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

CONTROLLER
CHRIS B. BROWN

COUNCIL MEMBERS
AT-LARGE

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

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

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"

©JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

COVER SHEET

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: 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	ABBREVIAIONS 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 OVERALLPLAN
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

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

INDEX OF PLANS

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

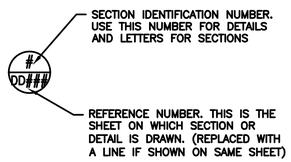
PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: GI002
of

ABBREVIATIONS:

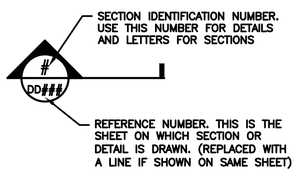
A	AMP
A/C, AC	ADVISORY CIRCULAR, ASPHALT CONCRETE
ACFT	AIRCRAFT
ACI	AMERICAN CONCRETE INSTITUTE
ACIP	AIRPORT CAPITAL IMPROVEMENT PROGRAM
ADG	AIRPLANE DESIGN GROUP
ADP	AIRPORT DEVELOPMENT PROGRAM
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURSDICTION
AIP	AIRPORT IMPROVEMENT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

GENERAL LEGEND:

- PROPOSED PCC PAVEMENT
- PROPOSED HMA PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- X — EXISTING FENCE
- A-RPZ — EXISTING APPROACH RPZ
- ROFA — EXISTING RUNWAY OBJECT FREE AREA
- ROFZ — EXISTING RUNWAY FREE ZONE
- RSA — EXISTING RUNWAY SAFETY AREA
- GS — GLIDESLOPE PROTECTION AREA
- LOCALIZER PROTECTION AREA
- W — EXISTING WATER LINE
- SDG — EXISTING STORM DRAINAGE
- SS — EXISTING STORM SEWER
- G — EXISTING GAS
- F — 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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

ABBREVIATIONS AND GENERAL LEGEND

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:

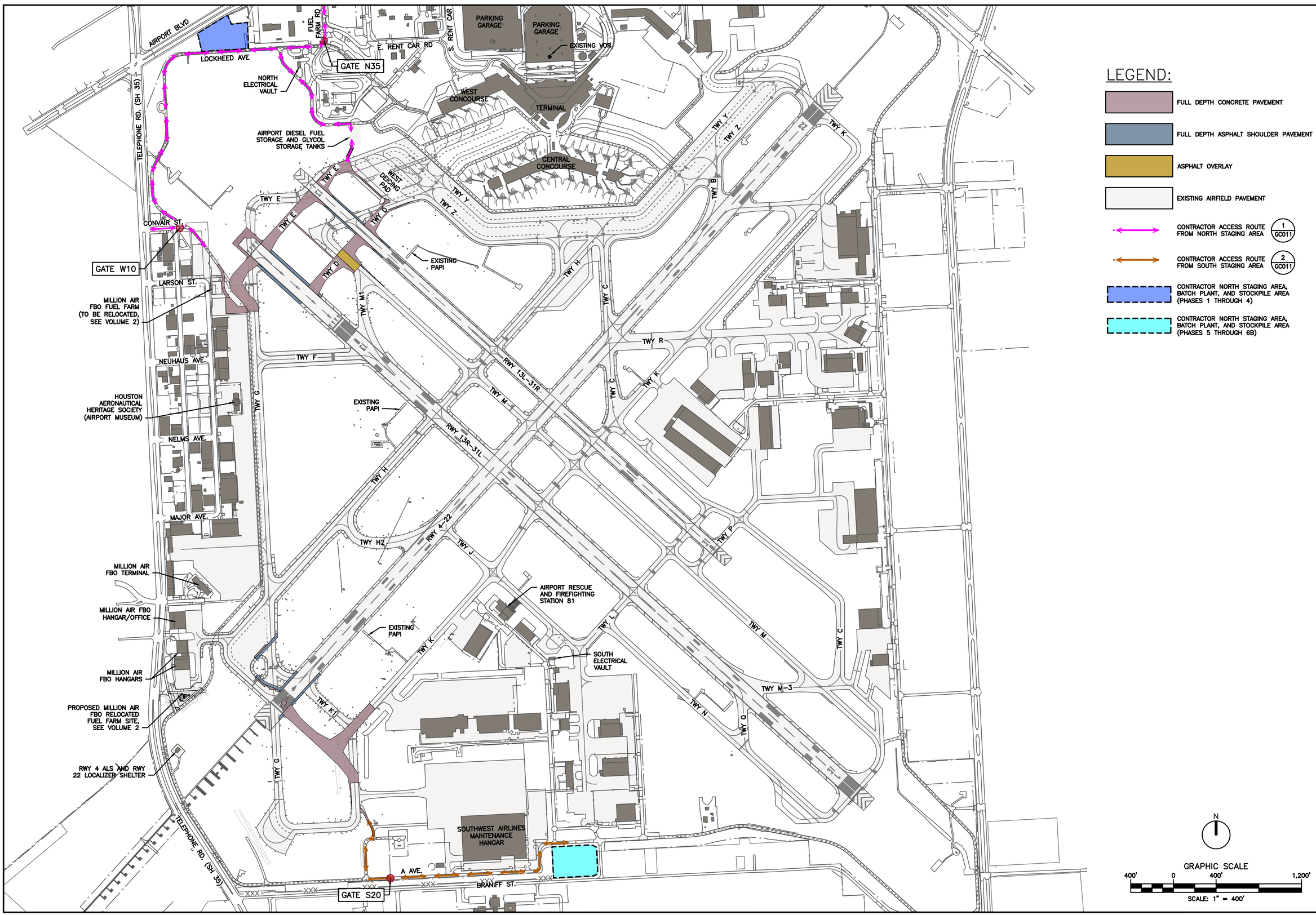
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	B. BARTLETT
CHECKED BY:	A. CELESTAIN
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: GI003
of



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)

N

GRAPHIC SCALE
400' 0 400' 1,200'
SCALE: 1" = 400'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL SITE PLAN

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

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

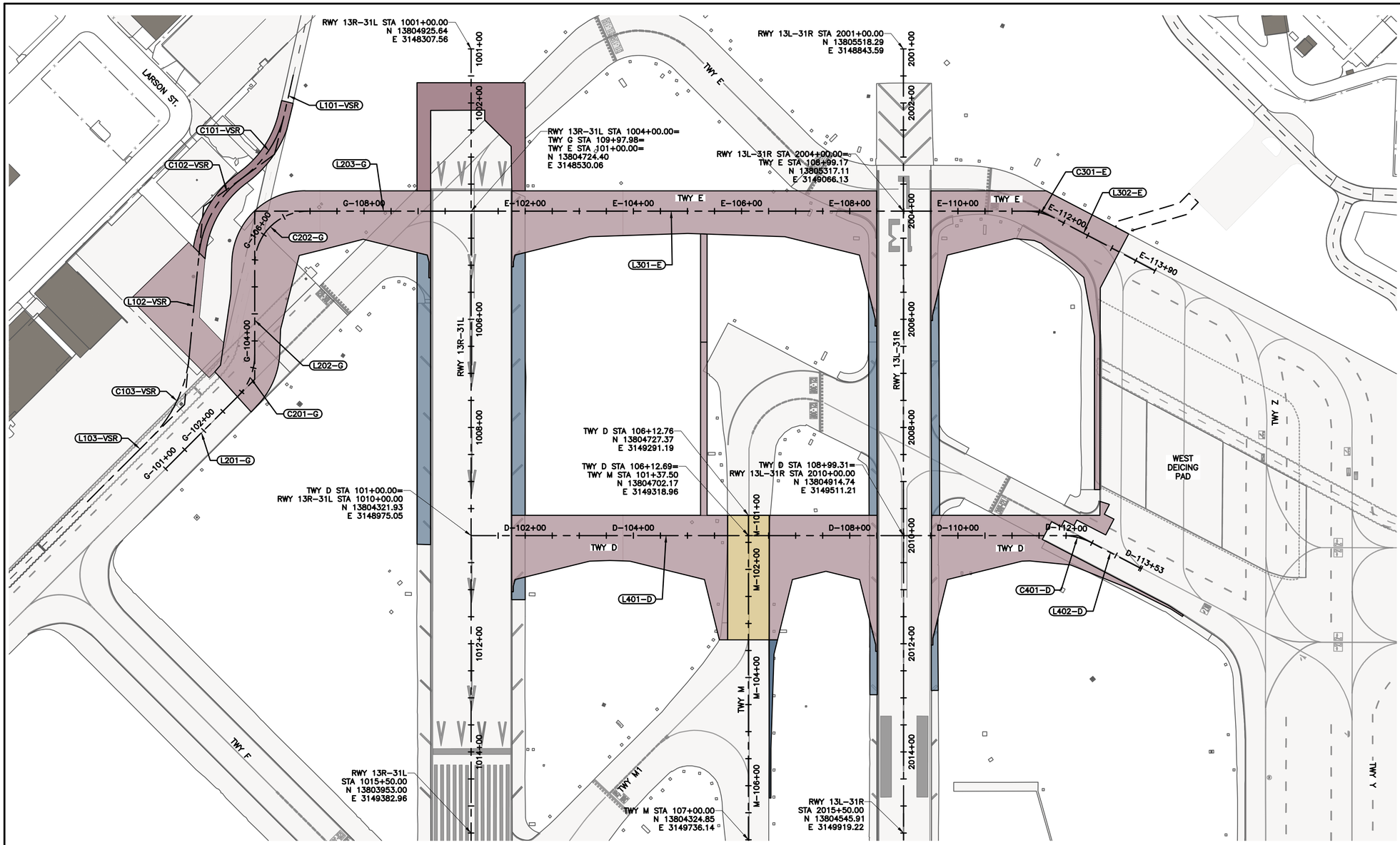
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

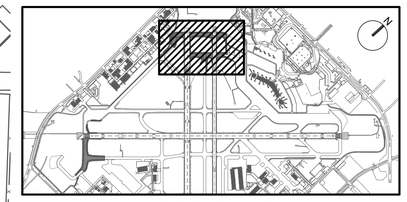
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GI101
of

FILENAME: H22C770A-GI101.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:20:25 AM





KEY MAP
NTS

LEGEND:

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

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 13804453.100 E 3148201.006	STA 502+50.53 = N 13804525.206 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 13804296.603 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 13804296.603 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+53.10 = 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+53.10 = N 13805199.784 E 3149851.683

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

HORIZONTAL CONTROL PLAN

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.

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

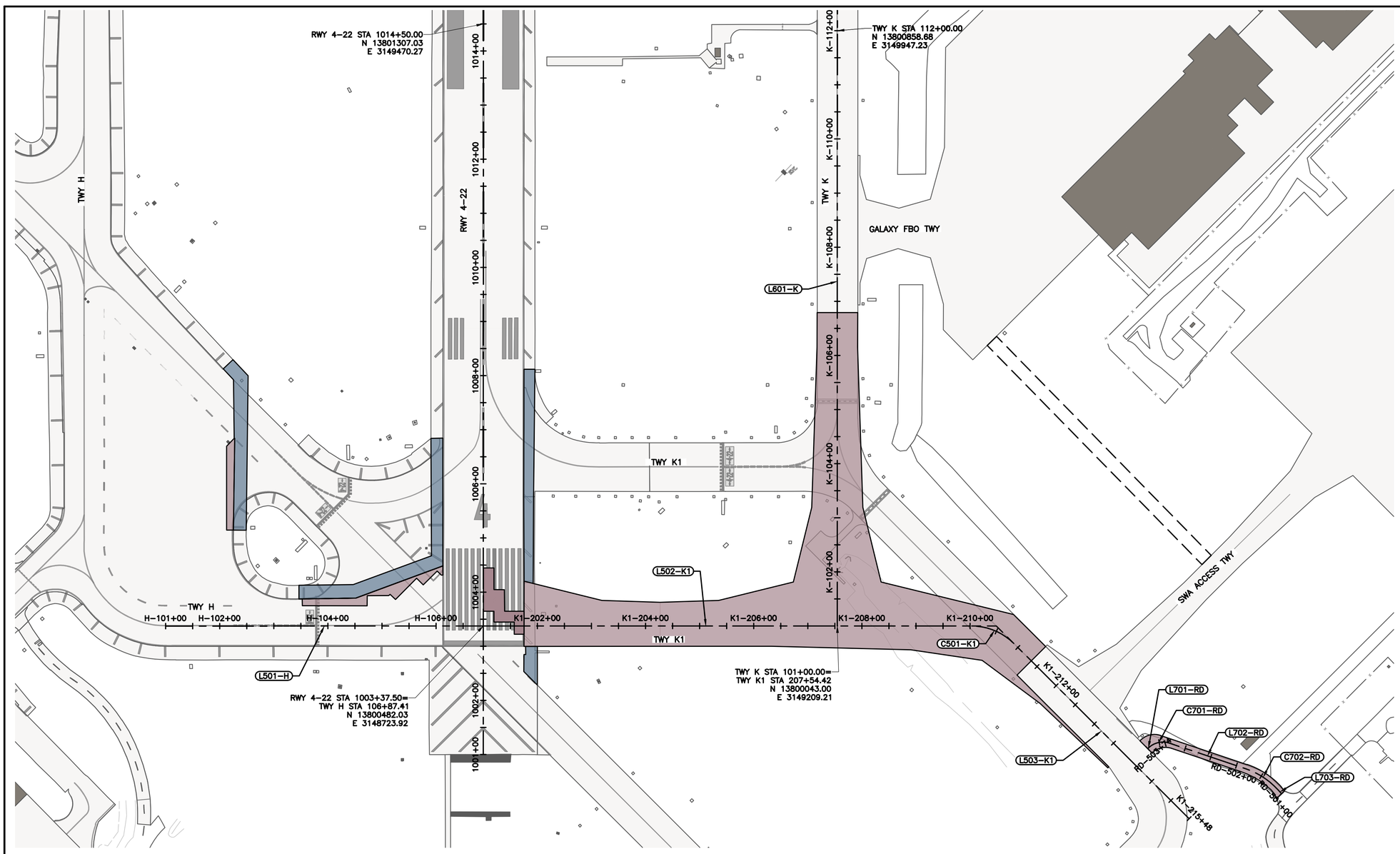
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

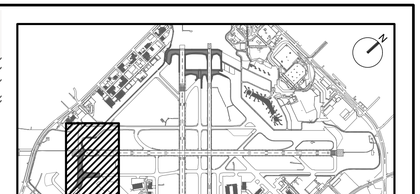
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GI102
of

FILENAME: H22C770A–GI102–103.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:23:48 AM





KEY MAP
NTS

LEGEND:

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

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 13799845.677 E 3149427.322	N 13799794.651 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 13800875.795 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	1549.60'	N42° 08' 17.93"E	STA 101+00.00 = N 13800042.997 E 3149209.210	STA 116+49.60 = 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

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

HORIZONTAL CONTROL PLAN

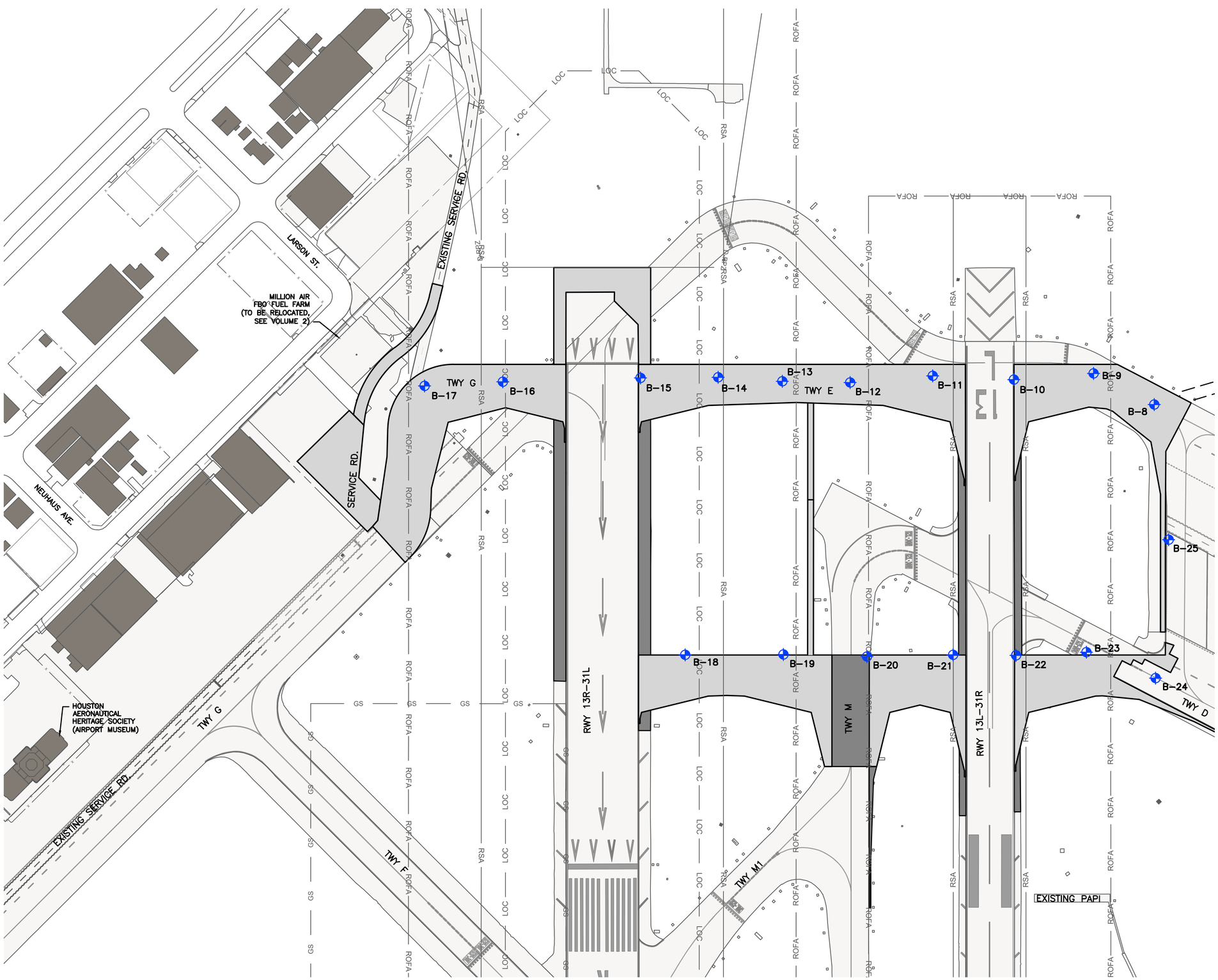
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	B. BARTLETT
CHECKED BY:	A. CELESTAIN
SCALE:	AS SHOWN
DATE:	02/24/2023

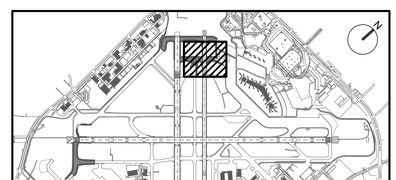
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: GI103
of





KEY MAP
NTS

NOTES:

1. SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
2. 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

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

BORING LOG PLAN

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:

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

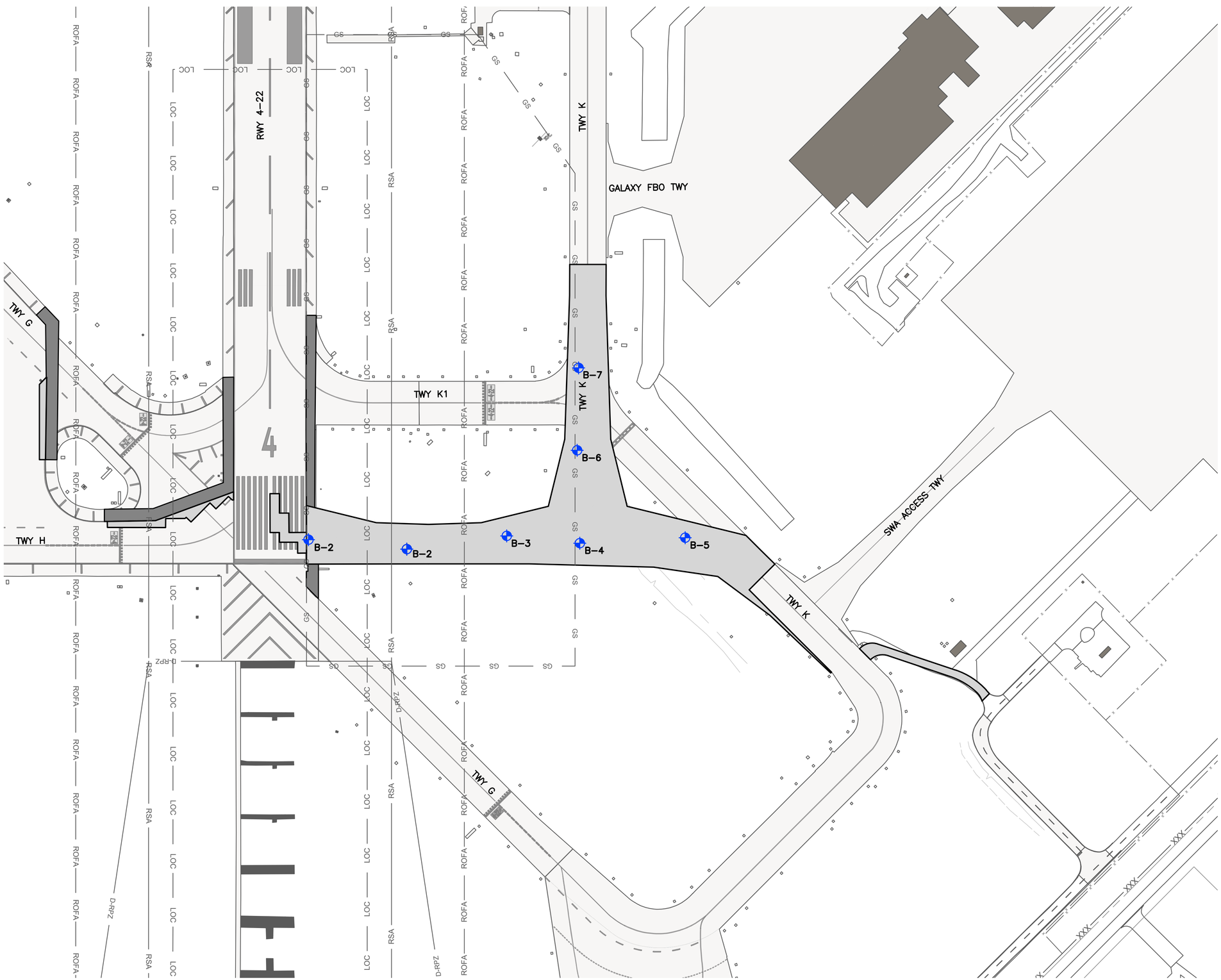
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

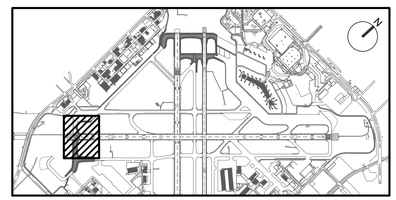
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GR101
of

FILENAME: H22C770A-GR101-102.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:19:31 AM





KEY MAP
NTS

NOTES:

1. SEE GEOTECHNICAL EVALUATION REPORT DATED JANUARY 11, 2023 FOR ADDITIONAL DETAILS.
2. 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

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

BORING LOG PLAN

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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
of

NOTES:

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

LOG OF BORING B-1

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13803392.47; E: 3149759.22
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 43.0 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Pavement: 17" Concrete, 2.5" Asphalt, 12" Crushed Concrete Base, 12" Lime Stabilized Clay							
	5	-w/ sand and crushed concrete seams at 3'		28.1		28	46	27	19
		Stiff to very stiff, brown and gray to reddish brown, FAT CLAY WITH SAND (CH) -w/ calcareous nodules -w/ ferrous stains at 4'-6'				18			
		-w/ calcareous nodules at 6'-10'		83.8		21	66	29	37
35	10	-w/ ferrous stains at 8'-10'			108	22			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-3

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13803191.53; E: 3149556.93
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 39.22 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
35	0	Stiff, gray and brown, SANDY LEAN CLAY (CL) -w/ roots at 0'-2' -w/ calcareous nodules and ferrous stains at 0'-2'		66.2	105	20	49	19	30
	5	Firm to very stiff, gray and reddish brown, FAT CLAY (CH) -w/ calcareous nodules at 2'-4'				19			
		-w/ ferrous stains at 4'-10'			110	19			
30	10			88.9		32	77	32	45
						24			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-5

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802934.6; E: 3149305.95
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 44.39 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Pavement: 7.5" Concrete, 8.5" Crushed Limestone Base -perched water at 8" in Base							
	5	Stiff to very stiff, dark gray to gray, FAT CLAY WITH SAND (CH)		78.9		20	52	22	30
		-w/ ferrous stains at 4'-6' -w/ calcareous nodules at 4'-8'			109	20			
35	10	-gray and reddish brown below 6'		79.9	112	19	51	19	32
						29			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-7

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802714.57; E: 3149121.58
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 42.35 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Pavement: 4.25" Asphalt, 10" Concrete, 14" Crushed Concrete Base, 12.75" Lime Stabilized Clay							
	5	Stiff to very stiff, gray and reddish brown, FAT CLAY WITH SAND (CH) -w/ calcareous nodules and ferrous stains		82.5	109	20	51	19	32
35	10	Stiff to very stiff, gray and reddish brown, LEAN CLAY WITH SAND (CL) -w/ calcareous nodules and ferrous stains		74.4		19	46	19	27
						28			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-2

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13803331.92; E: 3149697.79
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 40.7 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Stiff, reddish brown and gray, SANDY FAT CLAY (CH) -w/ roots, calcareous nodules and sand seams at 0'-2'		49.0		20	50	18	32
	5	-w/ ferrous stains at 4'-6'			106	21			
35		Firm, gray and reddish brown, LEAN CLAY WITH SAND (CL)				25			
		-w/ ferrous stains at 8'-10'		77.4	102	24			
	10					21	35	17	18

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-4

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13803048.09; E: 3149414.99
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 41.83 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Stiff, dark gray, SANDY FAT CLAY (CH) -w/ sand seams at 0'-2'		44.7		22	60	23	37
	5	Firm to very stiff, gray and reddish brown, FAT CLAY WITH SAND (CH) -w/ ferrous stains at 4'-8'			105	22			
35		-slickensided at 6'-8'				23			
					99	28			
	10			84.5		31	75	31	44

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-6

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802824.45; E: 3149220.68
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 41.3 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Stiff, dark gray to gray and brown, FAT CLAY WITH SAND (CH)		83.3		24	58	21	37
	5	Firm to stiff, gray and reddish brown, FAT CLAY (CH) -w/ ferrous stains at 4'-6'			109	22			
35				96.3		32	63	26	37
		-w/ calcareous nodules at 8'-10'				23			
	10				115	21			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-8

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802602.54; E: 3149020.19
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 42.09 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0	Firm to stiff, dark gray and reddish brown, FAT CLAY WITH SAND (CH) -w/ roots at 0'-2'		84.5		26	63	22	41
	5	-reddish brown and gray at 4'-6' -w/ calcareous nodules and ferrous stains at 4'-6'			102	25			
35						20			
		Stiff, reddish brown and gray, FAT CLAY (CH) -w/ sand seams below 9'		89.4	97	26	64	26	38
	10					22			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

CON:HG1710439.1.GPJ 6/11/19

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

BORING LOG DETAILS

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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

FILENAME: H22C770A-GR501-503.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:26:17 AM

NOTES:

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

LOG OF BORING B-9

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802457.32; E: 3148888.87
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 42.99 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Stiff, dark gray to brown and gray, SANDY FAT CLAY (CH) -w/ roots and calcareous nodules at 0'-2'		61.4		25			
	5		-w/ calcareous nodules and ferrous stains at 4'-6'				98	26	63	23	40
35							21				
	10		Firm to stiff, brown to reddish brown and gray, FAT CLAY WITH SAND (CH) -w/ calcareous nodules and ferrous stains		75.1	108	22	63	23	40
							33				

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-11

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802901.55; E: 3148052.01
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 43.87 FT — DATE: 3/17/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Pavement: 23" Concrete, 6" Crushed Limestone Base, 8" Lime Stabilized Clay							
	5		Stiff, dark gray, FAT CLAY (CH) -w/ calcareous nodules at 4'-8'		87.2		90	31		
35							29	60	25	35
	10		Stiff, gray and reddish brown, LEAN CLAY (CL) -w/ calcareous nodules and ferrous stains		94.2		97	27		
							21	48	17	31

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-13

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802683.86; E: 3147851.86
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 41.95 FT — DATE: 3/17/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 8 FT
WET ROTARY: 8 TO 10 FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Firm to stiff, gray and reddish brown, LEAN CLAY WITH SAND (CL) [Possible Fill] -w/ roots at 0'-2' -w/ calcareous nodules and ferrous stains		78.2	107	23	36	16	20
	5		Soft to stiff, gray and reddish brown, SANDY LEAN CLAY (CL) [Possible Fill to 6'] -w/ shells and sand seams at 4'-6' -w/ calcareous nodules at 6'-8'		49.6		18			
35							23	43	19	24
	10				97	22				
							19			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-14

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802594.44; E: 3147895.82
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 42.44 FT — DATE: 3/17/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Pavement: 12.25" Concrete, 14" Crushed Concrete Base							
	5		Firm to stiff, dark gray, FAT CLAY (CH)		92.7	89	33	58	26	32
							28			
35			-gray and brown to reddish brown at 6'-10' -w/ ferrous stains at 6'-10' -w/ calcareous nodules at 8'-10'				91	31		
	10				96.7		33	68	27	41

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-10

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802385.13; E: 3148822.67
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 44.95 FT — DATE: 4/28/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Pavement: 8.25" Concrete, 16.75" Asphalt							
	5		Stiff, dark gray, LEAN CLAY WITH SAND (CL) -w/ ferrous stains		71.0		21	49	19	30
							22			
35	10		Stiff, gray and brown to reddish brown, FAT CLAY WITH SAND (CH) -w/ ferrous stains and calcareous nodules		72.3	102	25	60	21	39
							25			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-12

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13802826.88; E: 3147983.16
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 43.07 FT — DATE: 3/17/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Firm to stiff, dark brown and gray, SANDY LEAN CLAY (CL) [Possible Fill] -w/ gravel at 0'-4' -w/ shells at 2'-4'		58.9		21	37	16	21
	5		Firm to stiff, gray and reddish brown, FAT CLAY WITH SAND (CH) -w/ calcareous nodules and ferrous stains -w/ gravel at 6'-8'			105	22			
35							27			
	10				82.7	100	24	56	20	36
							21			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-16

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13799221.38; E: 3149020.34
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 40.6 FT — DATE: 3/24/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 8 FT
WET ROTARY: 8 TO 10 FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Firm to very stiff, dark brown to brown and gray, SANDY LEAN CLAY (CL) [Possible Fill to 2'] -w/ shells at 0'-2' -w/ ferrous stains at 2'-10' -w/ calcareous nodules at 4'-6'		61.4		17	40	15	25
	5				67.0	114	18	40	18	22
35							23			
	10					112	18			
							20			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

LOG OF BORING B-17

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13799102.28; E: 3149153.38
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 40.06 FT — DATE: 3/24/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 8 FT
WET ROTARY: 8 TO 10 FT

ELEVATION, FT	DEPTH, FT	SAMPLES	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST, BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
40	0		Firm to stiff, dark brown and gray, LEAN CLAY WITH SAND (CL)		79.8		20	43	18	25
	5		-gray to reddish brown below 4' -w/ calcareous nodules and ferrous stains at 4'-10'			105	22			
35							19			
	10				72.6	105	22	35	16	19
							25			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE — 0.5 1.0 1.5 2.0 2.5

DEPTH TO WATER IN BORING:

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

BORING LOG DETAILS

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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:

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

LOG OF BORING B-15

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13799288.17; E: 3148945.45
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 42.78 FT — DATE: 3/17/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Pavement: 17.5" Concrete, 18.5" Crushed Concrete Base							
40	5	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
					104	22			
35	10	Stiff to very stiff, brown and gray, LEAN CLAY WITH SAND (CL) -w/ calcareous nodules and ferrous stains		80.2		20	46	18	28
						18			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

DEPTH TO WATER IN BORING:

CDM: HG1710439.1.GPJ - 8/11/19

LOG OF BORING B-19

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13798914.55; E: 3149362.95
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 41.92 FT — DATE: 3/24/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: N/A TO N/A FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Pavement: 16" Concrete, 3" Crushed Concrete Base, 6" Lime Stabilized Clay							
40	5	Stiff, dark brown and gray, LEAN CLAY WITH SAND (CL) -w/ ferrous stains and calcareous nodules at 4'-6'		72.9	111	19			
						20	28	16	12
35	10	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
					105	22			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

DEPTH TO WATER IN BORING:

CDM: HG1710439.1.GPJ - 8/11/19

LOG OF BORING B-21

PROJECT: Non-Standard Taxiways - William P. Hobby Airport — PROJECT NO.: HG1710439.2
LOCATION: N: 13804866.54; E: 3149443.19
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 43.46 FT — DATE: 5/10/2022

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Firm to stiff, gray and brown, SANDY LEAN CLAY (CL) -w/ roots at 0'-2'		69.1		17	38	17	21
40	5	Stiff, gray, brown and reddish brown, FAT CLAY (CH) -w/ ferrous stains and calcareous nodules at 4'-10'		88.2	101	22			
						23	56	23	33
35	10				102	24			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

LOG OF BORING B-23

PROJECT: Non-Standard Taxiways - William P. Hobby Airport — PROJECT NO.: HG1710439.2
LOCATION: N: 13805085.54; E: 3149658.67
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 44.02 FT — DATE: 5/5/2022

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	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	5				106	20			
		-w/ calcareous nodules at 6'-10'				21			
35	10	w/ ferrous stains at 8'-10'				18			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

LOG OF BORING B-18

PROJECT: HOU Non-Standard Taxiways — PROJECT NO.: HG1710439.1
LOCATION: N: 13798984.19; E: 3149285.07
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 40.15 FT — DATE: 3/24/2019

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Firm to very stiff, brown and gray, LEAN CLAY WITH SAND (CL)		71.0	108	17	32	17	15
40	5	-w/ calcareous nodules at 2'-4'			110	19			
35		-w/ ferrous stains at 4'-10'		70.2		18	35	17	18
	10					20			
						21			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

DEPTH TO WATER IN BORING:

CDM: HG1710439.1.GPJ - 8/11/19

LOG OF BORING B-20

PROJECT: Non-Standard Taxiways - William P. Hobby Airport — PROJECT NO.: HG1710439.2
LOCATION: N: 13804734.65; E: 3149319.97
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 41.84 FT — DATE: 5/11/2022

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Pavement: 4.5" Asphalt Over 10.5" Lime Stabilized Base							
40	5	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
					108	21			
35	10	Firm to very stiff, gray, brown and reddish brown, FAT CLAY (CH) -w/ ferrous stains and calcareous nodules at 6'-10'		86.6		29	69	29	40
					99	25			

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

LOG OF BORING B-22

PROJECT: Non-Standard Taxiways - William P. Hobby Airport — PROJECT NO.: HG1710439.2
LOCATION: N: 13804962.03; E: 3149525.11
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 44.34 FT — DATE: 5/6/2022

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Pavement: 7.5" Concrete Over 7" Crushed Concrete Base							
40	5	Stiff to very stiff, gray and brown, FAT CLAY (CH)		87.6	101	22	52	21	31
						20			
35	10	Stiff to very stiff, gray, brown and reddish brown, LEAN CLAY (CL) -w/ ferrous stains, calcareous nodules and sand seams at 6'-10'		90.9	110	19			
						19	42	20	22

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

LOG OF BORING B-24

PROJECT: Non-Standard Taxiways - William P. Hobby Airport — PROJECT NO.: HG1710439.2
LOCATION: N: 13805133.43; E: 3149743.11
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 43.83 FT — DATE: 5/5/2022

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Pavement: 2" Asphalt Over 12.5" Concrete, 9.5" Crushed Concrete Base, and 10" Lime Stabilized Subgrade							
40	5	Stiff, gray, brown and reddish brown, FAT CLAY WITH SAND (CH) -w/ ferrous stains and calcareous nodules at 4'-10		84.6	104	24	53	17	36
35	10				73				

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

LOG OF BORING B-25

PROJECT: Non-Standard Taxiways - William P. Hobby Airport — PROJECT NO.: HG1710439.2
LOCATION: N: 13805368.92; E: 3149563.88
STATION: N/A — COMPLETION DEPTH: 10 FT
OFFSET: N/A
SURFACE ELEVATION: 43.06 FT — DATE: 6/6/2022

SAMPLER: Shelby Tube/Split Spoon
DRY AUGER: 0 TO 10 FT
WET ROTARY: NA TO NA FT

ELEVATION, FT	DEPTH, FT	DESCRIPTION OF MATERIAL	STANDARD PENETRATION TEST BLOWS PER FOOT	PERCENT PASSING NO. 200 SIEVE	DRY UNIT WEIGHT, PCF	MOISTURE CONTENT, %	LIQUID LIMIT, %	PLASTIC LIMIT, %	PLASTICITY INDEX, %
	0	Pavement: 1" Asphalt Over 18" Concrete and 18" Stabilized Crushed Concrete Base							
40	5	Stiff, gray and brown, SANDY FAT CLAY (CH)		69.1		27	56	20	36
						22			
35	10	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

UNDRAINED SHEAR STRENGTH, TSF: ○ HAND PENETROMETER ● UNCONFINED COMPRESSION ■ UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION △ TORVANE (0.5 1.0 1.5 2.0 2.5)

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

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. CELESTAIN
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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

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.

FILENAME: H22C770A-GR501-503.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:26:34 AM

GENERAL PHASING NOTES

1. NO WORK SHALL BE PERFORMED UNTIL ALL BARRICADES, CONSTRUCTION FENCE, AND RUNWAY CLOSURE MARKERS HAVE BEEN ERECTED AND ACCEPTED BY HOU AIRPORT OPERATIONS.

2. NO WORK SHALL BE PERFORMED UNTIL ALL MODIFICATIONS TO THE AIRFIELD MARKINGS, LIGHTING, AND SIGNAGE HAVE BEEN PERFORMED AND ACCEPTED BY HOU AIRPORT OPERATIONS.

3. 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 STANDY-BY TIME IS INCIDENTAL TO OTHER PROJECT WORK.

4. NO EARTH DISTURBANCE SHALL OCCUR PRIOR TO THE INSTALLATION AND ACCEPTANCE OF THE EROSION AND SEDIMENTATION CONTROLS.

5. 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.

6. FLAGGERS MUST STAY OUTSIDE OF TOFA'S OF ACTIVE TAXIWAYS.

7. 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.

8. 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.

9. 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.

10. ALL WORK MUST BE ACCOMPLISHED DURING THE WORK HOURS LISTED IN THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPP).

11. PERMITS: IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR ALL APPLICABLE PERMITS FOR CONSTRUCTION AND EQUIPMENT.

12. 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.

13. ARFF AND EMERGENCY RESPONSE VEHICLE ACCESS TO THE ACTIVE AIRFIELD SHALL BE MAINTAINED AT ALL TIMES.

14. 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.

15. 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.

16. 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.

17. 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.

18. 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.

19. 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.

20. 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:

20.1. 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.

20.2. 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.

20.3. 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.

21. 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.

21.1. 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.

21.2. 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.

22. IDENTIFICATION - PERSONNEL: ALL CONTRACTOR EMPLOYEES, SUBCONTRACTORS, AGENTS, VENDORS, INVITEES, 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.

23. 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

24. 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.

25. AIRCRAFT TRAFFIC SHALL HAVE PRECEDENCE AT ALL TIMES ON ACTIVE PAVEMENT AREAS NOT SPECIFICALLY CLOSED FOR EACH PHASE WORK.

26. 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 ROUTINE AND EMERGENCY AIR TRAFFIC REQUIREMENTS AND GUIDELINES ON SAFETY AS SPECIFIED HEREIN.

27. 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.

28. 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.

29. 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.

30. 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:

30.1. 150/5200-18C, "AIRPORT SAFETY - SELF INSPECTION"

30.2. 150/5210-5D, "PAINTING, MARKING & LIGHTING OF VEHICLES USED ON AN AIRPORT

30.3. 150/5370-2G, "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"

31. THE FOLLOWING SPECIAL REQUIREMENTS APPLY FOR NIGHT CONSTRUCTION:

31.1. 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 BARICADE PLAN FOR REVIEW AND APPROVAL. NO WORK WILL BE ALLOWED WITHIN THE AOA UNLESS IT HAS BEEN COORDINATED WITH AIRPORT OPERATIONS FOR THAT NIGHT.

31.2. NO LOCKOUT TAGOUT IS ALLOWED AT NIGHT.

31.3. 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.

32. 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.

33. 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.

34. 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 ATCT.

35. 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.

36. 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.

37. CONSTRUCTION EQUIPMENT SHALL HAVE A MAXIMUM HEIGHT OF 12 FEET UNLESS A 7460 HAS BEEN FILED AND APPROVED BY FAA.

38. 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.

39. 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

40. 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.

41. 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.

42. ALL COMMUNICATION WITH THE AIRPORT TRAFFIC CONTROL TOWER OR OTHER ELEMENTS OF THE AIRPORT SHALL BE THROUGH HOU AIRPORT OPERATIONS.

43. 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.

44. 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.

45. 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 THE 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:

45.1. 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.

45.2. ALL CONTRACTOR PERSONNEL AND EQUIPMENT ACCESS GATES STAFFED AND SECURITY PROCEDURES IN PLACE.

45.3. ALL EQUIPMENT OUTFITTED WITH FLASHING YELLOW DOME-TYPE LIGHTS, MARKINGS AND FLAGGING. CONTRACTOR USE OF AUTHORIZED AIRPORT ACCESS GATES CHECKED.

46. 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.

47. 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

48. 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 ALL 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.

49. 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.

50. 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.

51. ALL CONTRACTOR VEHICLES DELIVERING MATERIAL TO THE PROJECT SITE SHALL ONLY ACCESS THE AOA THROUGH THE ALLOWABLE CONTRACTOR GATES AS SHOWN ON THE PLANS

52. 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.

53. 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.

54. 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.

55. 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 EQUIPMENT WITH OPERATIONAL COVERS. LOADS SHALL BE COVERED AT ALL TIMES EXCEPT FOR DURING LOADING AND UNLOADING.

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"

©JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GENERAL PHASING NOTES

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: GC001

of

FILENAME: H22C770A-GC001-002.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:18:53 PM

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 SEEDED 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 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.

74. THERE SHALL BE NO EXCAVATION DURING THE NIGHT WHEN AIRFIELD LIGHTING IS ACTIVE.

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 <u>SHALL BE VERIFIED PRIOR TO CONSTRUCTION FOR – AT MINIMUM – ALL CIRCUITS IDENTIFIED IN THE CIRCUIT TABLE ON SHEET EL001</u>.

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. <u>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.</u>

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 UTILIES, 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.

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"

©JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GENERAL PHASING NOTES

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

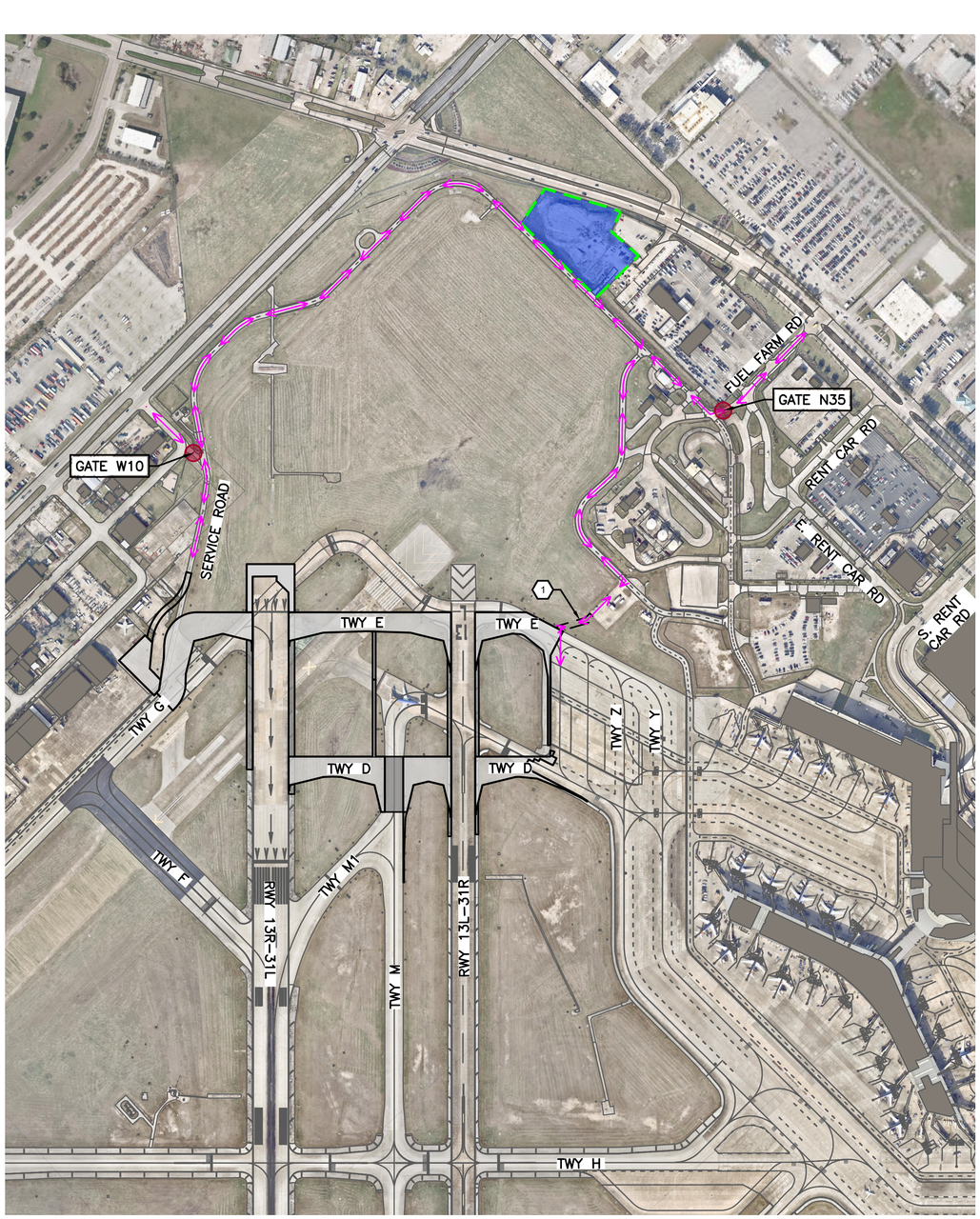
PROJECT NO: 770

C.I.P. NO: 3-48-0110-044

H.A.S. NO: N/A

SHEET NO: GC002
of

FILENAME: H22C770A-GC001-002.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:19:18 PM



1 CONTRACTOR ACCESS PHASES 1 THOUGH 4

2 CONTRACTOR ACCESS PHASES 5, 6A AND 6B

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.

