

MAYOR
SYLVESTER TURNER
DISTRICT
COUNCIL MEMBERS

AMY PECK
TARSHA JACKSON
ABBIE KAMIN
CAROLYN EVANS-SHABAZZ
DAVE MARTIN
TIFFANY THOMAS
MARY NAN HUFFMAN
KARLA CISNEROS
ROBERT GALLEGOS
EDWARD POLLARD
MARTHA CASTEX-TATUM



HOUSTON AIRPORT SYSTEM

PLANS FOR CONSTRUCTION

OF

FAA NON-STANDARD TAXIWAYS PROJECT

AT THE

WILLIAM P. HOBBY AIRPORT

VOLUME 1

PROJECT NO. 770
CIP NO 3-48-0110-044-2020
TIP-22-252-HOU
BSG-2022-300-HOU

PREPARED BY

JACOBS ENGINEERING GROUP INC.

LANDTECH, INC. * RODS SUBSURFACE UTILITY ENGINEERING, INC. * HVJ ASSOCIATES, INC.*RDM, INC.

FEBRUARY 24, 2023

ISSUED FOR BID

CONTROLLER
CHRIS B. BROWN
COUNCIL MEMBERS
AT-LARGE

MIKE KNOX
DAVID W. ROBINSON
MICHAEL KUBOSH
LETTITA PLUMMER
SALLIE ALCORN



HOUSTON AIRPORT SYSTEM

WILLIAM P. HOBBY AIRPORT

HOUSTON TEXAS

JACOBS

JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.

0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

FAA NON-STANDARD TAXIWAYS PROJECT

COVER SHEET

PROJECT MGR: S. CHILDERS

DESIGNER: B. BARTLETT

DRAWN BY: B. BARTLETT

CHECKED BY: A. CELESTAIN

SCALE: AS SHOWN

DATE: 02/24/2023

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

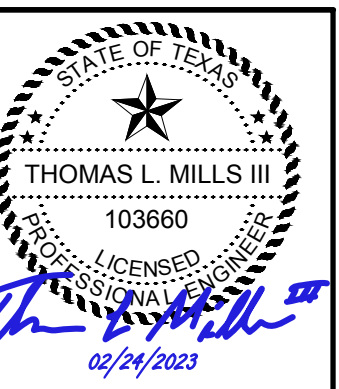
0

0

0

0

0



APPROVED BY: DATE:

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

G1001

of

INDEX OF SHEETS – VOLUME 1

PAGE NO.	SHEET NO.	SHEET TITLE
GENERAL INFORMATION		
1	GI001	COVER SHEET
2	GI002	INDEX OF SHEETS
3	GI003	ABBREVIATIONS AND GENERAL LEGEND
4	GI101	PROJECT SITE PLAN
5	GI102	HORIZONTAL CONTROL PLAN
6	GI103	HORIZONTAL CONTROL PLAN
7	GR101	BORING LOG PLAN
8	GR102	BORING LOG PLAN
9	GR501	BORING LOG DETAILS
10	GR502	BORING LOG DETAILS
11	GR503	BORING LOG DETAILS
CONSTRUCTION PHASING		
12	GC001	GENERAL PHASING NOTES
13	GC002	GENERAL PHASING NOTES
14	GC011	STAGING AREA AND SITE ACCESS PLAN
15	GC012	OVERALL PHASING PLAN AND SEQUENCE OF CONSTRUCTION
16	GC101-P1	OVERALL PHASING PLAN – PHASE 1
17	GC102-P1	DETAILED PHASING PLAN – PHASE 1
18	GC201-P2	OVERALL PHASING PLAN – PHASE 2
19	GC202-P2	DETAILED PHASING PLAN – PHASE 2
20	GC301-P3	OVERALL PHASING PLAN – PHASE 3
21	GC302-P3	DETAILED PHASING PLAN – PHASE 3
22	GC401-P4	OVERALL PHASING PLAN – PHASE 4
23	GC402-P4	DETAILED PHASING PLAN – PHASE 4
24	GC501-P5	OVERALL PHASING PLAN – PHASE 5
25	GC502-P5	DETAILED PHASING PLAN – PHASE 5
26	GC601-P6A	OVERALL PHASING PLAN – PHASE 6A
27	GC602-P6A	DETAILED PHASING PLAN – PHASE 6A
28	GC603-P6B	OVERALL PHASING PLAN – PHASE 6B
29	GC604-P6B	DETAILED PHASING PLAN – PHASE 6B
30	GC901	PHASING DETAILS
TESC PLANS		
31	CE001	EROSION CONTROL GENERAL NOTES
32	CE002	IRRIGATION NOTES
33	CE101-P1	EROSION CONTROL PLAN – PHASE 1
34	CE102-P2	EROSION CONTROL PLAN – PHASE 2
35	CE103-P3	EROSION CONTROL PLAN – PHASE 3
36	CE104-P4	EROSION CONTROL PLAN – PHASE 4
37	CE105-P5	EROSION CONTROL PLAN – PHASE 5
38	CE106-P6	EROSION CONTROL PLAN – PHASE 6
39	CE501	EROSION CONTROL DETAILS
CIVIL DEMOLITION		
40	CD101-P1	CIVIL DEMOLITION PLAN – PHASE 1
41	CD102-P2	CIVIL DEMOLITION PLAN – PHASE 2
42	CD103-P2	CIVIL DEMOLITION PLAN – PHASE 2
43	CD104-P3	CIVIL DEMOLITION PLAN – PHASE 3
44	CD105-P4	CIVIL DEMOLITION PLAN – PHASE 4
45	CD106-P5	CIVIL DEMOLITION PLAN – PHASE 5
46	CD107-P6	CIVIL DEMOLITION PLAN – PHASE 6A
47	CD108-P6	CIVIL DEMOLITION PLAN – PHASE 6B
48	CD109-P6	CIVIL DEMOLITION PLAN – PHASE 6B
49	CD501	CIVIL DEMOLITION DETAILS
50	CD502	CIVIL DEMOLITION DETAILS
CIVIL GEOMETRY		
51	CS001	TYPICAL PAVEMENT SECTIONS
52	CS002	TYPICAL PAVEMENT SECTIONS
53	CS003	TYPICAL PAVEMENT SECTIONS
54	CS004	TYPICAL PAVEMENT SECTIONS
55	CS101-P1	GEOMETRY PLAN – PHASE 1
56	CS102-P2	GEOMETRY PLAN – PHASE 2
57	CS103-P2	GEOMETRY PLAN – PHASE 2
58	CS104-P3	GEOMETRY PLAN – PHASE 3
59	CS105-P4	GEOMETRY PLAN – PHASE 4
60	CS106-P5	GEOMETRY PLAN – PHASE 5
61	CS107-P6	GEOMETRY PLAN – PHASE 6A
62	CS108-P6	GEOMETRY PLAN – PHASE 6B
63	CS201	TAXIWAY PROFILES
64	CS202	TAXIWAY PROFILES
65	CS203	TAXIWAY PROFILES
66	CS204	TAXIWAY PROFILES
67	CS205	TAXIWAY PROFILES
68	CS206	SERVICE ROAD PROFILES
CIVIL GRADING AND DRAINAGE		
69	CG001	OVERALL GRADING AND DRAINAGE PLAN (PHASES 1 THROUGH 4)
70	CG002	OVERALL GRADING AND DRAINAGE PLAN (PHASES 5 AND 6)
71	CG101-P1	GRADING AND DRAINAGE PLAN – PHASE 1
72	CG102-P2	GRADING AND DRAINAGE PLAN – PHASE 2
73	CG103-P2	GRADING AND DRAINAGE PLAN – PHASE 2
74	CG104-P3	GRADING AND DRAINAGE PLAN – PHASE 3
75	CG105-P4	GRADING AND DRAINAGE PLAN – PHASE 4
76	CG106-P5	GRADING AND DRAINAGE PLAN – PHASE 5

PAGE NO.	SHEET NO.	SHEET TITLE
77	CG107-P6	GRADING AND DRAINAGE PLAN – PHASE 6A AND 6B
78	CG201	STORM DRAIN PROFILES
79	CG202	STORM DRAIN PROFILES
80	CG203	STORM DRAIN PROFILES
81	CG501	STORM DRAIN DETAILS
82	CG502	STORM DRAIN DETAILS
83	CU001	UNDERDRAIN NOTES
84	CU101-P1	UNDERDRAIN PLAN – PHASE 1
85	CU102-P2	UNDERDRAIN PLAN – PHASE 2
86	CU103-P2	UNDERDRAIN PLAN – PHASE 3
87	CU104-P3	UNDERDRAIN PLAN – PHASE 3
88	CU105-P4	UNDERDRAIN PLAN – PHASE 4
89	CU106-P5	UNDERDRAIN PLAN – PHASE 5
90	CU107-P6	UNDERDRAIN PLAN – PHASE 6A
91	CU501	UNDERDRAIN PLAN DETAILS
92	CU502	UNDERDRAIN PLAN DETAILS
93	CU503	UNDERDRAIN PLAN DETAILS
CIVIL PAVING		
94	CP101-P1	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 1
95	CP102-P1	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 1
96	CP103-P2	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 2
97	CP104-P2	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 2
98	CP105-P3	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 3
99	CP106-P3	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 3
100	CP107-P4	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 4
101	CP108-P5	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 5
102	CP109-P6	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 6A
103	CP110-P6	PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 6A & 6B
104	CP501	PAVEMENT JOINTING DETAILS
105	CP502	PAVEMENT JOINTING DETAILS
106	CP503	PAVEMENT JOINTING DETAILS
107	CP504	PAVEMENT JOINTING DETAILS
108	CP505	PAVEMENT JOINTING DETAILS
109	CP701-P1	PAVEMENT SPOT ELEVATION PLAN – PHASE 1
110	CP702-P1	PAVEMENT SPOT ELEVATION PLAN – PHASE 1
111	CP703-P2	PAVEMENT SPOT ELEVATION PLAN – PHASE 2
112	CP704-P2	PAVEMENT SPOT ELEVATION PLAN – PHASE 2
113	CP705-P3	PAVEMENT SPOT ELEVATION PLAN – PHASE 3
114	CP706-P3	PAVEMENT SPOT ELEVATION PLAN – PHASE 3
115	CP707-P4	PAVEMENT SPOT ELEVATION PLAN – PHASE 4
116	CP708-P5	PAVEMENT SPOT ELEVATION PLAN – PHASE 5
117	CP709-P6	PAVEMENT SPOT ELEVATION PLAN – PHASE 6A
118	CP710-P6	PAVEMENT SPOT ELEVATION PLAN – PHASE 6A
CIVIL PAVEMENT MARKING		
119	CM101-P1	PAVEMENT MARKING PLAN – PHASE 1
120	CM102-P2	PAVEMENT MARKING PLAN – PHASE 2
121	CM103-P2	PAVEMENT MARKING PLAN – PHASE 2
122	CM104-P3	PAVEMENT MARKING PLAN – PHASE 3
123	CM105-P4	PAVEMENT MARKING PLAN – PHASE 4
124	CM106-P5	PAVEMENT MARKING PLAN – PHASE 5
125	CM107-P6	PAVEMENT MARKING PLAN – PHASE 6A
126	CM108-P6	PAVEMENT MARKING PLAN – PHASE 6B
127	CM109-P6	PAVEMENT MARKING PLAN – PHASE 6B
128	CM501	PAVEMENT MARKING DETAILS
129	CM502	PAVEMENT MARKING DETAILS
130	CM503	PAVEMENT MARKING DETAILS
131	CM504	PAVEMENT MARKING DETAILS
132	CM505	PAVEMENT MARKING DETAILS
133	CM506	PAVEMENT MARKING DETAILS
AIRFIELD ELECTRICAL GENERAL INFORMATION		
134	E-001	AIRFIELD ELECTRICAL NOTES AND LEGEND
ELECTRICAL PHASING		
135	E-101-P1	AIRFIELD ELECTRICAL PHASING PLAN – PHASE 1
136	E-101-P2	AIRFIELD ELECTRICAL PHASING PLAN – PHASE 2
137	E-101-P3	AIRFIELD ELECTRICAL PHASING PLAN – PHASE 3
138	E-101-P4	AIRFIELD ELECTRICAL PHASING PLAN – PHASE 4
139	E-101-P5	AIRFIELD ELECTRICAL PHASING PLAN – PHASE 5
140	E-101-P6	AIRFIELD ELECTRICAL PHASING PLAN – PHASE 6A
AIRFIELD ELECTRICAL DEMOLITION		
141	ED101-P1	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 1
142	ED102-P2	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 2
143	ED103-P2	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 2
144	ED104-P3	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 3
145	ED105-P4	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 4
146	ED106-P5	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 5
147	ED107-P6	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 6A
148	ED108-P6	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 6B
149	ED109-P6	AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 6B
AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE		
150	EL101-P1	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 1
151	EL102-P2	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 2
152	EL103-P2	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 2

153	EL104-P3	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 3
154	EL105-P4	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 4
155	EL106-P5	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 5
156	EL107-P6	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 6A
157	EL108-P6	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 6B
158	EL109-P6	AIRFIELD ELECTRICAL LIGHTING AND SIGNAGE PLAN – PHASE 6B
159	EL501	AIRFIELD ELECTRICAL DETAILS
160	EL502	AIRFIELD ELECTRICAL DETAILS
161	EL503	AIRFIELD ELECTRICAL DETAILS
162	EL504	AIRFIELD ELECTRICAL DETAILS
163	EL505	AIRFIELD ELECTRICAL DETAILS
164	EL506	AIRFIELD ELECTRICAL DETAILS
165	EL507	AIRFIELD ELECTRICAL DETAILS
166	EL508	AIRFIELD ELECTRICAL DETAILS
167	EL509	AIRFIELD ELECTRICAL DETAILS
168	EL510	AIRFIELD ELECTRICAL DETAILS
169	EL511	AIRFIELD ELECTRICAL DETAILS
170	EL512	AIRFIELD ELECTRICAL DETAILS
CROSS SECTIONS		
171	XS301	TAXIWAY CROSS SECTIONS
172	XS302	TAXIWAY CROSS SECTIONS
173	XS311	TAXIWAY CROSS SECTIONS
174	XS312	TAXIWAY CROSS SECTIONS
175	XS321	TAXIWAY CROSS SECTIONS
176	XS322	TAXIWAY CROSS SECTIONS
177	XS331	TAXIWAY CROSS SECTIONS
178	XS341	TAXIWAY CROSS SECTIONS
179	XS342	TAXIWAY CROSS SECTIONS
180	XS343	TAXIWAY CROSS SECTIONS
181	XS351	TAXIWAY CROSS SECTIONS
182	XS371	TAXIWAY CROSS SECTIONS
183	XS372	TAXIWAY CROSS SECTIONS

INDEX OF SHEETS – VOLUME 2

PAGE NO.	SHEET NO.	SHEET TITLE
GENERAL INFORMATION		
179	GI001	COVER SHEET
180	GI002	INDEX OF SHEETS
181	GI003	ABBREVIATIONS AND GENERAL LEGEND
182	GI101	FUEL FARM SITE PLAN
183	GI102	FUEL FARM EXISTING UTILITIES
185	GI501	FUEL FARM CIVIL DETAILS
186	GI502	FUEL FARM CIVIL DETAILS
187	GI503	FUEL FARM CIVIL DETAILS
188	GI504	FUEL FARM CIVIL DETAILS
189	GR101	FUEL FARM BORING LAYOUT PLAN
190	GR501	FUEL FARM BORING LOGS DETAILS
191	GR502	FUEL FARM BORING LOGS DETAILS
CONSTRUCTION PHASING		
192	GC701	FUEL FARM PHASING PLAN
TESC PLANS		
193	CE107-P7	EROSION CONTROL PLAN – PHASE 7
CIVIL DEMOLITION		
194	CD101	FUEL FARM CIVIL DEMO
CIVIL GEOMETRY		
195	CS101	FUEL FARM GEOMETRY PLAN
196	CS102	FUEL FARM CONCRETE TANK SLAB PLAN
197	CS103	FUEL FARM TANK SLABS
198	CS104	FUEL FARM 25,000 GAL TANK SADDLE DETAILS
199	CS105	FUEL FARM 12,000 GAL TANK SADDLE DETAILS
CIVIL GRADING AND DRAINAGE		
200	CG101	GRADING-DRAINAGE PLAN
CIVIL PAVING		
201	CP101	FUEL FARM PAVEMENT – JOINTING & REINFORCEMENT OVERALL PLAN
202	CP102	FUEL FARM PAVEMENT – JOINTING & REINFORCEMENT AREA FF PLAN
203	CP103	FUEL FARM PAVEMENT – JOINTING & REINFORCEMENT AREA AP PLAN
204	CP104	FUEL FARM PAVEMENT – JOINTING & REINFORCEMENT AREA CP1 PLAN
205	CP105	FUEL FARM PAVEMENT – JOINTING & REINFORCEMENT AREA CP2 PLAN
206	CP106	FUEL FARM PAVEMENT – JOINTING & REINFORCEMENT AREA AS PLAN
207	CP701	FUEL FARM PAVEMENT SPOT ELEVATION PLAN AREA FF
208	CP702	FUEL FARM PAVEMENT SPOT ELEVATION PLAN AREA AP
209	CP703	FUEL FARM PAVEMENT SPOT ELEVATION PLAN AREA CP1
210	CP704	FUEL FARM PAVEMENT SPOT ELEVATION PLAN AREA CP2
211	CP705	FUEL FARM PAVEMENT SPOT ELEVATION PLAN AREA AS
ELECTRICAL		
212	E001	ELECTRICAL ABBREVIATIONS, LEGENDS AND GENERAL NOTES
213	ED101	ELECTRICAL SITE PLAN – DEMO
214	E101	ELECTRICAL SITE PLAN – NEW
215	E701	ELECTRICAL SCHEDULES, ONE-LINE DIAGRAM, AND DETAILS
MECHANICAL		
216	MD101	EXISTING FUEL FARM MECHANICAL SITE AND DEMOLITION PLAN
217	MP101	FUEL FARM OVERALL MECHANICAL PLAN
218	MP501	FUEL FARM PIPING DETAILS



WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS

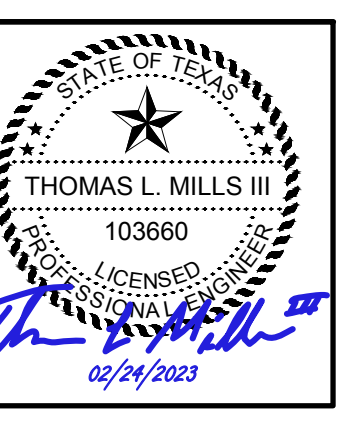


JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

REVISIONS
NO. DESCRIPTION DATE BY
0 ISSUED FOR BD 02/24/2023 SC

INDEX OF PLANS
FAA NON-STANDARD TAXIWAYS PROJECT

PROJECT MGR: S. CHILDERS
DESIGNER: B. BARTLETT
DRAWN BY: B. BARTLETT
CHECKED BY: A. CELESTAIN
SCALE: AS SHOWN
DATE: 02/24/2023



APPROVED BY: _____ DATE: _____
DIRECTOR
HOUSTON AIRPORT SYSTEM




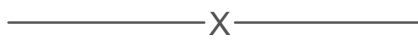




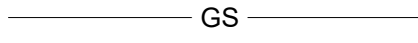
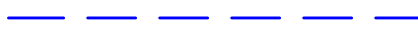





PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: G1002

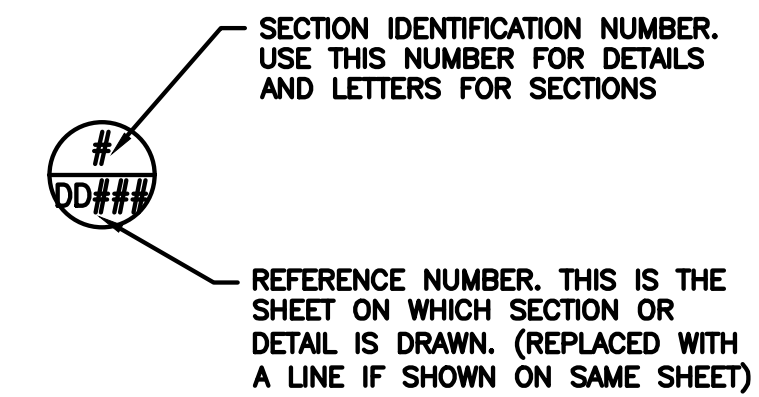
of

ABBREVIATIONS:

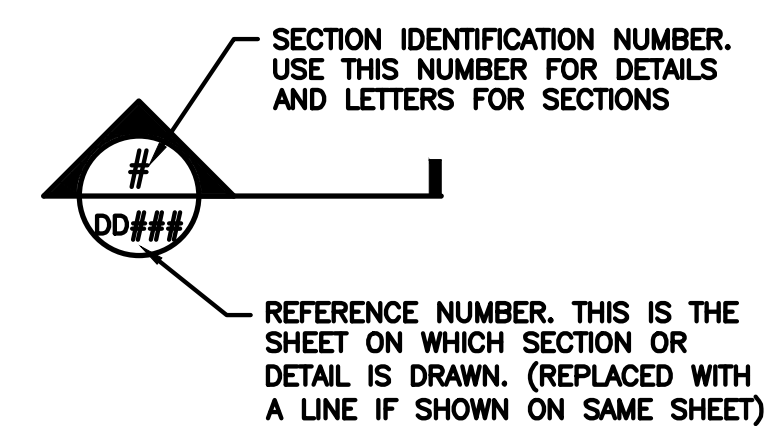
A	AMP	LT	LEFT
A/C, AC	ADVISORY CIRCULAR, ASPHALT CONCRETE	MAX	MAXIMUM
ACFT	AIRCRAFT	MH	MANHOLE
ACI	AMERICAN CONCRETE INSTITUTE	MIN	MINIMUM
ACIP	AIRPORT CAPITAL IMPROVEMENT PROGRAM	N	NORTHING, NORTH
ADG	AIRPLANE DESIGN GROUP	NIC	NOT IN CONTRACT
ADP	AIRPORT DEVELOPMENT PROGRAM	NO.	NUMBER
AFF	ABOVE FINISHED FLOOR	NOTAMS	NOTICE TO ARMEN
AFG	ABOVE FINISHED GRADE	NTS	NOT TO SCALE
AHJ	AUTHORITY HAVING JURSDICTION	O.C.	ON CENTER
AIP	AIRPORT IMPROVEMENT PROGRAM	O.D.	OUTSIDE DIAMETER
ALCMS	AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM	OFA	OBJECT FREE AREA
ALGN	ALIGNMENT	OFF	OFFSET
AOA	AIRPORT OPERATIONS AREA	OHP	OVERHEAD POWER
ARFF	AIRCRAFT RESCUE AND FIRE FIGHTING	OHT	OVERHEAD TELEPHONE
ASB	AIRLINE SUPPORT BUILDING	OTS	OUT OF SERVICE
ASPH	ASPHALT	P	PHASE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	PBB	PASSENGER BOARDING BRIDGE
ATCT	AIR TRAFFIC CONTROL TOWER	PC	POINT OF CURVATURE
AVSEC	SDCRAA AVIATION SECURITY GROUP	PCC/PCCP	PORTLAND CEMENT CONCRETE
AWG	AMERICAN WIRE GAUGE	PSI	POUNDS PER SQUARE INCH
BC	BARE COPPER	PT	POINT OF TANGENCY
BTWN	BETWEEN	PVC	POLYVINYL CHLORIDE CONDUIT
C	CONDUIT	PVMT	PAVEMENT
C/L	CENTERLINE	R	RADIUS
CCR	CONSTANT CURRENT REGULATOR	R/W, RW, RWY	RUNWAY
CE	CONCRETE ENCASED	RCP	REINFORCED CONCRETE PIPE
CED	CONCRETE ENCASED DUCTBANK	RDR	RUNWAY DISTANCE DEMAINING
CKT	CIRCUIT	RE:	REFER TO
CLSD	CLOSED	RGL, GL	RUNWAY GUARD LIGHT
CLSM	CONTROLLED LOW STRENGTH MATERIAL	ROFA	RUNWAY OBJECT FREE AREA
CM, COMM	COMMUNICATION	RPR	RESIDENT PROJECT REPRESENTATIVE
CMH	COMMUNICATION MANHOLE	RSA	RUNWAY SAFETY AREA
COH	CITY OF HOUSTON	RT	RIGHT
COMM	COMMUNICATION	RWSL	RUNWAY STATUS LIGHT
CONC	CONCRETE	S	SLOPE, SOUTH, SEWER
CRCP	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
DB	DUCTBANK	SCH	SCHEDULE
DIA	DIAMETER	SDG	STORM DRAINAGE
DIA, Ø	DIAMETER	SDR	STANDARD DIMENSION RATIO (PIPE SIZE STANDARD)
DWG	DRAWING	SF	SQUARE FEET
E	EASTING, EAST	SHT	SHEET
E.F.	EACH FACE	SMH	SECURITY / SIGNAL MANHOLE
E.W.	EACH WAY	SP	SEPTIC TANK
EA	EACH	SPA	SPACES
EL, ELEV	ELEVATION	SPEC	SPECIFICATION
ELEC	ELECTRIC / ELECTRICAL	ST	STREET
EQ	EQUAL	STA	STATION
EXIST, EXST, (E)	EXISTING	STD	STANDARD
F.O.	FIBER OPTIC	STR	STRUCTURE
FAA	FEDERAL AVIATION ADMINISTRATION	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
FAR	FEDERAL AVIATION REGULATION	SY	SQUARE YARD
FBO	FIXED BASE OPERATOR	T/L, TL	TAXILANE
FO	FIBER OPTIC	T/W, TW, TWY	TAXIWAY
FOD	FOREIGN OBJECT DEBRIS	TDZ	TOUCHDOWN ZONE
GFI	GROUND FAULT INTERRUPTING	TEMP	TEMPORARY
GND, G	GROUND, GREEN LIGHT	TI	TENANT IMPROVEMENT
GRS	GALVANIZED RIGID STEEL CONDUIT	TOE	TOP OF ENCASMENT
HAS	HOUSTON AIRPORT SYSTEM	TOFA	TAXIWAY OBJECT FREE AREA
HDPE	HIGH DENSITY POLYETHYLENE	TOFA	TAXIWAY SAFETY AREA / TRANSPORTATION SECURITY ADMINISTRATION
HMA	HOT MIX ASPHALT	TYP	TYPICAL
HML	HIGH MAST LIGHT	UG	UNDERGROUND
HOU	WILLIAM P. HOBBY AIRPORT	UNK	UNKNOWN
ICT	INFORMATION AND COMMUNICATIONS TECHNOLOGY	UON	UNLESS OTHERWISE NOTED
ID	INSIDE DIAMETER	UP	UNDERGROUND POWER
IE	INVERT ELEVATION	UT	UNDERGROUND TELEPHONE
JBD	JET BLAST DEFLECTOR	V	VOLT
KV	KILOVOLTS	VSR	VEHICLE SERVICE ROAD
KW	KILOWATTS	W	WEST, WATT, WIRE, WHITE LIGHT (CLEAR)
L	LENGTH, LOW VOLTAGE	W/	WITH
LB, #	POUND	WC	WINDCONE
LED	LIGHT EMITTING DIODE	WP	WEATHERPROOF
LF	LINEAR FEET	Y	YELLOW LIGHT

GENERAL LEGEND:

	PROPOSED PCC PAVEMENT
	PROPOSED HMA PAVEMENT
	EXISTING AIRFIELD PAVEMENT
	EXISTING FENCE
	EXISTING APPROACH RPZ
	EXISTING RUNWAY OBJECT FREE AREA
	EXISTING RUNWAY FREE ZONE
	EXISTING RUNWAY SAFETY AREA
	GLIDESLOPE PROTECTION AREA
	LOCALIZER PROTECTION AREA
	EXISTING WATER LINE
	EXISTING STORM DRAINAGE
	EXISTING STORM SEWER
	EXISTING GAS
	EXISTING FUEL



DETAIL REFERENCE INDICATOR



SECTION CUT REFERENCE INDICATOR



HOUSTON AIRPORT SYSTEM

WILLIAM P. HOBBY AIRPORT

HOUSTON TEXAS

Jacobs

JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

ABBREVIATIONS AND GENERAL LEGEND

PROJECT MGR: S. CHILDERS

DESIGNER: B. BARTLETT

DRAWN BY: B. BARTLETT

CHECKED BY: A. CELESTAIN

SCALE: AS SHOWN

DATE: 02/24/2023



APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:

770

C.I.P. NO:

3-48-0110-044

H.A.S. NO:

N/A

SHEET NO:

G1003

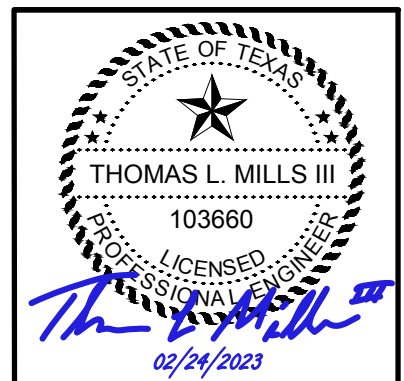
of

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

1	GC011	CONTRACTOR ACCESS ROUTE FROM NORTH STAGING AREA
2	GC011	CONTRACTOR ACCESS ROUTE FROM SOUTH STAGING AREA

FAA NON-STANDARD TAXIWAYS PROJECT
OVERALL SITE PLAN

PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	B. BARTLETT
CHECKED BY:	A. CELESTAIN
SCALE:	AS SHOWN
DATE:	02/24/2023

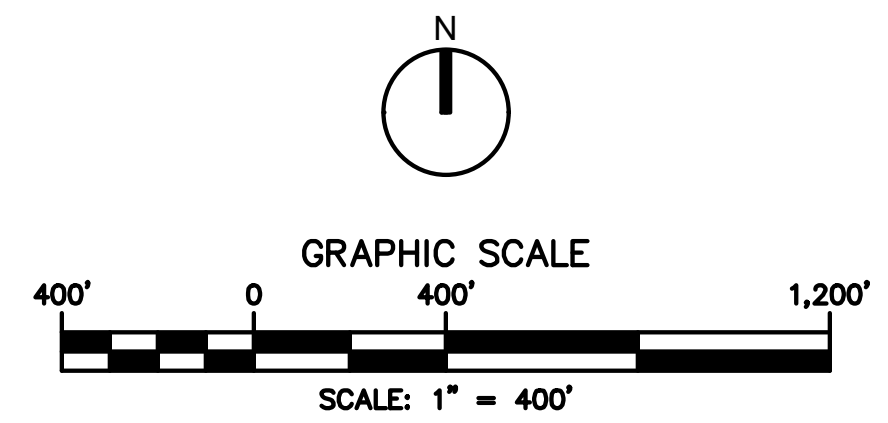
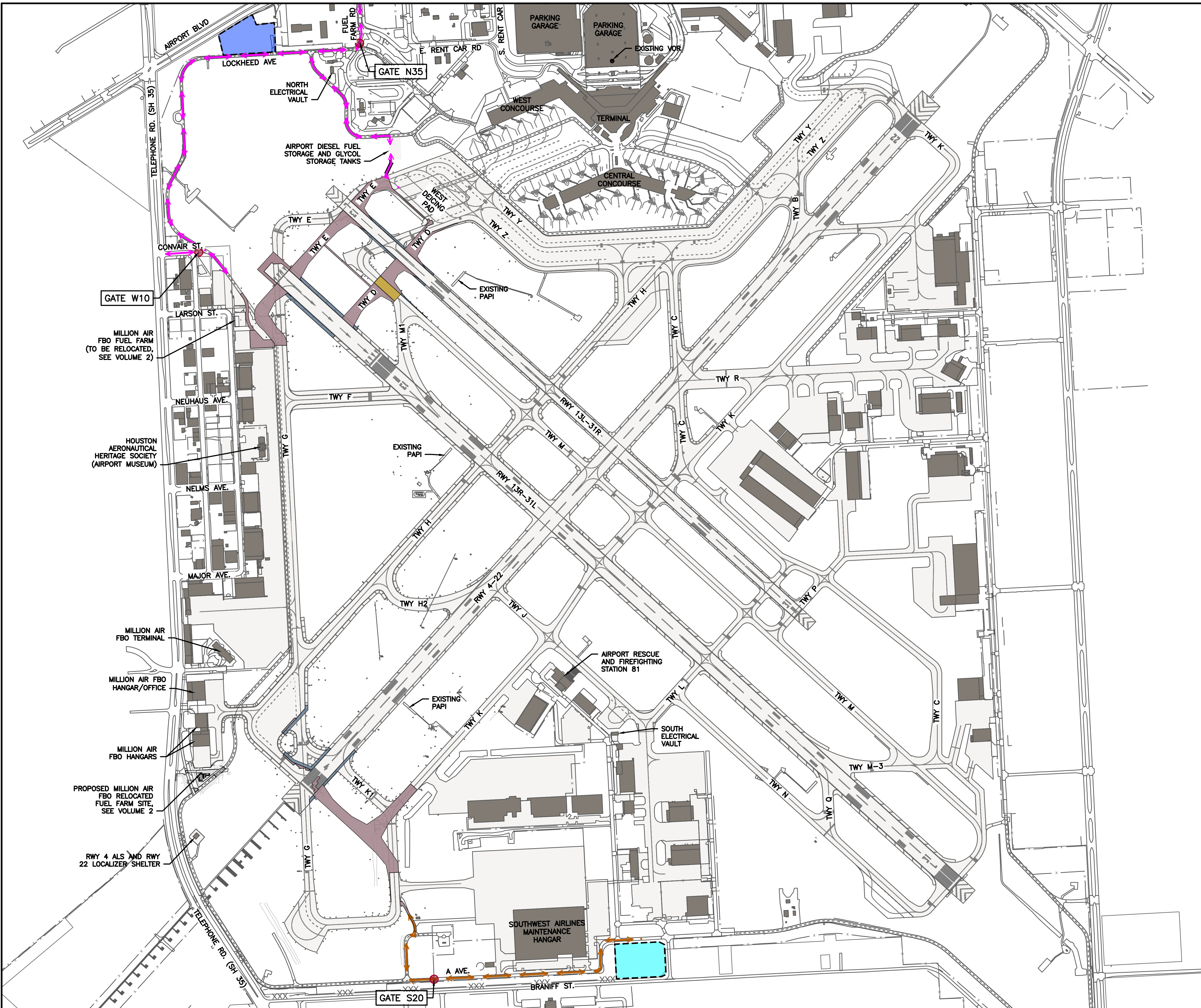


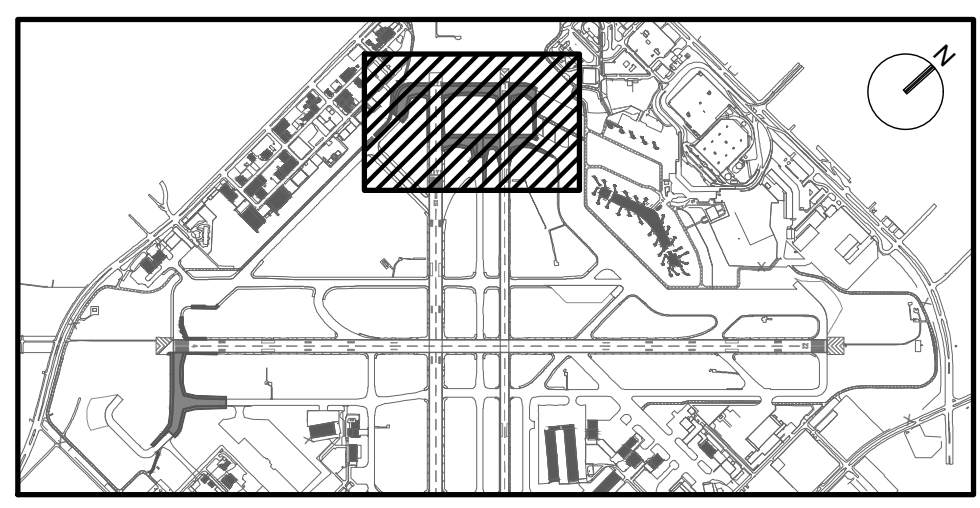
APPROVED BY:	DATE:
DIRECTOR	HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	G1101

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- CONTRACTOR ACCESS ROUTE FROM NORTH STAGING AREA (1 GC011)
- CONTRACTOR ACCESS ROUTE FROM SOUTH STAGING AREA (2 GC011)
- CONTRACTOR NORTH STAGING AREA, BATCH PLANT, AND STOCKPILE AREA (PHASES 1 THROUGH 4)
- CONTRACTOR NORTH STAGING AREA, BATCH PLANT, AND STOCKPILE AREA (PHASES 5 THROUGH 6B)





KEY MAP
 NTS

LEGEND:

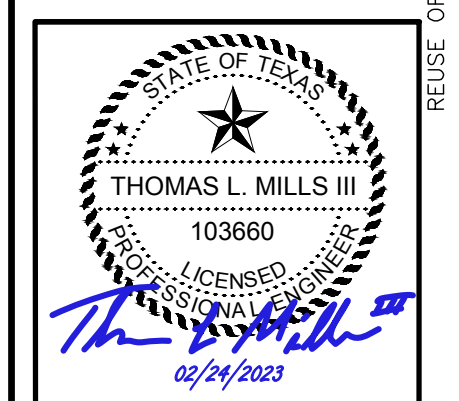
- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

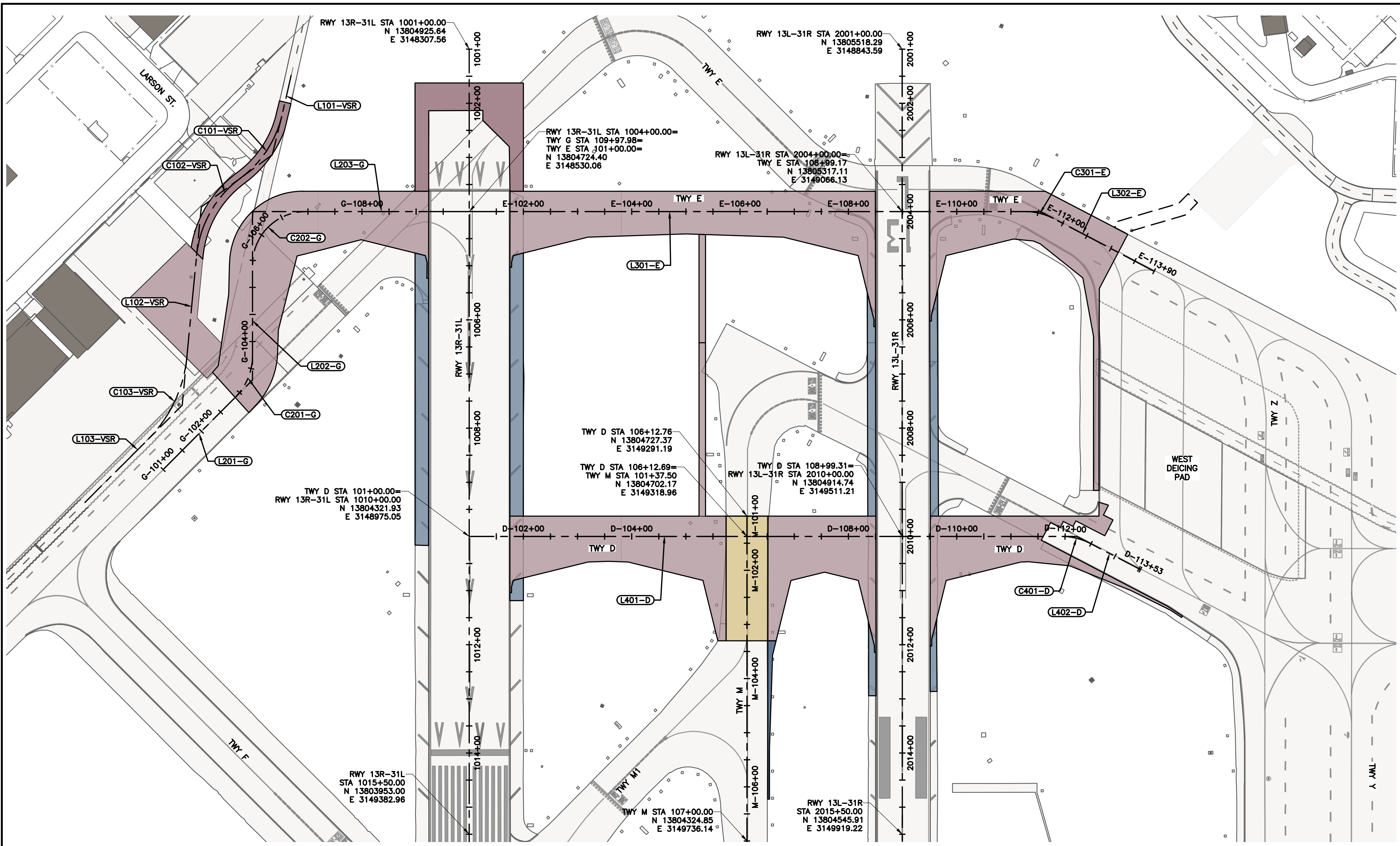
FAA NON-STANDARD TAXIWAYS PROJECT
 HORIZONTAL CONTROL PLAN

PROJECT MGR: S. CHILDERS
 DESIGNER: B. BARTLETT
 DRAWN BY: B. BARTLETT
 CHECKED BY: A. CELESTAIN
 SCALE: AS SHOWN
 DATE: 02/24/2023



APPROVED BY: _____ DATE: _____

PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: G1102
 of



ALIGNMENT CURVE TABLE

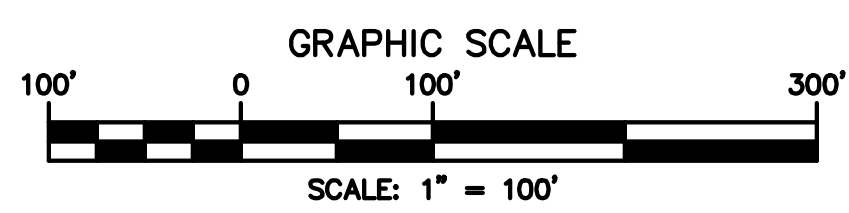
CURVE #	ALGN NAME	RADIUS	LENGTH	CHORD DIRECTION	PC	PT	PI	CENTER PT
C101-VSR	VSR	200.000	139.065	S14° 07' 51.57"E	STA 501+78.05 = N 13804585.256 E 3148167.735	STA 503+17.12 = N 13804553.100 E 3148201.006	STA 502+50.53 = N 13804649.254 E 3148208.316	N 13804473.271 E 3148002.026
C102-VSR	VSR	202.000	169.776	S18° 17' 21.34"E	STA 503+17.12 = N 13804453.100 E 3148201.006	STA 504+86.89 = N 13804296.803 E 3148252.730	STA 504+07.38 = N 13804363.295 E 3148191.903	N 13804432.726 E 3148401.976
C103-VSR	VSR	246.500	169.924	S22° 37' 07.62"E	STA 506+76.08 = N 13804156.822 E 3148380.221	STA 508+46.00 = N 13804003.055 E 3148444.287	STA 507+64.58 = N 13804091.438 E 3148439.855	N 13803990.711 E 3148198.096
C201-G	TWY G	110.000	86.263	N25° 24' 23.28"W	STA 102+88.25 = N 13804173.694 E 3148494.741	STA 103+74.51 = N 13804249.633 E 3148458.672	STA 103+33.74 = N 13804219.121 E 3148492.407	N 13804168.051 E 3148384.885
C202-G	TWY G	98.000	153.938	N2° 52' 20.34"W	STA 105+42.04 = N 13804362.005 E 3148334.428	STA 106+95.98 = N 13804500.424 E 3148327.483	STA 106+40.04 = N 13804427.742 E 3148261.746	N 13804434.687 E 3148400.165
C301-E	TWY E	110.000	53.168	N55° 58' 28.30"E	STA 111+27.12 = N 13805486.169 E 3149219.037	STA 111+80.29 = N 13805515.631 E 3149262.675	STA 111+54.24 = N 13805506.278 E 3149237.225	N 13805412.383 E 3149300.619
C401-D	TWY D	110.000	52.966	N55° 55' 18.67"E	STA 111+94.77 = N 13805133.866 E 3149709.408	STA 112+47.73 = N 13805163.258 E 3149752.856	STA 112+21.77 = N 13805153.896 E 3149727.524	N 13805060.080 E 3149790.990

