

MANCHESTER-BOSTON REGIONAL AIRPORT

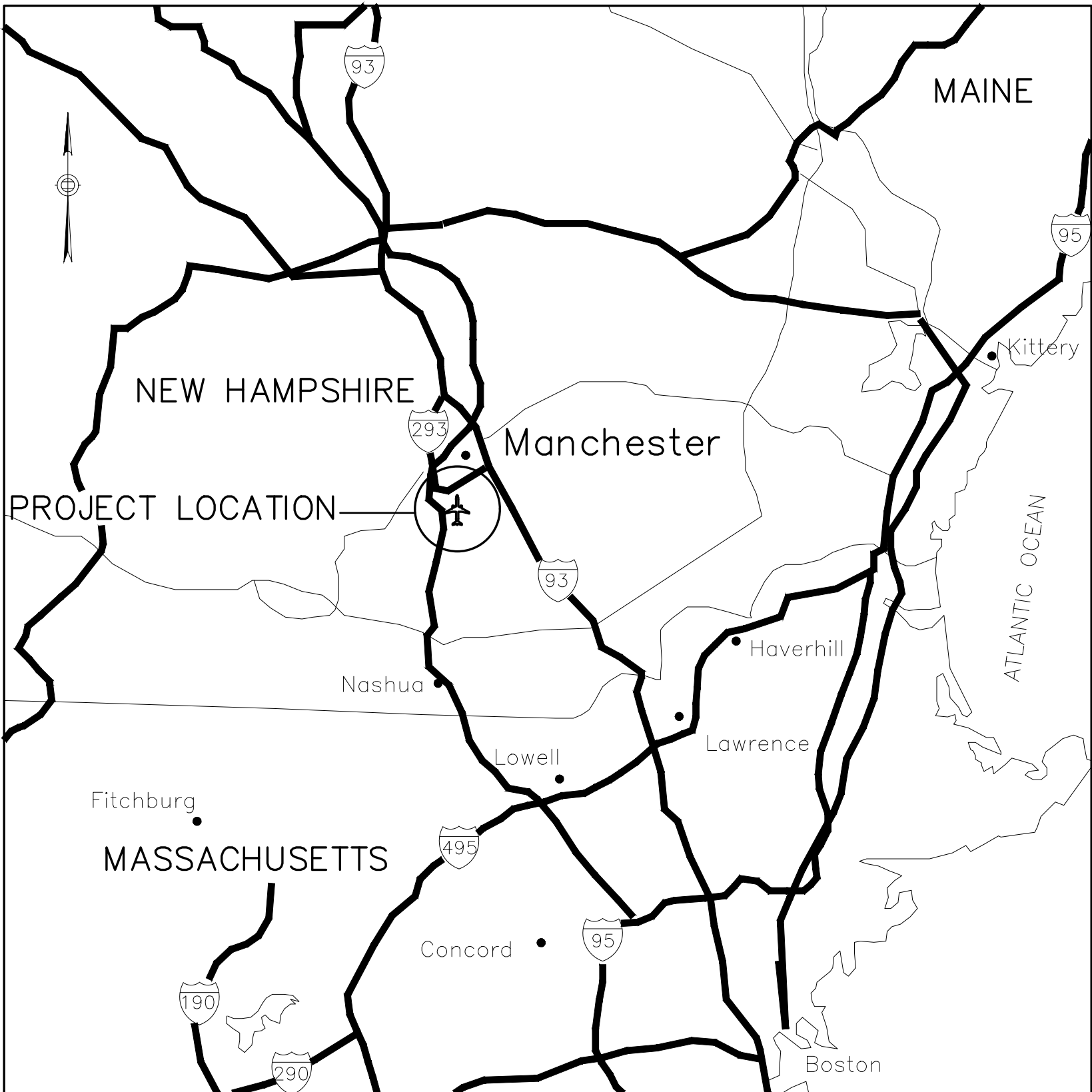
MANCHESTER, NH
REHABILITATION OF TAXIWAY G AND TAXIWAY D (WEST OF TAXIWAY A)

TBD
CITY BID #TBD
MJ PROJECT NO. 19199.01



CITY OF MANCHESTER - DEPARTMENT OF AVIATION

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PE No.	NH 12001	
Date	FEBRUARY 20, 2025	

SUBMITTALS	
SUBMISSION	DATE
60% DESIGN	9/23/24
90% DESIGN	1/17/25
BID DOCUMENTS	2/20/25

PLANS BEST VIEWED IN COLOR

BID DOCUMENTS

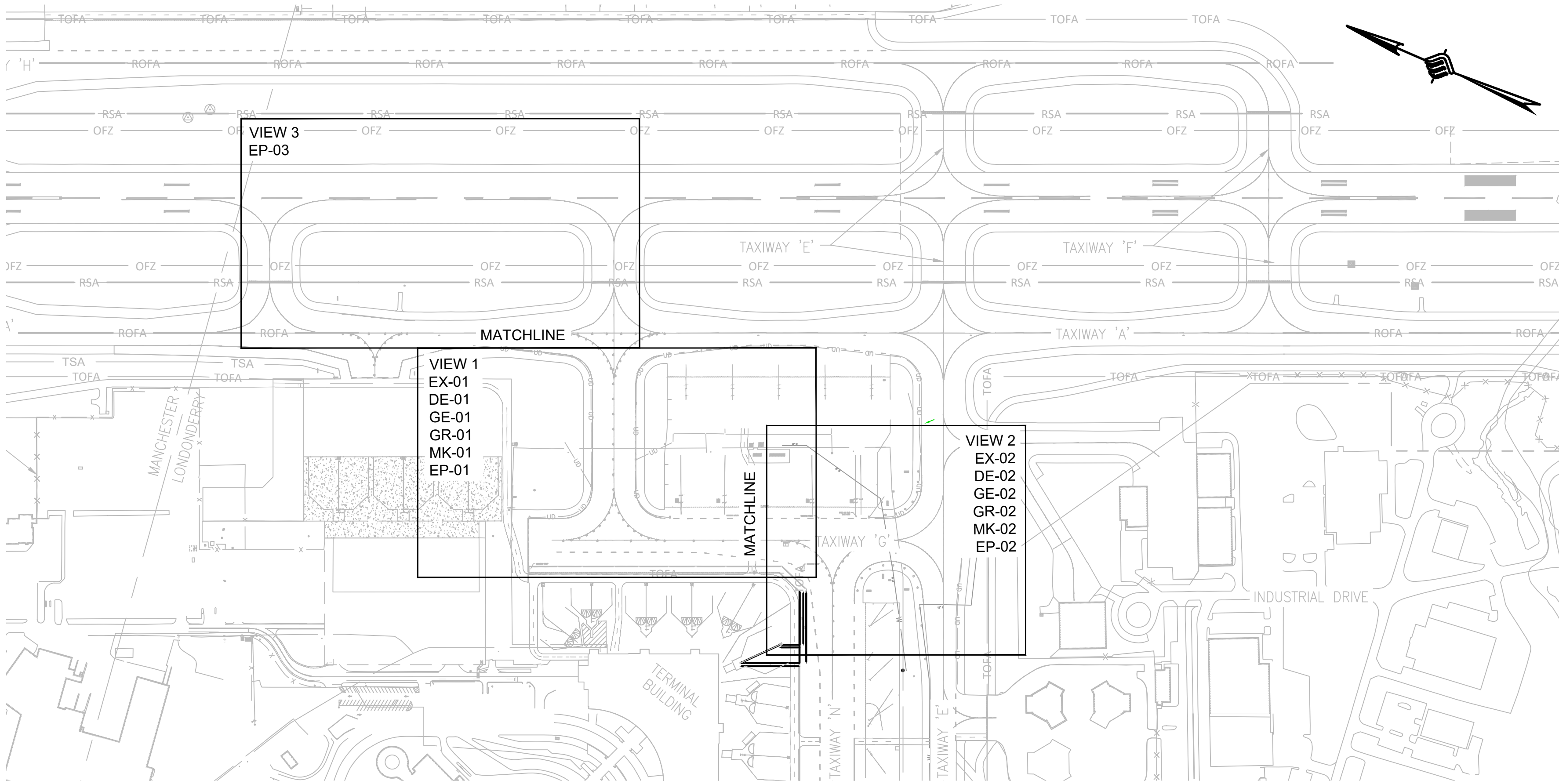
FEBRUARY 2025

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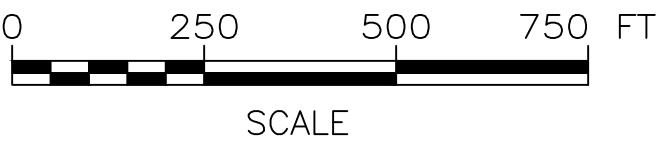
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EXISTING LEGEND			
	DRAIN PIPE		POLE MOUNTED SIGN
	UNDERDRAIN		EDGE OF PAVEMENT
	WATER PIPE		TAXIWAY MARKING
	UNDERGROUND ELECTRIC		WATER VALVE
	DUCT BANK		WATER SHUTOFF
	FAA ELECTRIC		MAJOR CONTOUR
	OVERHEAD ELECTRIC		MINOR CONTOUR
	ELEVATED TAXIWAY EDGE LIGHT		CORE / BORING LOCATION
	IN-PAVEMENT TAXIWAY CENTERLINE LIGHT		UTILITY LINE CAP
	RUNWAY EDGE LIGHT		BOLLARD
	ELECTRIC MANHOLE		TELEPHONE CABLE
	ELECTRIC HANDHOLE		
	FAA ELECTRIC HANDHOLE		
	CATCH BASIN		
	DRAIN MANHOLE		
	UNDERDRAIN CLEANOUT		
	AIRFIELD GUIDANCE SIGN		

PROPOSED LEGEND			
	FULL STRENGTH PAVEMENT		CATCH BASIN
	SHOULDER PAVEMENT		DRAIN MANHOLE
	SAW AND SEAL JOINT		ADJUST DRAINAGE STRUCTURE RIM ELEVATION
	TAXIWAY SAFETY AREA		ADJUST ELECTRICAL STRUCTURE RIM ELEVATION
	TAXIWAY / TAXILANE OBJECT FREE AREA		DRAIN PIPE
	MAJOR CONTOUR		NO. 8 5KV L-824 CABLE AND CONDUIT
	MINOR CONTOUR		GUIDANCE SIGN
	LIMIT OF DISTURBANCE		ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN
	EROSION CONTROL SEDIMENT BARRIER		TAXIWAY CENTERLINE LIGHT ON NEW BASE CAN
	INLET PROTECTION FILTER BAG		ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN
	COLD MILL EXISTING PAVEMENT		REINSTALL EXISTING ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN
	SAWCUT PAVEMENT		REINSTALL EXISTING CENTERLINE LIGHT ON EXISTING BASE CAN
	REMOVE EXISTING CABLE AND CONDUIT		PROPOSED PAVEMENT MARKING
	REMOVE EXISTING VONCRETE ENCASED ELECTRICAL CONDUIT AND CABLE		
	REMOVE EXISTING TAXIWAY MARKING		
	REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND BASE		
	REMOVE TW EDGE LIGHT AND BASE CAN		
	REMOVE TAXIWAY CENTERLINE LIGHT AND BASE CAN		
	REMOVE CONCRETE ENCASED TAXIWAY CENTERLINE LIGHT		
	REMOVE EXISTING LIGHT AND PROVIDE PLATE ON EXISTING BASE CAN		
	REMOVE AND STORE EXISTING LIGHT AND PROVIDE PLATE ON EXISTING BASE CAN		



KEY PLAN
1" = 250'



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR CONSTRUCTION

PROJECT DESIGNER

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PH: 603-225-2978 FAX: 603-225-0095

DESIGNED BY DFB
DRAWN BY TC
CHECKED BY BMG

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

INDEX SHEET

SCALE: 1"=250'
DATE: FEBRUARY 2025

REV. NO.	DATE	DESCRIPTION	BY

MJ PROJ. No.:19199.01
FILE NAME:
AIP No.: TBD

DRAWING NO.

IN-01

SHEET 2 OF 39

REV

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GENERAL INCIDENTAL ITEMS AND CLARIFICATION NOTES:

1. THE NOTES LISTED BELOW ARE GENERAL CLARIFICATIONS. IF ANY TEXT LISTED BELOW IS CONTRADICTED BY THE SPECIFICATIONS THEN THE SPECIFICATIONS SHALL DICTATE.
2. M-300-1: MAINTENANCE AND PROTECTION OF TRAFFIC

2.1. PAYMENT FOR THIS ITEM SHALL INCLUDE ALL EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO ADEQUATELY AND SAFELY MAINTAIN AND PROTECT TRAFFIC TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) AND MHT OPERATIONS.

2.2. THE PLACEMENT OF SAFETY BARRICADES AND LIGHT RUNWAY CLOSURE MARKERS (IF REQUIRED) SHALL BE CONSIDERED INCIDENTAL TO ITEM M-300-1.

2.3. THE CONTRACTOR SHALL PROVIDE VACUUM SWEEPER AND DEDICATED OPERATOR TO PROVIDE ADEQUATE SWEEPING AND MAINTENANCE OF HAUL ROUTES AND OPEN AIRFIELD PAVEMENTS AT ALL TIMES. AN ADDITIONAL VACUUM SWEEPER WILL BE REQUIRED ON HEAVY CONSTRUCTION TRAFFIC DAYS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM M-300-1.
3. P-101-5.7A: CABLE REMOVAL

3.1. THE UNIT MEASUREMENT FOR REMOVAL OF CABLING WILL BE MADE FOR EACH LINEAR FOOT COMPLETED AND ACCEPTED. THERE SHALL BE NO SEPARATE MEASUREMENT WHETHER THERE IS ONLY ONE CABLE OR MULTIPLE CONDUCTORS FOR THE LINEAR SECTION OF DUCT BANK OR CONDUIT FOR EACH CIRCUIT OF CABLING BEING REMOVED.
4. P-606: ADHESIVE COMPOUND

4.1. NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE FOR MATERIALS USED FOR IN-PAVEMENT LIGHTING SYSTEMS.
5. P-610: CONCRETE

5.1. CONCRETE SHALL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED ITEM AND NO SEPARATE MEASUREMENT SHALL BE MADE.
6. P-620-5.2B: MARKING

6.1. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT. THE INITIAL APPLICATION SHALL BE PERFORMED AT PERMANENT APPLICATION RATE WITHOUT REFLECTIVE MEDIA. THE FINAL COAT SHALL BE APPLIED AT PERMANENT APPLICATIONS RATE WITH REFLECTIVE MEDIA. FINAL PAYMENT TO THE CONTRACTOR FOR MEASURED QUANTITIES SHALL BE FOR A SINGLE PAYMENT FOR BOTH COATS.
7. D-701: DRAIN PIPE

7.1. ALL FITTINGS SHALL BE INCLUDED IN THE LINEAR FOOTAGE FOR THE PIPE SECTIONS BEING MEASURED AND SHALL BE CONSIDERED INCIDENTAL TO THE ITEM.

7.2. PIPE CONNECTIONS TO EXISTING DRAINAGE STRUCTURE SHALL BE CONSIDERED INCIDENTAL TO THE D-701 PIPE INSTALLATION.
8. D-751-5.2: CATCH BASINS

8.1. PIPE CONNECTIONS INTO NEW CATCH BASINS SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM.
9. L-108-5.1: NO. 8 AWG, 5 KV, L-824, TYPE C CABLE, INSTALLED IN TRENCH, DUCT BANK, OR CONDUIT

9.1. MEASUREMENT FOR THIS ITEM SHALL NOT INCLUDE ADDITIONAL QUANTITIES REQUIRED FOR SLACK. CABLE AND COUNTERPOISE SLACK IS CONSIDERED INCIDENTAL TO THIS ITEM.
10. L-125: INSTALLATION OF AIRPORT LIGHTING SYSTEMS

10.1. TAXIWAY LIGHTS WILL BE MEASURED BY THE NUMBER OF EACH TYPE INSTALLED AS COMPLETED UNITS IN PLACE, READY FOR OPERATION, AND ACCEPTED BY THE RPR.
11. F-162-5.1A: RELOCATION OF EXISTING CHAIN-LINK FENCE ON CONCRETE BARRIERS

11.1. RELOCATION FOR EXISTING CHAIN-LINK FENCE ON CONCRETE BARRIERS WILL BE MEASURED AS THE INITIAL RELOCATION OF FENCE TO THE TEMPORARY LOCATION AND THE RELOCATION FROM THE TEMPORARY LOCATION TO ITS ORIGINAL LOCATION.

11.2. ADDITIONAL FENCE NOT USED IN TEMPORARY LOCATION SHALL BE STORED IN A LOCATION APPROVED BY MHT OPERATIONS OR THE RPR.

ITEM LIST & QUANTITIES

Bid Item	Description Of Item	Unit	Quantity
C-105-1	Mobilization	LS	1
M-100-1	Allowance - Gate Guards	AL	1
M-150-1	Engineer Field Office	LS	1
M-200-1	Field Survey and Layout	LS	1
M-250-1	Record Documents	LS	1
M-250-2	Field Data Collection for GIS Survey Conversion	LS	1
M-300-1	Maintenance and Protection of Traffic	LS	1
C-100-1	Contractor Quality Control Program	LS	1
C-102-5.1	Installation and Removal of Inlet Protection Filter Bags	EA	5
C-102-5.2	Installation and Removal of Erosion Control Logs	LF	1000
C-102-5.4	Installation of Bonded Fiber Matrix	LBS	3400
P-101-5.2A	Joint and Crack Repair - Type 1	LF	400
P-101-5.2B	Joint and Crack Repair - Type 2	LF	200
P-101-5.6	Cold Milling	SY	32900
P-101-5.7A	Cable Removal	LF	3300
P-152-4.1	Unclassified Excavation	CY	550
P-401-8.1	Asphalt Surface Course	TON	8500
P-603-5.1	Emulsified Asphalt Tack Coat	GAL	4600
P-605-5.1	Joint Sealing Filler (Saw & Seal)	LF	2350
P-620-5.1a	Surface Preparation	SF	100
P-620-5.2b	Markings	SF	8150
P-620-5.3c	Reflective Media	LBS	200
D-701-5.1	12in Class V Reinforced Concrete Pipe	LF	80
D-751-5.2	Aircraft-Rated Catch Basin	EA	1
D-751-5.3	Adjust Structure Rim/Grate Elevation	EA	9
T-901-5.1	Seeding	KSF	44
F-162-5.1A	Relocated Chain-Link Fence on Concrete Barrier	LF	420
T-905-5.2	Topsoil (Furnished from Off the Site)	CY	550
T-908-5.1	Mulching	SY	4900
L-108-5.1	No. 8 AWG, 5kV, L-824 Type C Cable	LF	9650
L-108-5.2	No. 6 AWG, Solid Bare Copper Counterpoise Wire	LF	1050
L-110-5.1	Concrete Encased Electrical Conduit, 1-Way-2-inch	LF	1050
L-110-5.3	Removal of Concrete Encased or Non-Encased Electrical Conduit/Duct and Cable	LF	375
L-125-5.1A	New L-861T Elevated Taxiway Edge Light on New Base Can	EA	16
L-125-5.1B	New L-861T Elevated Taxiway Edge Light on Existing Base Can	EA	6
L-125-5.1C	Reinstall Existing L-861T Elevated Taxiway Edge Light on Existing Base Can	EA	7
L-125-5.1D	Reinstall Existing L-852C(L) In-Pavement Taxiway Centerline Light on Existing Base Can	EA	8
L-125-5.2A	New L-852C(L) In-Pavement Taxiway Centerline Light	EA	22
L-125-5.2B	New L-852K(L) In-Pavement Taxiway Centerline Light	EA	35
L-125-5.3A	New L-858(L) Airfield Guidance Sign - 1 Module	EA	1
L-125-5.3B	New L-858(L) Airfield Guidance Sign - 2 Module	EA	1
L-125-5.3C	New L-858(L) Airfield Guidance Sign - 3 Module	EA	2
L-125-5.4	Remove Existing Light and Provide Plate on Existing Base Can	EA	6
L-125-5.5	Remove and Store Existing Light and Provide Plate on Existing Base Can	EA	15
L-125-5.6	Remove Existing Elevated Taxiway Edge Light and Base Can	EA	16
L-125-5.7	Remove Existing In-Pavement Taxiway Centerline Light and Base Can	EA	51
L-125-5.8	Remove Existing Concrete Encased In-Pavement Taxiway Centerline Light and Base Can	EA	4
L-125-5.9	Remove Airfield Guidance Sign & Foundation	EA	4

ENGINEER'S SEAL

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CHECKED BY
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TC

DESIGNED BY
DRB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

QUANTITY TABLES

DATE: FEBRUARY 2025

NTS

SCALE:

REVISIONS

DESCRIPTION

DATE

REV. NO.

M/J PROJ. No.:19199.01

FILE NAME:

A/P No.: TBD

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QU-01

SHEET 3 OF 39

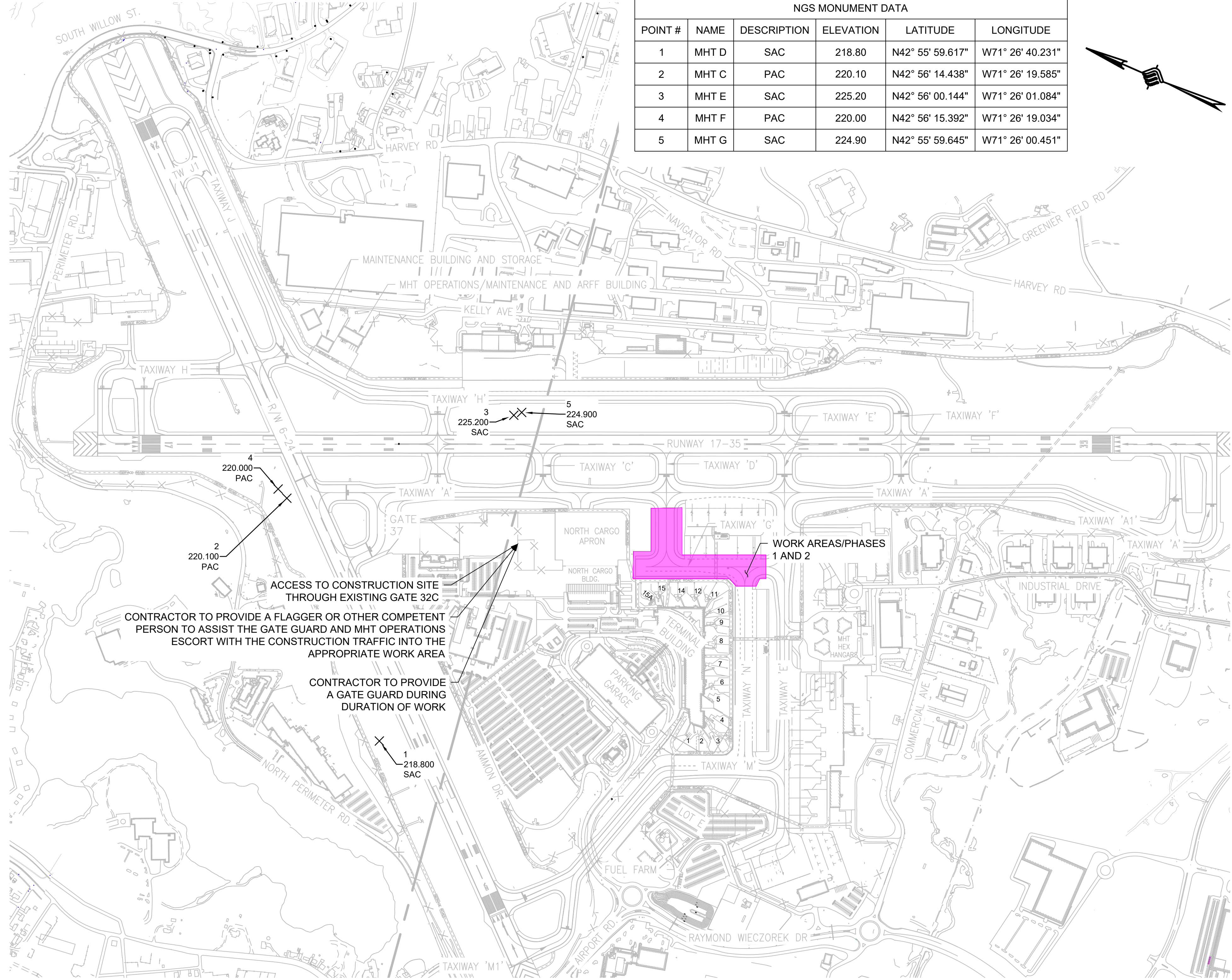


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GENERAL NOTES:

1. THE CONTRACTOR SHALL ACCESS THE WORK SITE AS SHOWN ON THIS SHEET. ON AIRFIELD ACCESS SHALL REQUIRE ESCORTS FOR ALL PHASES AND WILL BE PROVIDED BY MANCHESTER (MHT) OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PROJECT SUPPLIERS AND SUBCONTRACTORS OF ALLOWABLE WORK SITE ACCESS AND ROUTES SHOWN ON THE PHASING PLANS
2. THE CONTRACTOR SHALL CONDUCT HIS/HER OPERATION SO AS TO AFFORD COMPLETE UNRESTRICTED ACCESS BY EMERGENCY PERSONNEL AND EQUIPMENT.
3. THE CONTRACTOR SHALL SUBMIT TO THE RESIDENT PROJECT REPRESENTATIVE (RPR) A PROPOSED WORK SCHEDULE FOR THE SUBSEQUENT 2-WEEK PERIOD A MINIMUM OF 48 HOURS PRIOR TO THE BI-WEEKLY PROJECT PROGRESS MEETING. THE SCHEDULE SHALL INCLUDE IDENTIFICATION OF WORK TASKS AND SKETCHES OF PROPOSED PAVEMENT CLOSURES, PROPOSED HAUL ROUTES AND PROPOSED LOCATION OF ALL SAFETY BARRICADES. THE SCHEDULE SHALL BE REVIEWED AND APPROVED BY THE RPR AND MHT OPERATIONS.
4. THE CONTRACTOR SHALL NOT BEGIN WORK IN ANY AREA UNTIL THE RPR AND MHT OPERATIONS HAS APPROVED THE TEMPORARY MARKINGS AND SAFETY BARRICADES LAYOUT, AND CONFIRMED THAT TEMPORARY MARKINGS AND SAFETY BARRICADES HAVE BEEN PROPERLY PLACED. THE CONTRACTOR SHALL NOT ENTER THE WORK AREA TO COMMENCE OPERATIONS UNTIL OBTAINING APPROVAL FROM THE RPR AND MHT OPERATIONS.
5. ALL VEHICLES EXITING THE CONSTRUCTION WORK AREA SHALL BE CLEANED AND CLEAR FROM FOREIGN OBJECT DEBRIS (FOD) PRIOR TO LEAVING THE WORK SITE. THE CONTRACTOR SHALL FURNISH, MAINTAIN, AND OPERATE ONE VACUUM SWEEPER TRUCK WITH A DEDICATED OPERATOR ON A FULL-TIME BASIS FOR THE DURATION OF THE PROJECT AND SHALL UTILIZE IT TO REMOVE PROJECT DEBRIS FROM THE ACCESS ROUTE AND WORK AREA AS DIRECTED BY THE RPR OR MHT OPERATIONS. ADDITIONAL VACUUM SWEEPERS SHALL BE ON-SITE DURING HEAVY CONSTRUCTION TRAFFIC OPERATIONS AS DETERMINED BY THE RPR.
6. AT THE COMPLETION OF EACH WORK DAY, THE CONTRACTOR SHALL INSPECT THE WORK SITE IN THE PRESENCE OF THE RPR AND MHT OPERATIONS TO VERIFY THAT ALL SAFETY BARRICADES AND SAFETY LIGHTS ARE IN PLACE AND IN PROPER WORKING ORDER. ACCESS ROUTES AND ALL APRON PAVEMENTS ADJACENT TO THE WORK AREA SHALL ALSO BE INSPECTED FOR FOD. ALL DEFICIENCIES SHALL BE CORRECTED BY THE CONTRACTOR PRIOR TO LEAVING THE WORK SITE FOR THE DAY. IN ADDITION, PRIOR TO THE COMPLETION OF EACH WORK DAY, THE ELECTRICAL SUBCONTRACTOR SHALL BE PRESENT TO VERIFY THAT ALL THE ELECTRICAL SERVICES AND NAVAIDS ARE FULLY OPERATIONAL.
7. THE CONTRACTOR'S ATTENTION IS CALLED TO THE SUPPLEMENTAL PROVISIONS, CONSTRUCTION SAFETY AND PHASING PLAN, AND SPECIAL WORK REQUIREMENTS OF THE CONTRACT DOCUMENTS WITH REGARD TO ANY "SPECIAL PROVISIONS" WHICH MAY BE SPECIFIC TO THE SAFETY AND PHASING OF THIS PROJECT.
8. AIRCRAFT OPERATIONS WILL BE CONDUCTED ON THE AIRPORT DURING CONSTRUCTION. THE PROJECT PHASING HAS BEEN DESIGNED TO MINIMIZE INTERFERENCE WITH DAILY AIRPORT OPERATIONS. THE WORK SHALL BE PERFORMED IN SUCH A MANNER AS NOT TO INTERFERE WITH THE NECESSARY OPERATION OF THE AIRPORT. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS CONTRACTOR EQUIPMENT AND PERSONNEL. MINOR MODIFICATIONS AND/OR CHANGES TO THE PHASING PLAN MAY BE ALLOWED BUT ONLY IF IT MINIMIZES IMPACT TO AIRPORT OPERATIONS AND WILL BENEFIT MHT OPERATIONS. ALL SUCH CHANGES SHALL BE AT NO ADDITIONAL EXPENSE TO THE CITY OF MANCHESTER - DEPARTMENT OF AVIATION, AND SHALL BE APPROVED BY THE RPR, MHT OPERATIONS, AND FAA PRIOR TO ANY IMPLEMENTATION. ALL CHANGES SHALL BE DOCUMENTED.
9. NO CONSTRUCTION OPERATIONS SHALL BE PERFORMED WITHIN 121.5 FEET OF THE CENTERLINE OF ANY ACTIVE TAXIWAY, OR WITHIN 250 FEET OF THE CENTERLINE OF ANY ACTIVE RUNWAY OR WITHIN THE LIMITS OF ACTIVE RUNWAY APPROACH ZONES UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM MHT OPERATIONS. WHEN PERMISSION HAS BEEN GRANTED TO WORK INSIDE THESE LIMITS, NO EQUIPMENT SHALL BE LEFT IDLE OR STORED WITHIN THE LIMITS WHEN NOT ACTUALLY WORKING. ALL BOOMS SHALL BE LOWERED WHEN THE EQUIPMENT IS NOT IN OPERATION. CONTRACTOR'S EQUIPMENT MAINTENANCE REQUIRING OPEN FLAME, WELDING, SPARKS OR BURNING, SHALL NOT BE PERFORMED WITHIN 150 FEET OF AIRCRAFT. ALL HOT WORK SHALL REQUIRE A PERMIT FROM THE MANCHESTER FIRE DEPARTMENT.
10. DURING ALL PHASES, ALL VEHICLES ENTERING THE AIRFIELD FOR CONSTRUCTION PURPOSES SHALL BE ESCORTED TO AND FROM THE WORK AREA BY MHT OPERATIONS. THE CONTRACTOR SHALL PROVIDE A GATE GUARD AT THE ACCESS GATE AT ALL TIMES WHEN THE GATE IS UNLOCKED TO PROPERLY IDENTIFY, REGULATE AND DIRECT ALL CONSTRUCTION VEHICLES ENTERING THE AIR OPERATIONS AREA (AOA) OF THE AIRPORT. ALL VEHICLES SHALL BE INSPECTED PRIOR TO ENTERING THE AOA. TEMPORARY CONSTRUCTION BADGES WILL BE ISSUED TO INDIVIDUALS THAT DO NOT HAVE AN MHT BADGE. INDIVIDUALS ENTERING THE AOA MUST BE IN A VEHICLE. WALKING THROUGH A VEHICLE GATE IS NOT PERMITTED.
11. ALL CONTRACTOR'S MOTORIZED VEHICLES OPERATING IN AIRCRAFT MOVEMENT AREAS SHALL BE EQUIPPED WITH AN AMBER FLASHING LIGHT AND/OR A 3 FOOT SQUARE FLAG CONSISTING OF INTERNATIONAL ORANGE AND WHITE SQUARES NOT LESS THAN ONE FOOT SQUARE DISPLAYED IN FULL VIEW ABOVE THE VEHICLE. ALL CONTRACTOR'S VEHICLES SHALL HAVE THE COMPANY IDENTIFICATION AND TELEPHONE NUMBER PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE.
12. THE CONTRACTOR SHALL FOLLOW MANCHESTER AIRPORT OPERATIONS CONSTRUCTION TRAFFIC REQUIREMENTS AS THEY PERTAIN TO THE OPERATIONS AND ROUTES TO BE TAKEN BY EQUIPMENT TRAVELING ON AIRPORT PROPERTY. ANY SIGNS, LIGHTS, SIGNALS, MARKINGS, OR TRAFFIC CONTROL DETERMINED TO BE NECESSARY BY THE RPR FOR PERSONNEL, VEHICLES, AND EQUIPMENT TO SAFELY ACCESS/EGRESS THE WORK SITE SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE WORK AT NO ADDITIONAL COST TO THE CITY OF MANCHESTER, UNLESS SPECIFICALLY NOTED AS ELIGIBLE FOR PAYMENT. NO AIRCRAFT PAVEMENT OR NAVIGATION AID CURRENTLY IN SERVICE SHALL BE LEFT OUT OF SERVICE OVERNIGHT UNLESS PREVIOUSLY SCHEDULED AND APPROVED BY THE RPR, MHT OPERATIONS, AND FAA REPRESENTATIVE, WHERE APPLICABLE.
13. PARKING OF PERSONAL VEHICLES INSIDE THE AOA WILL NOT BE PERMITTED. THE CONTRACTOR, AS A SUBSIDIARY OBLIGATION, SHALL PROVIDE TRANSPORTATION FOR HIS/HER EMPLOYEES TO AND FROM THE WORK AREA FROM A PUBLIC PARKING AREA.
14. ALL EXCAVATIONS SHALL BE BACKFILLED, THE PAVEMENT REPAIRED, PROPERLY CURED, MARKED AND APPROVED BY THE RPR PRIOR TO THE WORK AREA BEING REOPENED TO TRAFFIC.
15. ALL EXCAVATED STRUCTURES, PAVEMENTS, AND UNUSED CONSTRUCTION DEBRIS SHALL BE IMMEDIATELY REMOVED FROM THE AIRFIELD AND BE LEGALLY RECYCLED OR DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY, OR TEMPORARILY STORED IN THE DESIGNATED CONTRACTOR STAGING AND EQUIPMENT STORAGE AREA. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY ALL FEES REQUIRED FOR DISPOSAL OF CONSTRUCTION MATERIAL OFF THE AIRPORT. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR THE DISPOSAL, BUT RATHER THE DISPOSAL SHALL BE INCIDENTAL TO THE RESPECTIVE ITEM ASSOCIATED WITH THE MATERIAL.
16. LOCATION OF EXISTING UTILITIES AND INFRASTRUCTURE UNDERGROUND AND ABOVEGROUND ARE FROM RECORD PLANS. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION OF ALL UTILITIES IN THE PROJECT AREA. ALL EXISTING UTILITIES AND INFRASTRUCTURE IN THE VICINITY OF ANY EXCAVATION SHALL BE CLEARLY MARKED BY THE CONTRACTOR ON THE GROUND PRIOR TO BEGINNING EXCAVATION. THE CONTRACTOR SHALL NOTIFY THE FAA AT LEAST 48 HOURS PRIOR TO BEGINNING EXCAVATION NEAR FAA NAVAIDS OR THEIR ASSOCIATED CABLES.

17. PRIOR TO COMMENCING CONSTRUCTION IN ANY PORTION OF THE WORK AREA, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, ANY UNDERGROUND UTILITIES DAMAGED BY THEIR OPERATIONS AND THEIR SUBCONTRACTOR'S OPERATIONS. ALL REPAIRS SHALL REQUIRE THE RPR'S AND UTILITY OWNER'S REVIEW AND APPROVAL.
18. THE CONTRACTOR SHALL REPAIR, AT THEIR OWN EXPENSE, ANY DAMAGE DONE TO THE EXISTING PAVEMENT BY THEIR OPERATIONS AND THEIR SUBCONTRACTORS OPERATIONS. ALL REPAIRS SHALL REQUIRE THE RPR'S AND OWNER'S REVIEW AND APPROVAL.
19. THE CONTRACTOR SHALL PERFORM DUST CONTROL FOR THE PROJECT AS NECESSARY. NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE FOR DUST CONTROL. DUST CONTROL SHALL BE INCIDENTAL TO THE VARIOUS ITEMS ASSOCIATED WITH DUST GENERATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THEIR OWN WATER SOURCE.
20. ALL ENVIRONMENTAL EROSION CONTROL DEVICES SHALL BE INSTALLED AND APPROVED BY THE RPR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.



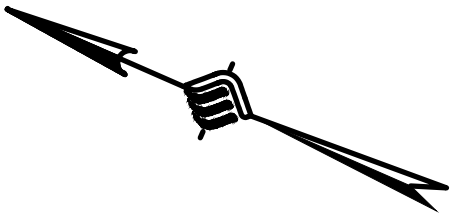
LEGEND:



PHASED WORK AREAS

DATA: NGS 2016, NAD 83 (2011) and NAVD 88

NGS MONUMENT DATA					
POINT #	NAME	DESCRIPTION	ELEVATION	LATITUDE	LONGITUDE
1	MHT D	SAC	218.80	N42° 55' 59.617"	W71° 26' 40.231"
2	MHT C	PAC	220.10	N42° 56' 14.438"	W71° 26' 19.585"
3	MHT E	SAC	225.20	N42° 56' 00.144"	W71° 26' 01.084"
4	MHT F	PAC	220.00	N42° 56' 15.392"	W71° 26' 19.034"
5	MHT G	SAC	224.90	N42° 55' 59.645"	W71° 26' 00.451"



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095

CHECKED BY

DRAWN BY

DESIGNED BY
##

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

GENERAL PLANS & NOTES

SCALE: 1"=500' DATE: FEBRUARY 2025

REVISIONS		DESCRIPTION	BY
REV. NO.	DATE		

M/J PROJ. No.19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

GP-01

SHEET 4 OF 39

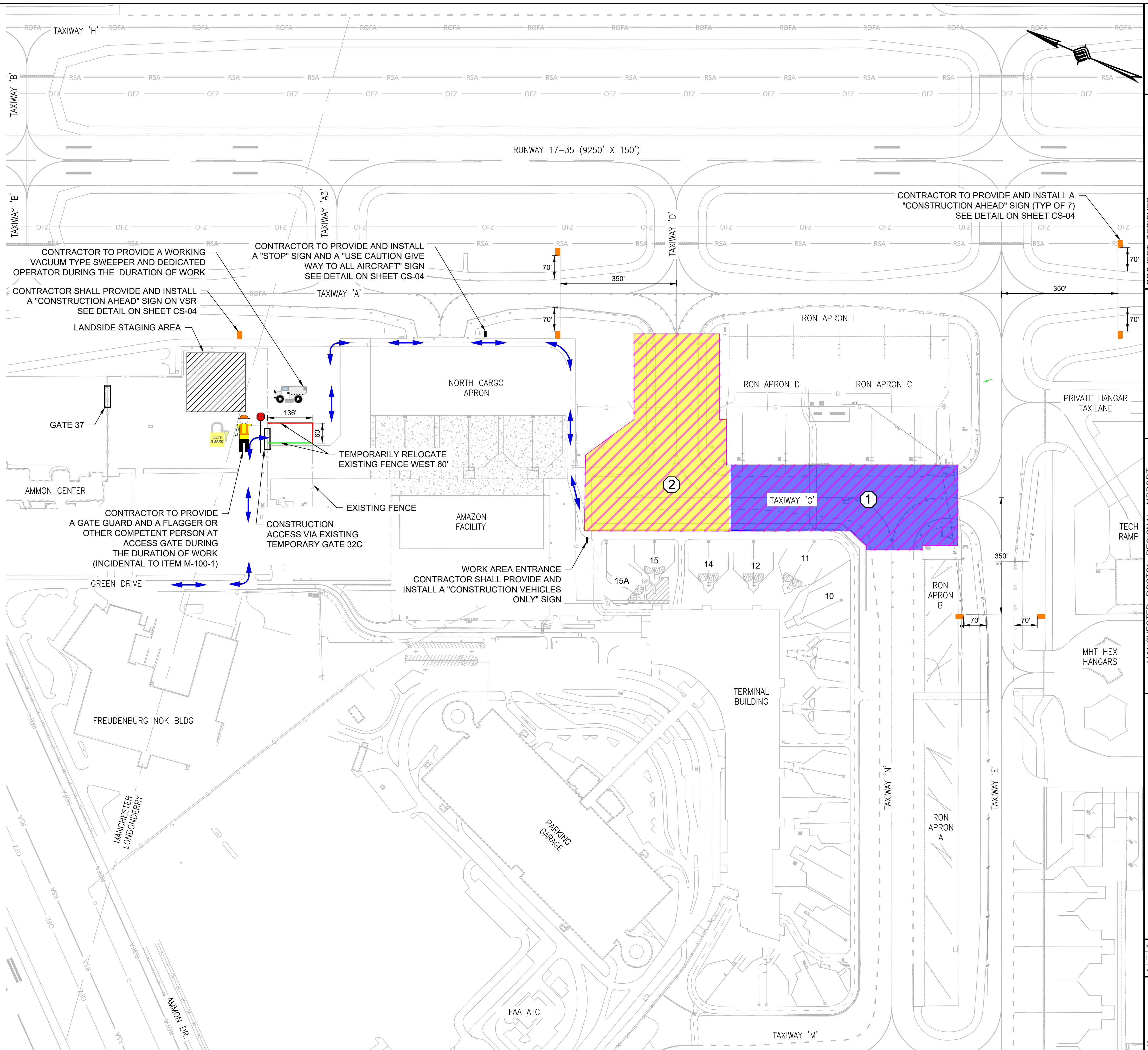
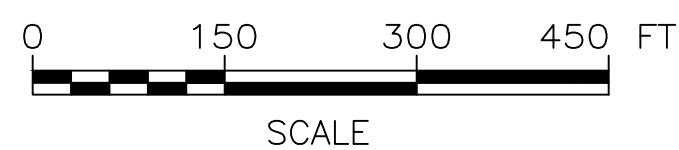


TOTAL CONTRACT DURATION: 54 CALENDAR DAYS

1. CONTRACTOR SHALL PLACE LIGHTED BARRICADES FOR EACH INDIVIDUAL WORK AREA AS SHOWN ON SHEETS CS-02 TO CS-03 TO THE APPROVAL OF THE RESIDENT PROJECT REPRESENTATIVE (RPR) AND MHT OPERATIONS PRIOR TO THE COMMENCEMENT OF WORK. SEE DETAIL ON SHEET CS-04.
2. ALL CONSTRUCTION PERSONNEL AND EQUIPMENT SHALL REMAIN WITHIN ALL WORK AREAS.
3. NO WORK MAY OCCUR WITHIN 121.5' OF THE CENTERLINE OF ANY OPEN TAXIWAY, OR WITHIN 250' OF THE CENTERLINE OF ANY OPEN RUNWAY, UNLESS, EXPLICITLY DETAILED ON THE SAFETY AND PHASING PLANS.
4. ALL WORK WITHIN TAXIWAY OBJECT FREE AREAS MUST BE COORDINATED WITH THE RPR AND AIRPORT OPERATIONS 72 HOURS IN ADVANCE TO THE THE START OF WORK.
5. WHEN SWITCHING WORK AREAS, MHT OPERATIONS MUST BE NOTIFIED, AT A MINIMUM, 72 HOURS IN ADVANCE. CONTRACTOR SHALL COORDINATE A LOOK-AHEAD PHASING SCHEDULE WITH THE RPR.
6. ALL VEHICLES FROM THE CONSTRUCTION WORK AREAS SHALL BE CLEAR FROM FOREIGN OBJECT DEBRIS (FOD) PRIOR TO ENTERING AND LEAVING THE MANCHESTER-BOSTON REGIONAL AIRPORT AIR OPERATIONS AREA (AOA).
7. THE CONTRACTOR SHALL PROVIDE A VACUUM SWEEPER AND A DEDICATED OPERATOR TO PROVIDE ADEQUATE SWEEPING AND MAINTENANCE OF HAUL ROUTES AND OPEN AIRFIELD PAVEMENTS AT ALL TIMES. AN ADDITIONAL VACUUM SWEEPER WILL BE REQUIRED ON HEAVY CONSTRUCTION TRAFFIC DAYS.
8. ALL HAUL ROUTES SHALL BE RESTORED TO THEIR EXISTING CONDITION FOLLOWING CONSTRUCTION.
9. ACCESS TO THE AIRPORT WILL BE VIA EXISTING GATE 32C. CONTRACTOR SHALL HIRE A DEDICATED GATE GUARD TO LOG PERSONNEL AND ISSUE TEMPORARY BADGES. IN ADDITION, THE CONTRACTOR SHALL HAVE A FLAGGER OR OTHER COMPETENT PERSON TO ASSIST THE GATE GUARD AND MHT OPERATIONS ESCORT WITH TRAFFIC CONTROL.
10. THE AIRPORT SHALL PROVIDE ESCORTS DURING THE DURATION OF WORK.
11. ANY PAVEMENT OR OTHER STRUCTURE DAMAGED DUE TO CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
12. ANY PAVEMENT MARKING DAMAGED OR OBSCURED DUE TO HEAVY TRAFFIC SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
13. STOCK PILE HEIGHTS SHALL NOT EXCEED A HEIGHT OF 25 FEET UNLESS OTHERWISE SHOWN ON THE PLANS.
14. CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT BEST MANAGEMENT PRACTICES PRIOR TO COMMENCEMENT OF WORK.
15. THE CONTRACTOR SHALL NOT STAGE ANY EQUIPMENT WITHIN ANY OPEN TAXIWAY OBJECT FREE AREAS.
16. CONTRACTOR VEHICLES SHALL YIELD TO AIRCRAFT TRAFFIC WITHIN AOA AT ALL TIMES.

CONTRACT DURATION	
WORK AREA 1	27 CONSECUTIVE CALENDAR DAYS
WORK AREA 2	27 CONSECUTIVE CALENDAR DAYS
TOTAL DURATION: 54 CONSECUTIVE CALENDAR DAYS	

	OVERALL WORK AREA
	WORK AREA 1
	WORK AREA 2
	TOFA DELINEATION
	LOW PROFILE BARRICADE
	HAUL ROUTE
	SWEEPER
	GATE GUARD
	FLAGGER
	EXISTING FENCE
	TEMPORARY FENCE



BID DOCUMENTS

NOT FOR
CONSTRUCTION

ROJ. No.:19199.01

NAME: _____

No.: TBD

DRAWING NO

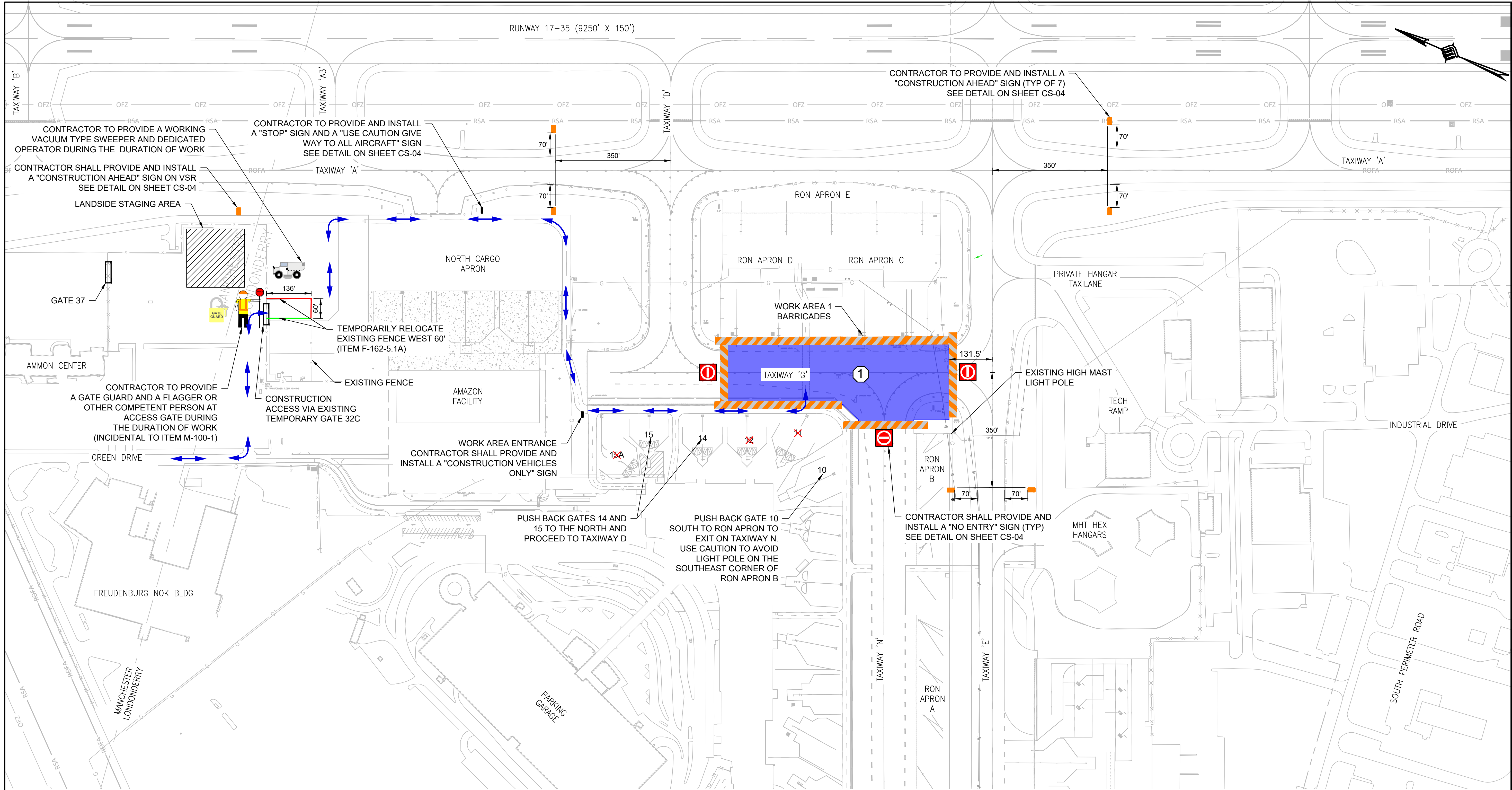
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LEGEND:

- | | |
|--|-----------------------|
| | WORK AREA 1 |
| | TOFA DELINEATION |
| | LOW PROFILE BARRICADE |
| | HAUL ROUTE |
| | SWEEPER |
| | GATE GUARD |
| | FLAGGER |
| | NO ENTRY SIGN |
| | EXISTING FENCE |
| | TEMPORARY FENCE |
| | CLOSED GATE |

WORK AREA 1: WORK AREA 1 CONSISTS OF TW G FROM THE SOUTHERLY SIDE OF GATE 15 TAXILANE OBJECT FREE AREA TO TAXIWAY E TAXIWAY OBJECT FREE AREA, INCLUDING INTERSECTION WITH TAXIWAY N

DURATION: 27 CONSECUTIVE CALENDAR DAYS

CLOSURES: TW G SOUTHERN SIDE OF GATE 14 TAXILANE OBJECT FREE AREA TO TAXIWAY E TAXIWAY OBJECT FREE AREA

TERMINAL APRON GATES 11, 12, AND 15A

ALLOWABLE WORK HOURS: 6AM - 6PM, MONDAY TO FRIDAY AND 7AM - 4PM SATURDAYS, UNLESS OTHERWISE APPROVED BY OWNER AND RESIDENT PROJECT REPRESENTATIVE (RPR) WITH PRIOR APPROVAL.

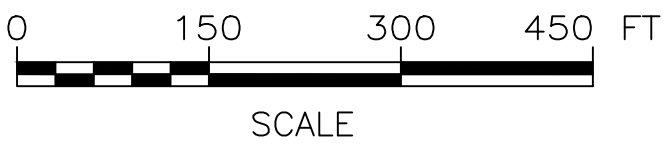
LIQUIDATED DAMAGES: REFER TO CONTRACT DOCUMENTS

RESTRICTIONS:

- CONTRACTOR SHALL ACCESS THE WORK SITE VIA GATE 32C OR OTHER MHT OPERATIONS APPROVED GATE UNDER MHT PROVIDED ESCORT.
- A CONTRACTOR PROVIDED GATE GUARD SHALL BE STAGED AT THE TEMPORARY ACCESS GATE OR MHT OPERATIONS APPROVED GATE DURING THIS PHASE OF THE PROJECT TO INSPECT VEHICLES ENTERING THE AIRFIELD, AND TO KEEP UNAUTHORIZED VEHICLES OUT.
- MAINTAIN VEHICLE SERVICE ROAD ACCESS FOR ALL EMERGENCY, MHT OPERATIONS/MAINTENANCE AND OTHER AUTHORIZED VEHICLES AT ALL TIMES DURING THE CONSTRUCTION DURATION.

PRIMARY WORK TO BE PERFORMED IN WORK AREA 1:

- REMOVE AND REINSTALL EXISTING FENCE IN ITS TEMPORARY CONSTRUCTION LOCATION
- INSTALL BARRICADES AND CONSTRUCTION SAFETY MEASURES
- INSTALL ALL EROSION AND SEDIMENT BEST MANAGEMENT PRACTICES PRIOR TO COMMENCEMENT OF WORK
- REMOVE LIGHT FIXTURES, CABLING AND SIGNS WITH FOUNDATIONS
- COLD MILLING
- INSTALL ASPHALT SURFACE COURSE
- PAVEMENT MARKINGS
- INSTALL NEW LIGHT FIXTURES, BASE CANS (AS REQUIRED) AND CABLING
- INSTALL NEW SIGNS AND FOUNDATIONS
- ESTABLISH VEGETATION IN DISTURBED AREAS



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER

McFARLAND JOHNSON

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CHECKED BY: BMB
DRAWN BY: TC
DESIGNED BY: DBB

**CITY OF MANCHESTER
DEPARTMENT OF AVIATION**
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT

REHABILITATION OF TAXIWAY G AND TAXIWAY D

CONSTRUCTION SAFETY AND PHASING
PLAN - PHASE 1

SCALE: 1"=150' DATE: FEBRUARY 2025

REVISIONS

DESCRIPTION

BY

REV. NO.

DATE

MJ PROJ. No.:19199.01

FILE NAME:

AIP No.: TBD

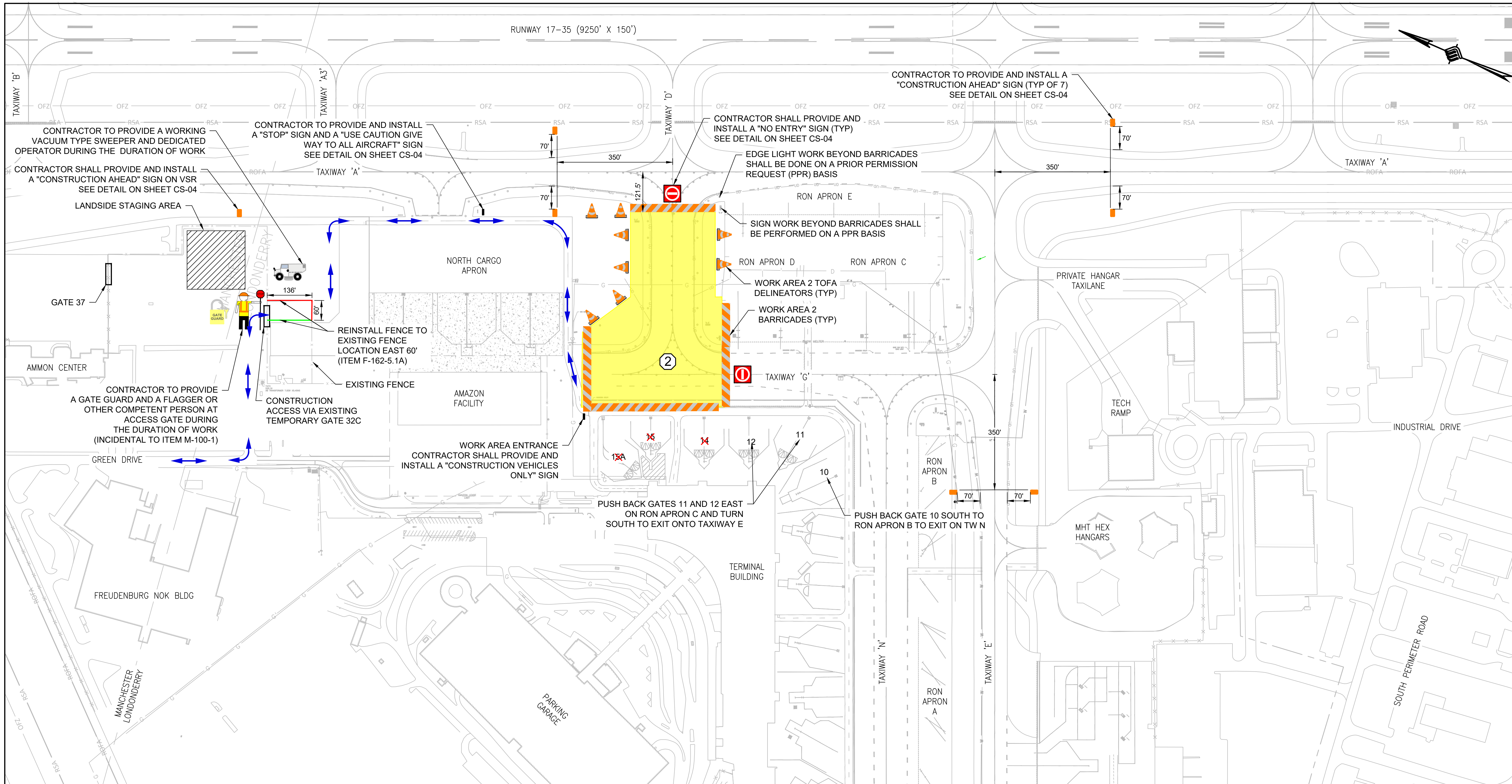
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LEGEND:

- | | |
|--|-----------------------|
| | WORK AREA 2 |
| | TOFA DELINEATION |
| | LOW PROFILE BARRICADE |
| | HAUL ROUTE |
| | SWEEPER |
| | GATE GUARD |
| | FLAGGER |
| | NO ENTRY SIGN |
| | EXISTING FENCE |
| | TEMPORARY FENCE |
| | CLOSED GATE |

WORK AREA 2: WORK AREA 2 CONSISTS OF TW G FROM THE NORTHERLY END TO THE SOUTHERLY SIDE OF GATE 14 TOFA LIMITS AND TW D FROM THE WESTERLY TOFA OF TW A TO TW G INTERSECTION.