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

GRAPHIC SCALE
300' 0 300' 900'
SCALE: 1" = 300'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

STAGING AREA AND SITE ACCESS PLAN

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:

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

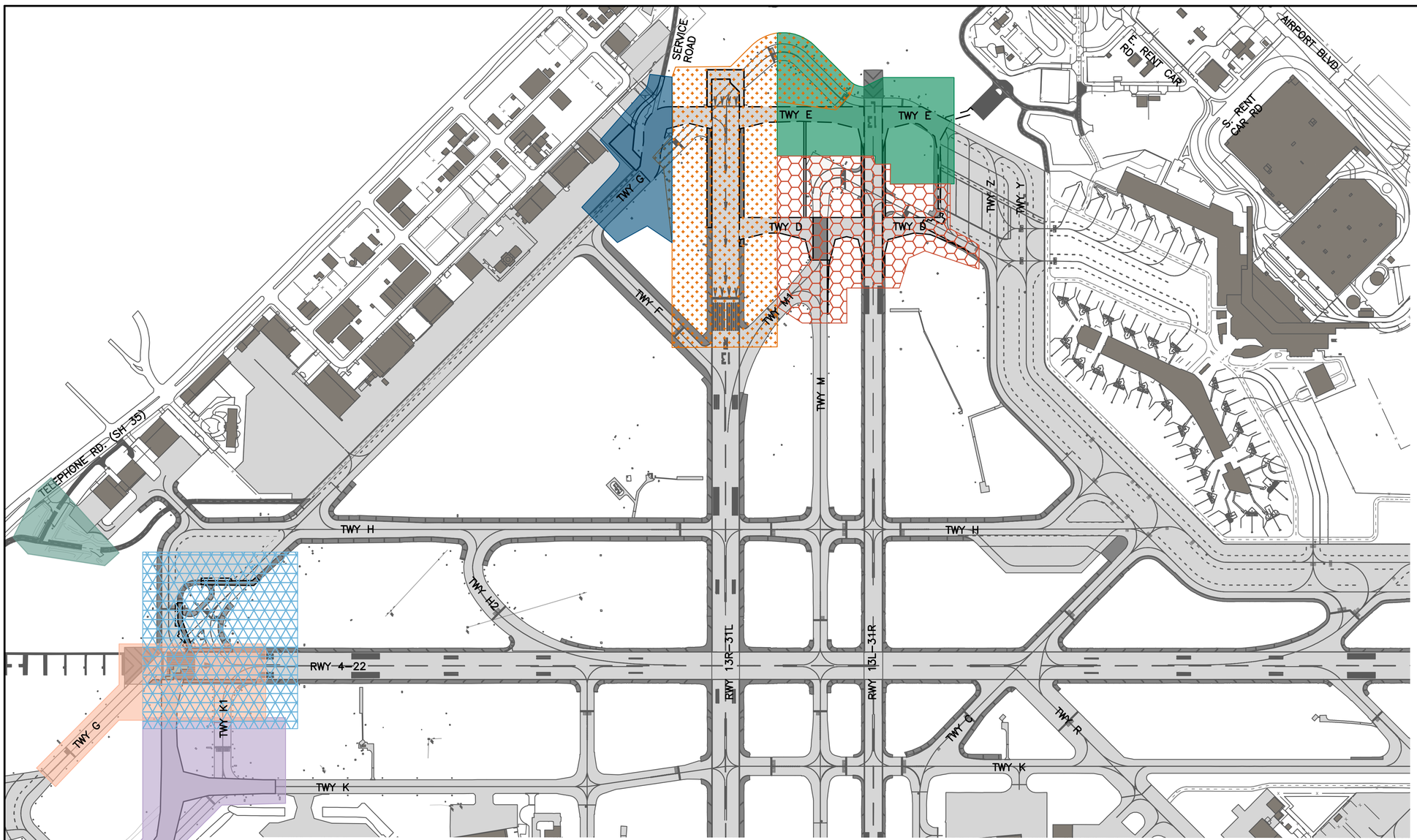
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: GC011 of

FILENAME: H22C770A-GC011.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:21:38 PM



NOTES:

1. FOR GENERAL PHASING NOTES, SEE GC001 THROUGH GC002.
2. 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.
3. 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)

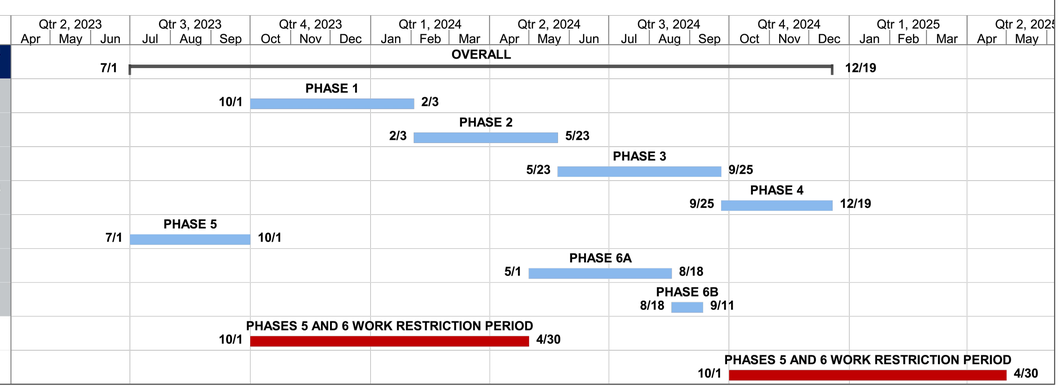
GRAPHIC SCALE

300′ 0 300′ 900′

SCALE: 1" = 300′

NOTIONAL CONSTRUCTION SCHEDULE

Task Name	Calendar Days	Start	Finish
OVERALL	537 days	7/1/23	12/19/24
PHASE 1	125 days	10/1/23	2/3/24
PHASE 2	110 days	2/3/24	5/23/24
PHASE 3	125 days	5/23/24	9/25/24
PHASE 4	85 days	9/25/24	12/19/24
PHASE 5	92 days	7/1/23	10/1/23
PHASE 6A	109 days	5/1/24	8/18/24
PHASE 6B	24 days	8/18/24	9/11/24



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"

© 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 AND SEQUENCE OF CONSTRUCTION

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

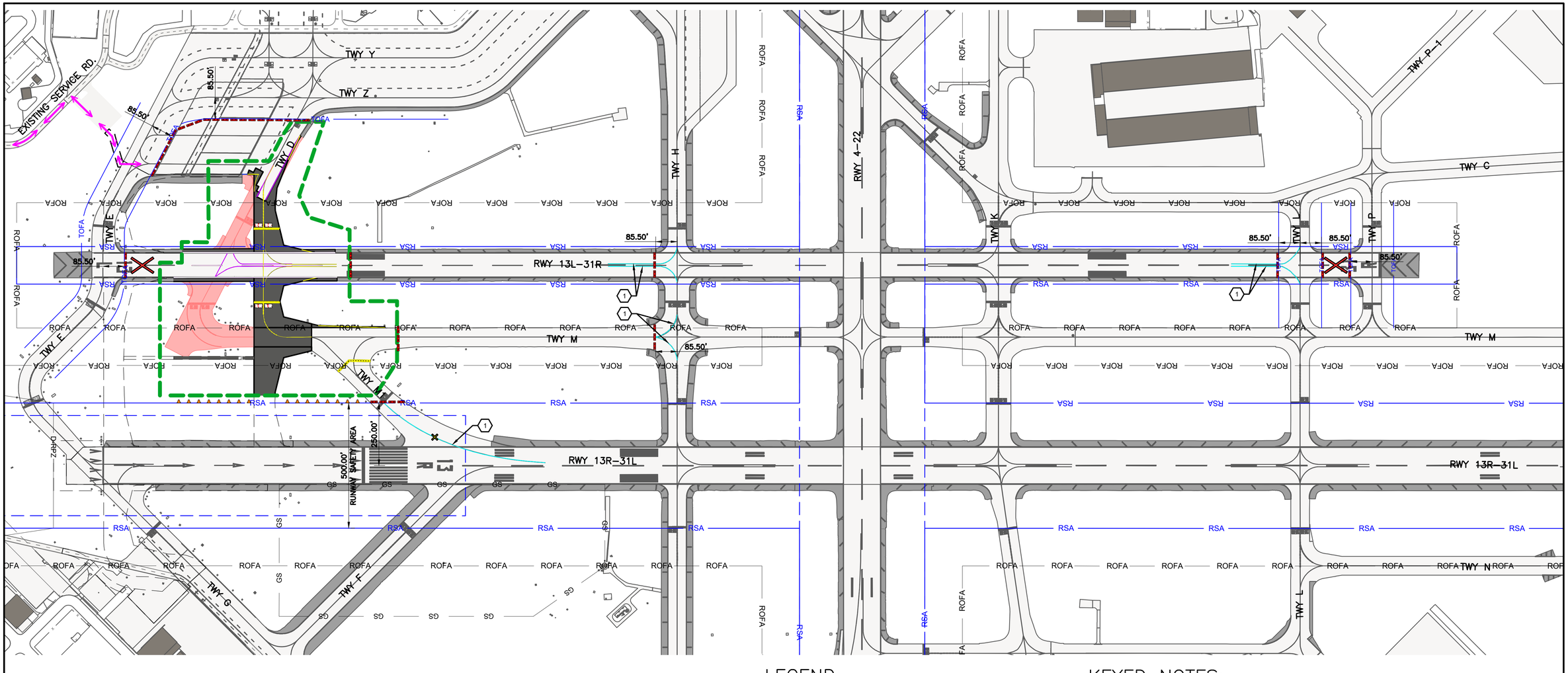
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: GC012
of



PHASE 1 OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	-
PHASE DURATION:	125 CALENDAR DAYS
ANTICIPATED SCHEDULE:	10/01/2023 - 02/03/2024
CLOSURES:	• RUNWAY 13L-31R • TAXIWAY M1 • TAXIWAY M, WEST OF TAXIWAY H • TAXIWAY D, BETWEEN RUNWAY 13R-31L AND TAXIWAY Z
ACCESS:	• 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

PHASE 1 DETAILS

DESCRIPTION OF WORK:	CONSTRUCTION OF TAXIWAY D BETWEEN RUNWAY 13R RSA AND TAXIWAY Z
SEQUENCE NOTES:	• 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:

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

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© 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 1

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:

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

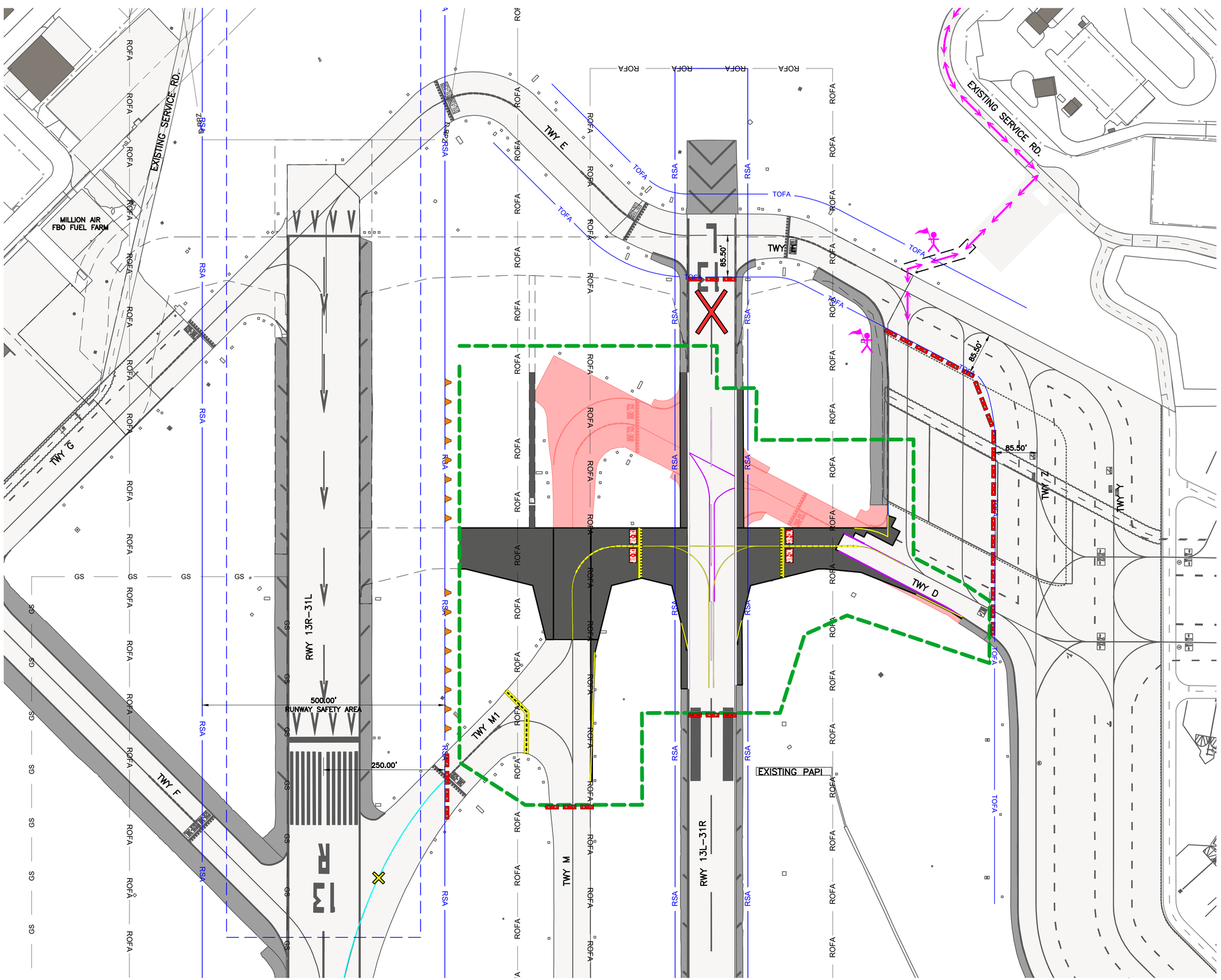
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

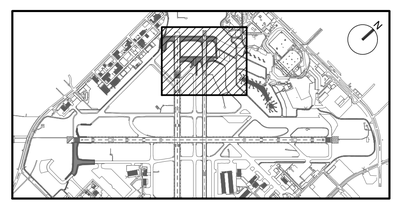
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

FILENAME: H22C770A-GC101-102-P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:24:34 PM





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
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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

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:	02/24/2023

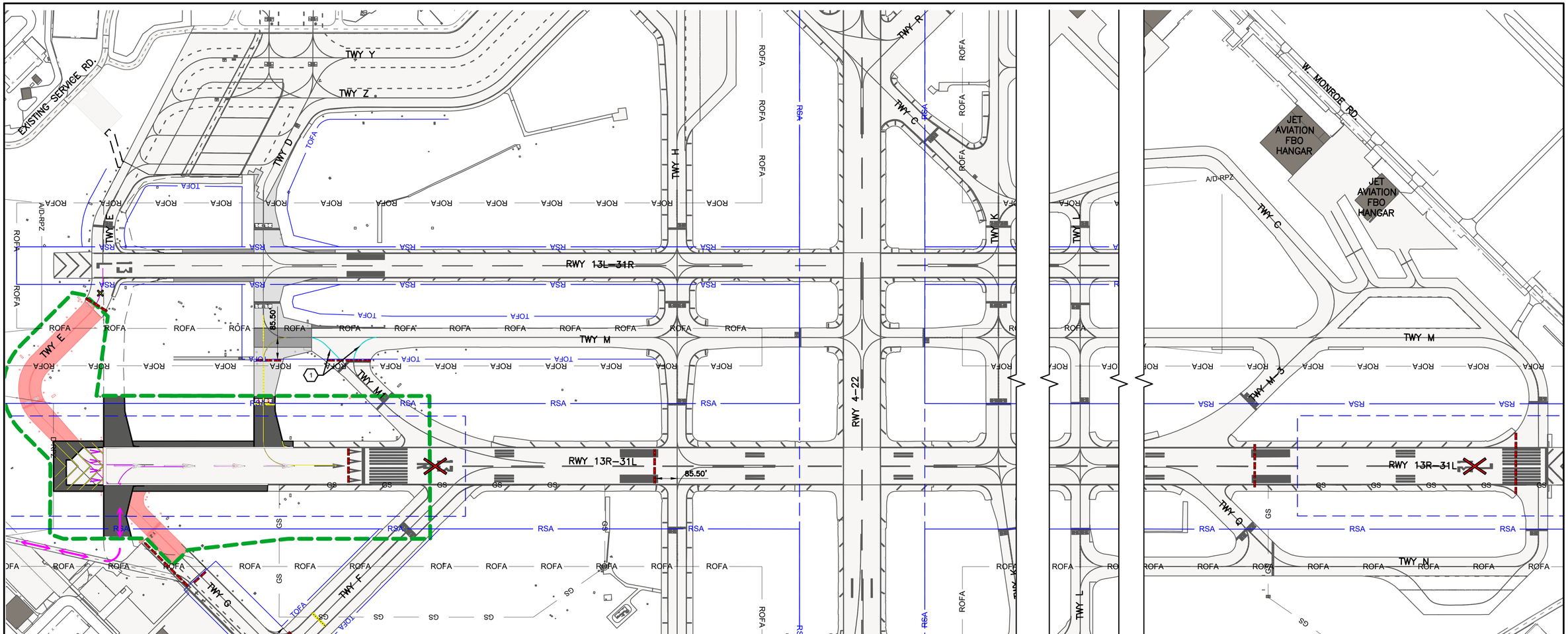
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: GC102–P1
of

FILENAME: H22C770A–GC101–102–P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:25:08 PM



PHASE 2 OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	6A
PHASE DURATION:	110 CALENDAR DAYS
ANTICIPATED SCHEDULE:	02/03/2024 - 05/23/2024
CLOSURES:	• 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:	• 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:

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

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PHASING PLAN – PHASE 2

OVERALL PHASE 2

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:

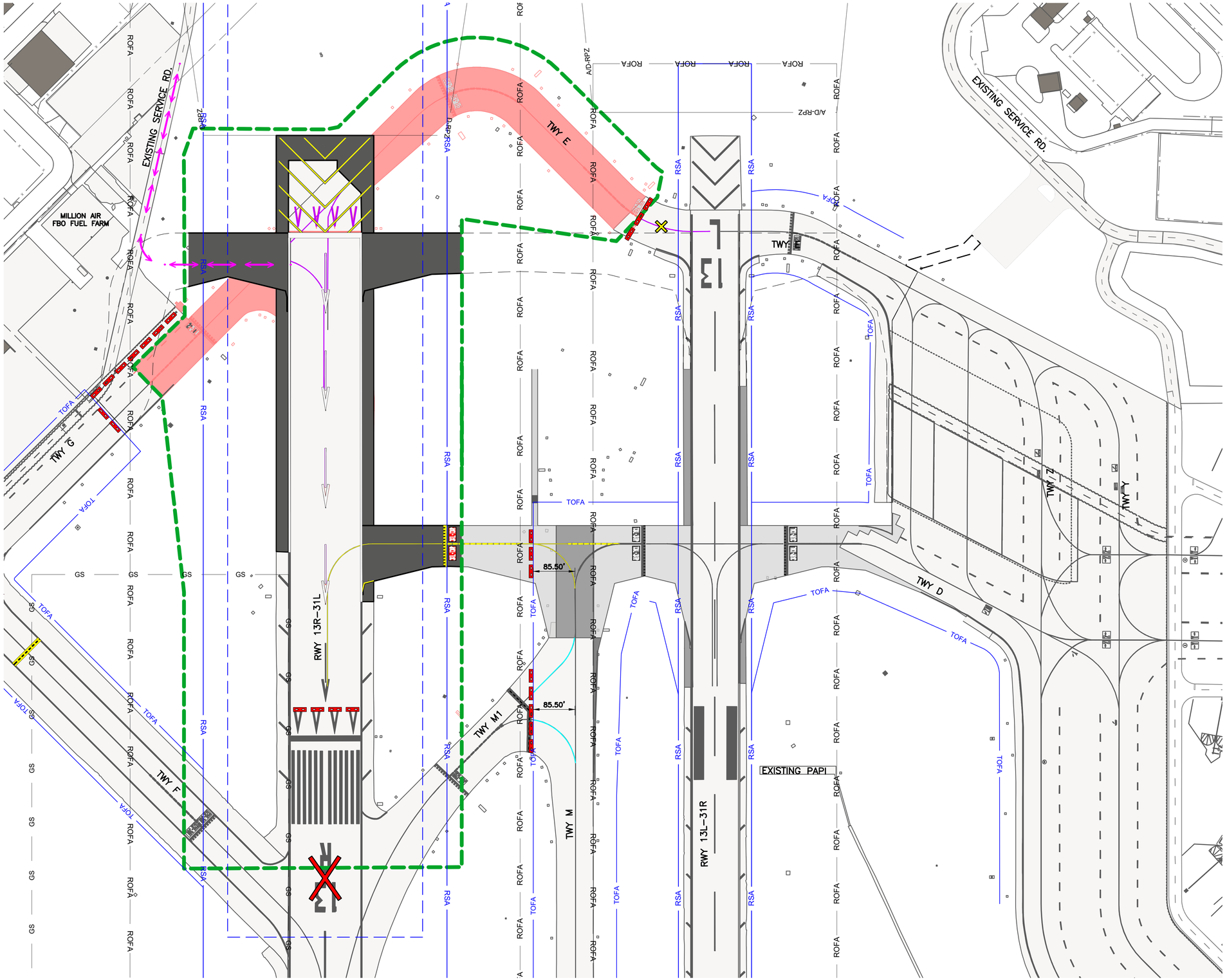
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023

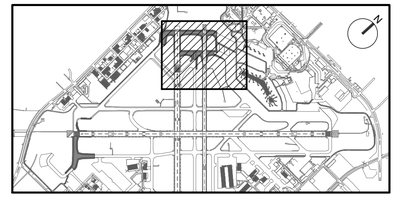
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: GC201-P2
of





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
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN – PHASE 2

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.

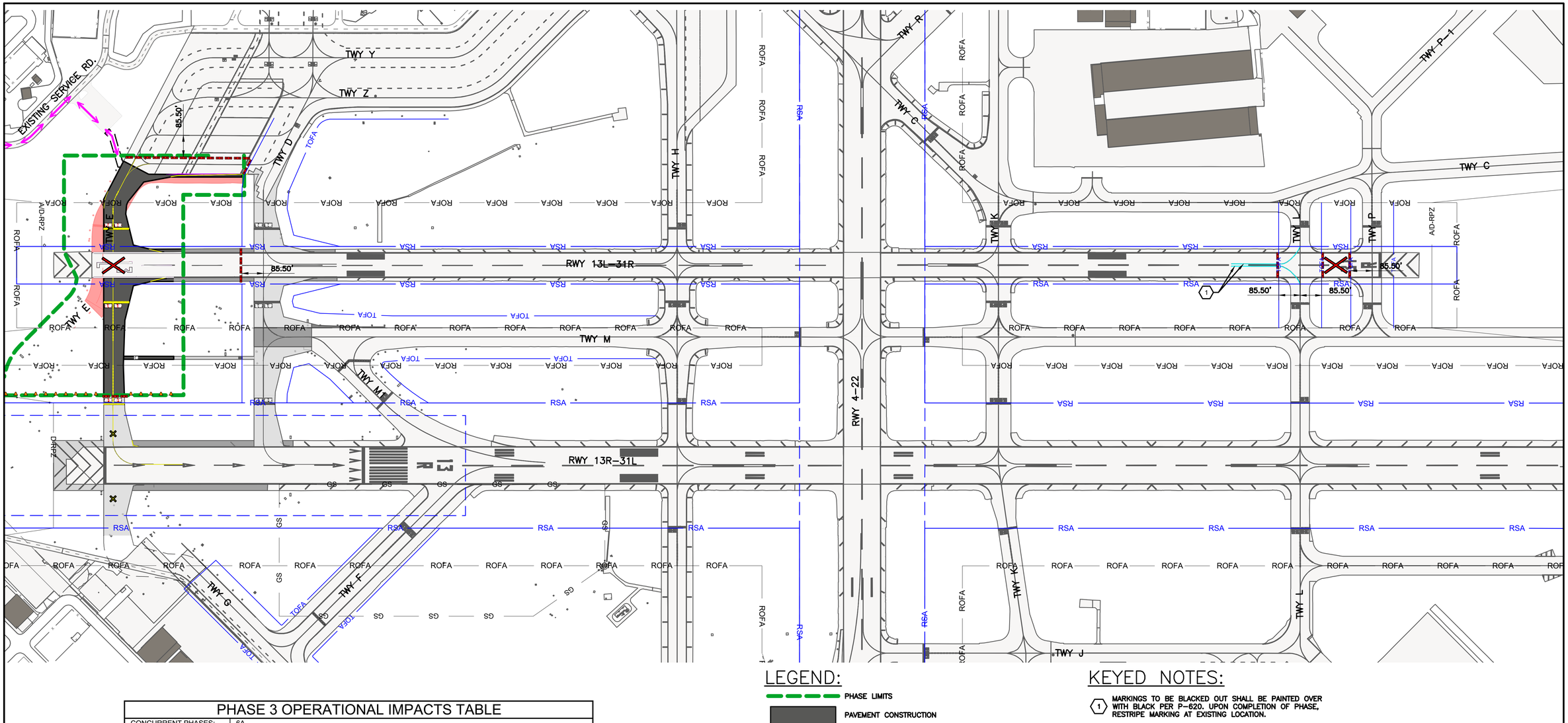
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: GC202–P2
of



PHASE 3 OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	6A
PHASE DURATION:	125 CALENDAR DAYS
ANTICIPATED SCHEDULE:	05/23/2024 - 09/25/2024
CLOSURES:	• RUNWAY 13L-31R • TAXIWAY E, BETWEEN RUNWAY 13R AND TAXIWAY Z • PORTIONS OF TAXIWAY G, AS INDICATED
ACCESS:	• 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:	• 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.

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© 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 3

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:

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

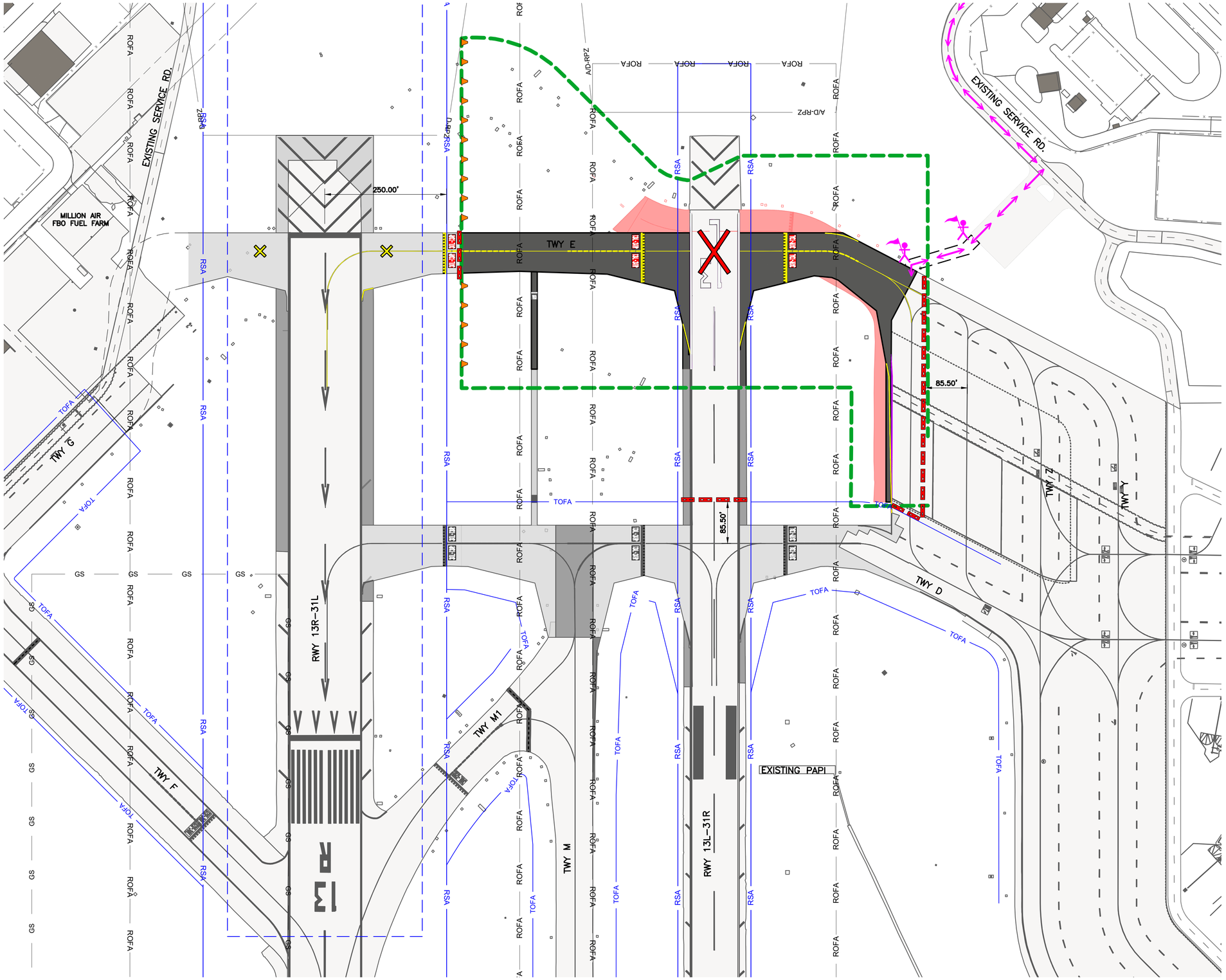
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

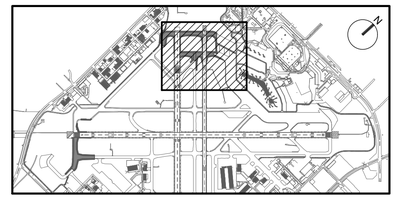
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

FILENAME: H22C770A-GC301-302-P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:39:14 PM





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
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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:

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN – PHASE 3

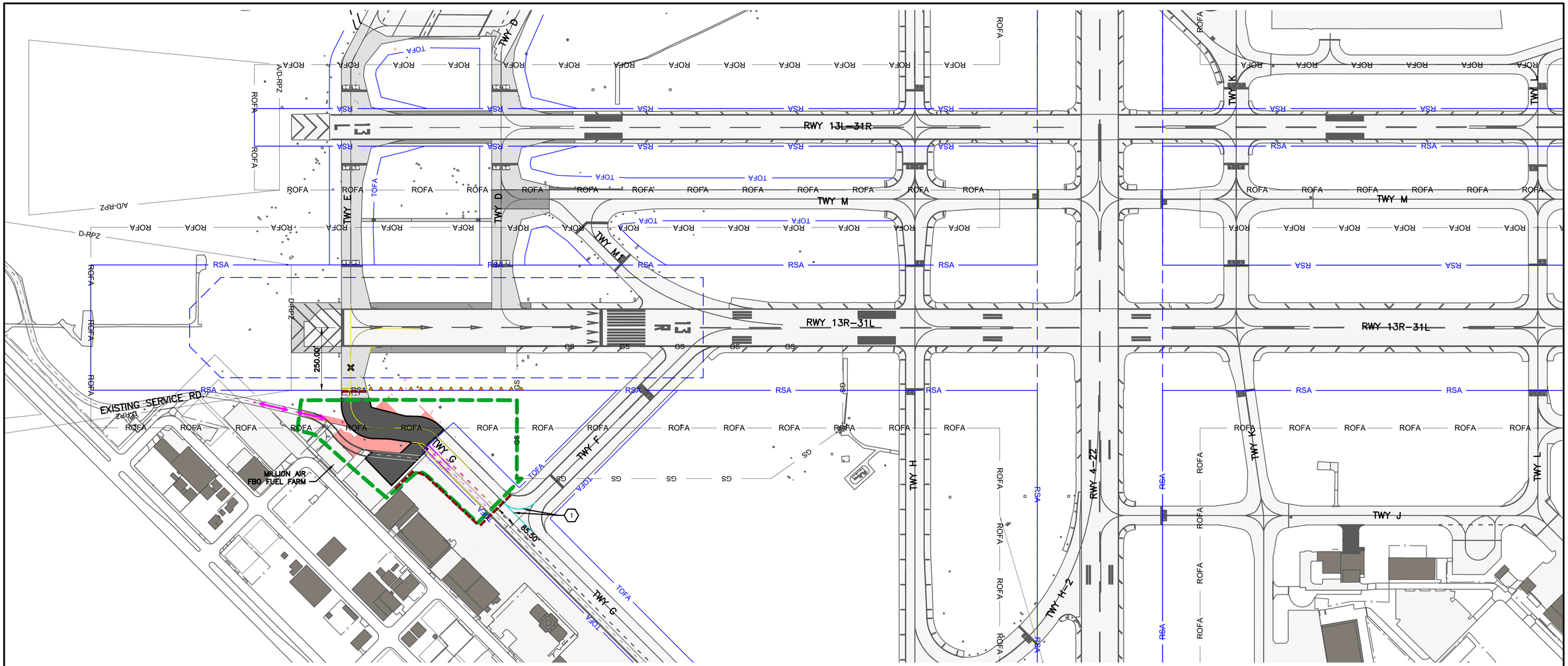
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: GC302-P3
of



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
SEQUENCE NOTES:	• 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.

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.

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© 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

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/23/2023

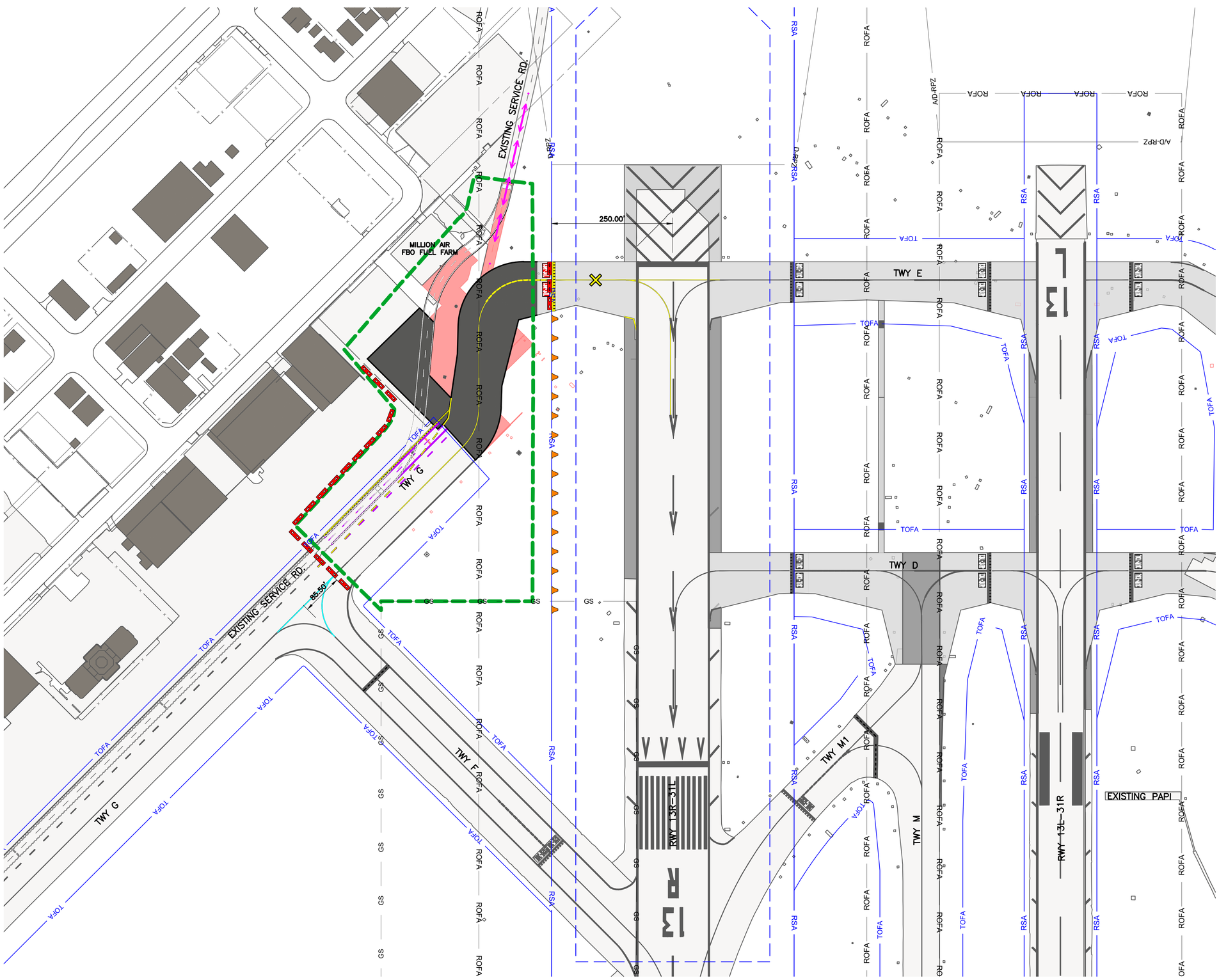
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

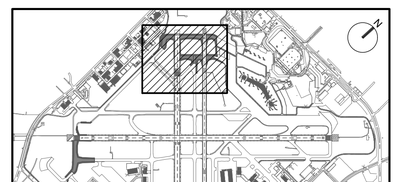
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

FILENAME: H22C770A–GC401–402–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:41:38 PM





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
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN – PHASE 4

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:

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

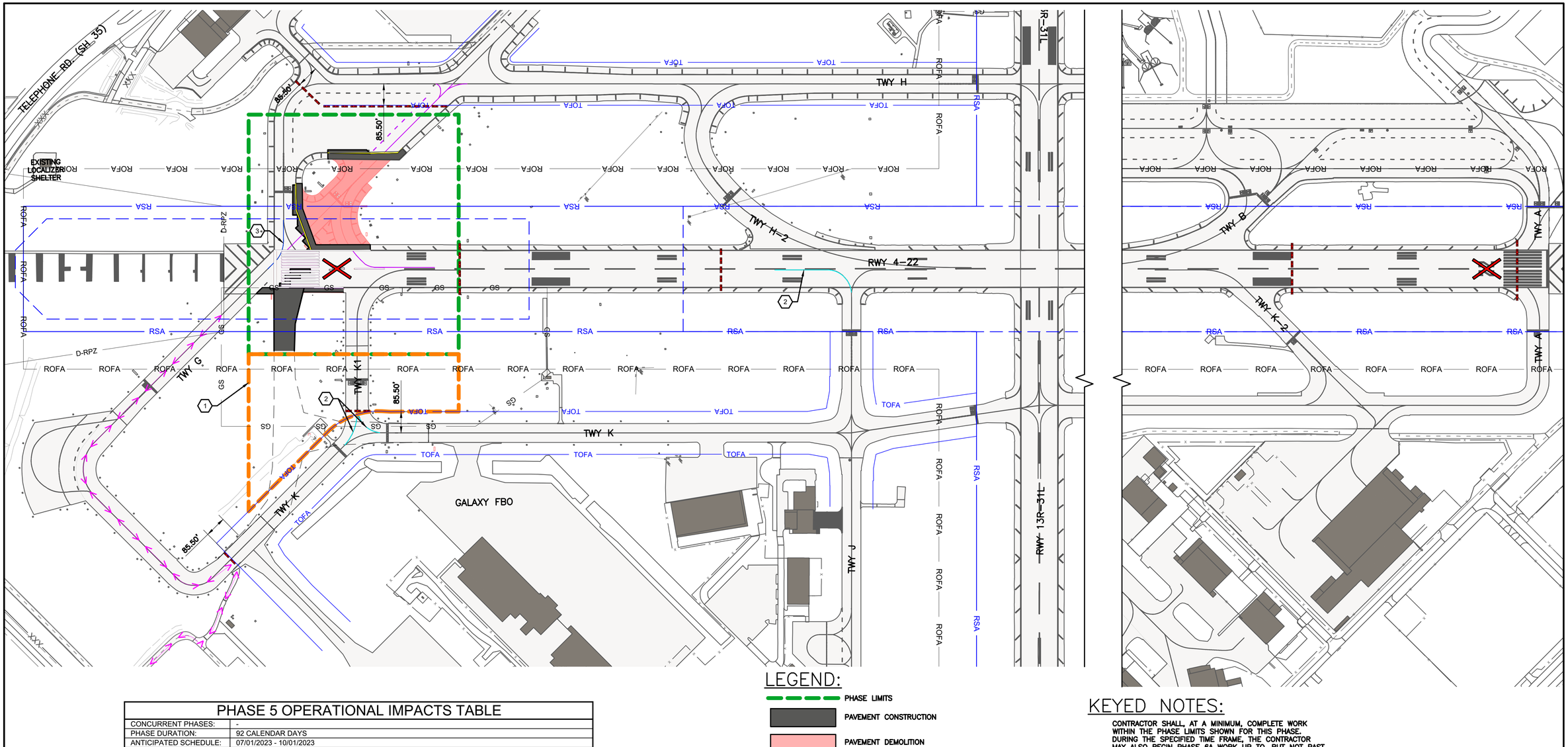
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: GC402–P4
of

FILENAME: H22C770A–GC401–402–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:42:06 PM



PHASE 5 OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	-
PHASE DURATION:	92 CALENDAR DAYS
ANTICIPATED SCHEDULE:	07/01/2023 - 10/01/2023
CLOSURES:	• 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:	• 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
- TAXIWAY CLOSURE MARKER
- 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.

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© 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

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:

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

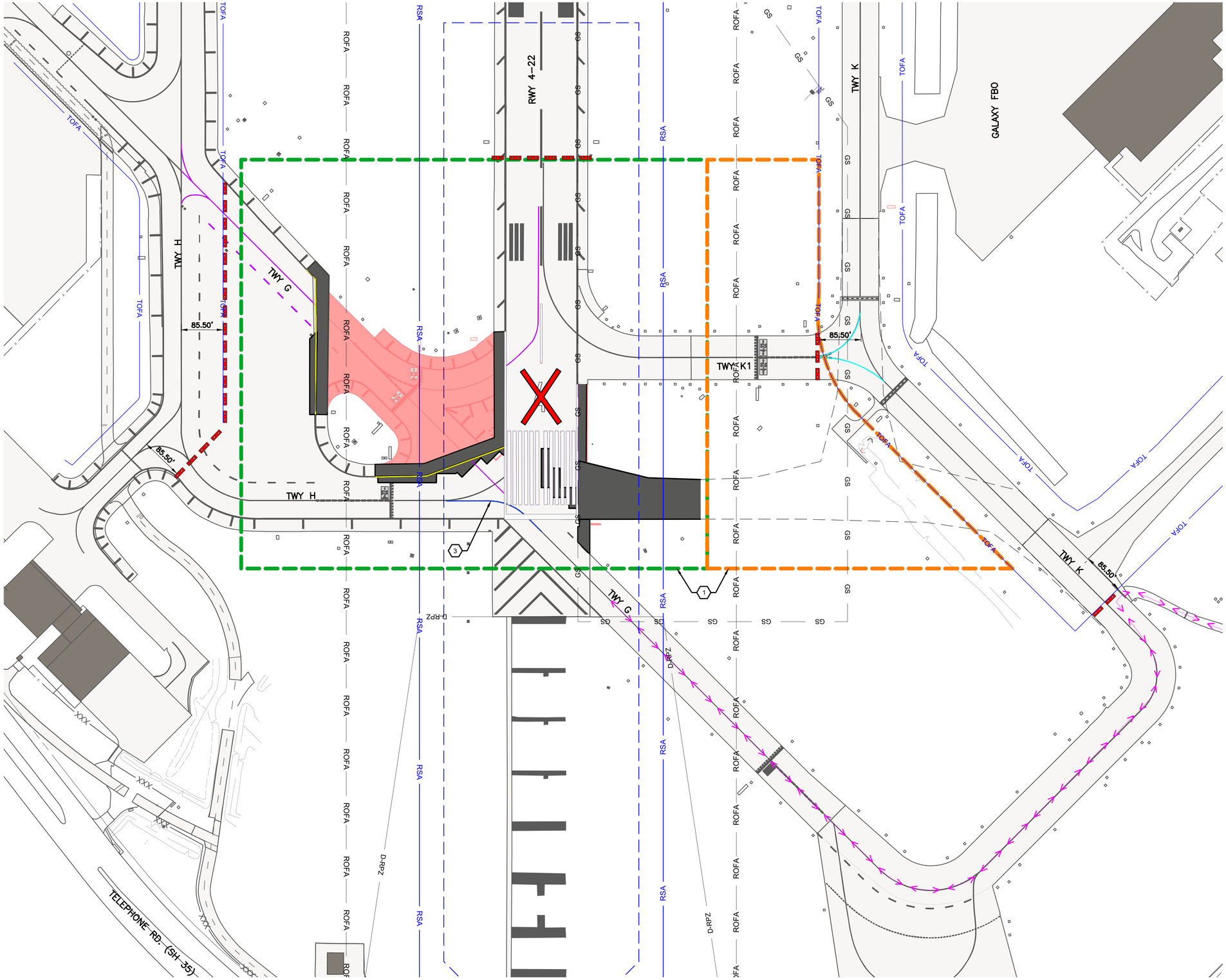
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

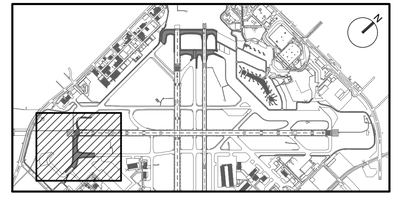
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

FILENAME: H22C770A-GC501-502-P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:43:09 PM





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
- TAXIWAY CLOSURE MARKER
- 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.

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN – PHASE 5

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:

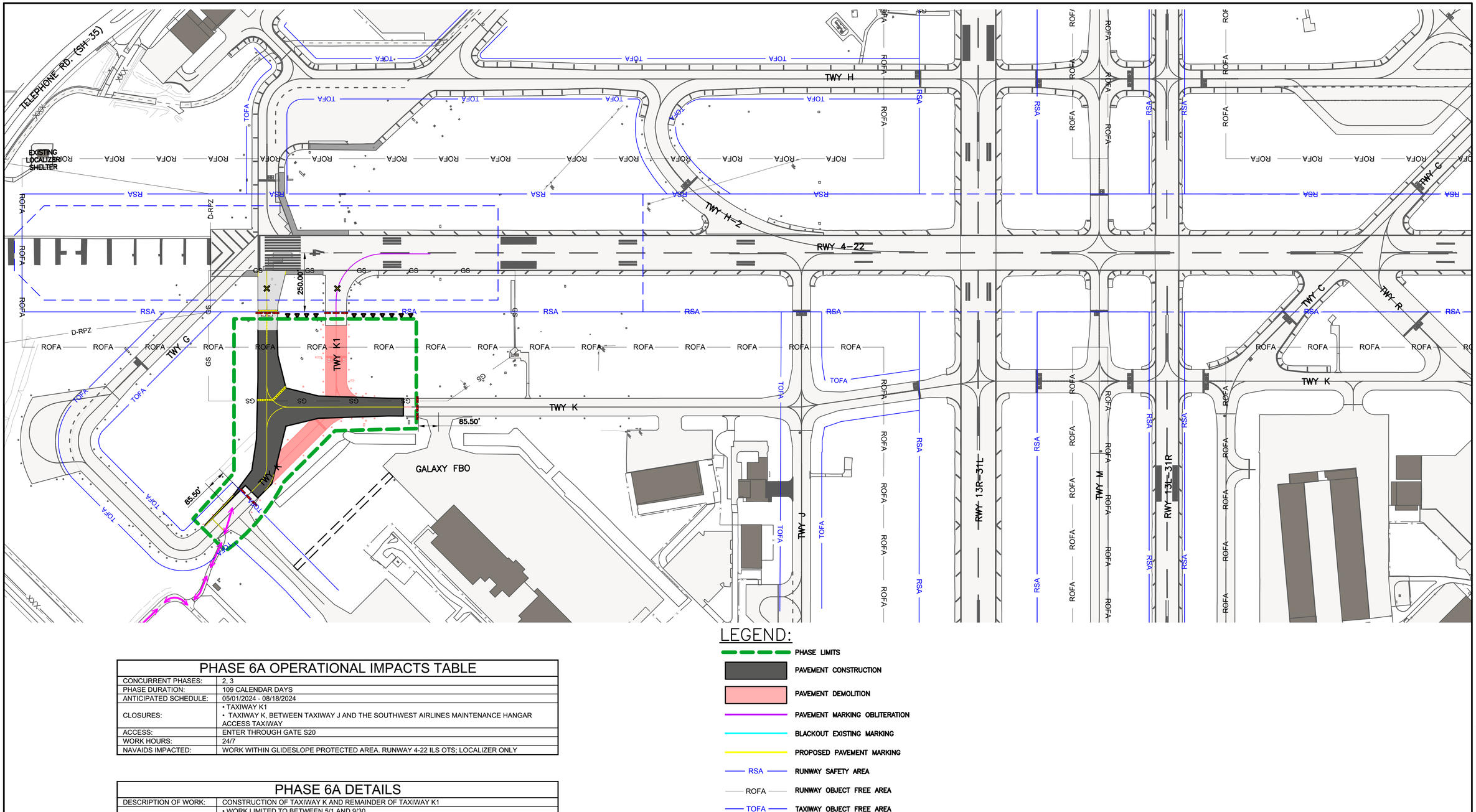
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: GC502–P5
of



PHASE 6A OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	2, 3
PHASE DURATION:	109 CALENDAR DAYS
ANTICIPATED SCHEDULE:	05/01/2024 - 08/18/2024
CLOSURES:	• 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:	• 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

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© 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 6A

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.

