

ADDENDUM No. 4

for

Partial Rehabilitation of Runway 6-24

AIP # 3-33-0011-TBD-2023

Bid # FY23-805-29

at the Manchester – Boston Regional Airport

Due to be opened 2:00 p.m., on December 22, 2022

Date: December 21, 2022

The attention of firms submitting proposals for the work named above is called to the following modifications to the documents as were issued.

The items set forth herein, whether of clarification, omission, addition and/or substitution, shall be included and form a part of the Proposer's submitted materials and the corresponding contract when issued. No claim for additional compensation, due to lack of knowledge of the contents of this Addendum will be considered.

All Proposer's are advised that receipt of this notice and all attached material must be duly acknowledged in the space provided on the signature page of the proposal documents, and **by the insertion of this sheet, signed, and submitted with your Proposal package.**

This form must be signed and attached to the original copy of your submission.

The attached sheets contain information or clarifications requested or discussed.

Receipt of **Addendum No. 4** to the REQUEST FOR PROPOSALS for **Partial Rehabilitation of Runway 6-24** at the MANCHESTER-BOSTON REGIONAL AIRPORT is hereby acknowledged.

COMPANY NAME: _____

SIGNED BY: _____

NAME AND TITLE PRINTED: _____

TELEPHONE: _____ FAX: _____

GENERAL

In general, this addendum is accomplishing the following:

1. Answers to questions to date.
2. Updates to the Drawings:
 - a. G-002 Index of Sheets. Added new drawings C-301 to -313.
 - b. G-004 General Plan. Added survey control points and Taxiway H/J alignment.
 - c. C-201 to -204 and C-401. Remove notes regarding survey information to be issued via addendum.
 - d. C-301 to -313 (new drawings). Grading plans, profiles, and cross sections to provide additional information on existing pavement grades. The intent of the project is to match existing runway and taxiway grades.

QUESTIONS/CLARIFICATIONS

Addendum Item No.1 -

Q1: Addendum #3 reissued the Bid Bond Form pages, and the only change appears to be the footer information. Will it be necessary to have our Bid Bond reissued from the bonding agent on the new form? Or will the Bid Bond be accepted on the original Bid Bond Form?

A1: If the original Bid Bond forms were already signed before Addendum No. 3 was issued, the bidder may use the original forms.

Q2: Is Builders Risk Insurance required for this project?

A2: Yes, Builders Risk Insurance is required due to work required for the Runway Weather Information System.

DRAWINGS

Addendum Item No.2 -

REMOVE and REPLACE the attached drawings:

- a. G-002 Index of Sheets.
- b. G-004 General Plan.

ADD the attached drawings:

- c. C-301 to -313 Grading Plans, Profiles, and Cross Sections.

REMOVE the following note from the drawings C-201 to -204 and C-401:

NOTE: EXISTING GRADE VERIFICATION SURVEY IS IN PROGRESS. GRADING PLANS WILL BE PROVIDED VIA ADDENDUM. GRADES IN NEW PAVEMENT AREAS ARE NOT ANTICIPATED TO VARY FROM EXISTING GRADES.

END OF ADDENDUM No. 4

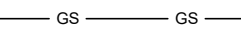
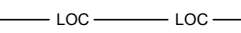
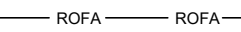
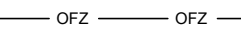
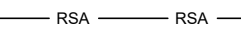
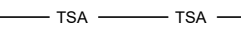
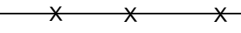
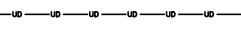
Jacobs - \\mnh101\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\G002 - Index of Drawings.dwg [G-002] December 21, 2022 - 5:45am [ccomnolm]

GENERAL PROJECT ABBREVIATIONS

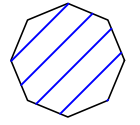
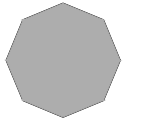
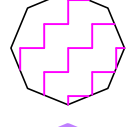
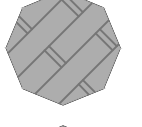
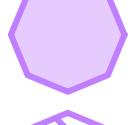
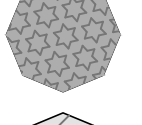
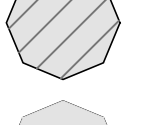
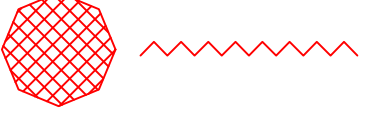
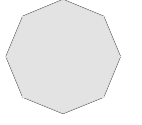
A	AMPERES	MISC	MISCELLANEOUS
AC	ASPHALT CONCRETE, ACRE	MON	MONUMENT
ADD ALT	ADDITIVE ALTERNATE	MULT	MULTIPLE
ALS	APPROACH LIGHTING SYSTEM	MSL	MEAN SEA LEVEL
AOA	AIRCRAFT OPERATIONS AREA	N	NORTH, NORTHING
APPROX	APPROXIMATELY	NIC	NOT IN CONTRACT
ATPB	ASPHALT TREATED PERMEABLE BASE	NO	NUMBER
AVI	AUTOMATED VEHICLE IDENTIFICATION	NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
BC	BEGINNING OF CURVE	NTS	NOT TO SCALE
BIT	BITUMINOUS	OC	ON CENTER
BM	BENCH MARK	OD	OUTSIDE DIAMETER
BRL	BUILDING RESTRICTION LIMIT	OFF	OFFSET
BVC	BEGINNING OF VERTICAL CURVE	PAPI	PRECISION APPROACH PATH INDICATOR
C	CONDUIT	PB	PULL BOX
CAB	CRUSHED AGGREGATE BASE	PC	POINT OF CURVATURE
CB	CATCH BASIN	PCC	POINT OF COMPOUND CURVATURE,
CBR	CALIFORNIA BEARING RATIO	PCCP	PORTLAND CEMENT CONCRETE
CDF	CONTROLLED DENSITY FILL	PI	POINT OF INTERSECTION
CF	CUBIC FEET	PL	PROPERTY LINE
CFS	CUBIC FEET PER SECOND	POC	POINT OF CURVE
CIP	CAST IRON PIPE	POT	POINT OF TANGENT
CL, 	CENTERLINE	PRC	POINT OF REVERSE CURVE
CO	CLEANOUT	PRVC	POINT OF REVERSE VERTICAL CURVE
CONC	CONCRETE	PT	POINT OF TANGENCY
CONST	CONSTRUCT, CONSTRUCTION	PVC	POLYVINYL CHLORIDE
CONT	GROUND CONTOUR	PVI	POINT OF VERTICAL INTERSECTION
COORD	COORDINATE	PVMT	PAVEMENT
CSP	CORRUGATED STEEL PIPE	PVT	POINT OF VERTICAL TANGENCY
CY	CUBIC YARD	PSI	POUNDS PER SQUARE INCH
DIA	DIAMETER	Q	RATE OF FLOW IN CFS
DWG	DRAWING	R	RADIUS
E	EAST, EASTING	RC	REINFORCED CONCRETE
EA	EACH	RCP	REINFORCED CONCRETE PIPE
EC	END OF CURVE	REF	REFERENCE
(E)	EXISTING	REIL	RUNWAY END IDENTIFIER LIGHTS
EL	ELEVATION	REINF	REINFORCED, REINFORCEMENT
ELEV	ELEVATION	RGRCP	RUBBER GASKET REINFORCED CONCRETE PIPE
ENG	ENGINEER, ENGINEERING	RP	RADIUS POINT
EOP	EDGE OF PAVEMENT	RPMP	REINFORCED PLASTIC MORTAR PIPE
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE	RPR	RESIDENT PROJECT REPRESENTATIVE
EV	ELECTRICAL VAULT	RPZ	RUNWAY PROTECTION ZONE
EVC	END OF VERTICAL CURVE	RSA	RUNWAY SAFETY AREA
EQ	EQUAL	RT	RIGHT
EX, EXIST	EXISTING	RVR	RUNWAY VISUAL RANGE
EXC	EXCAVATION	RWY, R/W	RUNWAY
EXP JT	EXPANSION JOINT	S	SLOPE
FAA	FEDERAL AVIATION ADMINISTRATION	SB	SUBBASE
FAR	FEDERAL AVIATION REGULATION	SC	SPIRAL TO CURVE
FG	FINISHED GRADE	SD	STORM DRAIN
FL	FLOW LINE	SEC	SECTION
FLR	FLOOR	SF	SQUARE FEET
FS	FINISHED SURFACE	SHLD	SHOULDER
GA	GENERAL AVIATION	SIDA	SECURITY IDENTIFICATION DISPLAY AREA
GB	GRADE BREAK	SPA	SPACES
GR	GRADE	SPEC	SPECIFICATIONS
GSE	GROUND SERVICE EQUIPMENT	SS	SANITARY SEWER
HGL	HYDRAULIC GRADE LINE	STA	STATION
HMA	HOT MIX ASPHALT	STD	STANDARD
HMAC	HOT MIX ASPHALT CONCRETE	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
HP	HIGH POINT	SY	SQUARE YARD
HOR	HORIZONTAL	T, TAN	TANGENT TO CURVE
HYD	HYDRAULIC	TG	TOP OF GRATE ELEV
ID	INSIDE DIAMETER	TN	TRUE NORTH
IE	INVERT ELEVATION	TOPO	TOPOGRAPHY
JB	JUNCTION BOX	TOW	TOP OF WALL
JT	JOINT	TSA	TAXIWAY SAFETY AREA/TRANSPORTATION SECURITY ADMINISTRATION
L	LENGTH	TWY, TW	TAXIWAY
LF	LINEAR FEET	TYP	TYPICAL
LONG	LONGITUDINAL	VAR	VARIES, VARIABLE
LP	LOW POINT	VASI	VISUAL APPROACH SLOPE INDICATOR
LS	LUMP SUM	VC	VERTICAL CURVE
LT	LEFT	VER	VERIFY
MALS	MEDIUM INTENSITY APPROACH LIGHT SYSTEM	VERT	VERTICAL
MALSR	MEDIUM INTENSITY APPROACH LIGHT SYSTEM W/RAILS	VOL	VOLUME
MAX	MAXIMUM	VOR	VHF OMNIDIRECTIONAL RANGE
MES	MITERED END SECTION	W/	WITH
MH	MANHOLE		
MIN	MINIMUM		
MITL	MEDIUM INTENSITY TAXIWAY LIGHTS		

GENERAL PROJECT LEGEND

EXISTING

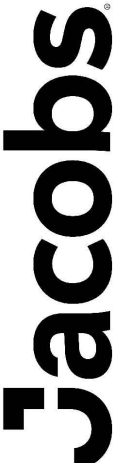
	GLIDE SLOPE CRITICAL AREA
	LOCALIZER CRITICAL AREA
	RUNWAY OBJECT FREE AREA
	PRECISION OBSTACLE FREE ZONE
	RUNWAY SAFETY AREA
	TAXIWAY SAFETY AREA
	FENCE LINE
	UNDERDRAIN
	BENCHMARK / CONTROL POINT LOCATION
	PAVEMENT CORE LOCATION

PROPOSED

	PAVEMENT MILLING (4" DEPTH) AND CRACK SEALING		4" HMA OVERLAY ONLY
	PAVEMENT MILLING (2" DEPTH) AND CRACK SEALING		4" HMA OVERLAY W/ GROOVING (BASE BID) AND SEAL COAT (ADD ALT 1)
	CRACK SEALING AND PATCHING		4" HMA OVERLAY W/ GROOVING AND SEAL COAT (BASE BID)
	CRACK SEALING (ADD. ALT. 1 ONLY)		SEAL COAT, PATCHING, AND CRACK REPAIR (ADD ALT 1)
	PAVEMENT MARKING REMOVAL		SEAL COAT, PATCHING, AND CRACK REPAIR (BASE BID)
	SMOOTH MILLED EDGE LIMITS		2" HMA OVERLAY ONLY
	REMOVE EXISTING PAVEMENT SENSOR OR LIGHTING FIXTURE/LIGHT BASE		
	REMOVE EXISTING CABLE/CONDUIT		

INDEX OF SHEETS		
PLAN NO.	SHEET	DRAWING TITLE
GENERAL PLANS		
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2	G-002	INDEX OF DRAWINGS, GENERAL PROJECT ABBREVIATIONS AND LEGEND
3	G-003	GENERAL NOTES
4	G-004	GENERAL PLAN
5	G-100	CONSTRUCTION SAFETY AND PHASING PLAN AND NOTES - OVERALL
6	G-101	PHASE A AND B CONSTRUCTION SAFETY AND PHASING PLAN AND NOTES
7	G-102	PHASE C AND D CONSTRUCTION SAFETY AND PHASING PLAN AND NOTES
8	G-201	CONSTRUCTION SAFETY AND PHASING DETAILS - SHEET 1 OF 2
9	G-202	CONSTRUCTION SAFETY AND PHASING DETAILS - SHEET 2 OF 2
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11	C-101	EXISTING CONDITIONS AND SITE PREPARATION PLAN - SHEET 1 OF 5
12	C-102	EXISTING CONDITIONS AND SITE PREPARATION PLAN - SHEET 2 OF 5
13	C-103	EXISTING CONDITIONS AND SITE PREPARATION PLAN - SHEET 3 OF 5
14	C-104	EXISTING CONDITIONS AND SITE PREPARATION PLAN - SHEET 4 OF 5
15	C-105	EXISTING CONDITIONS AND SITE PREPARATION PLAN - SHEET 5 OF 5
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19	C-204	GEOMETRY, GROOVING, AND PAVEMENT MARKING PLAN - SHEET 4 OF 5
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22	C-302	GRADING PLAN - SHEET 2 OF 4
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27	C-307	CROSS SECTIONS - RUNWAY 6 - SHEET 2 OF 6
28	C-308	CROSS SECTIONS - RUNWAY 6 - SHEET 3 OF 6
29	C-309	CROSS SECTIONS - RUNWAY 6 - SHEET 4 OF 6
30	C-310	CROSS SECTIONS - RUNWAY 6 - SHEET 5 OF 6
31	C-311	CROSS SECTIONS - RUNWAY 6 - SHEET 6 OF 6
32	C-312	CROSS SECTIONS - RUNWAY 24
33	C-313	CROSS SECTIONS - TAXIWAYS K, H, AND J
34	C-401	TYPICAL SECTIONS AND PAVEMENT DETAILS - SHEET 1 OF 2
35	C-402	TYPICAL SECTIONS AND PAVEMENT DETAILS - SHEET 2 OF 2
36	C-403	PAVEMENT MARKING DETAILS - SHEET 1 OF 2
37	C-404	PAVEMENT MARKING DETAILS - SHEET 2 OF 2
ELECTRICAL PLANS		
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39	E-002	ELECTRICAL GENERAL PLAN
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41	E-102	ELECTRICAL PARTIAL PLANS - PAVEMENT SENSOR REPLACEMENTS
42	E-201	ELECTRICAL DETAILS - SHEET 1 OF 3
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45	E-301	TEMPORARY LIGHTING AT TW B, H, & J - PHASE B & D
46	E-302	TEMPORARY LIGHTING AT TW A & Z, TW K, K1, & K2
47	E-303	TEMPORARY ELECTRICAL DETAILS
48	E-401	MAINTENANCE BUILDING WEATHER SENSOR MOUNTING

PROJECT DESIGNER:



2 Executive Park Drive
Suite 205
San Jose, CA 95128
PHONE: (408) 666-7800
FAX: (408) 666-7805

NTS
SCALE: DATE: NOVEMBER 2022

LMO
DESIGNED BY:

LMO
DRAWN BY:

JAM
CHECKED BY:

JWG
APPROVED:



MANCHESTER • BOSTON
REGIONAL AIRPORT

PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24;
TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

INDEX OF DRAWINGS, GENERAL
PROJECT ABBREVIATIONS AND LEGEND

REV. NO. 1 2

DATE 12/14/22 12/21/22

DESCRIPTION ADDENDUM #3 ADDENDUM #4

BY LMO LMO

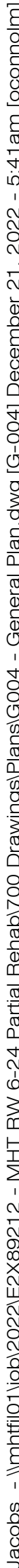
PROJ. NO.: 3-33-0011-TBD-2023

JE FILE: E2X89212

DRAWING NO.
G-002

SHEET 2 OF 48

NOT FOR CONSTRUCTION

A triangle with the number 1 inside.

2

11. THE CONTRACTOR MUST ACCESS THE WORK SITES AS SHOWN ON THESE DRAWINGS THE PRIMARY ACCESS GATE FOR EACH PHASE MUST BE APPROVED BY AIRPORT OPERATIONS PRIOR TO THE START OF EACH PHASE. ESCORTING TO THE CONSTRUCTION SITES WILL BE REQUIRED FOR ALL PHASES OF CONSTRUCTION AND SHALL BE PROVIDED BY THE AIRPORT OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING ALL MATERIAL SUPPLIERS AND SUBCONTRACTORS OF ALL THE SECURITY AND ACCESS REQUIREMENTS.

ON BASELINE) $\triangle 2$

- 

PARTIAL REHABILITATION OF RUNWAY 6-24 PHASING

- ## REHABILITATE RUNWAY 17-35 PHASING

A horizontal number line with tick marks at -400, 0, 200, 400, and 800. The line is divided into segments by these tick marks. The segments are colored in a checkerboard pattern: the segment from -400 to -200 is black, -200 to 0 is white, 0 to 200 is black, 200 to 400 is white, and 400 to 800 is black.

GENERAL PLAN

SCALE:	1"=400'
DATE:	NOVEMBER 2022
DESIGNED BY:	LMO
DRAWN BY:	LMO
CHECKED BY:	JAM
APPROVED:	JWG

MANCHESTER • BOSTON

GENERAL PLAN

REV.	DATE	DESCRIPTION	BY
1	12/14/22	ADDENDUM #3	LMO
2	12/21/22	ADDENDUM #4	LMO

PROJ. NO.: 3-33-0011-
E FILE: E2X89212

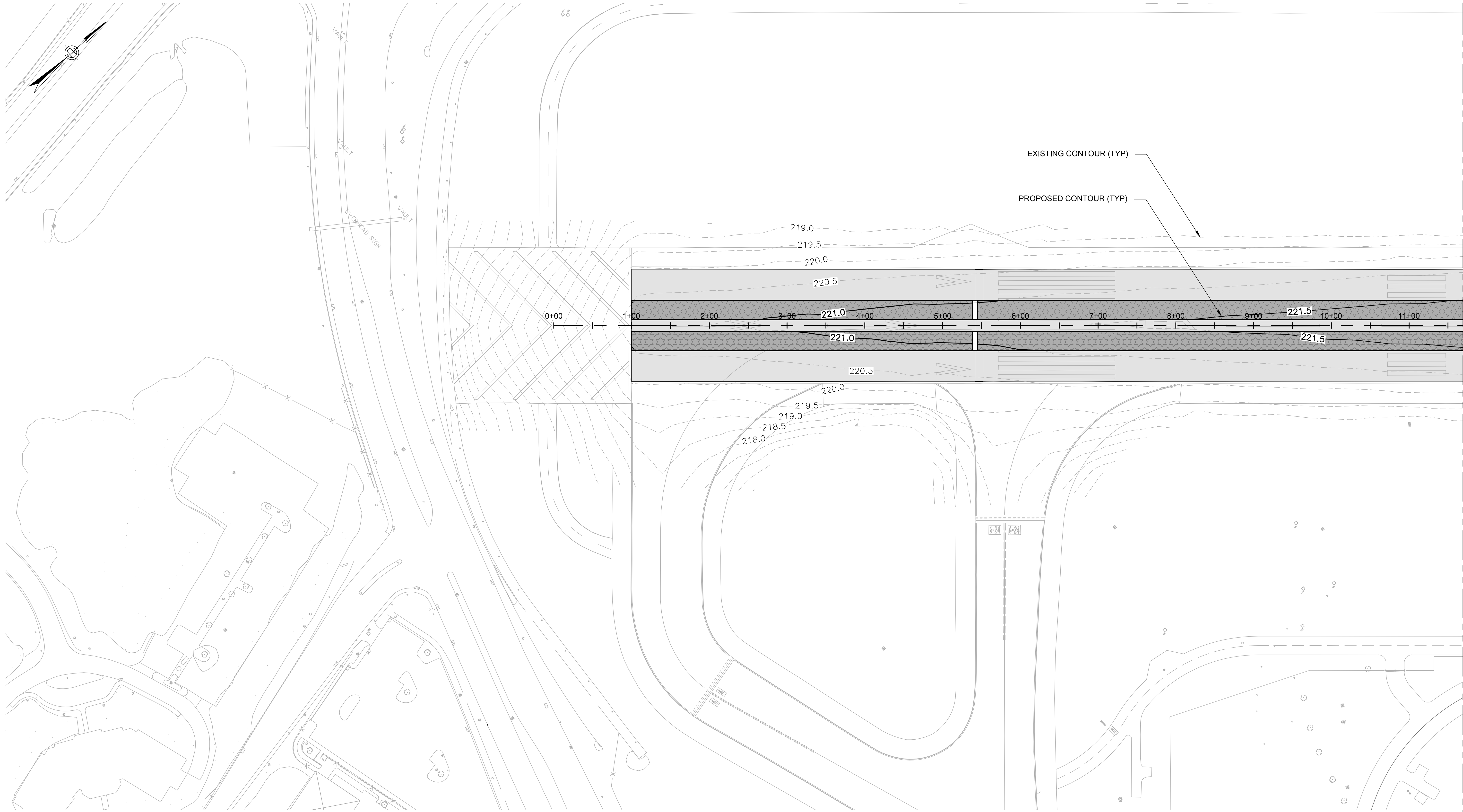
DRAWING NO.

G-004

SHEET 4 OF 48

NOT FOR CONSTRUCTION

Jacobs - \\mhfil01\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-301] December 21, 2022 - 5:56am [econorm]

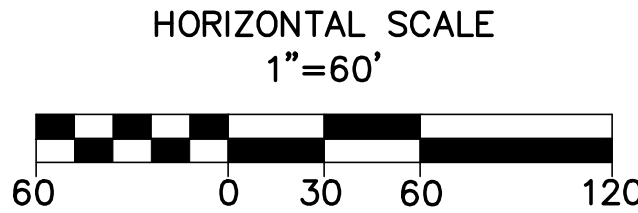


LEGEND

- 4" HMA OVERLAY ONLY
- 4" HMA OVERLAY W/ GROOVING (BASE BID) AND SEAL COAT (ADD ALT 1)
- 4" HMA OVERLAY W/ GROOVING AND SEAL COAT (BASE BID)
- CRACK SEAL AND SEAL COAT (ADD ALT 1)
- CRACK SEAL, PATCHING, AND SEAL COAT (BASE BID)
- 2" HMA OVERLAY ONLY

GRADING NOTES:

- THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES. THE SURFACE CONTOURS AND EXISTING CONDITIONS SHOWN HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



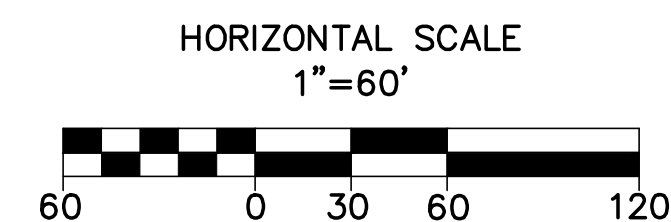
MATCH LINE - FOR CONTINUATION SEE DRAWING C-302

PROJECT DESIGNER: Jacobs 2 Executive Park Drive Suite 205 Burlington, MA 01803 PHONE: (603) 666-7881 FAX: (603) 666-7885	
SCALE: 1"=60'	DATE: NOVEMBER 2022
DESIGNED BY: LMO	DRAWN BY: LMO
CHECKED BY: JAM	APPROVED: JWG
MANCHESTER • BOSTON REGIONAL AIRPORT PARTIAL REHABILITATION OF RUNWAY 6, RUNWAY 24, TAXIWAY K AND H INTERSECTION, AND TAXIWAY J	
GRADING PLAN – SHEET 1 OF 4	
REVISIONS	BY: LMO
DESCRIPTION	ADDENDUM #4
DATE	12/21/22
REV. NO.	1
PROJ. NO.: 3-33-0011-TBD-2023	
JE FILE: E2X89212	
DRAWING NO.	
C-301	
SHEET 21 OF 48	

NOT FOR CONSTRUCTION

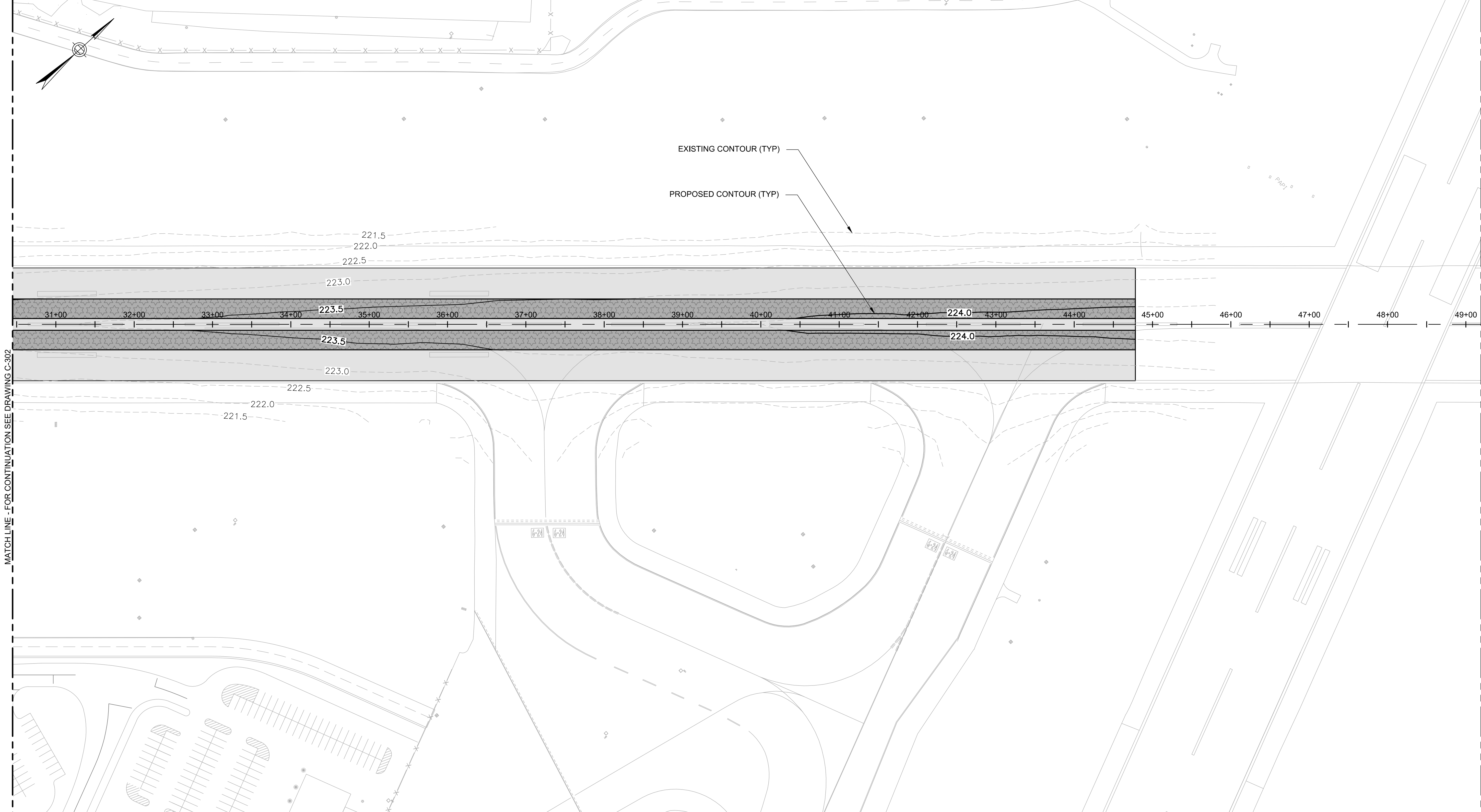


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NOT FOR CONSTRUCTION

Jacobs - \\mh101\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-303] December 21, 2022 - 6:00am [ccoonnm]

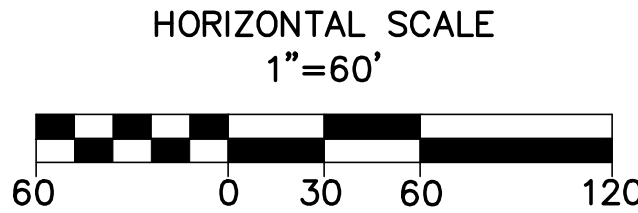


LEGEND

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PROJECT DESIGNER:
Jacobs
2 Executive Park Drive
Suite 205
Burlington, MA 01803
PHONE: (603) 666-7881
FAX: (603) 666-7885

PROJECT NO.: 3-33-0011-TBD-2023
JE FILE: E2X89212

DRAWING NO.
C-303

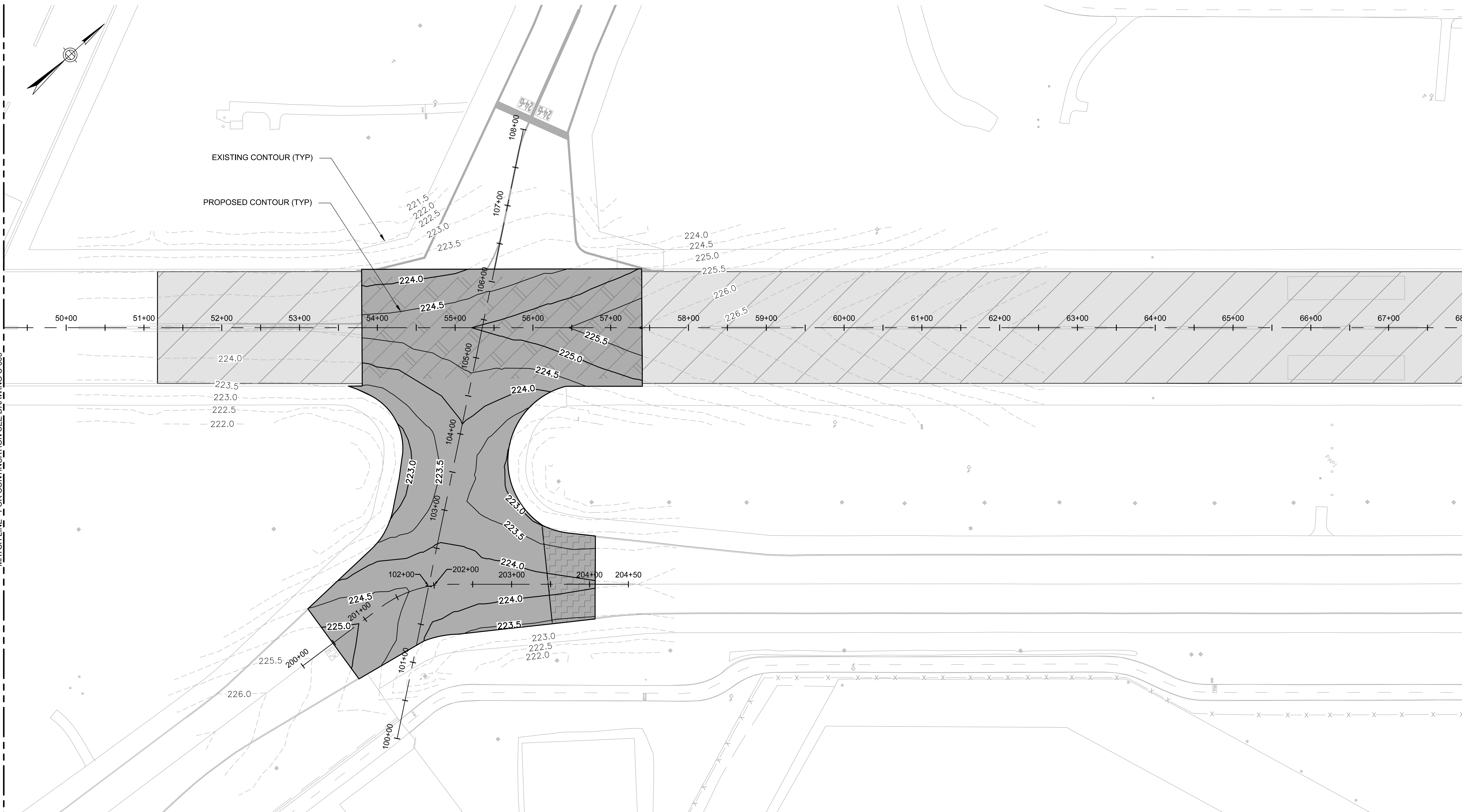
SHEET 23 OF 48

SCALE: 1"=60'	DATE: NOVEMBER 2022	DESIGNED BY: LMO	DRAWN BY: LMO	CHECKED BY: JAM	APPROVED: JWG
MANCHESTER • BOSTON REGIONAL AIRPORT		PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24; TAXIWAY K AND H INTERSECTION; AND TAXIWAY J			
BY: LMO		GRADING PLAN – SHEET 3 OF 4			
REVISIONS	DESCRIPTION	DATE	REV. NO.		
	ADDENDUM #4	12/21/22	1		

NOT FOR CONSTRUCTION

Jacobs - \\mht101\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-304] December 21, 2022 - 6:02am [ccomolm]

MATCH LINE - FOR CONTINUATION SEE DRAWING C-303

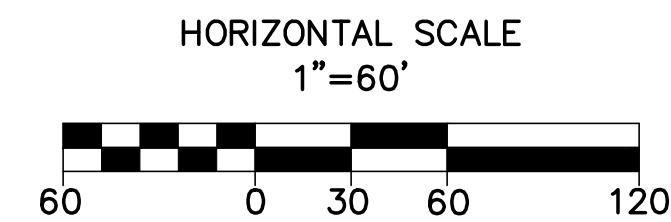


LEGEND

- 4" HMA OVERLAY ONLY
- 4" HMA OVERLAY W/ GROOVING (BASE BID) AND SEAL COAT (ADD ALT 1)
- 4" HMA OVERLAY W/ GROOVING AND SEAL COAT (BASE BID)
- CRACK SEAL AND SEAL COAT (ADD ALT 1)
- CRACK SEAL, PATCHING, AND SEAL COAT (BASE BID)
- 2" HMA OVERLAY ONLY

GRADING NOTES:

- THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES. THE SURFACE CONTOURS AND EXISTING CONDITIONS SHOWN HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



PROJECT DESIGNER:
Jacobs
2 Executive Park Drive
Suite 205
Burlington, MA 01803
PHONE: (603) 666-7881
FAX: (603) 666-7885

SCALE: 1"=60'
DATE: NOVEMBER 2022
DESIGNED BY: LMO
DRAWN BY: LMO
CHECKED BY: JAM
APPROVED: JWG

MANCHESTER • BOSTON
REGIONAL AIRPORT
PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24;
TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