DURATION: 27 CONSECUTIVE CALENDAR DAYS

CLOSURES: TW D TW A WESTERLY TOFA LIMITS TO TW G INTERSECTION
TW G TW G NORTHERN END TO SOUTHERN SIDE OF GATE 14 TOFA LIMITS
TERMINAL APRON GATES 14, 15, AND 15A

ALLOWABLE WORK HOURS: 6AM - 6PM MONDAY TO FRIDAY AND 7AM - 4PM SATURDAYS, UNLESS OTHERWISE APPROVED BY OWNER AND RPR WITH PRIOR APPROVAL.

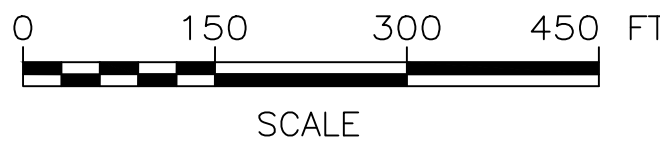
LIQUIDATED DAMAGES: REFER TO CONTRACT DOCUMENTS

RESTRICTIONS:

- ALL WORK WITHIN THE TAXIWAY A OBJECT FREE AREA (OFA) SHALL BE PERFORMED UNDER PRIOR PERMISSION REQUESTED (PPR) WITH 30-MINUTE RECALL. THE CONTRACTOR WILL BE REQUIRED TO VACATE ALL PERSONNEL AND EQUIPMENT FROM THE TOFA WITHIN 30 MINUTES OF NOTICE FROM MHT OPERATIONS.
- CONTRACTOR SHALL ACCESS THE WORK SITE VIA TEMPORARY ACCESS GATE 32C OR OTHER MHT OPERATIONS APPROVED GATE UNDER MHT PROVIDED ESCORT.
- A CONTRACTOR PROVIDED GATE GUARD SHALL BE STAGED AT THE TEMPORARY ACCESS GATE OR MHT OPERATIONS APPROVED GATE DURING THIS PHASE OF THE PROJECT TO INSPECT VEHICLES ENTERING THE AIRFIELD, AND TO KEEP UNAUTHORIZED VEHICLES OUT.
- MAINTAIN VEHICLE SERVICE ROAD ACCESS FOR ALL EMERGENCY, MHT OPERATIONS/MAINTENANCE AND OTHER AUTHORIZED VEHICLES AT ALL TIMES DURING THE CONSTRUCTION DURATION.

PRIMARY WORK TO BE PERFORMED IN WORK AREA 2:

- INSTALL BARRICADES AND CONSTRUCTION SAFETY MEASURES
- INSTALL ALL EROSION AND SEDIMENT BEST MANAGEMENT PRACTICES PRIOR TO COMMENCEMENT OF WORK
- REMOVE LIGHT FIXTURES, CABLING, AND SIGNS WITH FOUNDATIONS
- COLD MILLING
- INSTALL ASPHALT SURFACE COURSE
- PAVEMENT MARKINGS
- INSTALL NEW LIGHT FIXTURES, BASE CANS (AS REQUIRED) AND CABLING
- INSTALL NEW SIGNS AND FOUNDATIONS
- INSTALL NEW CATCH BASIN AND PIPE EXTENSION
- ESTABLISH VEGETATION IN DISTURBED AREAS
- REMOVE AND REINSTALL TEMPORARY FENCE TO ORIGINAL FENCE LOCATION



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER

McFARLAND JOHNSON

53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095

DESIGNED BY DBB
CHECKED BY BMB
DRAWN BY TC

**CITY OF MANCHESTER
DEPARTMENT OF AVIATION**
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT

REHABILITATION OF TAXIWAY G AND TAXIWAY D

CONSTRUCTION SAFETY AND PHASING
PLAN - PHASE 2

SCALE: 1"=150' DATE: FEBRUARY 2025

REVISIONS		BY	DATE
REV. NO.	DESCRIPTION		

MJ PROJ. No.:19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

CS-03

SHEET 7 OF 39

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CONSTRUCTION SAFETY AND PHASING NOTES:

1. CONTRACTOR SHALL SUBMIT A WRITTEN SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) TO THE RESIDENT PROJECT REPRESENTATIVE (RPR), CITY OF MANCHESTER-DEPARTMENT OF AVIATION, AND FAA FOR REVIEW AND APPROVAL PRIOR TO MOBILIZATION AND BEFORE ANY CONSTRUCTION IS ALLOWED TO BE PERFORMED. ANY DELAY IN THE ISSUANCE OF THE NOTICE TO PROCEED DUE TO THE FAILURE BY THE CONTRACTOR TO OBTAIN AN APPROVED SPCD WILL NOT BE GROUNDS FOR ANY CONTRACT TIME EXTENSION. THE CONTRACTOR SHALL BECOME KNOWLEDGEABLE OF THE REQUIREMENTS AND PROCEDURES OF THE FAA ADVISORY CIRCULAR NO. 150/5370-2G OR (CURRENT EDITION) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION" AND THE APPROVED "CONSTRUCTION SAFETY AND PHASING PLAN" (CSPP), AND INCORPORATE RELEVANT ITEMS INTO THE SPCD WHICH MUST MEET OR EXCEED THE PROJECT'S CSPP REQUIREMENTS. THE SPCD SHALL BE MODIFIED AND UPDATED AS REQUIRED THROUGHOUT THE PROJECT TO ADDRESS EACH PHASE AND/OR SUB PHASE AS WORK PROGRESSES. SOME, BUT NOT ALL OF THE ITEMS, TO BE ADDRESSED IN THE SPCD ARE AS FOLLOWS:
- IDENTIFICATION AND QUALIFICATIONS OF DEDICATED SAFETY & SECURITY POINT OF CONTACT.

• WORK SCHEDULING, COORDINATION, AND NOTIFICATION PROCEDURES OF CONSTRUCTION ACTIVITIES.

• AIRFIELD COMMUNICATIONS AND 24-HOUR EMERGENCY NOTIFICATION PROCEDURES.

• CONSTRUCTION OPERATIONS ADJACENT TO OR WITHIN SAFETY AREAS, OBJECT FREE.

• AREAS, NAVAID CRITICAL AREAS, AND APPROACH SURFACES. (I.E. GRADING, HAULING MATERIALS, ETC.).

• METHODS AND REQUIREMENTS FOR SEPARATING CONSTRUCTION AREAS FROM AIRPORT OPERATIONS AREAS (AOA).

• PREVENTING INTERFERENCE WITH FAA NAVAID (ILS OR OTHER) CRITICAL AREAS.

• CONTROL OF FOREIGN OBJECT DEBRIS (FOD) AND DUST.

• CONSTRUCTION VEHICLE REQUIREMENTS, PROCEDURES AND DRIVER TRAINING FOR ESCORT DRIVERS.

• OPERATIONS WITHIN MOVEMENT AND NON-MOVEMENT AREAS TO PREVENT RUNWAY INCURSIONS.

• CONTRACTOR ACCESS POINTS, VEHICLE CROSSING LOCATIONS, SECURITY FENCING AND GATES, AND EMPLOYEE SECURITY TRAINING.

• PROCEDURES, REQUIREMENTS, AND COORDINATION OF RUNWAY AND/OR TAXIWAY CLOSURES, INCLUDING NOTICE TO AIR MISSIONS (NOTAM) COORDINATION.

• RSA DELINEATION MARKER PLACEMENT LOCATIONS, AND TEMPORARY CONSTRUCTION SIGN LOCATIONS.

• PROCEDURES FOR MANAGING HAZARDOUS MATERIALS.

• PROCEDURES FOR LOCATING & PROTECTING EXISTING UNDERGROUND UTILITIES.

2. THE CONSTRUCTION SAFETY AND PHASING PLANS HAVE BEEN REVIEWED AND ACCEPTED BY THE FAA AND MHT OPERATIONS. COMBINING, MODIFYING, OR ALTERING WORK AREAS WILL NOT BE ALLOWED WITHOUT APPROVAL FROM THE FAA AND MHT OPERATIONS. THE CONTRACTOR SHALL PREPARE THEIR BID BASED ON THE CONSTRUCTION PHASING SHOWN IN THESE DOCUMENTS. APPROVED MODIFICATIONS AFTER THE BID SHALL RESULT IN NO ADDITIONAL COST TO THE OWNER. ANY PROPOSED CHANGES FROM THE CONTRACTOR SHALL BE SUBMITTED THROUGH THE RPR WHO SHALL SUBMIT IT TO THE AIRPORT AND FAA. HOWEVER, CHANGES MAY NOT BE ACCEPTED.

3. CONTRACTOR SHALL PROVIDE A COMPETENT SAFETY PERSON (WHO ALSO COULD BE THE SUPERINTENDENT OR OTHER SUPERVISORY PERSON) FAMILIAR WITH AIRPORT SAFETY TO MONITOR CONSTRUCTION ACTIVITIES. THIS INDIVIDUAL WILL BE RESPONSIBLE FOR MONITORING CONSTRUCTION ACTIVITIES AND PERSONNEL FOR COMPLIANCE WITH THE SAFETY REQUIREMENTS ESTABLISHED BY THE CONTRACT DOCUMENTS, THE SPCD, THE REGULATIONS AND REQUIREMENTS OF THE AIRPORT, FAA, AND OTHER APPLICABLE AGENCIES.

4. CONTRACTOR SHALL PROVIDE A POINT OF CONTACT TO THE OWNER AND RPR WHO CAN BE CONTACTED AT ANY TIME THROUGHOUT THE COURSE OF THE CONTRACT. THIS INDIVIDUAL WILL BE CAPABLE OF COORDINATING AN IMMEDIATE RESPONSE TO CORRECT ANY CONSTRUCTION RELATED ACTIVITY THAT MAY ADVERSELY AFFECT THE OPERATIONAL SAFETY OF THE AIRPORT.

5. THE PRIMARY ACCESS POINT FOR AIRSIDE WORK AREAS 1 AND 2 SHALL BE THROUGH AN EXISTING TWMPORARY ACCESS GATE (GATE 32C). ALL VEHICLES ENTERING THE AIRFIELD SHALL BE ESCORTED TO AND FROM THE WORK AREA BY MHT OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL PROJECT SUPPLIERS AND SUBCONTRACTORS OF THE HAUL ROUTE AND ACCESS POINT.

6. THE CONTRACTOR SHALL PROVIDE A GATE GUARD AT ALL TIMES WHEN THE GATE IS UNLOCKED. GATE GUARD RESPONSIBILITIES WILL BE TO IDENTIFY, REGULATE, AND DIRECT ALL CONSTRUCTION VEHICLES ENTERING THE AIR OPERATIONS AREA (AOA). ALL VEHICLES SHALL BE INSPECTED PRIOR TO ENTERING AOA. TEMPORARY CONSTRUCTION BADGES WILL BE ISSUED TO INDIVIDUALS THAT DO NOT HAVE A MHT BADGE. INDIVIDUALS ENTERING THE AOA MUST BE IN A VEHICLE. WALKING THROUGH A VEHICLE GATE IS NOT PERMITTED.

7. ALL CONTRACTOR'S MOTORIZED VEHICLES OPERATING IN AIRCRAFT MOVEMENT AREAS SHALL BE EQUIPPED WITH AN AMBER FLASHING LIGHT AND/OR A 3 SQUARE-FOOT FLAG CONSISTING OF INTERNATIONAL ORANGE AND WHITE SQUARES NOT LESS THAN ONE SQUARE-FOOT DISPLAYING IN FULL VIEW ABOVE THE VEHICLE. ALL CONTRACTOR VEHICLES SHALL HAVE THE COMPANY IDENTIFICATION AND TELEPHONE NUMBER PLAINLY VISIBLE ON BOTH SIDES OF THE VEHICLE.

8. UPON RECEIPT OF APPROVAL FOR A CLOSURE AND BEFORE EQUIPMENT ENTERS THE AIRFIELD AND CONSTRUCTION COMMENCES, THE WORK AREA SHALL BE SECURED. LIGHTING EQUIPMENT, RSA DELINEATION MARKERS AND SAFETY BARRICADES SHALL BE PLACED AND OPERATIONAL AS APPLICABLE. THE WORK AREA SHALL BE CLEARLY DELINEATED AND ALL SAFETY REQUIREMENTS SHALL BE APPROVED BY THE RPR PRIOR TO BEGINNING ANY WORK.

9. CONSTRUCTION SIGNS (I.E. "CONSTRUCTION TRAFFIC" WITH ARROWS, "NO UNAUTHORIZED VEHICLES BEYOND THIS POINT" OR OTHER STANDARD MANUAL OF UNIFORM TRAFFIC CONTROL DEVICE (MUTCD) SIGNS) SHALL BE LOCATED AT THE WORK AREA EGRESS/INGRESS POINTS. THERE SHALL BE NO SEPARATE PAYMENT FOR PROVIDING THESE SIGNS.

10. CONTRACTOR SHALL ENSURE THAT NO PAVEMENT LIPS, PAVEMENT EDGES, SIGN FOUNDATIONS, STRUCTURES OR OTHER APPURTENANCES EXCEED 3 INCHES WITHIN ACTIVE AIRCRAFT OPERATIONAL AREAS.

11. DAILY COORDINATION OF CONSTRUCTION ACTIVITIES SHALL BE HELD ON-SITE WITH THE RPR AND MHT OPERATIONS TO CLEARLY IDENTIFY THE LIMITS OF WORK FOR THE DAY. THE CONTRACTOR SHALL NOT EXCEED THE LIMITS OF WORK WITHOUT APPROVAL FROM THE RPR.

12. TEMPORARY TAXIWAY CLOSURES OR CAUTIONS IN ACCORDANCE WITH THE CSPP ARE SUBJECT TO WIND/WEATHER AVAILABILITY AND ARE SUBJECT TO A RECALL TIME TO BE DETERMINED BY MHT OPERATIONS.

13. IF ALLOWED, WHEN WORKING UNDER A TAXIWAY CAUTION, ALL ADJACENT PAVEMENTS WILL BE AVAILABLE FOR UNLIMITED AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL CONDUCT OPERATIONS IN SUCH A MANNER THAT NO INTERFERENCE WITH AIRCRAFT OPERATIONS WILL OCCUR. THE CONTRACTOR SHALL BE ESCORTED BY MHT OPERATIONS AND THE CONTRACTOR SHALL RELOCATE PERSONNEL AND EQUIPMENT A MINIMUM OF 121.5 FEET FROM THE TAXIWAY CENTERLINE, OR A MINIMUM OF 250' FROM RUNWAY CENTERLINE, TO ALLOW FOR SAFE PASSAGE OF AIRCRAFT AS REQUIRED.

14. DURING NIGHT WORK (IF ALLOWED), ALL LIGHTING EQUIPMENT UTILIZED SHALL BE CONTROLLED TO PREVENT STRAY LIGHT. THE CONTRACTOR SHALL DIRECT ALL LIGHTING AWAY FROM ADJACENT NEIGHBORHOODS AND IN A MANNER THAT DOES NOT INTERFERE WITH THE AIR TRAFFIC CONTROL TOWER AND AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL PREPARE A LIGHTING PLAN TO BE REVIEWED AND APPROVED BY MHT OPERATIONS. MHT OPERATIONS SHALL APPROVE THE LOCATION AND OPERATION OF ALL LIGHTING EQUIPMENT.
-
- AVIATION BARRICADE NOTES:
1. IN ADDITION TO THE BARRICADES SUPPLIED BY MHT OPERATIONS, THE CONTRACTOR SHALL PROVIDE AN ADEQUATE NUMBER OF BARRICADES TO PROPERLY CLOSE AIRFIELD PAVEMENTS AS SHOWN ON THE SAFETY AND PHASING PLANS. SEE GENERAL AVIATION BARRICADE NOTE 4 ON THIS SHEET.

2. BARRICADES SHALL BE MULTI-BARRIER SAFETY BARRICADES WITH REFLECTIVE STRIPING OR AIRPORT APPROVED EQUIVALENT.

3. BARRICADES SHALL BE PLACED END TO END TO CREATE A CONTINUOUS BARRIER.

4. BARRICADES SHALL BE ADEQUATELY WEIGHTED TO WITHSTAND HIGH WINDS AND / OR JET BLAST.

5. CONTRACTOR SHALL MAINTAIN FLASHING LIGHTS TO ENSURE PROPER WORKING ORDER THROUGHOUT THE DURATION OF THE PROJECT.

6. CONTRACTOR SHALL MOVE BARRICADES AT THE DIRECTION OF MHT AIRPORT OPERATIONS AS REQUIRED.
- WATER BALLASTED LIGHTED SAFETY BARRICADE
- NOT TO SCALE
-
- TOFA DELINEATION MARKER NOTES:
1. MARKER CONES SHALL BE SPACED AT 20' ON CENTER TO PROTECT THE TAXIWAY OBJECT FREE AREA AND SHALL BE PLACED 121.5' FROM THE TAXIWAY CENTERLINE.

2. CONTRACTOR SHALL MAKE FREQUENT INSPECTION OF THE MARKER CONES AND SHALL RELOCATE ANY CONES THAT ARE MISALIGNED.

3. TRAFFIC CONES SHALL BE ADEQUATELY SECURED TO WITHSTAND HIGH WINDS AND/OR JET BLAST USING GRADE STAKES AS SHOWN.

4. INSTALLATION, REMOVAL AND RELOCATION OF WORK AREA DELINEATION MARKERS AS DIRECTED BY THE RPR IS INCIDENTAL TO ITEM M-300-1.
- TOFA DELINEATION MARKER
- NOT TO SCALE
- (INCIDENTAL TO ITEM M-300-1)
-
- STOP SIGN NOTES:
1. STOP SIGN SHALL BE MUTCD STOP SIGN R1-1. SIGN TO CONFORM TO LATEST VERSION OF MUTCD STANDARDS

2. 24" ACROSS FLATS

3. BACKGROUND - RED (REFLECTIVE)

4. LETTERS WHITE - (REFLECTIVE)
-
- NO ENTRY SIGN NOTES:
1. CONSTRUCT ACCORDING TO SIGN DIMENSION TABLE AND SIGN TYPE L-858R REQUIREMENTS.

2. WHITE SYMBOLS SHALL HAVE A 3/8" BLACK BACKGROUND.

3. SIGN SHALL NOT BE MOUNTED TO THE ASPHALT SURFACE OR PAINTED ON THE PAVEMENT SURFACE.

4. SIGN SHALL BE MOUNTED ON A SKID STYLE FRAME AND BE HELD DOWN TO WITHSTAND JET BLAST WHILE STILL BEING FRANGIBLE.
- NO ENTRY SIGN DETAIL
- NOT TO SCALE
- (INCIDENTAL TO ITEM M-300-1)
- | AIRPORT RADIO COMMUNICATION FREQUENCIES | |
|---|------------|
| MHT ATCT | 121.30 MHz |
| MHT GROUND | 121.90 MHz |
- GENERAL AVIATION BARRICADE NOTES:
1. THE RPR AND MHT OPERATIONS WILL HAVE FINAL DETERMINATION WHERE EACH TYPE OF BARRICADE (LOW PROFILE, CHANNELIZER CONES, TRAFFIC CONES, ETC.) SHALL BE PLACED.

2. BARRICADES SHALL BE WATER BALLASTED LIGHTED SAFETY BARRICADES AND RSA DELINEATION MARKERS AS DETAILED ON THIS SHEET OR APPROVED EQUAL.

3. ALL BARRICADES SHALL MEET REQUIREMENTS OF FAA ADVISORY CIRCULAR 150/5370-2G (CURRENT EDITION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

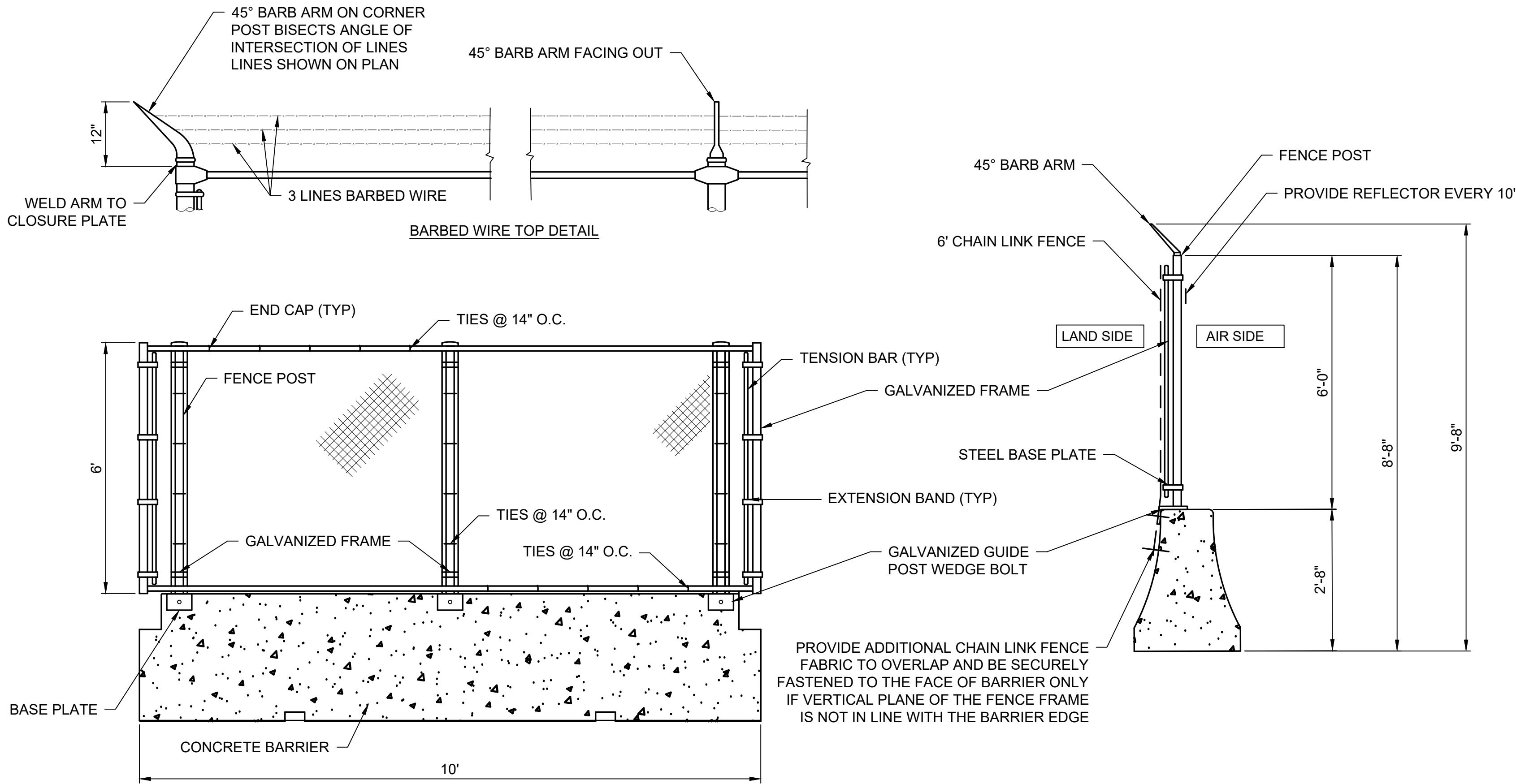
4. MHT OPERATIONS MAINTAINS A SMALL SUPPLY OF LIGHTED CONSTRUCTION BARRICADES FOR CONTRACTOR USE. BARRICADES SHALL BE MHT OPERATIONS SUPPLIED TO THE GREATEST EXTENT POSSIBLE. IT IS ANTICIPATED THE CONTRACTOR WILL BE REQUIRED TO SUPPLY ADDITIONAL BARRICADES. ANY CONTRACTOR SUPPLIED BARRICADES SHALL BE PROVIDED UNDER ITEM M-200-1 AND RETAINED BY THE CONTRACTOR AT COMPLETION OF THE PROJECT.

5. CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE BARRICADES/CONES TO VERIFY LIGHTS ARE OPERATING EVERY NIGHT.

6. CONTRACTOR SHALL PROVIDE AND INSTALL "DO NOT ENTER" SIGNS ON TAXIWAYS TO BE CLOSED AT LOCATIONS SHOWN ON THE CSPP PLANS UNLESS OTHERWISE DIRECTED BY MHT OPERATIONS OR THE RPR.
-
- CONSTRUCTION AHEAD SIGN NOTES:
1. SIGNS MUST BE MOUNTED ON FRANGIBLE POSTS AND INSTALLED PER THE GUIDELINES OF ENGINEERING BRIEF #93.

2. SIGNS SHALL BE INSTALLED APPROXIMATELY 70' FROM THE TAXIWAY PAVEMENT EDGE TO THE CLOSEST SIGN EDGE UNLESS OTHERWISE DIRECTED BY MHT OPERATIONS OR THE RPR.
- CONSTRUCTION AHEAD SIGN DETAIL
- NOT TO SCALE
- (INCIDENTAL TO ITEM M-300-1)
-
- NOTE: BLACK BORDER AND LETTERS ON YELLOW BACKGROUND
-
- NOTES
1. SIGNS INCLUDE DOUBLE POST MOUNTING DRIVEN INTO TURF.

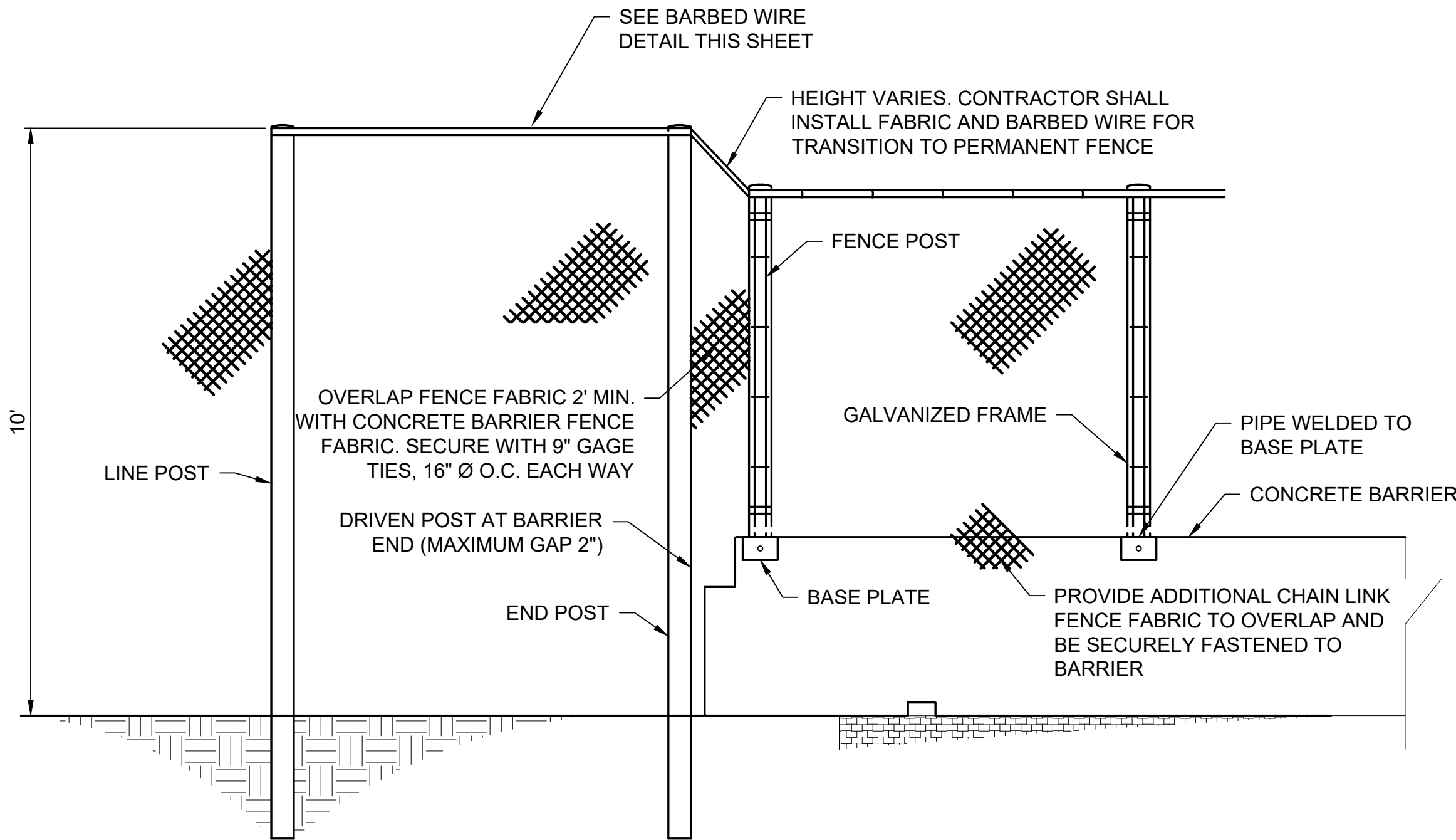
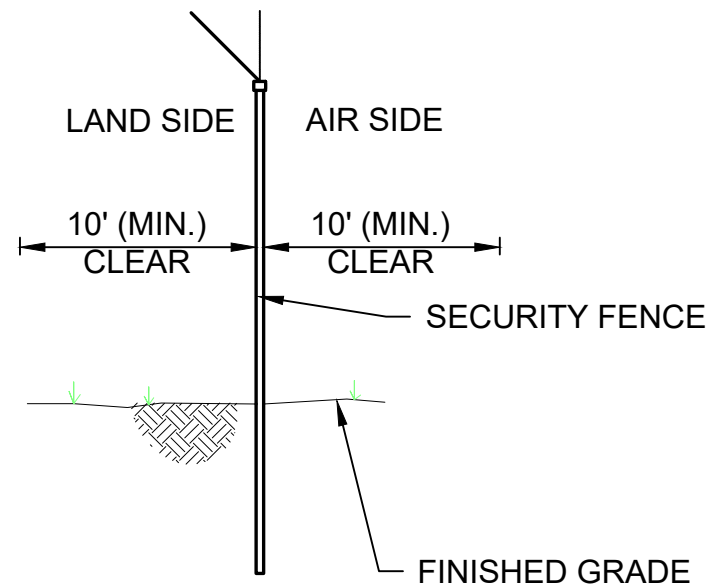
2. SIGN CONTAINS "STOP" SIGN WITH "USE CAUTION" "GIVE WAY TO ALL AIRCRAFT" SIGN AS SHOWN.
- VEHICLE SERVICE ROAD SIGN DETAILS
- NOT TO SCALE
- (INCIDENTAL TO ITEM M-300-1)
- ENGINEER'S SEAL
- BID DOCUMENTS
- NOT FOR CONSTRUCTION
- PROJECT DESIGNER
-
- CHECKED BY
- BWB
- DRAWN BY
- TC
- DESIGNED BY
- DBB
- CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE
-
- MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D
- CONSTRUCTION SAFETY AND PHASING
PLAN - DETAILS AND NOTES
- REVISIONS
- BY
- DESCRIPTION
- DATE
- REV. NO.
- M/J PROJ. No.:19199.01
- FILE NAME:
- AIP No.: TBD
- DRAWING NO.
- CS-04
- SHEET 8 OF 39
-



EXISTING TEMPORARY SECURE AIRFIELD 6FT CHAIN LINK
FENCE WITH BARB WIRE ON CONCRETE BARRIER DETAIL
NOT TO SCALE

RELOCATED CHAIN-LINK FENCE ON CONCRETE BARRIER NOTES:

1. THE DETAILS ON THIS SHEET ARE PROVIDED TO SHOW THE EXISTING FENCE THAT IS SCHEDULED TO BE RELOCATED.
2. THE CONTRACTOR IS NOT REQUIRED TO PROCURE OR INSTALL ANY NEW FENCING.
3. THE CONTRACTOR IS REQUIRED TO RELOCATE THE CONCRETE BARRIER FENCING AS SHOWN ON SHEETS CS-01 - CS-03. THE RELOCATED CONCRETE BARRIER FENCING SHALL BE RECONNECTED TO THE EXISTING PERMANENT AIRFIELD SECURITY FENCE IN THE NEW LOCATION. THE FINAL LOCATION OF THE CONCRETE BARRIER FENCING AND THE CONNECTION TO THE EXISTING AIRFIELD SECURITY FENCE SHALL BE INSPECTED AND APPROVED BY MHT OPERATIONS AND/OR TSA.
4. THE CONTRACTOR WILL ONLY NEED TO PROVIDE AND INSTALL ITEMS THAT ARE DAMAGED DURING MOVING THE FENCE, OR ADDITIONAL FABRIC AND/OR BARBED WIRE AS REQUIRED TO CONNECT THE CONCRETE BARRIER FENCING TO THE EXISTING PERMANENT AIRFIELD SECURITY FENCE.
5. PAYMENT FOR THE RELOCATION OF THE CONCRETE BARRIER FENCING SHALL BE UNDER ITEM F-162-5.1A.



TEMPORARY FENCE ON CONCRETE BARRIER
TO PERMANENT FENCE TRANSITION DETAIL
NOT TO SCALE

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DFB

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

FENCE DETAILS

SCALE: NTS DATE: FEBRUARY 2025

REVISIONS		BY	DATE
REV. NO.	DESCRIPTION		

MJ PROJ. No.: 19199.01

FILE NAME:

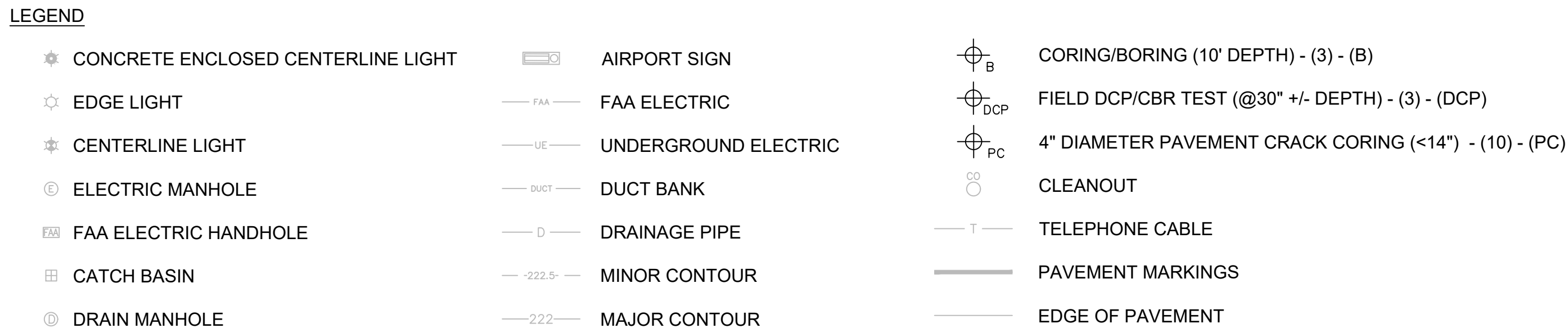
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DRAWING NO.

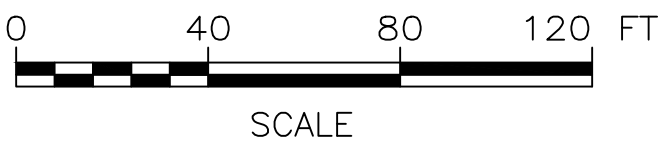
FD-01

SHEET 9 OF 39





- NOTES:**
1. SEE SHEET BL-01 FOR BORING LOGS.
 2. EXISTING CONDITIONS PLANS ARE BASED ON A DETAILED FIELD SURVEY PERFORMED BY GM2 ASSOCIATES ON MAY 20, 2024 AND NOVEMBER 15 2024. THE FIELD SURVEY PLANS HAVE BEEN SUPPLEMENTED WITH RECORD INFORMATION AND REFERENCE PLANS PROVIDED BY MHT. CONTRACTOR TO FIELD VERIFY INFORMATION SHOWN ON PLANS.
 3. HORIZONTAL AND VERTICAL DATUM BASED ON MHT GEODETIC CONTROL, PAC & SAC POINTS. SEE GP-01 FOR PAC AND SAC POINT INFORMATION.

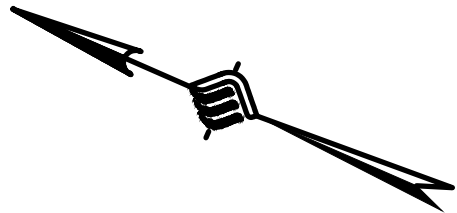
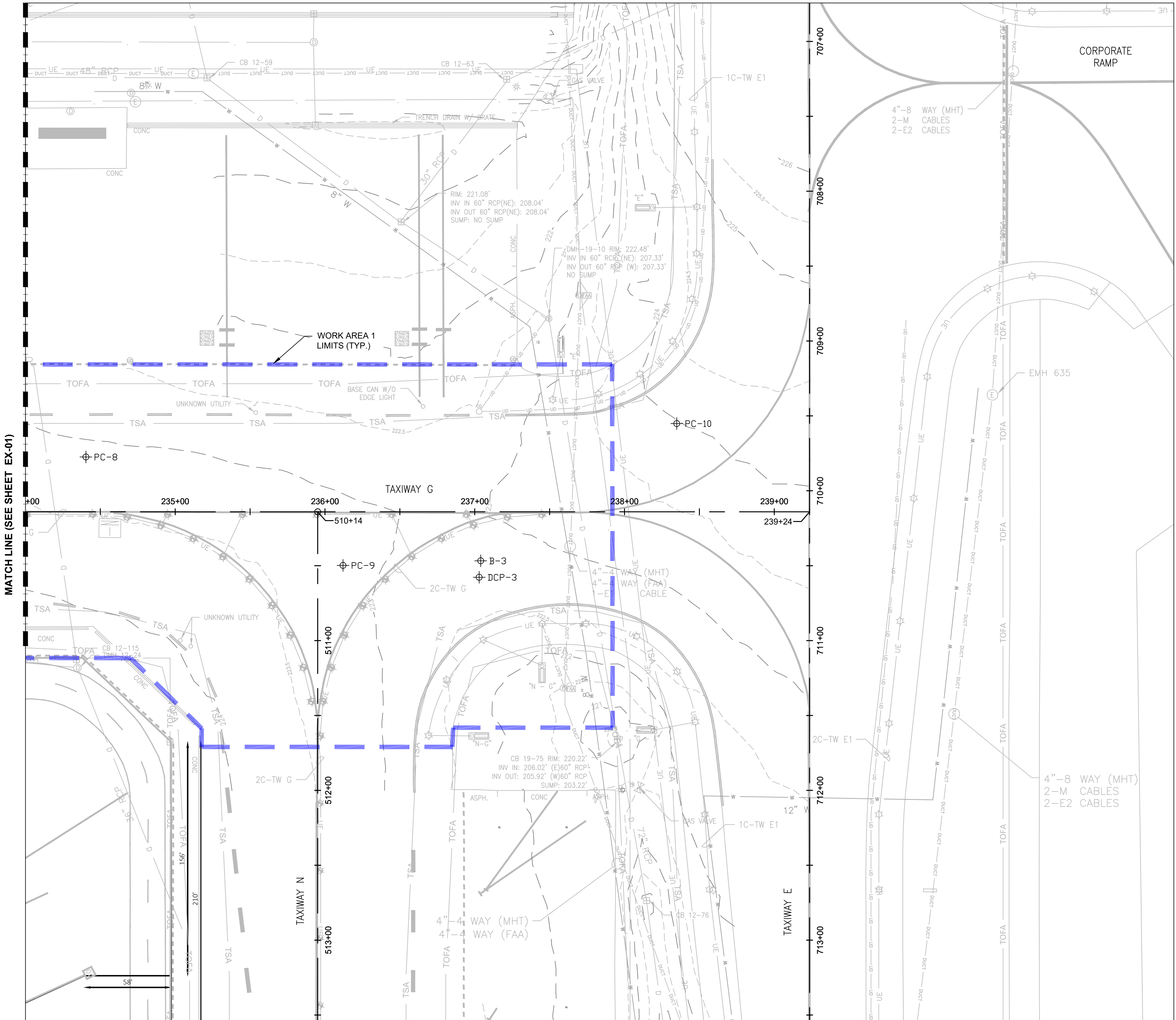


K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\DRAWING SHEET FILES\19199.01 EX-02.DWG

LEGEND

- | | | | | | | |
|---|--|--|--------------------|-------------------------|---------------------------|-------------------------|
| ★ CONCRETE ENCLOSED CENTERLINE LIGHT | ✳ EDGE LIGHT | ✳ CENTERLINE LIGHT | ⊕ ELECTRIC MANHOLE | Ⓢ FAA ELECTRIC HANDHOLE | ⊞ CATCH BASIN | Ⓢ DRAIN MANHOLE |
| ✳ AIRPORT SIGN | — FAA — FAA ELECTRIC | — UE — UNDERGROUND ELECTRIC | — DUCT — DUCT BANK | — D — DRAINAGE PIPE | — -222.5- — MINOR CONTOUR | — -222- — MAJOR CONTOUR |
| ⊕ CORING/BORING (10' DEPTH) - (3) - (B) | ⊕ _{DCP} FIELD DCP/CBR TEST (@30" +/- DEPTH) - (3) - (DCP) | ⊕ _{PC} 4" DIAMETER PAVEMENT CRACK CORING (<14") - (10) - (PC) | Ⓢ CLEANOUT | — T — TELEPHONE CABLE | — PAVEMENT MARKINGS | — EDGE OF PAVEMENT |

- NOTES:
- SEE SHEET BL-01 FOR BORING LOGS.
 - EXISTING CONDITIONS PLANS ARE BASED ON A DETAILED FIELD SURVEY PERFORMED BY GM2 ASSOCIATES ON MAY 20, 2024 AND NOVEMBER 15 2024. THE FIELD SURVEY PLANS HAVE BEEN SUPPLEMENTED WITH RECORD INFORMATION AND REFERENCE PLANS PROVIDED BY MHT. CONTRACTOR TO FIELD VERIFY INFORMATION SHOWN ON PLANS.
 - HORIZONTAL AND VERTICAL DATUM BASED ON MHT GEODETIC CONTROL, PAC & SAC POINTS. SEE GP-01 FOR PAC AND SAC POINT INFORMATION.



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DFB

DRAWN BY
TC

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

EXISTING CONDITIONS PLAN (2 OF 2)

SCALE: 1"=40'

DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

MJ PROJ. No.: 19199.01

FILE NAME:

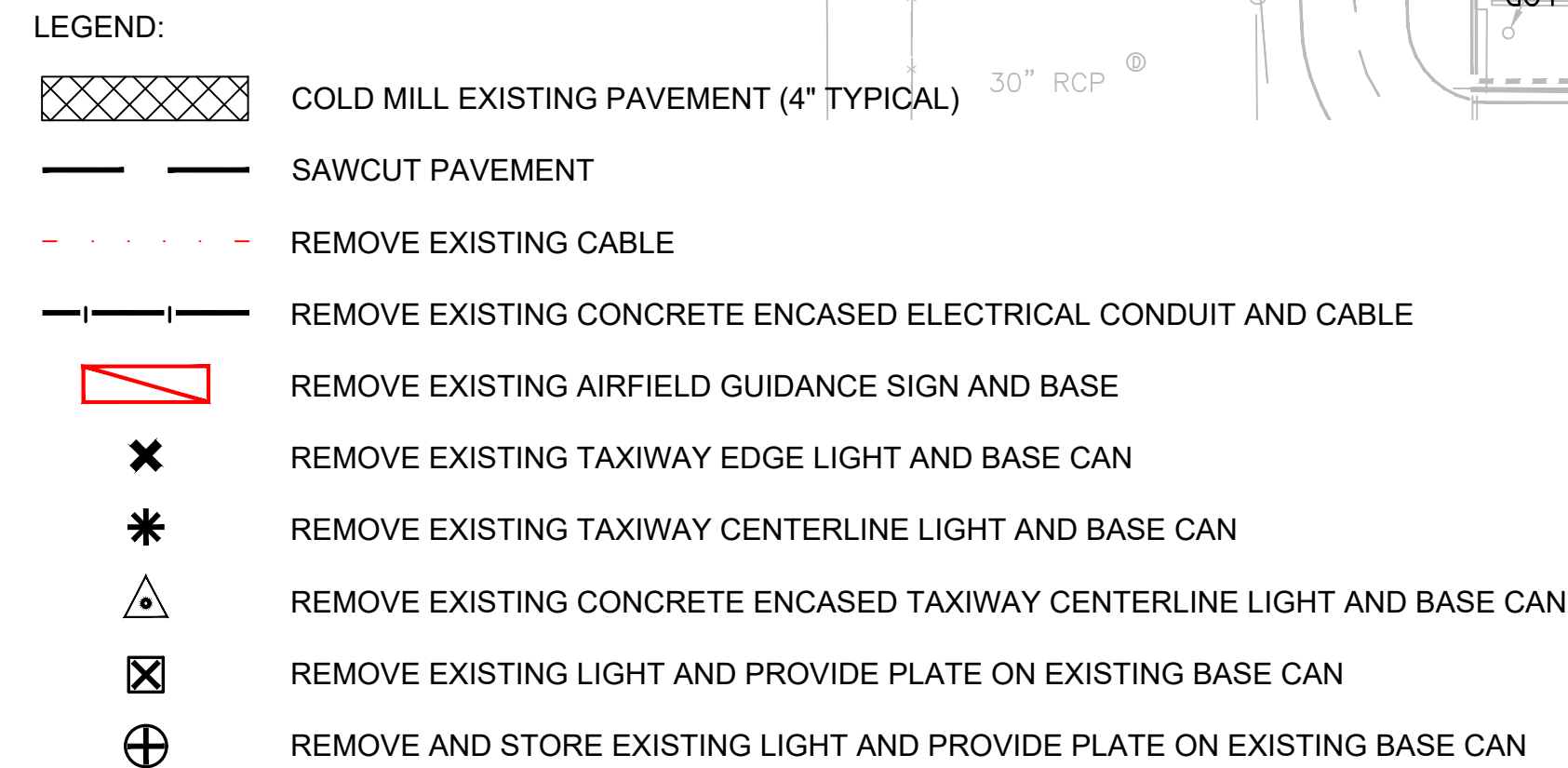
AIP No.: TBD

DRAWING NO.

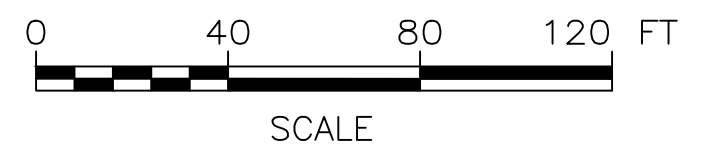
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SHEET 11 OF 39




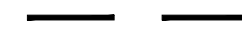







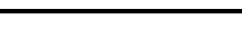


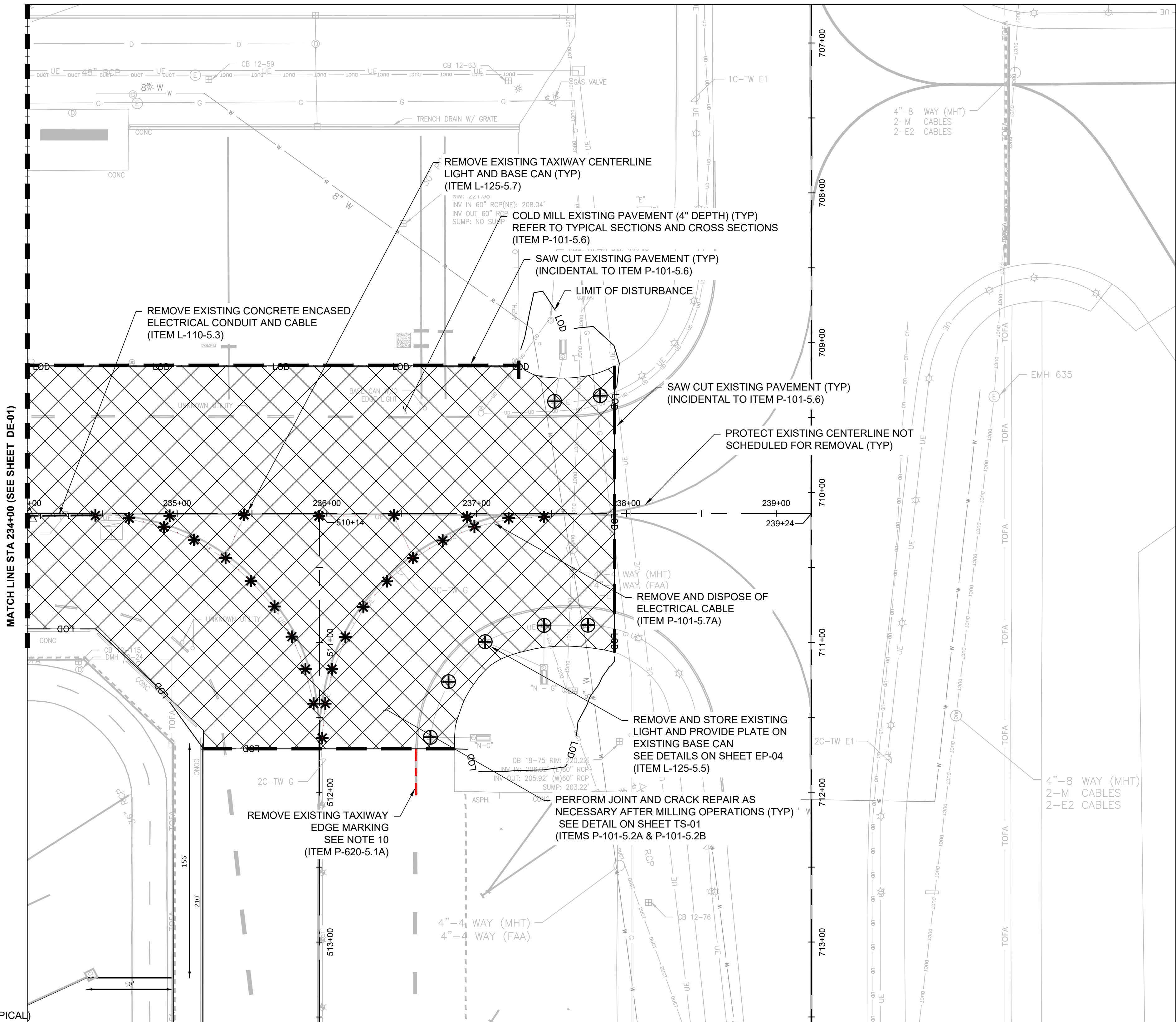
- NOTES:
1. FOR SAFETY AND PHASING PLANS SEE SHEET CS-01 TO CS-04.
 2. CONTRACTOR TO PROTECT ALL EXISTING OBJECTS NOT SCHEDULED TO BE REMOVED.
 3. CONTRACTOR TO COORDINATE WITH MHT OPERATIONS AND RPR TO DE-ENERGIZE TAXIWAY LIGHT CIRCUITS AND IMPLEMENT LOCK OUT/TAGOUT PROCEDURE PRIOR TO ELECTRICAL DEMOLITION.
 4. BEFORE DEMOLITION CONTRACTOR TO VERIFY EXISTING CIRCUITRY WITH GUIDANCE FROM MHT. CONTRACTOR SHALL PROPOSE NEW WIRE LAYOUT TO ENGINEER IF NEEDED PRIOR TO STARTING DEMOLITION.
 5. WORK OUTSIDE OF DESIGNATED WORK AREA TO BE PERFORMED UNDER PRIOR PERMISSION REQUEST (PPR) AS APPROVED BY MHT OPERATIONS AND THE RPR.
 6. CONTRACTOR TO INSTALL ANY NECESSARY JUMPERS REQUIRED TO KEEP OPEN TAXIWAY LIGHT CIRCUIT OPERATIONAL DURING CONSTRUCTION.
 7. CONTRACTOR SHALL SAW-CUT ALL PAVEMENT EDGES PRIOR TO REMOVAL OF PAVEMENT.
 8. ALL ELECTRICAL BASE CANS, MANHOLES, HAND HOLES OR ANYTHING ELSE THAT IS CALLED OUT TO BE REMOVED, BUT DOES NOT HAVE ITS OWN ITEM WITHIN PROJECT LIMITS SHALL BE PAID UNDER UNCLASSIFIED EXCAVATION (ITEM P-152-4.1).
 9. ALL AIRFIELD SIGNS TO BE REMOVED SHALL BE SALVAGED BY THE AIRPORT AND DELIVERED TO A LOCATION ON THE AIRPORT AS DIRECTED BY MHT OPERATIONS. (INCIDENTAL TO ITEM L-125-5.9).
 10. FOR MARKING REMOVAL LIMITS SEE MARKING PLANS ON SHEET MK-01 TO MK-02.



K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\SHEET FILES\19199.01 DEMO.DWG

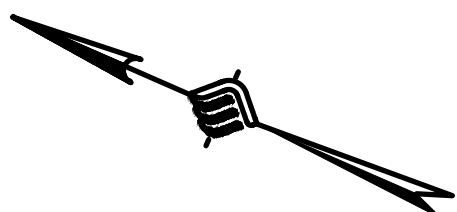
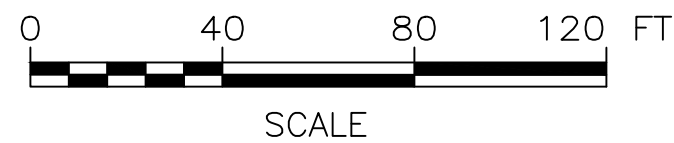
LEGEND:

-  COLD MILL EXISTING PAVEMENT (4" TYPICAL)
-  SAWCUT PAVEMENT
-  REMOVE EXISTING CABLE
-  REMOVE EXISTING CONCRETE ENCASED ELECTRICAL CONDUIT AND CABLE
-  REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND BASE
-  REMOVE EXISTING TAXIWAY EDGE LIGHT AND BASE CAN
-  REMOVE EXISTING TAXIWAY CENTERLINE LIGHT AND BASE CAN
-  REMOVE EXISTING CONCRETE ENCASED TAXIWAY CENTERLINE LIGHT AND BASE CAN
-  REMOVE EXISTING LIGHT AND PROVIDE PLATE ON EXISTING BASE CAN
-  REMOVE AND STORE EXISTING LIGHT AND PROVIDE PLATE ON EXISTING BASE CAN



NOTES:

- FOR SAFETY AND PHASING PLANS SEE SHEET CS-01 TO CS-04.
- CONTRACTOR TO PROTECT ALL EXISTING OBJECTS NOT SCHEDULED TO BE REMOVED.
- CONTRACTOR TO COORDINATE WITH MHT OPERATIONS AND RPR TO DE-ENERGIZE TAXIWAY LIGHT CIRCUITS AND IMPLEMENT LOCK OUT/TAGOUT PROCEDURE PRIOR TO ELECTRICAL DEMOLITION.
- BEFORE DEMOLITION CONTRACTOR TO VERIFY EXISTING CIRCUITRY WITH GUIDANCE FROM MHT. CONTRACTOR SHALL PROPOSE NEW WIRE LAYOUT TO ENGINEER IF NEEDED PRIOR TO STARTING DEMOLITION.
- WORK OUTSIDE OF DESIGNATED WORK AREA TO BE PERFORMED UNDER PRIOR PERMISSION REQUEST (PPR) AS APPROVED BY MHT OPERATIONS AND THE RPR.
- CONTRACTOR TO INSTALL ANY NECESSARY JUMPERS REQUIRED TO KEEP OPEN TAXIWAY LIGHT CIRCUIT OPERATIONAL DURING CONSTRUCTION.
- CONTRACTOR SHALL SAW-CUT ALL PAVEMENT EDGES PRIOR TO REMOVAL OF PAVEMENT.
- ALL ELECTRICAL BASE CANS, MANHOLES, HAND HOLES OR ANYTHING ELSE THAT IS CALLED OUT TO BE REMOVED, BUT DOES NOT HAVE ITS OWN ITEM WITHIN PROJECT LIMITS SHALL BE PAID UNDER UNCLASSIFIED EXCAVATION (ITEM P-152-4.1).
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- FOR MARKING REMOVAL LIMITS SEE MARKING PLANS ON SHEET MK-01 TO MK-02.



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095
DESIGNED BY: DFB
DRAWN BY: TC
CHECKED BY: BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

DEMOLITION PLANS (2 OF 2)

SCALE: 1"=40' DATE: FEBRUARY 2025

REVISIONS		DESCRIPTION	BY
REV. NO.	DATE		

MJ PROJ. No.:19199.01

FILE NAME:

AIP No.: TBD

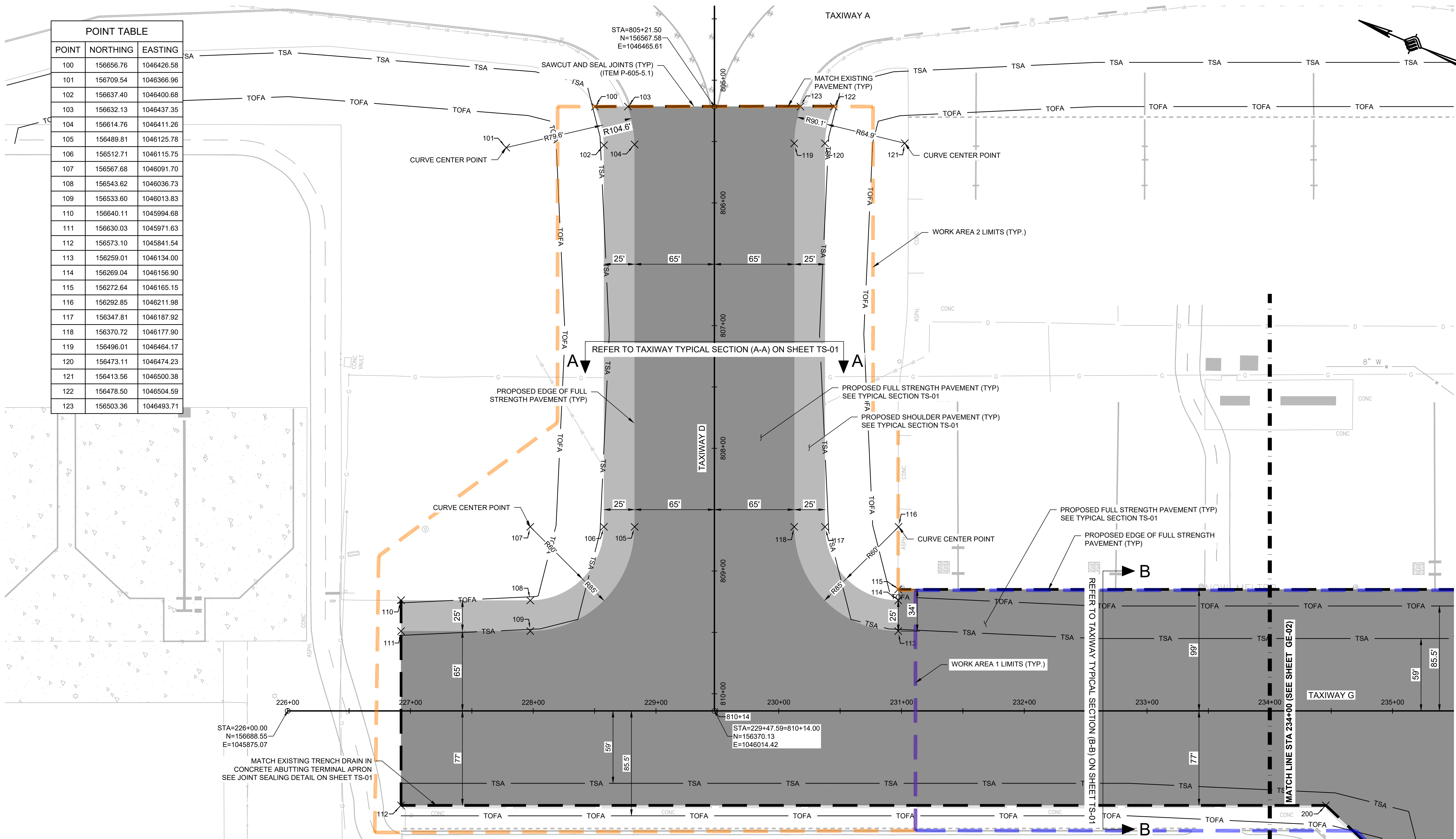
DRAWING NO.