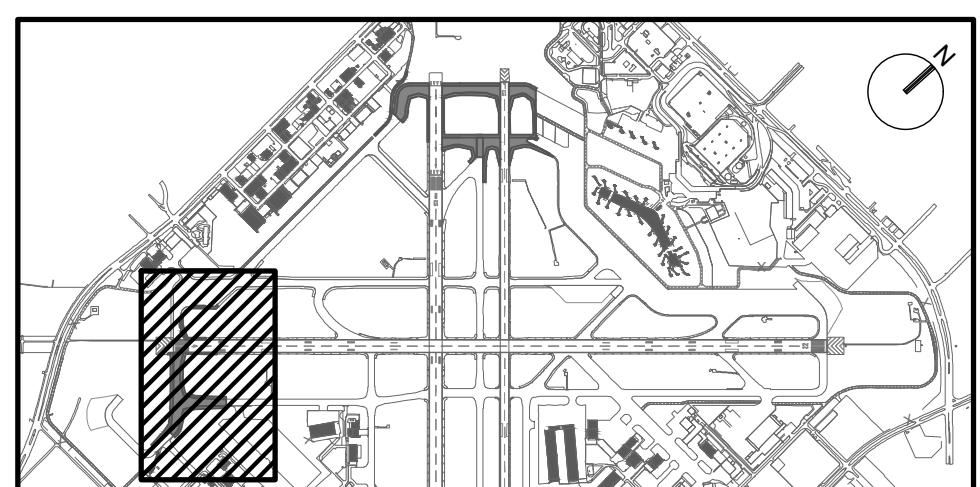
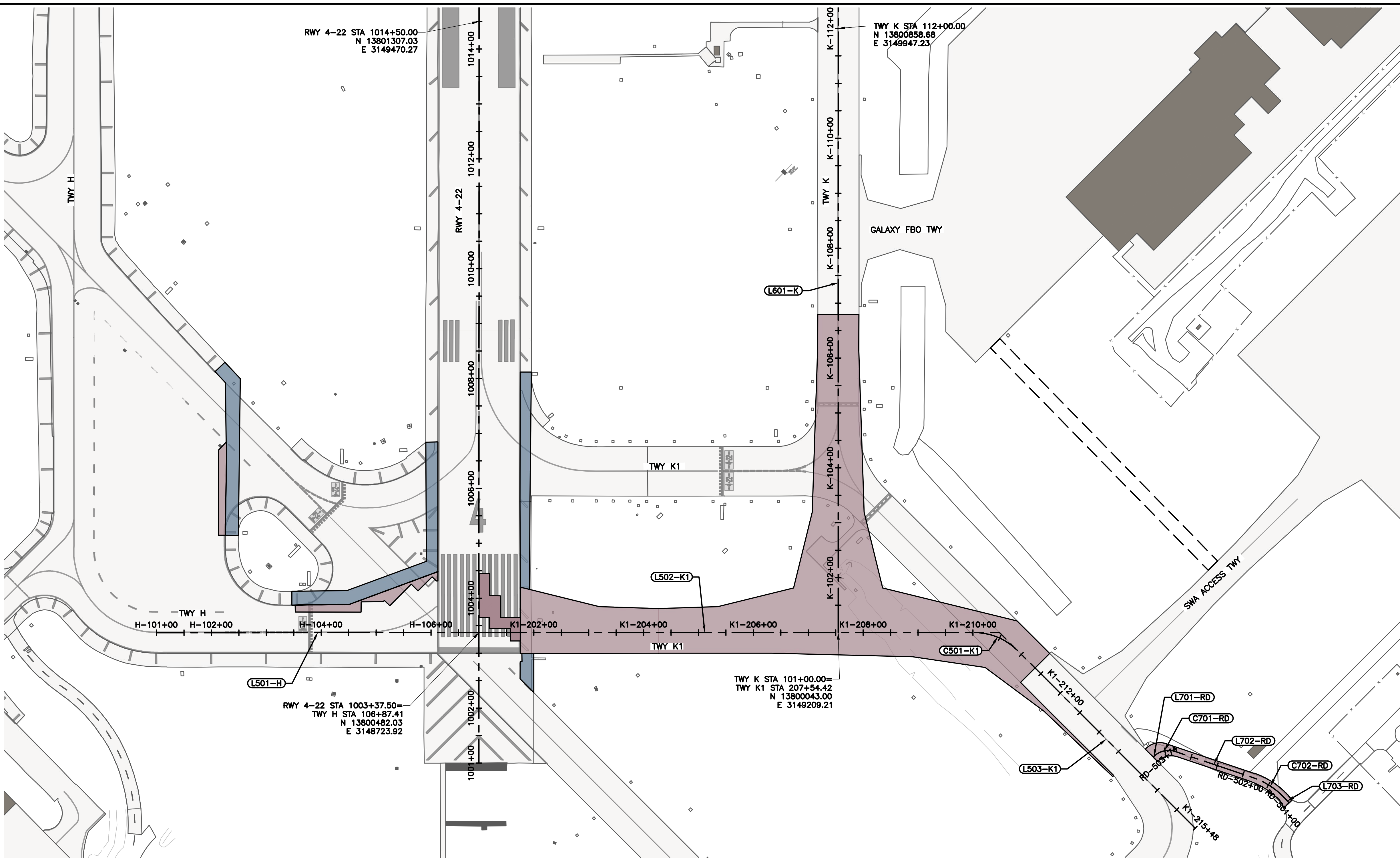
LINE ALIGNMENT TABLE

LINE #	ALGN NAME	LENGTH	DIRECTION	START	END
L101-VSR	VSR	78.05'	S34° 55' 12.57"E	STA 501+00.00 = N 13804649.254 E 3148123.056	STA 510+11.42 = N 13804585.256 E 3148167.735
L102-VSR	VSR	189.19'	S42° 22' 01.48"E	STA 501+00.00 = N 13804296.803 E 3148252.730	STA 510+11.42 = N 13804156.822 E 3148380.221
L103-VSR	VSR	165.41'	S2° 52' 13.76"E	STA 501+00.00 = N 13804003.055 E 3148444.287	STA 510+11.42 = N 13803837.853 E 3148452.570
L201-G	TWY G	188.25'	N2° 56' 26.22"W	STA 101+00.00 = N 13803985.691 E 3148504.398	STA 109+97.98 = N 13804173.694 E 3148494.741
L202-G	TWY G	167.52'	N47° 52' 20.34"W	STA 101+00.00 = N 13804249.633 E 3148458.672	STA 109+97.98 = N 13804362.005 E 3148334.428

LINE ALIGNMENT TABLE

LINE #	ALGN NAME	LENGTH	DIRECTION	START	END
L203-G	TWY G	302.00'	N42° 07' 39.66"E	STA 101+00.00 = N 13804500.424 E 3148327.483	STA 109+97.98 = N 13804724.403 E 3148530.060
L301-E	TWY E	1027.12'	N42° 07' 39.66"E	STA 101+00.00 = N 13804724.403 E 3148530.060	STA 113+90.41 = N 13805486.169 E 3149219.037
L302-E	TWY E	210.12'	N69° 49' 16.95"E	STA 101+00.00 = N 13805515.631 E 3149262.675	STA 113+90.41 = N 13805588.113 E 3149459.902
L401-D	TWY D	1094.77'	N42° 07' 39.66"E	STA 101+00.00 = N 13804321.929 E 3148975.054	STA 113+90.41 = N 13805133.866 E 3149709.408
L402-D	TWY D	105.36'	N69° 42' 57.69"E	STA 101+00.00 = N 13805163.258 E 3149752.856	STA 113+90.41 = N 13805199.784 E 3149851.683





KEY MAP
NTS

LEGEND:

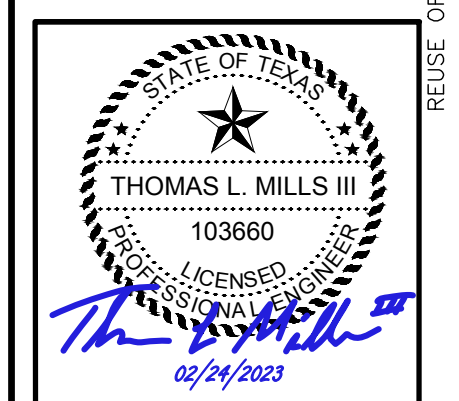
- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
HORIZONTAL CONTROL PLAN

PROJECT MGR: S. CHILDERS
 DESIGNER: B. BARTLETT
 DRAWN BY: B. BARTLETT
 CHECKED BY: A. CELESTAIN
 SCALE: AS SHOWN
 DATE: 02/24/2023



APPROVED BY: _____ DATE: _____

DIRECTOR
HOUSTON AIRPORT SYSTEM

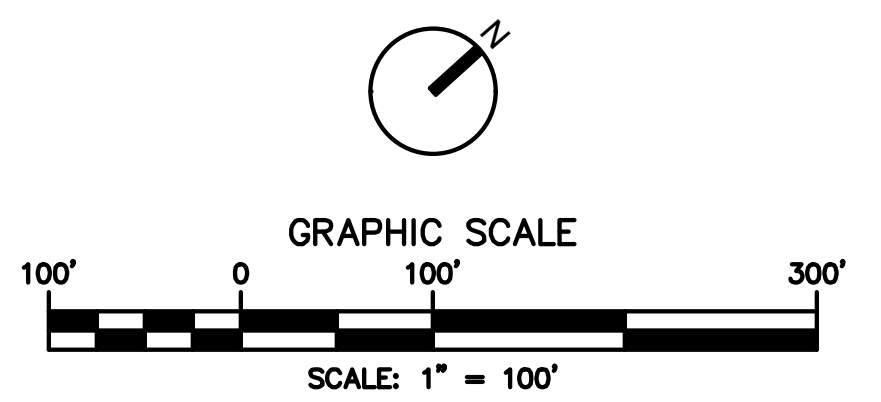
PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: G1103

ALIGNMENT CURVE TABLE

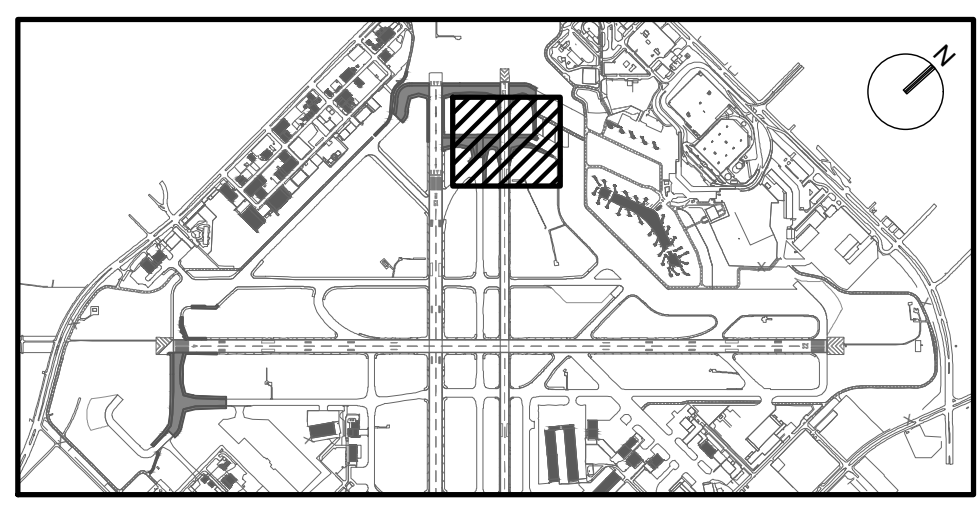
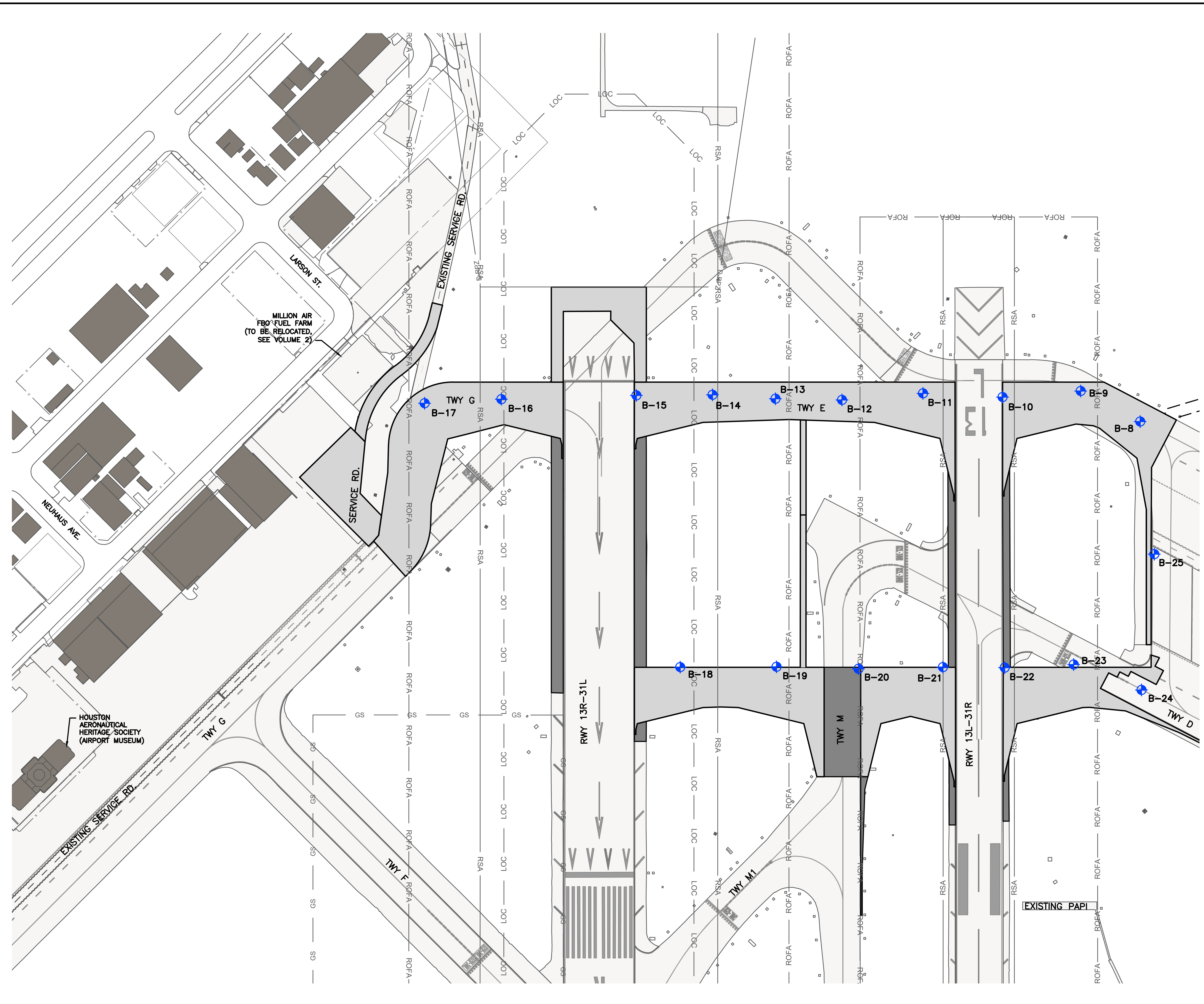
CURVE #	ALGN NAME	RADIUS	LENGTH	CHORD DIRECTION	PC	PT	PI	CENTER PT
C501-K1	TWY K1	110.000	86.341	S25° 22' 43.67"E	STA 210+03.01 = N 13799876.224 E 3149393.556	STA 210+89.35 = N 13799800.202 E 3149429.619	STA 210+48.54 = N 13799845.877 E 3149427.322	N 13799794.851 E 3149319.759
C701-RD	ROAD	38.000	40.235	N59° 40' 02.67"W	STA 503+30.76 = N 13799470.487 E 3149519.417	STA 503+71.00 = N 13799489.871 E 3149486.289	STA 503+53.00 = N 13799489.871 E 3149508.524	N 13799451.871 E 3149486.289
C702-RD	ROAD	142.000	72.702	N14° 40' 02.67"W	STA 501+09.64 = N 13799271.527 E 3149610.340	STA 501+82.34 = N 13799341.095 E 3149592.132	STA 501+46.80 = N 13799308.694 E 3149610.340	N 13799271.527 E 3149468.340

LINE ALIGNMENT TABLE

LINE #	ALGN NAME	LENGTH	DIRECTION	START	END
L501-H	TWY H	587.41'	S47° 54' 25.02"E	STA 101+00.00 = N 13800675.795 E 3148288.024	STA 106+87.41 = N 13800482.033 E 3148723.916
L502-K1	TWY K1	903.01'	S47° 51' 54.17"E	STA 201+00.00 = N 13800482.033 E 3148723.916	STA 215+47.59 = N 13799876.224 E 3149393.556
L503-K1	TWY K1	458.24'	S2° 53' 33.18"E	STA 201+00.00 = N 13799800.202 E 3149429.619	STA 215+47.59 = N 13799342.543 E 3149452.744
L601-K	TWY K	1549.80'	N42° 08' 17.93"E	STA 101+00.00 = N 1380042.997 E 3149209.210	STA 116+49.80 = N 13801192.069 E 3150248.873
L701-RD	ROAD	3.42'	N90° 00' 00.00"W	STA 501+00.00 = N 13799489.871 E 3149486.289	STA 503+74.41 = N 13799489.871 E 3149482.873
L702-RD	ROAD	148.42'	N29° 20' 05.33"W	STA 501+00.00 = N 13799341.095 E 3149592.132	STA 503+74.41 = N 13799470.487 E 3149519.417
L703-RD	ROAD	9.64'	N0° 00' 00.00"E	STA 501+00.00 = N 13799261.891 E 3149610.340	STA 503+74.41 = N 13799271.527 E 3149610.340



REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2022. ALL RIGHTS RESERVED.



KEY MAP
NTS

NOTES:

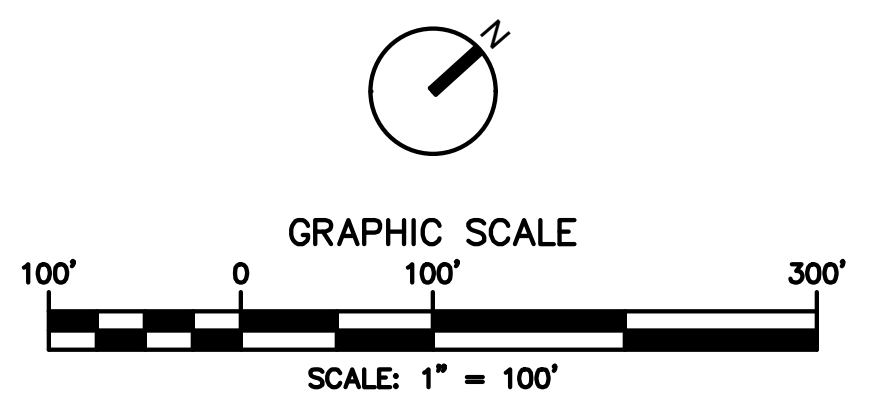
- SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
- FOR GEOTECHNICAL BORING LOG DETAILS, SEE SHEETS GR501 THROUGH GR503.

LEGEND:

AIRSIDE BORING

BORING LOCATION TABLE

BORE #	NORTHING	EASTING
B-8	13805538.90	3149328.20
B-9	13805489.23	3149196.48
B-10	13805358.67	3149095.57
B-11	13805239.69	3148977.52
B-12	13805103.98	3148873.25
B-13	13805001.89	3148777.62
B-14	13804908.92	3148682.58
B-15	13804789.30	3148576.03
B-16	13804573.20	3148391.32
B-17	13804447.67	3148289.36
B-18	13804474.24	3149061.89
B-19	13804625.10	3149197.46
B-20	13804750.16	3149316.20
B-21	13804884.25	3149432.89
B-22	13804980.03	3149520.77
B-23	13805092.13	3149613.44
B-24	13805162.14	3149748.93
B-25	13805373.86	3149555.10



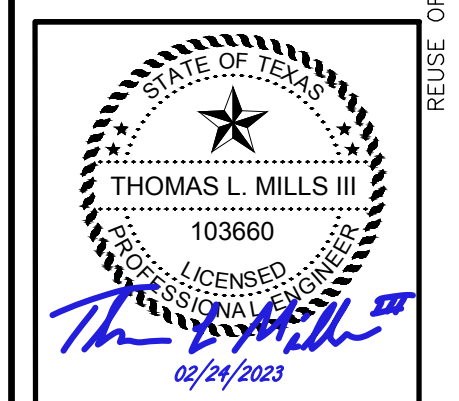
REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

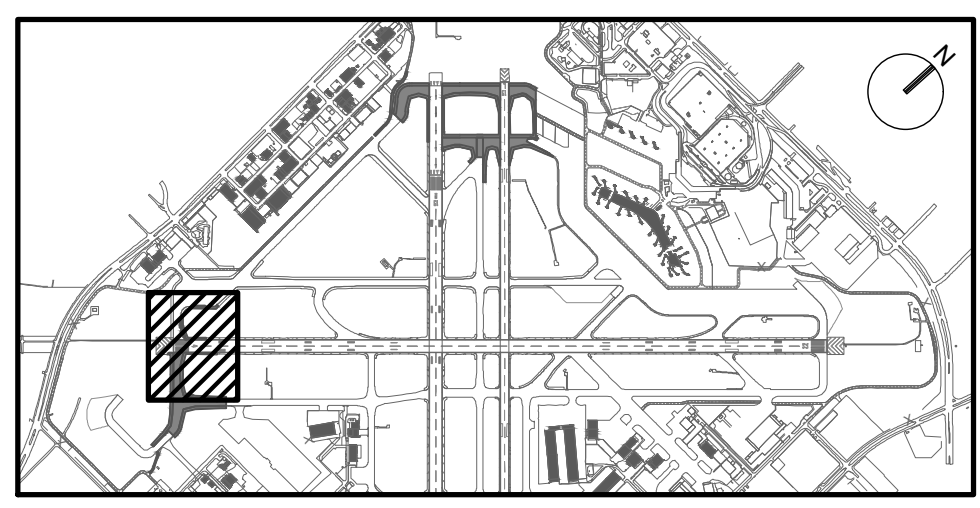
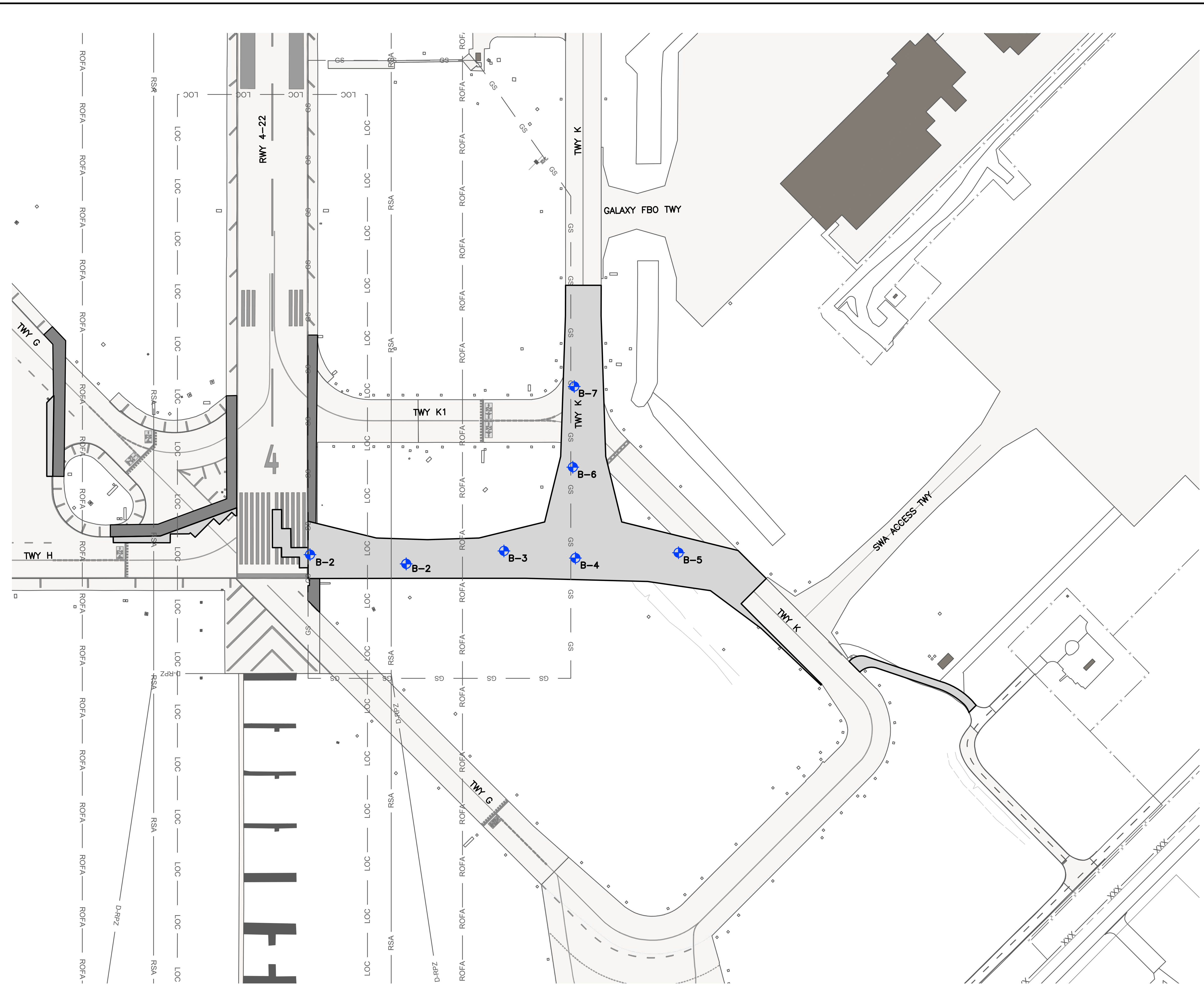
BORING LOG PLAN

PROJECT MGR: S. CHILDERS
DESIGNER: B. BARTLETT
DRAWN BY: B. BARTLETT
CHECKED BY: A. CELESTAIN
SCALE: AS SHOWN
DATE: 02/24/2023



APPROVED BY: _____ DATE: _____
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO:



KEY MAP
NTS

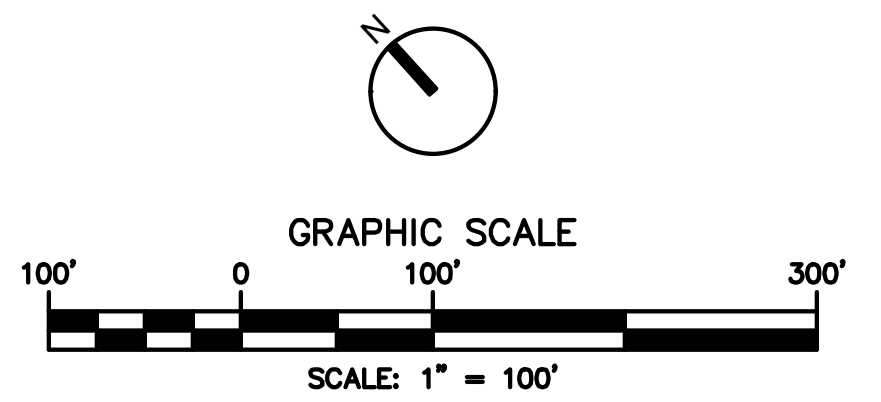
NOTES:

- SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
- FOR GEOTECHNICAL BORING LOG DETAILS, SEE SHEETS GR501 THROUGH GR503.

LEGEND:

AIRSIDE BORING

BORING LOCATION TABLE		
BORE #	NORTHING	EASTING
B-1	13800437.95	3148791.10
B-2	13800287.64	3148928.04
B-3	13800169.79	3149098.94
B-4	13800057.80	3149200.51
B-5	13799920.65	3149369.09
B-6	13800203.25	3149324.79
B-7	13800327.22	3149440.93



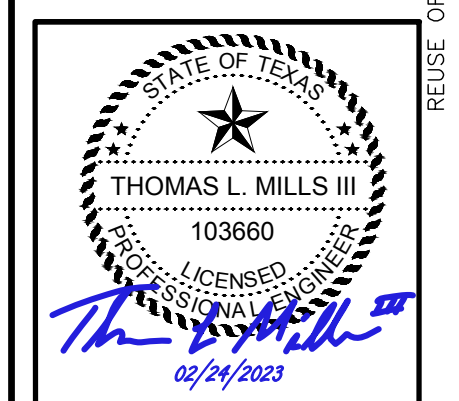
REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

BORING LOG PLAN

PROJECT MGR: S. CHILDERS
 DESIGNER: B. BARTLETT
 DRAWN BY: B. BARTLETT
 CHECKED BY: A. CELESTAIN
 SCALE: AS SHOWN
 DATE: 02/24/2023



APPROVED BY: _____ DATE: _____
 DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: GR102

REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.

NOTES:

- SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
- FOR GEOTECHNICAL BORING LOG PLANS, SEE SHEETS GR0101 AND GR102.



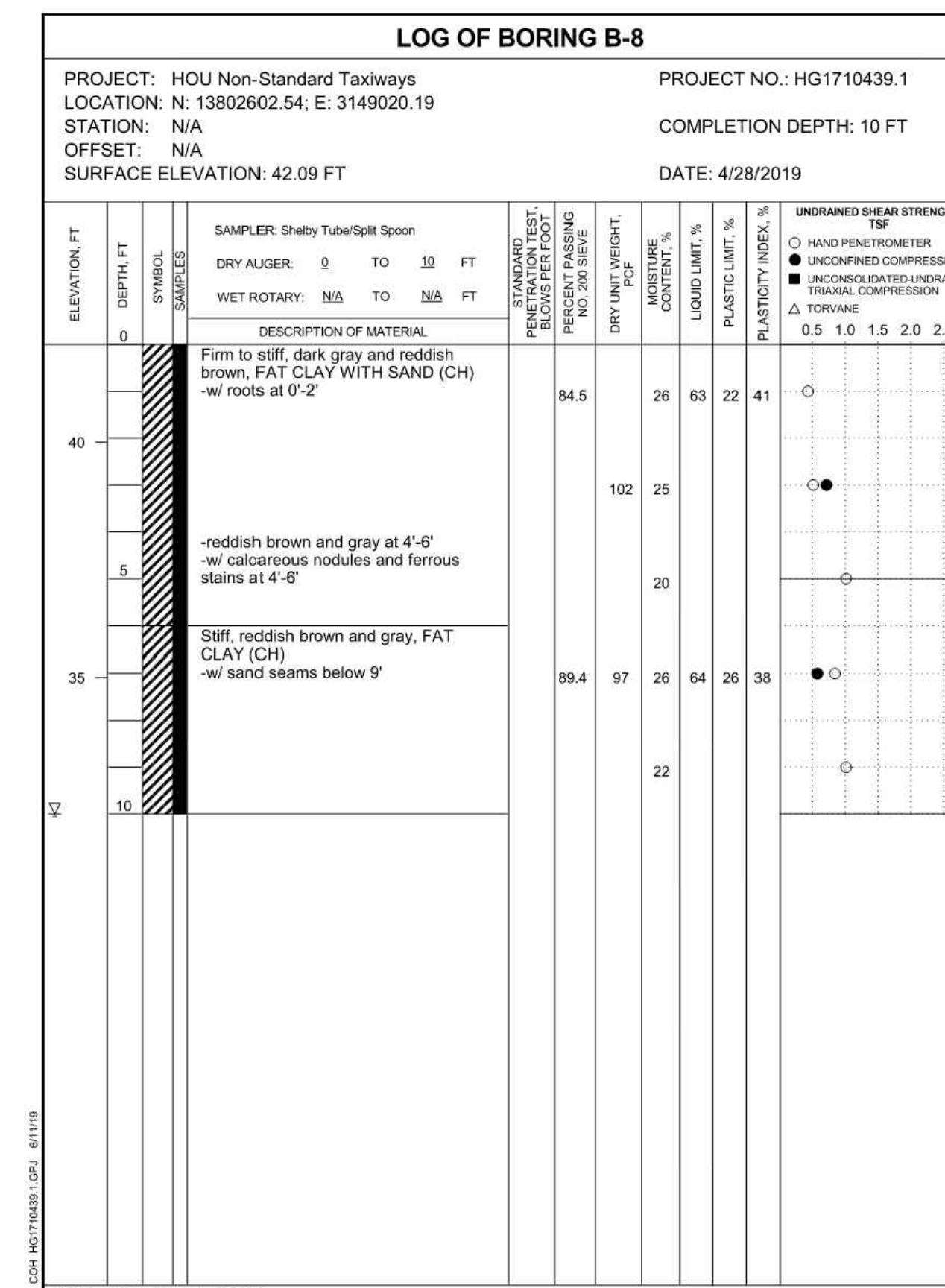
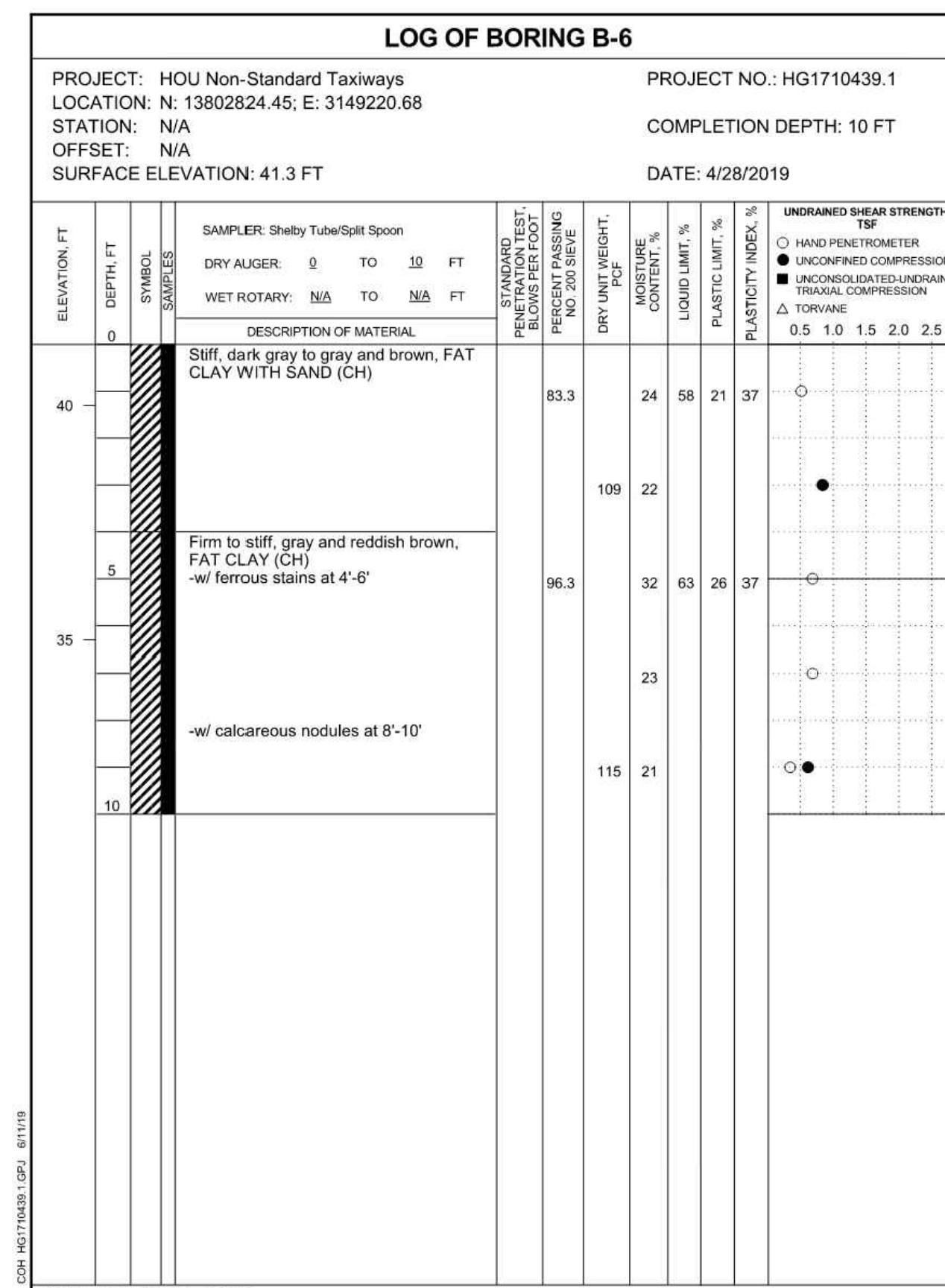
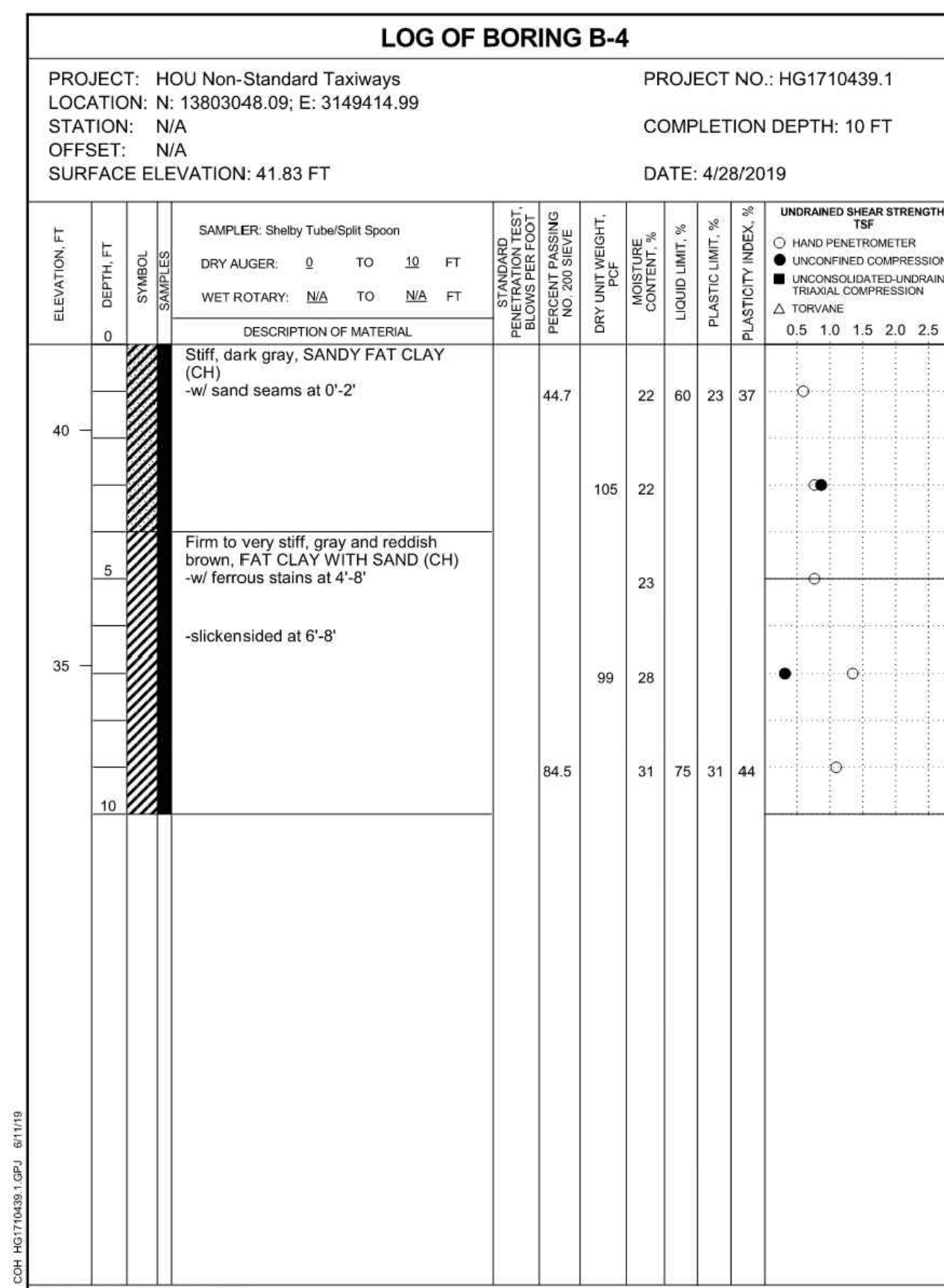
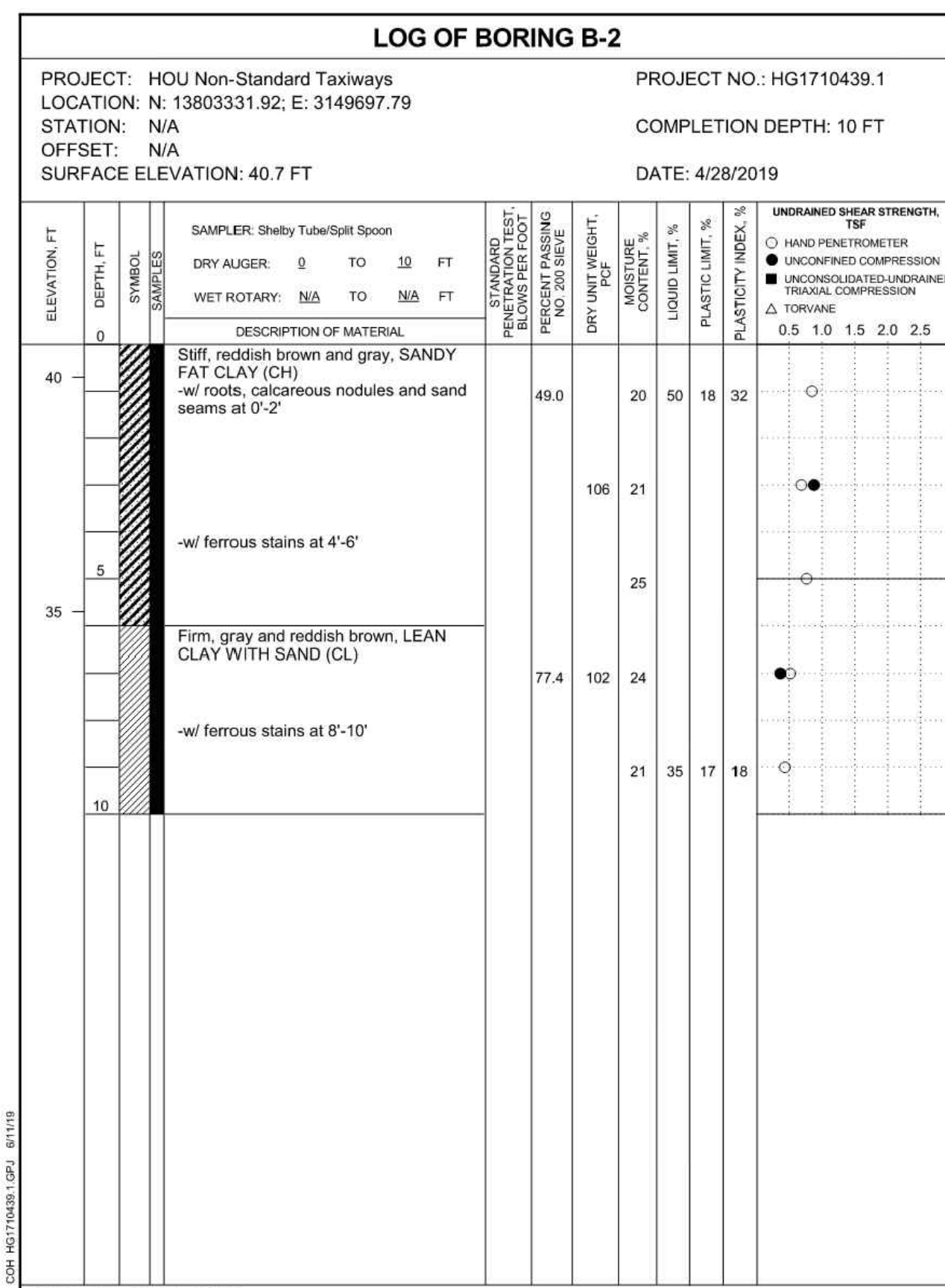
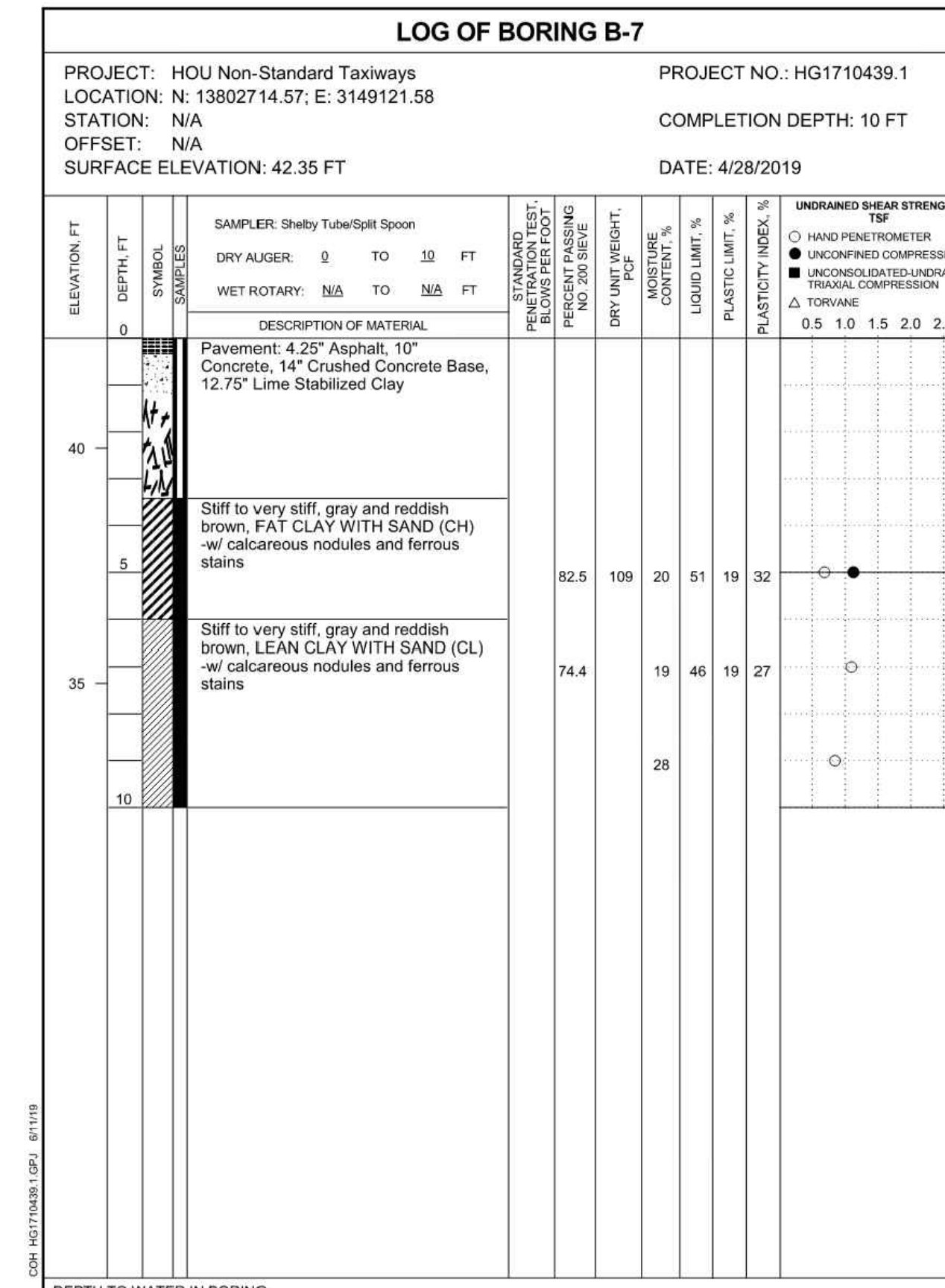
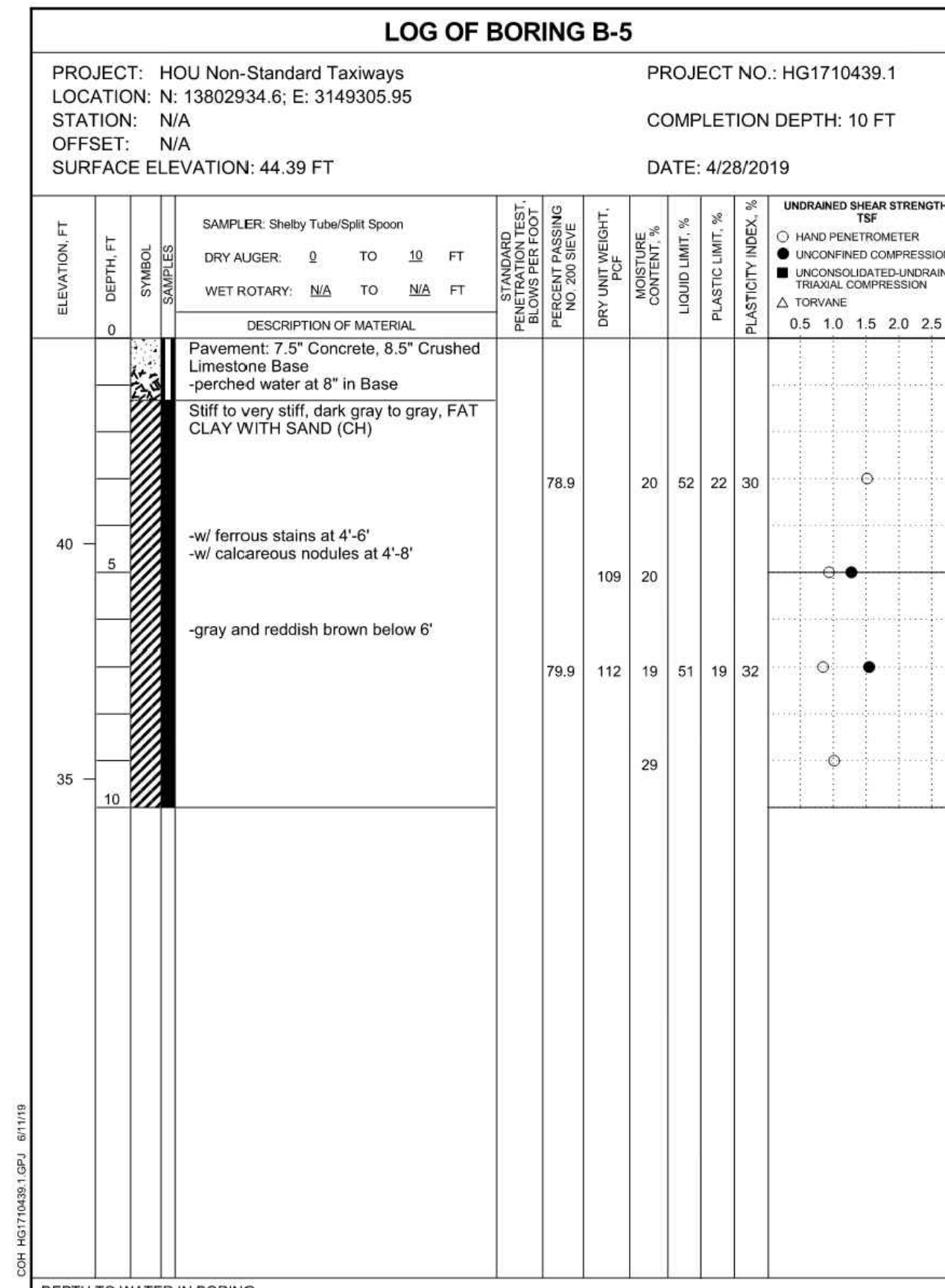
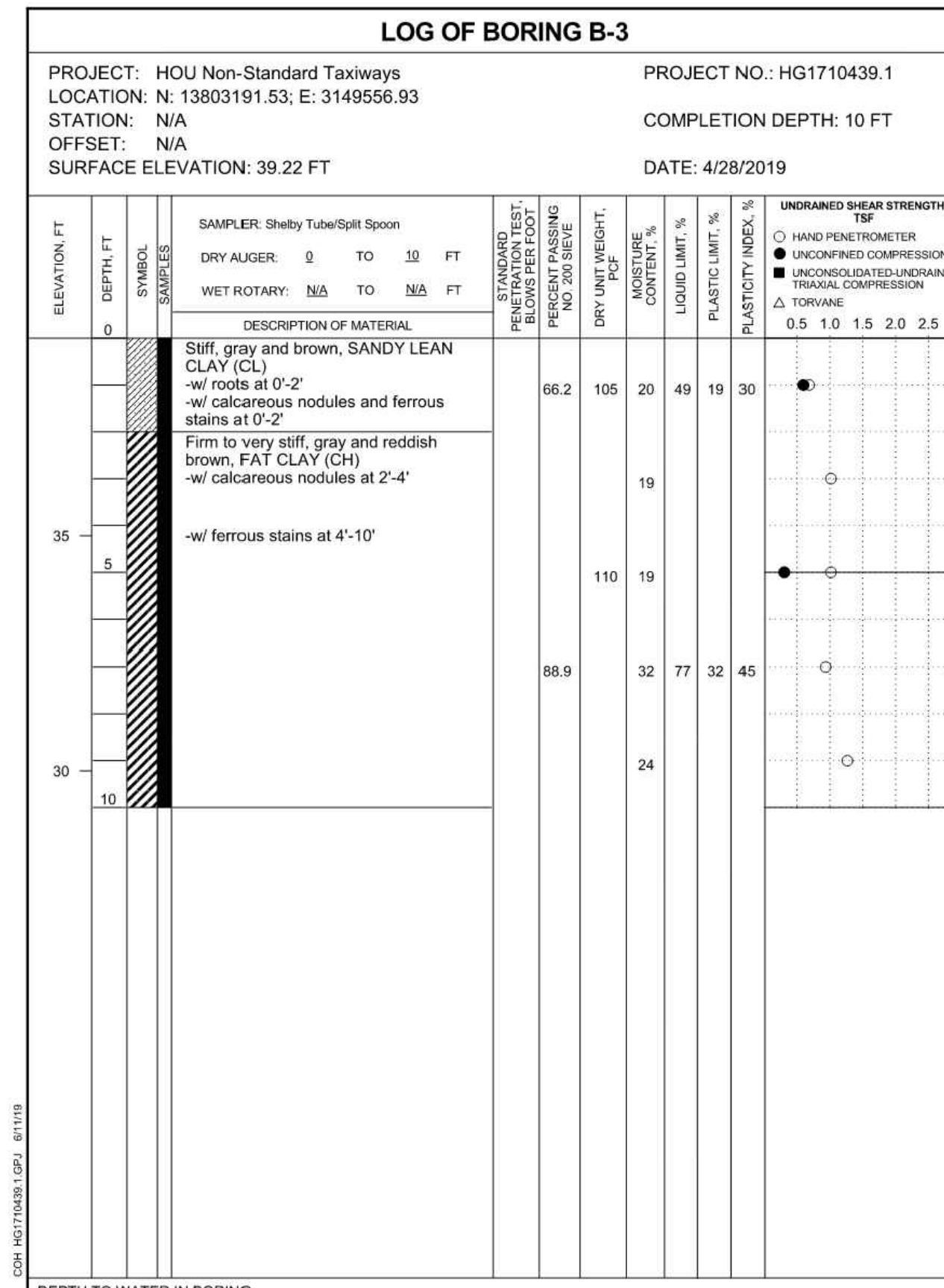
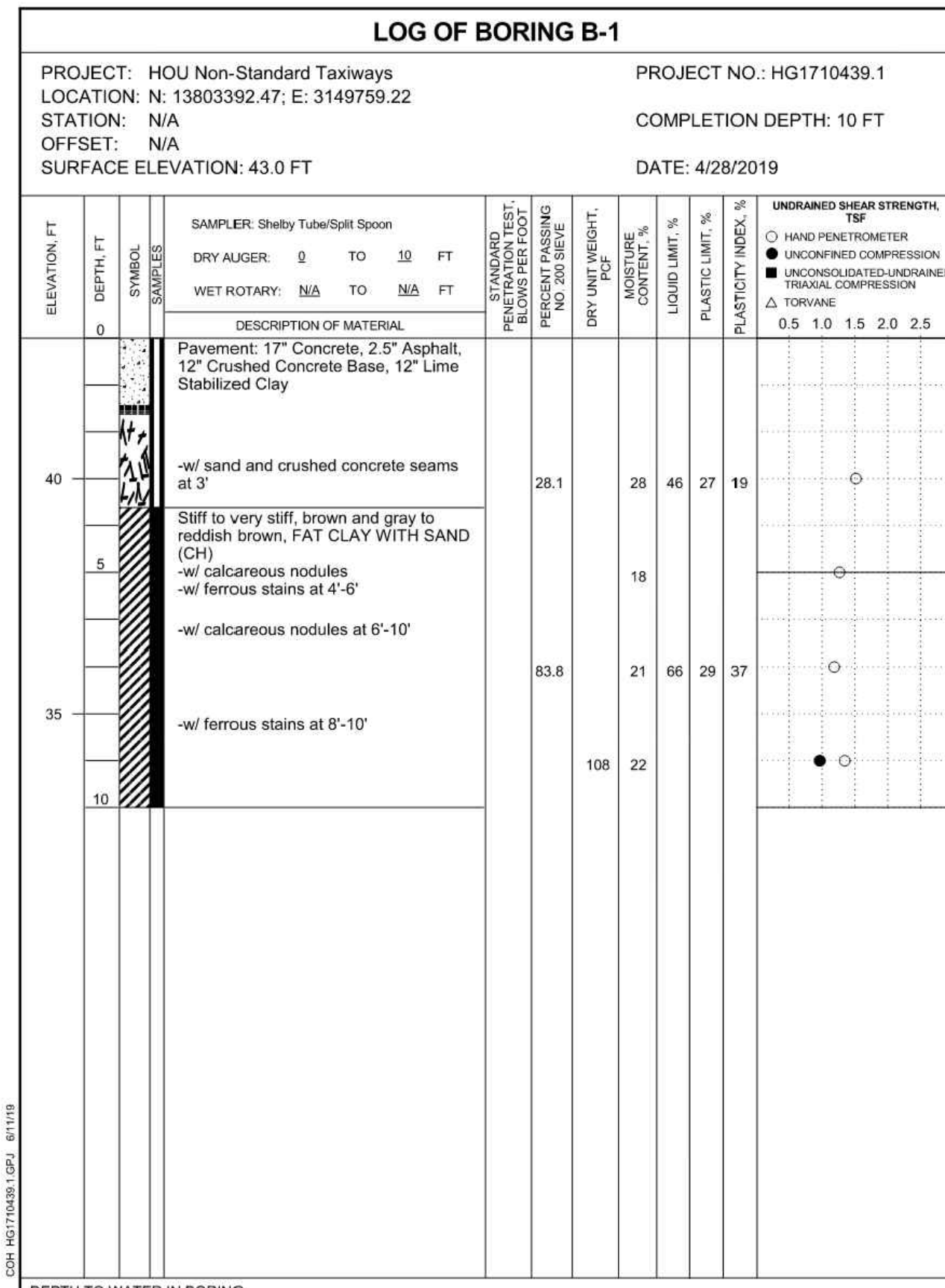
HOUSTON AIRPORT SYSTEM
WILLIAM P. HOBBY AIRPORT
HOUSTON TEXAS



JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

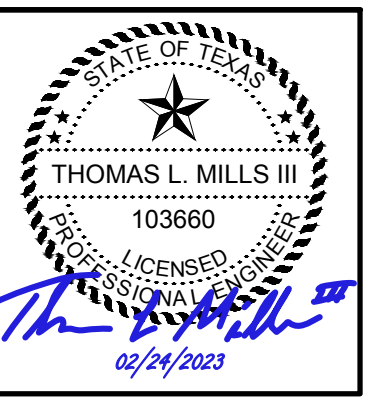
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC



FAA NON-STANDARD TAXIWAYS PROJECT
BORING LOG DETAILS

PROJECT MGR: S. CHILDERS
DESIGNER: B. BARTLETT
DRAWN BY: B. BARTLETT
CHECKED BY: A. CELESTIAN
SCALE: AS SHOWN
DATE: 02/24/2023



APPROVED BY: DATE:

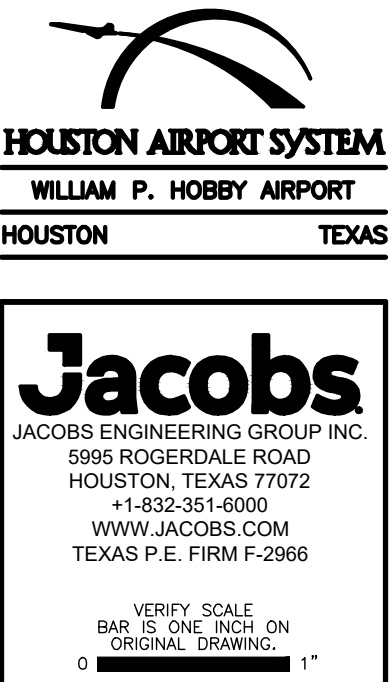
DIRECTOR HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GR501

of

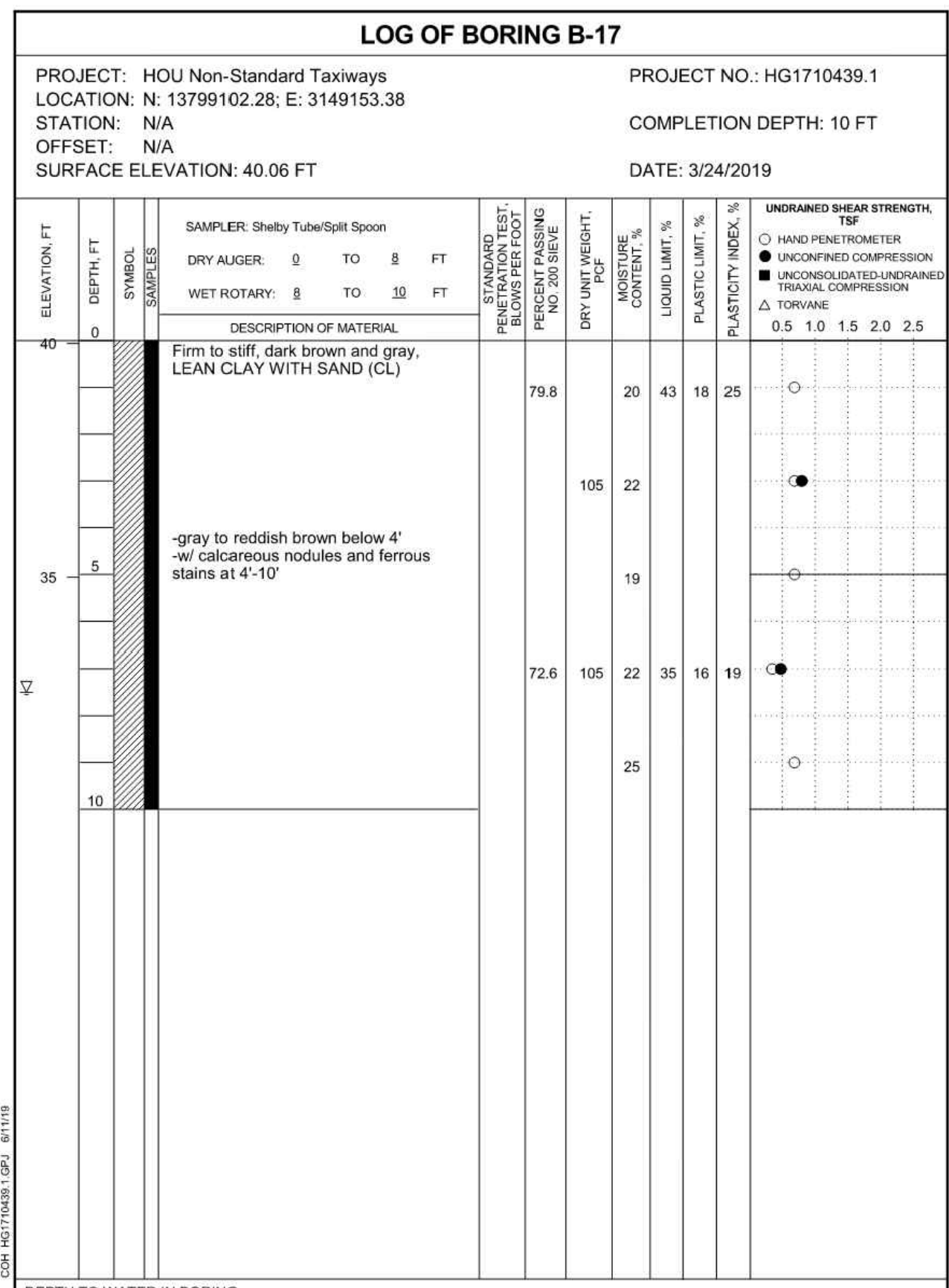
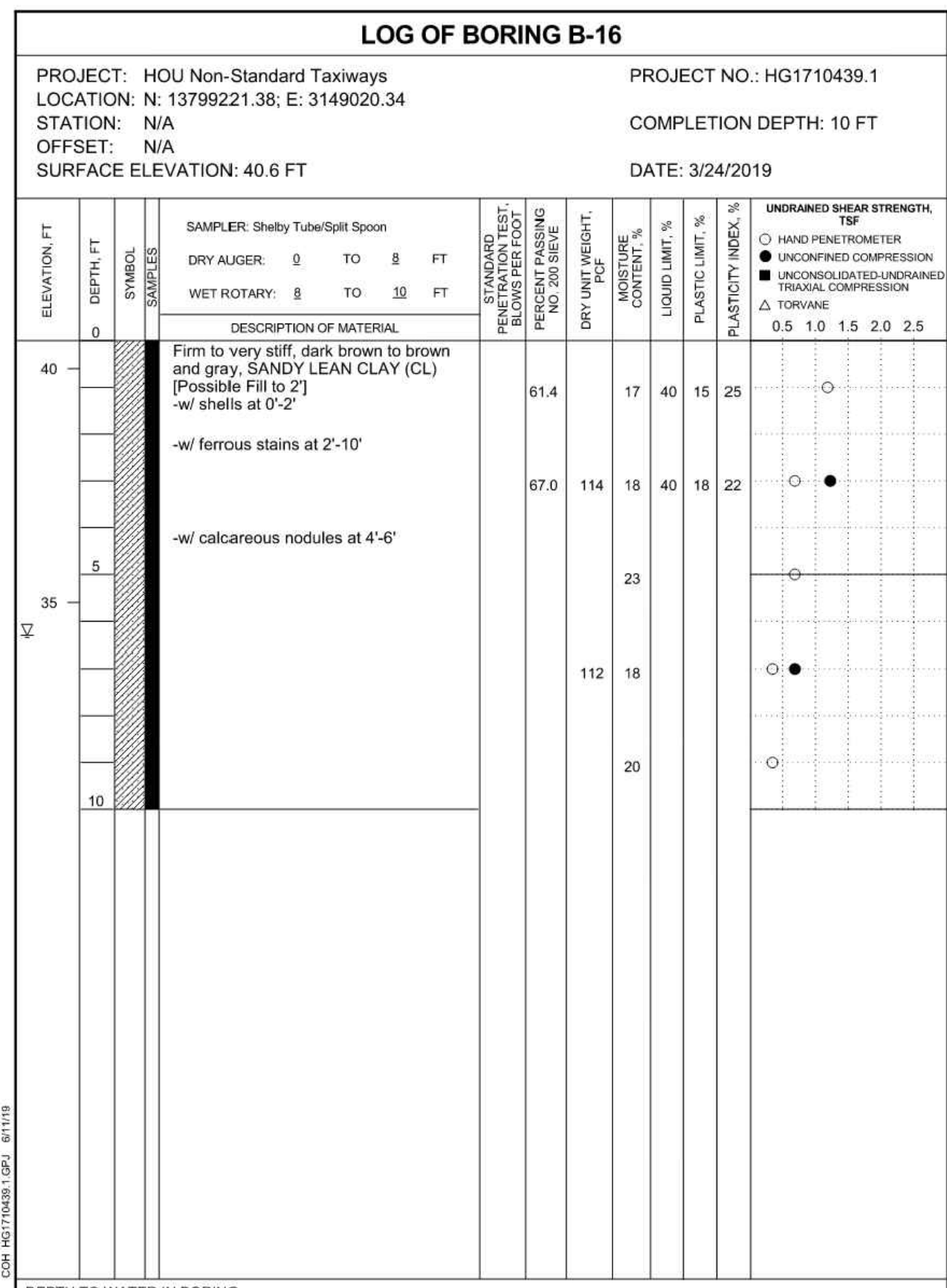
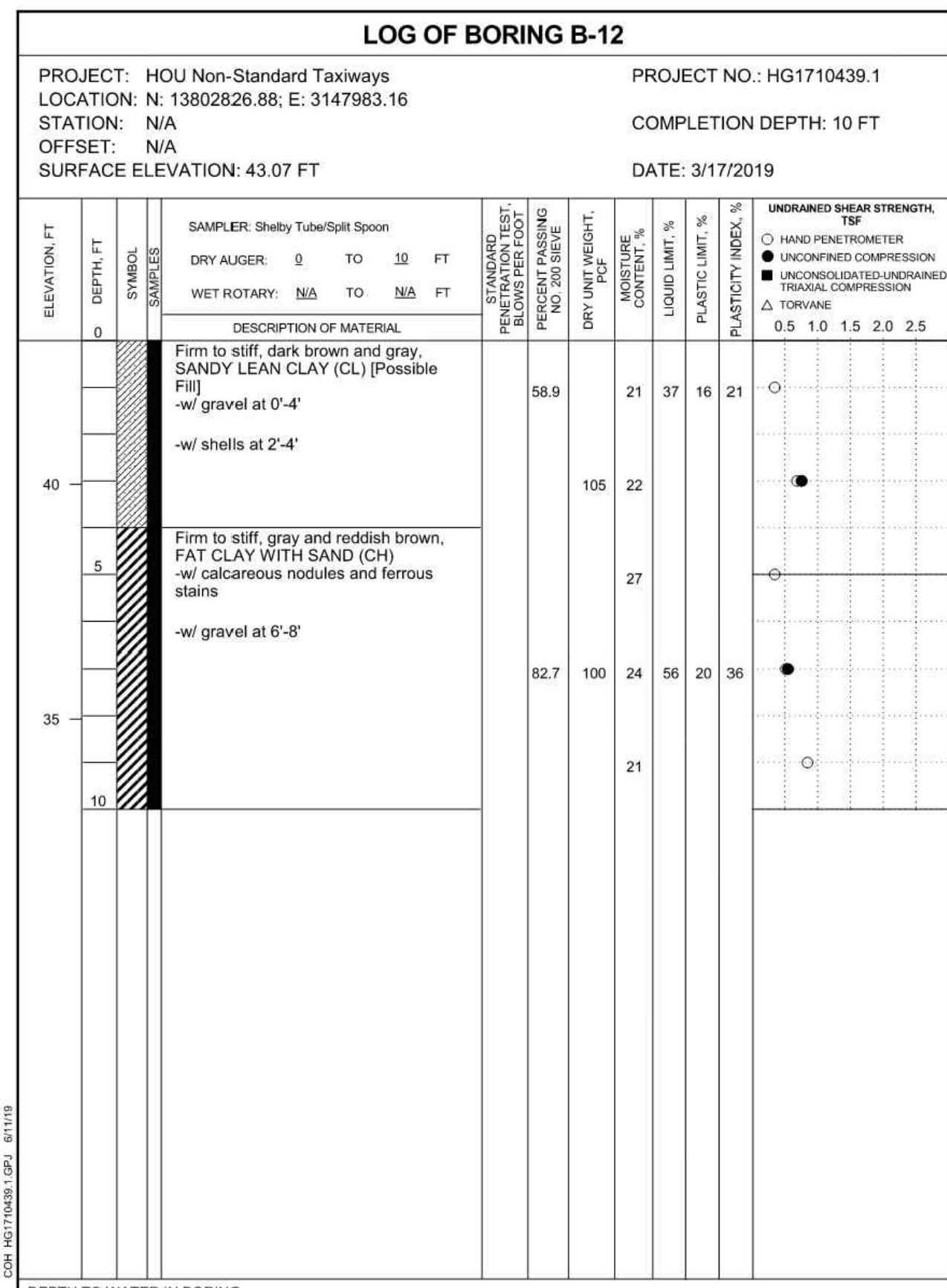
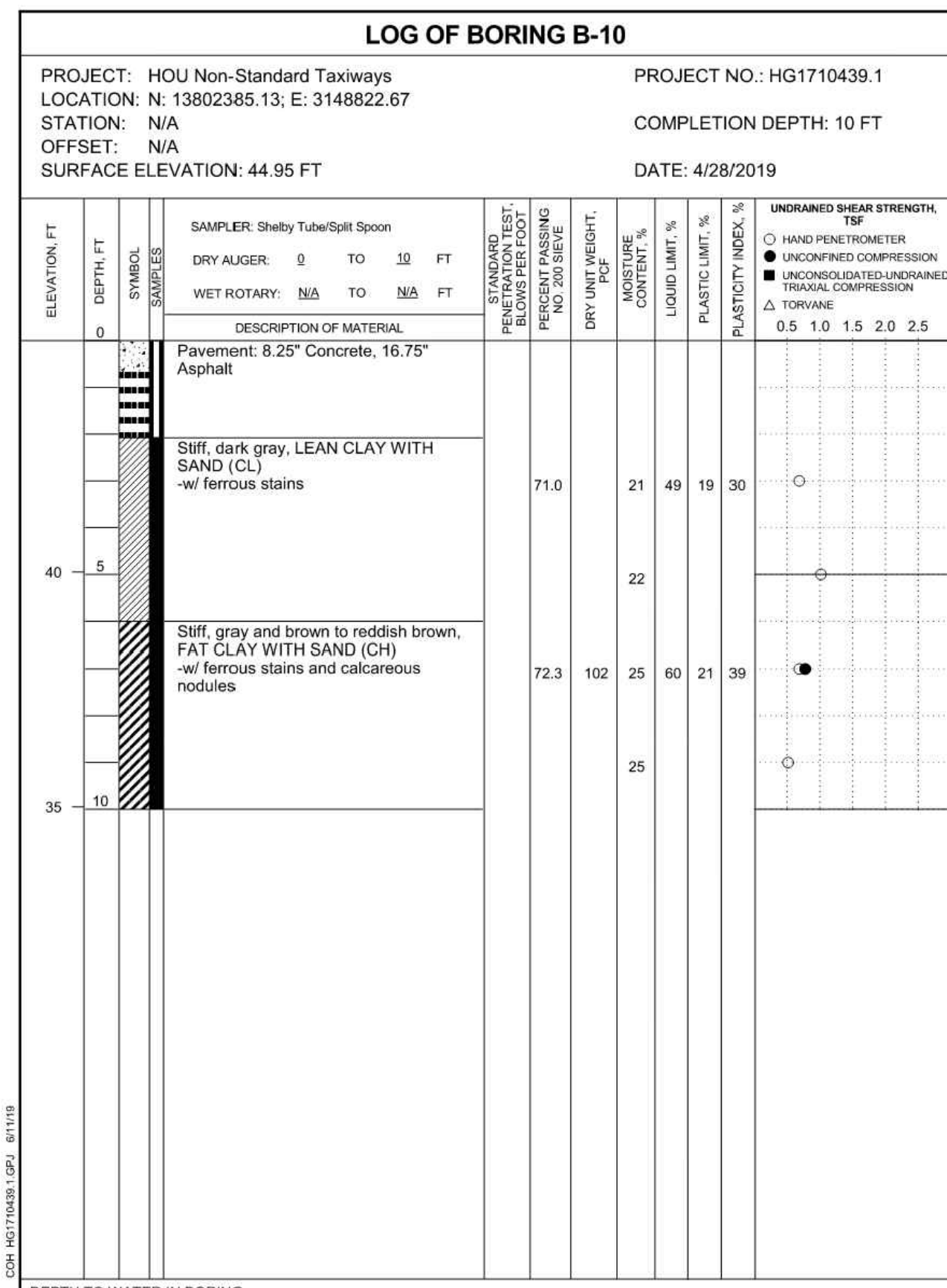
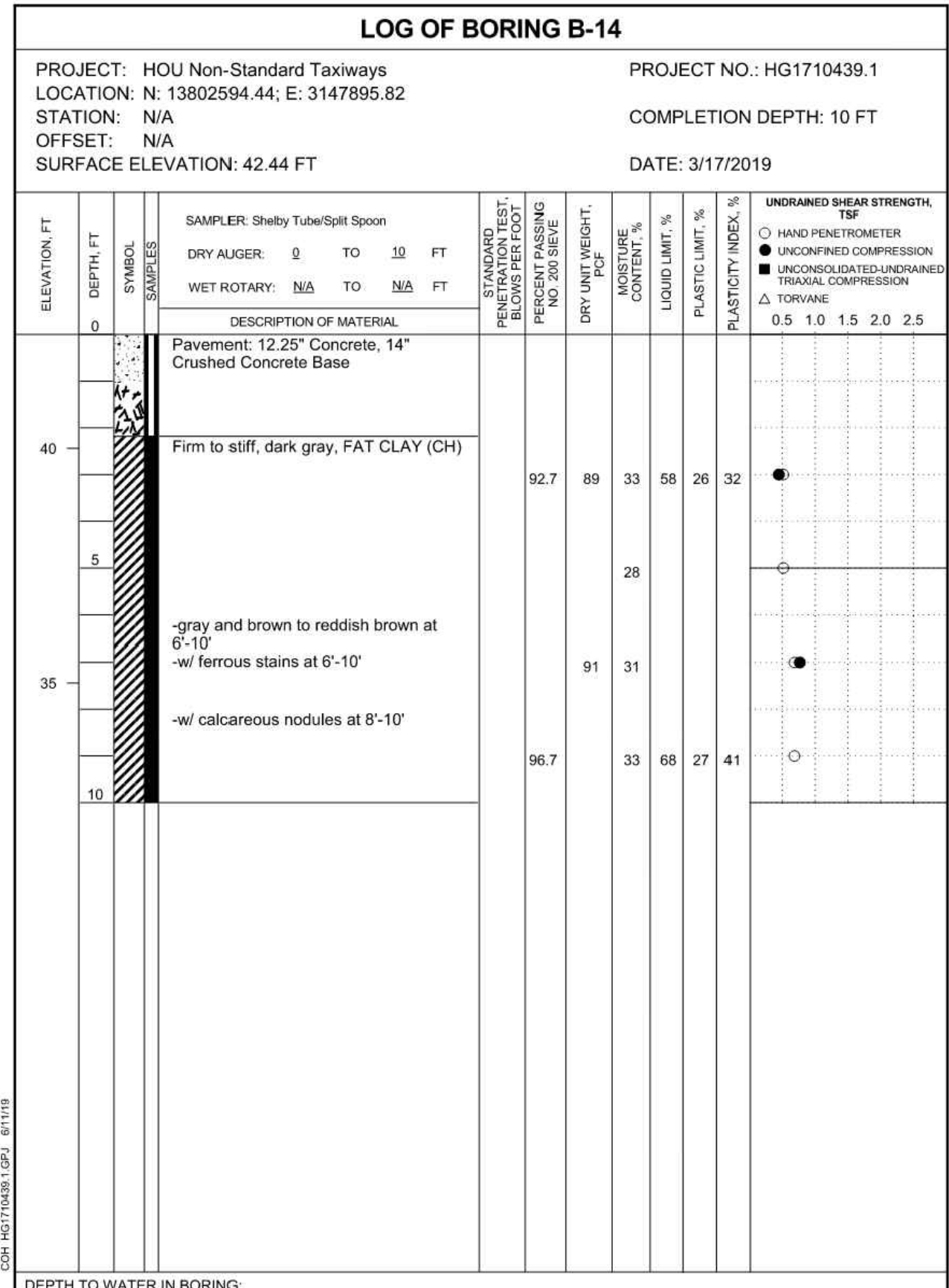
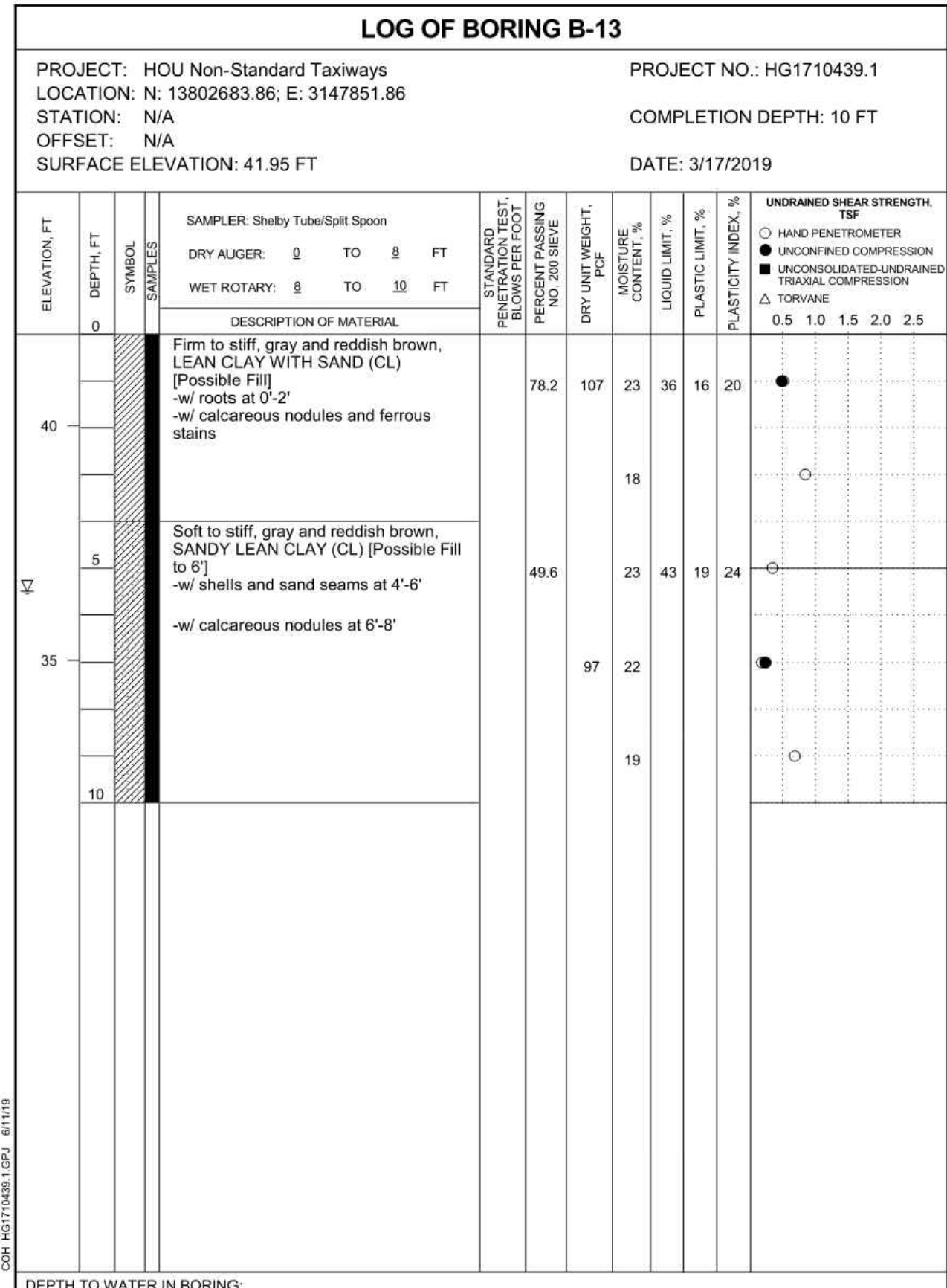
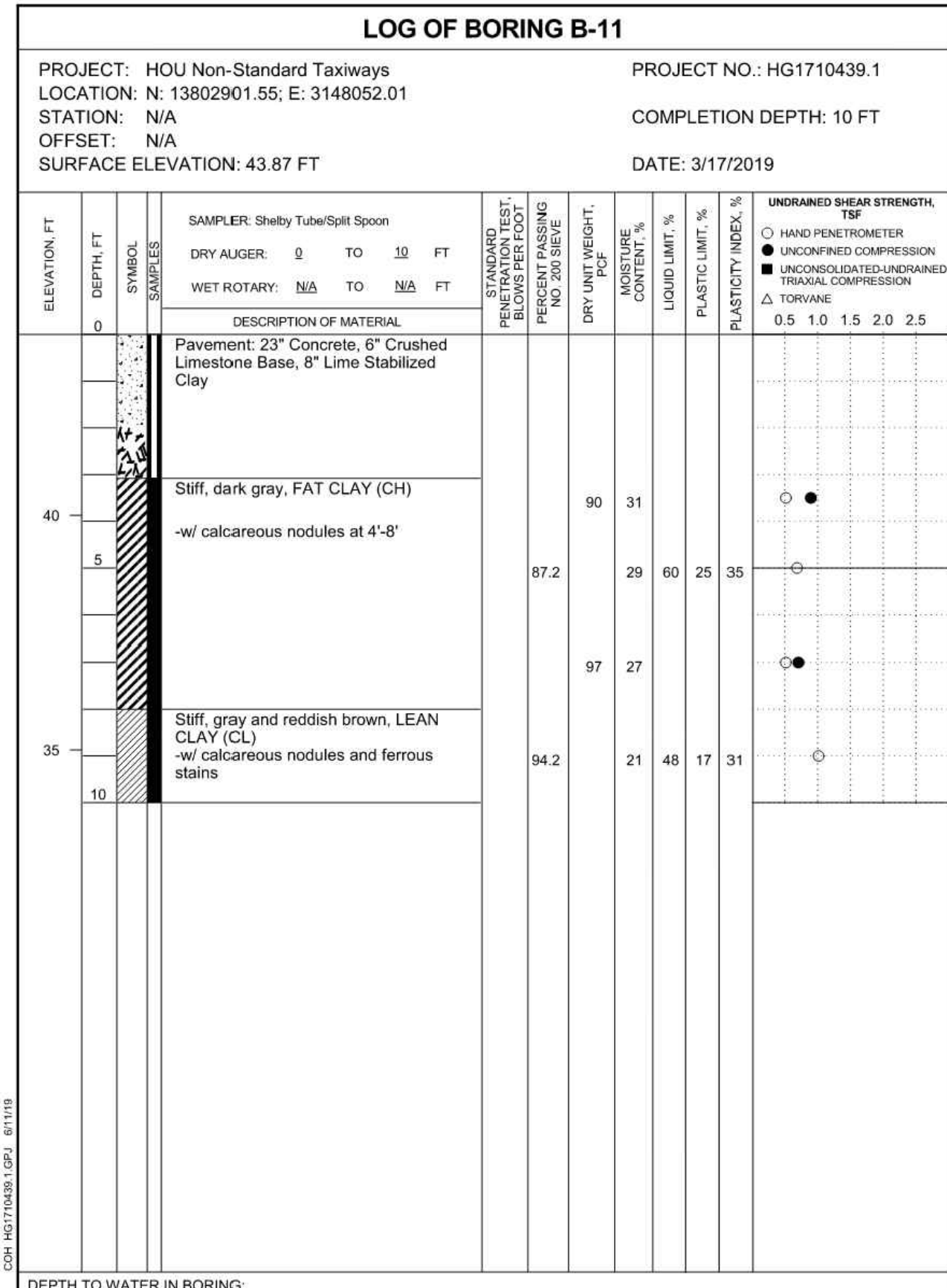
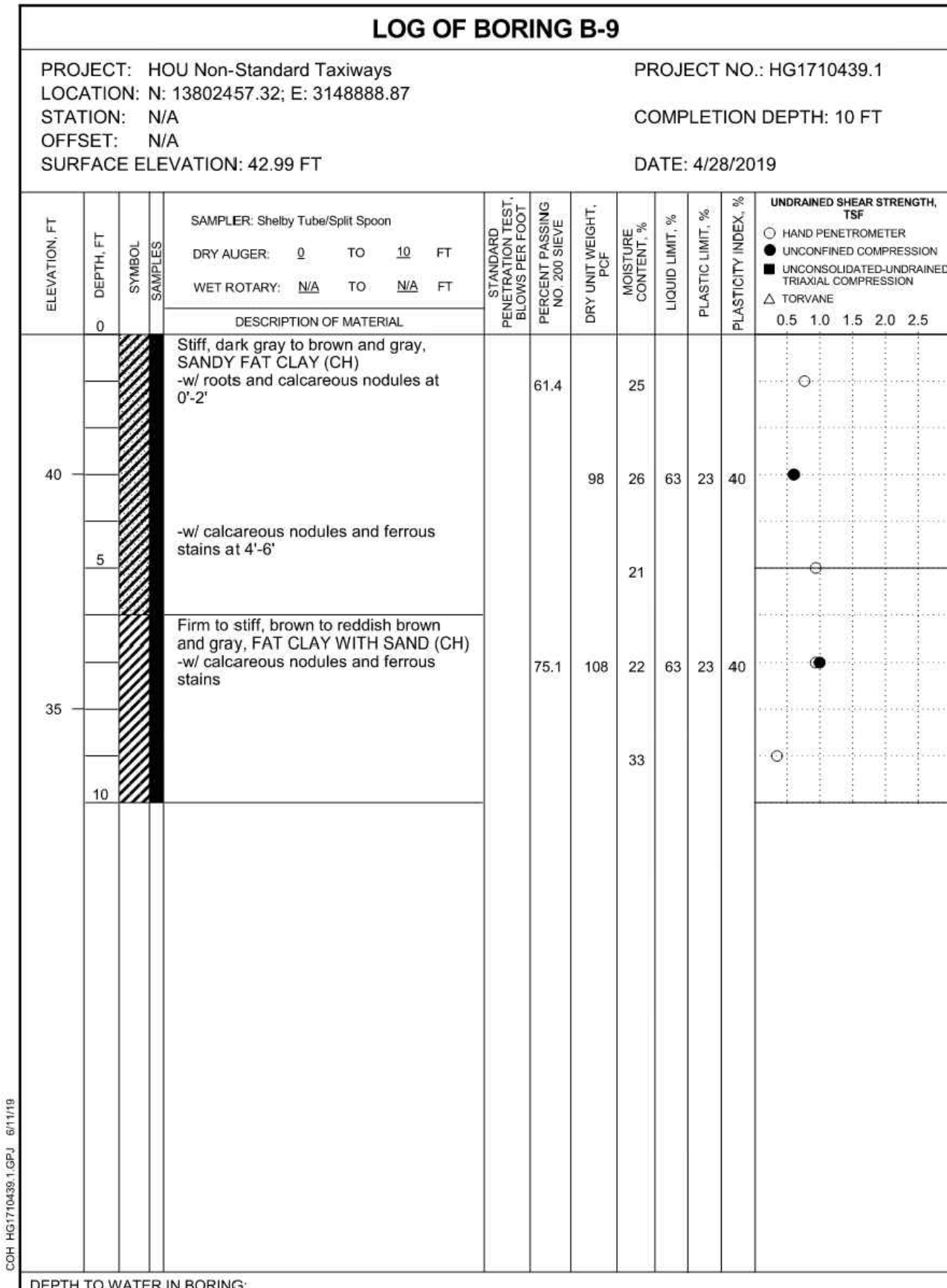
NOTES:

- SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
- FOR GEOTECHNICAL BORING LOG PLANS, SEE SHEETS GR0101 AND GR102.



REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC



FAA NON-STANDARD TAXIWAYS PROJECT
 BORING LOG DETAILS

PROJECT MGR: S. CHILDERS
 DESIGNER: B. BARTLETT
 DRAWN BY: B. BARTLETT
 CHECKED BY: A. CELESTIN
 SCALE: AS SHOWN
 DATE: 02/24/2023



APPROVED BY: _____ DATE: _____
 DIRECTOR
 HOUSTON AIRPORT SYSTEM
 PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: GR502
 of

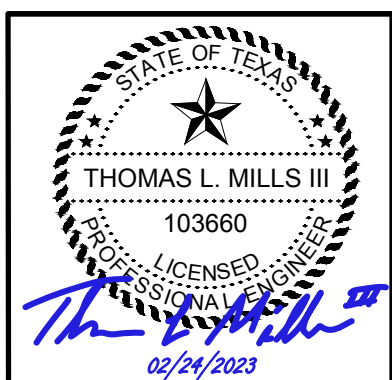
NOTES:

- SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
- FOR GEOTECHNICAL BORING LOG PLANS, SEE SHEETS GR0101 AND GR102.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
BORING LOG DETAILS

PROJECT MGR: S. CHILDERS
DESIGNER: B. BARTLETT
DRAWN BY: B. BARTLETT
CHECKED BY: A. CELESTIAN
SCALE: AS SHOWN
DATE: 02/24/2023



APPROVED BY: _____ DATE: _____

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GR503
of

LOG OF BORING B-15													
PROJECT: HOU Non-Standard Taxiways LOCATION: N: 13799288.17; E: 3148945.45 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 42.78 FT							PROJECT NO.: HG1710439.1 COMPLETION DEPTH: 10 FT DATE: 3/17/2019						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Pavement: 17.5" Concrete, 18.5" Crushed Concrete Base							
40	40					Stiff to very stiff, dark brown and gray, SANDY LEAN CLAY (CL) [Possible Fill to 4'] -w/ shells at 3'-4' -w/ ferrous stains at 4'-6'	64.4	114	17	35	17	18	
5	5						104	22					
35	35					Stiff to very stiff, brown and gray, LEAN CLAY WITH SAND (CL) -w/ calcareous nodules and ferrous stains	80.2	20	46	18	28		
10	10						18						

LOG OF BORING B-19													
PROJECT: HOU Non-Standard Taxiways LOCATION: N: 13798914.55; E: 3149362.95 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 41.92 FT							PROJECT NO.: HG1710439.1 COMPLETION DEPTH: 10 FT DATE: 3/24/2019						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Pavement: 16" Concrete, 3" Crushed Concrete Base, 6" Lime Stabilized Clay							
40	40					Stiff, dark brown and gray, LEAN CLAY WITH SAND (CL) -w/ ferrous stains and calcareous nodules at 4'-6'	111	19					
5	5						72.9	20	28	16	12		
35	35					Firm to very stiff, brown and gray, SANDY LEAN CLAY (CL) -w/ sand seams at 6'-8" -w/ ferrous stains	67.9	19	34	18	16		
10	10						105	22					

LOG OF BORING B-21													
PROJECT: Non-Standard Taxiways - William P. Hobby Airport LOCATION: N: 13804866.54; E: 3149443.19 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 43.46 FT							PROJECT NO.: HG1710439.2 COMPLETION DEPTH: 10 FT DATE: 5/10/2022						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Firm to stiff, gray and brown, SANDY LEAN CLAY (CL) -w/ roots at 0'-2'	69.1	17	38	17	21		
40	40						101	22					
5	5					Stiff, gray, brown and reddish brown, FAT CLAY (CH) -w/ ferrous stains and calcareous nodules at 4'-10'	88.2	23	56	23	33		
35	35						102	24					

LOG OF BORING B-23													
PROJECT: Non-Standard Taxiways - William P. Hobby Airport LOCATION: N: 13805085.54; E: 3149658.67 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 44.02 FT							PROJECT NO.: HG1710439.2 COMPLETION DEPTH: 10 FT DATE: 5/5/2022						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Firm to very stiff, gray, brown and reddish brown, SANDY LEAN CLAY (CL) -w/ roots at 0'-4'	61.1	13	35	16	19		
40	40						106	20					
5	5					-w/ calcareous nodules at 6'-10'							
35	35					-w/ ferrous stains at 8'-10'							

LOG OF BORING B-18													
PROJECT: HOU Non-Standard Taxiways LOCATION: N: 13798984.19; E: 3149285.07 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 40.15 FT							PROJECT NO.: HG1710439.1 COMPLETION DEPTH: 10 FT DATE: 3/24/2019						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
40	40		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Firm to very stiff, brown and gray, LEAN CLAY WITH SAND (CL) -w/ calcareous nodules at 2'-4' -w/ ferrous stains at 4'-10'	71.0	108	17	32	17	15	
5	5						110	19					
35	35						70.2	18	35	17	18		
10	10						21						

LOG OF BORING B-20													
PROJECT: Non-Standard Taxiways - William P. Hobby Airport LOCATION: N: 13804734.65; E: 3149319.97 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 41.84 FT							PROJECT NO.: HG1710439.2 COMPLETION DEPTH: 10 FT DATE: 5/11/2022						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Pavement: 4.5" Asphalt Over 10.5" Lime Stabilized Base							
40	40					Stiff to very stiff, gray, brown and reddish brown, LEAN CLAY WITH SAND (CL) -w/ ferrous stains and calcareous nodules at 1.2'-6'	83.4	18	46	25	21		
5	5						108	21					
35	35					Firm to very stiff, gray, brown and reddish brown, FAT CLAY (CH) -w/ ferrous stains and calcareous nodules at 6'-10'	86.5	29	68	29	40		
10	10						99	25					

LOG OF BORING B-22													
PROJECT: Non-Standard Taxiways - William P. Hobby Airport LOCATION: N: 13804962.03; E: 3149525.11 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 44.34 FT							PROJECT NO.: HG1710439.2 COMPLETION DEPTH: 10 FT DATE: 5/6/2022						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Pavement: 7.5" Concrete Over 7" Crushed Concrete Base	87.6	101	22	52	21	31	
40	40					Stiff to very stiff, gray and brown, FAT CLAY (CH)							
5	5						20						
35	35					Stiff to very stiff, gray, brown and reddish brown, LEAN CLAY (CL) -w/ ferrous stains, calcareous nodules and sand seams at 6'-10'	110	19					
10	10						90.9	19	42	20	22		

LOG OF BORING B-24													
PROJECT: Non-Standard Taxiways - William P. Hobby Airport LOCATION: N: 13805133.43; E: 3149743.11 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 43.63 FT							PROJECT NO.: HG1710439.2 COMPLETION DEPTH: 10 FT DATE: 5/5/2022						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Pavement: 2" Asphalt Over 12.5" Concrete, 9.5" Crushed Concrete Base, and 10" Lime Stabilized Subgrade							
40	40					Stiff, gray, brown and reddish brown, FAT CLAY WITH SAND (CH) -w/ ferrous stains and calcareous nodules at 4'-10'	64.6	104	24	53	17	36	
5	5												
35	35						73						

LOG OF BORING B-25													
PROJECT: Non-Standard Taxiways - William P. Hobby Airport LOCATION: N: 13805366.92; E: 3149563.88 STATION: N/A OFFSET: N/A SURFACE ELEVATION: 43.06 FT							PROJECT NO.: HG1710439.2 COMPLETION DEPTH: 10 FT DATE: 6/6/2022						
ELEVATION FT	DEPTH FT	SYMBOL	SAMPLER	DRY AUGER	WET ROTARY	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST	PERCENT PASSING	DRY UNIT WEIGHT	MOISTURE CONTENT	LIQUID LIMIT	PLASTICITY INDEX	UNDRAINED SHEAR STRENGTH
0	0		Shelby Tube/Spill Spoon	0 TO 10 FT	N/A TO N/A FT	Pavement: 1" Asphalt Over 18" Concrete and 18" Stabilized Crushed Concrete Base							
40	40					Stiff, gray and brown, SANDY FAT CLAY (CH)	69.1	27	56	20	36		
5	5						22						
35	35					Stiff, gray, brown and reddish brown, LEAN CLAY WITH SAND (CL) -w/ ferrous stains and calcareous nodules at 6'-10'	80.3	107	17	49	15	34	
10	10												

GENERAL PHASING NOTES

- NO WORK SHALL BE PERFORMED UNTIL ALL BARRICADES, CONSTRUCTION FENCE, AND RUNWAY CLOSURE MARKERS HAVE BEEN ERECTED AND ACCEPTED BY HOU AIRPORT OPERATIONS.
- NO WORK SHALL BE PERFORMED UNTIL ALL MODIFICATIONS TO THE AIRFIELD MARKINGS, LIGHTING, AND SIGNAGE HAVE BEEN PERFORMED AND ACCEPTED BY HOU AIRPORT OPERATIONS.
- TEMPORARY DELAYS IN STARTING WORK MAY BE REQUIRED WHILE WAITING FOR AIRCRAFT TO TAXI TO DESTINATION IN PHASES WHERE CONSTRUCTION TRAFFIC MUST CROSS AN ACTIVE TAXIWAY OR DURING LOW VISIBILITY OPERATIONS. NO DELAY CLAIMS WILL BE CONSIDERED FOR THESE DELAYS. ALL STAND-BY TIME IS INCIDENTAL TO OTHER PROJECT WORK.
- NO EARTH DISTURBANCE SHALL OCCUR PRIOR TO THE INSTALLATION AND ACCEPTANCE OF THE EROSION AND SEDIMENTATION CONTROLS.
- PRIOR TO COMMENCING WORK IN ANY AREA OF THE AOA, THE CONTRACTOR SHALL SUBMIT A WORK AUTHORIZATION NOTICE (WAN) TO HOU AIRPORT OPERATIONS FOR APPROVAL AT LEAST 72 HOURS IN ADVANCE. NO WORK IN A NEW AREA SHALL BE PERMITTED WITHOUT AN APPROVED WAN. IF PROPOSED WORK INCLUDES EXTENDED MOVEMENT AREA CLOSURES, ADDITIONAL ADVANCE NOTIFICATION TIME MAY BE REQUIRED. WANS WILL BE PRESENTED TO STAKEHOLDERS BY THE HAS PROJECT MANAGER ON TUESDAYS.
- FLAGGERS MUST STAY OUTSIDE OF TOFA'S OF ACTIVE TAXIWAYS.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATION OF CONSTRUCTION ACTIVITIES AND MAINTAINING CONSTANT COORDINATION BETWEEN THE SUBCONTRACTORS AND OTHER STAKEHOLDERS. ALL CONSTRUCTION ACTIVITIES PLANNED BY THE CONTRACTOR SHALL BE REVIEWED AND APPROVED BY HOU AIRPORT OPERATIONS.
- THE CONTRACTOR SHALL PLAN WORK ACTIVITIES SO AS TO MINIMIZE THE EXTENT AND TIME OF AIRFIELD PAVEMENT CLOSURES. AREAS REQUIRING MINIMAL WORK SHALL BE COMPLETED AND RESTORED TO OPERATING STATUS AS SOON AS PRACTICAL WITHIN EACH PHASE OF WORK.
- EACH PHASE OF WORK SHALL NOT BE CONSIDERED COMPLETE UNTIL THE CONCRETE PAVEMENT HAS REACHED REQUIRED STRENGTH, JOINT SEALANT HAS CURED, TEMPORARY PAVEMENT MARKINGS ARE ESTABLISHED, AND SIGNAGE AND LIGHTING CONFORM TO FAA STANDARDS. THESE ELEMENTS OF WORK, AND THEIR REQUIRED DURATIONS, MUST BE ACCOUNTED FOR IN THE CONTRACTOR'S SCHEDULE, AND THEY DO NOT ALLEVIATE THE CONTRACTOR FROM COMPLETING THE WORK AREAS WITHIN THE TIME REQUIREMENTS STATED IN THE CONTRACT. EACH PHASE OF WORK MUST BE COMPLETE AND ACCEPTED BY THE REPRESENTATIVE PRIOR TO RE-OPENING THE AIRFIELD PAVEMENT AREAS TO AIRCRAFT TRAFFIC.
- ALL WORK MUST BE ACCOMPLISHED DURING THE WORK HOURS LISTED IN THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP).
- PERMITS: IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR ALL APPLICABLE PERMITS FOR CONSTRUCTION AND EQUIPMENT.
- TEMPORARY DRAINAGE: THROUGHOUT THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND INSTALL ANY DRAINAGE PROVISIONS NECESSARY TO MAINTAIN POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE AND NOT RESTRICT THE EXISTING DRAINAGE FLOW PATTERN. AT THE END OF PROJECT THE CONTRACTOR SHALL RESTORE ALL GRADES, PER DESIGN PLANS, AND REMOVE ALL TEMPORARY DRAINAGE PIPES AND FACILITIES AT NO ADDITIONAL COST TO AUTHORITY.
- ARFF AND EMERGENCY RESPONSE VEHICLE ACCESS TO THE ACTIVE AIRFIELD SHALL BE MAINTAINED AT ALL TIMES.
- NO CONTRACTOR EMPLOYEE VEHICLES WILL BE ALLOWED WITHIN THE AOA. CONTRACTOR EMPLOYEE PARKING SHALL BE IN THE AREAS DESIGNATED ON THE PLANS OR IN ANOTHER AREA DESIGNATED BY AIRPORT PERSONNEL.
- ALL CONTRACTOR VEHICLES AND TRAFFIC SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. ABSOLUTELY NO CONTRACTOR VEHICLES WILL BE ALLOWED ON OTHER ACTIVE AIRFIELD OPERATIONS AREAS. FLAGGERS SHALL BE PROVIDED AT ALL TIMES WHENEVER CONSTRUCTION ACCESS IS REQUIRED ACROSS AN ACTIVE RUNWAY OR TAXIWAY.
- WORK AREA LIMITS INDICATE THE PRIMARY LIMITS OF THE PERMANENT WORK TO BE CONSTRUCTED IN EACH PHASE. ADDITIONAL PERMANENT AND TEMPORARY WORK OUTSIDE OF THE WORK AREA LIMITS IS REQUIRED IN SOME CASES/PHASES. WORK OUTSIDE THE WORK AREA LIMITS SHOWN SHALL BE COORDINATED WITH HOU AIRPORT OPERATIONS A MINIMUM OF 7 BUSINESS DAYS IN ADVANCE. ANY ADDITIONAL BARRICADES REQUIRED TO PERFORM THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER PROJECT WORK.
- TEMPORARY WORK REQUIRED FOR EACH PHASE IS SHOWN IN THE PHASE IN WHICH IT WILL BE UTILIZED OR IS NECESSARY. IT SHALL BE COMPLETED BEFORE WORK MAY BEGIN WITHIN THE WORK AREA LIMITS OF EACH PHASE AND MAY REQUIRE WORK OUTSIDE THE WORK AREAS SHOWN. WHEN IN DOUBT, THE CONTRACTOR SHALL REQUEST FOR DIRECTION FROM THE ENGINEER AND HOU AIRPORT OPERATIONS ON THE WORK REQUIRED AT THE BEGINNING OF EACH PHASE AND IN NO CASE SHALL THE CONTRACTOR BE ALLOWED TO PROCEED WITH CLOSURE OF AREAS BEYOND THE SUBSEQUENT PHASE WITHOUT WRITTEN APPROVAL FROM HOU AIRPORT OPERATIONS. IT MAY ALSO BE POSSIBLE TO PERFORM THIS WORK EARLIER THAN THE PHASE IT IS SHOWN. TEMPORARY WORK MAY INCLUDE REMOVAL AND CONSTRUCTION OF TEMPORARY AOA FENCE AND/OR GATES, PLACEMENT OF LOW-PROFILE BARRICADES, REMOVAL OF EXISTING PAVEMENT MARKINGS, APPLICATION OF TEMPORARY PAVEMENT MARKINGS, CONSTRUCTION OF TEMPORARY PAVEMENT, DRAINAGE STRUCTURES, AND TEMPORARY AIRFIELD LIGHTING, SIGNAGE, AND ELECTRICAL JUMPERS.
- INTERRUPTION TO AIRFIELD LIGHTING SYSTEMS SHALL BE LIMITED TO THOSE AREAS THAT ARE CLOSED IN SUPPORT OF CONSTRUCTION ACTIVITY OR AS COORDINATED IN ADVANCE WITH HOU AIRPORT OPERATIONS.
- PRIOR TO STARTING WORK WITHIN ANY PHASE, THE CONTRACTOR SHALL HOLD A PRE-PHASE COORDINATION MEETING. THE CONTRACTOR SHALL OBTAIN THE HOU AIRPORT OPERATIONS' APPROVAL TO CLOSE THE WORK AREA FOR THAT PHASE. THIS INCLUDES INSTALLATION OF LIGHTED BARRICADES, RUNWAY CLOSURE MARKERS, AND CONFIRMING THAT A NOTAM HAS BEEN ISSUED FOR THE CLOSURE AREA.
- CONSTRUCTION DURING THE PROJECT MAY BE HALTED AT ANY TIME BY THE OWNER, AND/OR HOU AIRPORT OPERATIONS IF IT IS DETERMINED TO BE IN THE BEST INTEREST OF AIRPORT OPERATIONS SAFETY OR SECURITY. THE CONTRACTOR MAY BE DIRECTED TO REMOVE EQUIPMENT AND/OR EVACUATE THE SITE IN ORDER TO ENABLE AIRCRAFT OPERATIONS FOR COMMERCIAL OR GENERAL AVIATION. NECESSARY EXTENSIONS IN CONTRACT TIME WILL BE GRANTED OR A STOP WORK ORDER WILL BE ISSUED DUE TO THESE DELAYS. HOWEVER, THERE WILL BE NO ADJUSTMENTS IN CONTRACT PRICE DUE TO THESE DELAYS. IN ADDITION TO THE ABOVE, THE FOLLOWING SPECIAL REQUIREMENTS WILL APPLY FOR ALL CONSTRUCTION PHASES:
 - A PRE-ACTIVITY MEETING SHALL BE HELD PRIOR TO THE START OF ANY PHASE, OR WHEN DEVIATIONS OR CHANGES FROM THE CONTRACT DOCUMENTS OCCUR, AND A DAILY SAFETY MEETING SHALL BE HELD PRIOR TO AND AT THE COMPLETION OF EACH WORK PERIOD, BETWEEN HOU AIRPORT OPERATIONS AND THE CONTRACTOR'S SUPERINTENDENT TO DISCUSS REQUIREMENTS FOR THE NEXT PHASE, WORK SHIFT OR WORK AREA. ANY WORK OR OPERATION, EITHER NEW OR OUT OF THE ORDINARY, SHALL REQUIRE A SAFETY/PRE-ACTIVITY MEETING.
 - THE CONTRACTOR SHALL INCORPORATE A SAFETY PLAN SPECIFIC TO DAYTIME AND NIGHTTIME CONSTRUCTION OPERATIONS IN THE SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), AS WELL AS A CONTINGENCY PLAN TO ADDRESS CASES OF ABNORMAL FAILURES OR UNEXPECTED SITUATIONS USING APPENDIX D OF AC 150/5370-2G AS A GUIDE.
 - TRUCK HAUL ROUTES ON THE AIRFIELD SHALL BE DELINEATED WITH LIGHTED BARRICADES, SIGNAGE, OR OTHER MEANS APPROVED BY THE ENGINEER, HAS PROJECT MANAGER, AND HOU AIRPORT OPERATIONS TO CLEARLY MARK THE ROUTES TO THE WORK SITE. THE CONTRACTOR SHALL PARTICIPATE IN AN ENHANCED MOVEMENT AREA DRIVER TRAINING COURSE ADMINISTERED BY HOU AIRPORT OPERATIONS AND SHALL CONTINUOUSLY BRIEF ALL CONTRACTOR EMPLOYEES, SUPPLIERS, AND SUBCONTRACTORS ON THE HAUL ROUTES TO BE UTILIZED, BOTH PRIMARY AND ALTERNATE ROUTES, THROUGHOUT THE DURATION OF THIS CONTRACT.
- FINES: PAYMENT OF ALL FINES ASSESSED TO WILLIAM P. HOBBY AIRPORT, DUE TO VIOLATIONS BY THE CONTRACTOR OF FAA/TSA SECURITY OR SAFETY REQUIREMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE DEDUCTED FROM MONIES DUE THE CONTRACTOR.
 - IF THE RESTRICTED AREA GATE IS FOUND TO BE OPEN OR UNLOCKED AND UNATTENDED, LAW ENFORCEMENT AND/OR TRANSPORTATION SECURITY ADMINISTRATION MAY ISSUE THE CONTRACTOR A CITATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COURT COSTS AND IMPOSED FINES. IN ADDITION, A CHARGE OF UP TO \$10,000.00 MAY BE LEVIED BY THE HOUSTON AIRPORT SYSTEM AND/OR TRANSPORTATION SECURITY ADMINISTRATION FOR EACH VIOLATION SO DOCUMENTED AND UPON THE REQUEST FOR FINAL PAYMENT THE TOTAL OF ANY SUCH CHARGES WILL BE DEDUCTED FROM MONIES DUE THE CONTRACTOR.
 - IN THE EVENT THE CONTRACTOR DEVIATES FROM THE IDENTIFIED CONSTRUCTION LIMITS AND/OR DESIGNATED HAUL ROUTES ONTO AN ACTIVE RUNWAY, TAXIWAY OR TAXILANE, THE CONTRACTOR WILL BE FINED \$1,000 PER OCCURRENCE WHICH WILL

- BE DEDUCTED FROM THE FINAL CONTRACT AMOUNT DUE THE CONTRACTOR. IN ADDITION TO FINES, A NOTICE OF VIOLATION (NOV) MAY BE ISSUED, WHICH MAY INCLUDE SUSPENSION OF WORK OR TERMINATION, DEPENDING ON THE LEVEL OF VIOLATION COMMITTED.
- IDENTIFICATION - PERSONNEL: ALL CONTRACTOR EMPLOYEES, SUBCONTRACTORS, AGENTS, VENDORS, INVIITEES, ETC., REQUIRING ACCESS TO THE CONSTRUCTION SITE SHALL, IN ACCORDANCE WITH THE AIRPORT SECURITY PLAN, CSPP AND SPCD, BE REQUIRED TO DISPLAY AIRPORT ISSUED IDENTIFICATION OR BE UNDER AIRPORT-APPROVED AND BADGED ESCORT PERSONNEL. THESE BADGES WILL BE IDENTIFIED NUMERICALLY AND ISSUED TO INDIVIDUAL EMPLOYEES WITH A PERMANENT RECORD MAINTAINED ON EACH INDIVIDUAL TO WHOM A BADGE IS ISSUED. IN ADDITION, A \$55 NON-REFUNDABLE PROCESSING FEE WILL BE REQUIRED FOR EACH BADGE. THIS FEE MUST BE PAID BEFORE A BADGE IS ISSUED. NO BADGE WILL BE ISSUED TO ANY PERSON UNTIL A REVIEW OF THE REQUIRED PAPERWORK BY AIRPORT SECURITY AND ALL REQUIREMENTS ARE MET. PAPERWORK SHALL BE SUBMITTED A MINIMUM OF 24 HOURS BEFORE ISSUANCE OF A BADGE. THE CONTRACTOR IS RESPONSIBLE FOR PERSONNEL ATTENDING TRAINING AND COMPLETING SECURITY BADGE APPLICATIONS, WHICH WILL INCLUDE AIR/GROUND RADIO, TAXIWAY/TAXILANE, AND AIRPORT FAMILIARIZATION. ESTIMATED TIME FOR COMPLETION IS TWO (2) HOURS. FLAGGERS MUST BE BADGED AND MUST HAVE SUCCESSFULLY COMPLETED ENHANCED AIRPORT MOVEMENT/NON-MOVEMENT AREA TRAINING INSTRUCTED BY HOU AIRPORT OPERATIONS. IN ADDITION TO THE REGULAR BADGE AND MOVEMENT TRAINING, PRIOR TO PERFORMING IN THAT CAPACITY ON AIRPORT PROPERTY, AT THE COMPLETION OF THE CONTRACT ALL BADGES SHALL BE RETURNED TO THE AIRPORT. A CHARGE OF \$50 PER BADGE WILL BE ASSESSED FOR ALL UNRETURNED BADGES. GATE GUARDS AND ESCORTS SHALL BE CONSIDERED UNDER THE FLAGGER CLASSIFICATION AND SHALL BE SUBJECT TO THE SAME REQUIREMENTS AS FLAGGERS.
 - AS REQUIRED DURING THE DAY AND AT THE END OF EACH DAY, ANY AIRFIELD PAVEMENT WHICH IS NOT CLOSED TO AIRCRAFT AND WHICH HAS BEEN USED BY THE CONTRACTOR, SHALL BE CLEANED BY VACUUM SWEEPER TRUCK OR OTHER ACCEPTABLE METHODS APPROVED BY THE OWNER. ALL EQUIPMENT SHALL BE STORED OR MOVED TO THE CONTRACTOR'S STAGING AREAS. CONTRACTOR SHALL MAINTAIN A MINIMUM OF TWO FULLY FUNCTIONING VACUUM SWEEPER TRUCKS ON SITE AT ALL TIMES. SWEEPERS NOT MAINTAINING A FOD FREE AREA SHALL BE REMOVED FROM THE PROJECT SITE AND REPLACED AT THE SOLE EXPENSE OF THE CONTRACTOR AT THE DISCRETION OF HOU AIRPORT OPERATIONS. A BACKUP SWEEPER SHALL BE AVAILABLE WITHIN 10 MINUTES OF THE SITE AT ALL TIMES.

AIRPORT SAFETY REQUIREMENTS

- THE CONTRACTOR SHALL DEVELOP A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) DETAILING HOW THE CONTRACTOR WILL COMPLY WITH THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP). THE SPCD SHALL DETAIL ALL ELEMENTS OF THE CONSTRUCTION DOCUMENTED IN THE CSPP, INCLUDING SPECIFIC HEIGHTS AND HAZARDS OF EQUIPMENT TO BE USED AND CONTRACTORS POINT OF CONTACT. THE SPCD SHALL BE SUBMITTED TO THE ENGINEER AND HOU AIRPORT OPERATIONS FOR REVIEW AND APPROVAL. THE SPCD SHALL BE PREPARED PER FAA AC 150/5370-2 AS INCLUDED IN APPENDIX A OF THE CSPP.
- AIRCRAFT TRAFFIC SHALL HAVE PRECEDENCE AT ALL TIMES ON ACTIVE PAVEMENT AREAS NOT SPECIFICALLY CLOSED FOR EACH PHASE WORK.
- THE CONTRACTOR SHALL ACQUAINT HIS/HER SUPERVISORS AND EMPLOYEES WITH THE AIRPORT ACTIVITY AND OPERATIONS THAT ARE INHERENT TO THIS ACTIVE AIR CARRIER AIRPORT AND SHALL CONDUCT THE CONSTRUCTION ACTIVITIES TO CONFORM TO ALL ROUTE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES ON SAFETY AS SPECIFIED HEREIN.
- WORK WITHIN ANY TAXIWAY OBJECT FREE AREA (TOFA) AND/OR RUNWAY SAFETY AREA (RSA) REQUIRE THE TAXIWAY AND/OR RUNWAY TO BE CLOSED. CONTRACTOR SHALL REQUEST TAXIWAY, TAXILANE, RUNWAY, APRON, OR VSR CLOSURES IN WRITING, FROM HOU AIRPORT OPERATIONS THROUGH THE HOUSTON AIRPORT SYSTEM (HAS) PROJECT MANAGER A MINIMUM OF 72 HOURS PRIOR TO ANY PLANNED WORK. ONLY UPON APPROVAL OF THE CLOSURE REQUEST MAY THE CONTRACTOR PROCEED WITH SAID WORK. FOR ANY REQUIRED RUNWAY CLOSURE, THE CONTRACTOR SHALL INSTALL RUNWAY CLOSURE X'S.
- ANY CONSTRUCTION ACTIVITY WITHIN THE RUNWAY SAFETY AREA OR TAXIWAY OBJECT FREE AREA OR OPEN EXCAVATIONS IN EXCESS OF THREE INCHES DEEP AND SLOPES GREATER THAN 3% WITHIN THE ABOVE AREAS, WILL REQUIRE CLOSURE OF THE AFFECTED RUNWAY OR TAXIWAY, UNLESS OTHERWISE APPROVED BY HOU AIRPORT OPERATIONS THROUGH THE HAS PROJECT MANAGER. CONSTRUCTION ACTIVITIES ARE NOT PERMITTED WITHIN 25 FEET OF PARKED AIRCRAFT WITHOUT PRIOR WRITTEN APPROVAL FROM HOU OPERATIONS.
- FOREIGN OBJECT DEBRIS (FOD) IS A MAJOR CONCERN ON THIS PROJECT. FOD CAN BE FROM BUT IS NOT LIMITED TO TRASH LEFT ON THE AIRFIELD, EXCESSIVE DUST, CONSTRUCTION MATERIALS SPILLAGE, AND CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL MAINTAIN A CLEAN AND NEAT WORK AREA AT ALL TIMES. WATER TRUCKS SHALL BE UTILIZED TO CONTROL ALL BLOWING DUST AT ALL TIMES AND AS REQUESTED BY THE REPRESENTATIVE. SWEEPERS SHALL BE USED BEHIND ALL HAUL TRUCKS ON HAUL ROUTES, VSR, AND ON ADJACENT TAXIWAYS, AND APRON AREAS TO MAINTAIN A FOD FREE ENVIRONMENT.
- THE CONTRACTOR IS DIRECTED TO COMPLY WITH, AND ACQUAINT HIS/HER EMPLOYEES WITH, THE FOLLOWING FAA ADVISORY CIRCULARS. THESE DOCUMENTS AND RELATED REQUIREMENTS ARE REFERENCED IN DETAIL IN THE PROJECT SPECIFICATIONS:
 - 150/5200-18C, "AIRPORT SAFETY - SELF INSPECTION"
 - 150/5210-5D, "PAINTING, MARKING & LIGHTING OF VEHICLES USED ON AN AIRPORT"
 - 150/5370-2G, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"
- THE FOLLOWING SPECIAL REQUIREMENTS APPLY FOR NIGHT CONSTRUCTION:
 - A DAILY SAFETY AND PROGRESS MEETING SHALL BE HELD BETWEEN HOU AIRPORT OPERATIONS AND THE CONTRACTOR'S SUPERINTENDENT TO DISCUSS REQUIREMENTS FOR THE NEXT WORK PERIOD. THE CONTRACTOR MUST COORDINATE EACH NIGHT'S ACTIVITIES WITH HOU AIRPORT OPERATIONS BY 1700 HOURS EACH DAY, WHICH WILL INCLUDE A CLOSURE AND BARRICADE PLAN FOR REVIEW AND APPROVAL. NO WORK WILL BE ALLOWED WITHIN THE AOA UNLESS IT HAS BEEN COORDINATED WITH AIRPORT OPERATIONS FOR THAT NIGHT.
 - NO LOCKOUT TAGOUT IS ALLOWED AT NIGHT.
 - THE CONTRACTOR SHALL INCORPORATE A SAFETY PLAN SPECIFIC TO NIGHTTIME CONSTRUCTION OPERATIONS IN THE SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), AS WELL AS A CONTINGENCY PLAN TO ADDRESS CASES OF ABNORMAL FAILURES OR UNEXPECTED DISASTERS USING APPENDIX D OF AC 150/5370-2G AS A GUIDE.
- THE CONTRACTOR SHALL ENSURE ALL SAFETY ITEMS, INCLUDING BARRICADES, LIGHTS, SIGNAGE, AND STRIPING ARE IN OPERABLE CONDITION AND VISIBLE AT ALL TIMES. THE WORK AREA(S) SHALL BE VISUALLY INSPECTED AND MAINTAINED DAILY TO THE SATISFACTION OF THE HOU AIRPORT OPERATIONS.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO ENSURE THE SAFETY OF OPERATING AIRCRAFT AS WELL AS HIS/HER OWN EQUIPMENT AND PERSONNEL. SPECIAL CONSIDERATIONS SHOULD BE GIVEN TO FLIGHT SCHEDULES AND MISCELLANEOUS AIRCRAFT OPERATIONS. THE CONTRACTOR SHALL OBEY ALL INSTRUCTIONS AS TO ROUTES TO BE TAKEN BY EQUIPMENT TRAVELING WITHIN THE AIRPORT OPERATIONS AREA AND KEEP SUCH VEHICLES AND EQUIPMENT MARKED WITH THE SPECIFIED AIRPORT SAFETY FLAGS OR FLASHING YELLOW BEACONS. THE CONTRACTOR SHALL MAKE HIS OWN ESTIMATE OF ALL DIFFICULTIES TO BE ENCOUNTERED. EQUIPMENT NOT ACTUALLY IN OPERATION SHALL BE KEPT CLEAR OF OBJECT FREE AREAS. PERSONNEL SHALL NOT ENTER AREAS OF THE AIRPORT WHERE AIRCRAFT ARE OPERATING WITHOUT SPECIFIC PERMISSION. ALL EQUIPMENT SHALL REMAIN CLEAR OF ALL ACTIVE SAFETY AREAS AND OBJECT FREE AREAS.
- THE CONTRACTOR SHALL ERECT AND MAINTAIN ALL NECESSARY BARRICADES, SIGNS, DANGER SIGNALS AND LIGHTS FOR THE PROTECTION OF THE WORK AND THE SAFETY OF THE PUBLIC FOR BOTH LAND AND AIR TRAFFIC IN ACCORDANCE WITH THE SPECIFICATIONS (AC 150/5370-2G). ALL CONSTRUCTION LIGHTS USED FOR NIGHTTIME WORK MUST BE EQUIPPED WITH SHIELDS TO DIRECT LIGHT AWAY FROM THE RUNWAY AND ATOT.
- CLOSED RUNWAYS OR TAXIWAYS SHALL BE BARRICADED OFF AT ALL INTERSECTIONS WITH ACTIVE RUNWAYS OR TAXIWAYS. THE CONTRACTOR SHALL HAVE PERSONNEL ON CALL 24 HOURS PER DAY FOR EMERGENCY MAINTENANCE OF AIRPORT HAZARD LIGHTING AND BARRICADE.
- MEASURES SHALL BE ADOPTED TO PREVENT POTENTIAL POLLUTANTS FROM ENTERING ANY DRAINAGE SYSTEM OR WATERWAY. MATERIALS AND DEBRIS SHALL NOT BE STORED IN THE WORK AREA IN A MANNER THAT WOULD ALLOW THEM TO ENTER THE DRAINAGE SYSTEM AS A RESULT OF SPILLAGE, NATURAL RUNOFF OR FLOODING. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMMEDIATELY NOTIFY THE OWNER SHOULD THERE BE A SPILLAGE OF MATERIAL WHICH MIGHT CONTAMINATE THE DRAINAGE SYSTEM. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE AND CLEAR UP SUCH SPILLAGE IN A MANNER ACCEPTABLE TO THE SPONSOR. MATERIAL SHALL BE SECURED SO THAT IT WILL NOT BE BLOWN BY THE WIND ONTO THE AIRFIELD SURFACES.
- CONSTRUCTION EQUIPMENT SHALL HAVE A MAXIMUM HEIGHT OF 12 FEET UNLESS A 7480 HAS BEEN FILED AND APPROVED BY

- FAA.
- ALL CONSTRUCTION PERSONNEL SHALL ATTEND A DAILY SAFETY BRIEFING PRIOR TO COMMENCING WORK FOR THE DAY. THESE MEETINGS SHALL BE MADE OPEN TO THE ENGINEER, OWNER, REPRESENTATIVE, HOU AIRPORT OPERATIONS, AND ANY OTHER GOVERNING AUTHORITY THAT WOULD LIKE TO ATTEND. THERE WILL ALSO BE A MANDATORY WEEKLY CONSTRUCTION MEETING WITH THE HAS PROJECT MANAGER, HOU OPERATIONS, THE ENGINEER, AND OTHER STAKEHOLDERS THAT MUST BE ATTENDED BY THE CONTRACTOR'S SENIOR FIELD STAFF, INCLUDING BUT NOT LIMITED TO SUPERINTENDENT(S) AND TEAM LEADERS. THE DATE AND TIME OF THE WEEKLY CONSTRUCTION MEETING WILL BE ESTABLISHED PRIOR TO THE START OF WORK AT THE PROJECT PRE-CONSTRUCTION CONFERENCE.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ALL SHEETING, SHORING, AND BRACING IS DONE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS AND REQUIREMENTS. SHEETING, SHORING, AND BRACING IS CONSIDERED TO BE AN INCIDENTAL PART OF THE WORK AND NO SEPARATE PAYMENT WILL BE ALLOW
 - RESPONSIBILITY FOR TEMPORARY LIGHTING AND MARKING: AT THE START OF EACH PHASE, THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING AND MAINTAINING THE NECESSARY TEMPORARY MARKING, AIRFIELD LIGHTING, SIGNAGE, BARRICADES, AND HAZARD LIGHTING AS REQUIRED BY THE PLANS AND SPECIFICATIONS TO MARK CONSTRUCTION AREAS, HAZARDS, ETC. REFLECTORIZED ORANGE PLASTIC LOW-PROFILE WATER-FILLED BARRICADES WITH ATTACHED FLASHING RED LIGHTS AND REFLECTIVE TAPE OR EQUAL. CONTRACTOR SHALL MAINTAIN BARRICADES FULL OF WATER TO PREVENT DISPLACEMENT BY JET BLAST AND IMMEDIATELY REPLACE ANY BARRICADES THAT LEAK.
 - APPROVAL IS SUBJECT TO WITHDRAWAL AT ANY TIME BECAUSE OF CHANGE IN THE WEATHER, EMERGENCY CONDITIONS ON THE EXISTING AIRFIELD AREAS, ANTICIPATION OF EMERGENCY CONDITIONS, AND FOR ANY OTHER REASON DETERMINED BY HOU AIRPORT OPERATIONS ACTING UNDER THE ORDERS AND INSTRUCTIONS OF THE OWNER AND THE DESIGNATED FAA REPRESENTATIVE. ANY INSTRUCTIONS TO THE CONTRACTOR TO CLEAR ANY GIVEN AREA, AT ANY TIME, BY HOU AIRPORT OPERATIONS, THE OWNER OR THE FAA CONTROL TOWER (BY RADIO OR OTHER MEANS) SHALL BE IMMEDIATELY EXECUTED. CONSTRUCTION WORK WILL COMMENCE IN THE CLEARED AREA ONLY WHEN ADDITIONAL INSTRUCTIONS ARE ISSUED BY THE OWNER.
 - ALL COMMUNICATION WITH THE AIRPORT TRAFFIC CONTROL TOWER OR OTHER ELEMENTS OF THE AIRPORT SHALL BE THROUGH HOU AIRPORT OPERATIONS.
 - THE CONTRACTOR SHALL SUBMIT A DESTRUCTIVE/INCLEMENT WEATHER PLAN TO SET FORTH GENERAL GUIDANCE AND INFORMATION FOR THE CONTRACTOR TO COORDINATE PREPAREDNESS PLANS WHEN DESTRUCTIVE/INCLEMENT WEATHER THREATENS THE WILLIAM P. HOBBY AIRPORT ENVIRONMENT.
 - CONSTRUCTION ACTIVITY IN THE VICINITY OF NAVIGATIONAL AIDS: 72 HOURS PRIOR TO THE PRE-CONSTRUCTION CONFERENCE AND/OR CONSTRUCTION START, THE CONTRACTOR SHALL CONTACT THE HAS PROJECT MANAGER TO COORDINATE WITH THE LOCAL AIRWAY FACILITIES MANAGER. THEIR REPRESENTATIVE WILL MEET WITH THE CONTRACTOR TO IDENTIFY FAA FACILITIES AND FAA CABLES.
 - THE CONTRACTOR SHALL INSTALL ALL REQUIRED BARRICADES AT DESIGNATED PLAN LOCATIONS, HAVE ALL ACCESS GATES GUARDED AND LOCKABLE, AND HAVE ALL EQUIPMENT EITHER FLAGGED AND FITTED WITH FLASHING YELLOW DOME-TYPE LIGHTS ON TOP OF THE VEHICLES, AS REQUIRED FOR DAYTIME AND NIGHTTIME CONSTRUCTION ACTIVITIES. ALL OF THESE ITEMS SHALL BE INTEGRATED AS A PART OF THE SPCD. THE CONTRACTOR SHALL INSTALL ALL COMPONENTS OF THE SPCD AT THE APPROPRIATE TIMES AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INSPECT EVERY ASPECT OF THE SPCD ON AT LEAST A DAILY BASIS AND ENSURE ALL COMPONENTS ARE FUNCTIONING PROPERLY. HOU AIRPORT OPERATIONS SHALL ALSO INSPECT THE SYSTEM DAILY AND IF ANY DEFICIENCIES ARE NOTED, THE CONTRACTOR SHALL IMMEDIATELY TAKE STEPS TO CORRECT ANY AND ALL DEFICIENCIES. THE CONTRACTOR SHALL VISUALLY CHECK BARRICADE FLASHING LIGHTS ON A DAILY BASIS, 60 MINUTES BEFORE SUNSET FOR PROPER OPERATIONS. CONTRACTOR SHALL IMMEDIATELY REPLACE LIGHTS, BATTERIES, AND LAMPS AS DEEMED NECESSARY BY THE CONTRACTOR OR HOU AIRPORT OPERATIONS. THE SYSTEM ELEMENTS TO BE INSPECTED AND DEFICIENCIES NOTED ARE AS FOLLOWS:
 - BARRICADES SHALL BE ESTABLISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, SECURED FROM MOVEMENT AND FILLED WITH WATER. ALL FLASHING WARNING LIGHTS SHALL BE OPERATING PROPERLY.
 - ALL CONTRACTOR PERSONNEL AND EQUIPMENT ACCESS GATES STAFFED AND SECURITY PROCEDURES IN PLACE.
 - ALL EQUIPMENT OUTFITTED WITH FLASHING YELLOW DOME-TYPE LIGHTS, MARKINGS AND FLAGGING. CONTRACTOR USE OF AUTHORIZED AIRPORT ACCESS GATES CHECKED.
 - BARRICADES, TRAFFIC CONTROL, AND MANAGEMENT OF WORK SHOWN IN THE PLANS SHOWS GENERAL REQUIREMENTS; HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR SEQUENCING DETAILS WHICH MAY REQUIRE MORE OR LESS BARRICADES AND MOVEMENT OF BARRICADES TO FIT THE CONTRACTOR'S PROPOSED SEQUENCING AND SCHEDULE.
 - HOU AIRPORT OPERATIONS AND THE HOUSTON AIRPORT SYSTEM (HAS) SHALL, AT ALL TIMES, HAVE COMPLETE JURISDICTION OVER THE SAFETY OF ALL AIRCRAFT OPERATIONS DURING THE WORK. WHEREVER THE SAFETY OF AIR TRAFFIC IS CONCERNED, THE DECISIONS OF THE AIRPORT DIRECTOR, OR DESIGNATED REPRESENTATIVE, SHALL BE FINAL AS TO METHODS, PROCEDURES AND MEASURES USED. THIS IS NOT PAID FOR SEPARATELY AND IS INCIDENTAL TO OTHER PROJECT ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL WORK AND SEGREGATING THEIR WORK AREAS FROM OTHER AIRPORT USE AREAS.
- ## HAUL ROUTES
- LOCATION OF HAUL ROUTES ON THE AIRPORT SITE SHALL BE AS SPECIFIED ON THE PLANS OR AS APPROVED BY HOU AIRPORT OPERATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE OFF-SITE HAUL ROUTES (STATE HIGHWAYS, COUNTY ROADS OR CITY STREETS) WITH THE APPROPRIATE OWNER WHO HAS JURISDICTION OVER THE AFFECTED ROUTE AND OBTAIN HAUL PERMITS NECESSARY AS REQUIRED BY THE LOCAL JURISDICTION. ON-SITE HAUL ROUTES SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE RESTORED TO THEIR ORIGINAL CONDITION UPON COMPLETION OF BEING USED AS A HAUL ROUTE. THE PRE- AND POST-CONSTRUCTION CONDITION OF ON-SITE HAUL ROUTES SHALL BE JOINTLY INSPECTED AND DETERMINED BY THE CONTRACTOR AND THE PROJECT REPRESENTATIVE. FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO THE WORK. ALL ON-SITE FAA ACCESS ROADS TO FAA FACILITIES SHALL REMAIN OPEN AND MAINTAINED AT ALL TIMES. PHOTOGRAPHS AND A VIDEO OF THE HAUL ROUTES SPECIFIED IN THE PLANS MUST BE PROVIDED BY THE CONTRACTOR BEFORE AND AFTER CONSTRUCTION TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO HAUL ROUTES RESULTING FROM CONSTRUCTION TRAFFIC AS DETERMINED BY THE PROJECT REPRESENTATIVE. ANY SERVICE, ACCESS OR FAA ROADWAY CROSSED BY CONSTRUCTION TRAFFIC SHALL BE PROTECTED AGAINST DAMAGE AND DAMAGE OCCURRING WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE WITH NO ADDITIONAL COMPENSATION OR CONTRACT TIME. ANY PAVEMENTS DAMAGED BY THE CONSTRUCTION EQUIPMENT SHALL BE REMOVED AND REPLACED TO AT LEAST 10 FEET ON EACH SIDE OF THE MOST EXTREME OUTER TIRE MARKS TO ENSURE ALL PAVEMENT TRAVERSED BY THE CONSTRUCTION EQUIPMENT IS REMOVED AND REPLACED.
 - FENCING, DRAINAGE, GRADING AND OTHER MISCELLANEOUS CONSTRUCTION REQUIRED TO CONSTRUCT TEMPORARY HAUL ROUTES OR ACCESS POINTS ON THE AIRPORT WILL BE THE CONTRACTOR'S TOTAL RESPONSIBILITY AND SHALL BE APPROVED BY HOU AIRPORT OPERATIONS PRIOR TO THE WORK.
 - PRIOR TO THE START OF USING A SPECIFIED HAUL ROUTE FOR EACH PHASE, THE CONTRACTOR AND REPRESENTATIVE SHALL REVIEW THE ROUTE AND VIDEO RECORD AND LOG ALL EXISTING DAMAGE. ALL USED HAUL ROUTES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION PRIOR TO THE COMPLETION OF THE PROJECT.
 - ALL CONTRACTOR VEHICLES DELIVERING MATERIAL TO THE PROJECT SITE SHALL ONLY ACCESS THE AOA THROUGH THE ALLOWABLE CONTRACTOR GATES AS SHOWN ON THE PLANS
 - CONSTRUCTION LIMITS: ALL CONTRACTOR VEHICLES AND TRAFFIC SHALL REMAIN WITHIN THE DESIGNATED CONSTRUCTION LIMITS OR HAUL ROUTES. ABSOLUTELY NO CONTRACTOR VEHICLES WILL BE ALLOWED ON OTHER ACTIVE AIRFIELD OPERATIONS AREAS. FLAGGERS SHALL BE PROVIDED AT ALL TIMES WHENEVER CONSTRUCTION ACCESS IS REQUIRED ACROSS AN ACTIVE TAXIWAY.
 - THE CONTRACTOR WILL ARRANGE WITH HOU AIRPORT OPERATIONS THROUGH THE HAS PROJECT MANAGER FOR INSPECTION PRIOR TO REOPENING FOR AIRCRAFT USE OF ANY RUNWAY, TAXIWAY OR TAXILANE THAT HAS BEEN CLOSED FOR CONSTRUCTION, ON OR ADJACENT THERETO, OR THAT HAS BEEN USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM PRE- AND POST-INSPECTIONS ON A DAILY BASIS AND PROVIDE A WRITTEN CHECKLIST TO THE HAS CONSTRUCTION MANAGER AND HOU AIRPORT OPERATIONS DOCUMENTING FOD INSPECTION AND CLEAN-UP, SECURITY, SAFETY AND OBJECT FREE AREA INSPECTIONS, AND SIGNAGE, LIGHTING, BARRICADE PLACEMENT AND OPERATIONS, AND VERIFY ALL BARRICADES ARE SECURED FROM MOVEMENT, THROUGHOUT THE DURATION OF THIS CONTRACT. ANY UNSAFE CONDITIONS SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT.
 - TRUCK HAUL ROUTES ON THE AIRFIELD SHALL BE DELINEATED BY THE CONTRACTOR IF NOT COINCIDENT WITH EXISTING VEHICLE SERVICE ROADS. OTHER MEANS TO CLEARLY MARK THE ROUTES TO THE WORK SITE MAY BE APPROVED BY HOU AIRPORT OPERATIONS.
 - THE CONTRACTOR SHALL PROVIDE AND APPLY DUST CONTROL AT ALL TIMES, AS REQUIRED, TO ABATE NUISANCE DUST WHICH IS A DIRECT RESULT OF CONSTRUCTION ACTIVITIES ON AND ABOUT THE CONSTRUCTION AREA. MINIMUM OF ONE WATER TRUCK SHALL BE IN OPERATIONAL CONDITION ON SITE. DURING NON-WORKING HOURS, THE CONTRACTOR SHALL MAINTAIN A 25 MINUTE RESPONSE TIME, 24 HOURS A DAY AND 7 DAYS A WEEK THROUGHOUT THE CONTRACT TIME, TO ADDRESS DUST CONTROL AND FOD ISSUES IDENTIFIED BY THE AIRPORT OPERATIONS. HAULING VEHICLES SHALL BE EQUIPPED WITH OPERATIONAL COVERS. LOADS SHALL BE COVERED AT ALL TIMES EXCEPT FOR DURING LOADING AND UNLOADING.