GRADING PLAN – SHEET 4 OF 4

REVISIONS
DESCRIPTION
ADDENDUM #4

BY
LMO

DATE
12/21/22

REV. NO.
1

PROJ. NO.: 3-33-0011-TBD-2023
JE FILE: E2X89212

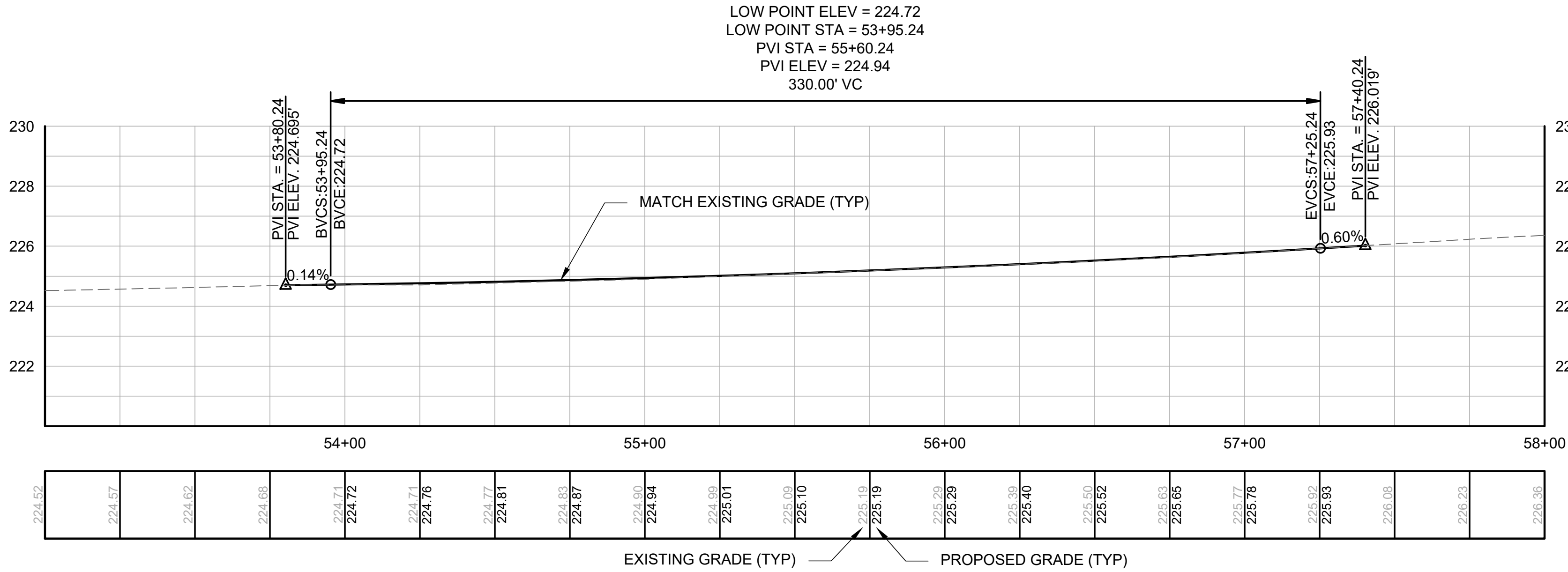
DRAWING NO.
C-304
SHEET 24 OF 48

REV

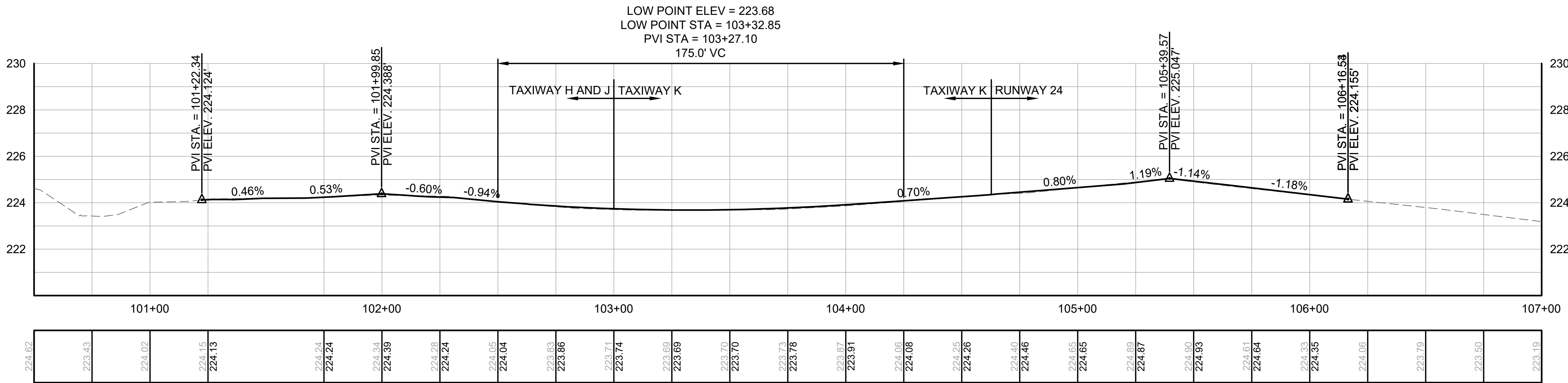
NOT FOR CONSTRUCTION

GRADING NOTES:

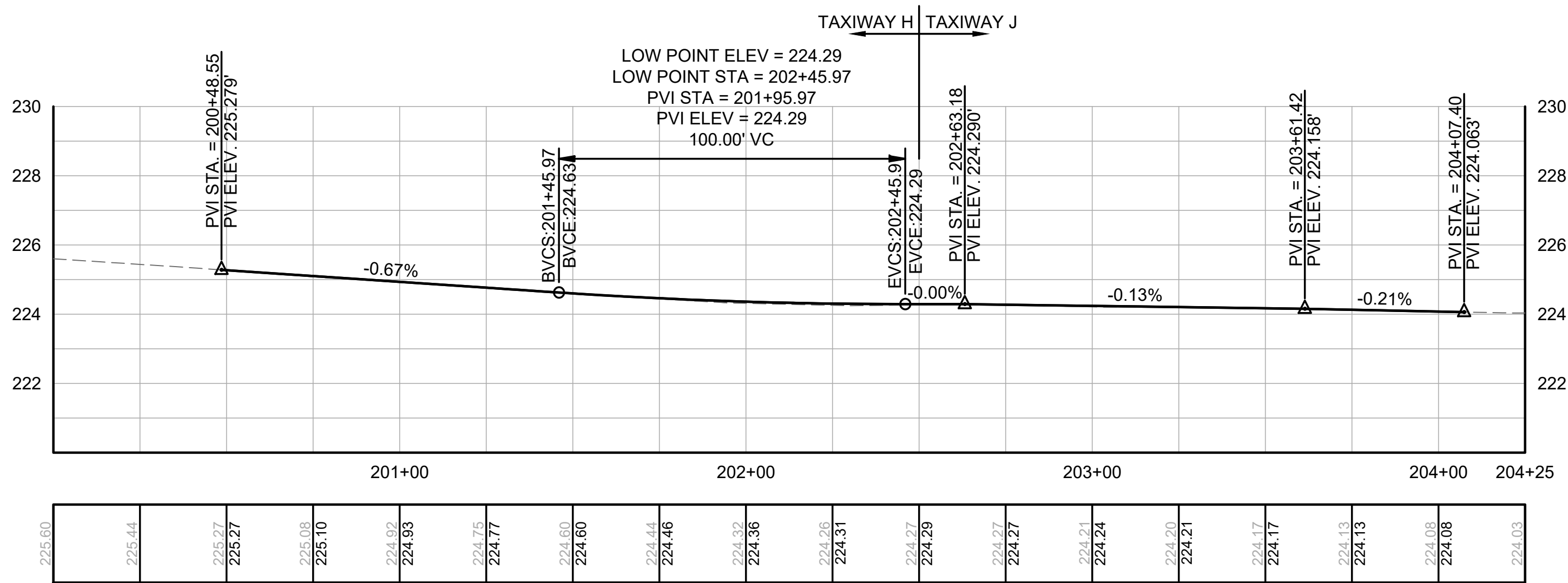
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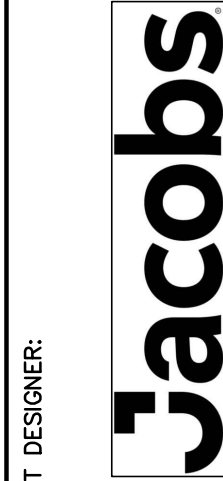
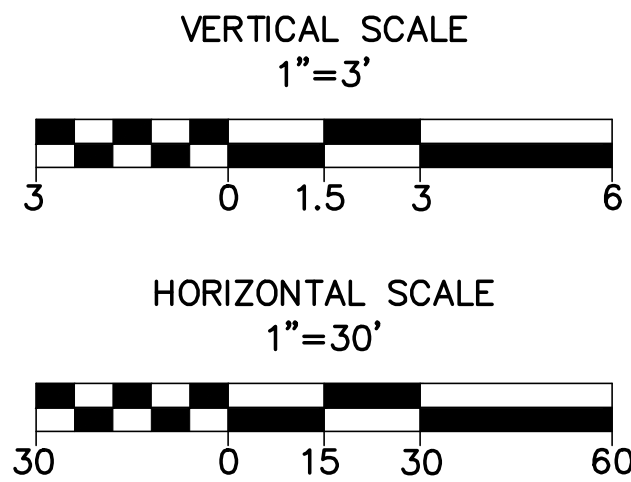
RUNWAY 24 CENTERLINE PROFILE
SCALE: HORZ. 1"= 30'
VERT. 1"= 3'



TAXIWAY K CENTERLINE PROFILE
SCALE: HORZ. 1"= 30'
VERT. 1"= 3'



TAXIWAY H AND J CENTERLINE PROFILE
SCALE: HORZ. 1"= 30'
VERT. 1"= 3'



2 Executive Park Drive
Suite 205
Burlington, MA 01803
PHONE: (603) 666-7801
FAX: (603) 666-7885

PROJECT DESIGNER:

SCALE:	1"=60'
DATE:	NOVEMBER 2022
DESIGNED BY:	LMO
DRAWN BY:	LMO
CHECKED BY:	JAM
APPROVED:	JWG



PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24;
TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

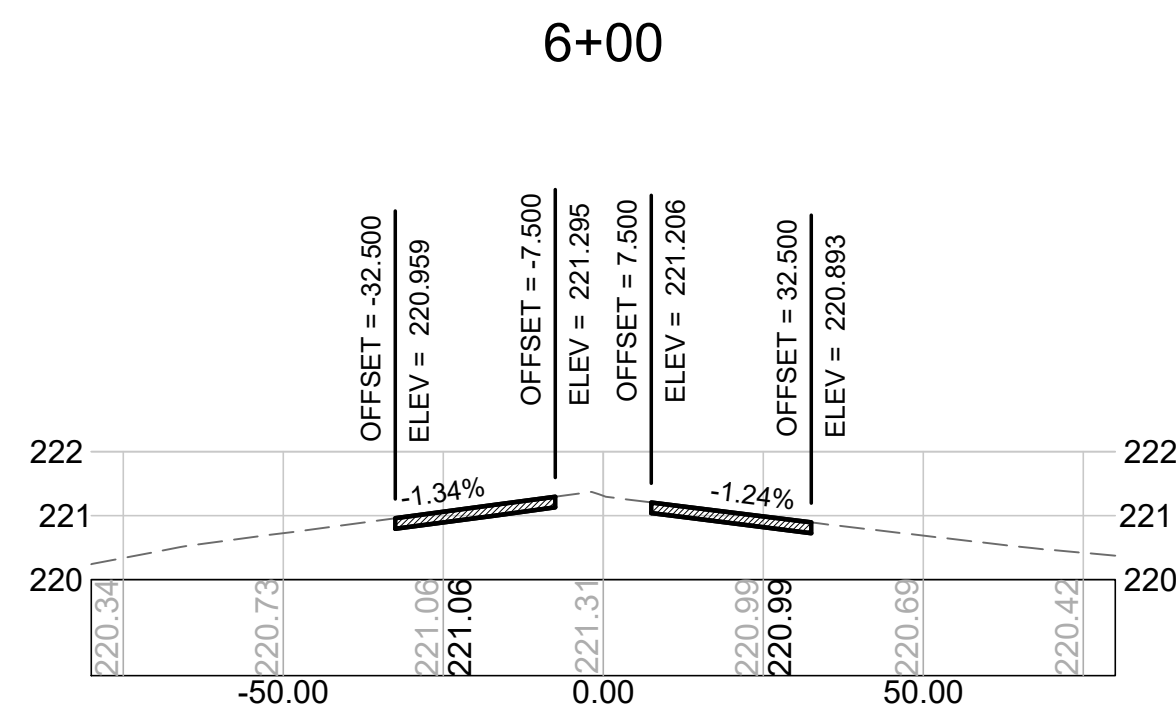
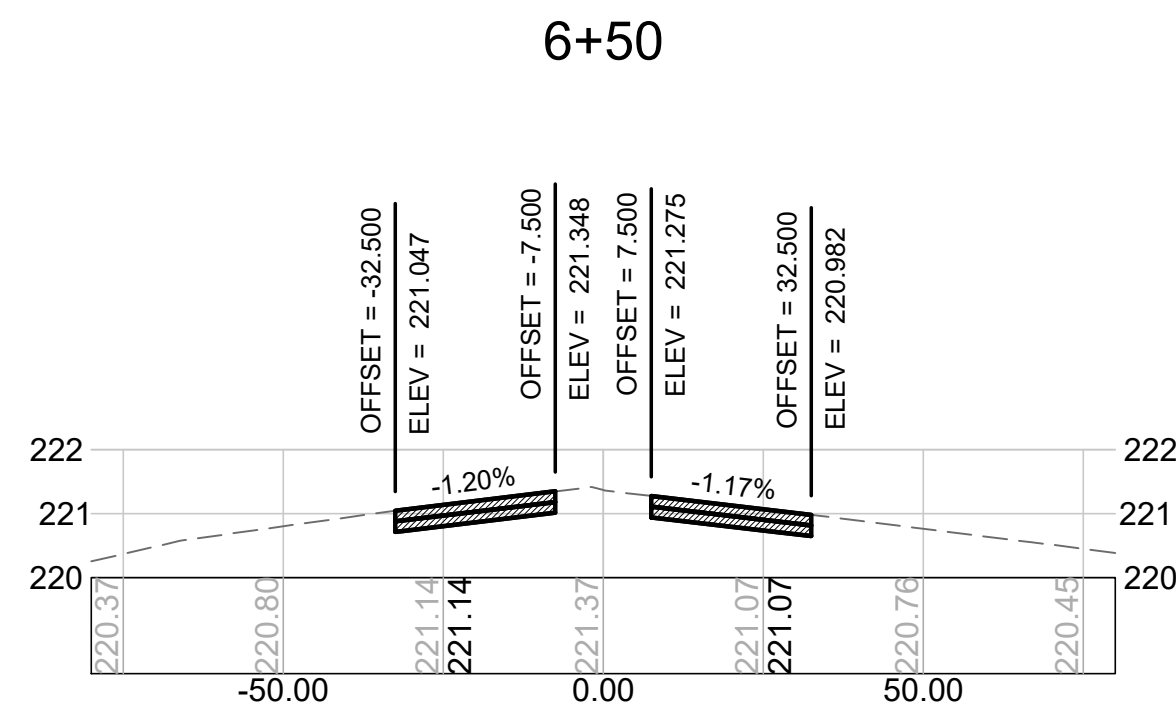
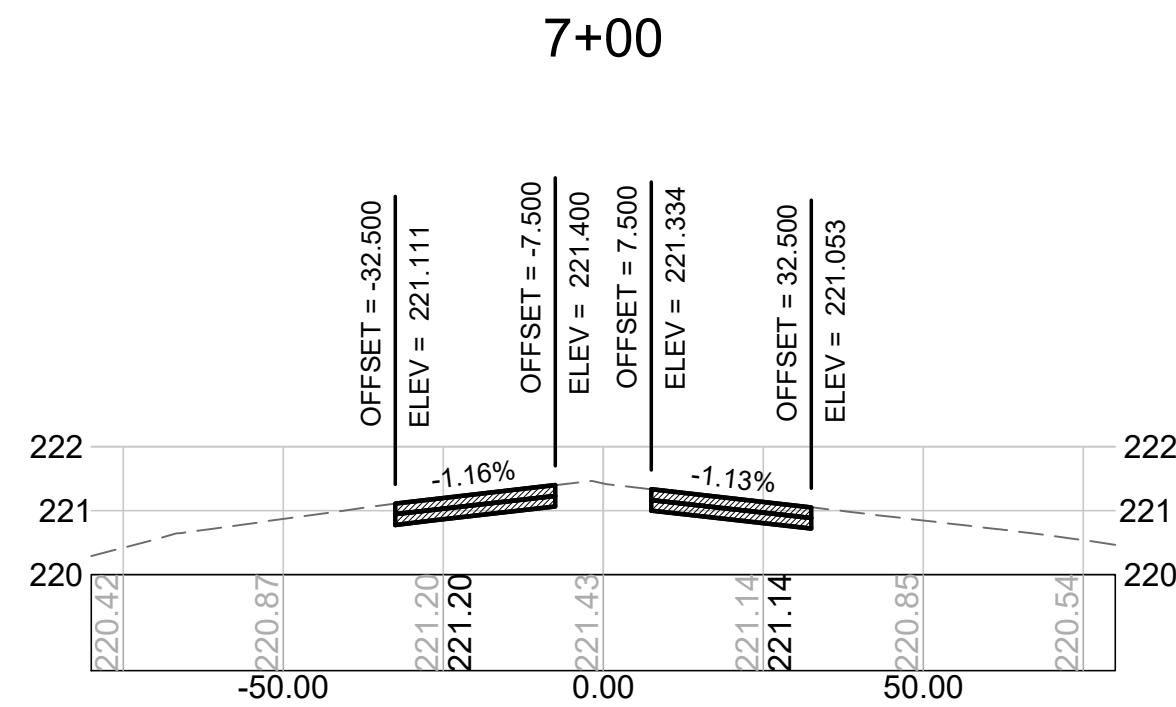
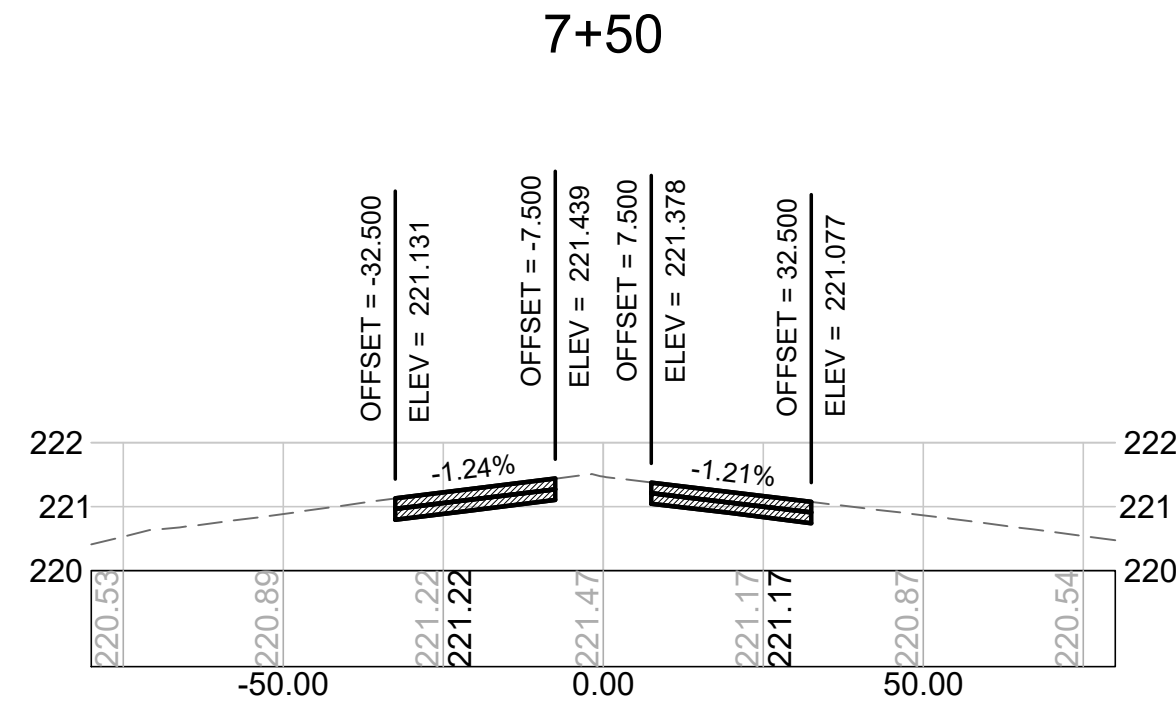
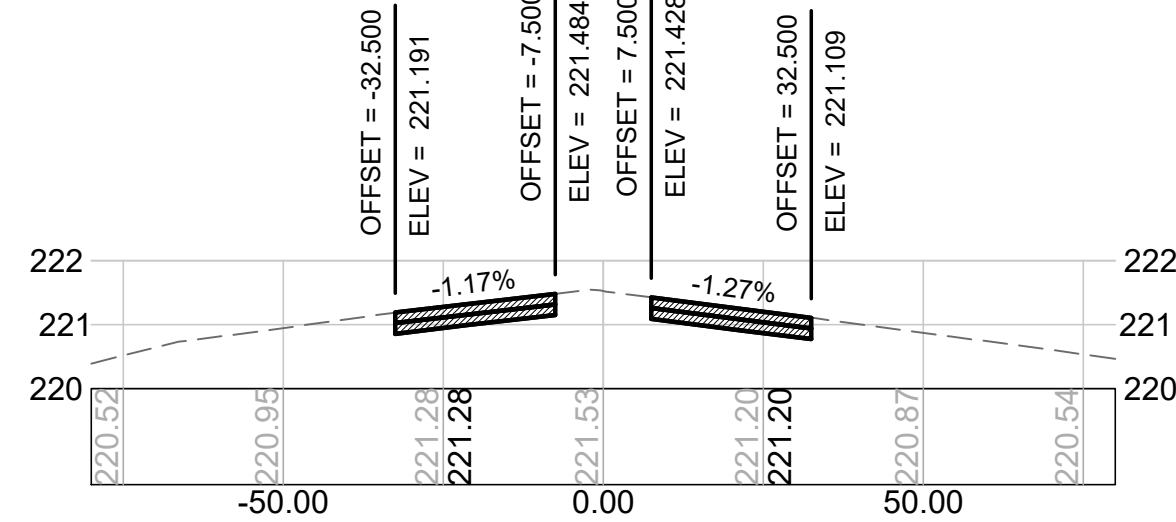
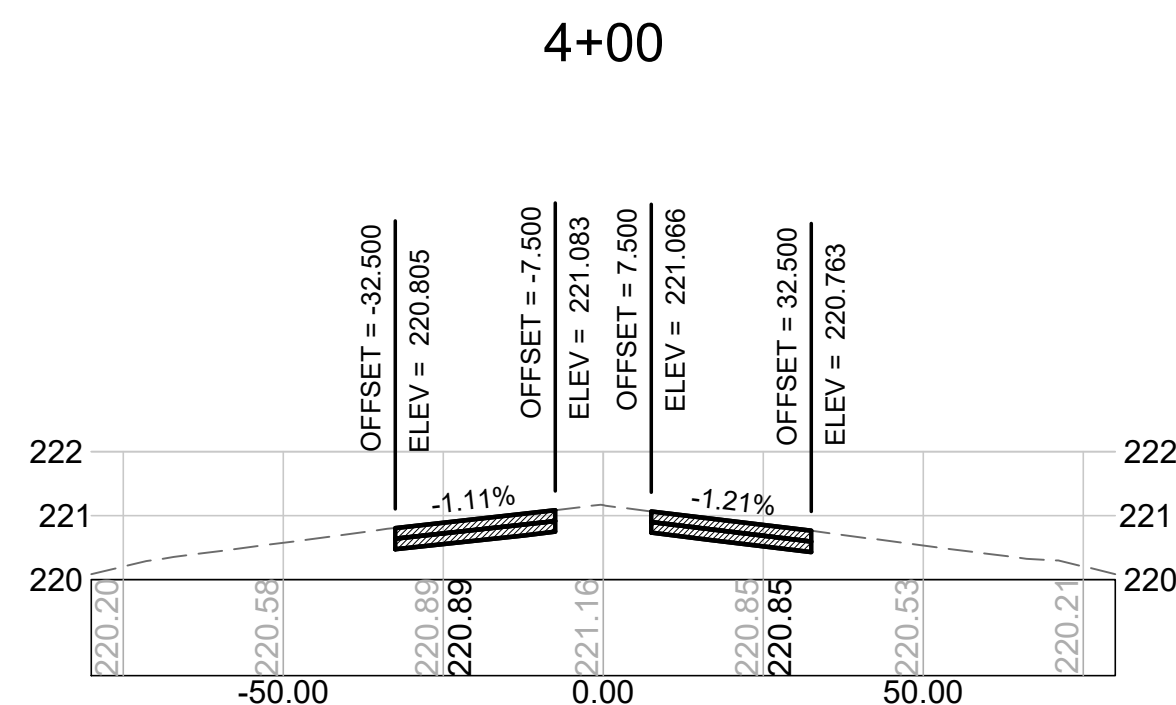
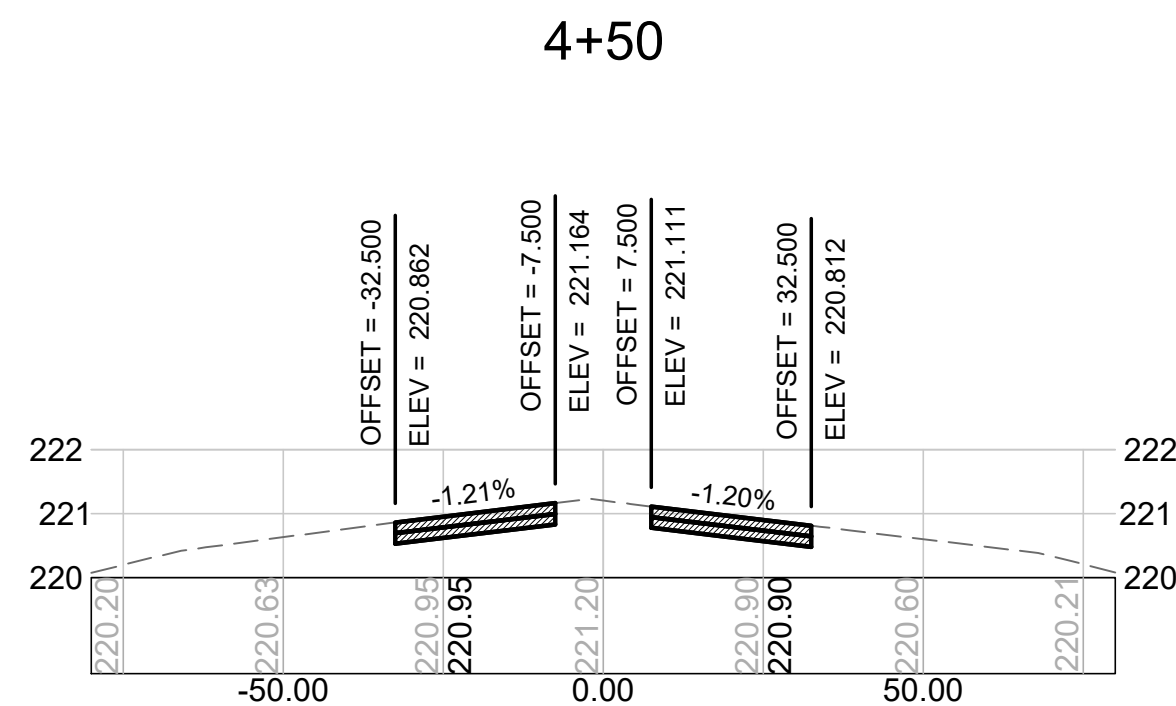
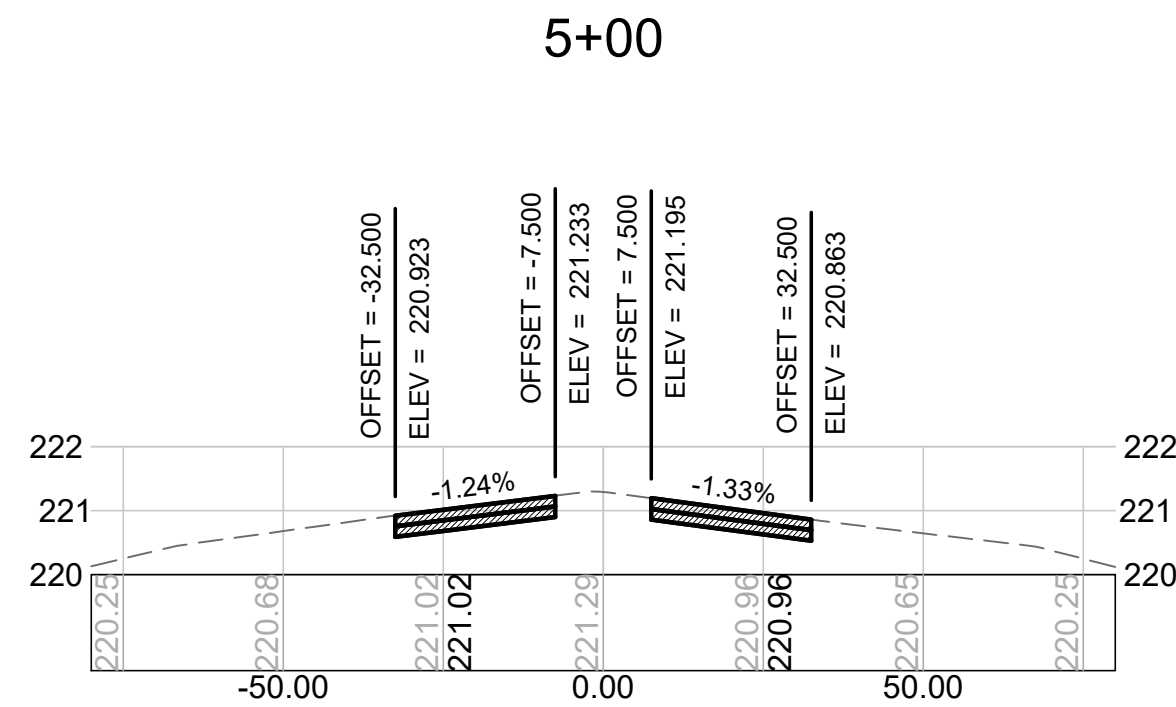
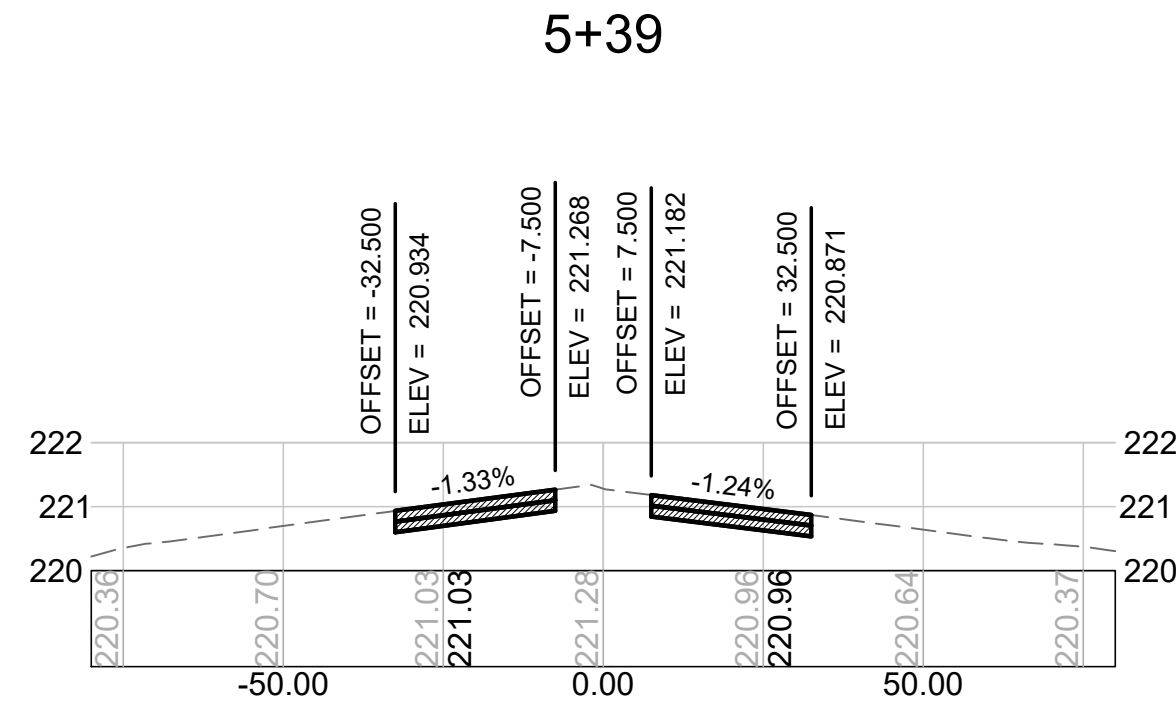
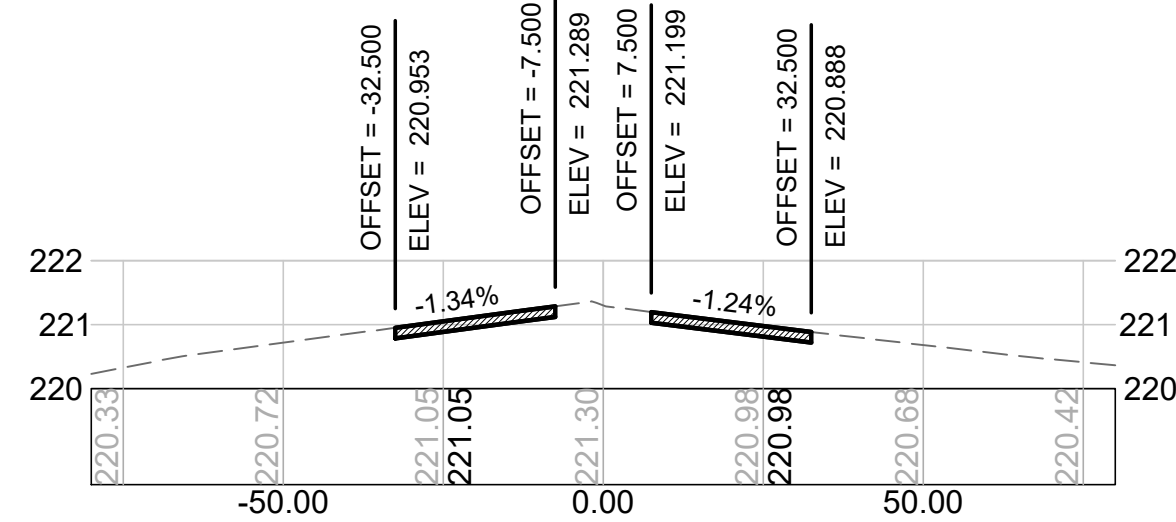
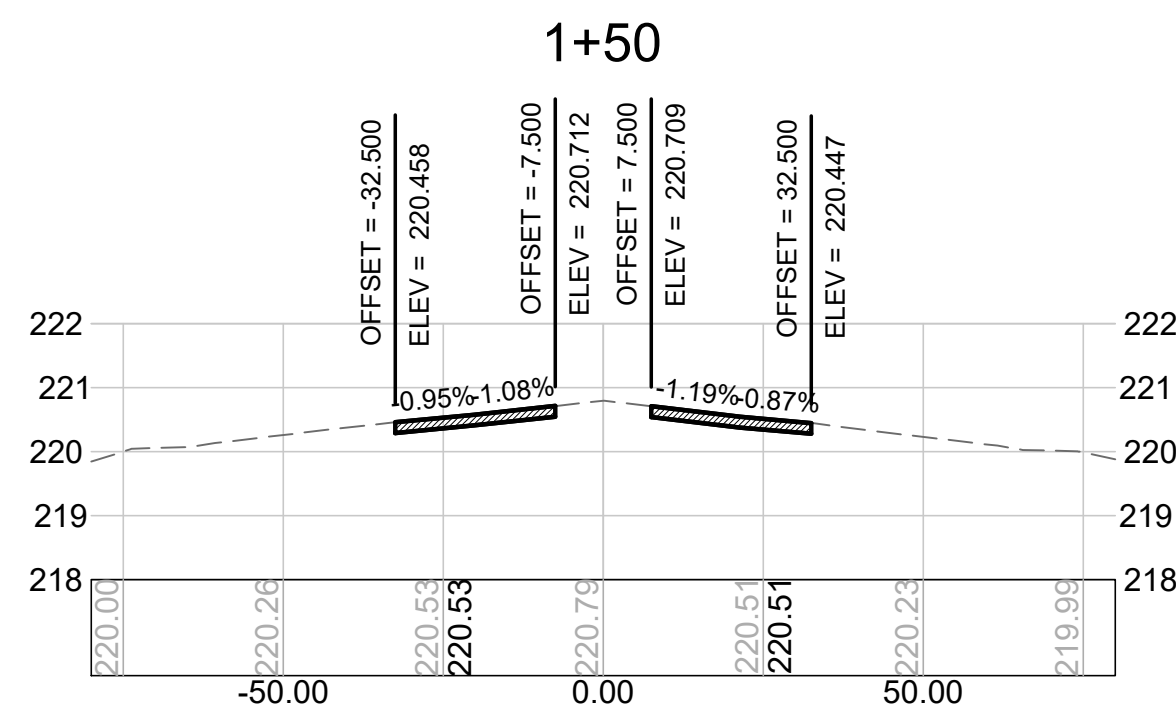
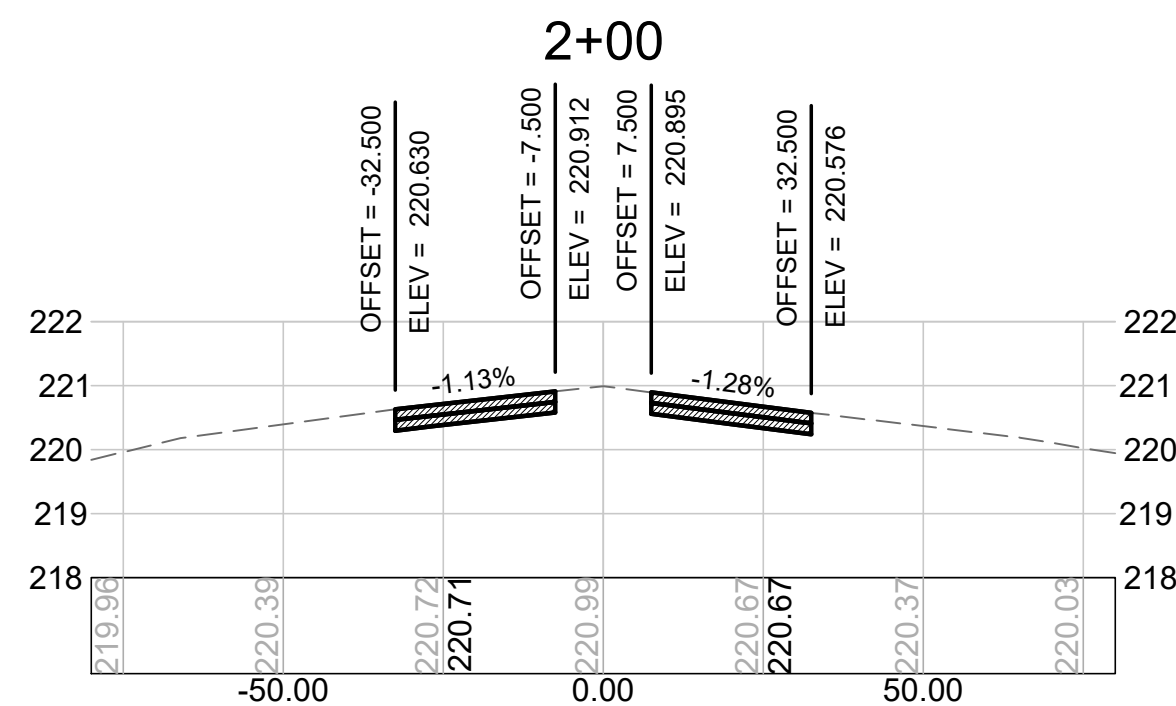
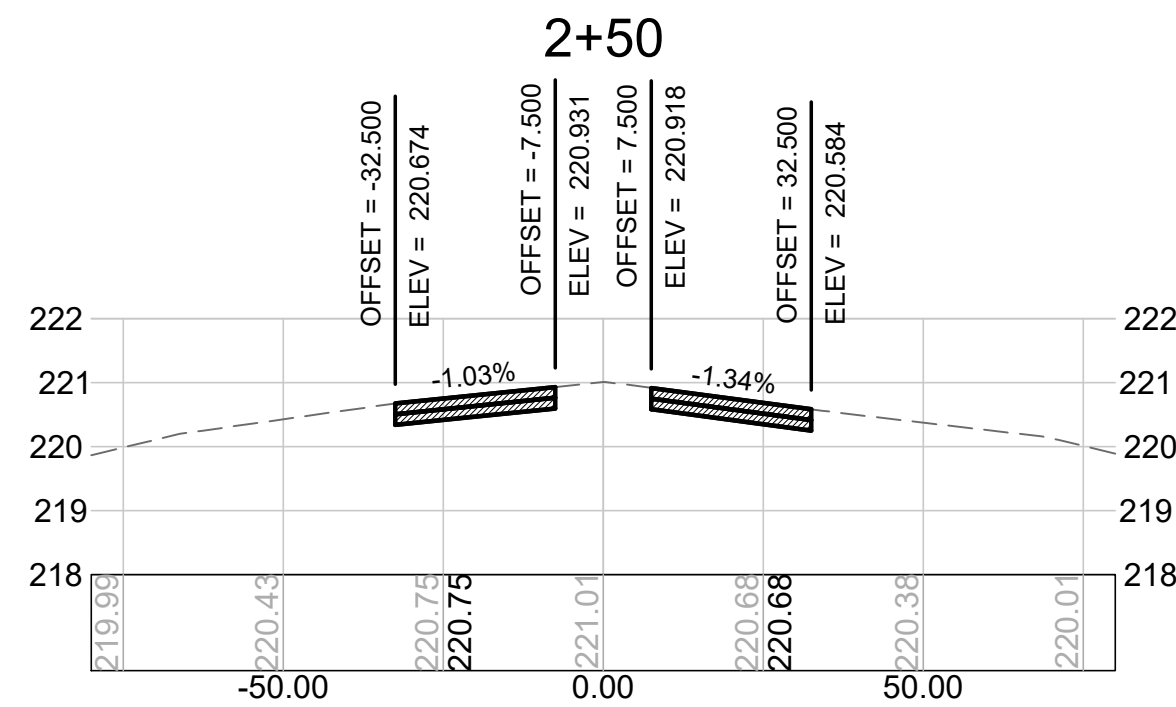
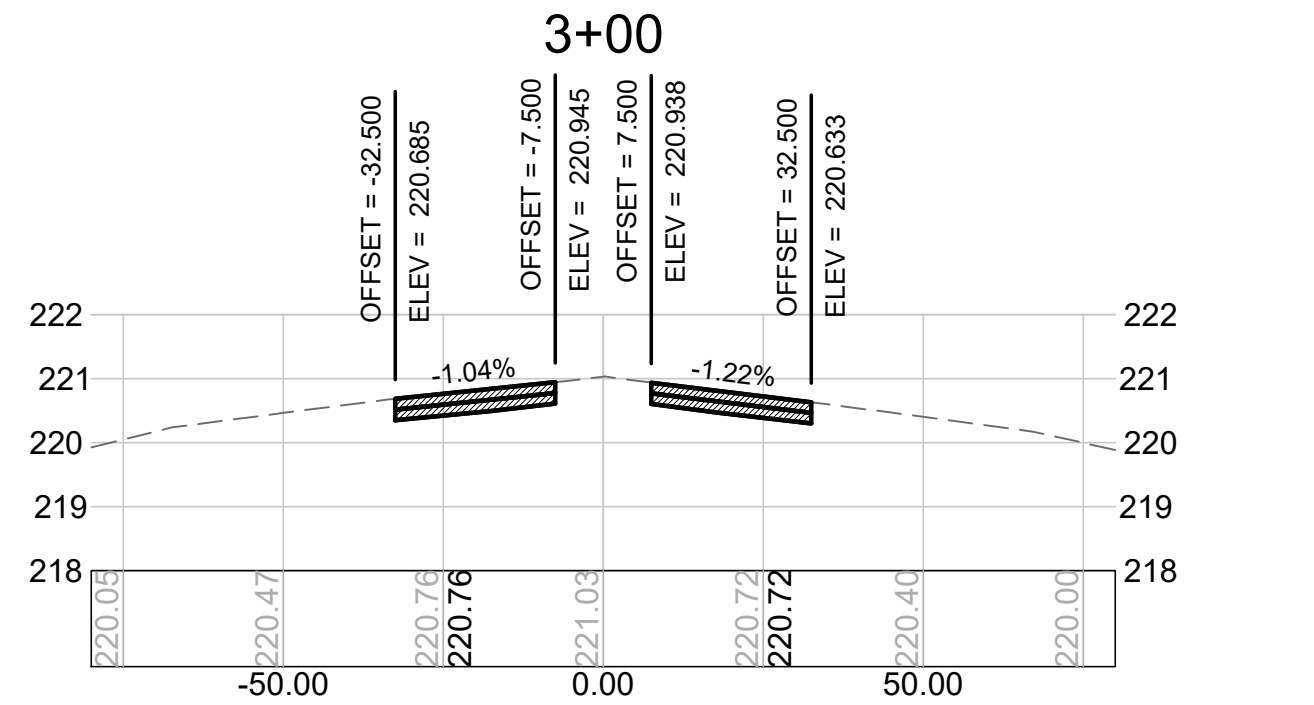
PROFILES – RUNWAY 24, TAXIWAY K,
AND TAXIWAY H AND J CENTERLINES