DE-02

SHEET 13 OF 39



K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\GEOMETRY\19199.01-GEOM.DWG



POINT TABLE		
POINT	NORTHING	EASTING
100	156656.76	1046426.58
101	156709.54	1046366.96
102	156637.40	1046400.68
103	156632.13	1046437.35
104	156614.76	1046411.26
105	156489.81	1046125.78
106	156512.71	1046115.75
107	156567.68	1046091.70
108	156543.62	1046036.73
109	156533.60	1046013.83
110	156640.11	1045994.68
111	156630.03	1045971.63
112	156573.10	1045841.54
113	156259.01	1046134.00
114	156269.04	1046156.90
115	156272.64	1046165.15
116	156292.85	1046211.98
117	156347.81	1046187.92
118	156370.72	1046177.90
119	156496.01	1046464.17
120	156473.11	1046474.23
121	156413.56	1046500.38
122	156478.50	1046504.59
123	156503.36	1046493.71

- LEGEND:
- FULL STRENGTH PAVEMENT
 - SHOULDER STRENGTH PAVEMENT
 - SAWCUT AND SEAL JOINT
 - TSA TAXIWAY SAFETY AREA
 - TOFA TAXIWAY OBJECT FREE AREA
 - RSA RUNWAY SAFETY AREA
 - ROFA RUNWAY OBJECT FREE AREA

- NOTES:
- FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
 - FOR DEMOLITION PLANS SEE SHEETS DE-01 TO DE-02.
 - FOR TYPICAL PAVEMENT SECTIONS SEE SHEET TS-01.
 - FOR GRADING, DRAINAGE AND EROSION CONTROL PLANS SEE SHEETS GR-01 TO EC-01.
 - FOR MARKING PLANS AND DETAILS SEE SHEETS MK-01 TO MK-03.
 - FOR ELECTRICAL PLANS SEE SHEETS EP-01 TO EP-03.

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DBB

DRAWN BY
FPS

CHECKED BY
BNB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

GEOMETRY PLANS (1 OF 2)

SCALE: 1"=40'

DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

MJ PROJ. No.:19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

GE-01

SHEET 14 OF 39



K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\SHEET FILES\19199.01-GEOM.DWG

LEGEND:

- FULL STRENGTH PAVEMENT
- SHOULDER STRENGTH PAVEMENT
- SAWCUT AND SEAL JOINT
- TSA —

TAXIWAY SAFETY AREA
- TOFA —

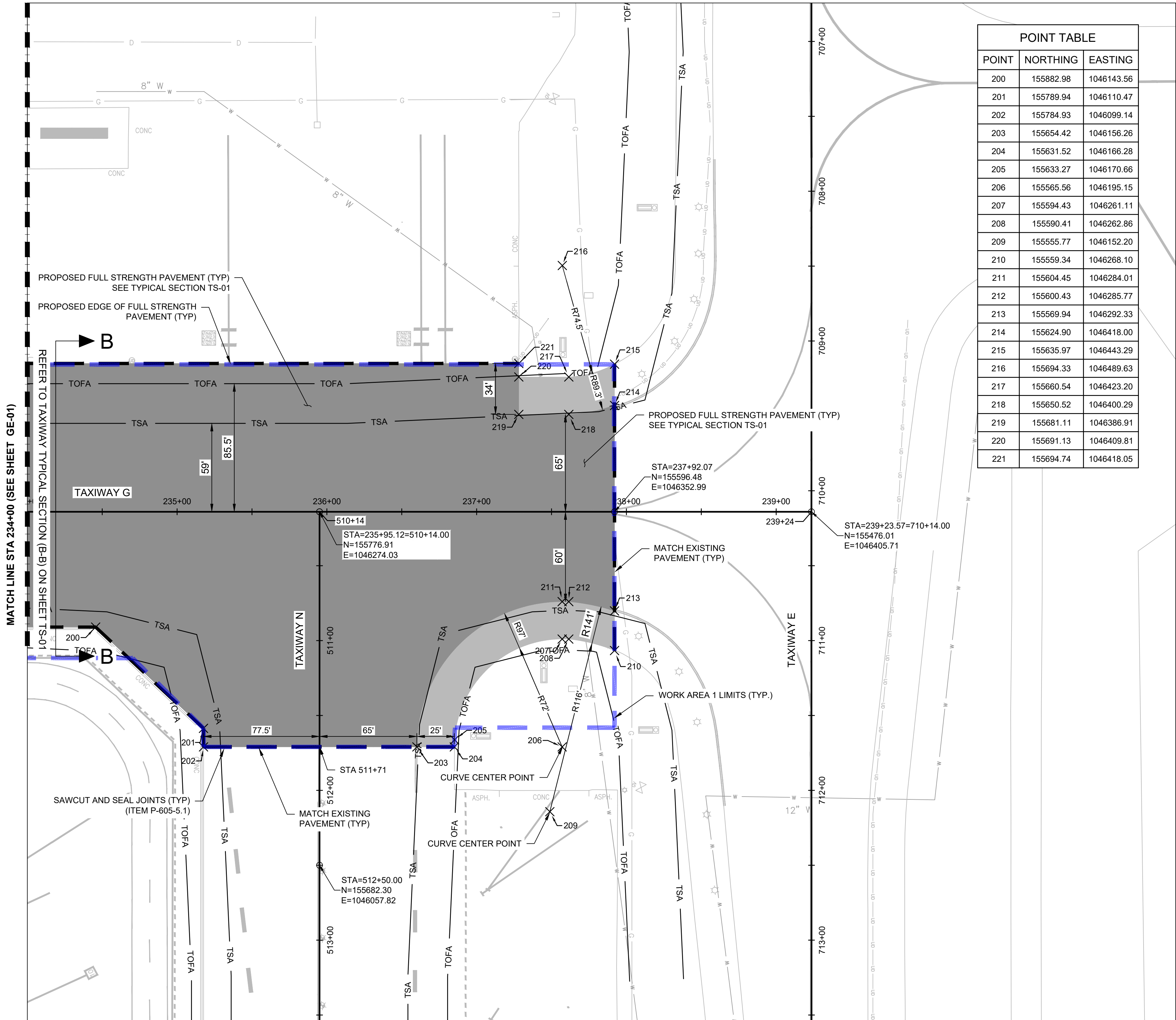
TAXIWAY OBJECT FREE AREA
- RSA —

RUNWAY SAFETY AREA
- ROFA —

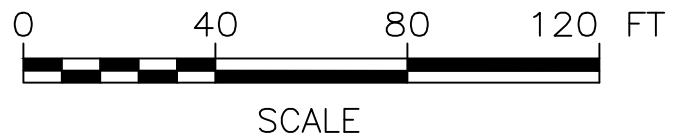
RUNWAY OBJECT FREE AREA

NOTES:

1. FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
2. FOR DEMOLITION PLANS SEE SHEETS DE-01 TO DE-02.
3. FOR TYPICAL PAVEMENT SECTIONS SEE SHEET TS-01.
7. FOR GRADING, DRAINAGE AND EROSION CONTROL PLANS SEE SHEETS GR-01 TO EC-01.
8. FOR MARKING PLANS AND DETAILS SEE SHEETS MK-01 TO MK-03.
9. FOR ELECTRICAL PLANS SEE SHEETS EP-01 TO EP-03.



POINT TABLE		
POINT	NORTHING	EASTING
200	155882.98	1046143.56
201	155789.94	1046110.47
202	155784.93	1046099.14
203	155654.42	1046156.26
204	155631.52	1046166.28
205	155633.27	1046170.66
206	155565.56	1046195.15
207	155594.43	1046261.11
208	155590.41	1046262.86
209	155555.77	1046152.20
210	155559.34	1046268.10
211	155604.45	1046284.01
212	155600.43	1046285.77
213	155569.94	1046292.33
214	155624.90	1046418.00
215	155635.97	1046443.29
216	155694.33	1046489.63
217	155660.54	1046423.20
218	155650.52	1046400.29
219	155681.11	1046386.91
220	155691.13	1046409.81
221	155694.74	1046418.05



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR CONSTRUCTION

PROJECT DESIGNER

McFARLAND JOHNSON

53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095

DESIGNED BY: DFB
DRAWN BY: FPS
CHECKED BY: BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

GEOMETRY PLANS (2 OF 2)

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

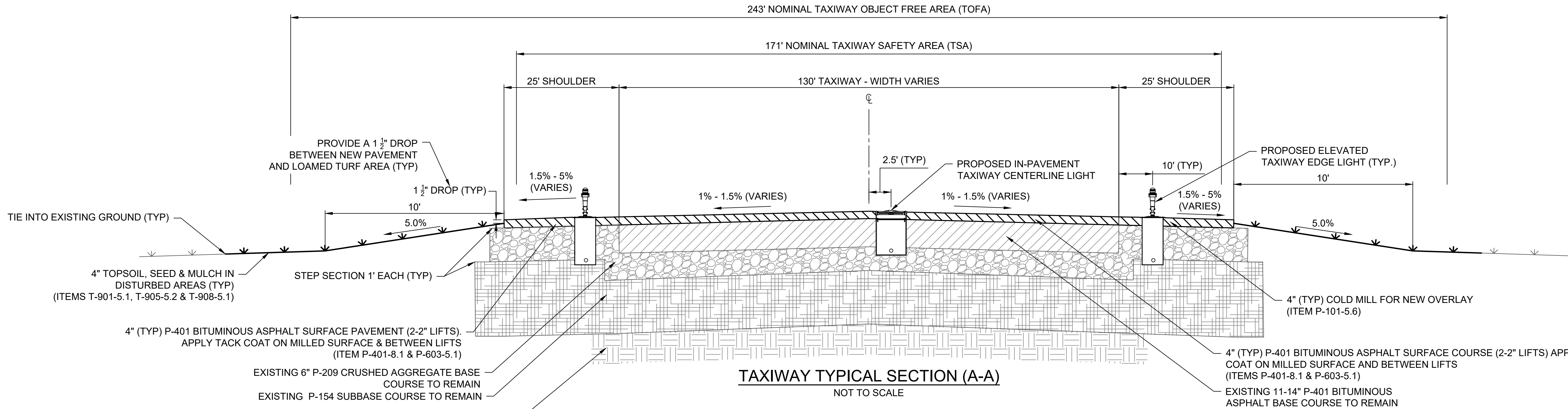
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GE-02

SHEET 15 OF 39

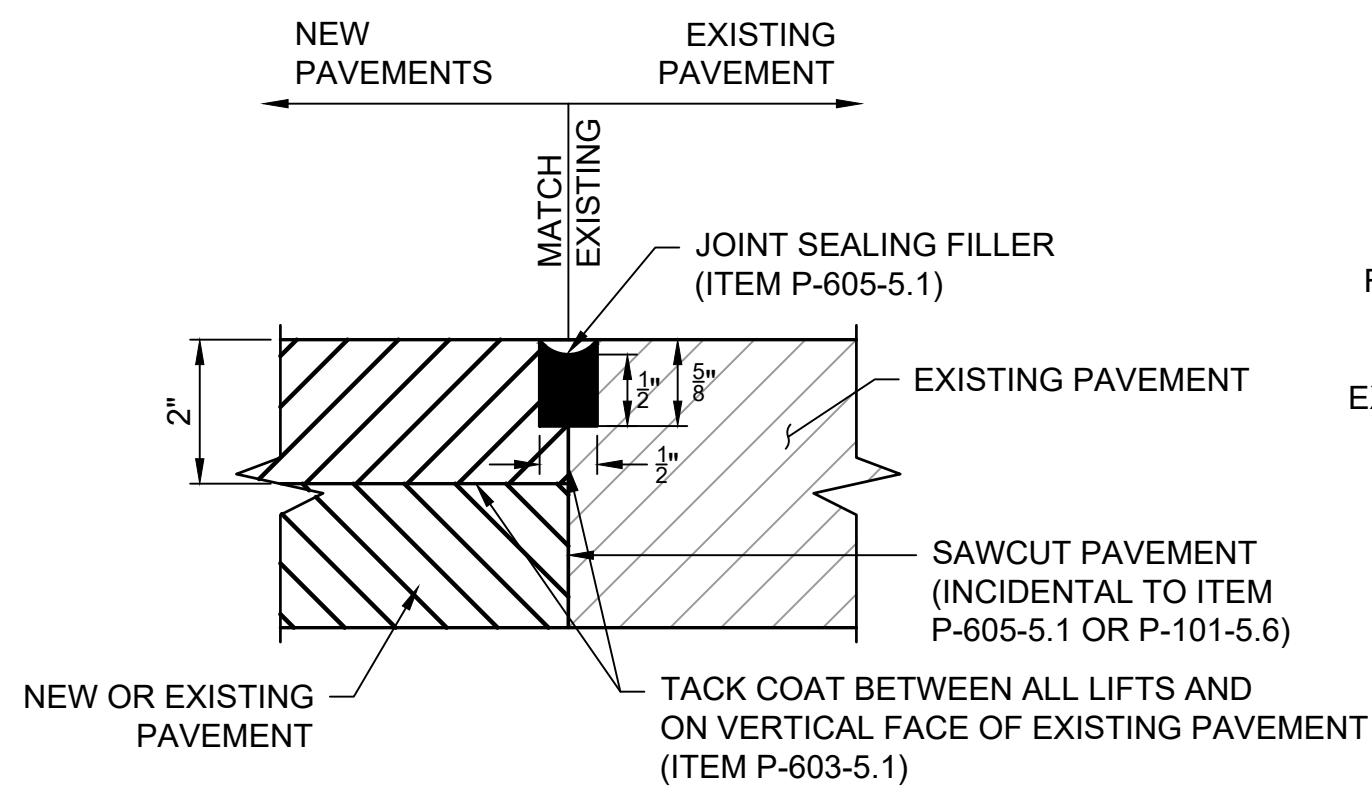
SCALE: 1"=40'

DATE: FEBRUARY 2025

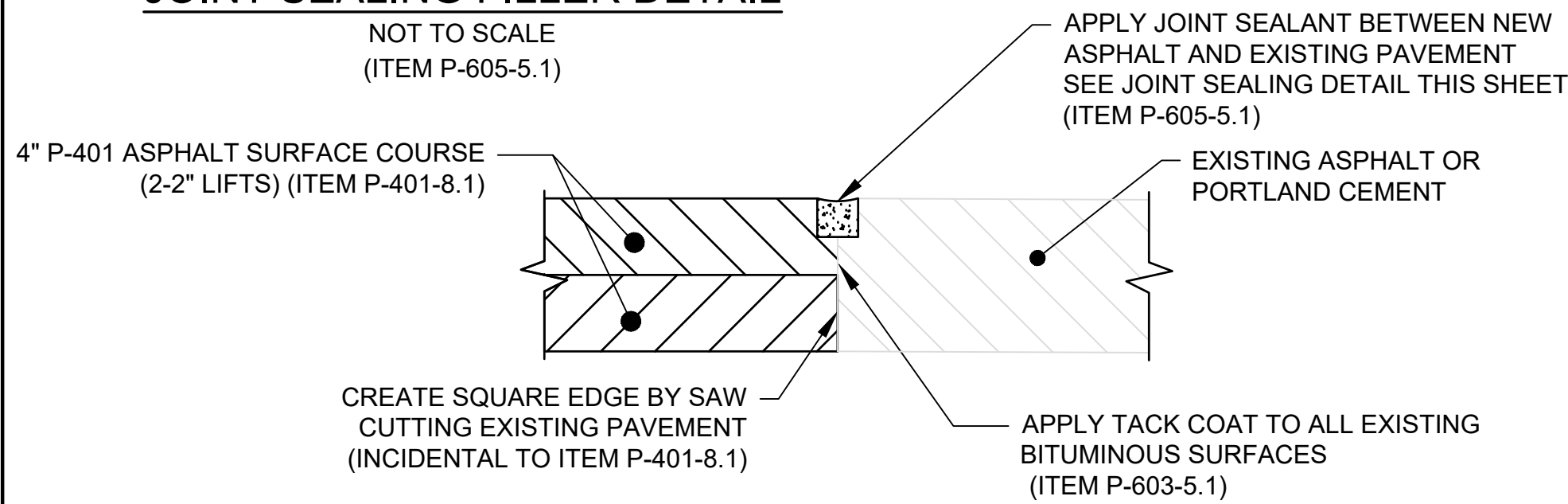
REV



TAXIWAY TYPICAL SECTION (A-A)
NOT TO SCALE

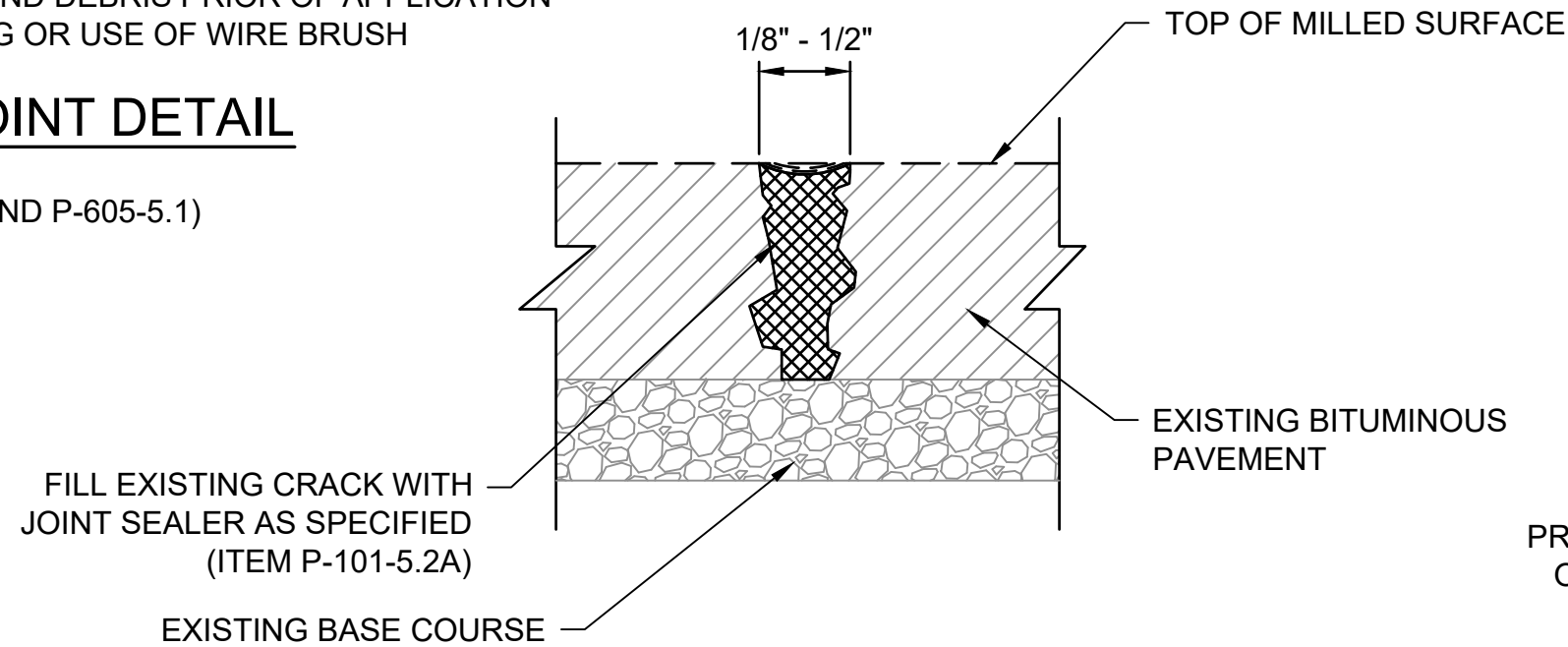


PAVEMENT TIE-IN AND
JOINT SEALING FILLER DETAIL
NOT TO SCALE
(ITEM P-605-5.1)

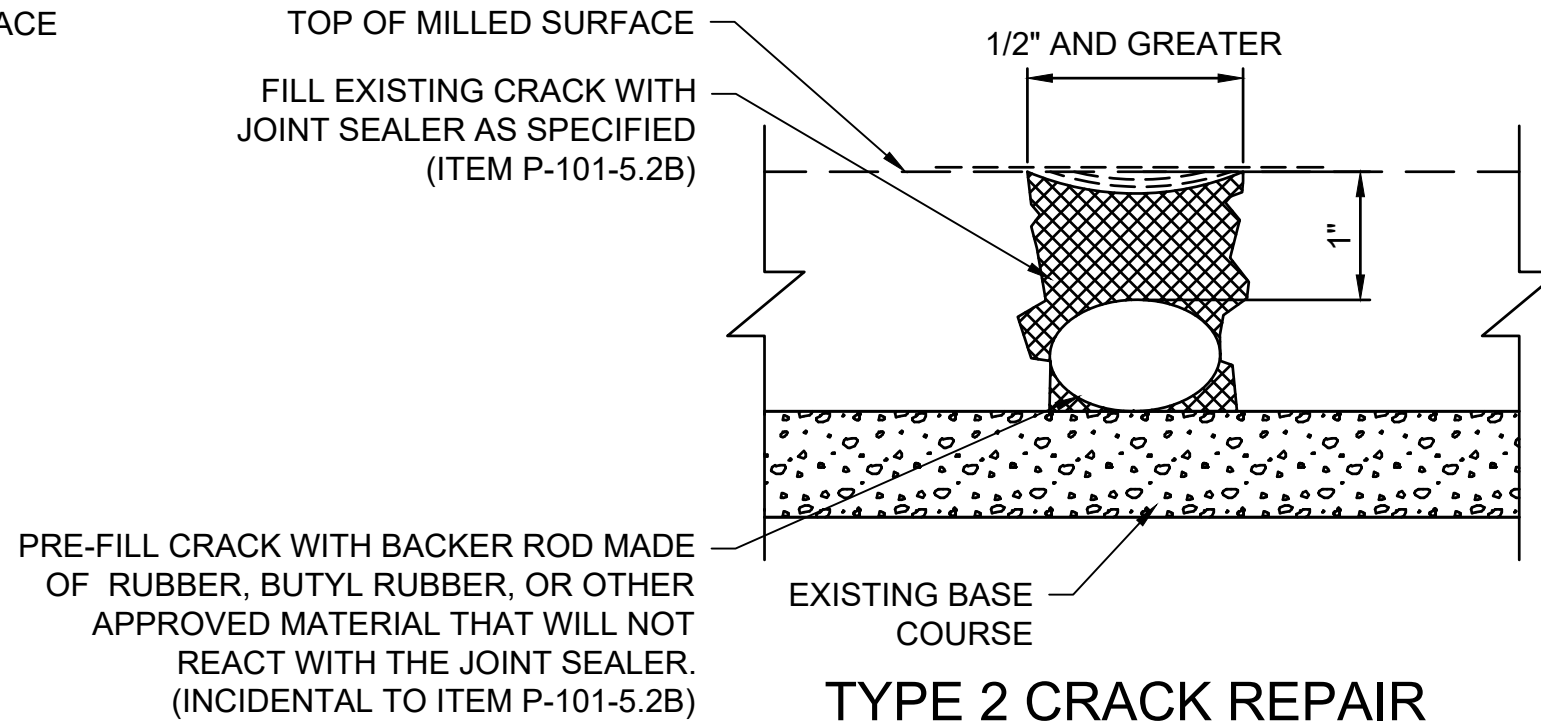


NOTE:
1. FACE OF EXISTING PAVEMENT SHALL BE FREE OF DIRT AND DEBRIS PRIOR OF APPLICATION OF TACK COAT OR SEALANT AND MAY REQUIRE WASHING OR USE OF WIRE BRUSH

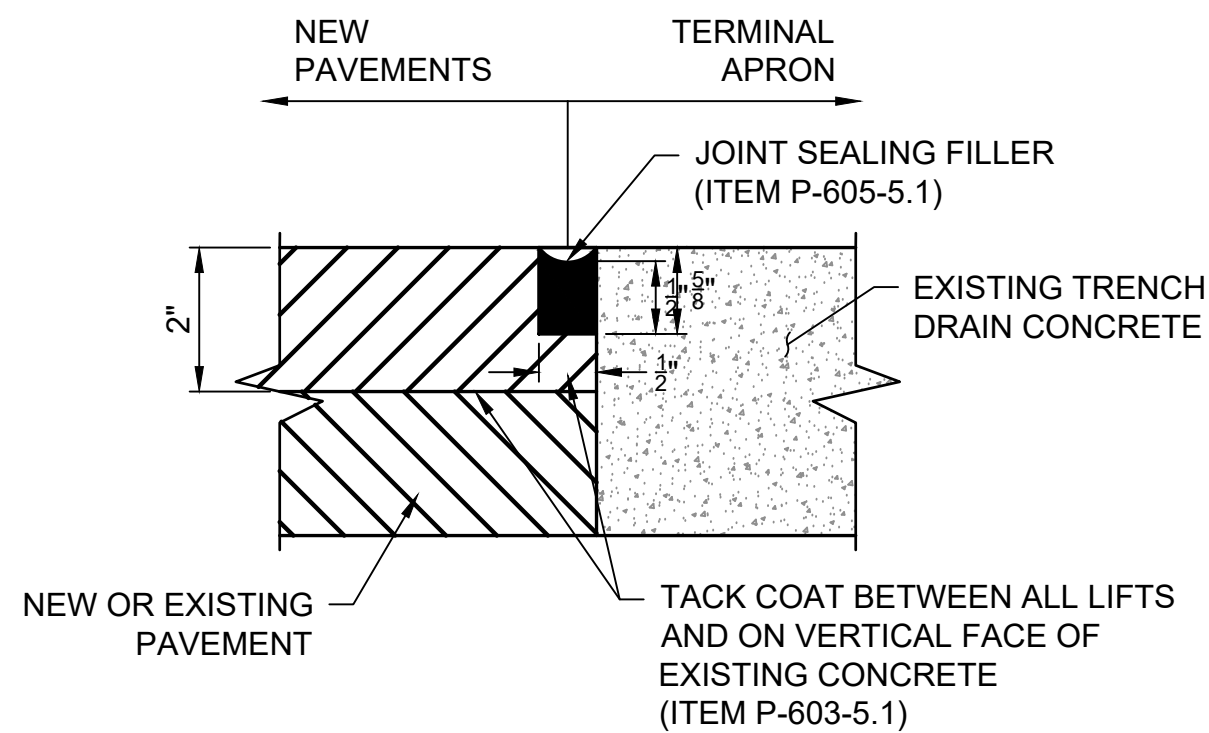
PAVEMENT TRANSITION JOINT DETAIL
NOT TO SCALE
(ITEMS P-101-5.6, P-401-8.1, P-603-5.1 AND P-605-5.1)



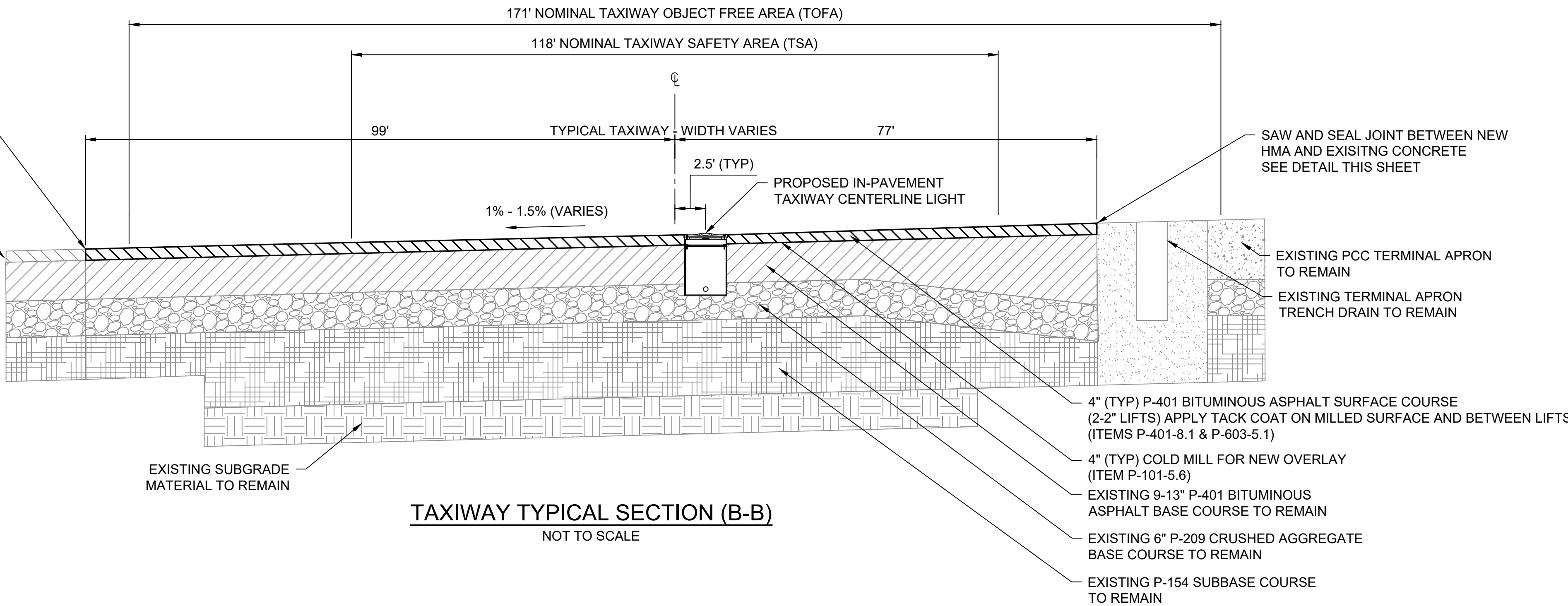
TYPE 1 CRACK REPAIR
BITUMINOUS CRACK SEAL LESS THAN 1/2"
NOT TO SCALE
(ITEM P-101-5.2A)



TYPE 2 CRACK REPAIR
BITUMINOUS CRACK SEAL 1/2" AND GREATER
NOT TO SCALE
(ITEM P-101-5.2B)



PAVEMENT TO CONCRETE TIE-IN AND
JOINT SEALING FILLER DETAIL
NOT TO SCALE
(ITEM P-605-5.1)



TAXIWAY TYPICAL SECTION (B-B)
NOT TO SCALE

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

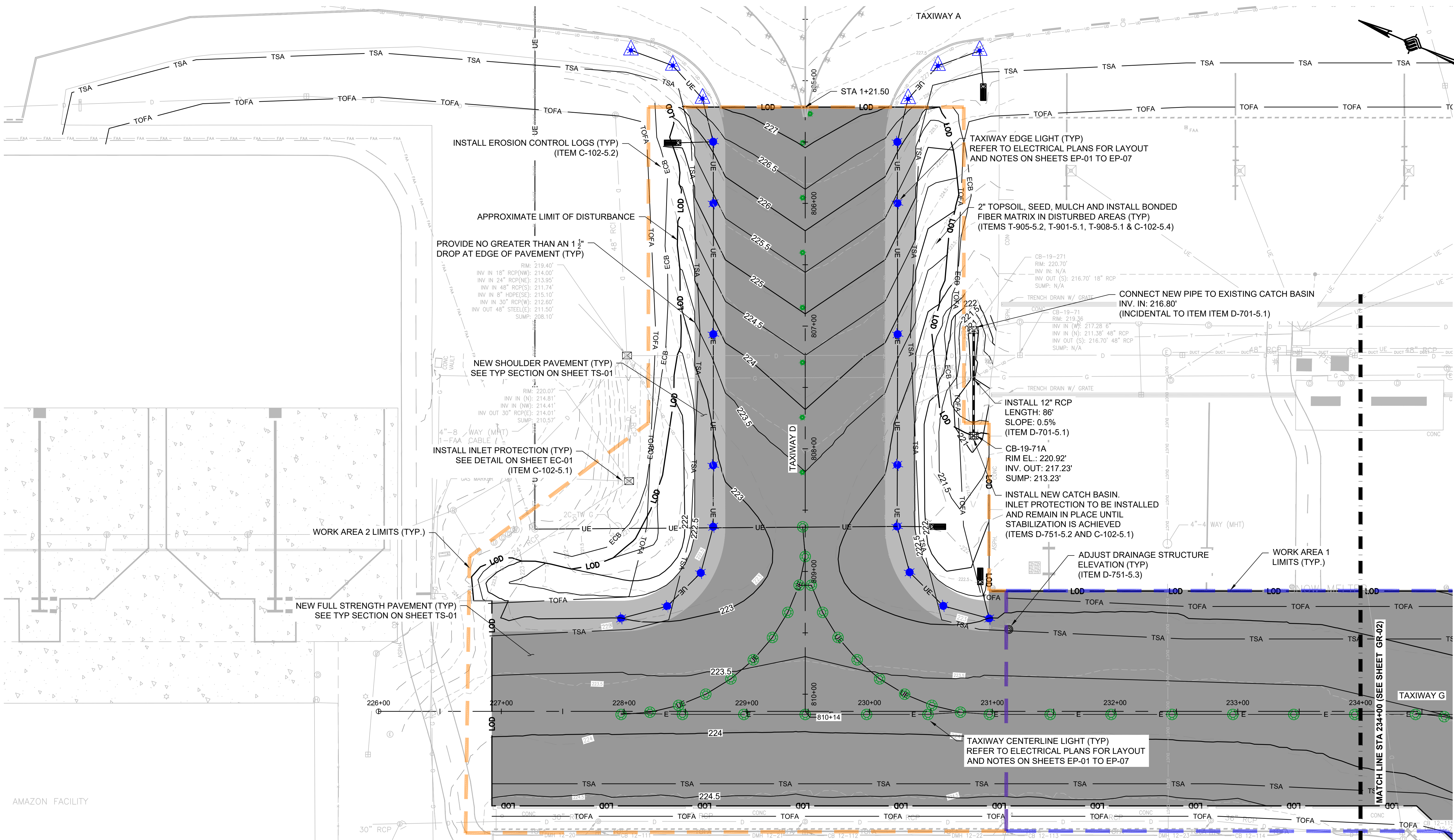
PROJECT DESIGNER
McFARLAND JOHNSON
53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095
DESIGNED BY: DBB
DRAWN BY: FPS
CHECKED BY: BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D
TYPICAL SECTION AND PAVEMENT
DETAILS
SCALE: NTS
DATE: FEBRUARY 2025

REVISIONS				BY
REV. NO.	DATE	DESCRIPTION		
	</			

K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\BHEET FILES\19199.01 GRAD.DWG



LEGEND:

- FULL STRENGTH PAVEMENT
- SHOULDER PAVEMENT
- ADJUST EXISTING DRAINAGE STRUCTURE RIM ELEVATION
- ADJUST EXISTING ELECTRIC STRUCTURE RIM ELEVATION
- 210 EXISTING MAJOR CONTOUR
- 209 EXISTING MINOR CONTOUR
- 210 PROPOSED MAJOR CONTOUR
- 209 PROPOSED MINOR CONTOUR

- IN-TURF INLET PROTECTION
- ECB EROSION CONTROL LOG
- LOD APPROXIMATE LIMIT OF DISTURBANCE
- TSA TAXIWAY SAFETY AREA
- TOFA TAXIWAY OBJECT FREE AREA
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA

- EXISTING CATCH BASIN
- EXISTING DRAINAGE MANHOLE
- EXISTING ELECTRICAL MANHOLE
- EXISTING FAA ELECTRICAL HANDHOLE
- EXISTING UNDERDRAIN
- INSTALL AIRCRAFT RATED 4' CATCH BASIN
- NEW IN-PAVEMENT TAXIWAY CENTERLINE LIGHT ON NEW BASE CAN
- RE-INSTALL EXISTING TAXIWAY CENTERLINE LIGHT ON EXISTING BASE CAN

- NEW ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN
- NEW ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN

NOTES:

- FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
- FOR DRAINAGE DETAILS SEE SHEET GR-03.
- FOR EROSION CONTROL DETAILS SEE SHEET EC-01.
- FOR GEOMETRY LAYOUT SEE SHEETS GE-01 TO GE-02.
- FOR ELECTRICAL LAYOUT AND DETAILS SEE SHEETS EP-01 TO EP-07.
- FOR EXISTING DRAINAGE INVERTS AND OTHER EXISTING INFORMATION SEE SHEETS EX-01 TO EX-02.

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DJB

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

GRADING, DRAINAGE PLAN, AND EROSION
CONTROL PLAN (1 OF 2)

SCALE: 1"=40'

DATE: FEBRUARY 2025

REVISIONS		DESCRIPTION	DATE
REV. NO.	DATE	DESCRIPTION	DATE

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.


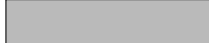






GR-01


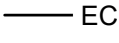





SHEET 20 OF 39









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LEGEND:

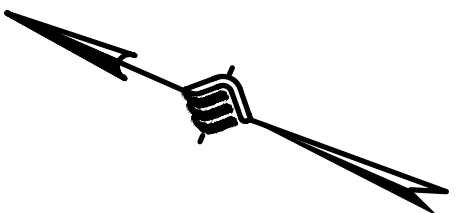
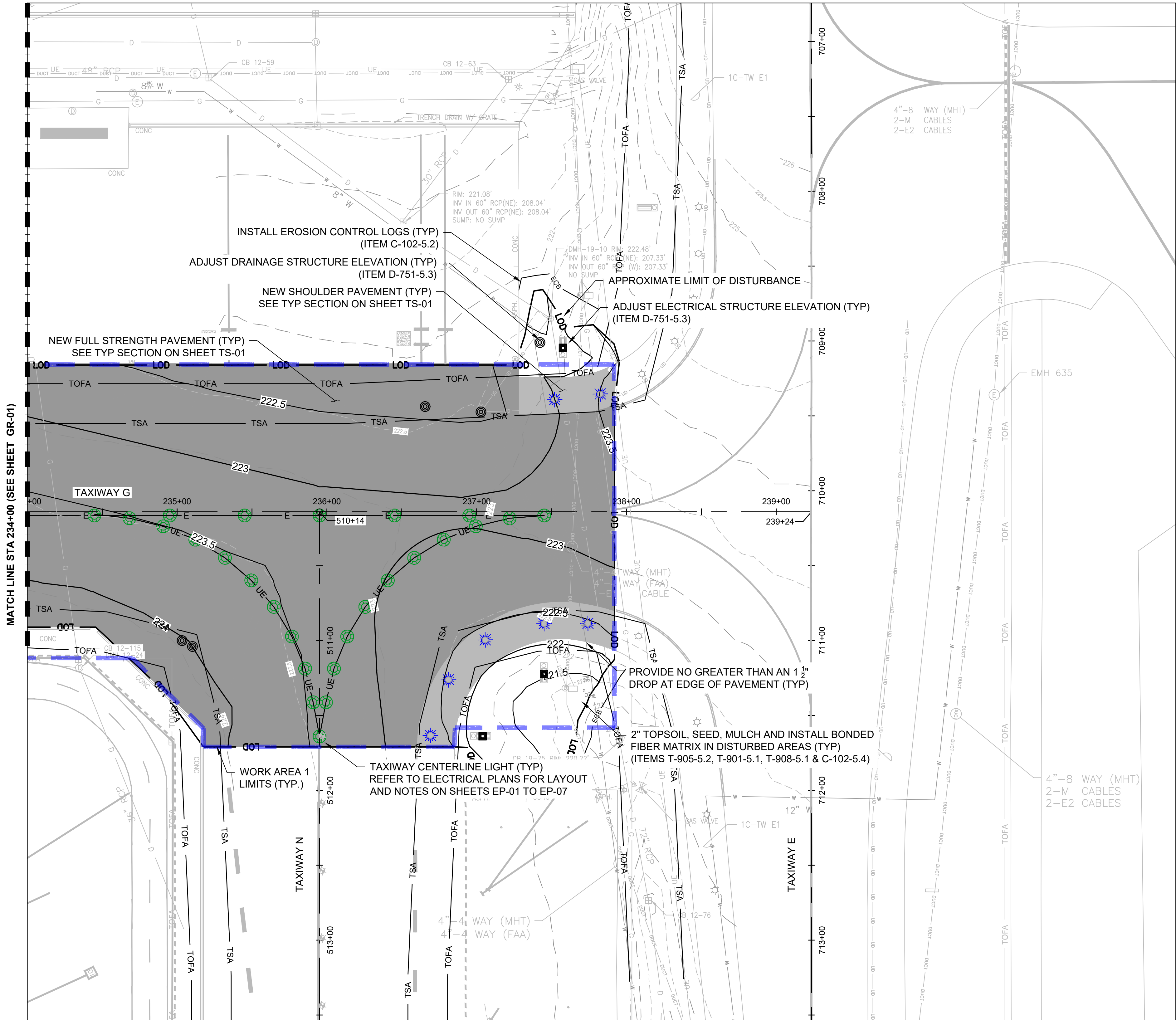
-  FULL STRENGTH PAVEMENT
-  SHOULDER PAVEMENT
-  ADJUST EXISTING DRAINAGE STRUCTURE RIM ELEVATION
-  ADJUST EXISTING ELECTRIC STRUCTURE RIM ELEVATION
-  210 EXISTING MAJOR CONTOUR
-  209 EXISTING MINOR CONTOUR
-  210 PROPOSED MAJOR CONTOUR
-  209 PROPOSED MINOR CONTOUR

-  IN-TURF INLET PROTECTION
-  ECB EROSION CONTROL LOG
-  LOD APPROXIMATE LIMIT OF DISTURBANCE
-  TSA TAXIWAY SAFETY AREA
-  TOFA TAXIWAY OBJECT FREE AREA
-  RSA RUNWAY SAFETY AREA
-  ROFA RUNWAY OBJECT FREE AREA

-  EXISTING CATCH BASIN
-  EXISTING DRAINAGE MANHOLE
-  EXISTING ELECTRICAL MANHOLE
-  EXISTING FAA ELECTRICAL HANDHOLE
-  EXISTING UNDERDRAIN
-  INSTALL AIRCRAFT RATED 4' CATCH BASIN

NOTES:

1. FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
2. FOR DRAINAGE DETAILS SEE SHEET GR-03.
3. FOR EROSION CONTROL DETAILS SEE SHEET EC-01.
4. FOR GEOMETRY LAYOUT SEE SHEETS GE-01 TO GE-02.
5. FOR ELECTRICAL LAYOUT AND DETAILS SEE SHEETS EP-01 TO EP-07.
6. FOR EXISTING DRAINAGE INVERTS AND OTHER EXISTING INFORMATION SEE SHEETS EX-01 TO EX-02.



ENGINEER'S SEAL

BID DOCUMENTS
NOT FOR
CONSTRUCTION

PROJECT DESIGNER
McFARLAND JOHNSON

DESIGNED BY
DFB

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

GRADING, DRAINAGE PLAN, AND EROSION
CONTROL PLAN (2 OF 2)

SCALE: 1"=40'

DATE: FEBRUARY 2025

REVISIONS		DESCRIPTION	BY
REV. NO.	DATE		

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

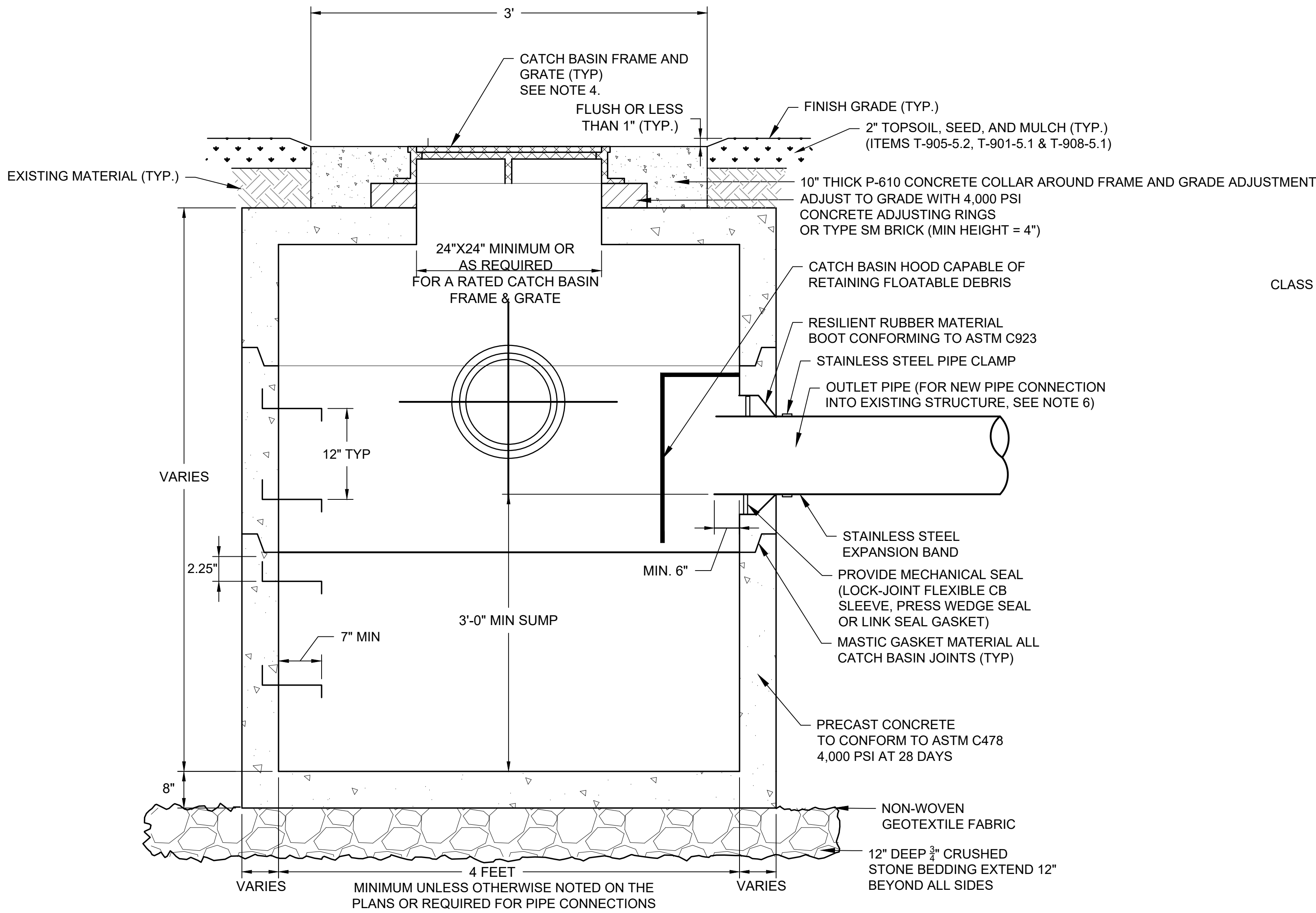
DRAWING NO.

GR-02

SHEET 18 OF 39



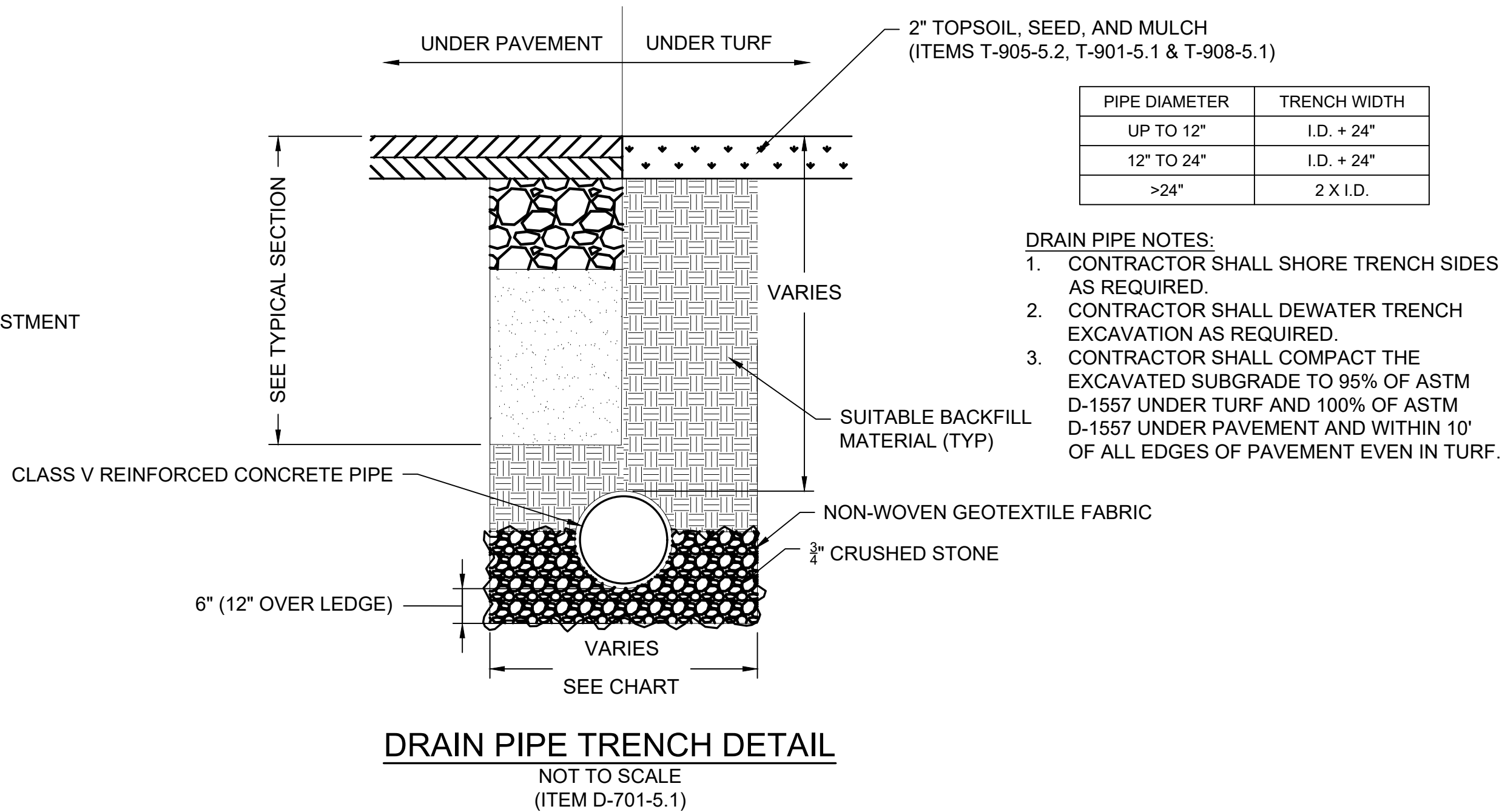
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CATCH BASIN DETAIL
NOT TO SCALE
(ITEM D-751-5.2)

DRAINAGE STRUCTURE NOTES:

1. AIRCRAFT RATED PREFABRICATED REINFORCED CONCRETE STRUCTURES AND FRAME AND GRATES SHALL BE DESIGNED AND CONSTRUCTED TO SUPPORT A MINIMUM OF A 100,000 LB SINGLE WHEEL LOADING. ALL OTHER STRUCTURES SHALL BE H20 RATED. THE CONTRACTOR IS REQUIRED TO SUBMIT SHOP DRAWINGS AND MANUFACTURER CERTIFICATIONS TO THE ENGINEER FOR REVIEW PRIOR TO INSTALLATION. SHOP DRAWINGS FOR LOADING SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN NEW HAMPSHIRE.
2. THE WALL THICKNESS SHALL INCREASE IN SIZE TO CONFORM WITH THE REQUIREMENTS OF THE MANUFACTURER OF THE RESILIENT RUBBER BOOT AND BE SIZED ACCORDING TO THE DIAMETER OF THE STRUCTURE AND THE SIZE AND TYPE OF PIPE. THE WALL THICKNESS SHALL NOT BE LESS THAN 6" FOR STEEL COVER REQUIREMENTS FOR AIRCRAFT RATED STRUCTURES AND SHALL BE DESIGNED TO MEET ALL REQUIREMENTS INCLUDING THE REQUIRED LOADING IN NOTE 1.
3. CONTRACTOR SHALL COMPACT THE EXCAVATED SUBGRADE TO 100% OF ASTM D-1557 WITHIN 10' OF ALL EDGES OF PAVEMENT EVEN IN TURF.
4. THE FRAME AND GRATE FOR ALL AIRFIELD STRUCTURES SHALL BE AIRPORT RATED. THE FRAME AND GRATE FOR ALL LANDSIDE STRUCTURES SHALL BE H20 RATED. ALL CATCH BASINS SHALL HAVE A MINIMUM OPENING AREA OF 4.8 SF, AND A WEIR PERIMETER OF 13.8 FT.
5. ALL PRECAST-CONCRETE STRUCTURES SHALL HAVE COURSE, FINE, AND CONCRETE MATERIALS TESTED FOR ALKALI-SILICA REACTION (ASR) USING AASHTO T303 MODIFIED.
6. CORE INTO EXISTING STRUCTURE FOR PROPOSED PIPE CONNECTIONS INTO EXISTING STRUCTURES AND USE A CORED STYLE RESILIENT RUBBER BOOT CONNECTION. A MORTARED CONNECTION AROUND THE PIPE FOR THE CORE HOLE MAY ONLY BE USED WITH PRIOR PERMISSION OF THE RPR. CONNECTIONS INTO EXISTING STRUCTURES ARE INCIDENTAL TO THE PIPE INSTALLATION ITEM.



CONSTRUCTION SEQUENCE:

- STEP 1: REMOVE AND STORE EXISTING FRAME AND GRATE.
- STEP 2: INSTALL TEMPORARY STEEL COVER PLATE OVER STRUCTURE OPENING.
- STEP 3: PAVE 1ST LIFT OF HMA OVER TEMPORARY STEEL COVER PLATE.
- STEP 4: CORE THROUGH 1ST LIFT OF HMA AROUND STRUCTURE AND REINSTALL FRAME AND GRATE AT FG ELEVATION.
- STEP 5: INSTALL 2ND LIFT OF HMA AROUND ADJUSTED FRAME AND GRATE.

DRAINAGE STRUCTURE ADJUSTMENT
NOT TO SCALE
(ITEM D-751-5.3)

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DJB

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

DRAINAGE DETAILS

SCALE: NTS DATE: FEBRUARY 2025

REV. NO.	DATE	REVISIONS	
		DESCRIPTION	BY

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

GR-03

SHEET 19 OF 39



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EROSION CONTROL SPECIFICATIONS FOR UPLAND AREAS:

1. SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.
2. RECOGNIZING THAT IMMEDIATE ATTENTION TO EROSION CONTROL PRACTICES DRAMATICALLY IMPROVES SOIL AND MOISTURE CONSERVATION AND REDUCES NEGATIVE IMPACTS ON WATER QUALITY. THE CONTRACTOR SHALL GIVE HIGH PRIORITY TO THE DAILY AND TIMELY INSTALLATION OF BOTH TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES. IMMEDIATE INSTALLATION OF PRACTICES USUALLY REDUCES LONG TERM COSTS TO THE CONTRACTOR AND PROVIDES BENEFITS TO THE DEVELOPER AND THE PUBLIC GOOD.
3. EROSION CONTROL PRACTICES ARE SHOWN ON THE PLANS WITH RESPECT TO LOCATION AS DETERMINED FROM EXISTING TOPOGRAPHY. CHANGES MAY BE INDICATED IN THE FIELD TO IMPROVE EROSION AND SEDIMENT CONTROL.
4. CONSTRUCTION SHALL PROCEED UNIT BY UNIT TO FACILITATE INSTALLATION OF EROSION CONTROL MEASURES AND THE COMPLETION OF GRADING, SEEDING, AND LANDSCAPING AS SOON AS POSSIBLE WITHIN A UNIT. THIS PROCEDURE SHOULD RESULT IN THE EXPOSURE OF THE SMALLEST PRACTICAL LAND AREA AT ANY ONE TIME.
5. PRIOR TO ANY DISTURBANCE WITHIN EXISTING GRASSLAND AREAS DEPTH OF TOPSOIL SHALL BE EVALUATED BY THE CONTRACTOR, AND EXISTING TOPSOIL SHALL BE REMOVED AND STOCKPILED SITE FOR RESTORATION OF GRASSLAND AREAS.
6. ALL DISTURBED UPLAND AREAS SHALL HAVE TOPSOIL SPREAD (4" MINIMUM (REFER TO PLANS)) WITHIN TWO WEEKS AND BE LIMED, FERTILIZED, TILLED, SEEDED AND MULCHED. ALL SLOPES 3:1 (1 RISE ON 3 RUN) AND STEEPER SHALL HAVE MULCH HELD IN PLACE WITH BIODEGRADABLE JUTE NETTING OR EROSION CONTROL BLANKET, STAPLED AND STAKED. EACH AREA SHALL BE LIMED, FERTILIZED, PREPARED, SEEDED AND MULCHED (WITH ANCHORED NETTING OR BLANKET IF REQUIRED) WITHIN 14 DAYS OF FINAL GRADING. WHEN PERMANENT SEEDING CANNOT BE INSTALLED BY SEPTEMBER 15, TEMPORARY SEEDING AND MULCHING OF ALL DISTURBED AREAS SHALL BE INSTALLED IMMEDIATELY AND MAINTAINED IN THAT CONDITION UNTIL PERMANENT PRACTICES CAN BE INSTALLED IN THE FOLLOWING PLANTING SEASON.
7. ALTHOUGH NOT ANTICIPATED TO OCCUR, ANY OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHF&G NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT NHFGREVIEW@WILDLIFE.NH.GOV, WITH THE EMAIL SUBJECT LINE CONTAINING THE NHB DATACHECK TOOL RESULTS LETTER ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM WILDLIFE SPECIES OBSERVATION.
8. ALTHOUGH NOT ANTICIPATED TO OCCUR, ANY PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
9. ALTHOUGH NOT ANTICIPATED TO OCCUR, ANY IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE PROJECT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO THE CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G, IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04.
10. ALTHOUGH NOT ANTICIPATED TO OCCUR, ANY THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE PROJECT.
11. TEMPORARY STABILIZATION OF DISTURBED UPLAND AREAS (IF REQUIRED):

SEEDBED PREPARATION: TILL AT LEAST TWO INCHES DEEP MIXING IN FERTILIZER AND GROUND LIMESTONE. APPLY LIMESTONE 2 TONS/ACRE (100#/1,000 SQ. FT.) OR ACCORDING TO SOIL TEST.

FERTILIZE: UNIFORMLY APPLY NOT LESS THAN 400#/ACRE (14#/1,000 SQ. FT.) OF 10-10-10 OR EQUIVALENT OR AS INDICATED BY SOIL TEST. FORTY PERCENT OF NITROGEN SHOULD BE IN ORGANIC FORM.