Jacobs
JACOBS ENGINEERING GROUP INC.
5995 ROGERSDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

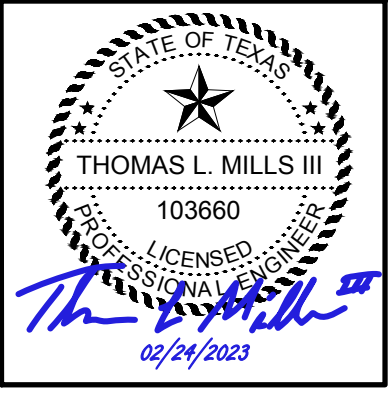
VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING

REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR BID	02/24/2023

FAA NON-STANDARD TAXIWAYS PROJECT

GENERAL PHASING NOTES

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC001

REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.

56. HAUL ROADS DESIGNATED ON THE PLANS MAY ALSO BE USED BY AIRPORT OPERATIONS AND OTHER CONTRACTORS. CONTRACTOR SHALL NOT INTERFERE WITH OTHER AIRPORT TRAFFIC AND SHALL YIELD TO AIRCRAFT AND TO EMERGENCY VEHICLES. SPEED LIMIT ON HAUL ROADS IS 15 MILES PER HOUR MAXIMUM AND 5 MILES PER HOUR IN THE IMMEDIATE VICINITY OF AN AIRCRAFT.

STAGING AREAS

57. STAGING AREAS DO NOT HAVE UTILITIES. ANY UTILITIES REQUIRED BY THE CONTRACTOR SHALL BE COORDINATED WITH THE UTILITY COMPANIES. THE CONTRACTOR IS WHOLLY RESPONSIBLE FOR OBTAINING UTILITIES AND FOR STAGING AND PERMITTING. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.

58. MATERIALS DELIVERY TO THE SITE: ALL CONTRACTOR'S MATERIAL ORDERS FOR DELIVERY TO THE WORK SITE WILL USE, AS A DELIVERY ADDRESS, THE STREET NAME ASSIGNED TO THE ACCESS POINT AT THE CONTRACTOR'S STAGING AREA PROVIDED AS SHOWN IN THE PROJECT PLANS. THE NAME "WILLIAM P. HOBBY AIRPORT" SHALL NOT BE USED IN THE DELIVERY ADDRESS AT ANY TIME. THIS WILL PRECLUDE DELIVERY TRUCKS FROM ENTERING INTO THE TERMINAL COMPLEX, OR TAKING SHORT CUTS THROUGH THE PERIMETER GATES AND INADVERTENTLY ENTERING INTO AIRCRAFT OPERATIONS AREAS.

59. CONTRACTOR MAY STORE CONSTRUCTION EQUIPMENT ON AIRPORT PROPERTY AT THE END OF EACH DAY. NO EQUIPMENT OR MATERIAL WILL BE ALLOWED TO REMAIN WITHIN THE AOA (NOT IN OFA WHEN RUNWAY OR TAXIWAY IS OPEN) WHEN WORK IS NOT BEING PERFORMED. EQUIPMENT SHALL BE MOVED TO STAGING AREAS AT THE END OF EACH SHIFT. THE CONTRACTOR SHALL MAKE MODIFICATIONS WITHIN THE OVERNIGHT STAGING AREA WHEN DEEMED NECESSARY BY HOU AIRPORT OPERATIONS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE AND RE-VEGETATE ALL OVERNIGHT STAGING AREAS TO ORIGINAL CONDITION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OVERALL PERFORMANCE OF THE WORK ASSOCIATED WITH THE PROJECT.

STOCKPILES AND MATERIAL STORAGE

60. UNLESS OTHERWISE ALLOWED BY AIRPORT MANAGEMENT, NO MATERIAL STOCKPILES MAY REMAIN AFTER THE PROJECT IS COMPLETE.

61. STOCKPILE LOCATIONS SHALL BE SUBMITTED AS PART OF A WORK PLAN FOR EACH CONSTRUCTION PHASE AND APPROVED BY HOU AIRPORT OPERATIONS. OVERNIGHT STORAGE OF STOCKPILED OR EXCAVATED MATERIALS IN THE CONSTRUCTION AREA IS NOT PERMITTED UNLESS AN APPROVED STOCKPILE PLAN IS IN PLACE.

62. MATERIALS STORED OR STOCKPILED ON THE AIRPORT SHALL BE SO PLACED AND THE WORK SHALL, AT ALL TIMES, BE SO CONDUCTED AS TO CAUSE NO GREATER OBSTRUCTION TO THE AIR AND GROUND TRAFFIC THAN IS CONSIDERED NECESSARY BY THE ENGINEER. MATERIALS SHALL NOT BE STOCKPILED WITHIN THE RUNWAY SAFETY AREA (RSA), OBSTACLE FREE ZONE (OFZ), OR TAXIWAY OBJECT FREE AREA (TOFA). STOCKPILING MATERIAL WITHIN THE RUNWAY OBJECT FREE AREA (ROFA), OR GREATER THAN 3 ANYWHERE IN THE AIRPORT OPERATIONS AREA (AOA), REQUIRES APPROVAL OF HOU AIRPORT OPERATIONS AND SUBMISSION OF FORM 7460-1 TO THE FAA. ALLOW FOR A MINIMUM 45 BUSINESS DAY REVIEW PERIOD. IF APPROVED, STOCKPILED MATERIAL MUST BE PROPERLY MARKED AND IDENTIFIED.

63. STOCKPILED MATERIAL IN CONSTRUCTION AREAS WITHIN THE AOA SHALL REQUIRE SUBMISSION AND APPROVAL OF A 7460. STOCKPILES OUTSIDE THE AOA SHALL BE A MAXIMUM HEIGHT OF 15 FEET UNLESS A 7460 HAS BEEN FILED AND APPROVED BY FAA.

64. CONCRETE AND ASPHALT RUBBLE AND EXCAVATION WASTE MATERIAL REMOVED FROM THE CONSTRUCTION AREA SHALL BE LEGALLY DISPOSED OF OFF THE AIRPORT PROPERTY. NO MATERIAL SHALL BE WASTED ON THE AIRPORT SITE UNLESS APPROVED BY THE AIRPORT. ANY ON-AIRPORT APPROVED WASTE AND DISPOSAL AREA SHALL BE SEALED AND RESTORED IN A SMOOTH, GRADED AND DRAINABLE CONDITION AT NO ADDITIONAL COST TO THE OWNER. PRIOR TO DEMOLITION AND REMOVAL WORK BEGINS, THE CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION FROM THE SITE WHICH THEY PLAN TO DUMP WASTE MATERIAL AND PROVIDE IT TO THE AIRPORT.

65. CONTRACTOR SHALL BE RESPONSIBLE FOR SAFELY STOCKPILING MATERIAL WITH RESPECT TO ALL ATMOSPHERIC CONDITIONS (WIND, RAIN) SO AS NOT TO PRODUCE A FOD HAZARD

CONTRACTOR VEHICLES AND EQUIPMENT

66. ALL CONTRACTOR VEHICLES THAT ARE AUTHORIZED TO OPERATE ON THE AIRPORT IN THE ACTIVE AIRPORT OPERATIONS AREA (AOA) SHALL DISPLAY IN FULL VIEW A FLASHING AMBER (YELLOW) DOME-TYPE LIGHT, AND ABOVE THE VEHICLE, A 3' X 3' OR LARGER, ORANGE AND WHITE CHECKERBOARD FLAG, EACH CHECKERBOARD COLOR BEING 1-FOOT SQUARE. (SEE FAA AC 150/5210-5D) AND ESCORTED UNDER THE CONTROL OF AN AUTHORIZED CONTRACTOR ESCORT. CONTRACTOR VEHICLES OPERATING ON ACTIVE PAVEMENTS IN THE MOVEMENT AREA SHALL BE UNDER THE CONTROL OF A WILLIAM P. HOBBY (HOU) AIRPORT OPERATIONS ESCORT. CONTRACTOR SHALL COORDINATE A MINIMUM OF 48 HOURS IN ADVANCE TO REQUEST AN HOU AIRPORT OPERATIONS ESCORT. ANY VEHICLE OPERATING IN THE ACTIVE AOA DURING THE HOURS OF DARKNESS SHALL BE EQUIPPED WITH A FLASHING AMBER (YELLOW) DOME LIGHT, MOUNTED ON TOP OF THE VEHICLE AND OF SUCH INTENSITY TO CONFORM TO LOCAL CODES FOR MAINTENANCE AND EMERGENCY VEHICLES. ALL EQUIPMENT REQUIRED TO REMAIN WITHIN THE AOA DURING THE PERFORMANCE OF THIS CONTRACT SHALL BE EQUIPPED WITH RED BEACONS.

67. ALL AOA CONSTRUCTION VEHICLES SHALL BE OPERATED BY A BADGED EMPLOYEE WITH RAMP DRIVING PRIVILEGES OR BE ESCORTED BY A VEHICLE OPERATED BY A BADGED EMPLOYEE WITH RAMP DRIVING AND ESCORT PRIVILEGES WHEN ENTERING THE AOA. ALL CONTRACTOR VEHICLES THAT ARE REQUIRED TO OPERATE ON OR ACROSS ACTIVE RUNWAYS, TAXIWAYS, TAXILANES, APRONS, CRITICAL NAVAIDS AREAS, AND RUNWAY APPROACH/DEPARTURE OR PROTECTION ZONES, SHALL DO SO UNDER THE DIRECT CONTROL OF AN HOU AIRPORT OPERATIONS ESCORT VEHICLE. WHILE IT IS PREFERRED THAT EACH CONSTRUCTION VEHICLE HAVE ITS OWN ESCORT, A MAXIMUM OF 3 VEHICLES PER ESCORT AND 2 18-WHEEL TRUCKS PER ESCORT WILL BE ALLOWED. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO ESCORTS FOR ALL HAULING ACTIVITIES; A LEAD ESCORT NECESSARY TO MEET THE MINIMUM ESCORTING REQUIREMENTS AND A TRAILING ESCORT REQUIRED FOR MONITORING POTENTIAL FOD AT ALL TIMES. ALL VEHICLES AND OPERATORS SHALL BE APPROVED BY HOU AIRPORT. ALL VEHICLES SHALL BE MARKED AND LIGHTED AS DESCRIBED IN THE AIRPORT SAFETY REQUIREMENTS.

68. UNDER NO CIRCUMSTANCES WILL THERE BE ANY MOVEMENT OF CONTRACTOR VEHICLES AND/OR EQUIPMENT ACROSS ANY ACTIVE AIRFIELD PAVEMENTS AT ANY TIME UNLESS UNDER ESCORT BY HOU AIRPORT OPERATIONS. FLAGGERS SHALL BE REQUIRED AT ALL ACTIVE TAXIWAY/TAXILANE CROSSINGS UNLESS THE TAXIWAY/TAXILANE IS CLOSED. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO CROSS ANY RUNWAY WITHOUT PRIOR APPROVAL AND UNDER ESCORT OF HOU AIRPORT OPERATIONS.

69. ALL PERSONNEL OPERATING A VEHICLE WITHIN THE AOA SHALL OBTAIN ALL NECESSARY SIDA, RAMP, NON-MOVEMENT AND MOVEMENT AIRFIELD DRIVER TRAINING AS REQUIRED BY HOU AIRPORT OPERATIONS PERSONNEL. CONTRACTOR WILL BE ISSUED SPECIFIC GATE ACCESS AND HAUL ROUTE CARDS IDENTIFYING THE APPROVED ACCESS LOCATIONS AND HAUL ROUTES.

70. THE CONTRACTOR SHALL CONFINE HIS PERSONNEL, EQUIPMENT, OPERATIONS AND TRAVEL TO THE AREA WITHIN THE DEFINED WORK LIMITS SHOWN ON THE PLANS.

71. THE CONTRACTOR SHALL INFORM ALL CONSTRUCTION PERSONNEL AS TO THE PROPER ROUTES, SPEEDS AND PROCEDURES FOR TRANSPORTING EQUIPMENT AND MATERIALS TO THE CONSTRUCTION SITE, AND ALL RESTRICTIONS TO MOVEMENT OF EQUIPMENT OR PERSONNEL WITHIN THE AIR OPERATIONS AREA. ALL PERSONNEL SHALL BE ADVISED OF ANY CHANGES IN AIRPORT OPERATIONS ON A DAILY BASIS, AND MORE OFTEN IF NECESSARY, THAT MAY FURTHER RESTRICT THEIR MOVEMENT.

72. EQUIPMENT SHALL BE ALLOWED WITHIN THE RUNWAY OBJECT FREE AREA (ROFA) BUT MUST BE REMOVED FROM ROFA WHEN NOT IN USE.

73. VEHICLES WITHIN THE AOA SHALL BE VISIBLY IDENTIFIABLE AS CONTRACTOR VEHICLES WHICH HAVE BEEN PROPERLY CLEARED

FOR ENTRY (LOGO AND FLAGS/LIGHTS ON AUTHORIZED EQUIPMENT AND VEHICLES). VEHICLE LOGOS SHALL BE VISIBLE WITHIN 200' RANGE.

ELECTRICAL – GENERAL PHASING NOTES

1. INFORMATION PROVIDED ON THE DRAWINGS FOR EXISTING UTILITIES, CABLES, DUCTS, MANHOLES, FIXTURES, ETC. ARE APPROXIMATE AND ARE NOT INTENDED TO PROVIDE EXACT LOCATIONS OR TYPE OF COMPONENT, AND SHOULD NOT BE SCALED FROM DRAWINGS. THE LOCATION OF MANHOLES, PULL BOXES, ETC. ALONG WITH THE ROUTE (AND IDENTIFICATION) FOR CIRCUITS SHOWN ON THE DRAWINGS SHALL BE VERIFIED PRIOR TO CONSTRUCTION FOR – AT MINIMUM – ALL CIRCUITS IDENTIFIED IN THE CIRCUIT TABLE ON SHEET FLOOR.

2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND SATISFY HIMSELF/HERSELF AS TO THE LOCATION OF ALL UNDERGROUND FACILITIES WITHIN THE AREA OF CONSTRUCTION. ANY EXISTING UTILITIES, CABLES, EQUIPMENT, DEVICES DAMAGED IN THE COURSE OF THIS CONTRACT SHALL BE IMMEDIATELY REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

3. WHERE ANY ITEM IS FOUND TO BE LOCATED DIFFERENTLY THAN IS SHOWN ON THE DRAWINGS, THE ACTUAL LOCATION SHALL BE IMMEDIATELY MEASURED AND RECORDED ON THE RECORD DRAWING, AND THE RPR SHALL BE NOTIFIED IMMEDIATELY.

4. EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING ANY WORK. ANY INTERRUPTION OF UTILITY SERVICE SHALL BE COORDINATED AND APPROVED BY THE RPR PRIOR TO COMMENCING WORK.

5. CIRCUIT ROUTING IS SHOWN AS BELIEVED TO EXIST IN THE FIELD BASED ON RESEARCH AND FIELD INVESTIGATION. HOWEVER, MANY DEVIATIONS ARE EXPECTED DUE TO THE LACK OF A COMPREHENSIVE AS-BUILT, AS SUCH, THE CONTRACTOR SHALL REQUEST OF THE CONSTRUCTION MANAGER, IN WRITING, FOR ALL RECORD DRAWINGS OF THE AREA IN CONSTRUCTION. THE CONTRACTOR SHALL REVIEW ALL RECORD DRAWINGS AND BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO ANY CONSTRUCTION.

6. THE CONTRACTOR SHALL COORDINATE WITH DIG/SAFE TEXAS 811, HAS SERVICE DESK (281-233-1900), HAS ITPM SHAWN SUSKI (713-392-0769), FAA, AND ANY OTHER STAKE HOLDER EXPRESSING INTEREST A MINIMUM OF 72 HOURS PRIOR TO STARTING CONSTRUCTION. ADDITIONAL CONTACTS FOR PERSONNEL AT EACH AGENCY SHOULD BE REQUESTED AT THE PRE-CONSTRUCTION MEETING.

7. WORK SHALL CONFORM TO LOCAL HAS DESIGN REQUIREMENTS, FAA CRITERIA, AND ALL LOCAL AND NATIONAL CODES.

8. REFER TO CIVIL DEMOLITION, MARKING, LAYOUT AND ALL CIVIL DESIGN ITEMS. CIVIL INFORMATION SHOWN ON ELECTRICAL DRAWINGS IS FOR REFERENCE ONLY.

9. ANY UNSCHEDULED INTERRUPTION OF SERVICE TO ACTIVE LIGHTING CIRCUITS SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR. ANY DAMAGE TO EXISTING BASE CANS, CIRCUITS, OR EQUIPMENT CAUSED BY THE CONTRACTOR'S EQUIPMENT OR PERSONNEL SHALL BE PROMPTLY REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL ACTIVE LIGHTING SYSTEMS FOR OPEN AIRCRAFT OPERATIONAL AREAS SHALL REMAIN READY FOR OPERATION DURING THE IFR WEATHER CONDITIONS AND FROM DUSK TO DAWN OR AS DIRECTED BY THE RPR.

10. CIRCUITS AND EQUIPMENT SHALL BE TAGGED AND LABELED. FURTHERMORE, THE CONTRACTOR SHALL VERIFY CIRCUIT ID TAGS FOR PRIMARY CIRCUITS THAT ARE BEING ACCESSED PRIOR TO MAKING ANY CHANGES TO THE CIRCUIT. IF THE CIRCUIT ID IS DIFFERENT FROM WHAT IS SHOWN ON THE CONTRACT DOCUMENTS, THE RPR SHALL BE NOTIFIED IMMEDIATELY.

11. FOR EQUIPMENT NOTED TO BE REMOVED, THE CONTRACTOR SHALL COORDINATE WITH THE RPR AND EITHER SALVAGE OR DISPOSE OF THE EQUIPMENT AT THE DISCRETION OF HAS MAINTENANCE.

12. THE CONTRACTOR SHALL MEGGER EACH EXISTING CIRCUIT PER SPECIFICATION L-108 AND PROVIDE THE READINGS IN WRITING TO THE RPR PRIOR TO COMMENCING WORK. AT THE COMPLETION OF THE PROJECT, ANY MEASUREMENTS NOT MEETING OR EXCEEDING THE PRE-CONSTRUCTION MEASUREMENTS SHALL REQUIRE THE CONTRACTOR TO LOCATE AND REPLACE CABLE/CONNECTORS OR ISOLATION TRANSFORMERS AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.

13. THE CONTRACTOR SHALL NOT PERFORM MEGGER TESTING AT A VOLTAGE HIGHER THAN WHAT IS STATED IN SPECIFICATION L-108.

14. THE CONTRACTOR SHALL MANUALLY LOCK-OUT EACH CIRCUIT AT THE FIELD LIGHTING VAULTS WHEN WORK IS BEING PERFORMED ON THE CIRCUIT. THE CIRCUIT SHALL BE TAGGED AND THE CONTRACTOR'S NAME SHALL BE CLEARLY IDENTIFIED ON EACH TAG. THE CONTRACTOR SHALL HAVE A LOCK-OUT KIT ON SITE AT ALL TIMES. THE RPR SHALL BE NOTIFIED EACH TIME A CIRCUIT IS SECURED AND EACH TIME THE CIRCUIT IS RETURNED TO REMOTE CONTROL. THE CONTRACTOR WILL DESIGNATE ONE INDIVIDUAL IN WRITING WHO WILL BE RESPONSIBLE FOR LIGHTING VAULT ACCESS AND FOR LOCK-OUT/TAG-OUT PROCEDURES. THE CONTRACTOR SHALL PROVIDE DAILY COORDINATION WITH THE RPR FOR VAULT ACCESS AND CIRCUIT INTERRUPTION. WEATHER AND OTHER CONSIDERATIONS MAY PRECLUDE CIRCUIT INTERRUPTION. LOCK-OUT SHALL BE COORDINATED WITH HAS MAINTENANCE STAFF AND MEET HAS REQUIREMENTS.

15. THE CONTRACTOR SHALL CLEAN/SWAB OUT EXISTING DUCTS BEING USED. USE SEWER TAPE TO CLEAR OBSTRUCTIONS WITHIN CONCRETE ENCASED DUCTS.

16. BASE CANS SHALL BE MADE OF GALVANIZED STEEL AND MEET THE REQUIREMENTS OF FAA BASE CAN TYPES L-867 AND L-868, CLASS 1A AND SPECIFICATIONS L-115 AND L-125.

17. THE CONTRACTOR SHALL CEASE PULLING THE MANDREL THROUGH CONDUIT IF IT DOES NOT PULL FREELY. NOTIFY THE RPR WHERE THIS OCCURS.

18. 1/4" BOLTS AND LARGER SHALL BE HEX HEAD. BOLTS SMALLER THAN 1/4" SHALL BE HEX SOCKET.

19. ANTI-SEIZE COMPOUND SHALL BE APPLIED TO ALL FRANGIBLE COUPLINGS, STAINLESS STEEL OR GALVANIZED THREADED CONNECTIONS AND BOLTS. ANTI-SEIZE COMPOUNDS THAT ARE COMPATIBLE WITH THE MATERIAL WITH WHICH IT COMES IN CONTACT WITH SHALL BE USED.

20. THE FIXTURE MOUNTING BOLTS SHALL BE EXTENDED THROUGH THE BASE CAN MOUNTING FLANGE INTO THE BASE CAN A MINIMUM OF 1/2" AND A MAXIMUM OF 1 1/2". THE BOLTS SHALL HAVE ENOUGH THREAD LENGTH SO THEY DO NOT SHOULDER OUT BEFORE THE FIXTURE IS SECURELY TIGHTENED.

21. NEW ISOLATION TRANSFORMERS AND PRIMARY CONNECTOR KITS SHALL BE INSTALLED WITH EACH INSTALLED FIXTURE. SEPARATE PAYMENT FOR CONNECTOR KITS WILL NOT BE MADE, THE INSTALLATION OF CONNECTOR KITS SHALL BE INCIDENTAL TO INSTALLATION OF CABLE.

22. CONTRACTOR SHALL NOT INSTALL NEW CABLES IN EXISTING CONDUITS WHERE CIRCUITS ARE TO REMAIN. CONTRACTOR SHALL REMOVE EXISTING CABLE AND PULL EXISTING AND NEW CIRCUITS THROUGH THE CONDUIT AT THE SAME TIME. CABLE ROUTING WITHIN A DUCTBANK WAS NOT FIELD VERIFIED AND ON-GOING PROJECTS HAVE MODIFIED CIRCUITS, THEREFORE THE CONTRACTOR SHALL FIELD VERIFY CIRCUIT ROUTING PRIOR TO REMOVAL AND INSTALLATION OF CABLE. THE CONTRACTOR MAY BE REQUIRED TO REPLACE ADDITIONAL CABLE AS DIRECTED BY THE RPR.

23. WHERE NEW CABLES ARE SHOWN TO BE IN EXISTING DUCT, CIRCUITS TO BE REPLACED OR TAKEN OUT OF COMMISSION SHALL BE REMOVED AND DISPOSED OF. WHERE MULTIPLE CIRCUITS ARE SHOWN TO BE REPLACED IN A DUCT/DUCTBANK, IT IS PRESUMED ALL CABLES ARE IN A SINGLE DUCT. IF CABLES TO BE REPLACED ARE IN SEPARATE DUCTS WITH OTHER CABLES TO REMAIN, VERIFY REMOVAL OF THE OTHER CIRCUITS WITH THE RPR BEFORE PROGRESSING WITH CABLE REPLACEMENT. IF EMPTY DUCTS EXIST ALONG THE PROPOSED CABLE INSTALLATION ALIGNMENT, THE CONTRACTOR SHALL INSTALL CABLES IN SPARE DUCTS.

24. THE CONTRACTOR SHALL MAINTAIN THE EXISTING COUNTERPOISE SYSTEM AND EXTEND IT WHERE NEW LIGHT BASES ARE TO BE INSTALLED WHERE POSSIBLE. THE RPR SHALL HAVE FINAL JUDGEMENT ON WHETHER THE COUNTERPOISE IN ANY LOCATION CAN BE PRESERVED/CONNECTED TO OR IF NEW COUNTERPOISE MUST BE INSTALLED.

25. THE CONTRACTOR PERFORMING SPLICING OF 5KV CABLE (AIRFIELD CABLE) SHALL BE EXPERIENCED IN THE FIELD OF AIRFIELD ELECTRICAL CONSTRUCTION AND DEMOLITION, WITH A MINIMUM OF 3 YEARS EXPERIENCE AND TRAINING IN AIRFIELD CABLE SPLICING.

26. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE CIVIL CONTRACTOR.

27. SOME AIRFIELD LIGHTING CIRCUITS PASS THROUGH OR NEAR THE CONSTRUCTION AREA AND WILL REMAIN ENERGIZED DURING CONSTRUCTION. THE CONTRACTOR SHALL RETAIN THESE CIRCUITS IN THE VICINITY OF THE CONSTRUCTION AREA AND APPROPRIATELY MARK/IDENTIFY THEM FOR ALL CONSTRUCTION STAFF (E.G. RUNWAY GUARD LIGHT AND SIGNAGE CIRCUITS).

28. ALL JUMPERING SHOWN ON THE ELECTRICAL PHASING DRAWINGS IS SCHEMATIC IN NATURE AND INTENDED TO GENERALLY SHOW THE ROUTE BELIEVED TO BE REQUIRED TO MAINTAIN POWER TO LIGHTS IN AREAS NOT AFFECTED BY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE EXISTING CIRCUIT ROUTING PRIOR TO MAKING ANY TEMPORARY CONNECTIONS FOR ALL JUMPERING ACTIVITIES AND DOCUMENT CIRCUIT ROUTING FINDINGS WITH THE RPR.

29. IT IS POSSIBLE THAT JUMPERING MAY BE REQUIRED OF CIRCUITS NOT SHOWN ON THE ELECTRICAL PHASING DRAWINGS DUE

TO UNKNOWN FIELD CONDITIONS. THE RPR SHALL HAVE THE AUTHORITY TO DIRECT THE CONTRACTOR TO INSTALL TEMPORARY CABLE IN ORDER TO MAINTAIN POWER TO ANY AREA DEEMED NECESSARY.

30. ALL DEMOLITION AND NEW CONSTRUCTION MUST BE COMPLETED AND FIELD ACCEPTED PRIOR TO CLOSURE OF A PHASE DURATION.

31. VARIOUS FAA CABLES PASS THROUGH THE WORK AREA. THESE CABLES SERVE FAA FACILITIES (NAVAIDS) WHICH SHALL REMAIN OPERATIONAL AND ARE CRITICAL FOR SAFE AIRPORT OPERATION. IT IS EXTREMELY IMPORTANT THAT DAMAGE TO THESE CABLES BE PREVENTED. CABLE LOCATIONS SHOWN ON THE DRAWINGS ARE BASED ON THE BEST INFORMATION AVAILABLE, BUT CANNOT BE COUNTED AS PRECISE. THE CONTRACTOR SHALL NOTIFY THE FAA TO REQUEST THAT ANY CABLES OR UTILITIES BE STAKED IN THE FIELD. AFTER FAA STAKES THE CABLES, THE CONTRACTOR SHALL USE HAND EXCAVATION TO LOCATE CABLES AND UTILITIES AS NEEDED.

32. AFTER CABLES AND UTILITIES ARE LOCATED, CONTRACTOR SHALL RECORD LOCATIONS AND CABLE PROPERTIES (CONTENTS/SERVICE) AND SHALL ACCURATELY MEASURE AND RECORD THE INFORMATION ON THE AS-BUILT DRAWINGS. CONTRACTOR SHALL USE EXTREME CAUTION TO AVOID DAMAGING FAA CABLES AND UTILITIES, AS ANY DAMAGE MAY NECESSITATE REPLACEMENT OF THE CABLE RUN AS A WHOLE AT FAA'S DISCRETION.

UTILITIES AND NAVAIDS

33. THE CONTRACTOR IS HEREBY INFORMED THAT THERE ARE INSTALLED ON THE AIRPORT FAA NAVAIDS, NATIONAL WEATHER SERVICE FACILITIES; AIRFIELD LIGHTING SYSTEMS; ELECTRIC CABLES AND CONTROLS RELATING TO SUCH NAVAID AND FACILITIES. SUCH NAVAIDS, NATIONAL WEATHER SERVICE AND OTHER FACILITIES, AND ELECTRIC CABLES MUST BE FULLY PROTECTED DURING THE ENTIRE CONSTRUCTION TIME. UTILITY LINES SHOWN ON THE PLANS ARE FROM AVAILABLE UTILITY RECORDS. UNDER THIS CONTRACT CAN BE ACCOMPLISHED IN THE VICINITY OF THESE FACILITIES AND CABLES ONLY AT APPROVED PERIODS OF TIME.

34. UTILITIES: IT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ANY PUBLIC UTILITIES THAT ARE IN OR ADJACENT TO THE WORK AREA. THE UTILITIES WILL BE FLAGGED ONE TIME BY THE VARIOUS UTILITY COMPANIES. THESE FLAGS SHALL BE PROTECTED AND MAINTAINED BY THE CONTRACTOR AT ALL TIMES. IF FLAGS ARE LOST OR REMOVED BY THE CONTRACTOR, THEY WILL BE FLAGGED AGAIN AT THE CONTRACTOR'S EXPENSE. ALL UTILITIES SHALL BE PROTECTED AND DAMAGES REPAIRED EXPEDITIOUSLY, AT THE CONTRACTOR'S EXPENSE.

35. PROTECTION AND REPAIR OF DAMAGE TO EXISTING CABLES: ALL UNDERGROUND CABLE SHALL BE PROTECTED AND DAMAGES REPAIRED EXPEDITIOUSLY AT THE CONTRACTOR'S EXPENSE.

36. POWER AND CONTROL CABLES LEADING TO AND FROM ANY FAA NAVAIDS, NATIONAL WEATHER SERVICE AND OTHER FACILITIES WILL BE MARKED IN THE FIELD BY THE LOCAL FAA AIRWAY FACILITIES SECTOR PERSONNEL BEFORE ANY WORK IN THEIR GENERAL VICINITY IS STARTED BY THE CONTRACTOR. THEREAFTER, THROUGH THE ENTIRE TIME OF THIS CONSTRUCTION, THE CONTRACTOR SHALL NOT ALLOW ANY CONSTRUCTION EQUIPMENT TO CROSS THESE CABLES WITHOUT FIRST PROTECTING THE CABLE WITH STEEL PLATE, OR SIMILAR STRUCTURAL DEVICES, ON THREE (3') EITHER SIDE OF THE MARKED CABLE ROUTE. ALL EXCAVATION WITHIN THREE (3') FEET OF EXISTING CABLES SHALL BE ACCOMPLISHED BY NON-INTRUSIVE EXCAVATION ONLY.

37. THE CONTRACTOR SHALL PROTECT FAA NAVAID, NATIONAL WEATHER SERVICE AND OTHER FACILITIES AND CABLES AT ALL TIMES. ANY UNDERGROUND UTILITIES DISCOVERED DURING CONSTRUCTION NOT SHOWN ON THE PLANS SHALL BE REPORTED TO THE HAS PROJECT MANAGER AND HOU OPERATIONS IMMEDIATELY.

38. THE CONTRACTOR SHALL IMMEDIATELY REPAIR AT THEIR OWN EXPENSE, WITH IDENTICAL MATERIAL BY SKILLED EMPLOYEES, ANY UNDERGROUND CABLES SERVING FAA NAVAIDS, NATIONAL WEATHER SERVICE AND OTHER AIRPORT FACILITIES, WHICH ARE DAMAGED BY THEIR EMPLOYEES, EQUIPMENT, OR CONSTRUCTION ACTIVITIES. PRIOR APPROVAL OF THE FAA MUST BE OBTAINED FOR THE MATERIALS, EMPLOYEES, TIME OF DAY OR NIGHT, METHOD OF REPAIRS, AND FOR ANY TEMPORARY OR PERMANENT REPAIRS THE CONTRACTOR PROPOSES TO MAKE TO ANY FAA NAVAID OR FACILITIES DAMAGED BY THE CONTRACTOR. PRIOR APPROVAL OF THE ENGINEER MUST BE OBTAINED FOR THE MATERIALS, EMPLOYEES, TIME OF DAY OR NIGHT, AND FOR THE METHOD OF REPAIRS FOR ANY TEMPORARY OR PERMANENT REPAIRS THE CONTRACTOR PROPOSES TO MAKE TO ANY OTHER AIRPORT FACILITIES AND CABLES DAMAGED BY THE CONTRACTOR. SHOULD THE REPAIR REQUIRE SPLICING, IT SHALL BE SPLICED AT THE DISCRETION OF THE LOCAL FAA AIRWAY FACILITIES SECTOR MANAGER AS TO WHO SHALL PERFORM THE WORK. WHERE THE FAA PERFORMS THE WORK, IT SHALL BE AT THE CONTRACTOR'S EXPENSE. NO WORK SHALL BE BACKFILLED OR COVERED PRIOR TO APPROVAL BY THE AIRWAY FACILITIES SECTOR MANAGER AND/OR HAS PROJECT MANAGER FOR HOU OWNED FACILITIES.

39. THE CONTRACTOR SHALL TAKE ALL STEPS TO PROTECT THE EXISTING RUNWAY AND TAXIWAY LIGHTS, UNDERGROUND CABLES AS WELL AS ALL COMMERCIAL AND AIRPORT UTILITIES DURING CONSTRUCTION IN ORDER TO ENSURE CONTINUOUS OPERATION OF LIGHTS AND NAVIGATIONAL AIDS WHEN NEEDED.

40. A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION OR BORINGS, THE CONTRACTOR SHALL CONTACT TEXAS ONE CALL (811) AND HAS IT (281-233-1900) TO VERIFY UNDERGROUND CABLE LOCATIONS IN THE VICINITY OF THE PROPOSED WORK:

CABLE OWNER	CONTACT PERSON	PHONE NUMBER
FEDERAL AVIATION ADMINISTRATION	TINA SIEBERTZ	(281) 784-7601
HOUSTON AIRPORT SYSTEM	JEFF CRUSER, RANDY DALE	(713) 534-7276, (713) 837-6386
HAS ELECTRICAL AND MAINTENANCE	STEPHEN BEAULIEU	(218) 230-8793
TECHNOLOGY INFRASTRUCTURE	SHAWN SUSKI	(713) 392-0769

41. THE CONTRACTOR SHALL NOTIFY AIRPORT OPERATIONS SO THAT THEY MAY ADVISE AIRPORT RESCUE AND FIRE FIGHTING (ARFF) PERSONNEL SEVENTY-TWO (72) HOURS IN ADVANCE OF WATERLINES OR FIRE HYDRANTS THAT MUST BE DEACTIVATED AND/OR IF EMERGENCY ACCESS ROUTES MUST BE TEMPORARILY REROUTED OR BLOCKED.

42. THE CONTRACTOR SHALL CONTACT THE FAA TECHNICAL OPERATIONS, TO PROVIDE FIELD LOCATIONS OF EXISTING FACILITY CABLES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NON-INTRUSIVE EXCAVATION TO LOCATE FAA CABLING, AND PROTECTION OF THOSE CABLES THROUGHOUT THE PROJECT. WHEN PERFORMING WORK AROUND FAA UTILITIES, DUCTBANKS, ETC., THE CONTRACTOR SHALL PROVIDE THE FAA A DETAILED WORKPLAN OUTLINING THE PROPOSED PROTECTION MEASURES. THE WORK PLAN MUST BE SENT A MINIMUM OF 45 DAYS PRIOR TO THE WORK AND SHALL BE APPROVED BY THE FAA.

43. INSPECTIONS BY HOU AIRPORT OPERATIONS – PRIOR TO REOPENING FOR AIRCRAFT USE AND THE DEPARTURE OF THE CONTRACTOR'S WORK CREWS, THE OWNER'S AUTHORIZED REPRESENTATIVE WILL ARRANGE FOR A DAILY INSPECTION BY HOU AIRPORT OPERATIONS OF ANY RUNWAY/TAXIWAY/TAXILANE SAFETY OR OBJECT FREE AREA, OR APRON THAT HAS BEEN CLOSED FOR WORK, OR THAT HAS BEEN USED FOR A CROSSING POINT OR HAUL ROUTE BY THE CONTRACTOR. THESE AREAS MUST COMPLY WITH THE SAFETY REQUIREMENTS, DEFINED BY FEDERAL AVIATION REGULATIONS PART 139, AND INTERPRETED BY THE DESIGNATED OPERATION'S INSPECTOR, BEFORE PERMISSION FOR THE CONTRACTOR'S WORK CREWS TO DEPART WILL BE GRANTED. CONTRACTOR MUST REMAIN ON SITE UNTIL HOU AIRPORT OPERATIONS COMPLETES AN AIRFIELD LIGHTING INSPECTION. ELECTRICAL VAULTS MUST BE RETURNED TO SERVICE NO LESS THAN 1.5 HOURS BEFORE SUNSET. CONTRACTOR CANNOT LEAVE SITE UNTIL AN AIRFIELD SAFETY AND LIGHT CHECK IS COMPLETED WITH HOU AIRPORT OPERATIONS.

44. THE CONTRACTOR SHALL PROTECT EXISTING IT INFRASTRUCTURE, INCLUDING HAS FIBERS, DUCTBANKS, FRAME AND COVERS, AND HANDHOLES AT ALL TIMES. IN THE EVENT OF ANY DAMAGES AND/OR REQUIRED RELOCATION OF THE EXISTING IT INFRASTRUCTURE, THE CONTRACTOR SHALL COMPLY WITH HAS IT STANDARDS AND SPECIFICATIONS ON THE FLY2HOUSTON WEBSITE.



WILLIAM P. HOBBY AIRPORT

HOUSTON TEXAS

Jacobs

JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
0" 1"

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

GENERAL PHASING NOTES

PROJECT MGR: S. CHILDERS
DESIGNER: D. CRAWFORD
DRAWN BY: D. CRAWFORD
CHECKED BY: R. EHESHAM
SCALE: AS SHOWN
DATE: 02/28/2023

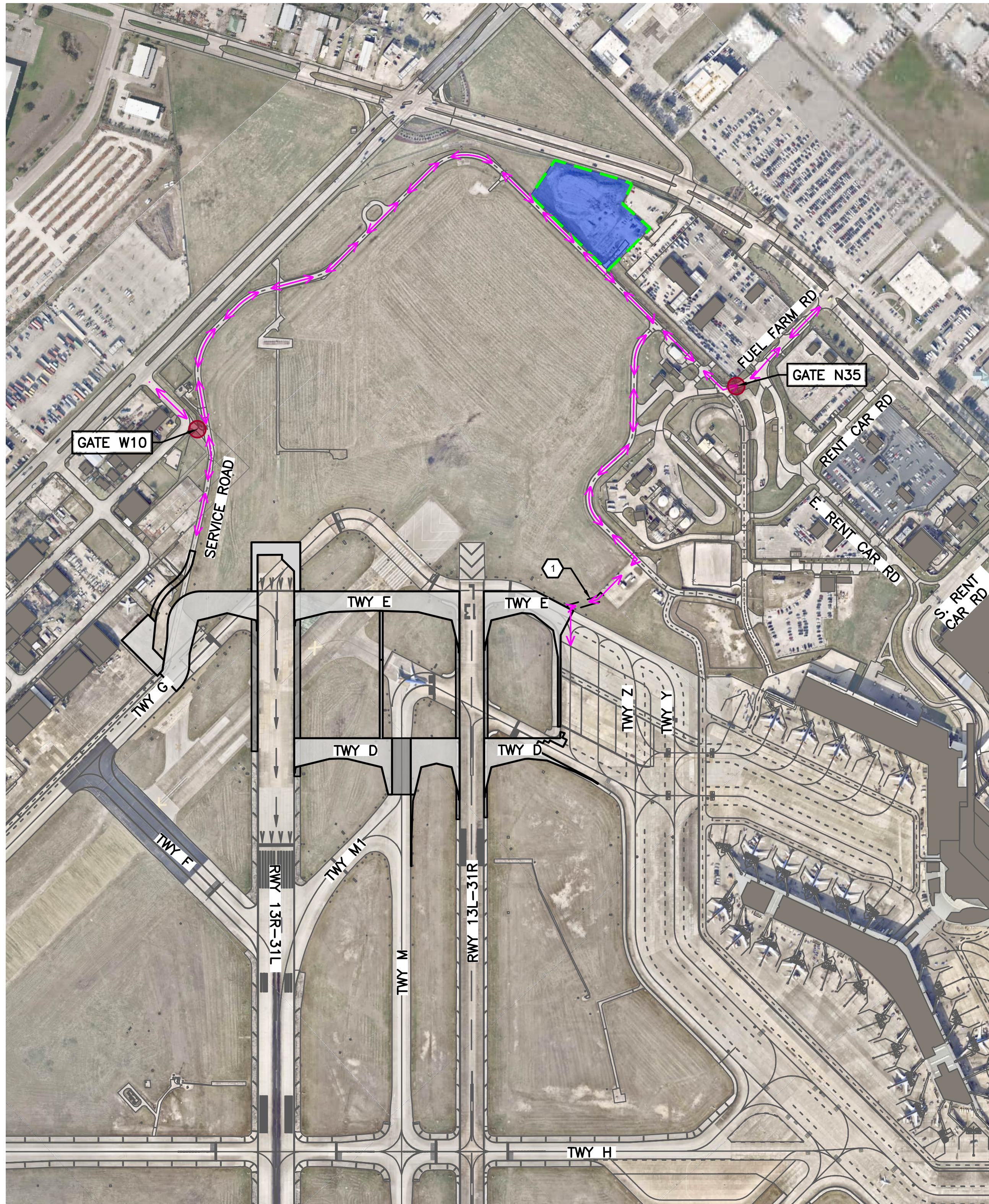


APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:
770
C.I.P. NO:
3-48-0110-044
H.A.S. NO:
N/A
SHEET NO:

GC002



1 CONTRACTOR ACCESS PHASES 1 THROUGH 4

NOTES:

1. FOR INDIVIDUAL PHASING PLANS, INCLUDING HAUL ROUTES AND FLAGGERS FOR EACH PHASE, SEE GC101-P1 THROUGH GC604-P6B.
2. FOR GENERAL PHASING NOTES, SEE GC001 THROUGH GC002.

KEYED NOTES:

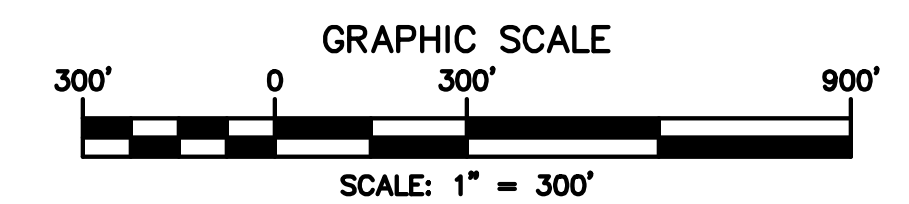
1. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING TEMPORARY HAUL ROADS, WHEN NEEDED, TO ACCESS WORK AREAS. SEE SHEET CS004 DETAIL 3 FOR TEMPORARY HAUL ROAD DETAIL. THE COST FOR ESTABLISHING TEMPORARY HAUL ROADS SHALL BE INCIDENTAL TO OTHER PROJECT WORK.
2. TEMPORARY FUEL TRUCK ACCESS ROAD. SEE SHEET CS004 DETAIL 3 FOR TEMPORARY HAUL ROAD DETAIL. THE COST FOR ESTABLISHING TEMPORARY HAUL ROADS SHALL BE INCIDENTAL TO OTHER PROJECT WORK.