REV	NO.	DATE	DESCRIPTION	BY
1	1	12/21/22	ADDENDUM #4	LMO

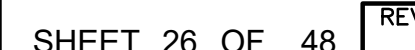
PROJ. NO.: 3-33-0011-TBD-2023
JE FILE: E2X89212

DRAWING NO.
C-305
SHEET 25 OF 48

NOT FOR CONSTRUCTION

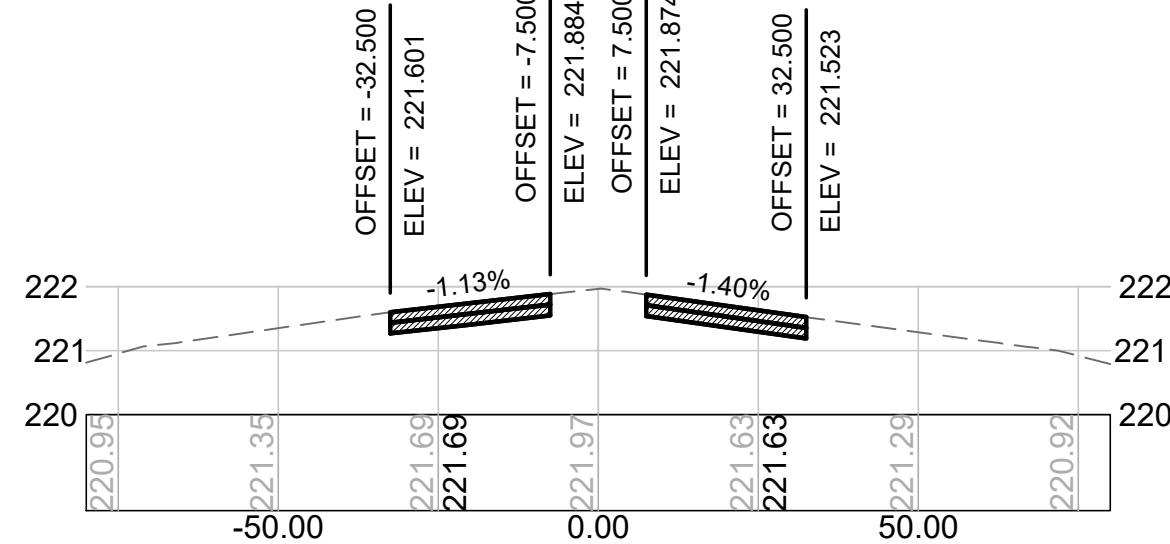
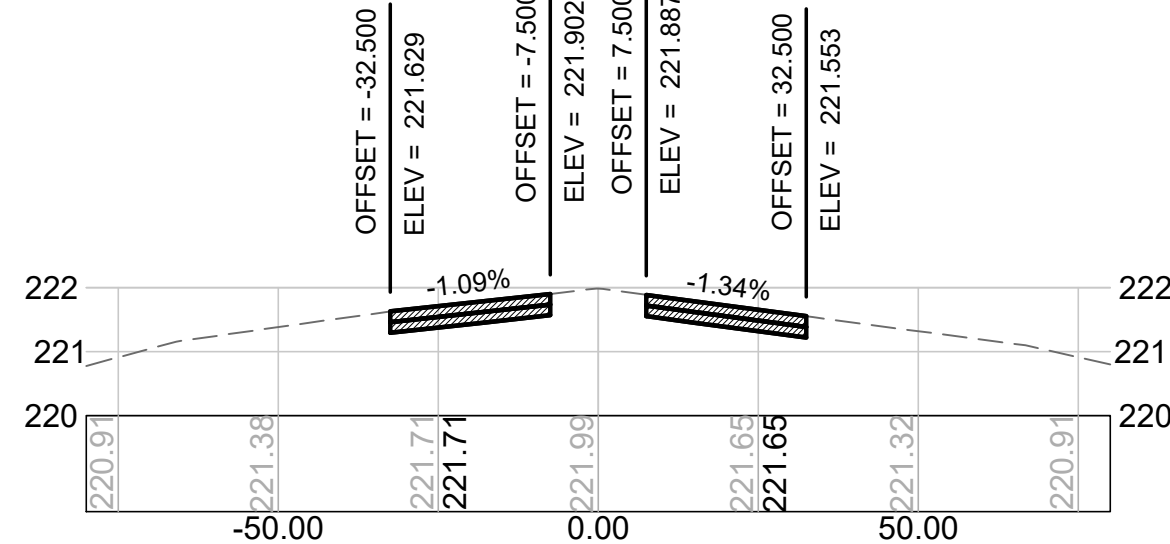
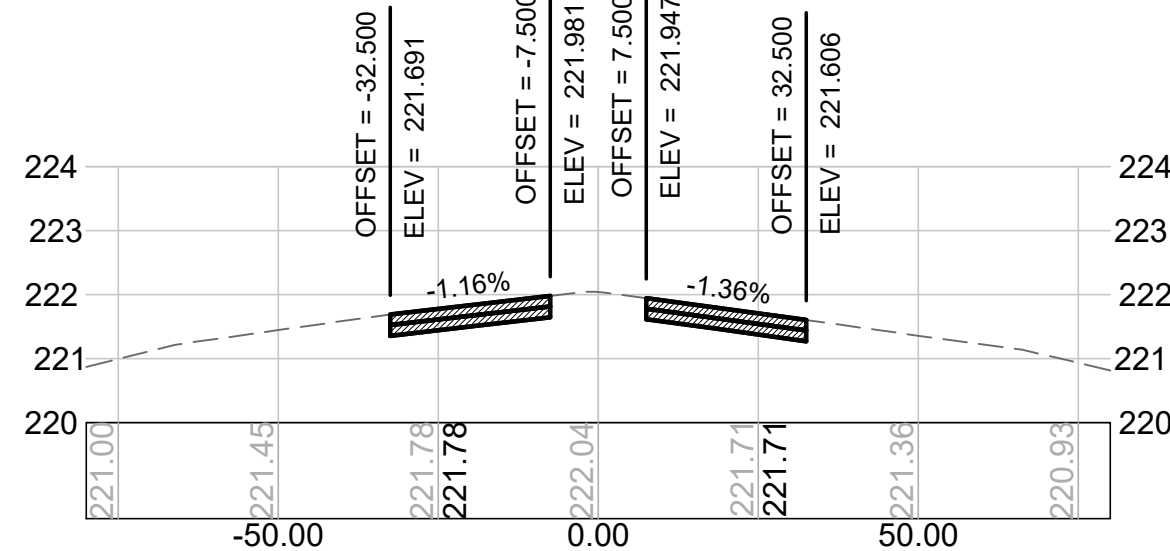
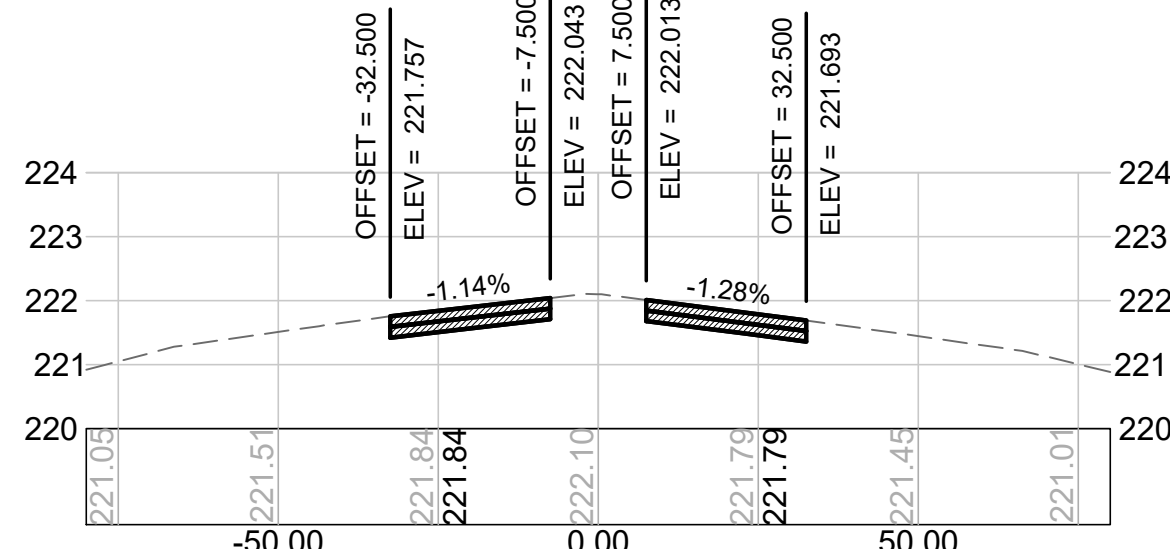
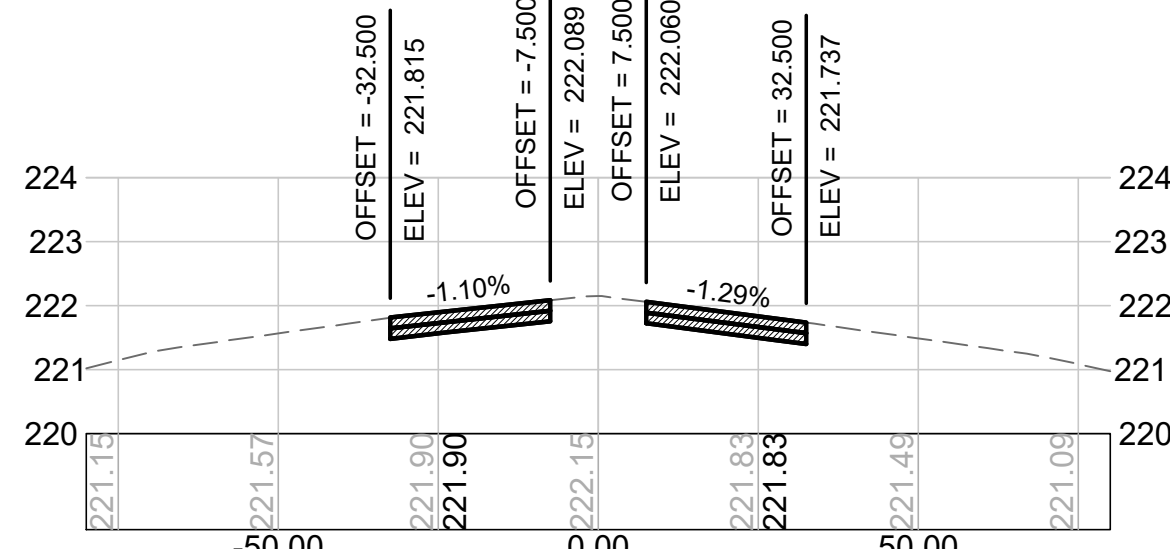
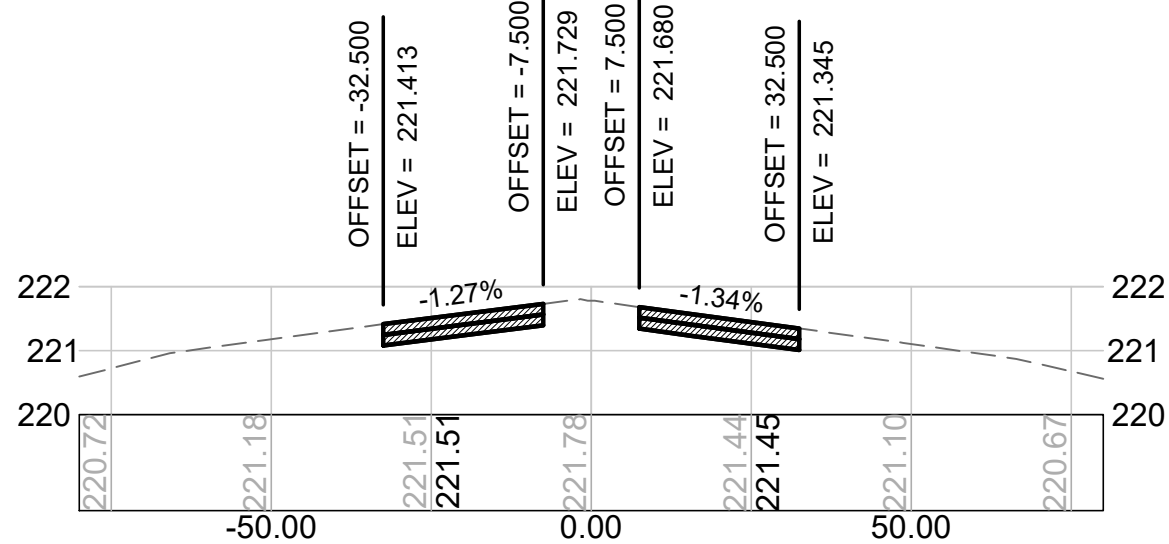
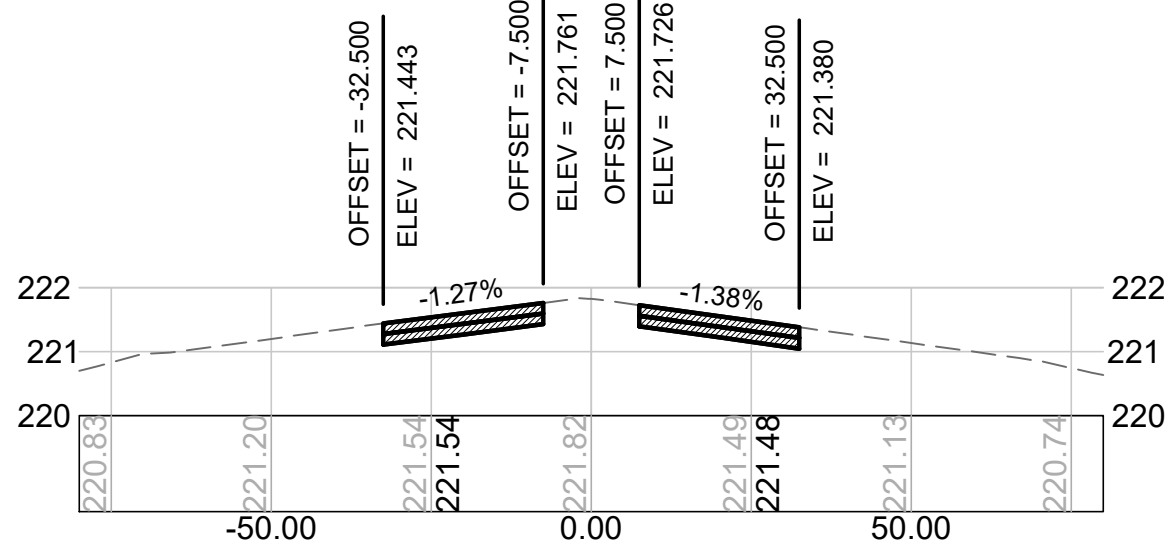
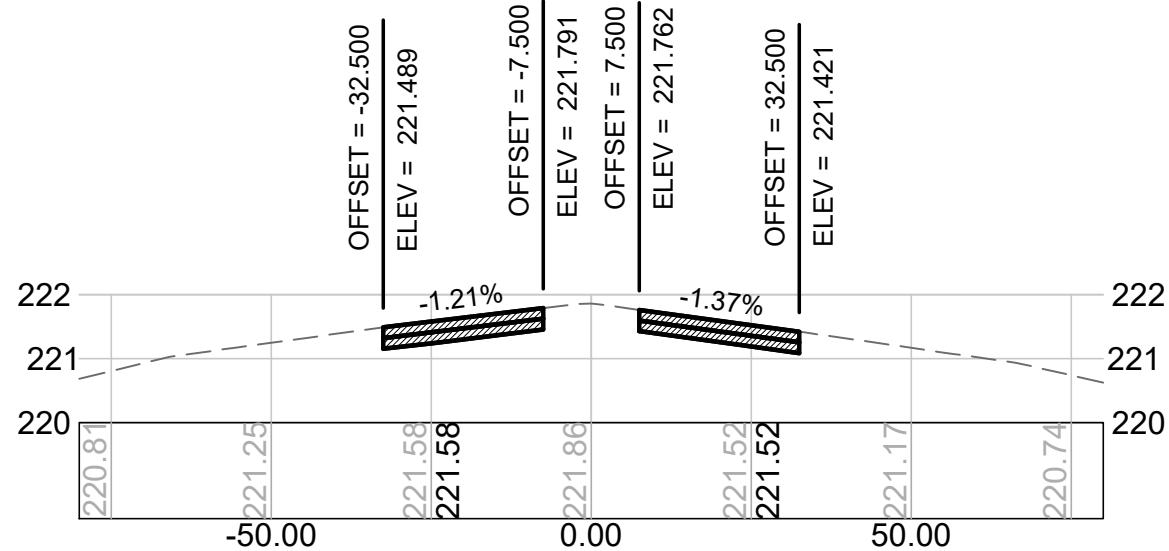
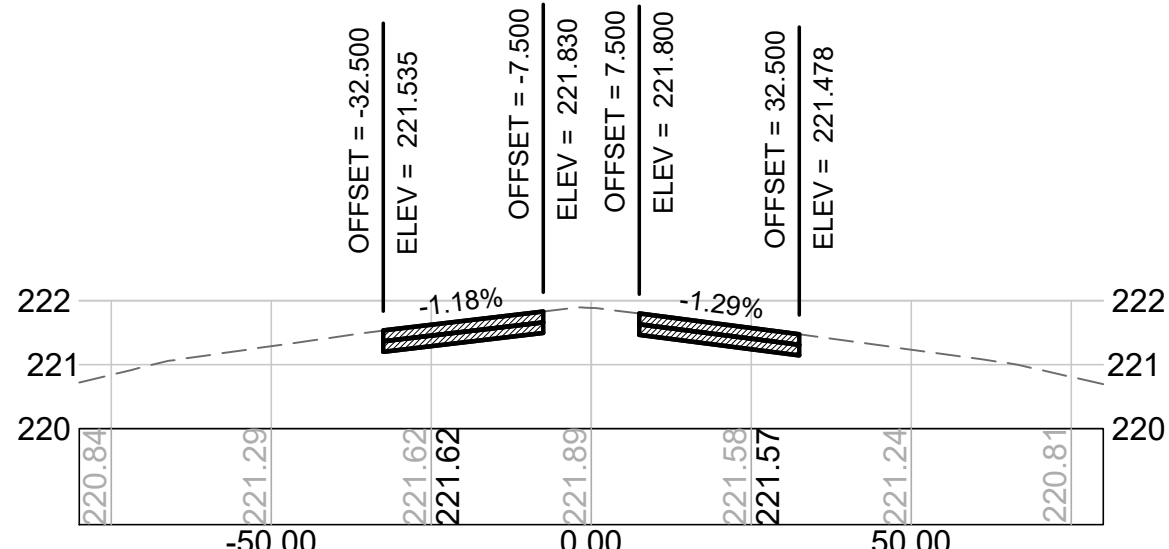
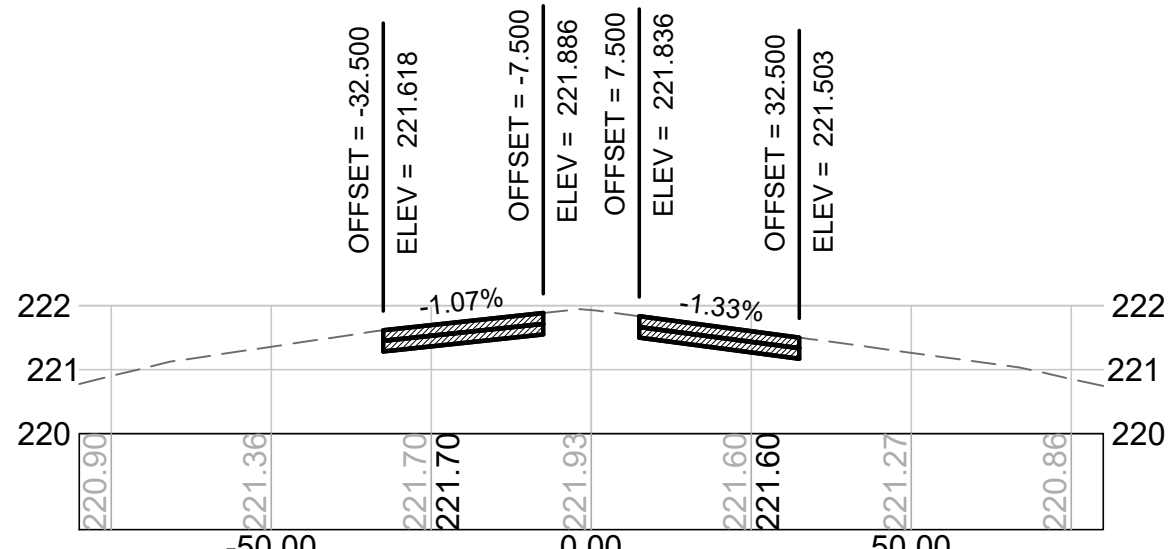
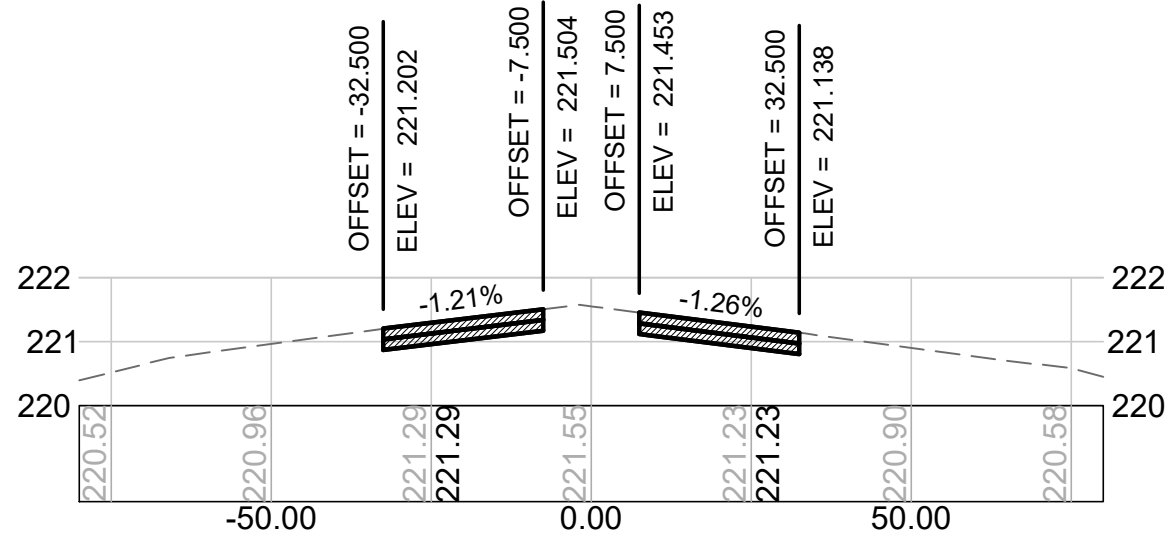
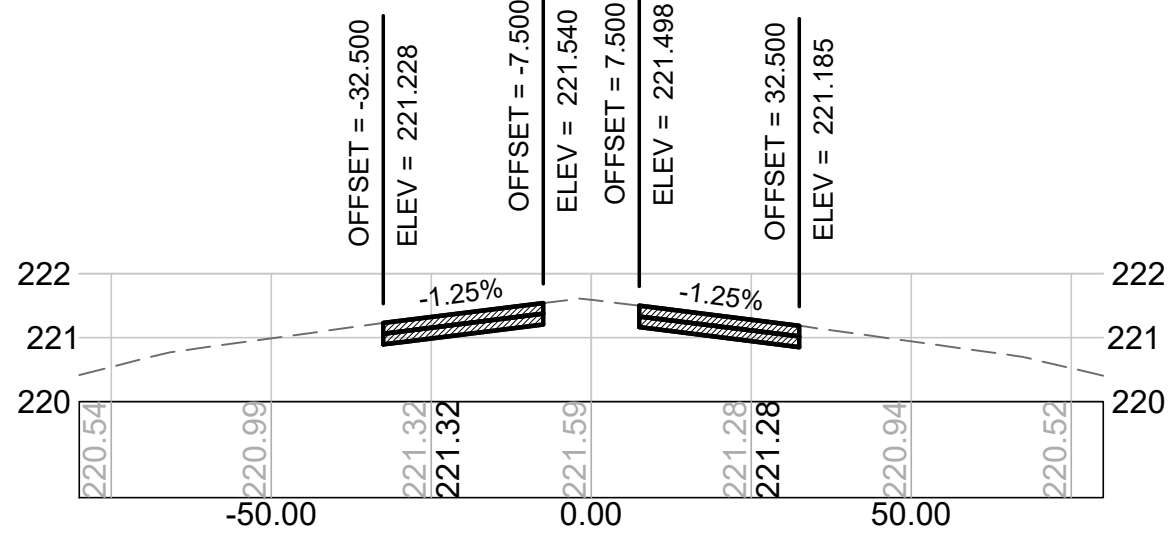
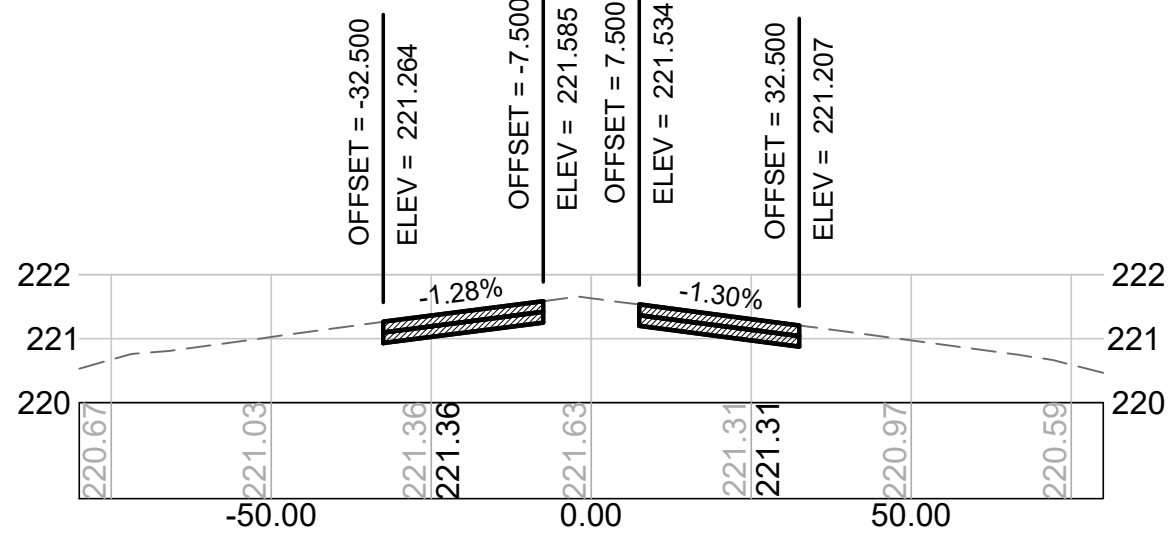
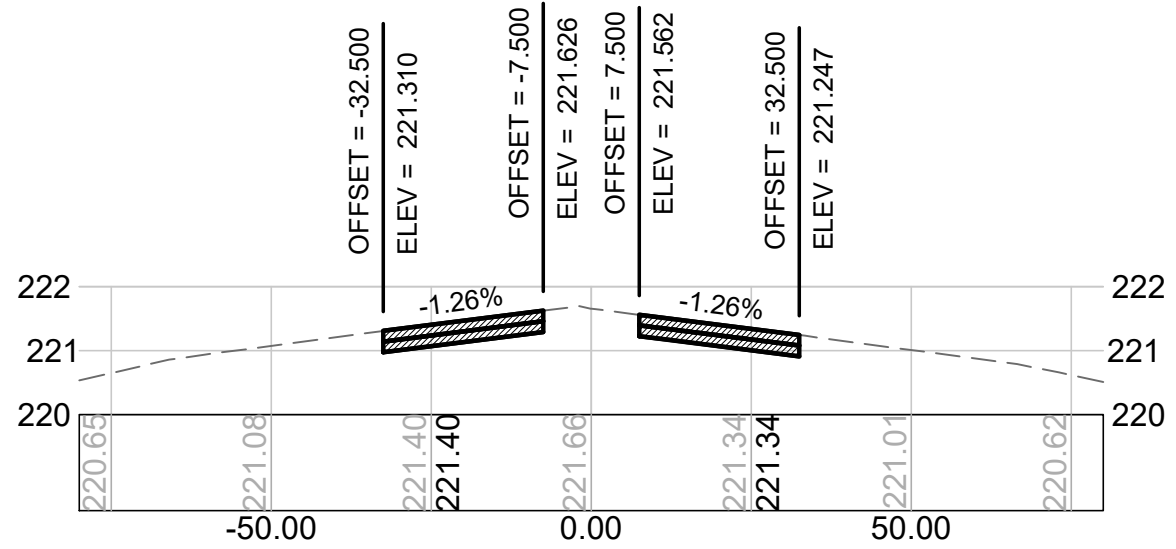
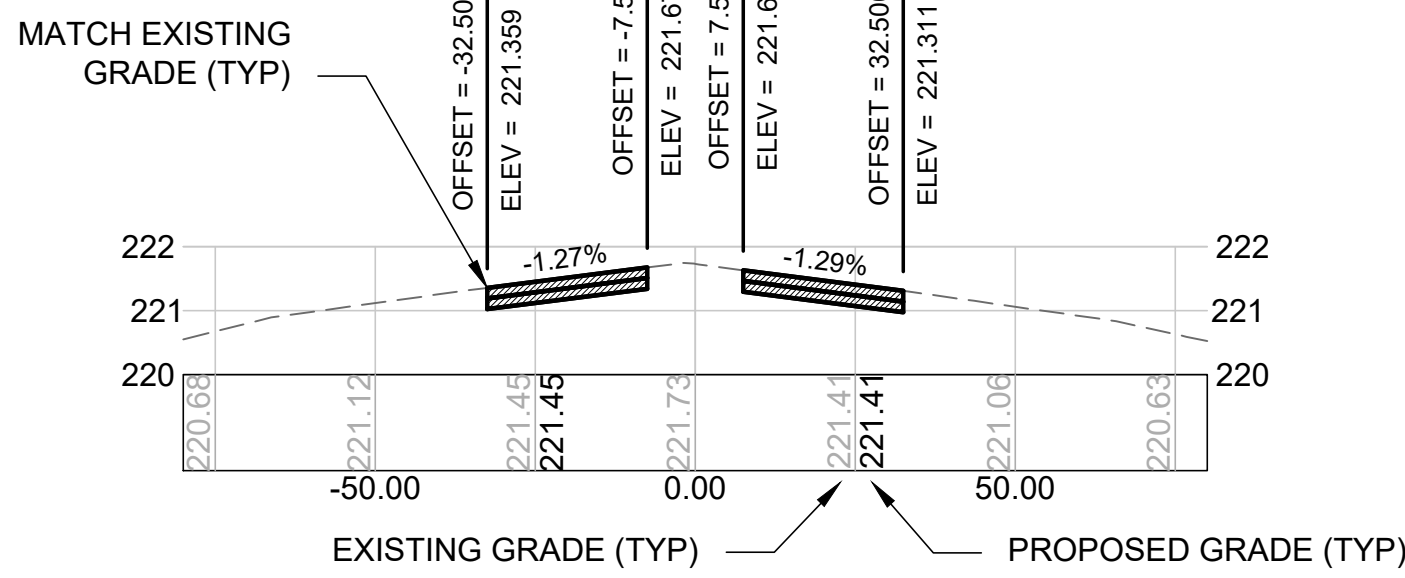


