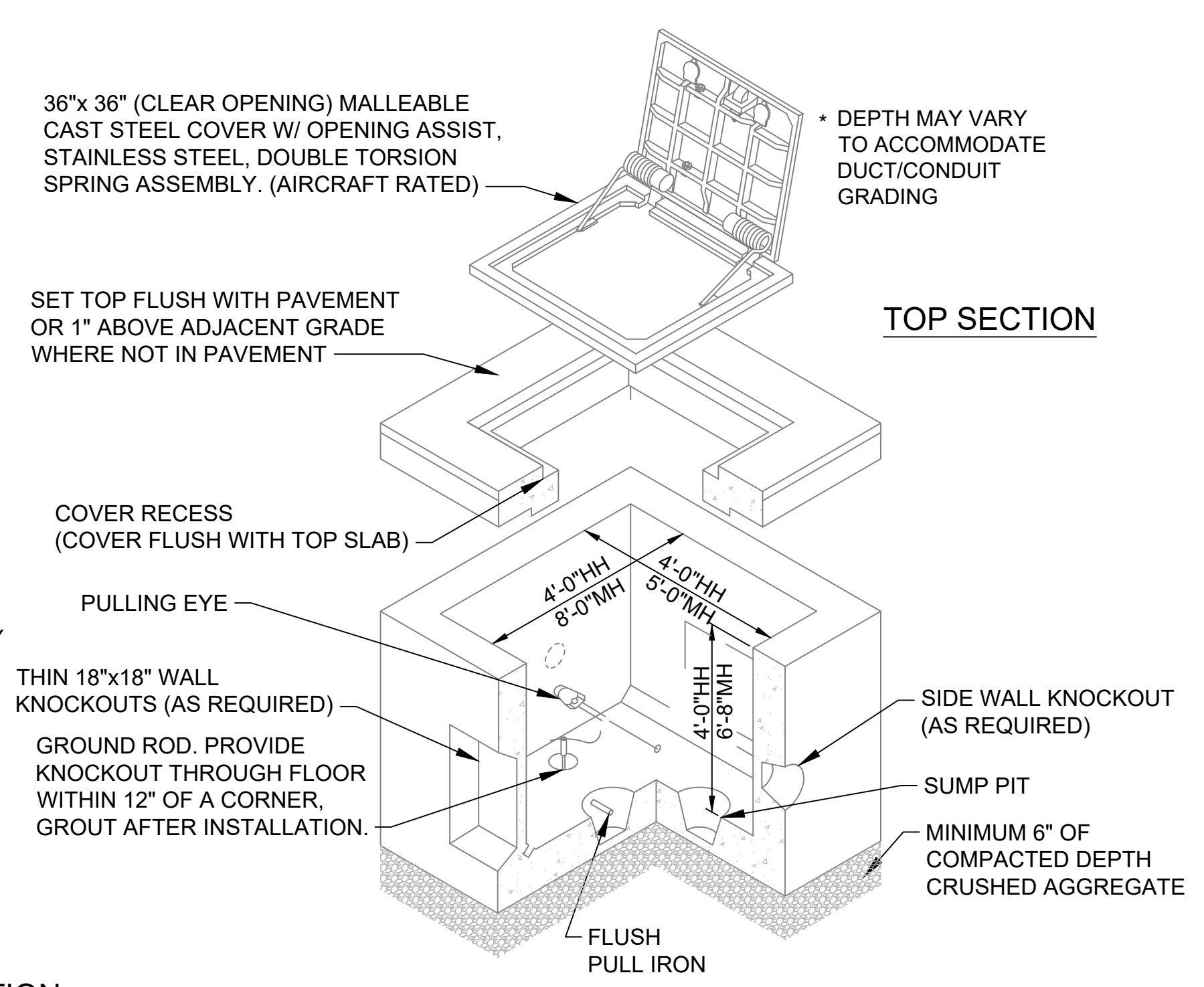
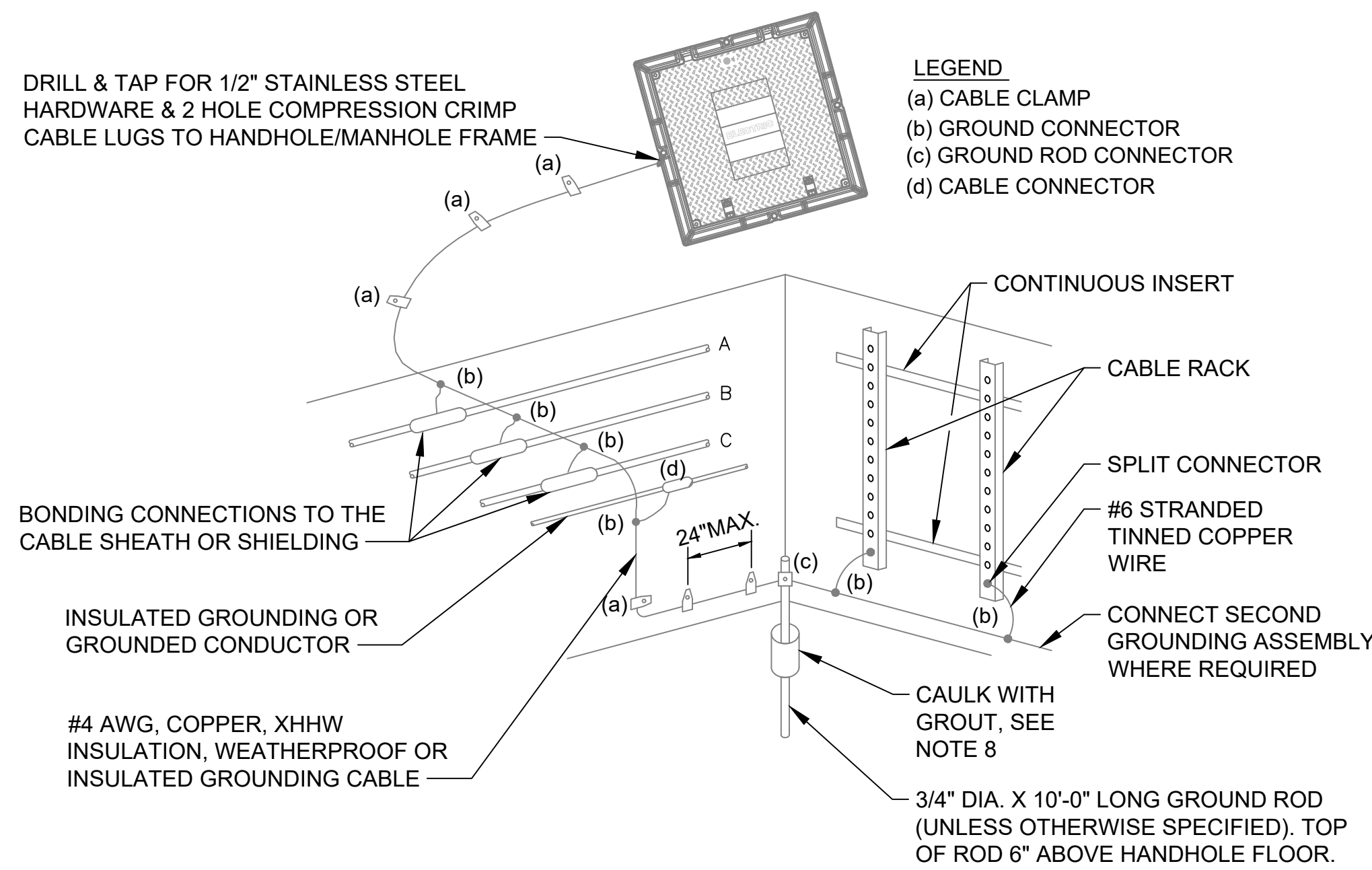
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE: CONNECTOR AND CABLE TAG DETAILS	
SCALE: AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.:  
**E06.07**  
78 OF 90



**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- FRAME AND COVER SHALL BE EAST JORDAN CO 8197ZPT8197A1PT ASSEMBLY (HINGE, HOLD-OPEN SAFETY BAR, MECHANICAL SPRING STRUT) OR APPROVED EQUAL. FURNISH AND INSTALL A GROUND LUG ON FRAME INSIDE THE HANDHOLE/MANHOLE.
- INSERTS SHALL BE HOT DIPPED GALVANIZED STEEL UNISTRUT, (GALVANIZED IN ACCORDANCE WITH ASTM A123 AND A153,) SERIES P-3200, OR APPROVED EQUAL, COMPLETE WITH END CAPS OF SIMILAR MATERIAL AND FINISHED WITH PLASTIC COATED FILLER.
- PULLING HOOK SHALL BE ASTM A36 STEEL, HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153. STEEL SHALL BE WELDED TO REINFORCING. WELDED AREA SHALL BE PREPARED AND CLEANED IN ACCORDANCE WITH ASTM A780. PAINT WITH 2 COATS OF COLD GALVANIZING COMPOUND CONTAINING A MINIMUM OF 92% ZINC CONTENT IN DRY FILM. INSTALL GROUNDING ASSEMBLY AS SHOWN ON THE CONTRACT DRAWING.
- REINFORCING BARS SHALL BE ASTM A-615 GRADE 60.
- ALL CAST-IN-PLACE AND PRECAST CONCRETE SHALL BE P-610 WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI. PROVIDE REINFORCEMENT TO MEET MINIMUM STRENGTH REVIEWED AND SEALED BY PROFESSIONAL STRUCTURAL ENGINEER.
- WHEN THE HEIGHT OF THE COLLAR THAT SUPPORTS THE HANDHOLE/MANHOLE COVER IS LESS THAN 4 INCHES, A SINGLE COURSE OF SOLID CONCRETE MASONRY MAY BE USED TO SUPPORT THE COVER. IF MASONRY IS USED, MASONRY SHALL BE 3 5/8" WIDE x 7 5/8" LONG x HEIGHT OF COLLAR. IF THE COLLAR IS GREATER THAN 4 INCHES HIGH, THE COLLAR SHALL BE POURED IN PLACE CONCRETE.
- GROUT SHALL BE NON-SHRINK, NON-METALLIC GROUT IN CONFORMANCE WITH ASTM C1107.
- RECORD ALL POSITIONS OF HANDHOLES/MANHOLE INSTALLED AND DELIVER TO THE RESIDENT PROJECT REPRESENTATIVE. RECORDED POSITIONS SHALL BE IN THE FORM OF GPS COORDINATES OR SURVEY COORDINATES USING THE AIRPORT COORDINATE SYSTEM.
- USING RESIDENT PROJECT REPRESENTATIVE APPROVED TEMPLATES AND PAINT, PAINT HANDHOLE/MANHOLE DESIGNATIONS ON INTERIOR OF HANDHOLE/MANHOLE FRAME AND EACH INTERIOR WALL OF HANDHOLE/MANHOLE ABOVE DUCTS. FOR DESIGNATIONS PAINTED ABOVE DUCTS, INCLUDE GENERAL DIRECTION (I.E. N,S,W,E).
- ALL SAFETY ARMS SHALL BE TESTED TO MAKE SURE HATCHES/ACCESS LIDS CANNOT SHUT MORE THAN 20 DEGREES FROM VERTICAL WHILE THE SAFETY ARM IS ENGAGED/LOCKED. HATCHES/ACCESS LIDS SHALL ALSO BE TESTED TO SEE THEY WILL NOT OPEN BACKWARDS MORE THAN 20 DEGREES FROM VERTICAL. BOTH TESTS SHALL BE CONDUCTED WITH THE HATCH/ACCESS LID OPEN WHILE APPLYING A 300 POUND HORIZONTAL FORCE AT THE OUTER MOST (HIGHEST) POINT ON THE HATCHES/ACCESS LIDS, CHECKING BOTH DIRECTIONS. HANDHOLE/MANHOLE ACCESS LIDS THAT ALLOW MOVEMENT OVER 20 DEGREES FORM VERTICAL WILL BE REJECTED.
- HANDHOLE SHALL BE AIRCRAFT RATED 4'X4', MANHOLE SHALL BE AIRCRAFT RATED 8'X5'X6'-8" INTERIOR DIMENSIONS WITH AIRCRAFT RATED SPRING ASSISTED ACCESS COVER WITH SECURITY BOLTING PROVISION, SUMP PIT, CABLE RACKS AND NON-CORROSIVE RETAINER CLAMPS (CLIC-X #113) TO FORM THREE LEVELS OF RACKS AROUND INSIDE OF PULLBOX 12", 24" AND 36" ABOVE FLOOR LEVEL, KNOCKOUTS FOR DUCT BANK ON ALL SIDES, AND PULLING EYES.
- CONDUITS STUBBED INTO HANDHOLE/MANHOLE SHALL BE SEALED WITH A WATERPROOF GROUT AND WATER/VERMIN-PROOF MASTIC.
- COUNTERPOISE SHALL PASS THROUGH THE HANDHOLE/MANHOLE ADJACENT TO THE CONDUITS AND CONNECT TO ONE GROUND ROD WHICH PENETRATES THE FLOOR WITHIN 6" OF A CORNER. LEAVE 6" OF GROUND ROD EXPOSED ABOVE FLOOR LEVEL FOR CONNECTIONS.
- MINIMUM EXCAVATION IS 5'-4" WIDE, 5'-4" LONG; DEPTH AS REQUIRED TO ENSURE A 6" LEVELED AGGREGATE BASE. BACKFILL WITH CEMENT STABILIZED SAND OR P-153.
- SEAL JOINTS BETWEEN HANDHOLE/MANHOLE SECTIONS WITH MANUFACTURER RECOMMENDED BUTYL RESIN.
- CONTRACTOR SHALL CAP ALL CONDUIT BELL END TERMINATORS WITH FACTORY FABRICATED PLASTIC PLUGS OF PROPER SIZE.
- ALL MATERIALS AND ASSOCIATED HARDWARE IN THE HANDHOLES/MANHOLE SHALL BE NON-CORROSIVE MATERIALS.
- CONTRACTOR SHALL GRADE AROUND HANDHOLES/MANHOLE AS NECESSARY TO PREVENT SILT/DIRT INFILTRATION INTO HANDHOLES/MANHOLE. NO SEPARATE PAYMENT SHALL BE MADE.
- PROVIDE 6" COMPACTED DEPTH OF CRUSHED AGGREGATE BEDDING UNDER HANDHOLES/MANHOLE.
- ALL FOUR SIDE WALLS OF HANDHOLE/MANHOLE SHALL CONTAIN DUCT WINDOW. TO INSTALL CONDUIT, CUT AWAY INSERT AND SLIDE DUCT THROUGH OPENING. FILL ANNULAR SPACE WITH FLOWABLE GROUT.
- ALL ACCESS LIDS/COVERS SHALL BE STAMPED WITH "HGR" AND THE APPROPRIATE IDENTIFICATION INDICATING THE TYPE OF STRUCTURE (EX. STORM SEWER, ELECTRICAL, ETC.). PROPOSED NOMENCLATURE SHALL BE SUBMITTED ON THE STRUCTURE CASTING SHOP DRAWINGS FOR APPROVAL BY THE RESIDENT PROJECT REPRESENTATIVE AND AUTHORITY.

1 AIRCRAFT RATED HANDHOLE-MANHOLE  
 E06.08 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\06.00.dwg PLOTTED: Monday, February 03, 2020 - 8:44am USER: jroten

**ADCI**  
 AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
 SUITE 330  
 ELLICOTT CITY, MD 21043  
 PHONE: 410-465-9600  
 FAX: 410-465-9602

SEAL: STATE OF MARYLAND PROFESSIONAL ENGINEER 53442

Professional Certification:  
 I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
 License No. 53442  
 Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
 HAGERSTOWN REGIONAL AIRPORT

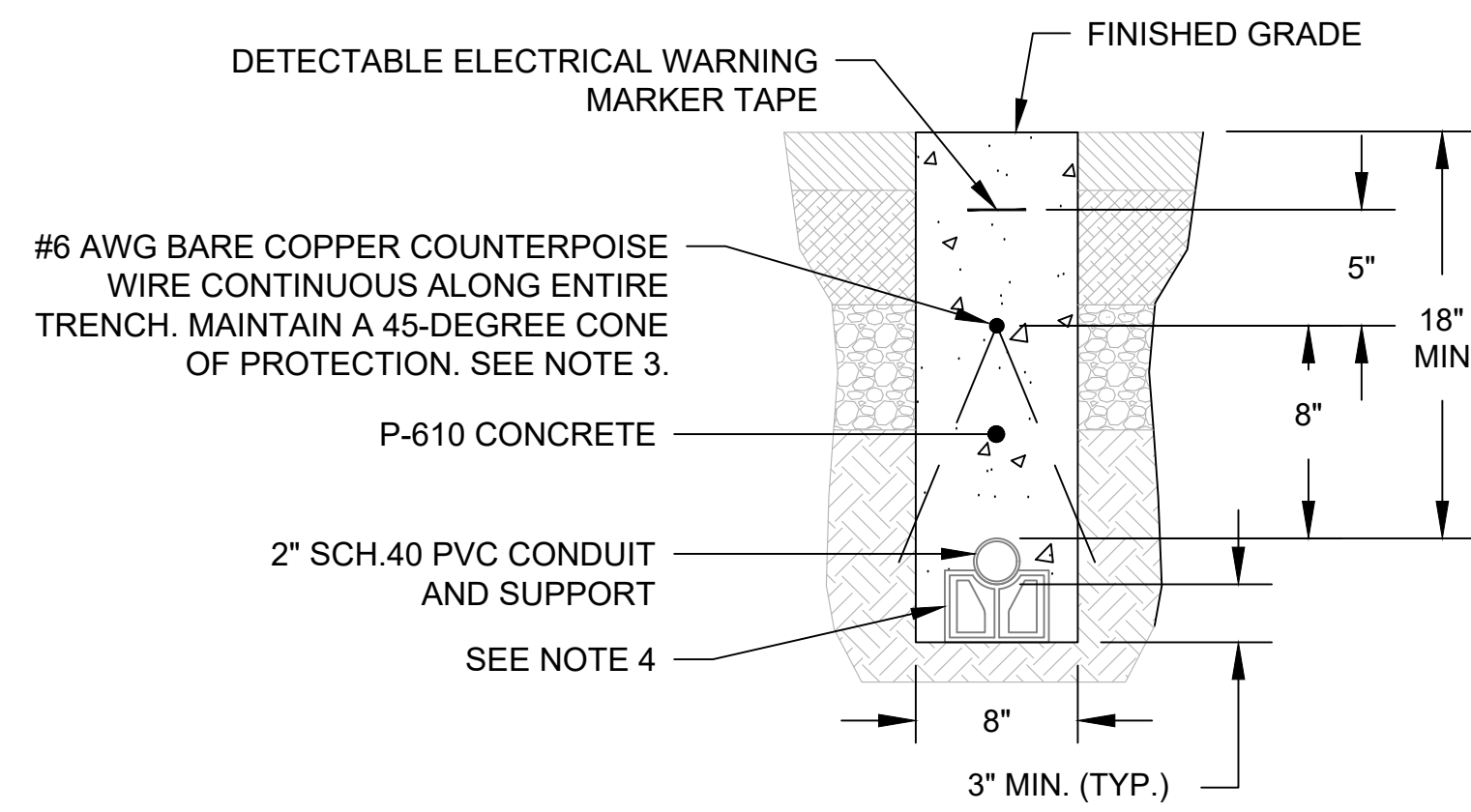
PROJECT TITLE: <b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE: AIRCRAFT RATED HANDHOLE-MANHOLE
SCALE: AS SHOWN
DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
 Bid No.: PUR-1409  
 MAA Grant No.: MAA-GR-19-009 (DESIGN)  
 GRADING PERMIT NO.: GP-19-005

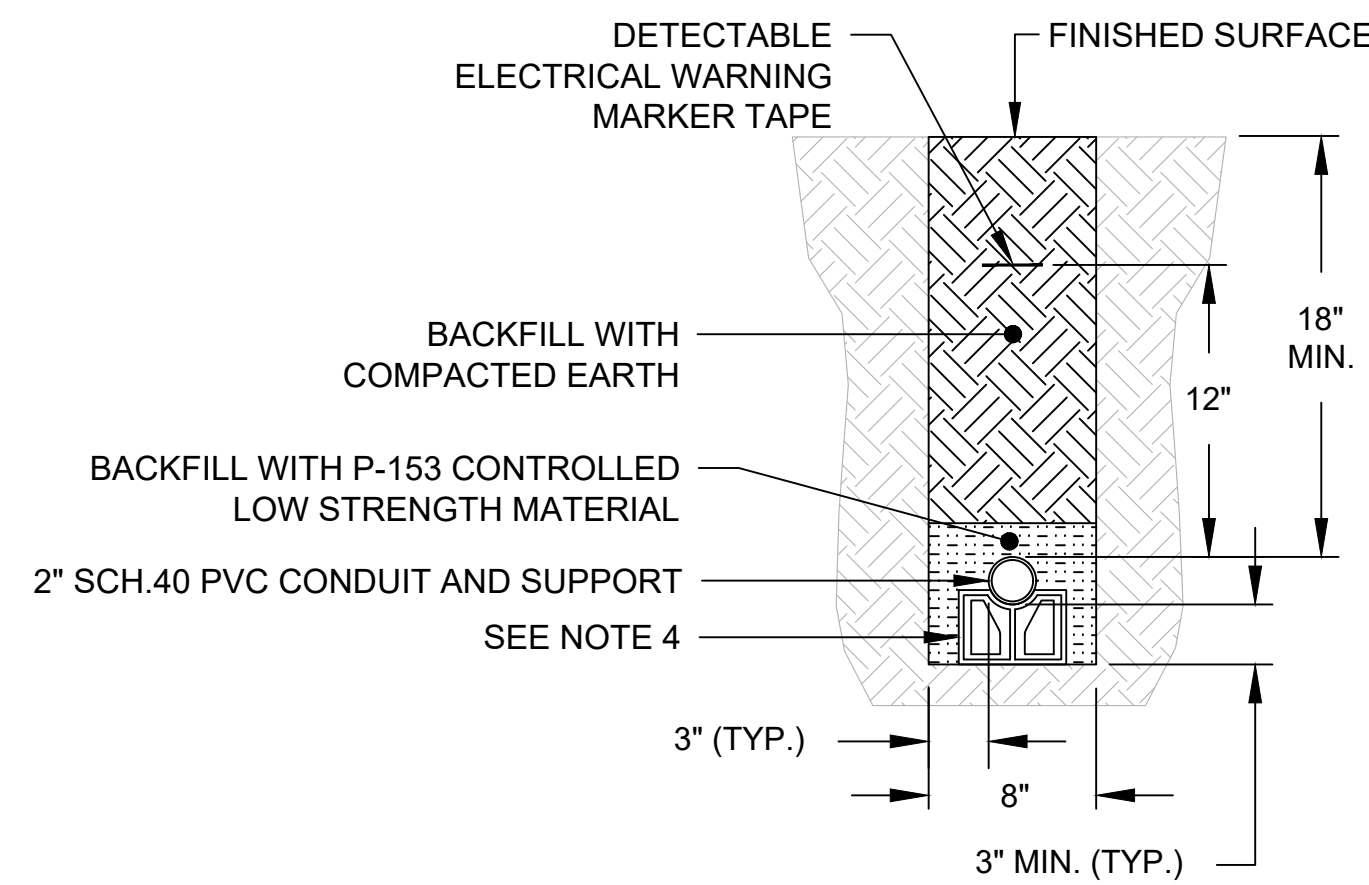
SHEET No.: **E06.08**  
 79 OF 90

**GENERAL NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. GROUND RODS SHALL BE DRIVEN VERTICALLY UNTIL THE TOP IS A MINIMUM OF 6 INCHES BELOW THE GROUND SURFACE.
3. WHEN AIRFIELD LIGHTING CABLES ARE INDICATED ON THE PLANS TO BE ROUTED THROUGH AN EXISTING DUCT BANK, MANHOLE OR HANDHOLE, THE NEW COUNTERPOISE WIRING SHALL BE TERMINATED AT A GROUND ROD LOCATED AT EACH END OF THE EXISTING DUCT BANK OR STRUCTURE WHERE THE CABLES BEING PROTECTED ENTER AND EXIT. THE NEW COUNTERPOISE CONDUCTOR SHALL BE BONDED TO THE EXISTING COUNTERPOISE SYSTEM.
4. CONDUIT SPACERS SHALL BE INSTALLED AT A MAXIMUM OF EVERY 5 FEET.