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

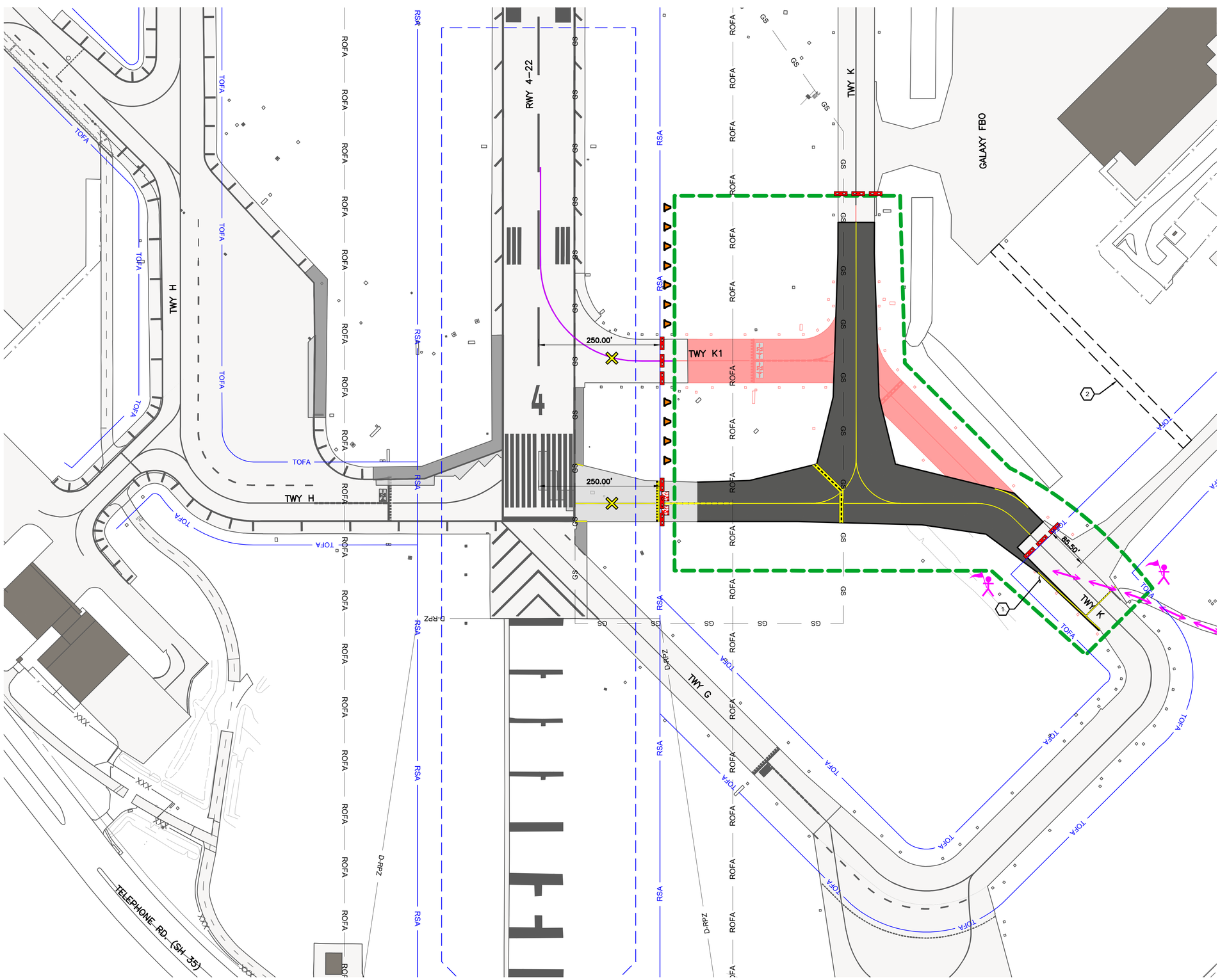
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

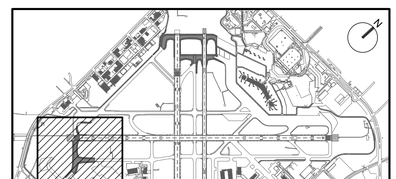
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

FILENAME: H22C770A-GC601-602-P6A.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:44:52 PM





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
- TAXIWAY CLOSURE MARKER
- 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.

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN – PHASE 6A

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:

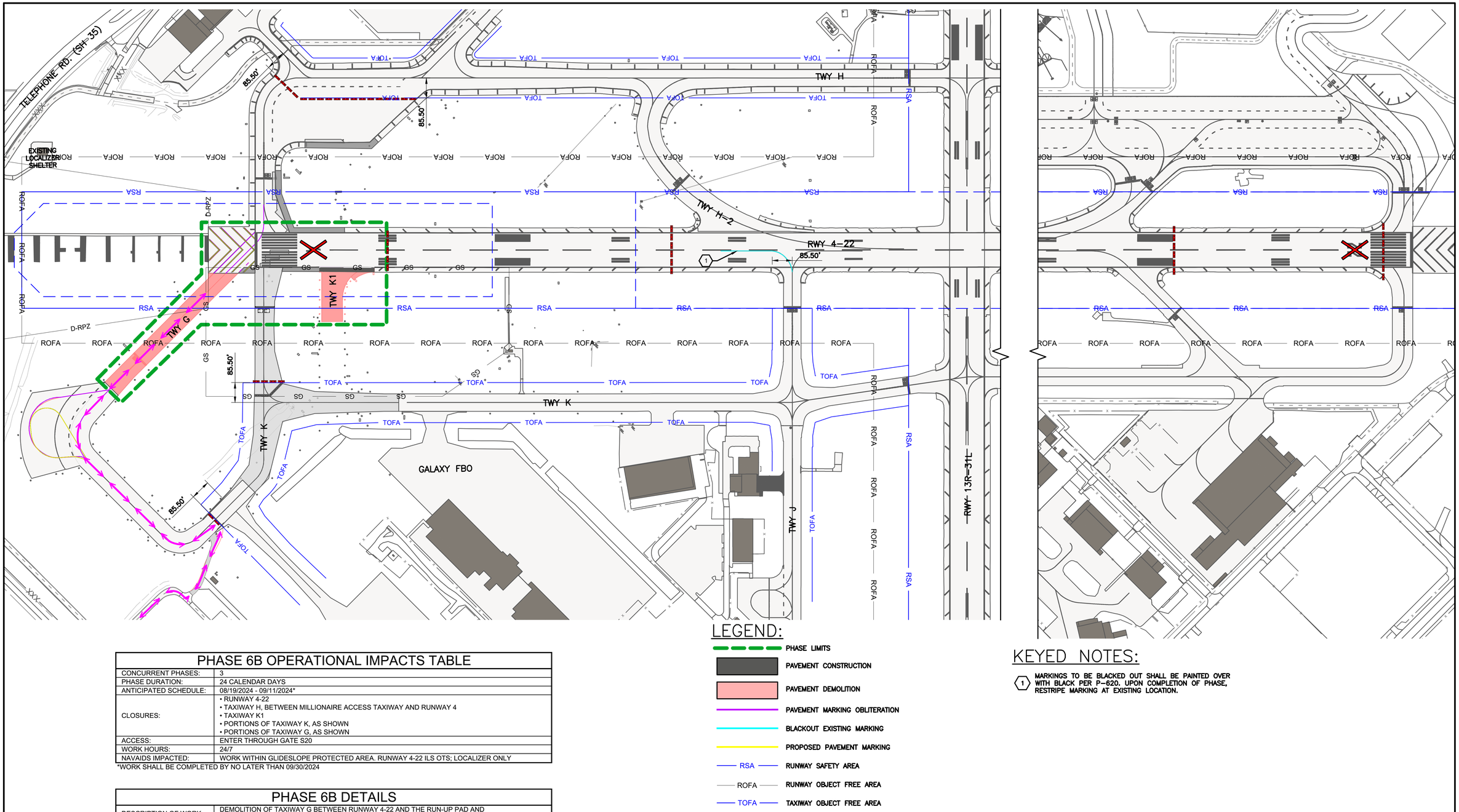
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: GC602–P6A
of



PHASE 6B OPERATIONAL IMPACTS TABLE

CONCURRENT PHASES:	3
PHASE DURATION:	24 CALENDAR DAYS
ANTICIPATED SCHEDULE:	08/19/2024 - 09/11/2024*
CLOSURES:	• 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:	• 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

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.

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© 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 6B

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:

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

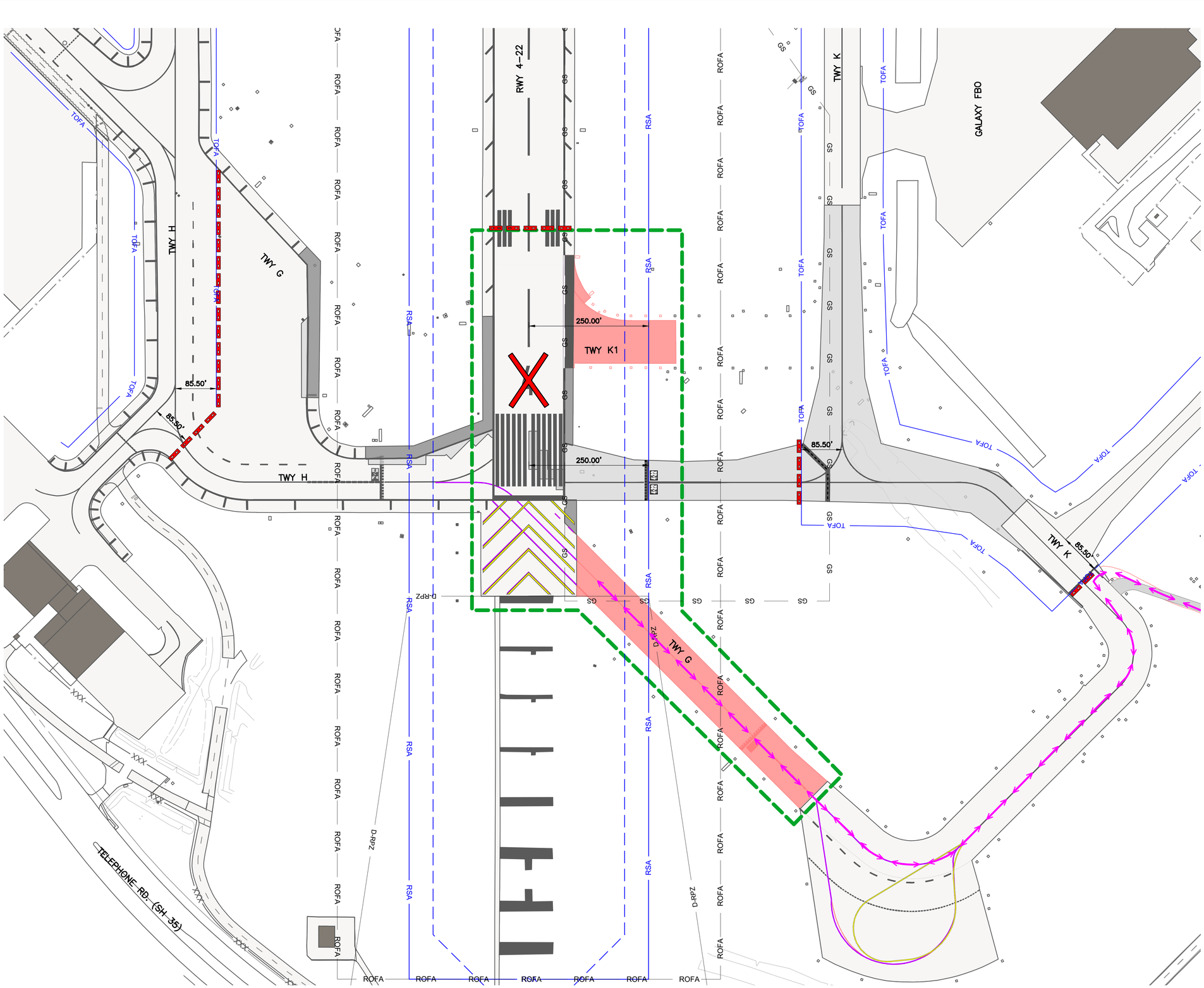
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

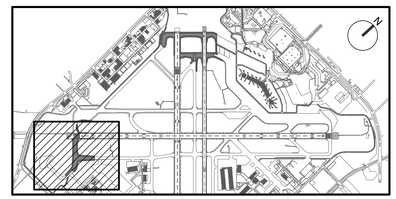
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

FILENAME: H22C770A-GC603-604-P6B.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:47:41 PM





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
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

DETAILED PHASING PLAN – PHASE 6B

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.

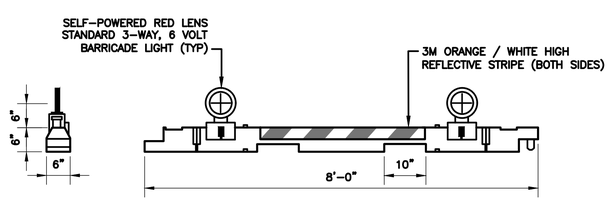
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/28/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

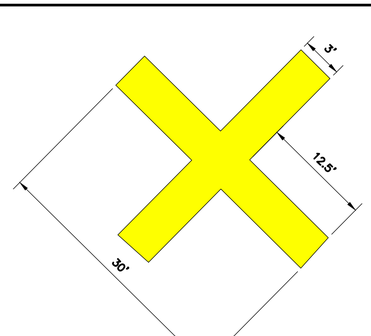
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: GC604–P6B
of



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.

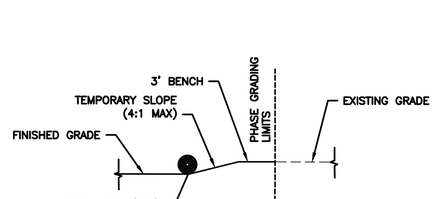
1 LOW PROFILE BARRICADE DETAIL
NTS



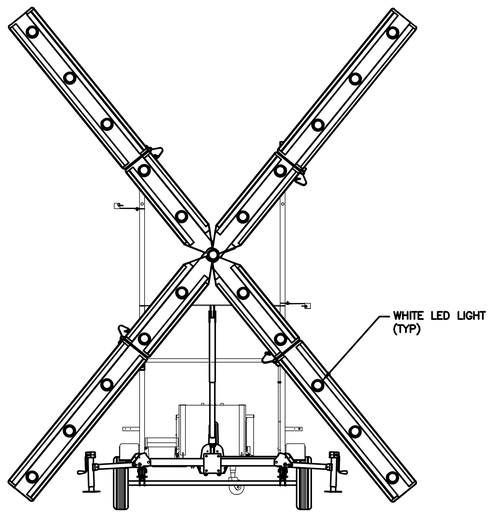
NOTES:

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



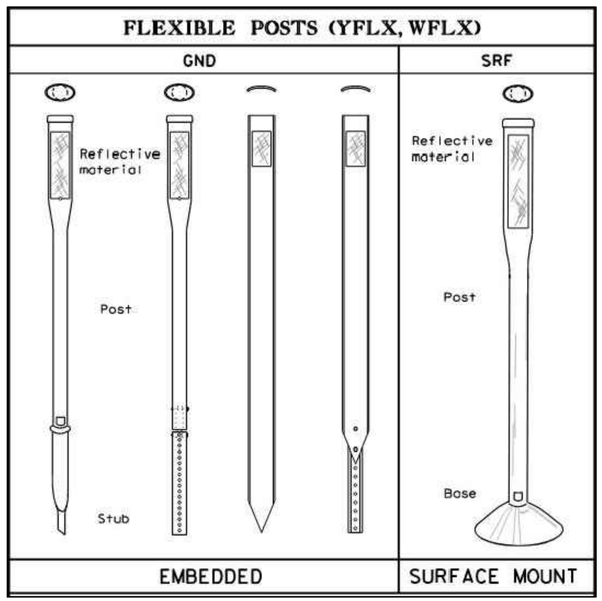
4 TEMPORARY GRADING TRANSITION
NTD



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 TEMPORARY 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

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PHASING DETAILS

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: GC901
of

EROSION CONTROL NOTES:

1. THE IMPLEMENTATION OF THE EROSION CONTROL PLAN SHALL BE COORDINATED BY THE CONTRACTOR WITH THE PROJECT CONSTRUCTION SEQUENCING. CHANGES ARE TO BE REVIEWED AND APPROVED PRIOR TO IMPLEMENTATION.

2. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED WITHIN THE PROJECT LIMITS BY CONSTRUCTION WITH SOD AND TOPSOIL.

3. CONTRACTOR SHALL IMPLEMENT INLET PROTECTION DEVICES AT LOCATIONS SHOWN ON THE EROSION CONTROL PLANS TO KEEP SILT AND/OR EXCAVATED MATERIALS FROM ENTERING INTO THE STORM WATER INLETS.

4. DURING EXCAVATION PHASE OF THE PROJECT, CONTRACTOR SHALL SCHEDULE THE WORK IN SHORT SEGMENTS SO THAT EXCAVATED MATERIAL CAN BE QUICKLY HAULED AWAY FROM THE SITE AND TO PREVENT IT FROM STAYING UNCOLLECTED ON THE EXISTING PAVEMENT. ANY LOOSE EXCAVATED MATERIAL WHICH FALLS ON PAVEMENTS OR DRIVEWAYS SHALL BE SWEPT BACK INTO THE EXCAVATED AREA.

5. CONTRACTOR SHALL CLEAN UP THE EXISTING STREET INTERSECTIONS AND DRIVEWAYS DAILY OR MORE FREQUENTLY IF NECESSARY OR DIRECTED BY THE RPR, TO REMOVE ANY EXCESS MUD, SILT, OR ROCK TRACKED FROM THE EXCAVATED AREA.

6. CONTRACTOR SHALL FOLLOW GOOD HOUSE KEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT, ALWAYS CLEANING UP DIRT AND LOOSE MATERIAL AS CONSTRUCTION PROGRESSES.

7. THE CONTRACTOR SHALL UTILIZE STABILIZED CONSTRUCTION EXITS IN CONJUNCTION WITH THE PROJECT PHASING AND CONTRACTOR HAUL ROUTES. NO SEPARATE PAY FOR STABILIZED CONSTRUCTION EXITS – INCIDENTAL TO THE APPLICABLE MAJOR WORK ITEM IN THE AREA.

8. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STOCKPILE AREAS AND PREVENTING ANY MATERIAL RUNOFF FROM THE DESIGNATED AREAS.

9. CONTRACTORS OPERATING CONSTRUCTION VEHICLES AND EQUIPMENT ON THE AIRPORT MUST BE PREPARED TO EXPEDITIOUSLY CONTAIN AND CLEAN–UP SPILLS RESULTING FROM FUEL, HYDRAULIC FLUID, OR OTHER CHEMICAL FLUID LEAKS. TRANSPORT AND HANDLING OF OTHER HAZARDOUS MATERIALS ON AN AIRPORT ALSO REQUIRES SPECIAL PROCEDURES. TO THAT END, THE CONTRACTOR IS REQUIRED TO DEVELOP AND IMPLEMENT SPILL PREVENTION AND RESPONSE PROCEDURES FOR VEHICLE OPERATIONS. THE CONTRACTOR SHALL INCORPORATE THESE PROCEDURES INTO THE SPCD. THIS INCLUDES MAINTENANCE OF APPROPRIATE MSDS DATA AND APPROPRIATE PREVENTION AND RESPONSE EQUIPMENT ON–SITE.

10. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BEST MANAGEMENT PRACTICES (BMPS) IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE MOST CURRENT TPDES CGP.

11. CONTRACTOR SHALL USE TURF REINFORCEMENT MATTING MATERIAL WHICH SHALL BE RATED 6.0 FT/SEC AND WITHSTAND A SHEAR STRESS OF 2.0 LB/SQ.FT.

12. CONTRACTOR TO INSPECT AND MAINTAIN THE AREAS LISTED BELOW AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER.
    - DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
    - AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
    - STRUCTURAL CONTROL MEASURES.
    - LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

14. CONTRACTOR TO BE RESPONSIBLE TO MAINTAIN EXISTING DITCHES AND/OR CULVERTS FOR UNOBSTRUCTED DRAINAGE AT ALL TIMES. WHERE SODDING IS DISTURBED BY EXCAVATION ON BACKFILLING OPERATIONS, SUCH AREAS SHALL BE REPLACED BY SODDING. SLOPES 4:1 OR STEEPER SHALL BE REPLACED BY BLOCK SODDING.

15. STABILIZATION OF DISTURBED GRADE, WHETHER BY SODDING OR EROSION CONTROL MATTING AND SEEDING WILL BE PAID FOR AT THE LIMITS SHOWN IN THESE PLANS. NO SEPARATE PAYMENT WILL BE MADE FOR ANY OTHER STABILIZATION NECESSARY FOR GROUND DISTURBED OUTSIDE THESE LIMITS, STABILIZED AREAS DISTURBED AGAIN IN LATER PHASES, AND GROUND DISTURBED FOR ACCESS TO THE WORK AREAS. THAT WORK SHALL BE CONSIDERED INCIDENTAL TO THE GENERAL EROSION AND SEDIMENTATION CONTROL. ANY AREAS DISTURBED OUTSIDE OF THE PROPOSED GRADING LIMITS FOR EACH PHASE SHALL BE RE–SODDED AT NO ADDITIONAL COST TO THE OWNER.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL NOTES

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CE001
of

STANDARD NOTES ON IRRIGATION REQUIREMENTS

GENERAL REQUIREMENTS

1. THE GENERAL REQUIREMENTS INDICATE AND SPECIFY A COMPLETE AND EFFICIENT IRRIGATION SYSTEM WHICH WILL OPERATE IN ACCORDANCE WITH THE SPECIFIED EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND WITH STATE AND LOCAL CODES AND REGULATIONS. ITEMS NOT SPECIFIED, BUT FOUND TO BE NECESSARY FOR A COMPLETE SYSTEM SHALL BE FURNISHED UNDER THIS CONTRACT.
2. THE IRRIGATION SYSTEM WILL BE TEMPORARY. ALL PIPES ARE TO BE LAID ABOVE GROUND, EXCEPT WHERE CROSSING ACTIVE AIRFIELD PAVEMENT OR OTHERWISE NOT POSSIBLE. ALL ABOVE GROUND LINES WILL BE PLACED AS UNOBTRUSIVELY AS POSSIBLE. EXISTING STORM DRAIN PIPES MAY BE USED FOR UNDERGROUND PAVEMENT CROSSINGS, HOWEVER OWNER MAKES NO REPRESENTATION AS TO THEIR CONDITION OR SUITABILITY FOR USE. IF INLET OR MANHOLE COVERS MUST BE LEFT OPEN, CONTRACTOR SHALL PROVIDE ADEQUATE AND SUBSTANTIAL BARRIERS TO IDENTIFY THE POTENTIAL HAZARD.
3. IN AREAS WHERE IT IS NOT POSSIBLE OR PRACTICAL TO EXTEND THE TEMPORARY SYSTEM, SUPPLEMENTAL WATER SHALL BE PROVIDED BY TRUCK WATERING OR HAND WATERING (E.G., HOSE, GATOR BAG). ALL WATER USED SHALL BE METERED AND PAID FOR UNDER A SEPARATE BID ITEM.
4. NO IRRIGATION PIPES SHALL BE LAID WITHIN THE RUNWAY SAFETY AREA (RSA) OR TAXIWAY SAFETY AREA (TSA). SYSTEM MUST PROVIDE NOZZLES CAPABLE OF SHOOTING UP TO 150 FEET FROM EDGE OF RSA TO WATER GRASS AND SOD WITHIN RSA.
5. THERE ARE MULTIPLE PHASES IN THIS PROJECT. THE CONTRACTOR WILL BE REQUIRED TO MOBILIZE AND INSTALL TEMPORARY IRRIGATION SYSTEMS MULTIPLE TIMES WITHIN THE DURATION OF THE PROJECT. REFER TO SCOPE OF WORK FOR MORE DETAILS.
6. DESIGN AND INSTALL A COMPLETE AND EFFICIENT LANDSCAPE IRRIGATION SYSTEM WHICH WILL OPERATE IN ACCORDANCE WITH THE SPECIFIED EQUIPMENT MANUFACTURER'S RECOMMENDATIONS AND WITH STATE AND LOCAL CODES AND REGULATIONS. THE IRRIGATION SYSTEM WILL INCLUDE:
   - TEMPORARY METER, BACKFLOW PREVENTION, VALVES.
   - ROTORS OR ROTARY NOZZLES FOR SEEDED REVEGETATION AREAS. FOR SLOPING BANK AREAS, INSTALL IRRIGATION AT THE TOP OF THE BANK AND SPRAY DOWN ON TO THE SLOPE.
   - ALL OTHER ELEMENTS NECESSARY TO PROVIDE A FULLY FUNCTIONING AND EFFICIENT IRRIGATION SYSTEM.
7. TEMPORARY IRRIGATION WILL BE KEPT IN PLACE UNTIL VEGETATION IS ESTABLISHED, AND THEN REMOVED BY CONTRACTOR.
8. A TEXAS–LICENSED LANDSCAPE IRRIGATOR IN GOOD STANDING, APPROVED BY THE OWNER OR HIS AGENT, WITH A MINIMUM OF 5 YEARS CONTINUOUS EXPERIENCE IN DESIGNING AND INSTALLING SYSTEMS OF THIS TYPE, AND WHO IS REGULARLY ENGAGED IN INSTALLING LANDSCAPE IRRIGATION SYSTEMS SHALL BE EMPLOYED BY CONTRACTOR FOR THIS WORK.
9. PROVIDE ALL EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE WORK PER MANUFACTURERS RECOMMENDATIONS.
10. PROVIDE ALL CONSTRUCTION EQUIPMENT AND METHODS REQUIRED TO COMPLETE WORK PER MANUFACTURERS RECOMMENDATIONS.

PERMITS AND INSPECTIONS

1. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS, TESTS, AND INSPECTIONS, AND PAY ANY RELATED FEES AND TAXES REQUIRED BY GOVERNING AGENCIES, INCLUDING COST OF METER(S).

SUBMITTAL REQUIREMENTS

1. COPY OF IRRIGATOR'S LICENSE ISSUED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ).
2. PER STATE OF TEXAS CODE CODE (TITLE 30, TEXAS ADMINISTRATIVE CODE, CHAPTER 344, RULES FOR LANDSCAPE IRRIGATION) THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A WATERING SCHEDULE. THIS SCHEDULE SHALL BE A CHART LISTING ZONE NUMBER, ZONE FLOW (GPM), RUN TIME (MINUTES/MONTH), TYPE OF VEGETATION IRRIGATED PER ZONE AND TYPE OF EMISSION DEVICE PER ZONE.
3. IN THE EVENT OF MANDATED WATERING RESTRICTIONS, PROVIDE A COMPLETED VARIANCE REQUEST APPROVED BY LOCAL MUNICIPALITY.
4. AS–BUILT IRRIGATION PLAN SHOWING ALL EMISSION DEVICES1. , VALVES, CONTROLLER, BACKFLOW PREVENTION DEVICE, AND SIZED PIPES.
5. COMPLETED IRRIGATION SYSTEM MAINTENANCE CHECKLIST (ATTACHMENT A). THE FIRST SHEET OF ATTACHMENT A IS DUE AFTER THE IRRIGATION SYSTEM IS COMPLETED, DURING TIME OF INSPECTION WITH OWNER. THE SECOND SHEET OF ATTACHMENT A IS DUE YEARLY, IN THE SPRING WHEN THE SYSTEM IS REINITIATED DURING THE EXTENDED LANDSCAPE MAINTENANCE PERIOD. IF ACCEPTED GRASS STAND IS ESTABLISHED IN LESS THAN A YEAR SECOND SHEET OF ATTACHMENT A SHALL NOT BE REQUIRED.

EXISTING CONDITIONS AND DAMAGE TO PROPERTY REQUIREMENTS

1. FIELD VERIFY ALL EXISTING SITE CONDITIONS. BY BIDDING THIS WORK, THE CONTRACTOR ACKNOWLEDGES THAT THEY HAVE SATISFIED THEMSELVES AS TO THE NATURE OF THE WORK AND TO THE QUALITY OF SURFACE AND SUBSURFACE MATERIALS AND OBSTACLES INSOFAR AS THIS DATA IS REASONABLY ASCERTAINABLE FROM A SITE INSPECTION. FAILURE OF THE CONTRACTOR TO ACQUAINT THEMSELVES WITH THE AVAILABLE INFORMATION WILL NOT RELIEVE THEIR RESPONSIBILITY OF PROPER ESTIMATION OF THE DIFFICULTY OR COST SUCCESSFUL PERFORMANCE OF THE WORK.
2. CONTRACTOR SHALL LOCATE ALL UTILITIES IN WORK AREA BEFORE INSTALLATION. ANY DAMAGE TO EXISTING UTILITIES OCCURRING DURING IRRIGATION INSTALLATION REQUIRING REPAIR OR REPLACEMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THIS REPLACEMENT CLAUSE EXTENDS TO EXISTING TREES AND OTHER LANDSCAPE MATERIALS PROPOSED FOR PRESERVATION.
3. VERIFY WATER SUPPLY STATIC PRESSURE AND VOLUME AS ADEQUATE BEFORE SYSTEM INSTALLATION. REPORT INADEQUACIES IMMEDIATELY TO THE OWNER OR IRRIGATION DESIGNER OF RECORD FOR RESOLUTION. IN CASES OF HIGH PRESSURE, PRESSURE REDUCTION EQUIPMENT SHALL BE USED.
4. THE IRRIGATION INSTALLATION SHALL ACCOUNT FOR ELEVATION CHANGES ON THE SITE AS PART OF PRESSURE CONSIDERATIONS.
5. IRRIGATION LAYOUT SHALL ACCOUNT A. FOR SLOPE ON A SITE. PIPES SHOULD RUN PERPENDICULAR TO A SLOPE WHERE POSSIBLE. FOR TEMPORARY IRRIGATION SYSTEMS, ABOVE GROUND PIPES SHOULD BE SECURED TO SLOPES EVERY 10 FEET IN A MANNER THAT DOES NOT CREATE A SAFETY HAZARD. STAKE TEMPORARY, ABOVE GROUND LATERAL PIPES AT END POINTS.
6. DETERMINE AND VERIFY A. THE LOCATION AND SIZE OF THE IRRIGATION METER TO BE USED FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR THE TAP, FOR FOLLOWING STATE AND MUNICIPAL REGULATIONS REGARDING CONNECTION TO THE WATER SUPPLY, AND FOR OBTAINING ALL REQUIRED PERMITS AND INSPECTIONS.
7. REPAIR OR REPLACE ANY PROPERTY DAMAGE INFLICTED IN THE COURSE OF THE IRRIGATION INSTALLATION, WITHOUT ADDITIONAL CHARGE AND BEFORE FINAL PAYMENT. INCLUDED ARE DAMAGES TO BUILDING, PAVING, STRUCTURES, EQUIPMENT, PIPING, PIPE COVERING, UTILITIES, SEWERS, WALLS, SIGNS, SIDEWALKS AND LANDSCAPING.
8. THE IRRIGATION INSTALLER IS RESPONSIBLE FOR DAMAGE CAUSED BY LEAKS IN THE PIPING SYSTEMS AND SHALL MAKE REPAIRS WITHOUT CHARGE.

INSPECTION, TESTING AND APPROVAL REQUIREMENTS:

1. DO NOT ENCLOSE OR COVER ANY WORK UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED PER LOCAL CODES. WHERE REQUIRED, CONTACT THE ENGINEER TO ARRANGE AN INSPECTION.
2. HYDROSTATIC PIPING TEST::
   - IN THE PRESENCE OF THE ENGINEER HYDROSTATICALLY TEST THE MAINLINE PIPING SYSTEM. TEST TO A MINIMUM PSI OF 100. TEST PERIOD SHALL NOT BE LESS THAN 4 HOURS. PIPE MAY BE TESTED IN SECTIONS TO EXPEDITE THE WORK.
   - TEST IS ACCEPTABLE IF NO LEAKAGE OCCURS DURING TEST PERIOD.
   - REPAIR ALL LEAKS AND RETEST SYSTEM FOR ANOTHER 4–HOUR PERIOD IF NECESSARY. CONTINUE THIS PROCEDURE UNTIL ALL LEAKS ARE REPAIRED.
3. OPERATION TEST:
   - AFTER ALL EQUIPMENT IS INSTALLED, TEST THE SYSTEM FOR COVERAGE, FLOW AND PRESSURE IN THE PRESENCE OF THE OWNER
   - TEST IS ACCEPTABLE IF SYSTEM OPERATES SATISFACTORILY, WITH ADEQUATE PRESSURE AND FLOW AND IF ALL IRRIGATED AREAS ARE RECEIVING PROPER COVERAGE WITH NO OVERSPRAY ONTO PAVEMENT OR BUILDINGS
   - AFTER ALL REQUIRED ADJUSTMENTS ARE MADE, COORDINATE WITH ENGINEER TO OBTAIN AN INSPECTION BY A LOCAL MUNICIPALITY IRRIGATION INSPECTOR, IF REQUIRED.
4. FINAL ACCEPTANCE:
   - FINAL ACCEPTANCE MAY BE GIVEN WHEN ALL PUNCHLIST ITEMS ARE SATISFACTORILY COMPLETED AND, IF REQUIRED, A LOCAL MUNICIPALITY IRRIGATION INSPECTOR HAS APPROVED THE JOB (WITH ALL COMMENTS ACCEPTABLE ADDRESSED).

CLEANUP REQUIREMENTS:

1. MAINTAIN A CLEAN WORK AREA DURING THE PROGRESS OF THE WORK WITHIN REASONABLE LIMITS OF THE INSTALLATION AREA. PERIODICALLY REMOVE ALL RUBBISH, DEBRIS, ETC., FROM WORK SITE AND DISPOSE LEGALLY.
2. UPON COMPLETION OF THE WORK, REMOVE ALL CONSTRUCTION AND INSTALLATION EQUIPMENT FROM THE PREMISES; MAKE GROUND SURFACE LEVEL WHERE IT HAS BEEN AFFECTED BY IRRIGATION SYSTEM INSTALLATION; AND REMOVE EXCESS MATERIALS, RUBBISH AND DEBRIS.
3. IMMEDIATELY REPLACE AND THOROUGHLY HAND WATER ANY PLANT MATERIAL AND GROUNDCOVER WHICH MAY BE DISPLACED DURING INSTALLATION.

MEASUREMENT AND PAYMENT REQUIREMENTS

1. WORK AND ACCEPTABLE MATERIAL FOR 'TEMPORARY IRRIGATION SYSTEM' SHALL INCLUDE THE COMPLETE SYSTEM IN WORKING ORDER WITH ALL THE ELEMENTS NECESSARY TO EFFICIENTLY PROVIDE WATER FOR REESTABLISHMENT OF VEGETATION FOR ALL PHASES OF THE PROJECT.
2. WATER USED IN THE SYSTEM AND FOR ANY TRUCK IRRIGATION OF GRASS AND SOD SHALL BE FROM A METERED CONNECTION ARRANGED FOR AND PROVIDED BY THE CONTRACTOR. WATER TO BE USED FOR THE SYSTEM SHALL BE CONSIDERED INCIDENTAL TO OTHER PROJECT WORK.
3. ALL WORK PERFORMED FOR THE TEMPORARY IRRIGATION SYSTEM SHALL BE CONSIDERED INCIDENTAL TO OTHER PROJECT WORK AND INCLUDES DESIGNING, FURNISHING AND INSTALLING ALL COMPONENTS; FLUSHING AND TESTING WATERLINES; FURNISHING AND OPERATING EQUIPMENT; DISASSEMBLY AND COMPLETE REMOVAL; AND LABOR, TOOLS, INCIDENTALS AND SUBSEQUENT REMOVAL OF SYSTEM FOR ALL PHASES OF THE PROJECT.THIS PROJECT IS PHASED. CONTRACTOR WILL BE REQUIRED TO PROVIDE A TEMPORARY IRRIGATION SYSTEM AT THE END OF EACH PHASE AND KEEP IT IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED FOR THAT PHASE. THEREFORE, THERE WILL BE MULTIPLE MOBILIZATIONS FOR CONTRACTOR'S IRRIGATION SUB–CONTRACTOR. THE WORK WILL COMPRISE DURATION UP TO AND INCLUDING THE PROJECT SUBSTANTIAL COMPLETION AND THROUGH TO THE END OF THE EXTENDED MAINTENANCE PERIOD(S)

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

IRRIGATION NOTES

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.

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

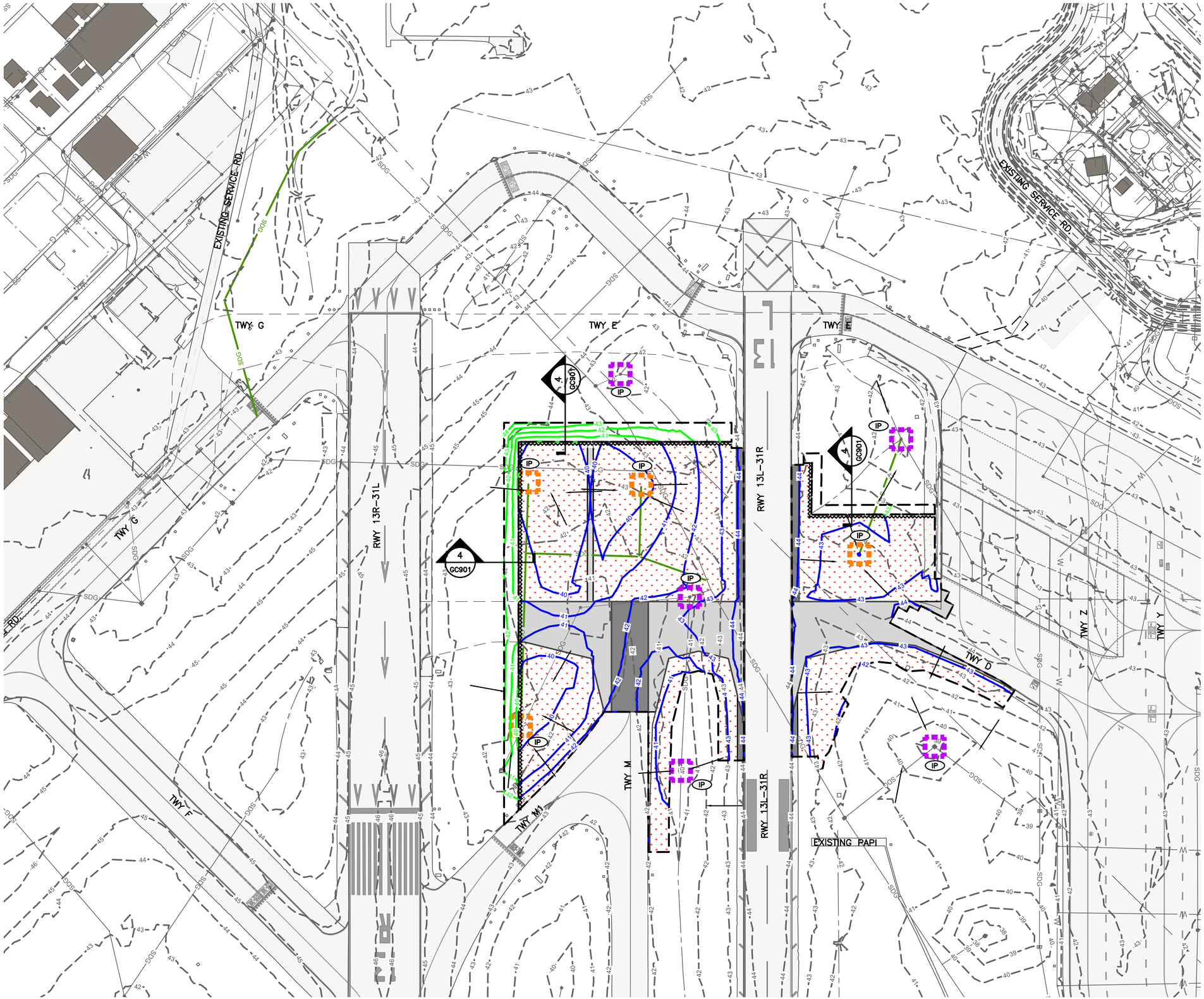
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

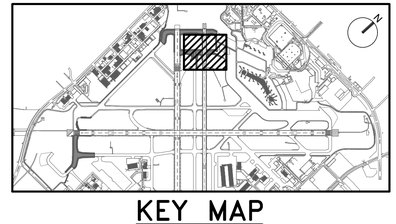
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CE002
of

FILENAME: H22C770A–CE002.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:01:59 AM





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION (2 / CE501)
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 1

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.

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

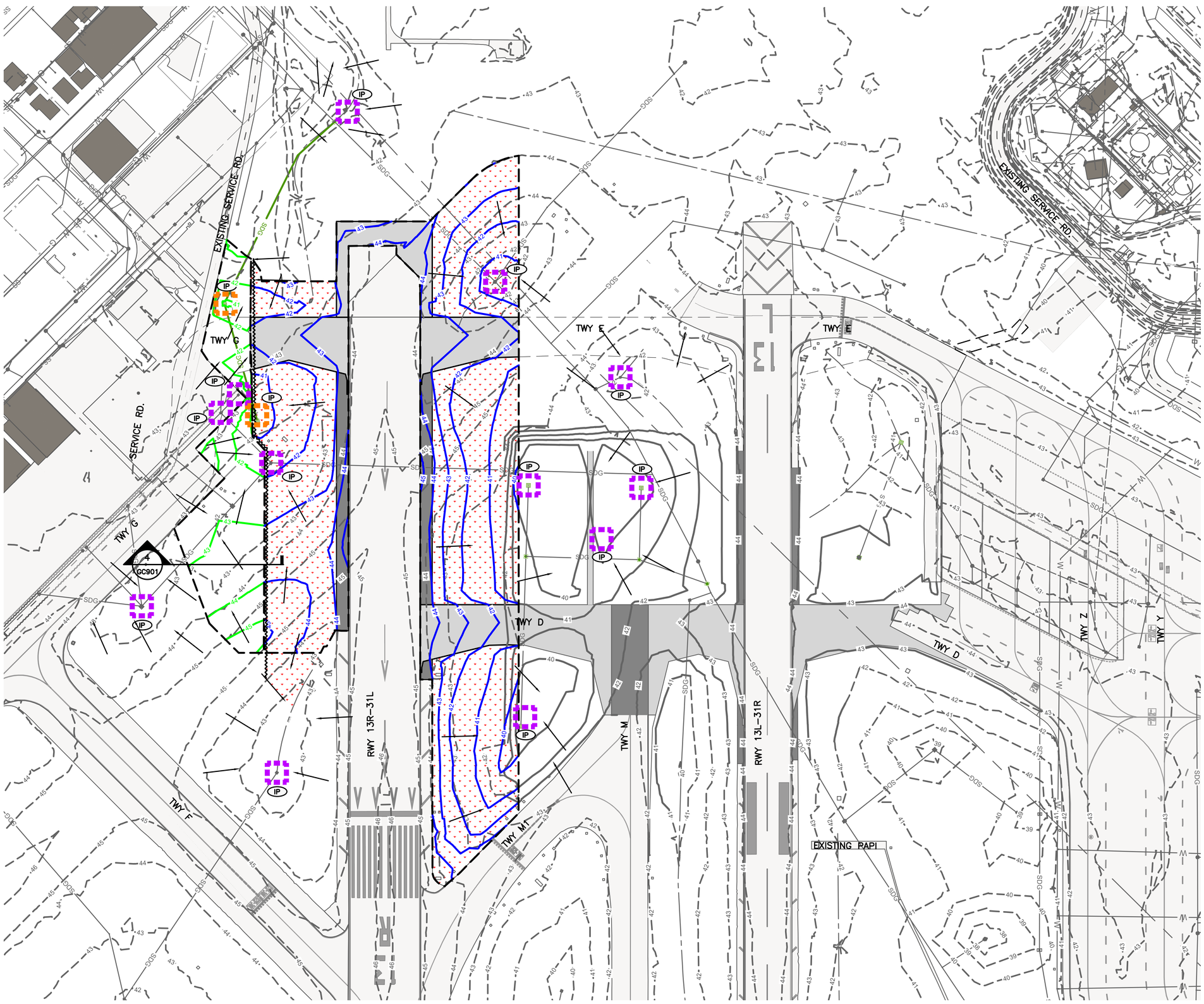
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

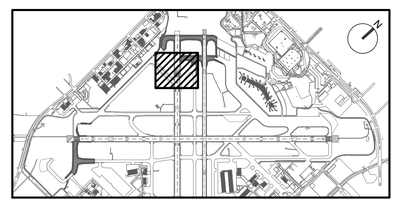
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE101–P1
of

FILENAME: H22C770A–CE101–P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:16:29 AM





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION (2 / CE501)
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
EROSION CONTROL PLAN – PHASE 2

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

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

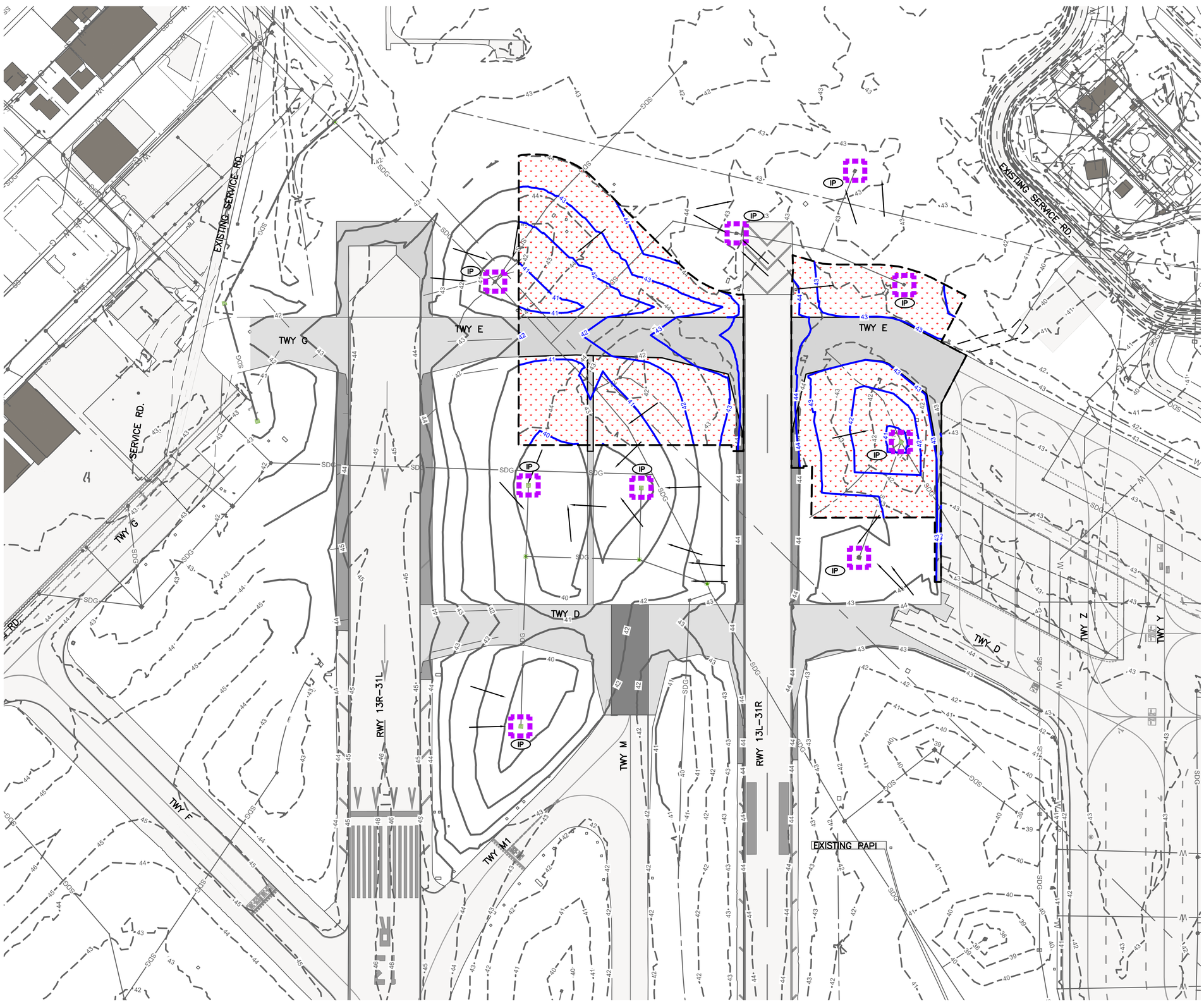
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

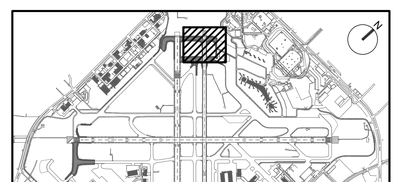
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE102–P2
of

FILENAME: H22C770A–CE102–P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:46:40 AM





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED INLET PROTECTION (2 / CE501)
- PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 3

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:

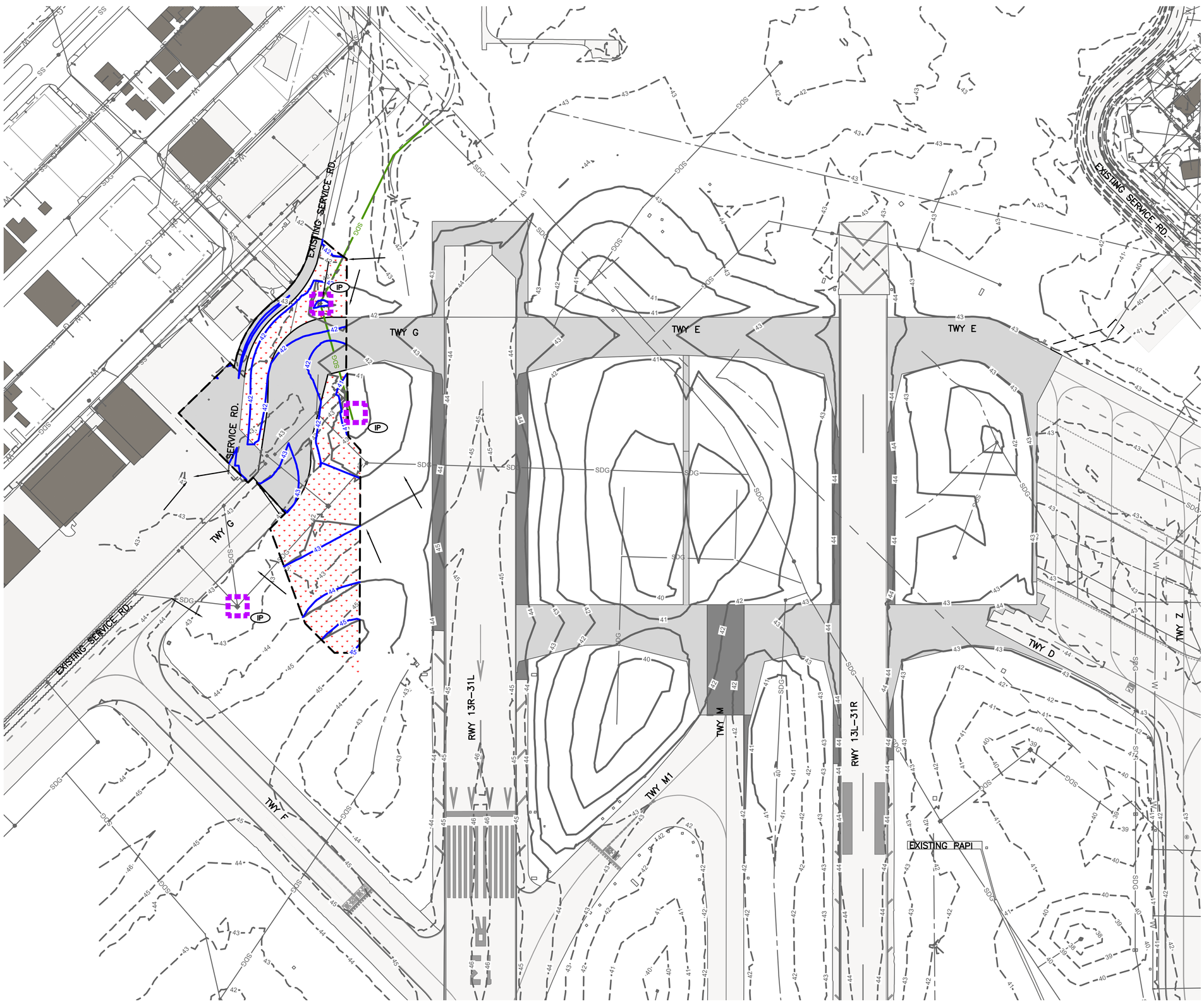
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

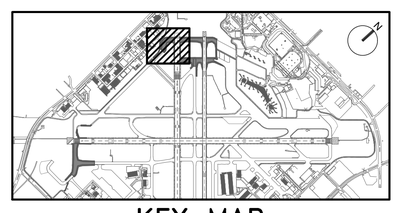
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CE103–P3
of





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION (2 / CE501)
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 4

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:

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

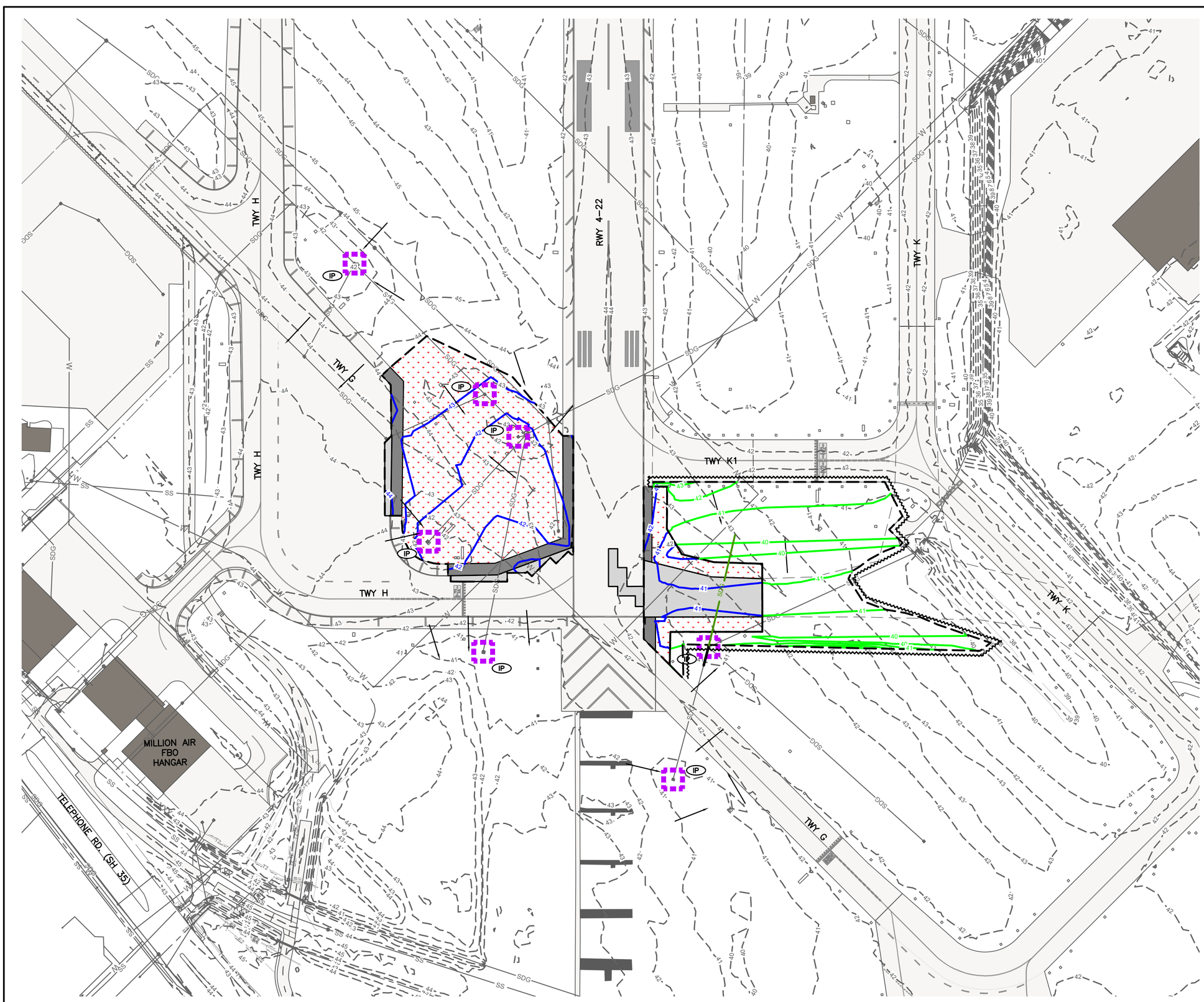
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

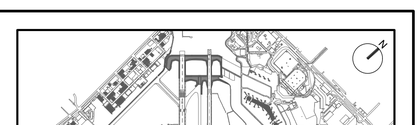
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE104–P4
of

FILENAME: H22C770A–CE104–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 9:55:13 AM





KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- IP — PROPOSED INLET PROTECTION — 2 / CE501
- IP — PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET — 2 / CE501
- PROPOSED FIBER ROLL — 1 / CE501
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 5

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CE105–P5
of

FILENAME: H22C770A–CE105–P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:01:29 AM

KEY MAP
NTS

NOTE:

1. FOR EROSION CONTROL AND IRRIGATION NOTES, SEE SHEETS CE001 THROUGH CE002.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED CONTOUR
- TEMPORARY CONTOUR
- GRADING LIMITS (CURRENT PHASE)
- EXISTING CONTOUR
- PREVIOUSLY COMPLETED GRADING
- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED INLET PROTECTION (2 / CE501)
- PROPOSED INLET PROTECTION ON EXISTING DRAIN INLET (2 / CE501)
- PROPOSED FIBER ROLL (1 / CE501)
- SODDING

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL PLAN – PHASE 6

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.