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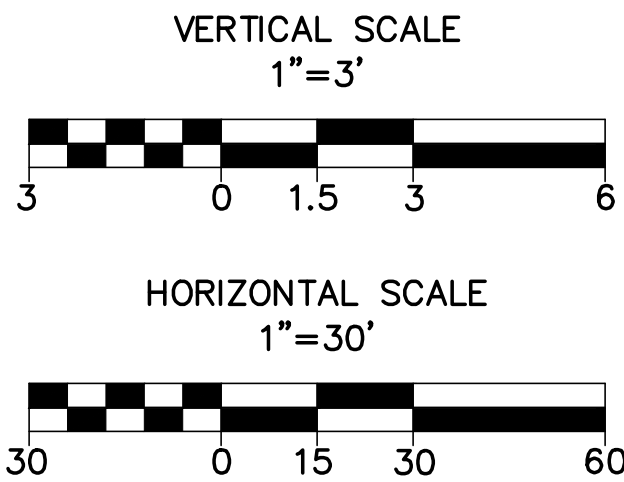
NOT FOR CONSTRUCTION

Jacobs - \\mht01\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-307] December 21, 2022 - 6:08am [econom]



GRADING NOTES:

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MANCHESTER • BOSTON
REGIONAL AIRPORT

PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24;
TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY
1	12/21/22	ADDENDUM #4	LMO

PROJECT DESIGNER:

1"=60'

DATE: NOVEMBER 2022

DESIGNED BY: LMO

DRAWN BY: LMO

CHECKED BY: JAM

APPROVED: JWG

CROSS SECTIONS – RUNWAY 6 –
SHEET 2 OF 6

PROJ. NO.: 3-33-0011-TBD-2023

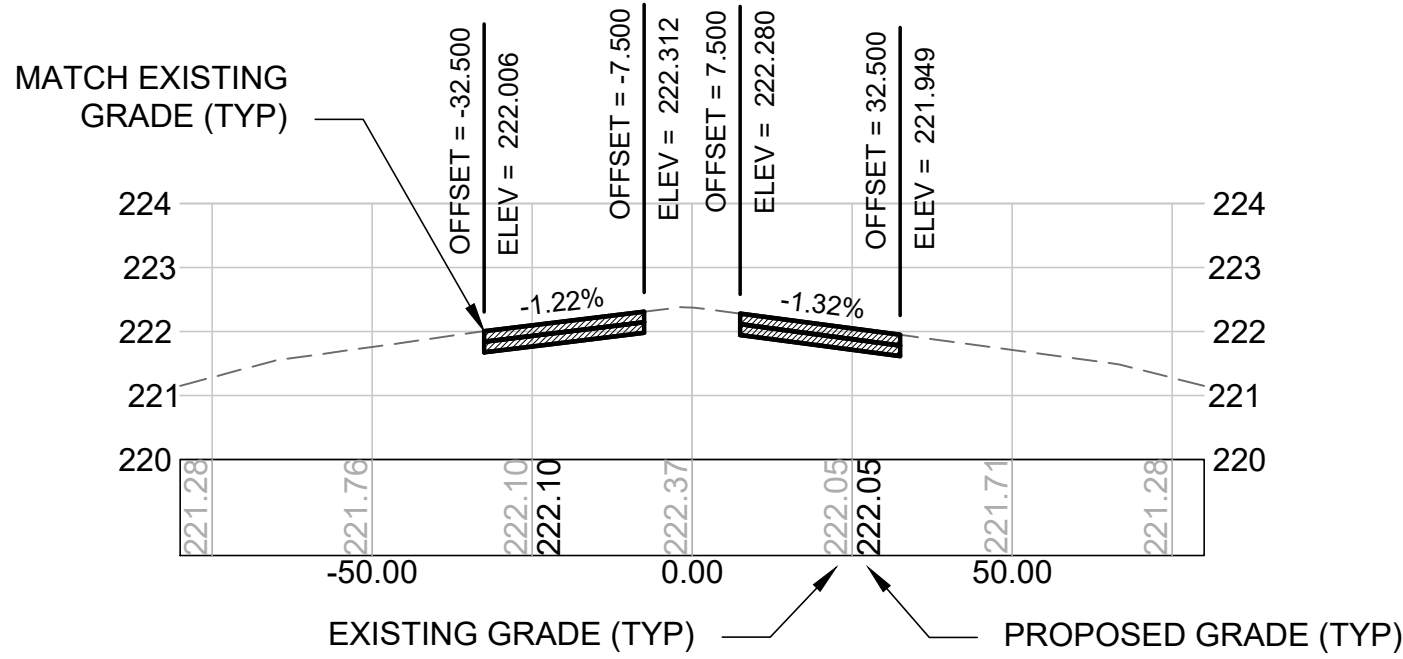
JE FILE: E2X89212

DRAWING NO.
C-307

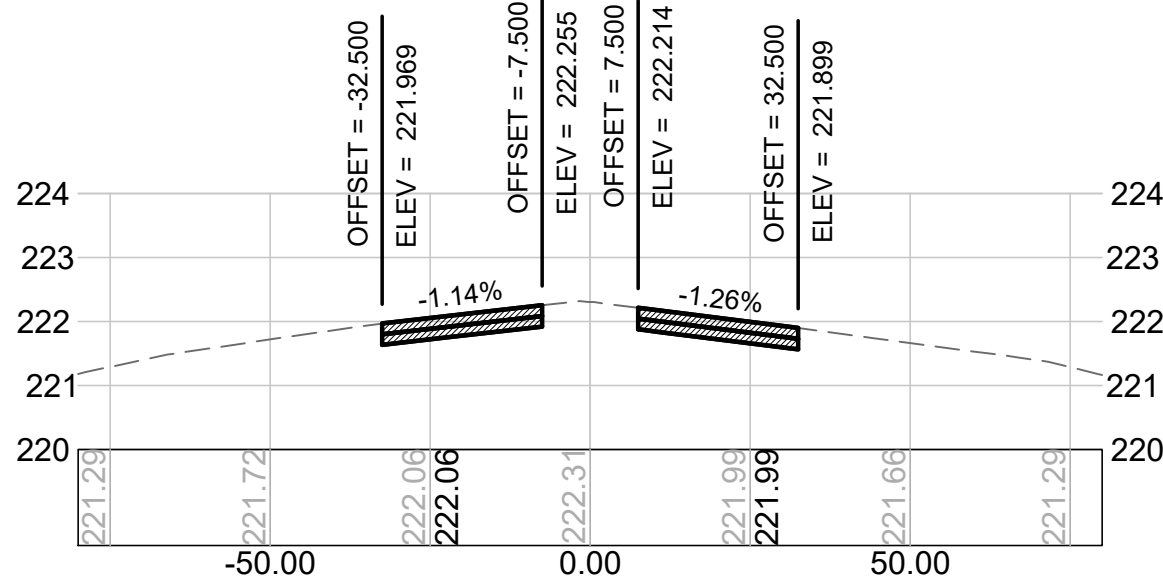
SHEET 27 OF 48

NOT FOR CONSTRUCTION

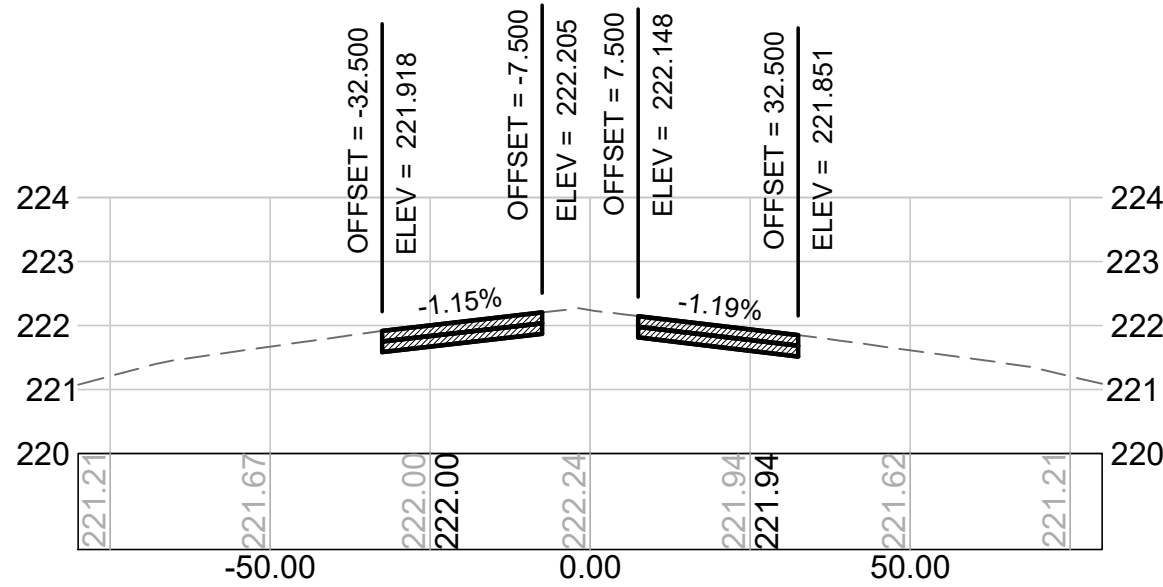
Jacobs - \\nhill01\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-308] December 21, 2022 - 6:07am [ccoonoim]



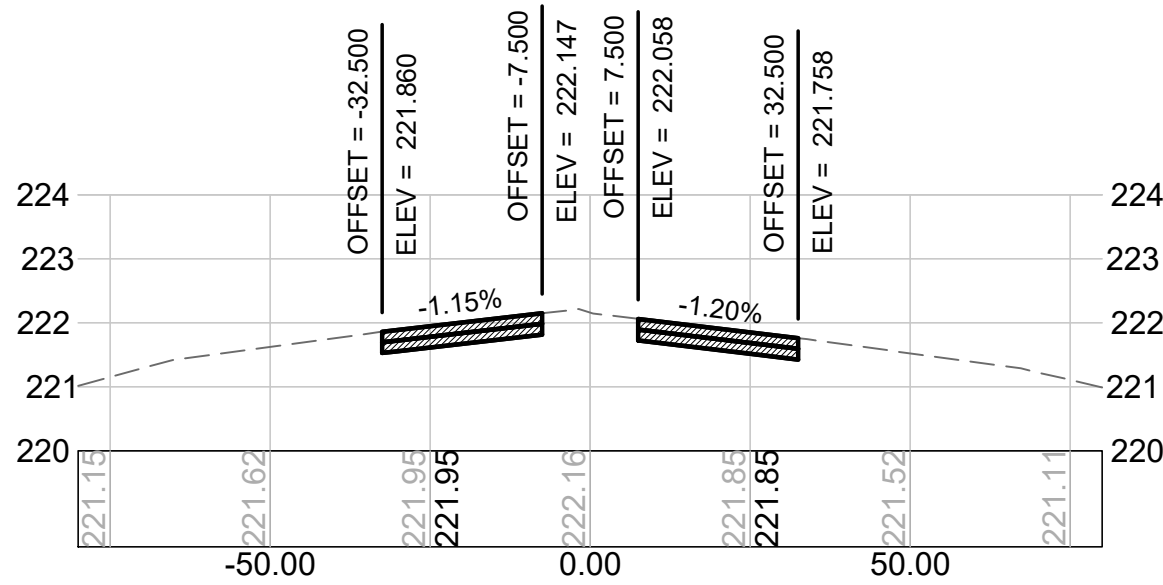
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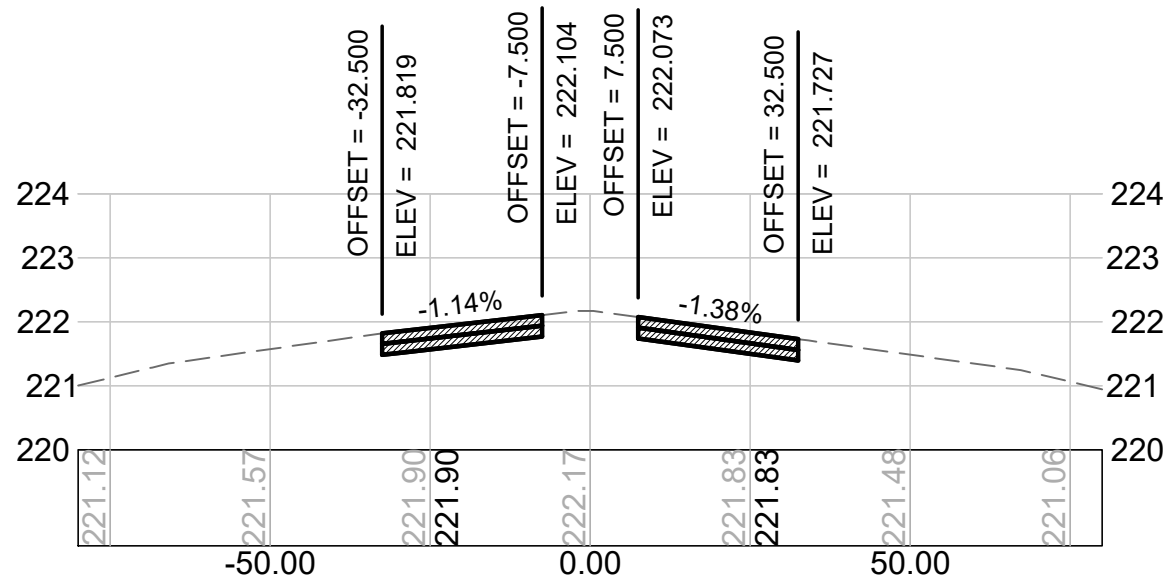
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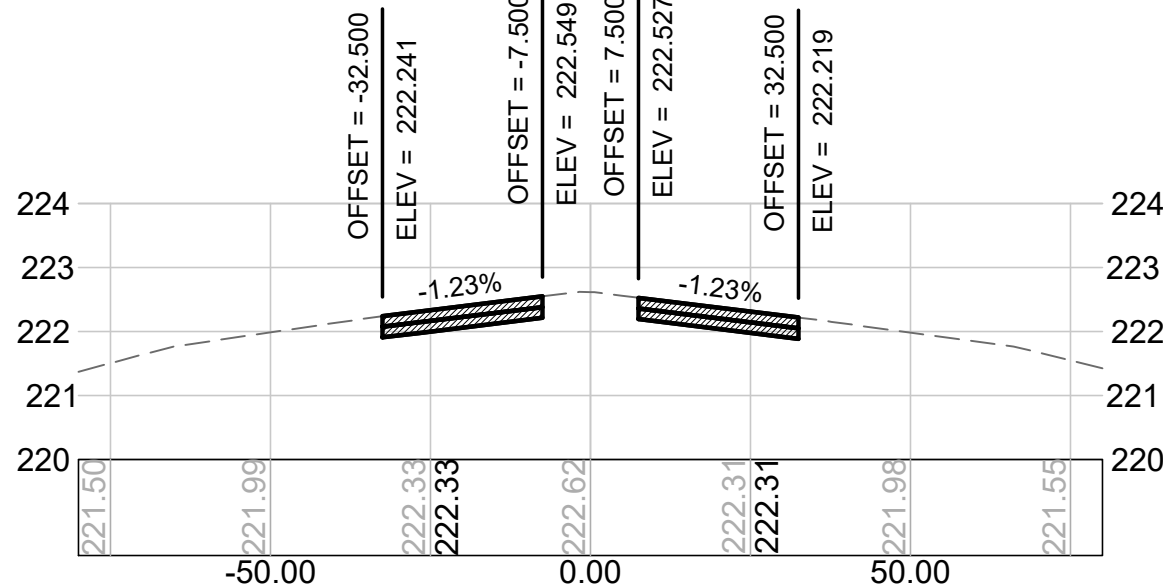
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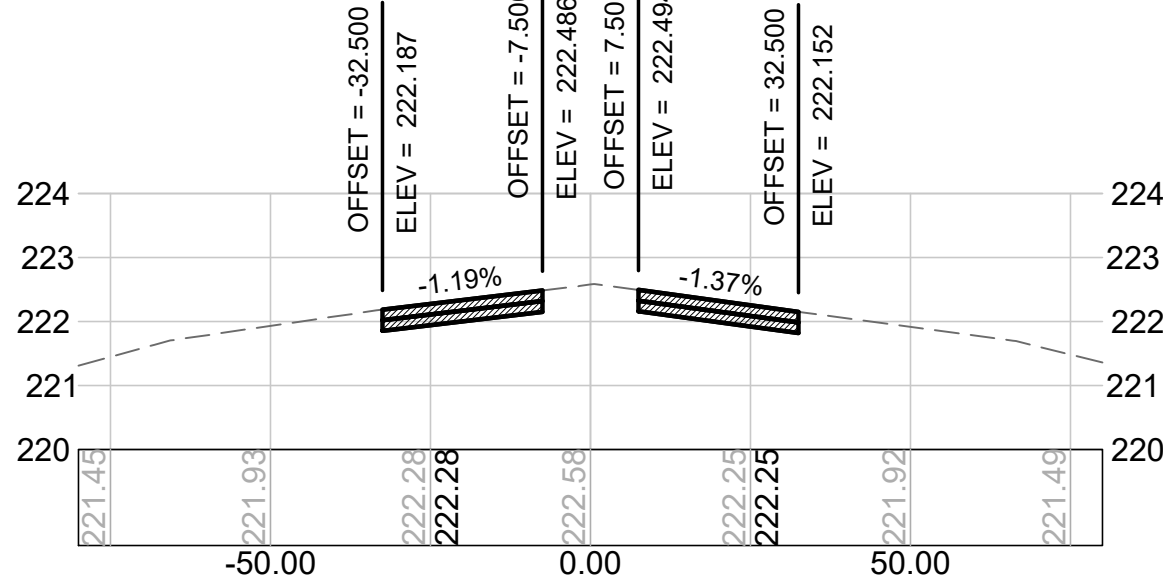
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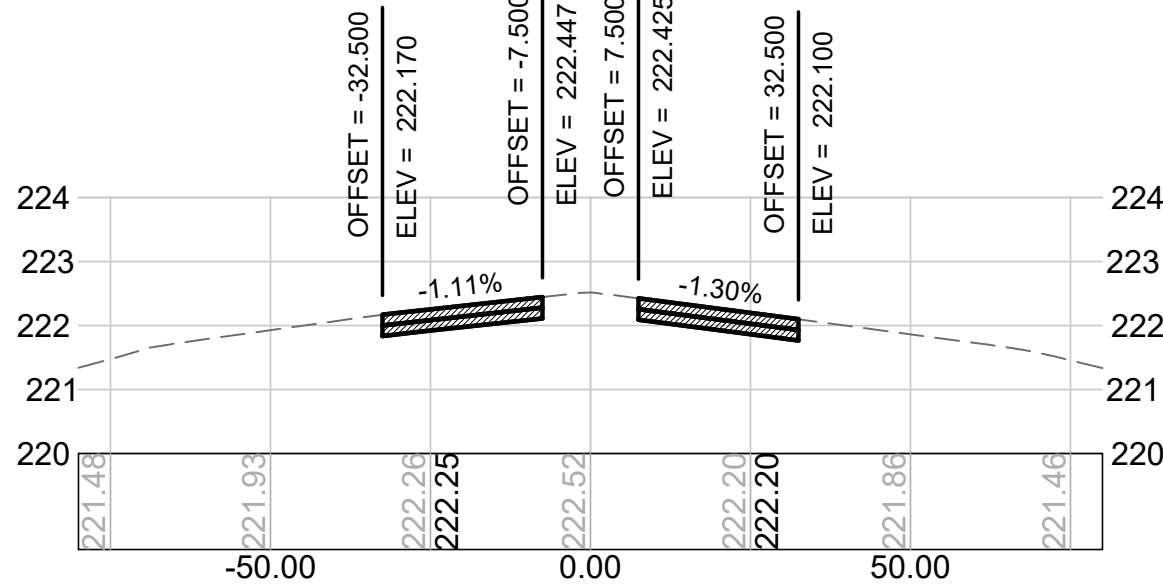
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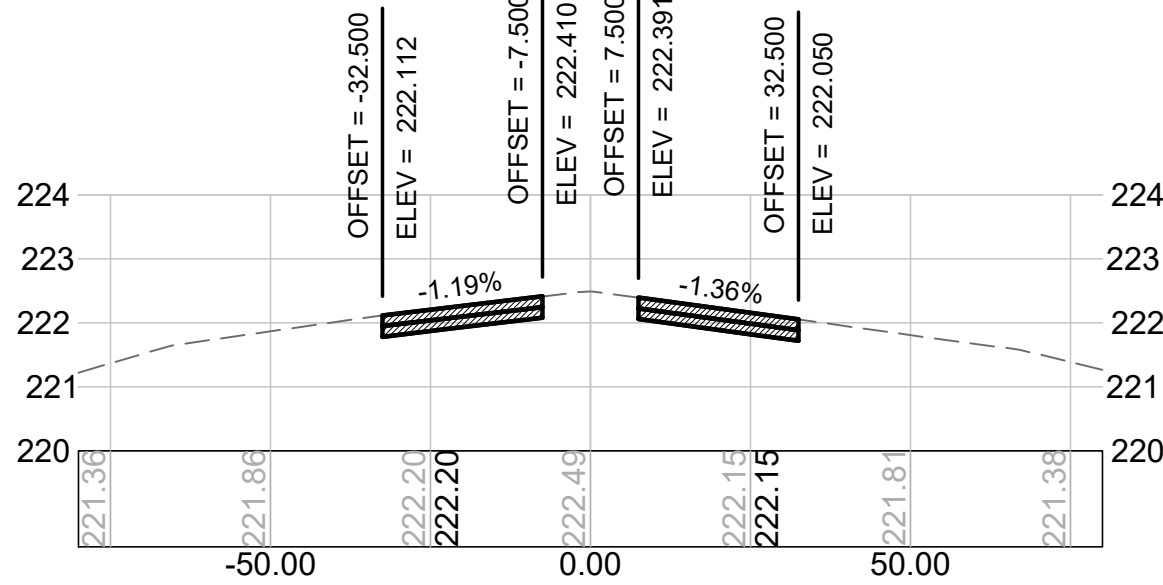
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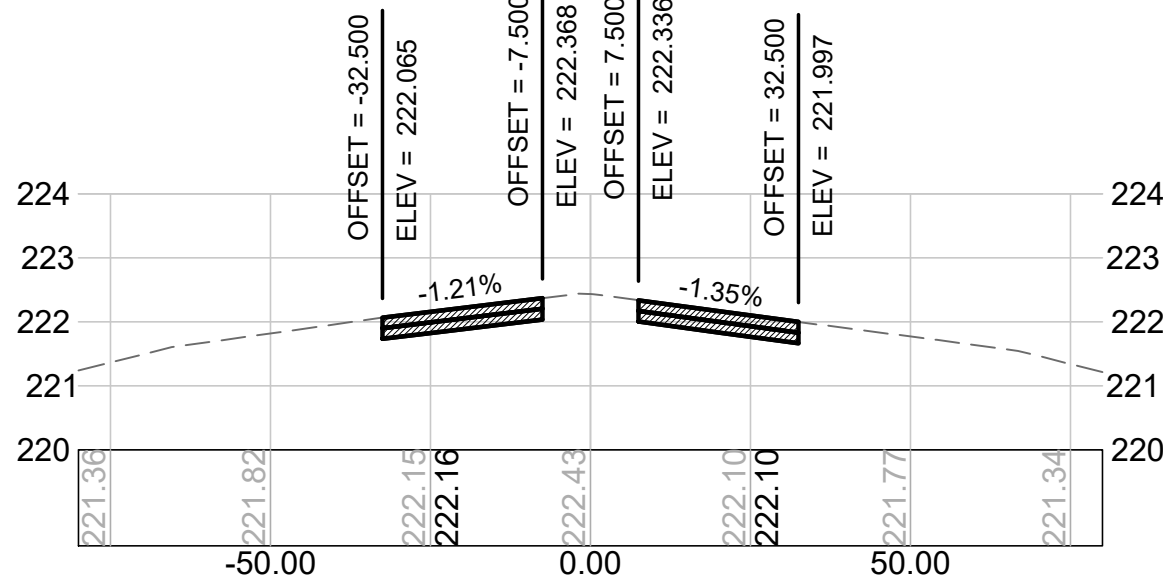
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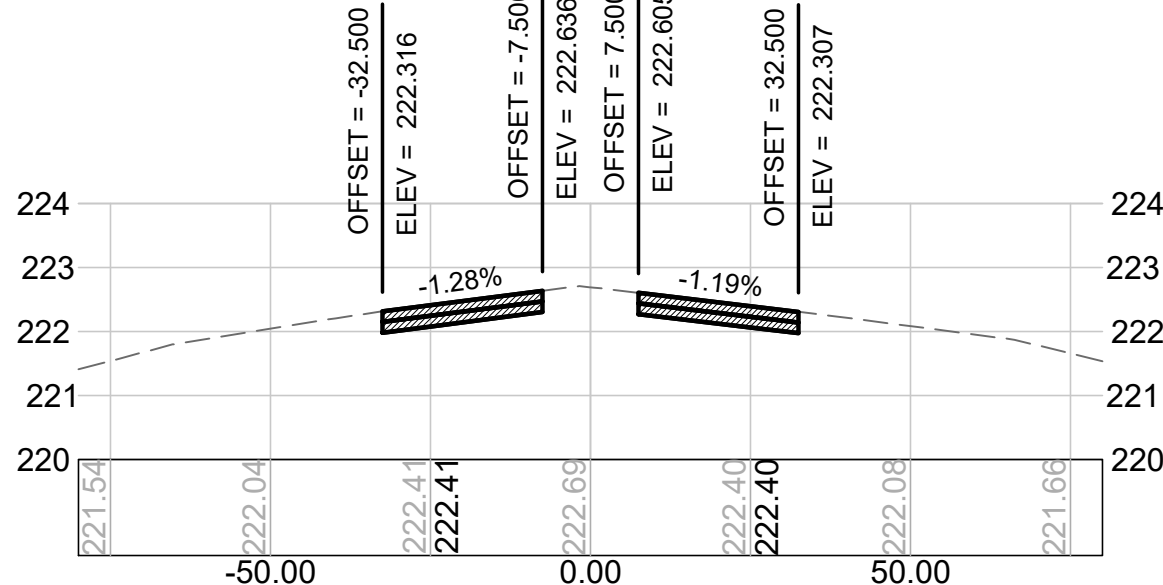
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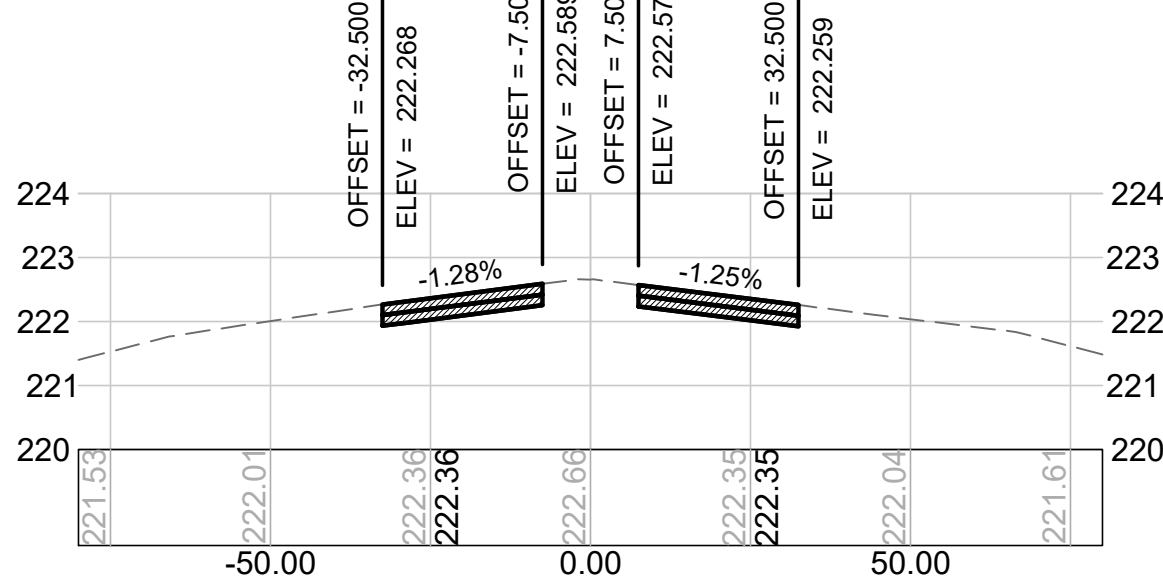
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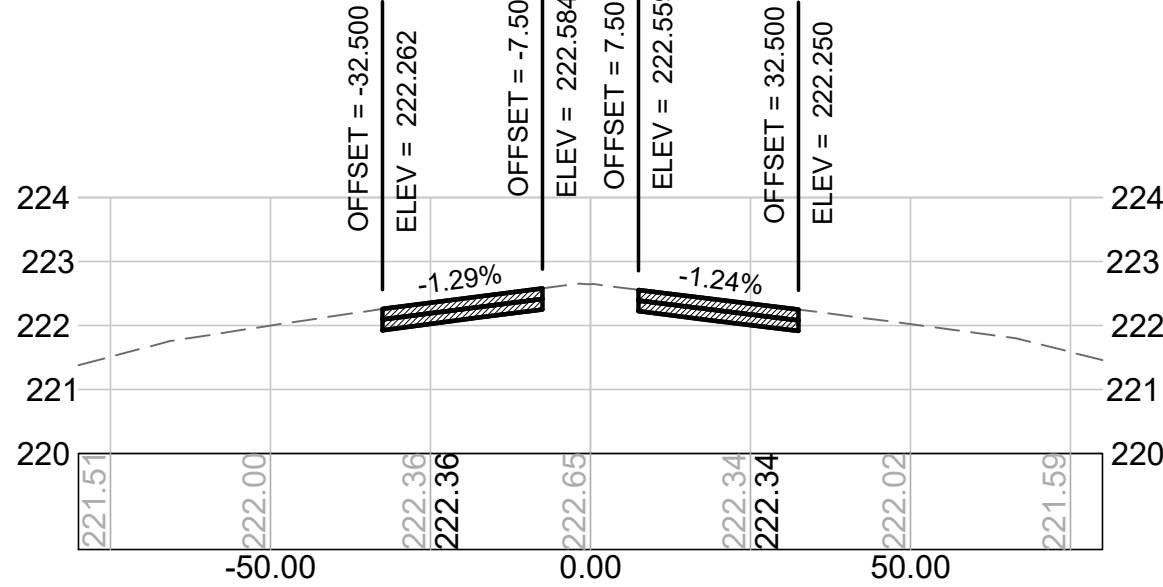
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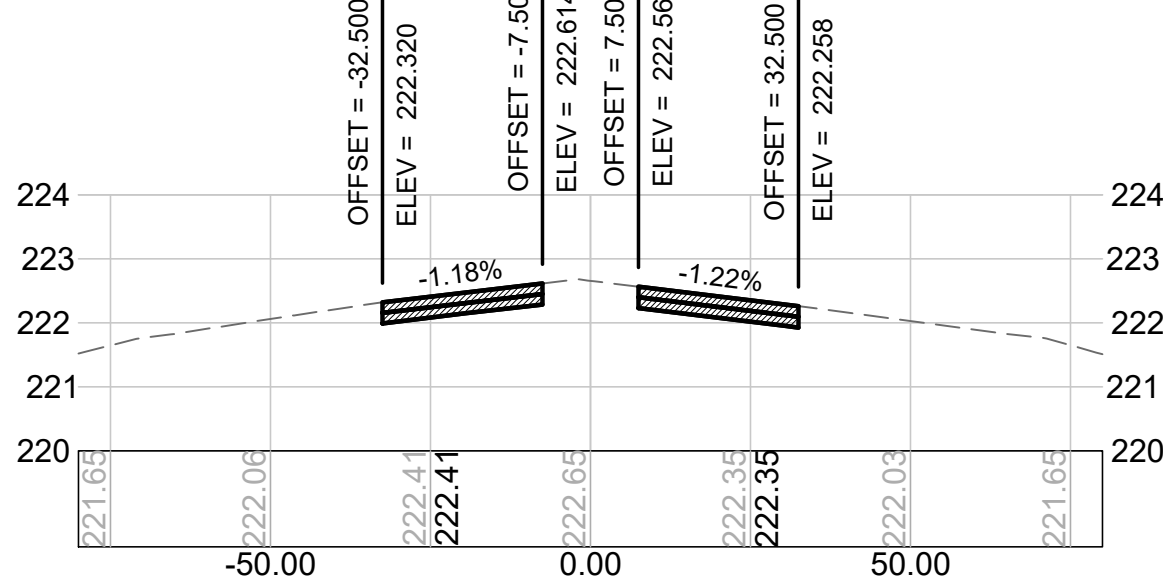
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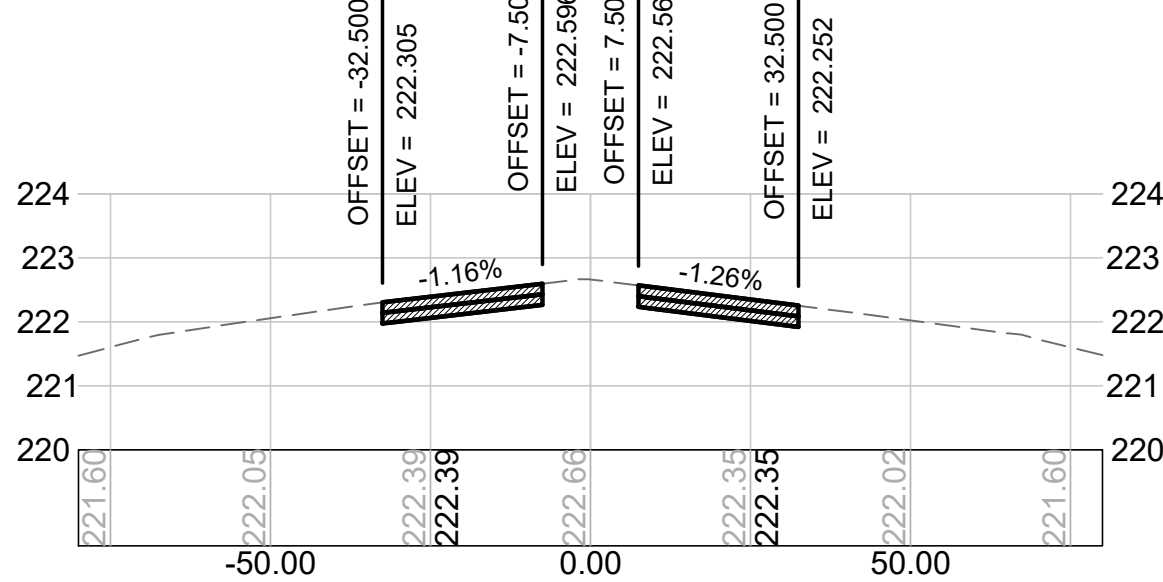
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21+50



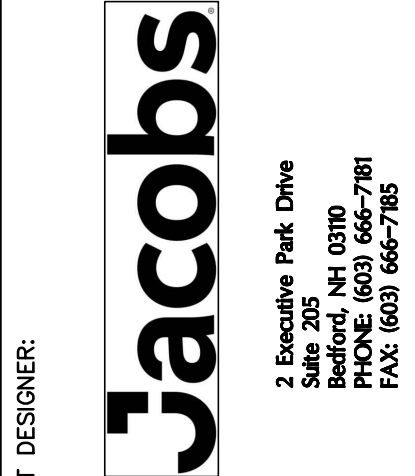
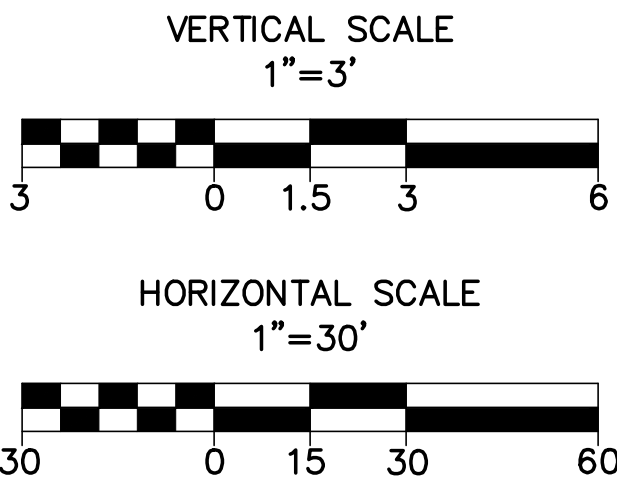
21+00



20+50

GRADING NOTES:

1. THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES. THE PROPOSED PROFILES/SECTIONS REPRESENT THE BEST-FIT GEOMETRY WITHIN THE EXISTING GRADES. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



PROJECT DESIGNER:

SCALE:	1"=60'
DATE:	NOVEMBER 2022
DESIGNED BY:	LMO
DRAWN BY:	LMO
CHECKED BY:	JAM
APPROVED:	JWG



PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24; TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

CROSS SECTIONS – RUNWAY 6 – SHEET 3 OF 6

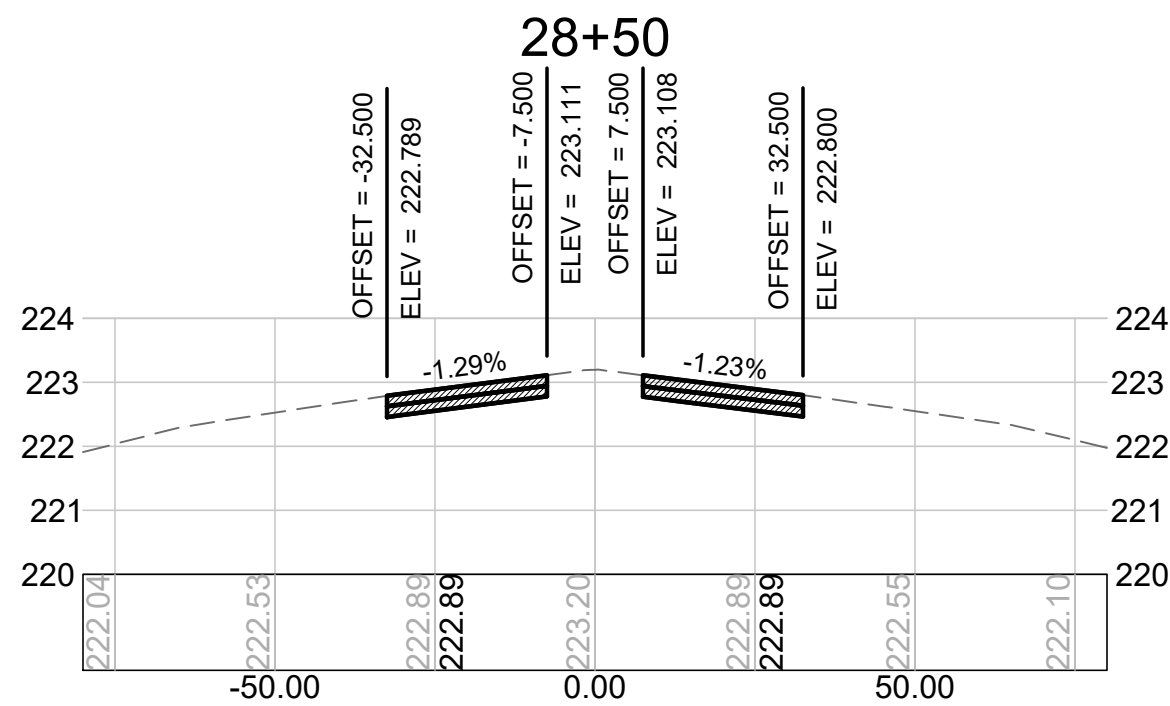
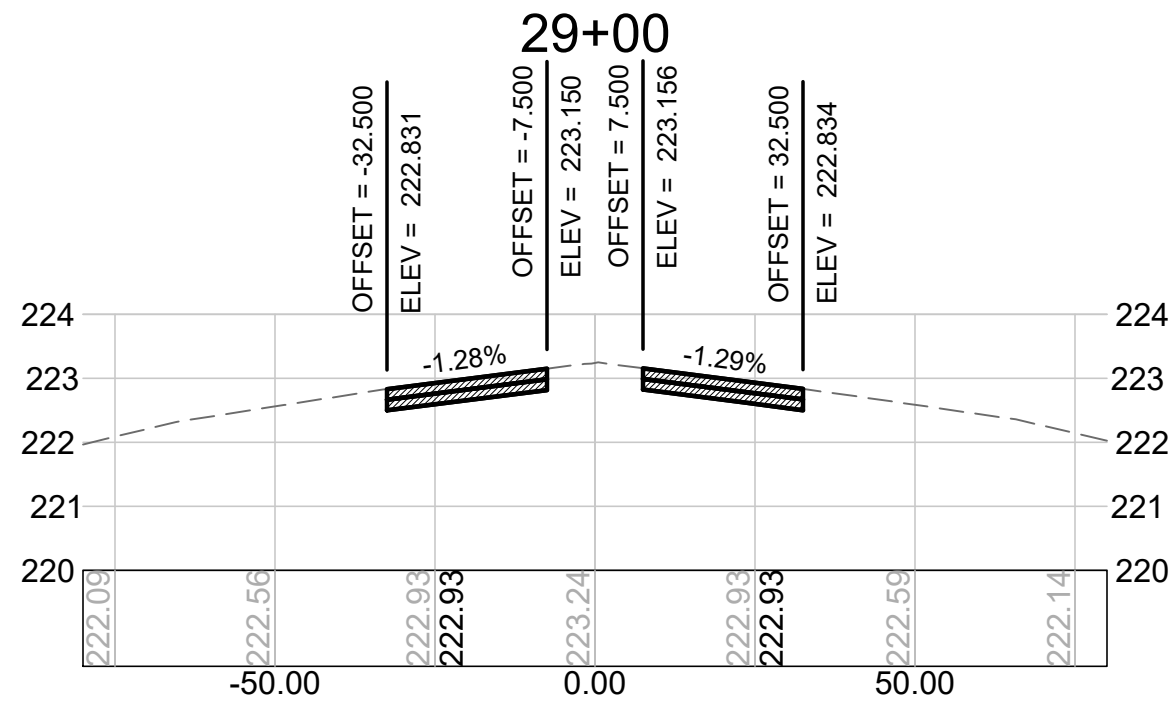
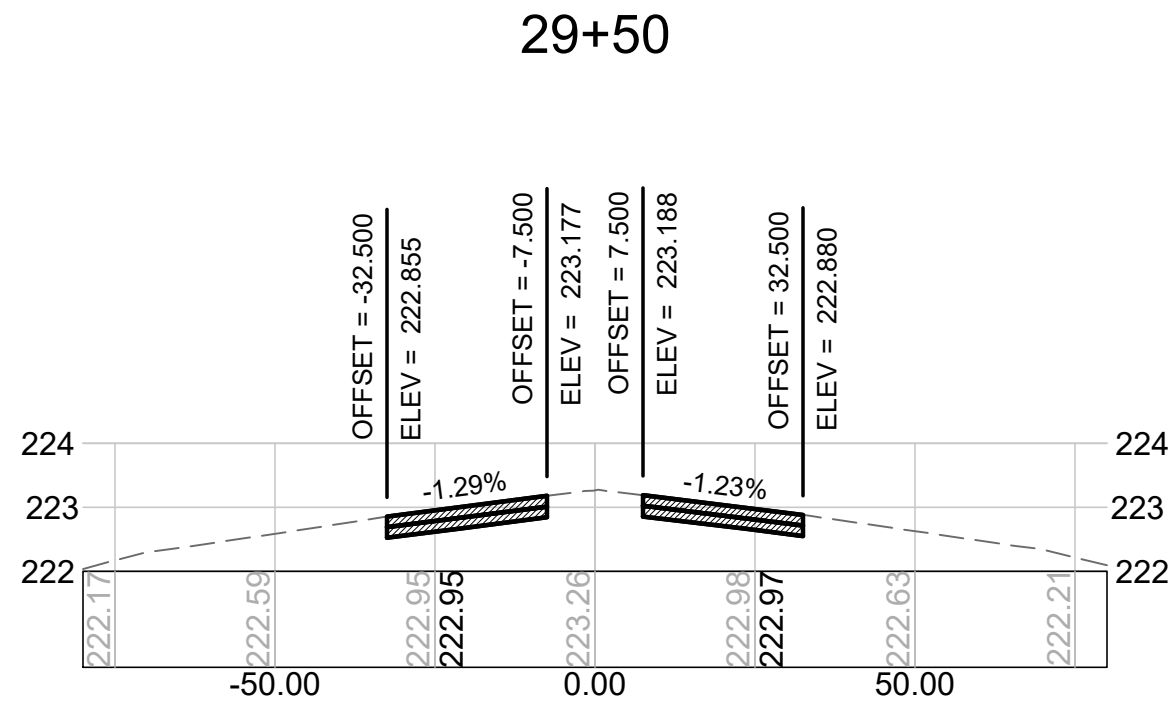
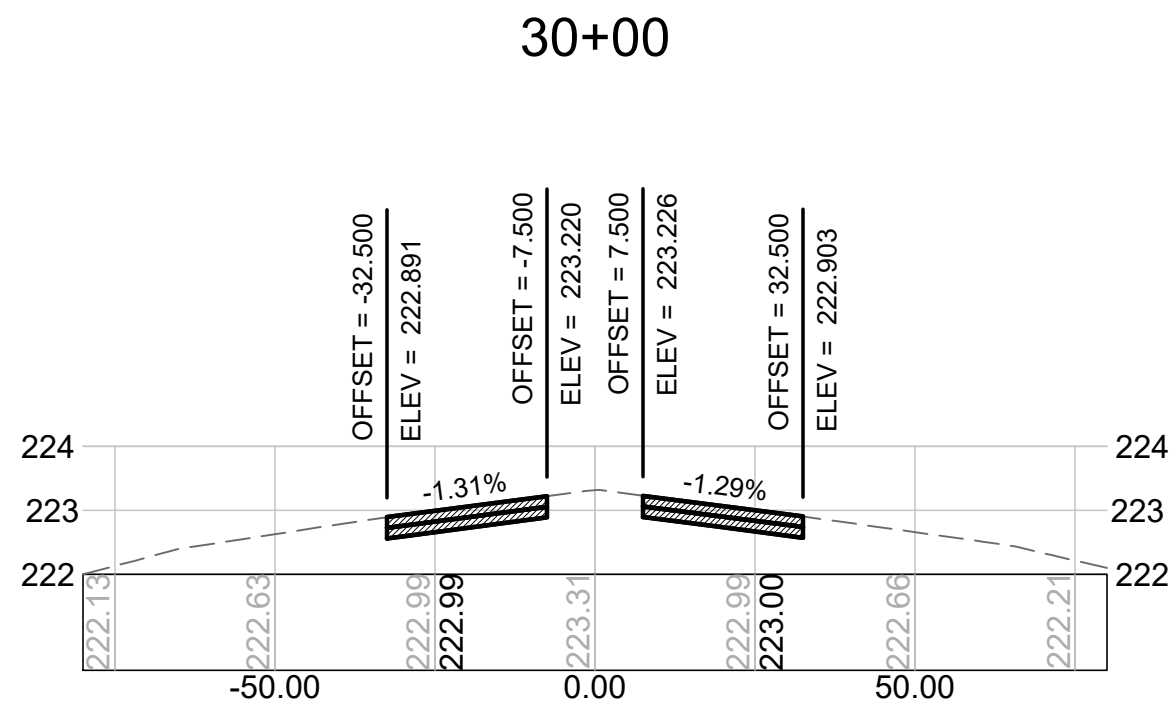
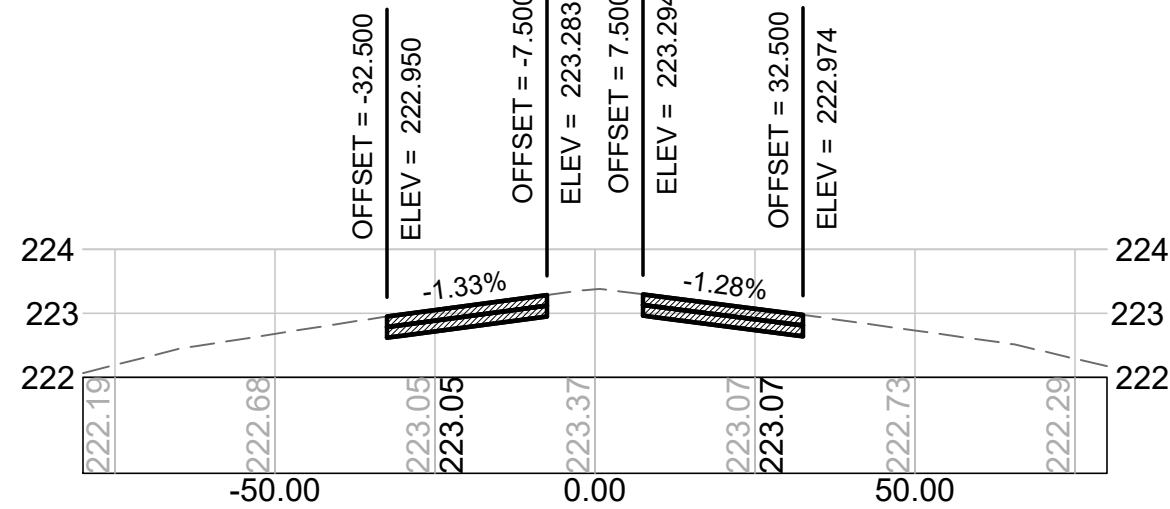
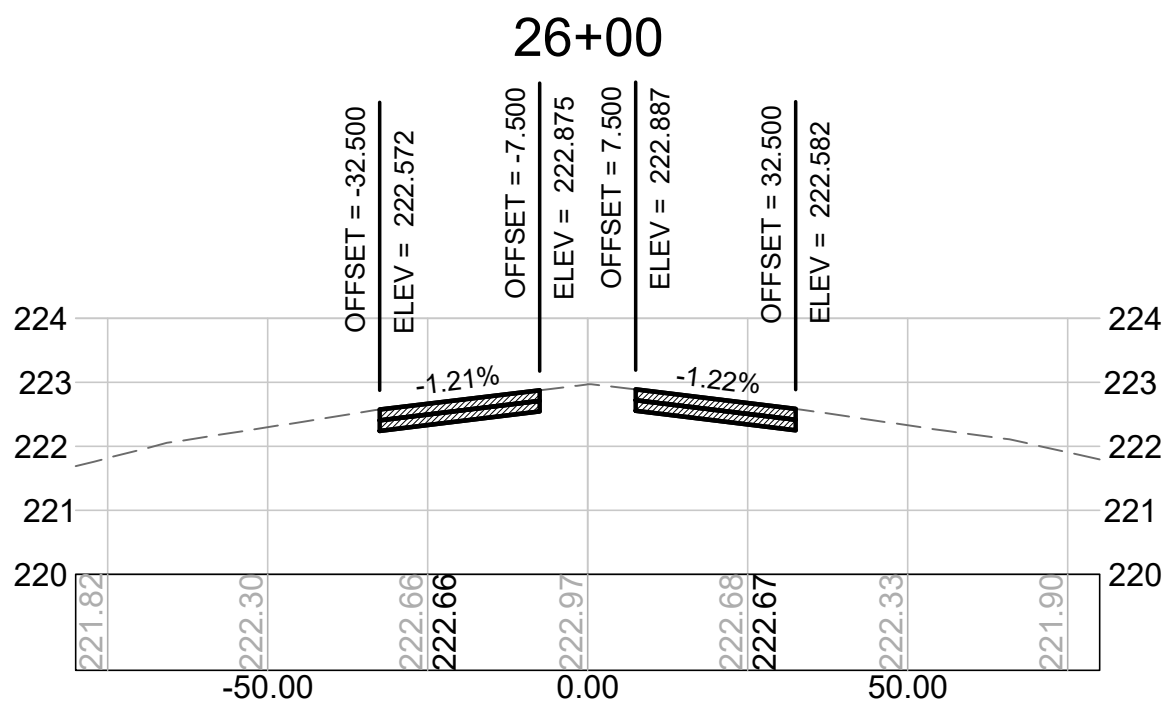
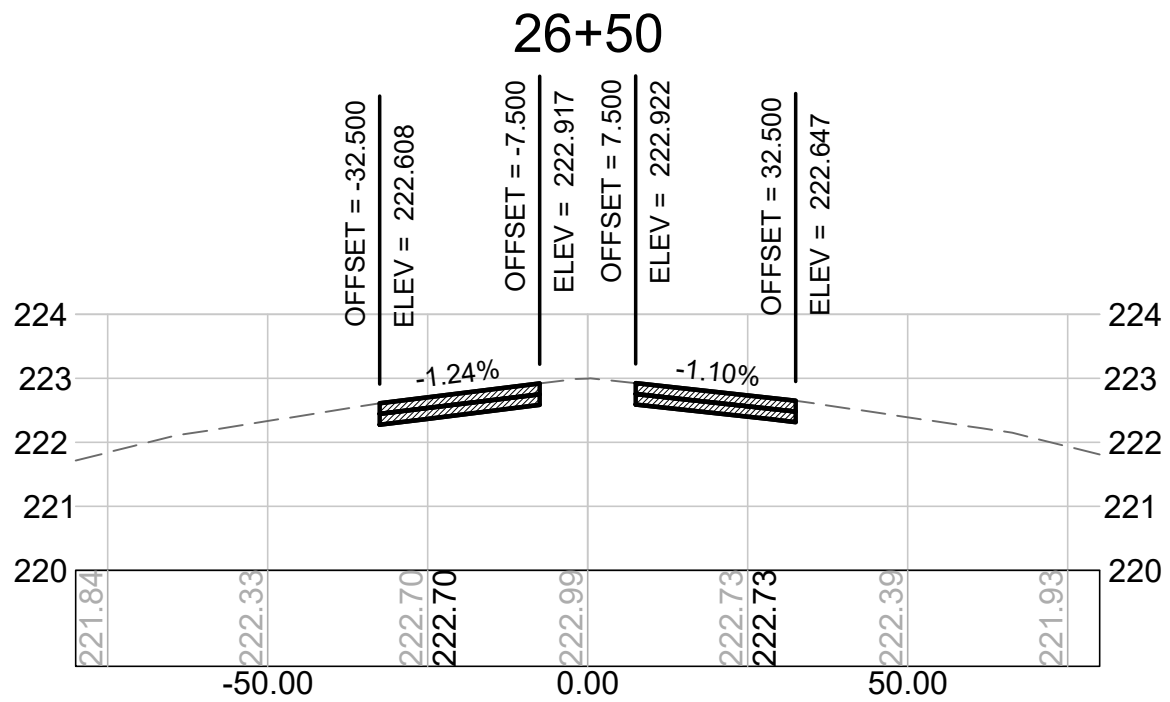
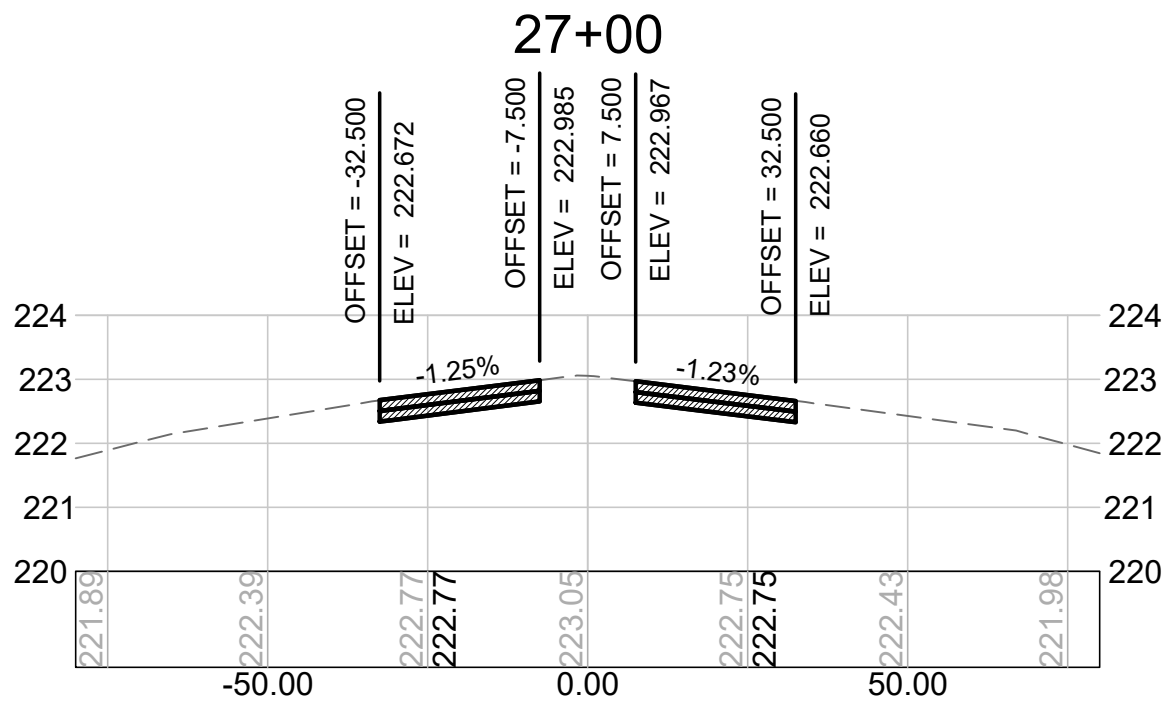
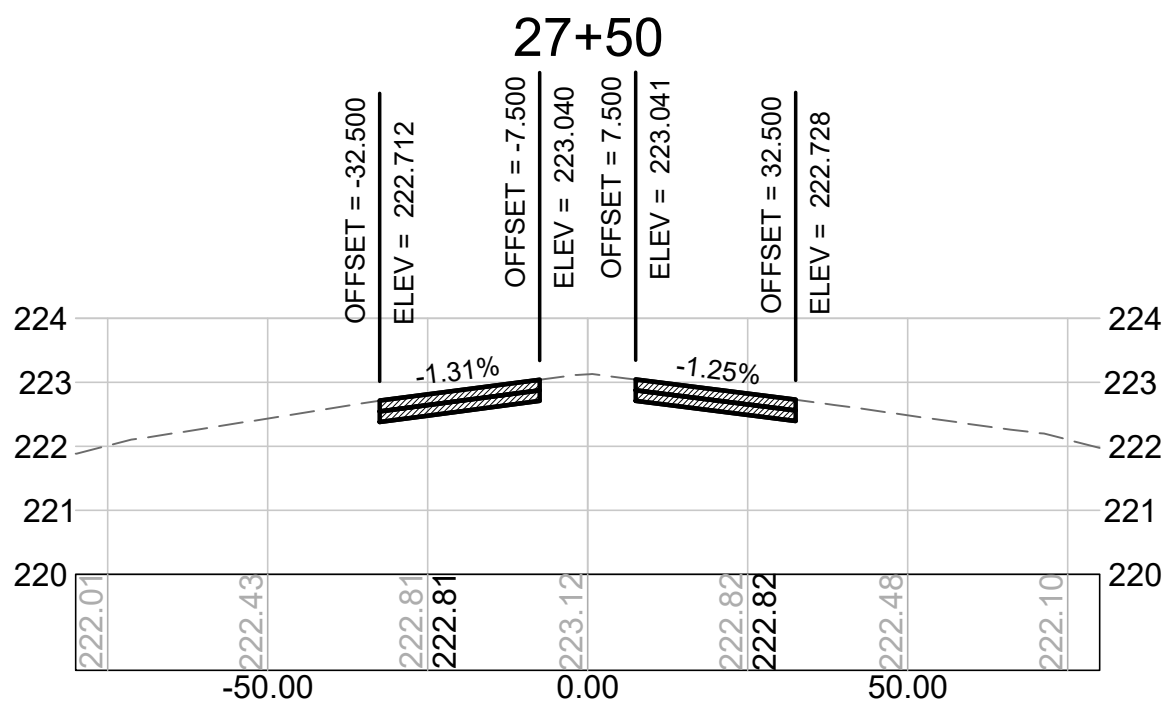
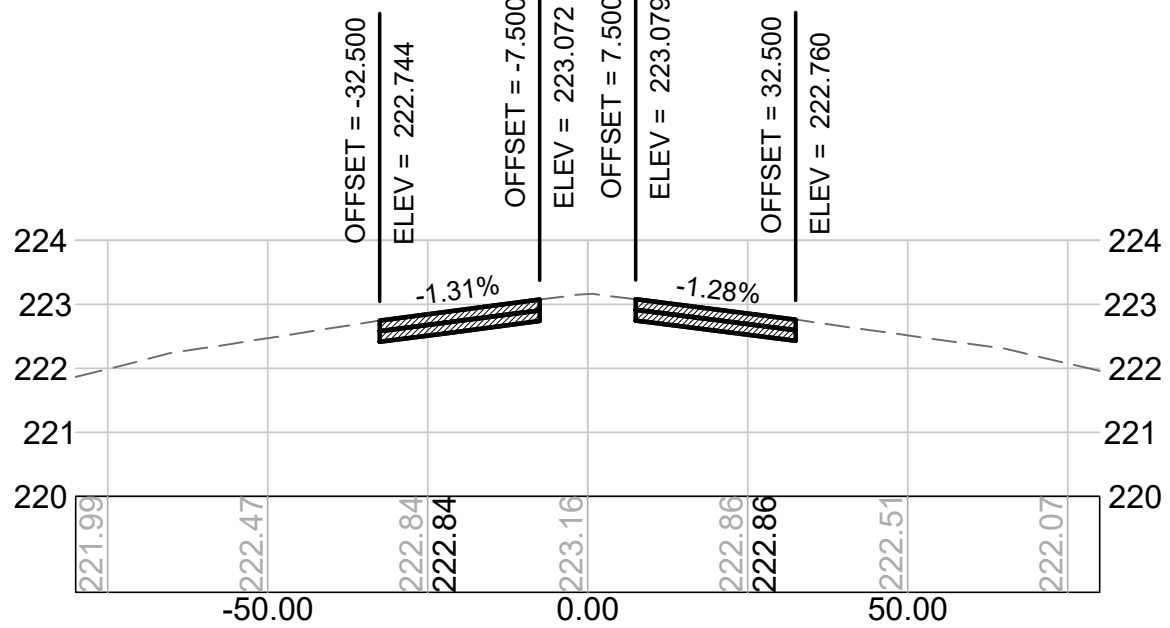
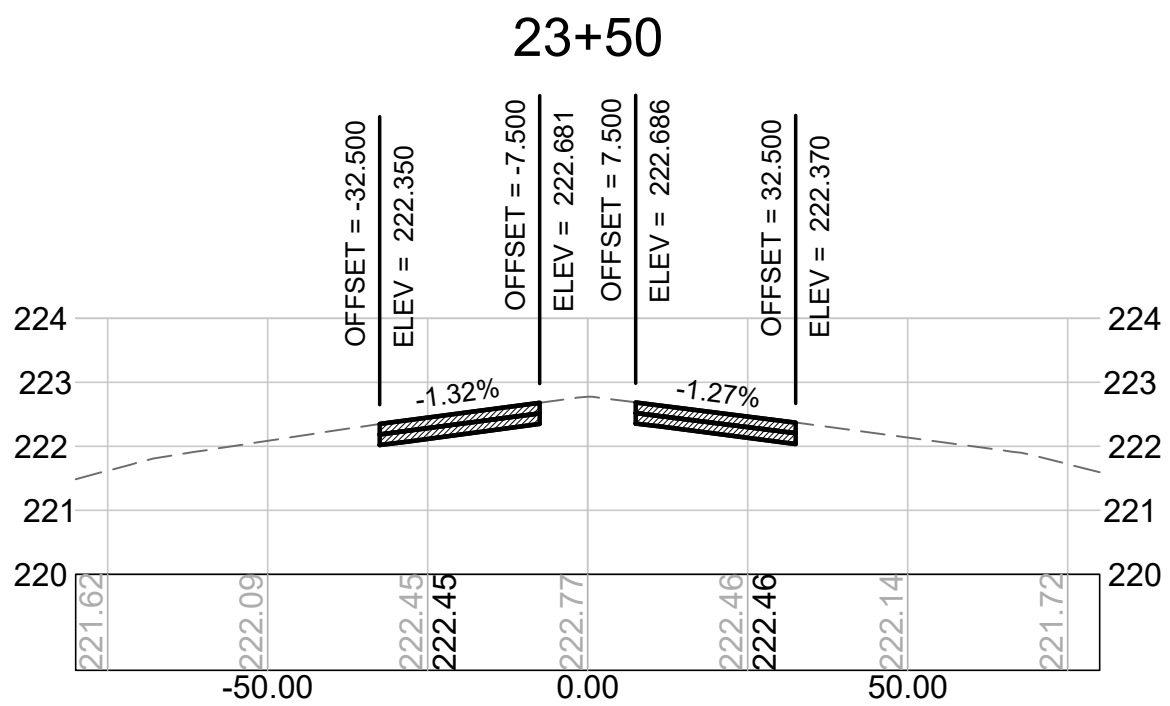
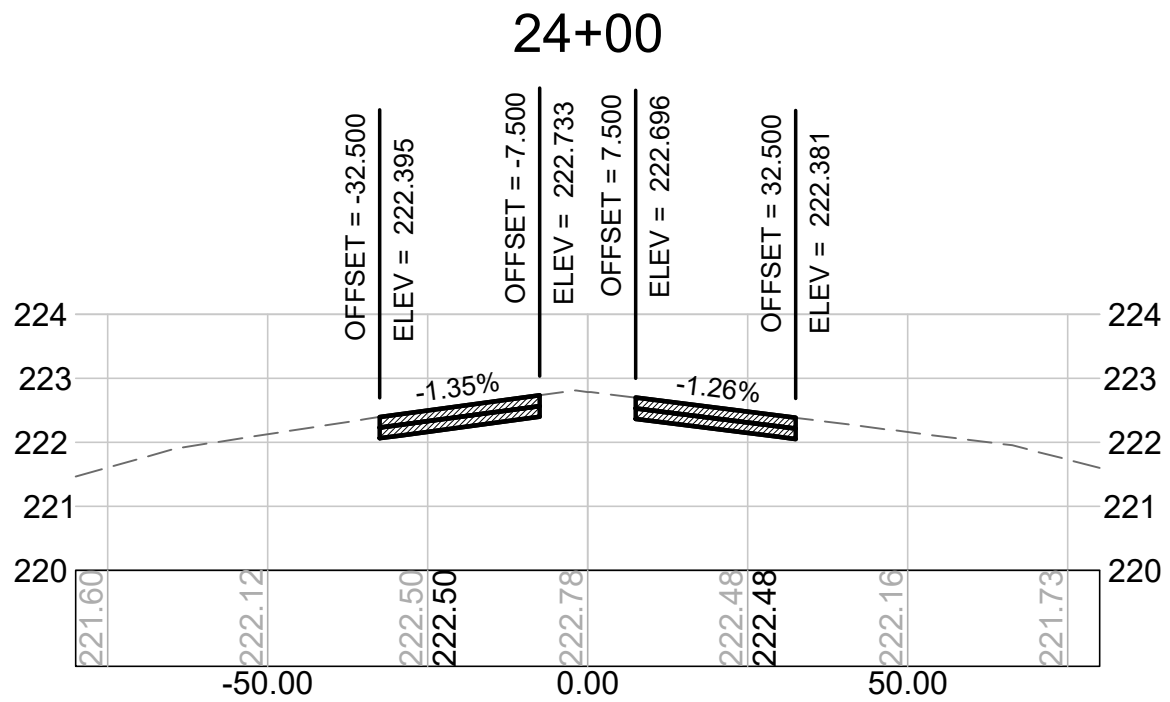
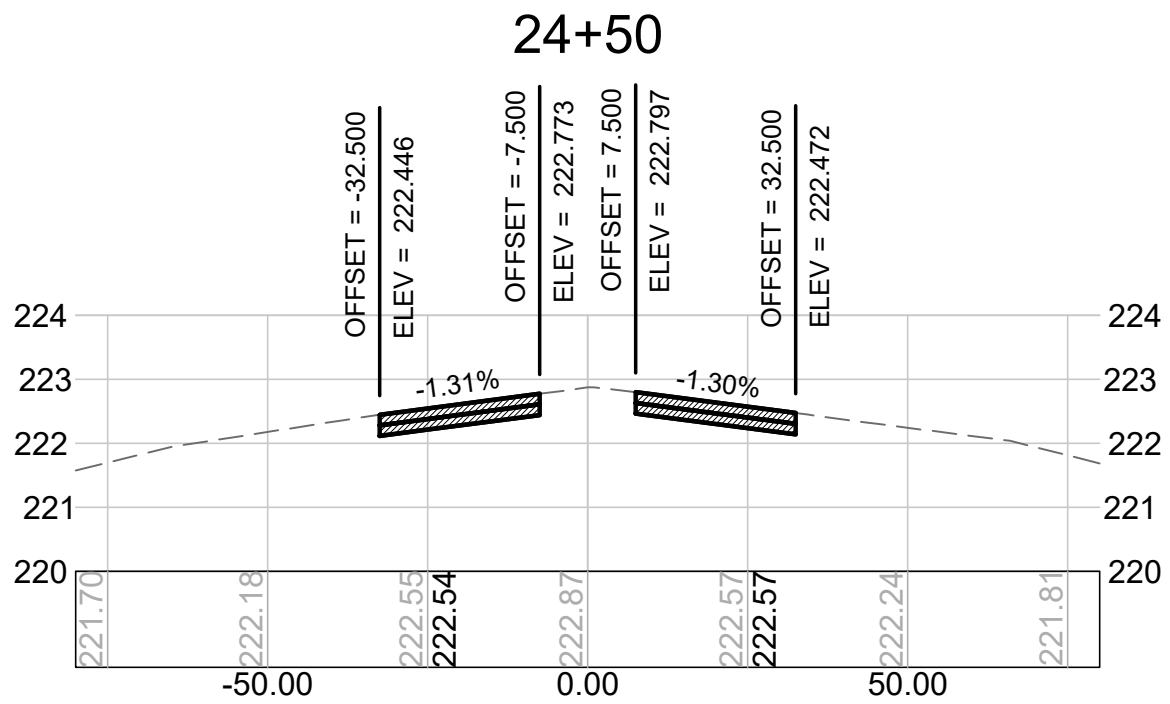
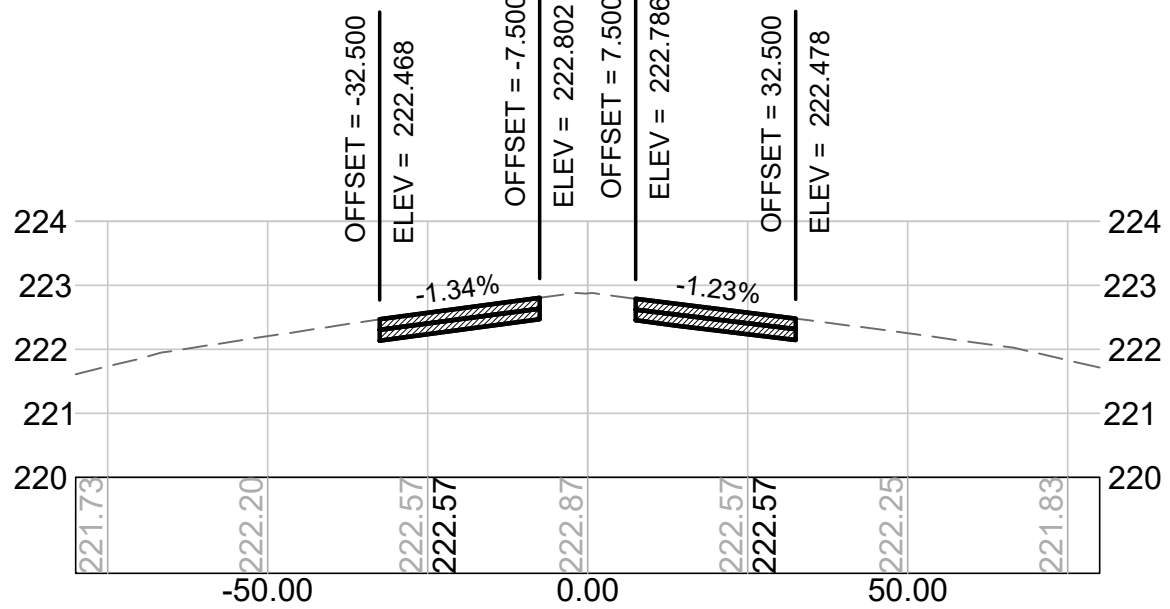
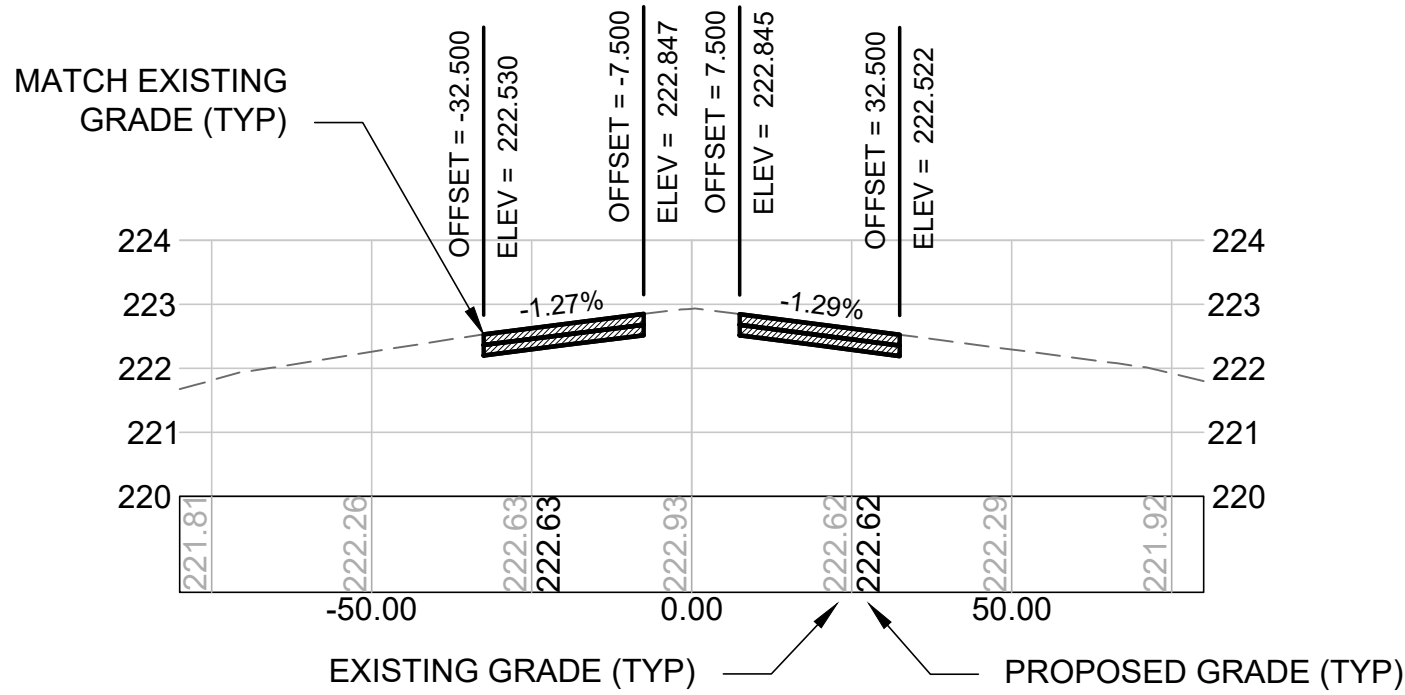
REV	NO.	DATE	DESCRIPTION	BY
1	12/21/22		ADDENDUM #4	LMO