SEEDING: SELECT APPROPRIATE SEEDING MIXTURE FROM TABLE 1 BELOW. SPREAD SEED UNIFORMLY. FIRM SOIL BY ROLLING OR PACKING; IF NOT FEASIBLE, THEN RAKE LIGHTLY TO COVER SEEDS.

MULCHING: MULCH ALL DISTURBED AREAS WITH 2 TONS OF HAY OR STRAW PER ACRE (90-100#/1,000 SQ. FT.). ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND FLATTER SLOPES SUBJECT TO WASH OR WIND BLOWN. USE JUTE (OR OTHER BIODEGRADABLE) NETTING OR BLANKET. STAKING AND STAPLING MAY BE REQUIRED.

12. PERMANENT STABILIZATION OF DISTURBED UPLAND AREAS:
SEED BED PREPARATION: TOPSOIL (SANDY TOPSOIL, TOPSOIL, OR SILT TOPSOIL), FRIABLE, FREE OF TREE ROOTS, WEEDS, STONES MORE THAN 1-1/2 INCHES IN DIAMETER OR LENGTH SHALL BE PLACED OVER ALL DISTURBED AREAS IN A 4" MINIMUM (REFER TO PLANS) THICK LAYER.

TOPSOIL: IMPORTED TOPSOIL SHALL BE MIXED ON-SITE WITH NATIVE TOPSOIL AND SHALL BE MIXED ON SIGHT ROUGHLY 4:1 TO THE TEXTURE OF THE EXISTING SOILS. LAB ANALYSIS OF EXISTING REMOVED TOPSOIL SHALL BE PERFORMED BY THE CONTRACTOR TO DETERMINE ORGANIC CONTENT AND TEXTURE OF THE NATIVE TOPSOIL FOR A MORE ACCURATE RATIO OF THE FINAL IMPORTED TOPSOIL AND STOCKPILE MIXTURE. SOILS SHALL BE FREE OF INVASIVE SPECIES, HERBICIDES AND TOXIC MATERIALS. SOIL SHALL BE INSPECTED AND APPROVED BY BIOLOGIST AND ENGINEER PRIOR TO USE.

SEEDING: WARM SEASON SEED MIX:

A. GRASS MIX	LBS/ACRE
CREeping RED FESCUE	35% (43.75%)
PERENNIAL RYE GRASS	30% (37.50%)
RED TOP	5 (6.25%)
ALSIKE CLOVER	5 (6.25%)
BIRDSFOOT TREFOIL	5 (6.25%)
TOTALS -	80 LBS/ACRE (1.84 LBS/1000SF)

*PERCENT MAY VARY AS APPROVED BY BIOLOGIST

SEEDING METHODS: SEEDING SHOULD BE PERFORMED BY THE FOLLOWING METHOD:
HYDROSEEDING WITH SUBSEQUENT TRACKING.
TRACKING THE SEEDING WITH SMALL TRACK CONSTRUCTION EQUIPMENT.
TRACKING SHOULD BE ORIENTED UP AND DOWN THE SLOPE.

MULCHING: MULCH ALL DISTURBED AREAS WITH 2 TONS OF FIBER PER ACRE (90 - 100#/1,000 SQ. FT.).
ANCHOR ON ALL SLOPES 3:1 OR STEEPER AND ON FLATTER SLOPES SUBJECT TO WASH (WATERWAYS AND/OR WINDBLOWN) USING JUTE (OR OTHER BIODEGRADABLE) NETTING OR EROSION CONTROL BLANKET, STAKING, AND STAPLING.

MAINTENANCE: INSPECT SEEDED AREAS FOR FAILURE AND MAKE NECESSARY REPAIRS AND RESEED IMMEDIATELY. CONDUCT A FOLLOW-UP SURVEY AFTER ONE YEAR AND REPLACE FAILED PLANTS WHERE NECESSARY. IF VEGETATIVE COVER IS INADEQUATE TO PREVENT EROSION, OVERSEED AND FERTILIZE IN ACCORDANCE WITH SOIL TEST RESULTS. IF A STAND HAS LESS THAN 40% COVER, REEVALUATE CHOICE OF PLANT MATERIALS AND QUANTITIES OF LIME AND FERTILIZER. RE-ESTABLISH THE STAND FOLLOWING SEEDED PREPARATION AND SEEDING RECOMMENDATIONS, OMITTING LIME AND FERTILIZER IN THE ABSENCE OF SOIL TEST RESULTS. IF THE SEASON PREVENTS RESOWING, MULCH OR (7. CONT.) JUTE NETTING IS AN EFFECTIVE TEMPORARY COVER. SEEDED AREAS SHOULD BE FERTILIZED DURING THE SECOND GROWING SEASON. LIME AND FERTILIZE THEREAFTER AT PERIODIC INTERVALS, AS NEEDED.

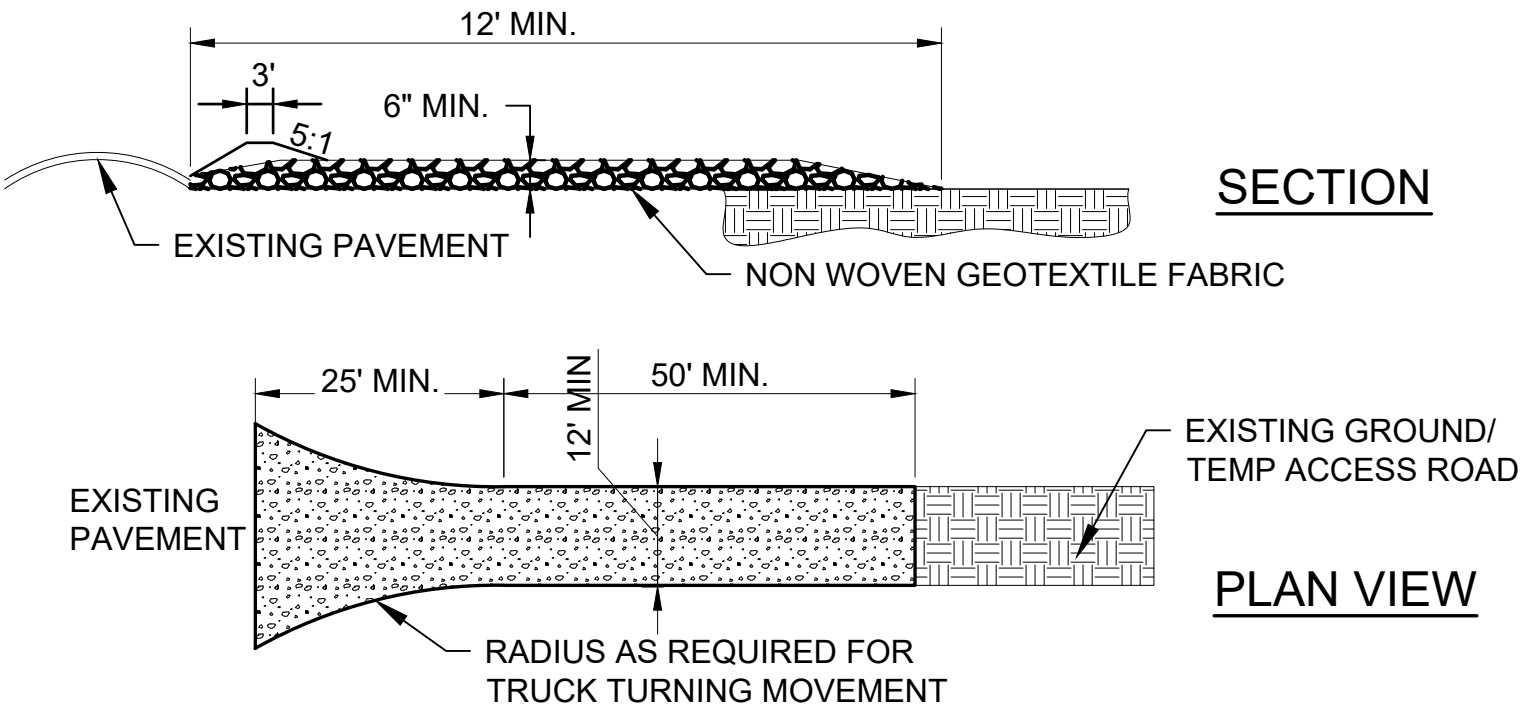
8. TEMPORARY EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
9. MAINTENANCE: DURING THE CONSTRUCTION PERIOD AND UNTIL SUCH TIME AS THE LONG TERM VEGETATION IS ESTABLISHED TO A 85% VEGETATIVE STAND.
A. DISTURBED AREAS WILL BE FERTILIZED AND RESEEDED.
B. CATCH BASINS AND FILTER BAGS WILL BE CHECKED AND CLEANED AS NECESSARY.
C. DRAINAGE AND GRASS TREATMENT SWALES SHALL BE CHECKED FREQUENTLY AND CLEANED AS REQUIRED.
D. THE SILT FENCES WILL BE CHECKED ON A REGULAR BASIS AND REPAIRED AS NECESSARY TO CORRECT ANY DAMAGE, DETERIORATION, AND SHORT-CIRCUITING.
10. REFER TO "GRADING PLANS" FOR THIS PROJECT PRIOR TO ANY SITE DISTURBANCE.
11. INSPECTIONS: THE ENGINEER SHALL BE CONTACTED ON A REGULAR BASIS TO INSPECT ALL EROSION CONTROL PRACTICES AS WELL AS THE MAINTENANCE OF THE EROSION CONTROL COMPONENTS. REFER TO CONSTRUCTION SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. EROSION CONTROL PRACTICES SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
12. THE MAXIMUM AMOUNT OF AREA TO BE DISTURBED AND UNSTABILIZED SHALL BE 5 ACRES AT ANY ONE TIME.
13. THE MAXIMUM AMOUNT OF TIME ANY AREA MAY BE DISTURBED WITHOUT STABILIZATION SHALL BE 14 DAYS.

CONSTRUCTION SEQUENCE

1. INSTALL INLET PROTECTION/FILTER BAGS AT ALL LOCATIONS INDICATED ON PLAN OR AT OTHER LOCATIONS AS DETERMINED BY ENGINEER. INSTALL OTHER TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES AS EARTHWORK PROCEEDS.
2. CONTRACTOR SHALL LEGALLY DISPOSE OF ALL SURPLUS UNCLASSIFIED EXCAVATION AT AN APPROVED LOCATION NOTED IN THE SPECIFICATIONS.
3. MILL EXISTING PAVEMENT AS REQUIRED.
4. INSTALL UTILITIES (AIRFIELD ELECTRICAL, DRAINAGE, ETC.) WITH TURF GRADING AS REQUIRED.
5. INSTALL PAVEMENT AND PAVEMENT MARKINGS.
6. FINALIZE GRADING OF DISTURBED AREAS AS SHOWN ON PLANS AND LOAM, FERTILIZE AND SEED AREAS TO ESTABLISH VEGETATION.
7. INSPECT ALL DISTURBED AREAS ON A DAILY BASIS. FOLLOWING THIS DAILY INSPECTION, INSTALL AS REQUIRED ANY AND ALL TEMPORARY DRAINAGE, EROSION, AND SEDIMENT CONTROL PRACTICES AS INDICATED, I.E., DIVERSION CHANNELS, BERMS, DRAINS, DITCHES, STONE DIKES, SILT FENCES, SEED AND MULCH OR OTHER PRACTICES AS RECOMMENDED AND SPECIFIED IN THE "CONNETICUT EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS".

8. CLEAN AND RESTORE SILT DESTINATION SITES. REMOVE OTHER EROSION CONTROL PRACTICES ON A TIMELY BASIS AS PERMANENT MEASURES TAKE HOLD. SPOT FERTILIZE, SEED, AND MULCH AS REQUIRED.
9. INSPECT AND MAINTAIN GRADING, EROSION CONTROL AND SEDIMENT CONTROL PRACTICES WEEKLY AND IMMEDIATELY AFTER ALL SUBSTANTIAL STORMS.
10. REFER TO "GRADING, DRAINAGE, AND EROSION CONTROL PLANS" FOR ADDITIONAL DETAILS RELATIVE TO THE REQUIRED CONSTRUCTION SEQUENCE. MAINTENANCE OF ALL EROSION CONTROL COMPONENTS SHALL BE AN ONGOING PRACTICE AND IN STRICT ACCORDANCE WITH THE APPROVED PLAN.

TABLE 1 - TEMPORARY UPLAND STABILIZATION PLANT SECTION AND SEEDING RATES			
SPECIES	PER ACRE	PER 1000 SQ.FT.	REMARKS
WINTER RYE	120 LBS.	3 LBS.	BEST FOR FALL SEEDING. SEED AUGUST 15 TO OCTOBER 15 FOR BEST COVER. SEED TO DEPTH OF ONE TO 1 1/2 INCHES.
OATS	2 1/2 BU OR 80 LBS.	2 LBS.	BEST FOR SPRING SEEDINGS. SEED BETWEEN APRIL 1 TO JULY 1 OR AUGUST 15 TO SEPTEMBER 15. SEED TO DEPTH OF ONE INCH.
ANNUAL RYE	40 LBS.	1 LB.	GROWS QUICKLY. BUT IS OF SHORT GRASS DURATION USE WHERE APPEARANCES ARE IMPORTANT. COVER SEED WITH NO MORE THAN 1/4 INCH OF SOIL. WITH MULCH, SEEDING MAY BE DONE THROUGHOUT GROWING SEASON. SEED BETWEEN APRIL 1 AND JUNE 1 OR AUGUST 15 & SEPTEMBER 15.
FOXTAIL MILLET	30 LBS.	0.7 LB.	MAY 1 TO JUNE 30. SEED TO DEPTH OF 1/2 TO 3/4 INCH.

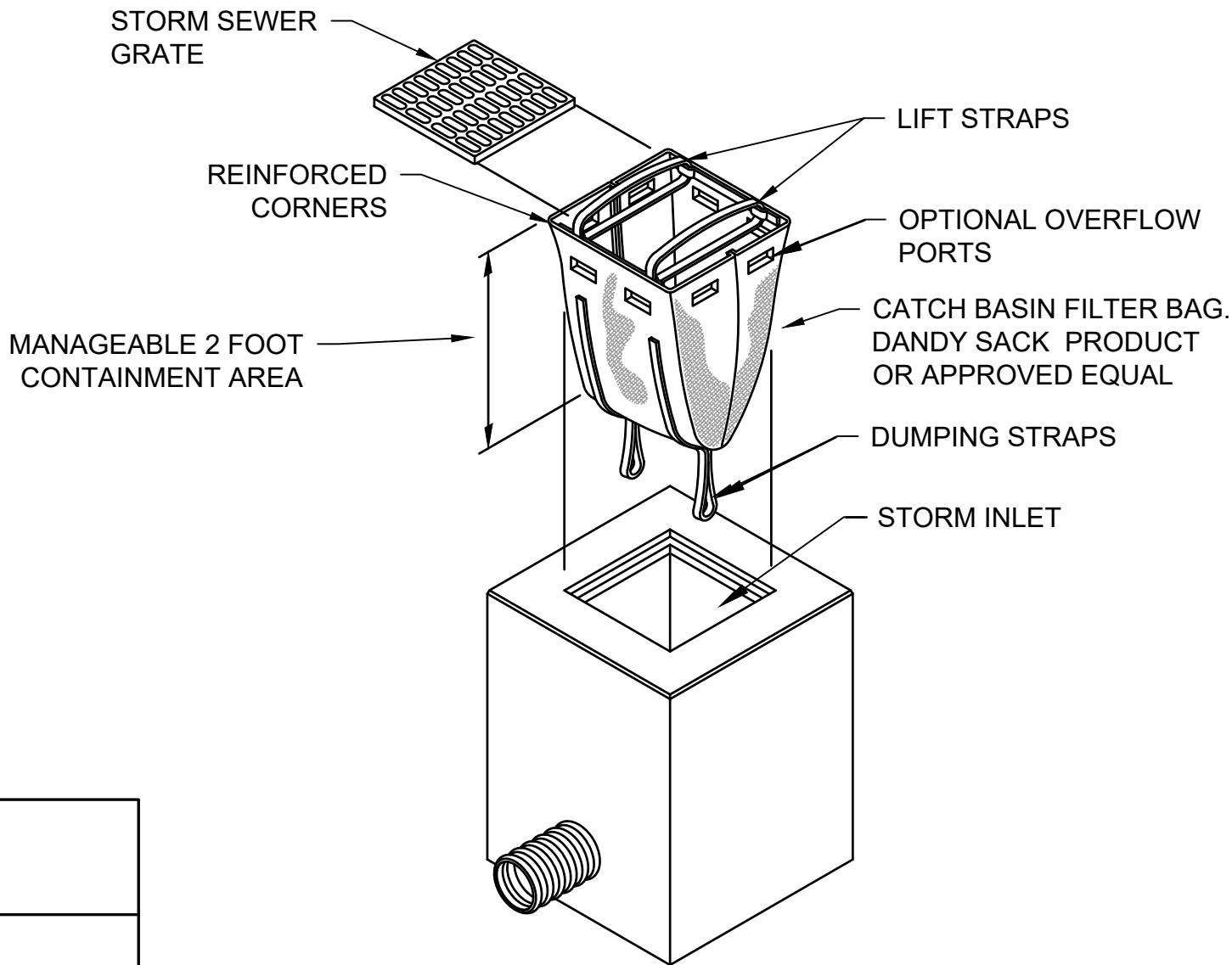


STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE
(NOT ANTICIPATED FOR THIS PROJECT, DETAIL FOR REFERENCE ONLY)

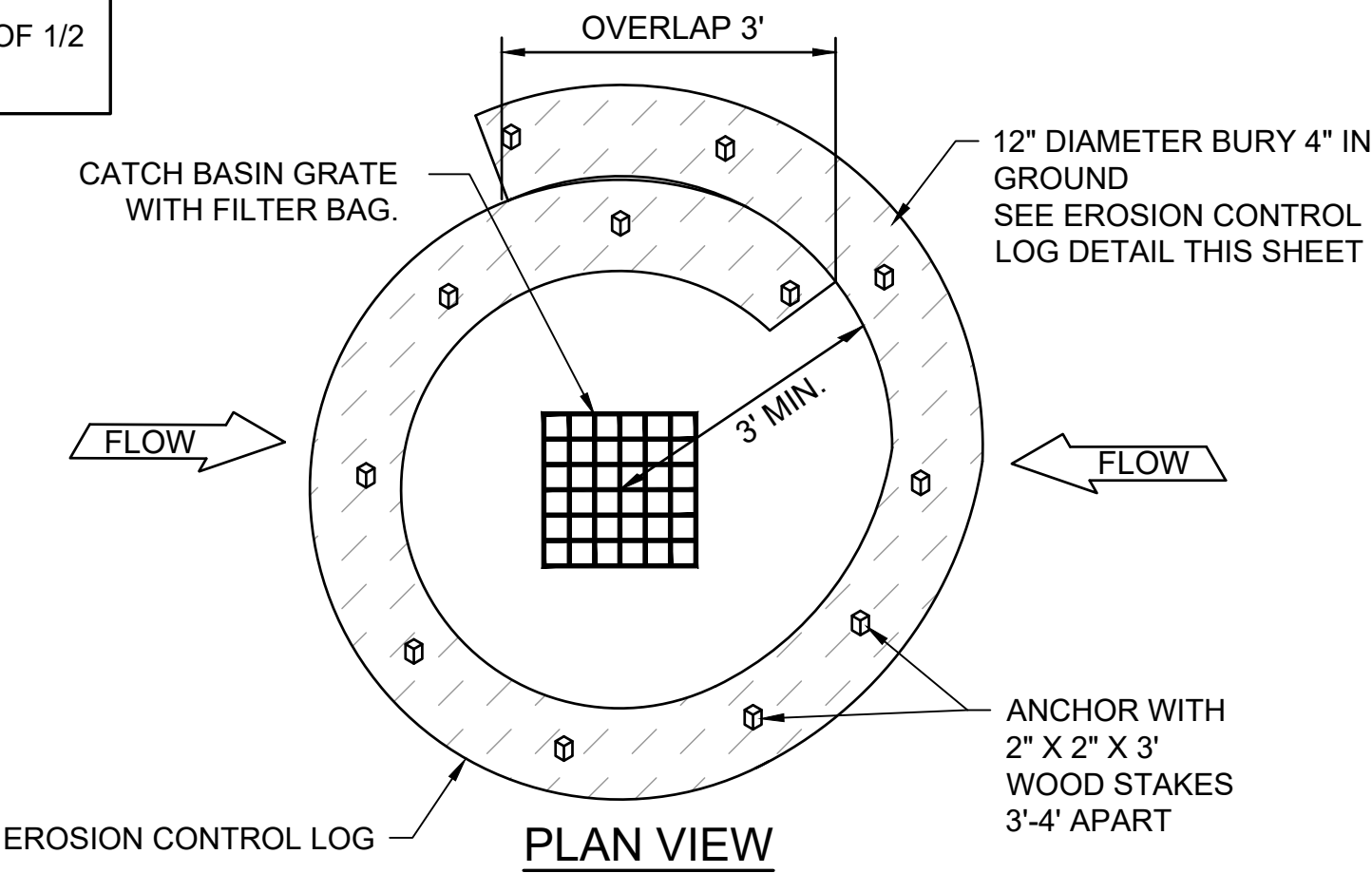
STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE-USE 1"-3" STONE, RECLAIMED OF RECYCLED CONCRETE EQUIVALENT
2. LENGTH - NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN 8".
4. WIDTH - 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.



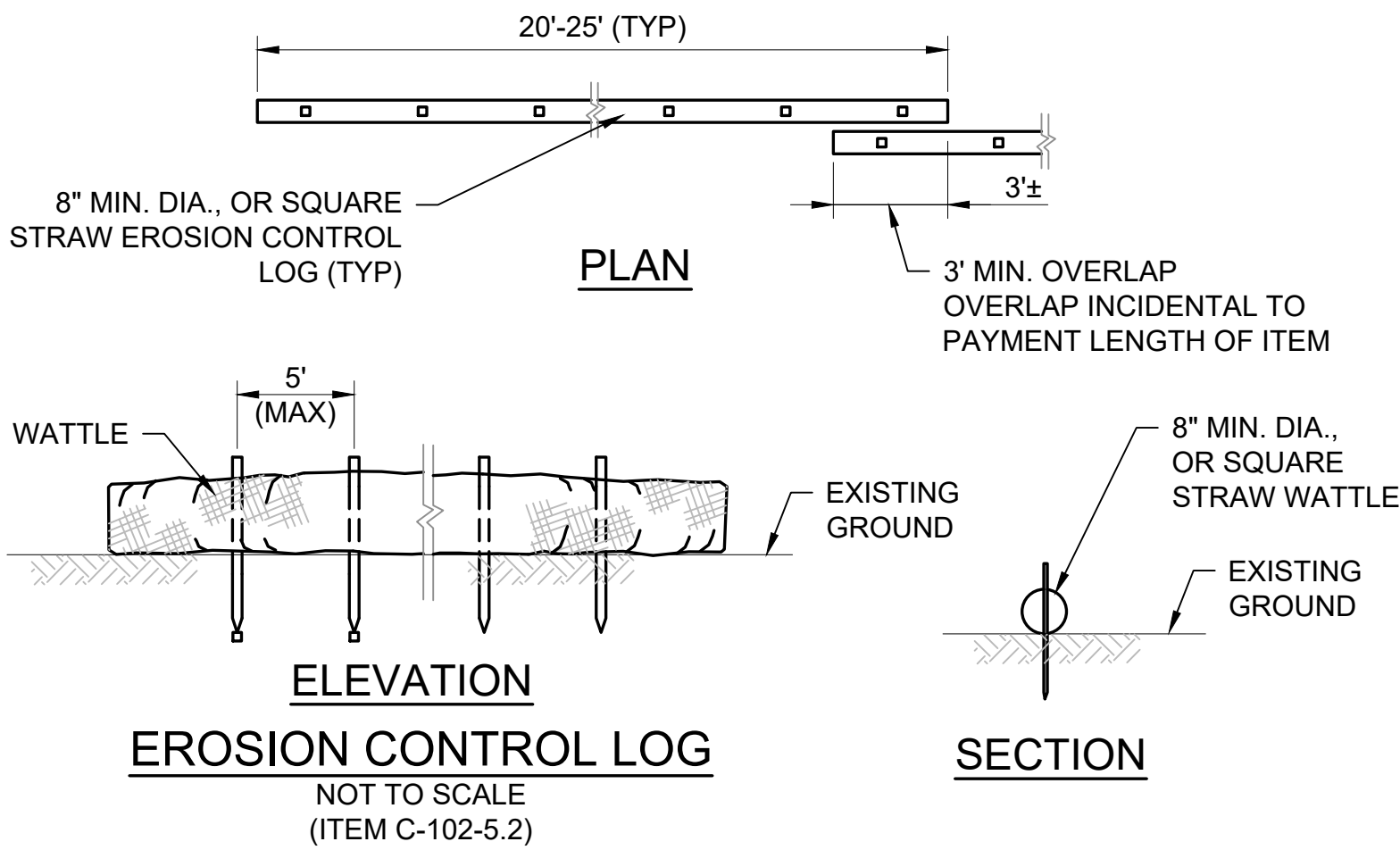
INLET PROTECTION (FILTER BAG)
INSTALLATION

NOT TO SCALE
(ITEM C-102-5.1)



INLET PROTECTION

NOT TO SCALE
(ITEM C-102-5.1, C-102-5.2)



EROSION CONTROL LOG

NOT TO SCALE
(ITEM C-102-5.2)

SECTION

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



CHECKED BY: BMB
DRAWN BY: FPS
DESIGNED BY: DPB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

EROSION CONTROL DETAILS AND NOTES

SCALE: NTS
DATE: FEBRUARY 2025

REVISIONS		BY		
REV. NO.	DESCRIPTION	DATE		

M/J PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

EC-01

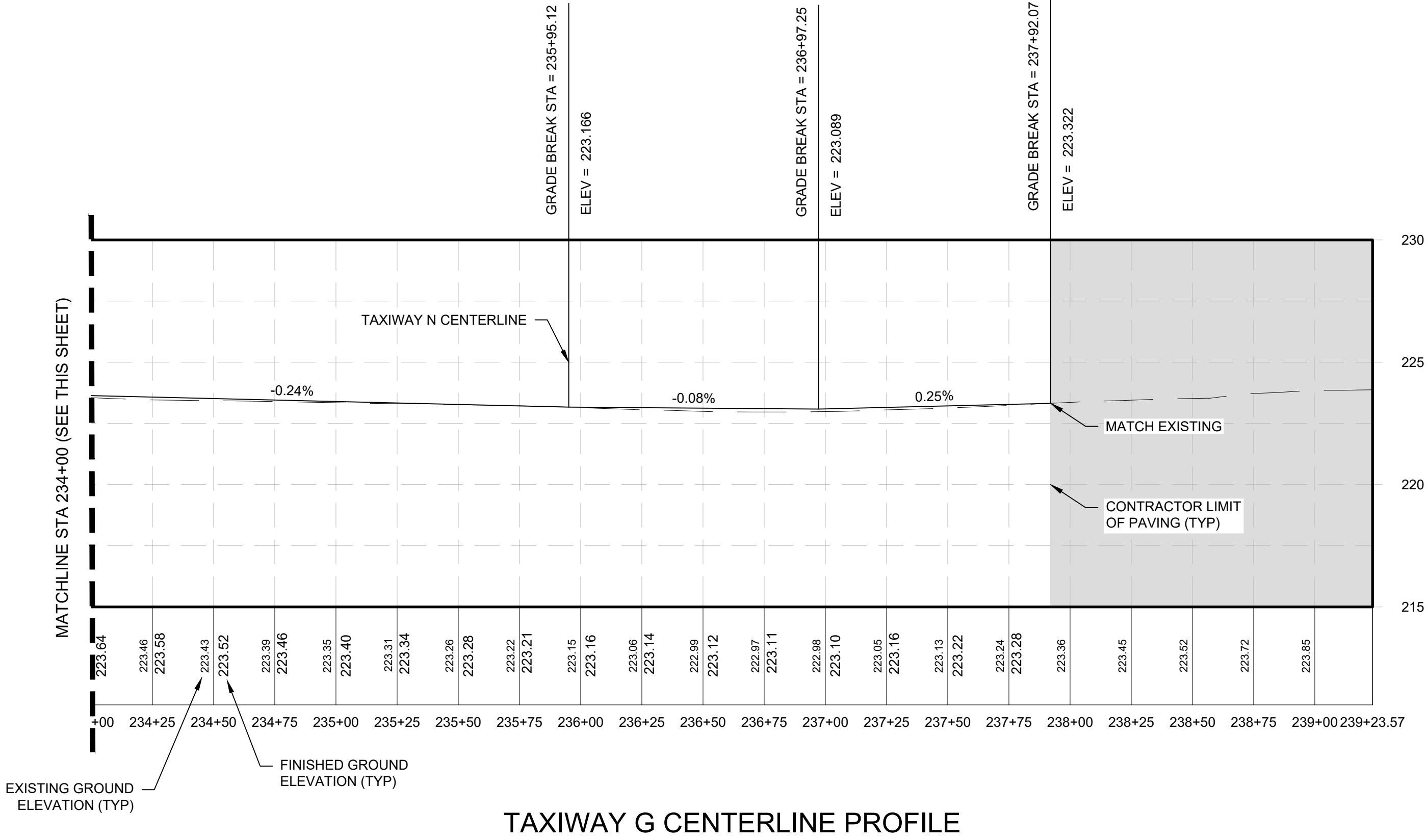
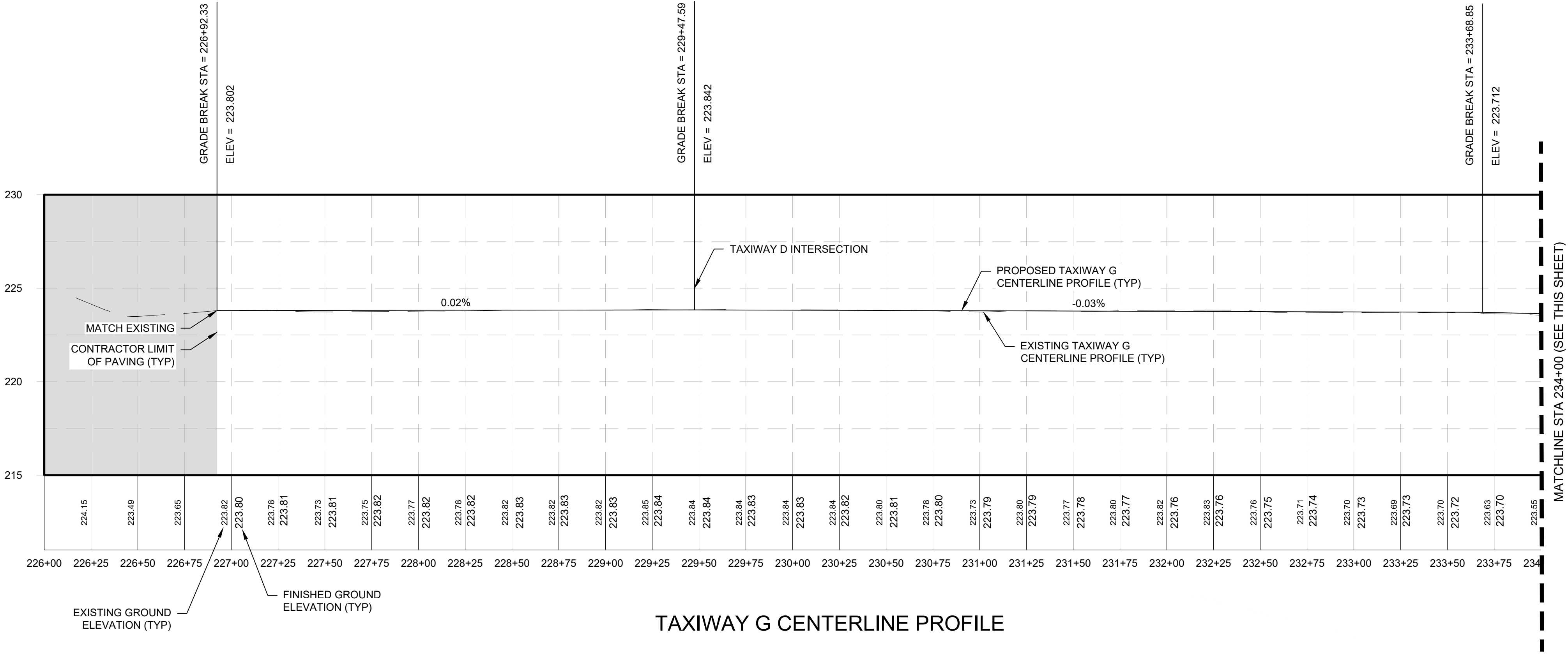
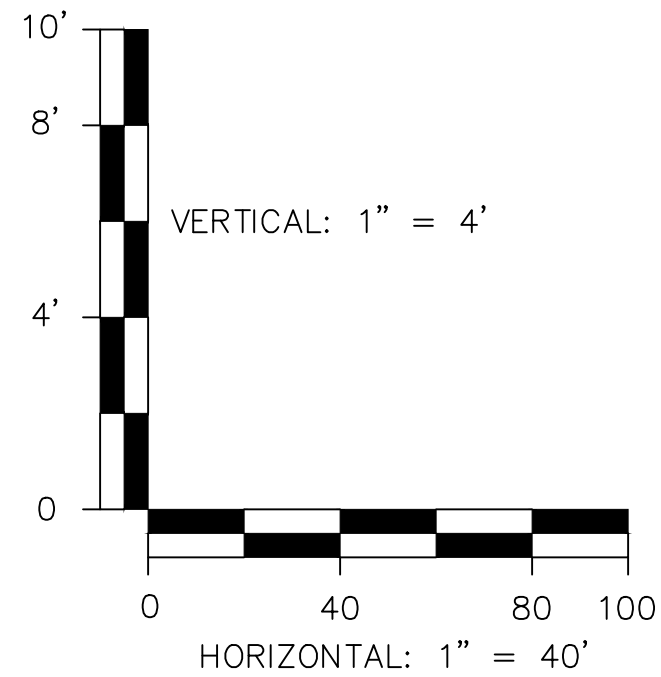
SHEET 20 OF 39



K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\SHEET FILES\19199.01-PROF.DWG

NOTES:

1. FOR TAXIWAY GEOMETRY LAYOUT PLANS SEE SHEETS GE-01 TO GE-02.
2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DFB

DRAWN BY
TC

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY G PROFILE

SCALE: AS SHOWN

DATE: FEBRUARY 2025

REVISIONS			BY
REV. NO.	DATE	DESCRIPTION	

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

PR-01

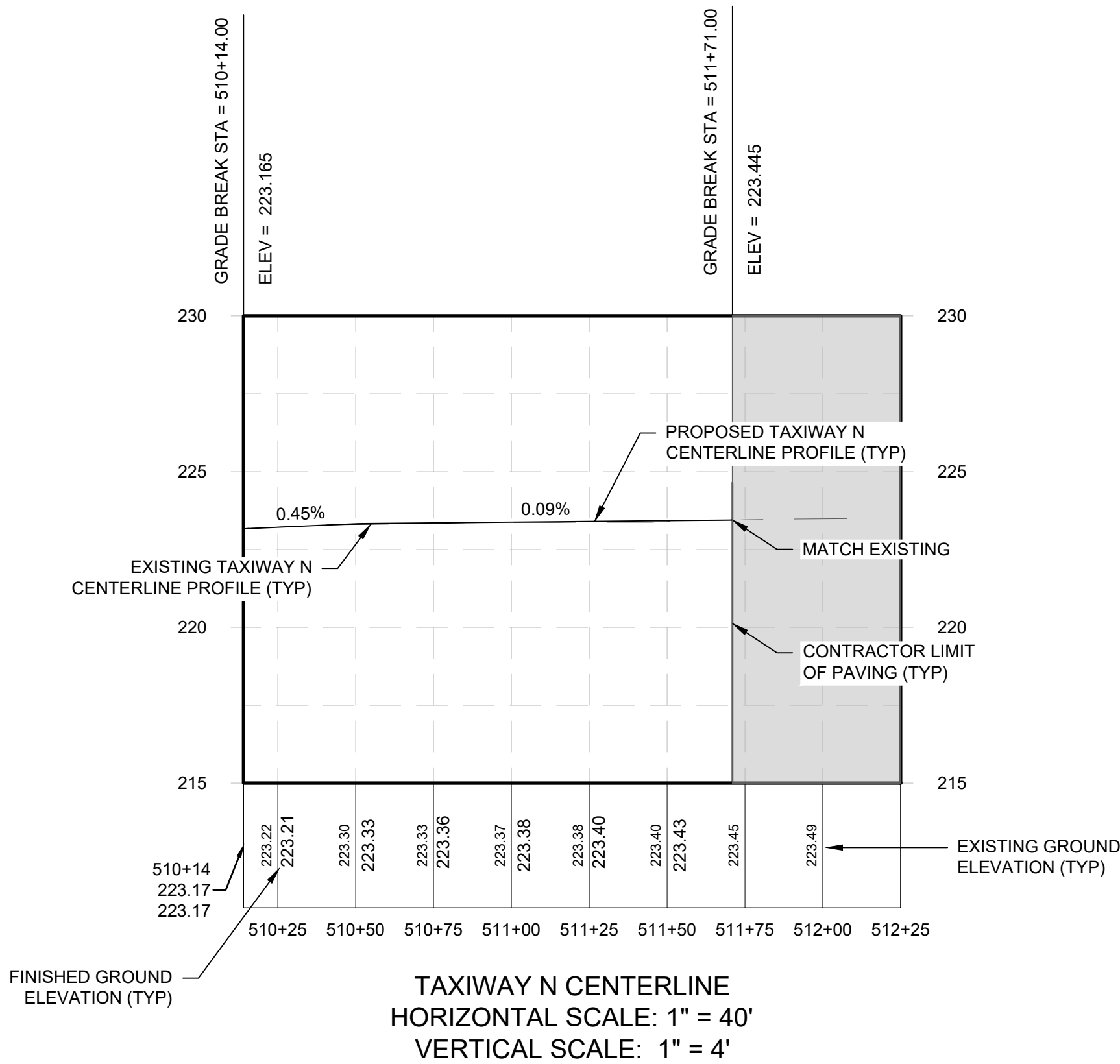
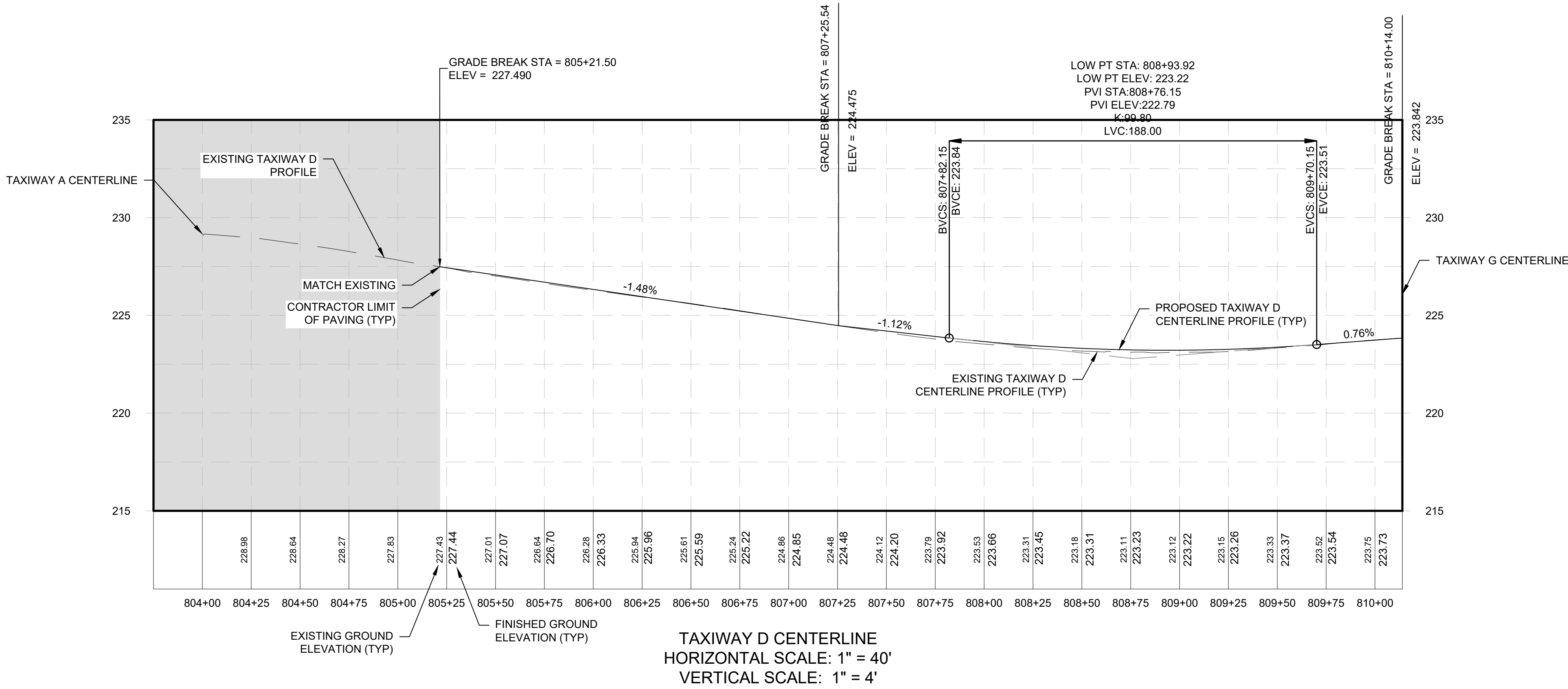
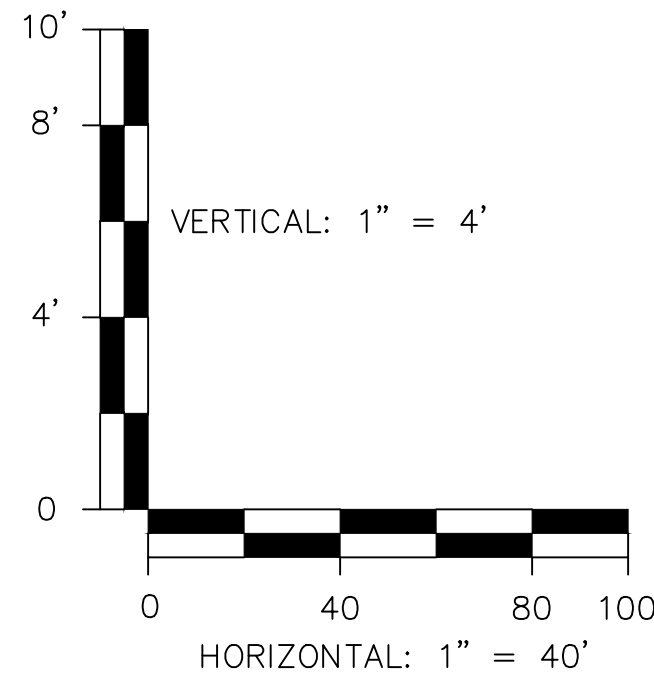
SHEET 21 OF 39



K:\MANCHESTER\19199.01 MHT TAXIWAYS G&D - DESIGN ONLY\DRAWINGS\SHEET FILES\19199.01-PROF.DWG

NOTES:

1. FOR TAXIWAY GEOMETRY LAYOUT PLANS SEE SHEETS GE-01 TO GE-02.
2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DFB

DRAWN BY
TC

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY D AND TAXIWAY N PROFILES

SCALE: AS SHOWN

DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

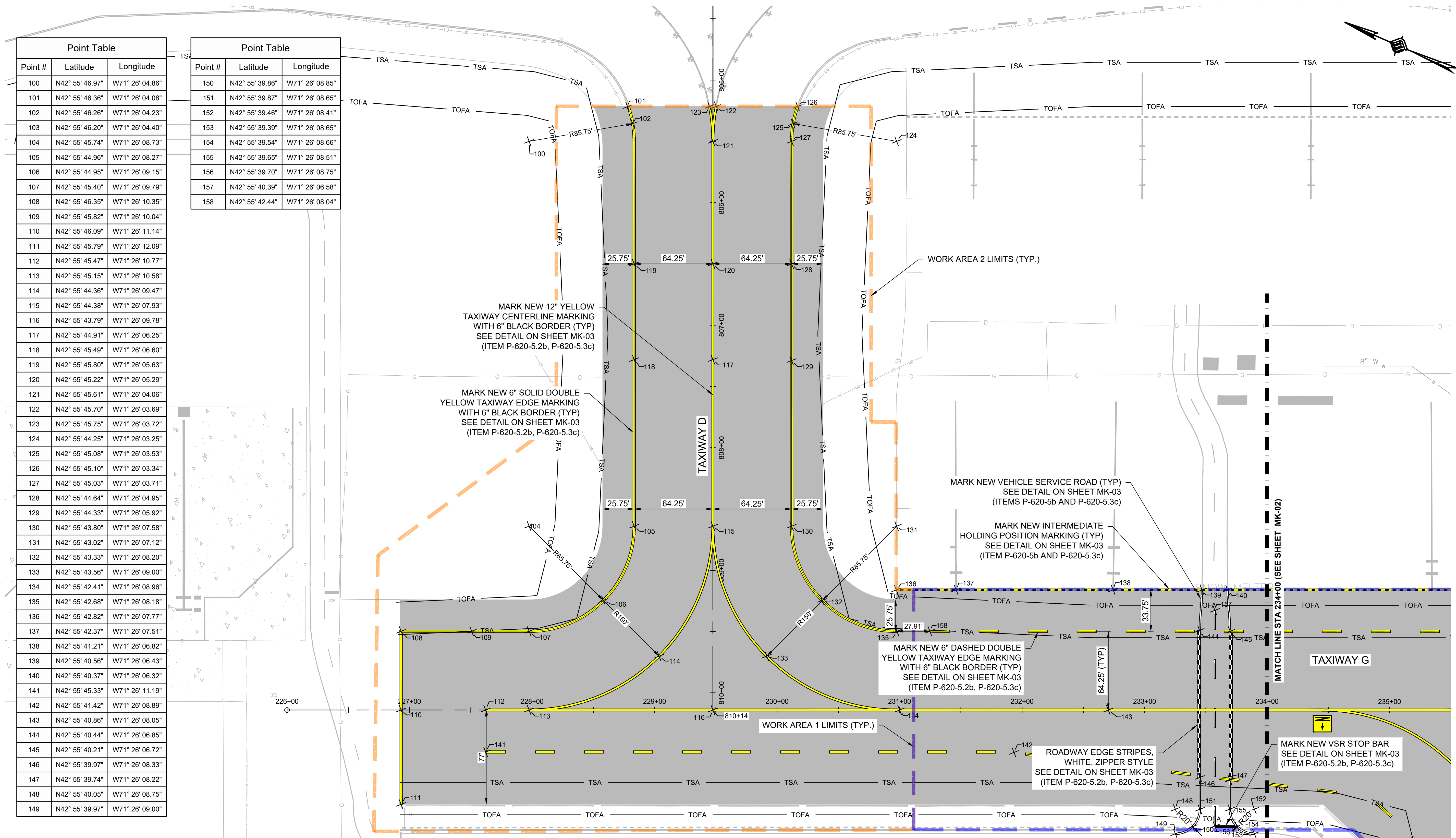
DRAWING NO.

PR-02

SHEET 22 OF 39



K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\MARKING FILES\19199.01 MARK.DWG



LEGEND:

	NEW PAVEMENT
	PROPOSED PAVEMENT MARKING

- NOTES:
1. ALL DIMENSIONS SHOWN REFER TO THE MARKING LAYOUT LINE AS SHOWN ON THE MARKING DETAILS ON SHEET MK-03.
 2. FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
 3. FOR GEOMETRY AND LAYOUT PLANS SEE SHEET GE-01 TO GE-02.
 4. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT. THE INITIAL APPLICATION SHALL BE PERFORMED AT PERMANENT APPLICATION RATE WITHOUT REFLECTIVE MEDIA. THE FINAL COAT SHALL BE APPLIED AT PERMANENT APPLICATION RATE WITH REFLECTIVE MEDIA. FINAL PAYMENT TO THE CONTRACTOR FOR MEASURED QUANTITIES SHALL BE A SINGLE PAYMENT FOR BOTH COATS.
 5. BLACK BORDERS SHALL NOT RECEIVE GLASS BEADS.
 6. ALL PAVEMENT MARKINGS SHALL BE PAYABLE UNDER ITEM P-620-5.2b.
 7. ALL REFLECTIVE MEDIA SHALL BE PAYABLE UNDER ITEM P-620-5.3c.
 8. ALL PAVEMENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR AND APPROVED BY THE RPR PRIOR TO MARKING.
 9. FIRST APPLICATION OF PAVEMENT MARKINGS SHALL BE MARKED AFTER A MINIMUM OF 3 DAYS AFTER PAVEMENT PLACEMENT, WHILE THE FINAL COAT OF PAVEMENT MARKINGS SHALL BE MADE AFTER 30 DAYS OF PAVEMENT PLACEMENT TO ALLOW FOR PROPER CURE TIME.

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095

DESIGNED BY: DPB
DRAWN BY: TC
CHECKED BY: BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

MARKING PLANS (1 OF 2)

SCALE: 1"=40'
DATE: FEBRUARY 2025

REVISIONS		BY	DATE
REV. NO.	DESCRIPTION		

MJ PROJ. No.: 19199.01

FILE NAME:

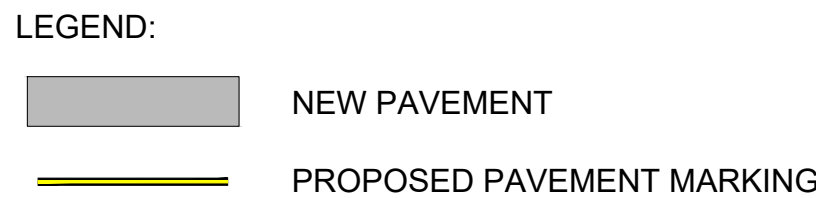
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DRAWING NO.

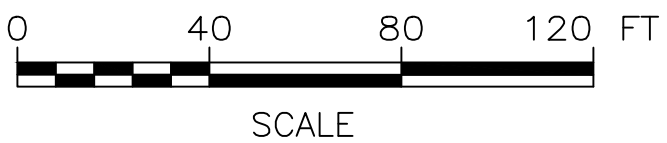
MK-01

SHEET 23 OF 39





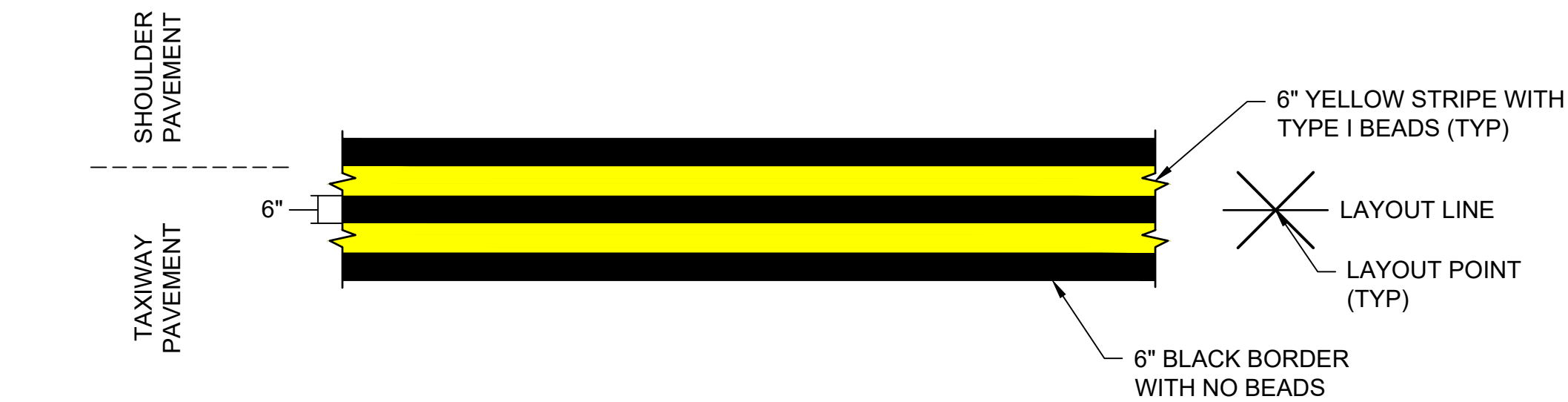
- NOTES:
1. ALL DIMENSIONS SHOWN REFER TO THE MARKING LAYOUT LINE AS SHOWN ON THE MARKING DETAILS ON SHEET MK-03.
 2. FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
 3. FOR GEOMETRY AND LAYOUT PLANS SEE SHEET GE-01 TO GE-02.
 4. ALL PAVEMENT MARKINGS SHALL RECEIVE TWO COATS OF PAINT. THE INITIAL APPLICATION SHALL BE PERFORMED AT PERMANENT APPLICATION RATE WITHOUT REFLECTIVE MEDIA. THE FINAL COAT SHALL BE APPLIED AT PERMANENT APPLICATION RATE WITH REFLECTIVE MEDIA. FINAL PAYMENT TO THE CONTRACTOR FOR MEASURED QUANTITIES SHALL BE A SINGLE PAYMENT FOR BOTH COATS.
 5. BLACK BORDERS SHALL NOT RECEIVE GLASS BEADS.
 6. ALL PAVEMENT MARKINGS SHALL BE PAYABLE UNDER ITEM P-620-5.2b.
 7. ALL REFLECTIVE MEDIA SHALL BE PAYABLE UNDER ITEM P-620-5.3c.
 8. ALL PAVEMENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR AND APPROVED BY THE RPR PRIOR TO MARKING.
 9. FIRST APPLICATION OF PAVEMENT MARKINGS SHALL BE MARKED AFTER A MINIMUM OF 3 DAYS AFTER PAVEMENT PLACEMENT, WHILE THE FINAL COAT OF PAVEMENT MARKINGS SHALL BE MADE AFTER 30 DAYS OF PAVEMENT PLACEMENT TO ALLOW FOR PROPER CURE TIME.