2 CONTRACTOR ACCESS PHASES 5, 6A AND 6B

LEGEND:

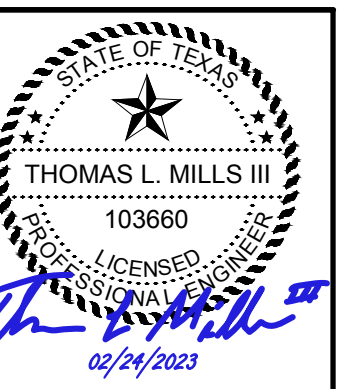
- CONTRACTOR NORTH STAGING AREA, BATCH PLANT, AND STOCKPILE AREA (PHASES 1 THROUGH 4)
- CONTRACTOR SOUTH STAGING AREA, BATCH PLANT, AND STOCKPILE AREA (PHASES 5 THROUGH 6B)
- CONTRACTOR ACCESS ROUTE FROM NORTH STAGING AREA
- CONTRACTOR ACCESS ROUTE FROM SOUTH STAGING AREA
- CONSTRUCTION ACCESS GATE



REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
STAGING AREA AND SITE ACCESS PLAN

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: _____ DATE: _____

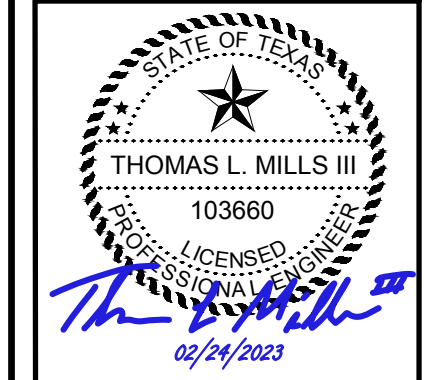
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC011

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
 OVERALL PHASING PLAN AND SEQUENCE OF CONSTRUCTION

PROJECT MGR: S. CHILDERS
 DESIGNER: D. CRAWFORD
 DRAWN BY: D. CRAWFORD
 CHECKED BY: R. EHTESHAM
 SCALE: AS SHOWN
 DATE: 02/28/2023



APPROVED BY: _____ DATE: _____

DIRECTOR
 HOUSTON AIRPORT SYSTEM

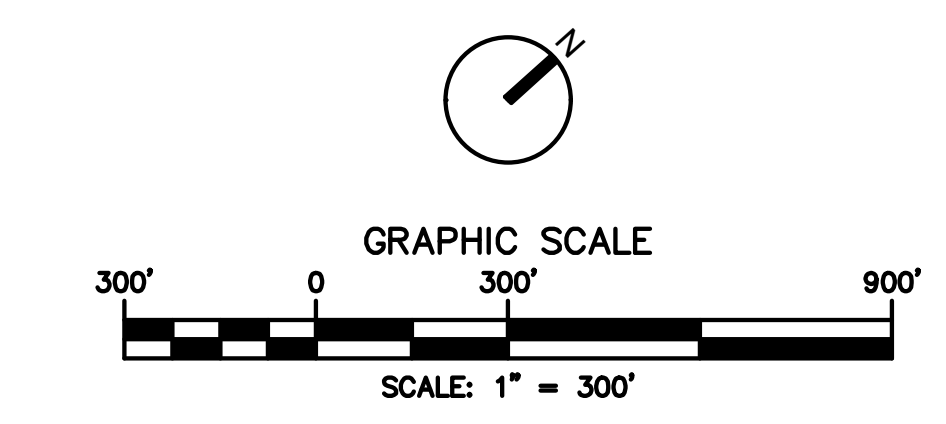
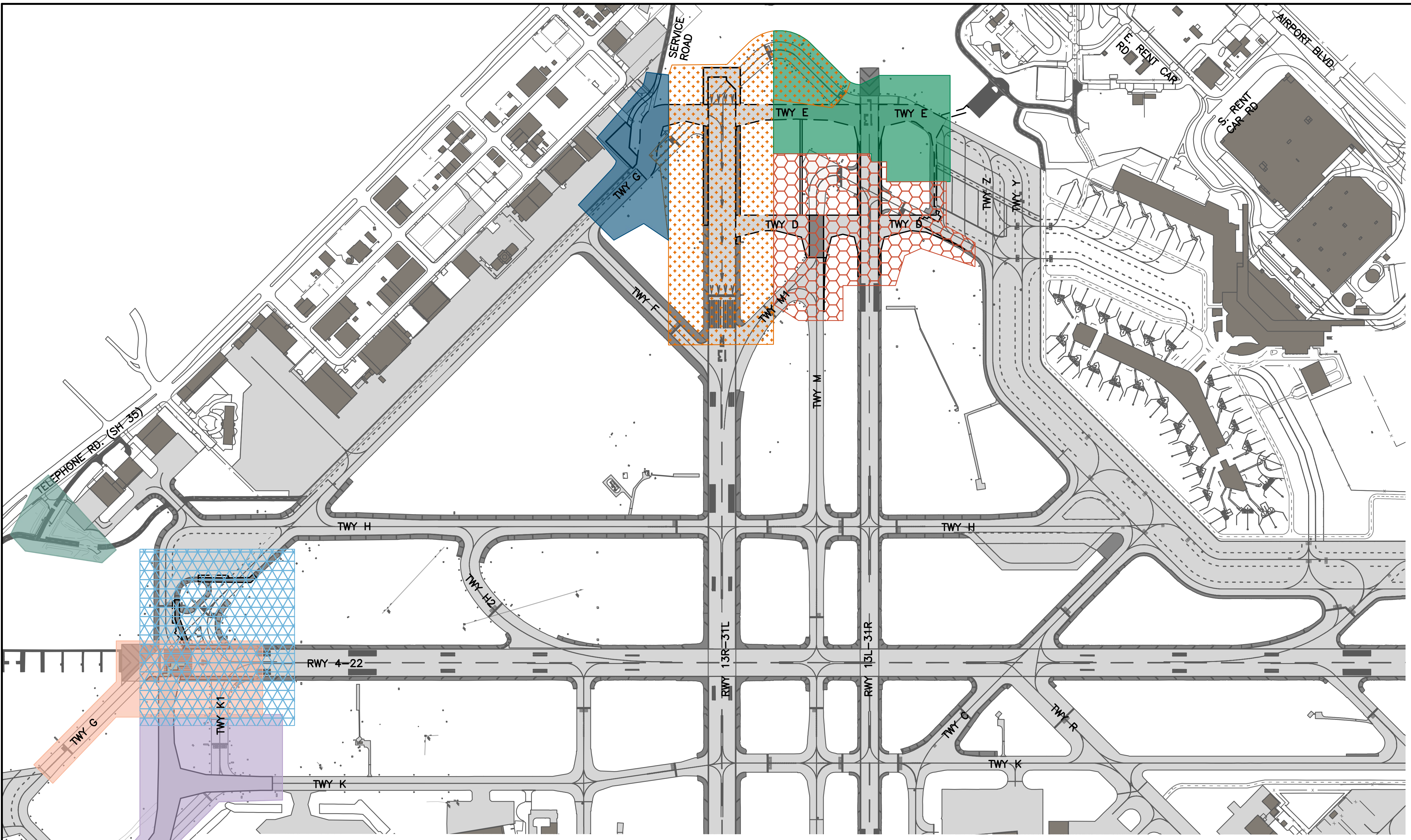
PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: GC012
 of

NOTES:

- FOR GENERAL PHASING NOTES, SEE GC001 THROUGH GC002.
- START/FINISH DATES AND DURATIONS FOR PHASES OF WORK ARE PROVIDED FOR INFORMATION ONLY, AND REPRESENT APPROXIMATE ANTICIPATED DATES, NOT ACTUAL CONTRACT TIME. REFER TO THE CONTRACT FOR ACTUAL CONTRACT TIME, SCHEDULE RESTRICTIONS, AND CRITICAL MILESTONES.
- PHASE 4 MAY NOT START UNTIL COMPLETION OF NEW MILLIONAIRE FUEL FARM.

LEGEND:

- PHASE 1 (SEE SHEETS GC101-P1 THROUGH GC102-P1)
- PHASE 2 (SEE SHEETS GC201-P2 THROUGH GC202-P2)
- PHASE 3 (SEE SHEETS GC301-P3 THROUGH GC302-P3)
- PHASE 4 (SEE SHEETS GC401-P4 THROUGH GC402-P4)
- PHASE 5 (SEE SHEETS GC501-P5 THROUGH GC502-P5)
- PHASE 6A (SEE SHEETS GC601-P6A THROUGH GC602-P6A)
- PHASE 6B (SEE SHEETS GC603-P6B THROUGH GC604-P6B)
- PHASE 7 (SEE SHEETS GC701 VOLUME 2)



NOTIONAL CONSTRUCTION SCHEDULE

Task Name	Calendar Days	Start	Finish	Qtr 2, 2023		Qtr 3, 2023			Qtr 4, 2023			Qtr 1, 2024			Qtr 2, 2024			Qtr 3, 2024			Qtr 4, 2024			Qtr 1, 2025			Qtr 2, 2025		
				Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
OVERALL	537 days	7/1/23	12/19/24	7/1 ————— 12/19																									
PHASE 1	125 days	10/1/23	2/3/24	10/1 ————— 2/3																									
PHASE 2	110 days	2/3/24	5/23/24	2/3 ————— 5/23																									
PHASE 3	125 days	5/23/24	9/25/24	5/23 ————— 9/25																									
PHASE 4	85 days	9/25/24	12/19/24	9/25 ————— 12/19																									
PHASE 5	92 days	7/1/23	10/1/23	7/1 ————— 10/1																									
PHASE 6A	109 days	5/1/24	8/18/24	5/1 ————— 8/18																									
PHASE 6B	24 days	8/18/24	9/11/24	8/18 ————— 9/11																									
				10/1 ————— 4/30																									
				10/1 ————— 4/30																									

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

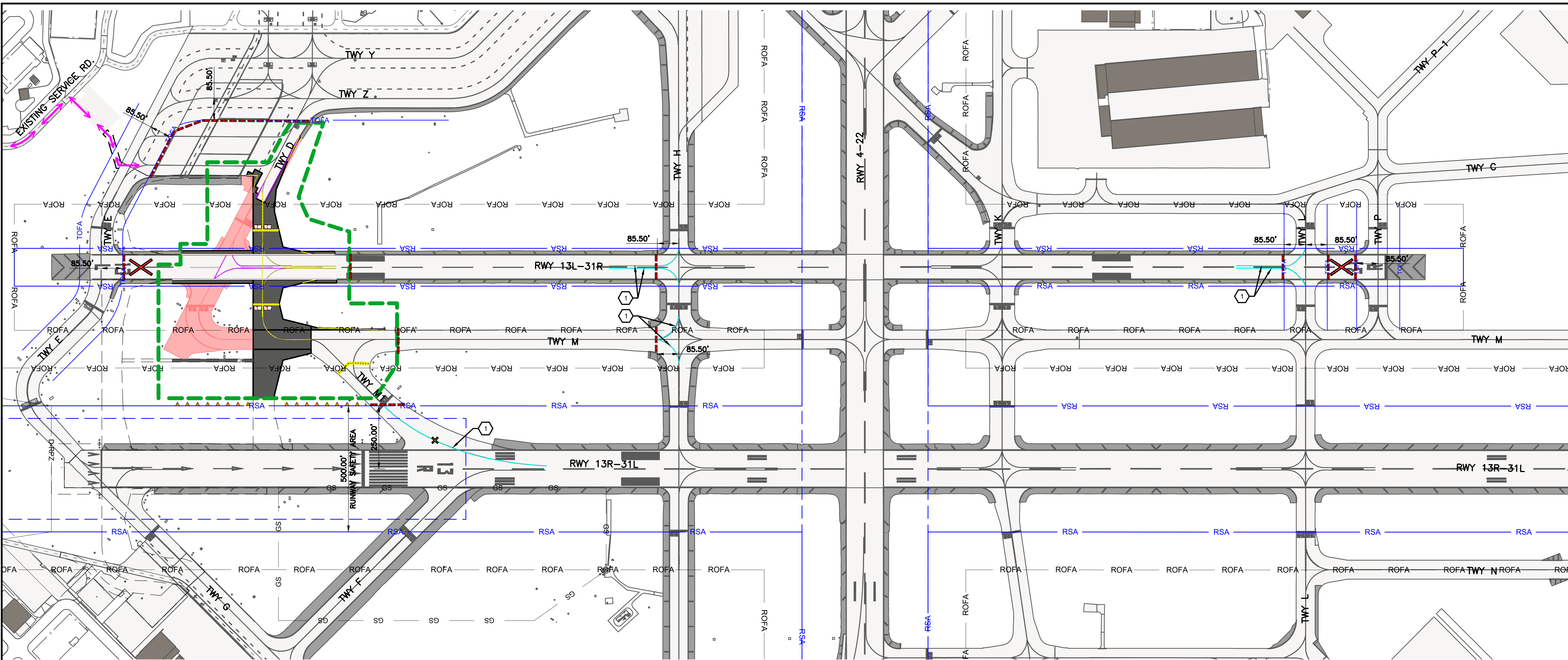
FAA NON-STANDARD TAXIWAYS PROJECT
OVERALL PHASING PLAN - PHASE 1

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: _____ DATE: _____

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC101-P1



CONCURRENT PHASES:	-
PHASE DURATION:	125 CALENDAR DAYS
ANTICIPATED SCHEDULE:	10/01/2023 - 02/03/2024
CLOSURES:	<ul style="list-style-type: none"> • RUNWAY 13L-31R • TAXIWAY M1 • TAXIWAY M, WEST OF TAXIWAY H • TAXIWAY D, BETWEEN RUNWAY 13R-31L AND TAXIWAY Z
ACCESS:	<ul style="list-style-type: none"> • ENTER THROUGH GATE N35 • ALL VEHICLES WILL REQUIRE ESCORTS BETWEEN GATE N35 AND WORK AREA. SEE GENERAL PHASING NOTES FOR ESCORT REQUIREMENTS
WORK HOURS:	0800 TO 1800 (MON THRU SAT)
NAVAIDS IMPACTED:	NONE

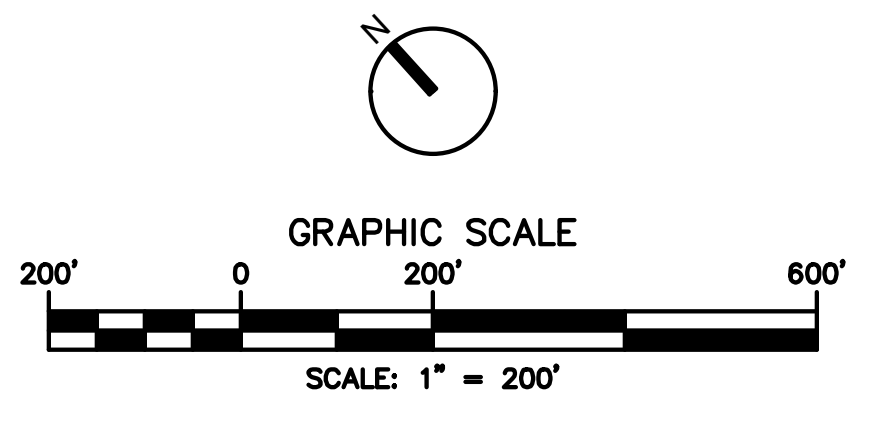
DESCRIPTION OF WORK:	CONSTRUCTION OF TAXIWAY D BETWEEN RUNWAY 13R RSA AND TAXIWAY Z
SEQUENCE NOTES:	<ul style="list-style-type: none"> • MUST BEGIN AFTER PHASE 5 • LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT.

LEGEND:

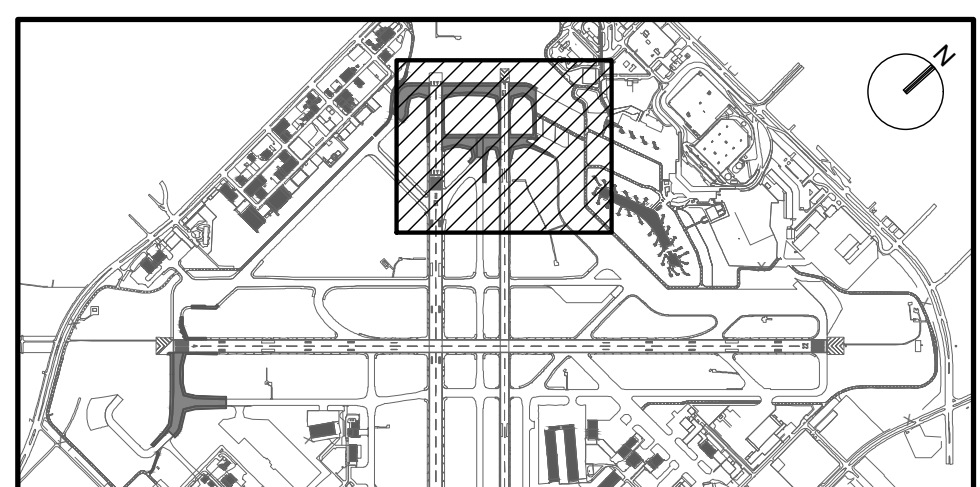
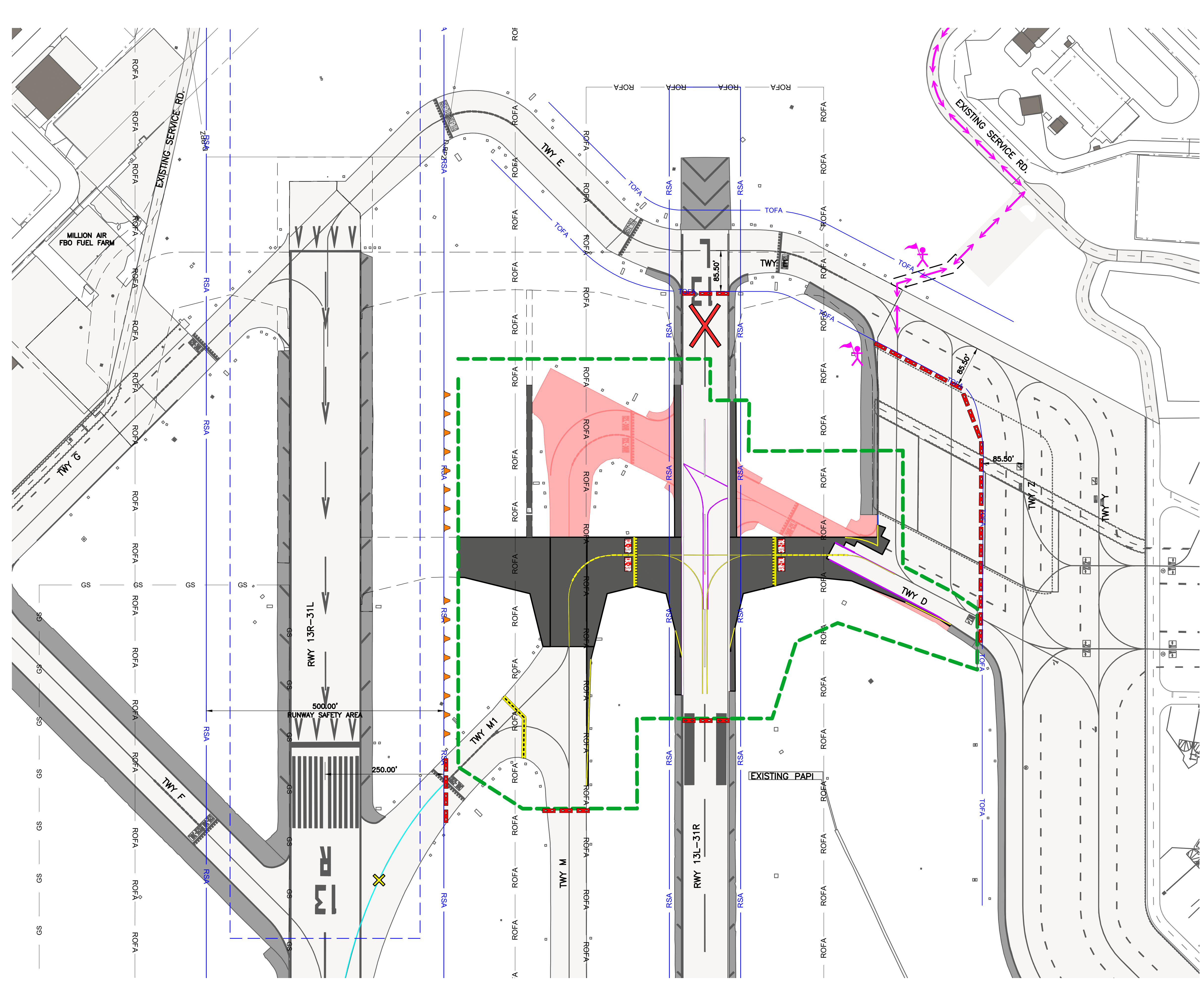
- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- CONSTRUCTION FLAGGER
- RUNWAY SAFETY MARKER
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

KEYED NOTES:

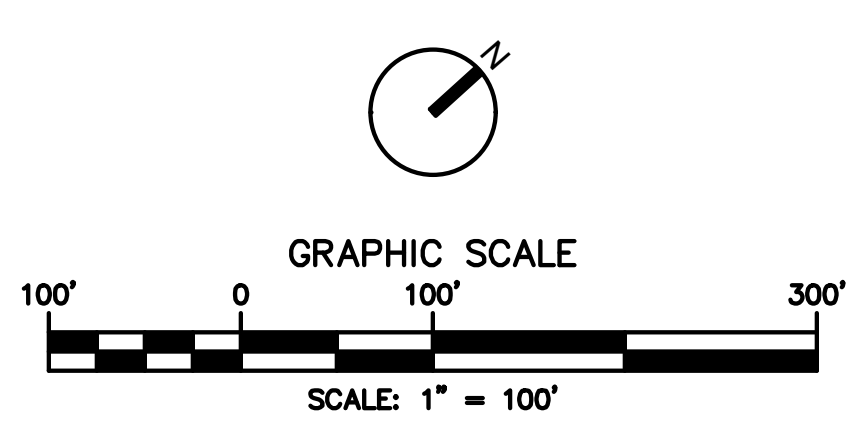
MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620, UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.



REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2022. ALL RIGHTS RESERVED.



- LEGEND:**
- PHASE LIMITS
 - PAVEMENT CONSTRUCTION
 - PAVEMENT DEMOLITION
 - PAVEMENT MARKING OBLITERATION
 - BLACKOUT EXISTING MARKING
 - PROPOSED PAVEMENT MARKING
 - RSA RUNWAY SAFETY AREA
 - ROFA RUNWAY OBJECT FREE AREA
 - TOFA TAXIWAY OBJECT FREE AREA
 - LOCALIZER CRITICAL AREA
 - GS GLIDESLOPE CRITICAL AREA
 - D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
 - LOW-PROFILE BARRICADES
 - HAUL ROUTE
 - ⚠ CONSTRUCTION FLAGGER
 - ⚠ RUNWAY SAFETY MARKER
 - X TAXIWAY CLOSURE MARKER
 - X LIGHTED CLOSED RUNWAY MARKER SIGN

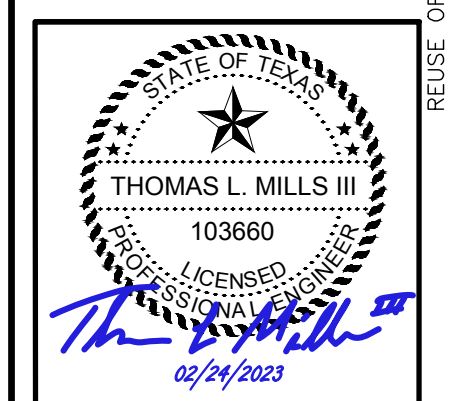


REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
 DETAILED PHASING PLAN - PHASE 1

PROJECT MGR: S. CHILDERS
 DESIGNER: D. CRAWFORD
 DRAWN BY: D. CRAWFORD
 CHECKED BY: R. EHTESHAM
 SCALE: AS SHOWN
 DATE: 02/28/2023



APPROVED BY: _____ DATE: _____
 DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: GC102-P1
 of

REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL PHASING PLAN - PHASE 2

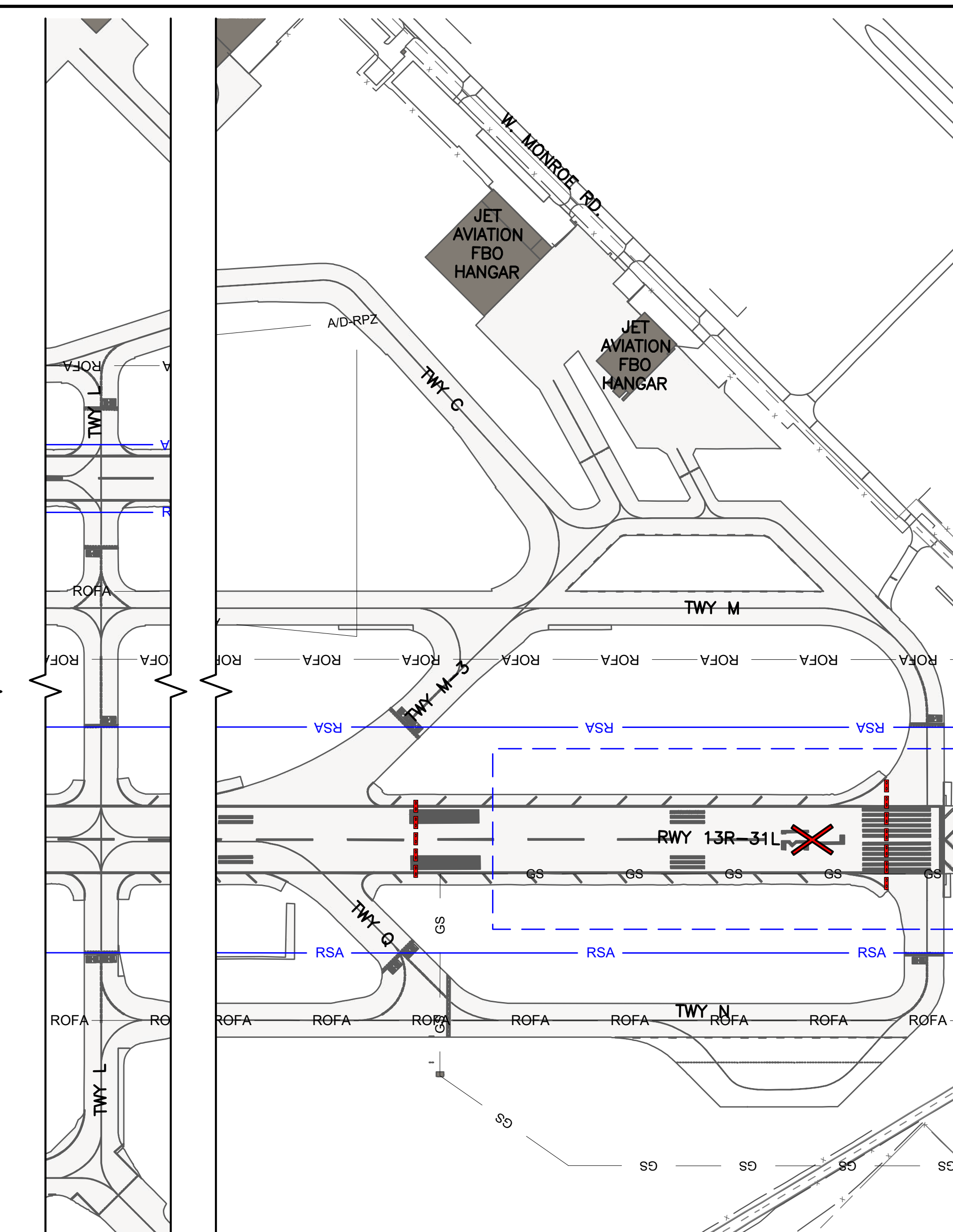
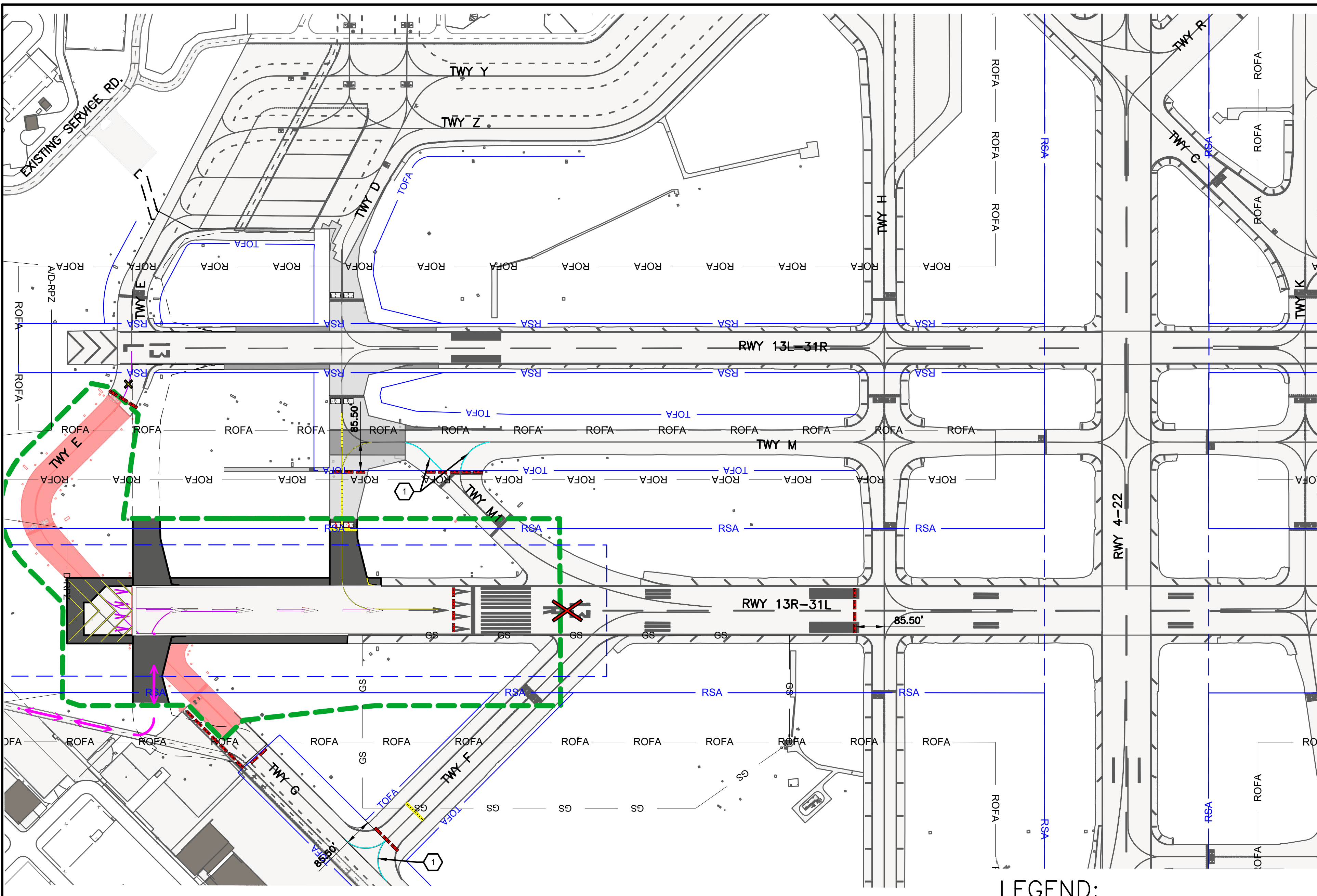
PROJECT MGR: S. CHILDERS
DESIGNER: D. CRAWFORD
DRAWN BY: D. CRAWFORD
CHECKED BY: R. EHTESHAM
SCALE: AS SHOWN
DATE: 02/28/2023



APPROVED BY: _____ **DATE:** _____

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GC201-P2
 of



PHASE 2 OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	6A
PHASE DURATION:	110 CALENDAR DAYS
ANTICIPATED SCHEDULE:	02/03/2024 - 05/23/2024
CLOSURES:	<ul style="list-style-type: none"> RUNWAY 13R-31L TAXIWAY E, SOUTH OF RUNWAY 13L-31R TAXIWAY F TAXIWAY M1 TAXIWAY D, SOUTH OF TAXIWAY M PORTIONS OF TAXIWAY G, AS INDICATED
ACCESS:	ENTER THROUGH GATE W10
WORK HOURS:	0800 TO 1800 (MON THRU SAT)
NAVAIDS IMPACTED:	RUNWAY 13R-31L ILS OTS; LOCALIZER ONLY

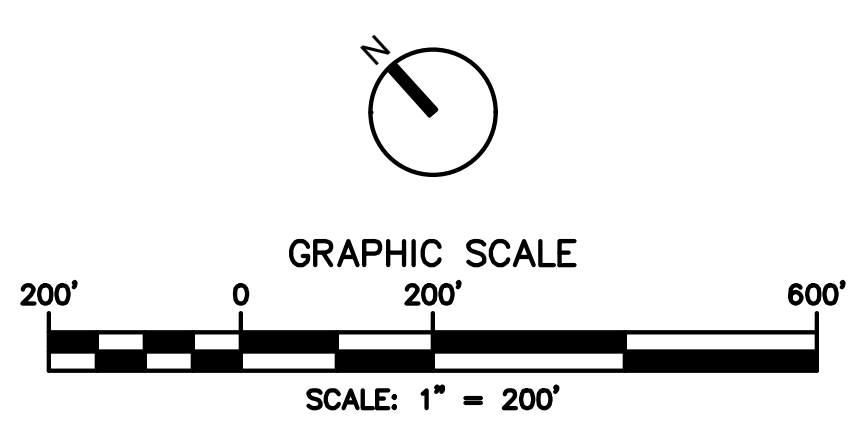
PHASE 2 DETAILS

DESCRIPTION OF WORK:	CONSTRUCTION OF TAXIWAYS E AND D WITHIN RUNWAY 13R RSA
SEQUENCE NOTES:	<ul style="list-style-type: none"> MUST BEGIN AFTER PHASE 1 LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT.

- LEGEND:**
- PHASE LIMITS
 - PAVEMENT CONSTRUCTION
 - PAVEMENT DEMOLITION
 - PAVEMENT MARKING OBLITERATION
 - BLACKOUT EXISTING MARKING
 - PROPOSED PAVEMENT MARKING
 - RSA RUNWAY SAFETY AREA
 - ROFA RUNWAY OBJECT FREE AREA
 - TOFA TAXIWAY OBJECT FREE AREA
 - LOCALIZER CRITICAL AREA
 - GS GLIDESLOPE CRITICAL AREA
 - D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
 - LOW-PROFILE BARRICADES
 - HAUL ROUTE
 - CONSTRUCTION FLAGGER
 - RUNWAY SAFETY MARKER
 - TAXIWAY CLOSURE MARKER
 - LIGHTED CLOSED RUNWAY MARKER SIGN

KEYED NOTES:

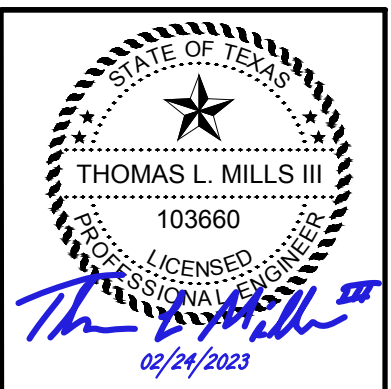
MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620. UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.



REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
OVERALL PHASING PLAN - PHASE 3

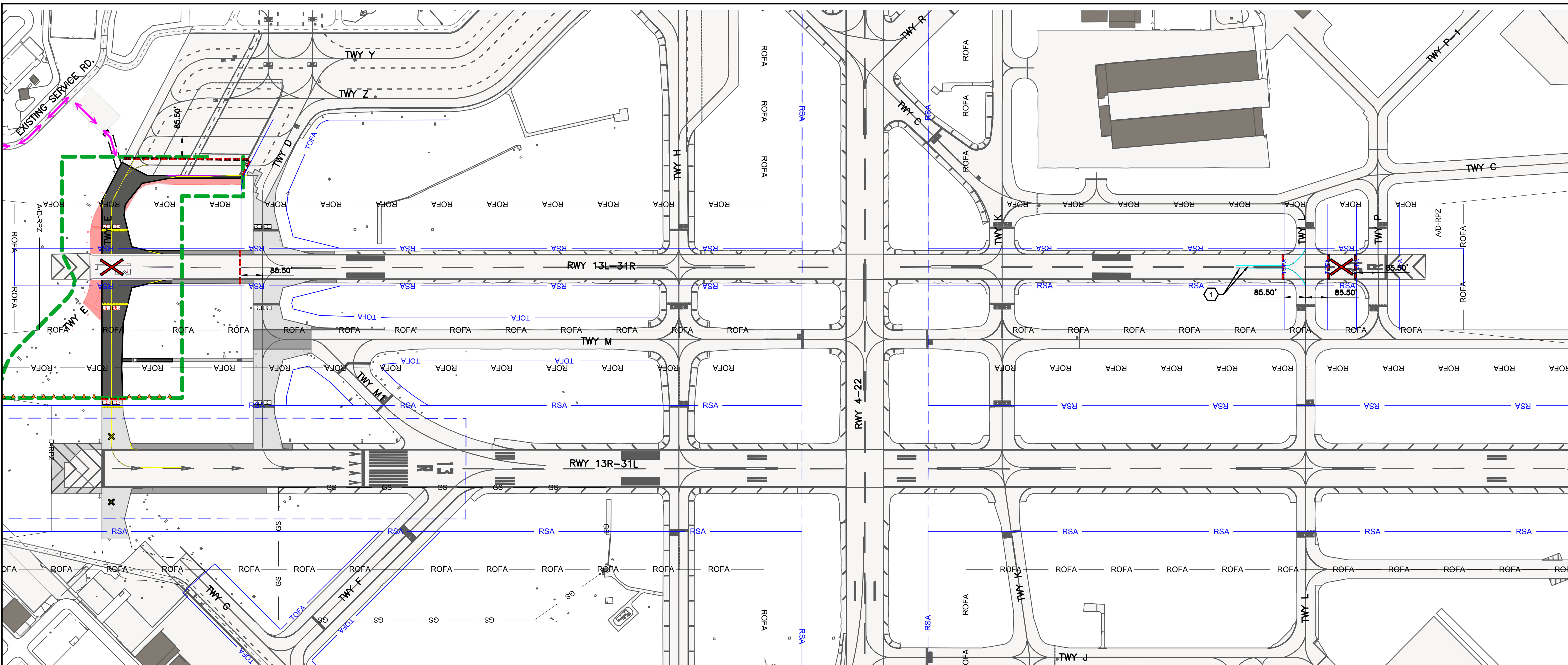
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: _____ DATE: _____

DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC301-P3



PHASE 3 OPERATIONAL IMPACTS TABLE	
CONCURRENT PHASES:	6A
PHASE DURATION:	125 CALENDAR DAYS
ANTICIPATED SCHEDULE:	05/23/2024 - 09/25/2024
CLOSURES:	<ul style="list-style-type: none"> • RUNWAY 13L-31R • TAXIWAY E, BETWEEN RUNWAY 13R AND TAXIWAY Z • PORTIONS OF TAXIWAY G, AS INDICATED
ACCESS:	<ul style="list-style-type: none"> • ENTER THROUGH GATE N35 • ALL VEHICLES WILL REQUIRE ESCORTS BETWEEN GATE N35 AND WORK AREA
WORK HOURS:	0800 TO 1800 (MON THRU SAT)
NAVAIDS IMPACTED:	NONE

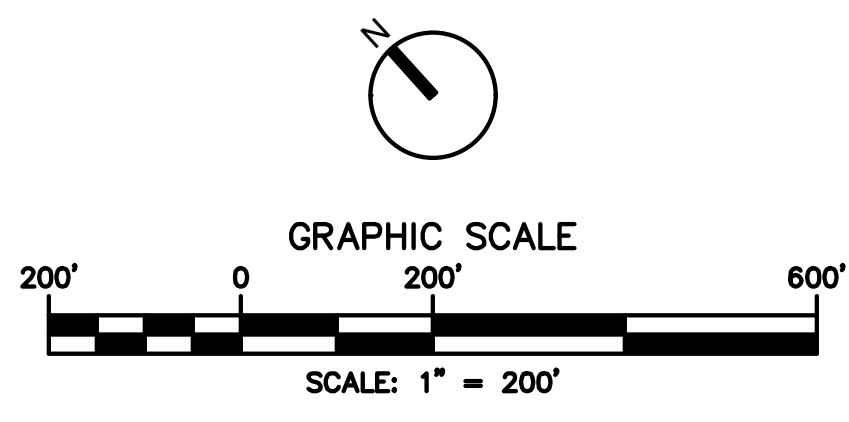
PHASE 3 DETAILS	
DESCRIPTION OF WORK:	CONSTRUCTION OF TAXIWAY E BETWEEN RUNWAY 13R RSA AND TAXIWAY Z
SEQUENCE NOTES:	<ul style="list-style-type: none"> • MUST BEGIN AFTER PHASE 2 • LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT.