PROJ. NO.: 3-33-0011-TBD-2023
JE FILE: E2X89212

DRAWING NO.
C-308
SHEET 28 OF 48

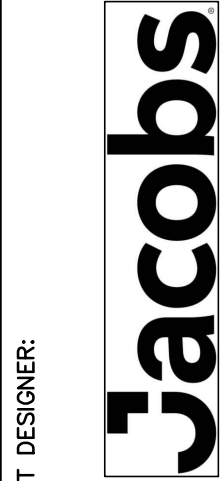
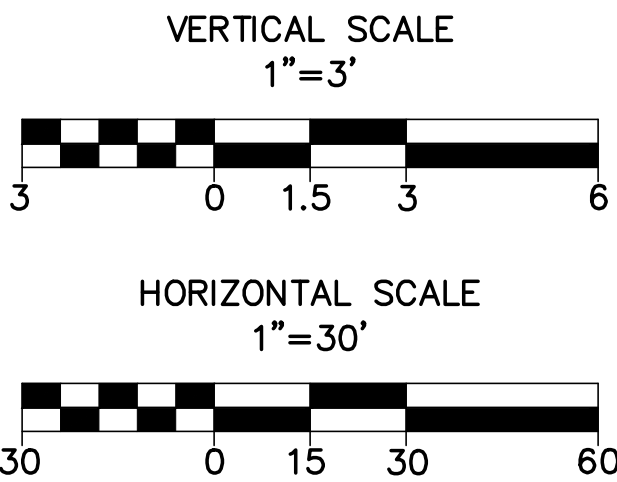
NOT FOR CONSTRUCTION

Jacobs - \\mht001\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-309] December 21, 2022 - 6:09am [ccomolm]



GRADING NOTES:

1. THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES. THE PROPOSED PROFILES/SECTIONS REPRESENT THE BEST-FIT GEOMETRY WITHIN THE EXISTING GRADES. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



2 Executive Park Drive
Suite 205
Burlington, MA 01803
PHONE: (603) 666-7801
FAX: (603) 666-7805

PROJECT DESIGNER:

SCALE:	1"=60'
DATE:	NOVEMBER 2022
DESIGNED BY:	LMO
DRAWN BY:	LMO
CHECKED BY:	JAM
APPROVED:	JWG



PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24;
TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

CROSS SECTIONS – RUNWAY 6 –
SHEET 4 OF 6

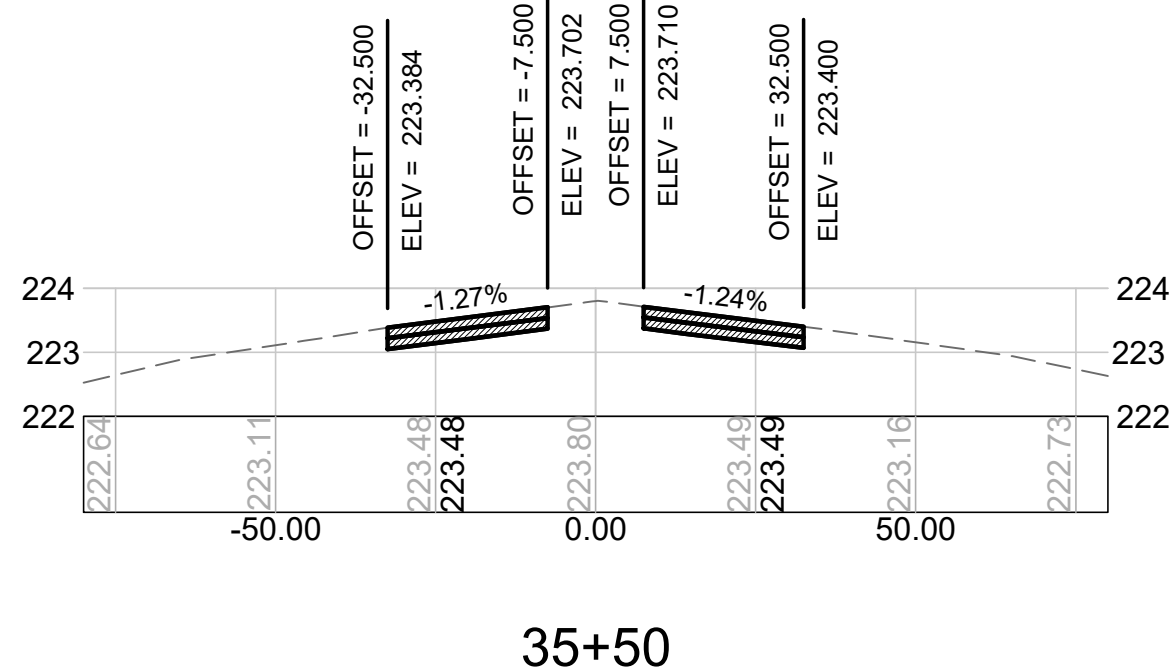
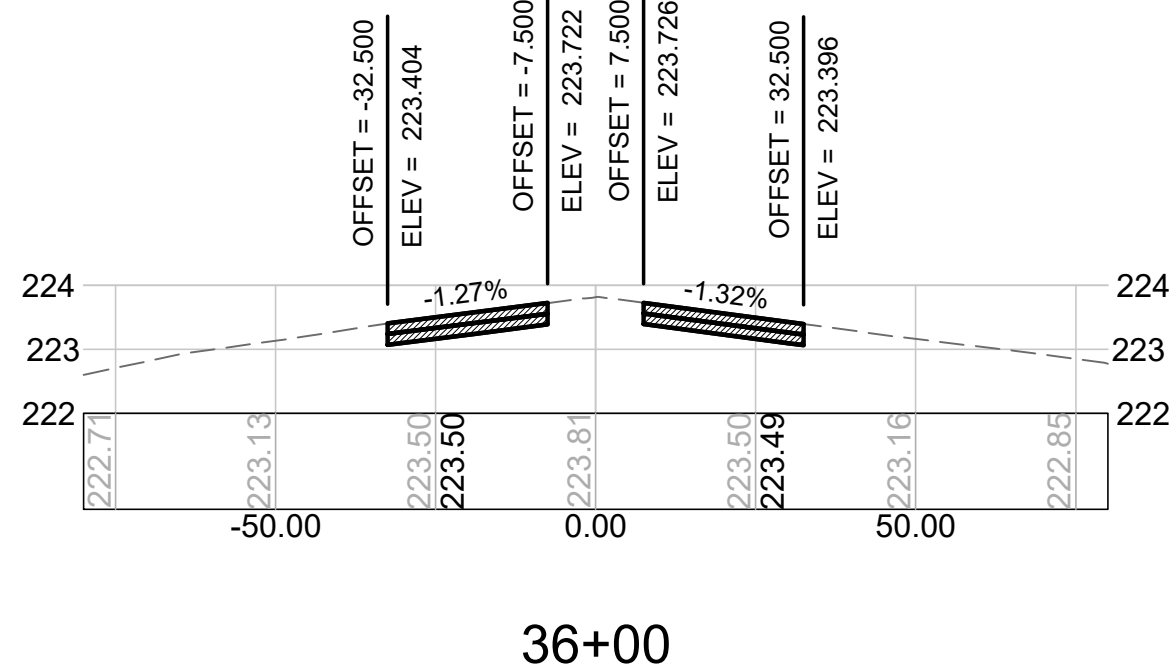
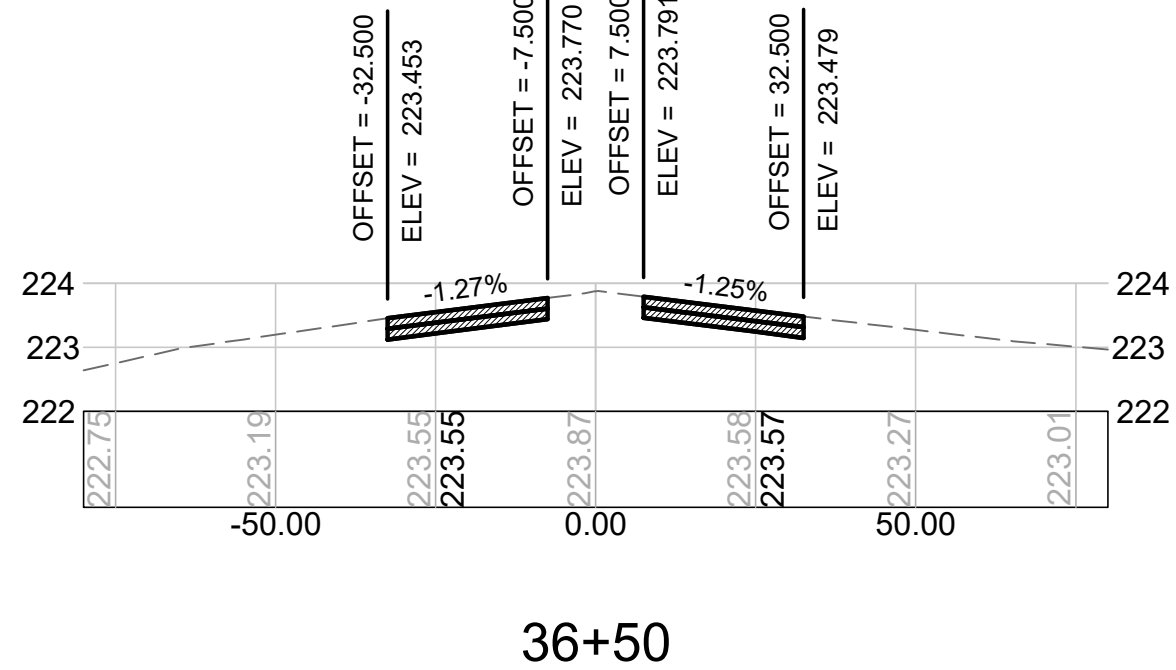
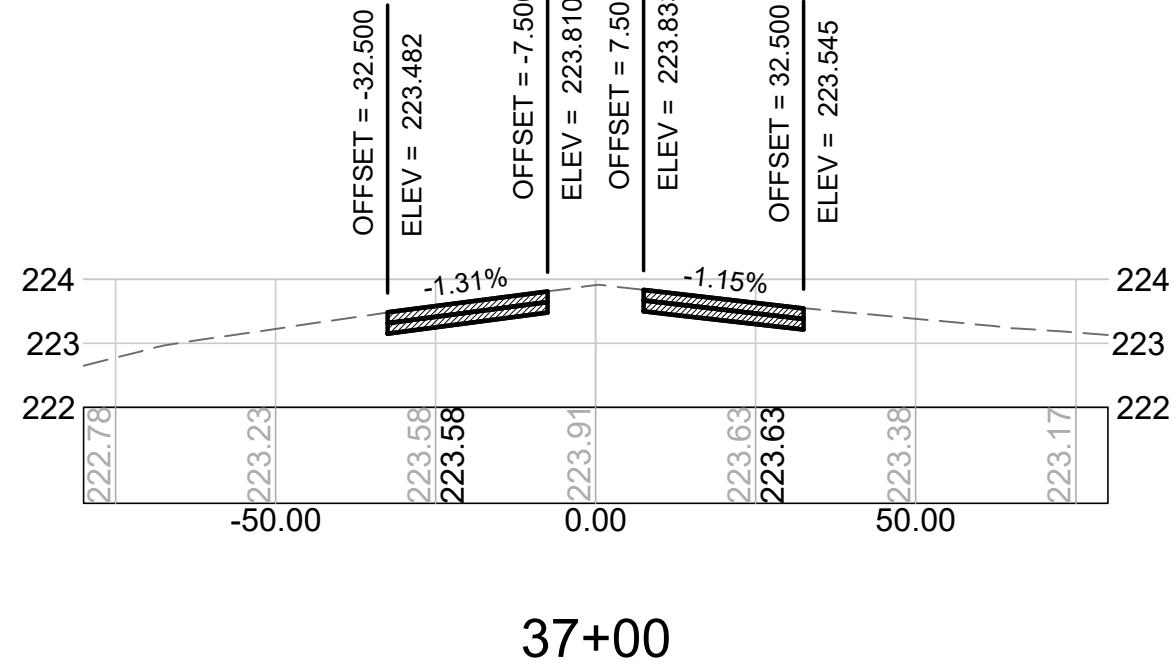
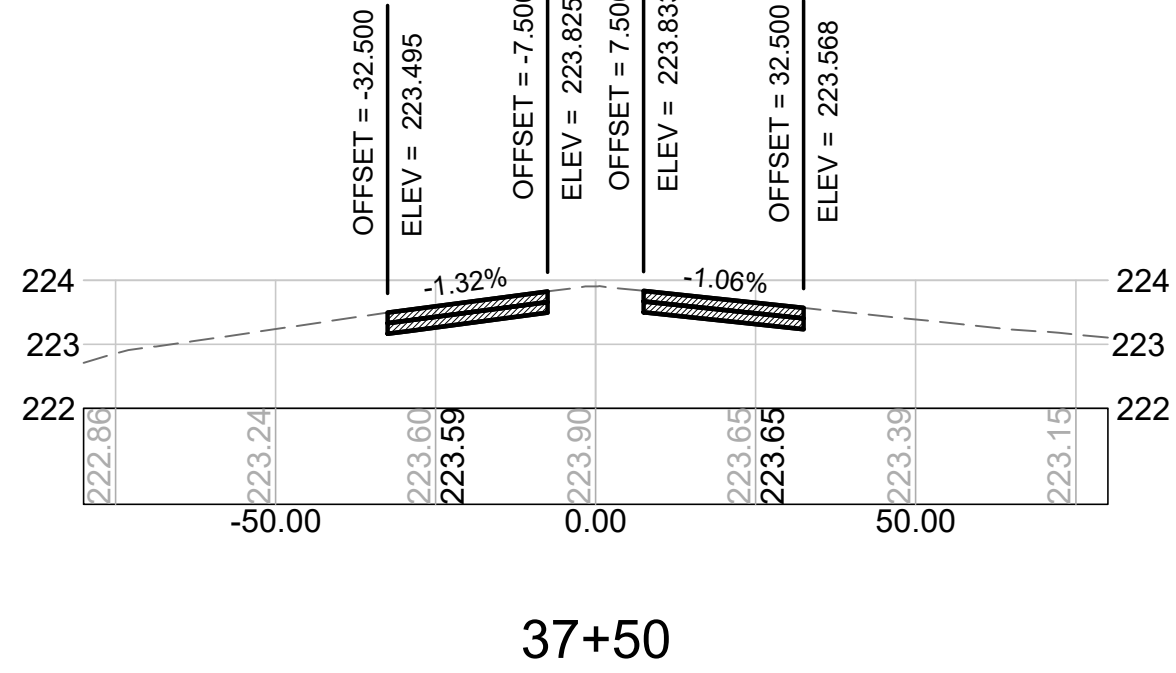
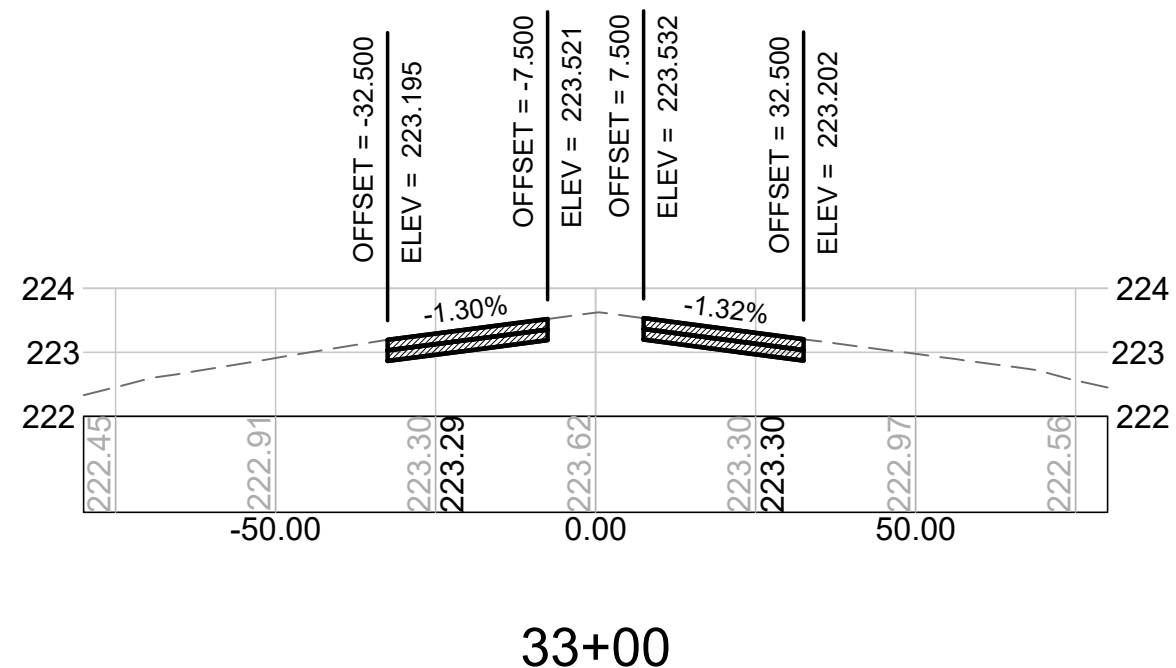
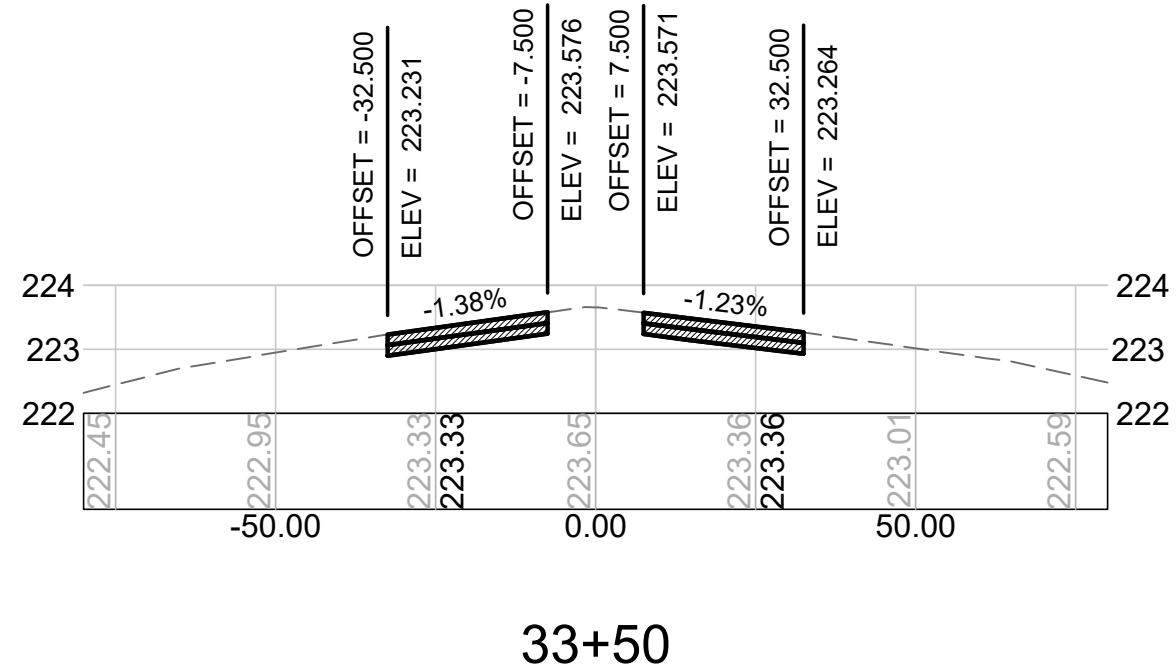
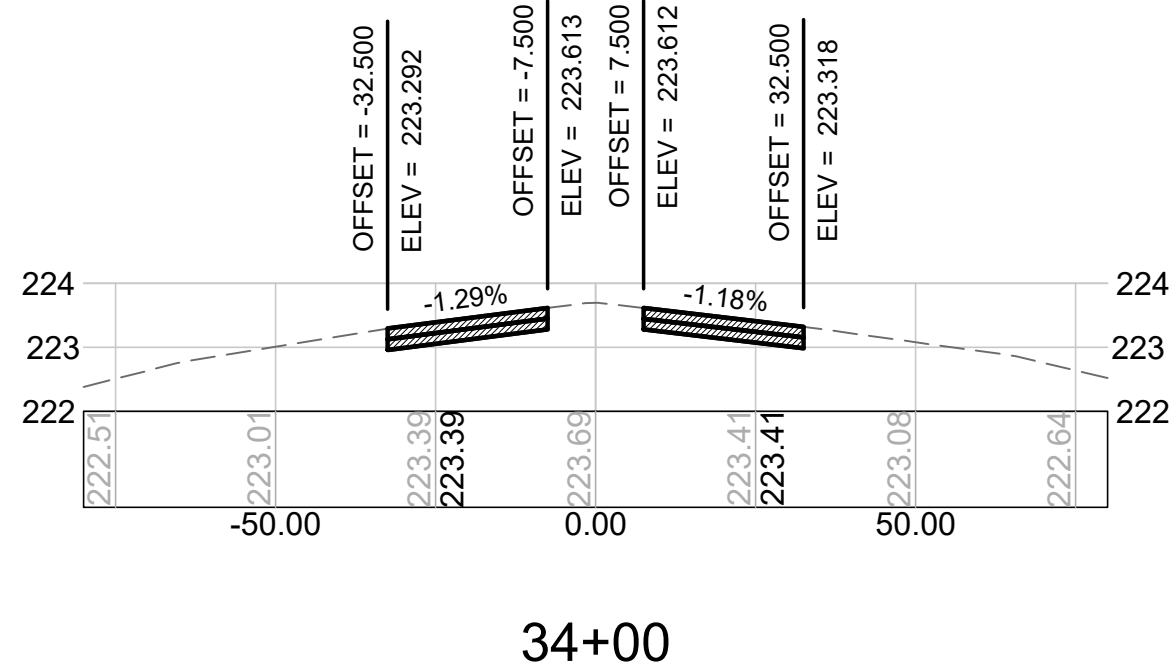
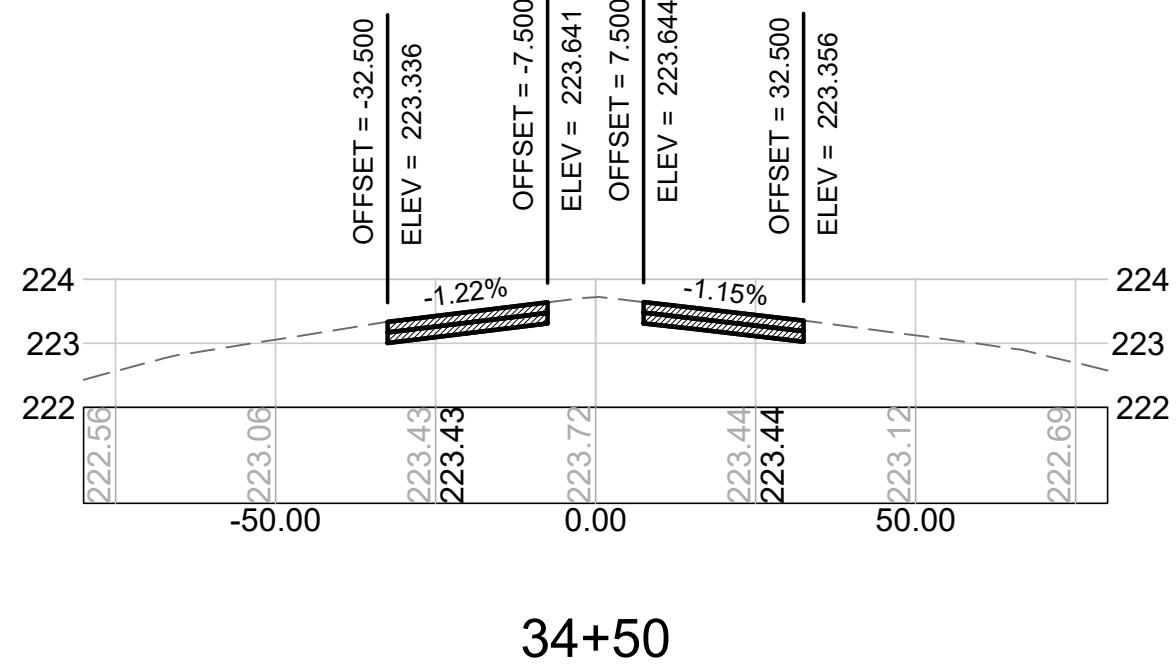
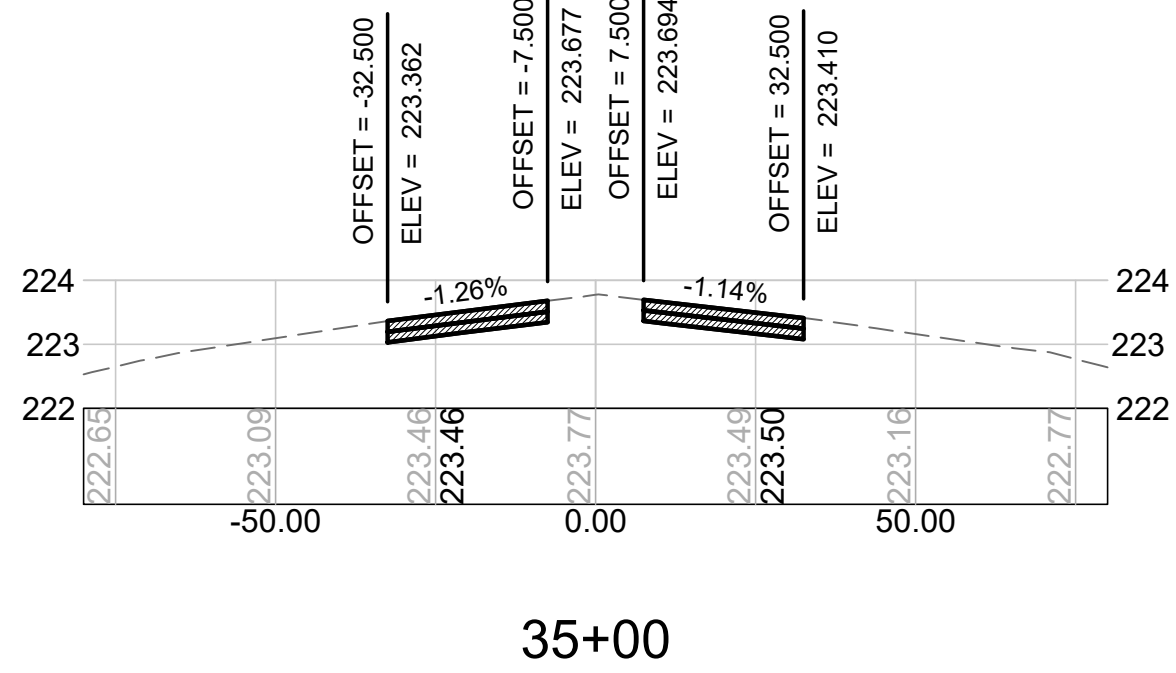
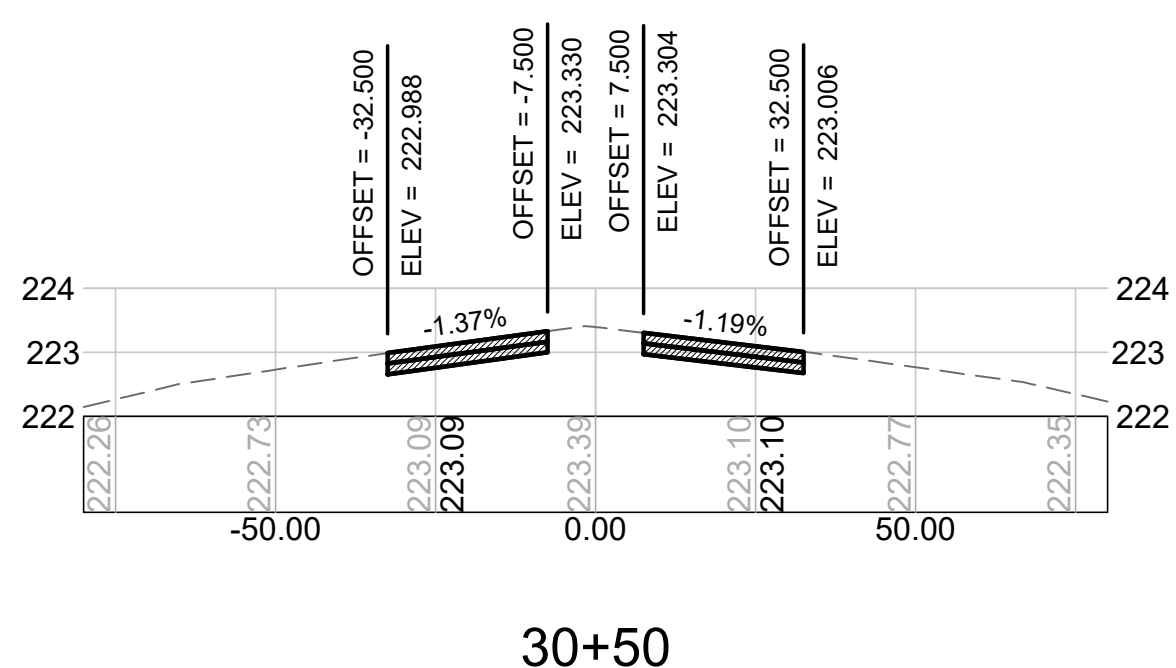
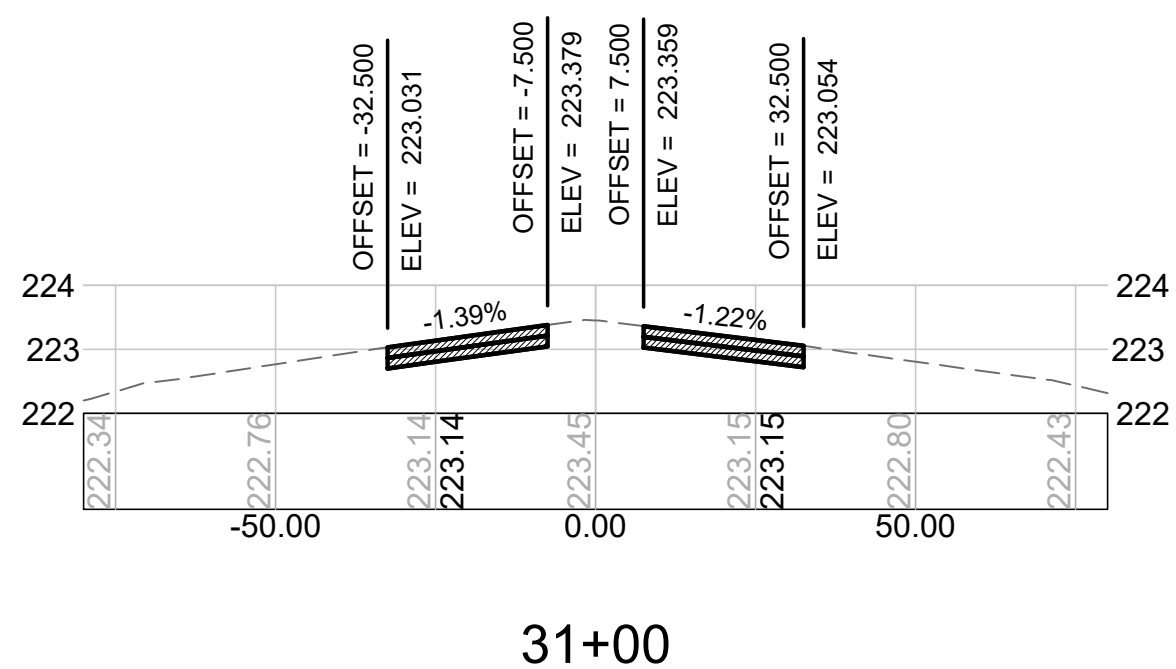
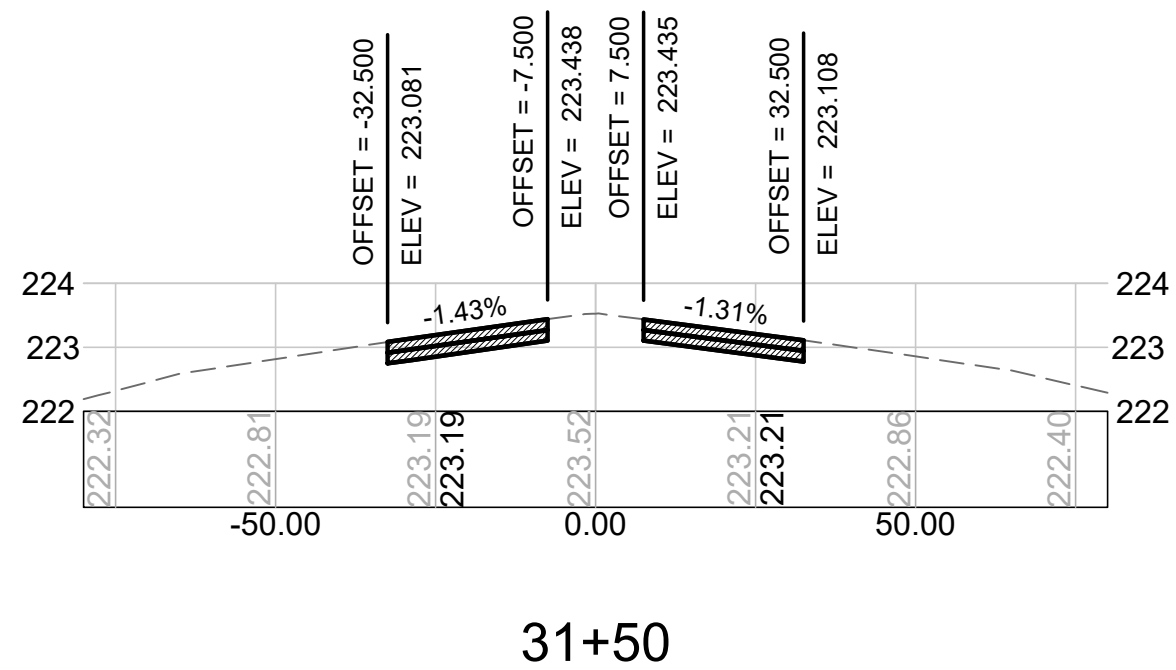
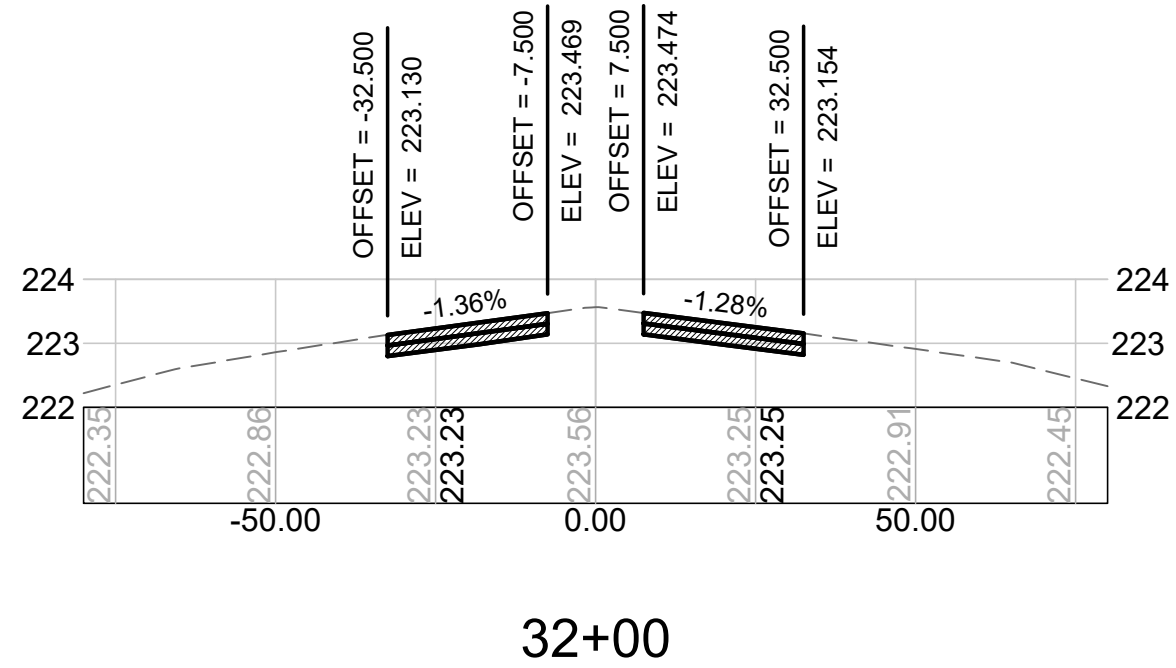
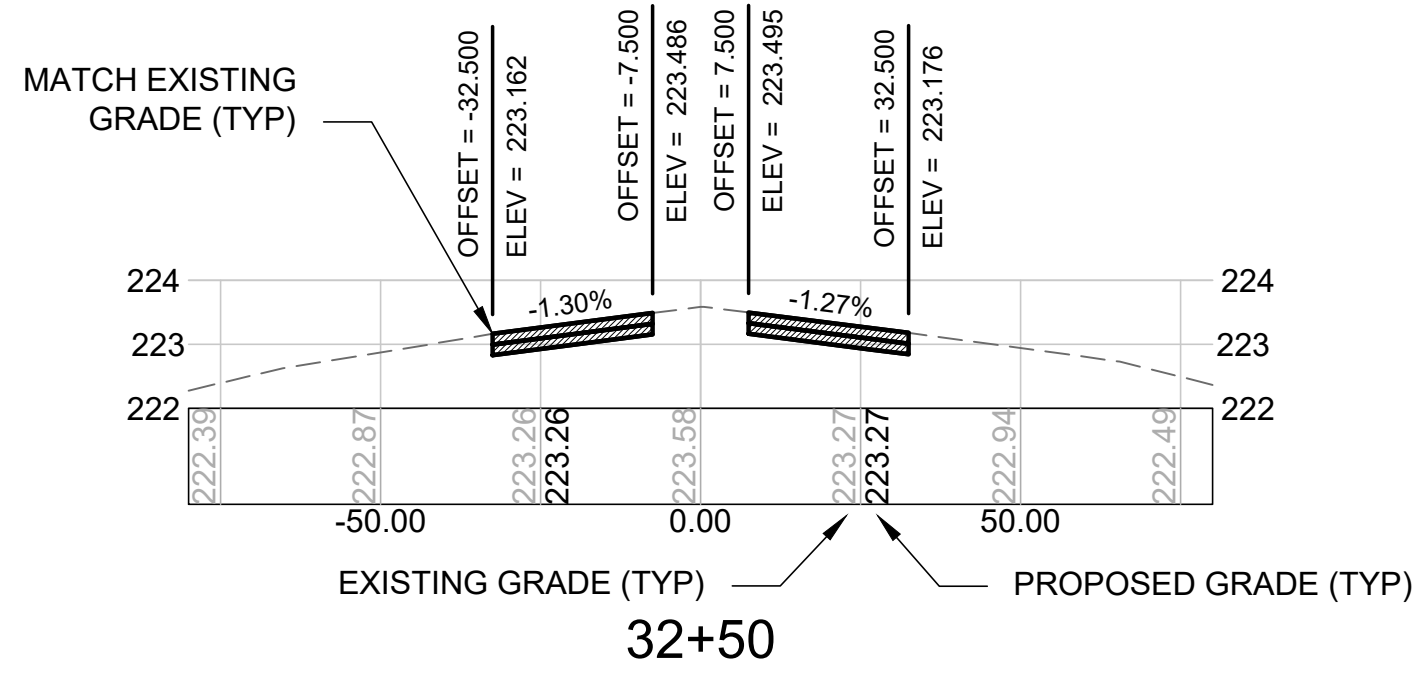
REV	NO.	DATE	DESCRIPTION	BY
1		12/21/22	ADDENDUM #4	LMO