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

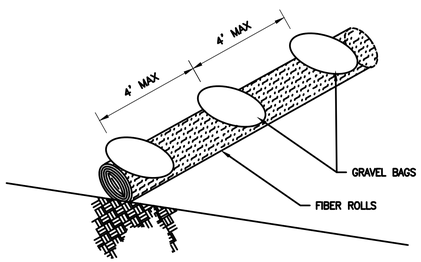
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	

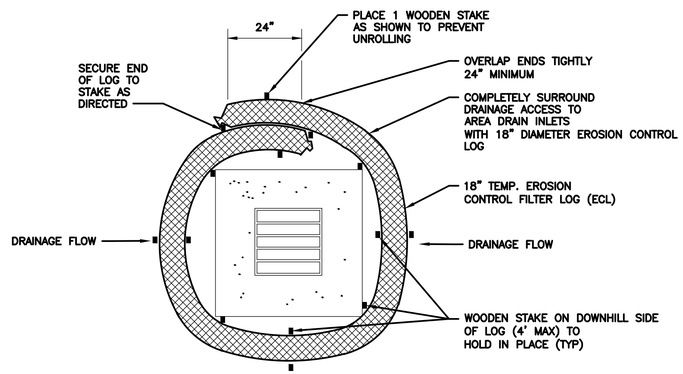
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CE106-P6
of

FIBER ROLL INSTALLATION NOTES:

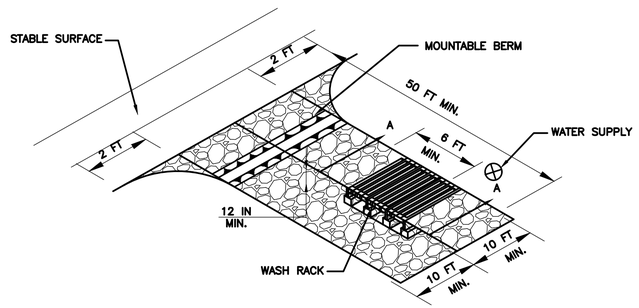
1. INSTALL GRAVEL BAGS EVERY 4' AND WHERE FIBER ROLLS ENDS OVERLAP 1' MINIMUM.



1 FIBER ROLL INSTALLATION
NTS



2 INLET PROTECTION EROSION CONTROL LOG
NTS



CONSTRUCTION SPECIFICATIONS

1. USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE-FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF 6 FEET x 10 FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL.
2. INSTALL PRIOR TO, ALONG SIDE OF, OR AS PART OF THE STABLIZIED CONSTRUCTION ENTRANCE.
3. DIRECT WASH WATER TO AN APPROVED SEDIMENT TRAPPING DEVICE.
4. KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

3 CONSTRUCTION ENTRANCE AND WASH RACK
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

EROSION CONTROL DETAILS

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.

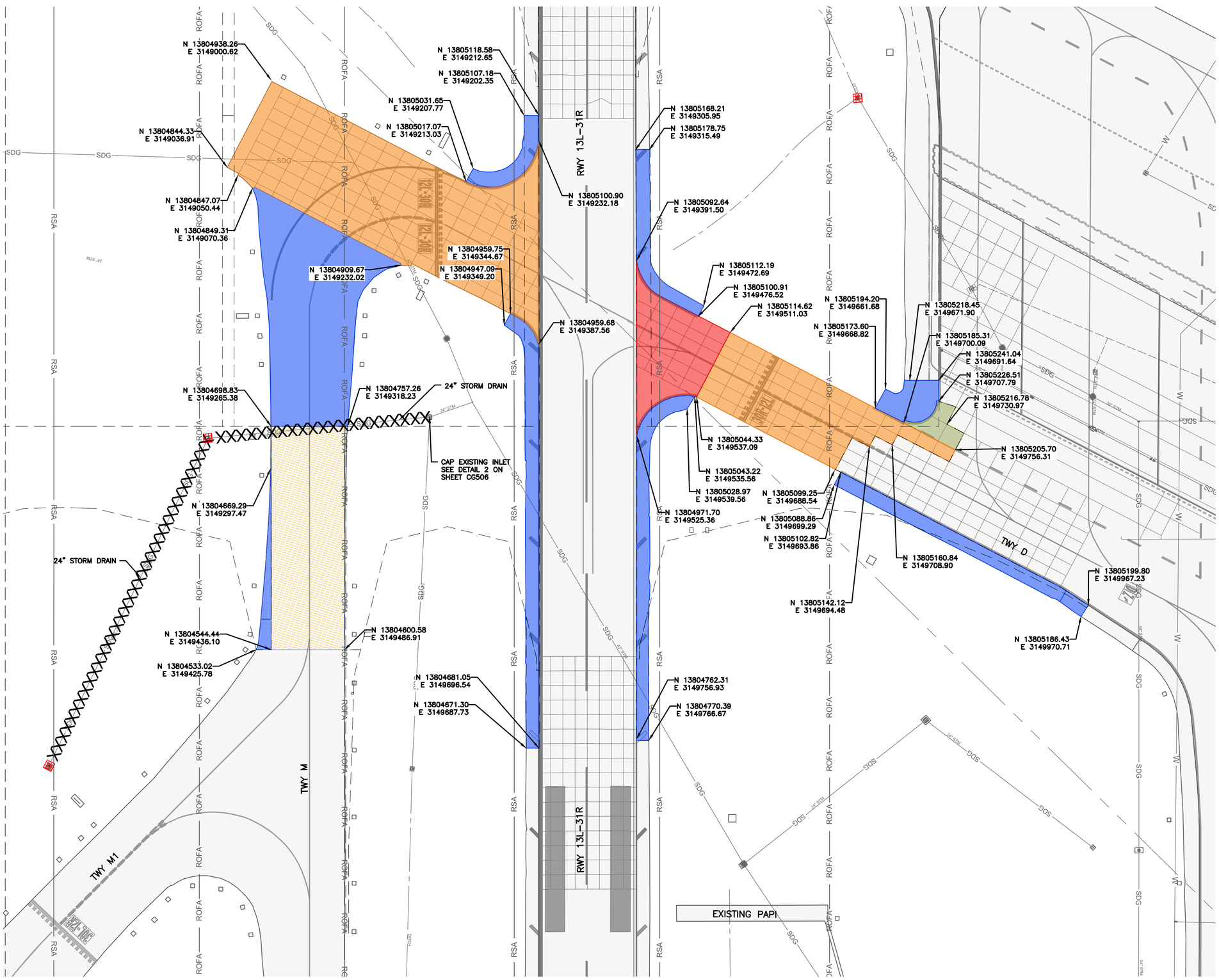
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

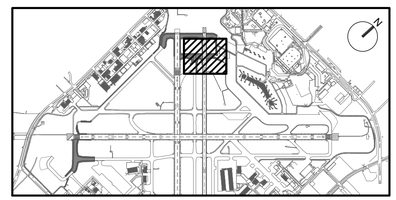
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CE501
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 1 CD501
- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 3 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 5 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 CD501
- ASPHALT MILL – VARIABLE DEPTH (SEE DETAIL 1 SHEET CS002) PER P–101
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 1

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

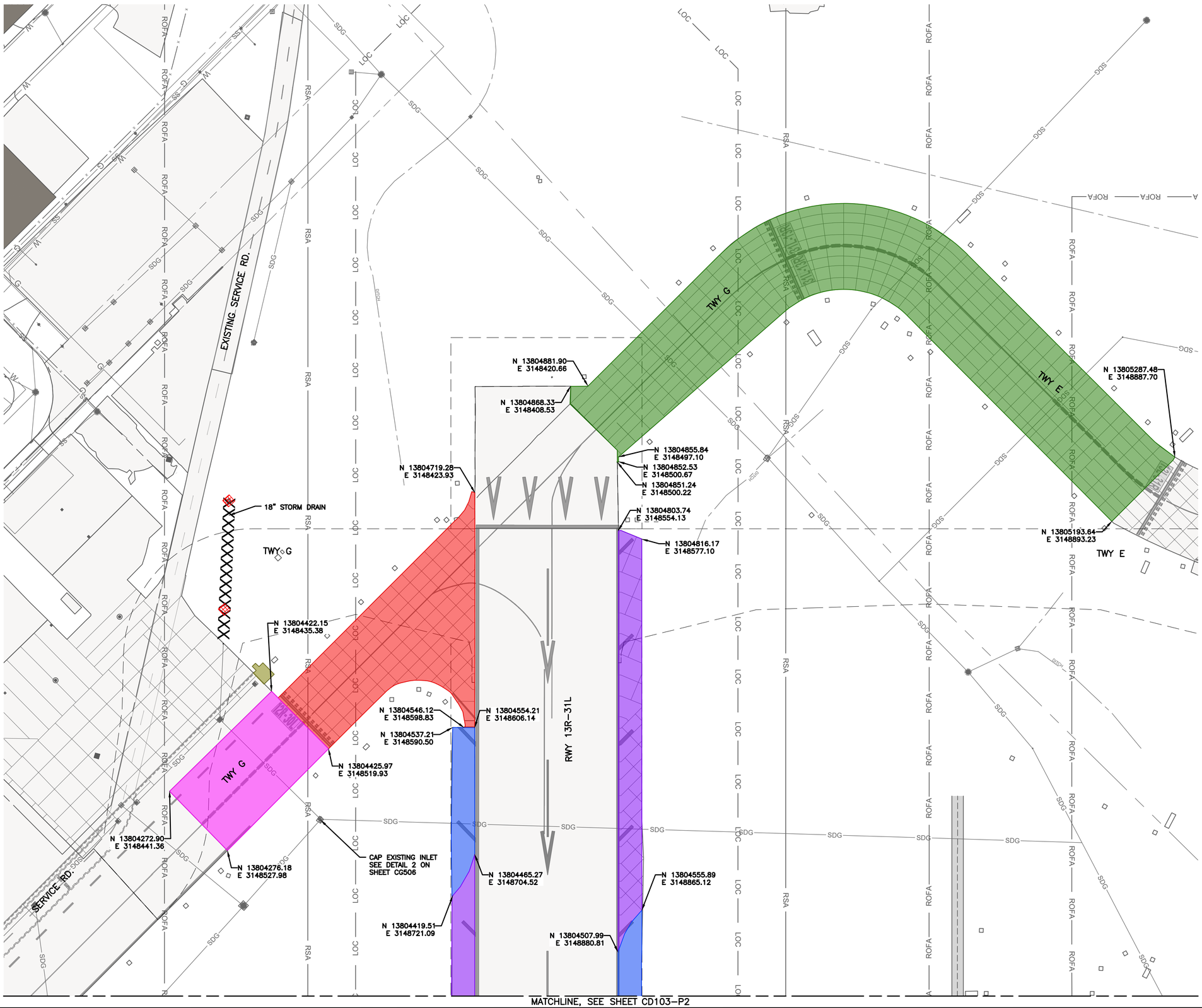
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

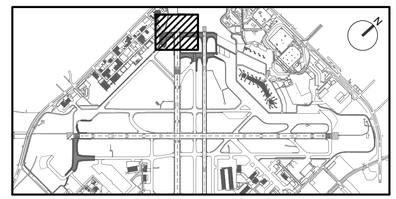
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD101–P1
of

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:





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101	2 CD501
PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101	3 CD501
PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101	4 CD501
PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101	9 CD501
PAVEMENT REMOVAL – ASPHALT (6" TO 10") PER P–101	10 CD501
PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101	5 CD501
PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)	
PROPOSED INLET DEMOLITION	
XXXXXX · PROPOSED STORMDRAIN REMOVAL	

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 2

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:

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

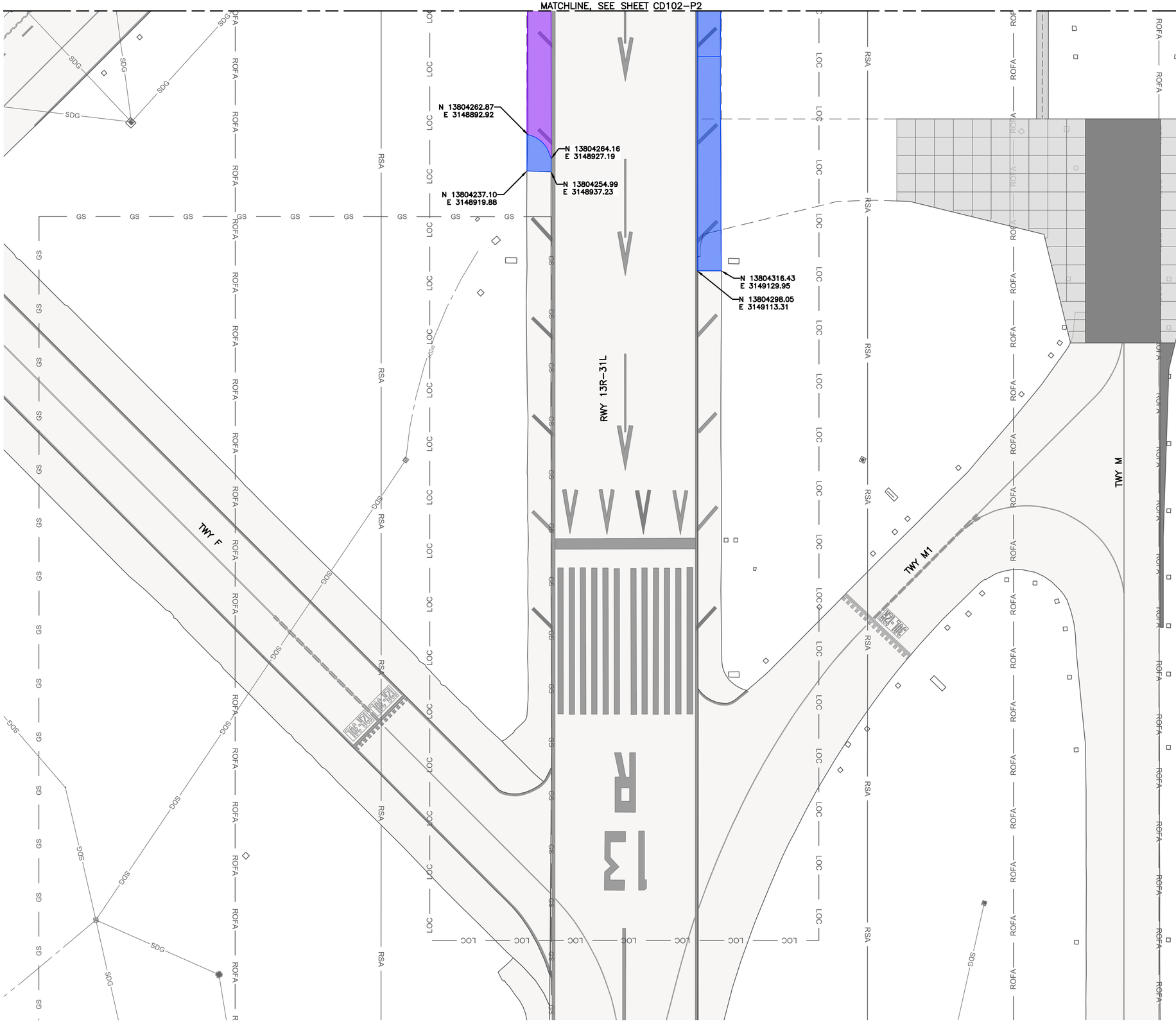
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

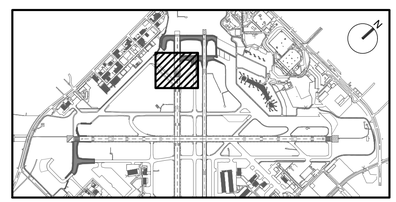
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD102–P2
of

FILENAME: H22C770A–CD102–103–P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:32:42 AM





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P-101 — 2 / CD501
- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P-101 — 3 / CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 4 / CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P-101 — 9 / CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 2

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.

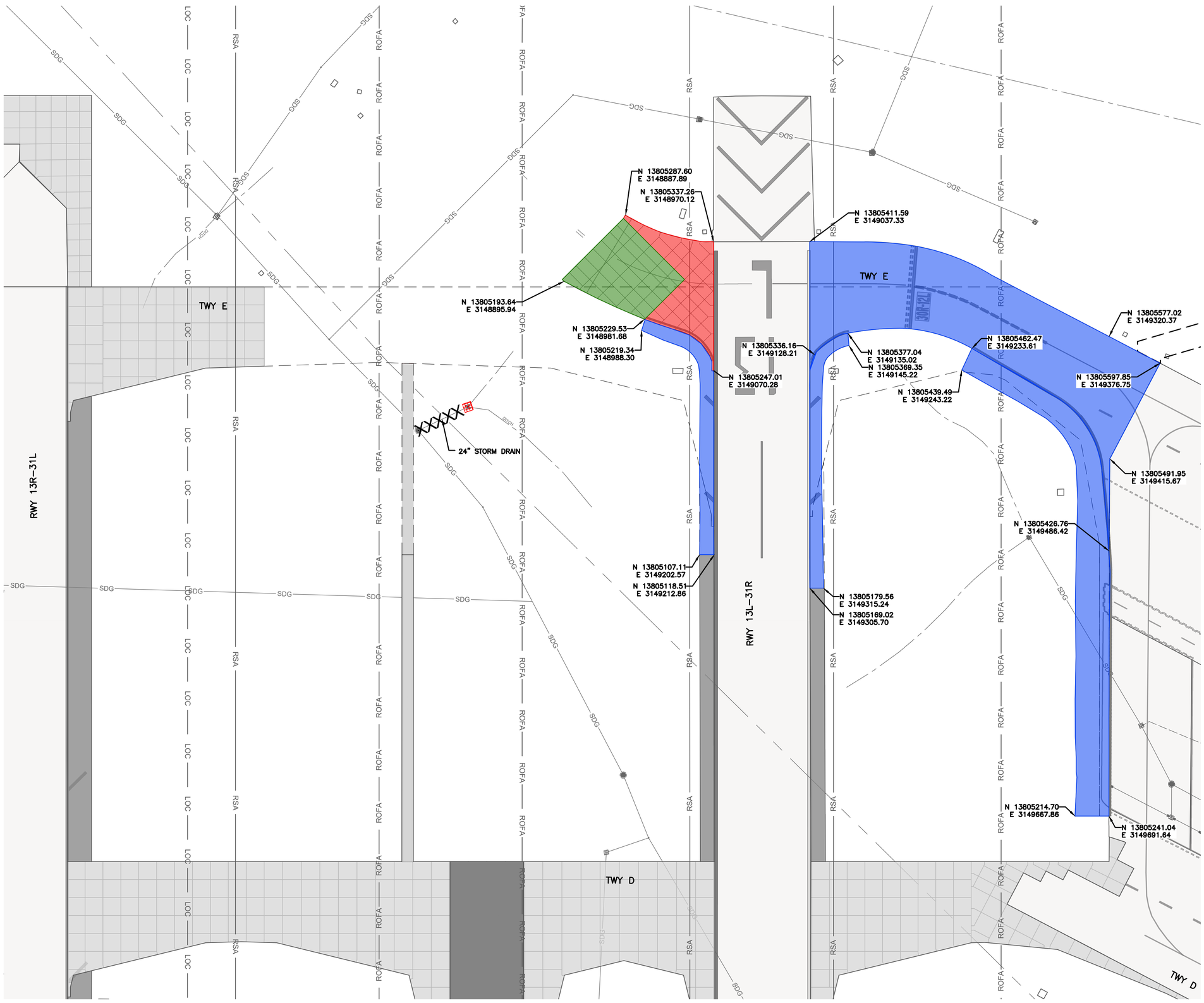
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

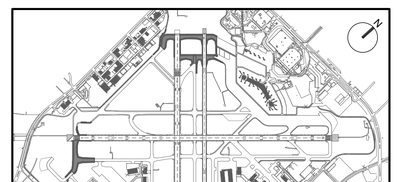
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CD103-P2
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 3 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 4 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 3

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:

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

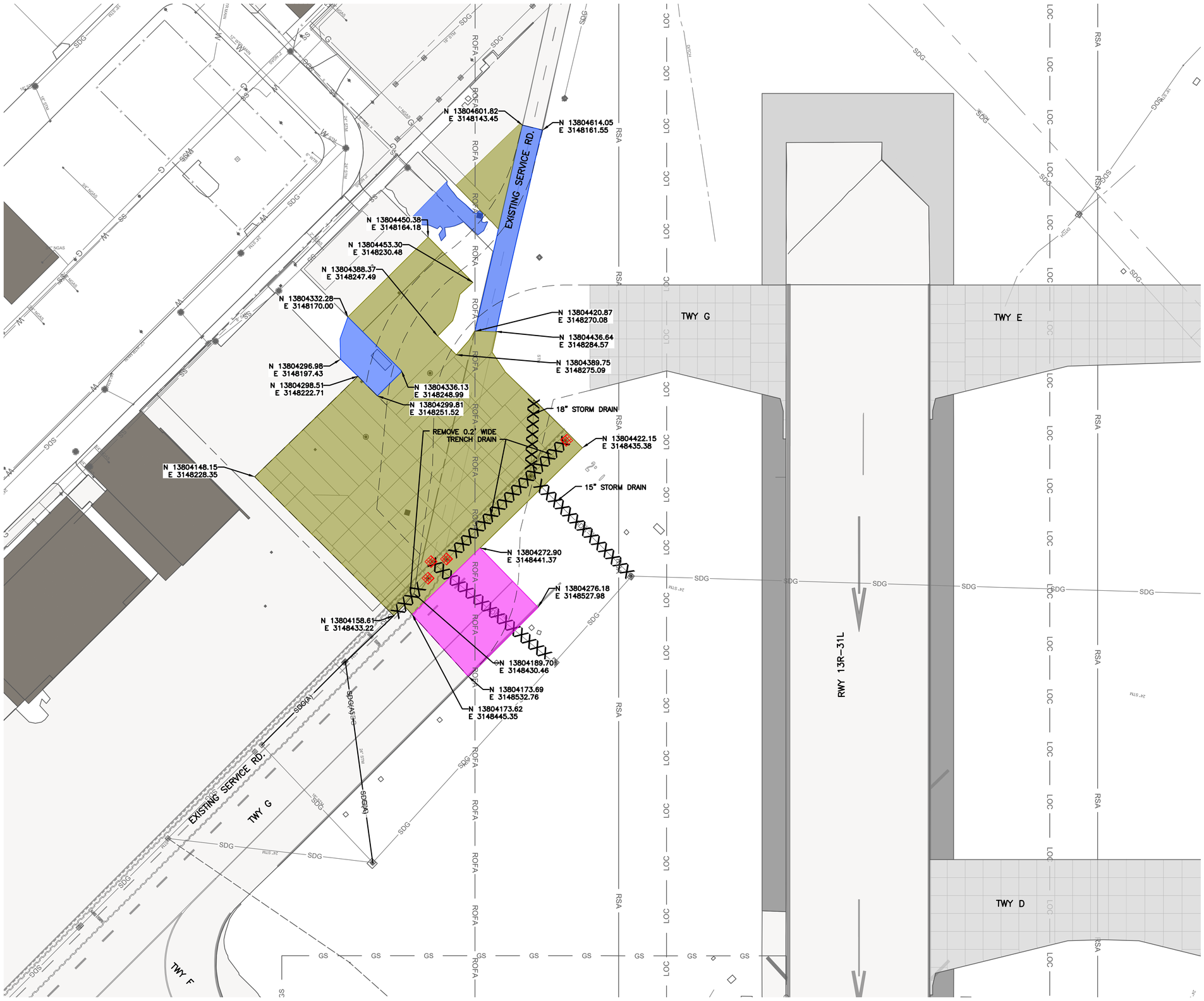
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

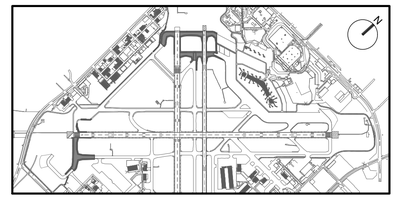
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD104–P3
of

FILENAME: H22C770A–CD104–P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 8:38:26 AM





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (10" TO 15") PER P–101 — 7 / CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 / CD501
- PAVEMENT REMOVAL – ASPHALT (6" TO 10") PER P–101 — 10 / CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX PROPOSED STORMDRAIN REMOVAL
- SDG(A) STORM DRAIN PIPE TO BE ABANDONED

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 4

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:

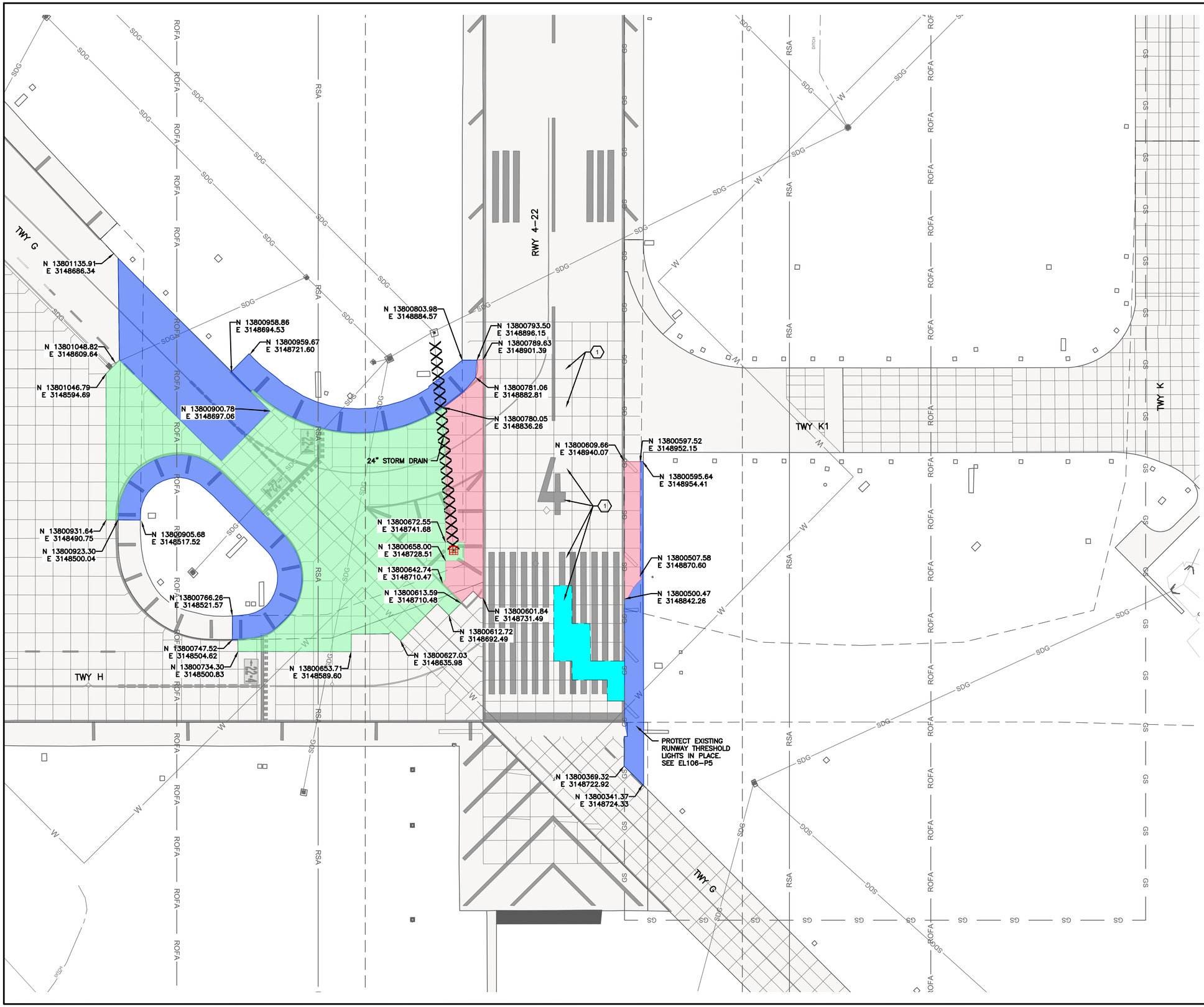
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

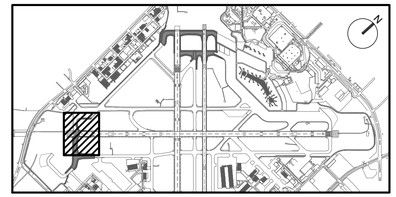
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CD105–P4
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 6 CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 8 CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P-101 — 9 CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- PROPOSED INLET DEMOLITION
- XXXXXX PROPOSED STORMDRAIN REMOVAL

KEYED NOTES:

(1) 15" TO 20" CONCRETE PANEL REPLACEMENT. CONTRACTOR SHALL PROTECT EXISTING BASE/SUBGRADE IN-PLACE. ANY DAMAGE TO THE EXISTING BASE/SUBGRADE SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER. REMOVAL OF THE PANELS SHALL BE PAID FOR UNDER P-101-5.7. CONCRETE SHALL BE PAID FOR UNDER P-501.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 5

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.

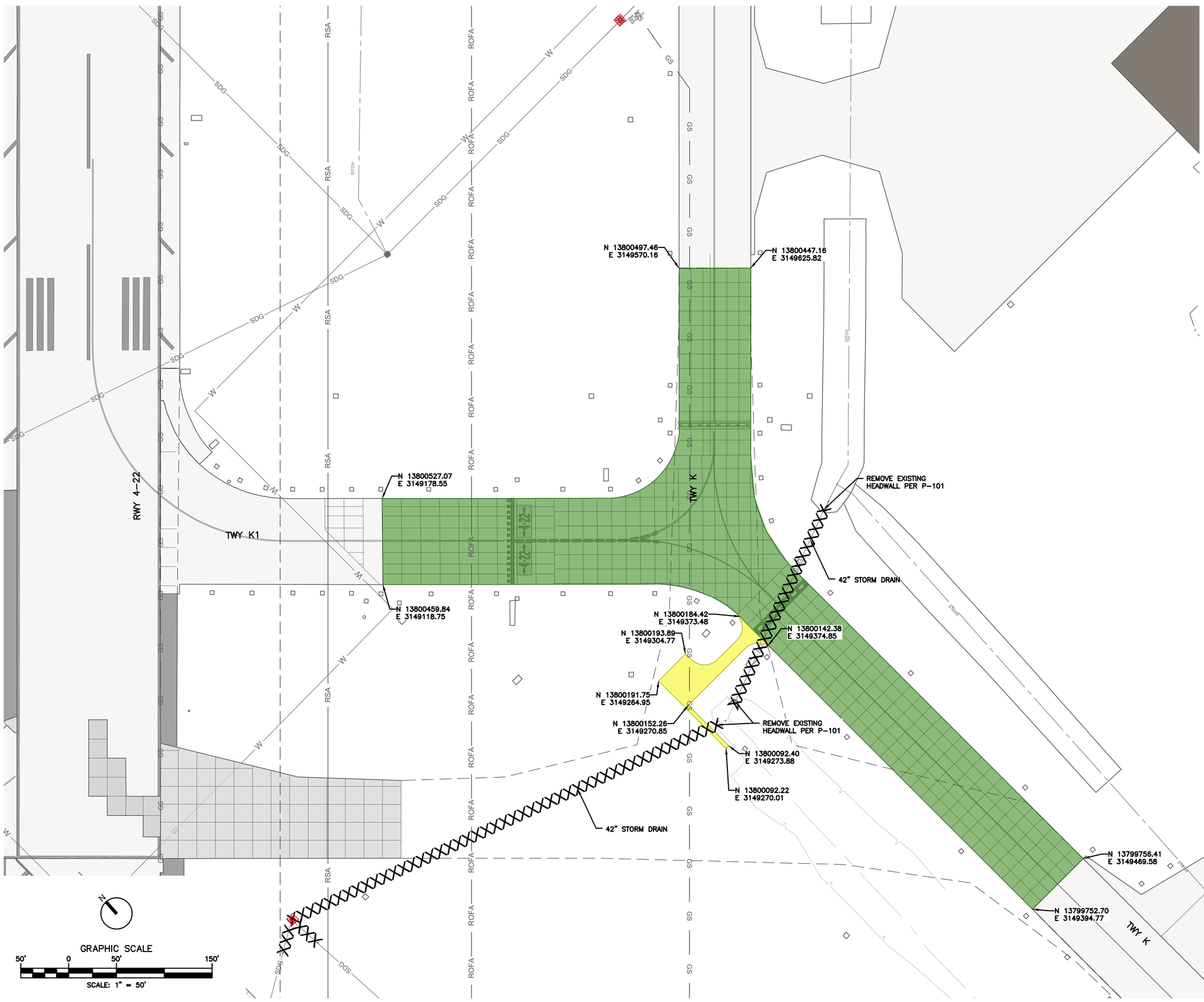
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

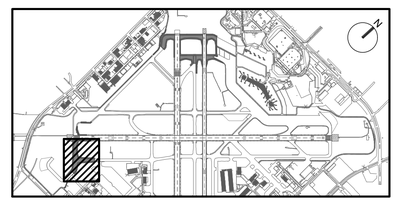
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CD106-P5
of





KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101
- PAVEMENT REMOVAL – CONCRETE PAD (1" TO 12") PER P–101
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

4 / CD501

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 6A

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.

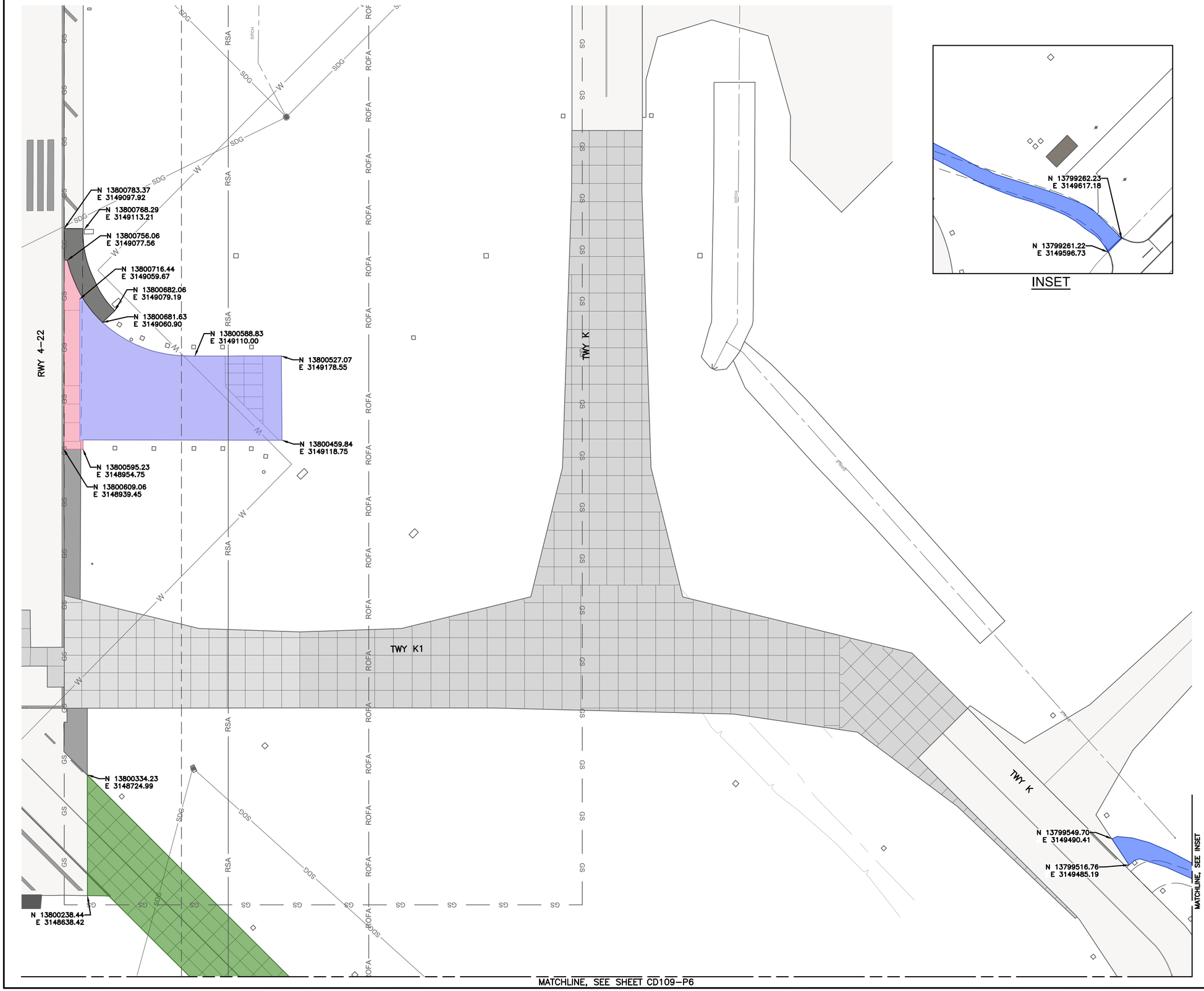
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

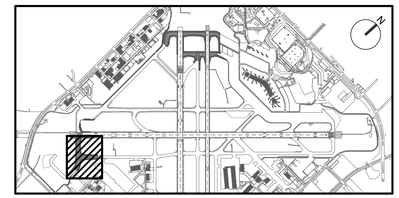
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD107–P6
of



INSET



KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P–152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 4 / CD501
- PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P–101 — 8 / CD501
- PAVEMENT REMOVAL – ASPHALT (3" TO 6") PER P–101 — 9 / CD501
- PAVEMENT REMOVAL – ASPHALT (10" TO 20") PER P–101 — 11 / CD501
- PROPOSED GEOMETRY OF FUTURE PHASE (FOR REFERENCE ONLY)
- XXXXXX · PROPOSED STORMDRAIN REMOVAL

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 6B

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

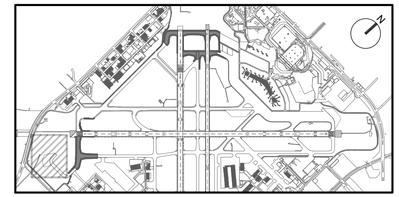
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CD108–P6
of

MATCHLINE, SEE SHEET CD108-P6

N 13799601.25
E 3148767.27

N 13799597.37
E 3148686.15



KEY MAP
NTS

NOTES:

1. PAVEMENT DEMOLITION IS PLANNED TO BOTTOM OF RIGID SECTIONS (ASPHALT, CONCRETE, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR OR SUBGRADE MATERIAL SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. ALL SAWCUTS WILL BE FULL DEPTH, STRAIGHT, VERTICAL AND SMOOTH WHERE PAVEMENT TO REMAIN MEETS DEMOLISHED PAVEMENT AND SHALL OCCUR ON AN EXISTING JOINT, PROTECT ALL DUCT BANKS, STRUCTURES, AND PAVED AREAS TO REMAIN. ANY DAMAGES TO EXISTING UTILITIES, PAVEMENT AND STRUCTURES TO REMAIN WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
3. PAVEMENT SAWCUTING IS INCIDENTAL TO PAVEMENT REMOVAL. ALL INTERFACES WITH PAVEMENT TO REMAIN SHALL BE SAWCUT FULL DEPTH.
4. CLEANUP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE SAWCUTTING OPERATION. CLEANUP SHALL USE A VACUUM SWEEPER.
5. CONTRACTOR SHALL PROTECT PAVED AREAS TO REMAIN, DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE, ANY DAMAGE TO THE EXISTING STRUCTURES SHALL BE IMMEDIATELY REPORTED TO THE RPR AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTOR'S EXPENSE.
6. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REMOVE AND DISPOSE ALL DEMOLISHED MATERIAL OFFSITE PER LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND CONDITIONS SHOWN IN THE PLANS TO THE RPR.
8. FOR ELECTRICAL DEMOLITION, SEE "ED100" SERIES SHEETS.
9. FOR TYPICAL REMOVAL SECTIONS AND DEMOLITION DETAILS, SEE CD501 AND CD502.

LEGEND:

PAVEMENT REMOVAL – CONCRETE (15" TO 20") PER P-101 — 4 / CD501

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION PLAN – PHASE 6B

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

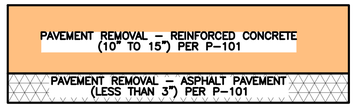
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

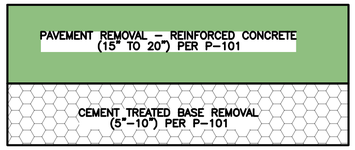
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

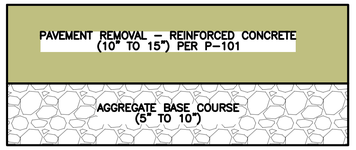
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD109-P6
of



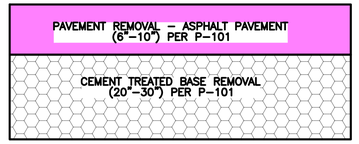
1 SECTION 1
NTS



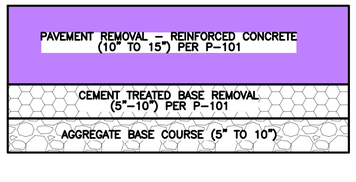
4 SECTION 4
NTS



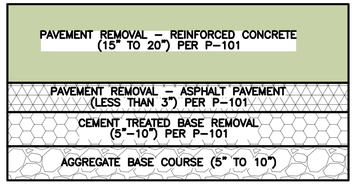
7 SECTION 7
NTS



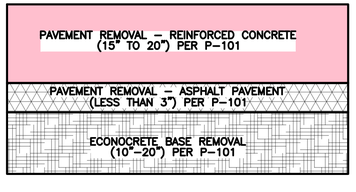
10 SECTION 10
NTS



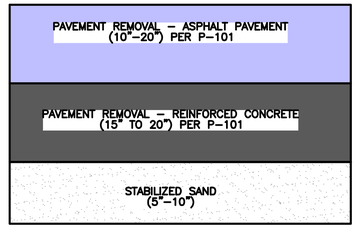
2 SECTION 2
NTS



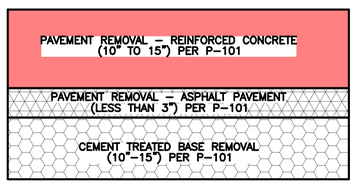
5 SECTION 5
NTS



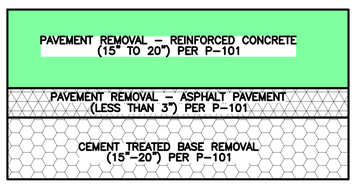
8 SECTION 8
NTS



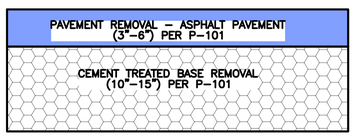
11 SECTION 11
NTS



3 SECTION 3
NTS



6 SECTION 6
NTS



9 SECTION 9
NTS

NOTES:

1. PAVEMENT DEMOLITION PER P-101 IS PLANNED TO THE BOTTOM OF RIGID SECTIONS (ASPHALT, CEMENT TREATED BASE, ETC.). OTHER EXISTING GRANULAR BASE OR SUBGRADE MATERIAL SHOWN SHALL BE REMOVED AS PART OF EARTHWORK OPERATIONS (P-152).
2. CONTRACTOR SHALL REPORT DISCREPANCIES BETWEEN ACTUAL AND EXISTING CONDITIONS SHOWN IN THE PLANS TO THE RPR.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION DETAILS

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.