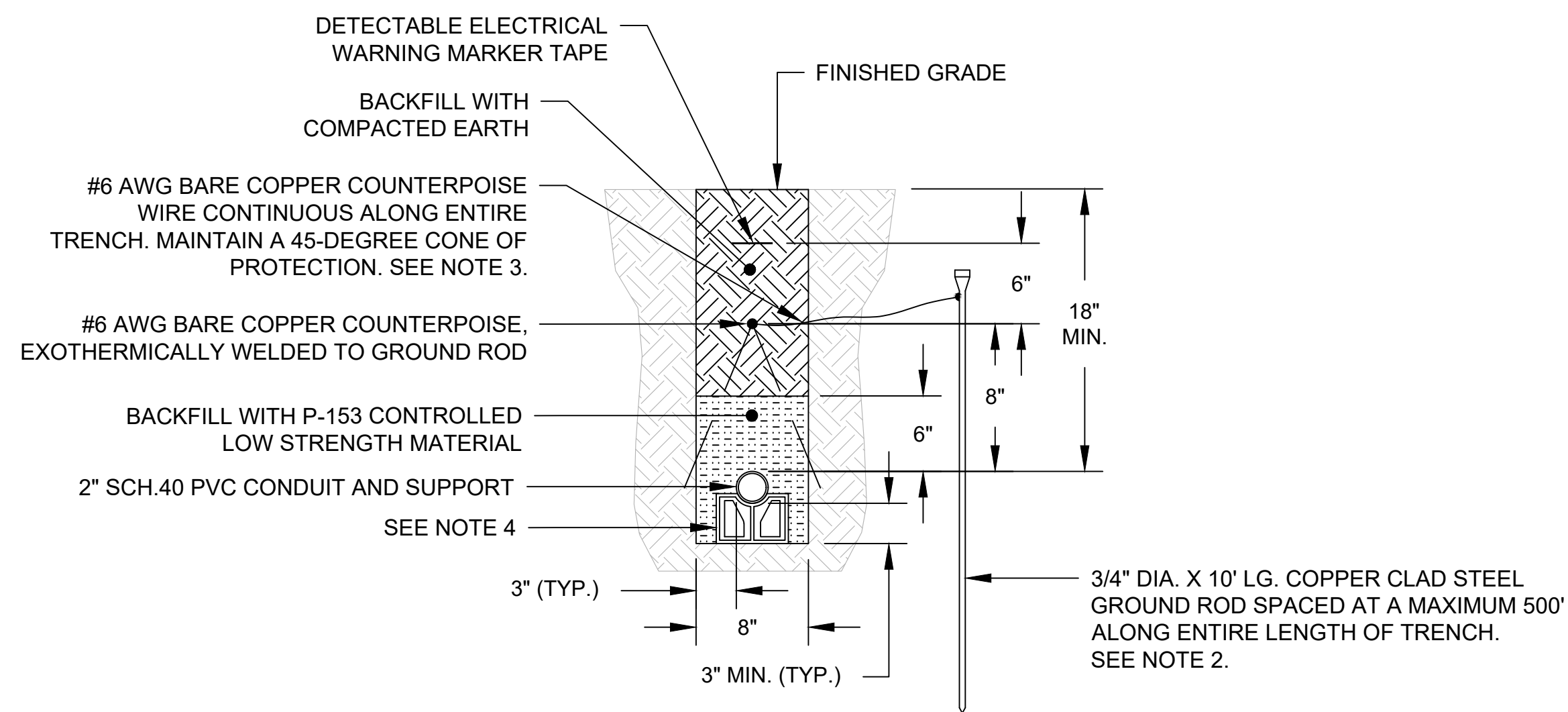


**1** 1W-2" CONDUIT DETAIL IN PAVED AREAS (FOR LIGHT BASE CONDUIT)  
E06.09 SCALE: NTS

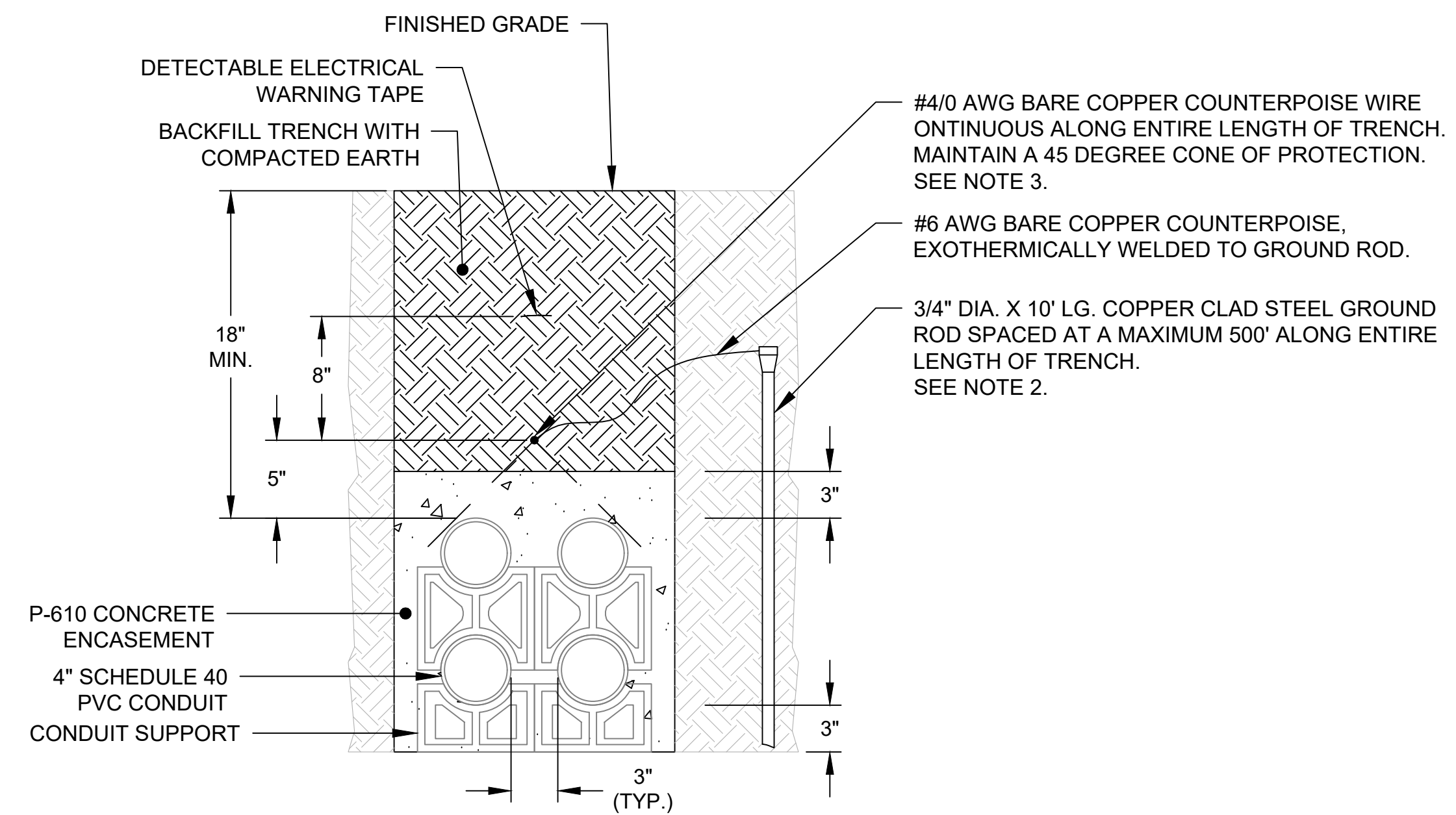


**2** 1W-2" CONDUIT DETAIL IN UNPAVED AREAS (FOR LIGHT BASE CONDUIT)  
E06.09 SCALE: NTS

**NOTE:**  
COUNTERPOISE IS INSTALLED IN A SEPARATE TRENCH.



**3** 1W-2" CONDUIT DETAIL (IN UNPAVED AREAS)  
E06.09 SCALE: NTS



**4** 4W-4" CONDUIT DETAIL (IN UNPAVED AREAS)  
E06.09 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\06\06.dwg PLOTTED: Monday, February 03, 2020 - 9:44am USER: jrojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

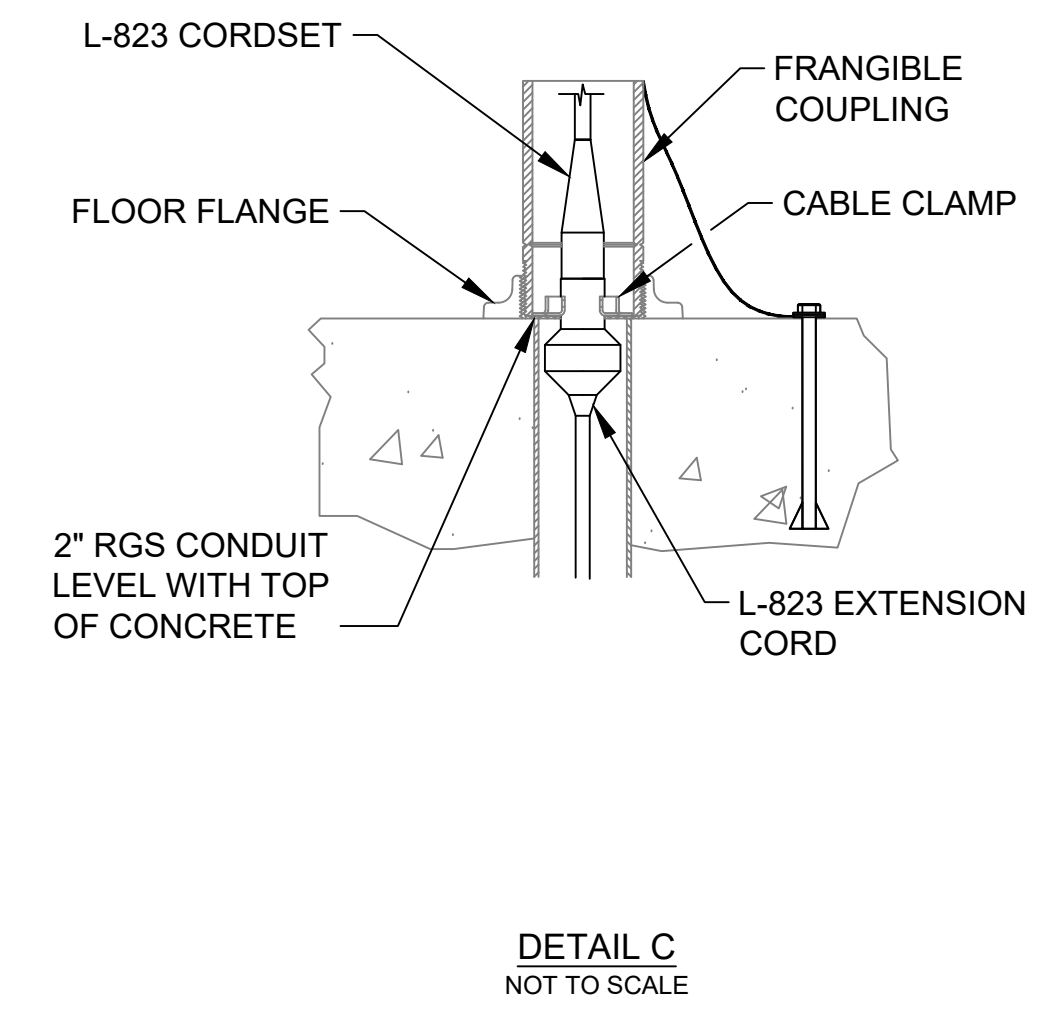
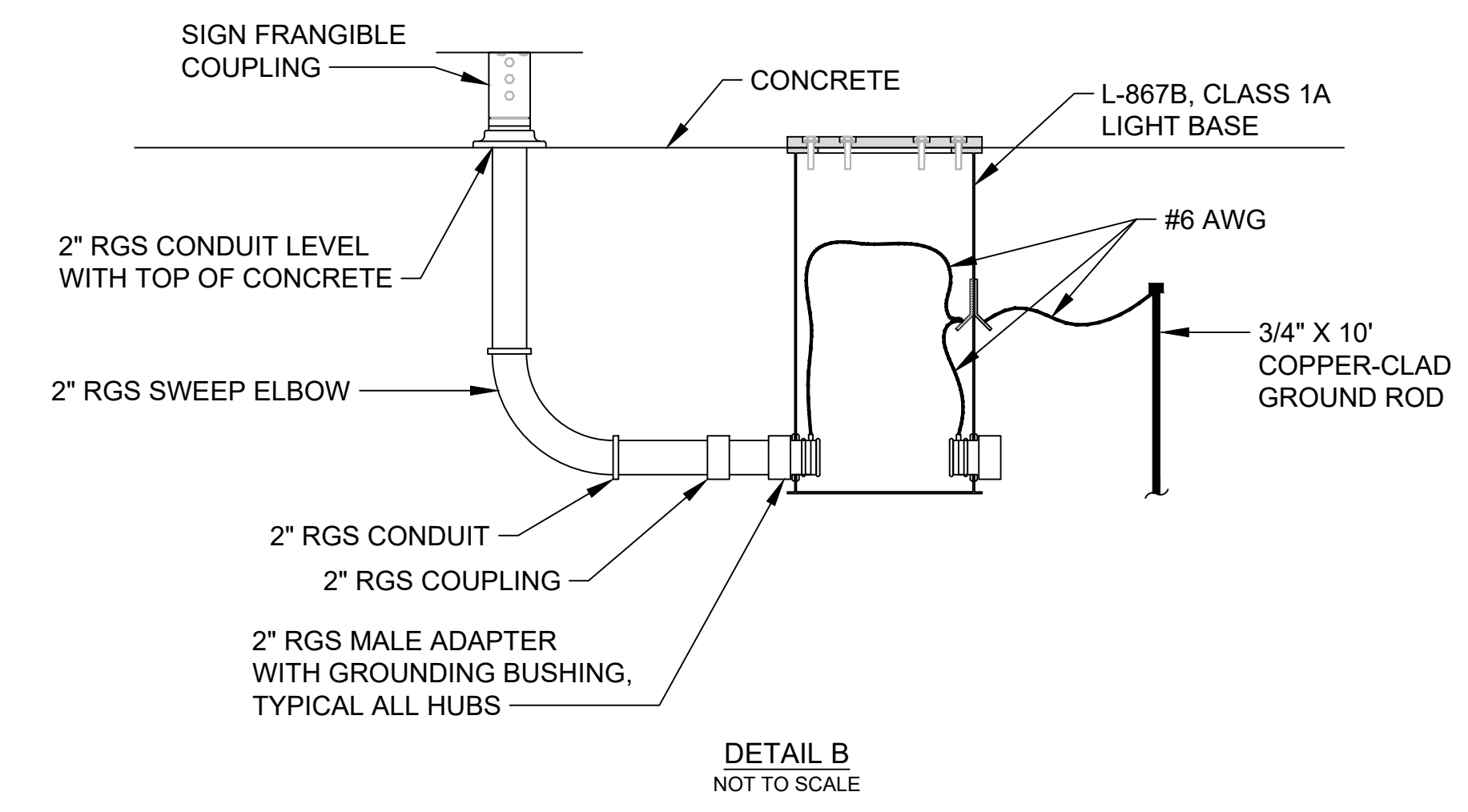
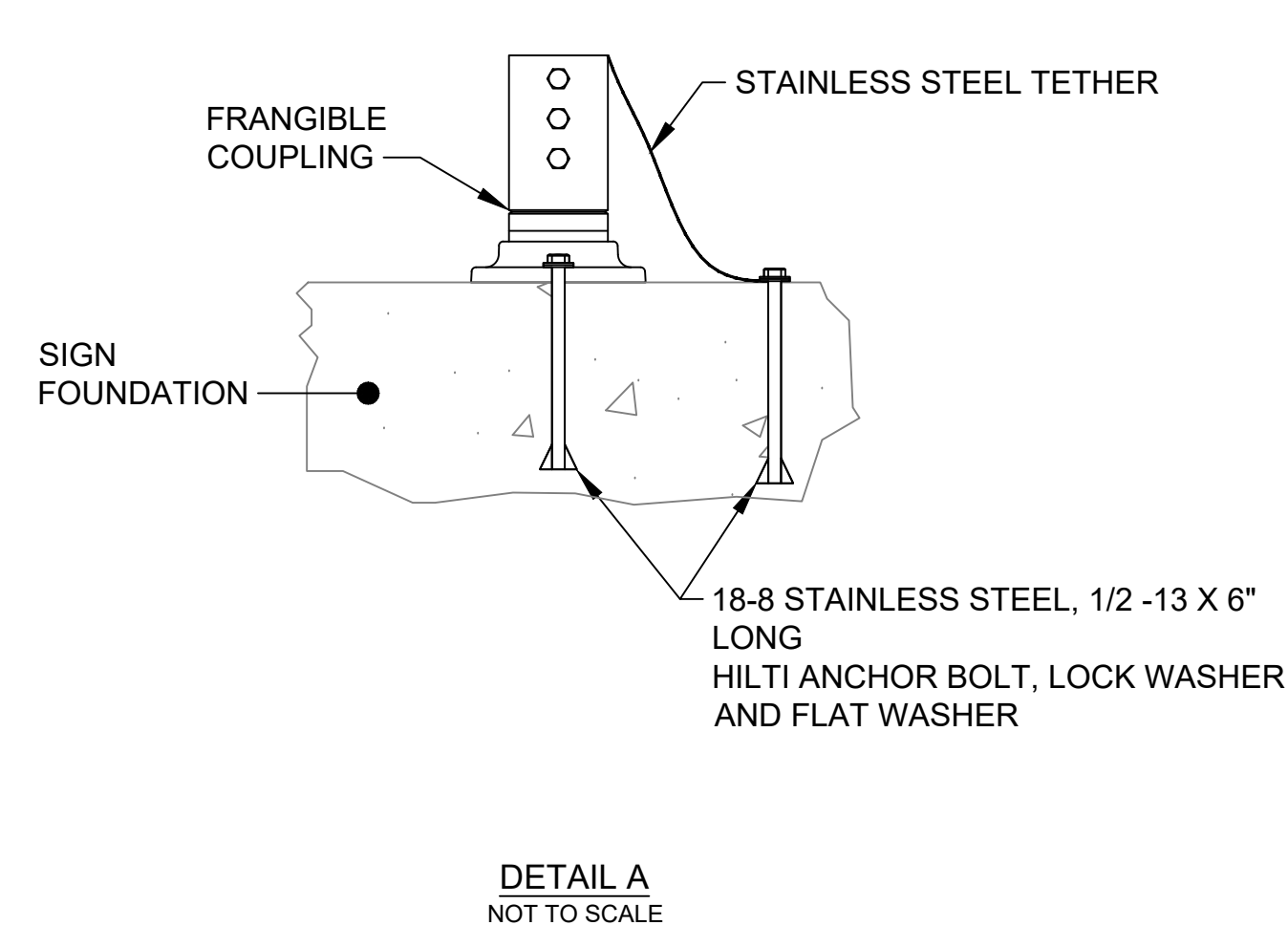
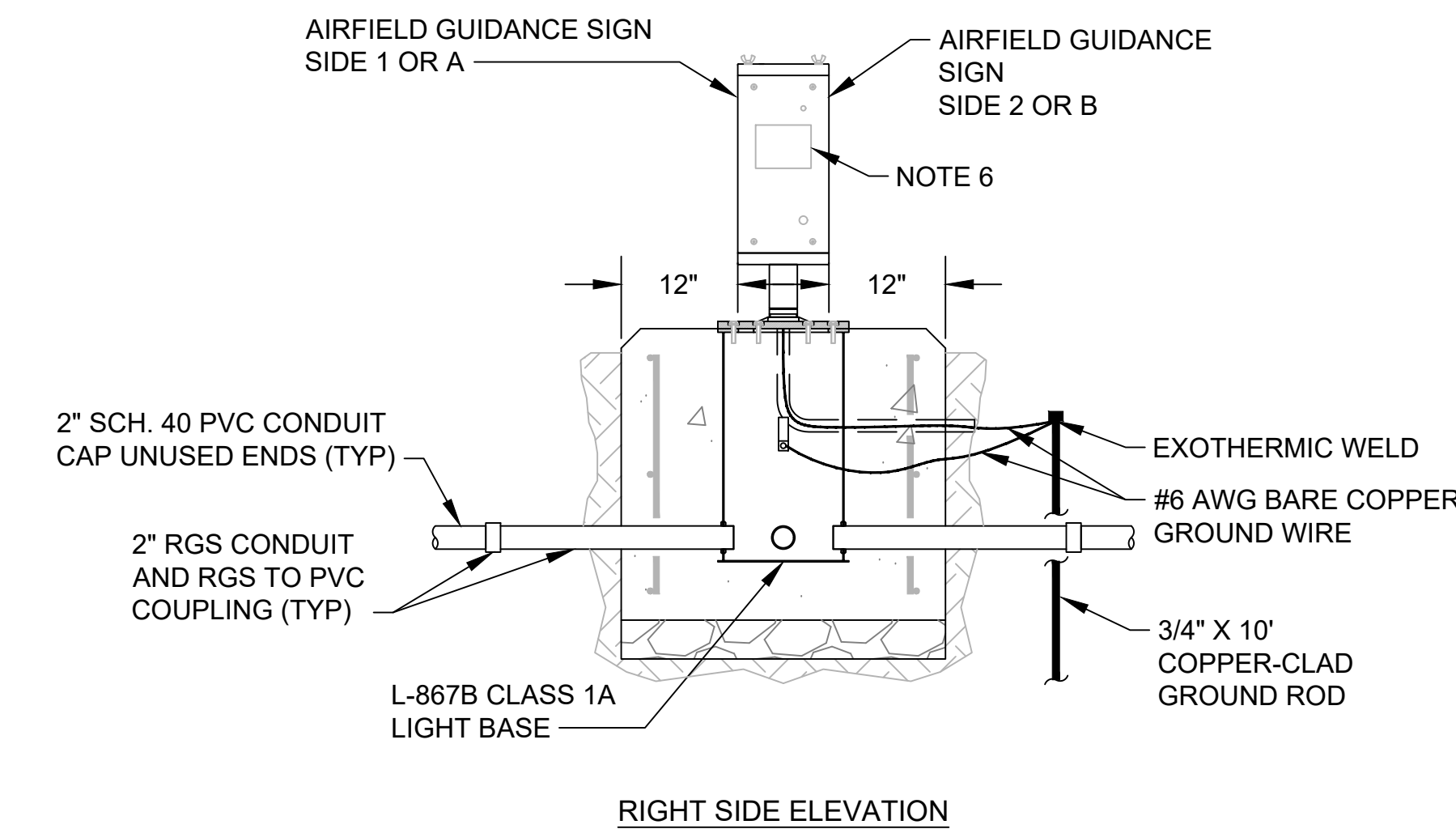
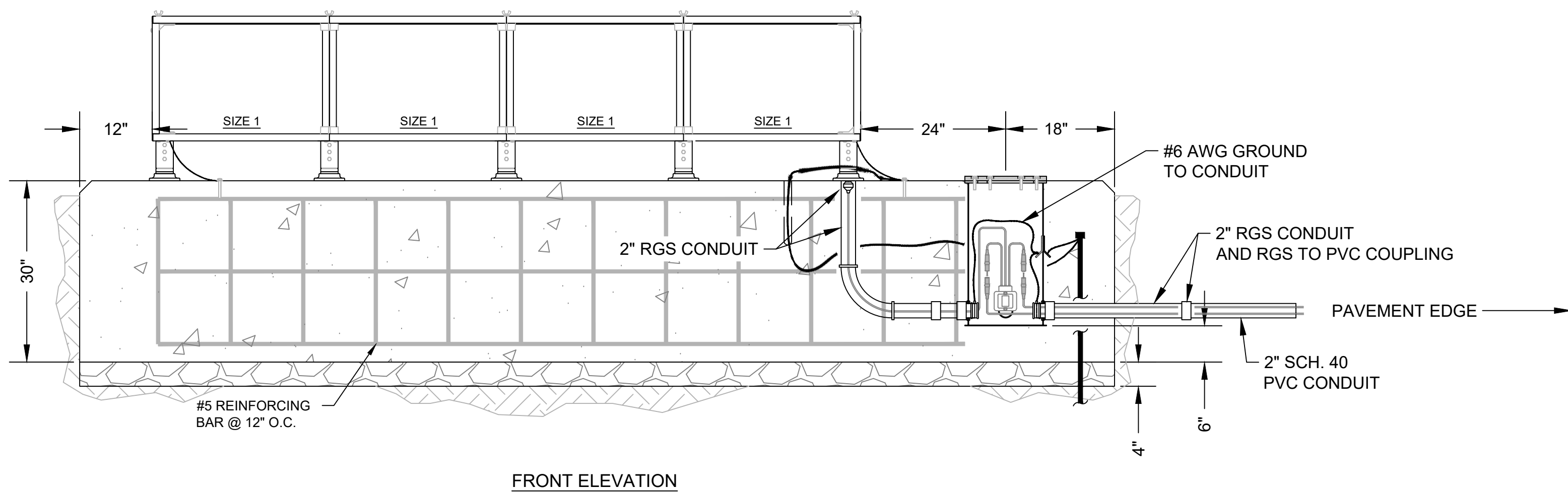
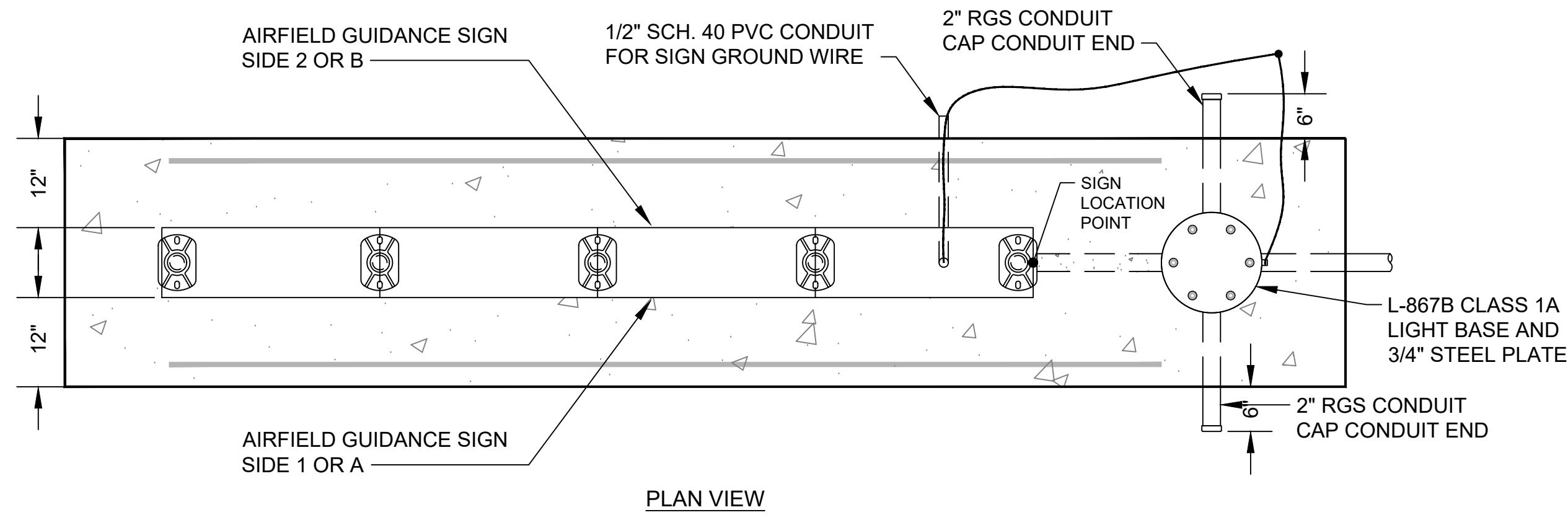
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>	
SHEET TITLE:	CONDUIT INSTALLATION DETAILS	
SCALE:	AS SHOWN	DATE: FEBRUARY 2020

FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>E06.09</b>
	80 OF 90





TAXIWAY GUIDANCE SIGNS	
SIGN SIZE	PERPENDICULAR DISTANCE FROM DEFINED PAVEMENT EDGE TO NEAR SIDE OF SIGN
1	10' - 20'

\*PER FAA AC 150/5340-18 (TABLE 1)

**GENERAL NOTES:**

- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- CONTRACTOR SHALL GRADE AROUND SIGNS AS NECESSARY TO PREVENT SILT/DIRT INFILTRATION ONTO SIGN FOUNDATION. COORDINATE SIGN FOUNDATION WITH SIGN ACCESS SERVICE ROAD AND GRADING. RUNWAY/TAXIWAY SAFETY AREA GRADING CRITERIA SHALL BE OBSERVED.
- FOR SIGNS LONGER THAN 4 MODULES, TWO SIGN ARRAYS SHALL BE INSTALLED AND CONNECTED TOGETHER. COORDINATE WITH MANUFACTURER FOR CONNECTION REQUIREMENTS AND WIRING.
- AIRFIELD GUIDANCE SIGNS, MATERIALS AND PANELS SHALL CONFORM TO  
FAA AC 150/5345-44 (LATEST EDITION).
- PROVIDE 1/2" EXPANSION JOINT CONTINUOUS AROUND SIGN BASE. PROVIDE SEALER FOR TOP 1" SPACE (IF NECESSARY).
- RETROREFLECTIVE, SELF-ADHESIVE VINYL SIGN IDENTIFICATION NUMBERS SHALL BE 4" HIGH, BLACK LETTERING ON YELLOW BACKGROUND AND LOCATED ON POWER END TOWARD TWY/RWY. CONTRACTOR SHALL ALSO PROVIDE A 2" DIA. BRONZE IDENTIFICATION MARKER ADJACENT TO EACH L-867 BASE STAMPED WITH THE AIRPORT SIGN IDENTIFICATION NUMBER. SEE SIGN SCHEDULE FOR AIRPORT SIGN IDENTIFICATION NUMBERS.
- ALL SIGNS SHALL BE FURNISHED WITH TETHERS. TETHERS SHALL BE 3/16" STAINLESS STEEL AIRCRAFT CABLE WITH A FORMED EYE ON BOTH ENDS. THE TETHER EYE SHALL BE ATTACHED TO THE SIGN IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND TO THE CONCRETE BASE BETWEEN TWO STAINLESS STEEL WASHERS, WITH A 1/2 - 13 X 6" MINIMUM STAINLESS STEEL ANCHOR BOLT. THE TETHER SHALL BE OF SUFFICIENT LENGTH TO HAVE A MINIMUM OF 6" OF SLACK WHEN ATTACHED BETWEEN THE SIGN AND THE SIGN FOUNDATION. THE TETHERS AND BONDING CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO ALLOW THE FRANGIBLE COUPLINGS TO OPERATE WITHOUT RESTRICTIONS AND TO ALLOW THE POWER CABLE TO DISCONNECT IF THE SIGN FALLS OVER. THE SIGN ANCHOR BOLTS SHALL NOT BE USED FOR THE TETHER ANCHOR. A SIGN ARRAY SHALL BE EQUIPPED WITH A TETHER ON EACH END. ONE MODULE SIGNS SHALL BE EQUIPPED WITH ONE TETHER.
- L-867B CLASS 1A BASE CAN, 12" DIA, 24" DEEP WITH FOUR 2" THREADED HUBS, 3/8" COVER PLATE, INCLUDING NEOPRENE GASKET AND STAINLESS STEEL HARDWARE. STUB OUT AND CAP UNUSED CONDUITS 6" BEYOND MAINTENANCE PAD. FURNISH AND INSTALL BASE AT NEAREST END OF PAVEMENT.
- 2" FRANGIBLE COUPLING, EMT NIPPLE, FLOOR FLANGE, AND STAINLESS STEEL ANCHOR BOLTS SHALL BE PROVIDED AS REQUIRED.
- INSTALL TWO GROUND RODS AT EACH SIGN ARRAY. ONE 3/4" X 10" FOR COUNTERPOISE AND ONE 3/4" X 10" FOR GROUNDING.
- AIRFIELD GUIDANCE SIGNS SHALL BE INSTALLED 20' FROM ALL AIRCRAFT FULL STRENGTH PAVEMENT UNLESS OTHERWISE INDICATED.
- SIGNS SHALL BE LED TYPE L-858 AIRFIELD GUIDANCE SIGNS.
- EXTENDER CABLE SHALL BE LONG ENOUGH TO EXTEND 3' OUT OF THE L-867B CAN.

**1 GUIDANCE SIGN INSTALLATION DETAIL**  
E06.10 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWGS\CAD\E06.00.dwg PLOTTED: Monday, February 03, 2020 - 8:44am USER: jjojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: [Professional Engineer Seal]

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**

SHEET TITLE: **GUIDANCE SIGN INSTALLATION DETAIL**

SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

SHEET No.: **E06.10**  
81 OF 90



EXISTING ROTATING BEACON - IMAGE 1



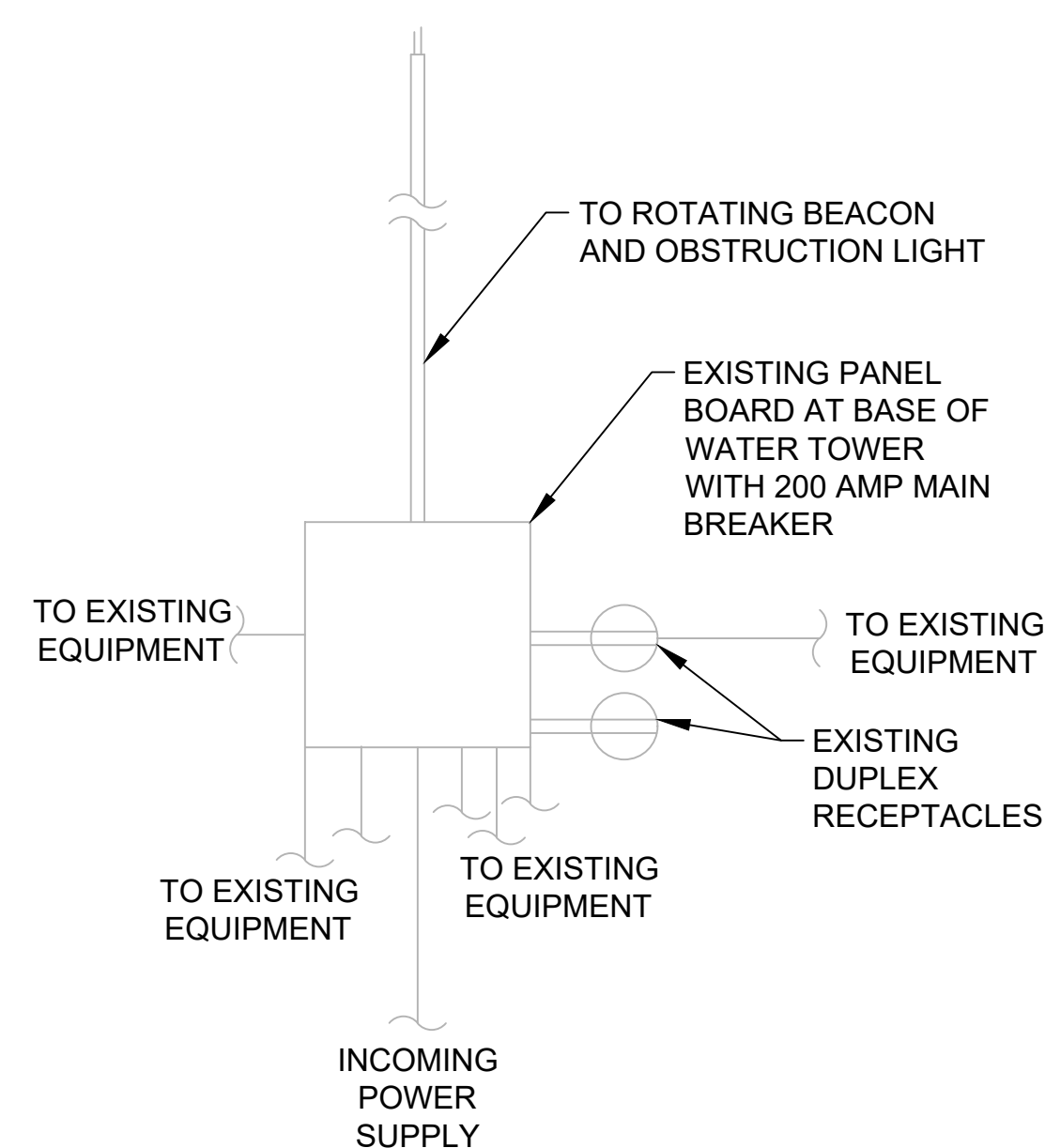
EXISTING ROTATING BEACON - IMAGE 2



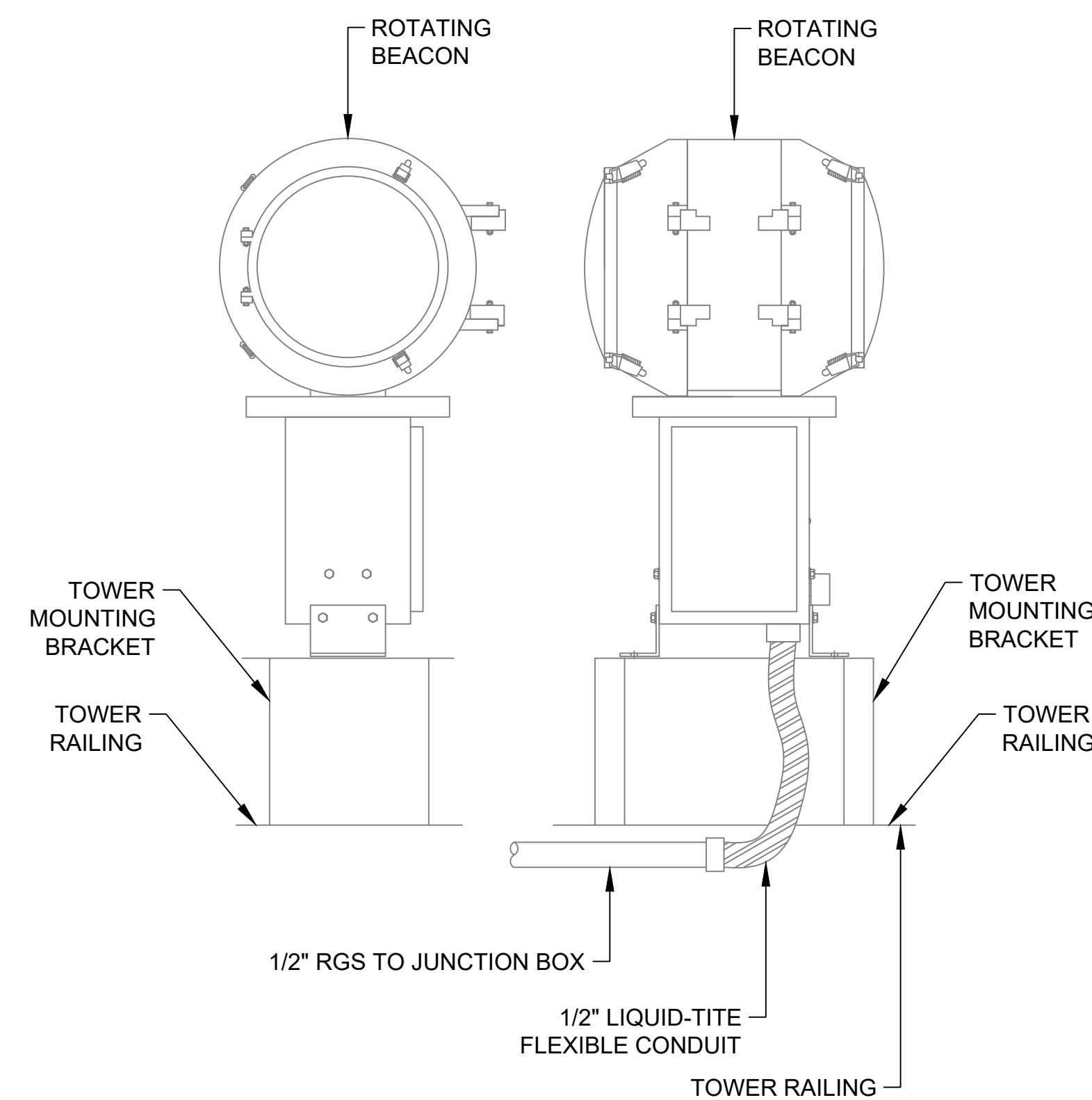
EXISTING BEACON EQUIPMENT - IMAGE 3



EXISTING ROTATING BEACON - IMAGE 4



POWER DISTRIBUTION



L-802A ROTATING BEACON - ADB SAFEGATE

**GENERAL NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. CONTRACTOR SHALL COORDINATE WITH AIRPORT MAINTENANCE FOR ACCESS INTO THE WATER TOWER FENCE LINE ENCLOSURE.
3. SINGLE LINE DIAGRAM IS FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY WIRING FOR THE AIRPORT BEACON BEFORE PERFORMING WORK.
4. NEW BEACON SHALL BE ON SITE PRIOR TO STARTING DEMOLITION OF EXISTING BEACON.
5. ALL PREPARATORY WORK TO ENERGIZE NEW BEACON SHALL BE COMPLETED PRIOR TO TAKING EXISTING BEACON OUT OF SERVICE.
6. BASIS OF DESIGN IS ADB SAFEGATE # 44A6008-03.

**ROTATING BEACON NOTES:**

1. DE-ENERGIZE, DISCONNECT AND REMOVE EXISTING BEACON CONDUCTORS AND OBSTRUCTION LIGHT FROM BEACON AND OBSTRUCTION LIGHT TO POWER PANEL LOCATED AT BOTTOM OF WATER TOWER. EXISTING CONDUIT SHALL REMAIN FOR REUSE.
2. CLEAN EXISTING CONDUIT WITH BRUSH AND MANDREL AND WIPE CLEAN WITH A RAG, PRIOR TO INSTALLING CONDUCTORS.
3. REMOVE EXISTING ROTATING BEACON AND MOUNTING SUPPORT DOWN TO RAILING OF CATWALK ON THE TOP OF THE WATER TOWER.
4. FABRICATE, FURNISH AND INSTALL TOWER MOUNTING BRACKET. THE TOWER MOUNTING BRACKET IS AN INTERMEDIATE SUPPORT FROM THE TOWER RAILING TO THE ROTATING BEACON BRACKET. EXACT DIMENSION AND DESIGN ARE CONTINGENT UPON THE ROTATING BEACON SELECTED. THE CONTRACTOR SHALL SUBMIT FABRICATION DRAWINGS TO THE RPR FOR REVIEW AND APPROVAL PRIOR TO FABRICATING AND INSTALLING.
5. FURNISH AND INSTALL ROTATING BEACON ONTO THE TOWER MOUNTING BRACKET.
6. FURNISH AND INSTALL 4 - # 12AWG, 600-VOLT CONDUCTORS FROM THE POWER PANEL TO THE ROTATING BEACON. FURNISH AND INSTALL 1/2" RGS AND LIQUID TIGHT FLEXIBLE METALLIC CONDUIT FROM JUNCTION BOX MOUNTED ON TOWER RAILING TO ROTATING BEACON POWER CONNECTION POINT. MAKE ALL SPLICES AND TERMINATIONS.
7. FURNISH AND INSTALL 3 - #12AWG, 600-VOLT CONDUCTORS FROM THE POWER PANEL TO THE OBSTRUCTION LIGHT MOUNTED ON THE TOWER RAILING.
8. FURNISH AND INSTALL A 15 AMP 2-POLE CIRCUIT BREAKER IN POWER PANEL FOR ROTATING BEACON. CIRCUIT BREAKER SHALL MATCH OCPD REQUIREMENTS OF THE POWER PANEL.
9. CONNECT OBSTRUCTION LIGHTS CONDUCTORS TO THE EXISTING CIRCUIT BREAKER IN POWER PANEL.

**1 AIRPORT ROTATING BEACON DETAIL**  
E06.11 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HSR-Remob of Runway 9-27\DWGS\001\_E\06.00.dwg PLOTTED: Monday, February 03, 2020 - 8:44am USER: jloren

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.  
6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: [Professional Engineer Seal for Pat J. Avolio, License No. 53442, State of Maryland]

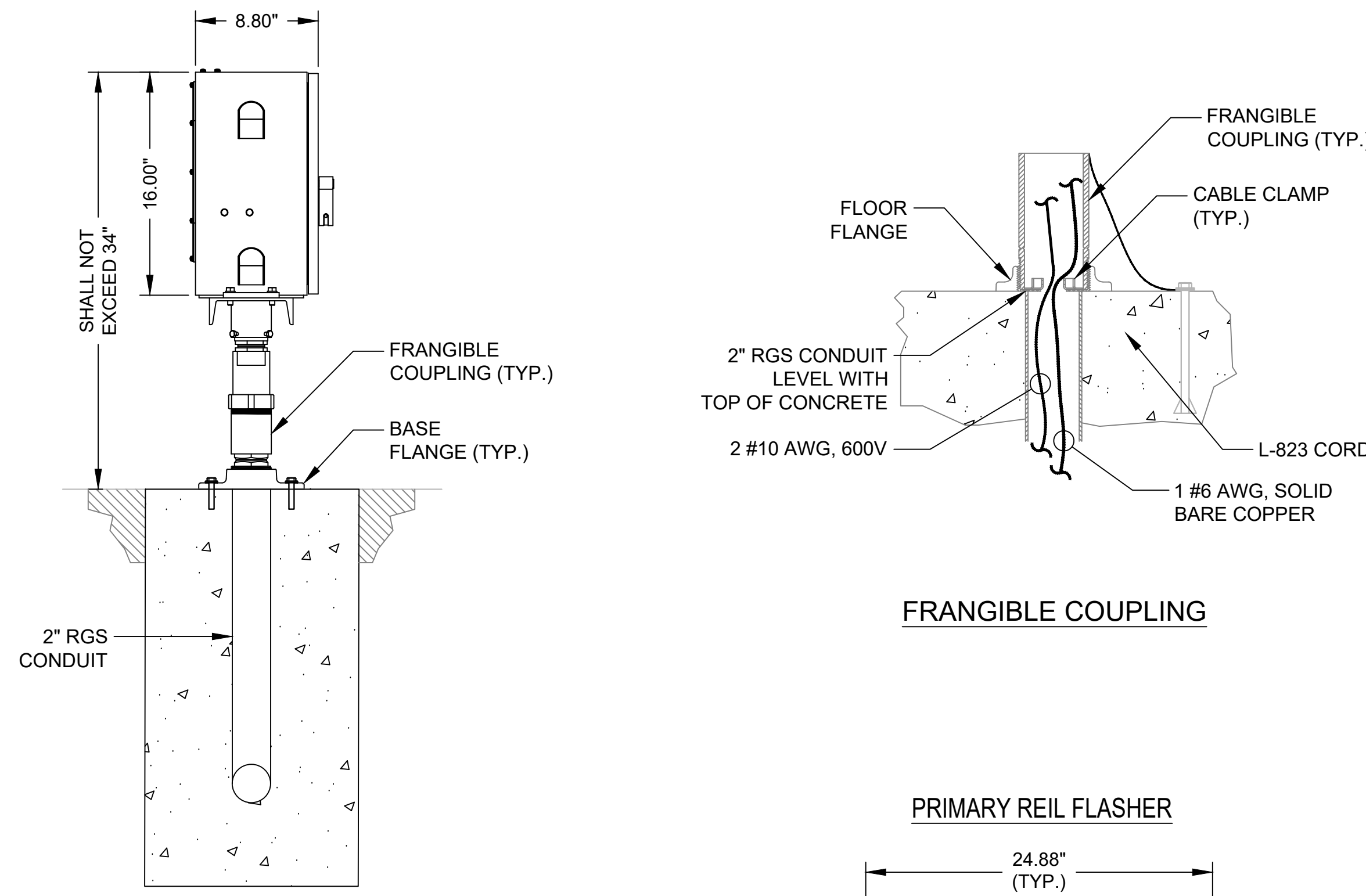
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

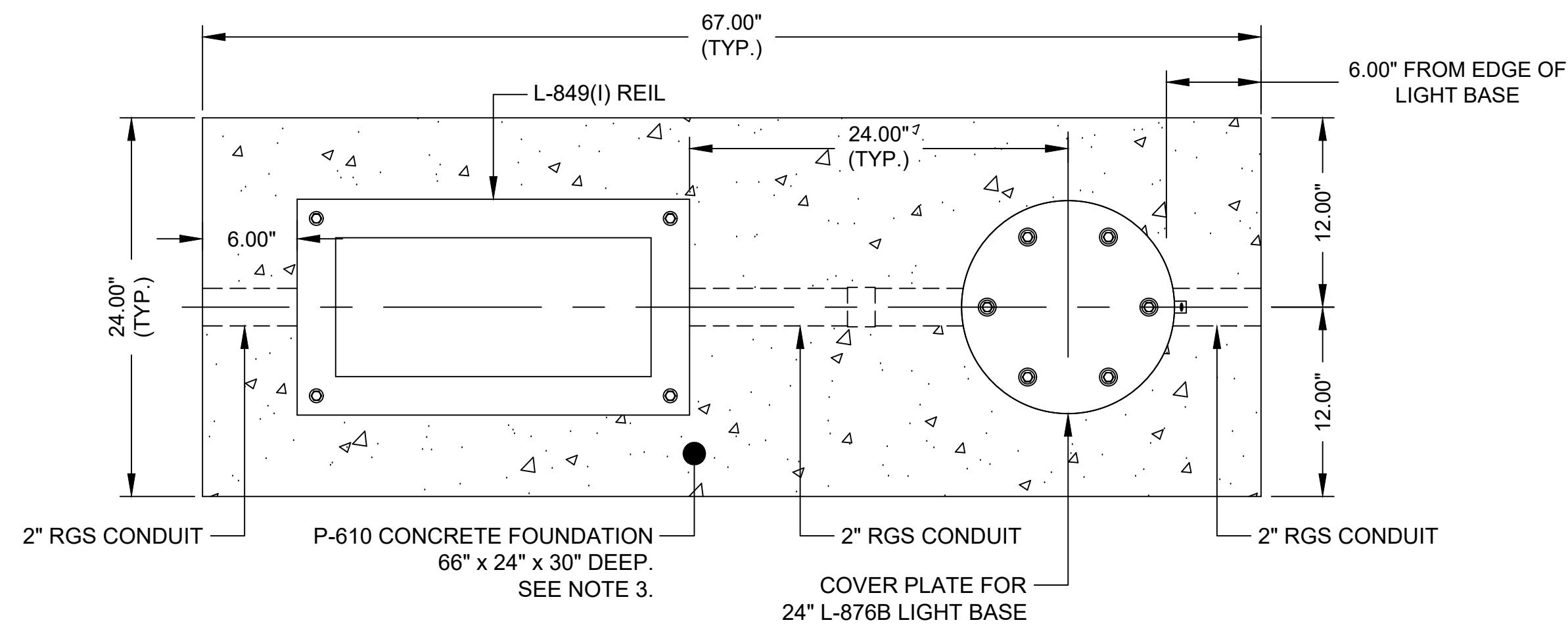
PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
SHEET TITLE: **AIRPORT ROTATING BEACON DETAIL**  
SCALE: AS SHOWN DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: **E06.11**  
**82 OF 90**



FRANGIBLE COUPLING

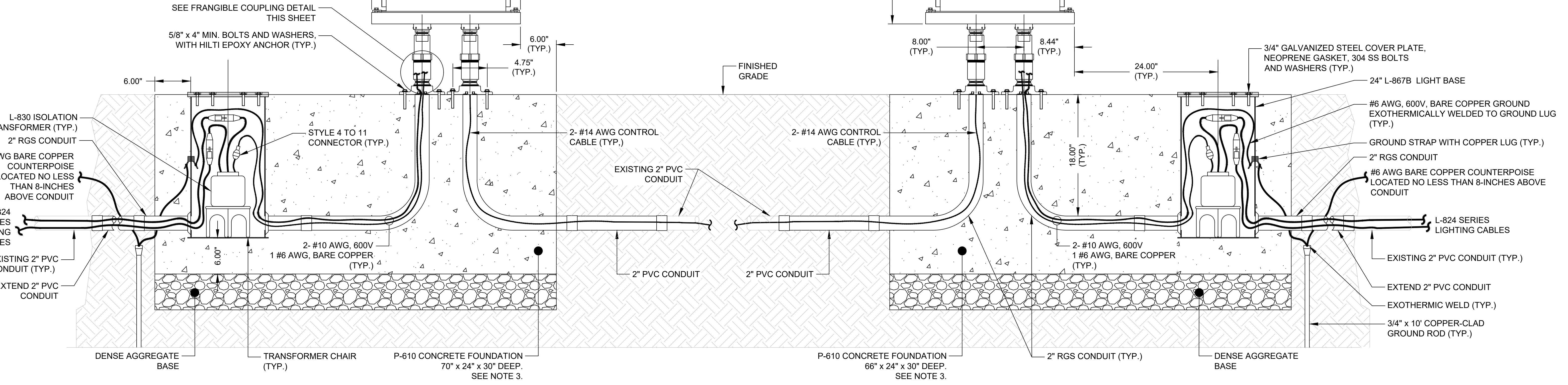
SIDE VIEW



PLAN VIEW (SECONDARY REIL) (TYP.)