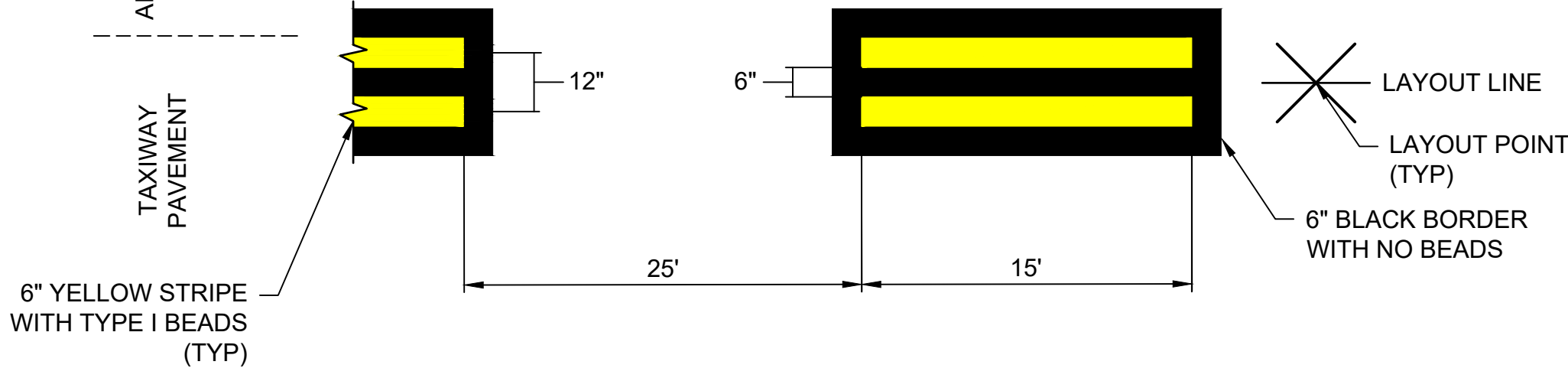
TAXIWAY CENTERLINE MARKING DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)



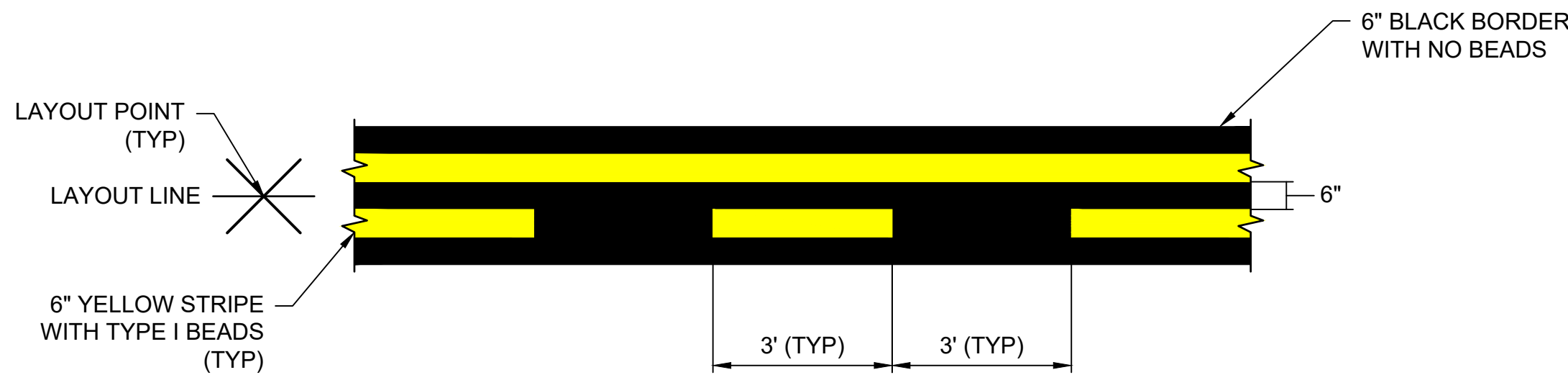
CONTINUOUS TAXIWAY EDGE MARKING

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)



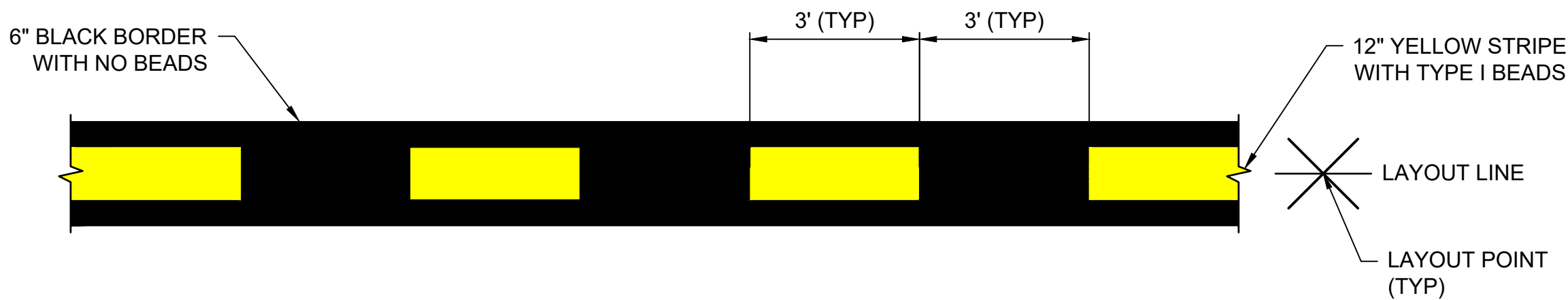
DASHED TAXIWAY EDGE MARKING

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)



NON-MOVEMENT AREA MARKING DETAIL

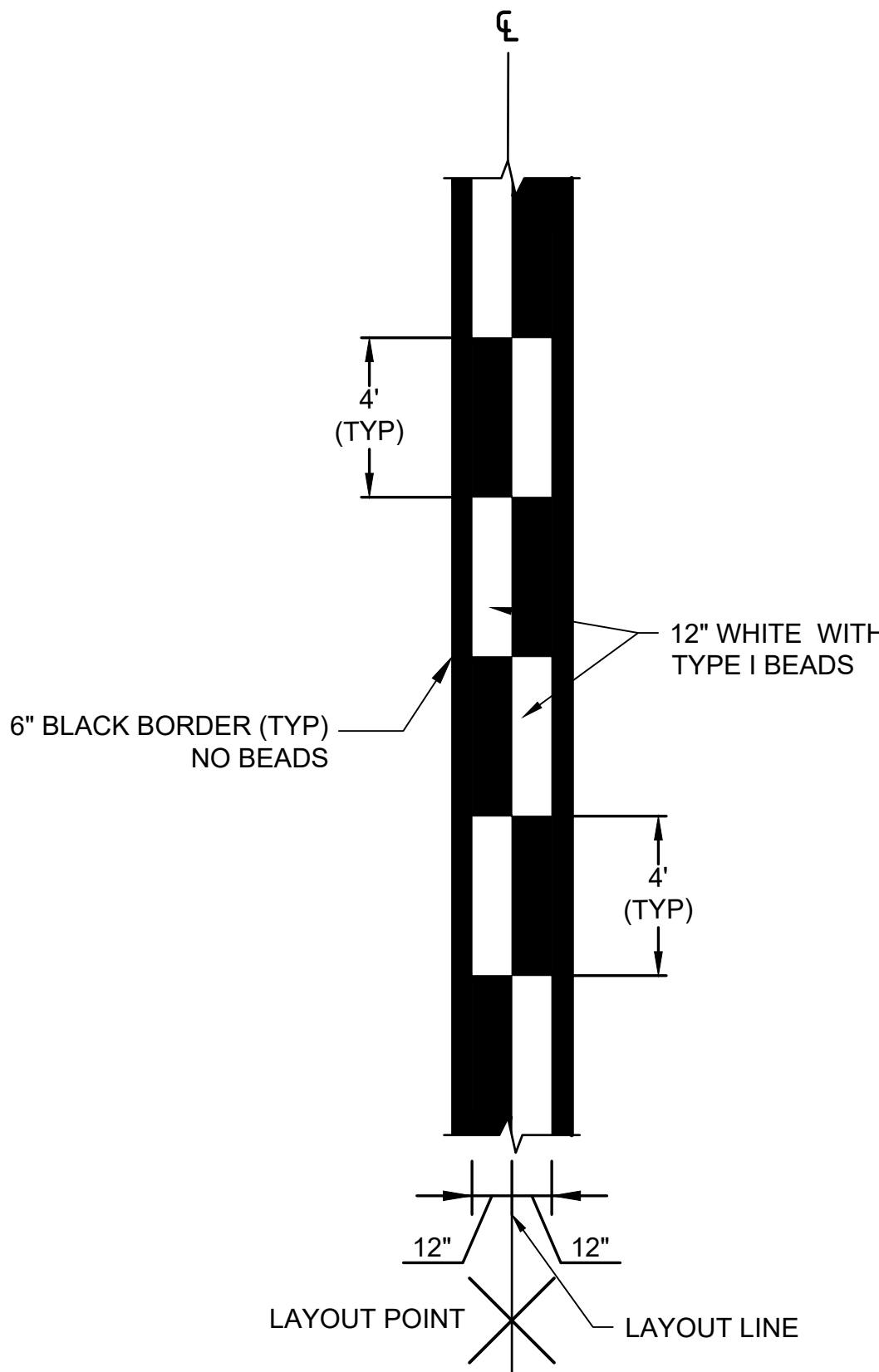
NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)



INTERMEDIATE HOLDING POSITION MARKING DETAIL

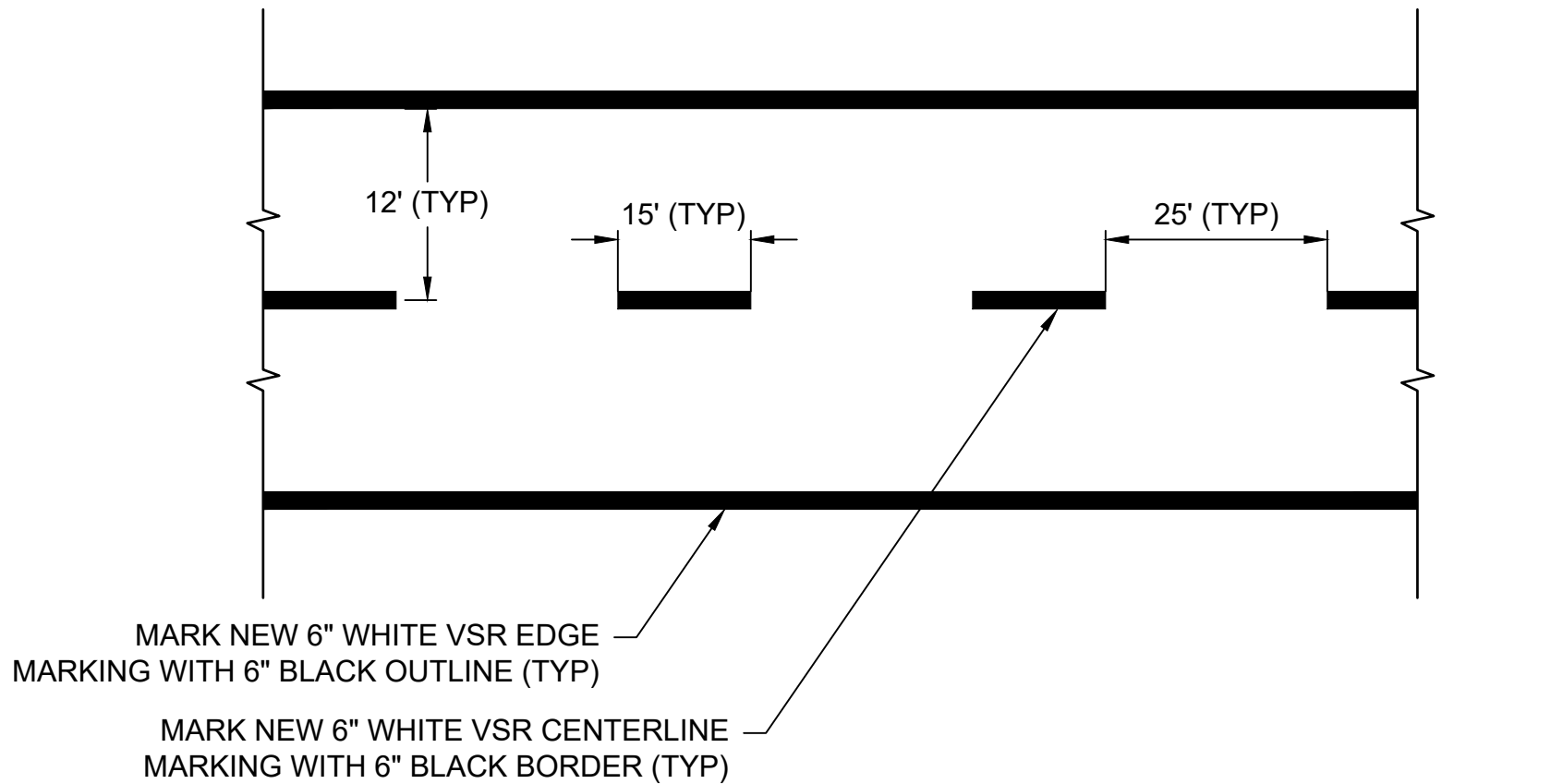
NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)

- TAXIWAY MARKING NOTES:
1. SEE MARKING SHEETS MK-01 AND MK-02 FOR LAYOUT POINT TABLES.
 2. ALL DIMENSIONS SHOWN ON MARKING PLANS ARE FROM THE TAXIWAY CENTERLINE, OR CENTER POINT OF CURVE, TO THE LAYOUT LINE REPRESENTING THE CENTER OF EACH MARKING.



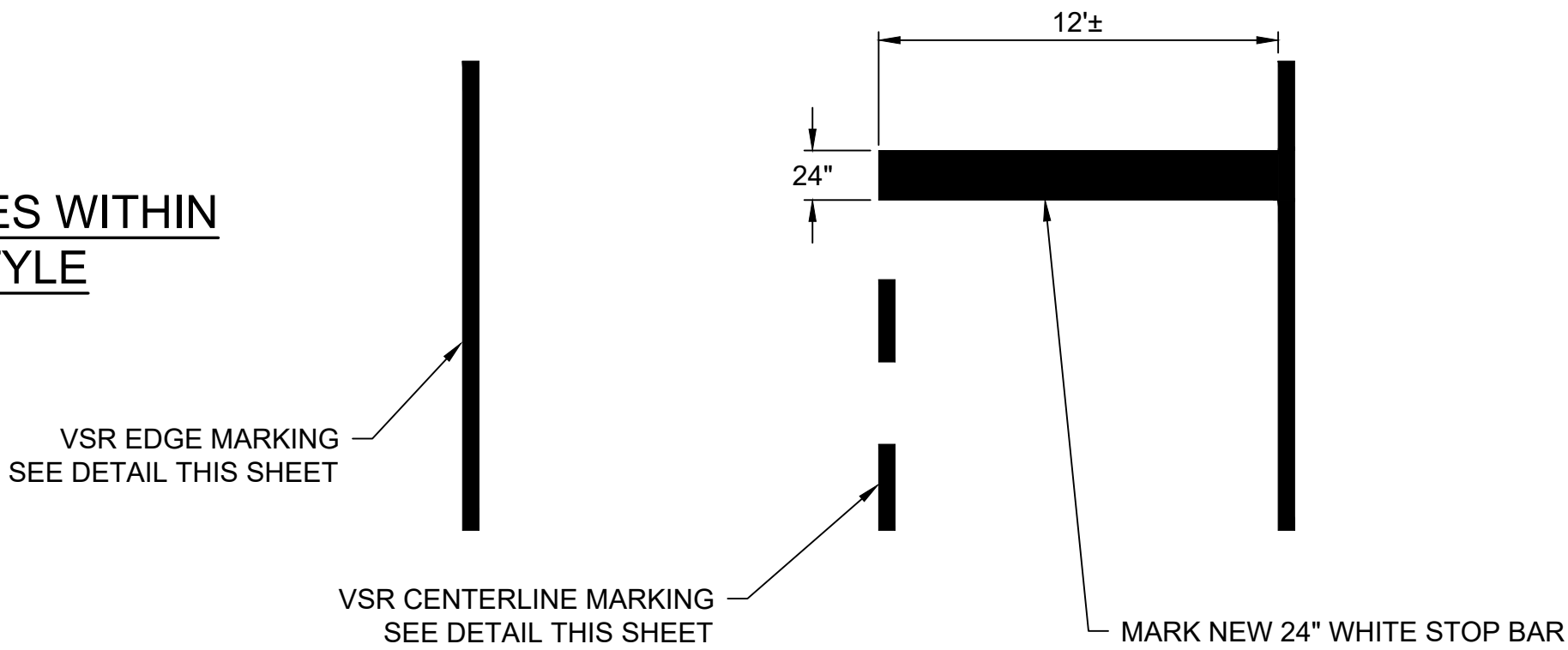
VEHICLE SERVICE ROAD (VSR) EDGE STRIPES WITHIN LIMITS OF TAXIWAY, WHITE, ZIPPER STYLE

NOT TO SCALE



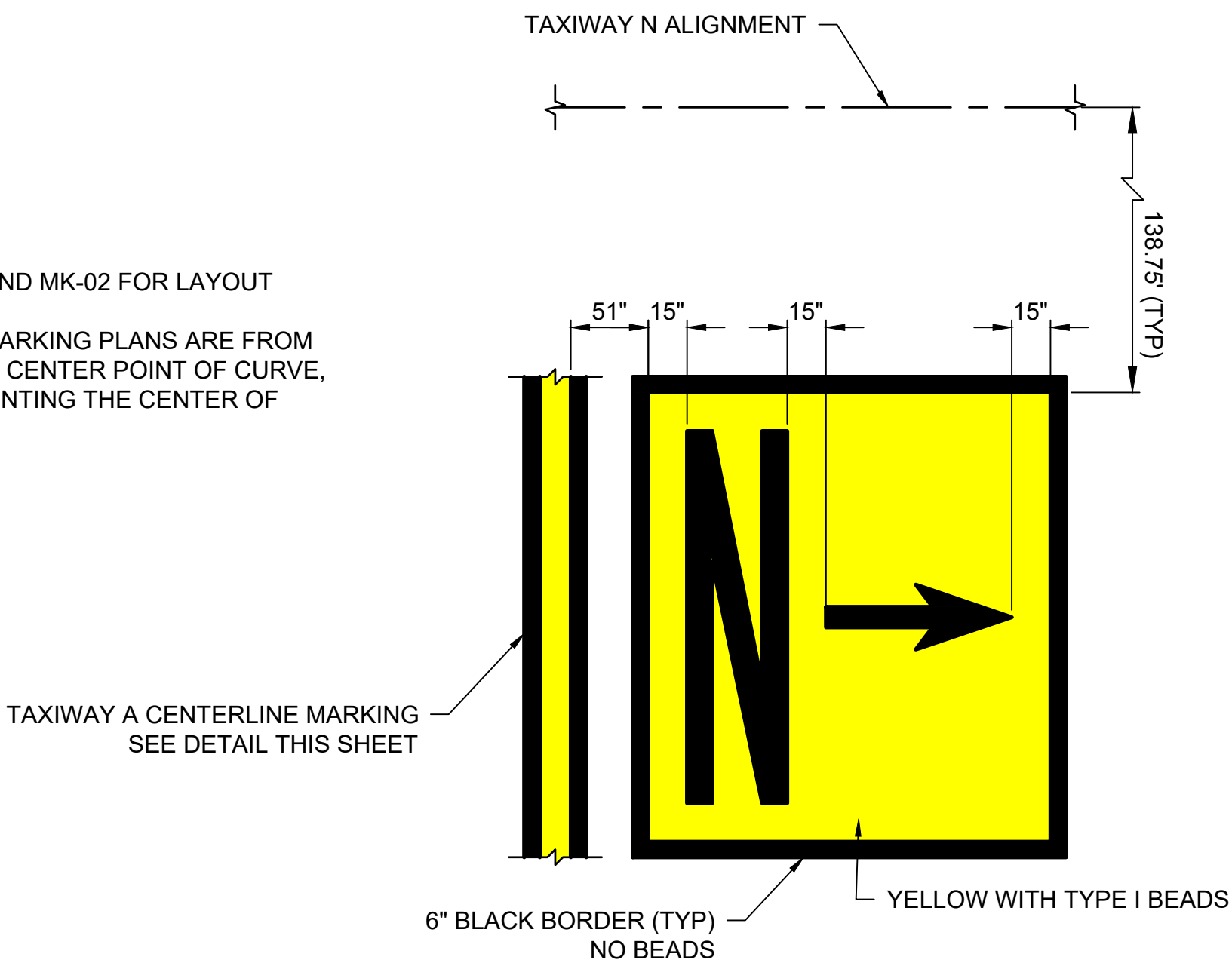
VEHICLE SERVICE ROAD (VSR) MARKING DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)



VEHICLE SERVICE ROAD (VSR) STOP BAR DETAIL

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)



SURFACE PAINTED TAXIWAY DIRECTION SIGN

NOT TO SCALE
(ITEM P-620-5.2B, P-620-5.3C)

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR CONSTRUCTION

PROJECT DESIGNER
MCFARLAND JOHNSON

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

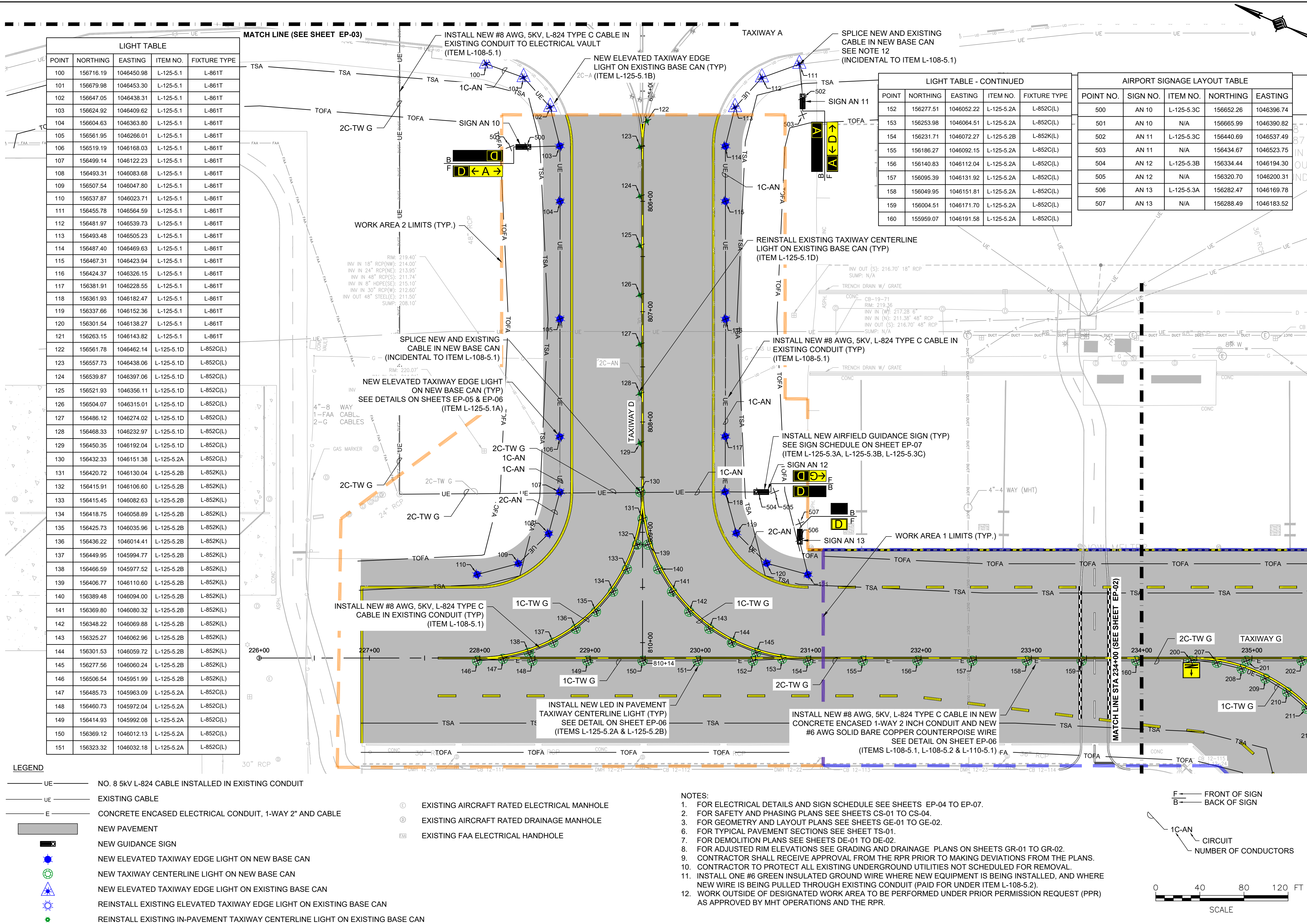
REV. NO.	DATE	DESCRIPTION	BY

MJ PROJ. No.: 19199.01
FILE NAME:
AIP No.: TBD

DRAWING NO.
MK-03

SHEET 25 OF 39

K:\MANCHESTER\19199.01 MHT TAXIWAYS G&D - DESIGN ONLY\DRAWINGS\19199.01 ELEC.DWG



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR CONSTRUCTION

PROJECT DESIGNER

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

DESIGNED BY
DJB

DRAWN BY
FPS

CHECKED BY
BMB

53 REGIONAL DRIVE, CONCORD, NH 03301-5002
PH: 603-225-2978 FAX: 603-225-0095

McFARLAND JOHNSON

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

ELECTRICAL PLAN (1 OF 3)

DATE: FEBRUARY 2025

SCALE: 1" = 40'

REVISIONS

REV. NO.	DATE	DESCRIPTION	BY

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

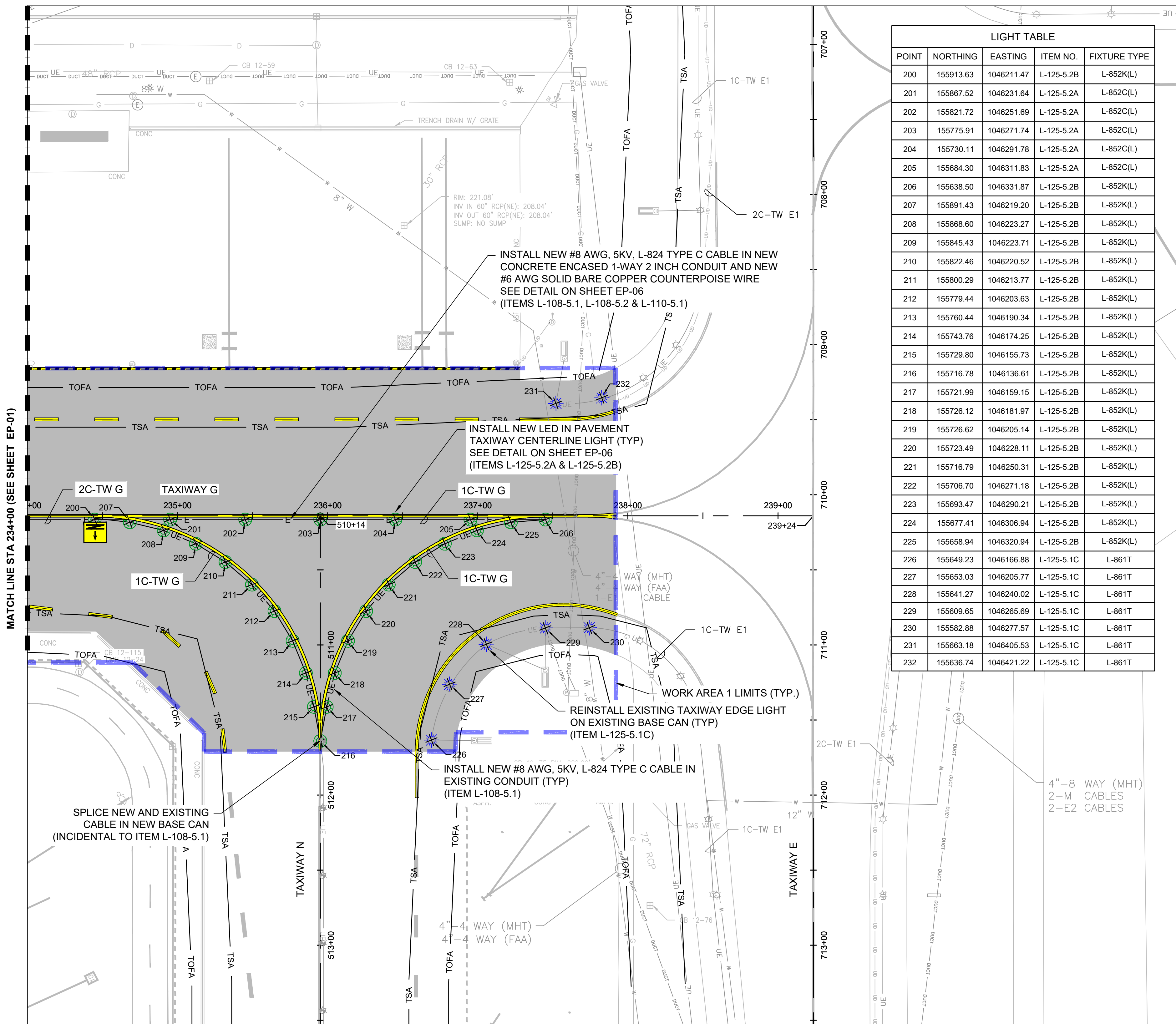
EP-01

SHEET 26 OF 39

K:\MANCHESTER\19189.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\BID SHEET FILES\19189.01.ELEC.DWG

LEGEND

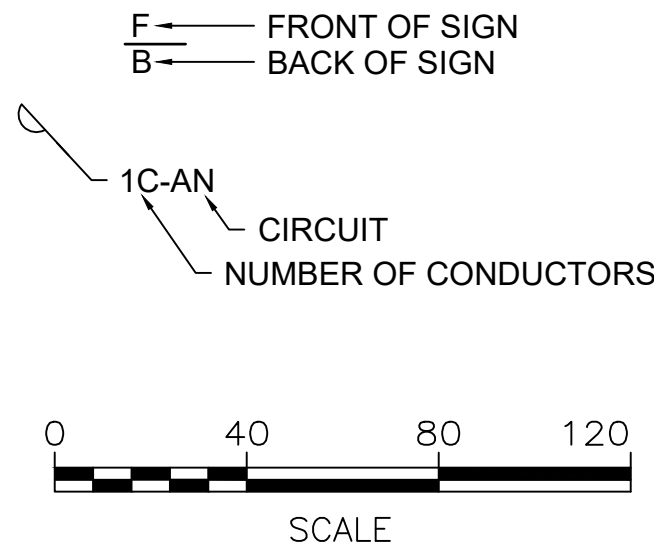
- | | | | |
|----|--|-----|--|
| UE | NO. 8 5KV L-824 CABLE INSTALLED IN EXISTING CONDUIT | ⊕ | EXISTING AIRCRAFT RATED ELECTRICAL MANHOLE |
| UE | EXISTING CABLE | ⊕ | EXISTING AIRCRAFT RATED DRAINAGE MANHOLE |
| E | CONCRETE ENCASED ELECTRICAL CONDUIT, 1-WAY 2" AND CABLE | FAA | EXISTING FAA ELECTRICAL HANDHOLE |
| | NEW PAVEMENT | | |
| | NEW GUIDANCE SIGN | | |
| | NEW ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN | | |
| | NEW TAXIWAY CENTERLINE EDGE ON NEW BASE CAN | | |
| | NEW ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN | | |
| | REINSTALL EXISTING ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN | | |
| | REINSTALL EXISTING IN-PAVEMENT TAXIWAY CENTERLINE LIGHT ON EXISTING BASE CAN | | |



LIGHT TABLE			
POINT	NORTHING	EASTING	ITEM NO. FIXTURE TYPE
200	155913.63	1046211.47	L-125-5.2B L-852K(L)
201	155867.52	1046231.64	L-125-5.2A L-852C(L)
202	155821.72	1046251.69	L-125-5.2A L-852C(L)
203	155775.91	1046271.74	L-125-5.2A L-852C(L)
204	155730.11	1046291.78	L-125-5.2A L-852C(L)
205	155684.30	1046311.83	L-125-5.2A L-852C(L)
206	155638.50	1046331.87	L-125-5.2B L-852K(L)
207	155891.43	1046219.20	L-125-5.2B L-852K(L)
208	155868.60	1046223.27	L-125-5.2B L-852K(L)
209	155845.43	1046223.71	L-125-5.2B L-852K(L)
210	155822.46	1046220.52	L-125-5.2B L-852K(L)
211	155800.29	1046213.77	L-125-5.2B L-852K(L)
212	155779.44	1046203.63	L-125-5.2B L-852K(L)
213	155760.44	1046190.34	L-125-5.2B L-852K(L)
214	155743.76	1046174.25	L-125-5.2B L-852K(L)
215	155729.80	1046155.73	L-125-5.2B L-852K(L)
216	155716.78	1046136.61	L-125-5.2B L-852K(L)
217	155721.99	1046159.15	L-125-5.2B L-852K(L)
218	155726.12	1046181.97	L-125-5.2B L-852K(L)
219	155726.62	1046205.14	L-125-5.2B L-852K(L)
220	155723.49	1046228.11	L-125-5.2B L-852K(L)
221	155716.79	1046250.31	L-125-5.2B L-852K(L)
222	155706.70	1046271.18	L-125-5.2B L-852K(L)
223	155693.47	1046290.21	L-125-5.2B L-852K(L)
224	155677.41	1046306.94	L-125-5.2B L-852K(L)
225	155658.94	1046320.94	L-125-5.2B L-852K(L)
226	155649.23	1046166.88	L-125-5.1C L-861T
227	155653.03	1046205.77	L-125-5.1C L-861T
228	155641.27	1046240.02	L-125-5.1C L-861T
229	155609.65	1046265.69	L-125-5.1C L-861T
230	155582.88	1046277.57	L-125-5.1C L-861T
231	155663.18	1046405.53	L-125-5.1C L-861T
232	155636.74	1046421.22	L-125-5.1C L-861T

NOTES:

- FOR ELECTRICAL DETAILS AND SIGN SCHEDULE SEE SHEETS EP-04 TO EP-07.
- FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
- FOR GEOMETRY AND LAYOUT PLANS SEE SHEETS GE-01 TO GE-02.
- FOR TYPICAL PAVEMENT SECTIONS SEE SHEET TS-01.
- FOR DEMOLITION PLANS SEE SHEETS DE-01 TO DE-02.
- FOR ADJUSTED RIM ELEVATIONS SEE GRADING AND DRAINAGE PLANS ON SHEETS GR-01 TO GR-02.
- CONTRACTOR SHALL RECEIVE APPROVAL FROM THE RPR PRIOR TO MAKING DEVIATIONS FROM THE PLANS.
- CONTRACTOR TO PROTECT ALL EXISTING UNDERGROUND UTILITIES NOT SCHEDULED FOR REMOVAL.
- INSTALL ONE #6 GREEN INSULATED GROUND WIRE WHERE NEW EQUIPMENT IS BEING INSTALLED, AND WHERE NEW WIRE IS BEING PULLED THROUGH EXISTING CONDUIT (PAID FOR UNDER ITEM L-108-5.2).
- WORK OUTSIDE OF DESIGNATED WORK AREA TO BE PERFORMED UNDER PRIOR PERMISSION REQUEST (PPR).



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR CONSTRUCTION

PROJECT DESIGNER

53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095

DESIGNED BY: DFB
DRAWN BY: FPS
CHECKED BY: BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

ELECTRICAL PLAN (2 OF 3)

SCALE: 1" = 40"
DATE: FEBRUARY 2025

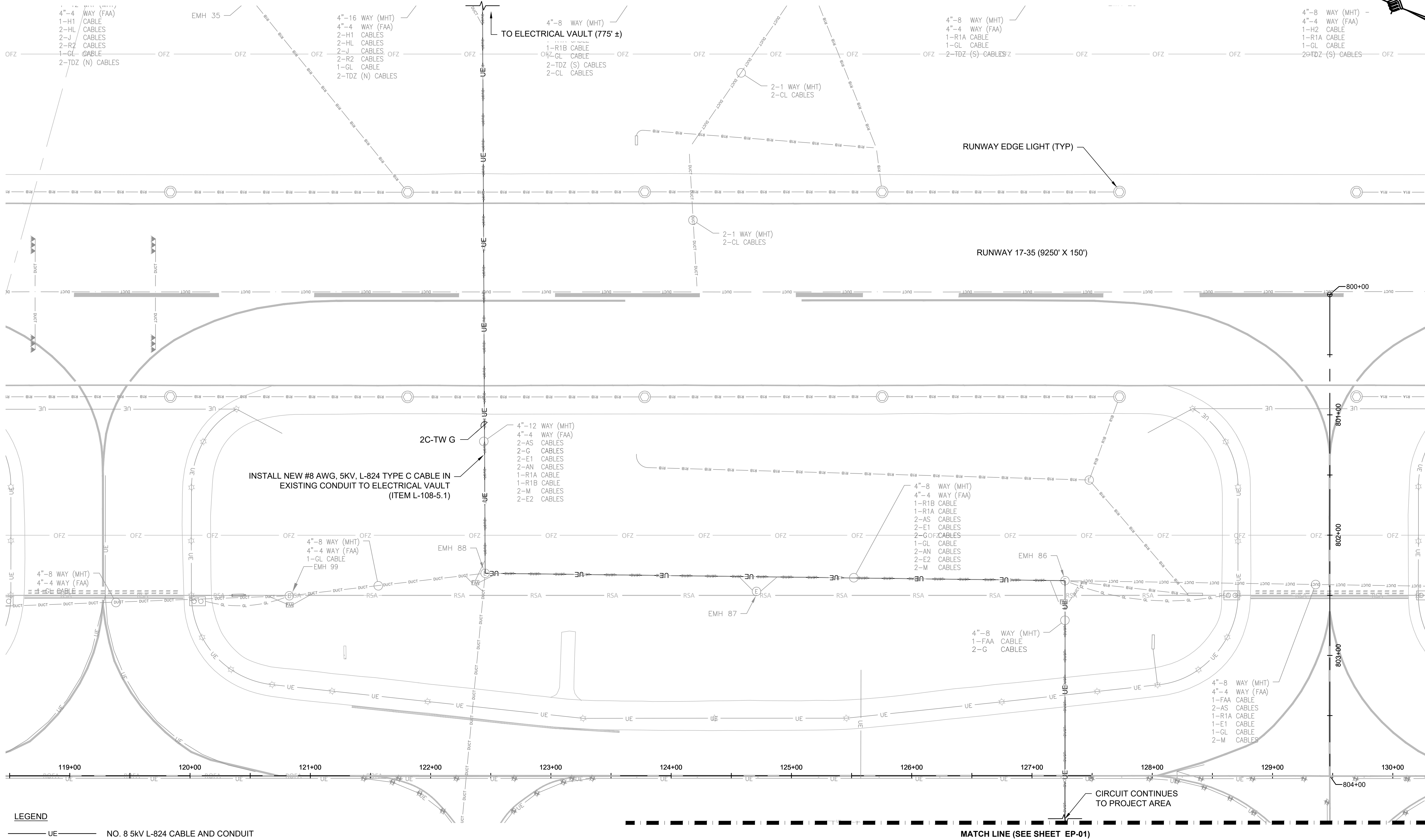
REV. NO.	DATE	DESCRIPTION	BY

MJ PROJ. No.: 19199.01
FILE NAME:
AIP No.: TBD

DRAWING NO.
EP-02

SHEET 27 OF 39

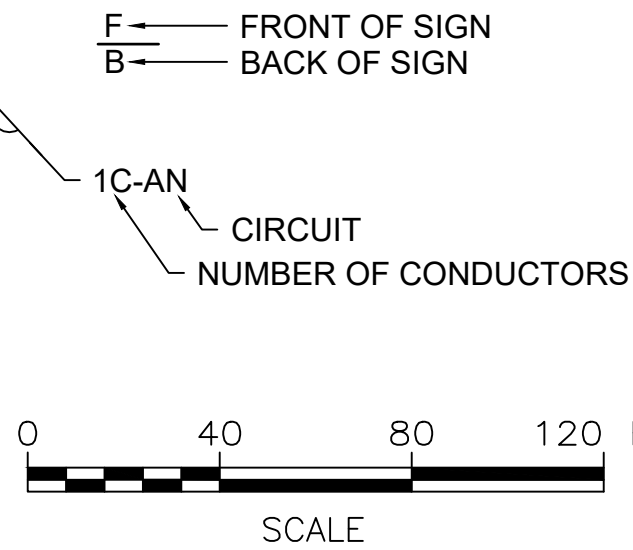
K:\MANCHESTER\19189.01 MHT TAXWAYS G & D - DESIGN ONLY\DRAWINGS\SHEET FILES\19189.01.ELEC.DWG



LEGEND	
	NO. 8 5KV L-824 CABLE AND CONDUIT
	EXISTING CABLE
	CONCRETE ENCASED ELECTRICAL CONDUIT, 1-WAY 2" AND CABLE
	NEW PAVEMENT
	NEW GUIDANCE SIGN
	NEW ELEVATED TAXIWAY EDGE LIGHT ON NEW BASE CAN
	NEW TAXIWAY CENTERLINE EDGE ON NEW BASE CAN
	NEW ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN
	REINSTALL EXISTING ELEVATED TAXIWAY EDGE LIGHT ON EXISTING BASE CAN
	REINSTALL EXISTING IN-PAVEMENT TAXIWAY CENTERLINE LIGHT ON EXISTING BASE CAN

	EXISTING AIRCRAFT RATED ELECTRICAL MANHOLE
	EXISTING AIRCRAFT RATED DRAINAGE MANHOLE
	EXISTING FAA ELECTRICAL HANDHOLE

- NOTES:
- FOR ELECTRICAL DETAILS AND SIGN SCHEDULE SEE SHEETS EP-04 TO EP-07.
 - FOR SAFETY AND PHASING PLANS SEE SHEETS CS-01 TO CS-04.
 - FOR GEOMETRY AND LAYOUT PLANS SEE SHEETS GE-01 TO GE-02.
 - FOR TYPICAL PAVEMENT SECTIONS SEE SHEET TS-01.
 - FOR DEMOLITION PLANS SEE SHEETS DE-01 TO DE-02.
 - FOR ADJUSTED RIM ELEVATIONS SEE GRADING AND DRAINAGE PLANS ON SHEETS GR-01 TO GR-02.
 - CONTRACTOR SHALL RECEIVE APPROVAL FROM THE RPR PRIOR TO MAKING DEVIATIONS FROM THE PLANS.
 - CONTRACTOR TO PROTECT ALL EXISTING UNDERGROUND UTILITIES NOT SCHEDULED FOR REMOVAL.
 - INSTALL ONE #6 GREEN INSULATED GROUND WIRE WHERE NEW EQUIPMENT IS BEING INSTALLED, AND WHERE NEW WIRE IS BEING PULLED THROUGH EXISTING CONDUIT (PAID FOR UNDER ITEM L-108-5.2).
 - WORK OUTSIDE OF DESIGNATED WORK AREA TO BE PERFORMED UNDER PRIOR PERMISSION REQUEST (PPR).



ENGINEER'S SEAL

BID DOCUMENTS
NOT FOR
CONSTRUCTION

PROJECT DESIGNER

53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095

DESIGNED BY
DFB

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

ELECTRICAL PLAN (3 OF 3)

SCALE: 1" = 40'

DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

MJ PROJ. No.: 19199.01

FILE NAME:

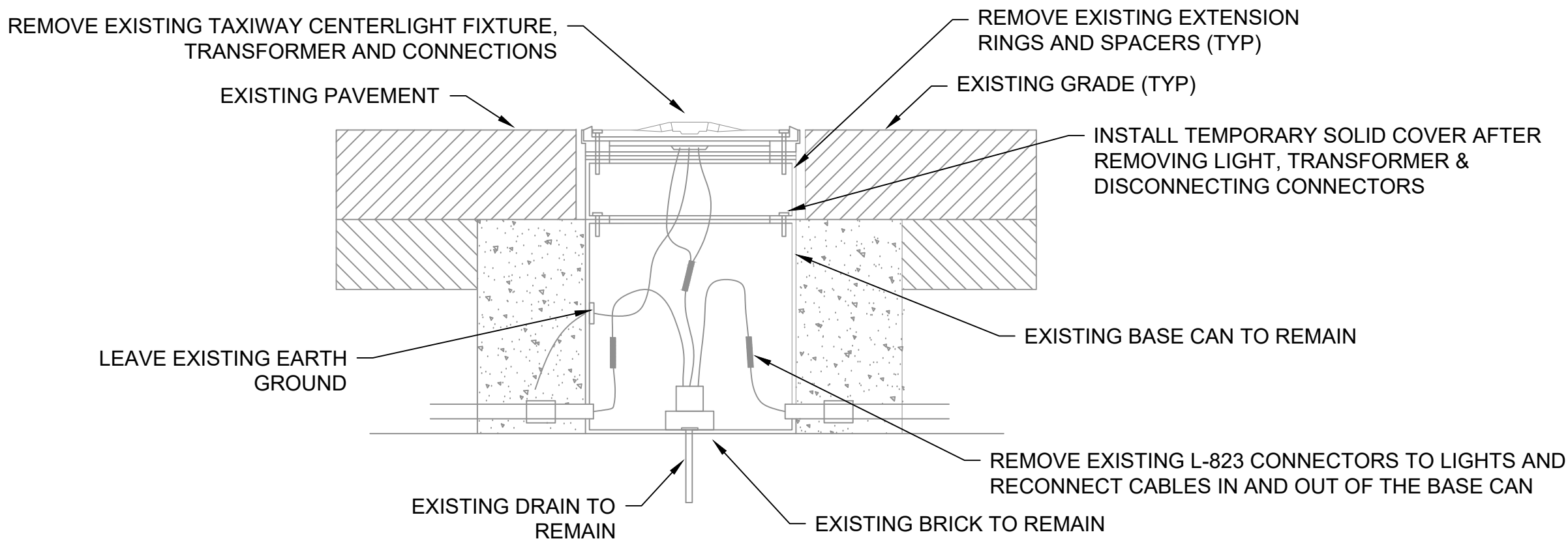
AIP No.: TBD

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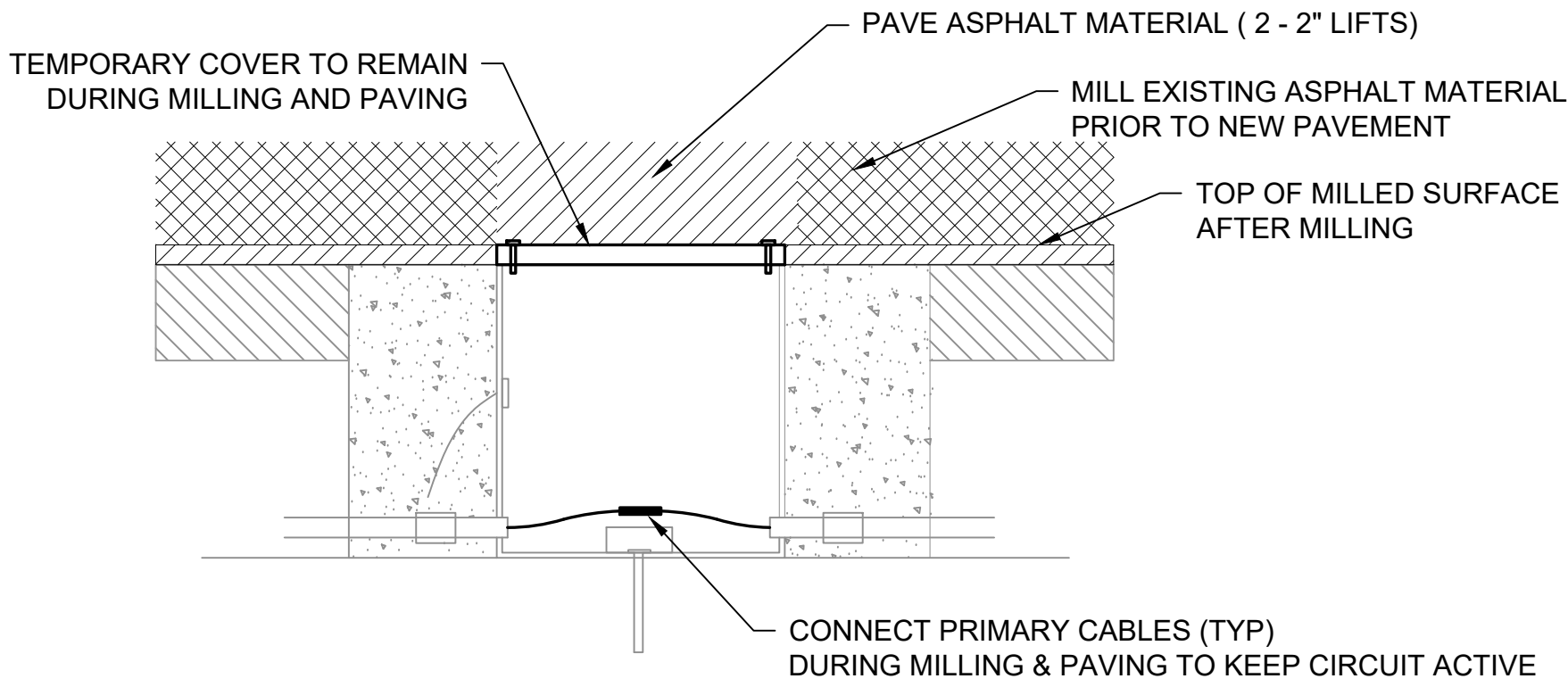
EP-03

SHEET 28 OF 39

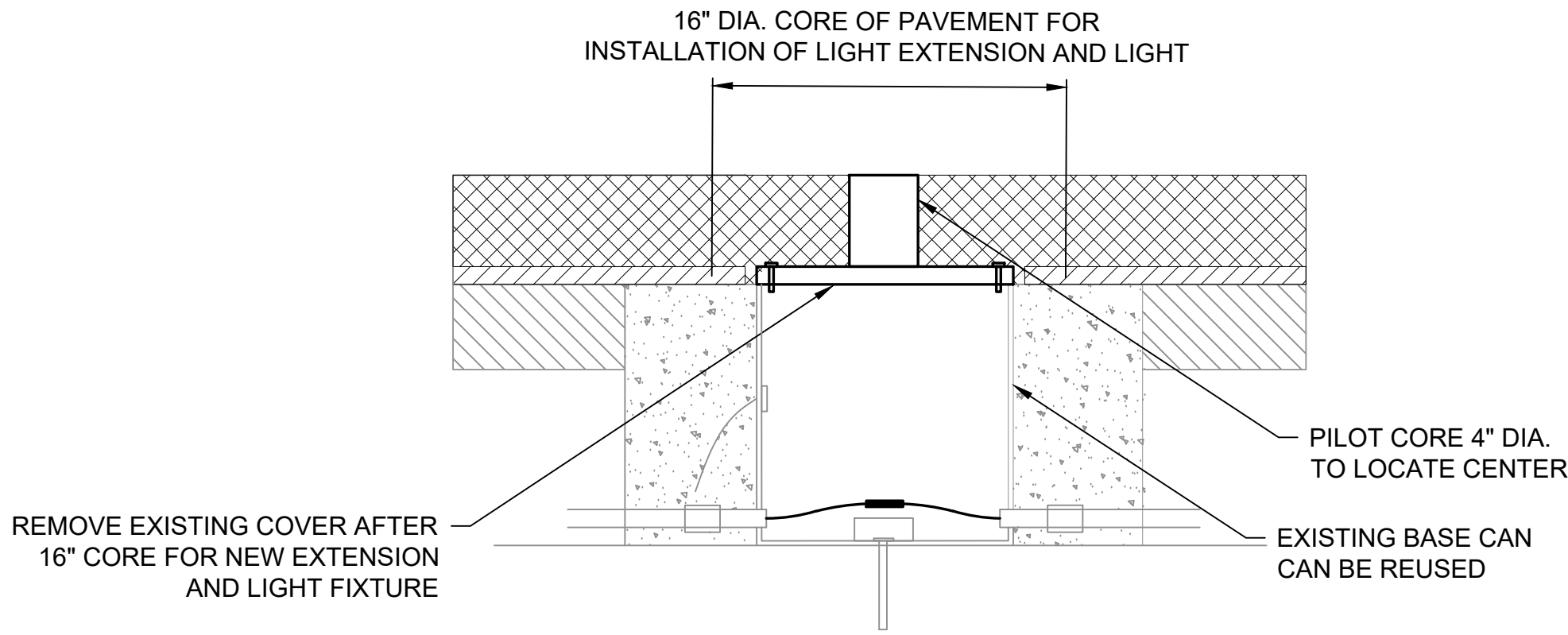
REMOVE CENTERLINE LIGHT FIXTURE & RE-USE EXISTING BASE CAN PROCESS



STEP 1 - REMOVE EXISTING LIGHT & PREPARE FOR MILLING



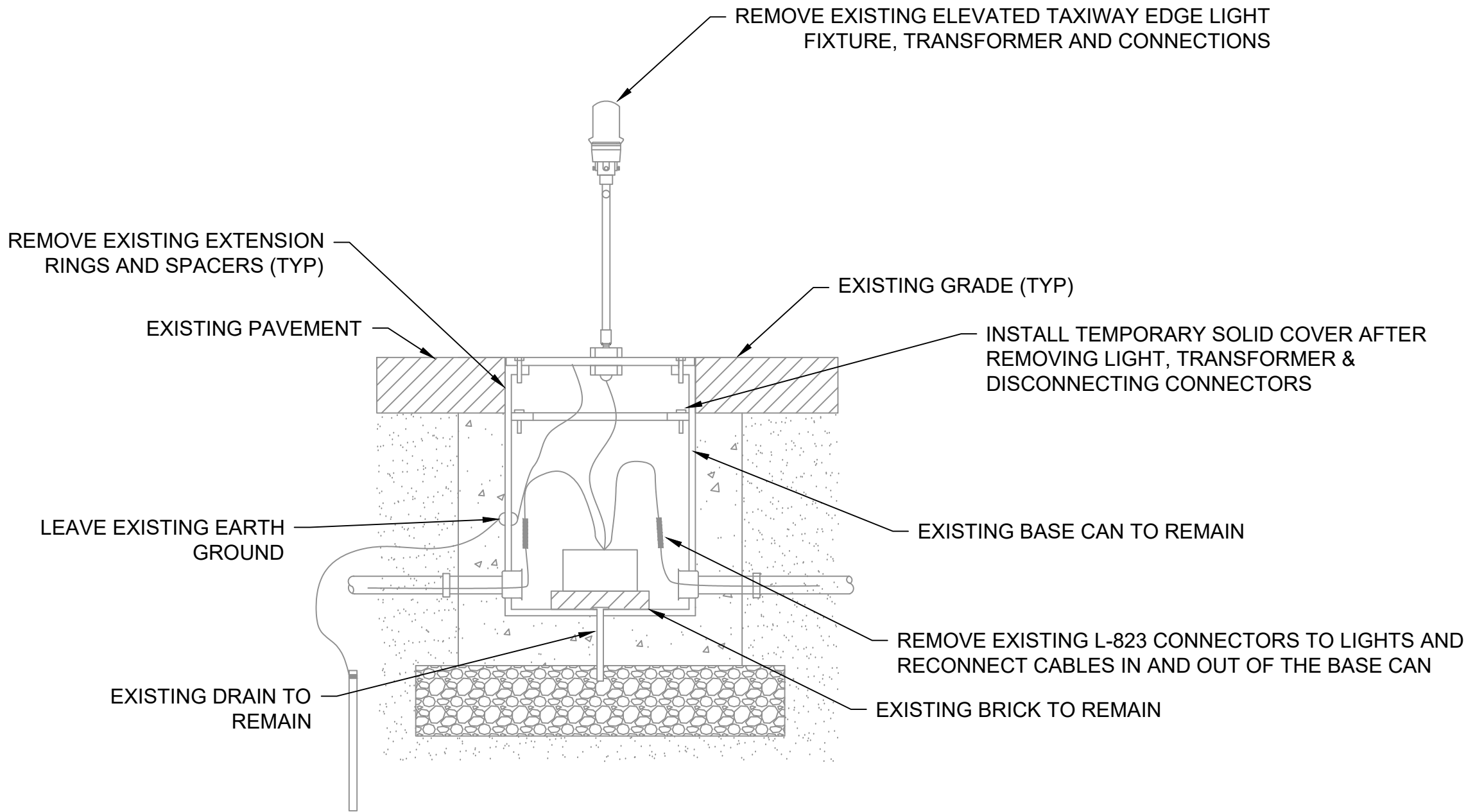
STEP 2 - BASE CAN DURING MILLING AND PAVING OPERATIONS



STEP 3 - LOCATE EXISTING BASE CAN AND CORE NEW OPENING PRIOR TO INSTALLING NEW EXTENSION AND LIGHTS

- NOTES
1. SEE IN-PAVEMENT L-852K(L) OR L-852C(L) TW CL LIGHT DETAIL ON SHEET EP-07 FOR FINAL INSTALLATION DETAIL.

REMOVE ELEVATED TAXIWAY EDGE LIGHT FIXTURE & RE-USE EXISTING BASE CAN PROCESS



STEP 1 - REMOVE EXISTING ELEVATED TAXIWAY LIGHT & TRANSFORMER

FOR STEPS 2 & 3 FOLLOW SAME PROCEDURE AS CENTERLINE LIGHT REMOVAL

- NOTES
1. SEE ELEVATED TAXIWAY EDGE LIGHT DETAIL ON SHEET EP-07 FOR FINAL INSTALLATION DETAIL.