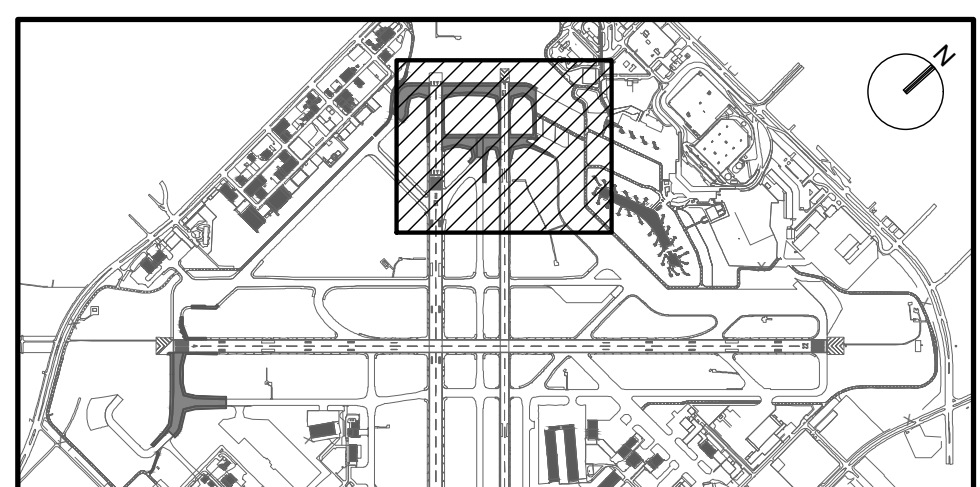
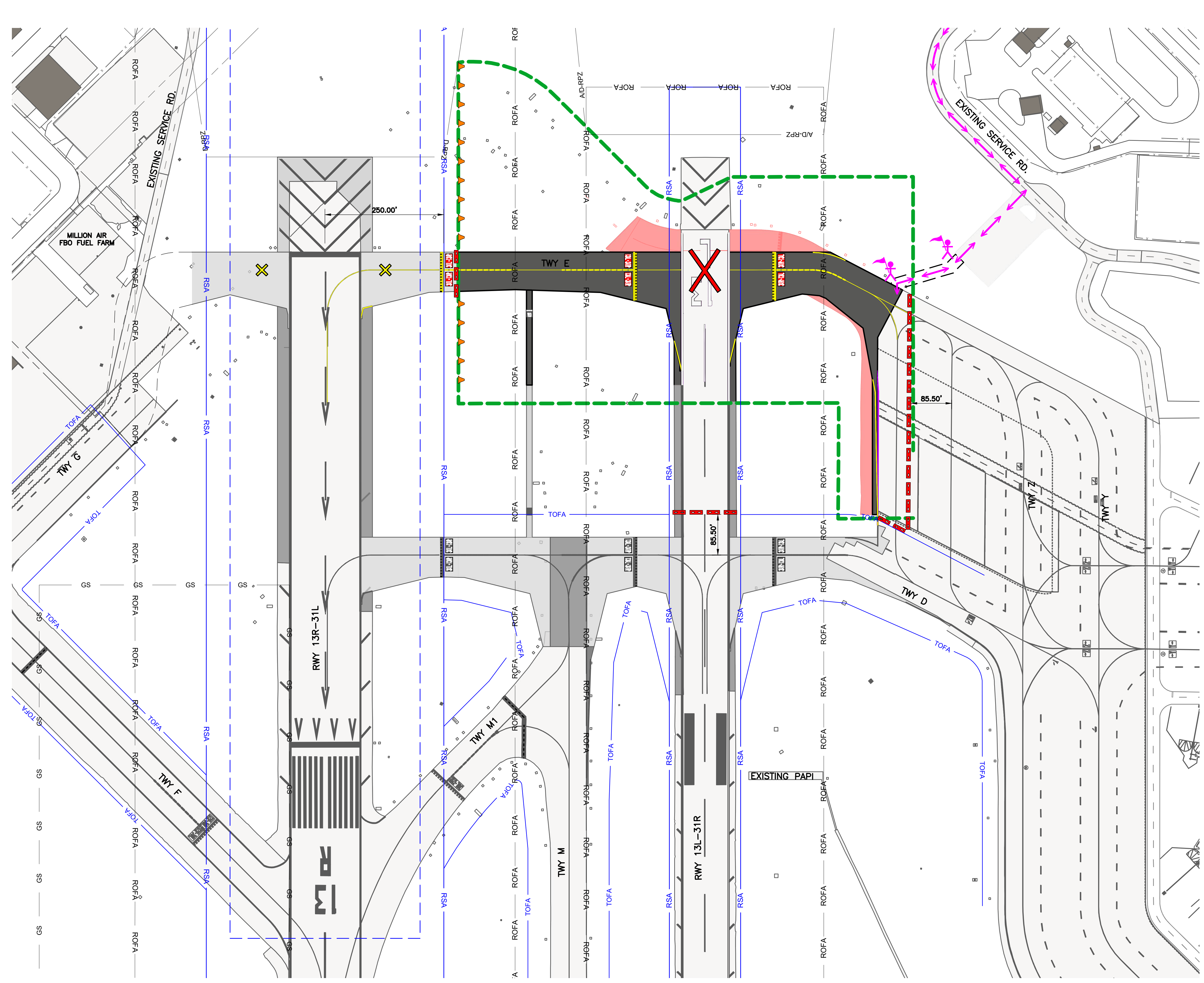
LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- CONSTRUCTION FLAGGER
- RUNWAY SAFETY MARKER
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

KEYED NOTES:

1 MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620, UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.





KEY MAP
NTS

LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- ▲ CONSTRUCTION FLAGGER
- ▲ RUNWAY SAFETY MARKER
- X TAXIWAY CLOSURE MARKER
- X LIGHTED CLOSED RUNWAY MARKER SIGN

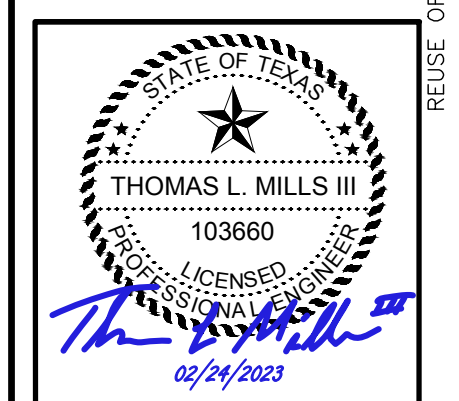
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING.
0" = 100'

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN - PHASE 3

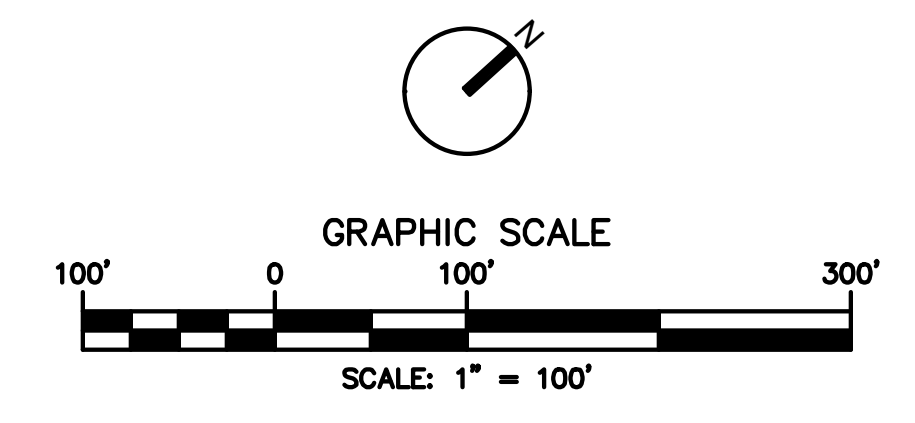
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: _____ DATE: _____

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC302-P3
of	

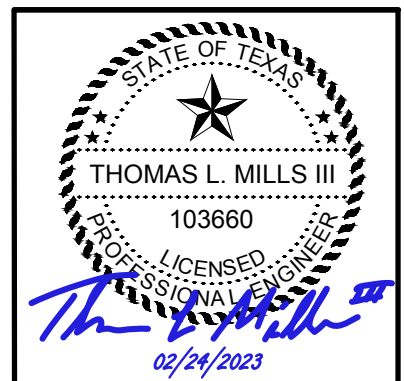


REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

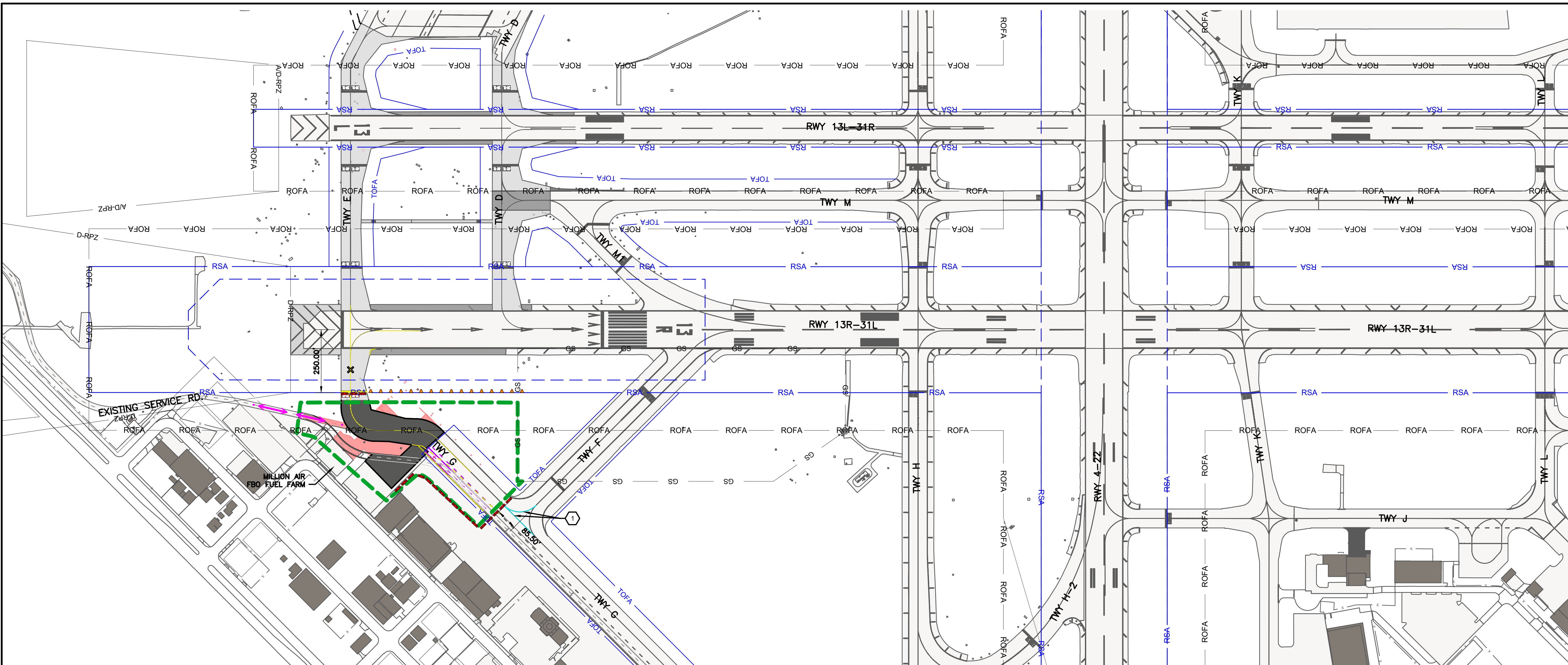
FAA NON-STANDARD TAXIWAYS PROJECT
OVERALL PHASING PLAN - PHASE 4

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY:	DATE:
DIRECTOR	HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC401-P4



LEGEND:

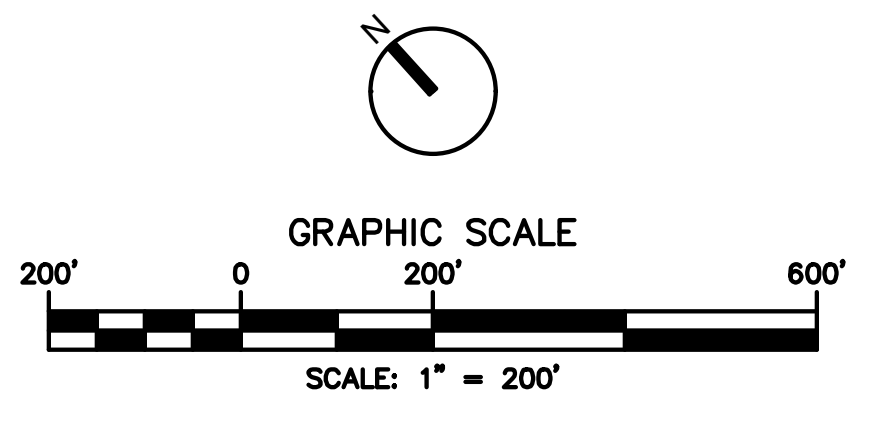
- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- ↔ HAUL ROUTE
- ⚡ CONSTRUCTION FLAGGER
- ▲ ▲ RUNWAY SAFETY MARKER
- × TAXIWAY CLOSURE MARKER
- ✕ LIGHTED CLOSED RUNWAY MARKER SIGN

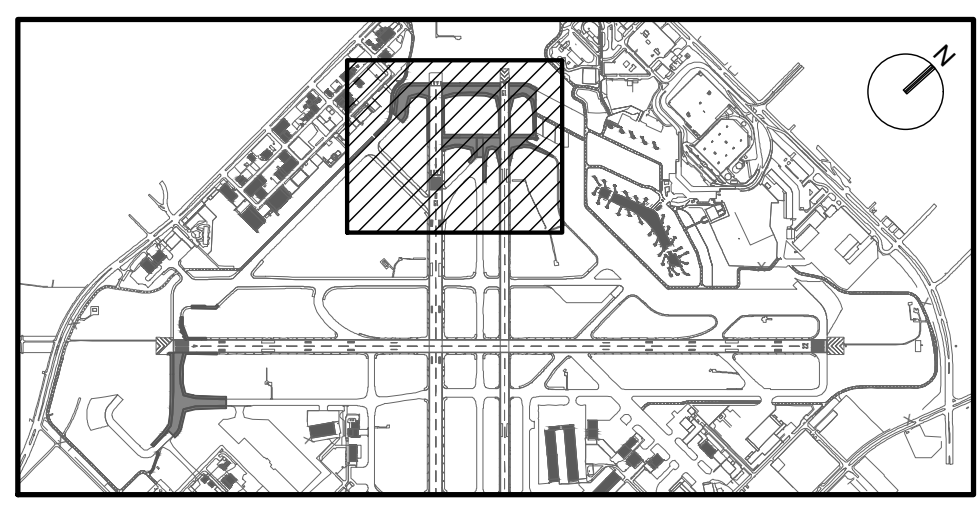
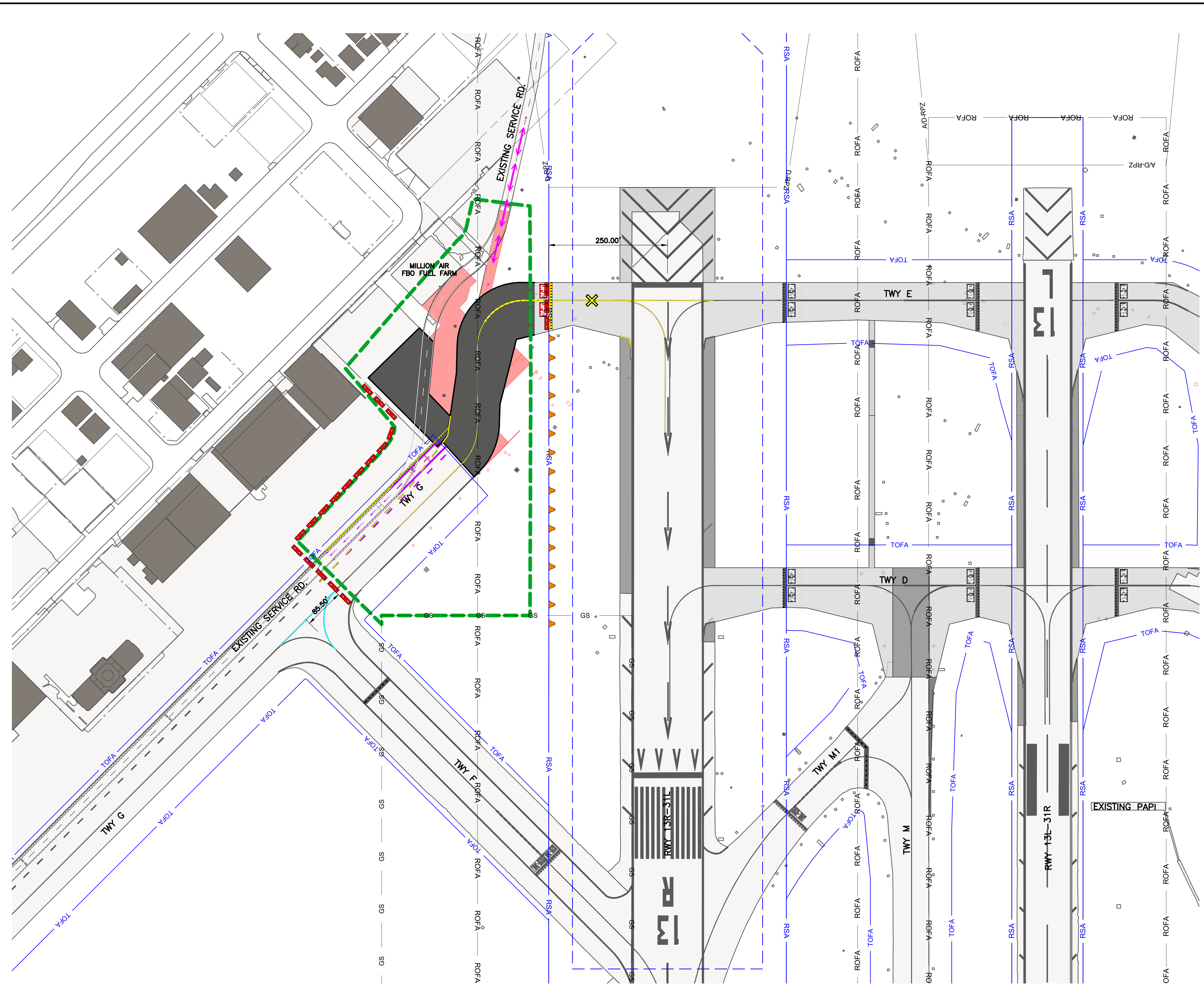
KEYED NOTES:

1 MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620, UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.

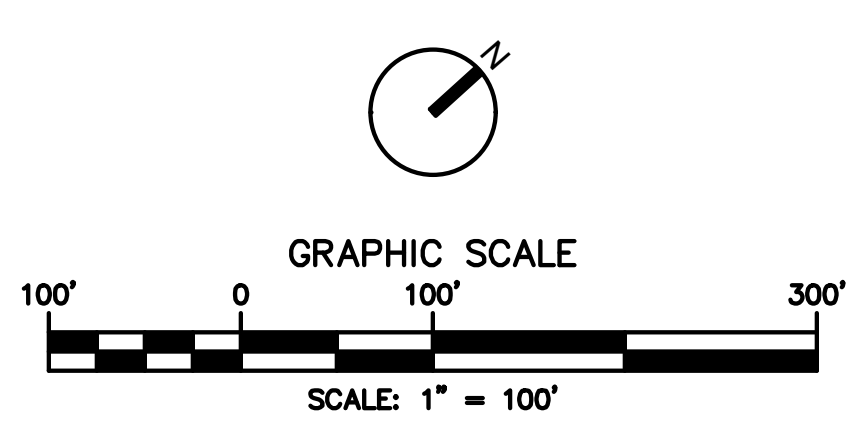
PHASE 4 OPERATIONAL IMPACTS TABLE	
CONCURRENT PHASES:	NONE
PHASE DURATION:	85 CALENDAR DAYS
ANTICIPATED SCHEDULE:	09/25/2024 - 12/19/2024
CLOSURES:	• PORTIONS OF TAXIWAY G, AS INDICATED • TAXIWAY E, SOUTH OF RUNWAY 13R
ACCESS:	ENTER THROUGH GATE W10
WORK HOURS:	0800 TO 1800 (MON THRU SAT)
NAVAIDS IMPACTED:	NONE

PHASE 4 DETAILS	
DESCRIPTION OF WORK:	CONSTRUCTION OF TAXIWAY G CONNECTOR TO TAXIWAY E • MAY NOT BEGIN UNTIL COMPLETION OF RELOCATED MILLIONAIRE FUEL FARM. • CONTRACTOR SHALL COORDINATE WITH HOU OPERATIONS TO ENSURE VEHICLE ACCESS THROUGH THE CONSTRUCTION AREA AT ALL TIMES. • LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT.
SEQUENCE NOTES:	





- LEGEND:**
- PHASE LIMITS
 - PAVEMENT CONSTRUCTION
 - PAVEMENT DEMOLITION
 - PAVEMENT MARKING OBLITERATION
 - BLACKOUT EXISTING MARKING
 - PROPOSED PAVEMENT MARKING
 - RSA RUNWAY SAFETY AREA
 - ROFA RUNWAY OBJECT FREE AREA
 - TOFA TAXIWAY OBJECT FREE AREA
 - LOCALIZER CRITICAL AREA
 - GS GLIDESLOPE CRITICAL AREA
 - D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
 - LOW-PROFILE BARRICADES
 - HAUL ROUTE
 - X CONSTRUCTION FLAGGER
 - X RUNWAY SAFETY MARKER
 - X TAXIWAY CLOSURE MARKER
 - X LIGHTED CLOSED RUNWAY MARKER SIGN

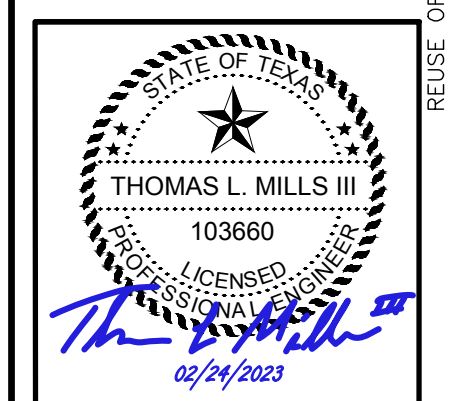


REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
 DETAILED PHASING PLAN - PHASE 4

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC402-P4

REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

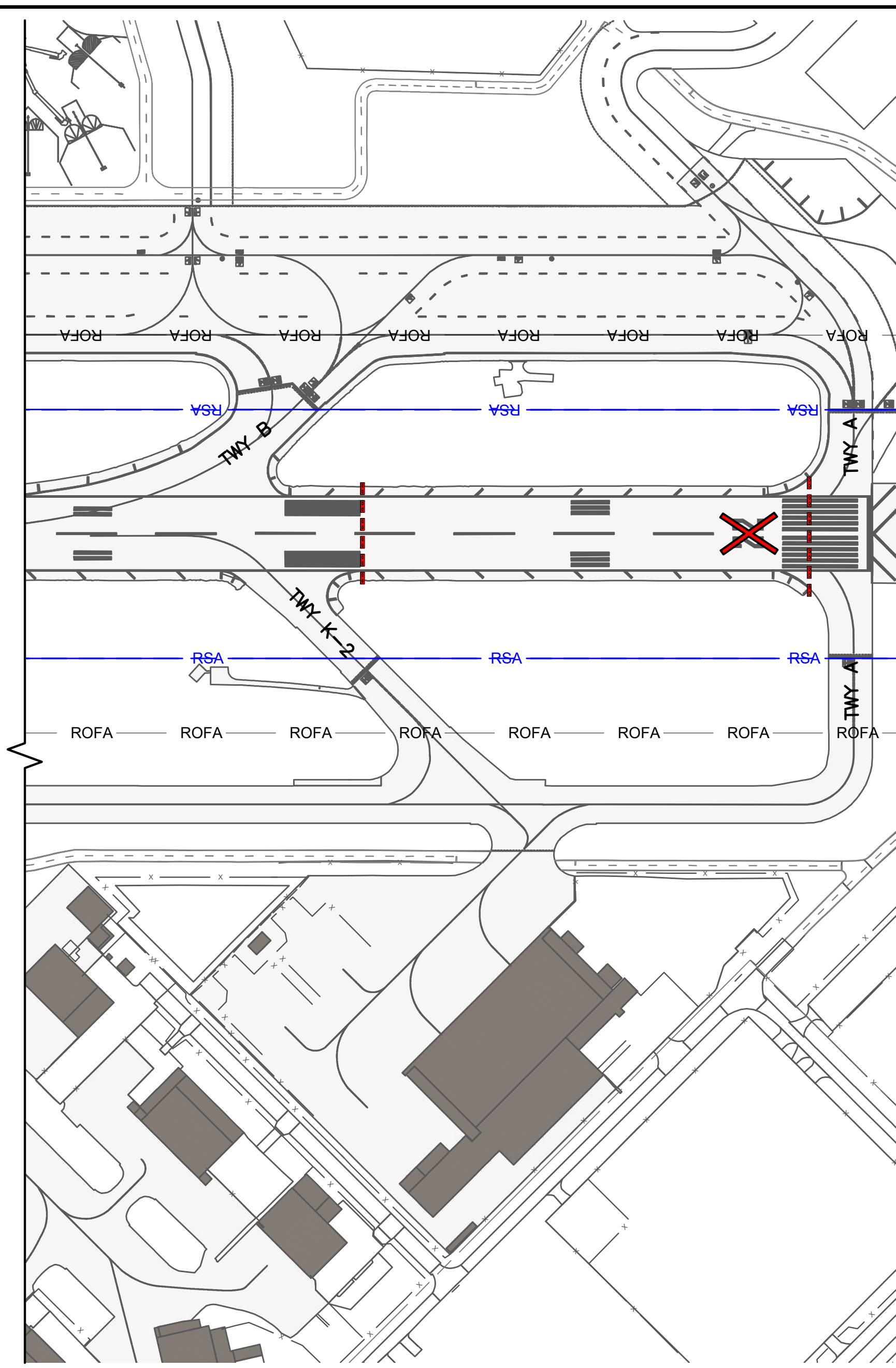
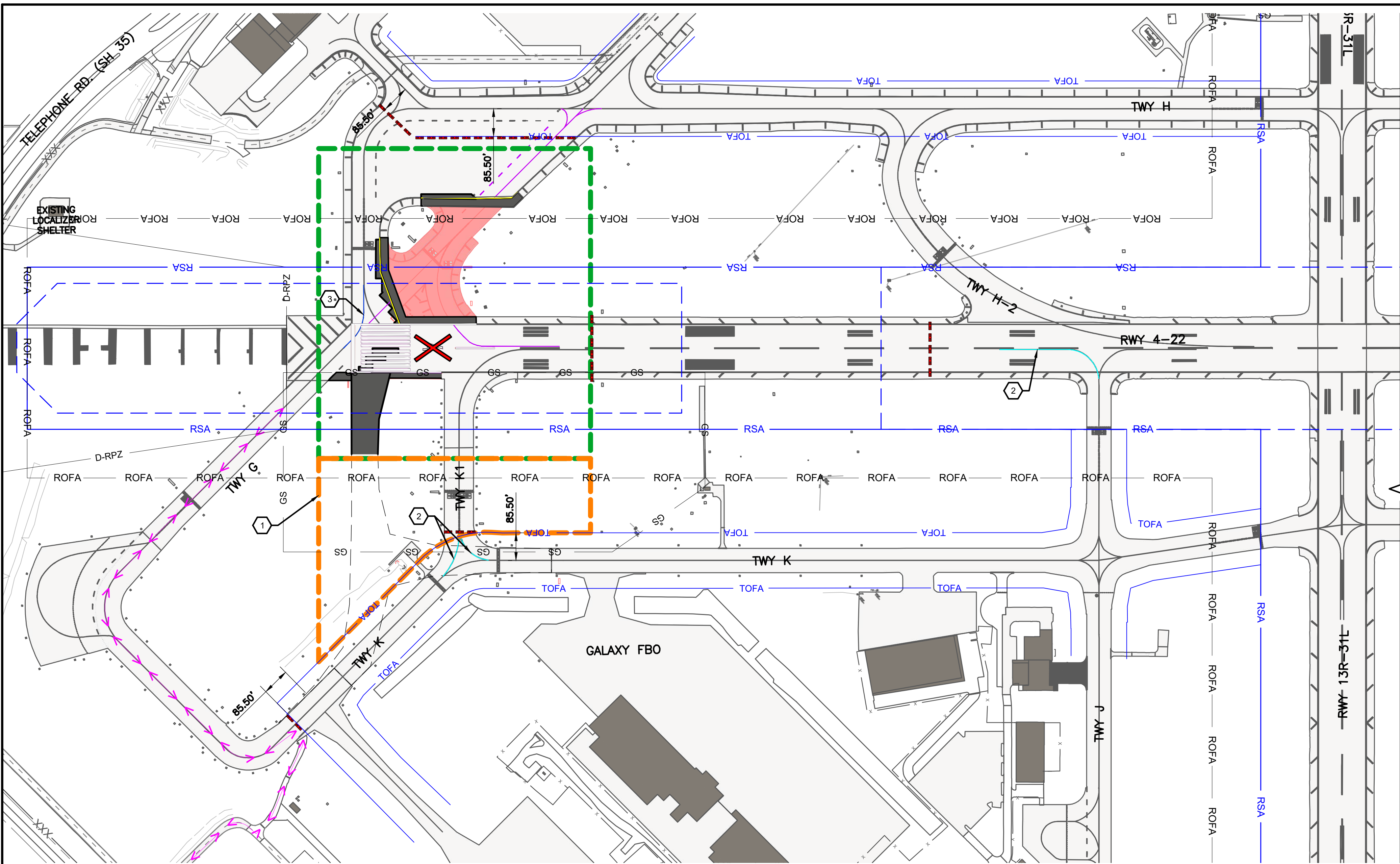
FAA NON-STANDARD TAXIWAYS PROJECT
OVERALL PHASING PLAN - PHASE 5

PROJECT MGR: S. CHILDERS
 DESIGNER: D. CRAWFORD
 DRAWN BY: D. CRAWFORD
 CHECKED BY: R. EHTESHAM
 SCALE: AS SHOWN
 DATE: 02/28/2023



APPROVED BY: _____ DATE: _____
 DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
 C.I.P. NO: 3-48-0110-044
 H.A.S. NO: N/A
 SHEET NO: GC501-P5
 of



PHASE 5 OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	-
PHASE DURATION:	92 CALENDAR DAYS
ANTICIPATED SCHEDULE:	07/01/2023 - 10/01/2023
CLOSURES:	<ul style="list-style-type: none"> • RUNWAY 4-22 • TAXIWAY H, BETWEEN MILLIONAIRE ACCESS TAXIWAY AND RUNWAY 4 • TAXIWAY K1 • PORTIONS OF TAXIWAY K, AS SHOWN • PORTIONS OF TAXIWAY G, AS SHOWN
ACCESS:	ENTER THROUGH GATE S20
WORK HOURS:	24/7
NAVAIDS IMPACTED:	WORK WITHIN GLIDESLOPE PROTECTED AREA. RUNWAY 4-22 ILS OTS; LOCALIZER ONLY

PHASE 5 DETAILS

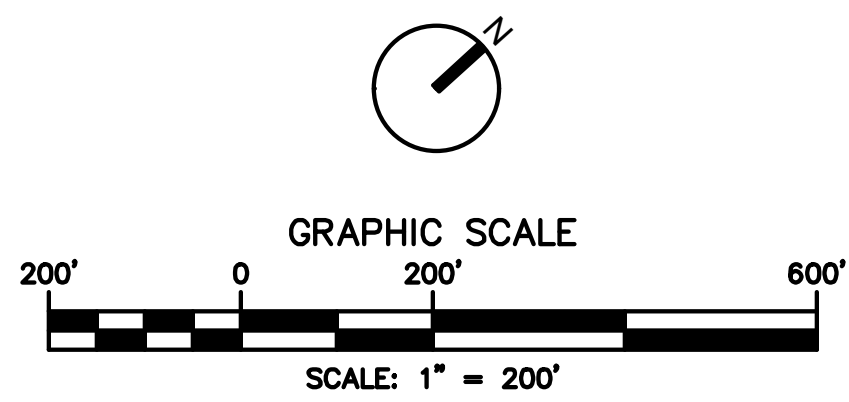
DESCRIPTION OF WORK:	DEMOLITION OF TAXIWAY G BETWEEN TAXIWAY H AND RUNWAY 4-22 AND CONSTRUCTION OF TAXIWAY K1 CONNECTOR
SEQUENCE NOTES:	<ul style="list-style-type: none"> • WORK LIMITED TO BETWEEN 5/1 AND 9/30 • AIRCRAFT MUST HAVE ACCESS TO SOUTHWEST MAINTENANCE HANGAR AND GALAXY FBO AT ALL TIMES • LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT. • GALAXY FUEL TRUCKS MUST HAVE ACCESS TO LDR AT ALL TIMES

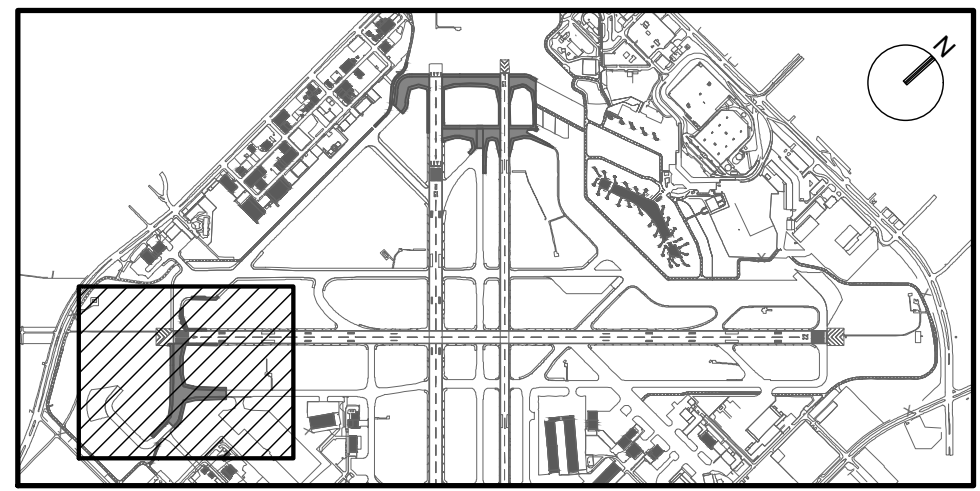
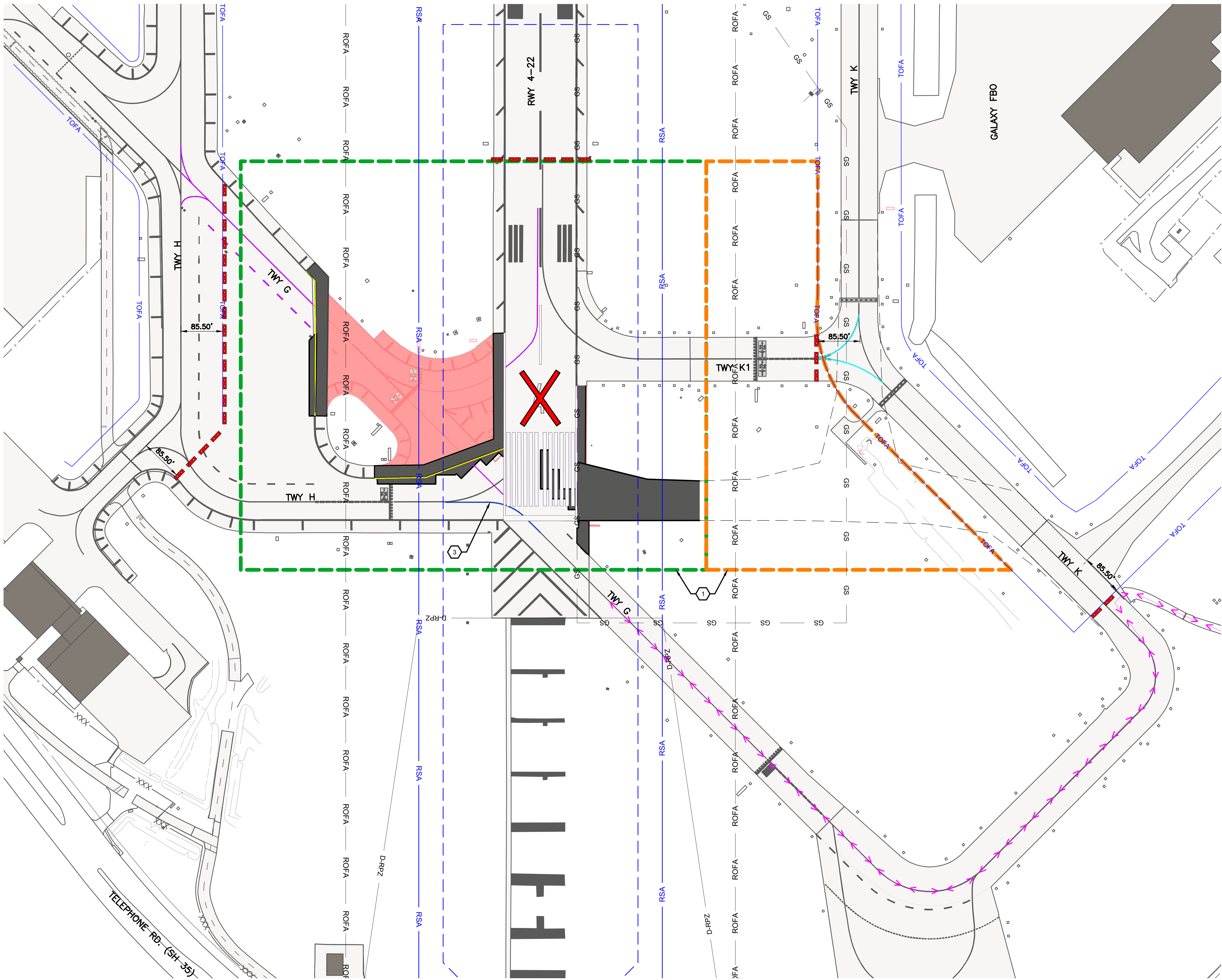
LEGEND:

- - - - PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- - - - PAVEMENT MARKING OBLITERATION
- - - - BLACKOUT EXISTING MARKING
- - - - PROPOSED PAVEMENT MARKING
- - - - RSA RUNWAY SAFETY AREA
- - - - ROFA RUNWAY OBJECT FREE AREA
- - - - TOFA TAXIWAY OBJECT FREE AREA
- - - - LOCALIZER CRITICAL AREA
- - - - GS GLIDESLOPE CRITICAL AREA
- - - - D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- - - - LOW-PROFILE BARRICADES
- ↔ HAUL ROUTE
- ⚡ CONSTRUCTION FLAGGER
- ▲ ▲ RUNWAY SAFETY MARKER
- X TAXIWAY CLOSURE MARKER
- X LIGHTED CLOSED RUNWAY MARKER SIGN

KEYED NOTES:

- 1 CONTRACTOR SHALL, AT A MINIMUM, COMPLETE WORK WITHIN THE PHASE LIMITS SHOWN FOR THIS PHASE. DURING THE SPECIFIED TIME FRAME, THE CONTRACTOR MAY ALSO BEGIN PHASE 6A WORK UP TO, BUT NOT PAST, THE EXISTING TAXIWAY K TOFA AS SHOWN IN THE PHASE 5 BUFFER AREA. TAXIWAY K MUST REMAIN OPEN AT ALL TIMES AND THE CONTRACTOR MAY NOT DEMOLISH ANY PORTION OF EXISTING TAXIWAY K1 OR TAXIWAY K DURING THIS PHASE. THE CONTRACTOR SHALL ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE IS MAINTAINED DURING AND UPON COMPLETION OF THE PHASE.
- 2 MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620. UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.
- 3 ESTABLISH TEMPORARY TAXIWAY CENTERLINE MARKING. SEE 'CM' SHEETS FOR ADDITIONAL INFORMATION.





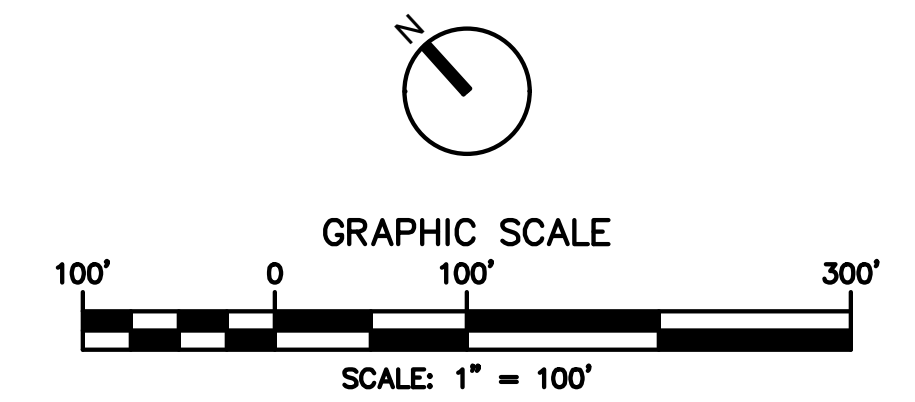
KEY MAP
NTS

LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- ▲ CONSTRUCTION FLAGGER
- ▲ RUNWAY SAFETY MARKER
- X TAXIWAY CLOSURE MARKER
- X LIGHTED CLOSED RUNWAY MARKER SIGN

KEYED NOTES:

- 1 CONTRACTOR SHALL, AT A MINIMUM, COMPLETE WORK WITHIN THE PHASE LIMITS SHOWN FOR THIS PHASE. DURING THE SPECIFIED TIME FRAME, THE CONTRACTOR MAY ALSO BEGIN PHASE 6A WORK UP TO, BUT NOT PAST, THE EXISTING TAXIWAY K TOFA AS SHOWN IN THE PHASE 5 BUFFER AREA. TAXIWAY K MUST REMAIN OPEN AT ALL TIMES AND THE CONTRACTOR MAY NOT DEMOLISH ANY PORTION OF EXISTING TAXIWAY K1 OR TAXIWAY K DURING THIS PHASE. THE CONTRACTOR SHALL ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE IS MAINTAINED DURING AND UPON COMPLETION OF THE PHASE.
- 2 MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620. UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.
- 3 ESTABLISH TEMPORARY TAXIWAY CENTERLINE MARKING. SEE 'CM' SHEETS FOR ADDITIONAL INFORMATION.



Jacobs
JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 100 300

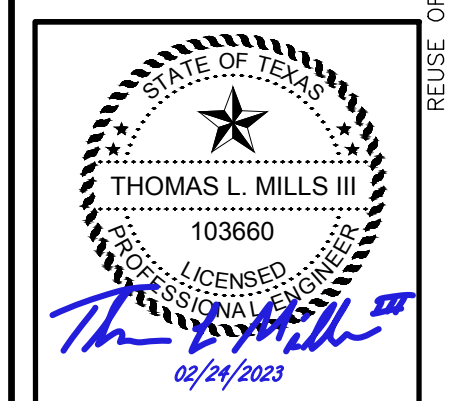
REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN - PHASE 5

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY:	DATE:
DIRECTOR	HOUSTON AIRPORT SYSTEM

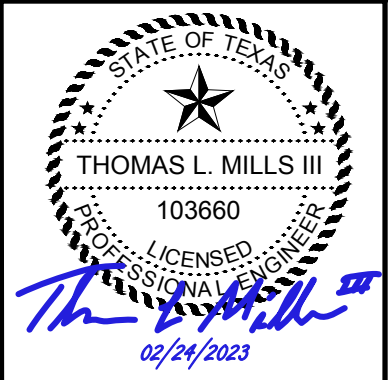
PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC502-P5
of	

REUSE OF DOCUMENTS: THIS DOCUMENT AND THE IDEAS AND DESIGNS INCORPORATED HEREIN AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2023. ALL RIGHTS RESERVED.

REVISIONS		
NO.	DESCRIPTION	DATE
0	ISSUED FOR BID	02/24/2023

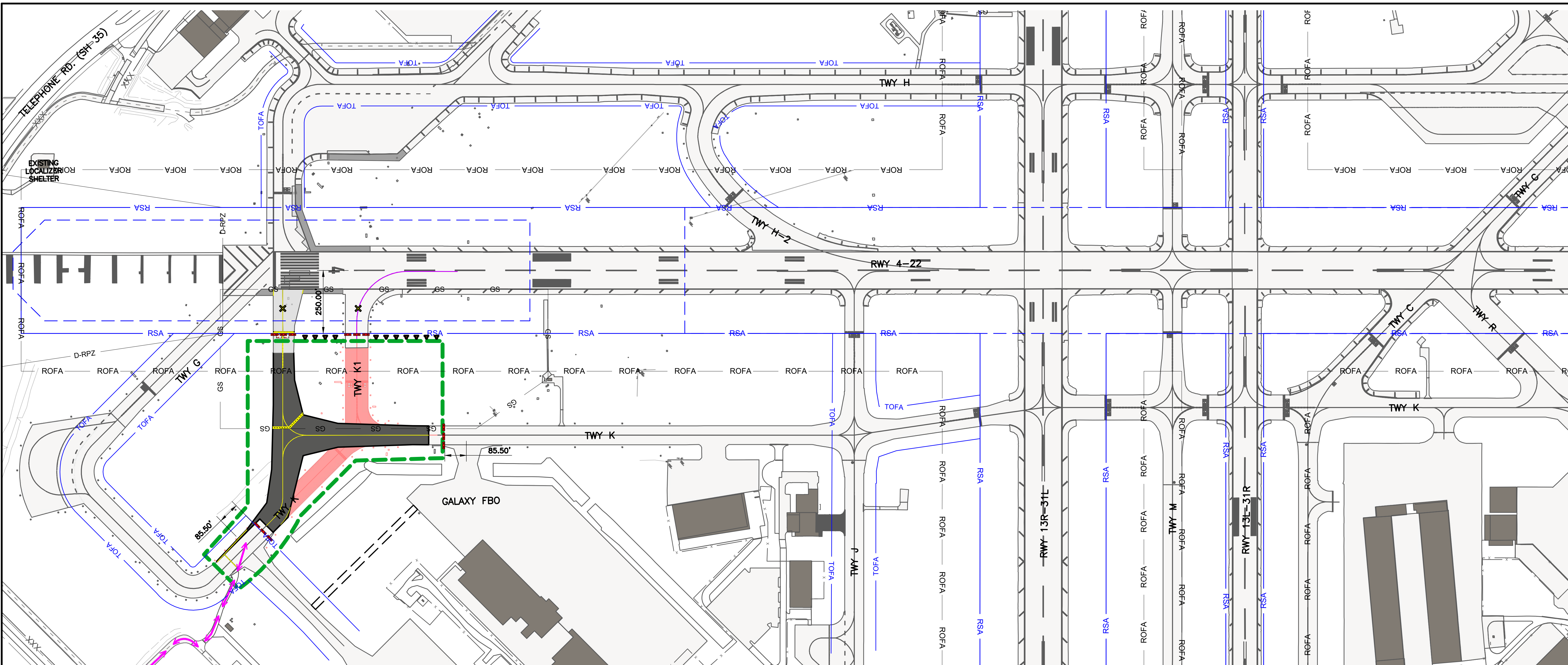
FAA NON-STANDARD TAXIWAYS PROJECT
OVERALL PHASING PLAN - PHASE 6A

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: _____ DATE: _____
 DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC601-P6A



PHASE 6A OPERATIONAL IMPACTS TABLE

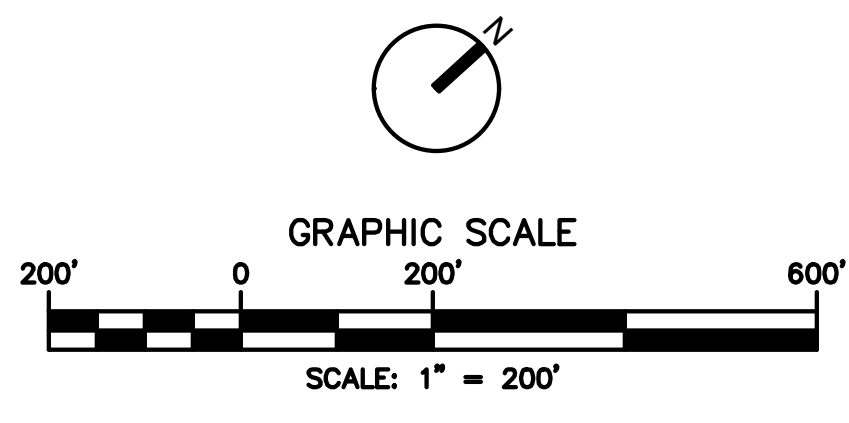
CONCURRENT PHASES:	2, 3
PHASE DURATION:	109 CALENDAR DAYS
ANTICIPATED SCHEDULE:	05/01/2024 - 08/18/2024
CLOSURES:	<ul style="list-style-type: none"> TAXIWAY K1 TAXIWAY K, BETWEEN TAXIWAY J AND THE SOUTHWEST AIRLINES MAINTENANCE HANGAR ACCESS TAXIWAY
ACCESS:	ENTER THROUGH GATE S20
WORK HOURS:	24/7
NAVAIDS IMPACTED:	WORK WITHIN GLIDESLOPE PROTECTED AREA. RUNWAY 4-22 ILS OTS; LOCALIZER ONLY

PHASE 6A DETAILS

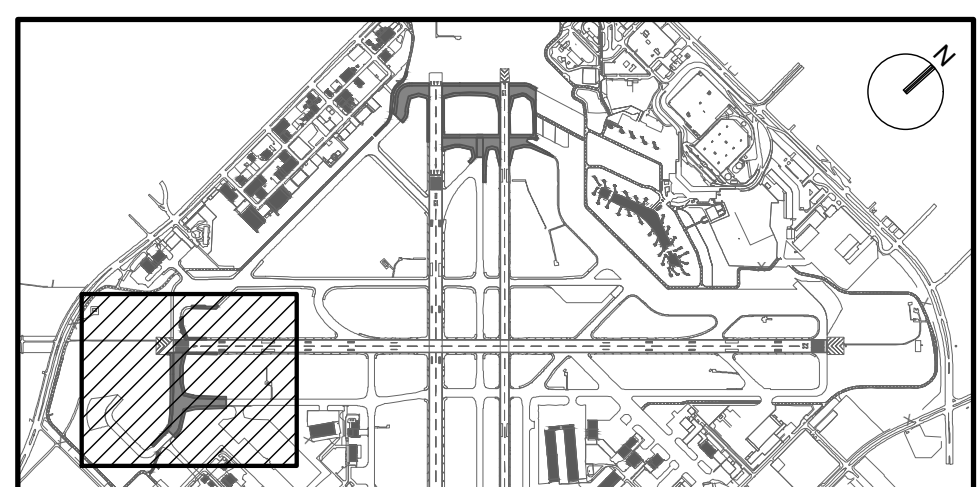
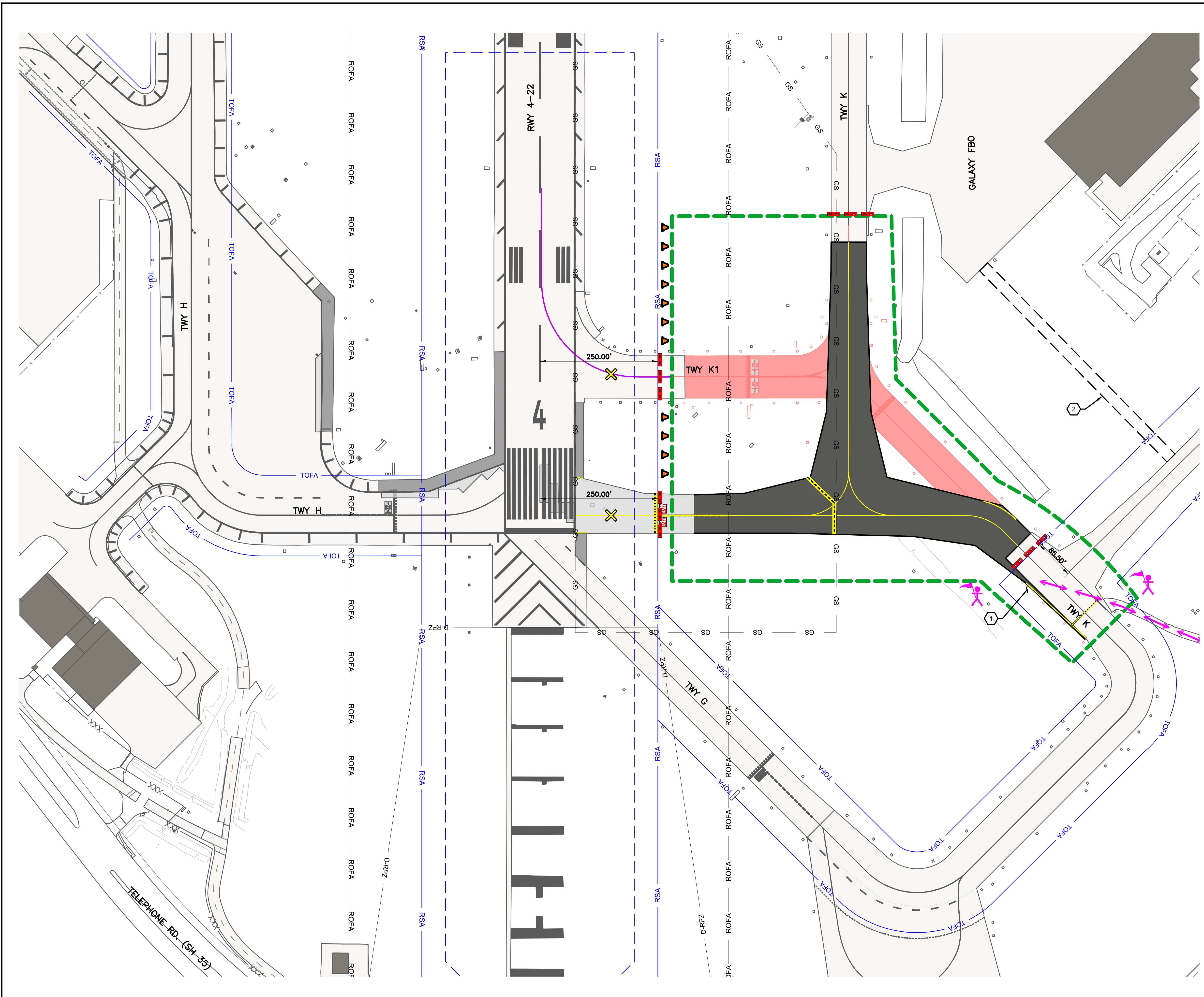
DESCRIPTION OF WORK:	CONSTRUCTION OF TAXIWAY K AND REMAINDER OF TAXIWAY K1
SEQUENCE NOTES:	<ul style="list-style-type: none"> WORK LIMITED TO BETWEEN 5/1 AND 9/30 MUST OCCUR BEFORE PHASE 6B LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT. AIRCRAFT MUST HAVE ACCESS TO SOUTHWEST MAINTENANCE HANGAR AND GALAXY FBO AT ALL TIMES

LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- CONSTRUCTION FLAGGER
- RUNWAY SAFETY MARKER
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN



THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. REUSE OF DOCUMENTS: © JACOBS 2022. ALL RIGHTS RESERVED.