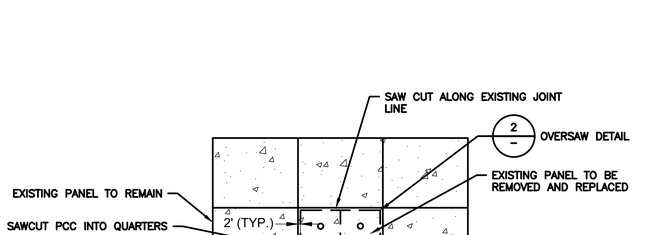
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

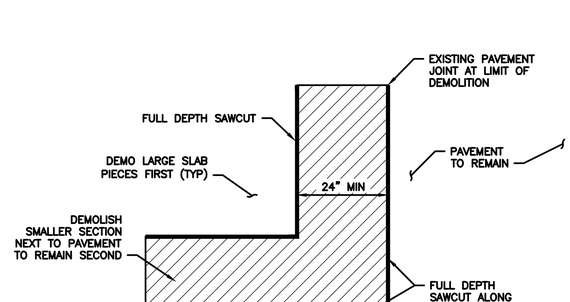
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD501
of



1 PANEL REPLACEMENT – PCC AND FULL DEPTH REMOVAL DETAIL
NTS



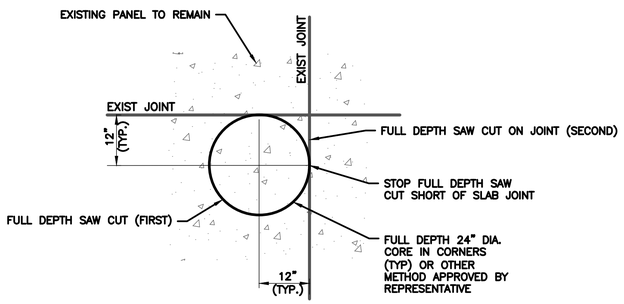
NOTES:

1. UPON COMPLETION OF THE FULL-DEPTH SAWCUTTING, THE MAIN SLAB SHALL BE FURTHER DIVIDED, AT APPROPRIATE LOCATIONS, AND EACH PIECE LIFTED OUT AND REMOVED. THE USE OF IMPACT DEVICES WILL NOT BE ALLOWED.
2. DAMAGE TO THE ADJACENT PAVEMENT TO REMAIN IS NOT ALLOWED. ANY DAMAGE TO THE ADJACENT PAVEMENT TO REMAIN CAUSED BY THE CONTRACTOR'S DEMOLITION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

3 PCC SLAB DOUBLE SAW CUT REMOVAL ALONG EXISTING JOINT
NTS

PANEL REPLACEMENT AND OVERSAW DETAIL NOTES:

1. CONTRACTOR SHALL EXERCISE EXTREME CAUTION FOR PANEL REMOVALS. ANY DAMAGE TO REMAINING UNDERLYING CEMENT TREATED BASE OR SURROUNDING PANELS SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.
2. ALL OPERATIONS SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO THE CONCRETE PAVEMENT AND TO THE UNDERLYING MATERIAL TO REMAIN IN PLACE. ALL SAW CUTS SHALL BE MADE PERPENDICULAR TO THE SLAB SURFACE.
3. REMOVAL OF EXISTING PAVEMENT SLAB: WHEN NECESSARY TO REMOVE EXISTING CONCRETE PAVEMENT AND LEAVE ADJACENT CONCRETE IN PLACE, THE JOINT BETWEEN THE REMOVAL AREA AND ADJOINING PAVEMENT, SCHEDULED TO REMAIN IN PLACE AND PROTECTED FROM DAMAGE, SHALL FIRST BE CUT TO THE DEPTH SPECIFIED IN THE PLANS (FULL DEPTH OR PCC ONLY). NEXT, A SAW CUT OF THE SAME DEPTH SHALL BE MADE PARALLEL TO AND AT LEAST 12 INCHES FROM THE EXISTING AND PREVIOUSLY SAW CUT JOINT LINE. ALL PAVEMENT BETWEEN THE INNER SAW CUT AND THE JOINT LINE SHALL BE CAREFULLY BROKEN UP AND REMOVED USING APPROVED LIGHT-DUTY EQUIPMENT WHICH WILL NOT CAUSE STRESS TO PROPAGATE ACROSS THE SAW CUT JOINT LINE AND RESULT IN THE DEVELOPMENT OF DISTRESSES IN ADJACENT PAVEMENT WHICH IS TO REMAIN IN PLACE.
4. THE CONTRACTOR SHALL REMOVE THE REMAINING PORTIONS OF THE CONCRETE PAVEMENT SLAB BY LIFTING AND PLACING DIRECTLY INTO HAUL TRUCKS. THE CONTRACTOR WILL NOT BE ALLOWED TO USE HYDRAULIC RAMS ON EXCAVATORS, OR GUILLOTINE TYPE BREAKERS THAT MAY DAMAGE THE UNDERLYING CEMENT TREATED BASE BELOW THE PCC PAVEMENTS TO BE REMOVED. SAW CUTTING DEPTHS MAY VARY. NO ADDITIONAL PAYMENT WILL BE ALLOTTED FOR VARYING DEPTHS OF PCC CONCRETE PAVEMENT.
5. CONTRACTOR MAY SUBMIT ALTERNATIVE METHOD FOR PCC PANEL REMOVAL TO THE REPRESENTATIVE FOR APPROVAL.



2 OVERSAW DETAIL
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CIVIL DEMOLITION DETAILS

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.

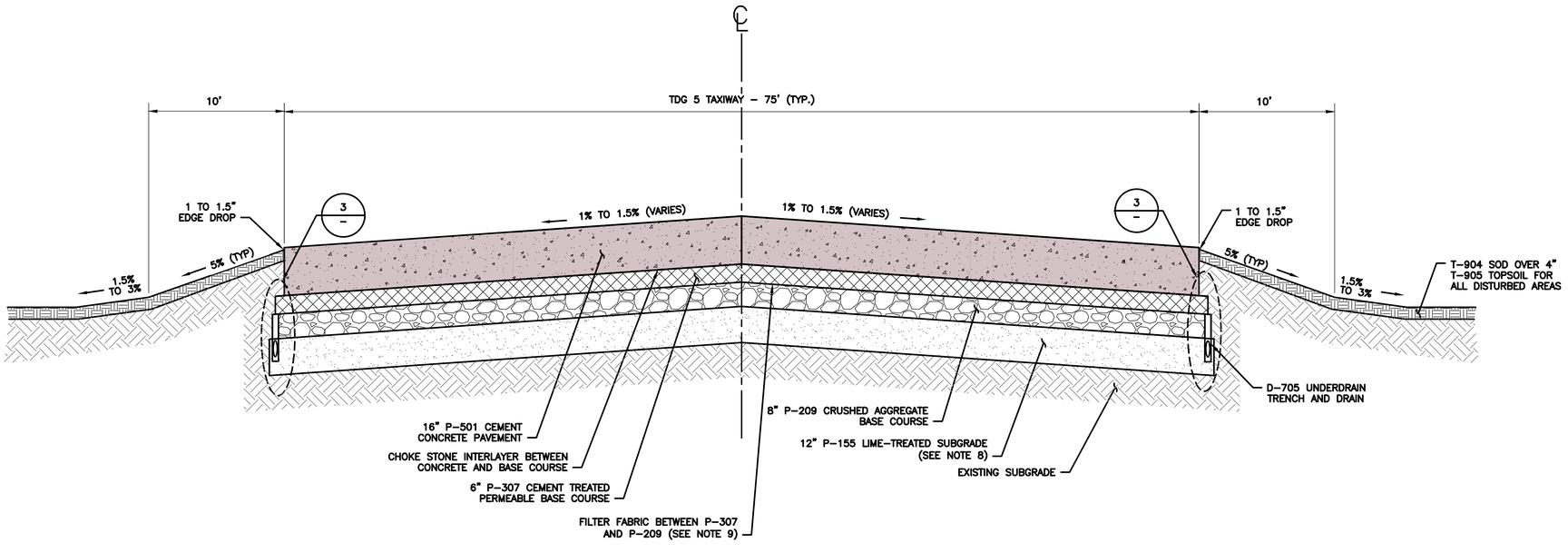
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. CELESTAIN
DRAWN BY:	A. CELESTAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

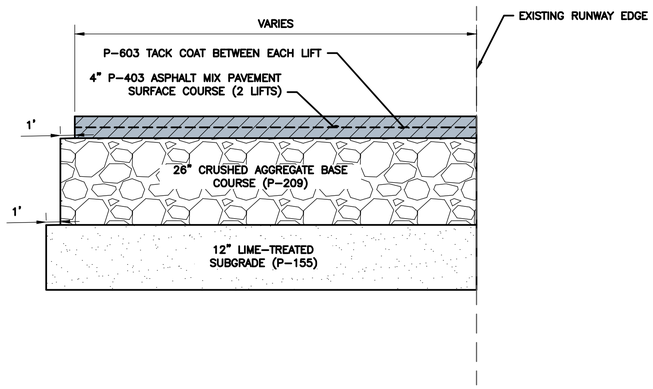
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CD502
of



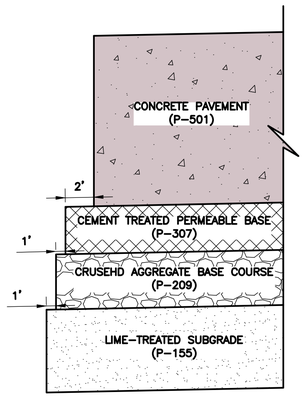
1 16" CONCRETE PAVEMENT TYPICAL SECTION
NTS

GENERAL NOTES:

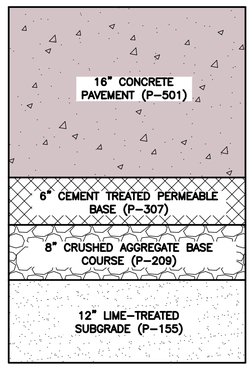
1. GRADES VARY THROUGHOUT THE TYPICAL SECTIONS. SEE GRADING SHEETS FOR SPECIFIC CROSS SLOPE INFORMATION.
2. THE 4" P-403 LAYER SHALL BE PLACED IN TWO 2" LIFTS.
3. EMULSIFIED ASPHALT TACK COAT (P-603) SHALL BE PLACED BETWEEN LIFTS OF ASPHALT MIXTURE COURSES AND ON EXISTING ADJACENT CONCRETE OR ASPHALT SURFACES.
4. FOR PAVEMENT DETAILS, SEE SHEETS CP501 THROUGH CP505.
5. THE SUBGRADE AND SUBSEQUENT PAVEMENT LAYERS SHALL BE PROTECTED FROM MOISTURE AT ALL TIMES DURING CONSTRUCTION BY MAINTAINING POSITIVE DRAINAGE AWAY FROM THESE AREAS.
6. CHOKE STONE BOND BREAKER UNDER CONCRETE PAVEMENT SHALL BE INCIDENTAL TO P-307.
7. PRIOR TO BUILDING ADJACENT TO OR ABOVE PREVIOUSLY CONSTRUCTED OVERBUILD SECTIONS, CONTRACTOR SHALL RE-VERIFY THAT THE PREVIOUSLY CONSTRUCTED BASE COURSE AND/OR SUBGRADE MEETS THE REQUIREMENTS FOR COMPACTION. IF THE PREVIOUSLY CONSTRUCTED BASE COURSE AND/OR SUBGRADE DO NOT MEET THE REQUIREMENTS IN THE SPECIFICATIONS, MATERIAL SHALL BE REWORKED UNTIL THEY MEET ALL REQUIREMENTS. ANY REWORK OF THE PREVIOUSLY CONSTRUCTED MATERIAL SHALL BE INCIDENTAL TO THE RESPECTIVE ITEM.
8. CONTRACTOR SHALL DEVELOP AND SUBMIT A LIME SLURRY MIX DESIGN TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. THE PERCENT LIME TO BE USED SHALL BE INCLUDED IN THE MIX DESIGN AND DETERMINED BY A LIME SERIES TEST. DEVELOPMENT OF THE MIX DESIGN SHALL BE INCIDENTAL TO P-155.
9. CONTRACTOR SHALL PLACE FILTER FABRIC BETWEEN THE CEMENT TREATED PERMEABLE BASE (P-307) AND CRUSHED AGGREGATE BASE COURSE LAYERS (P-209). SEE P-209 FOR INFORMATION REGARDING FILTER FABRIC.
10. THE BASE COURSE OVERBUILD SHOWN ON PLANS IS FOR REFERENCE ONLY. THE CONTRACTOR MAY BE REQUIRED TO CONSTRUCT ADDITIONAL OVERBUILD IN ORDER TO PROVIDE CONSTRUCTION EQUIPMENT, SUCH AS PAVERS, WITH A UNIFORM STABLE PLATFORM. ANY ADDITIONAL OVERBUILD WILL BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT WILL BE MADE.



2 RUNWAY SHOULDER TYPICAL SECTION
NTS



3 PAVEMENT OVERBUILD – CONCRETE
NTS



4 PAVEMENT SECTION 16" CONCRETE
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

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:

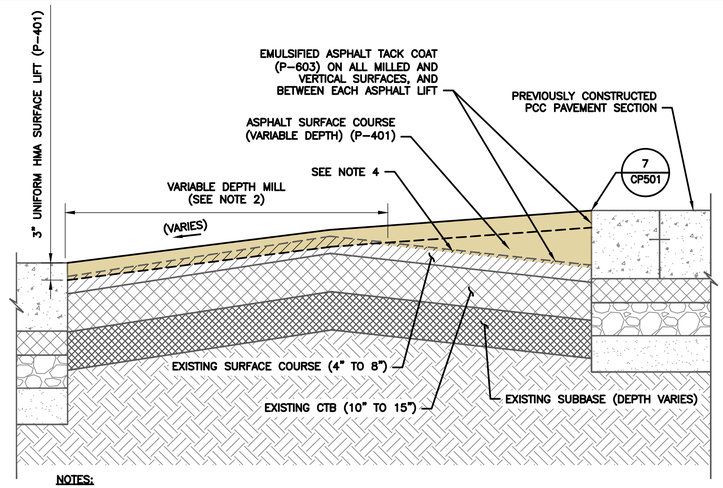
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

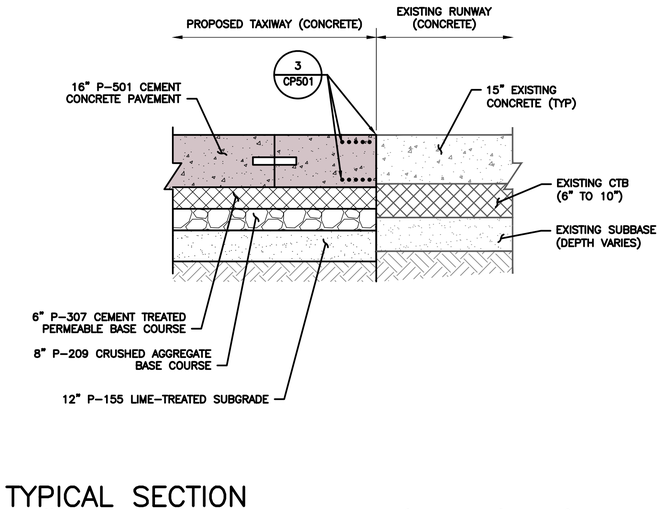
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS001
of



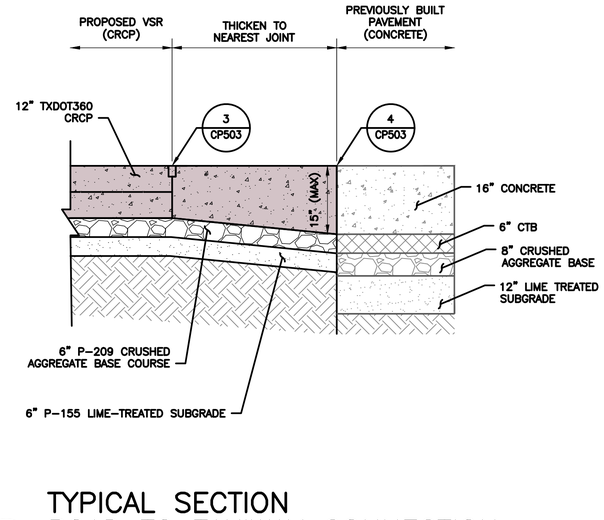
NOTES:

1. DEPTH OF ASPHALT REQUIRED TO REACH FINISHED GRADE WILL VARY. SURFACE LIFT SHALL BE A UNIFORM 3" PLACEMENT OF HMA.
2. MILL DEPTHS WILL VARY BASED ON THE EXISTING GRADES. CONTRACTOR SHALL MILL THE EXISTING HMA TO ENSURE A MINIMUM 3" PLACEMENT OF P-401.
3. ANY VARIATIONS IN THICKNESS MUST BE ACCOUNTED FOR WITHIN THE BASE ASPHALT PAVEMENT TO ENSURE A 3" SURFACE LIFT.
4. ALL ASPHALT TO BE OVERLAIN SHALL REQUIRE A MINIMUM 0.5" MILL.

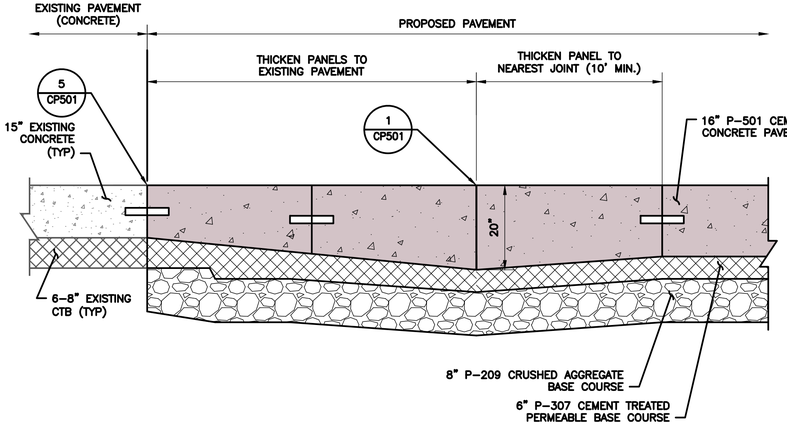
1 TYPICAL SECTION MILL AND OVERLAY (VARIABLE DEPTH)
NTS



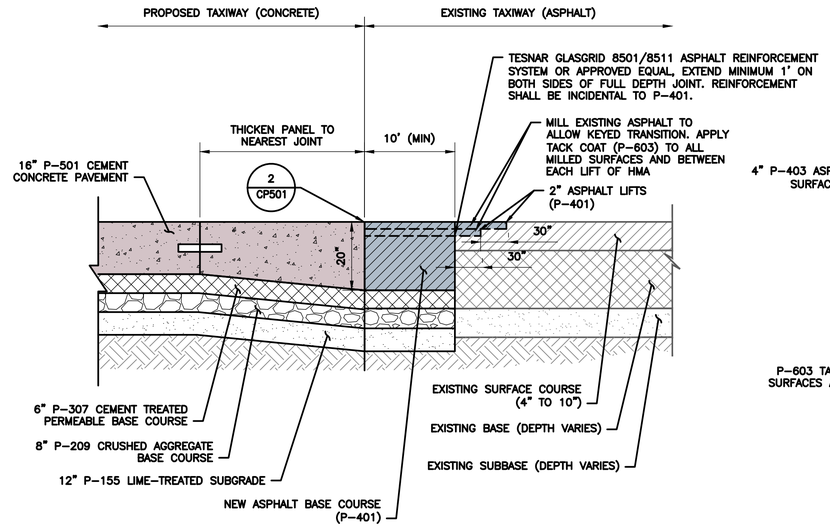
3 TYPICAL SECTION 16" CONCRETE PAVEMENT (TYPE 'A-1' JOINT)
NTS



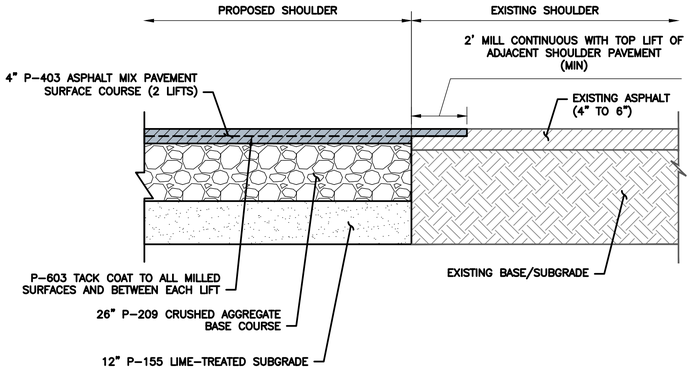
5 TYPICAL SECTION ROAD TO TAXIWAY CONNECTION
NTS



2 TYPICAL SECTION 16" CONCRETE PAVEMENT (TYPE 'A' JOINT)
NTS



4 TYPICAL SECTION 16" CONCRETE PAVEMENT (TYPE 'AG' JOINT)
NTS



6 TYPICAL SECTION SHOULDER TO SHOULDER CONNECTION
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

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.

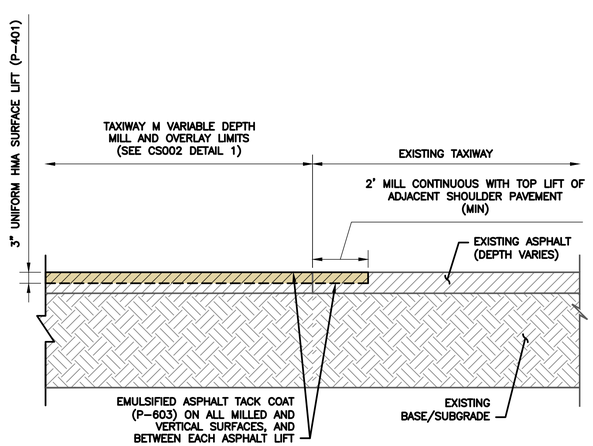
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

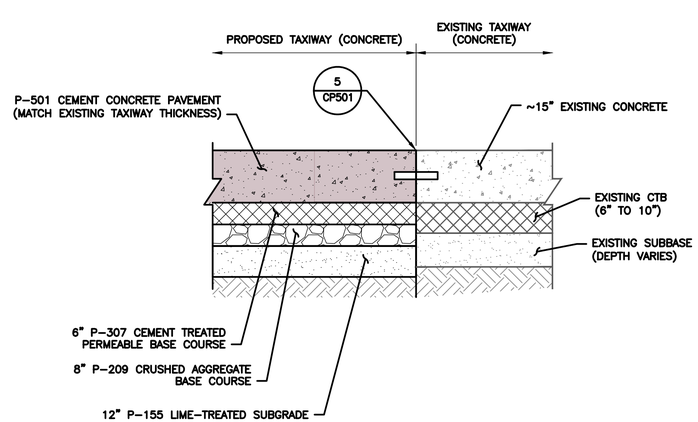
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS002
of



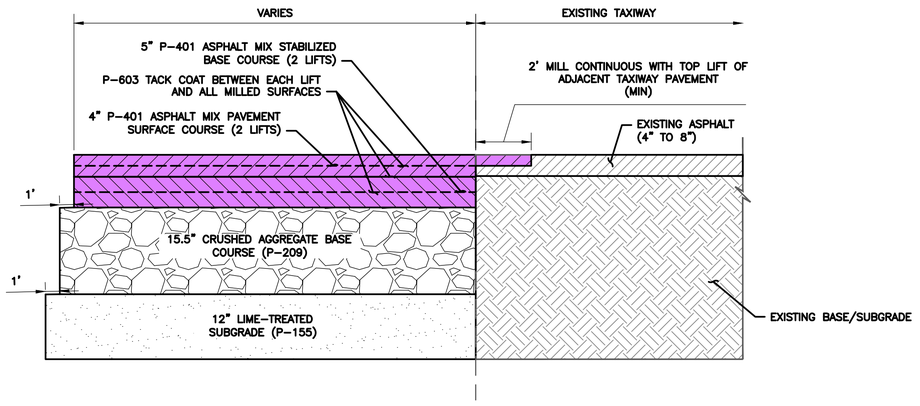
1 TYPICAL SECTION TAXIWAY M ASPHALT TO ASPHALT CONNECTION

NTS



2 TYPICAL SECTION 15" CONCRETE PAVEMENT (TYPE 'E' JOINT)

NTS



3 TYPICAL SECTION FULL STRENGTH ASPHALT

NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

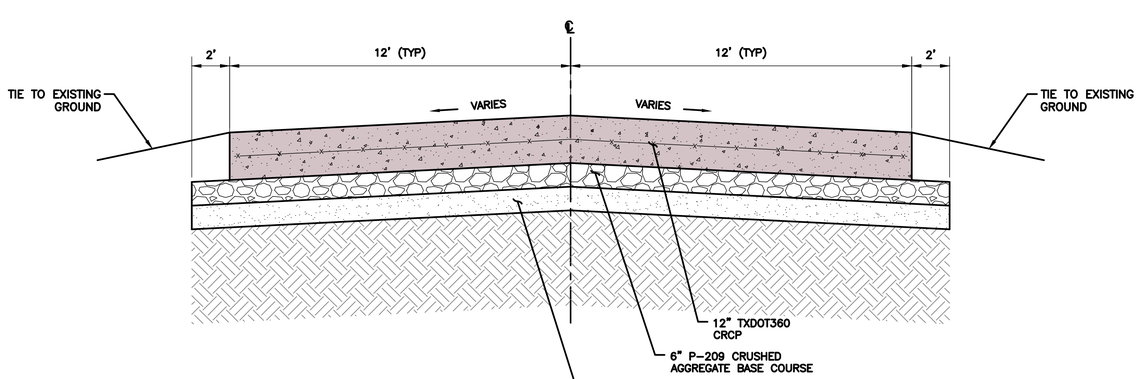
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

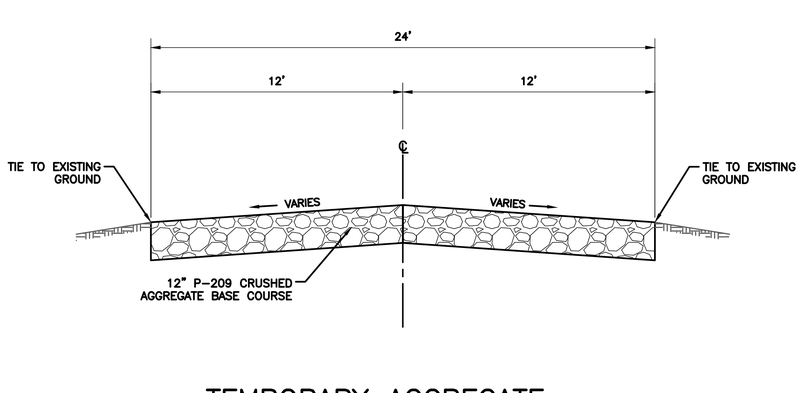
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS003
of

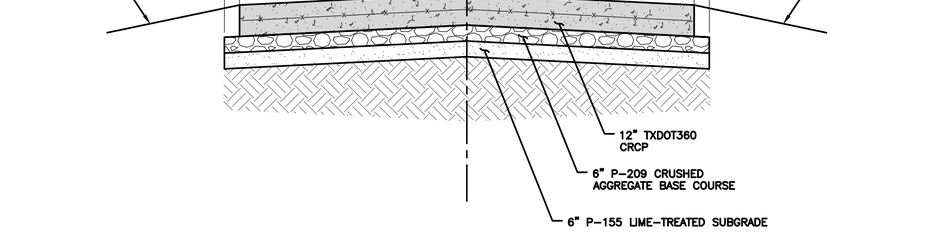
FILENAME: H22C770A-CS001-003.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:41:20 AM



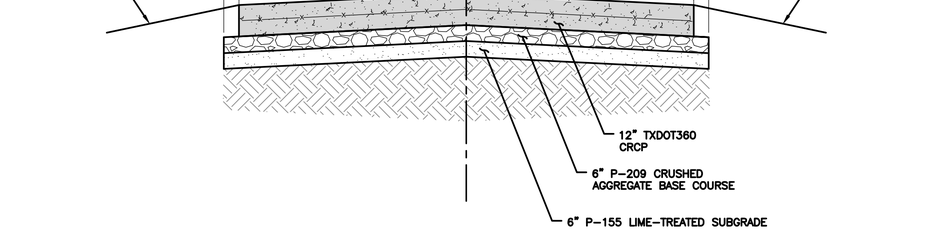
1 VEHICLE SERVICE ROAD TYPICAL SECTION
NTS



3 TEMPORARY AGGREGATE ACCESS ROAD TYPICAL SECTION
NTS



2 HAUL ROAD TYPICAL SECTION
NTS



4 SERVICE ROAD TYPICAL SECTION
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TYPICAL PAVEMENT SECTIONS

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:

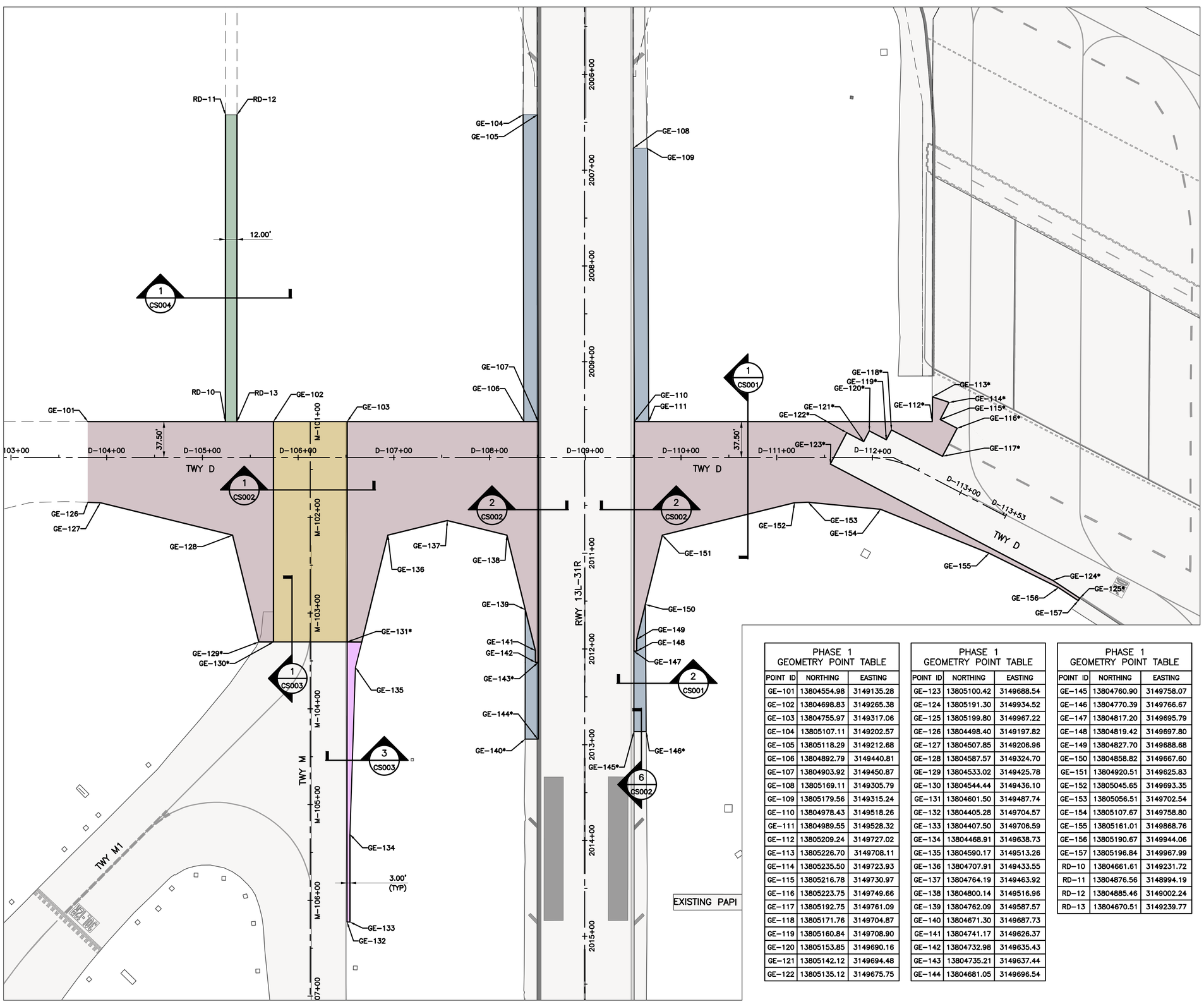
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

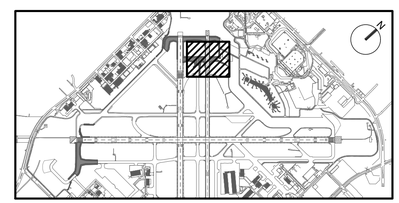
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CS004
of





KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

PHASE 1
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-101	13804554.98	3149135.28
GE-102	13804698.83	3149265.38
GE-103	13804755.97	3149317.06
GE-104	13805107.11	3149202.57
GE-105	13805118.29	3149212.68
GE-106	13804892.79	3149440.81
GE-107	13804903.92	3149450.87
GE-108	13805169.11	3149305.79
GE-109	13805179.56	3149315.24
GE-110	13804978.43	3149518.26
GE-111	13804989.55	3149528.32
GE-112	13805209.24	3149727.02
GE-113	13805226.70	3149708.11
GE-114	13805235.50	3149723.93
GE-115	13805216.78	3149730.97
GE-116	13805223.75	3149749.66
GE-117	13805192.75	3149761.09
GE-118	13805171.76	3149704.87
GE-119	13805160.84	3149708.90
GE-120	13805153.85	3149690.16
GE-121	13805142.12	3149694.48
GE-122	13805135.12	3149675.75

PHASE 1
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-123	13805100.42	3149688.54
GE-124	13805191.30	3149934.52
GE-125	13805199.80	3149967.22
GE-126	13804498.40	3149197.82
GE-127	13804507.85	3149206.96
GE-128	13804587.57	3149324.70
GE-129	13804533.02	3149425.78
GE-130	13804544.44	3149436.10
GE-131	13804601.50	3149487.74
GE-132	13804405.28	3149704.57
GE-133	13804407.50	3149706.59
GE-134	13804468.91	3149638.73
GE-135	13804590.17	3149513.26
GE-136	13804707.91	3149433.55
GE-137	13804764.19	3149463.92
GE-138	13804800.14	3149516.96
GE-139	13804762.09	3149587.57
GE-140	13804671.30	3149687.73
GE-141	13804741.17	3149626.37
GE-142	13804732.98	3149635.43
GE-143	13804735.21	3149637.44
GE-144	13804681.05	3149696.54

PHASE 1
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-145	13804760.90	3149758.07
GE-146	13804770.39	3149766.67
GE-147	13804817.20	3149695.79
GE-148	13804819.42	3149697.80
GE-149	13804827.70	3149688.68
GE-150	13804858.82	3149667.60
GE-151	13804920.51	3149625.83
GE-152	13805045.65	3149693.35
GE-153	13805056.51	3149702.54
GE-154	13805107.67	3149758.80
GE-155	13805161.01	3149868.76
GE-156	13805190.67	3149944.06
GE-157	13805196.84	3149967.99
RD-10	13804661.61	3149231.72
RD-11	13804876.56	3148994.19
RD-12	13804885.46	3149002.24
RD-13	13804670.51	3149239.77

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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:

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN
– PHASE 1

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

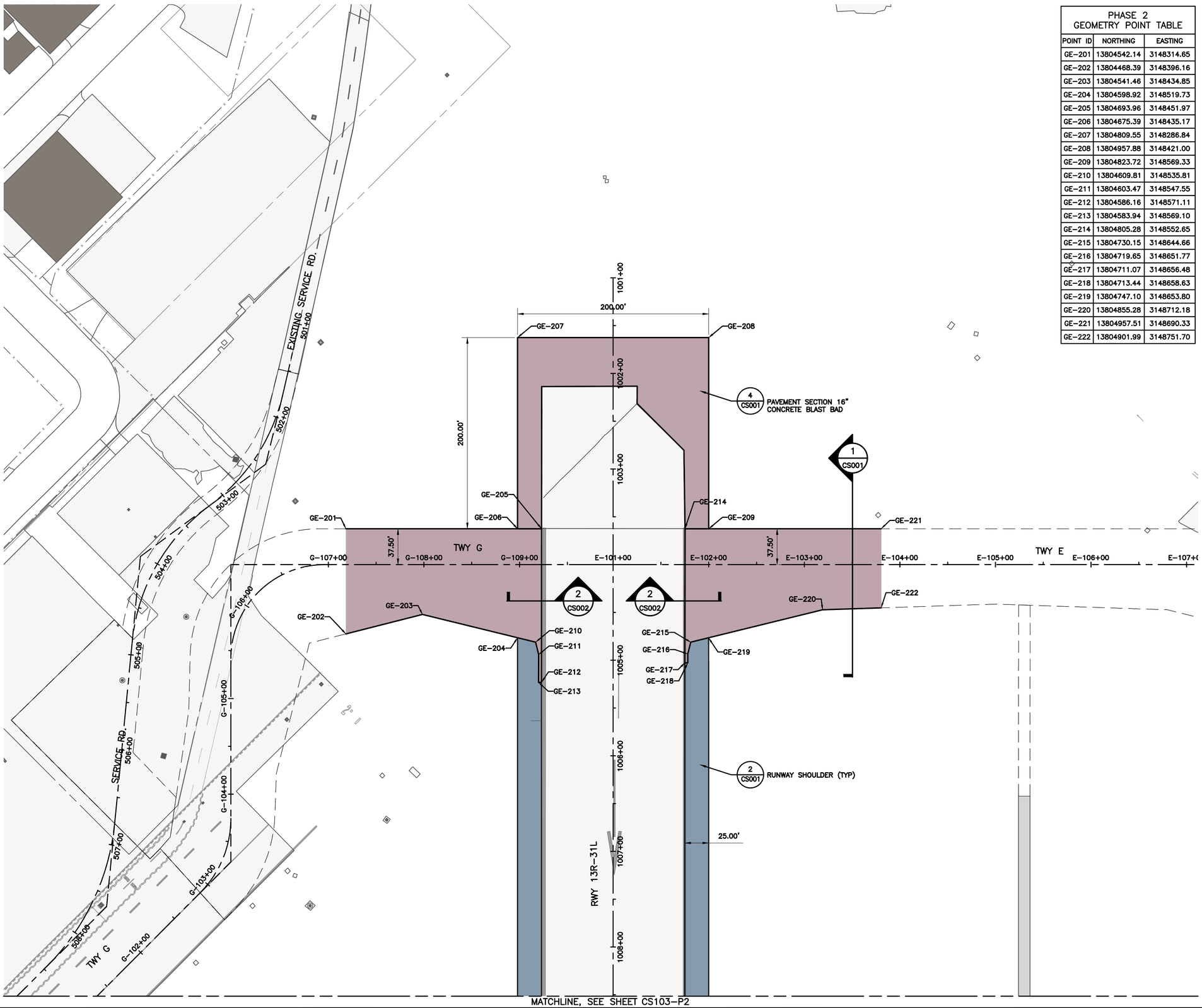
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

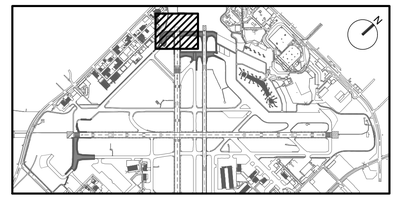
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS101-P1
of

FILENAME: H22C770A-CS101-P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:43:31 AM



PHASE 2 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE-201	13804542.14	3148314.65
GE-202	13804468.39	3148396.16
GE-203	13804541.46	3148434.85
GE-204	13804598.92	3148519.73
GE-205	13804693.96	3148451.97
GE-206	13804675.39	3148435.17
GE-207	13804809.55	3148286.84
GE-208	13804957.88	3148421.00
GE-209	13804823.72	3148569.33
GE-210	13804609.81	3148535.81
GE-211	13804603.47	3148547.55
GE-212	13804586.16	3148571.11
GE-213	13804583.94	3148569.10
GE-214	13804805.28	3148552.65
GE-215	13804730.15	3148644.66
GE-216	13804719.65	3148651.77
GE-217	13804711.07	3148656.48
GE-218	13804713.44	3148658.63
GE-219	13804747.10	3148653.80
GE-220	13804855.28	3148712.18
GE-221	13804957.51	3148690.33
GE-222	13804901.99	3148751.70



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 2

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

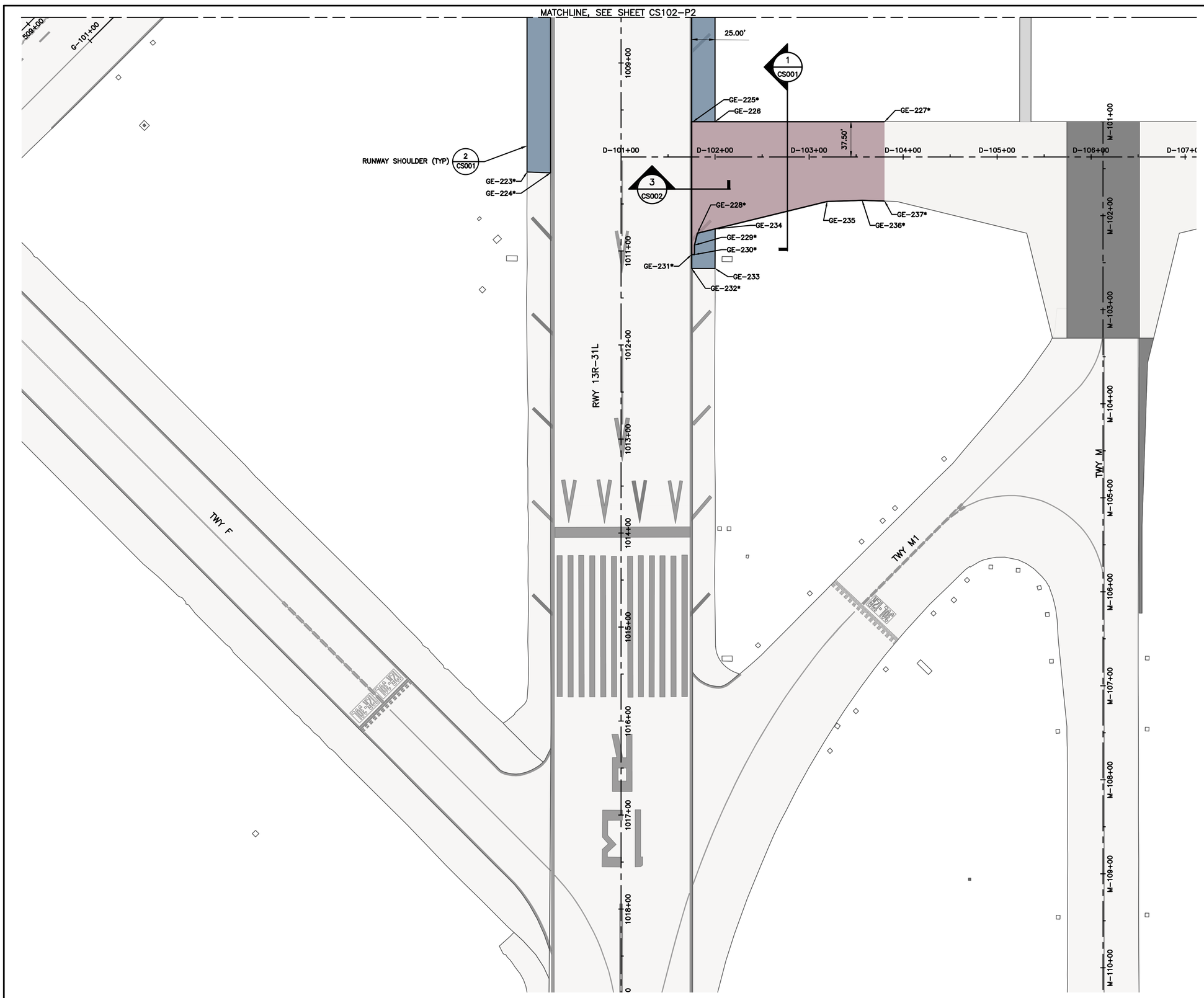
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

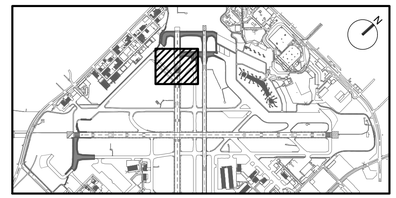
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS102-P2
of

FILENAME: H22C770A-CS102-103-P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:44:44 AM





KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

PHASE 2
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-223	13804237.10	3148919.88
GE-224	13804254.99	3148937.23
GE-225	13804403.72	3148998.47
GE-226	13804421.25	3149014.32
GE-227	13804554.98	3149135.28
GE-228	13804327.68	3149089.65
GE-229	13804316.86	3149096.97
GE-230	13804310.16	3149104.39
GE-231	13804307.92	3149102.37
GE-232	13804298.05	3149113.31
GE-233	13804316.48	3149130.00
GE-234	13804344.79	3149098.88
GE-235	13804452.81	3149157.18
GE-236	13804481.21	3149181.20
GE-237	13804498.40	3149197.82

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 2

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.