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
FPS

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

ELECTRICAL DETAILS (1 OF 4)

SCALE: NTS DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

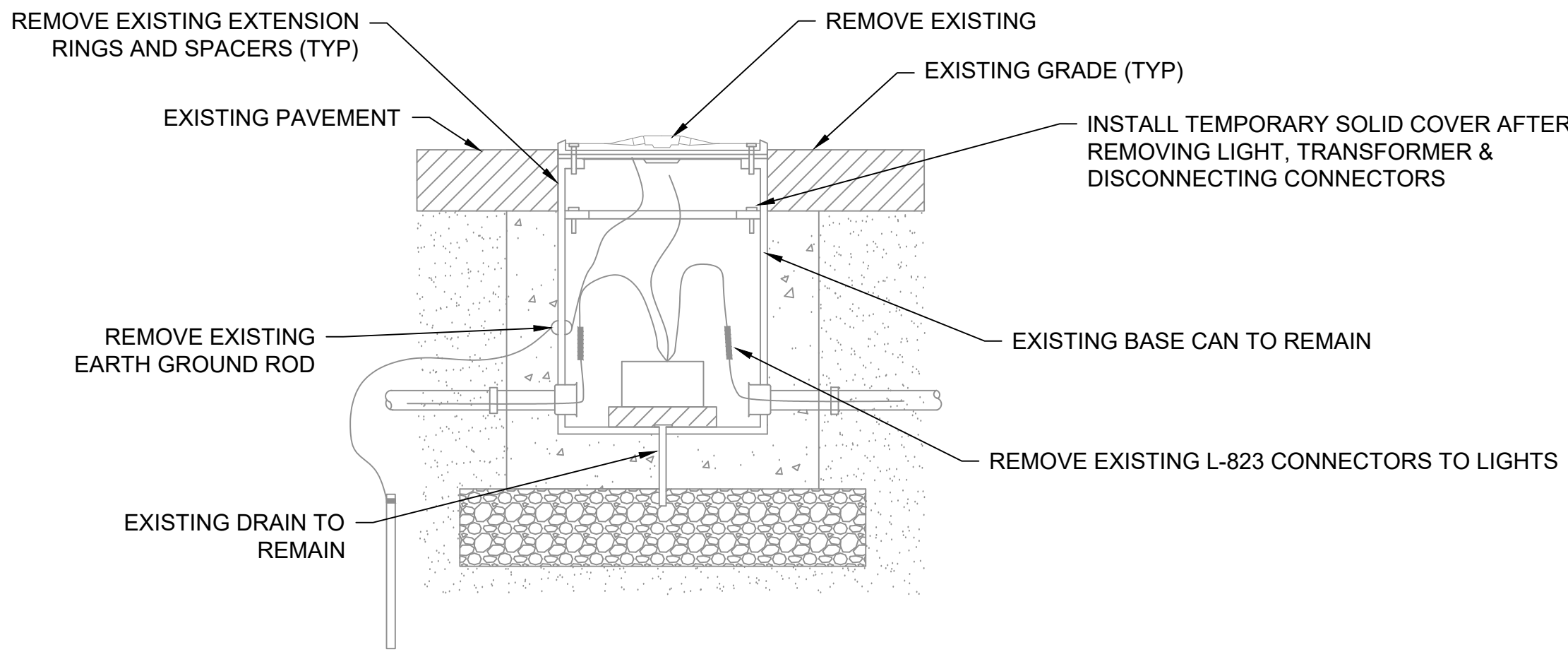
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EP-04

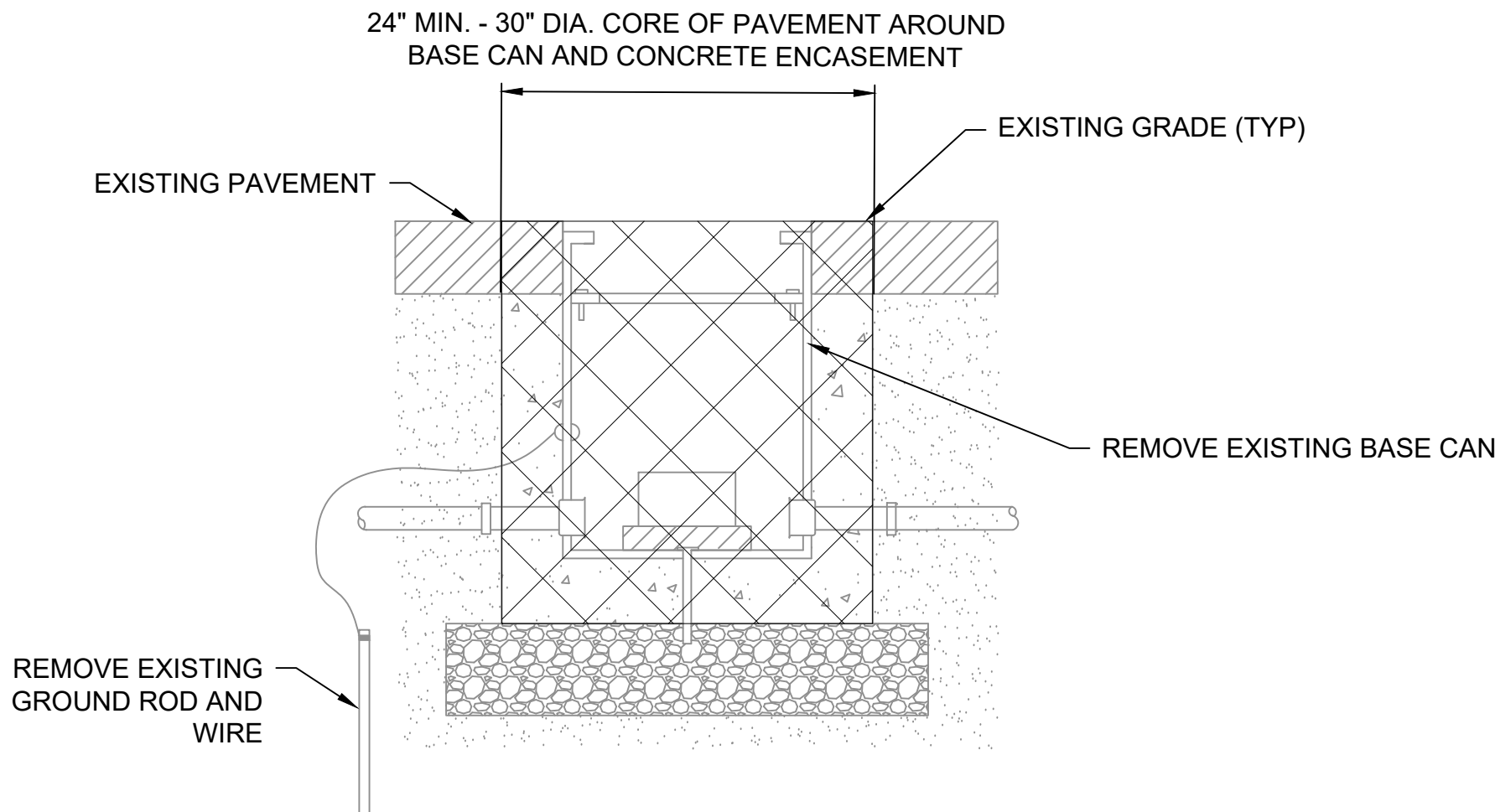
SHEET 29 OF 39

REV

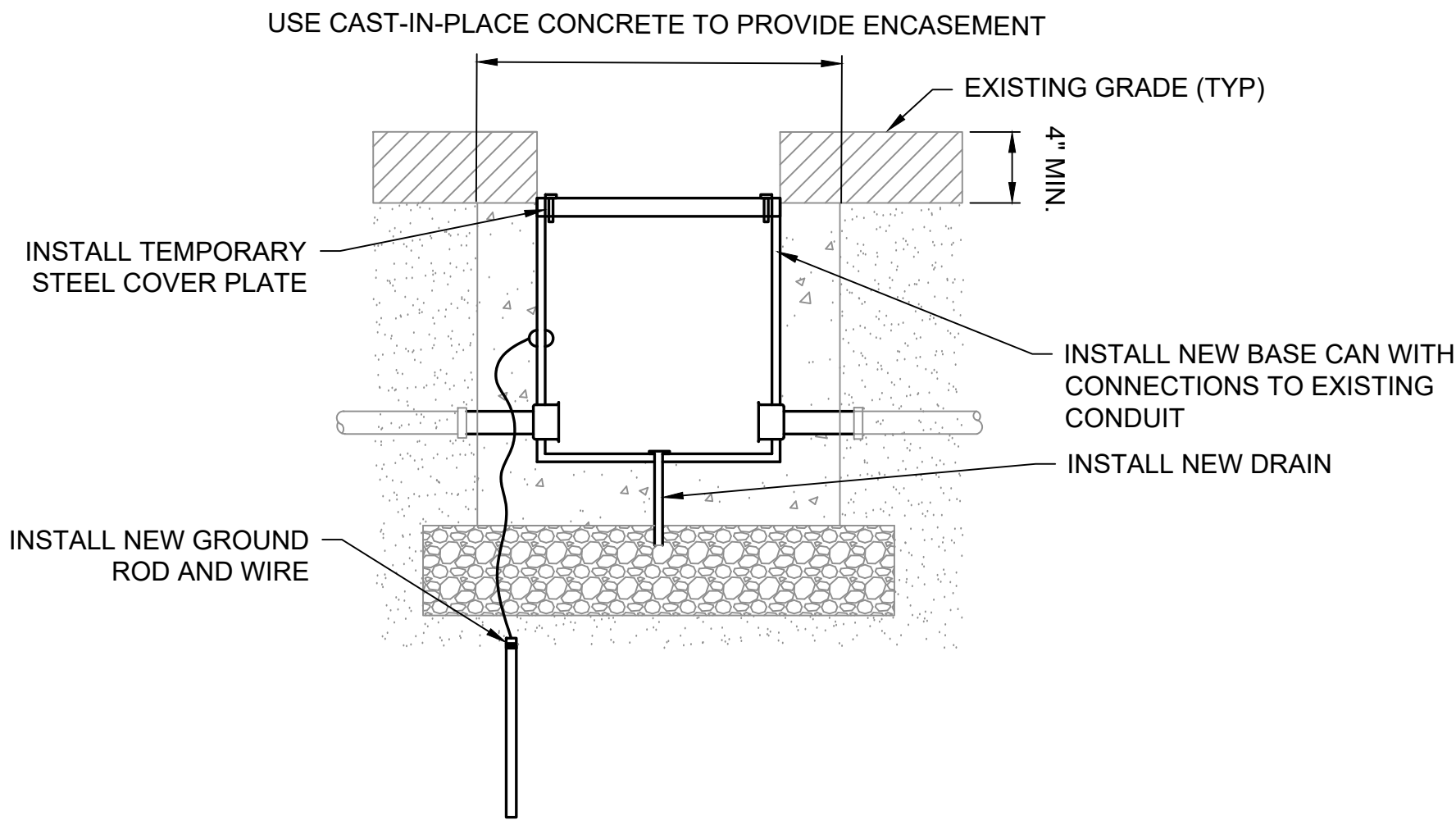
REMOVE EXISTING LIGHT FIXTURE & INSTALL NEW BASE CAN PROCESS



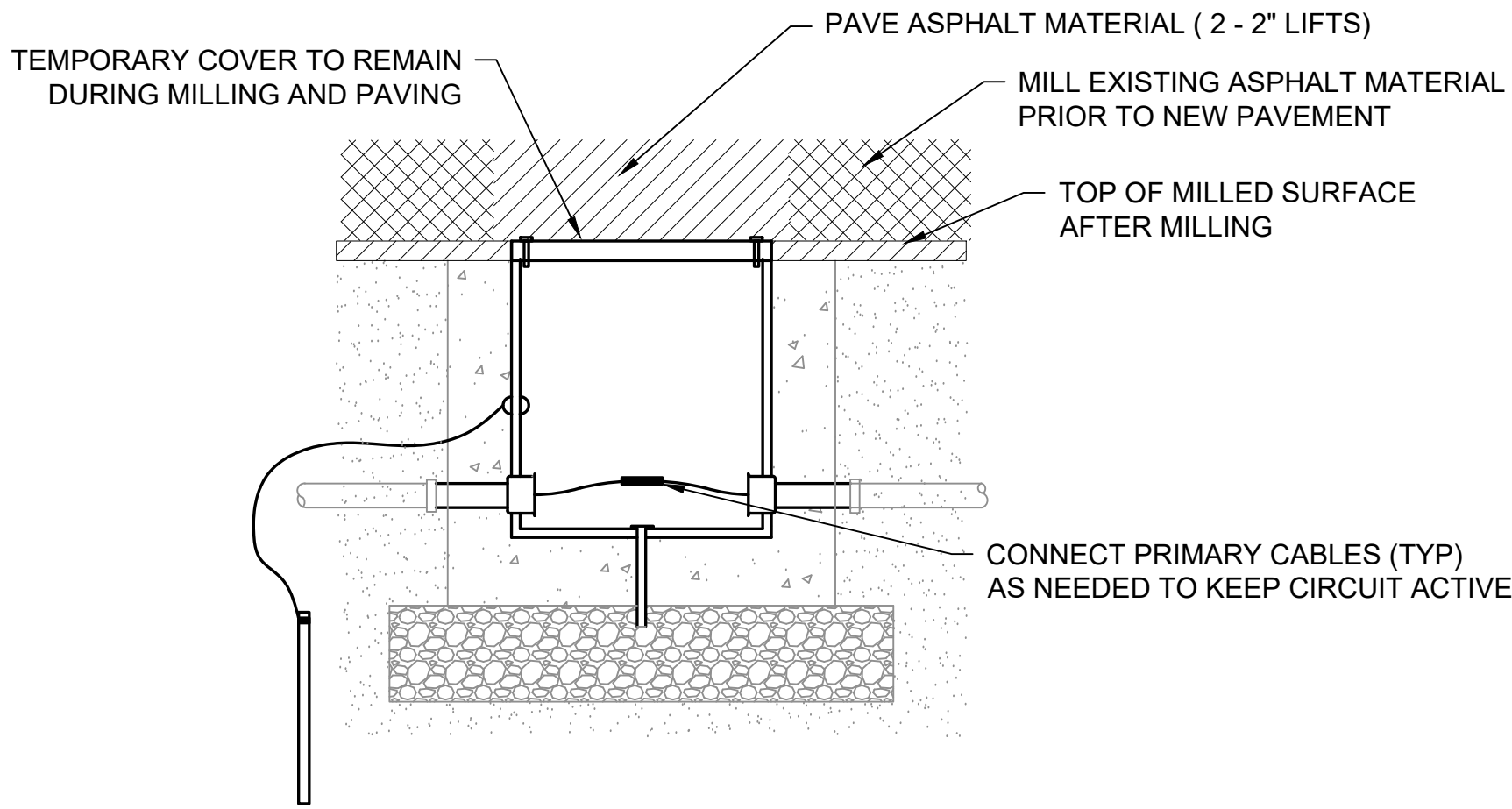
STEP 1 - REMOVE EXISTING LIGHT FIXTURE, TRANSFORMER, AND CABLING



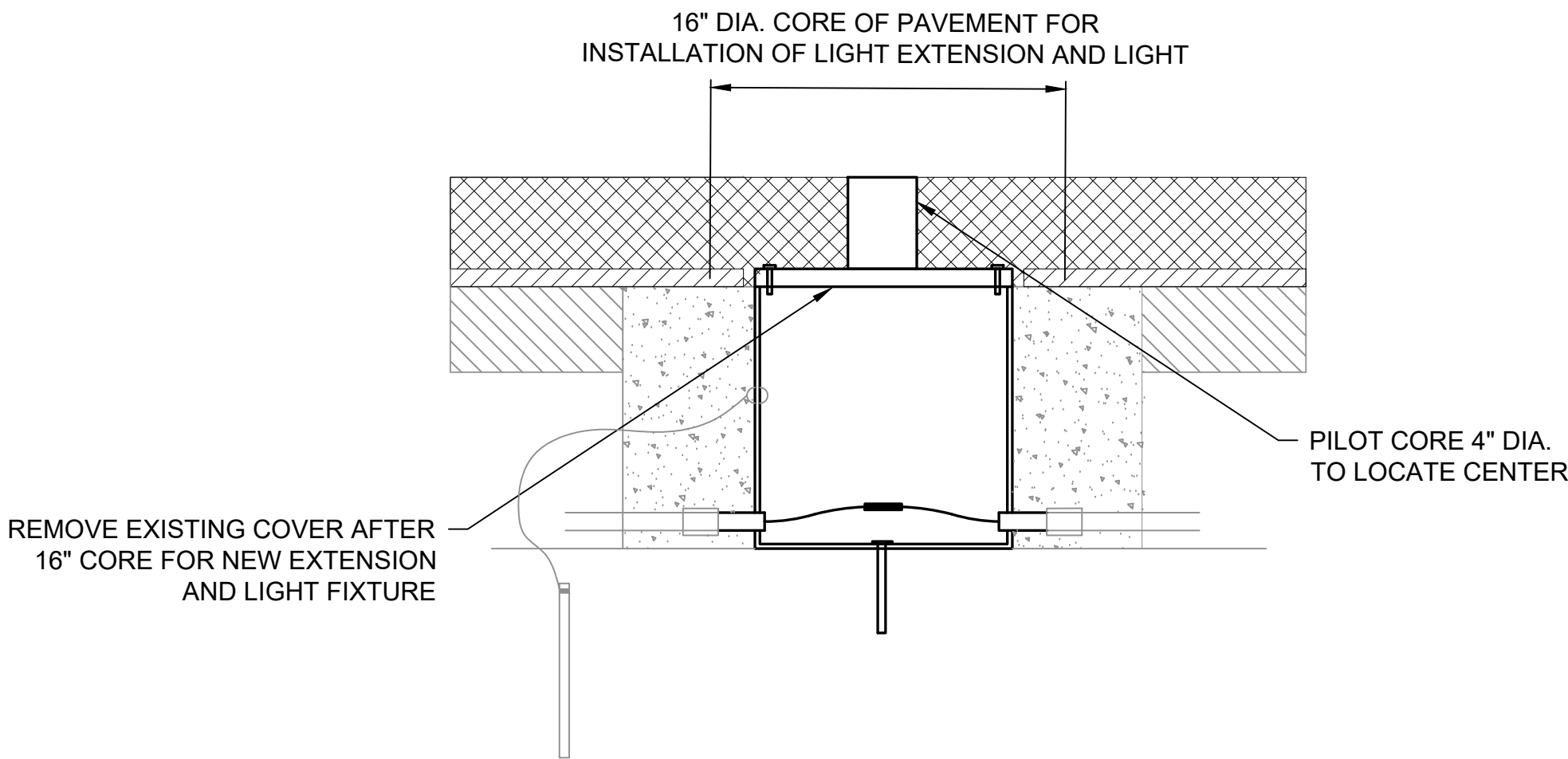
STEP 2 - CORE OUT & REMOVE EXISTING BASE CAN



STEP 3 - INSTALL NEW BASE CAN



STEP 4 - MILL EXISTING PAVEMENT AND INSTALL NEW PAVEMENT



STEP 5 - CORE NEW OPENING PRIOD TO INSTALLING NEW EXTENSION AND LIGHTS

NOTES
1. SEE TAXIWAY LIGHT DETAIL ON SHEET EP-06 FOR FINAL INSTALLATION DETAIL.

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DDB

DRAWN BY
FPS

CHECKED BY
BMP

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

ELECTRICAL DETAILS (2 OF 4)

SCALE: NTS DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

MJ PROJ. No.: 19199.01

FILE NAME:

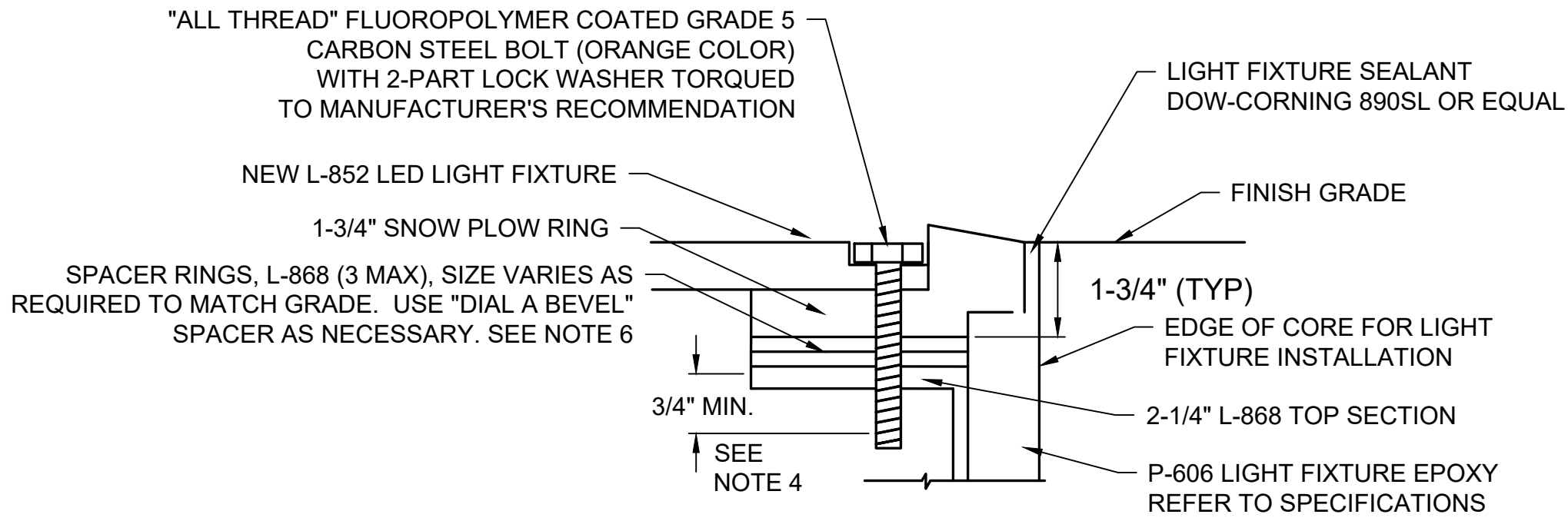
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DRAWING NO.

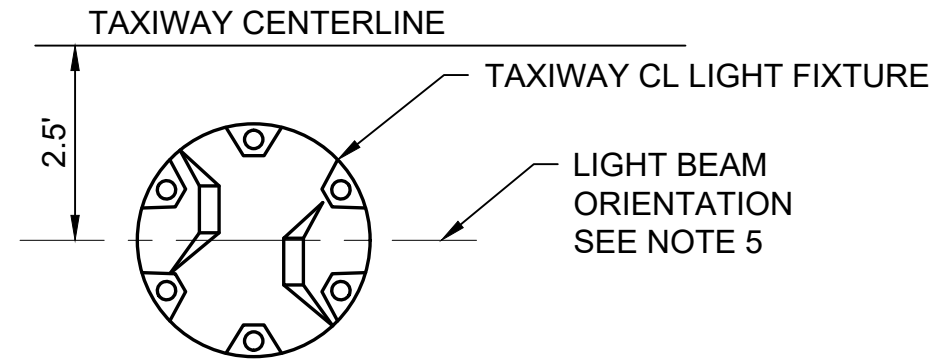
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SHEET 30 OF 39

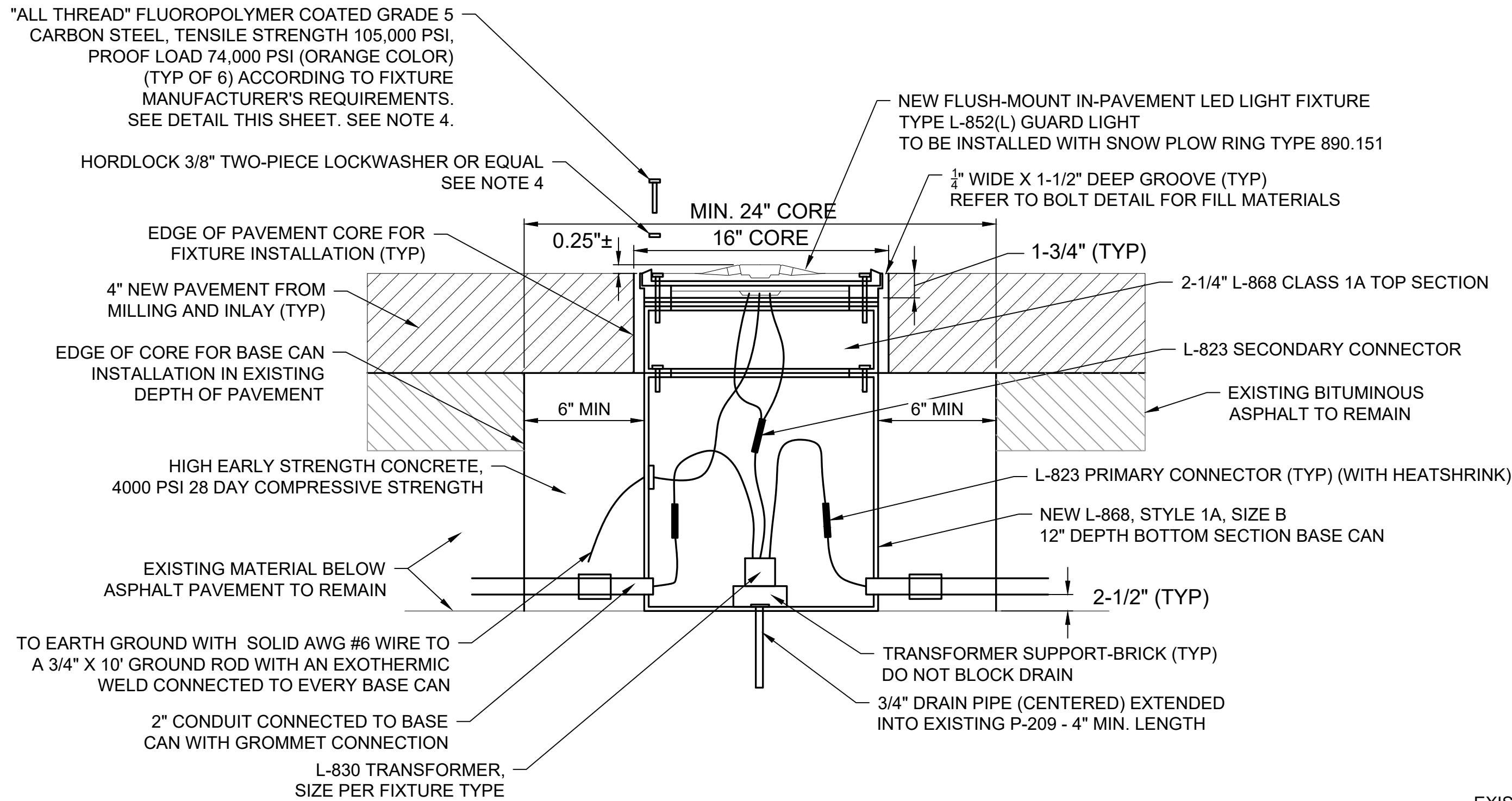




BOLT DETAIL
NOT TO SCALE



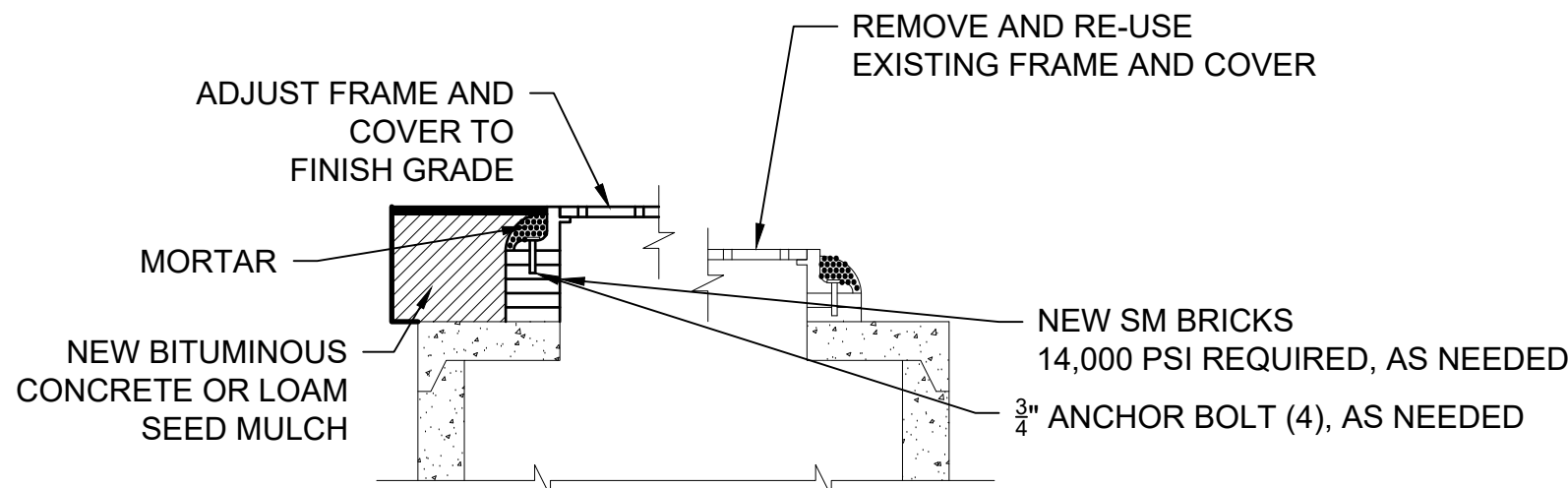
TW CL LIGHT ORIENTATION
NOT TO SCALE



- LIGHT DETAIL NOTES:**
- REFER TO SHEET FOR LIGHT FIXTURE LAYOUT LOCATION.
 - LIGHT BASES SHALL BE INSTALLED WITH CARE TO ASSURE VERTICAL & AZIMUTH ALIGNMENT OF FIXTURE.
 - PROVIDE 3' CABLE SLACK WITHIN LIGHT BASE TO ALLOW TRANSFORMER SERVICING.
 - BOLTS AND WASHERS USED DURING INSTALLATION OF BASE, CABLE, AND TRANSFORMERS SHALL BE REPLACED WITH NEW, FOR FINAL INSTALLATION. MINIMUM THREAD EMPLACEMENT BEYOND BOTTOM OF FLANGE OF BASE IS 3/4". MAXIMUM LENGTH OF BOLT TO BE 3-1/2".
 - LIGHT BEAM ORIENTATION FOR IN-PAVEMENT TAXIWAY CENTERLINE LIGHTS ON A CURVE SHALL BE INSTALLED SO THE BEAM IS TANGENT TO THE NEAREST POINT ON THE CURVE DESIGNATED AS THE CENTERLINE OF THE PATH.
 - SNOW PLOW RINGS STYLE 2 (1-3/4") SHALL BE BI-DIRECTIONAL FOR TAXIWAY CENTERLINE LIGHTS.
 - PROVIDE FIXTURE WITH ARCTIC KIT.

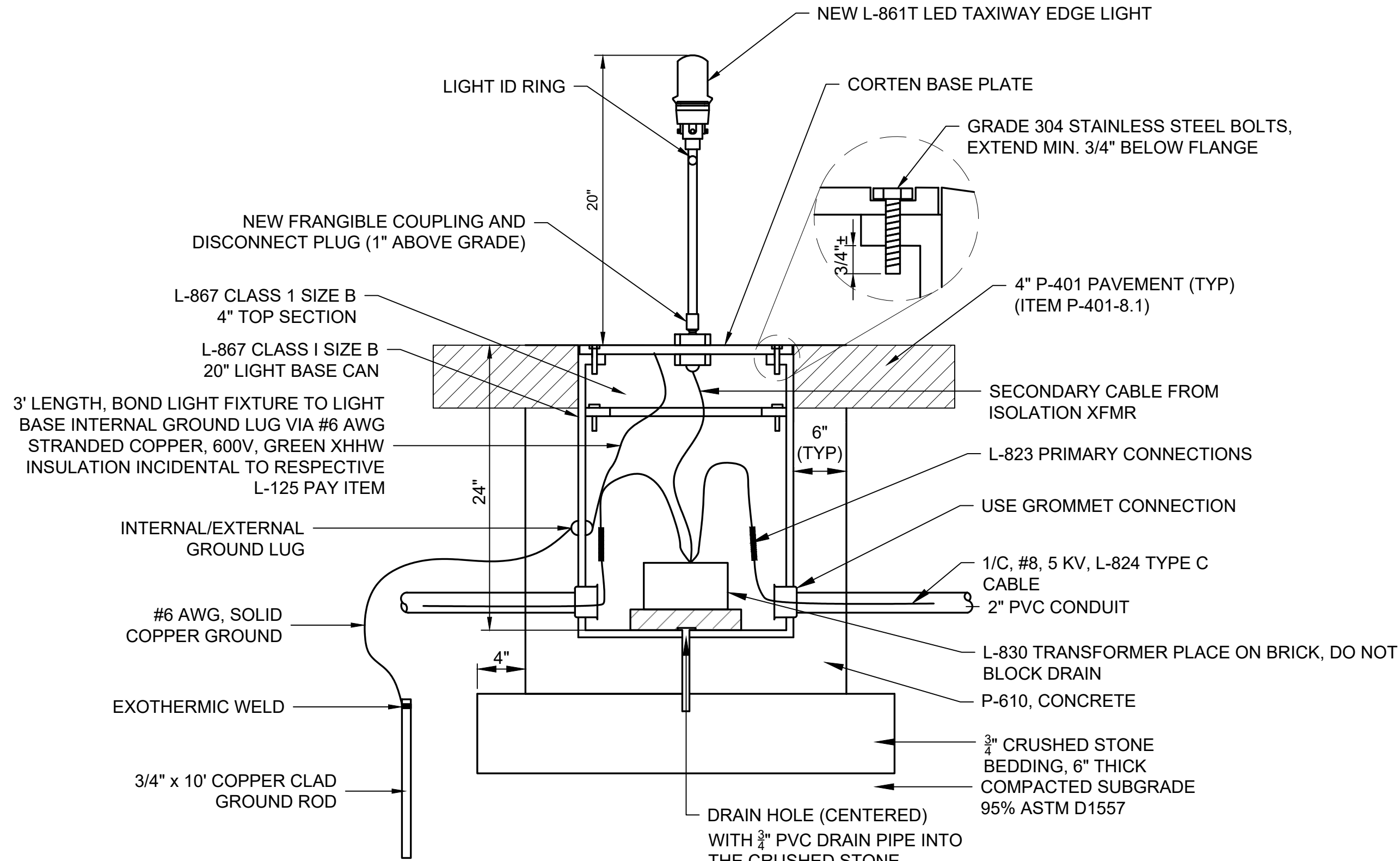
IN-PAVEMENT L-852K(L) OR L-852C(L) TW CL LIGHT INSTALLATION

NOT TO SCALE
(ITEMS L-125-5.2A, L-125-5.2B)

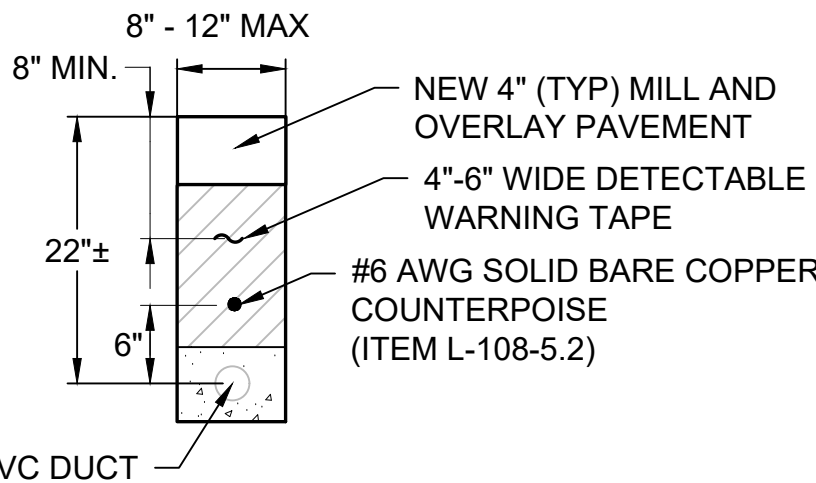


**ADJUST EXISTING ELECTRIC
STRUCTURE FRAME AND COVER**

NOT TO SCALE
(ITEM D-751-5.3)



- NOTES:**
- THE CONTRACTOR SHALL ADJUST THE HORIZONTAL DISTANCE FROM THE EDGE OF THE PAVEMENT SUCH THAT THE LIGHT FIXTURES FORM A STRAIGHT-LINE HORIZONTALLY ALONG THE ENTIRE TAXIWAY EDGE AND VERTICALLY FOLLOW THE TAXIWAY GRADE.
 - SUFFICIENT CABLE SLACK (MIN. OF 3 FEET) SHALL BE LEFT IN EACH BASE TO ALLOW TRANSFORMER(S) TO BE TAKEN OUT OF THE BASE.
 - ID NUMBER SHALL BE ASSIGNED USING A LOGICAL ORDER DEPENDENT ON EXISTING LIGHT ID NUMBERS AND APPROVED BY THE RPR AND AIRPORT OPERATIONS.
 - THE CONTRACTOR SHALL IDENTIFY WHICH LIGHT BASES REQUIRE MORE THAN TWO DUCT OPENINGS TO ACCEPT ADDITIONAL CONDUIT.
 - PROVIDE FIXTURE WITH ARCTIC KIT.

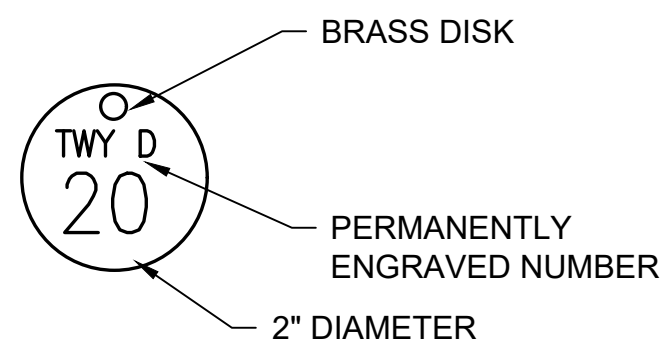


**NEW COUNTERPOISE IN EXISTING
1-WAY, 2 INCH CONDUIT**

NOT TO SCALE
(ITEM L-110-5.1)

ELEVATED TAXIWAY EDGE LIGHT

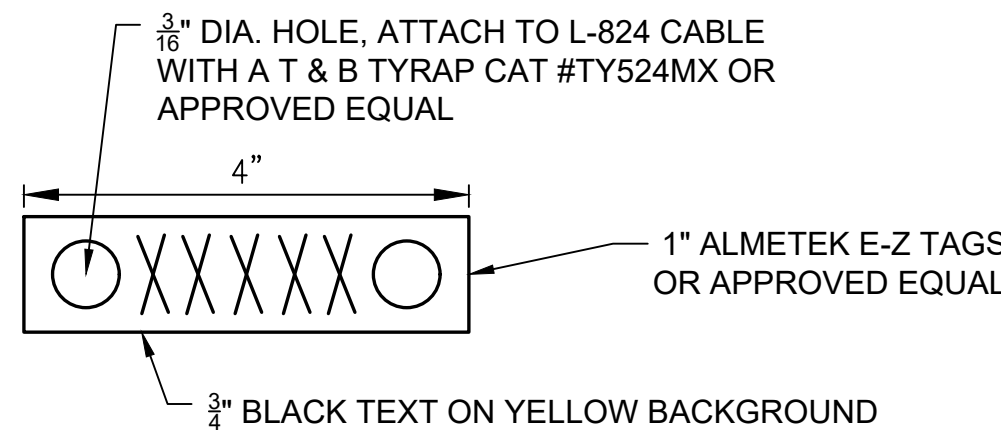
NOT TO SCALE
(ITEM L-125-5.1, L-125-5.1B)



- NOTE:**
- ID NUMBER SHALL BE ASSIGNED USING A LOGICAL ORDER DEPENDENT ON EXISTING LIGHT ID NUMBERS AND APPROVED BY THE ENGINEER
 - TAGS SHALL BE ATTACHED TO BASES OF ELEVATED EDGE LIGHTS BY MEANS OF THE BOLTS USED TO ATTACH THE LIGHT TO THE CAN

LIGHT IDENTIFICATION TAG DETAIL

NOT TO SCALE
(INCIDENTAL TO L-125 ITEMS)



- NOTES:**
- ALL L-824 CABLES SHALL BE IDENTIFIED WITH A TAG WITH ITS RESPECTIVE CIRCUIT/LOOP NUMBER AT ALL ACCESSIBLE LOCATIONS. ATTACH THE ID TAG 12" FROM THE L-823 CONNECTORS. THE LOOPS SHALL BE IDENTIFIED ON EACH SIDE OF THE CONNECTORS.

TYPICAL L-824 CABLE ID TAG

NOT TO SCALE
(INCIDENTAL TO ITEM L-108-5.1)

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER

McFARLAND JOHNSON

DESIGNED BY
DJB
DRAWN BY
FPS
CHECKED BY
BMB

**CITY OF MANCHESTER
DEPARTMENT OF AVIATION**
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

ELECTRICAL DETAILS (3 OF 4)

DATE: FEBRUARY 2025

SCALE: NTS

REV.	NO.	DATE	DESCRIPTION	BY

M/J PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

EP-06

SHEET 31 OF 39



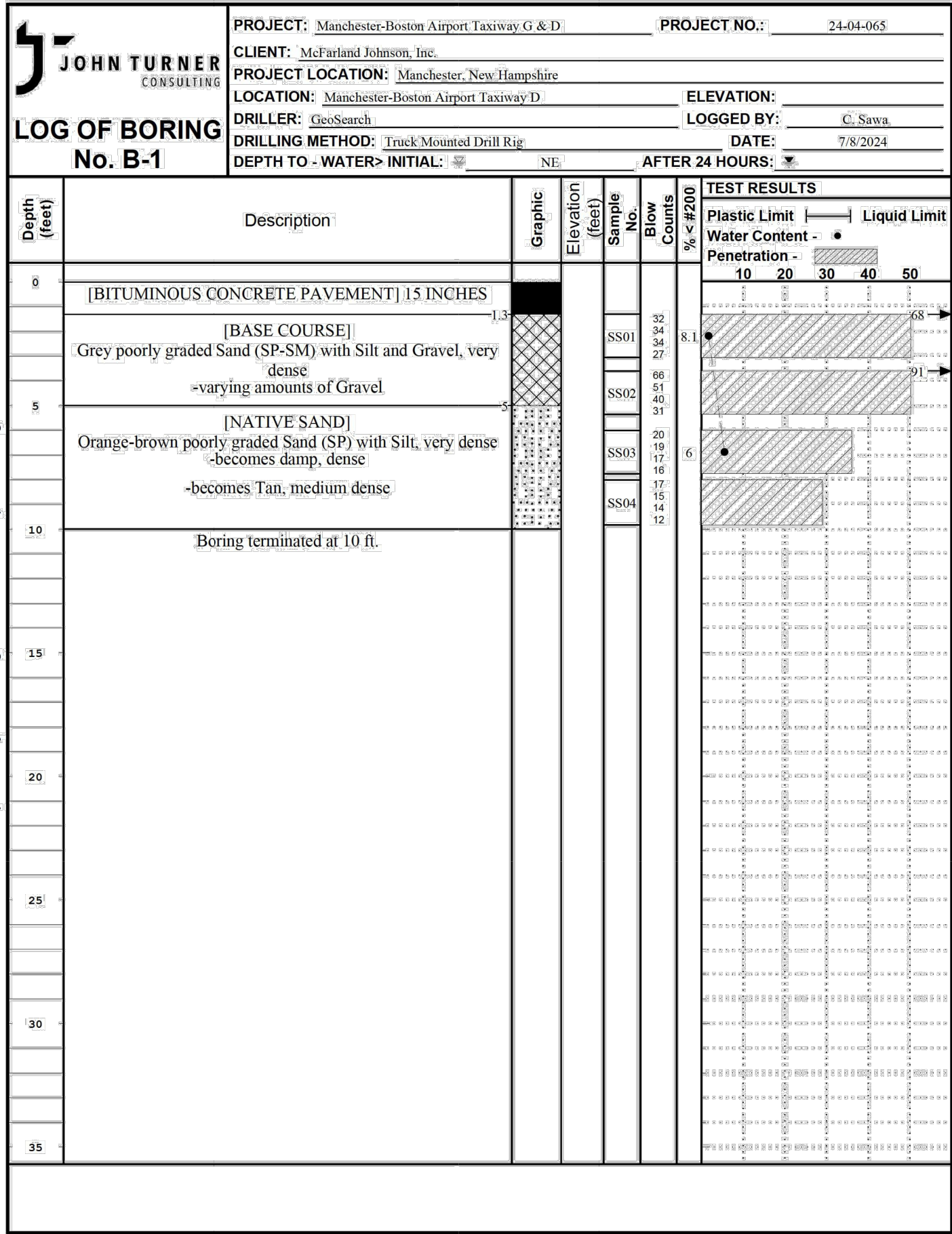


Figure PAGE 1 of 1

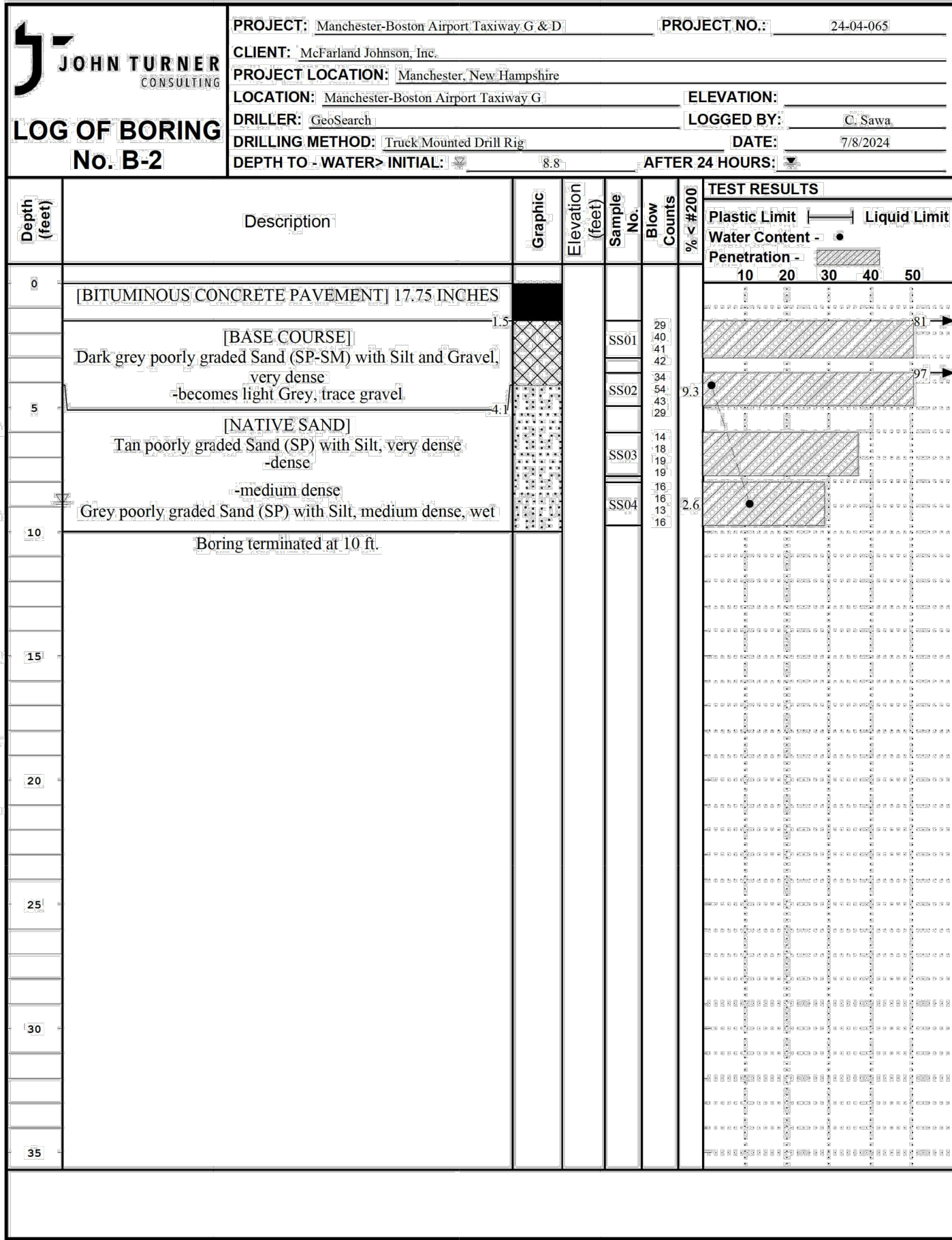


Figure PAGE 1 of 1

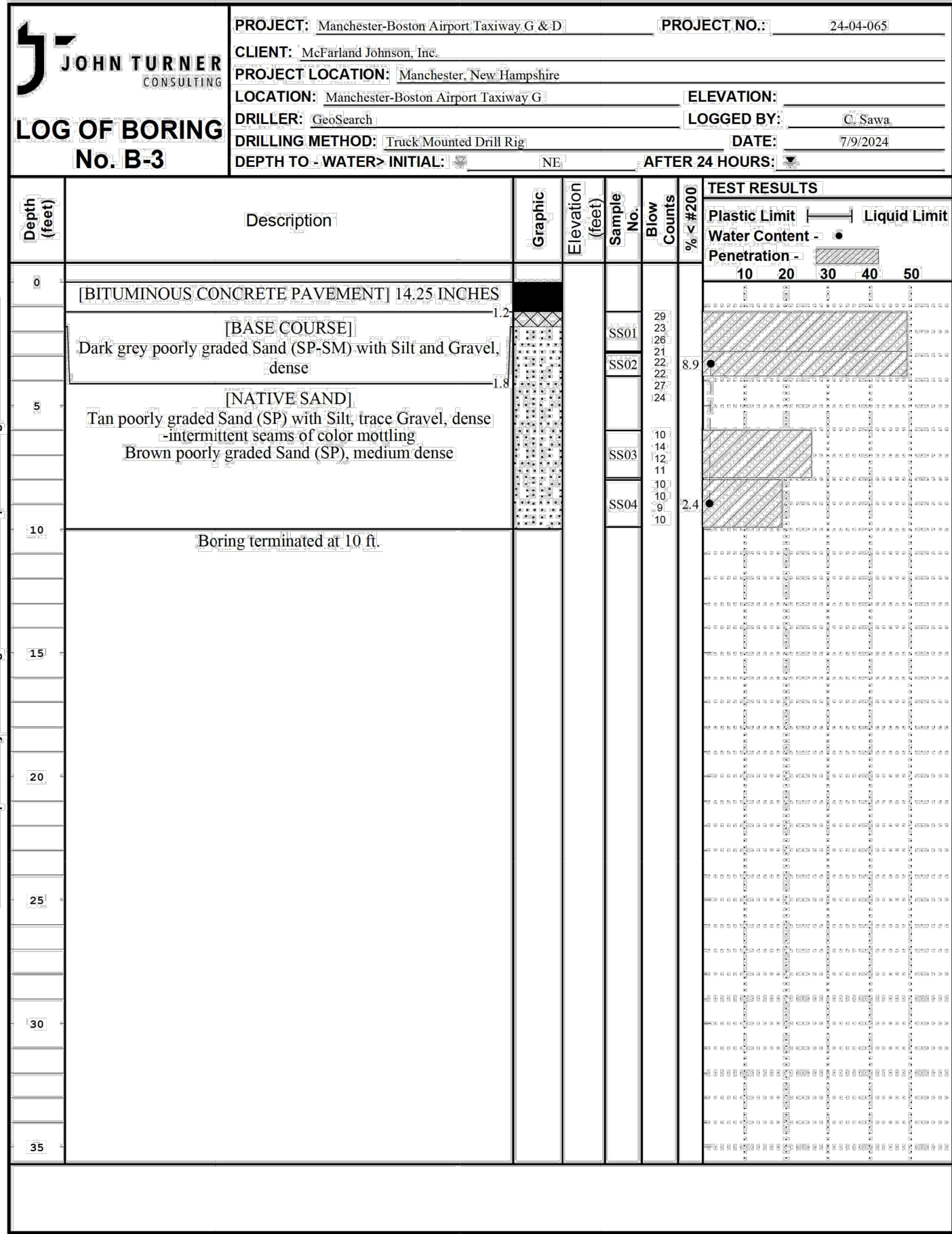


Figure PAGE 1 of 1

PAVEMENT THICKNESS TABLE		
LOCATION	BITUMINOUS CONCRETE THICKNESS (IN.)	CORE DEPTH (IN.)
B-1	8.0	15.0
B-2	8.0	17.75
B-3	14.25	14.25
PC-1	12.0	16.0
PC-2	10.0	15.5
PC-3	8.0	17.0
PC-4	11.0	16.75
PC-5	15.0	16.0
PC-6	12.0	13.5
PC-7	14.25	14.25
PC-8	12.5	13.0
PC-9	14.25	14.5
PC-10	14.25	14.25

FOR LOCATIONS REFER TO SHEETS EX-01 & EX-02

MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS OVER 50% > No.200 SIEVE SIZE	GRAVELS	CLEAN GRAVELS WITH LESS THAN 5% FINES	GW	Well-graded gravels or gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GRAVELS WITH OVER 15% FINES	GM	Silty gravels, gravel-sand mixtures
	SANDS	CLEAN SANDS WITH LESS THAN 5% FINES	GC	Clayey gravels, gravel-sand-clay mixtures
			SW	Well-graded sand or gravelly sands, little or no fines
		SANDS WITH OVER 15% FINES	SP	Poorly graded sands or gravelly sands, little or no fines
FINE-GRAINED SOILS OVER 50% < No.200 SIEVE SIZE	SILTS & CLAYS		SM	Silty sand, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
		LIQUID LIMIT 50% OR LESS	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
	SILTS & CLAYS		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic silts and organic silty clays of low plasticity
		LIQUID LIMIT GREATER THAN 50%	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
HIGHLY ORGANIC SOILS		CH	Inorganic clays of high plasticity, fat clays	
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts	
			PT	Peat and other highly organic soils

KEY TO SYMBOLS AND DESCRIPTIONS		
Shelby Tube	Auger Cuttings	Recessed Cover Set in Concrete
Standard Split Spoon Sample	3" Split Spoon Sample	Top of Well
Rock Core	Dynamic Cone Penetrometer	Recessed Pipe
Vane Shear	Bulk/Grab Sample	Covered Riser
Geoprobe Sample	Sonic or Vibro-Core Sample	Capped Riser w/ Locking Cover
Water Table (at time of drilling)	Water Table (after 24 hours)	Pipe Riser
		Concrete Seal
		Gravel Backfill
		Assorted Cuttings
		Bentonite Slurry
		Bentonite Pellets
		Silica Sand, blank PVC
		Slotted Pipe w/ Sand
		Endcap on Pipe Packed in Sand
		Silica Sand, No Pipe (End Plug)
		WELL SYMBOLS

RANGE OF GRAIN SIZES		
CLASSIFICATION	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL	3" to No. 4	76.2 to 4.75
	3" to 3/4"	76.2 to 19.1
coarse	3/4" to No. 4	19.1 to 4.75
SAND	No. 4 to No. 200	4.75 to 0.075
	No. 4 to No. 10	4.75 to 2.00
	No. 10 to No. 40	2.00 to 0.425
	No. 40 to No. 200	0.425 to 0.075
SILT & CLAY	Below No. 200	Below 0.075

RELATIVE DENSITY/CONSISTENCY			
Gravel, Sand, and Silt (nonplastic)		Silt (plastic) and Clay	
N-Value	Relative Density	N-Value	Consistency
0 - 4	Very Loose	0 - 2	Very Soft
5 - 10	Loose	3 - 4	Soft
11-30	Medium Dense	5 - 8	Medium Stiff
31 - 50	Dense	9 - 15	Stiff
51 +	Very Dense	16 - 30	Very Stiff
		31 +	4001+ Hard
Standard Penetration Testing (SPT) N_{60} based on blows per 12 inches.			
WR = Weight of Rods; WH = Weight of Hammer			

PERCENT OR PORTIONS OF SOIL	
Term	Description
Parting:	> 1/16 in.
Seam:	0.5 in. to 1/16 in.
Layer:	12 in. to 0.5 in.
Stratum:	> 12 in.
Pocket:	Small erratic deposit
Lens:	Lenticular deposit
Occasional:	One or less per foot of thickness
Frequent	More than one per foot of thickness
Varved	Alternating seams or layers of silt and/or clay and sometimes f. sand

REFERENCE: UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D2488-93

ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR CONSTRUCTION

PROJECT DESIGNER

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE

DESIGNED BY: DPB
DRAWN BY: JTR
CHECKED BY: BMB

53 REGIONAL DRIVE, CONCORD, NH 03301-5002
PH: 603-225-2978 FAX: 603-225-0095



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

BORING LOGS AND CORE DEPTHS

DATE: FEBRUARY 2025

SCALE: NTS

REVISIONS		BY	DATE
REV. NO.	DESCRIPTION		

MJ PROJ. No.: 19199.01

FILE NAME:

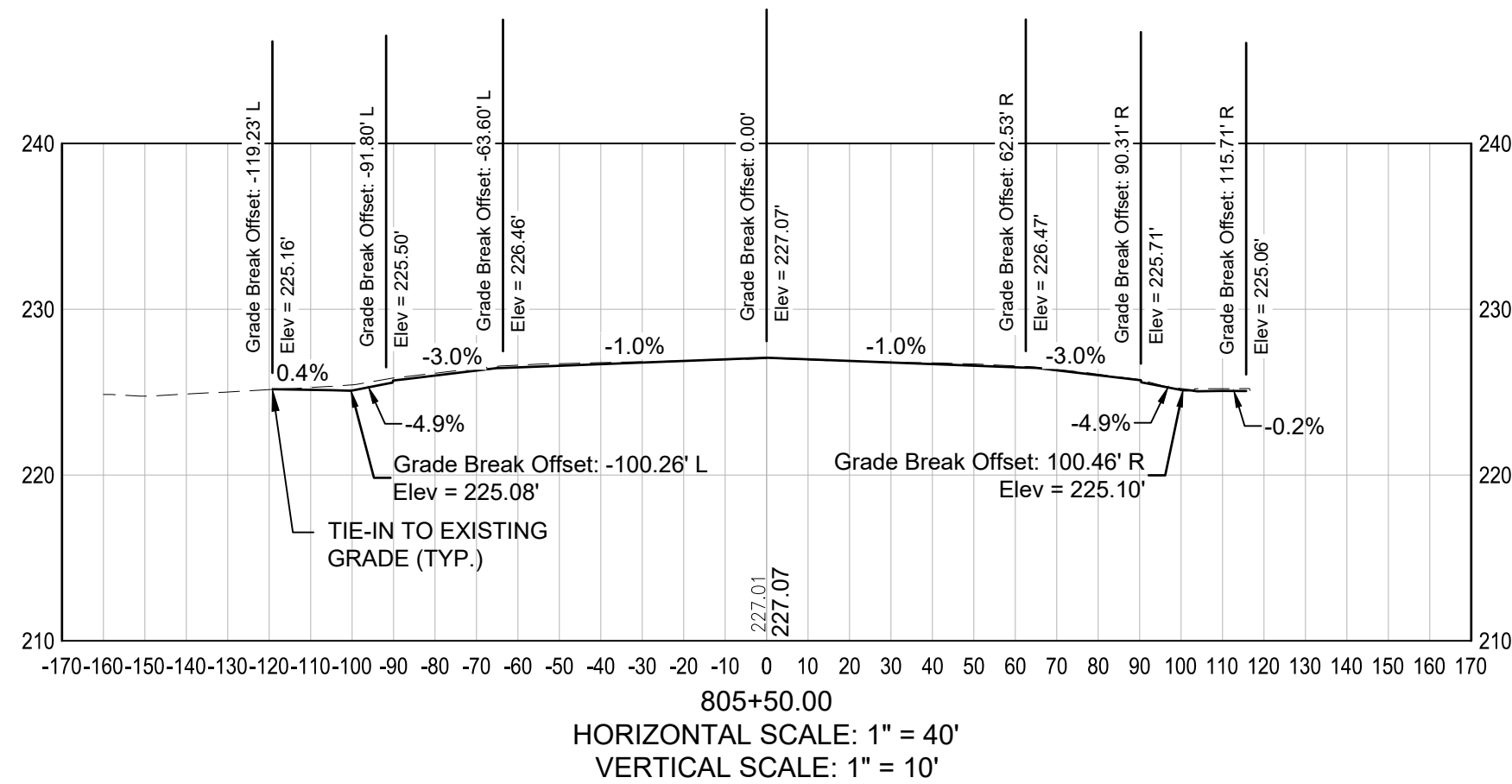
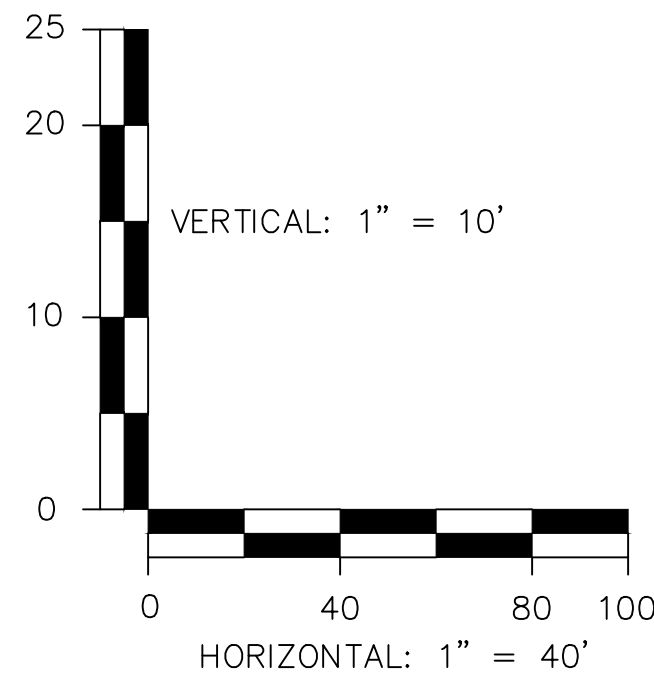
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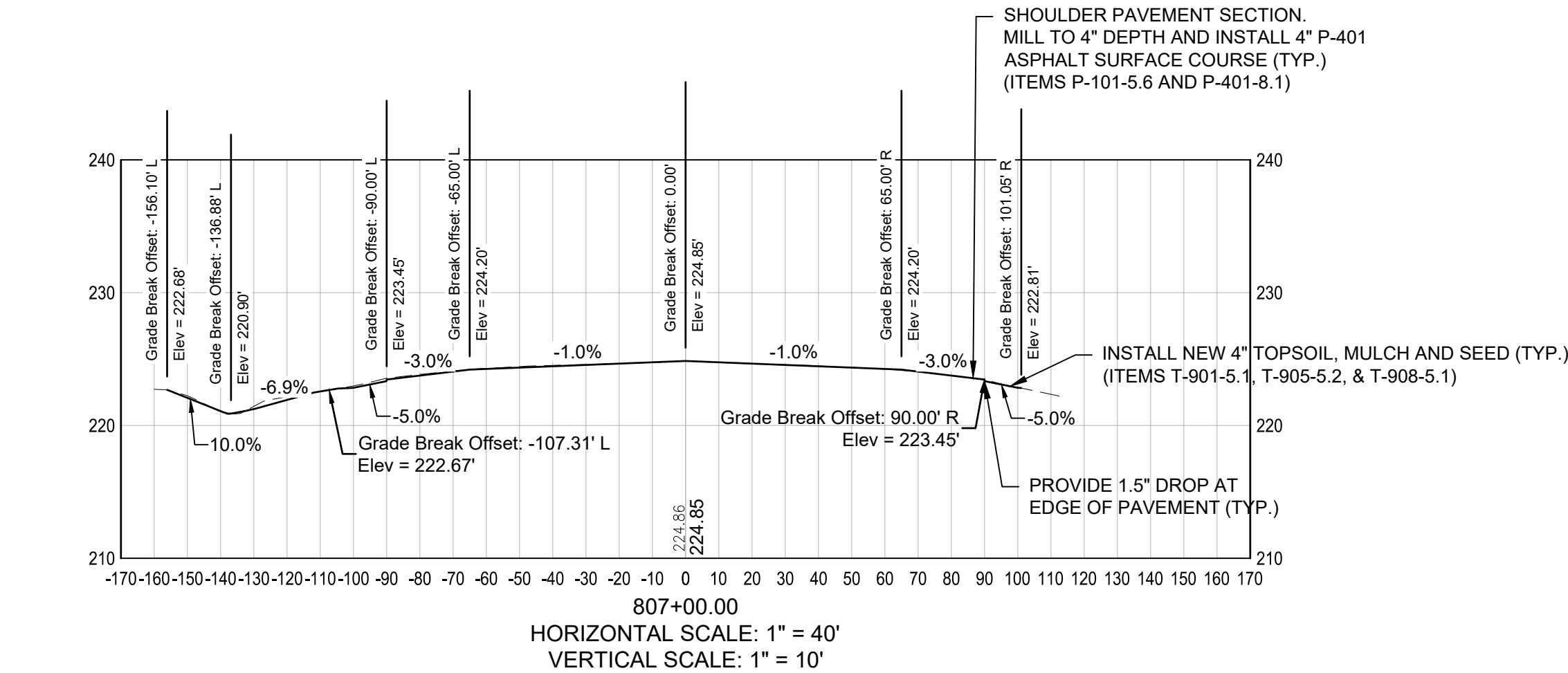
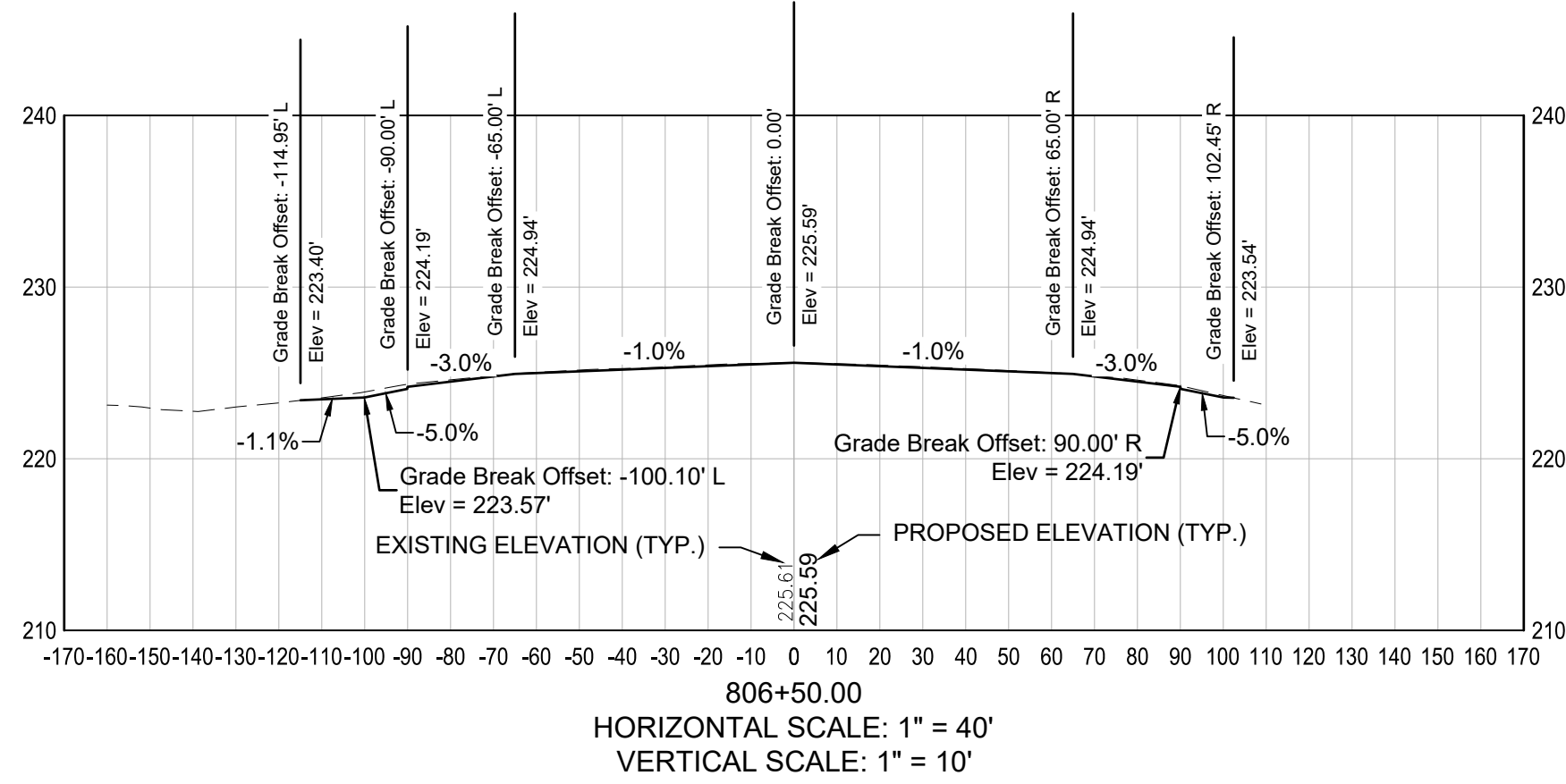
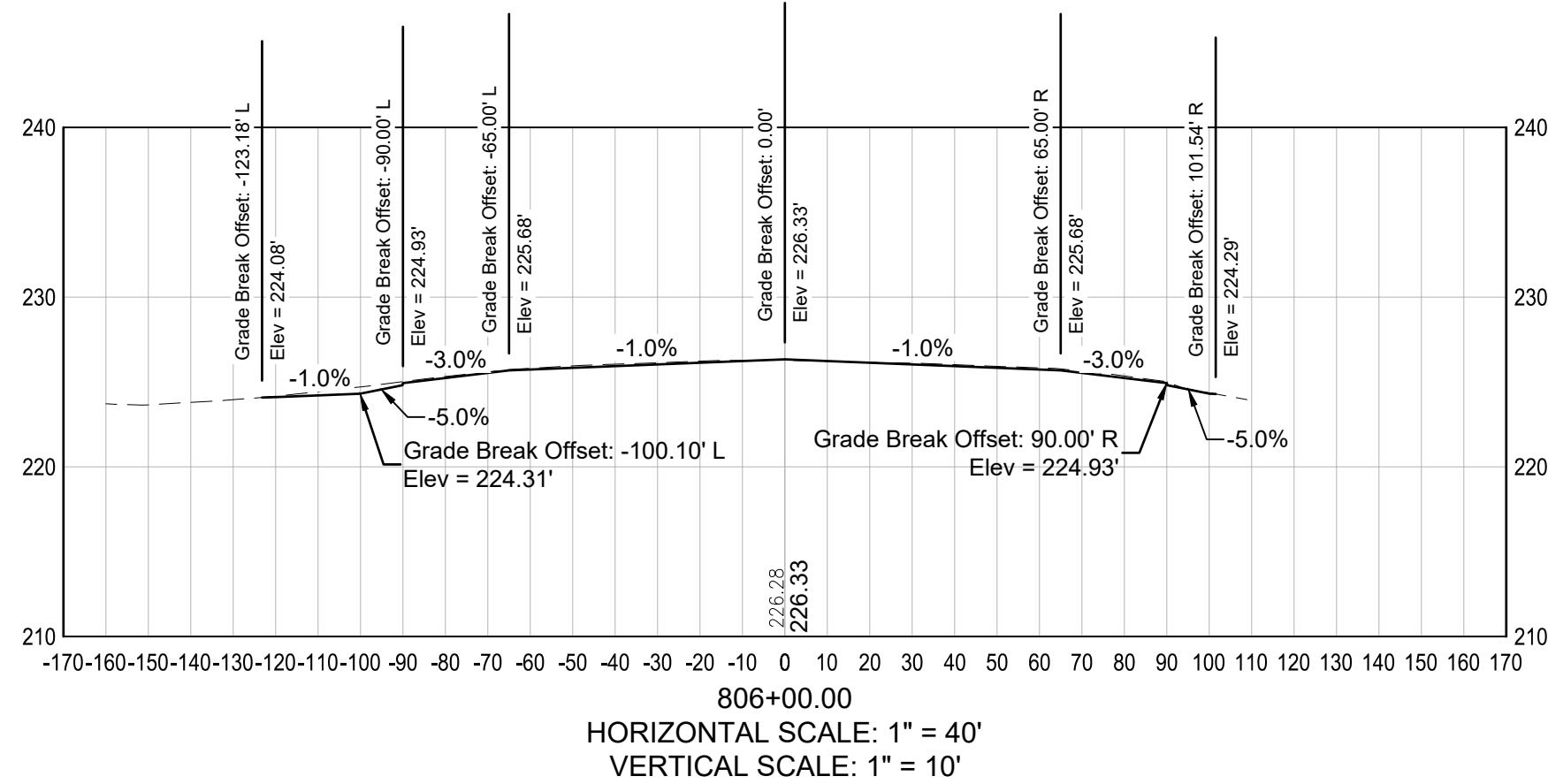
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SHEET 33 OF 39