PRIMARY REIL FLASHER

SECONDARY REIL FLASHER



ELEVATION

GENERAL NOTES:

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. THE OVERALL HEIGHT OF THE OPTICAL ASSEMBLY SHALL NOT EXCEED 34-INCHES.
3. THE P-610 CONCRETE FOUNDATION SHALL HAVE #4 BARS, 18" MIN. O.C. IN BOTH DIRECTIONS, WITH 3" COVER TOP AND BOTTOM. ALL EDGES SHALL HAVE A 1-INCH, 45-DEGREE CHAMFER.
4. SERIES LIGHTING CABLES TO LIGHT BASE SHALL BE CONNECTED TO EXISTING RUNWAY 9-27 EDGE LIGHT CIRCUITS.
5. REIL INSTALLATION AT OPERATION SHALL MEET THE APPROVAL OF THE AIRPORT. ANY PART OF THE INSTALLATION NOT MEETING THE AIRPORT'S APPROVAL SHALL BE REINSTALLED AT NO ADDITIONAL COSTS TO THE AIRPORT.
6. ALL WIRING, MOUNTING AND INSTALLATION SHALL BE PERFORMED AS REQUIRED PER THE MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL NECESSARY HARDWARE, SPLICING, GROUND RODS, GROUNDING CABLES, WIRES, CONNECTORS, EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A FULLY FUNCTIONAL AND OPERATIONAL REIL SYSTEM.
7. THE BASIS OF DESIGN FOR RUNWAY END IDENTIFIER LIGHT (REIL) IS ADB SAFEGATE MODEL REIL-E-1-1-0-2-1-1.

1 RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS DETAILS  
E06.12 SCALE: NTS

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.  
6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL: STATE OF MARYLAND PROFESSIONAL ENGINEER 53442

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

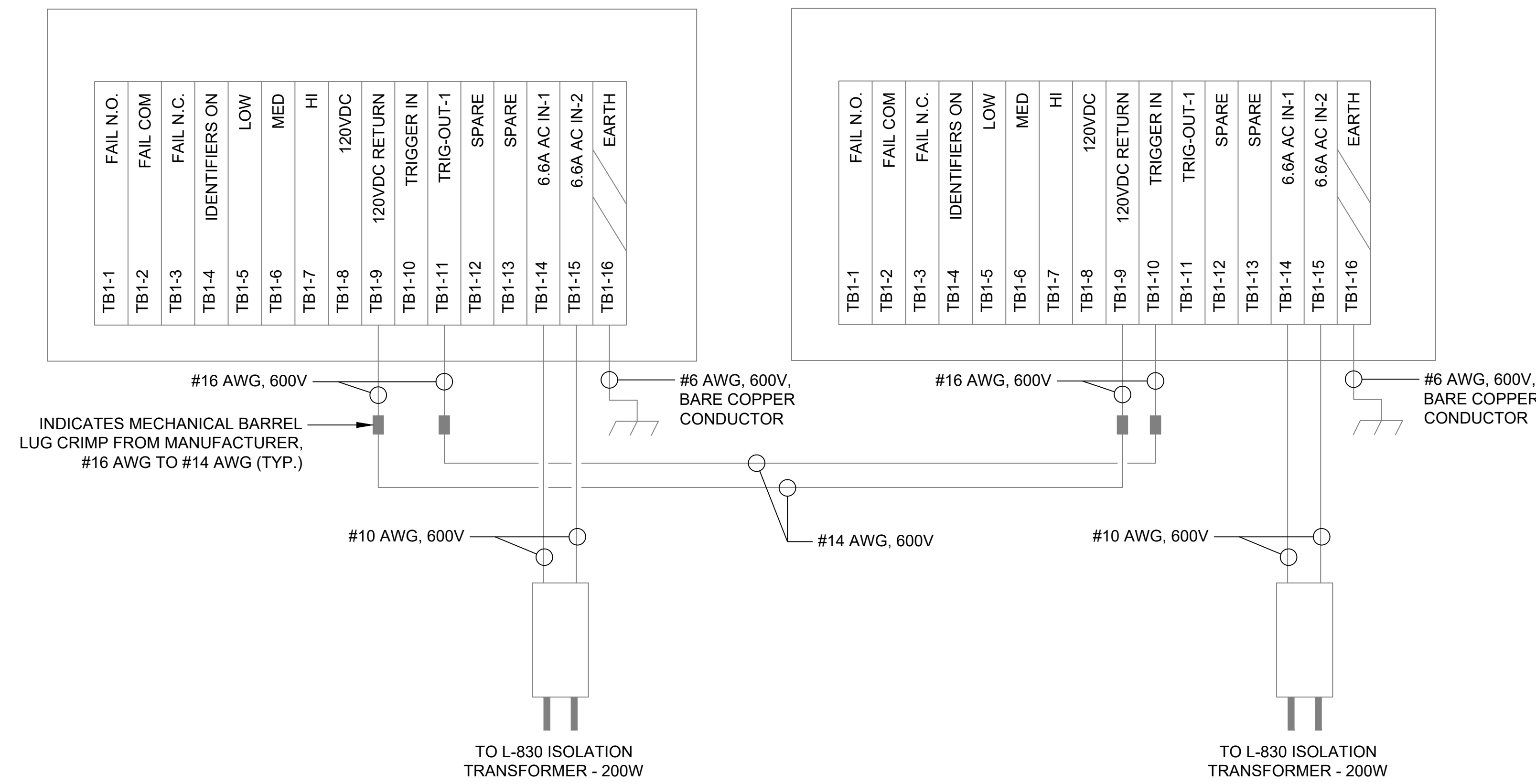
PROJECT TITLE: **RUNWAY 9-27 REHABILITATION**  
SHEET TITLE: **RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS DETAILS**  
SCALE: AS SHOWN  
DATE: FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005  
SHEET No.: **E06.12**  
83 OF 90

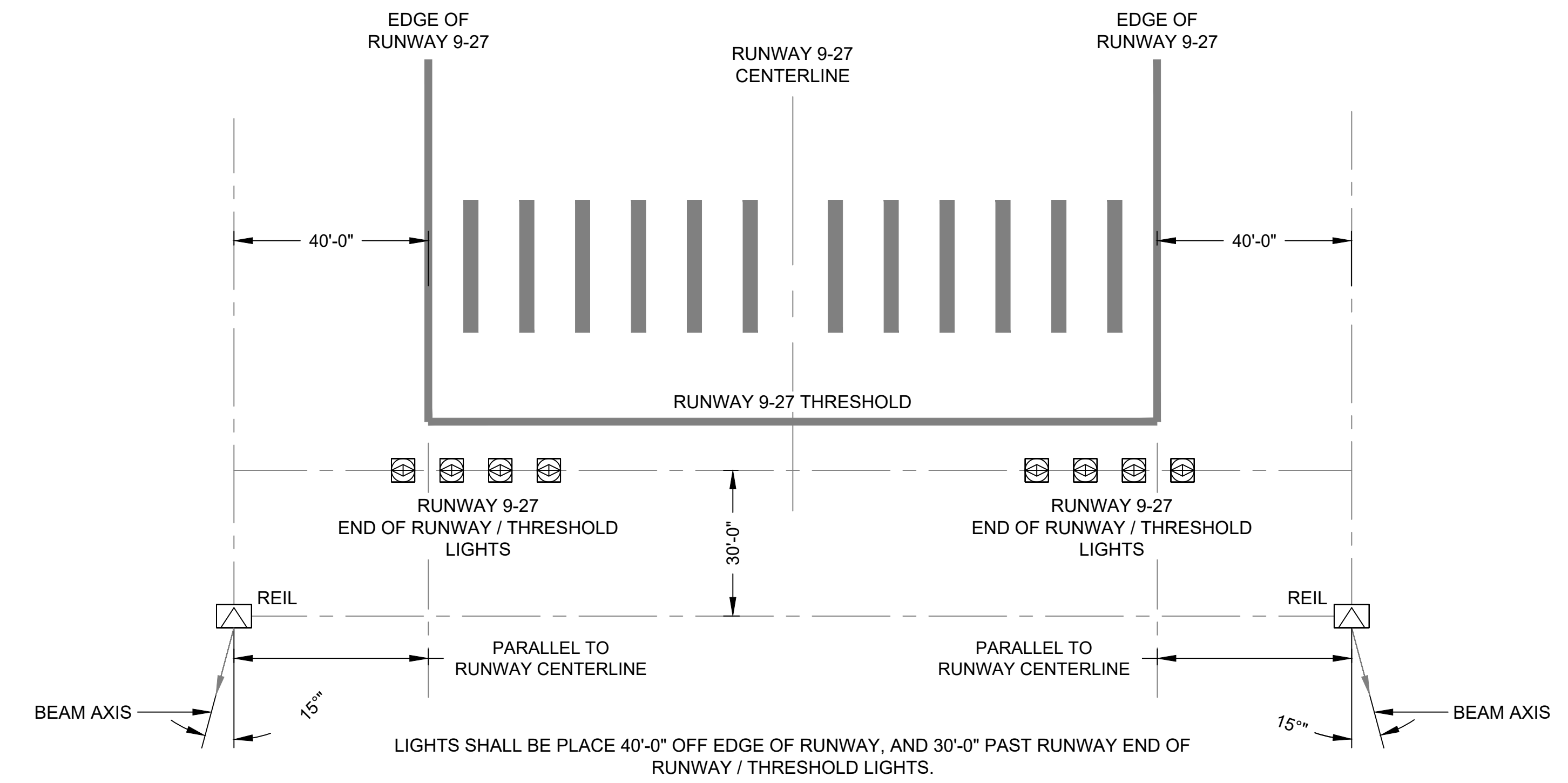
FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWGS\CAD\E\_E06.00.dwg PLOTTED: Monday, February 03, 2020 - 8:44am USER: jrojen

**GENERAL NOTES:**

1. REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
2. DE-ENERGIZE RUNWAY 9-27 REIL / EDGE LIGHT CIRCUITRY AT THE SOURCE AND PERFORM NECESSARY LOCKOUT / TAGOUT PROCEDURES.
3. CONTRACTOR SHALL FURNISH AND INSTALL REIL FLASHER UNITS AT LOCATIONS INDICATED ON PLAN AND SITING PLAN.
4. CONTRACTOR SHALL VERIFY CORRECT TERMINAL / RELAY CONNECTIONS.
5. SERIES LIGHTING CABLES TO LIGHT BASE SHALL BE CONNECTED TO EXISTING RUNWAY 9-27 EDGE LIGHT CIRCUITS.
6. REIL INSTALLATION AT OPERATION SHALL MEET THE APPROVAL OF THE AIRPORT. ANY PART OF THE INSTALLATION NOT MEETING THE AIRPORT'S APPROVAL SHALL BE REINSTALLED AT NO ADDITIONAL COSTS TO THE AIRPORT.
7. ALL WIRING, MOUNTING AND INSTALLATION SHALL BE PERFORMED AS REQUIRED PER THE MANUFACTURER'S SPECIFICATIONS. PROVIDE ALL NECESSARY HARDWARE, SPlicing, GROUND RODS, GROUNDING CABLES, WIRES, CONNECTORS, EQUIPMENT AND MATERIAL NECESSARY TO PROVIDE A FULLY FUNCTIONAL AND OPERATIONAL REIL SYSTEM.



**1** RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS WIRING DIAGRAM  
E06.13 SCALE: NTS



**2** RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS SITING PLAN  
E06.13 SCALE: NTS

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\001\_E06.00.dwg PLOTTED: Monday, February 03, 2020 - 8:44am USER: jjojen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.  
6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT  
HGR

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	RUNWAY 9-27 RUNWAY END IDENTIFIER LIGHTS DETAILS
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E06.13</b>
84 OF 90








**GENERAL NOTES:**






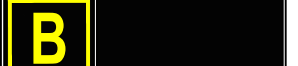



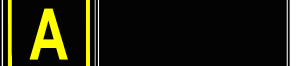

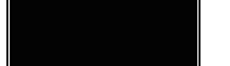



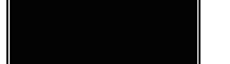

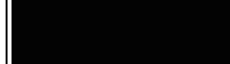





















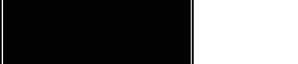

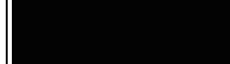









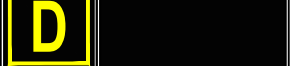





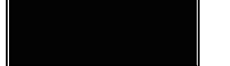


- REFER TO SHEET NUMBERS E00.01 AND E00.02 FOR GENERAL NOTES AND SHEET E00.03 FOR THE LEGEND AND ABBREVIATIONS. SHEETS LISTED ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.

**ACTION NOTES:**

- FURNISH & INSTALL AIRFIELD GUIDANCE SIGN AND BASE: FURNISH AND INSTALL COMPLETE AIRFIELD GUIDANCE SIGN ASSEMBLY INCLUDING CONCRETE FOUNDATION, SERIES LIGHTING CABLE, ISOLATION TRANSFORMER AND CONNECTORS.
- REPLACE EXISTING AIRFIELD GUIDANCE SIGN AND BASE: REMOVE AND DISPOSE OF EXISTING AIRFIELD GUIDANCE SIGN, CONCRETE FOUNDATION, SERIES LIGHTING CABLE, ISOLATION TRANSFORMER AND CONNECTORS. FURNISH AND INSTALL COMPLETE AIRFIELD GUIDANCE SIGN ASSEMBLY INCLUDING CONCRETE FOUNDATION, SERIES LIGHTING CABLE, ISOLATION TRANSFORMER AND CONNECTORS.

**AIRFIELD GUIDANCE SIGN LEGEND:**

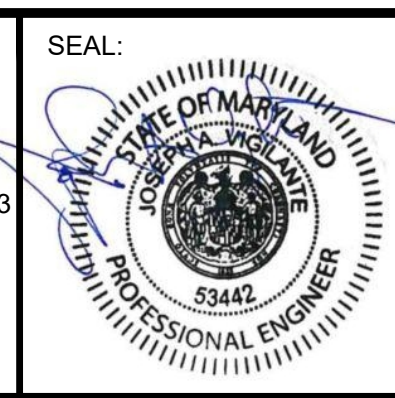
-  DIRECTIONAL SIGN  
BLACK INSCRIPTION/  
YELLOW BACKGROUND  
B/Y
-  TAXIWAY LOCATION SIGN  
YELLOW INSCRIPTION/  
BLACK BACKGROUND  
Y/B
-  MANDATORY INSTRUCTION SIGN  
WHITE INSCRIPTION/  
RED BACKGROUND  
W/RW
-  BOUNDARY SIGN FOR RSA/OFFZ  
AND RUNWAY APPROACH AREA BLACK  
INSCRIPTION / YELLOW BACKGROUND  
B/W
-  BLANK PANEL, NO INSCRIPTION
- X DENOTES NO DATA FURNISHED

SIGN NUMBER	SIGN MANUF.	CIRCUIT NUMBER	REFERENCE DRAWING NUMBERS	SIGN LEGEND EXISTING		SIGN LEGEND FURNISHED OR MODIFIED		SIGN SIZE	NORTHING (Y)	EASTING (X)	ACTION NOTE
				SIDE 1	SIDE 2	SIDE 1	SIDE 2				
7	LUMACURVE	RW 9-27	E02.02 E03.02					1	744694.2184	1108779.3395	2
8	LUMACURVE	RW 9-27	E02.02 E03.02					1	744836.9065	1108691.0341	2
10	LUMACURVE	NORTHEAST	E02.03 E03.03					1	745035.3572	1108725.0114	2
11	LUMACURVE	NORTHEAST	E02.03 E03.03					1	745108.0467	1108294.1837	2
11A	LUMACURVE	NORTHEAST	E02.03 E03.03	—	—			1	745114.7486	1108484.6215	1
12	LUMACURVE	NORTHEAST	E02.03 E03.03					1	745080.3624	1108252.6934	2
13	LUMACURVE	NORTHEAST	E02.03 E03.03					1	744956.0744	1108563.6332	2
13A	LUMACURVE	NORTHEAST	E02.03 E03.03	—	—			1	745001.0018	1108493.0675	1
14	LUMACURVE	RW 9-27	E02.02 E03.02					1	744659.1757	1108557.0850	2
66	LUMACURVE	SOUTH	E02.01 E03.01					1	743828.0956	1106711.7976	2
66A	LUMACURVE	SOUTH	E02.01 E03.01					1	743864.9833	1106877.6524	2
67	LUMACURVE	RW 9-27	E02.01 E03.01					1	744017.0072	1106799.7203	2
68	LUMACURVE	RW 9-27	E02.01 E03.01					1	744190.4394	1106826.1343	2
75	LUMACURVE	RW 9-27	E02.01 E03.01					1	744153.7807	1106593.9910	2
76	LUMACURVE	SOUTH	E02.01 E03.01					1	744011.3332	1106683.7991	2
77	LUMACURVE	SOUTH	E02.01 E03.01					1	743937.5682	1106638.3534	2
77A	LUMACURVE	SOUTH	E02.01 E03.01	—	—			1	743900.5454	1106462.3934	1

FILE NAME: \\cf-rs-01\Projects\2018\107318.001 - HGR-Rehab of Runway 9-27\DWG\07.00.dwg PLOTTED: Monday, February 03, 2020 - 9:44am USER: jippen

**ADCI**  
AIRPORT DESIGN CONSULTANTS, INC.

6031 UNIVERSITY BLVD  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602



Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 53442  
Expiration Date: 11.08.2020

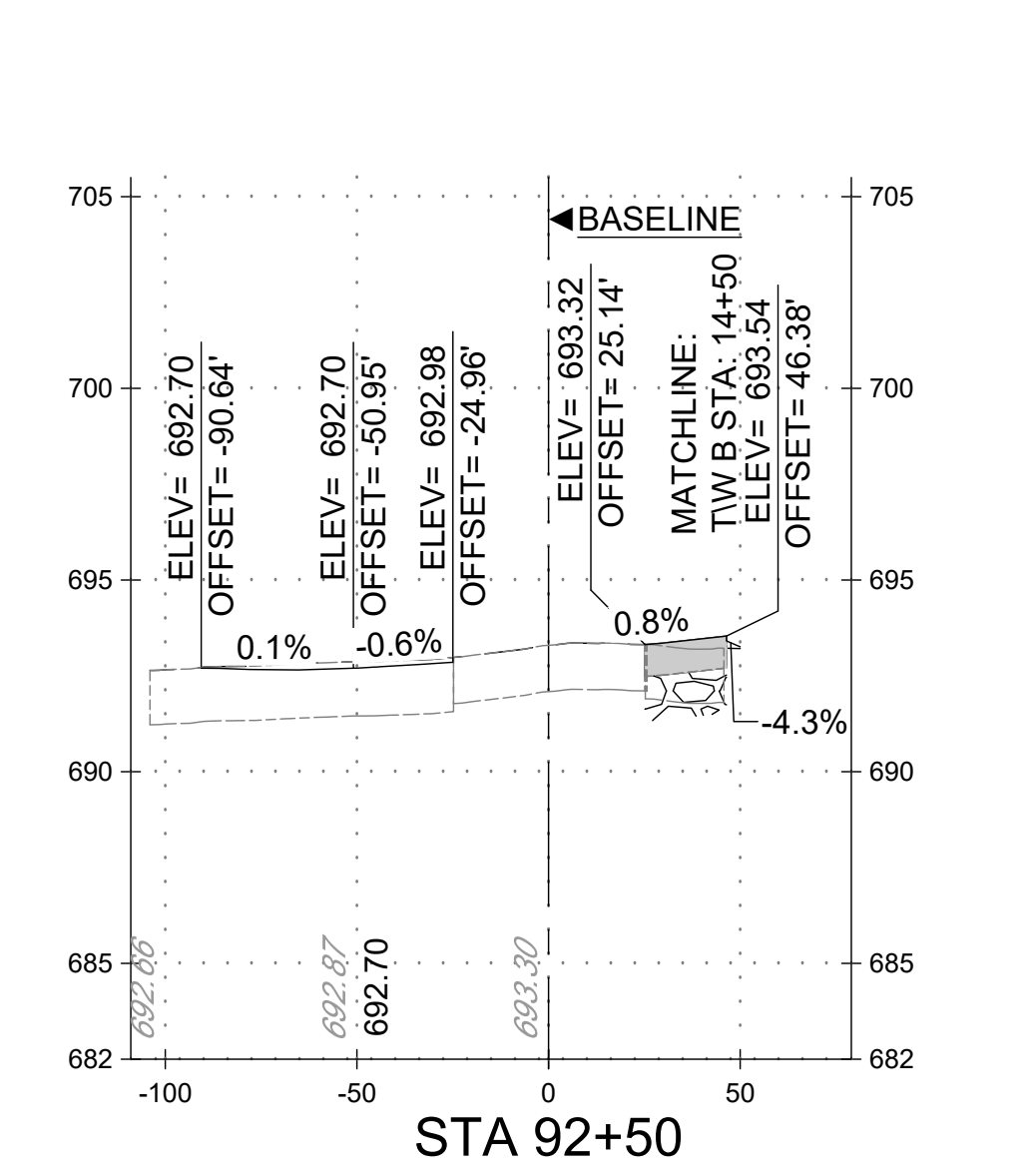
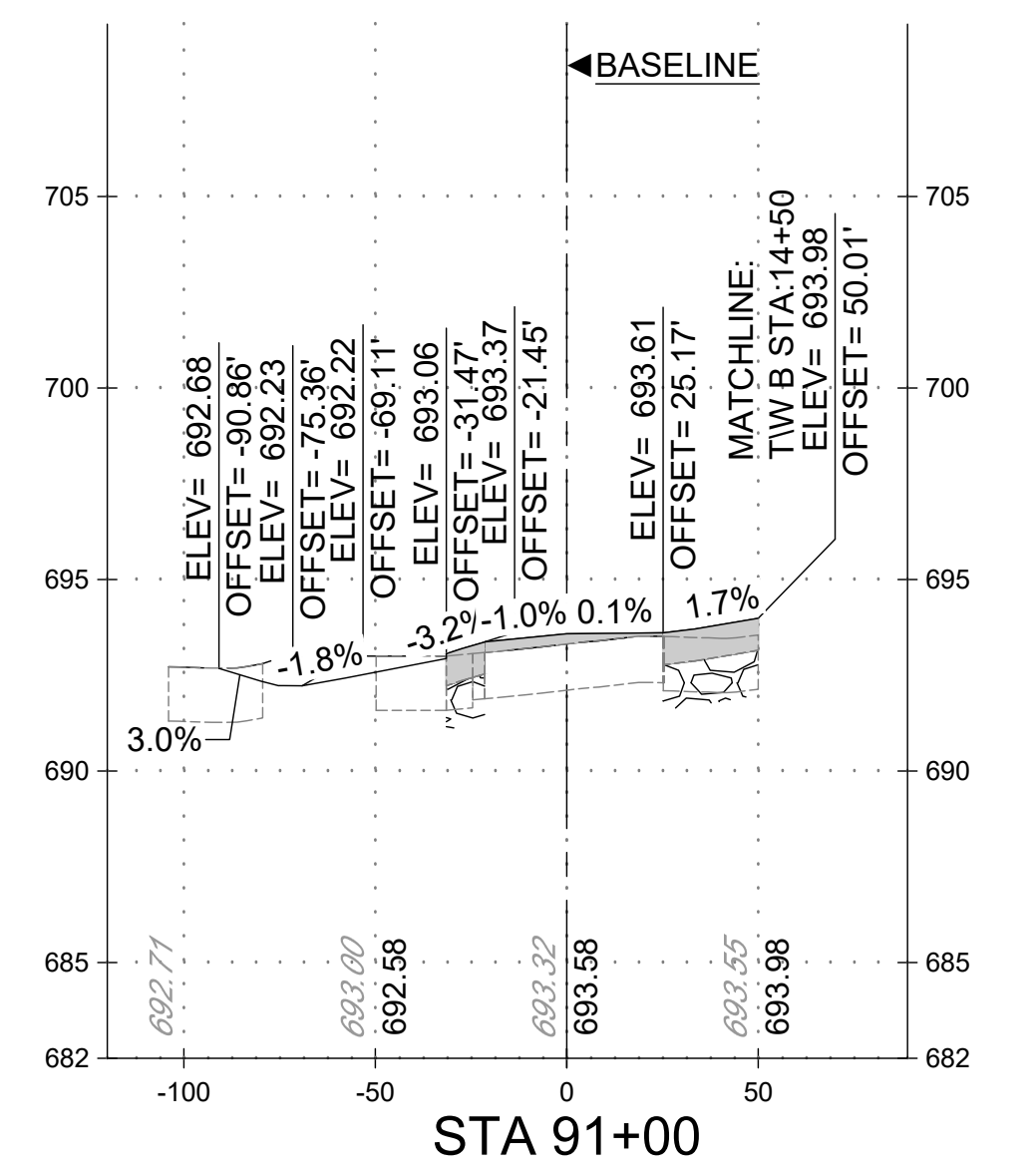
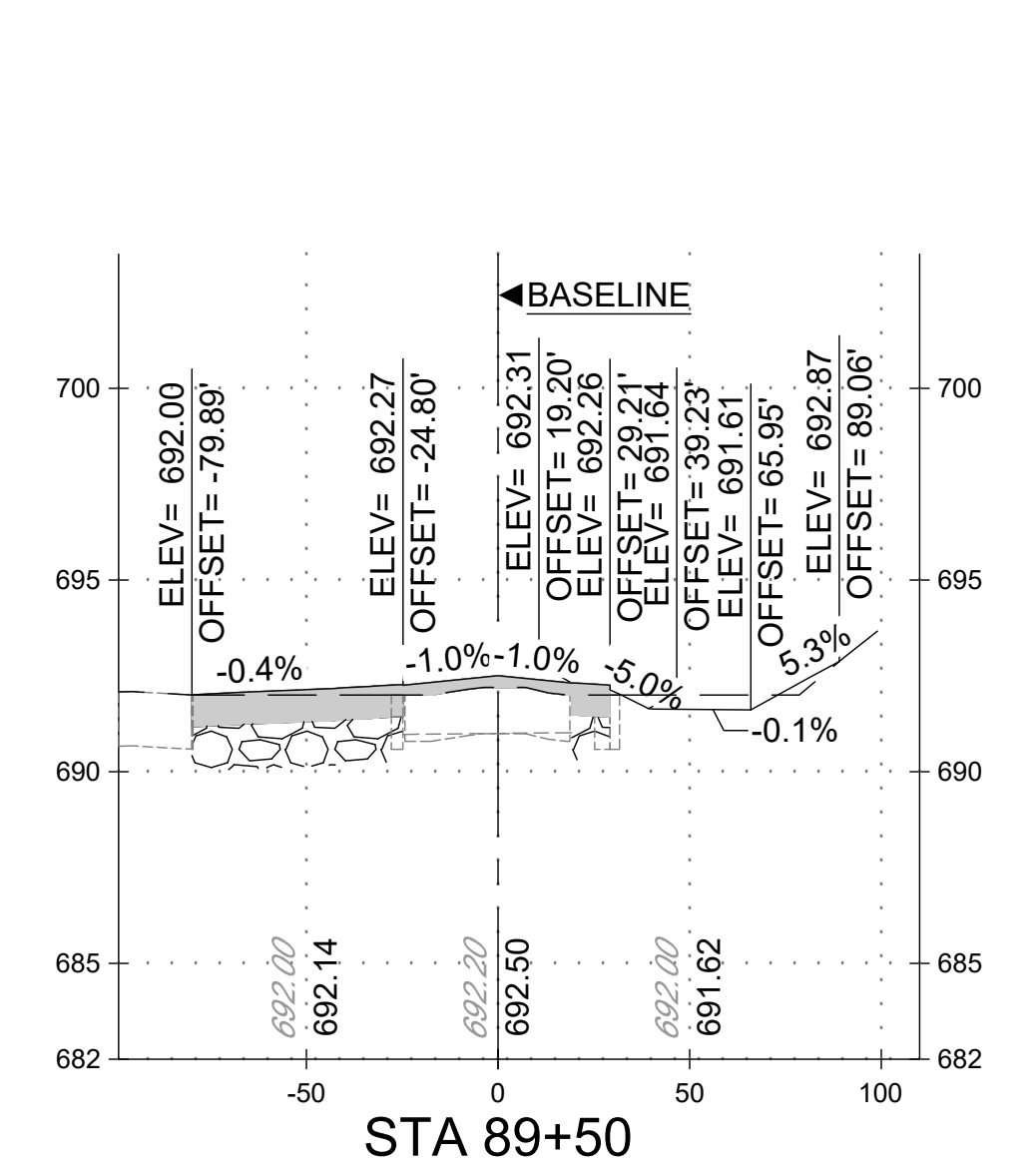
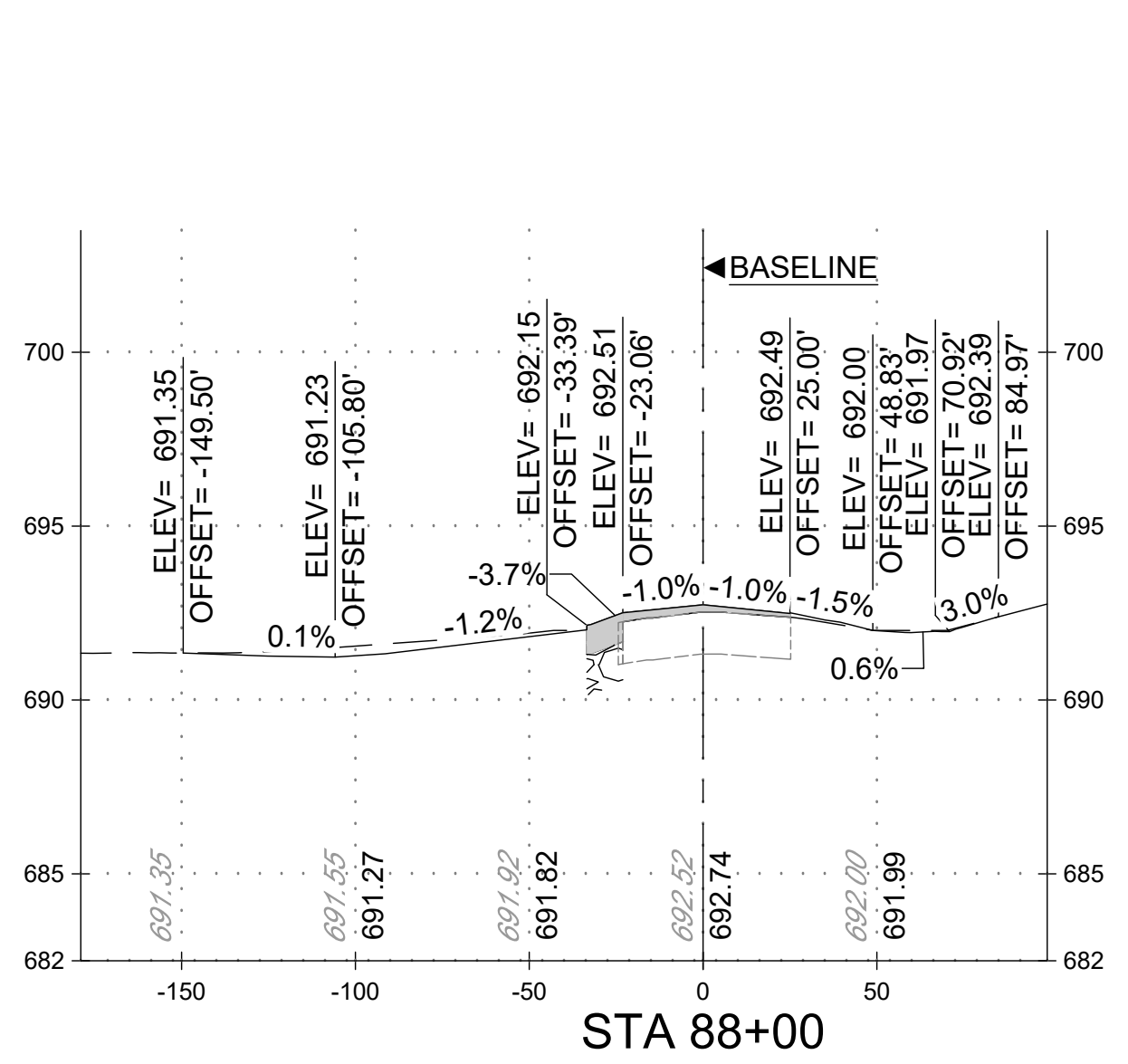
DESIGNED:	No.	DATE	DESCRIPTION
PAT			
DRAWN:			
PAT			
CHECKED:			
JAV			
APPROVED:			
JAV			



PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	SIGNAGE SCHEDULE
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>E07.02</b>
86 OF 90

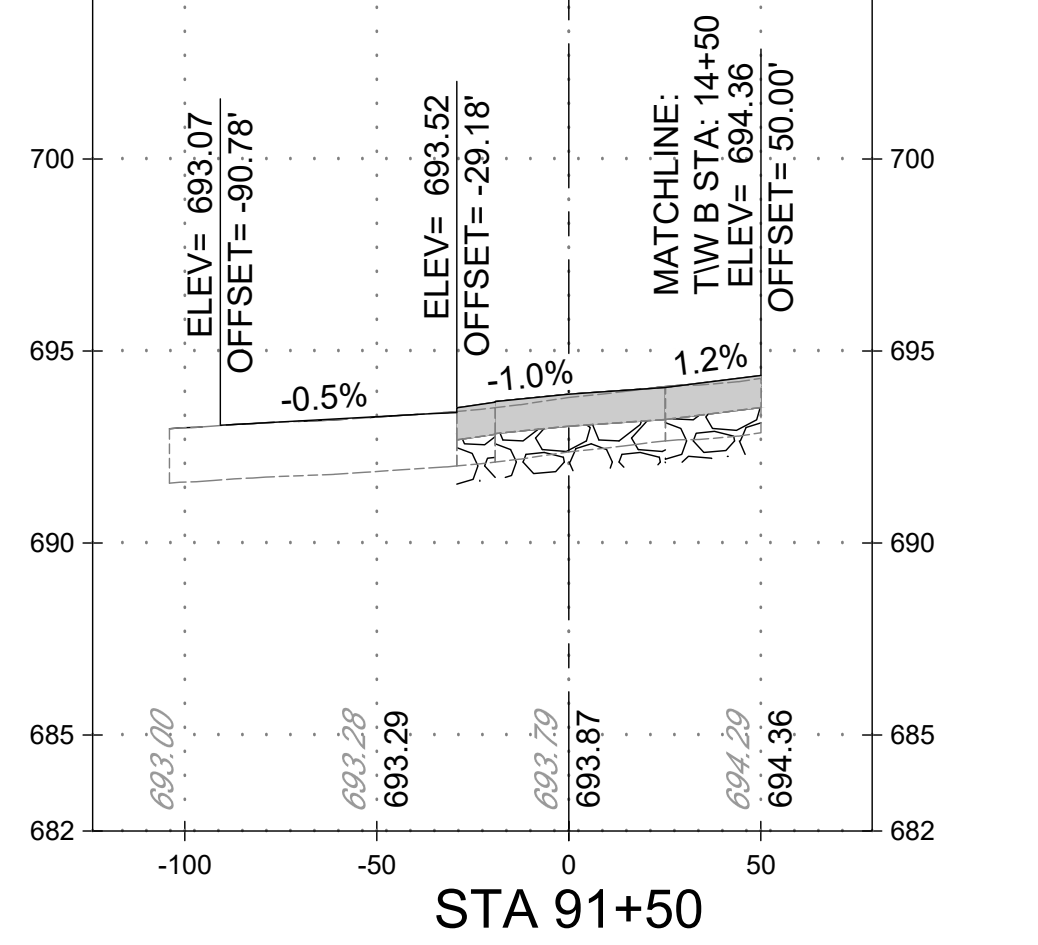
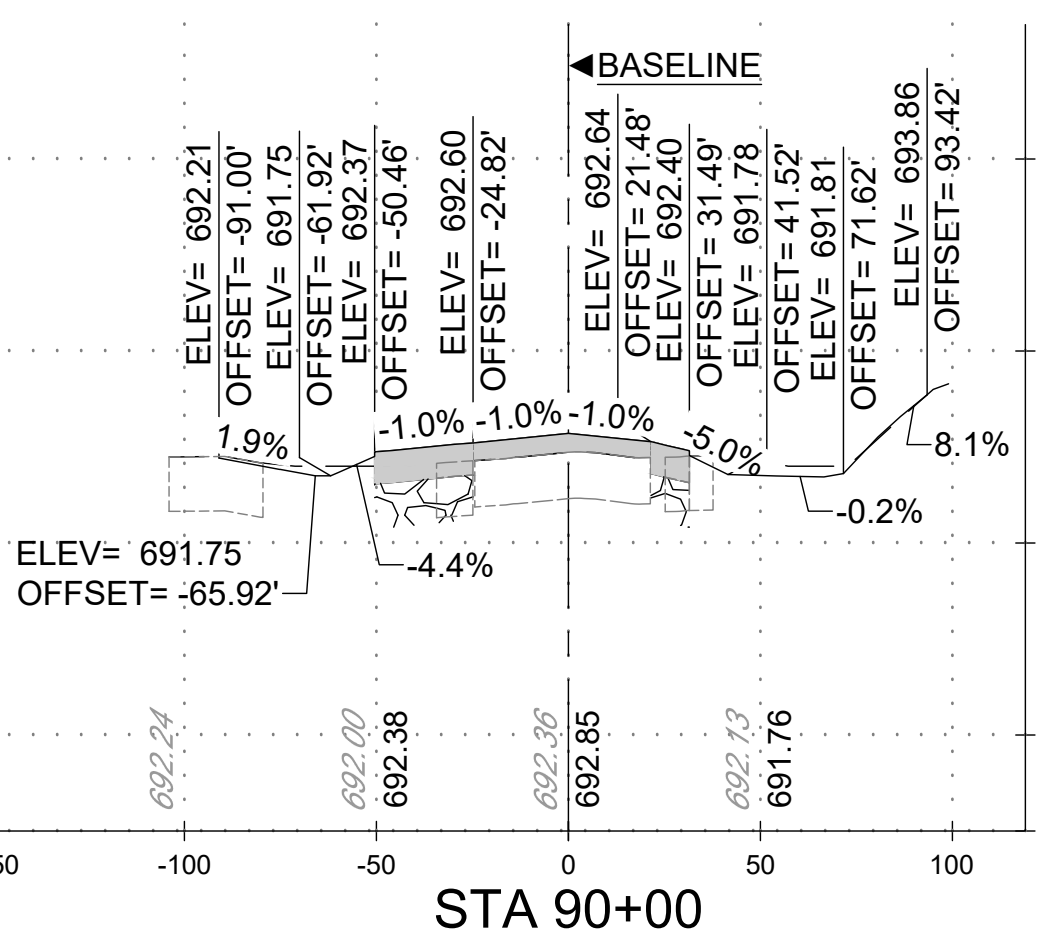
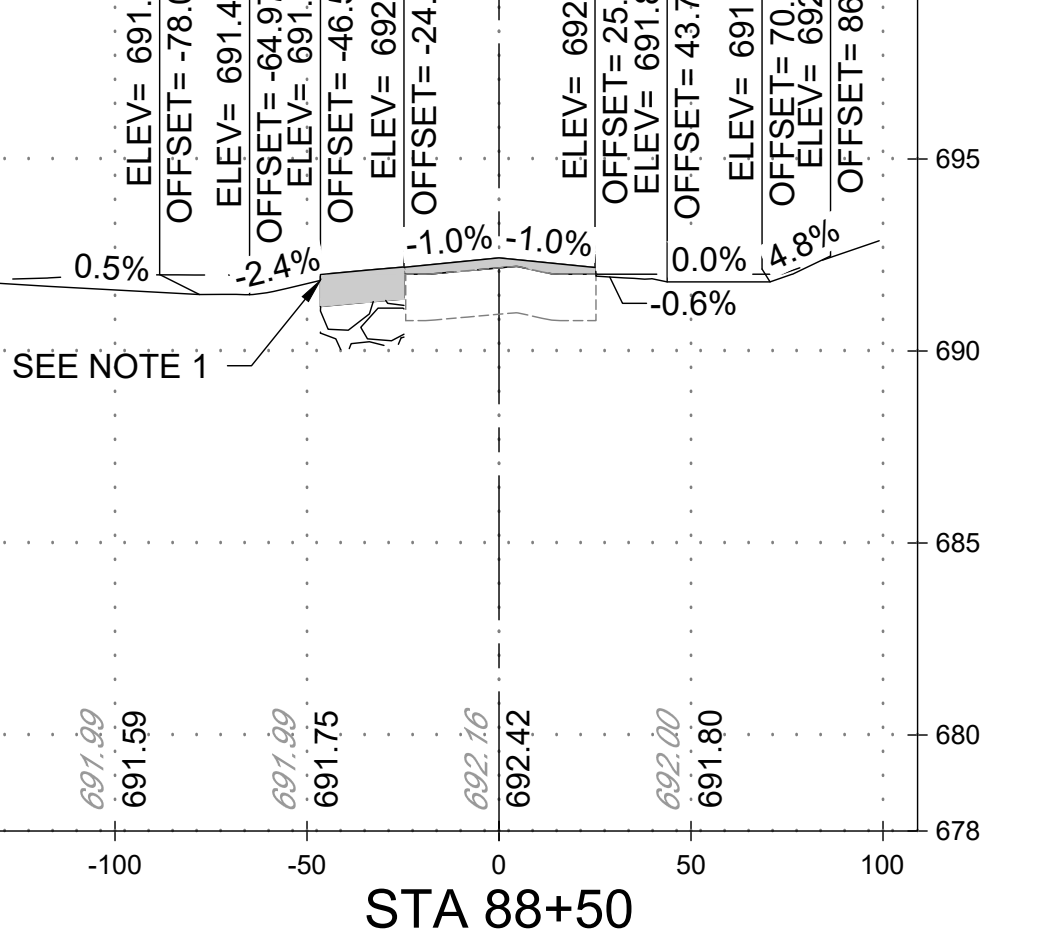
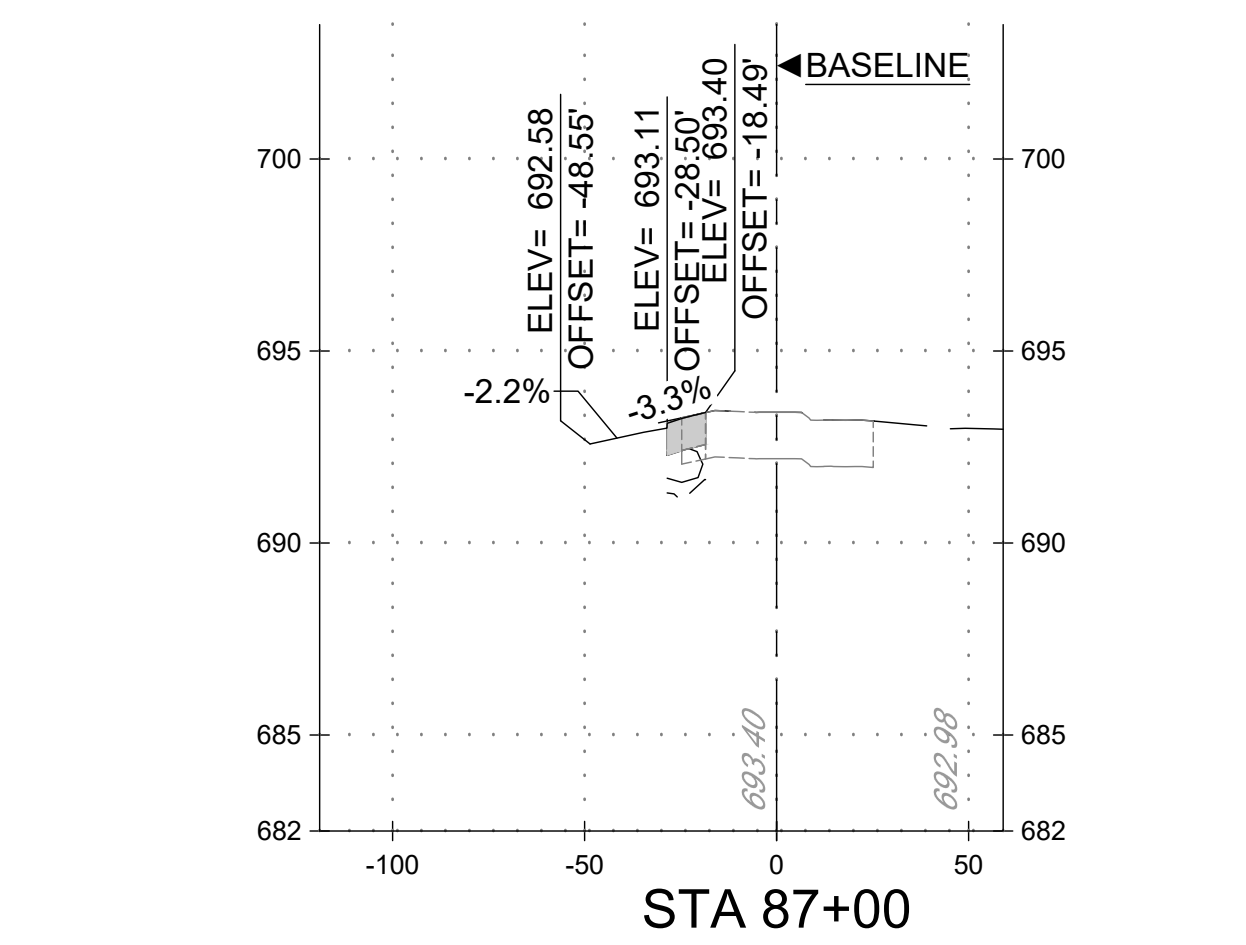
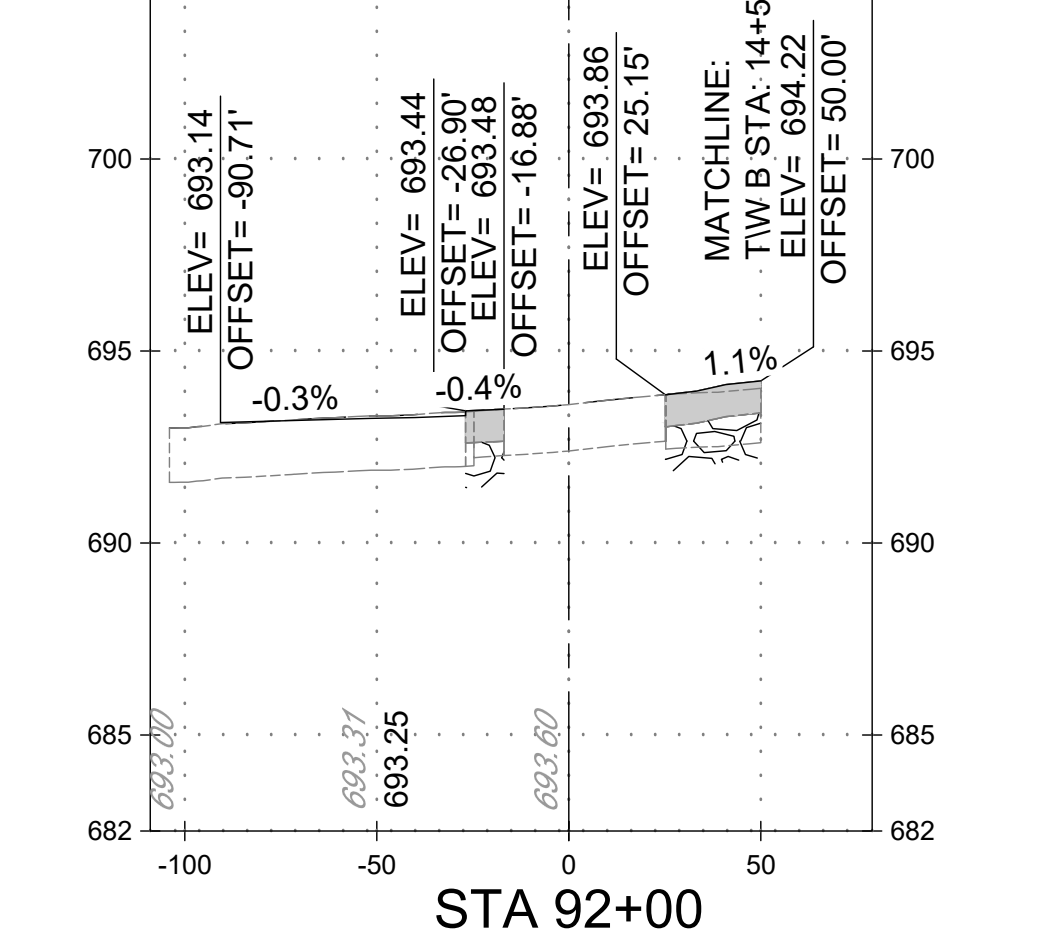
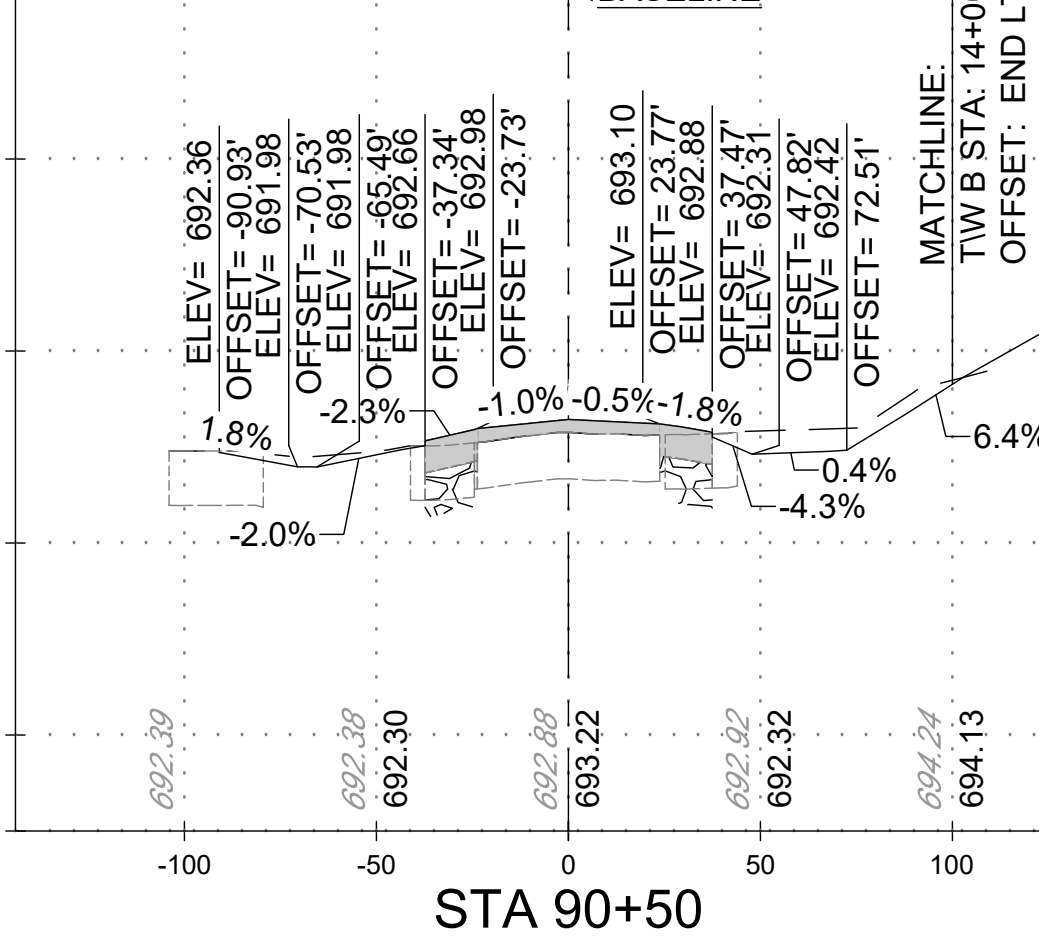
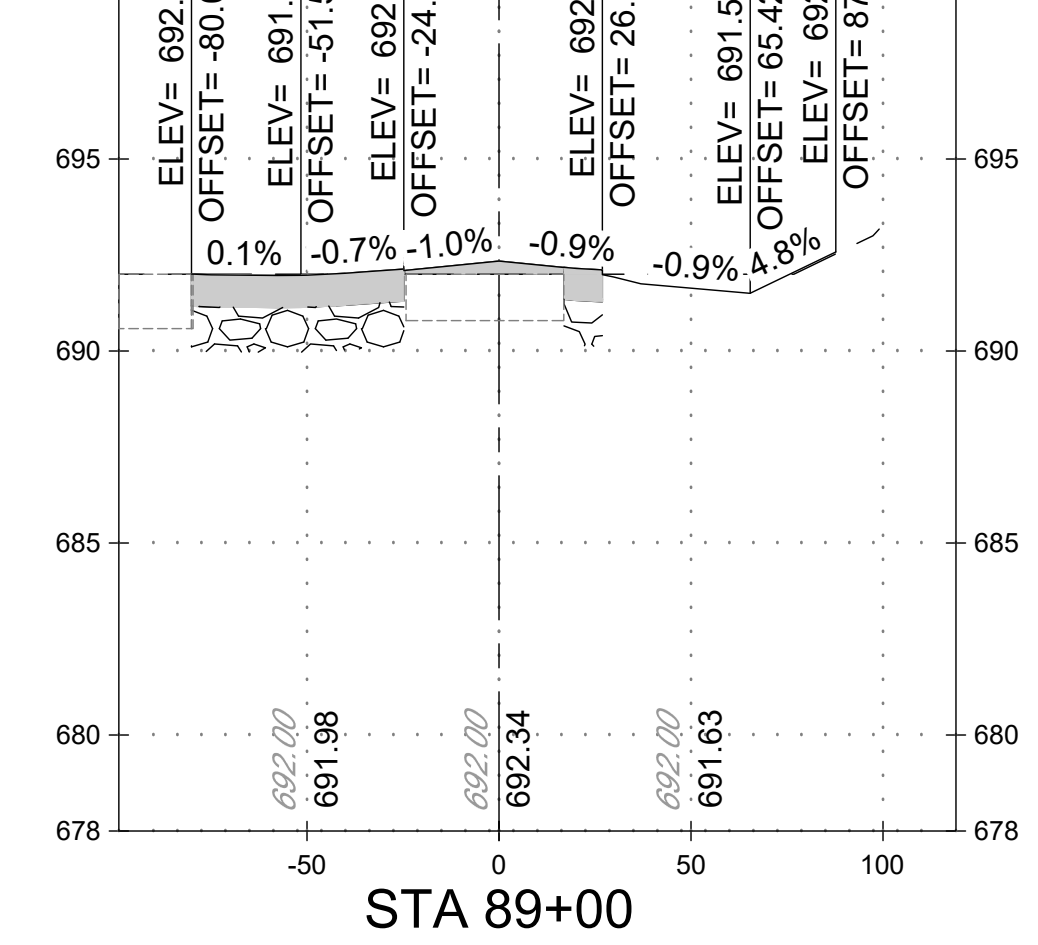
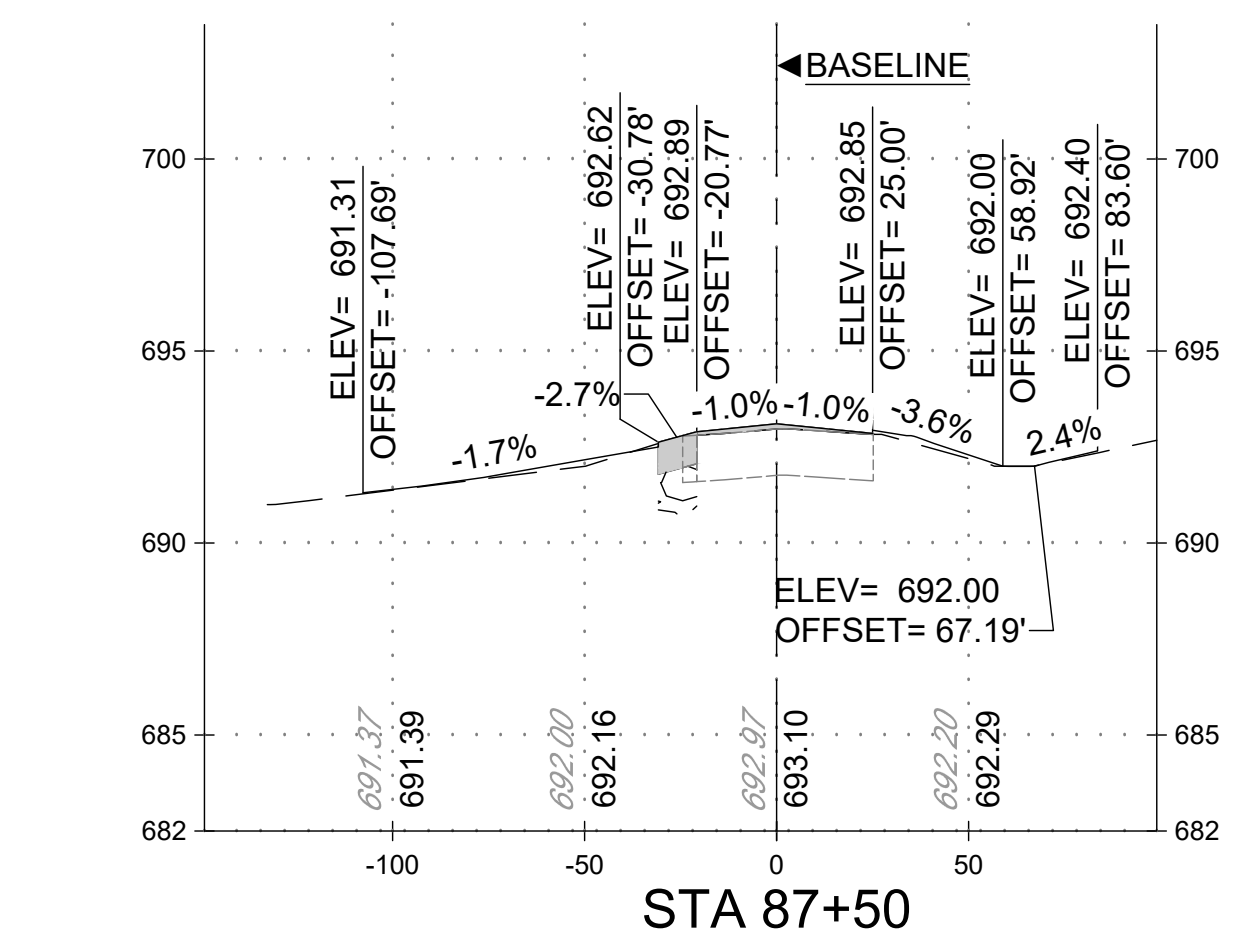
FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\087\_CV07\_00\_Cross Sections.dwg PLOTTED: Monday, February 17, 2020 - 7:21am USER: gress