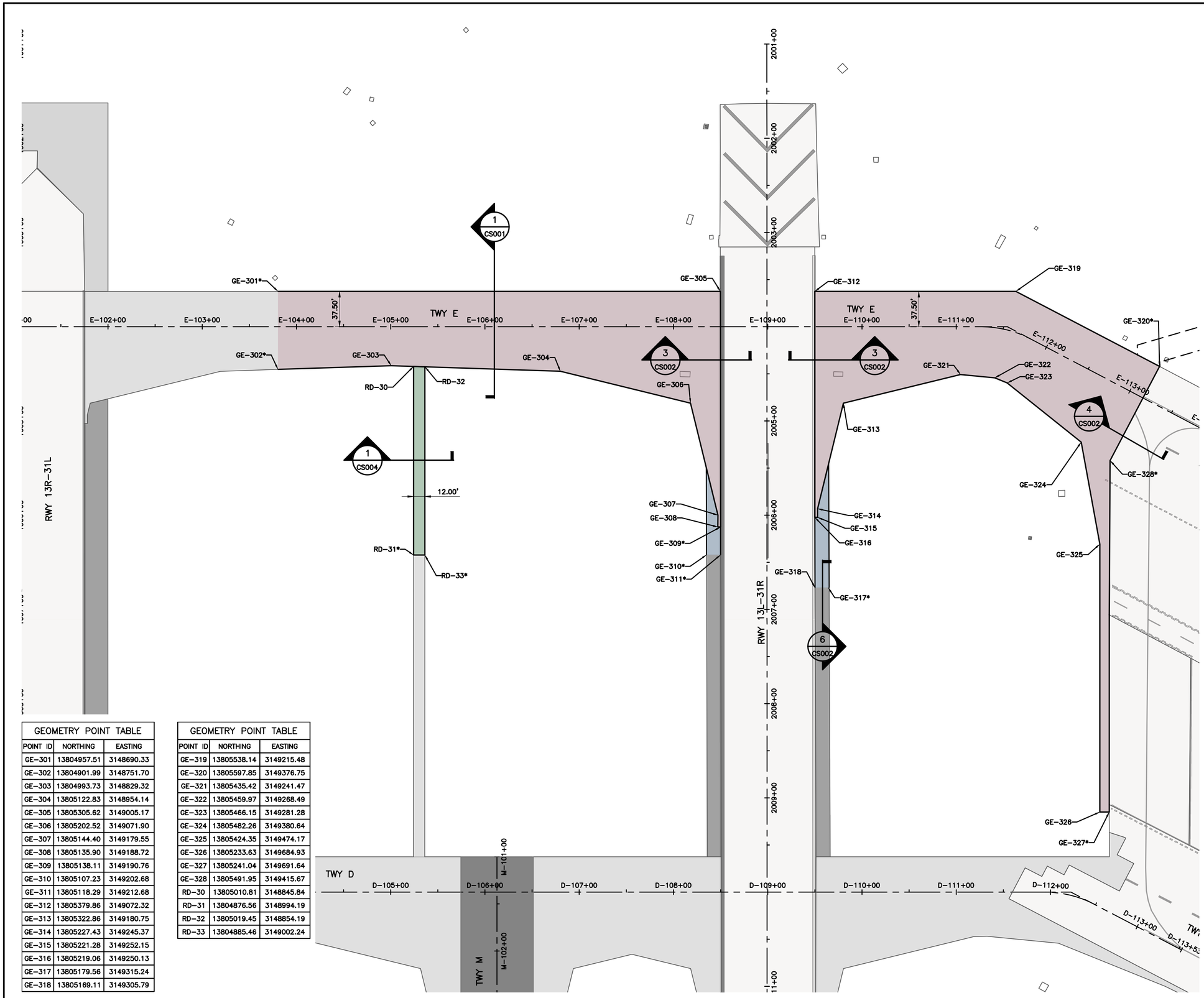
PROJECT MGR: S. CHILDERS
DESIGNER: D. CRAWFORD
DRAWN BY: B. BARTLETT
CHECKED BY: R. EHTESHAM
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

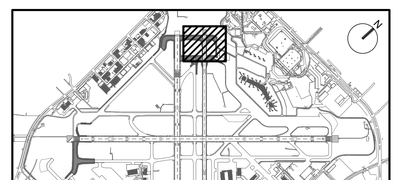
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS103-P2
of



KEY MAP
NTS



NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-301	13804957.51	3148690.33
GE-302	13804901.99	3148751.70
GE-303	13804993.73	3148829.32
GE-304	13805122.83	3148954.14
GE-305	13805305.62	3149005.17
GE-306	13805202.52	3149071.90
GE-307	13805144.40	3149179.55
GE-308	13805135.90	3149188.72
GE-309	13805138.11	3149190.76
GE-310	13805107.23	3149202.68
GE-311	13805118.29	3149212.68
GE-312	13805379.86	3149072.32
GE-313	13805322.86	3149180.75
GE-314	13805227.43	3149245.37
GE-315	13805221.28	3149252.15
GE-316	13805219.06	3149250.13
GE-317	13805179.56	3149315.24
GE-318	13805169.11	3149305.79

GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-319	13805538.14	3149215.48
GE-320	13805597.85	3149376.75
GE-321	13805435.42	3149241.47
GE-322	13805459.97	3149268.49
GE-323	13805466.15	3149281.28
GE-324	13805482.26	3149380.64
GE-325	13805424.35	3149474.17
GE-326	13805233.63	3149684.93
GE-327	13805241.04	3149691.64
GE-328	13805491.95	3149415.67
RD-30	13805010.81	3148845.84
RD-31	13804876.56	3148994.19
RD-32	13805019.45	3148854.19
RD-33	13804885.46	3149002.24

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
GEOMETRY PLAN – PHASE 3

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

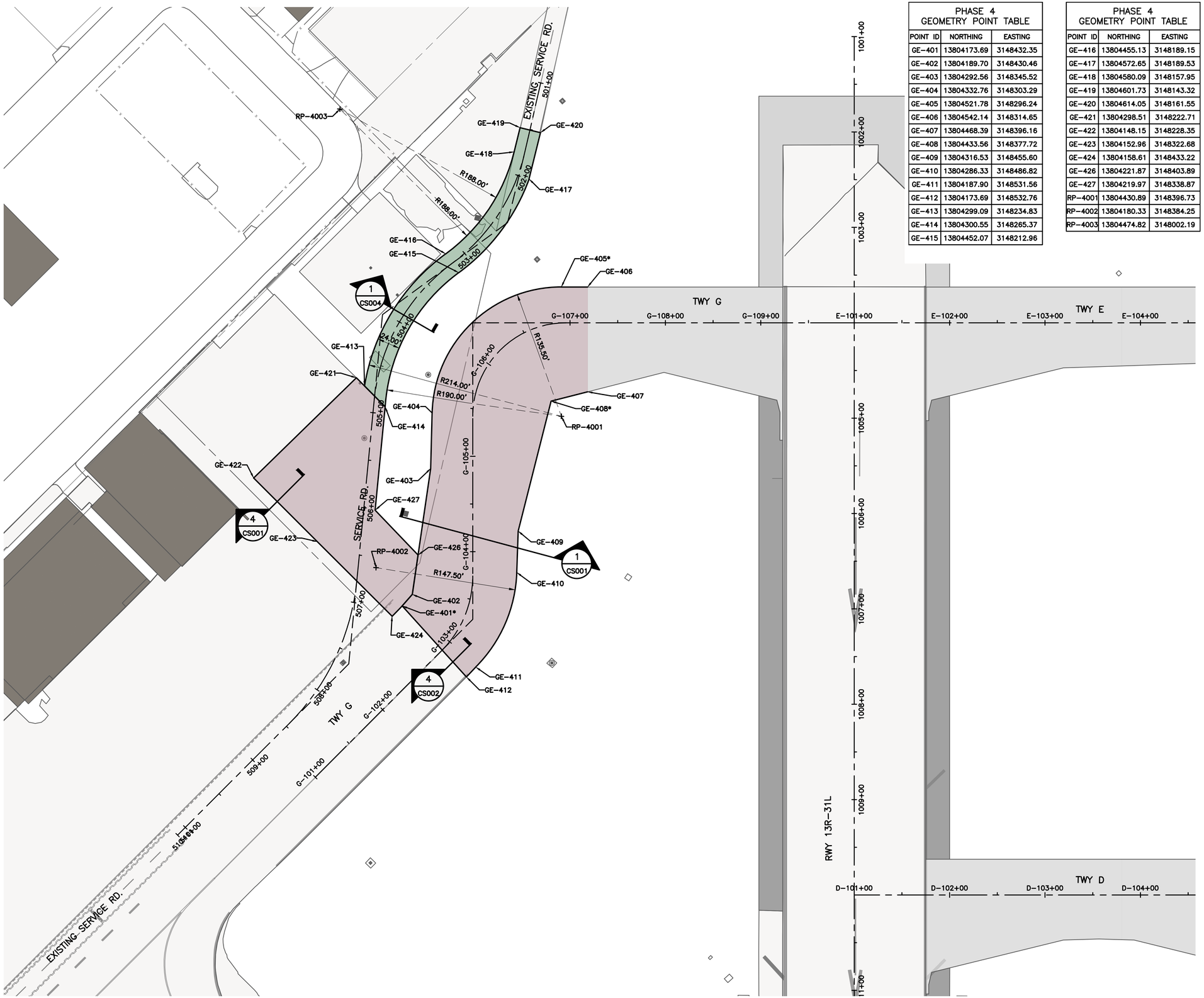
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CS104-P3
of

FILENAME: H22C770A-CS104-P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:47:38 AM

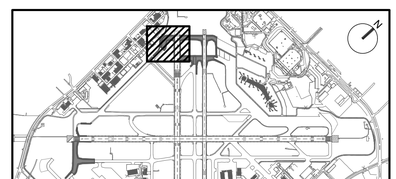


PHASE 4
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-401	13804173.69	3148432.35
GE-402	13804189.70	3148430.46
GE-403	13804292.56	3148345.52
GE-404	13804332.76	3148303.29
GE-405	13804521.78	3148296.24
GE-406	13804542.14	3148314.65
GE-407	13804468.39	3148396.16
GE-408	13804433.56	3148377.72
GE-409	13804316.53	3148455.60
GE-410	13804286.33	3148486.82
GE-411	13804187.90	3148531.56
GE-412	13804173.69	3148532.76
GE-413	13804299.09	3148234.83
GE-414	13804300.55	3148265.37
GE-415	13804452.07	3148212.96

PHASE 4
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-416	13804455.13	3148189.15
GE-417	13804572.65	3148189.53
GE-418	13804580.09	3148157.95
GE-419	13804601.73	3148143.32
GE-420	13804614.05	3148161.55
GE-421	13804298.51	3148222.71
GE-422	13804148.15	3148228.35
GE-423	13804152.96	3148322.68
GE-424	13804158.61	3148433.22
GE-426	13804221.87	3148403.89
GE-427	13804219.97	3148338.87
RP-4001	13804430.89	3148396.73
RP-4002	13804180.33	3148384.25
RP-4003	13804474.82	3148002.19



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 4

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

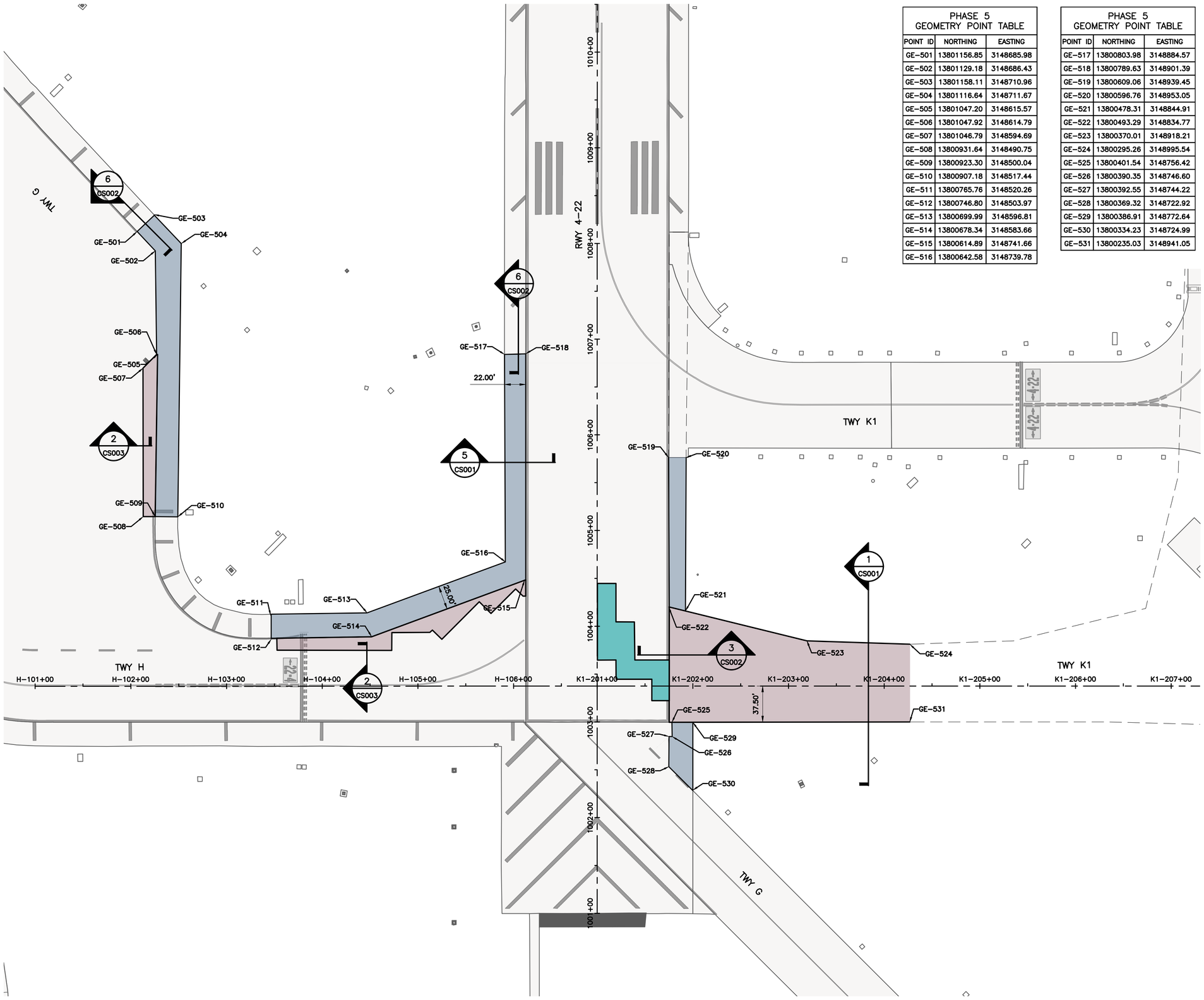
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

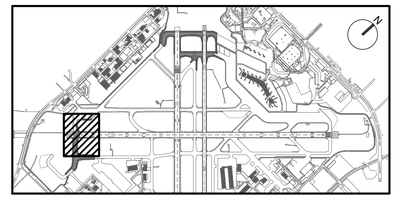
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS105-P4
of

FILENAME: H22C770A-CS105-P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:49:26 AM



PHASE 5 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE–501	13801156.85	3148685.98
GE–502	13801129.18	3148686.43
GE–503	13801158.11	3148710.96
GE–504	13801116.64	3148711.67
GE–505	13801047.20	3148615.57
GE–506	13801047.92	3148614.79
GE–507	13801046.79	3148594.69
GE–508	13800931.64	3148490.75
GE–509	13800923.30	3148500.04
GE–510	13800907.18	3148517.44
GE–511	13800765.76	3148520.26
GE–512	13800746.80	3148503.97
GE–513	13800699.99	3148596.81
GE–514	13800678.34	3148583.66
GE–515	13800614.89	3148741.66
GE–516	13800642.58	3148739.78

PHASE 5 GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE–517	13800803.98	3148884.57
GE–518	13800789.63	3148901.39
GE–519	13800609.06	3148939.45
GE–520	13800596.76	3148953.05
GE–521	13800478.31	3148844.91
GE–522	13800493.29	3148834.77
GE–523	13800370.01	3148918.21
GE–524	13800295.26	3148995.54
GE–525	13800401.54	3148756.42
GE–526	13800390.35	3148746.60
GE–527	13800392.55	3148744.22
GE–528	13800369.32	3148722.92
GE–529	13800386.91	3148772.64
GE–530	13800334.23	3148724.99
GE–531	13800235.03	3148941.05



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX–XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 5

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

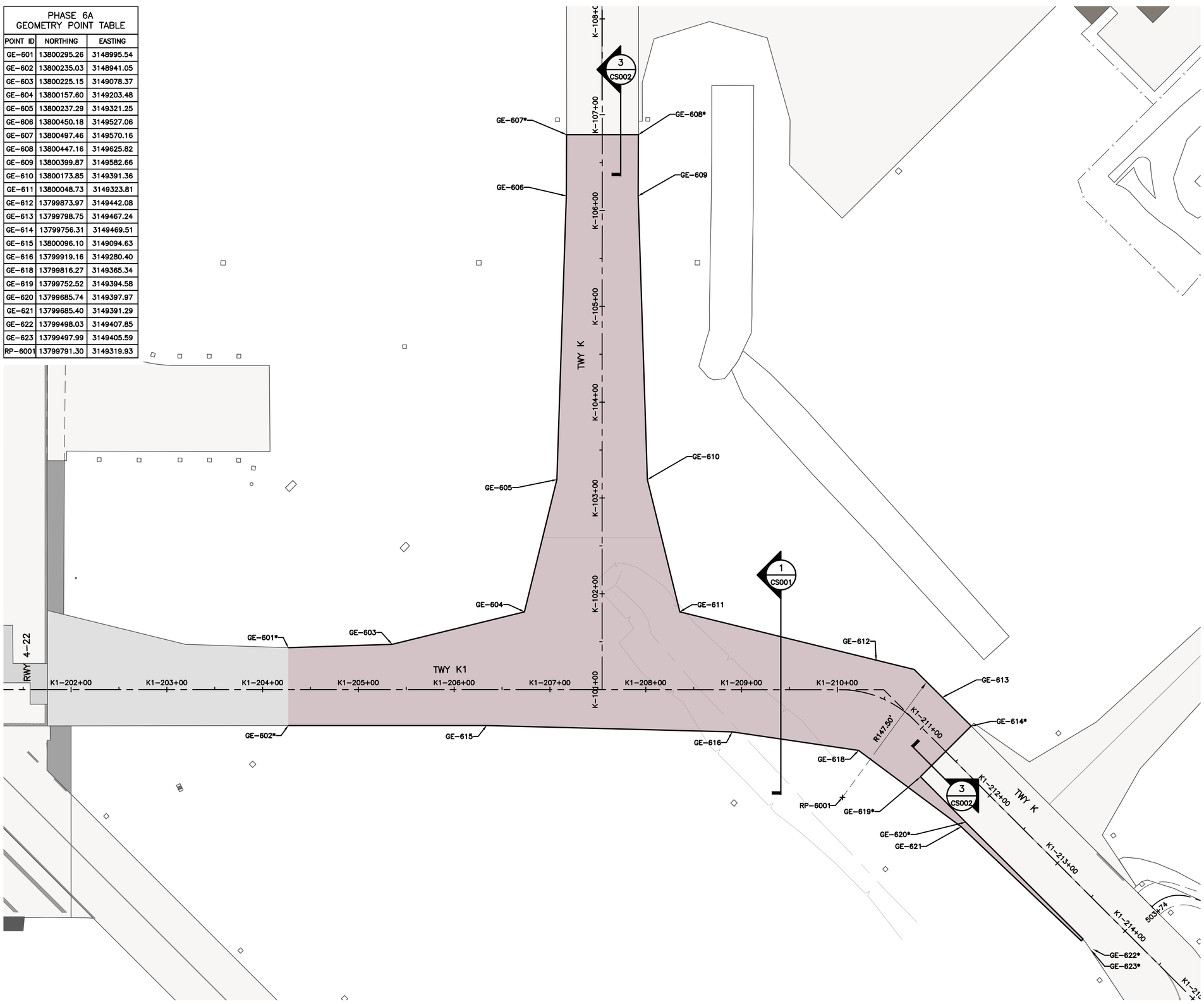
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

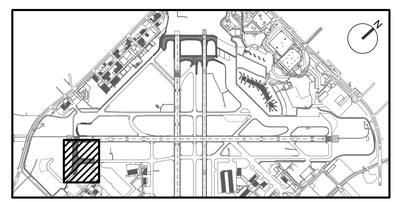
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS106–P5
of

PHASE 6A GEOMETRY POINT TABLE		
POINT ID	NORTHING	EASTING
GE-601	13800295.26	3148995.54
GE-602	13800235.03	3148941.05
GE-603	13800225.15	3149078.37
GE-604	13800157.60	3149203.48
GE-605	13800237.29	3149321.25
GE-606	13800450.18	3149527.06
GE-607	13800497.46	3149570.16
GE-608	13800447.16	3149625.82
GE-609	13800399.87	3149582.66
GE-610	13800173.85	3149391.36
GE-611	13800048.73	3149323.81
GE-612	13799873.97	3149442.08
GE-613	13799798.75	3149467.24
GE-614	13799756.31	3149469.51
GE-615	13800096.10	3149094.63
GE-616	13799919.16	3149280.40
GE-618	13799816.27	3149365.34
GE-619	13799752.52	3149394.58
GE-620	13799685.74	3149397.97
GE-621	13799685.40	3149391.29
GE-622	13799498.03	3149407.85
GE-623	13799497.99	3149405.59
RP-6001	13799791.30	3149319.93





KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 6A

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:

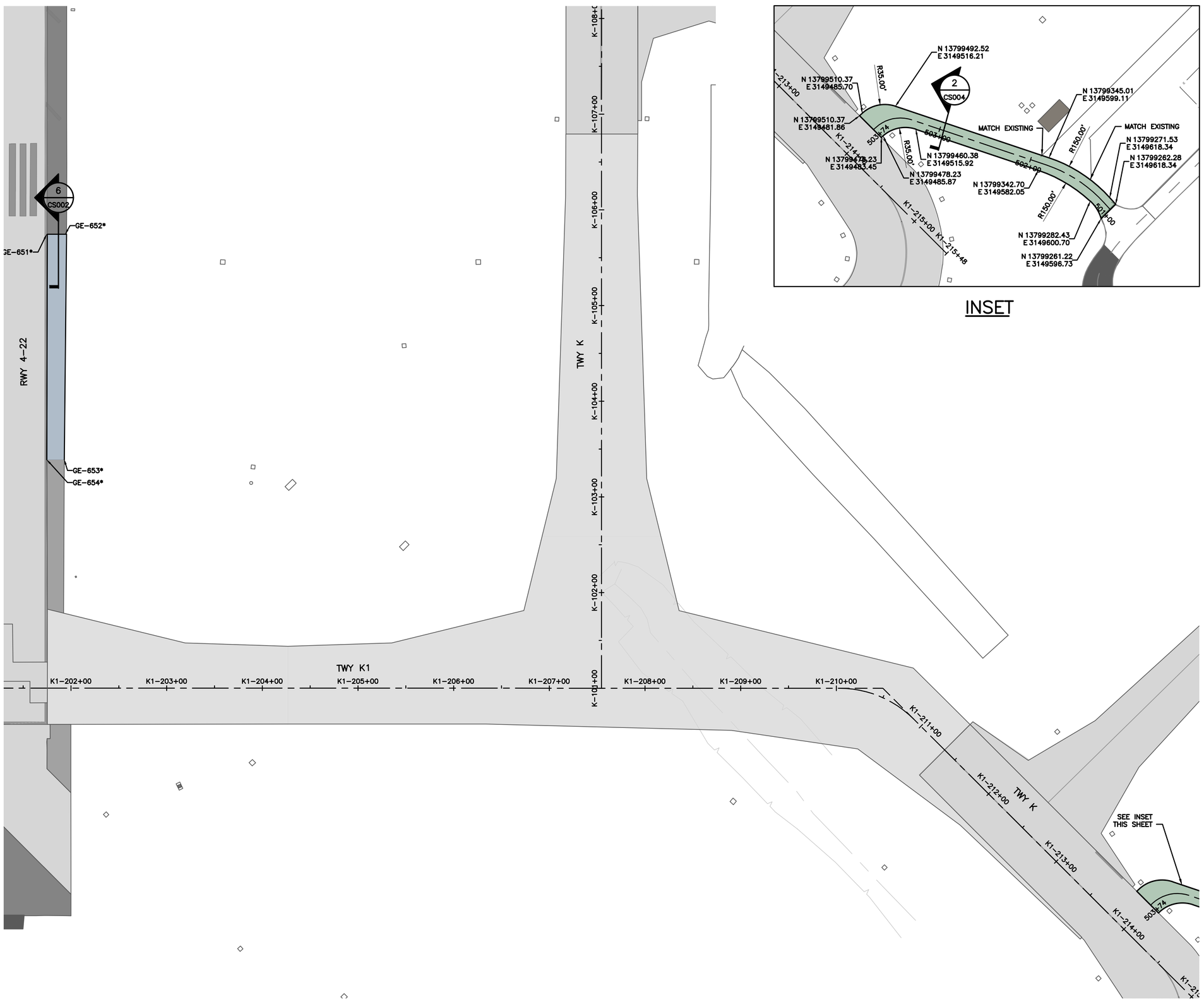
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

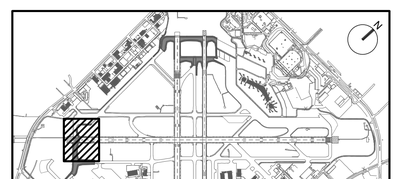
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CS107-P6
of



INSET



KEY MAP
NTS

NOTES:

1. GEOMETRY CALLOUTS AND DIMENSIONS DESCRIBE PROPOSED PAVEMENT GEOMETRY FOR AREAS WHERE EXISTING GEOMETRY AND JOINTS DO NOT CONTROL. FOR AREAS WITHOUT COORDINATES OR DIMENSIONS, MATCH EXISTING JOINTS AND PAVEMENT GEOMETRY.
2. FOR PAVEMENT TYPES SECTIONS, SEE SHEETS CS001 THROUGH CS004.
3. FOR CONCRETE JOINT AND ASPHALT PAVING LAYOUT, SEE "CP" SERIES SHEETS.
4. XX-XXX* POINT CALL OUTS TO MATCH EXISTING PAVEMENT

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- FULL DEPTH ASPHALT TAXIWAY PAVEMENT
- ASPHALT OVERLAY
- EXISTING AIRFIELD PAVEMENT
- VEHICLE SERVICE ROAD PAVEMENT
- PANEL REPLACEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)

PHASE 6B
GEOMETRY POINT TABLE

POINT ID	NORTHING	EASTING
GE-651	13800783.80	3149097.44
GE-652	13800770.75	3149111.88
GE-653	13800596.76	3148953.05
GE-654	13800609.06	3148939.45

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GEOMETRY PLAN – PHASE 6B

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

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

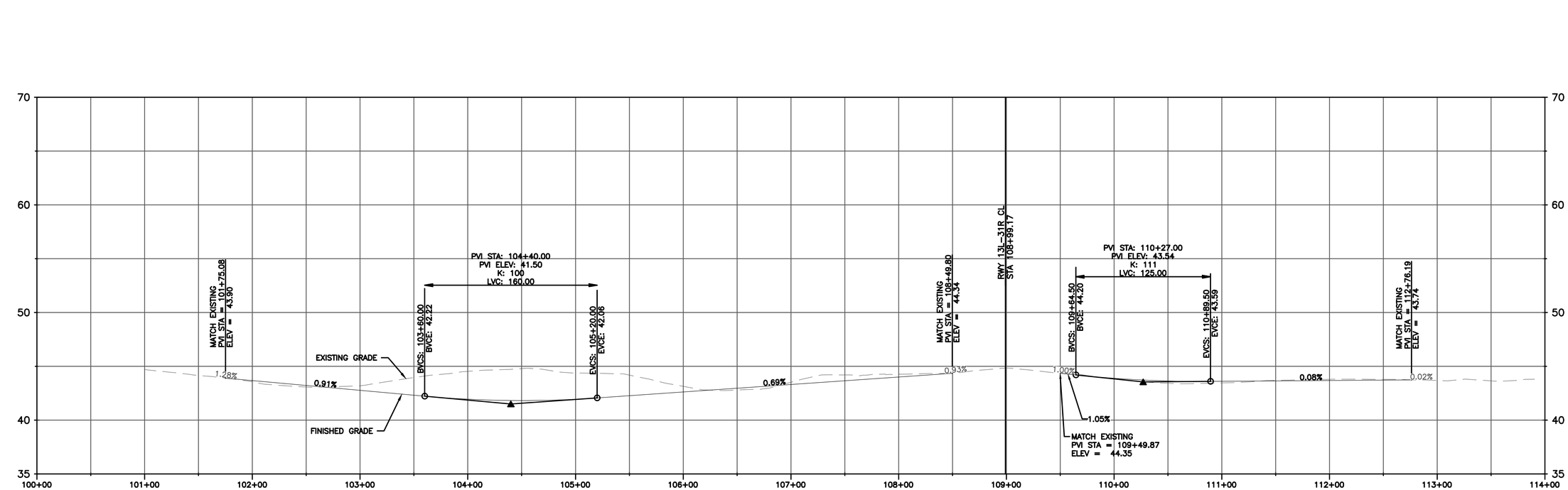
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CS108-P6
of

FILENAME: H22C770A-CS108-P6.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:53:15 AM



EXISTING ELEV			44.69	44.14	43.57	43.08	43.18	43.96	44.53	44.78	44.37	44.18	43.13	42.79	43.52	44.20	44.28	44.35	44.85	44.35	43.82	43.42	43.46	43.69	43.79	43.79	43.68	43.64		
PROPOSED ELEV					43.67	43.22	42.77	42.32	41.94	41.81	41.94	42.26	42.61	42.96	43.30	43.65	44.00			44.35	43.88	43.63	43.60	43.64	43.68	43.72			

TWY–E

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

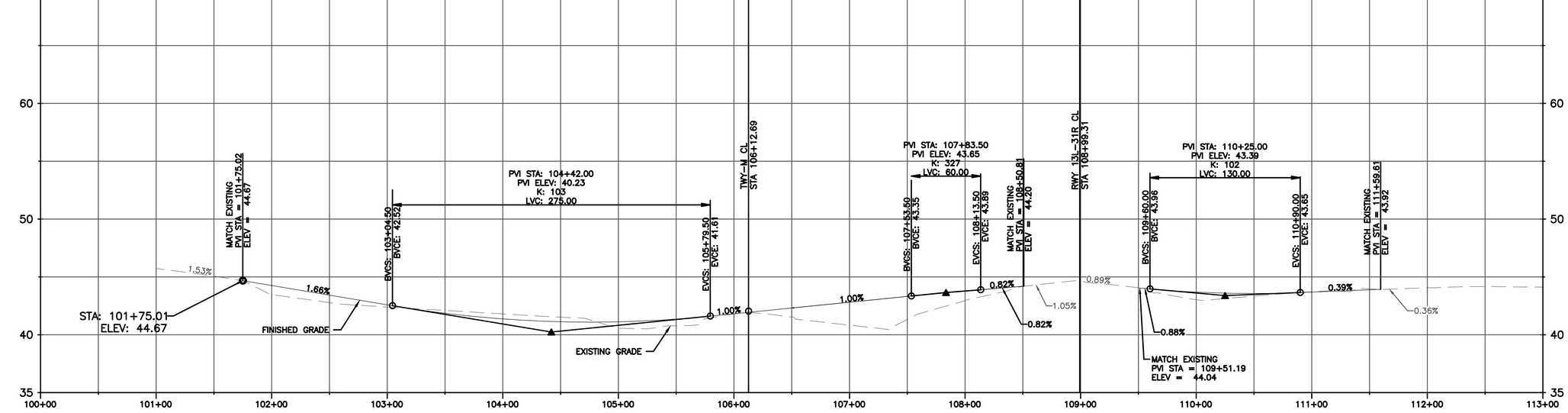
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CS201
of

FILENAME: H22C770A–CS201–206.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:54:15 AM



EXISTING ELEV			45.72	45.06	43.45	42.78	42.39	42.10	41.81	41.52	40.57	40.78	41.79	41.53	40.83	41.33	42.95	44.19	44.67	44.07	43.03	43.34	43.70	43.97	44.06	44.17	44.11
PROPOSED ELEV					**44.25**	**43.42**	**42.59**	**41.86**	**41.37**	**41.12**	**41.12**	**41.35**	**41.81**	**42.31**	**42.81**	**43.31**	**43.78**	**44.19**			**43.69**	**43.57**	**43.68**	**43.88**			

TWY–D

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

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:

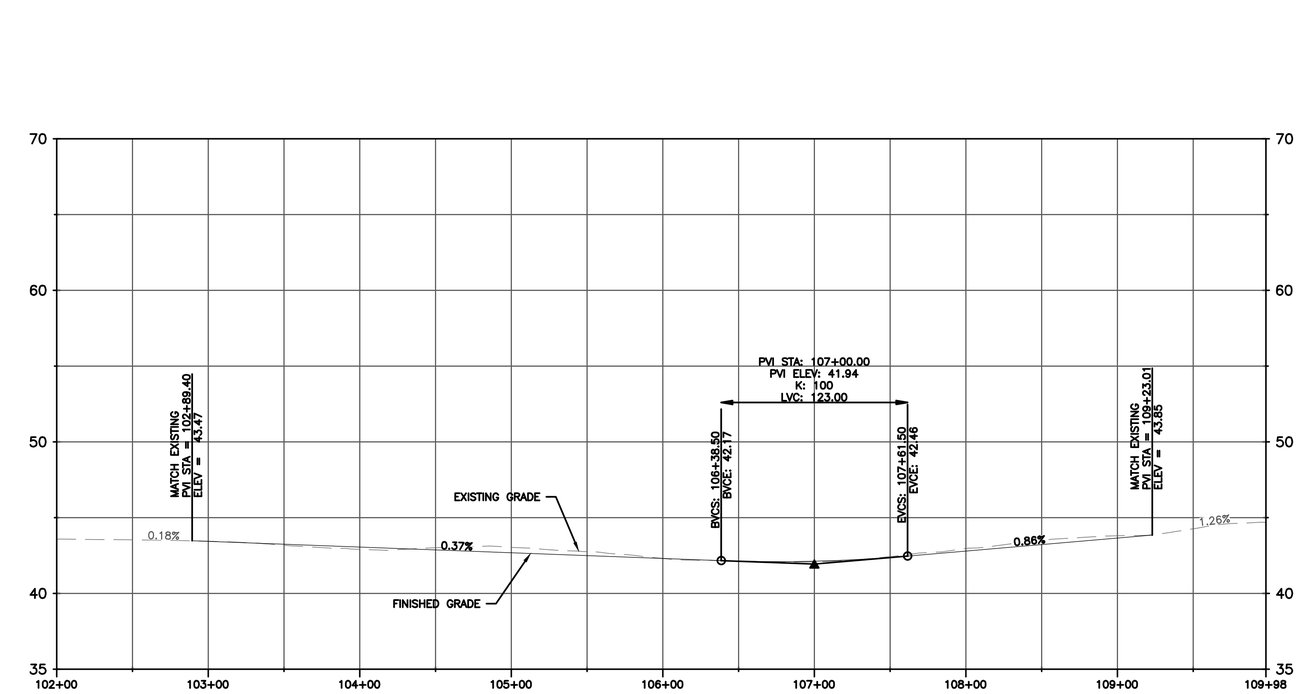
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: CS202
of



EXISTING ELEV	43.58	43.53	43.44	43.18	42.91	43.01	43.04	42.76	42.30	42.15	42.09	42.43	42.96	43.49	43.80	44.26	44.69
PROPOSED ELEV			43.43	43.24	43.06	42.87	42.68	42.50	42.31	42.13	42.13	42.37	42.80	43.23	43.66		

TWY–G

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

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.

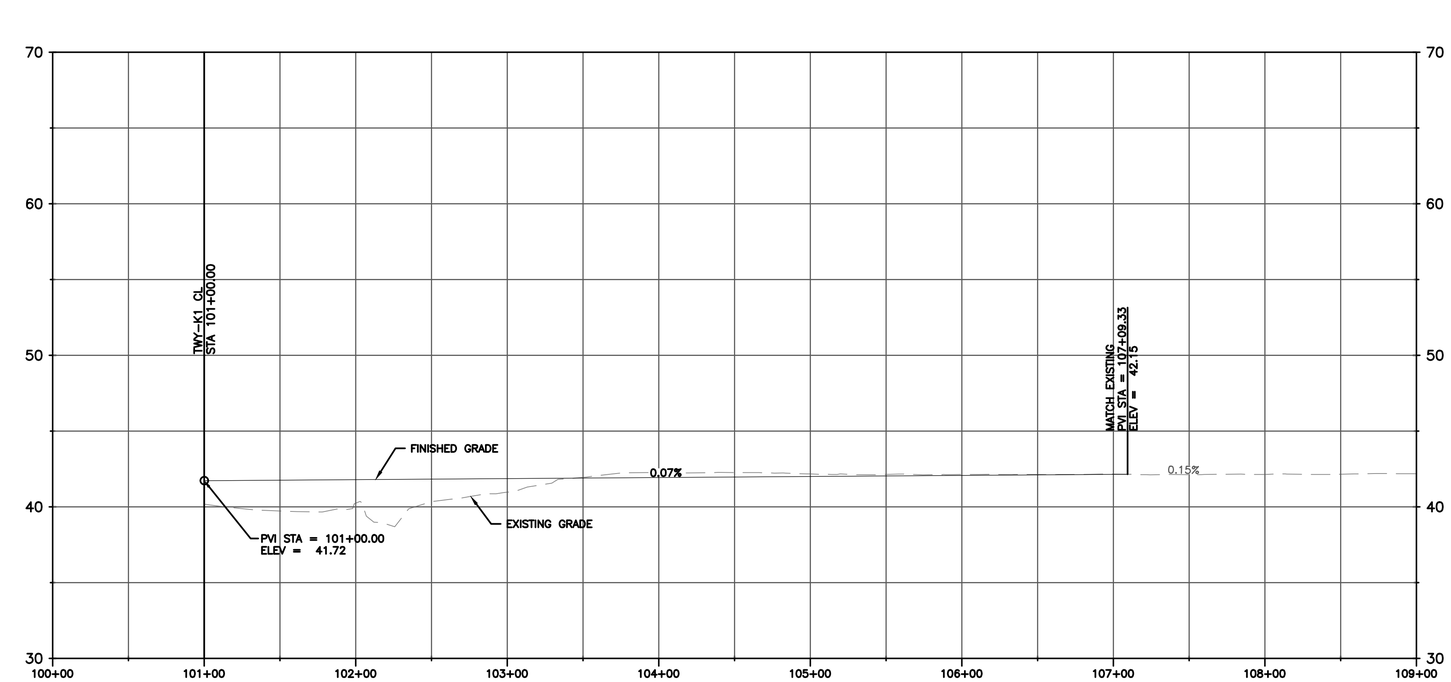
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: CS203
of



EXISTING ELEV			40.18	39.72	40.24	40.34	40.97	41.95	42.25	42.26	42.17	42.14	42.13	42.13	42.16	42.12	42.14	42.15	42.19
PROPOSED ELEV			41.72	41.76	41.79	41.83	41.86	41.90	41.93	41.97	42.00	42.04	42.08	42.11	42.15				

TWY-K

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

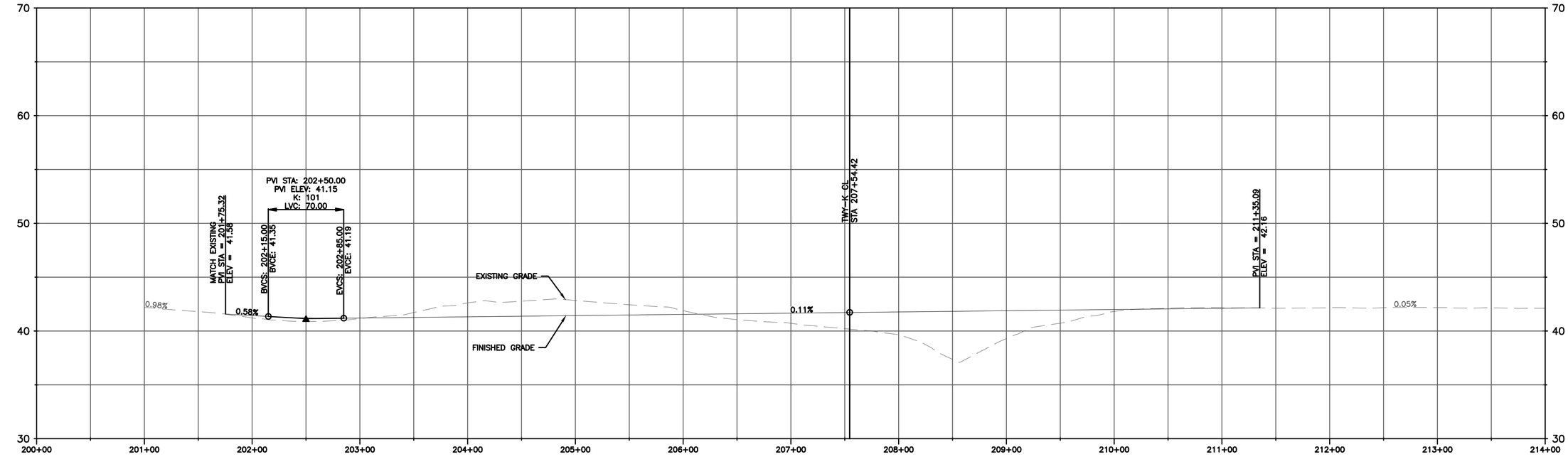
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CS204
of

FILENAME: H22C770A-CS201-206.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:57:12 AM



EXISTING ELEV		42.19	41.81	41.22	40.89	41.16	41.72	42.61	42.77	42.84	42.44	41.89	41.06	40.72	40.22	39.66	37.36	39.30	40.73	41.82	42.12	42.16	42.12	42.17	42.16	42.18	42.16	42.12
PROPOSED ELEV				41.44	41.21	41.21	41.26	41.32	41.38	41.43	41.49	41.55	41.60	41.66	41.72	41.77	41.83	41.89	41.95	42.00	42.06	42.12						

TWY–K1

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

TAXIWAY PROFILES

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

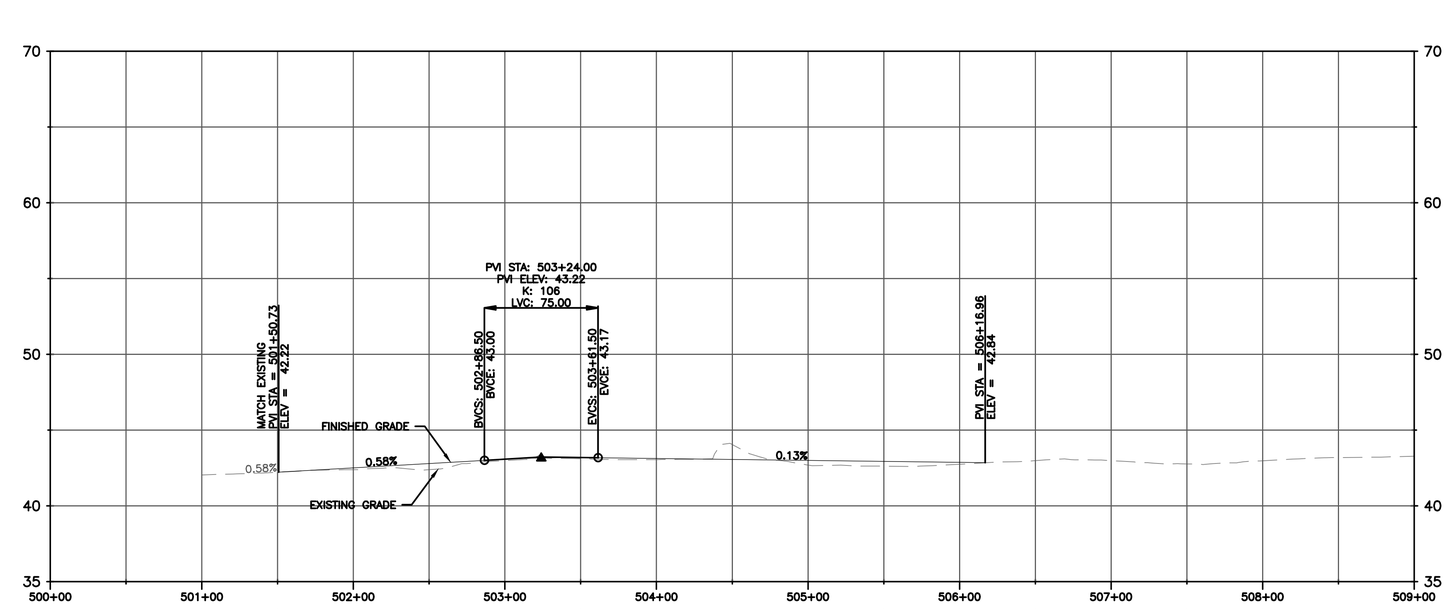
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CS205
of

FILENAME: H22C770A–CS201–206.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:57:33 AM



EXISTING ELEV			42.04	42.21	42.39	42.39	42.99	43.11	43.05	44.04	42.69	42.62	42.74	42.98	42.98	42.76	42.98	43.19	43.27
PROPOSED ELEV					42.50	42.79	43.07	43.18	43.12	43.06	42.99	42.93	42.87						

VSR

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

SERVICE ROAD PROFILES

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:

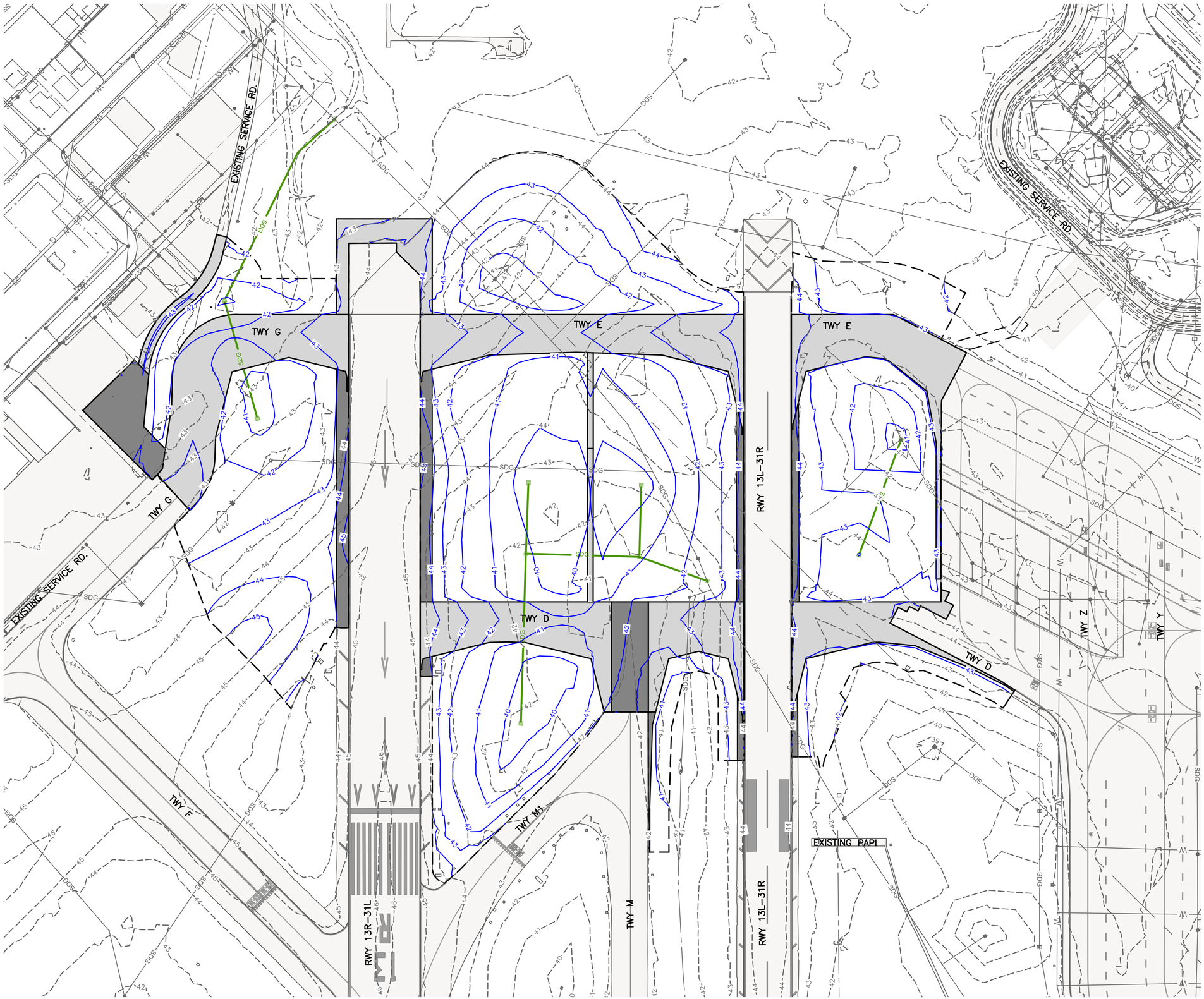
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

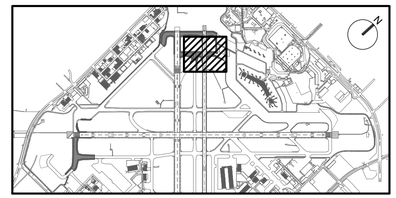
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CS206
of





KEY MAP
NTS

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GRADING LIMITS
- 40 — PROPOSED CONTOUR
- 40 — EXISTING CONTOUR
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- SDG — EXISTING STORM DRAINAGE

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL GRADING AND DRAINAGE PLAN (PHASES 1 THROUGH 4)

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

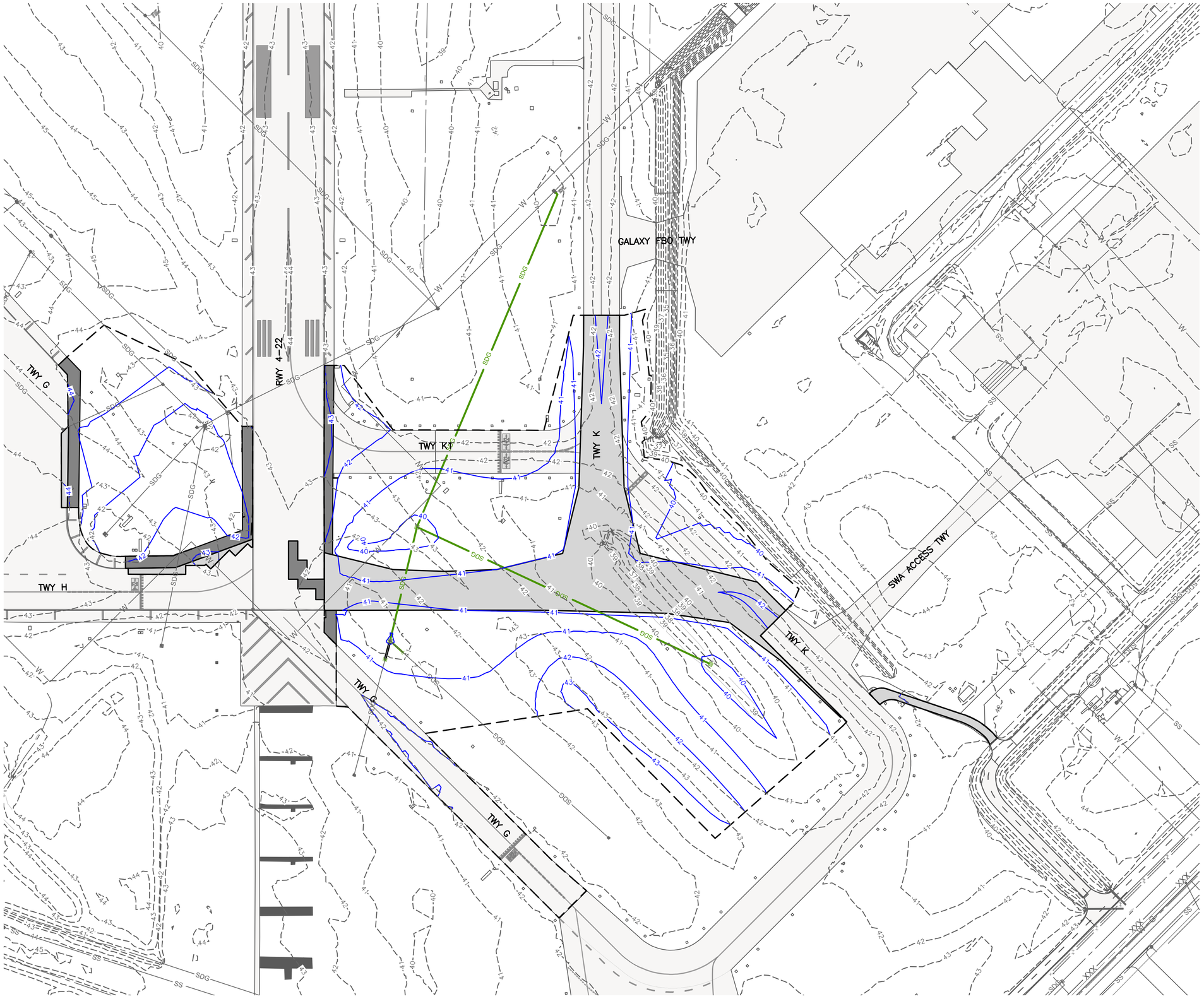
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