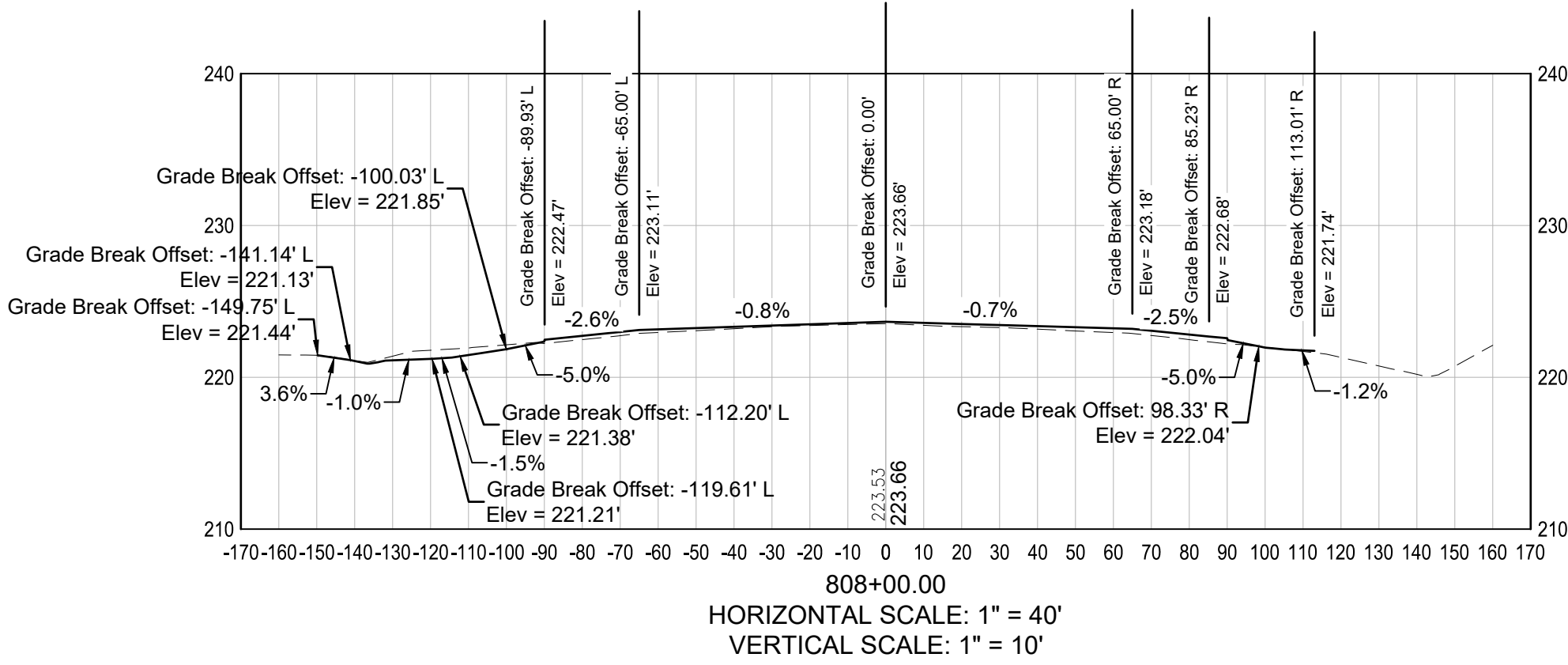
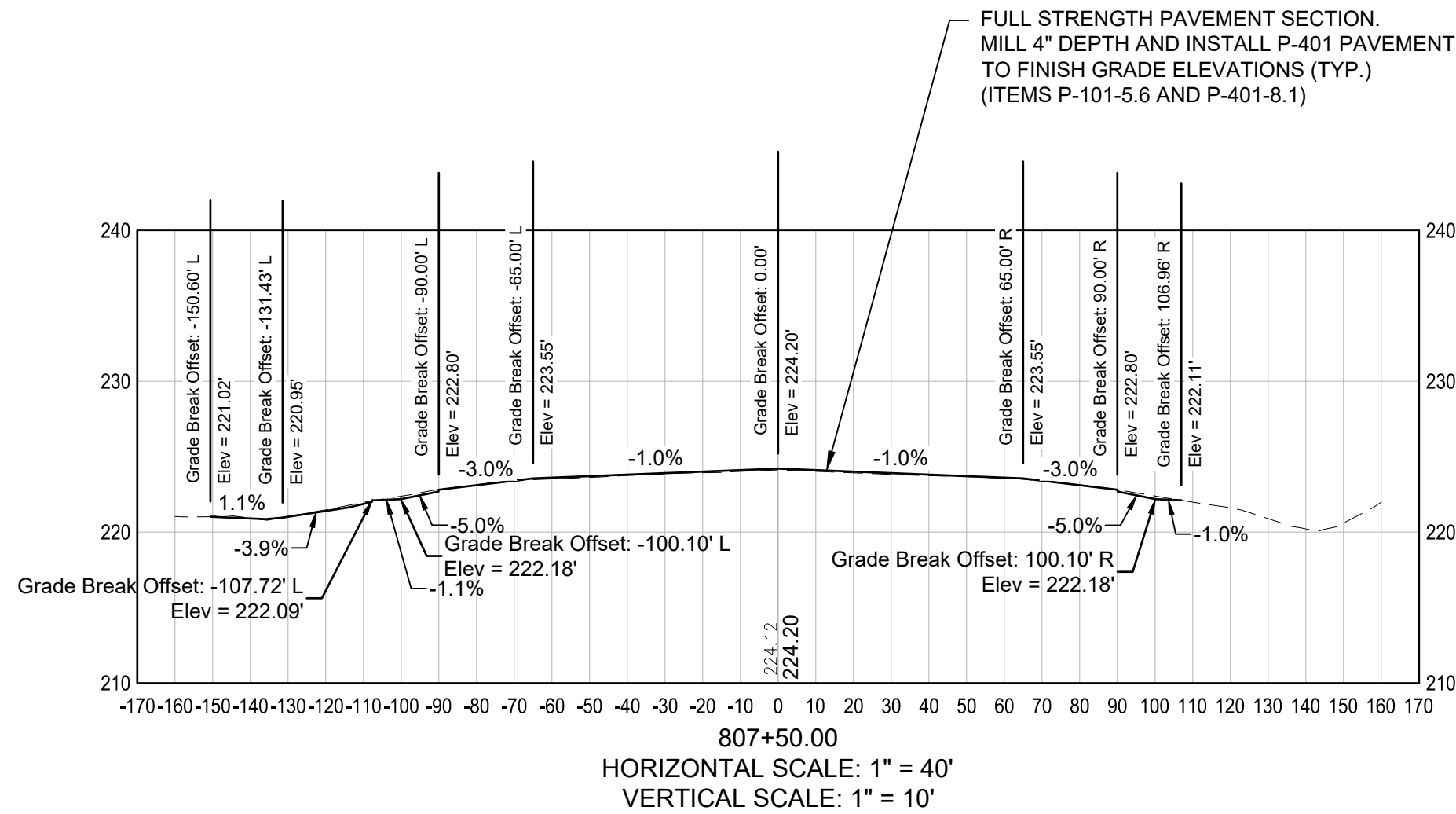
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- NOTES:
1. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.
 2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.



- LEGEND:
- EXISTING GRADE
 - PROPOSED GRADE



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DFB

DRAWN BY
FPS

CHECKED BY
BMB

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY D CROSS SECTIONS
(SHEET 1 OF 2)

SCALE: AS SHOWN DATE: FEBRUARY 2025

REVISONS		BY
REV. NO.	DESCRIPTION	

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

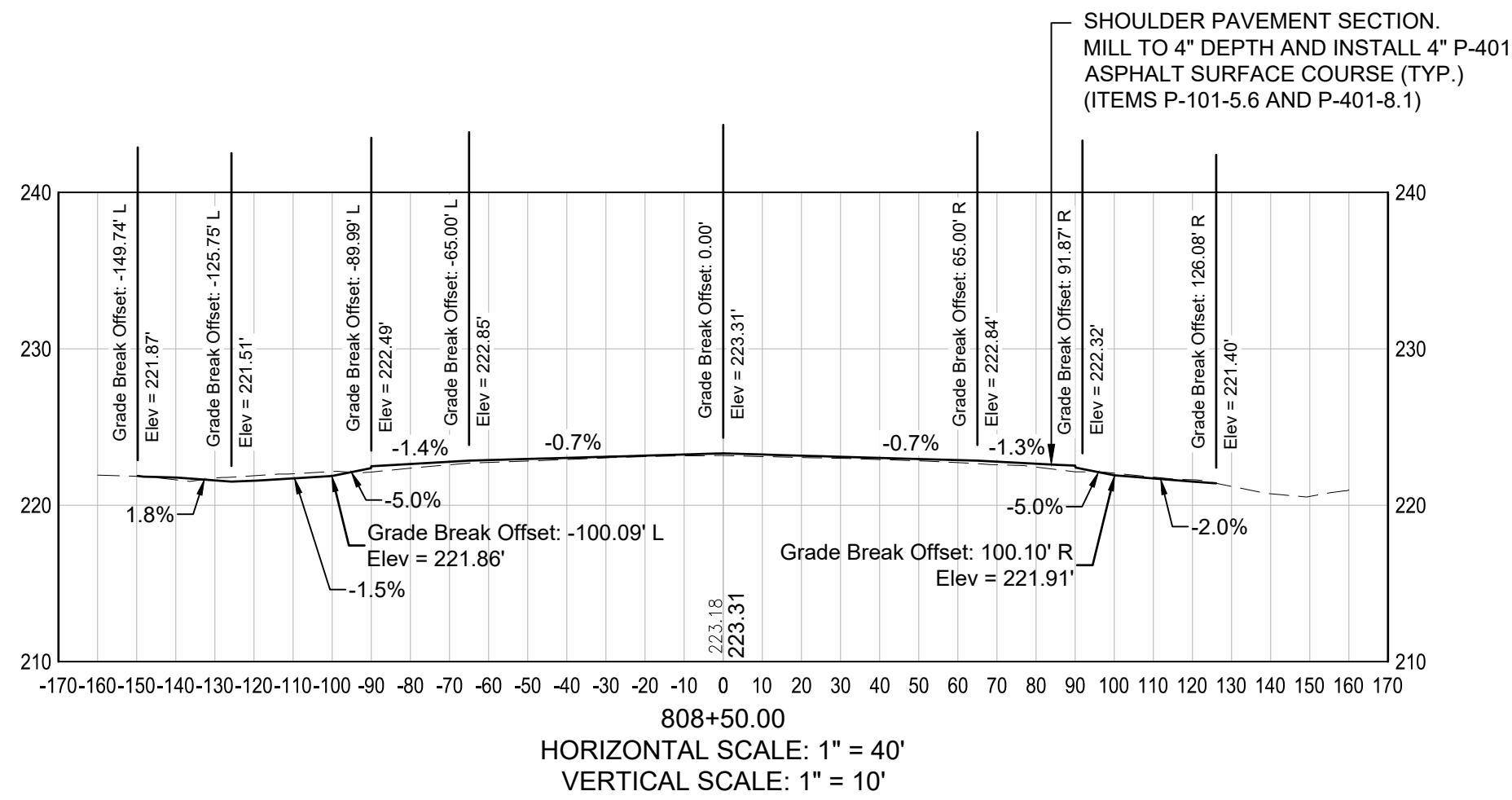
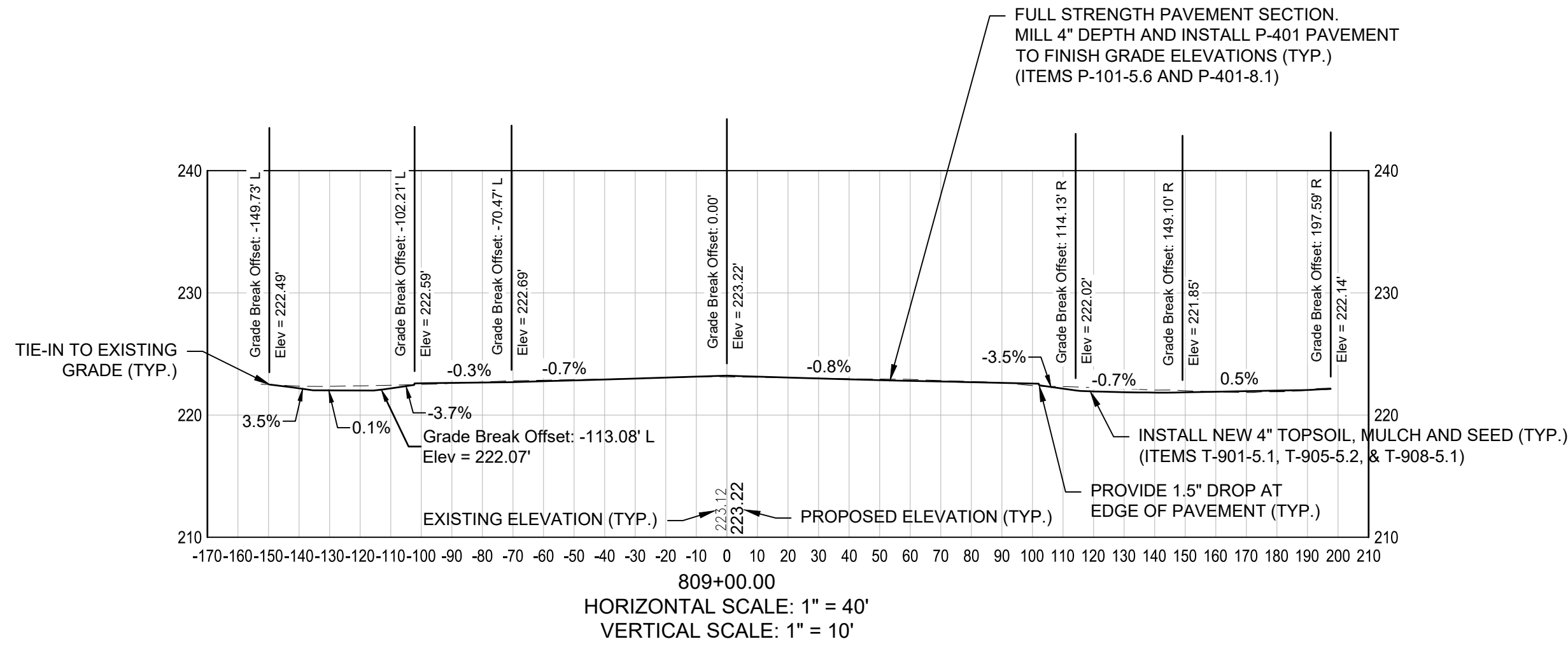
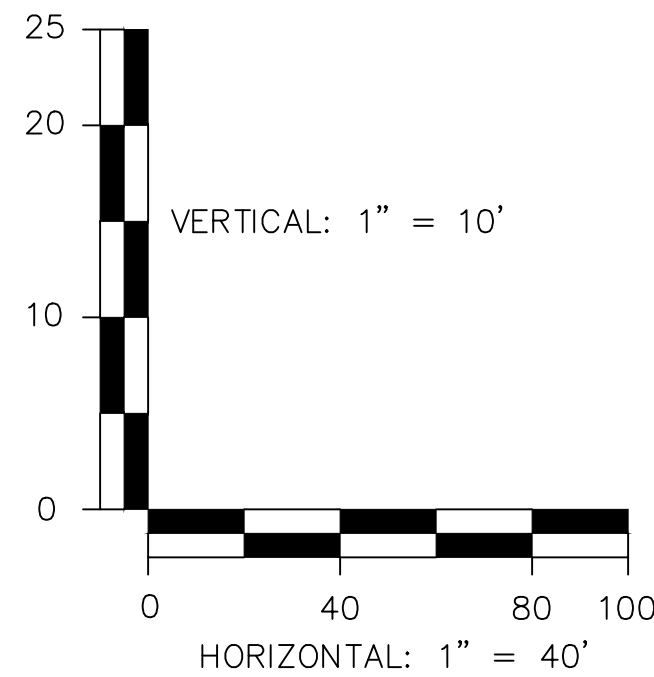
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XS-01

SHEET 34 OF 39



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- NOTES:
1. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.
 2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.

LEGEND:

--- EXISTING GRADE

— PROPOSED GRADE

ENGINEER'S SEAL

BID DOCUMENTS

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CONSTRUCTION

PROJECT DESIGNER



DESIGNED BY
DDB

DRAWN BY
FPS

CHECKED BY
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CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY D CROSS SECTIONS
(SHEET 2 OF 2)

SCALE: AS SHOWN DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	

MJ PROJ. No.: 19199.01

FILE NAME:

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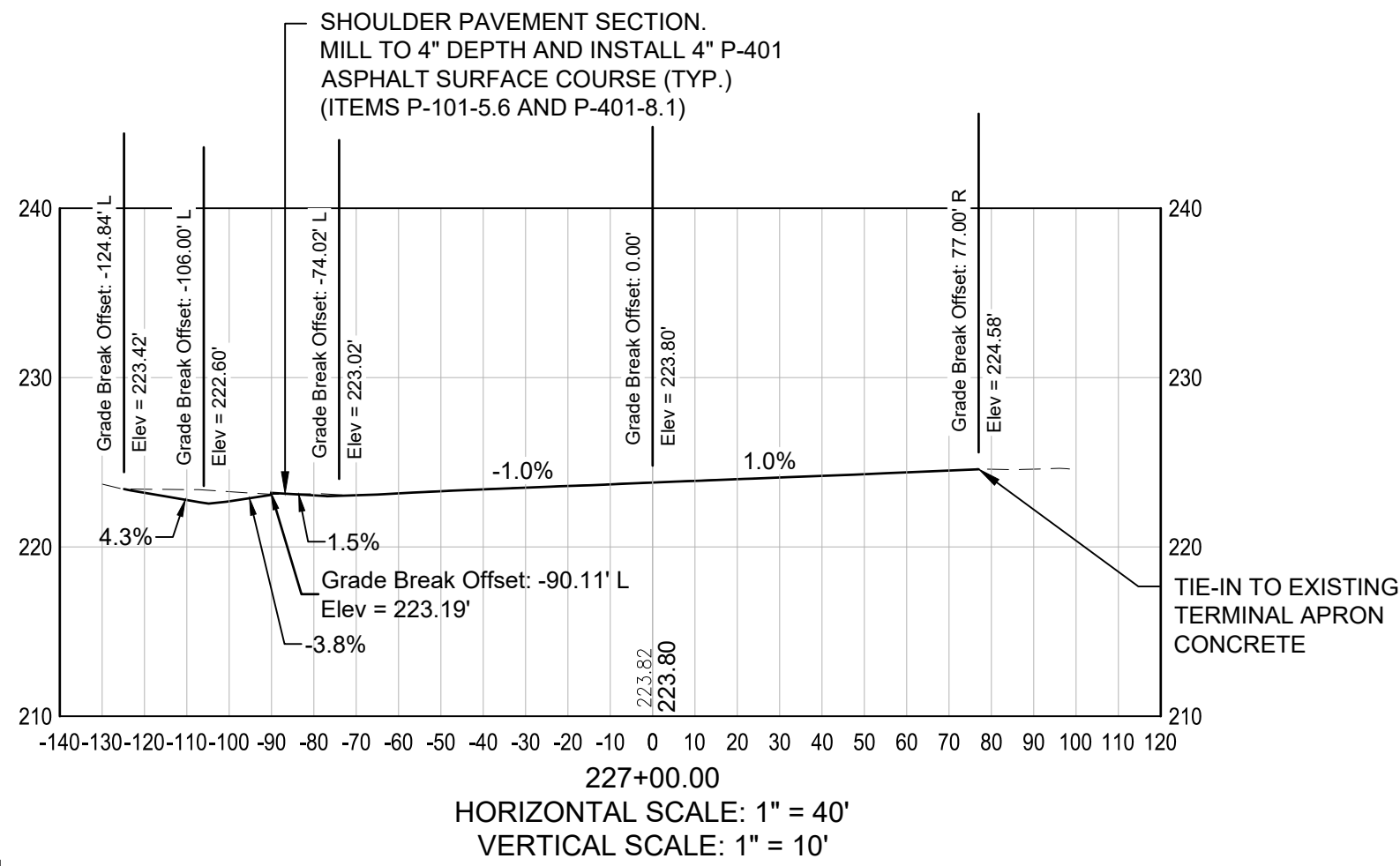
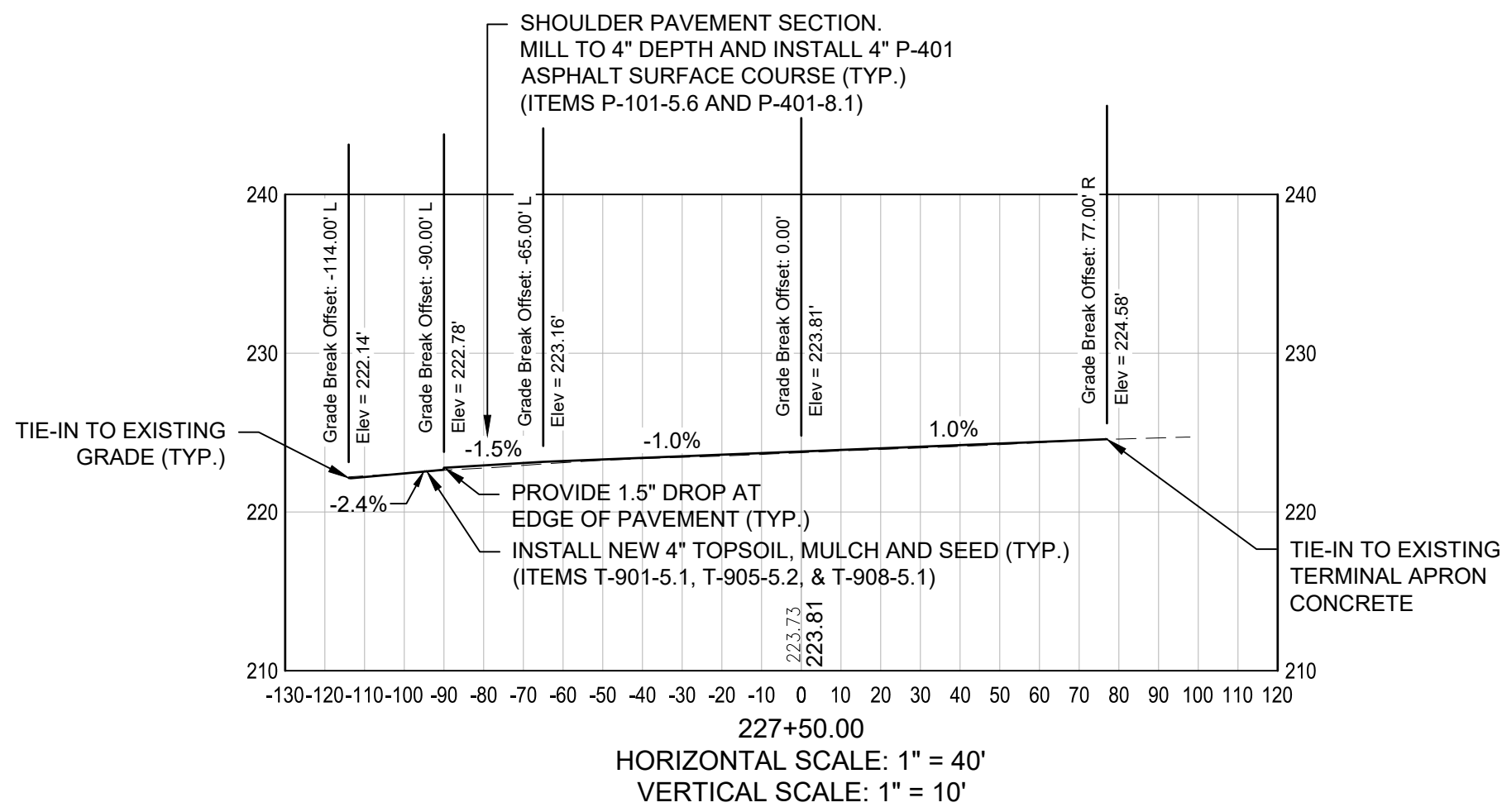
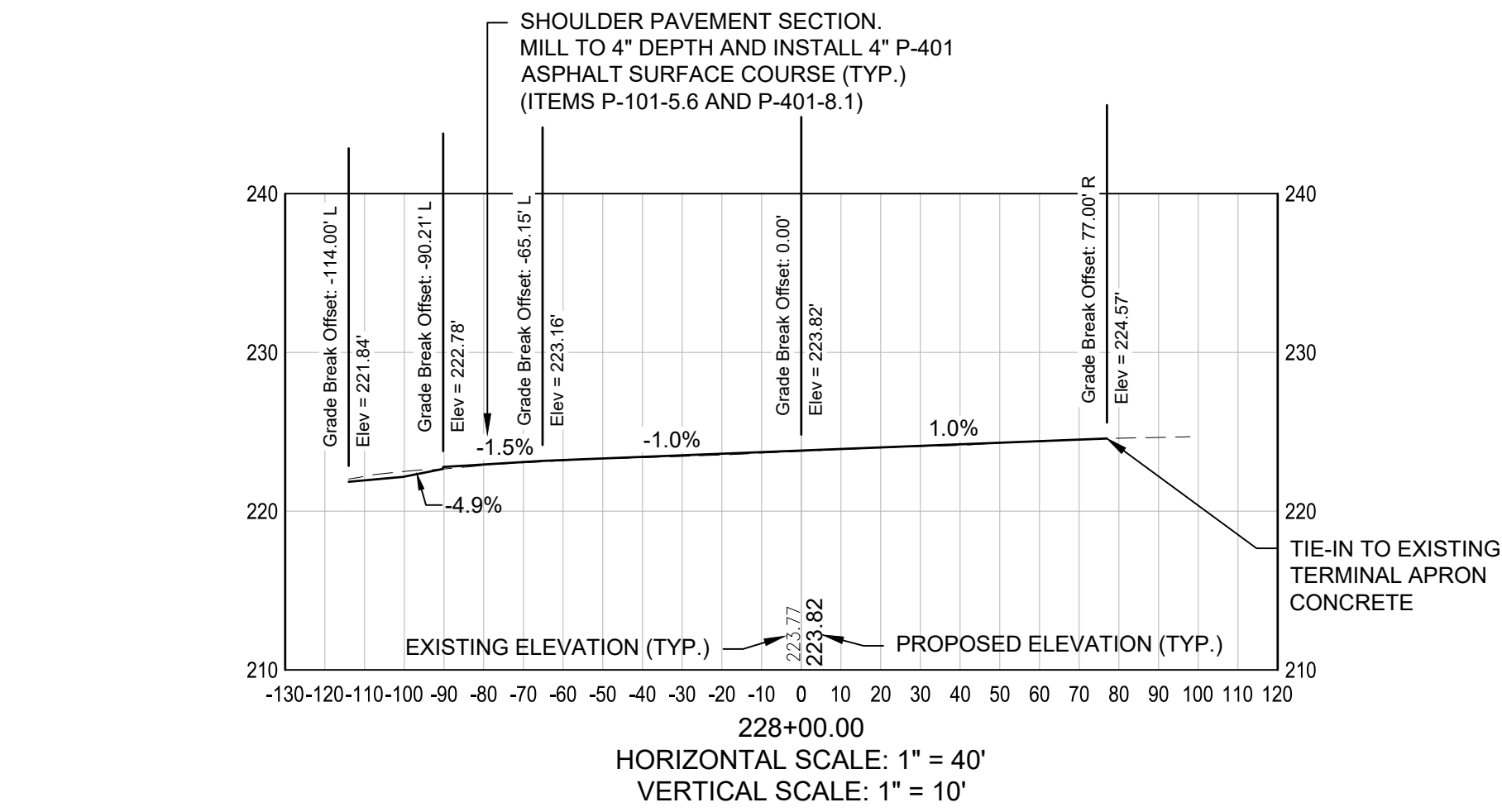
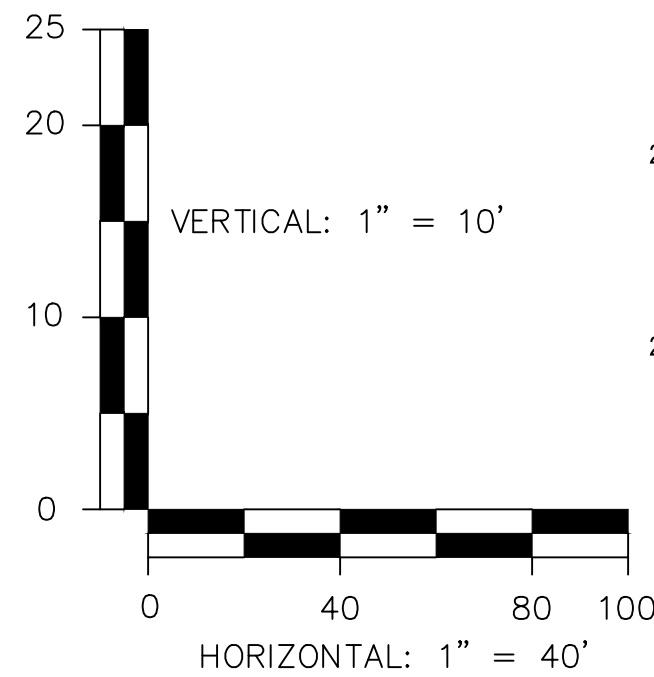
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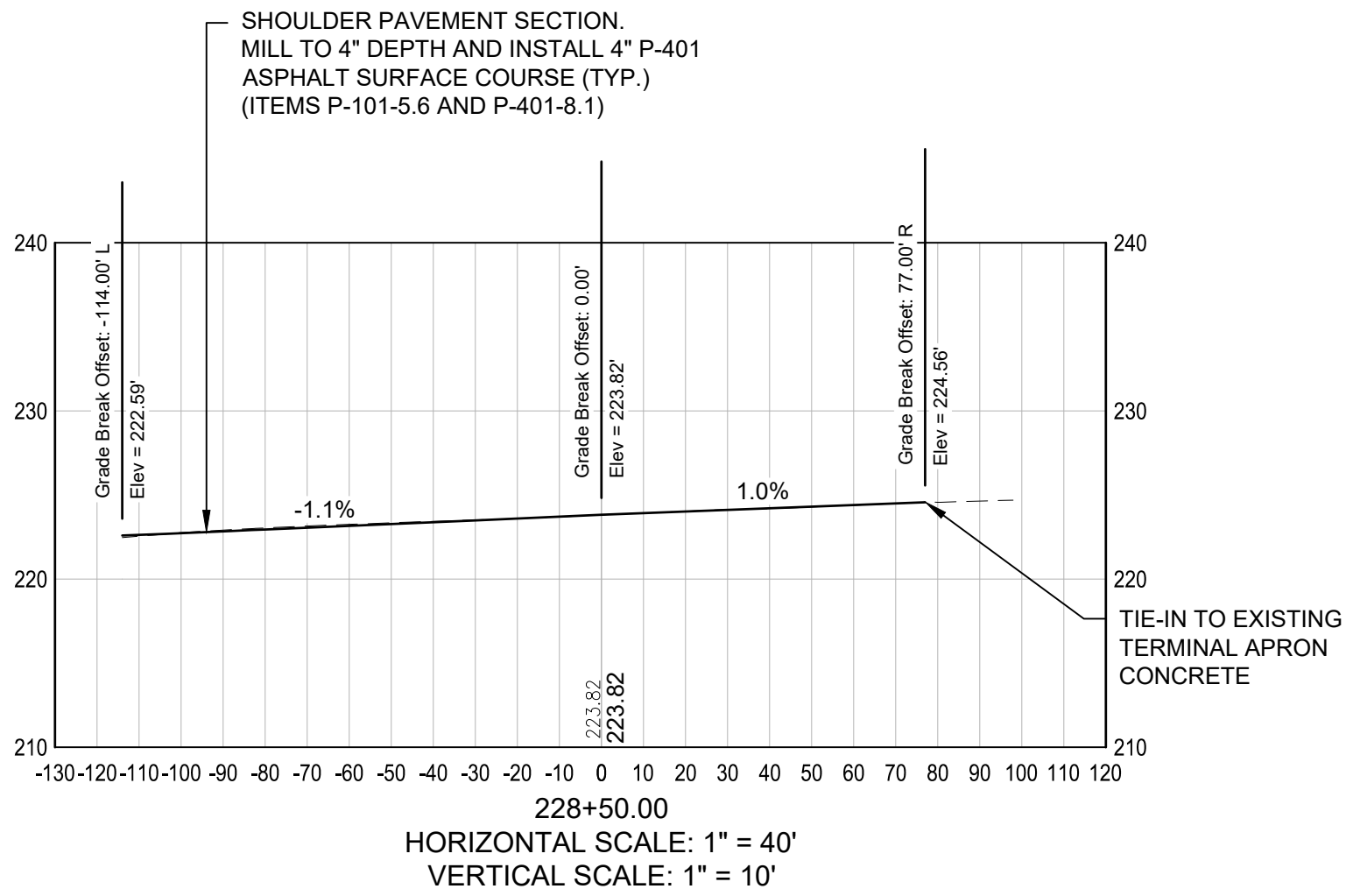
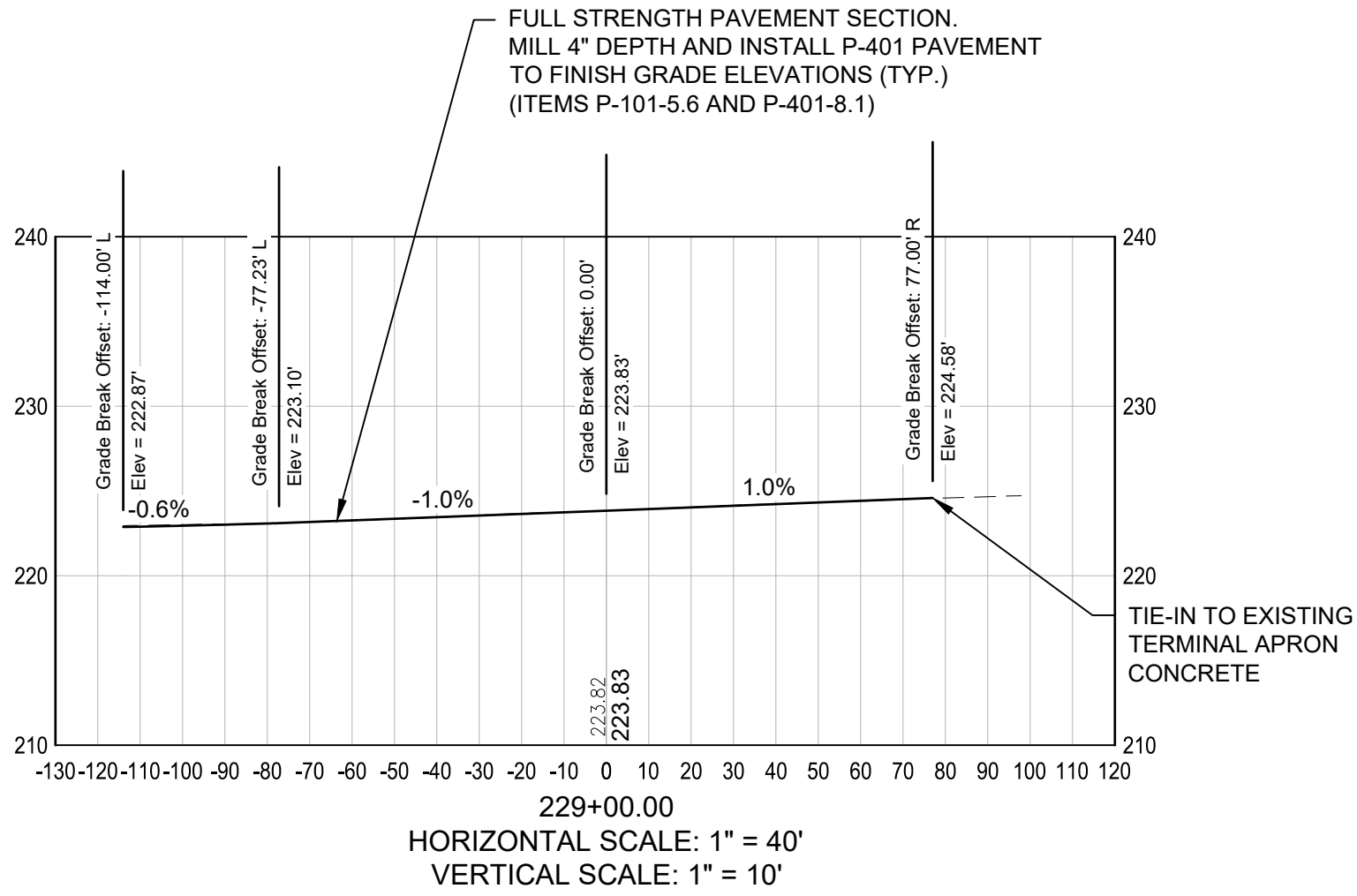
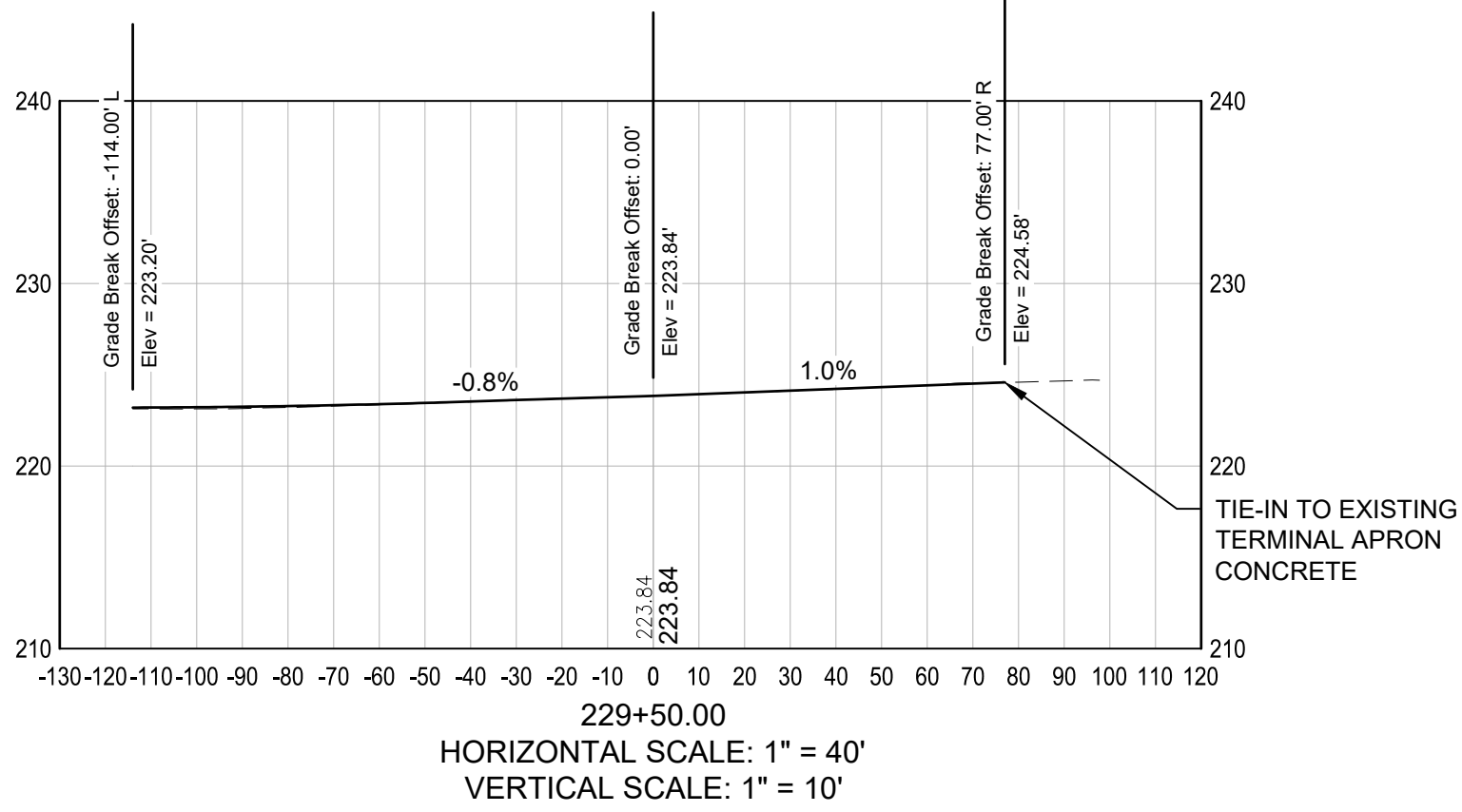
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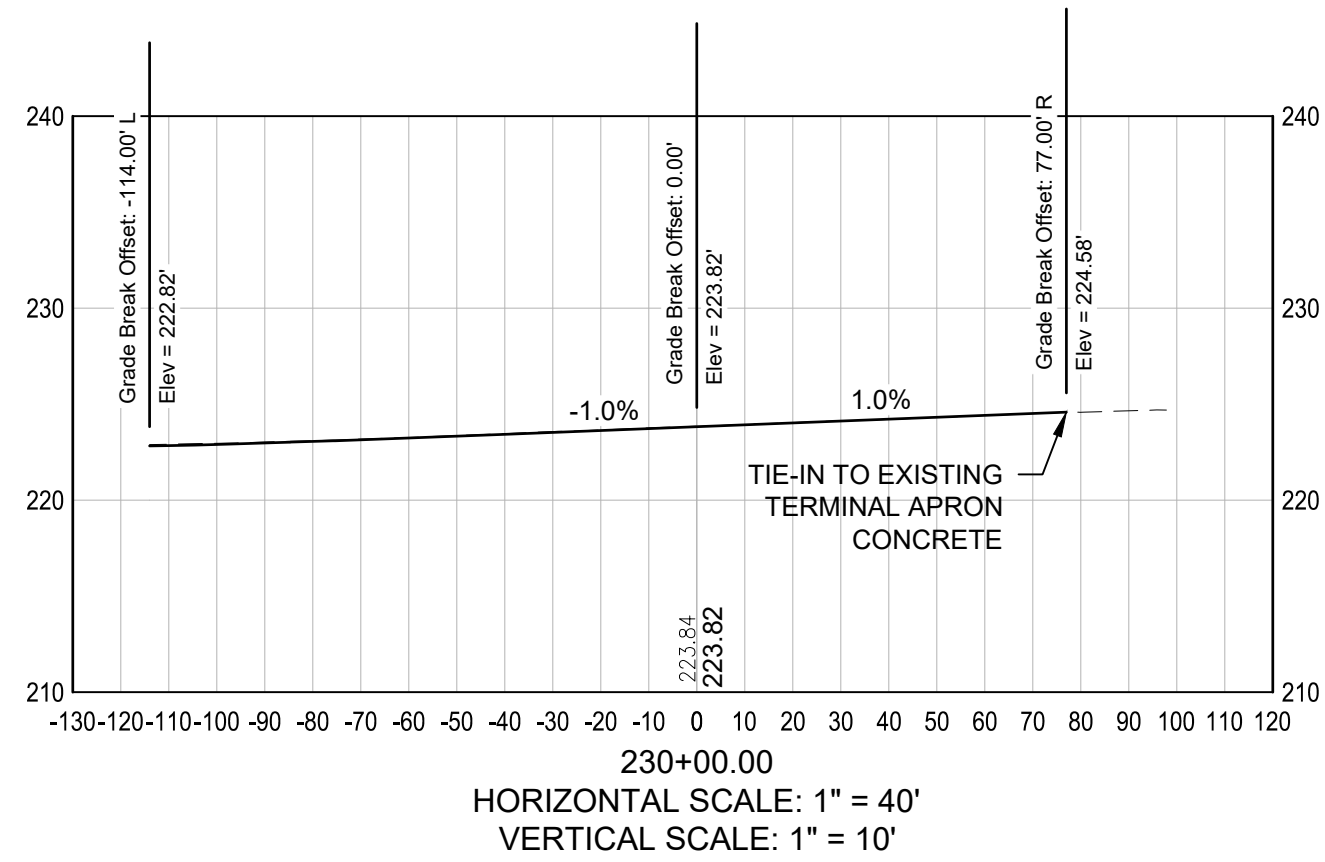
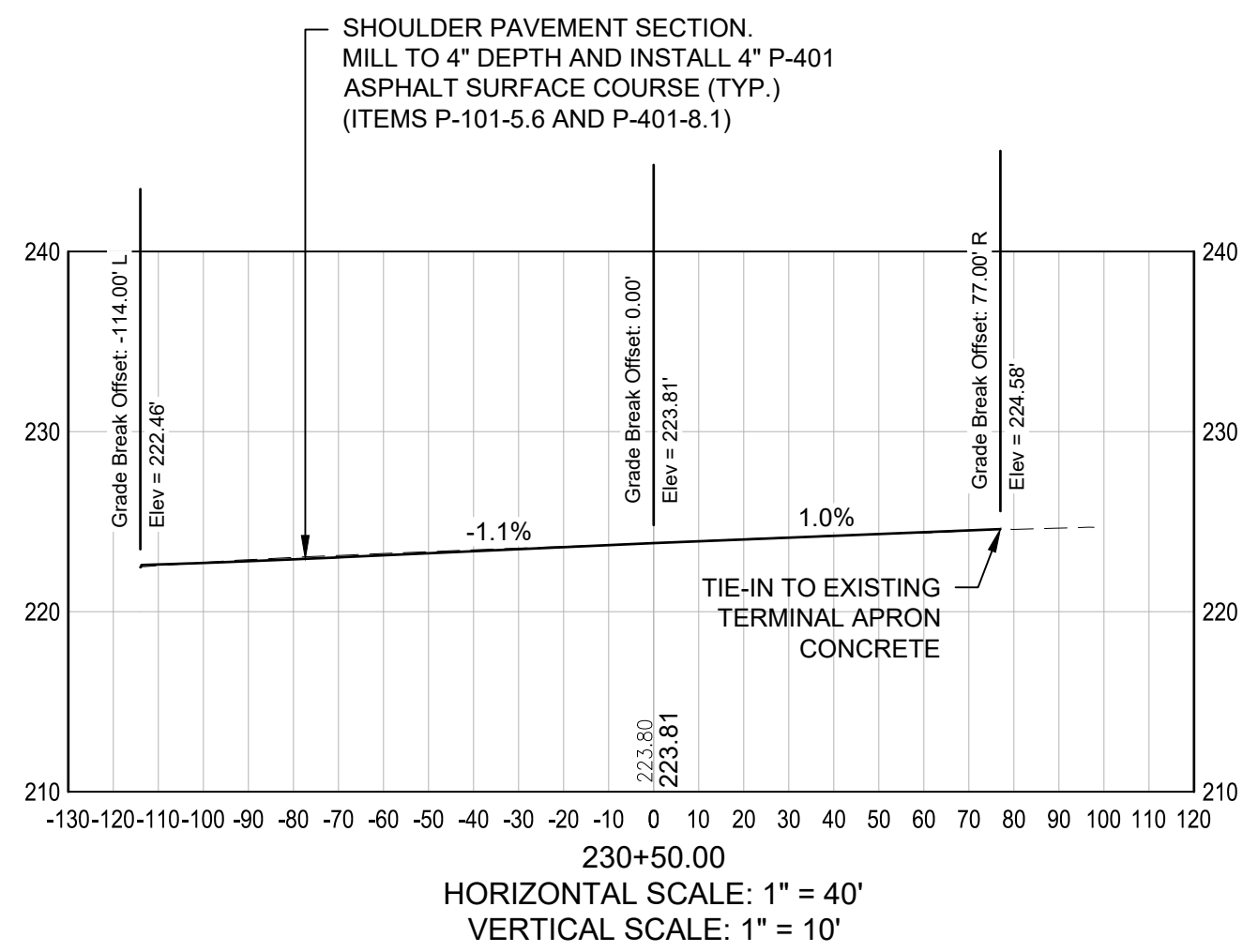
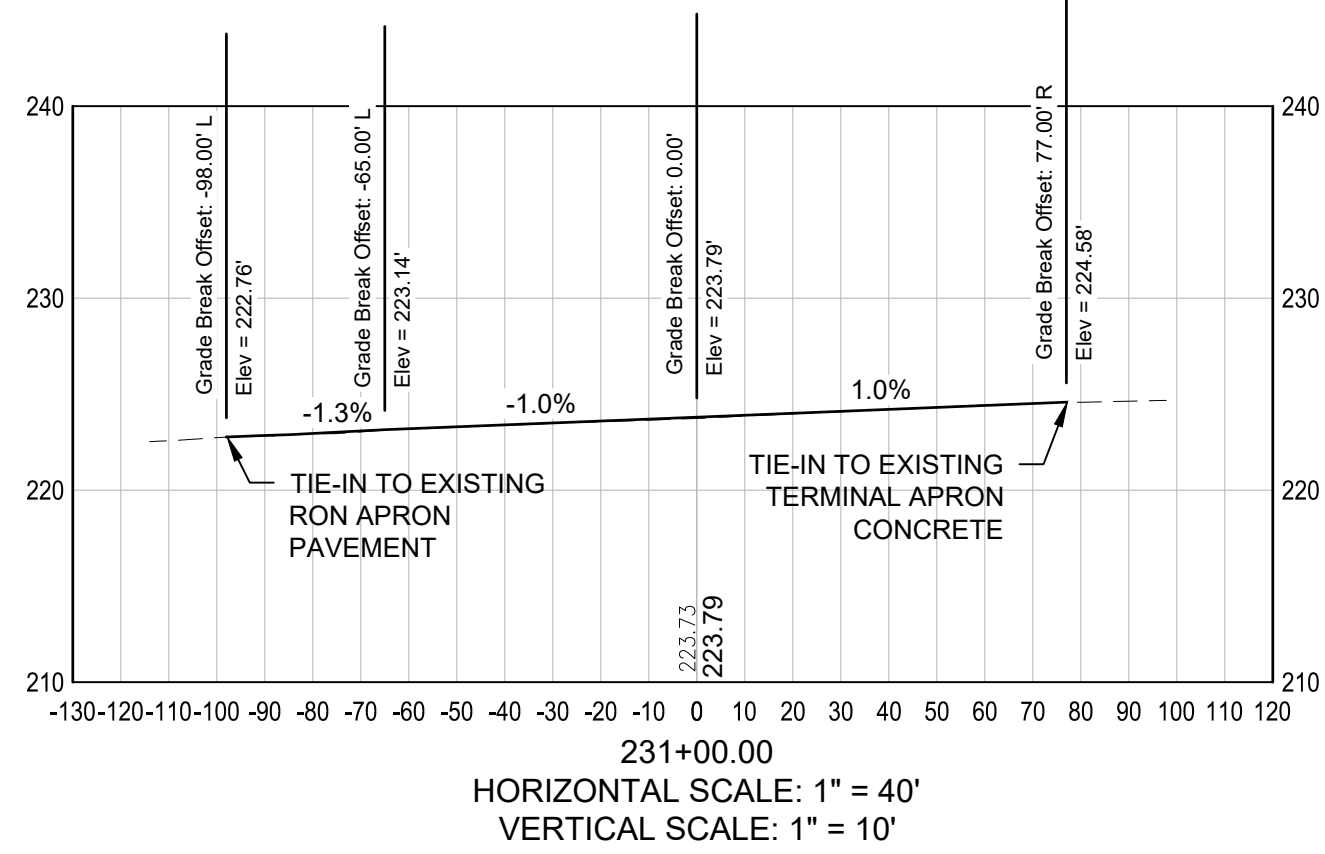
- NOTES:
- FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.
 - FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.