PROJ. NO.: 3-33-0011-TBD-2023
JE FILE: E2X89212

DRAWING NO.
C-309
SHEET 29 OF 48

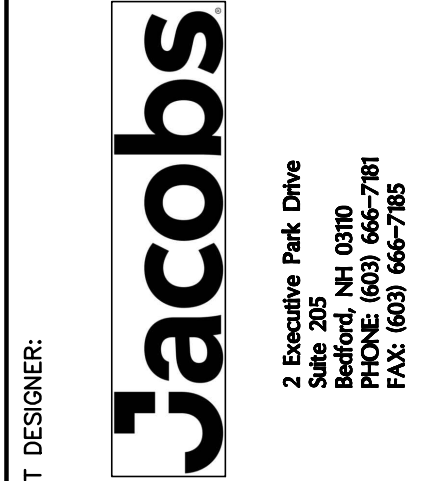
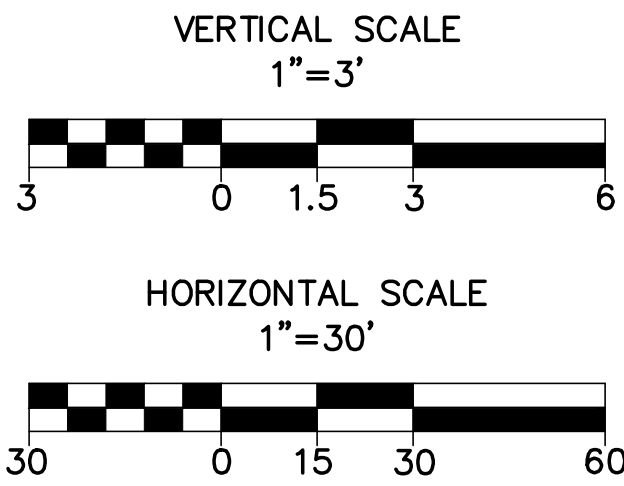
NOT FOR CONSTRUCTION

Jacobs - \\nhill01\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-310] December 21, 2022 - 6:10am [ccomolm]



GRADING NOTES:

1. THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES. THE PROPOSED PROFILES/SECTIONS REPRESENT THE BEST-FIT GEOMETRY WITHIN THE EXISTING GRADES. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



PROJECT DESIGNER:

SCALE:	1"=60'
DATE:	NOVEMBER 2022
DESIGNED BY:	LMO
DRAWN BY:	LMO
CHECKED BY:	JAM
APPROVED:	JWG



PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24; TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

CROSS SECTIONS – RUNWAY 6 – SHEET 5 OF 6

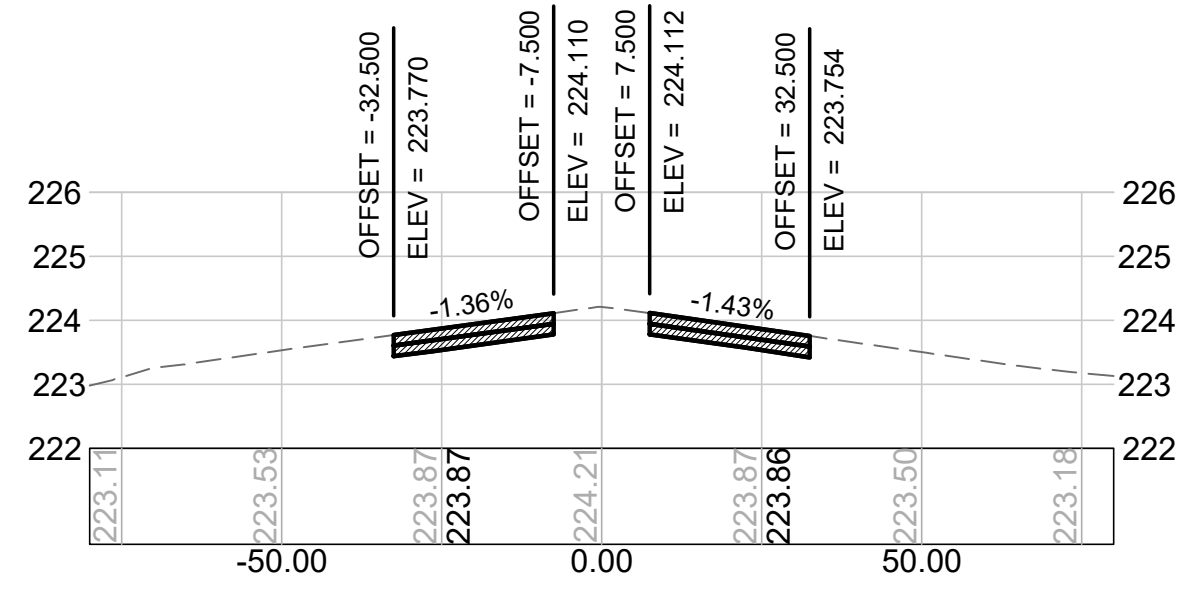
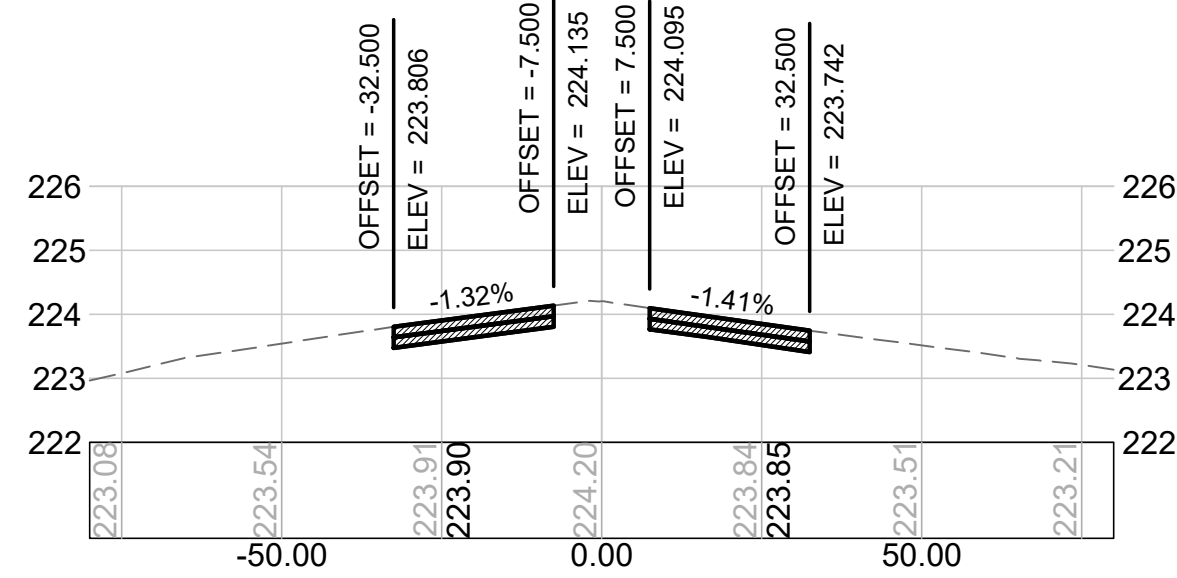
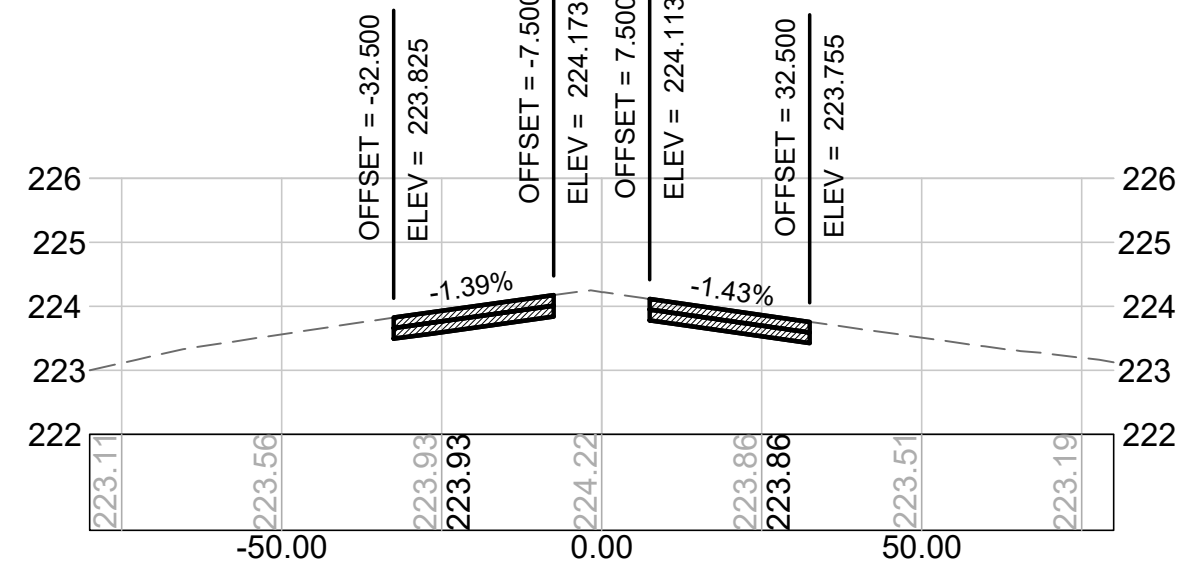
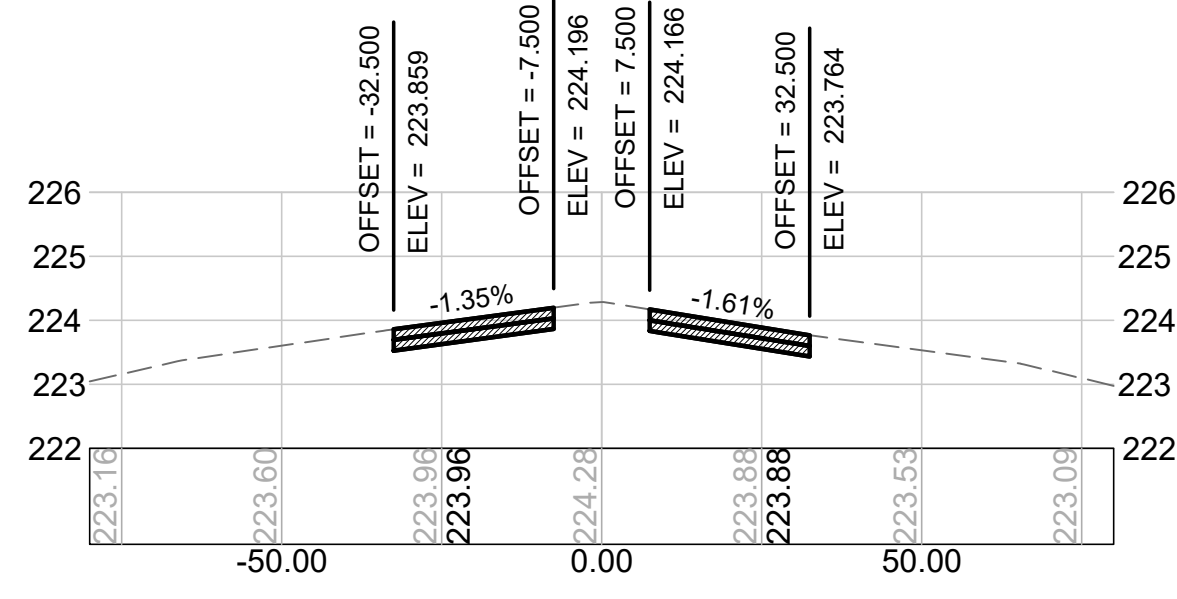
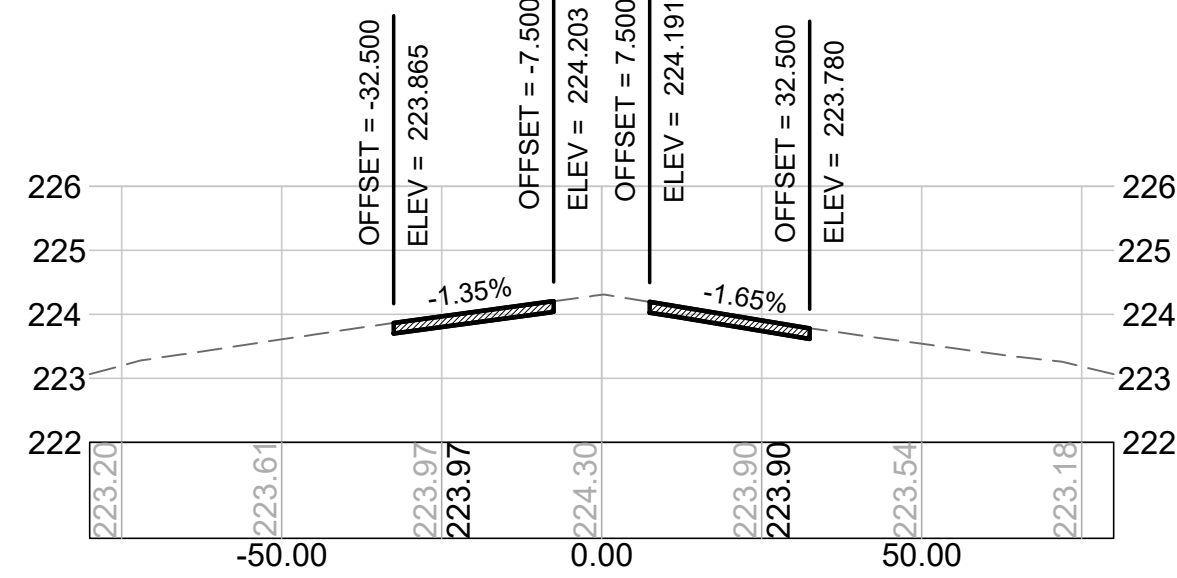
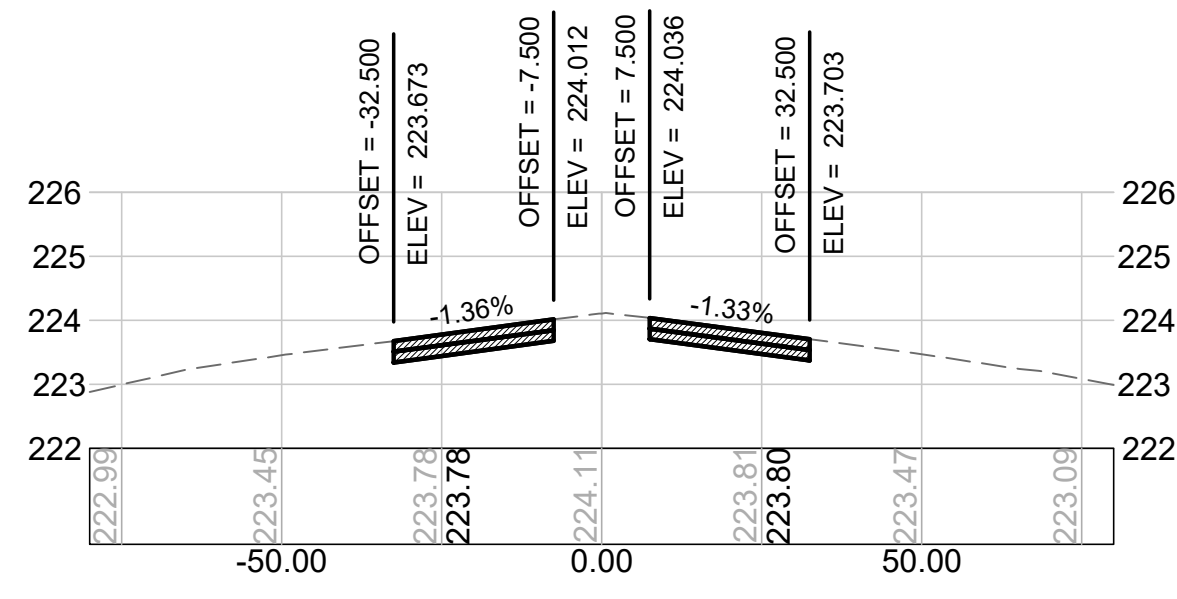
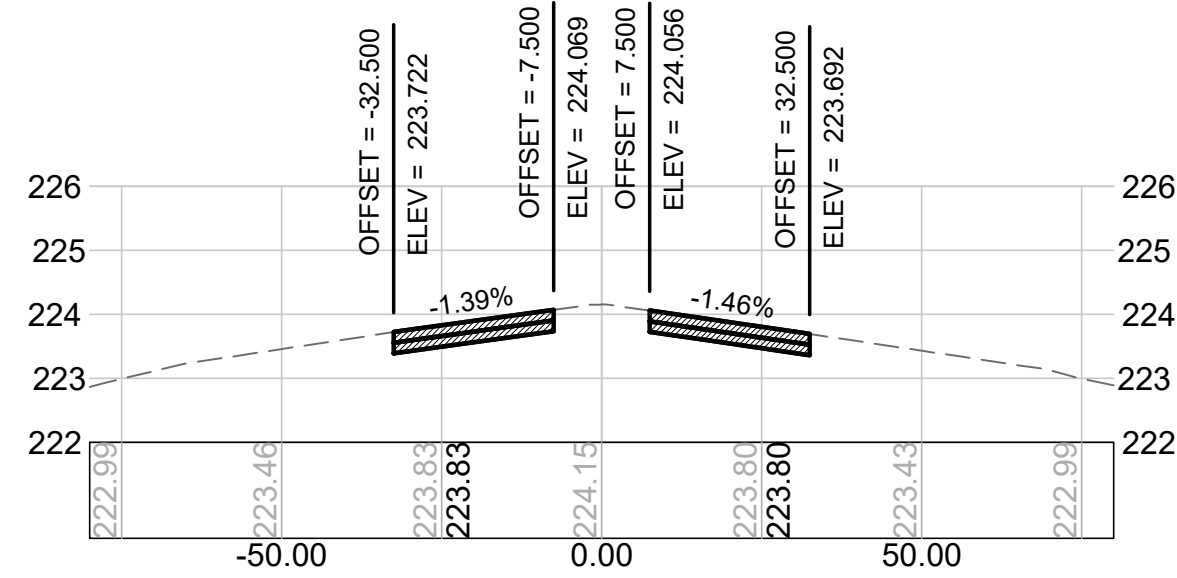
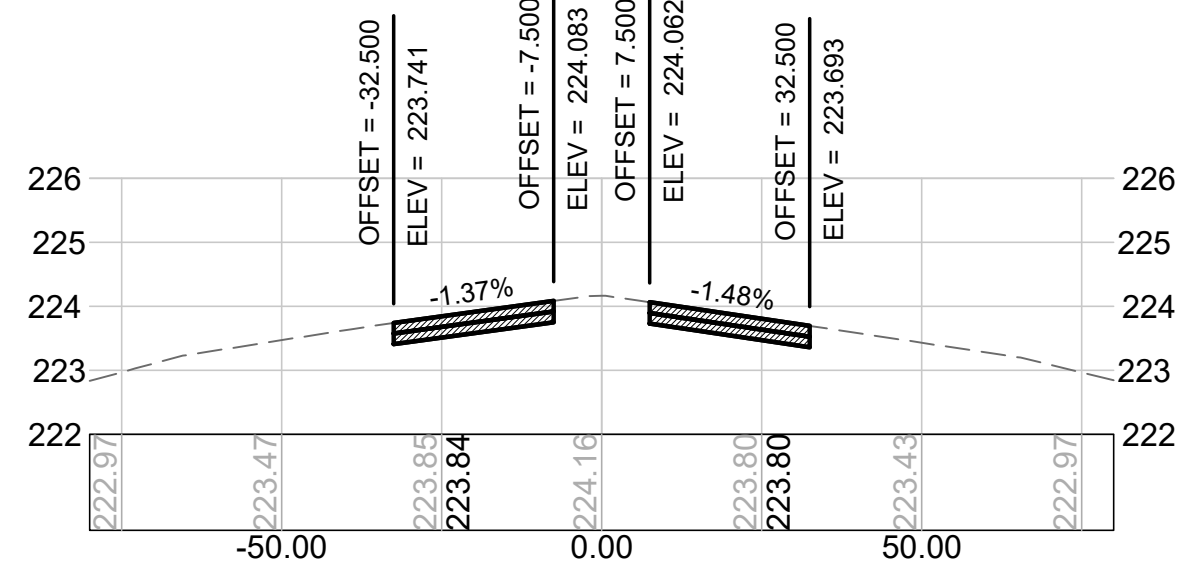
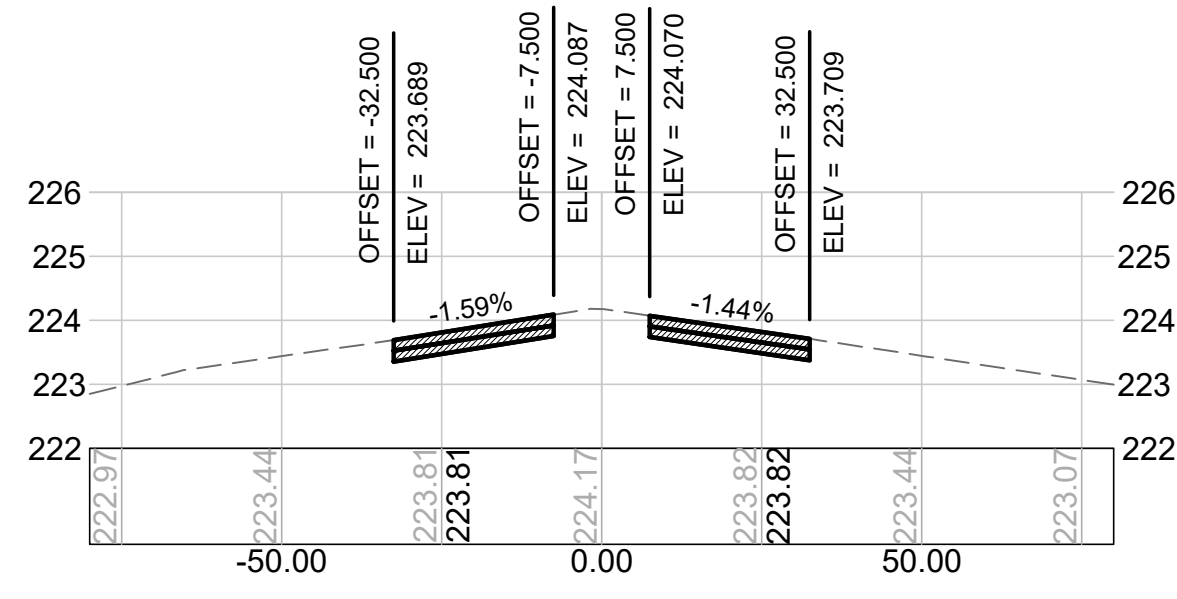
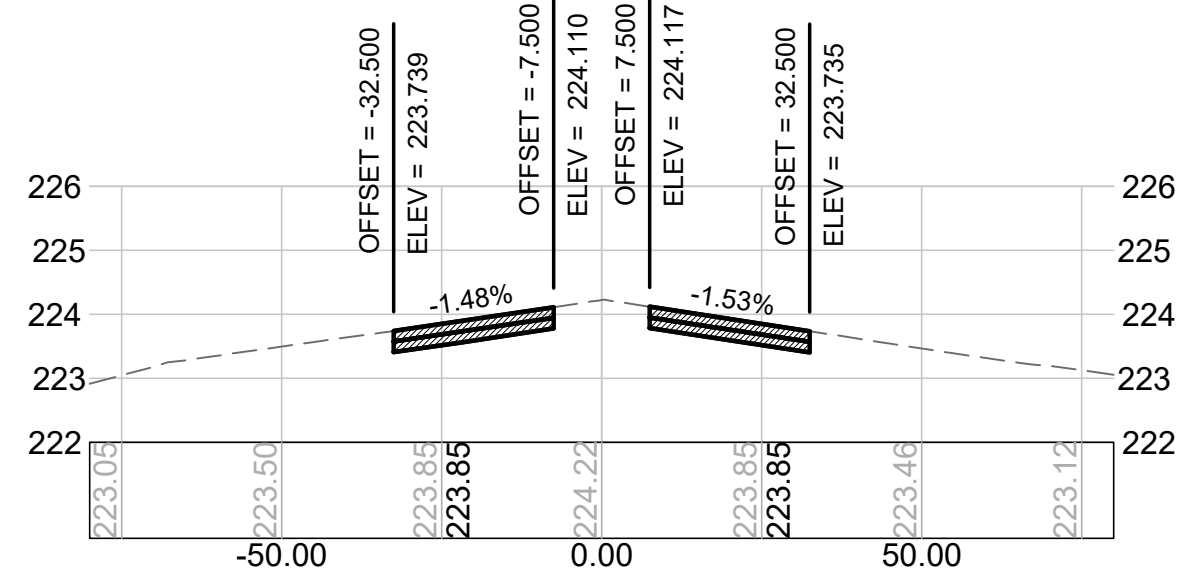
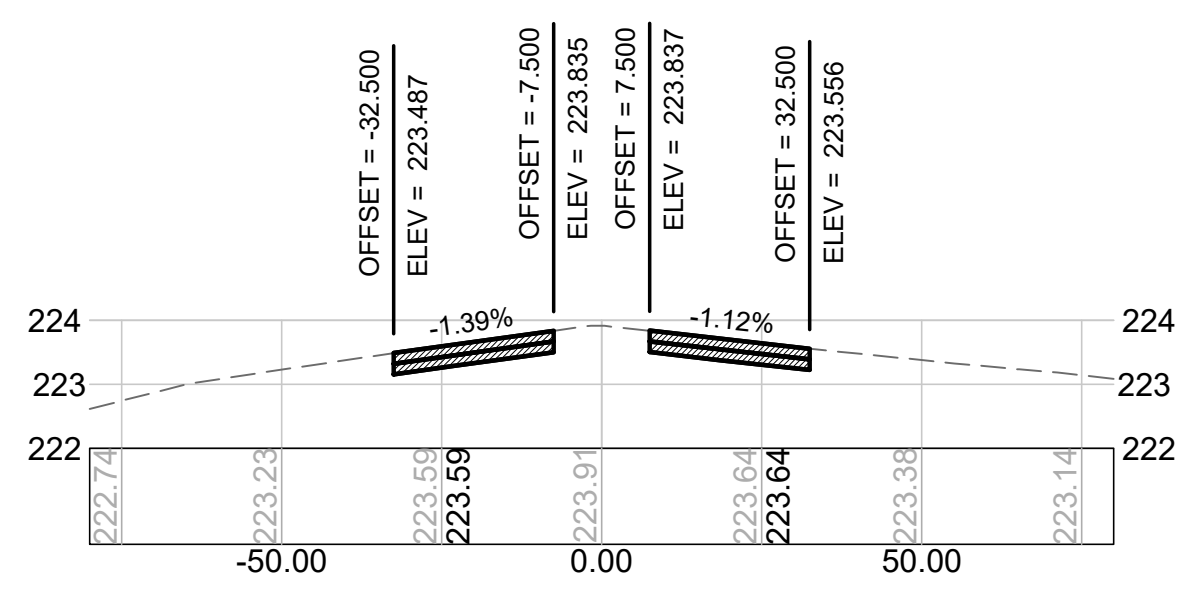
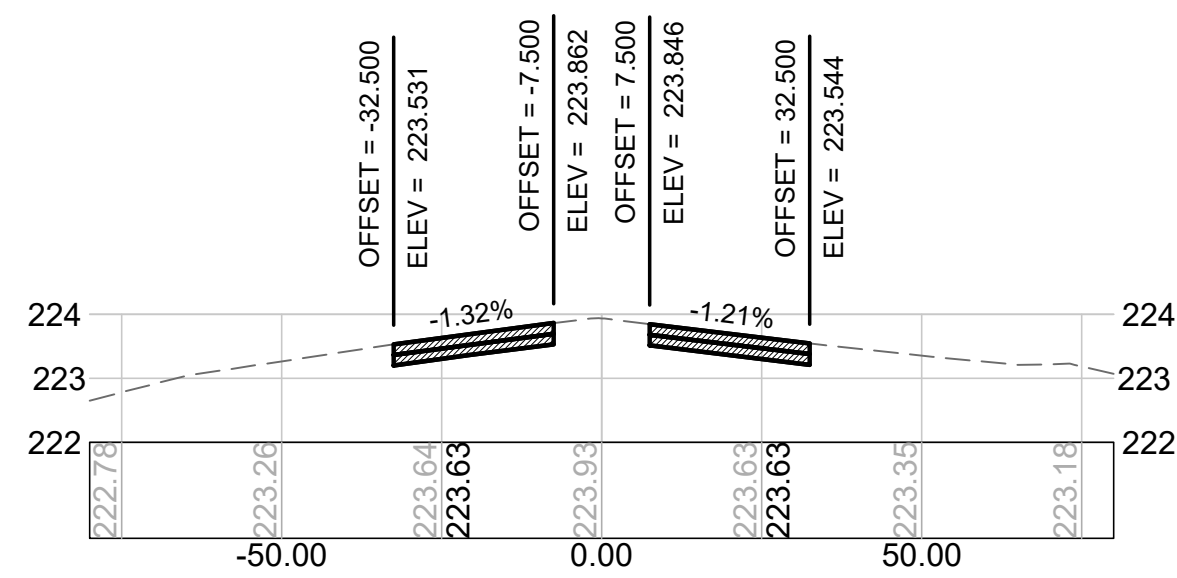
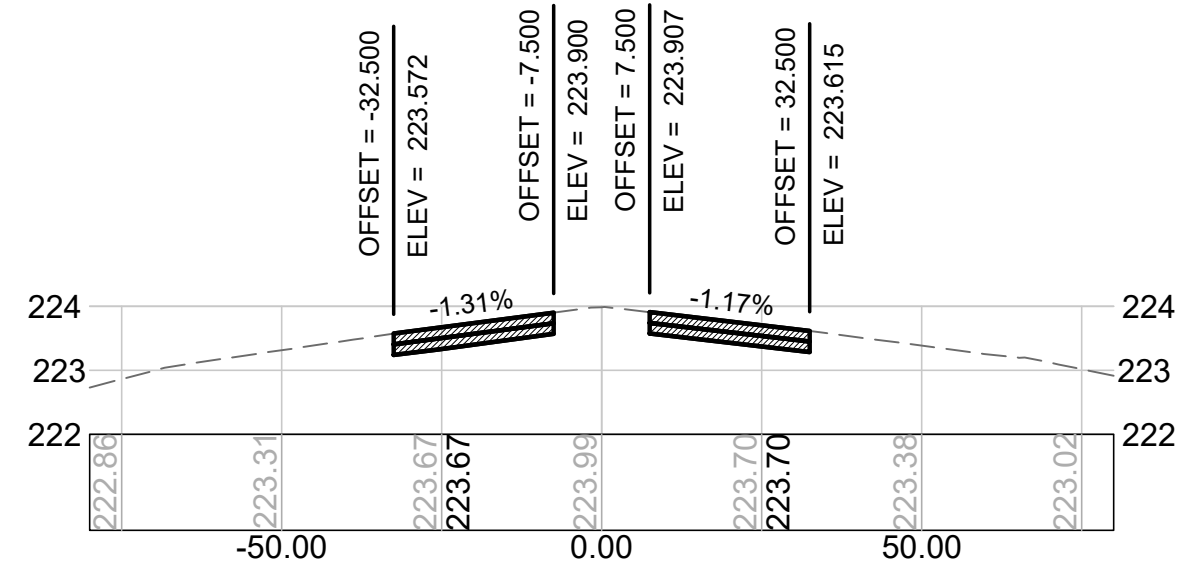
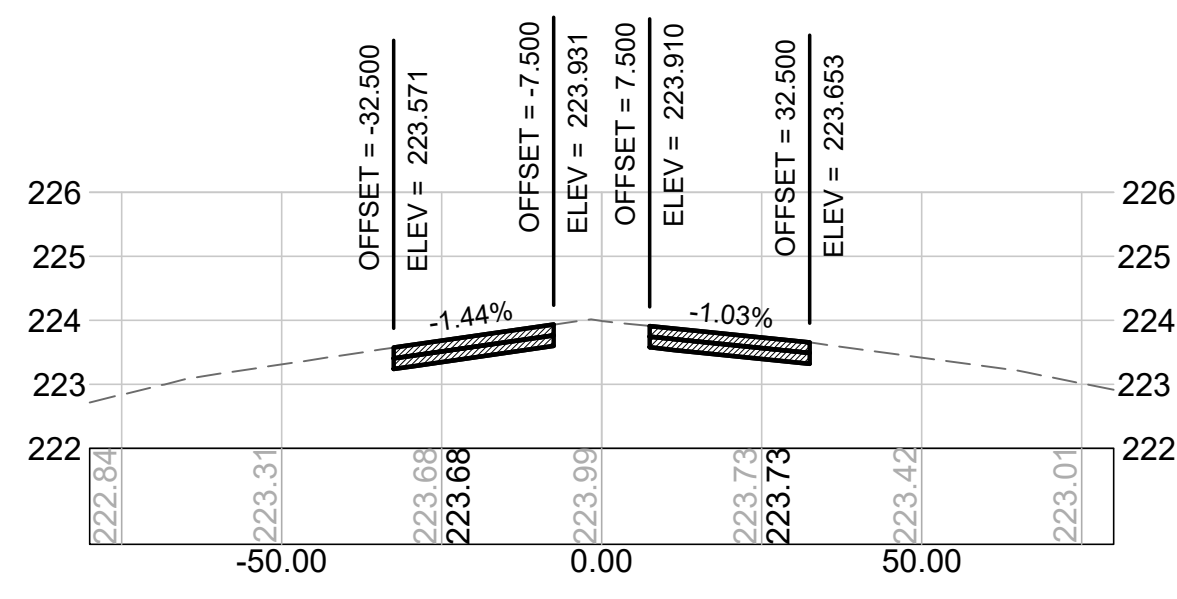
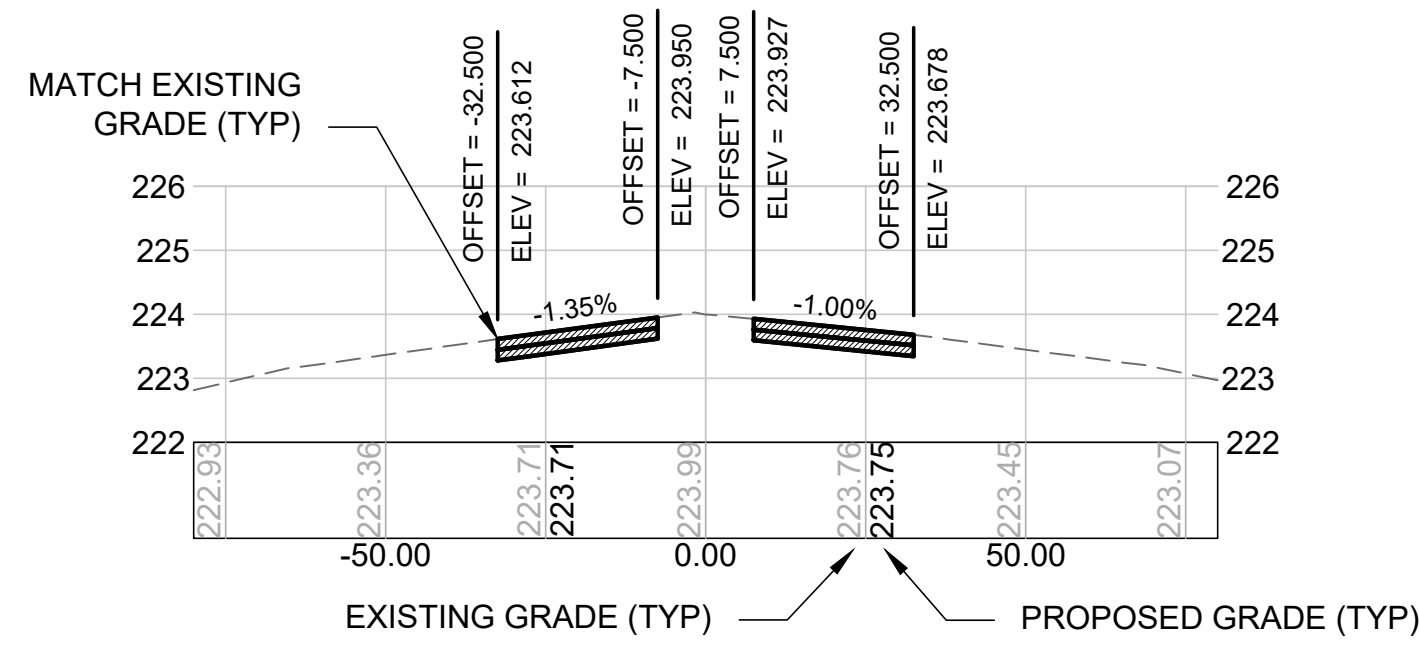
REV.	NO.	DATE	DESCRIPTION	BY
1		12/21/22	ADDENDUM #4	LMO