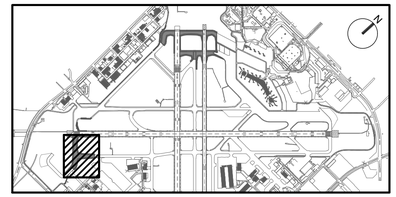
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG001
of

FILENAME: H22C770A-CG001-011.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:20:38 AM





KEY MAP
NTS

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- SDG EXISTING STORM DRAINAGE

GRAPHIC SCALE
100' 0 100' 300'
SCALE: 1" = 100'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

OVERALL GRADING AND DRAINAGE PLAN (PHASES 5 AND 6)

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CG002
of

FILENAME: H22C770A-CG001-011.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:22:10 AM

SD2-S-87
N 13804737.30
E 3148964.39
RIM: 39.50'
SUMP: 33.42'
INV OUT: 33.75 36" RCP

SD3-S-89
N 13804908.37
E 3149126.38
RIM: 39.60'
SUMP: 33.85'
INV OUT: 33.85 36" RCP

SD2-P-36
148 LF
36" RCP

SD3-P-37
150 LF
36" RCP

SD8-S-108
N 13804904.87
E 3149234.68
RIM: 40.88'
SUMP: 32.92'
INV IN: 33.30 42" RCP
INV OUT: 33.30 42" RCP

SD8-P-26
237 LF
42" RCP

SD8-P-47
150 LF
42" RCP

SD8-S-109
N 13804876.30
E 3149366.97
RIM: 42.49'
SUMP: 31.82'
INV IN: 32.20 42" RCP
CONNECT EXISTING 42" STORM DRAIN TO MANHOLE

SD2-S-88
N 13804633.76
E 3149070.76
RIM: 40.13'
SUMP: 33.60'
INV IN: 33.60 36" RCP

CAP EXISTING INLET.
SEE CG506 DETAIL 2

SD1-101
335 LF
36" RCP

SD1-S-80
N 13804388.28
E 3149326.71
RIM: 39.47'
SUMP: 34.12'
INV OUT: 34.12 36" RCP

SD4-EXMH-01
N 13805374.65
E 3149419.82
RIM: 40.60'
SUMP: 36.42'
INV IN: 36.42 24" RCP

SD4-101
256 LF
24" RCP

SD4-CB-01
N 13805148.43
E 3149539.28
RIM: 42.00'
SUMP: 37.25'
INV OUT: 37.50 24" RCP

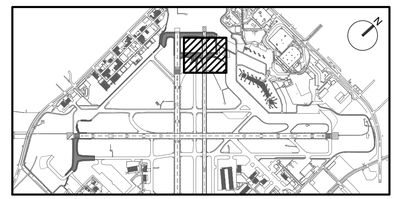
RWY 13L-31R

TWY M

TWY MT

TWY D

EXISTING PAPI



KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 — PROPOSED CONTOUR
- 40 — EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG — EXISTING STORM DRAIN PIPE
- CO — PROPOSED UNDERDRAIN CLEANOUT
- UD — PROPOSED UNDERDRAIN PIPE
- 40 — TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 1

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:

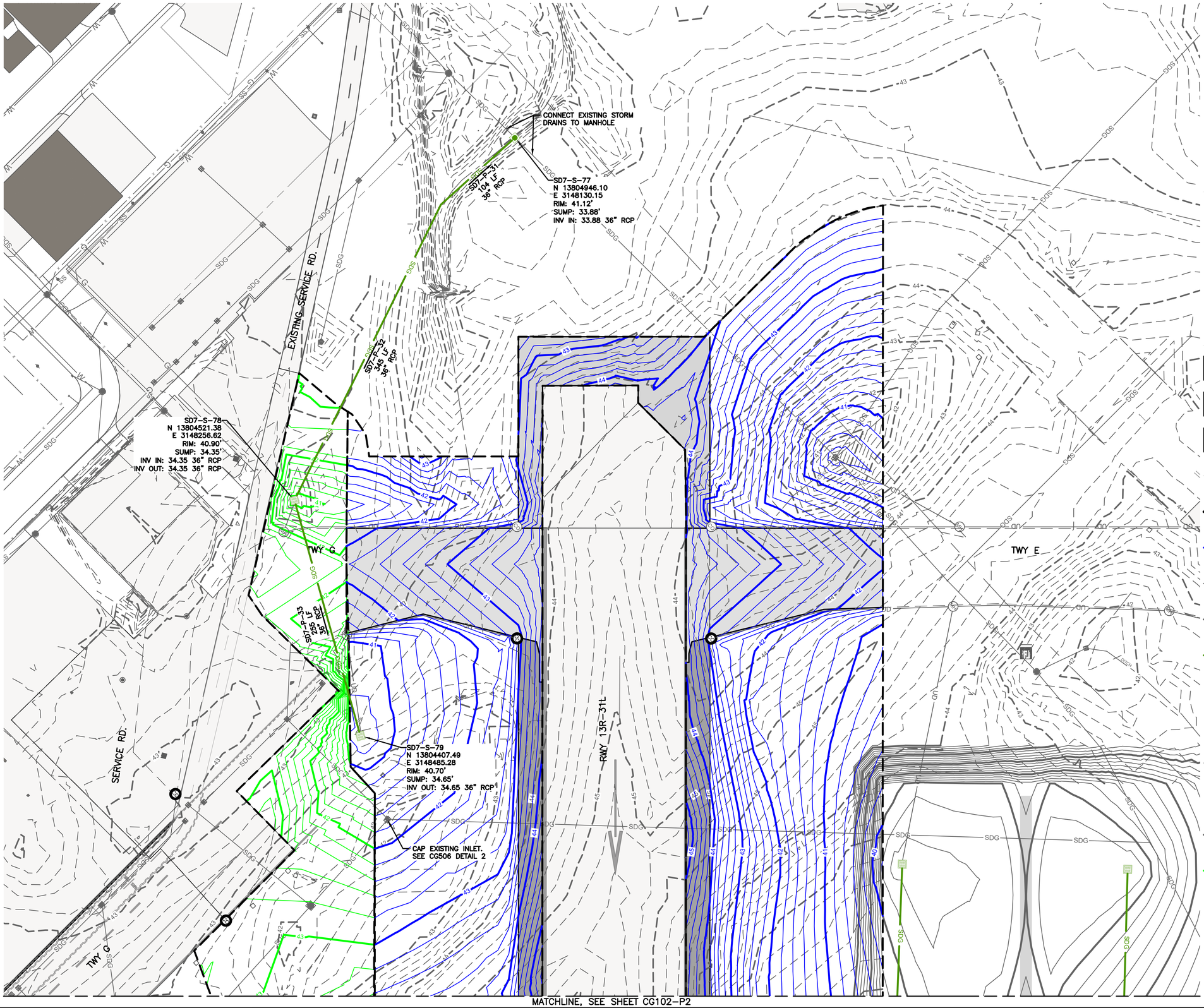
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

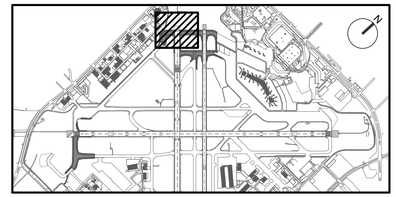
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CG101-P1
of





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 2

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:

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

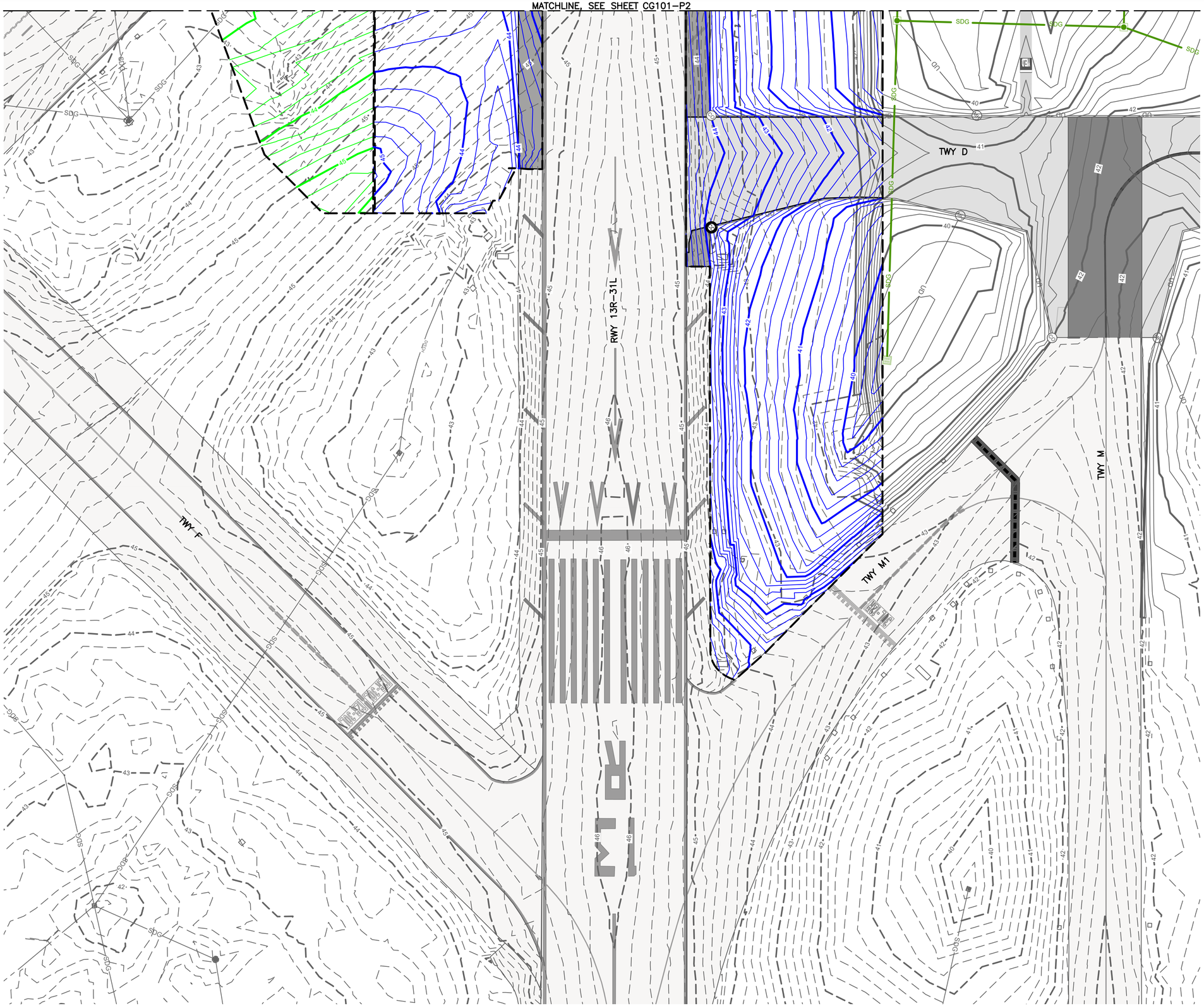
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

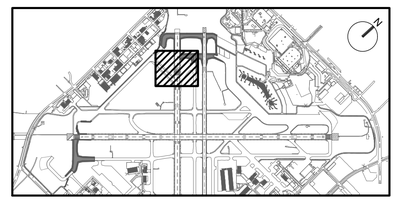
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG102-P2
of

MATCHLINE, SEE SHEET CG101-P2





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 2

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.

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

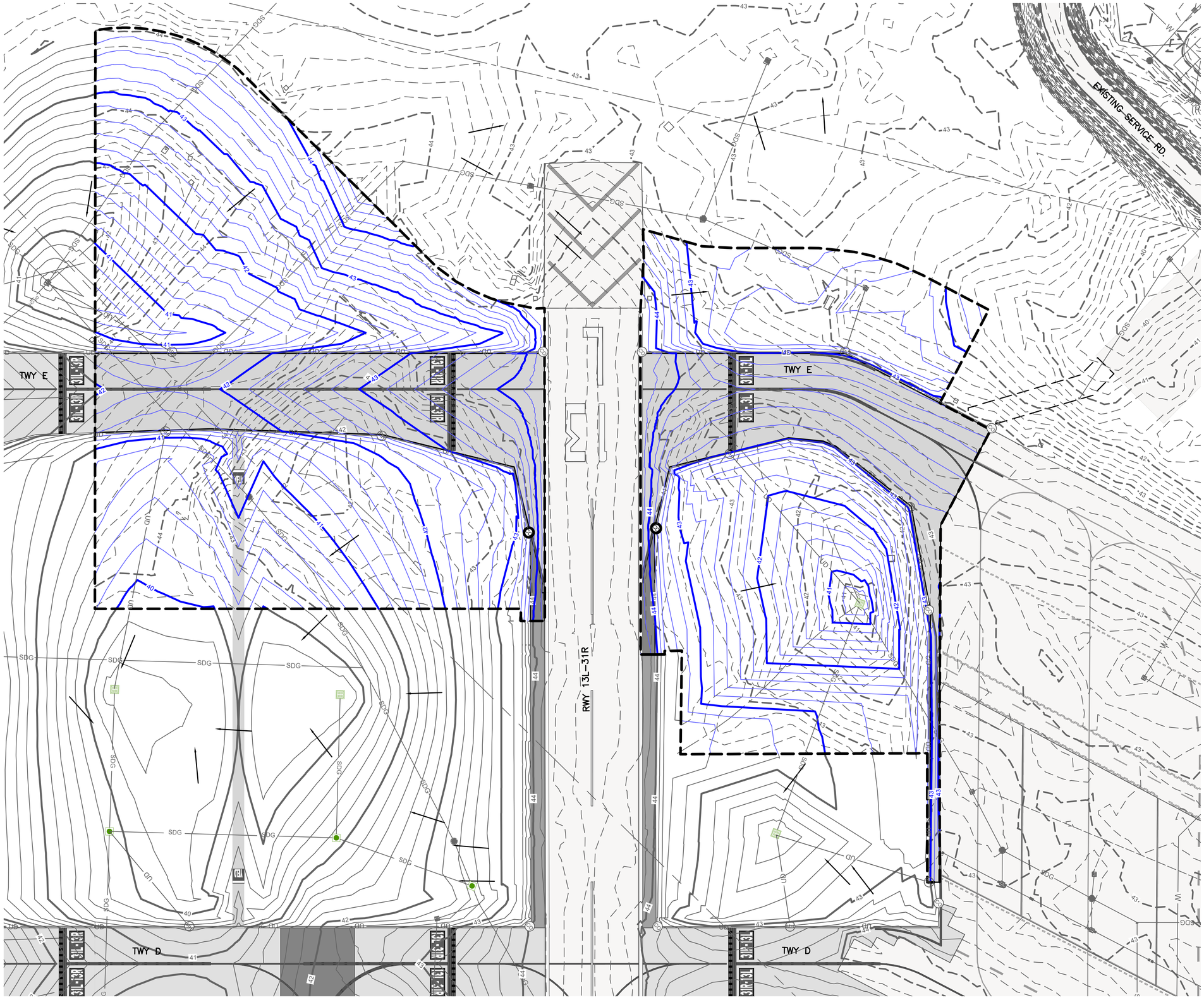
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

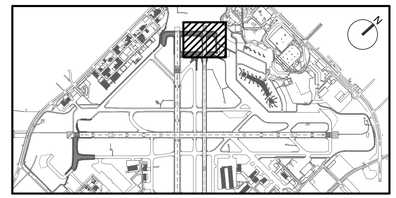
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG103-P2
of

FILENAME: H22C770A-CG102-103-P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:26:19 AM





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 3

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:

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

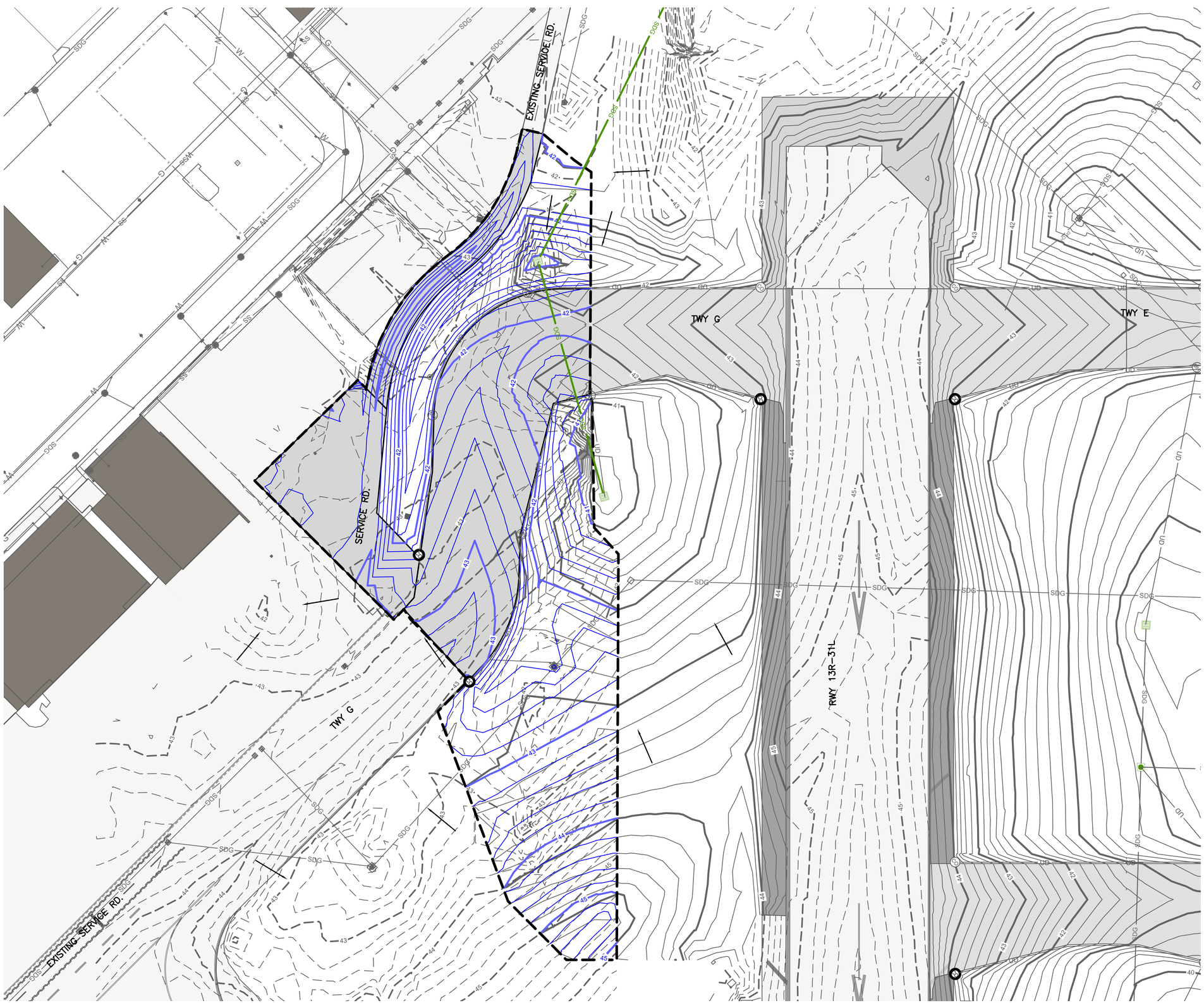
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

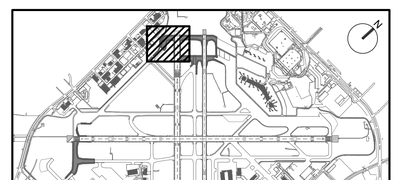
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CG104-P3

of





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC–901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P–152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 — PROPOSED CONTOUR
- 40 — EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG — EXISTING STORM DRAIN PIPE
- CO — PROPOSED UNDERDRAIN CLEANOUT
- UD — PROPOSED UNDERDRAIN PIPE
- 40 — TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 4

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.

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

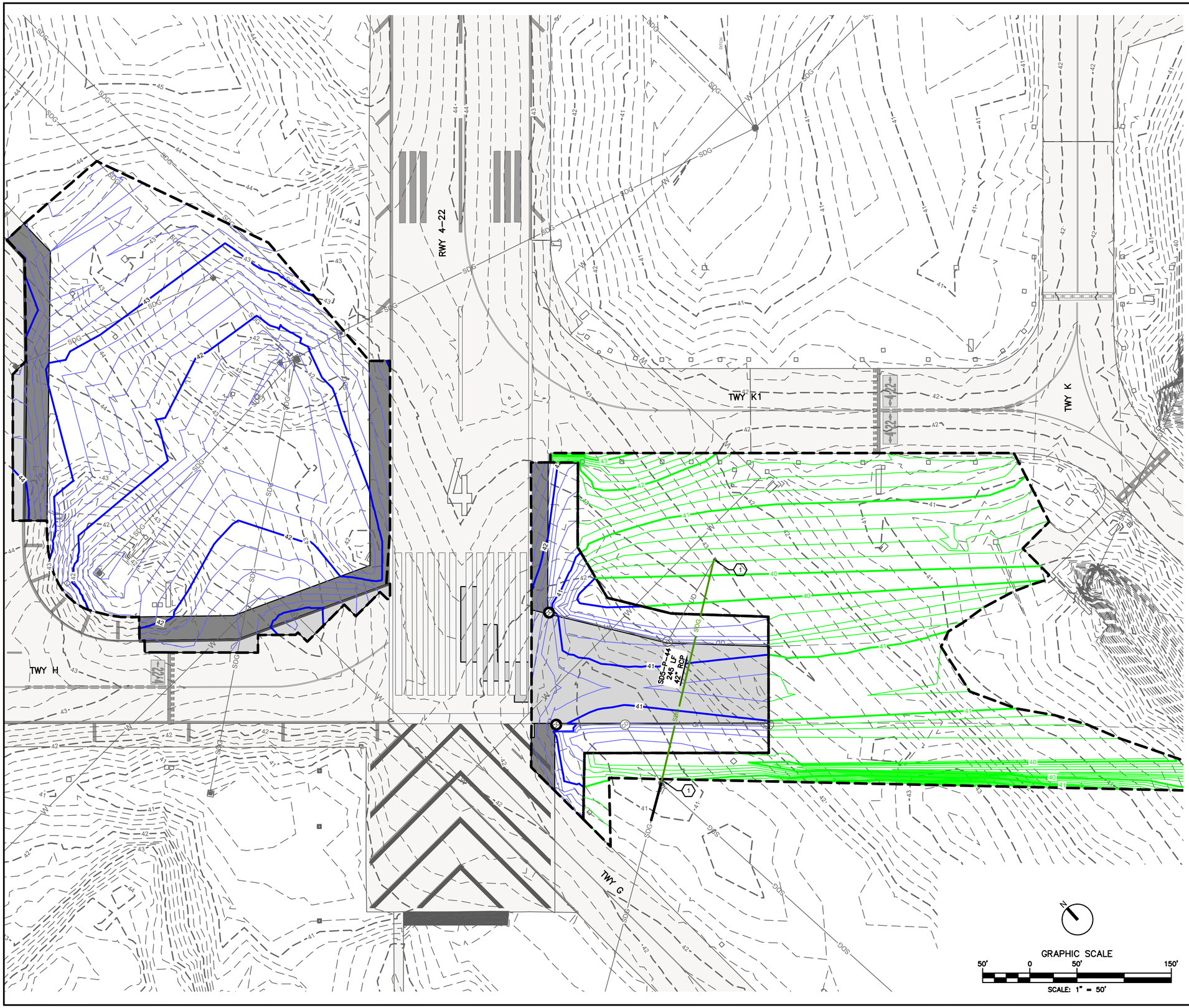
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

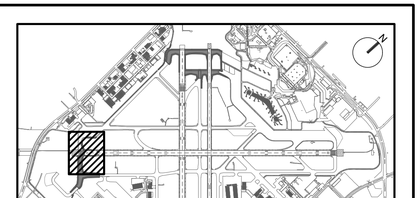
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3–48–0110–044
H.A.S. NO:	N/A
SHEET NO:	CG105–P4

of





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC–901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P–152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 PROPOSED CONTOUR
- 40 EXISTING CONTOUR
- 40 PREVIOUSLY COMPLETED GRADING
- SDG PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD PROPOSED UNDERDRAIN PIPE
- 40 TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

KEYED NOTES:

1. CONSTRUCT 42" RCP AS SHOWN AND CAP WITH APPROVED SPIGOT END PLUG. CONTRACTOR SHALL REMOVE CAPS AND CONNECT THE RCP TO PROPOSED INLETS IN PHASE 6A AT THE ELEVATIONS SHOWN IN CG107–P6. CAPS SHALL BE INCIDENTAL TO OTHER PROJECT WORK.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE PLAN – PHASE 5

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:

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

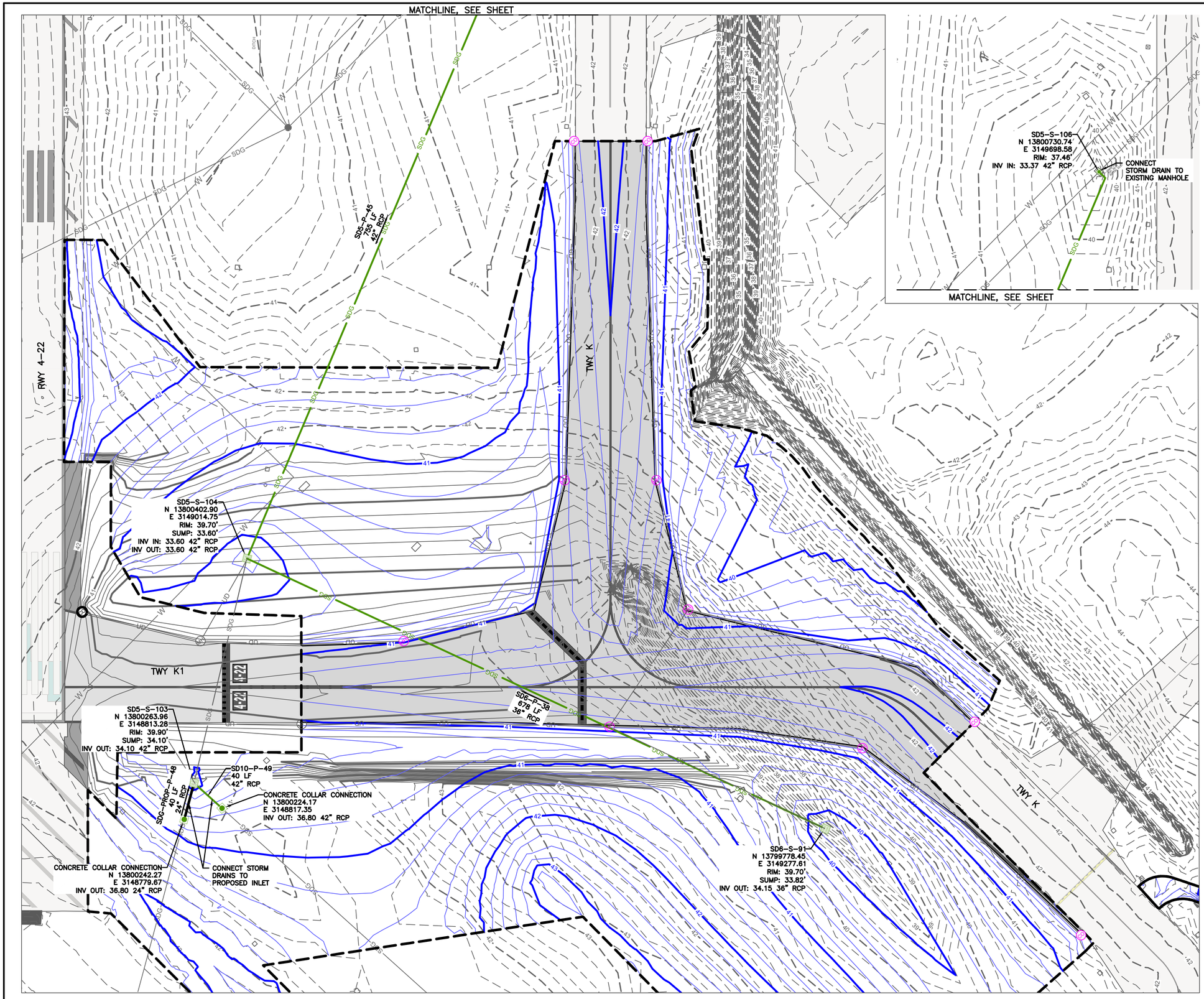
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

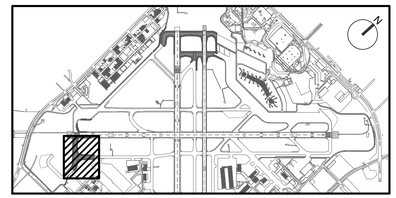
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG106–P5
of

FILENAME: H22C770A–CG106–P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:30:52 AM





KEY MAP
NTS

NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY DRAINAGE AND GRADE TRANSITIONS DURING AND BETWEEN EACH PHASE. ANY MODIFICATIONS TO THE TEMPORARY CONTOURS SHOWN SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
2. TEMPORARY GRADE TRANSITIONS SHALL BE CONSTRUCTED WITH A 3' BENCH AND TIE INTO EXISTING GRADE AT A MAXIMUM 4:1 SLOPE. SEE TEMPORARY CONTOURS AND GC-901 DETAIL 4 FOR REFERENCE.
3. ESTABLISHMENT OF TEMPORARY GRADE TRANSITIONS TO ENSURE POSITIVE (CONTINUOUS AND FLOWING) DRAINAGE SHALL BE INCIDENTAL TO P-152
4. SEE SHEETS CG001 AND CG002 FOR OVERALL GRADING AND DRAINAGE LAYOUT.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED GRADING LIMITS
- 40 — PROPOSED CONTOUR
- 40 - - - EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- SDG — PROPOSED STORM DRAIN PIPE
- PROPOSED STORM INLET
- PROPOSED STORM MANHOLE
- SDG — EXISTING STORM DRAIN PIPE
- CO PROPOSED UNDERDRAIN CLEANOUT
- UD — PROPOSED UNDERDRAIN PIPE
- 40 — TEMPORARY GRADING CONTOUR

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
GRADING AND DRAINAGE PLAN – PHASE 6A AND 6B

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.

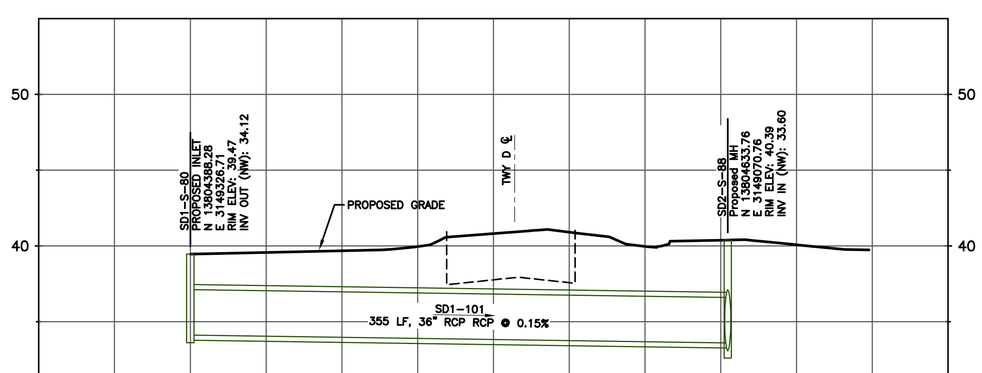
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED ENGINEER
02/24/2023

APPROVED BY:	DATE:

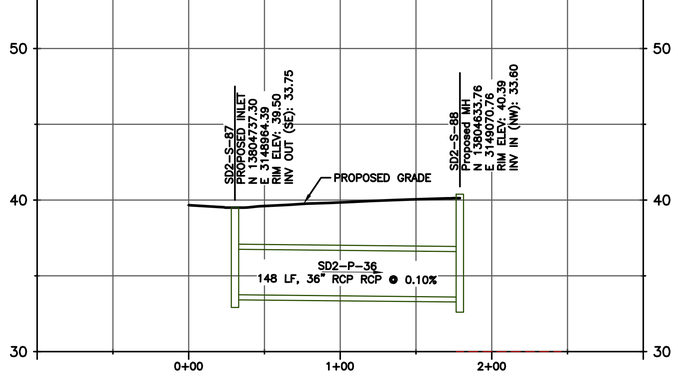
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG107-P6
of



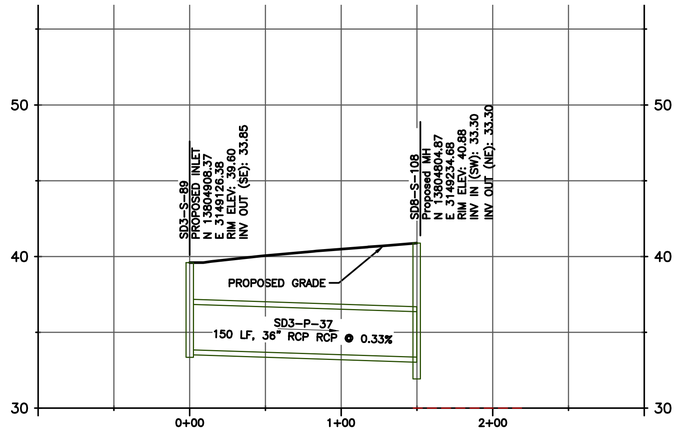
SD1

HOR SCALE: 1":100'
VER SCALE: 1":10'



SD2

HOR SCALE: 1":100'
VER SCALE: 1":10'



SD3

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

STORM DRAIN PROFILES

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:

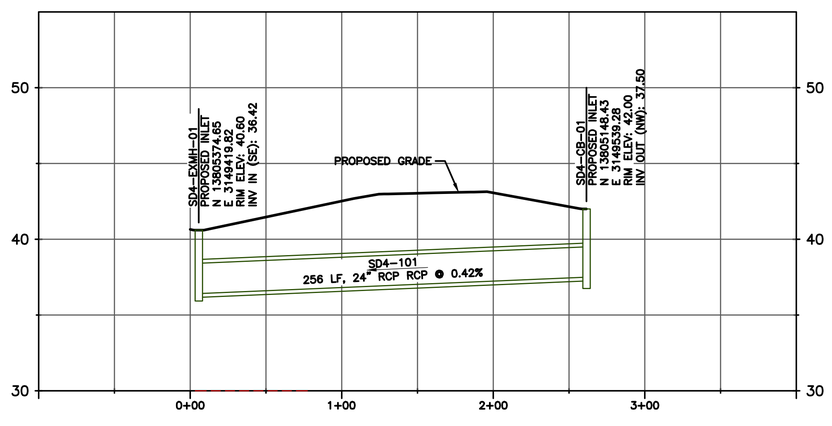
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	S. WAZIRI
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

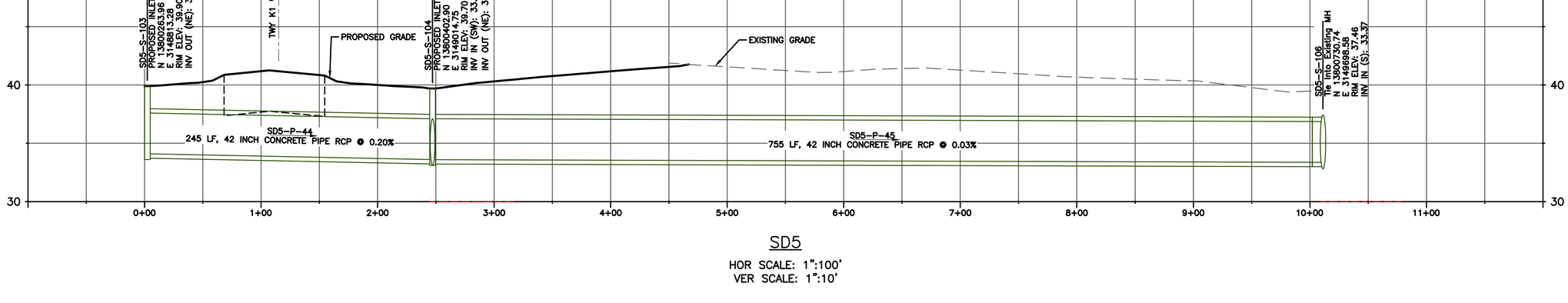
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG201
of



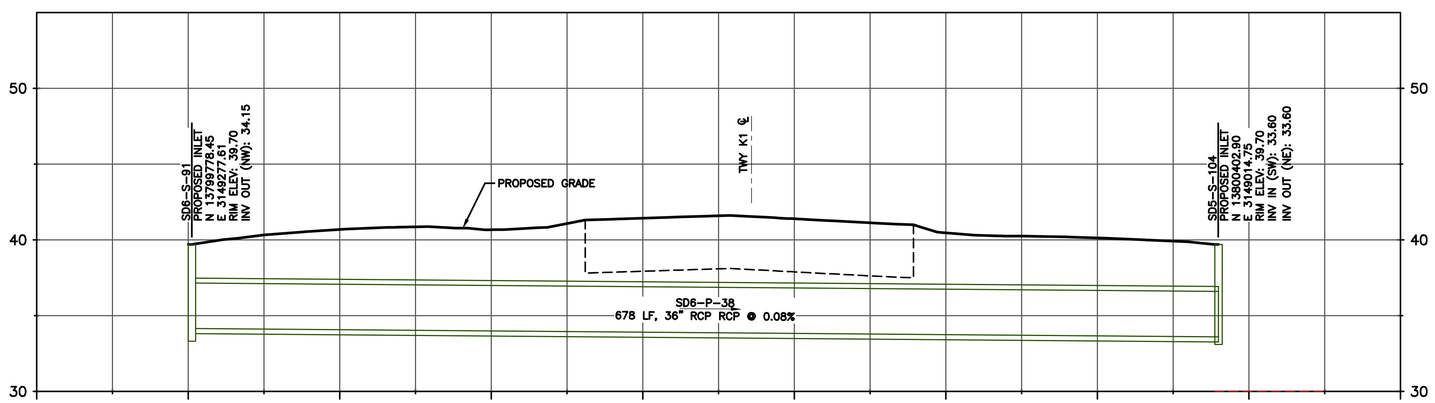
SD4

HOR SCALE: 1":100'
VER SCALE: 1":10'



SD5

HOR SCALE: 1":100'
VER SCALE: 1":10'



SD6

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

STORM DRAIN PROFILES

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:

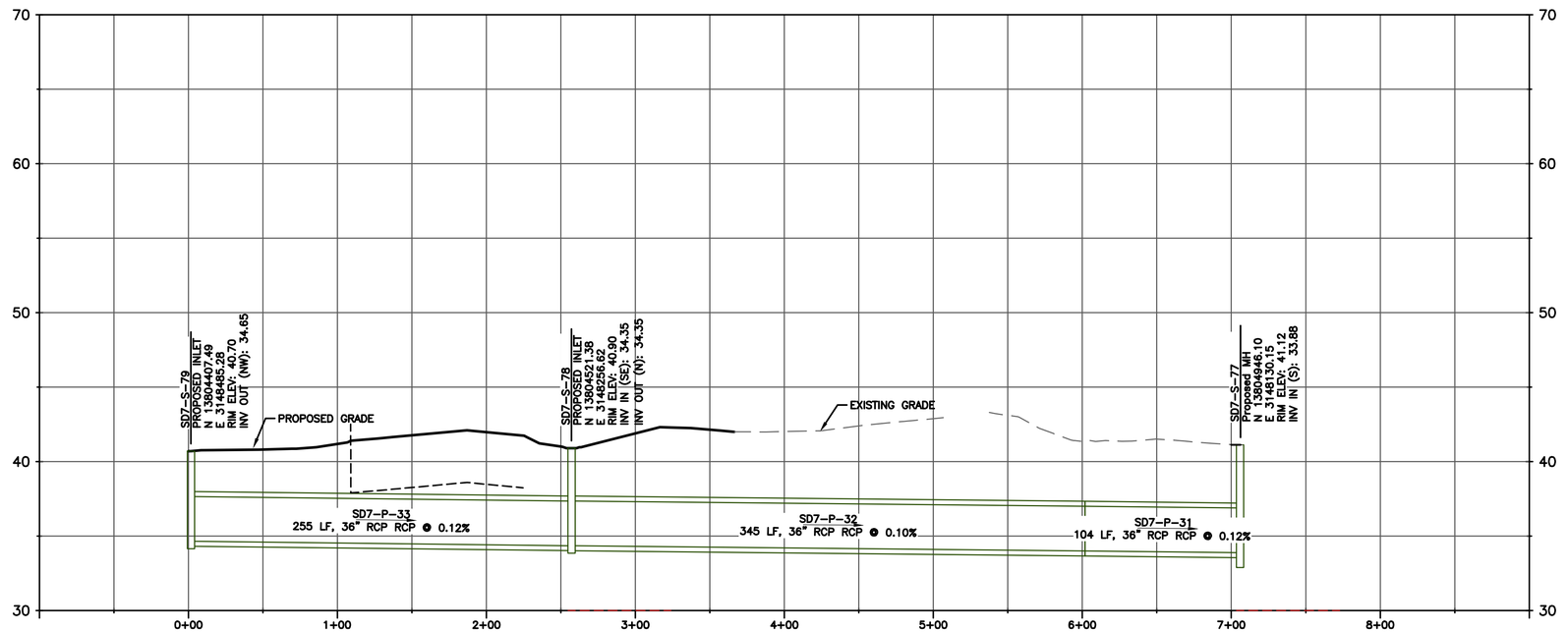
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	S. WAZIRI
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

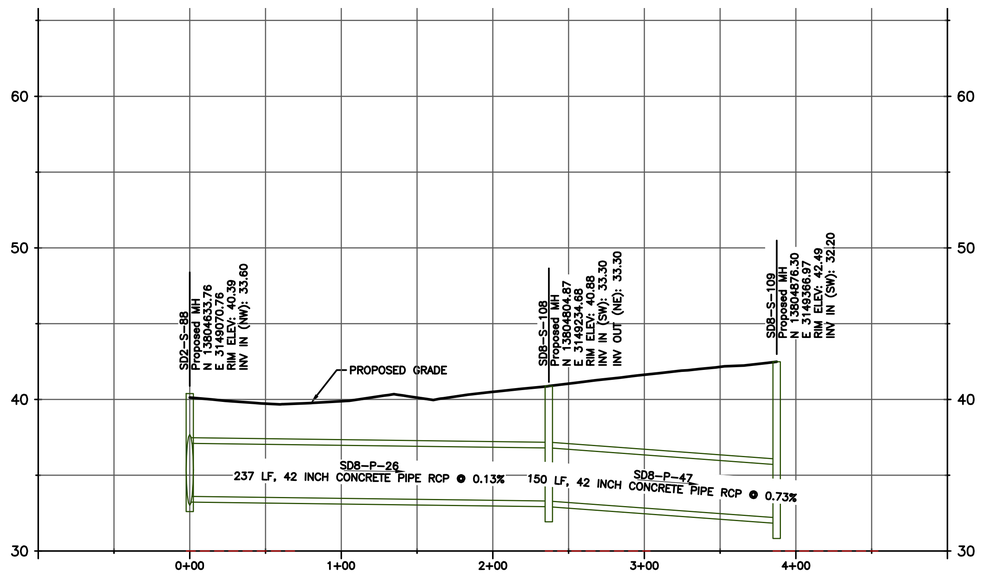
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG202
of



SD7

HOR SCALE: 1":100'
VER SCALE: 1":10'



SD8

HOR SCALE: 1":100'
VER SCALE: 1":10'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CG203 – STORM DRAIN PROFILE

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:

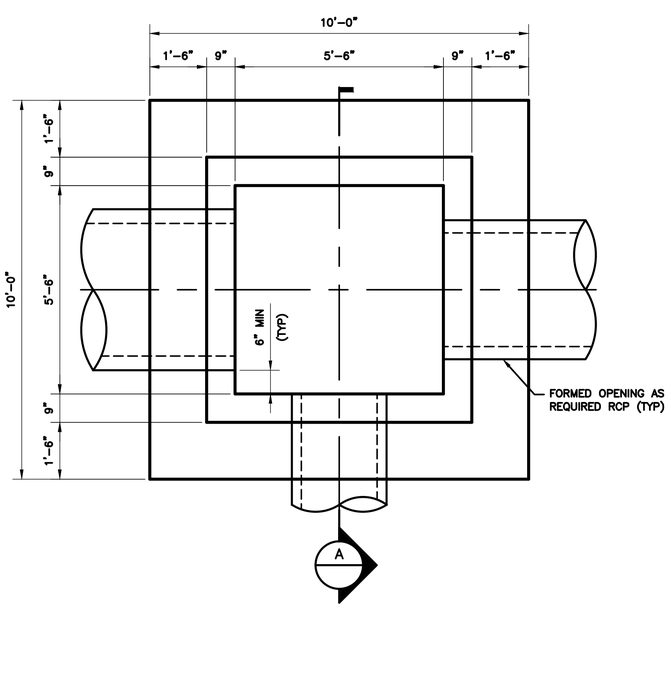
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

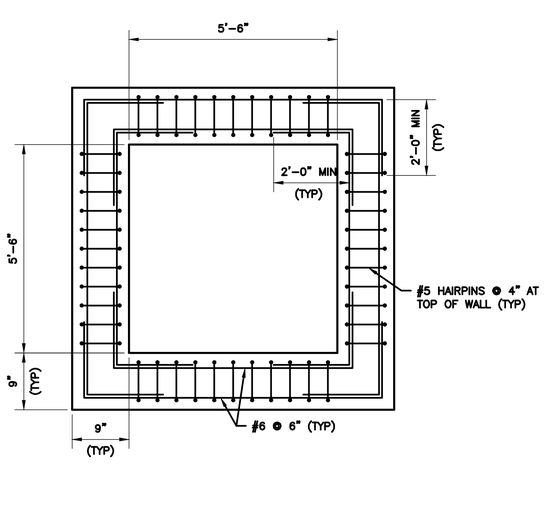
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

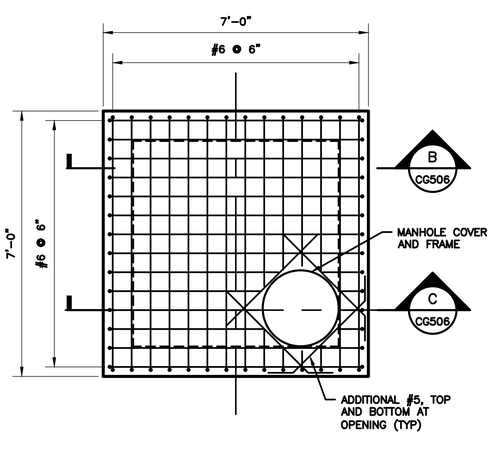
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CG203
of



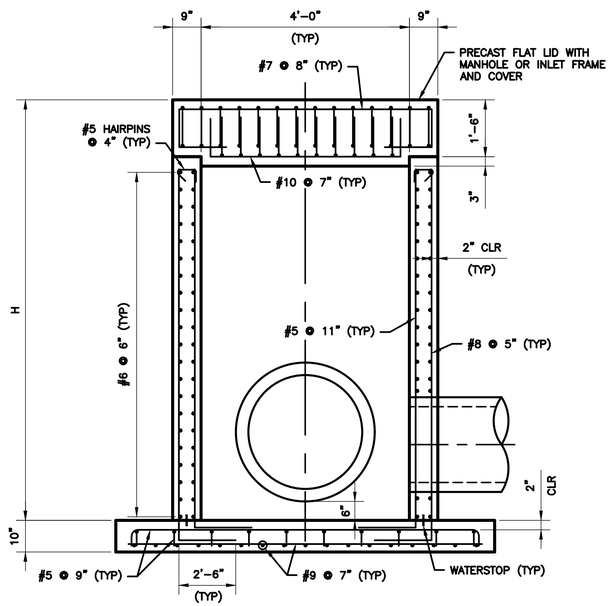
1 AIRCRAFT RATED MANHOLE AND INLET
1" = 2'–0"



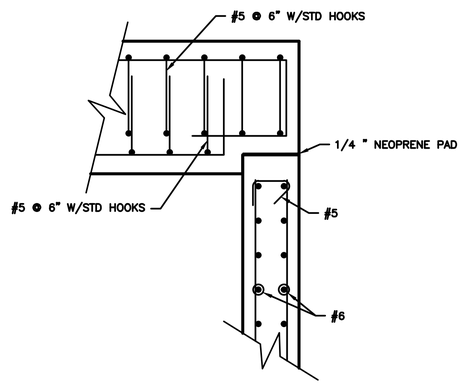
2 CORNER DETAIL
NTS



3 PRECAST MANHOLE LID
NTS



SECTION A–A
NTS



4 DETAIL
NTS

GENERAL DRAINAGE DETAIL NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 POUNDS PER SQUARE INCH AT 28 DATS. DESIGN MIX FOR 4,000 POUND CONCRETE SHALL CONTAIN A MINIMUM OF 6 STACKS OF CEMENT PER CUBIC YARD AND SHAL CONFORM TO THE REQUIREMENTS OF ITEM P–160 OF THE SPECIFICATIONS.
2. UNLESS OTHERWISE NOTED, ROUND EDGES AND JOINTS THAT DO NOT HAVE A SAWCUT JOINT WITH AN EDGER HAVING A RADIUS OF ⅛"
3. REINFORCING STEEL SHALL CONFORM TO ASTM DESIGNATION A615, GRADE 60, AND HAVE A MINIMUM YIELD STRENGTH OF 60 KSI, UNLESS NOTED OTHERWISE.
4. REINFORCING BARS SHALL BE SUPPORTED, SPACED AND ACCURATELY SECURED IN PLACE BY BOLSTERS, SPACERS OR CHAIRS IN ACCORDANCE WITH ITEM P–610 OF THE SPECIFICATIONS, AND IN ACCORDANCE WITH ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".
5. ALL REINFORCING SHALL BE LAPPED A MINIMUM OF 36 BAR DIAMETERS AT ALL CORNERS AND AT ALL SPLICE POINTS UNLESS OTHERWISE NOTED ON THE PLANS.
6. ALL REINFORCING STEEL SHALL BE CUT AND BENT AS REQUIRED TO CLEAR PIPES.
7. ALL INLETS OR MANHOLES OVER A DEPTH OF 5 FEET SHALL BE FURNISHED WITH MANHOLE STEPS. STEPS SHALL CONFORM TO CURRENT O.S.H.A. REQUIREMENTS.
8. CLEAR COVER FOR REINFORCEMENT SHALL BE AS SHOWN ON THE DRAWINGS. WHERE NOT SHOWN, A MINIMUM CLEAR COVER OF 2" SHALL BE MAINTAINED TO ALL REINFORCING AND WELDED WIRE REINFORCING.
9. REINFORCING BAR DESIGNATION NUMBERS SHALL CONFORM TO THE NUMBERING SYSTEM OF THE CONCRETE REINFORCING STEEL INSTITUTE (CSRI).
10. PIPE LINES WILL ENTER GRATE INLETS AT LOCATIONS INDICATED ON THE PLANS.
11. CHAMFER ALL EXPOSED CONCRETE CORNERS ¾".
12. FORMED CONCRETE COLLARS WITH 2 LOOPS OF #3 REBAR WITH CROSS PIECES AT 12" CENTERS SHALL BE AT ALL CONNECTIONS AT INLETS, MANHOLES AND ALL STRUCTURES.
13. FILTER FABRIC SHALL BE WRAPPED AROUND ALL RCP JOINTS AT 3' WIDTH.
14. BEDDING FOR RCP SHALL BE LAID TO NO LESS THAN SPRING LINE OF THE PIPE.
15. UNDERDRAINS WILL NEED TO BE FLOW TESTED TO ASSURE PROPER DRAINAGE.
16. UNDERDRAIN PIPES CONNECTING TO STRUCTURES NEED TO BE CUT SMOOTH WITH SIDE OF WALL.