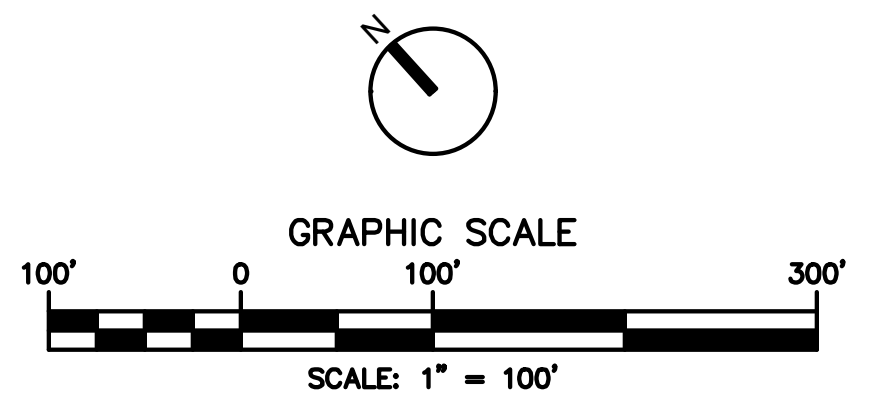
KEY MAP
NTS

LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- CONSTRUCTION FLAGGER
- ▲ RUNWAY SAFETY MARKER
- X TAXIWAY CLOSURE MARKER
- X LIGHTED CLOSED RUNWAY MARKER SIGN

KEYED NOTES:

- 1 CONTRACTOR SHALL COORDINATE WITH SOUTHWEST AIRLINES AND AIRPORT OPERATIONS PRIOR TO BEGINNING ANY WORK WITHIN THE TAXIWAY K AND SOUTHWEST AIRLINES MAINTENANCE HANGAR ACCESS TAXIWAY INTERSECTION. CONTRACTOR TO WORK WITH SOUTHWEST AND HOU OPERATIONS TO DETERMINE WORK DAYS/HOURS THAT MINIMIZE OPERATIONAL IMPACTS.
- 2 TEMPORARY FUEL TRUCK ACCESS ROAD. SEE SHEET CS004 DETAIL 3 FOR TEMPORARY HAUL ROAD DETAIL. THE COST FOR ESTABLISHING TEMPORARY HAUL ROADS SHALL BE INCIDENTAL TO OTHER PROJECT WORK.



Jacobs
JACOBS ENGINEERING GROUP INC.
5995 ROGERDALE ROAD
HOUSTON, TEXAS 77072
+1-832-351-6000
WWW.JACOBS.COM
TEXAS P.E. FIRM F-2966

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 100 300
1"

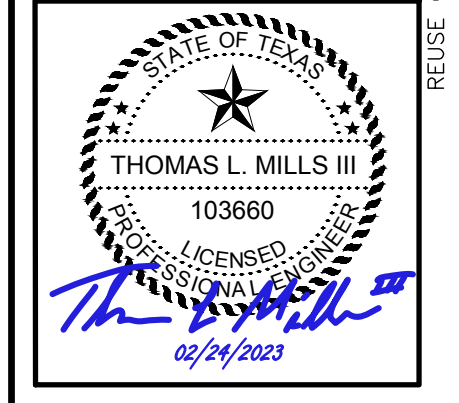
REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN - PHASE 6A

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC602-P6A

THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2023. ALL RIGHTS RESERVED.

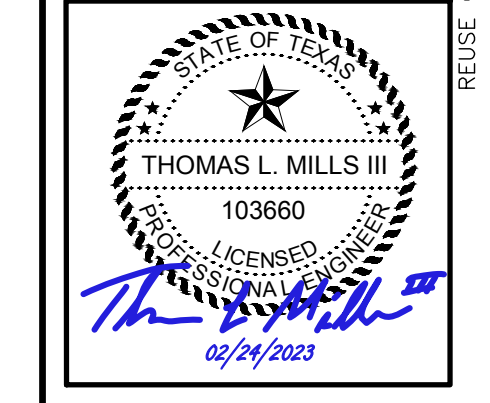
REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL PHASING PLAN - PHASE 6B

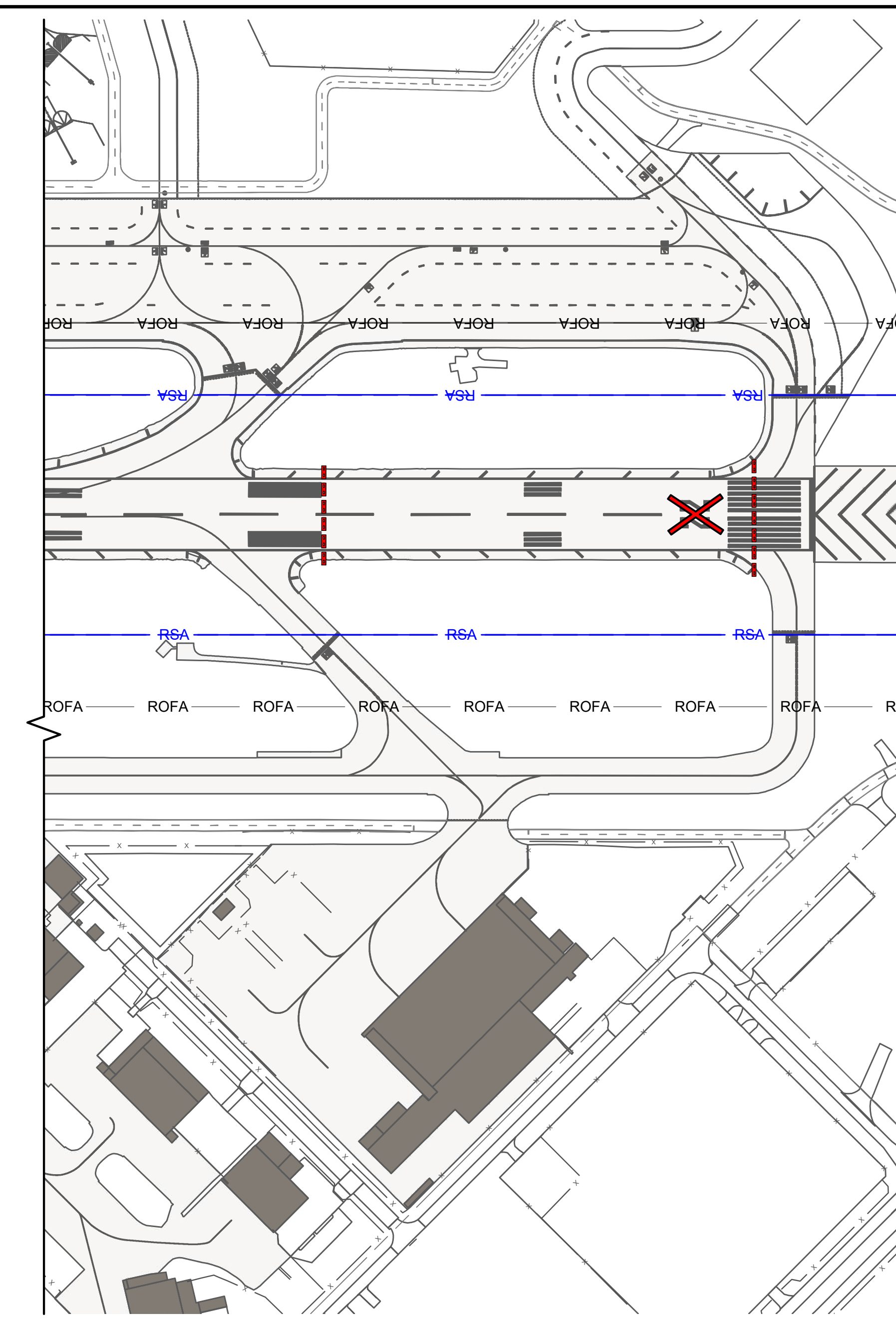
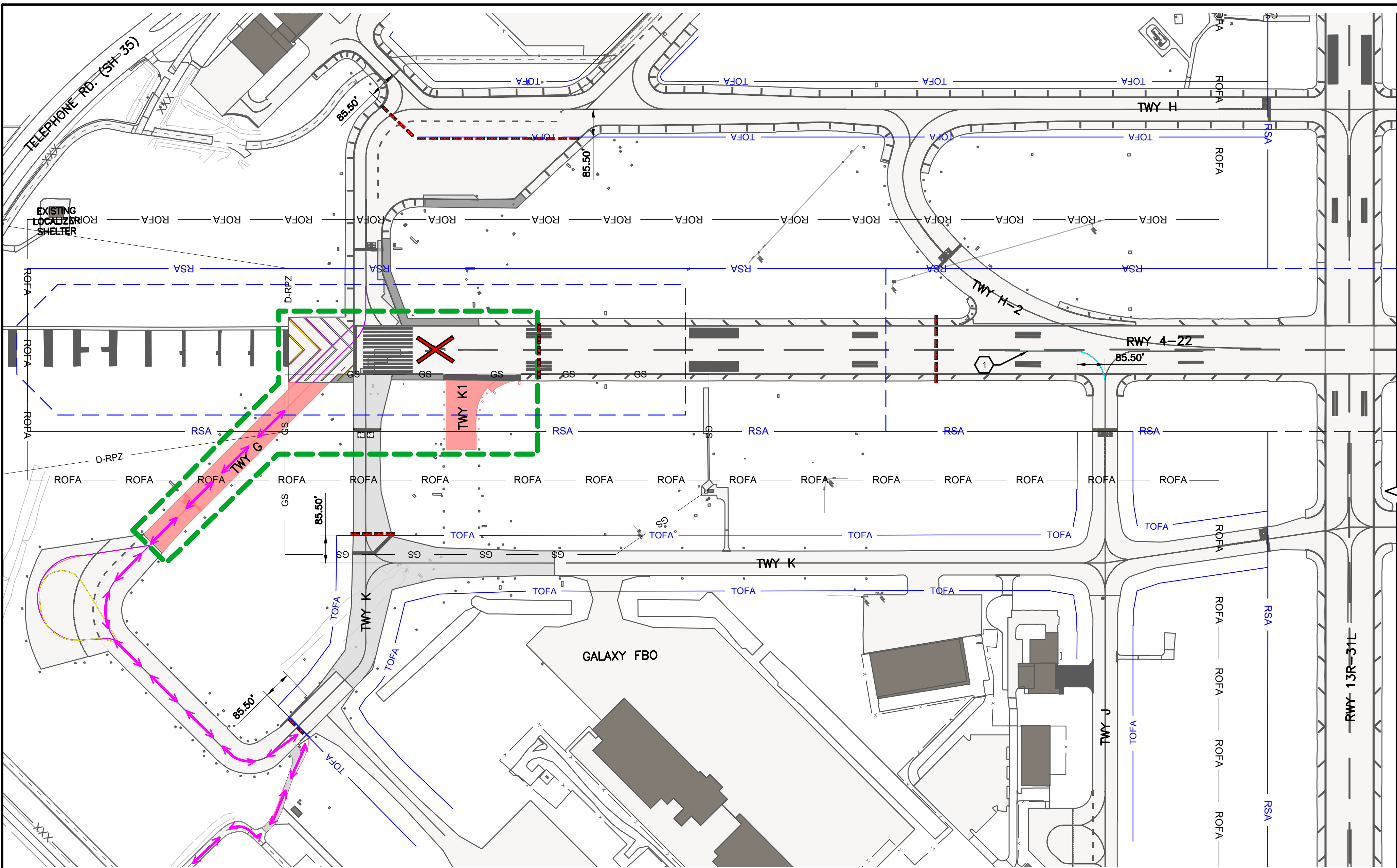
PROJECT MGR: S. CHILDERS
DESIGNER: D. CRAWFORD
DRAWN BY: D. CRAWFORD
CHECKED BY: R. EHTESHAM
SCALE: AS SHOWN
DATE: 02/28/2023



APPROVED BY: _____ **DATE:** _____

 DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GC603-P6B



KEYED NOTES:

1 MARKINGS TO BE BLACKED OUT SHALL BE PAINTED OVER WITH BLACK PER P-620. UPON COMPLETION OF PHASE, RESTRIPE MARKING AT EXISTING LOCATION.

LEGEND:

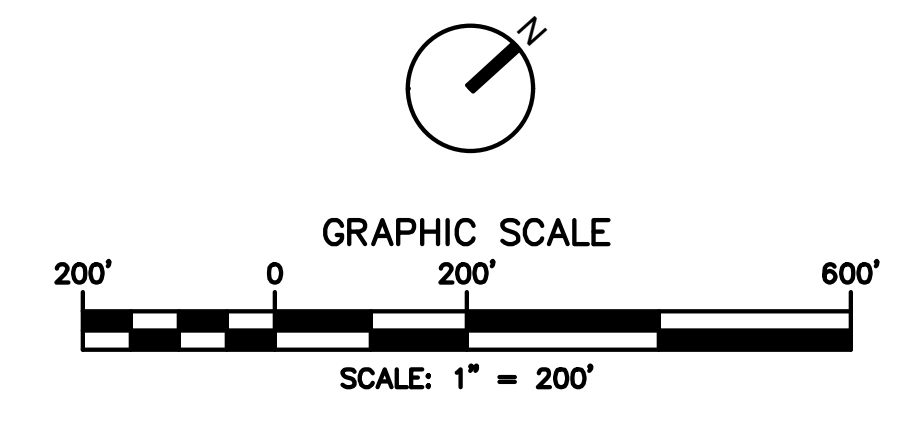
- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING
- PROPOSED PAVEMENT MARKING
- RSA RUNWAY SAFETY AREA
- ROFA RUNWAY OBJECT FREE AREA
- TOFA TAXIWAY OBJECT FREE AREA
- LOCALIZER CRITICAL AREA
- GS GLIDESLOPE CRITICAL AREA
- D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
- LOW-PROFILE BARRICADES
- HAUL ROUTE
- CONSTRUCTION FLAGGER
- RUNWAY SAFETY MARKER
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

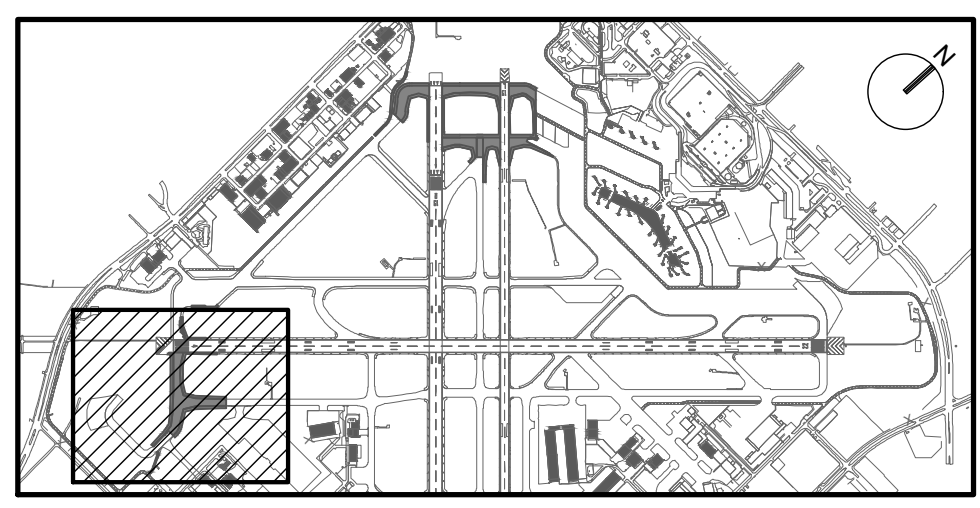
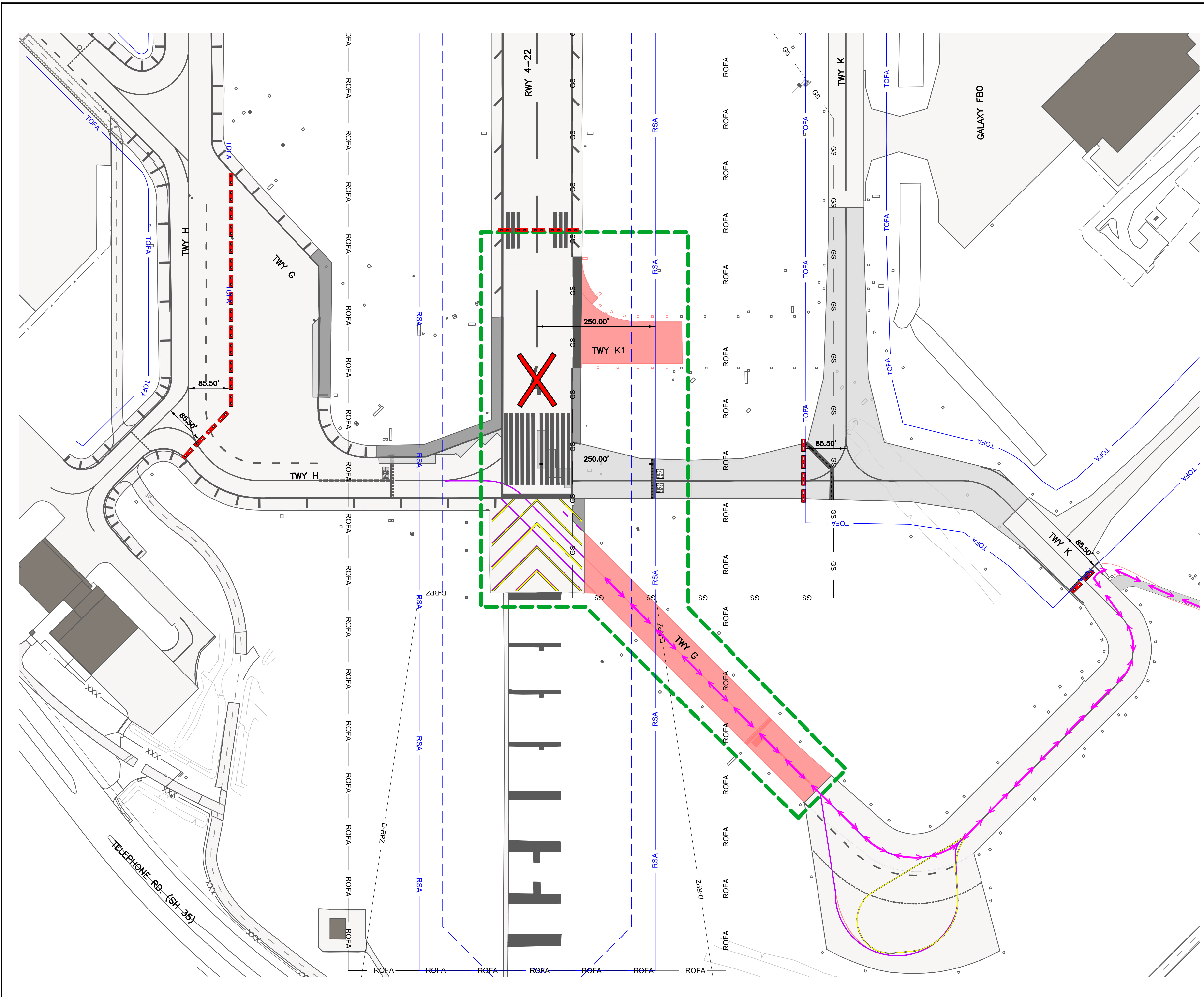
PHASE 6B OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	3
PHASE DURATION:	24 CALENDAR DAYS
ANTICIPATED SCHEDULE:	08/19/2024 - 09/11/2024*
CLOSURES:	<ul style="list-style-type: none"> • RUNWAY 4-22 • TAXIWAY H, BETWEEN MILLIONAIRE ACCESS TAXIWAY AND RUNWAY 4 • TAXIWAY K1 • PORTIONS OF TAXIWAY K, AS SHOWN • PORTIONS OF TAXIWAY G, AS SHOWN
ACCESS:	ENTER THROUGH GATE S20
WORK HOURS:	24/7
NAVAIDS IMPACTED:	WORK WITHIN GLIDESLOPE PROTECTED AREA. RUNWAY 4-22 ILS OTS; LOCALIZER ONLY
*WORK SHALL BE COMPLETED BY NO LATER THAN 09/30/2024	

PHASE 6B DETAILS

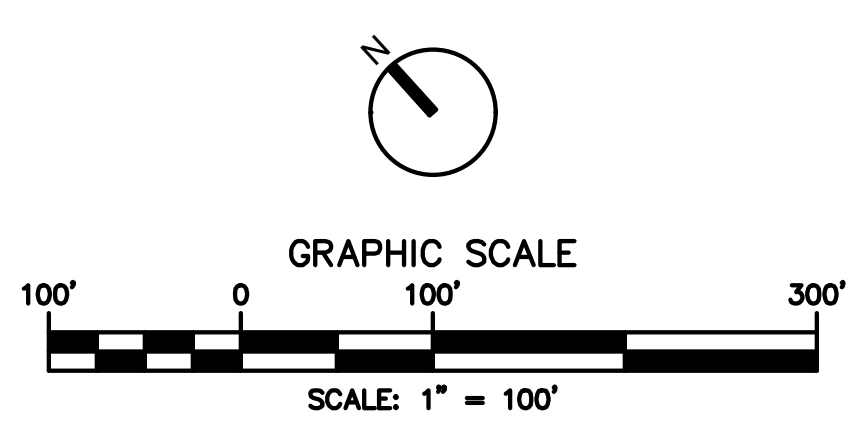
DESCRIPTION OF WORK:	DEMOLITION OF TAXIWAY G BETWEEN RUNWAY 4-22 AND THE RUN-UP PAD AND CONSTRUCTION OF RUNWAY 4-22 SHOULDER CONNECTING TO TAXIWAY K1
SEQUENCE NOTES:	<ul style="list-style-type: none"> • WORK LIMITED TO BETWEEN 5/1 AND 9/30 • AIRCRAFT MUST HAVE ACCESS TO SOUTHWEST MAINTENANCE HANGAR AT ALL TIMES AND GALAXY FBO AT ALL TIMES • MUST BE COMPLETED BY 09/30/2024 • MUST BEGIN AFTER PHASE 6A • LOCKOUT TAGOUT PROCEDURES ARE ONLY PERMITTED DURING DAYTIME HOURS (DUSK TO DAWN). CONTRACTOR SHALL NOT DE-ENERGIZE AT NIGHT. • GALAXY FUEL TRUCKS MUST HAVE ACCESS TO LDR AT ALL TIMES





KEY MAP
NTS

- LEGEND:**
- PHASE LIMITS
 - PAVEMENT CONSTRUCTION
 - PAVEMENT DEMOLITION
 - PAVEMENT MARKING OBLITERATION
 - BLACKOUT EXISTING MARKING
 - PROPOSED PAVEMENT MARKING
 - RSA RUNWAY SAFETY AREA
 - ROFA RUNWAY OBJECT FREE AREA
 - TOFA TAXIWAY OBJECT FREE AREA
 - LOCALIZER CRITICAL AREA
 - GS GLIDESLOPE CRITICAL AREA
 - D-RPZ DEPARTURE RUNWAY PROTECTION ZONE
 - LOW-PROFILE BARRICADES
 - ↔ HAUL ROUTE
 - ⚓ CONSTRUCTION FLAGGER
 - ▲ RUNWAY SAFETY MARKER
 - X TAXIWAY CLOSURE MARKER
 - X LIGHTED CLOSED RUNWAY MARKER SIGN

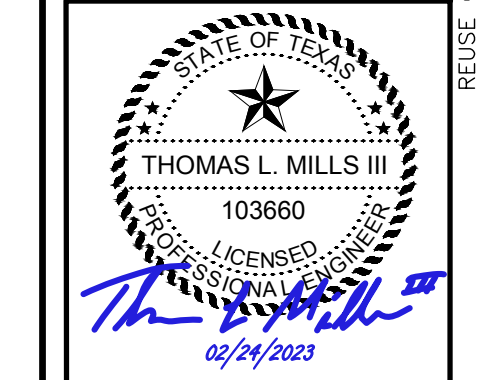


REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
 DETAILED PHASING PLAN - PHASE 6B

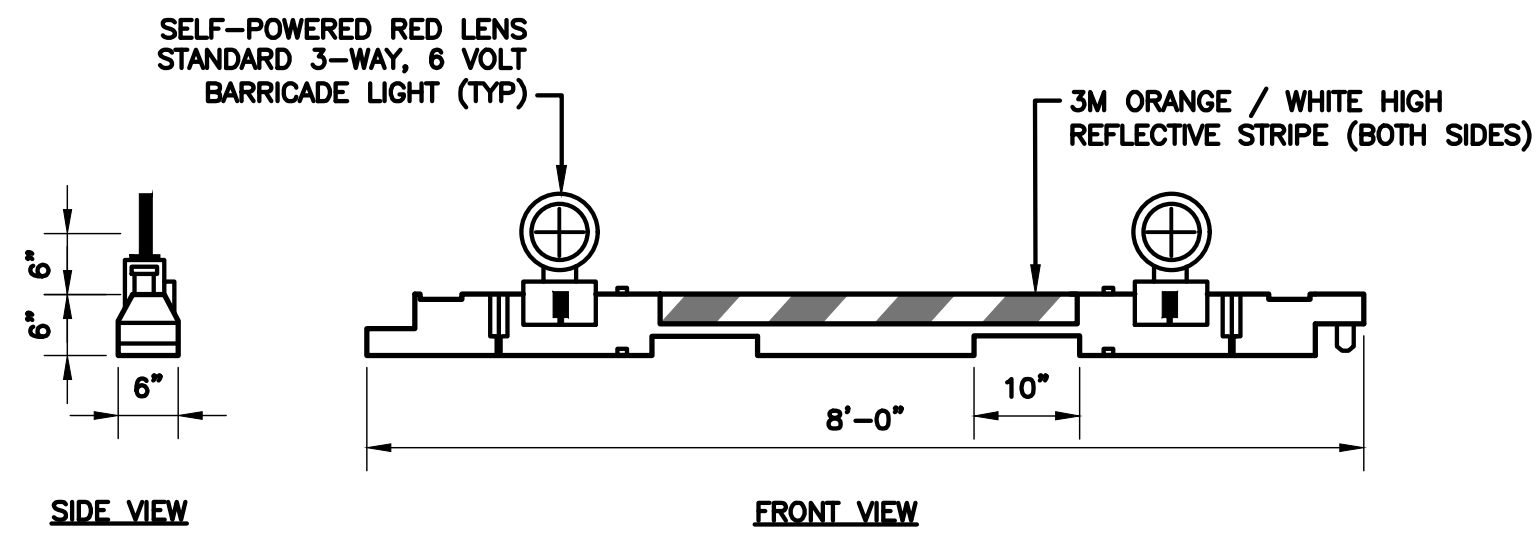
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: _____ DATE: _____
 DIRECTOR
 HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	

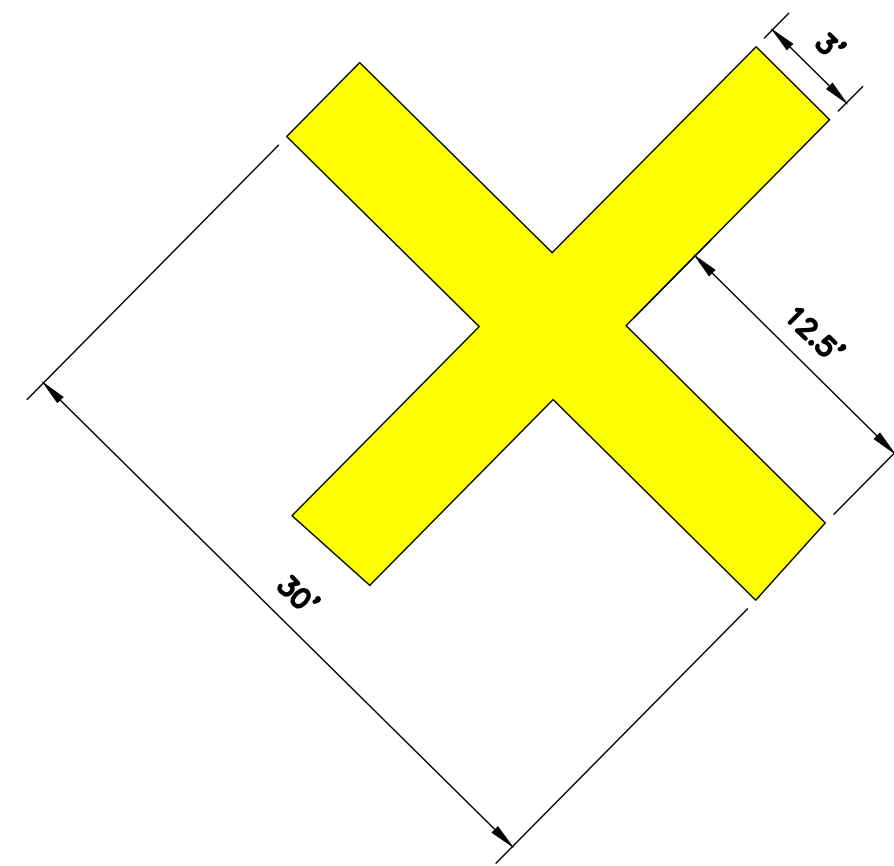
REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS. © JACOBS 2022. ALL RIGHTS RESERVED.



NOTES:

1. BARRICADES SEPARATING THE CONSTRUCTION AREA FROM THE EXISTING PAVEMENT SHALL CONTINUOUSLY CONNECTED END TO END WITH NO SPACING BETWEEN THEM.
2. ALL LINES OF BARRICADES SHALL BE ENDED WITH BARRICADES ANGLED AT 45° AWAY FROM AIRFIELD PAVEMENT.
3. BARRICADES SHALL NOT BE PLACED FURTHER THAN THREE FEET ONTO PAVEMENT FROM EXCAVATION EXCEPT AS SHOWN ON THE PLAN.
4. BARRICADE STRIPING SHALL BE ORANGE AND WHITE CONFORMING TO FAA AC 150/5370-2G OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
5. THE REQUIRED LIGHTS MUST BE RED AND FLASHING. INTENSITIES AND LUMINANCE MUST BE AT LEAST FIVE CANDELAS EFFECTIVE INTENSITY AND FLASH AT A RATE OF FROM 55 TO 160 FLASHES PER MINUTE.
6. LIGHTS MUST BE OPERATED BETWEEN SUNSET AND SUNRISE AND DURING PERIODS OF LOW VISIBILITY WHEN EVER THE AIRPORT IS OPEN FOR OPERATIONS.

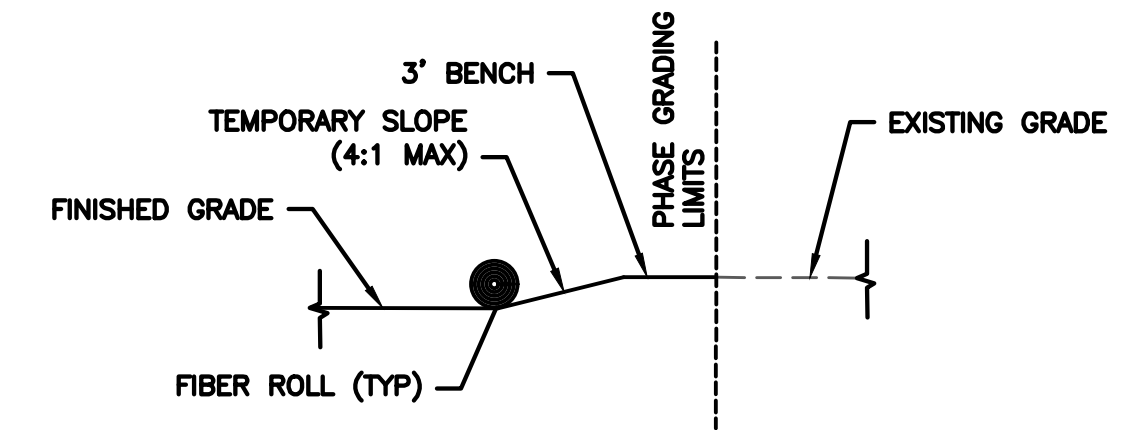
1 LOW PROFILE BARRICADE DETAIL
NTS



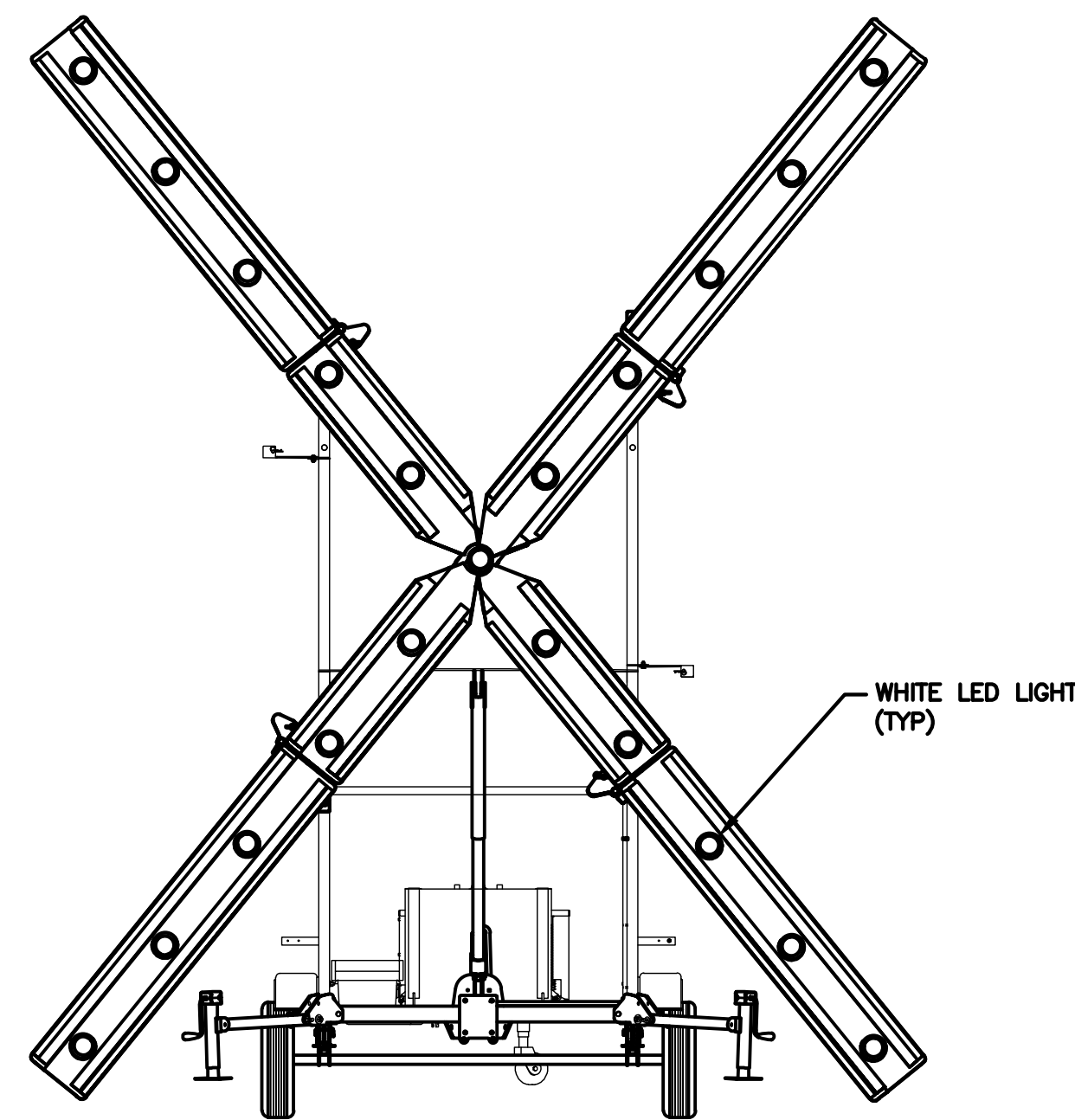
NOTES:

1. CONSTRUCT CLOSED TAXIWAY MARKING USING NON-REFLECTIVE YELLOW HEAVY DUTY VINYL OR APPROVED ALTERNATE.
2. PLACE MARKINGS ON TAXIWAY AS SHOWN ON THE PLANS.
3. PLACE SANDBAGS ON MARKINGS AS REQUIRED TO HOLD MARKINGS IN PLACE.

3 TAXIWAY CLOSURE MARKER DETAIL
NTS



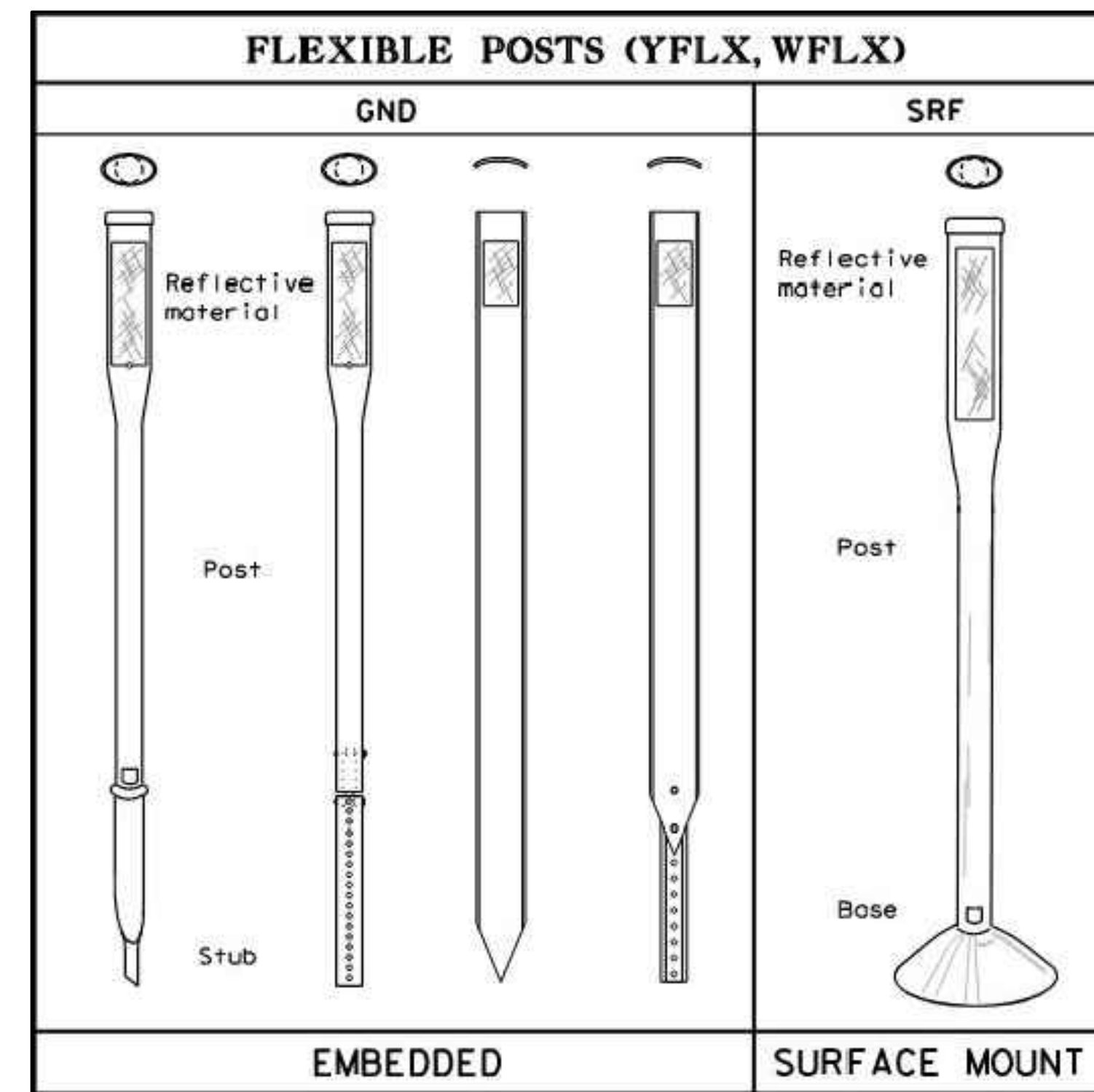
4 TEMPORARY GRADING TRANSITION
NTD



NOTES:

1. CONTRACTOR SHALL PLACE LIGHTED RUNWAY CLOSURE MARKER AT EACH END OF CLOSED RUNWAY IN ACCORDANCE WITH THE PHASING PLANS. LIGHTED CLOSURE MARKERS SHALL BE PLACED ON TOP OF THE PAINTED NUMBER DESIGNATOR FOR EACH RUNWAY END, UNLESS OTHERWISE SHOWN. CONTRACTOR SHALL ALSO TEMPORARILY DISCONNECT POWER OF RUNWAY LIGHTS AT VAULT TO PREVENT THE POSSIBILITY OF THEM TURNING ON AND CREATING A POTENTIAL RUNWAY INCURSION. FOLLOW APPLICABLE 'LOCKOUT' - 'TAG-OUT' PROCEDURES.
2. THE CONTRACTOR SHALL MAINTAIN THE LIGHTED RUNWAY CLOSURE MARKERS UNTIL COMPLETION OF THE RUNWAY CLOSURE AND REMOVE AT END OF CLOSURE WHEN DIRECTED BY THE REPRESENTATIVE.
3. LIGHTED RUNWAY CLOSURE MARKERS SHALL BE LIT 24/7.
4. LIGHTED RUNWAY CLOSURE MARKERS SHALL MEET THE FOLLOWING FAA STANDARDS:
 - FAA ADVISORY CIRCULAR AC 150/3545-55A, 'SPECIFICATION FOR L-893, LIGHTED VISUAL AID TO INDICATE TEMPORARY RUNWAY CLOSURE'
 - FAA ADVISORY CIRCULAR AC 150/5345-53D, 'AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM'
 - FAA ENGINEERING BRIEF 67D, 'LIGHT SOURCES OTHER THAN INCANDESCENT AND XENON FOR AIRPORT AND OBSTRUCTION LIGHTING FIXTURES'

2 LIGHTED RUNWAY CLOSURE MARKER DETAIL
NTD



NOTES:

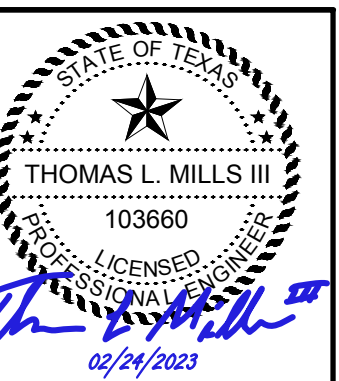
1. POSTS SHALL BE STAKED ALONG THE RSA AT A MINIMUM OF EVERY 10' AT THE LOCATIONS SHOWN IN THE PLANS.
2. CONTRACTOR SHALL COORDINATE WITH HOU OPERATIONS FOR APPROVED DEVICES AND SUBMIT THE PROPOSED MARKERS TO HOU OPERATIONS FOR APPROVAL PRIOR TO PROCUREMENT.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

5 RUNWAY SAFETY MARKERS
NTD

REVISIONS			
NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	02/24/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
PHASING DETAILS

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023



APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	GC901