LEGEND:

--- EXISTING GRADE

— PROPOSED GRADE



ENGINEER'S SEAL

BID DOCUMENTS

NOT FOR
CONSTRUCTION

PROJECT DESIGNER



53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095
DESIGNED BY: DFB
DRAWN BY: FPS
CHECKED BY: BMP

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXWAY G AND TAXWAY D

TAXWAY G CROSS SECTIONS
(SHEET 1 OF 3)

SCALE: AS SHOWN DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DESCRIPTION	DATE

M/J PROJ. No.: 19199.01

FILE NAME:

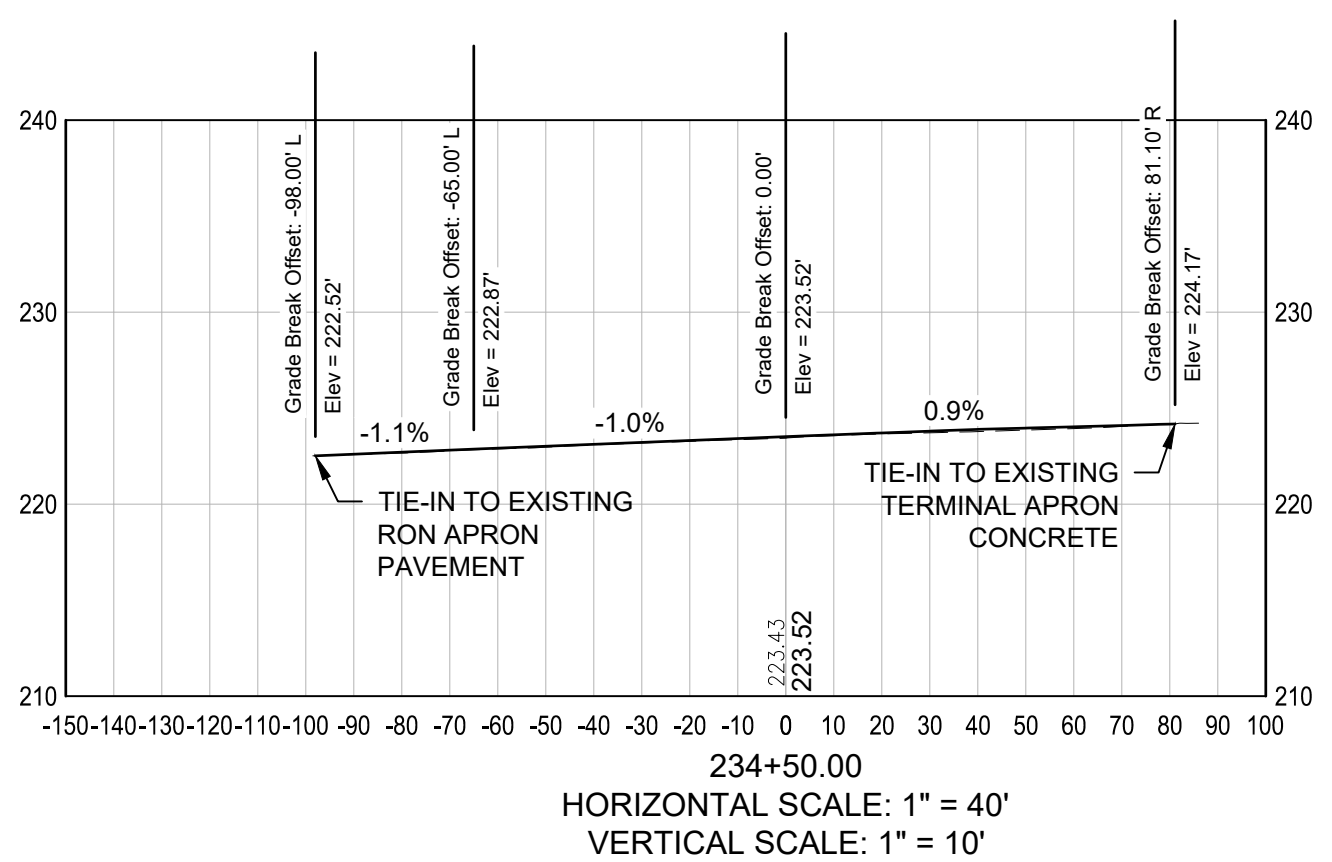
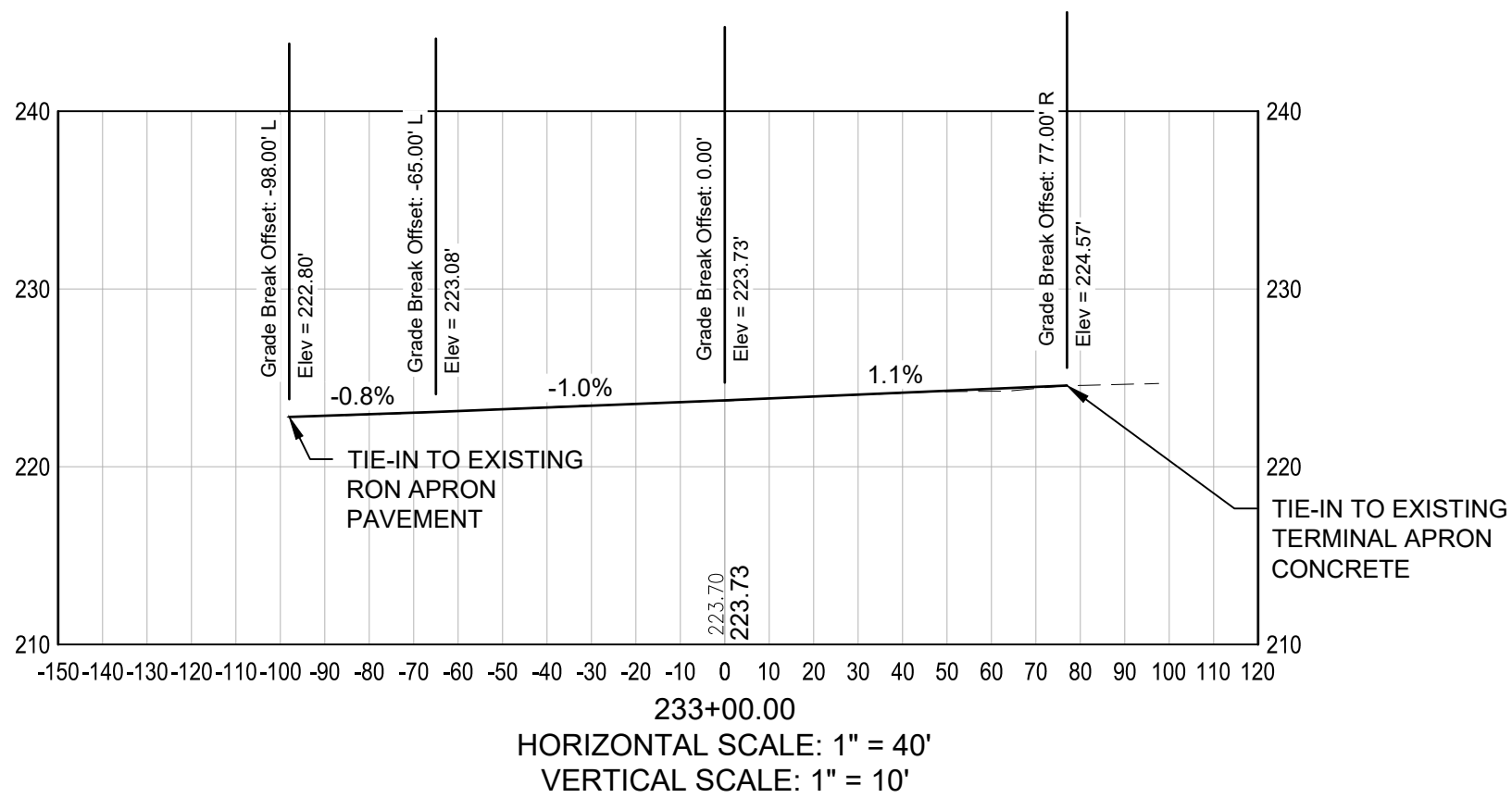
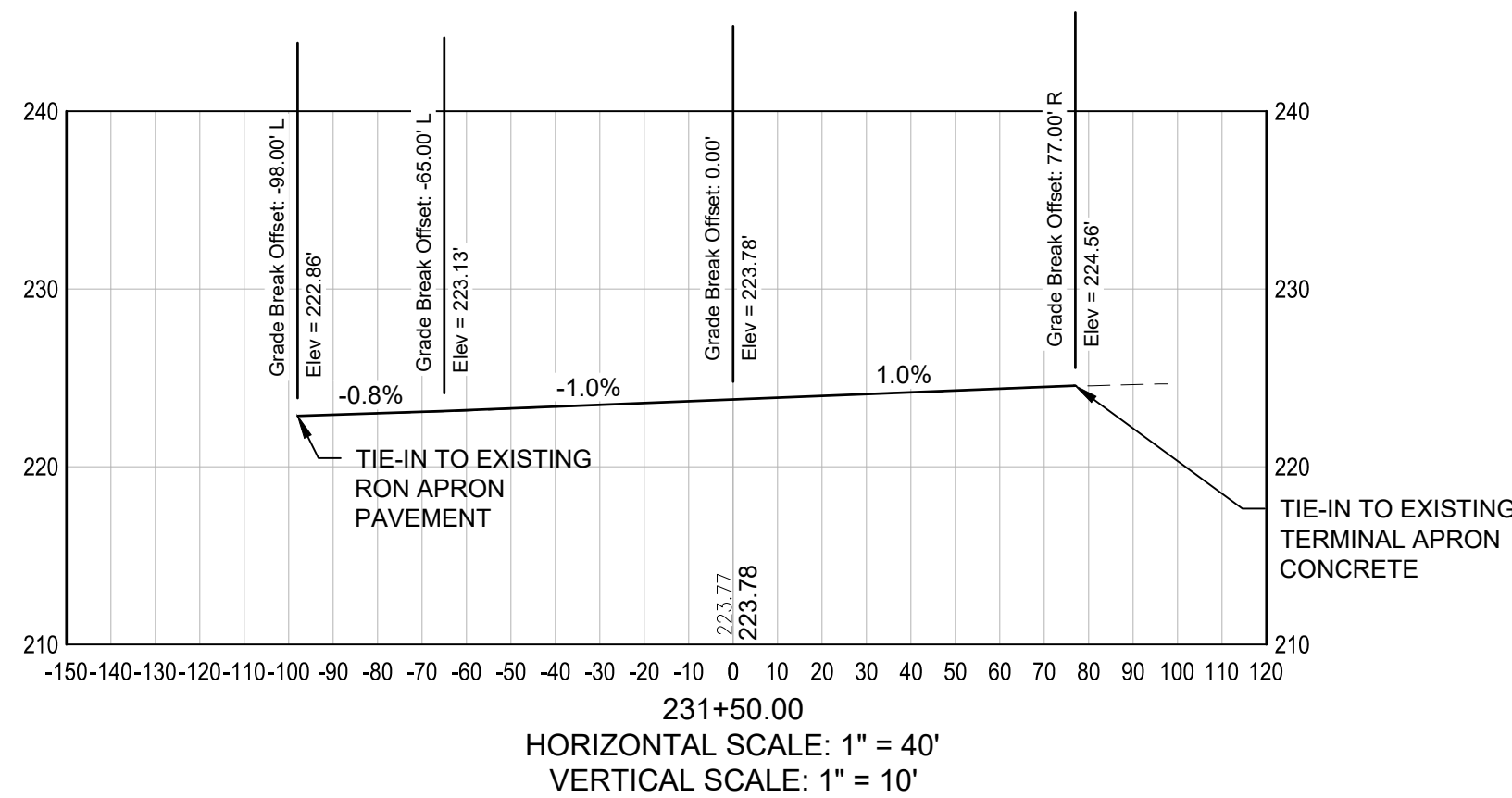
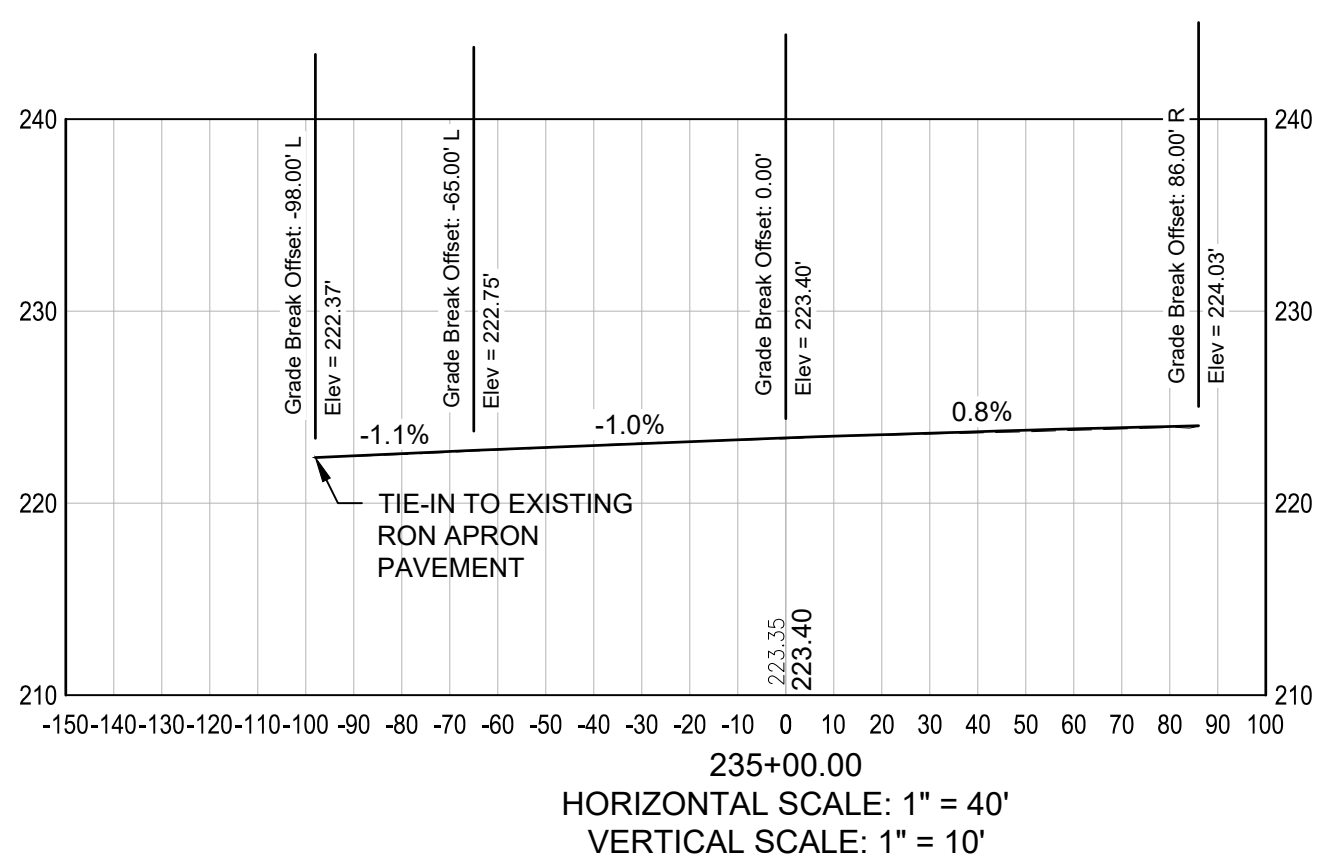
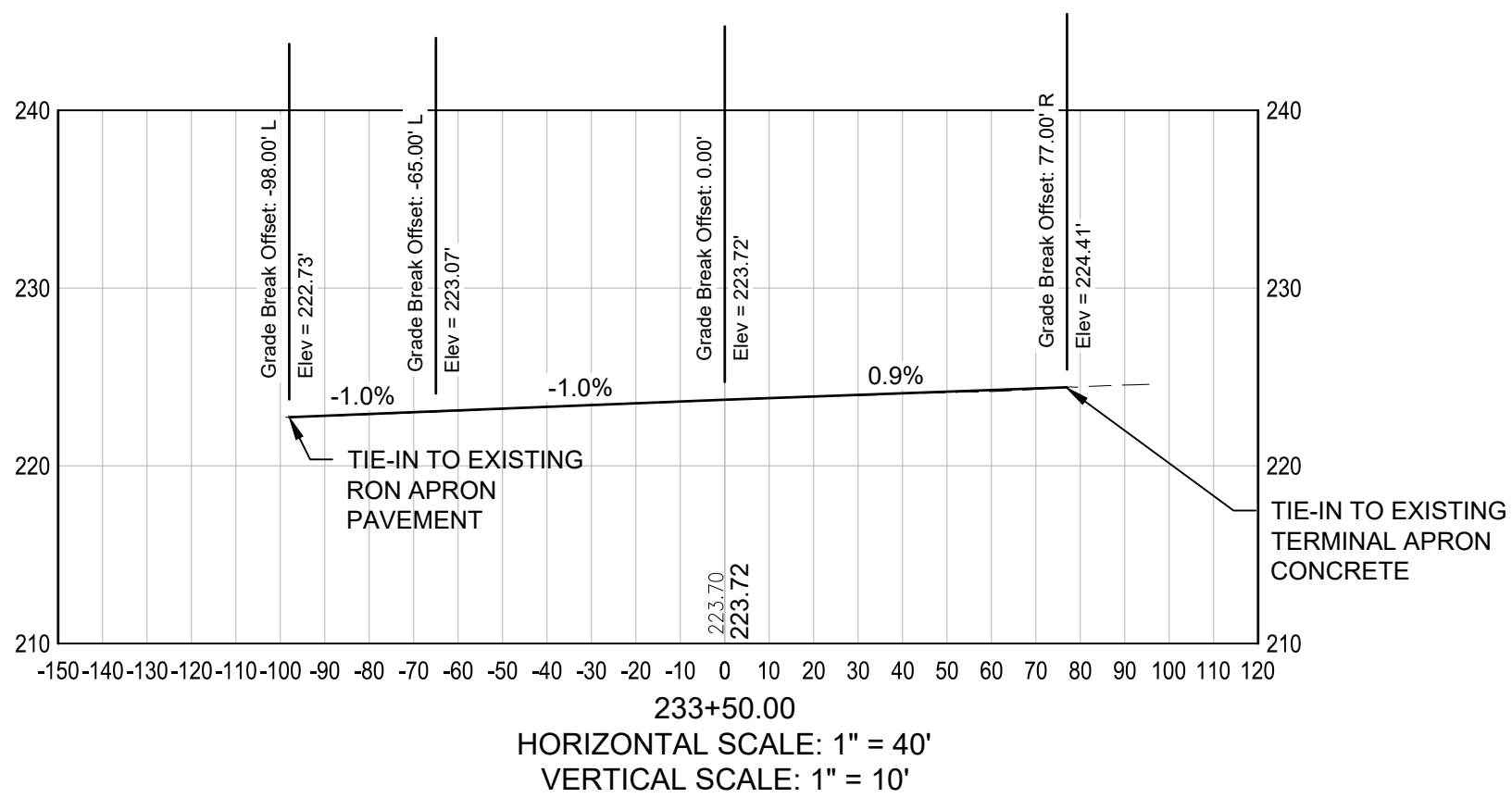
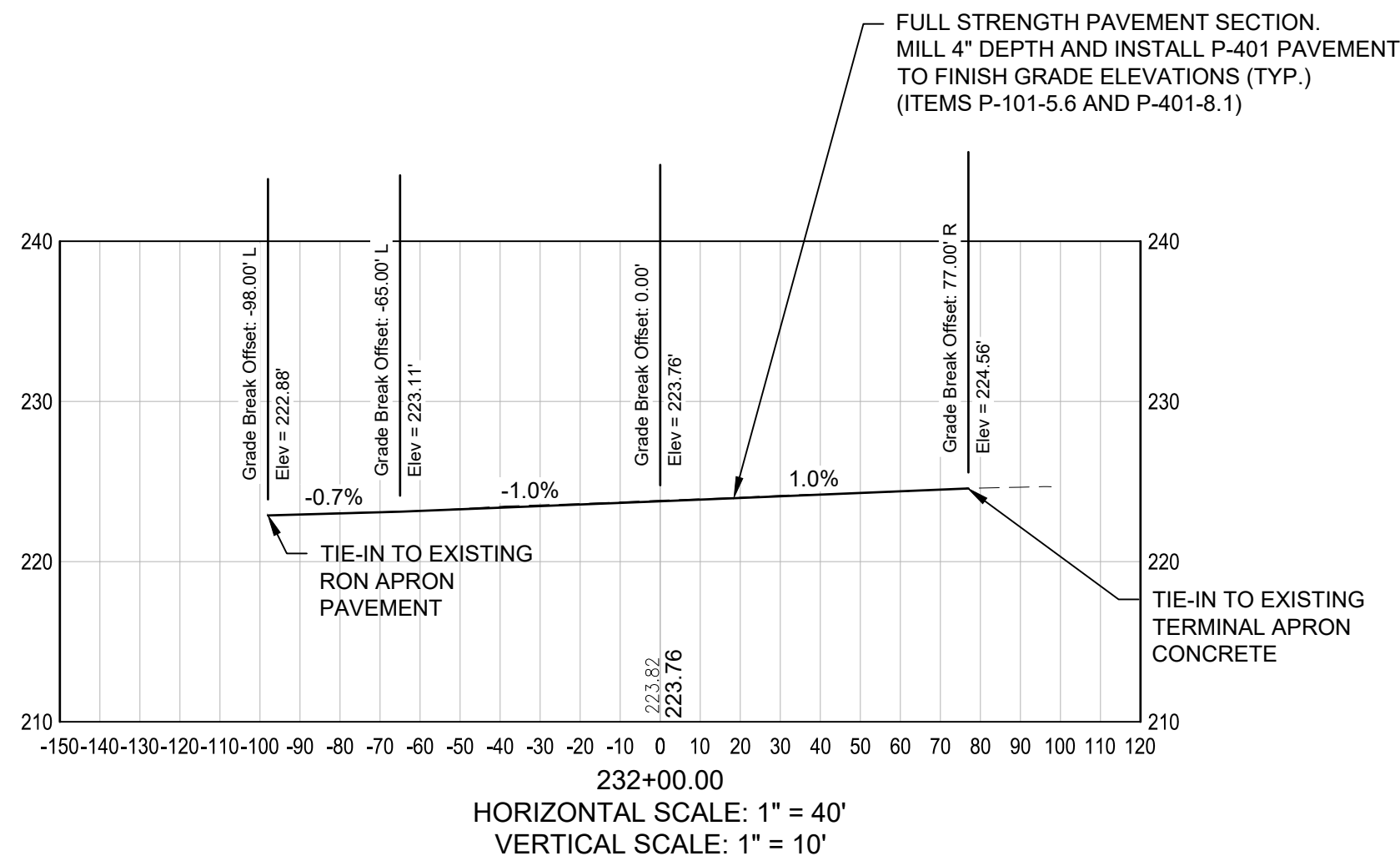
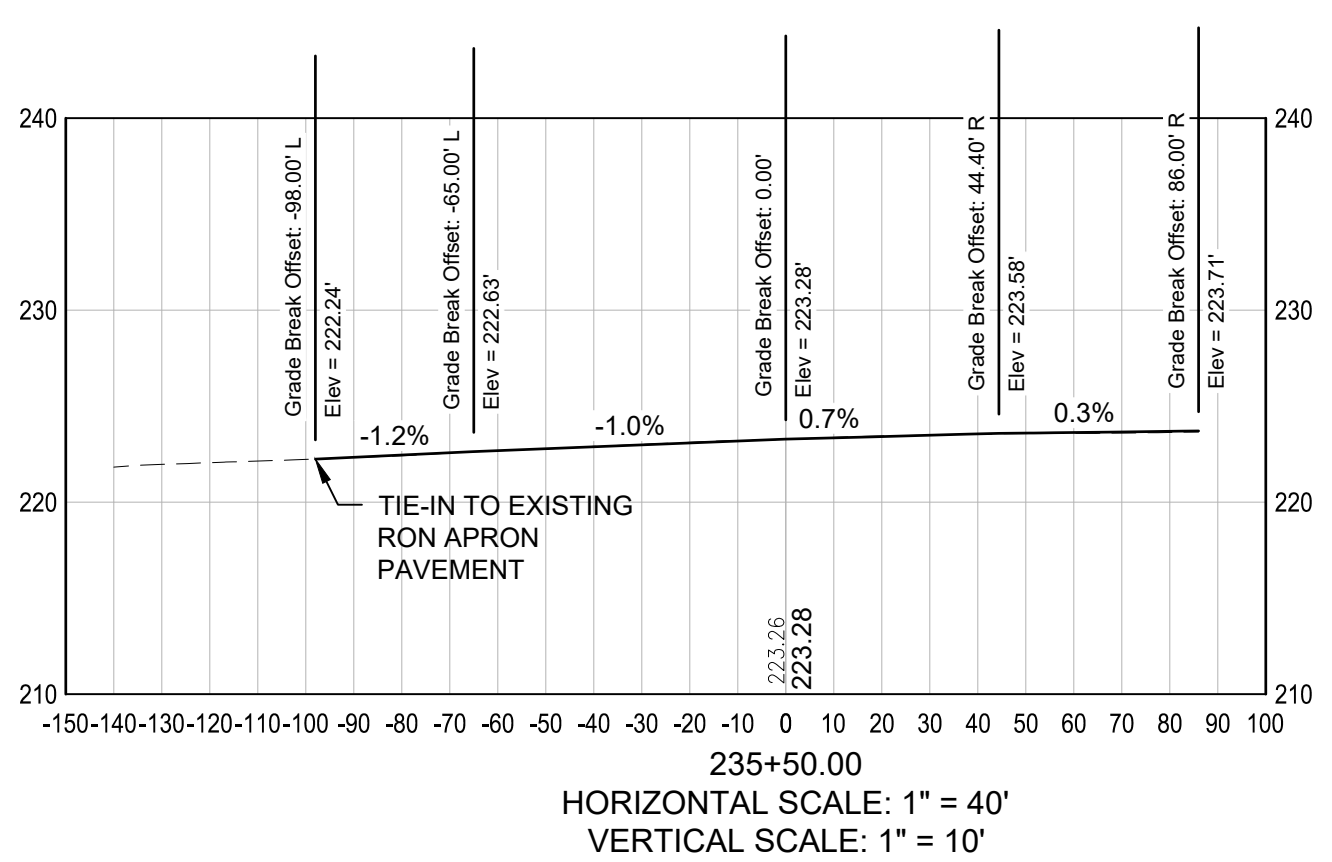
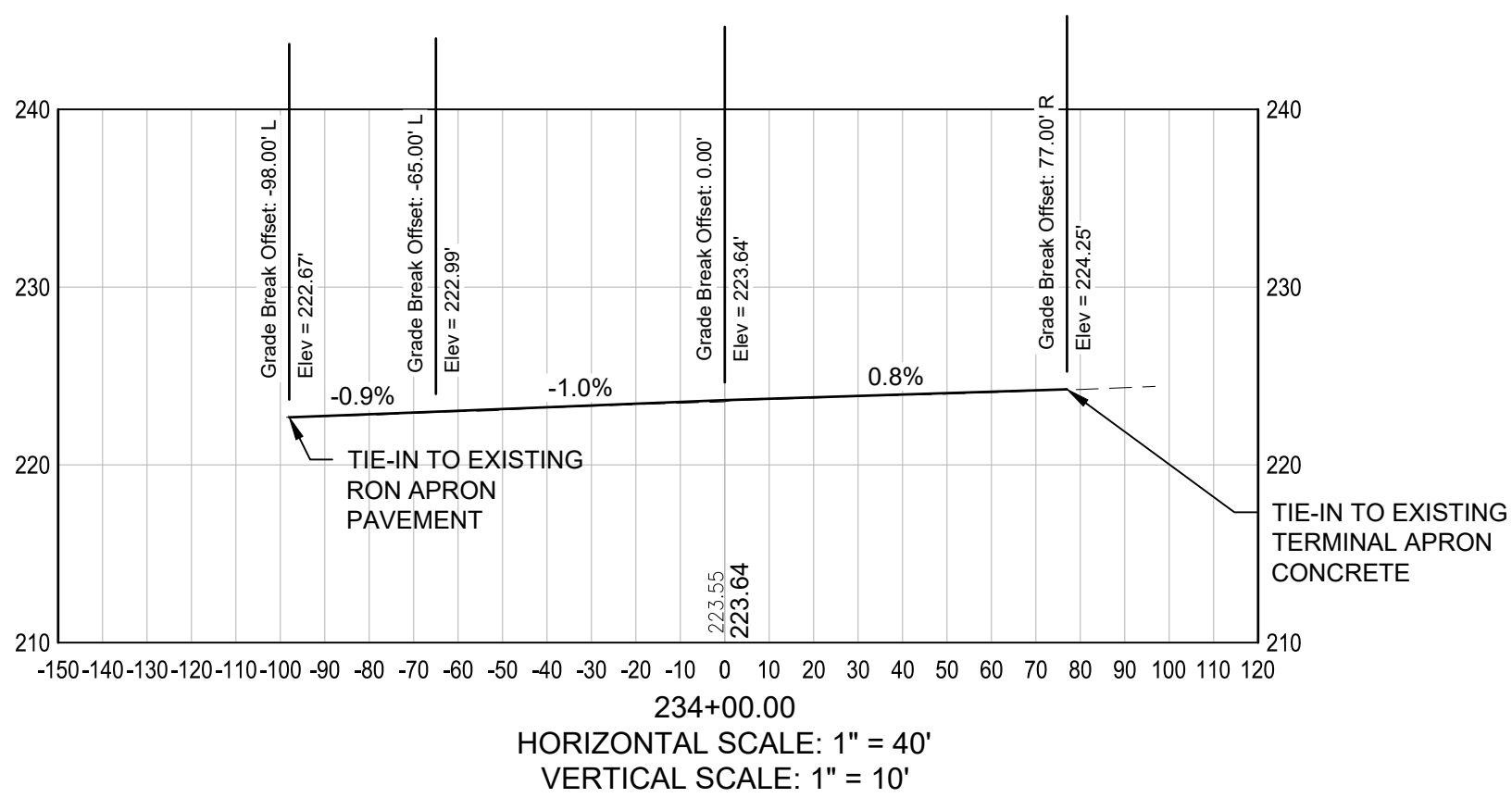
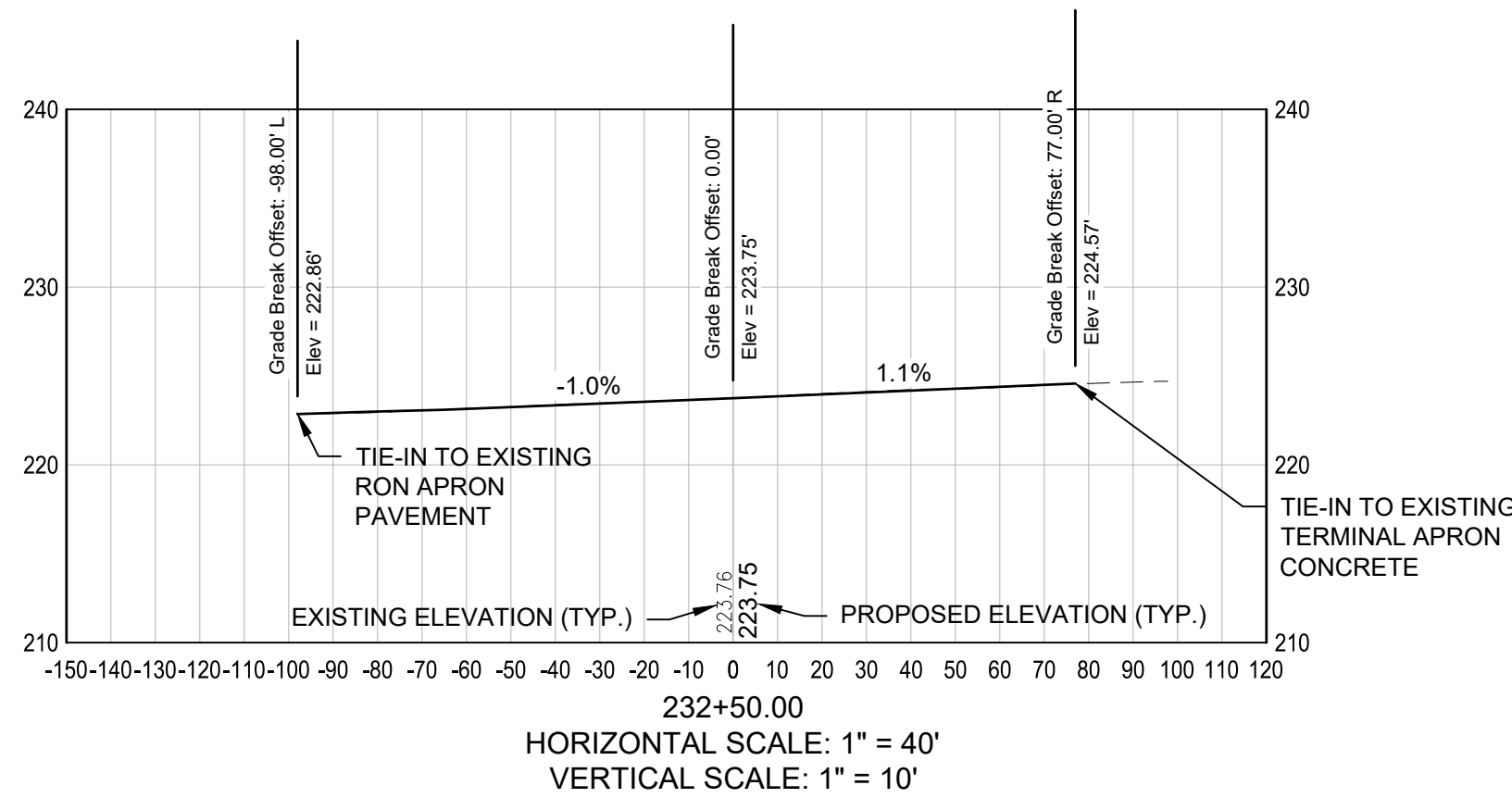
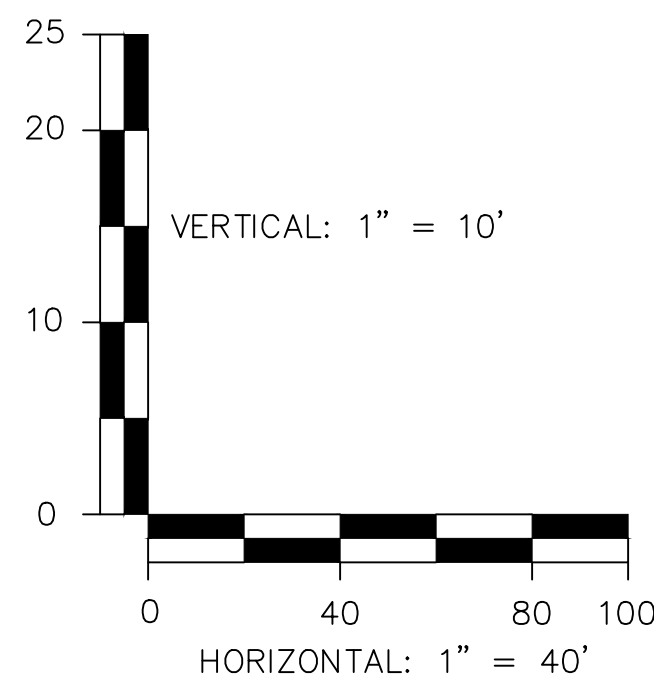
A/P No.: TBD

DRAWING NO.

XS-03

SHEET 36 OF 39





- NOTES:
1. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.
 2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.

LEGEND:

--- EXISTING GRADE

— PROPOSED GRADE

ENGINEER'S SEAL

BID DOCUMENTS

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CONSTRUCTION

PROJECT DESIGNER



53 REGIONAL DRIVE, CONCORD, NH 03301-5022
PH: 603-225-2978 FAX: 603-225-0095
DESIGNED BY: DFB
DRAWN BY: FPS
CHECKED BY: BNP

CITY OF MANCHESTER
DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY G CROSS SECTIONS
(SHEET 2 OF 3)

SCALE: AS SHOWN
DATE: FEBRUARY 2025

REVISONS		BY
REV. NO.	DATE	DESCRIPTION

MJ PROJ. No.: 19199.01
FILE NAME:
AIP No.: TBD

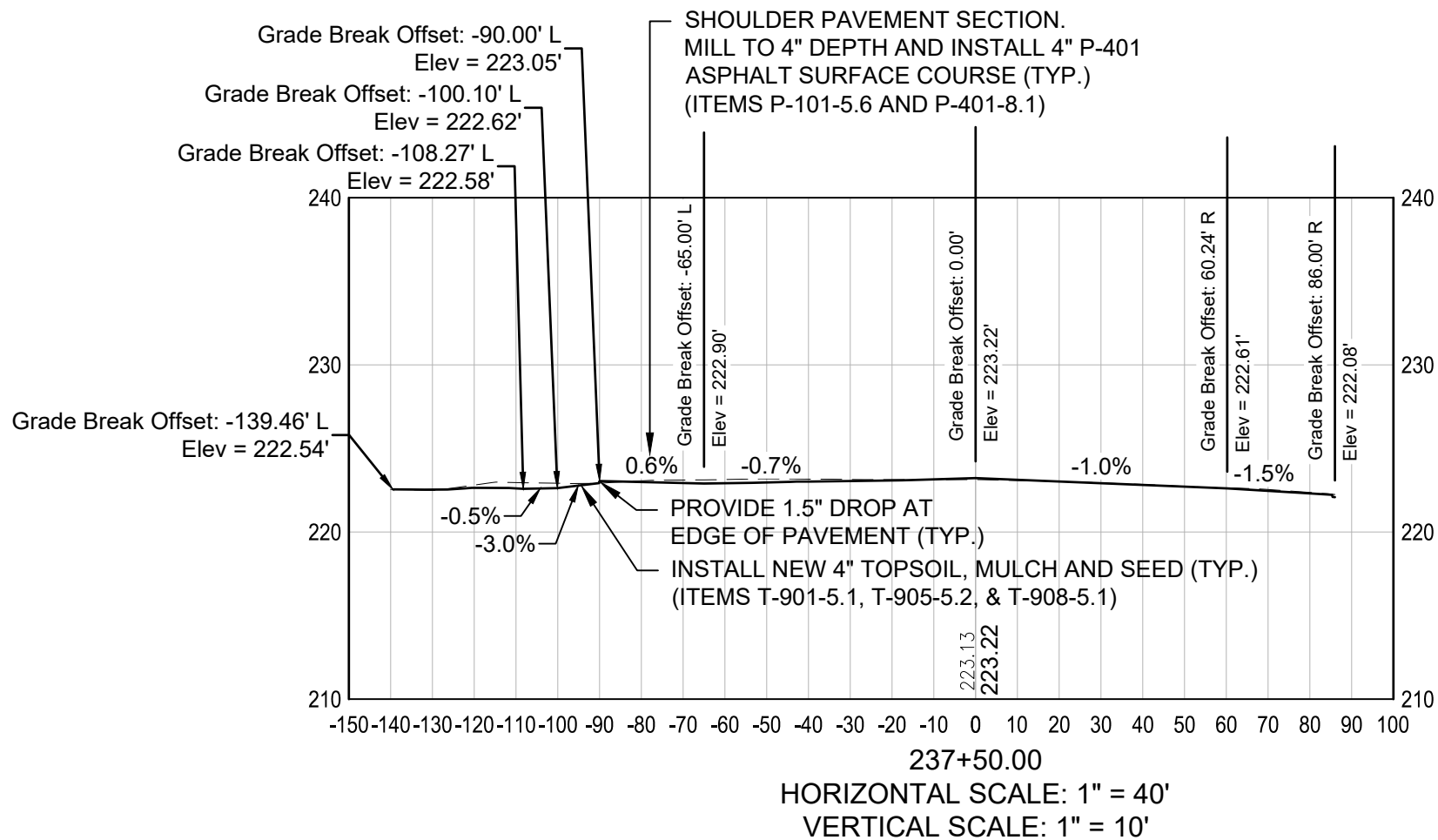
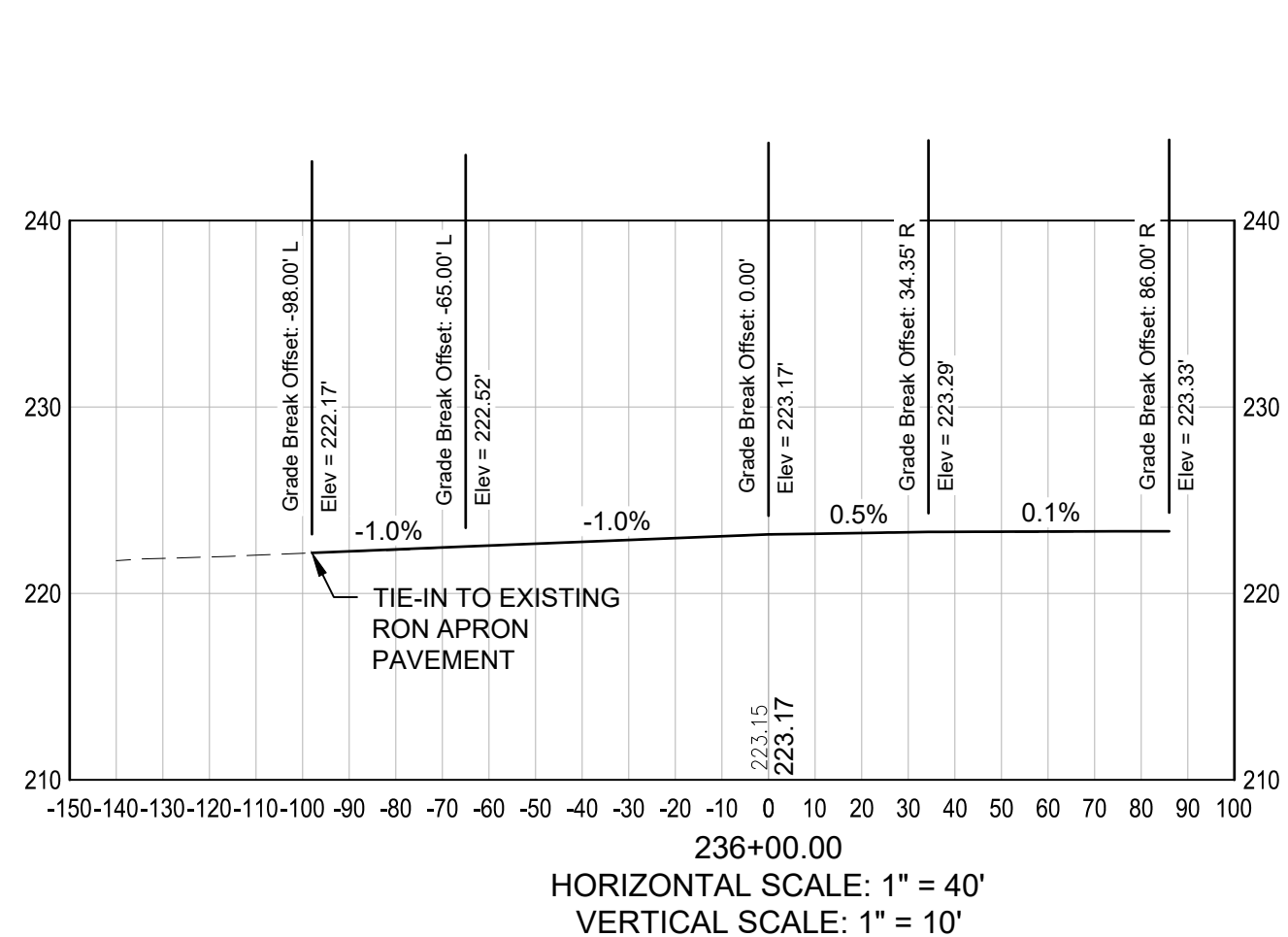
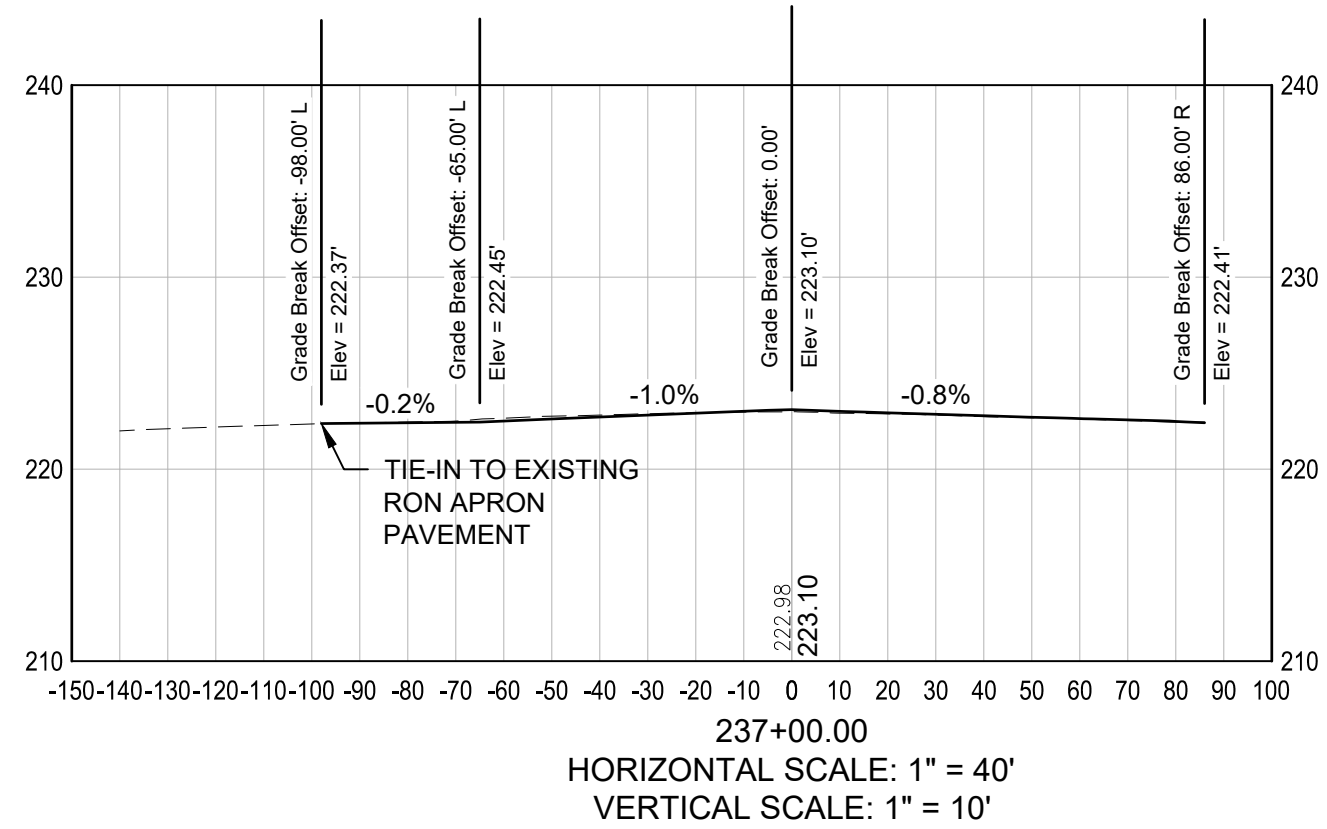
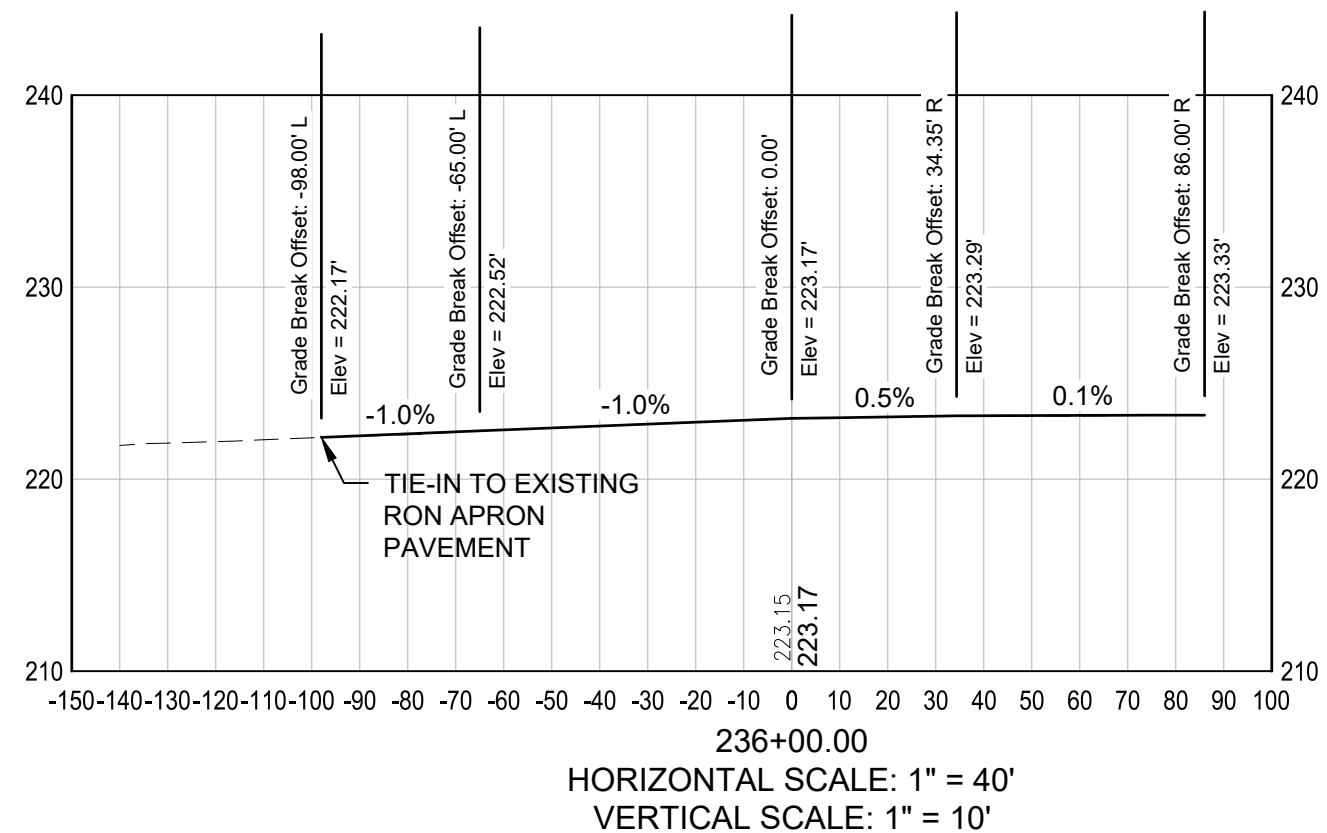
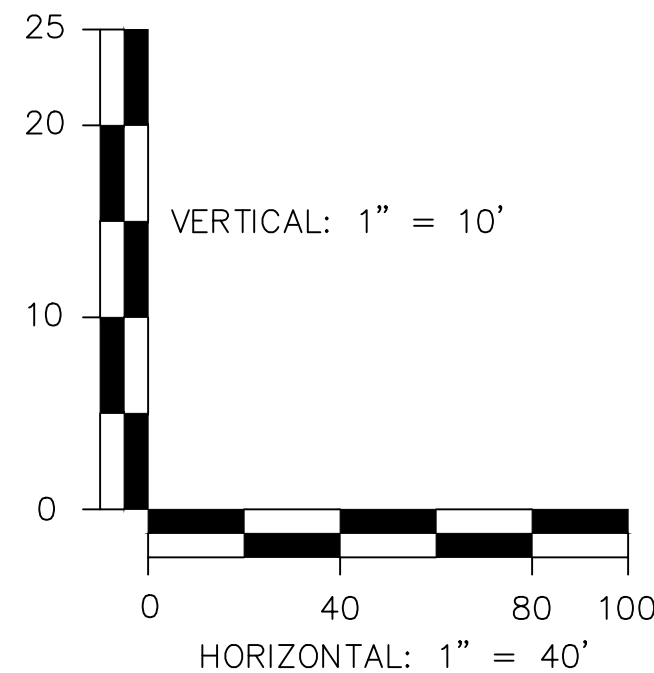
DRAWING NO.

XS-04

SHEET 37 OF 39



K:\MANCHESTER\19199.01 MHT TAXIWAYS G & D - DESIGN ONLY\DRAWINGS\SHEET FILES\19199.01.XSEC.DWG



- NOTES:
1. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.
 2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.

LEGEND:

--- EXISTING GRADE

— PROPOSED GRADE

ENGINEER'S SEAL

BID DOCUMENTS

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DESIGNED BY
DFB

DRAWN BY
FPS

CHECKED BY
BMP

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DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY G CROSS SECTIONS
(SHEET 3 OF 3)

SCALE: AS SHOWN

DATE: FEBRUARY 2025

REVISIONS		BY
REV. NO.	DATE	DESCRIPTION

M/J PROJ. No.: 19199.01

FILE NAME:

A/P No.: TBD

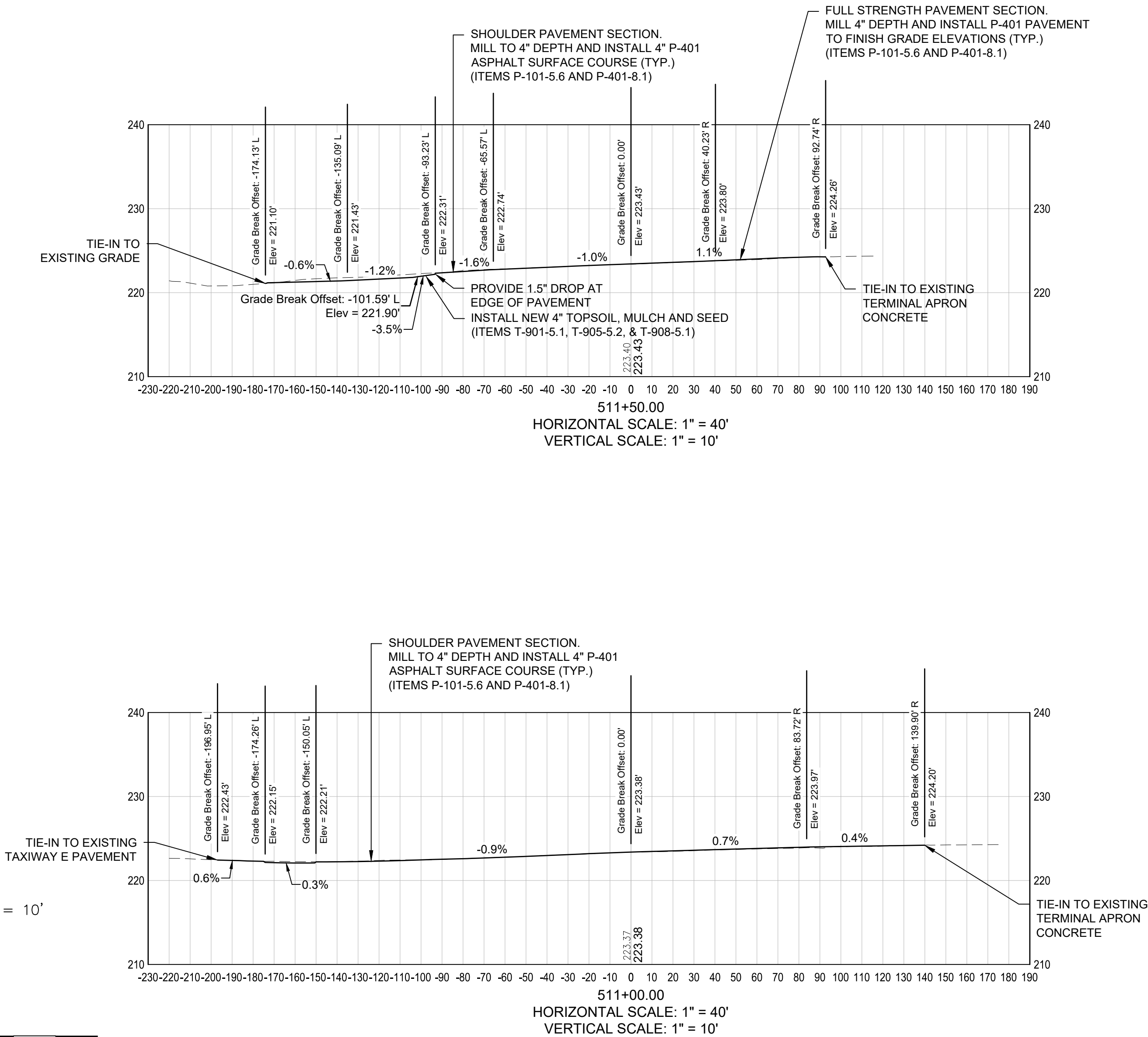
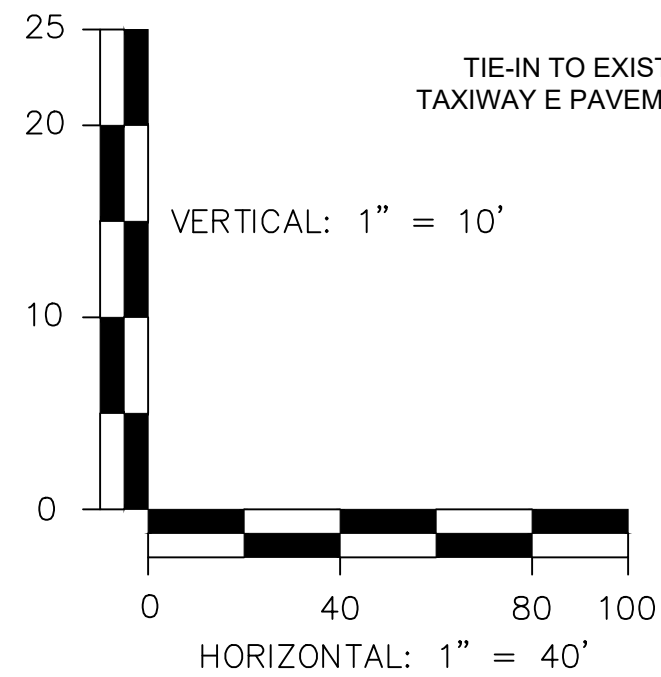
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XS-05

SHEET 38 OF 39



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- NOTES:
1. FOR TYPICAL SECTION AND PAVEMENT DETAILS SEE SHEET TS-01.
 2. FOR GRADING AND DRAINAGE PLANS REFER TO SHEETS GR-01 TO GR-02.

LEGEND:

--- EXISTING GRADE

— PROPOSED GRADE

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DRAWN BY: FPS
CHECKED BY: BMP

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DEPARTMENT OF AVIATION
MANCHESTER, NEW HAMPSHIRE



MANCHESTER-BOSTON REGIONAL AIRPORT
REHABILITATION OF TAXIWAY G AND TAXIWAY D

TAXIWAY N CROSS SECTIONS
(SHEET 1 OF 1)

SCALE: AS SHOWN DATE: FEBRUARY 2025

REVISIONS			BY
REV. NO.	DATE	DESCRIPTION	

MJ PROJ. No.: 19199.01

FILE NAME:

AIP No.: TBD

DRAWING NO.

XS-06

SHEET 39 OF 39