PROJ. NO.: 3-33-0011-TBD-2023
JE FILE: E2X89212

DRAWING NO.
C-310
SHEET 30 OF 48

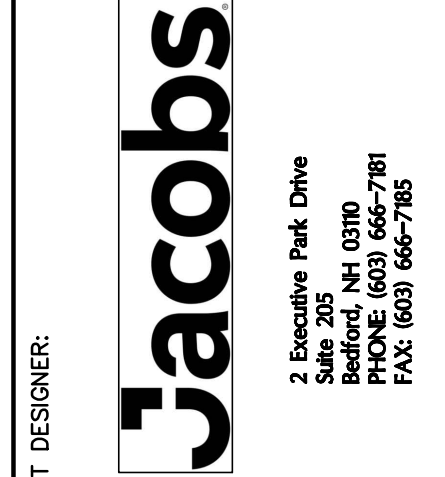
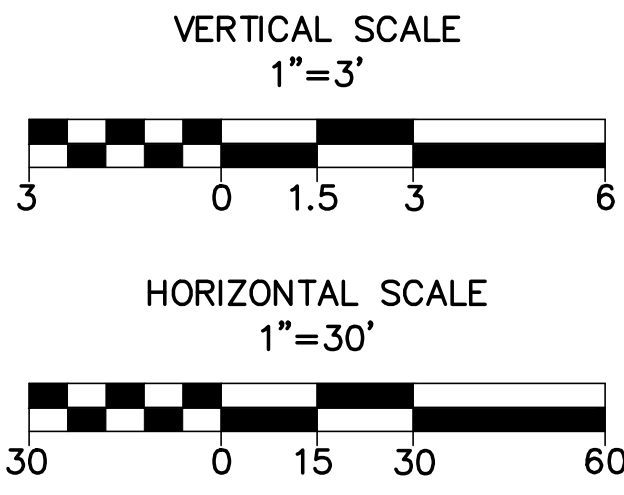
NOT FOR CONSTRUCTION

Jacobs - \\nhill01\job\2022\E2X89212 - MHT RW 6-24 Partial Rehab\700 Drawings\Plans\C-301 - Grading Plan and Cross Sections.dwg [C-311] December 21, 2022 - 6:11am [ccoonlm]



GRADING NOTES:

1. THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES. THE PROPOSED PROFILES/SECTIONS REPRESENT THE BEST-FIT GEOMETRY WITHIN THE EXISTING GRADES. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



PROJECT DESIGNER:	SCALE: 1"=60'
DATE: NOVEMBER 2022	DESIGNED BY: LMO
DRAWN BY: LMO	CHECKED BY: JAM
APPROVED: JWG	

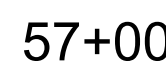
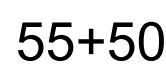
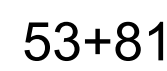


PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24;
TAXIWAY K AND H INTERSECTION; AND TAXIWAY J

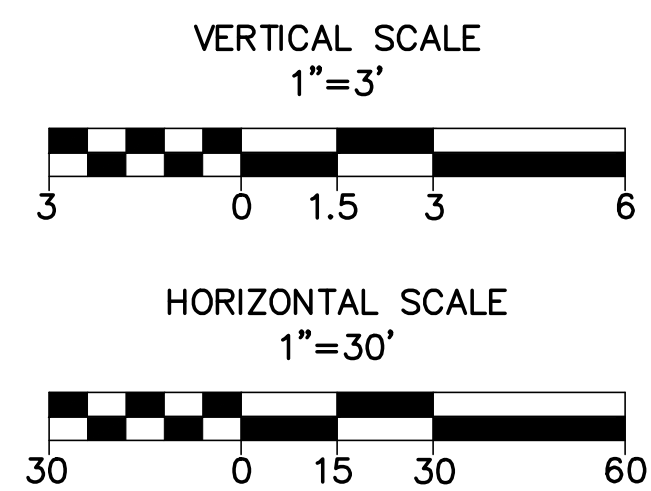
CROSS SECTIONS – RUNWAY 6 –
SHEET 6 OF 6

REV	NO.	DATE	DESCRIPTION	BY
1		12/21/22	ADDENDUM #4	LMO
PROJ. NO.: 3-33-0011-TBD-2023				
JE FILE: E2X89212				
DRAWING NO. C-311				
SHEET 31 OF 48				

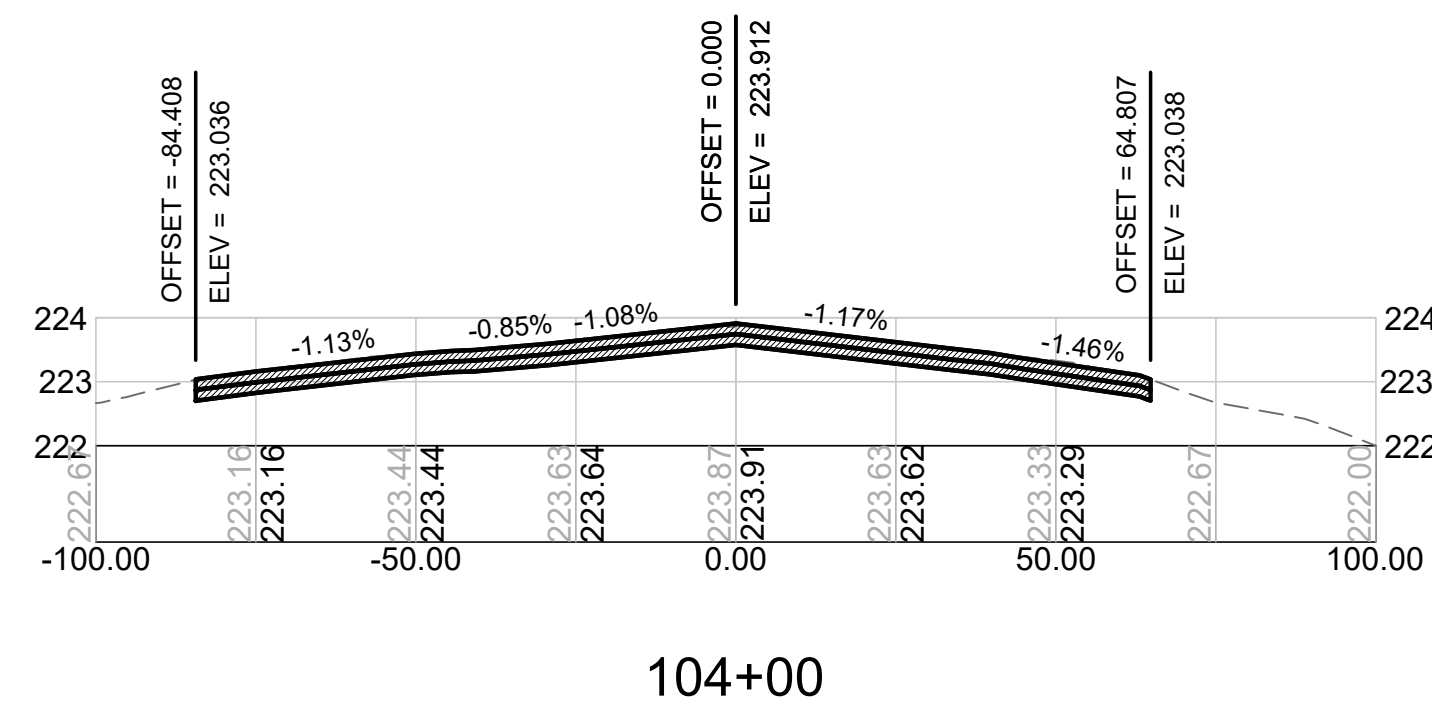
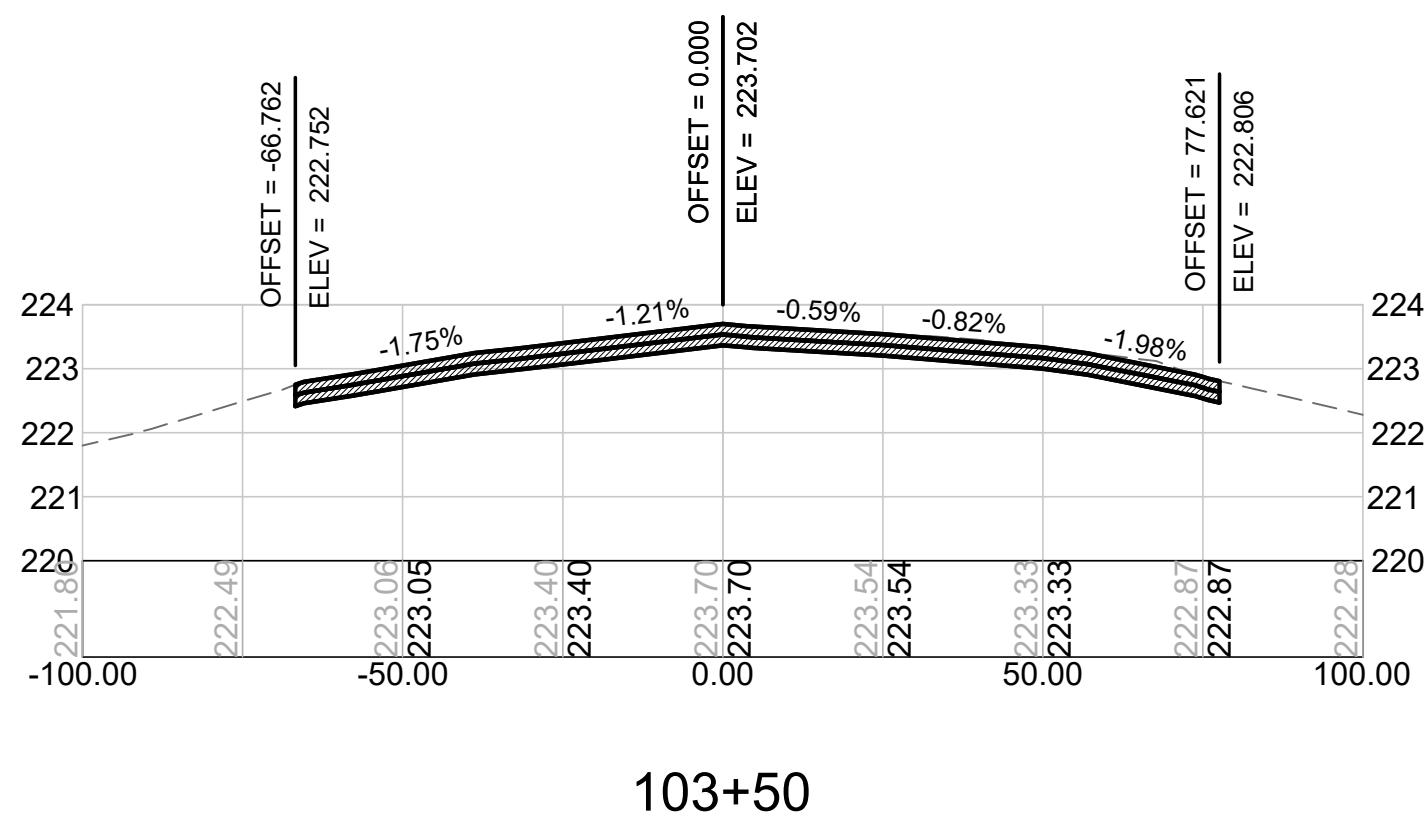
NOT FOR CONSTRUCTION



1. THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES, THE PROPOSED PROFILES/SECTIONS REPRESENT THE BEST-FIT GEOMETRY WITHIN THE EXISTING GRADES. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.

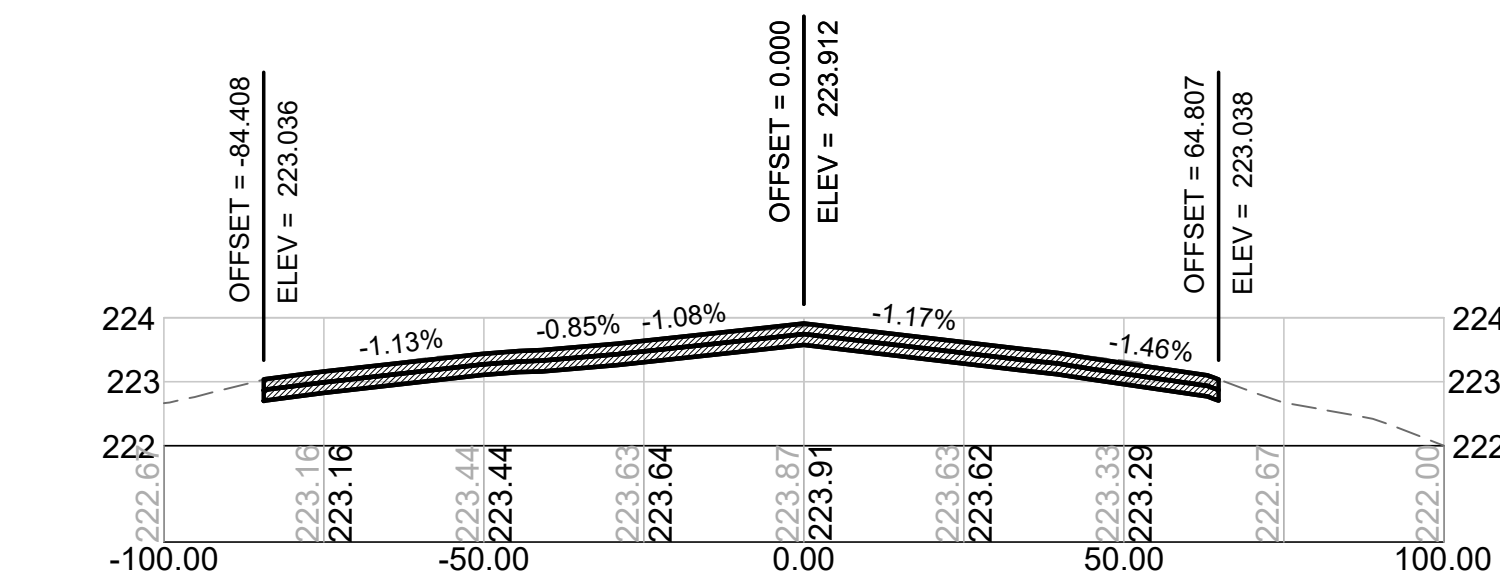
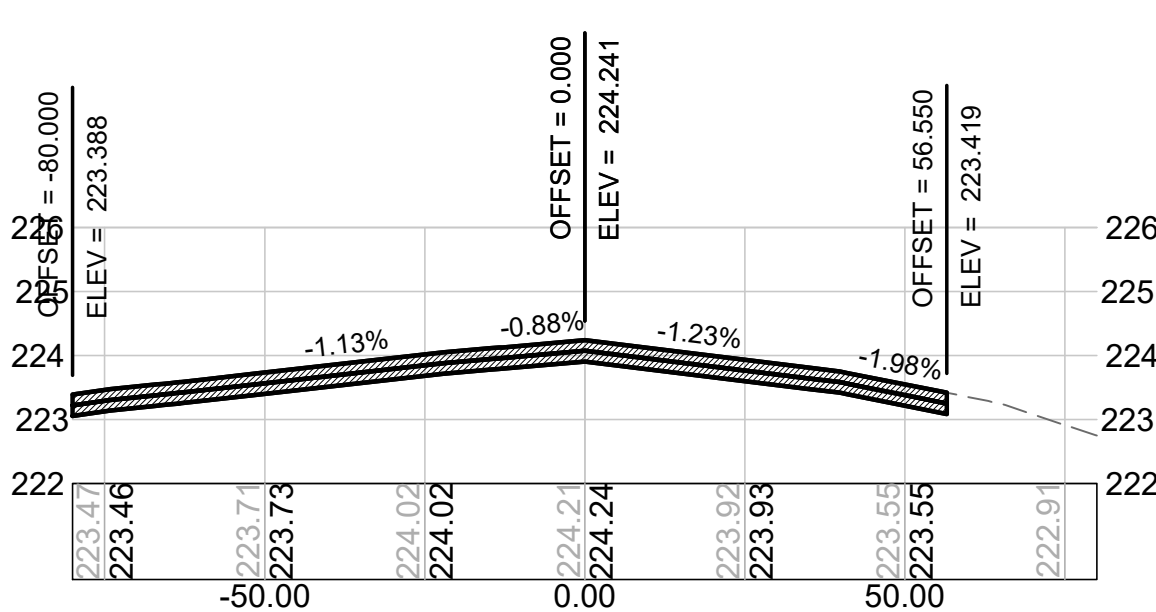


PROJECT DESIGNER:				2 Executive Park Drive Suite 205 Bedford, NH 03110 Phone: (603) 666-7961 Fax: (603) 666-7765	
SCALE:		1"=60'		DESIGNED BY: LMO	
DATE:		NOVEMBER 2022		DRAWN BY: LMO	
DESIGNED BY:		LMO		CHECKED BY: JAM	
APPROVED:		JWG			
 MANCHESTER • BOSTON REGIONAL AIRPORT		PARTIAL REHABILITATION OF RUNWAY 6; RUNWAY 24; TAXIWAY K AND H INTERSECTION; AND TAXIWAY J		CROSS SECTIONS – RUNWAY 24	
REVISIONS		BY			
DESCRIPTION		LMO			
ADDENDUM #4					
REV. NO.	DATE				
1	12/21/22				
PROJ. NO.:		3-33-0011-TBD-2023			
JE FILE:		E2X89212			
DRAWING NO.					
					
SHEET 32 OF 48					
REV					



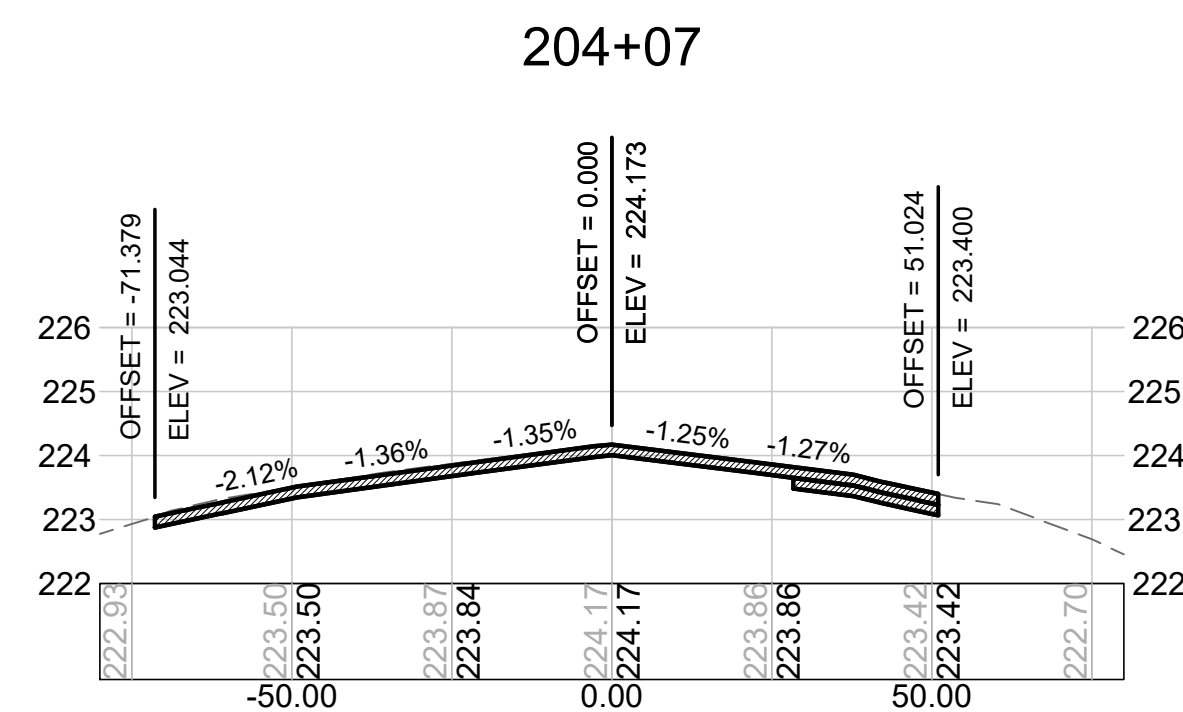
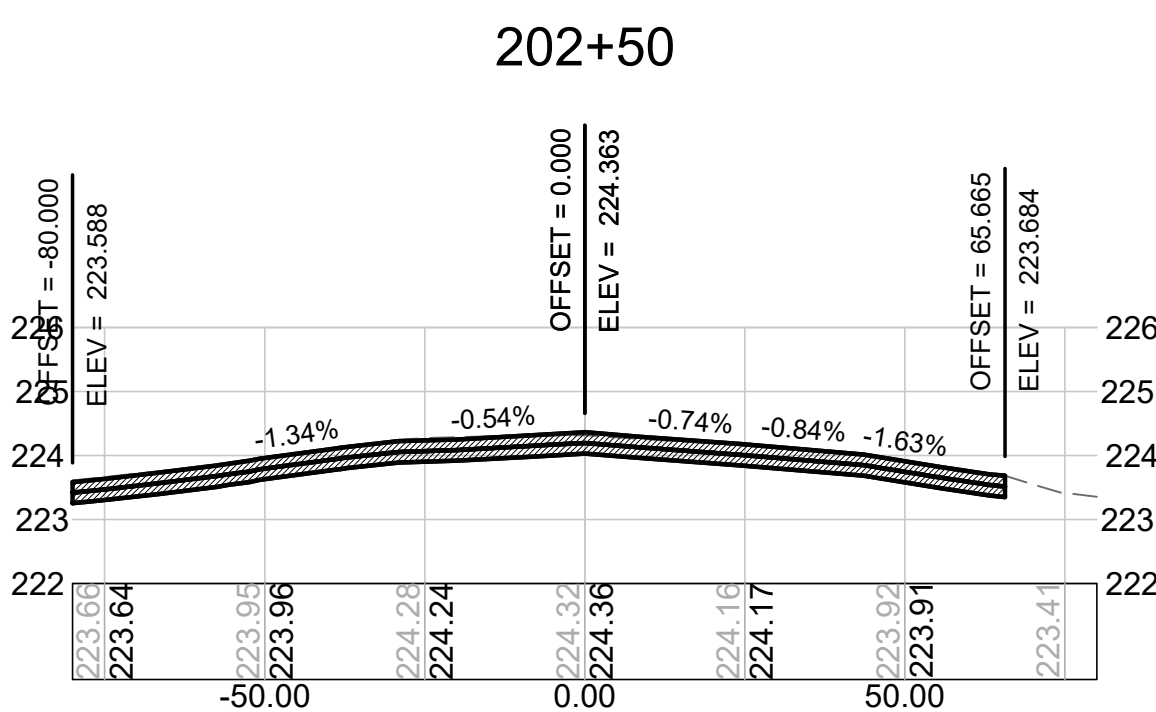
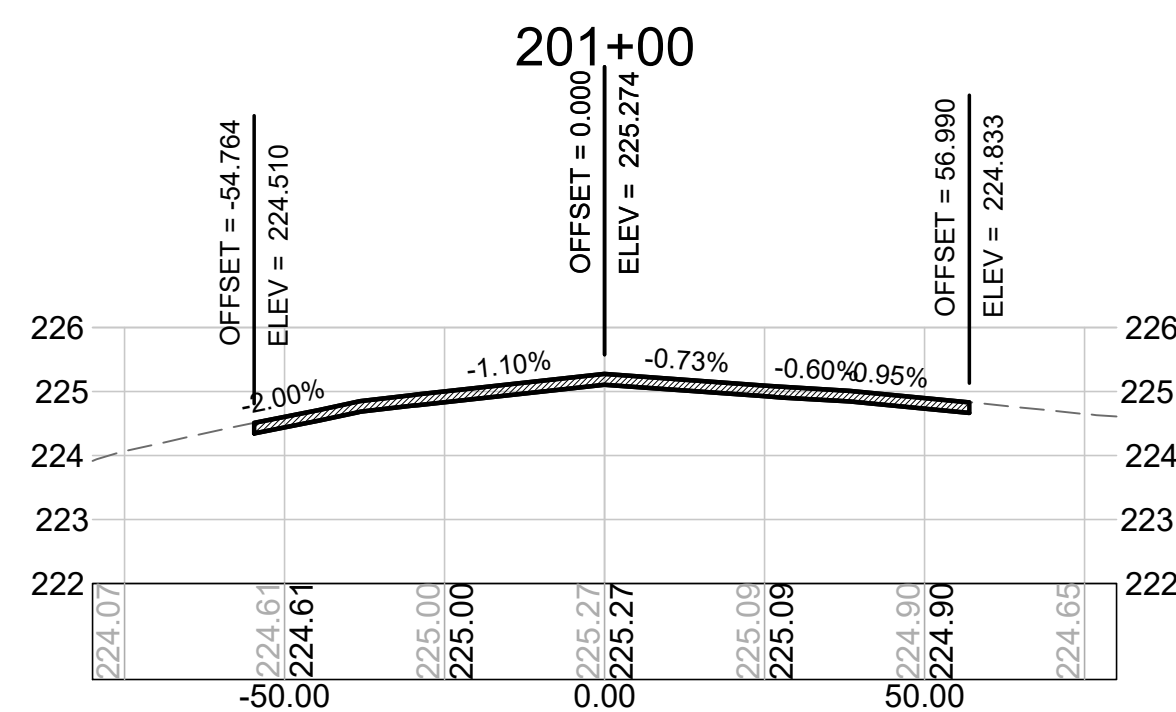
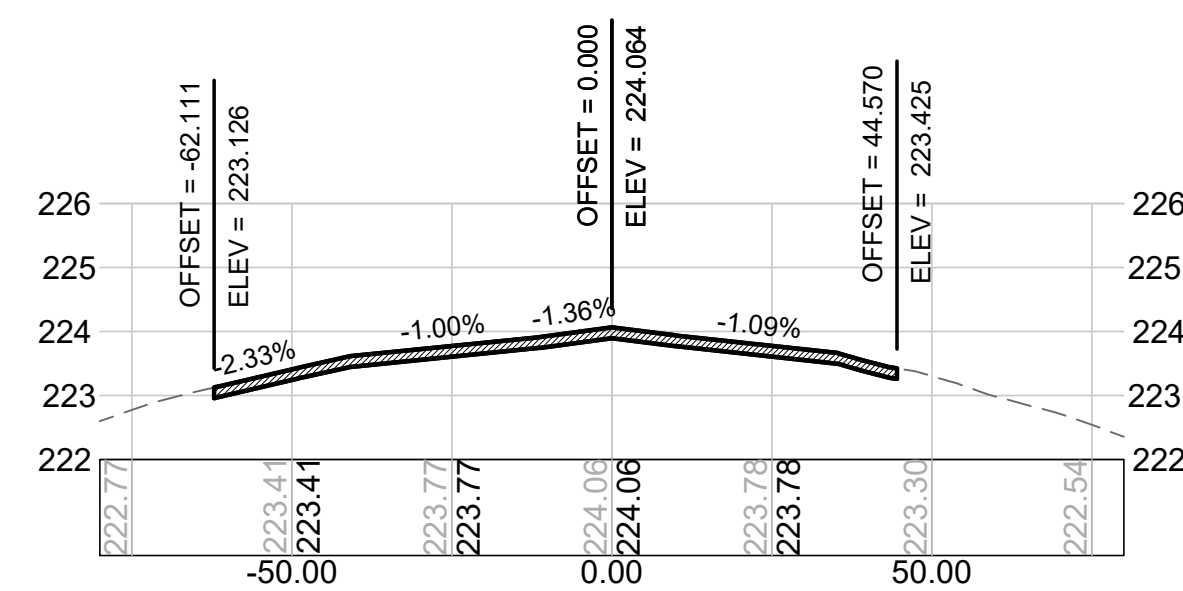
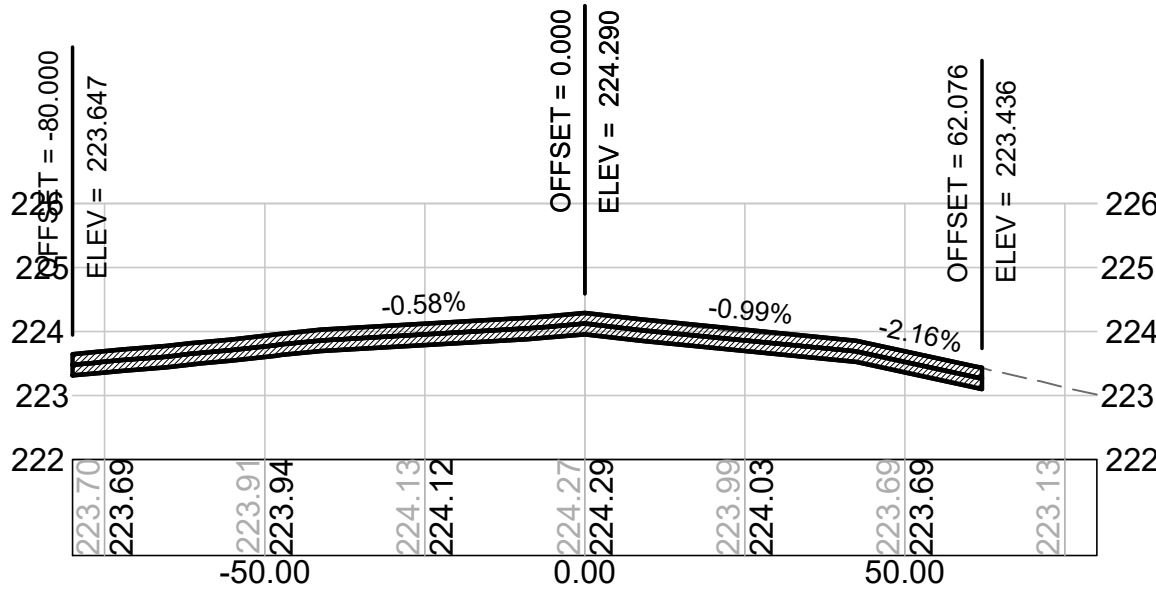
Profile view of the proposed road cross-section. The vertical axis shows elevations from 223.3 to 224.86. The horizontal axis shows stationing from -50.00 to 50.00. The profile shows a road with a central elevation of 224.60 and grades of -1.99%, -1.22%, 1.20%, -1.13%, -0.67%, and -1.05%.

Station	Elevation	Grade
-50.00	223.3	-1.99%
-25.00	224.03	-1.22%
0.00	224.60	1.20%
25.00	224.44	-1.13%
50.00	224.24	-0.67%
75.00	223.86	-1.05%



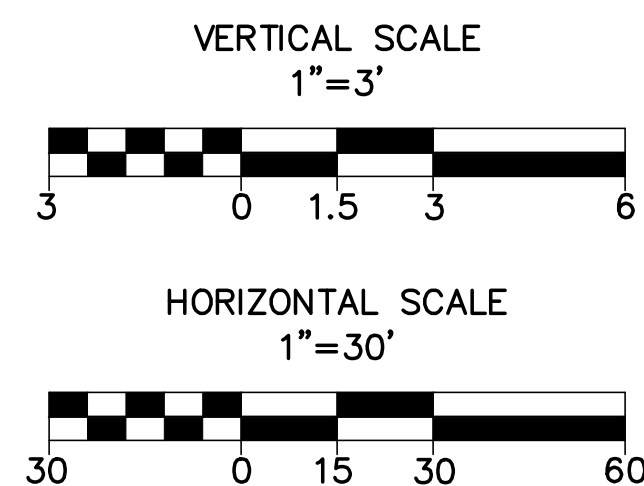
Profile view of the proposed road section. The vertical axis shows elevation in meters (222 to 226). The horizontal axis shows stationing from -50.00 to 50.00. The profile shows a road with a central crest at station 0.00. The proposed road is shown as a solid line, and the existing ground is shown as a dashed line. The profile includes the following data points:

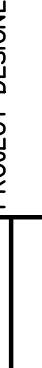
Station	Offset (m)	Elevation (m)	Grade (%)
-50.00	-60.365	224.013	-2.26%
-25.00	-60.365	224.25	-1.21%
0.00	0.00	224.93	-0.72%
25.00	62.870	224.58	-0.69%
50.00	62.870	224.363	-1.43%



200+49

1. THE INTENT OF THIS PROJECT IS TO MATCH THE EXISTING RUNWAY AND TAXIWAY GRADES, THE PROPOSED PROFILES/SECTIONS REPRESENT THE BEST-FIT GEOMETRY WITHIN THE EXISTING GRADES. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECORD INFORMATION AND FIELD SURVEYS. NEITHER THE AIRPORT, RPR, NOR ENGINEER ASSUME ANY RESPONSIBILITY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO THE START OF SITE PREPARATION ACTIVITIES.



 MANCHESTER • BOSTON REGIONAL AIRPORT		SCALE: 1"=60'	
REVISIONS		DATE: NOVEMBER 2022	
REV. NO.	DATE	DESIGNED BY: LMO	
1	12/21/22	DRAWN BY: LMO	
		CHECKED BY: JAM	
		APPROVED: JWG	
ADDENDUM #4		DESIGNED BY: LMO	
DESCRIPTION		DATE: NOVEMBER 2022	
BY		SCALE: 1"=60'	
LMO		DATE: NOVEMBER 2022	
PROJ. NO.: 3-33-0011-TBD-2023		DESIGNED BY: LMO	
JE FILE: E2X89212		DRAWN BY: LMO	
DRAWING NO.		CHECKED BY: JAM	
C-313		APPROVED: JWG	
SHEET 33 OF 48		2 Executive Park Drive Bedford, NH 03110 PHONE: (603) 666-7881 FAX: (603) 666-7885	