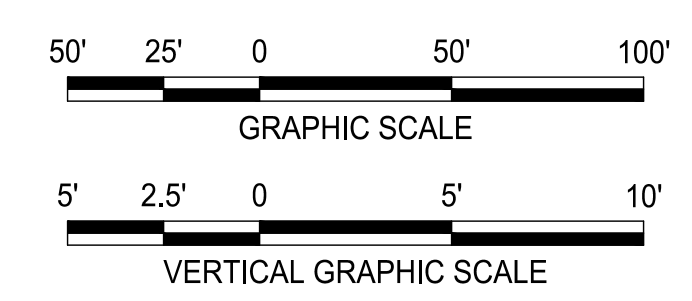
**LEGEND:**

- EXISTING GROUND
- PROPOSED GRADE
- ▨ PROPOSED PAVING
- ▨ PROPOSED CABC
- ▨ EXISTING PAVEMENT
- 93.04 EXISTING ELEVATION
- 93.48 PROPOSED ELEVATION

**NOTES:**  
1. CONSTRUCT A 1.5 IN [4 CM] DROP BETWEEN PAVED AND UNPAVED SURFACE.



**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.

6031 UNIVERSITY BLVD.  
SUITE 330  
ELLCOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M.S.K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>TAXIWAY A - CROSS SECTIONS 1</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN)  
Bid No.: PUR-1409  
MAA Grant No.: MAA-GR-19-009 (DESIGN)  
GRADING PERMIT NO.: GP-19-005

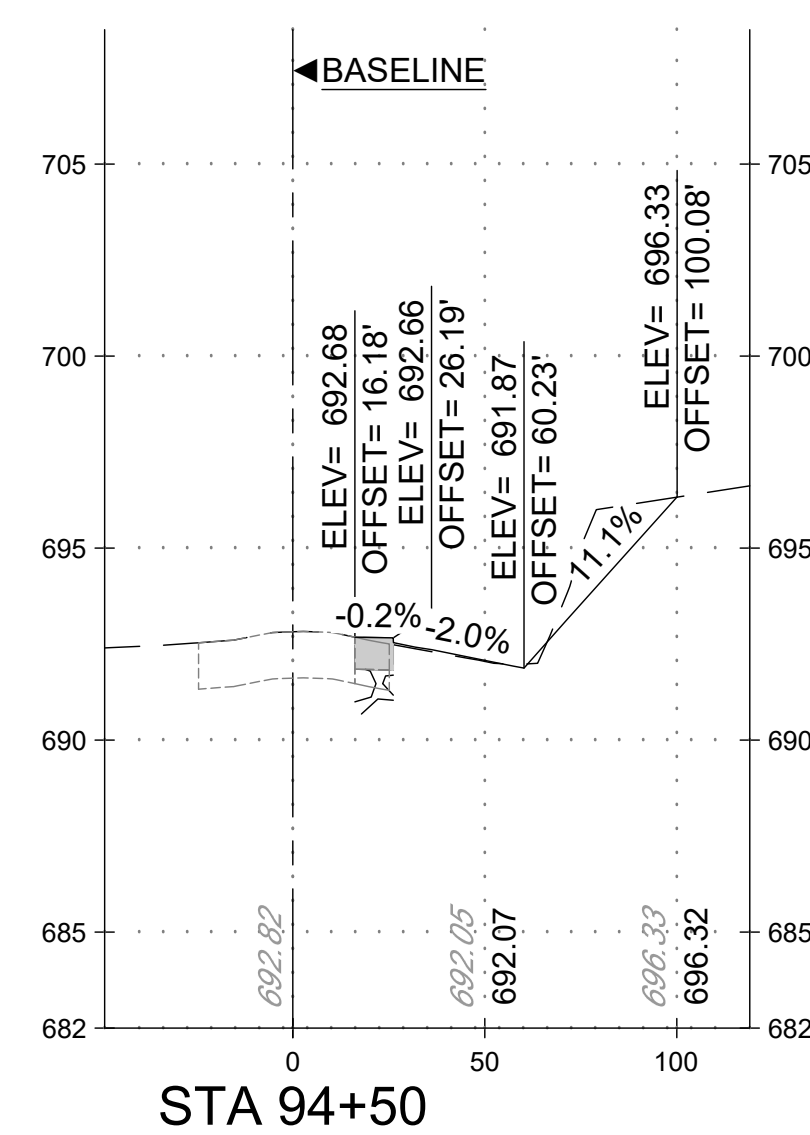
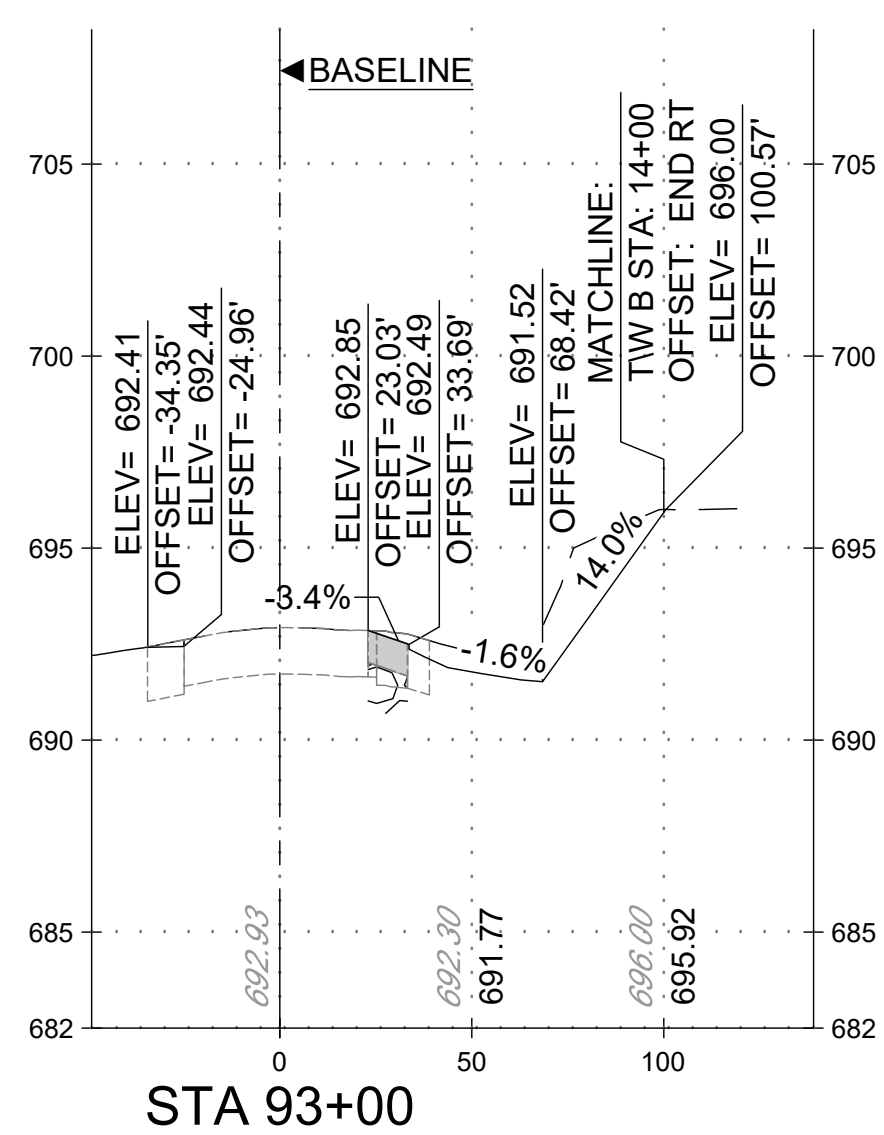
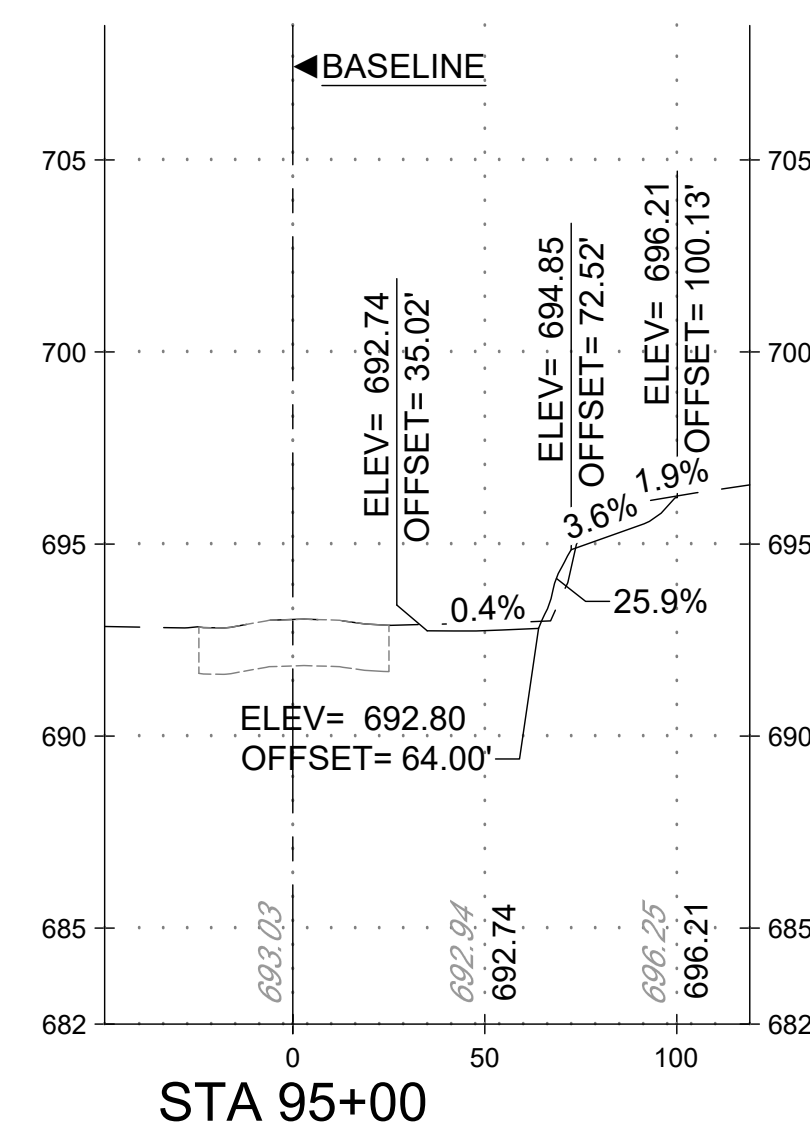
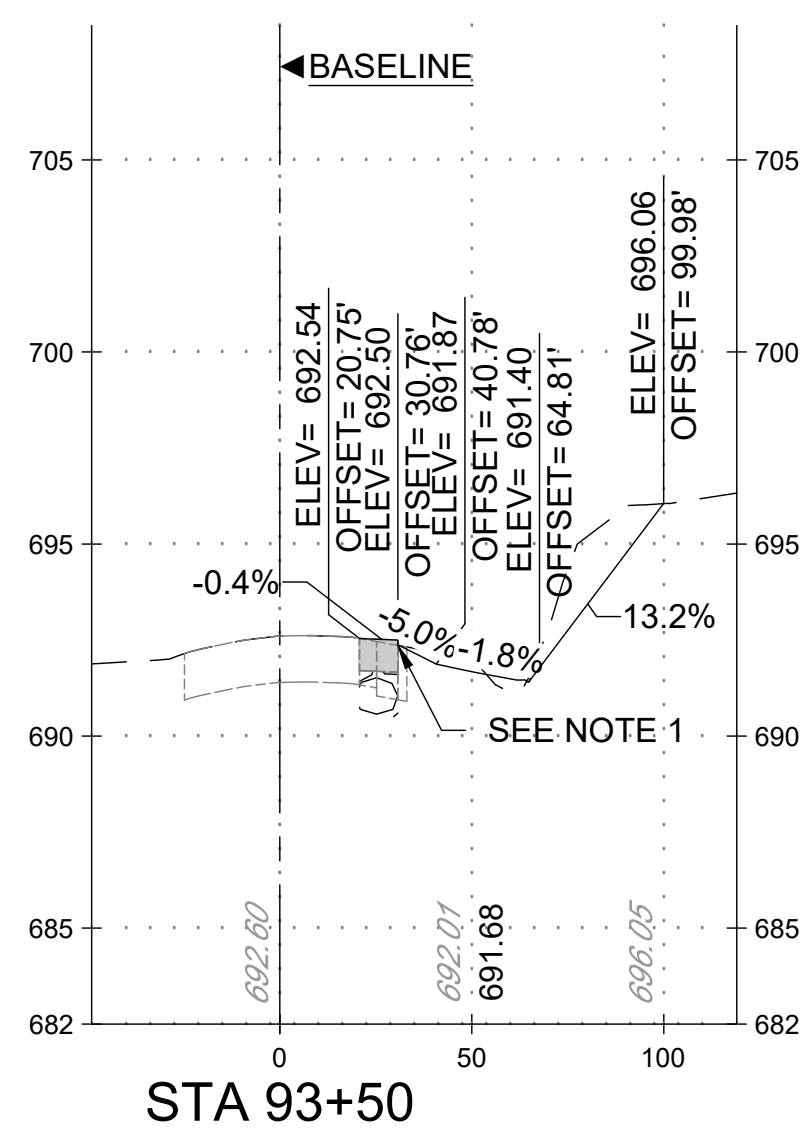
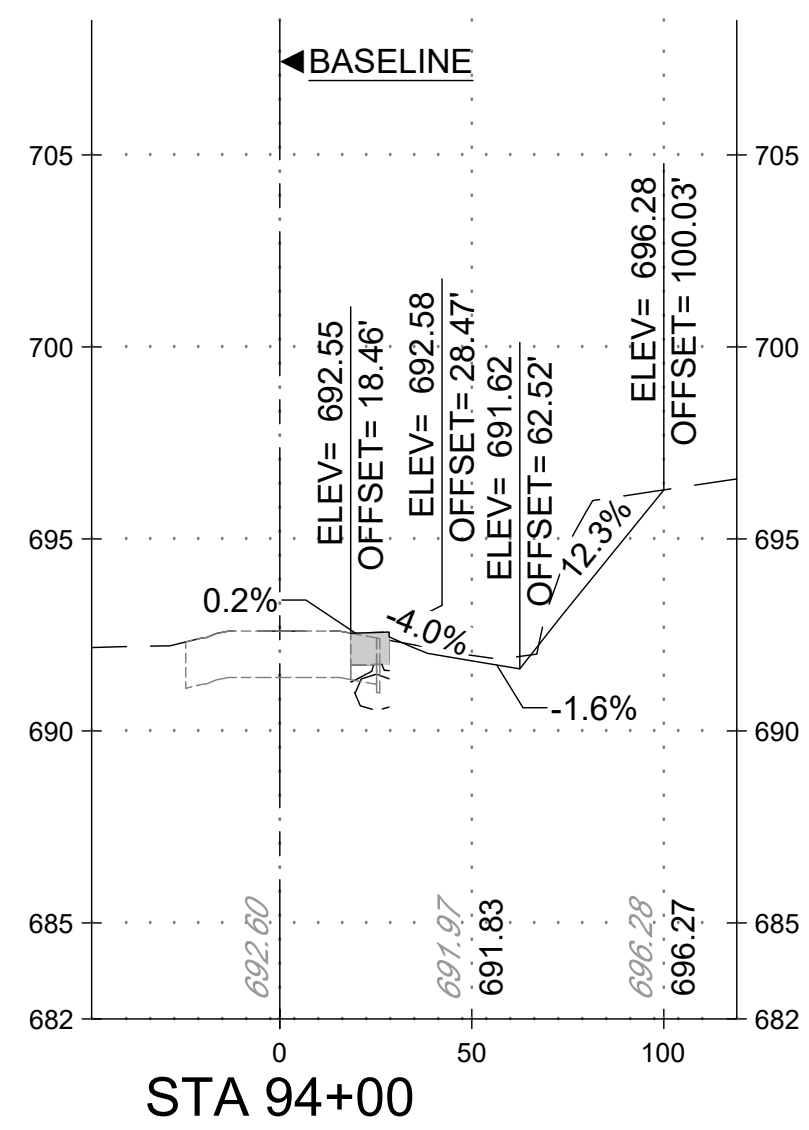
SHEET NO.:  
**CV07.01**  
87 OF 90

LEGEND:

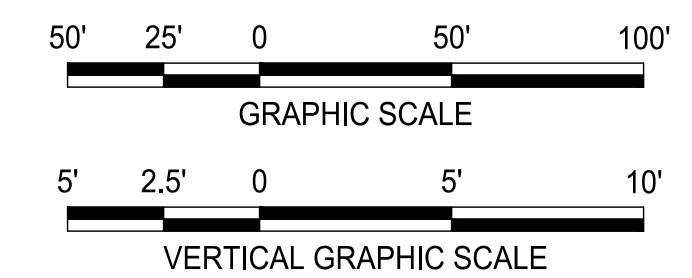
- EXISTING GROUND
- PROPOSED GRADE
- PROPOSED PAVING
- ▨ PROPOSED CABC
- EXISTING PAVEMENT
- 93.04 EXISTING ELEVATION
- 93.48 PROPOSED ELEVATION

NOTES:

1. CONSTRUCT A 1.5 IN [4 CM] DROP BETWEEN PAVED AND UNPAVED SURFACE.



TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"



FILE NAME: O:\HGR\Projects\2018-1303\CAD\Sheets\0087\_CV07.00\_Cross Sections.dwg PLOTTED: Monday, February 17, 2020 - 7:21am USER: GRess



SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M. S. K.			

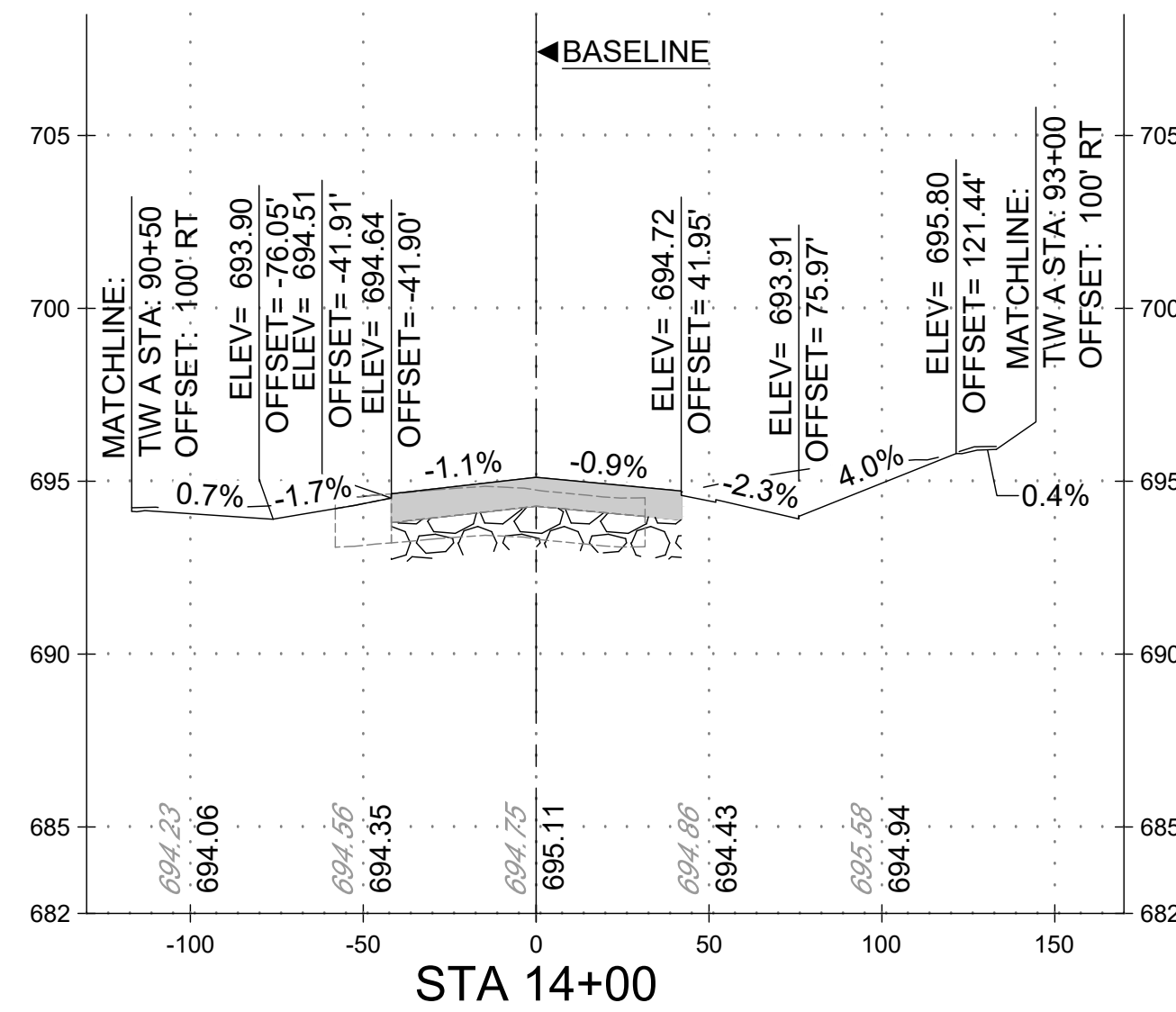
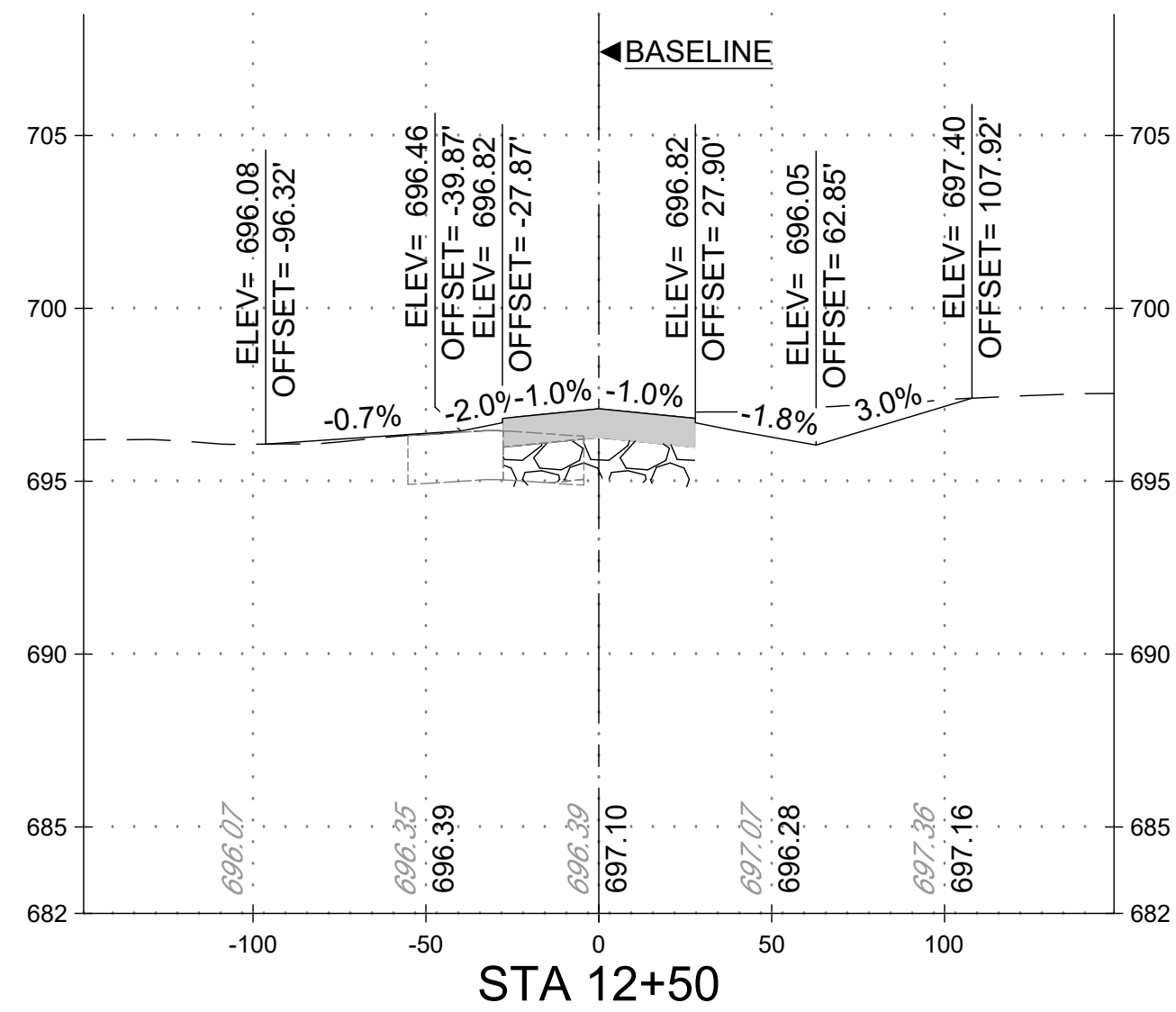
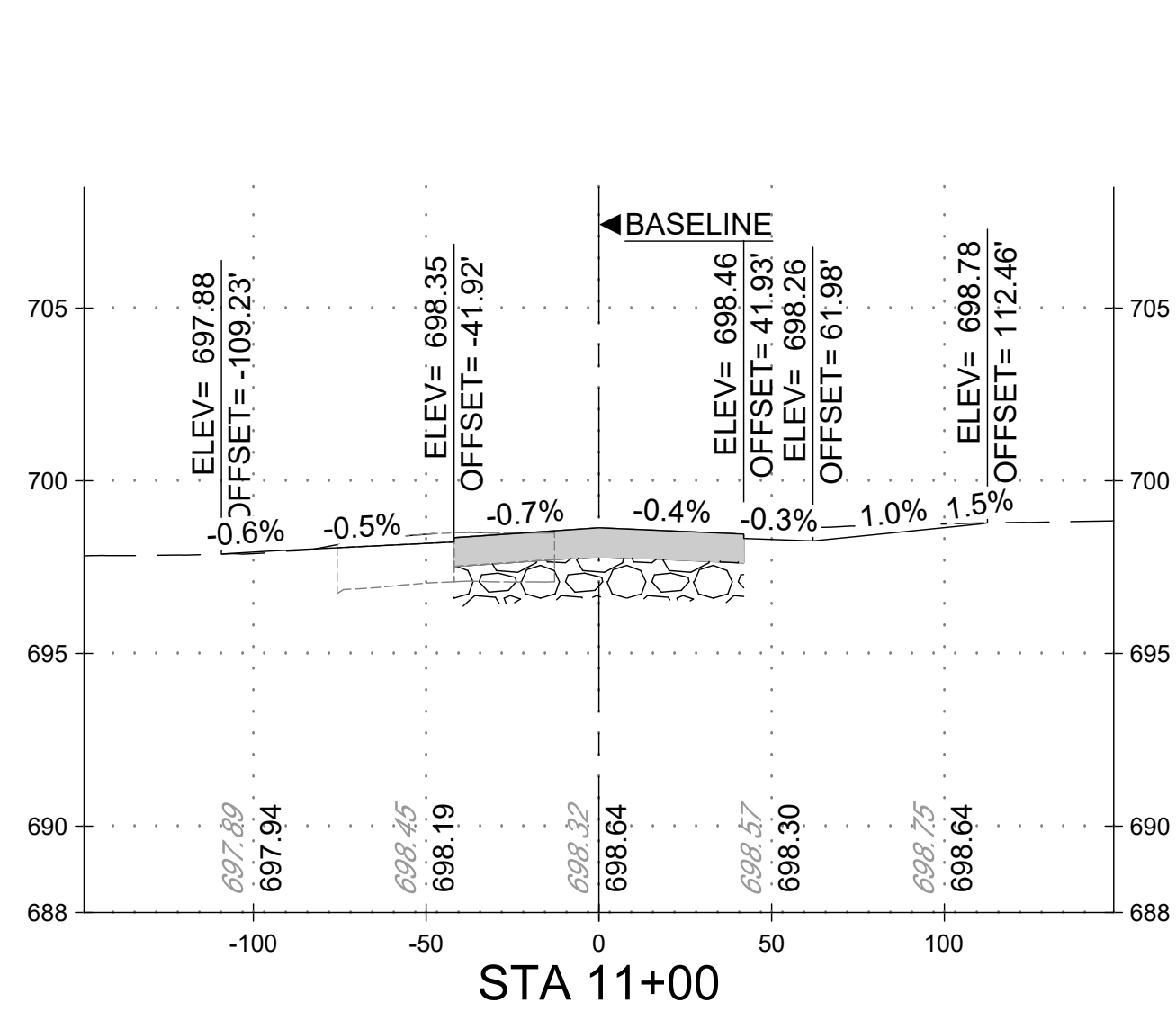
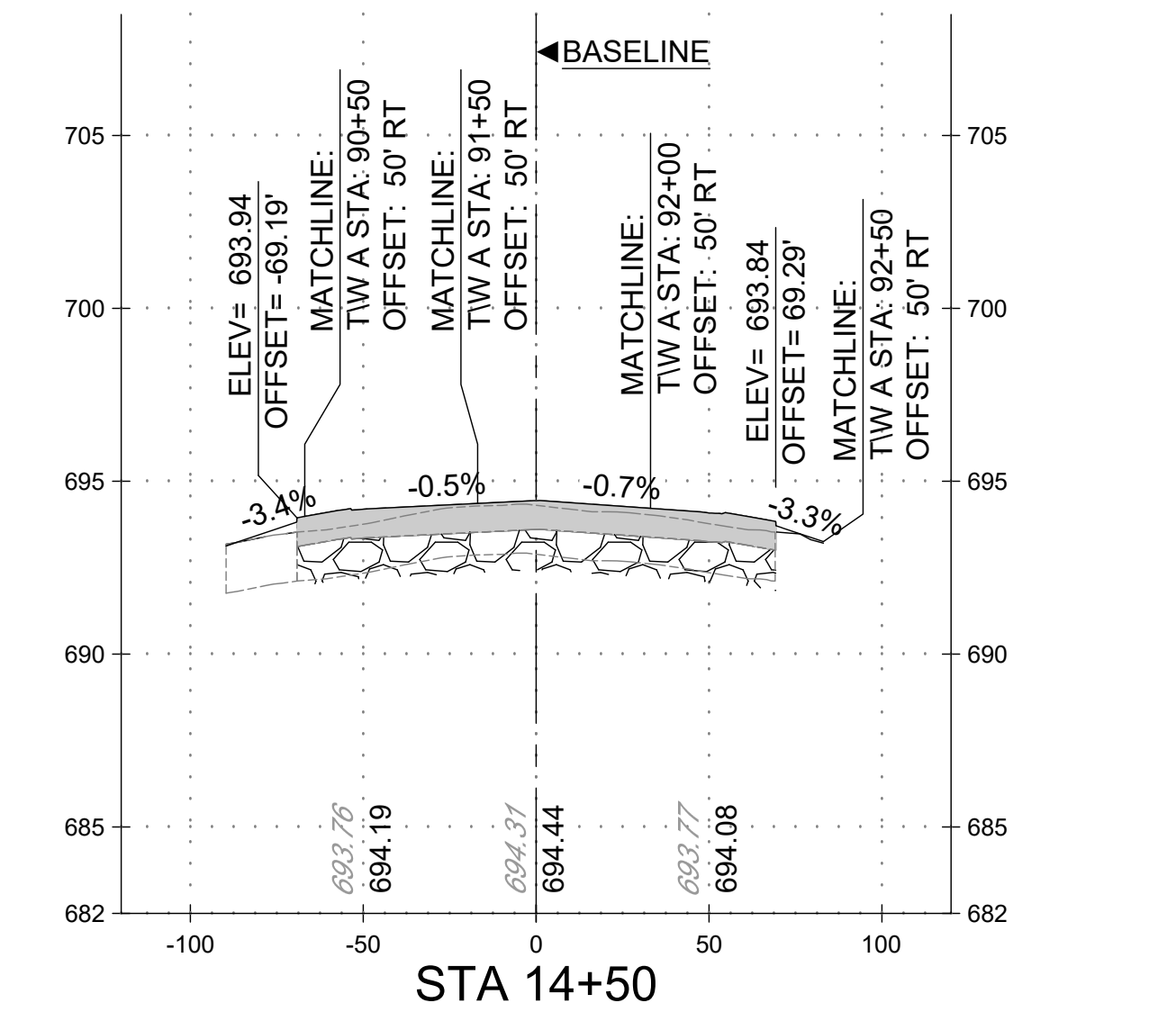
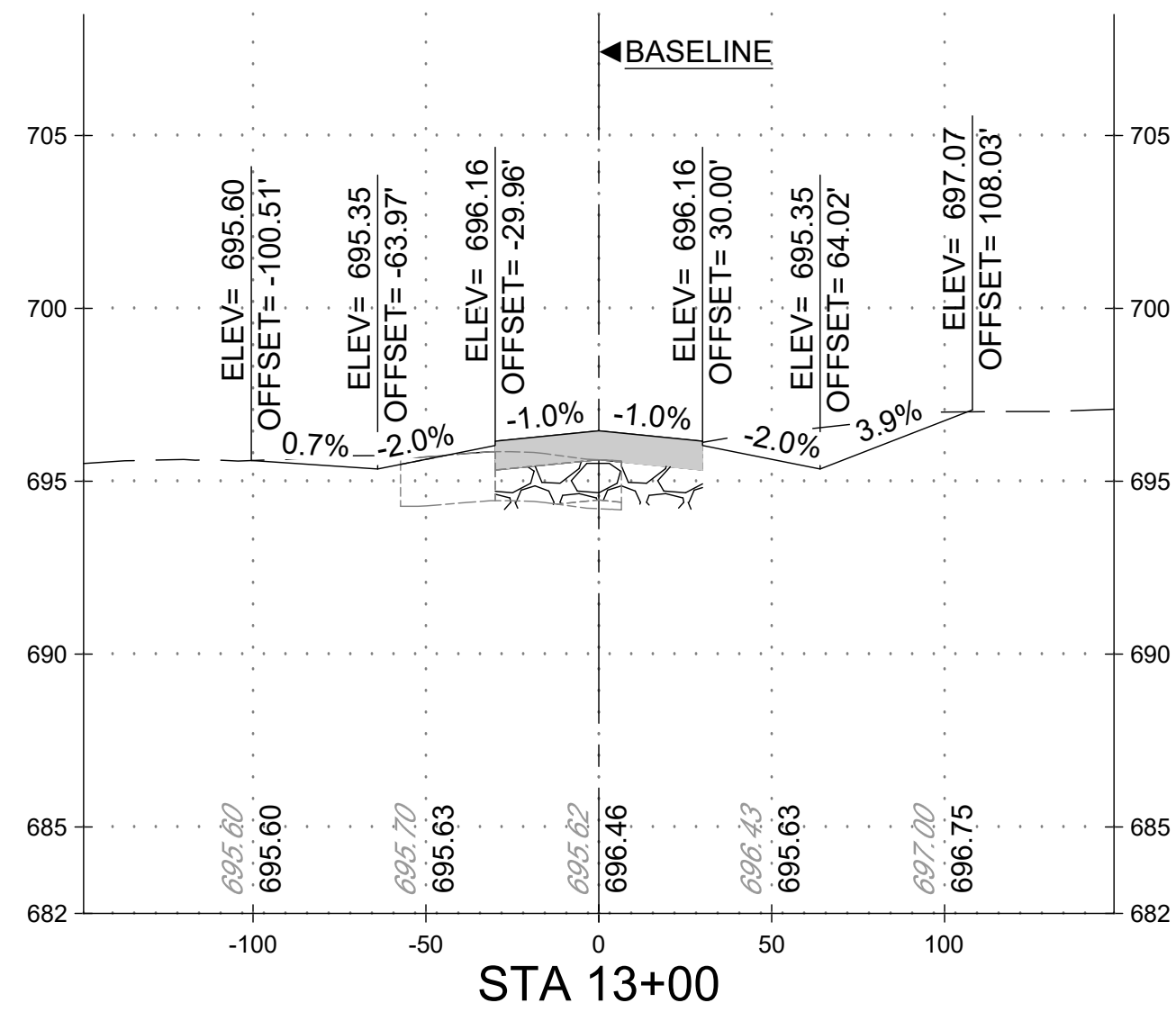
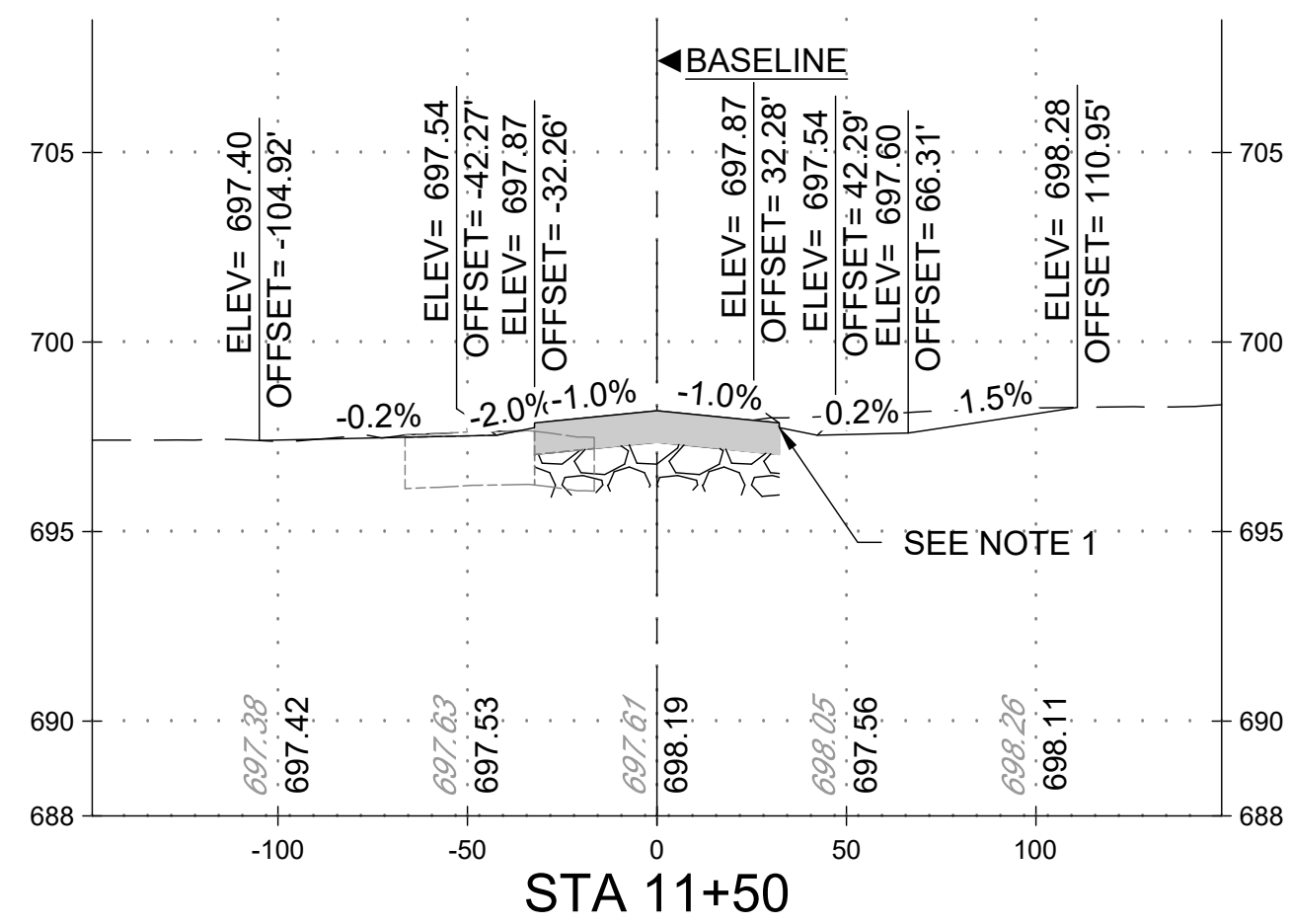
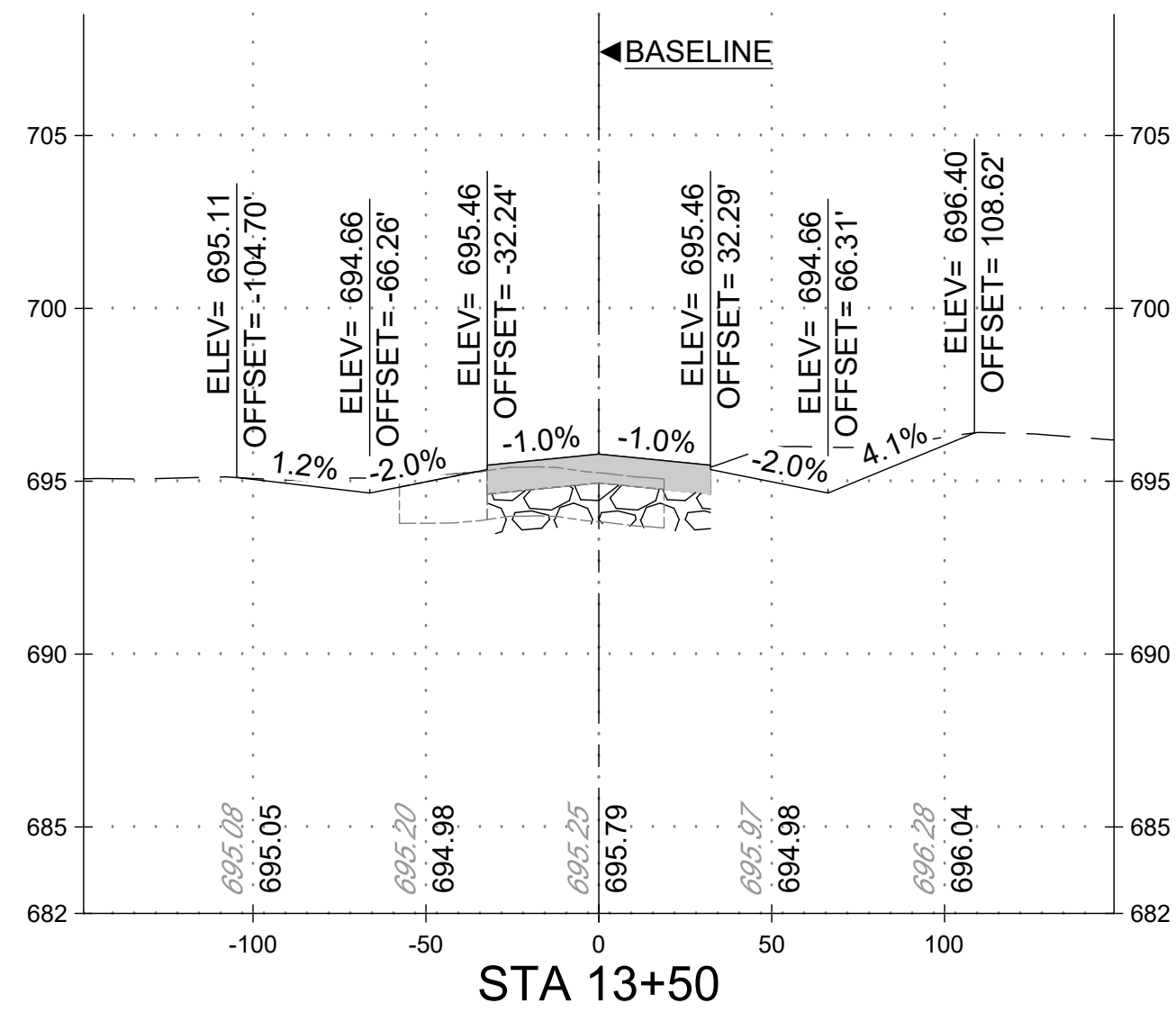
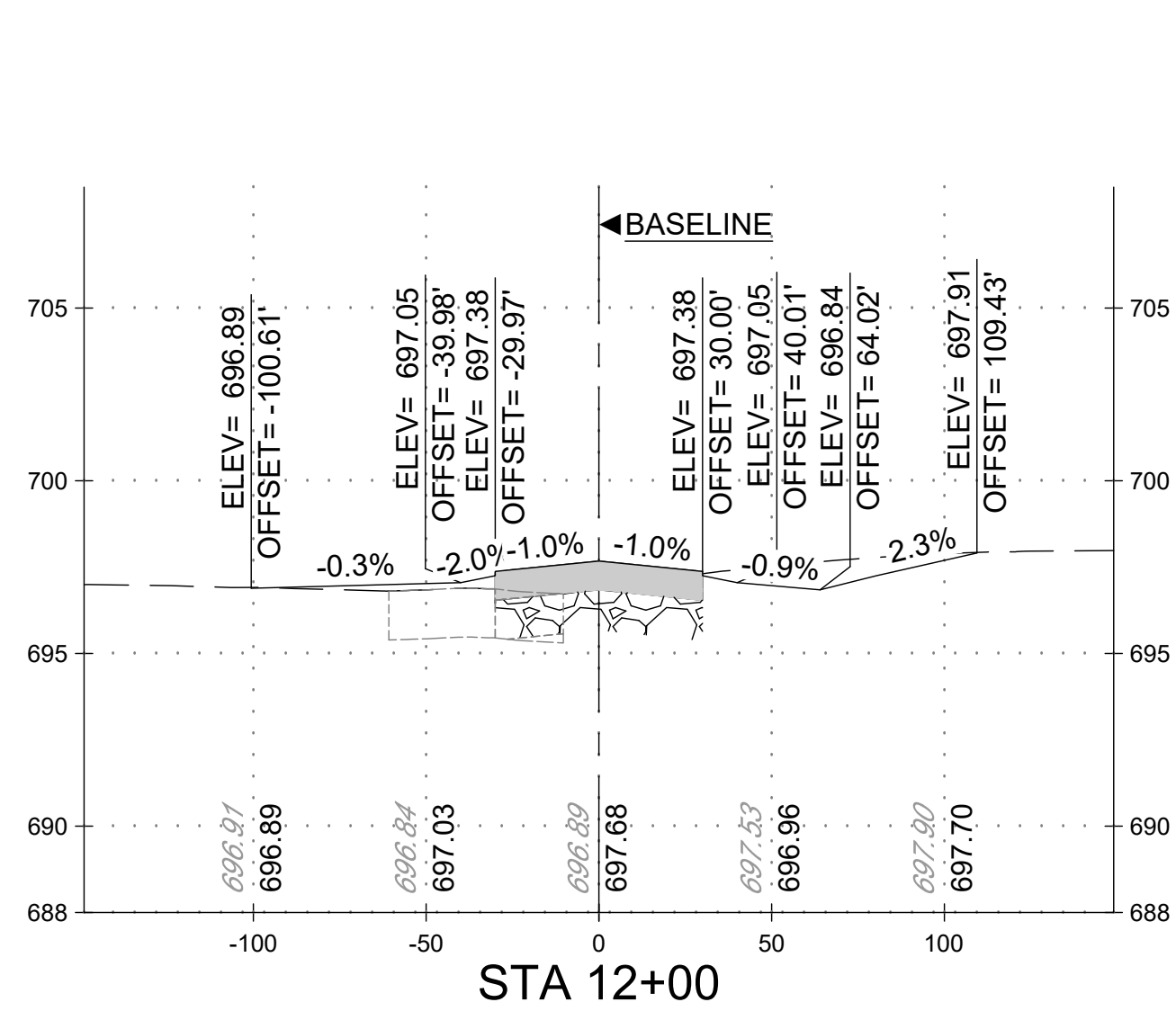


PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>TAXIWAY A - CROSS SECTIONS 2</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.: 3-24-0019-059-2018 (DESIGN) Bid No.: PUR-1409 MAA Grant No.: MAA-GR-19-009 (DESIGN) GRADING PERMIT NO.: GP-19-005
SHEET No.: <b>CV07.02</b> 88 OF 90



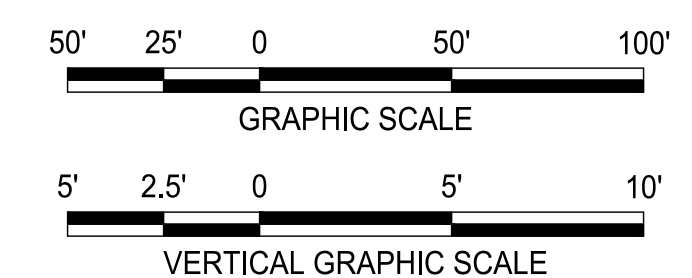
FILE NAME: O:\HGR\Projects\2018-1303\CA0\SHEETS\087\_CV07.00\_Cross Sections.dwg PLOTTED: Monday, February 17, 2020 - 7:22am USER: gress



- LEGEND:**
- EXISTING GROUND
  - PROPOSED GRADE
  - ▒ PROPOSED PAVING
  - ▒ PROPOSED CABG
  - ▒ EXISTING PAVEMENT
  - 93.04 EXISTING ELEVATION
  - 93.48 PROPOSED ELEVATION

- NOTES:**
- CONSTRUCT A 1.5 IN [4 CM] DROP BETWEEN PAVED AND UNPAVED SURFACE.

**TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"**



SEAL:

Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12/22/2021

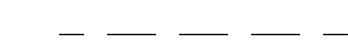



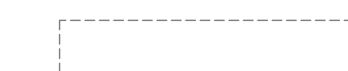


DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M.S.K.			



PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>TAXIWAY B - CROSS SECTIONS</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

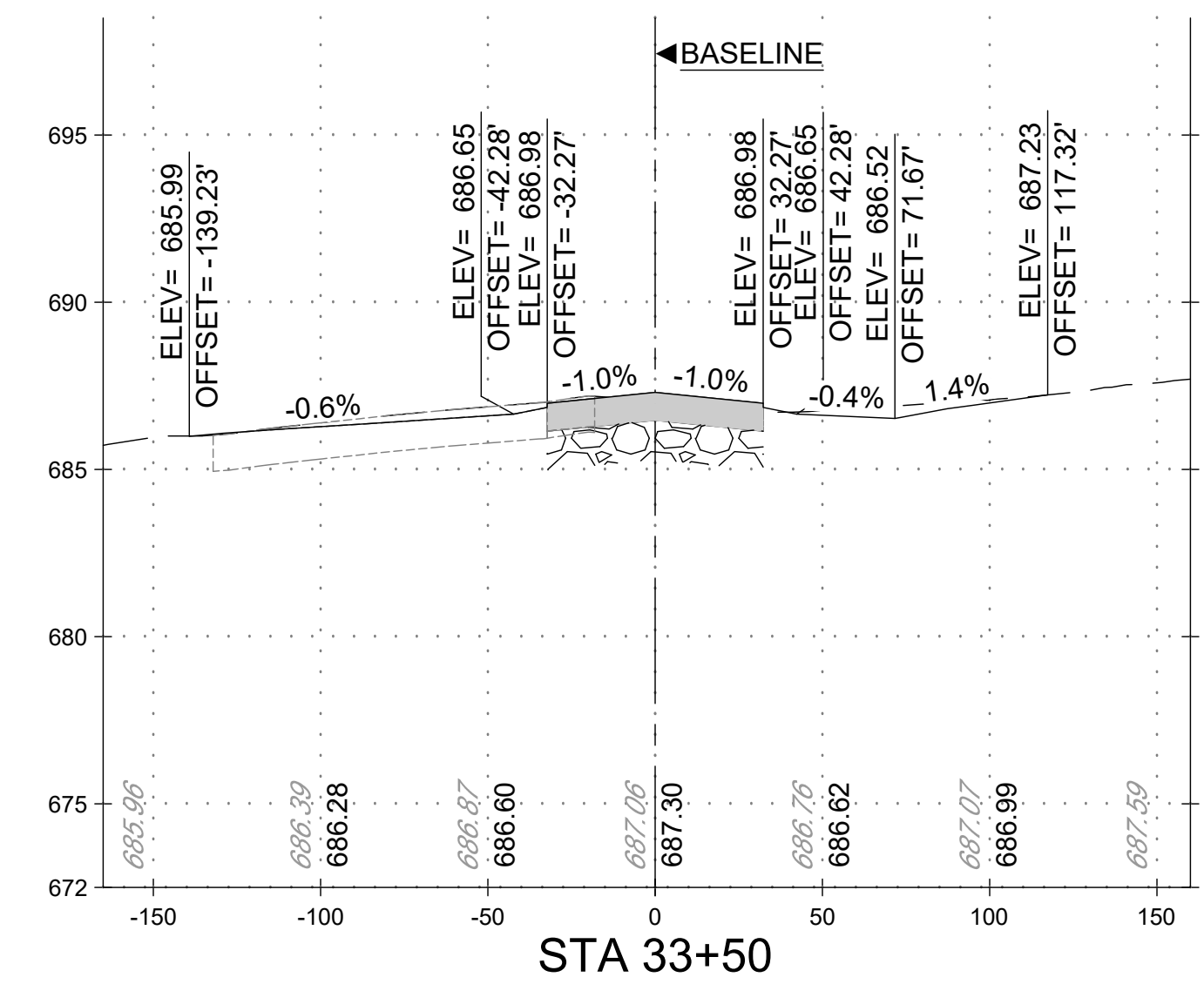
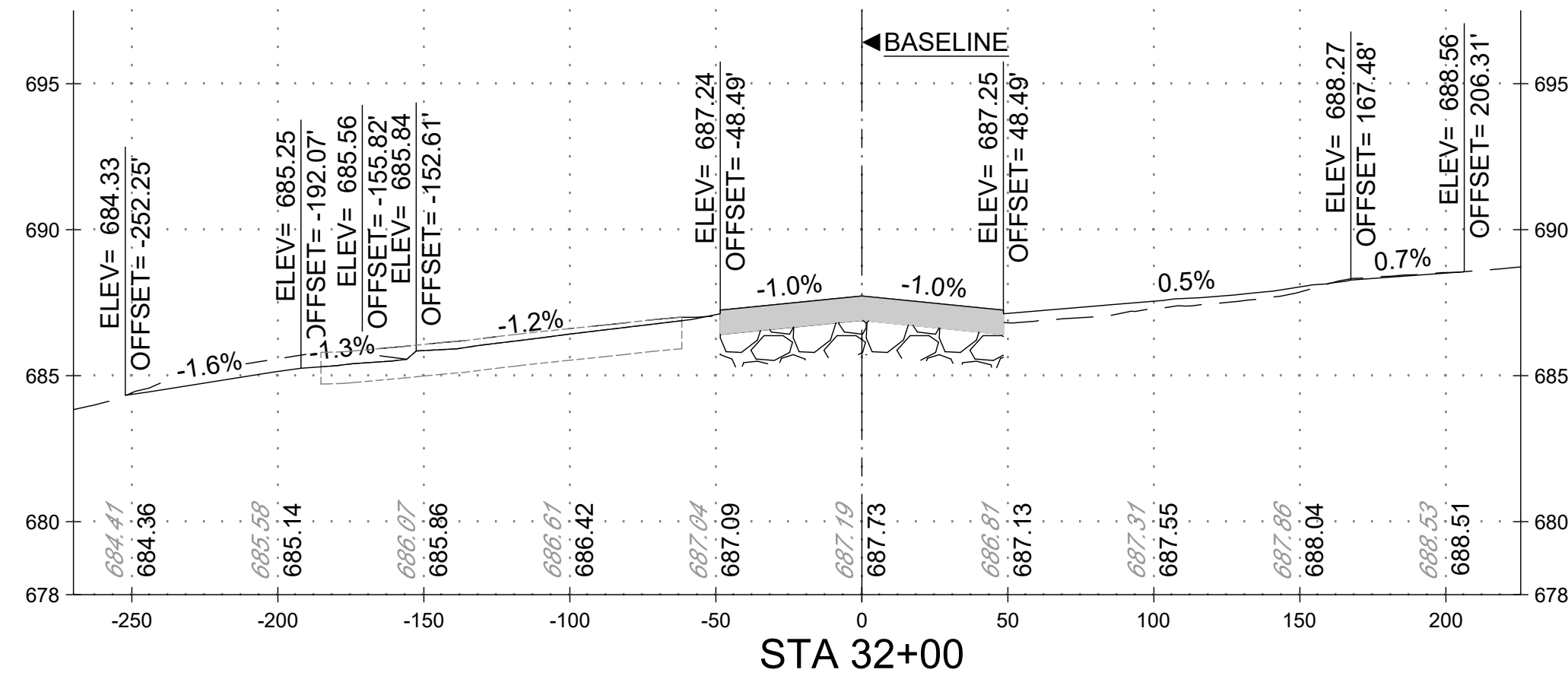
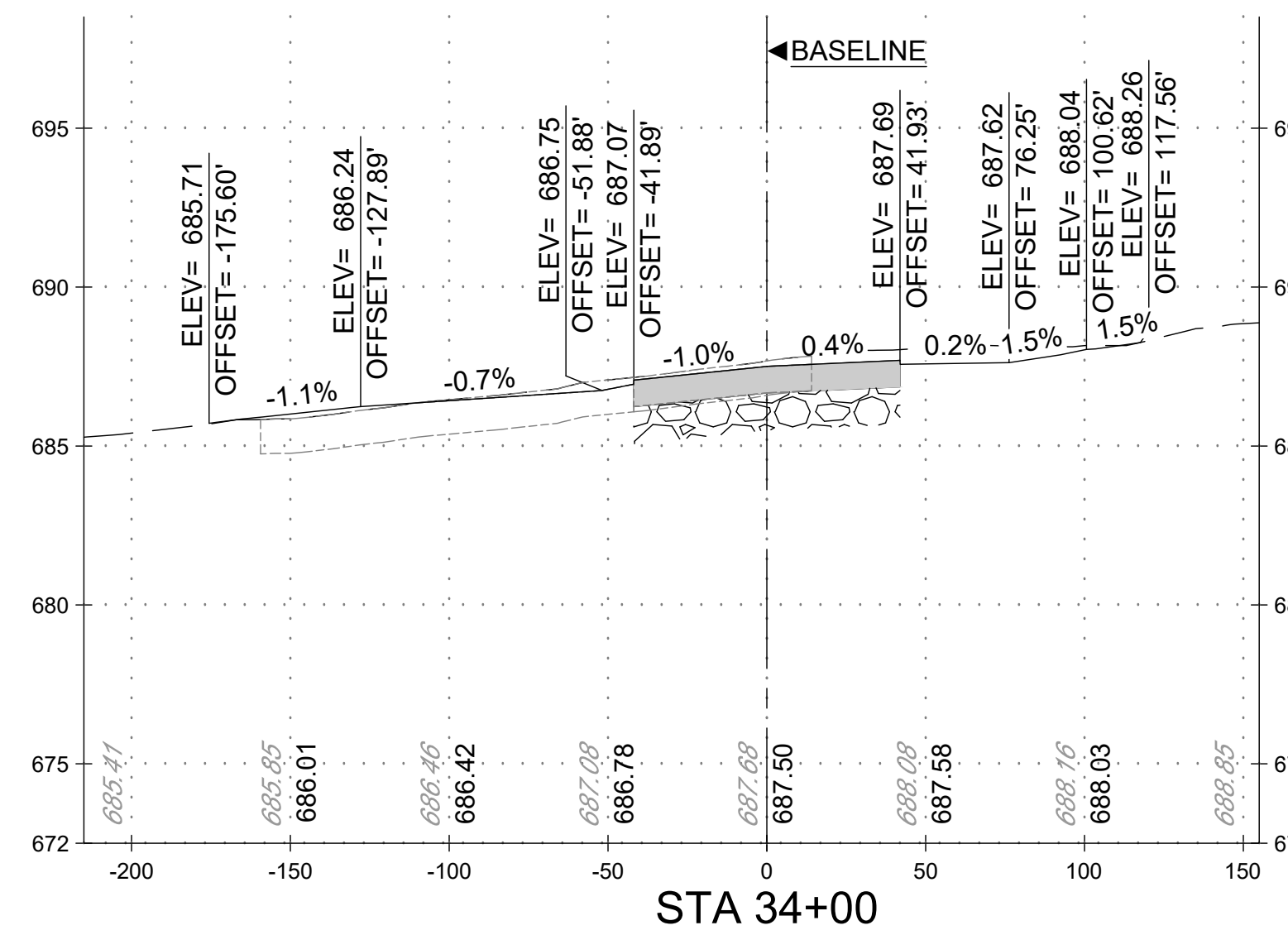
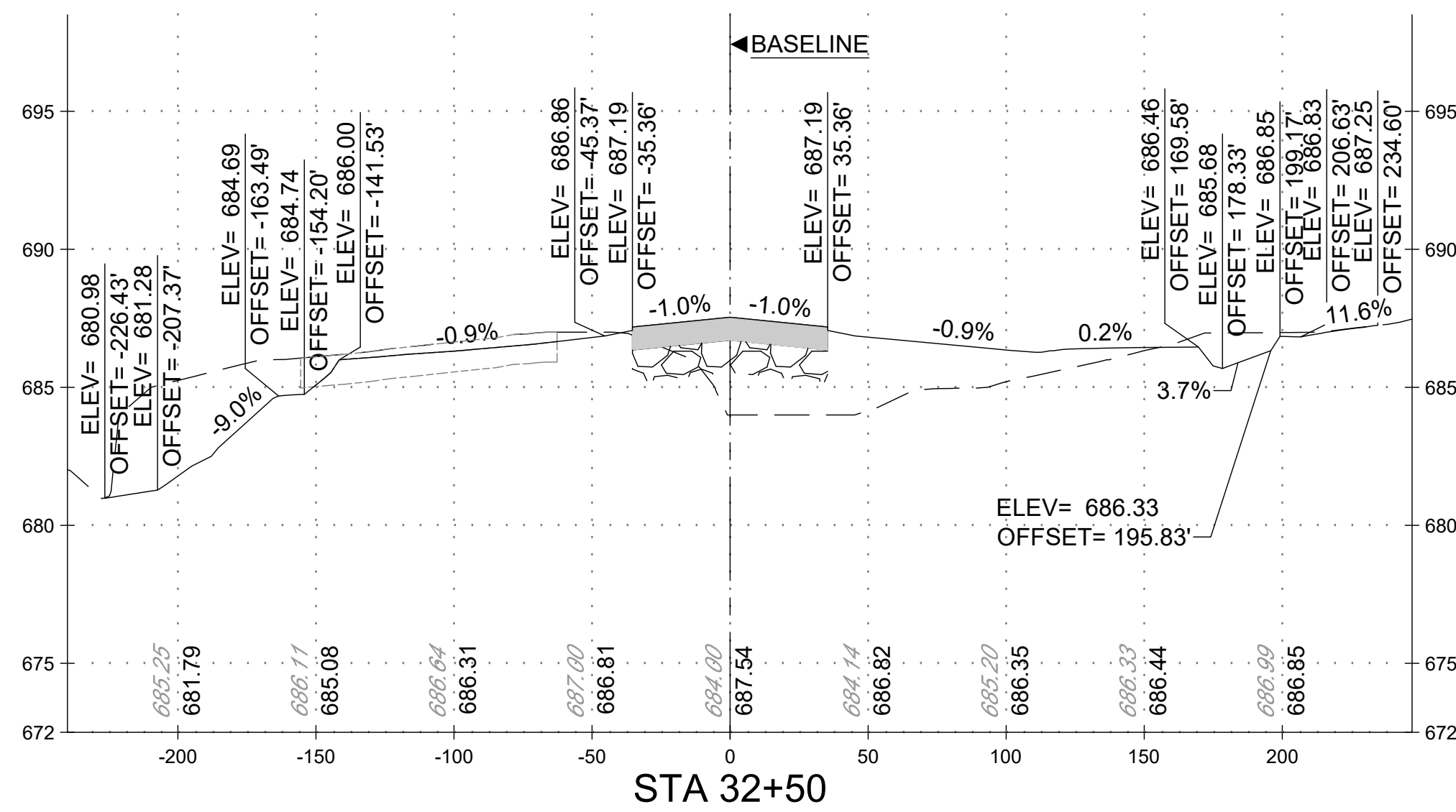
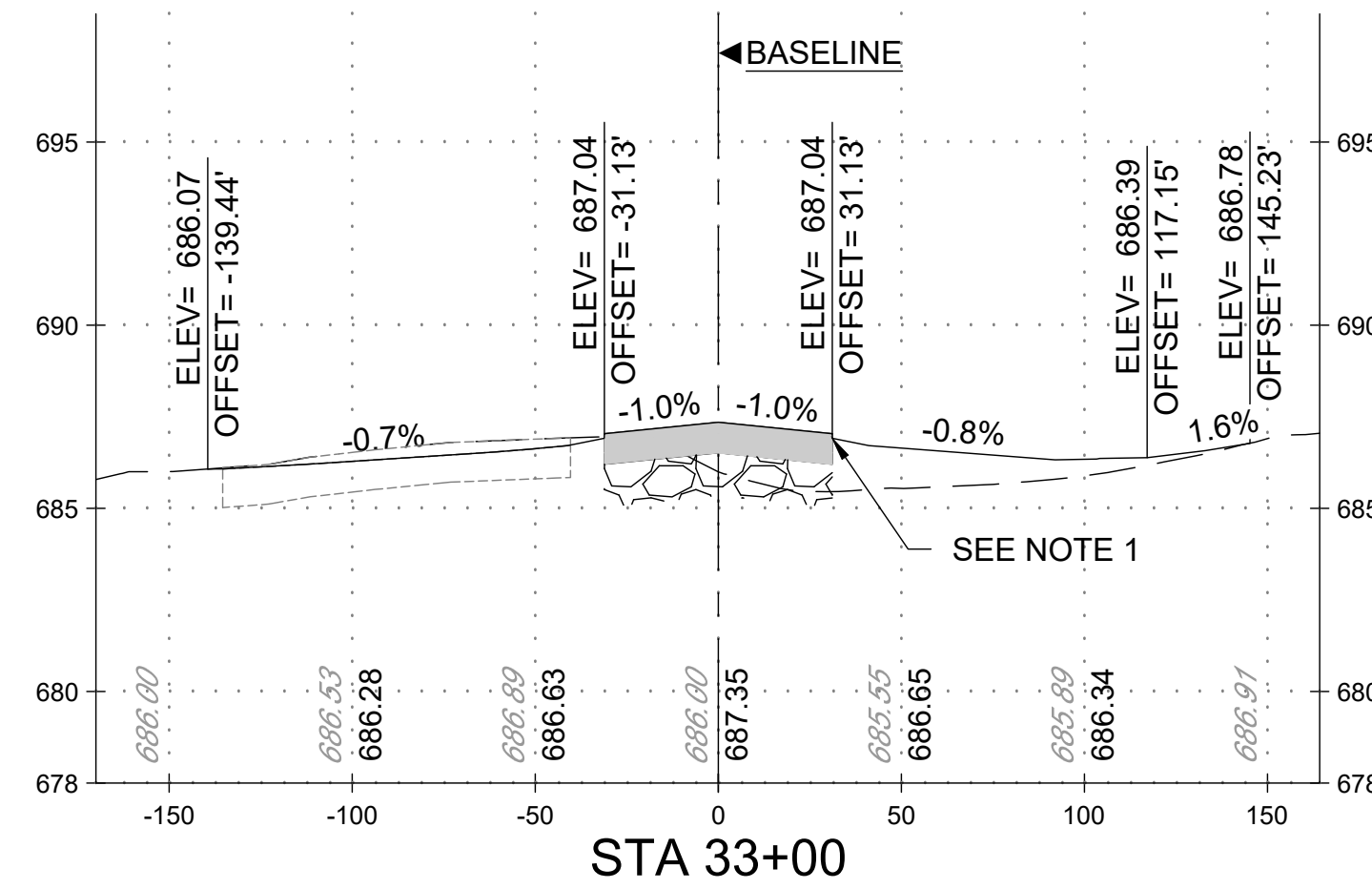
FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>CV07.03</b>
	<b>89 OF 90</b>

LEGEND:

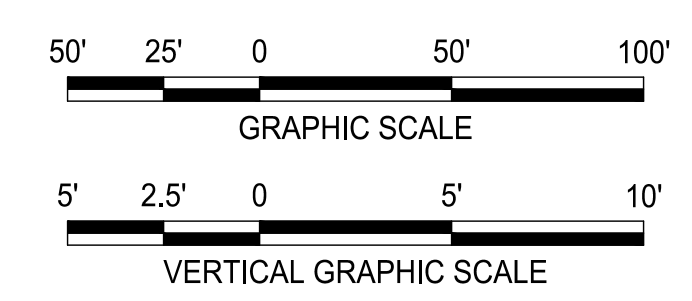
-  EXISTING GROUND
-  PROPOSED GRADE
-  PROPOSED PAVING
-  PROPOSED CABC
-  EXISTING PAVEMENT
-  93.04 EXISTING ELEVATION
-  93.48 PROPOSED ELEVATION

NOTES:

1. CONSTRUCT A 1.5 IN [4 CM] DROP BETWEEN PAVED AND UNPAVED SURFACE.



TAXIWAY WORK ON THIS SHEET WILL BE BID AS "ADD ALTERNATE-1"



FILE NAME: O:\HGR Projects\2018-1303\CAD\SHEETS\087\_CV07\_00\_Cross Sections.dwg PLOTTED: Monday, February 17, 2020 - 7:22am USER: gress

**ADCI**  
AIRPORT DESIGN CONSULTANTS INC.  
6031 UNIVERSITY BLVD.  
SUITE 330  
ELLICOTT CITY, MD 21043  
PHONE: 410-465-9600  
FAX: 410-465-9602

SEAL:  
Professional Certification:  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 32405  
Expiration Date: 12.22.2021

DESIGNED:	No.	DATE	DESCRIPTION
G. F. R.			
DRAWN:			
N. B. / S.S.			
CHECKED:			
B. C. / K.M.F			
APPROVED:			
M. S. K.			

**Washington County, MD**  
HAGERSTOWN REGIONAL AIRPORT

PROJECT TITLE:	<b>RUNWAY 9-27 REHABILITATION</b>
SHEET TITLE:	<b>TAXIWAY D - CROSS SECTIONS</b>
SCALE:	AS SHOWN
DATE:	FEBRUARY 2020

FAA AIP No.:	3-24-0019-059-2018 (DESIGN)
Bid No.:	PUR-1409
MAA Grant No.:	MAA-GR-19-009 (DESIGN)
GRADING PERMIT NO.:	GP-19-005
SHEET No.:	<b>CV07.04</b>
	<b>90 OF 90</b>