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"

©JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE DETAILS

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	V. NGANGA
DRAWN BY:	E. KRACK
CHECKED BY:	C. FUESTING
SCALE:	AS SHOWN
DATE:	02/24/2023

Jacobs Engineering Group
STATE OF TEXAS
JOHN E FINKE
121220
LICENSED
PROFESSIONAL ENGINEER
2/24/2023 F-2966

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

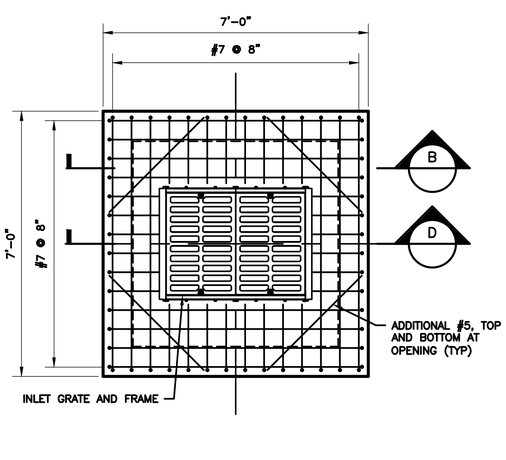
PROJECT NO: 770

C.I.P. NO: 3–48–0110–044

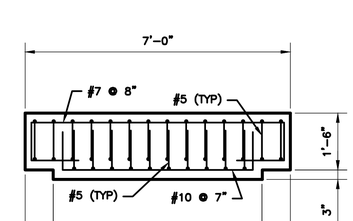
H.A.S. NO: N/A

SHEET NO: CG501 of

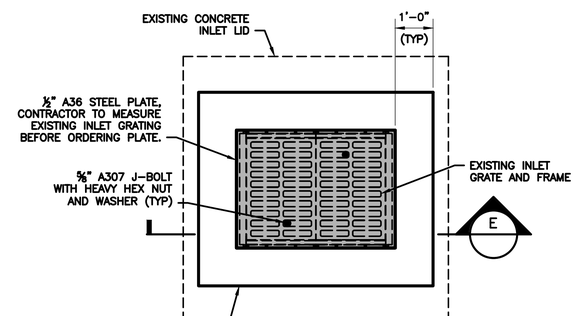
FILENAME: H22C770A–CG501.DWG PLOT DATE: 2023/02/20 PLOT TIME: 9:00:54 AM



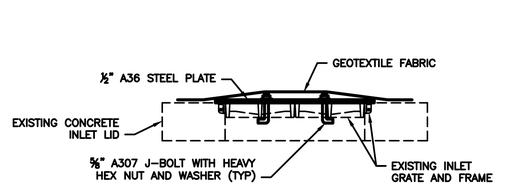
1 PRECAST INLET LID
NTS



SECTION B–B
NTS

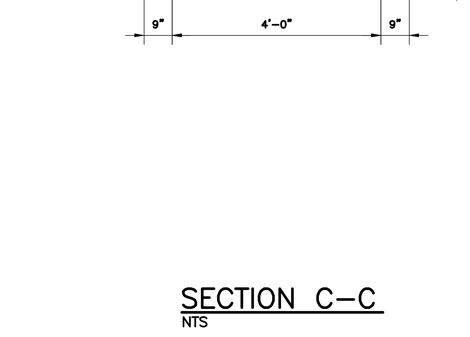


PLAN
NTS

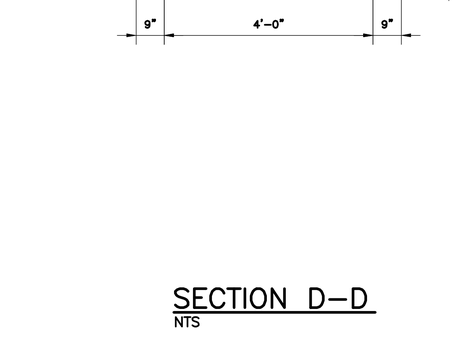


SECTION E–E
NTS

2 EXISTING INLET CAP
NTS



SECTION C–C
NTS



SECTION D–D
NTS

NOTES:

1. A FILTER CLOTH MEETING THE REQUIREMENTS FOR A SEPARATION GEOTEXTILE MATERIAL SHALL BE PLACED BETWEEN THE SELECT GRANULAR BACKFILL FOR STRUCTURAL SYSTEMS AND THE BACKFILL BEING RETAINED BY THE EARTH FILL.
2. GEOTEXTILES SHALL BE IN ACCORDANCE WITH THE PHYSICAL AND CHEMICAL REQUIREMENTS OF AASHTO M288 FOR THE SPECIFIED APPLICATION, EXCEPT AS MODIFIED IN THIS SPECIFICATIONS.
3. SUBSURFACE DRAINAGE GEOTEXTILE SHALL BE USED IN SUBSURFACE DRAINAGE AS A FILTER TO PROTECT MEDIA FROM CLOGGING WITH FINES FROM ADJACENT SOIL. TYPICAL APPLICATIONS INCLUDE THE LINING OF DRAINAGE TRENCHES AND THE WRAPPING OF DRAINPIPES.
4. THE MINIMUM PERMITTIVITY SHALL BE 1.0 SEC–1.
5. THE MATERIAL SHALL BE AASHTO CLASS 2.
6. CARE SHALL BE TAKEN, NOT TO DISTURB GEOTEXTILE FABRIC DURING EARTHWORK.
7. FOR "GENERAL DRAINAGE DETAIL NOTES", SEE SHEET CG505.
8. COORDINATE THE INLET AND MANHOLE DIMENSIONS WITH THE REQUIREMENTS OF THE APPROVED FRAME AND GRATE. FRAME AND GRATE MUST BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
9. 5436Z1, 5436Z2, 5436ML ASSEMBLY FRAME AND GRATE AS MANUFACTURED BY EAST JORDAN IRON WORKS OR APPROVED EQUAL FOR INLETS.
10. P–3494 FRAME AND GRATE AS MANUFACTURED BY D&L OR APPROVED EQUAL FOR MANHOLES.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

GRADING AND DRAINAGE DETAILS

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	V. NGANGA
DRAWN BY:	E. KRACK
CHECKED BY:	C. FUESTING
SCALE:	AS SHOWN
DATE:	02/24/2023

Jacobs Engineering Group
STATE OF TEXAS
JOHN E FINKE
121220
LICENSED
PROFESSIONAL ENGINEER
2/24/2023
F-2966

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: CG502
of

NOTES:

1. SEE SHEET CU501–503 FOR EDGE DRAIN DETAILS.
2. SEE EXISTING UTILITY PLANS AND AIRFIELD LIGHTING AND SIGNAGE DEMO PLANS FOR EXISTING UTILITY LIGHTING CIRCUITS.
3. EDGE DRAIN LATERALS TO BE REMOVED AT THE TIME NEW LATERALS ARE TO BE INSTALLED.
4. THE PROPOSED EDGE DRAINS CROSS NUMEROUS EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY THE DEPTH OF THE EXISTING UTILITIES AT EACH CROSSING PRIOR TO PLACING EDGE DRAINS. IF A CONFLICT IS DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE RPR AT WHICH TIME ADJUSTMENTS WILL BE MADE TO THE SLOPE OF THE PROPOSED EDGE DRAINS.
5. CONTRACTOR TO VERIFY EXISTING INLET INVERT ELEVATIONS PRIOR TO BEGINNING CONSTRUCTION OF EDGE DRAINS AND REPORT ANY DISCREPANCIES TO THE OAR IMMEDIATELY. IF DISCREPANCIES ARE DISCOVERED, THE SLOPE OF THE EDGE DRAIN OUTFALL SHALL BE ADJUSTED IN ORDER TO MAINTAIN A MINIMUM SLOPE OF 0.15%. EDGE DRAINS TO HAVE A MINIMUM COVER OF 34" FROM TOP OF PIPE.
6. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING UNDERDRAIN AND CLEANOUTS.
7. AT LOCATIONS WHERE THE EXISTING EDGE DRAINS/STRIP DRAINS ARE TO REMAIN (UNDER EXISTING PAVEMENT TO REMAIN), CAP OR CONNECT TO THE PROPOSED EDGE DRAIN TO MAINTAIN FLOW TO THE OUTFALLS.
8. COST OF ALL MATERIALS, EQUIPMENT AND LABOR FOR THE CONSTRUCTION OF THE EDGE DRAIN, INCLUDING BUT NOT LIMITED TO THE 8" PERFORATED PIPE, POROUS BACKFILL, FILTER FABRIC AND CONNECTIONS TO THE PROPOSED UNDERDRAIN MANHOLES (EXCEPT 8" NON–PERFORATED OUTLET PIPE) SHALL BE INCLUDED IN THE UNIT COST OF THE 8" PERFORATED PIPE. ALL COSTS ASSOCIATED WITH THE MATERIAL, EQUIPMENT AND LABOR ASSOCIATED WITH THE CONSTRUCTION OF THE 8" NON–PERFORATED OUTLET PIPE, INCLUDING BUT NOT LIMITED TO THE CONNECTIONS TO THE PROPOSED UNDERDRAIN MANHOLES SHALL BE PAID FOR BY THE UNIT PRICE FOR 8" NON–PERFORATED PIPE.
9. THE COST OF TRENCH SAFETY SHALL BE INCLUDED IN THE COST OF THE ITEM BEING CONSTRUCTED. THIS SHALL INCLUDE ALL INCIDENTALS NECESSARY FOR BRACING, SHEATHING AND SHORING TO PROTECT WORKERS, AS NECESSARY, TO PERFORM THE WORK IN CONFORMANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS INCLUDING CFR 29.
10. UNDERDRAIN MANHOLES AND CLEANOUTS ARE TO BE OFFSET FROM CONCRETE PAVEMENT AS SHOWN IN THE PLANS.
11. EDGE DRAIN CONSTRUCTION SHALL CORRELATE WITH PHASING PLAN. CONTRACTOR SHALL ENSURE POSITIVE FLOW OF DRAINS DURING CONSTRUCTION PHASING.
12. WHEN CONNECTING EDGE DRAIN TO UNDERDRAIN MANHOLES, CONTRACTOR SHALL USE MAXIMUM 45° TO TIE TO CENTER OF UNDERDRAIN MANHOLE. THIS SHALL BE CONSIDERED SUBSIDIARY.
13. WHEN CONNECTING EDGE DRAINS TO INLETS & UNDERDRAIN MANHOLES, CONTRACTOR SHALL INCLUDE THE USE OF LINK SEALS. THIS SHALL BE CONSIDERED SUBSIDIARY.

LEGEND:

- FULL DEPTH CONCRETE PAVEMENT
- FULL DEPTH ASPHALT SHOULDER PAVEMENT
- EXISTING AIRFIELD PAVEMENT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 40 — PROPOSED CONTOUR
- 40 — EXISTING CONTOUR
- 40 — PREVIOUSLY COMPLETED GRADING
- UD — PROPOSED 8" HDPE UNDERDRAIN
- CO — PROPOSED 8" UNDERDRAIN CLEANOUT
- MH — PROPOSED UNDERDRAIN MANHOLE

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN NOTES AND LEGEND

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CU001
of

AF10–204
UD OUTFALL
N: 13804633.76
E: 3149070.76
RIM ELEV: 40.13
INV IN (E): 36.21

AF10–201
UD MANHOLE
N: 13804628.99
E: 3149200.19
RIM ELEV: 40.49
INV IN (NE): 36.40
INV IN (SW): 36.40
INV OUT (W): 36.40

129.52 OF 8" HDPE UD

AF10–203
UD CLEANOUT
N: 13804892.69
E: 3149438.69
RIM ELEV: 44.00
INV OUT (SW): 40.10

355.57 OF 8" HDPE UD

AF12–105
UD MANHOLE
N: 13804763.48
E: 3149465.24
RIM ELEV: 42.80
INV IN (NE): 39.20
INV OUT (SW): 39.20

70.27 OF 8" HDPE UD

70.86 OF 8" HDPE UD

169.04 OF 8" HDPE UD

AF11–204
UD OUTFALL
N: 13804388.28
E: 3149326.71
RIM ELEV: 39.47
INV IN (N): 37.07

AF11–203
UD MANHOLE
N: 13804546.09
E: 3149266.12
RIM ELEV: 40.49
INV IN (SW): 36.85
INV IN (NE): 36.85
INV OUT (S): 37.32

113.95 OF 8" HDPE UD

AF11–202
UD CLEANOUT
N: 13804531.70
E: 3149425.06
RIM ELEV: 41.94
INV OUT (NW): 38.20

63.06 OF 8" HDPE UD

62.47 OF 8" HDPE UD

113.97 OF 8" HDPE UD

AF12–102
UD MANHOLE
N: 13804613.62
E: 3149499.19
RIM ELEV: 41.33
INV IN (NW): 37.70
INV OUT (E): 37.70

75.12 OF 8" HDPE UD

AF12–107
UD CLEANOUT
N: 13804760.85
E: 3149586.70
RIM ELEV: 43.76
INV OUT (NW): 40.20

132.83 OF 8" HDPE UD

AF12–103
UD OUTFALL
N: 13804569.46
E: 3149624.58
RIM ELEV: 39.90
INV IN (W): 37.50

RWY 13L–31R

AF12–203
UD MANHOLE
N: 13805094.17
E: 3149621.16
RIM ELEV: 43.24
INV IN (SW): 39.30
INV IN (NE): 39.30
INV OUT (NW): 39.30

AF12–204
UD OUTFALL
N: 13805147.55
E: 3149540.93
RIM ELEV: 42.00
INV IN (SE): 39.16

AF12–202
UD CLEANOUT
N: 13804981.45
E: 3149528.46
RIM ELEV: 43.82
INV OUT (NE): 39.60

96.36 OF 8" HDPE UD

154.87 OF 8" HDPE UD

138.37 OF 8" HDPE UD

AF12–201
UD CLEANOUT
N: 13805225.60
E: 3149707.10
RIM ELEV: 43.29
INV OUT (SE): 39.70

24.25 OF 8" HDPE UD

AF14–211
UD MANHOLE
N: 13805055.47
E: 3149703.62
RIM ELEV: 43.07
INV IN (NE): 39.30
INV OUT (SW): 39.30

AF14–212
UD MANHOLE
N: 13804960.13
E: 3149648.91
RIM ELEV: 42.82
INV IN (SW): 38.90
INV IN (NE): 38.90
INV OUT (E): 38.90

96.20 OF 8" HDPE UD

75.72 OF 8" HDPE UD

13.98 OF 8" HDPE UD

121.94 OF 8" HDPE UD

80.78 OF 8" HDPE UD

44.92 OF 8" HDPE UD

73.41 OF 8" HDPE UD

205.84 OF 8" HDPE UD

AF14–215
UD CLEANOUT
N: 13804859.82
E: 3149668.74
RIM ELEV: 43.55
INV OUT (NW): 40.00

AF14–213
UD OUTFALL
N: 13804996.11
E: 3149942.53
RIM ELEV: 38.62
INV IN (W): 35.44

23.12 OF 8" HDPE UD

AF14–210
UD CLEANOUT
N: 13805195.01
E: 3149966.91
RIM ELEV: 43.29
INV OUT (W): 39.75

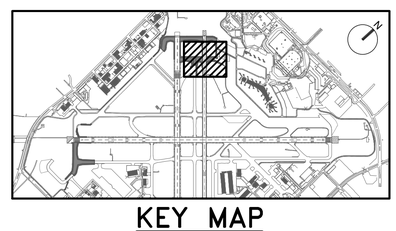
TWY M

TWY MT

TWY W

EXISTING PAPI

RWY 13L–31R



KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 1

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

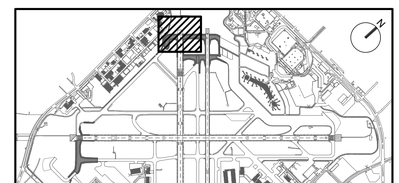
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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:	CU101–P1

of



KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

EXISTING SERVICE RD.

AF2-194
UD OUTFALL
N: 13804521.80
E: 3148257.43
RIM ELEV: 40.90
INV IN (SE): 38.00

34.84' OF 8" HDPE UD

AF2-199
UD MANHOLE
N: 13804490.94
E: 3148273.59
RIM ELEV: 41.63
INV IN (SW): 38.05
INV IN (NE): 38.05
INV OUT (NW): 38.05

19.27' OF 8" HDPE UD

205.63' OF 8" HDPE UD

AF2-193
UD CLEANOUT
N: 13804675.29
E: 3148433.06
RIM ELEV: 43.19
INV OUT (SW): 38.70

AF3-201
UD CLEANOUT
N: 13804825.84
E: 3148569.22
RIM ELEV: 43.21
INV OUT (NE): 39.10

AF3-204
UD OUTFALL
N: 13804970.06
E: 3148602.58
RIM ELEV: 40.28
INV IN (E): 37.38

AF3-202
UD MANHOLE
N: 13805018.17
E: 3148743.17
RIM ELEV: 41.38
INV IN (SW): 37.60
INV IN (NE): 37.60
INV OUT (W): 37.60

259.33' OF 8" HDPE UD

TWY G

TWY E

82.30' OF 8" HDPE UD

100.96' OF 8" HDPE UD

107.03' OF 8" HDPE UD

AF9-204
UD MANHOLE
N: 13804467.69
E: 3148397.49
RIM ELEV: 41.39
INV IN (SW): 37.50
INV IN (NE): 37.50
INV OUT (SE): 37.50

AF9-207
UD CLEANOUT
N: 13804597.02
E: 3148519.60
RIM ELEV: 42.87
INV OUT (SW): 38.90

AF9-205
UD OUTFALL
N: 13804407.90
E: 3148486.26
RIM ELEV: 40.70
INV IN (NW): 37.34

RWY 13R-31L

SERVICE RD.

AF9-201
UD CLEANOUT
N: 13804173.67
E: 3148534.26
RIM ELEV: 42.81
INV OUT (N): 39.20

TWY G

121.60' OF 8" HDPE UD

134.72' OF 8" HDPE UD

AF7-212
UD CLEANOUT
N: 13804747.42
E: 3148655.68
RIM ELEV: 42.84
INV OUT (NE): 38.90

AF7-204
UD MANHOLE
N: 13804957.28
E: 3148800.45
RIM ELEV: 41.32
INV IN (SW): 37.35
INV IN (NE): 37.35
INV OUT (SE): 37.35

273.89' OF 8" HDPE UD

AF7-205
UD OUTFALL
N: 13804737.36
E: 3148963.69
RIM ELEV: 39.50
INV IN (NW): 36.94

MATCHLINE, SEE SHEET CU102-P2

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 2

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
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: CU102-P2
of

MATCHLINE, SEE SHEET CU101-P2

AF10-202
UD CLEANOUT
N: 13804423.37
E: 3149014.21
RIM ELEV: 43.99
INV OUT (NE): 39.40

277.27' OF 8" HDPE UD

AF10-201
UD MANHOLE
N: 13804628.99
E: 3149200.19
RIM ELEV: 40.49
INV IN (NE): 36.40
INV IN (SW): 36.40
INV OUT (W): 36.40

36.85' OF 8" HDPE UD

70.27' OF 8" HDPE UD

120.61' OF 8" HDPE UD

37.80' OF 8" HDPE UD

AF11-206
UD CLEANOUT
N: 13804345.11
E: 3149100.76
RIM ELEV: 43.71
INV OUT (NE): 40.10

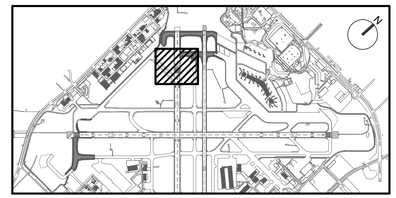
AF11-203
UD MANHOLE
N: 13804546.09
E: 3149266.12
RIM ELEV: 40.49
INV IN (SW): 36.85
INV IN (NE): 36.85
INV OUT (S): 37.32

RWY 13R-31L

TWY F

TWY M

TWY M



KEY MAP
NTS

NOTE:

1. FOR GRADING AND DRAINAGE NOTES AND LEGEND, SEE SHEET CU101-P1.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 2

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.

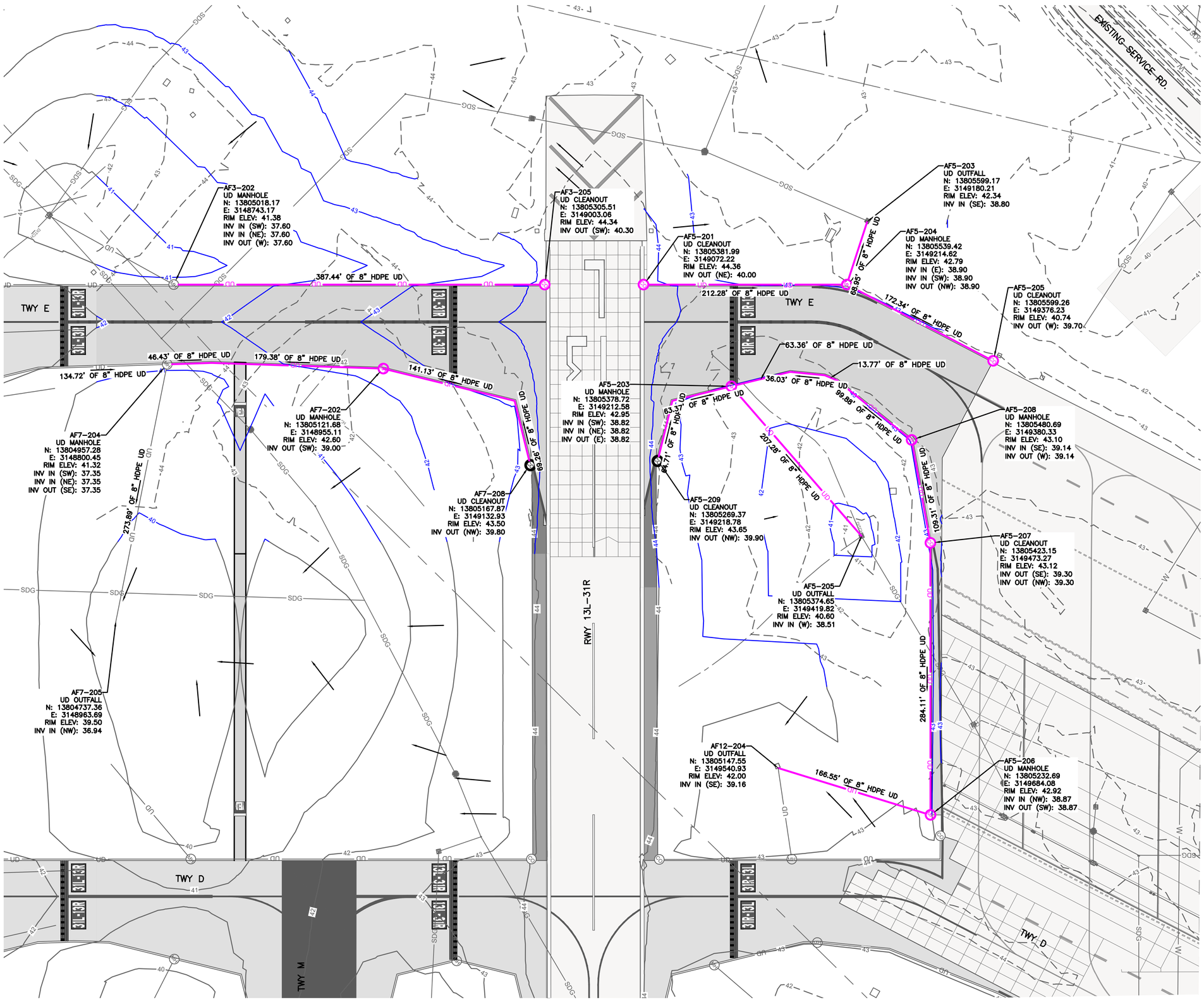
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

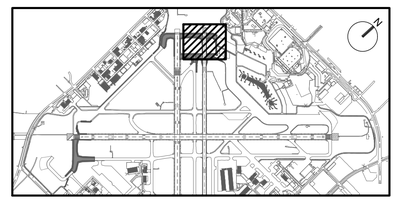
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CU103-P2
of





KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
UNDERDRAIN PLAN – PHASE 3

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:

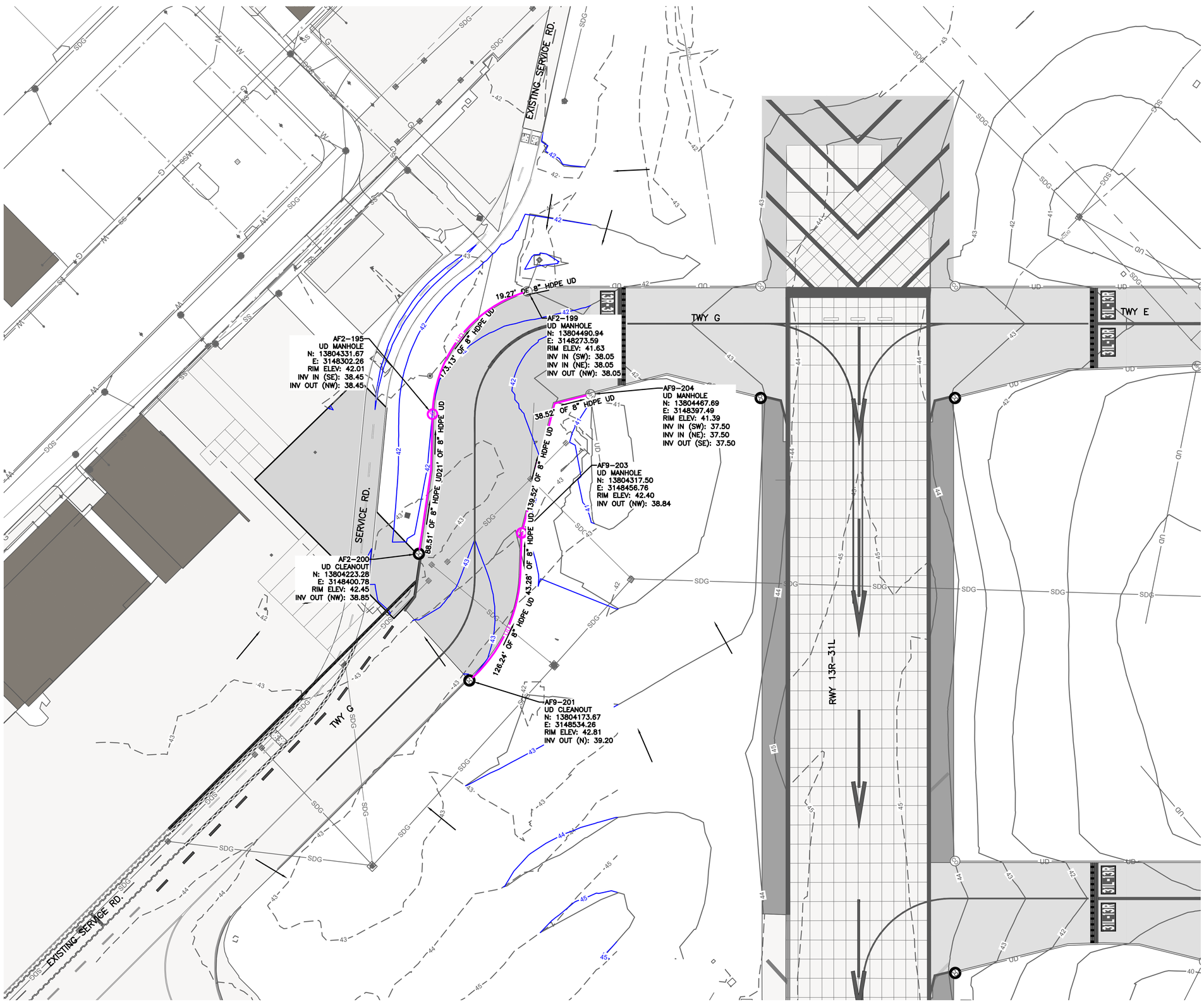
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

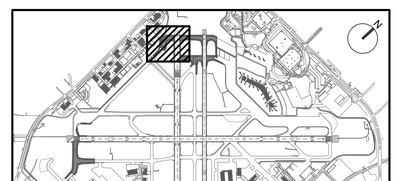
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CU104-P3
of





KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 4

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:

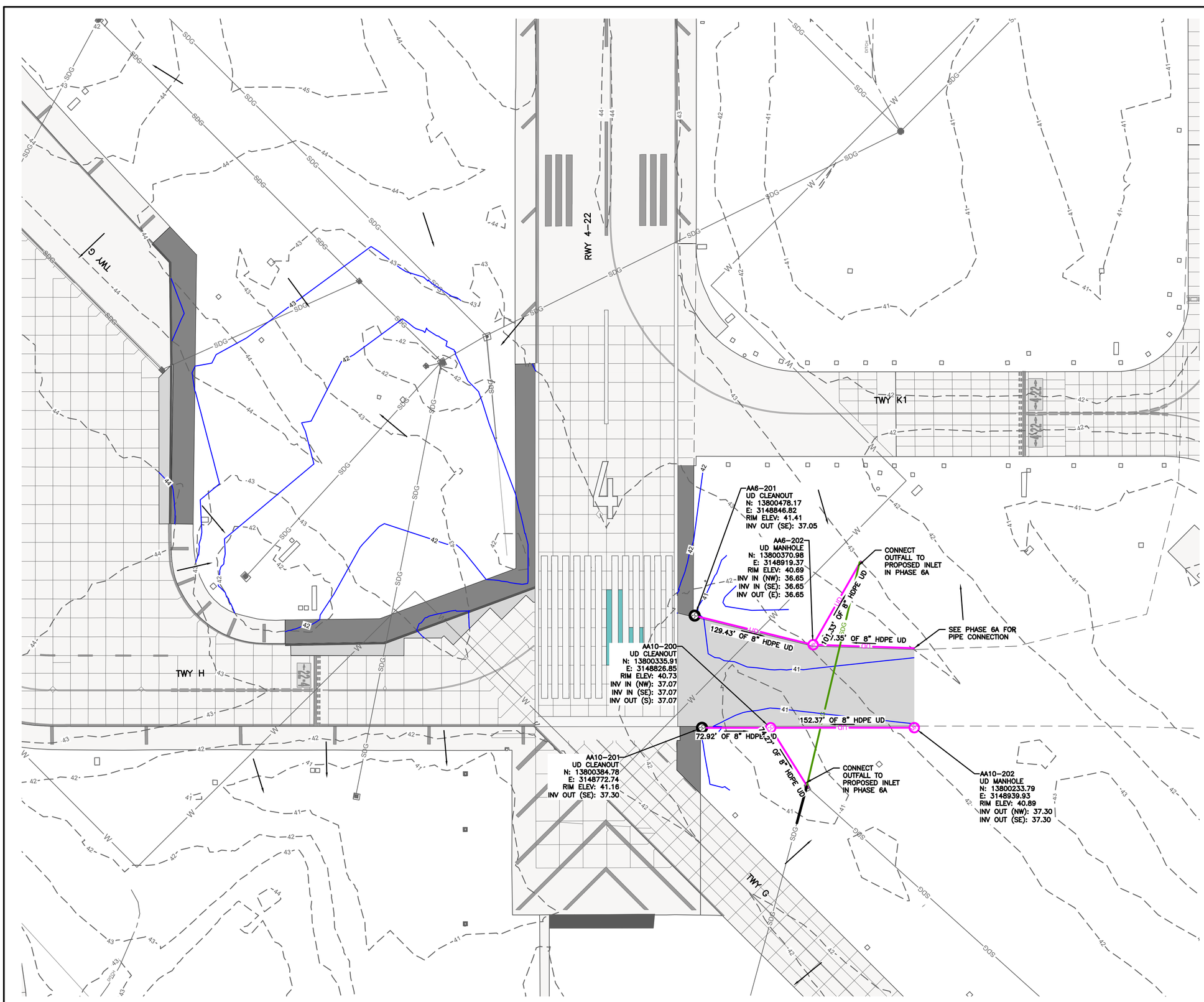
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

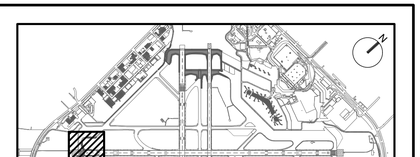
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

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: CU105–P4
of





KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 5

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CU106-P5
of

AA6–208
UD CLEANOUT
N: 13800498.47
E: 3149569.05
RIM ELEV: 41.70
INV OUT (SW): 38.15

AA11–201
UD CLEANOUT
N: 13800446.20
E: 3149626.87
RIM ELEV: 41.70
INV OUT (SW): 38.16

63.95' OF 8" HDPE UD

63.99' OF 8" HDPE UD

295.94' OF 8" HDPE UD

295.94' OF 8" HDPE UD

RWY 4–22

TWY K

AA6–207
UD MANHOLE
N: 13800238.44
E: 3149320.28
RIM ELEV: 41.29
INV IN (NE): 37.61

AA11–203
UD MANHOLE
N: 13800172.99
E: 3149392.60
RIM ELEV: 41.33
INV IN (NE): 37.55
INV OUT (SW): 37.55

AA6–204
UD MANHOLE
N: 13800226.41
E: 3149079.23
RIM ELEV: 40.92
INV IN (SE): 37.09
INV OUT (NW): 37.09

141.13' OF 8" HDPE UD

141.12' OF 8" HDPE UD

AA11–204
UD MANHOLE
N: 13800048.81
E: 3149325.56
RIM ELEV: 40.68
INV IN (NE): 37.10

AA6–206
UD OUTFALL
N: 13800402.54
E: 3149015.66
RIM ELEV: 39.70
INV IN (W): 36.50

108.30' OF 8" HDPE UD

141.12' OF 8" HDPE UD

251.47' OF 8" HDPE UD

84.19' OF 8" HDPE UD

AA11–200
UD CLEANOUT
N: 13799756.49
E: 3149471.08
RIM ELEV: 41.70
INV OUT (N): 38.00

TWY K1

4-22

4-22

149.83' OF 8" HDPE UD

207.07' OF 8" HDPE UD

119.58' OF 8" HDPE UD

136.87' OF 8" HDPE UD

132.95' OF 8" HDPE UD

132.95' OF 8" HDPE UD

AA10–203
UD MANHOLE
N: 13800012.53
E: 3149180.19
RIM ELEV: 41.24
INV IN (NW): 36.81
INV IN (SE): 36.81
INV OUT (SE): 36.81

252.57' OF 8" HDPE UD

TWY K

AA10–204
UD OUTFALL
N: 13800262.80
E: 3148813.75
RIM ELEV: 39.90
INV IN (N): 36.96

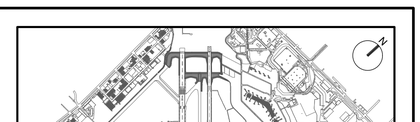
AA10–202
UD MANHOLE
N: 13800233.79
E: 3148939.93
RIM ELEV: 40.89
INV OUT (NW): 37.30
INV OUT (SE): 37.30

AA10–213
UD OUTFALL
N: 13799779.31
E: 3149277.16
RIM ELEV: 39.71
INV IN (NW): 36.43

AA10–206
UD MANHOLE
N: 13799815.61
E: 3149363.94
RIM ELEV: 41.46
INV IN (S): 37.69
INV OUT (NW): 37.69

172.84' OF 8" HDPE UD

AA10–208
UD CLEANOUT
N: 13799512.86
E: 3149402.95
RIM ELEV: 41.71
INV OUT (N): 38.15



KEY MAP
NTS

NOTE:

1. FOR UNDERDRAIN NOTES AND LEGEND, SEE SHEET CU001.

KEYED NOTES:

(1) CONTRACTOR TO ADJUST SLOPE AND ANGLE OF THE UNDERDRAIN OUTFALL PIPE AS NECESSARY TO AVOID INTERFERING WITH THE PROPOSED 36" RCP. SLOPE MUST BE A MINIMUM 0.15% AND PROVIDE POSITIVE DRAINAGE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN PLAN – PHASE 6A

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:

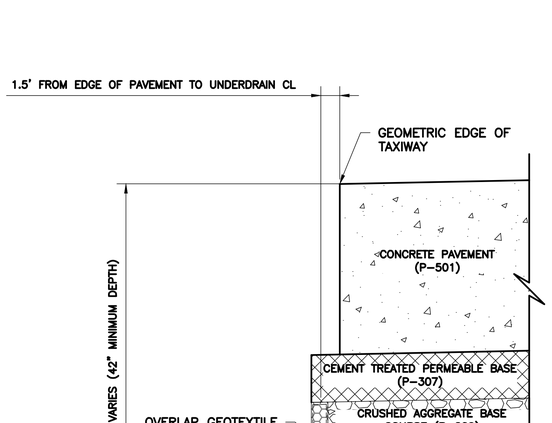
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

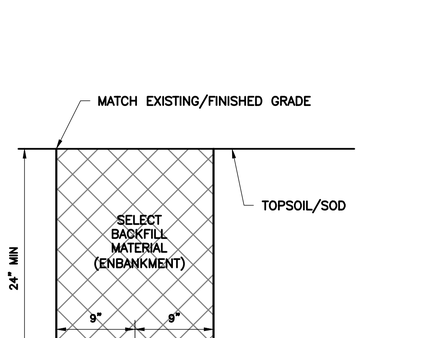
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

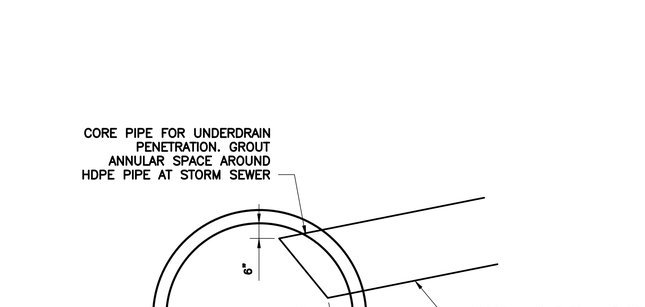
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU107–P6
of



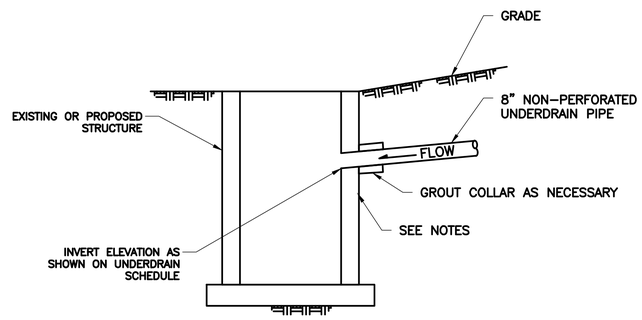
1 PERFORATED UNDERDRAIN
NTS



3 UNDERDRAIN OUTLET IN TURF
NTS



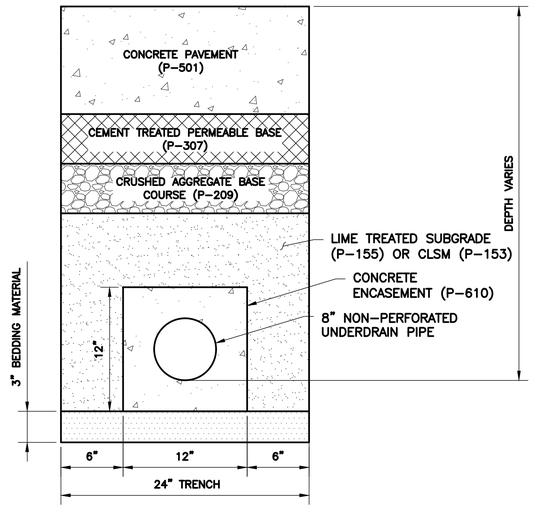
5 UNDERDRAIN CONNECTION PIPE
NTS



NOTES:

1. CORE STRUCTURE FOR UNDERDRAIN PENETRATION. IMPACT DEVICES WILL NOT BE ALLOWED.
2. GROUT ANNULAR SPACE AROUND PIPE AT STRUCTURE OR BOX CULVERT.
3. GROUT PIPE INTO PLACE WITH NON-SHRINK GROUT AND TRIM INTERIOR FLUSH WITH INSIDE WALL OF STRUCTURE.

2 UNDERDRAIN OUTFALL CONNECTION
NTS



4 UNDERDRAIN OUTLET UNDER PAVEMENT
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN DETAILS

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.

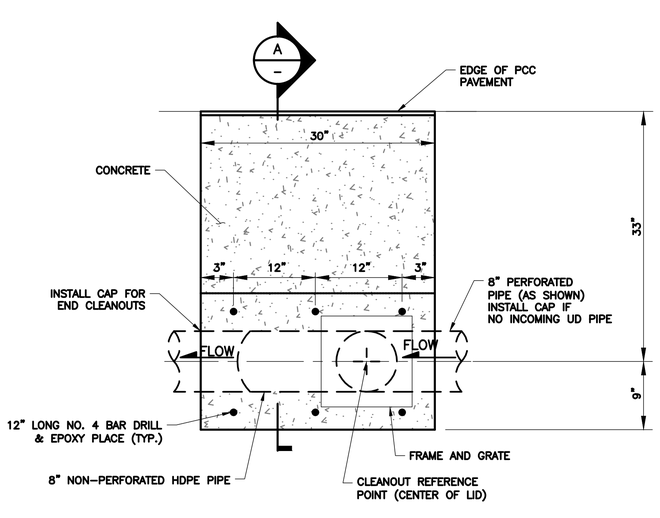
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

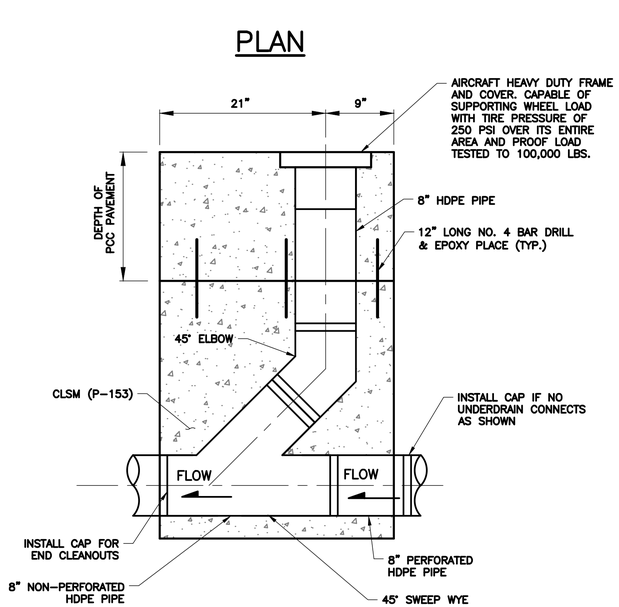
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU501
of

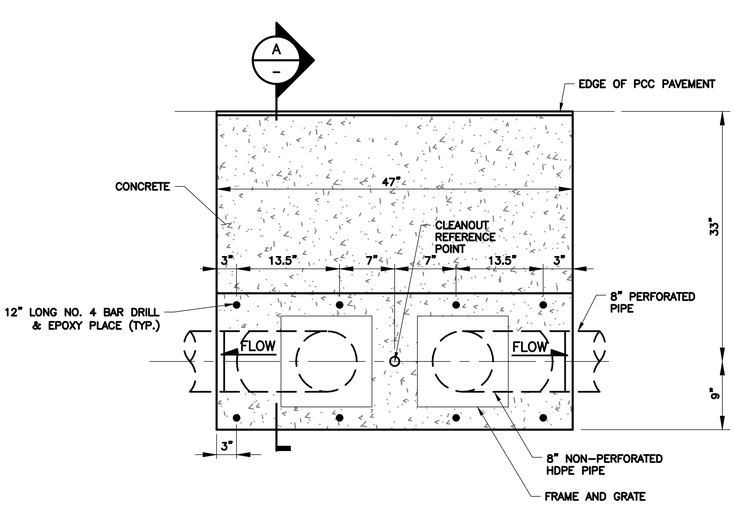


PLAN

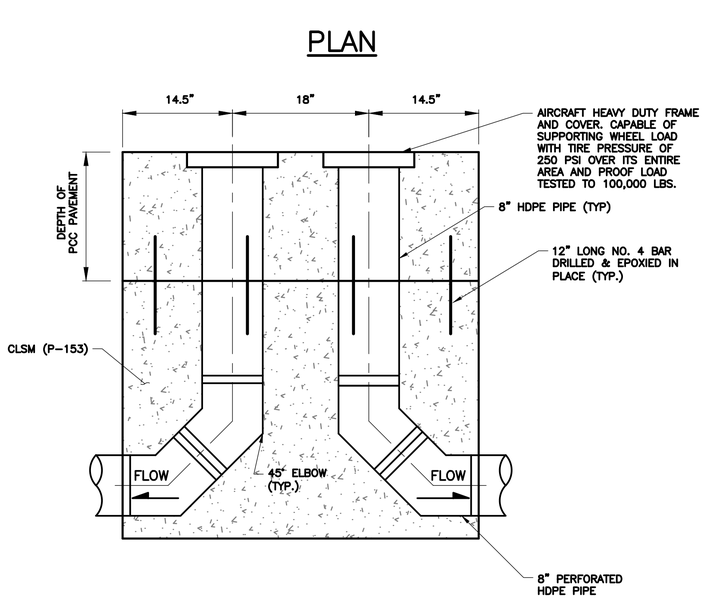


SECTION

1 UNDERDRAIN CLEANOUT – TYPE I
NTS

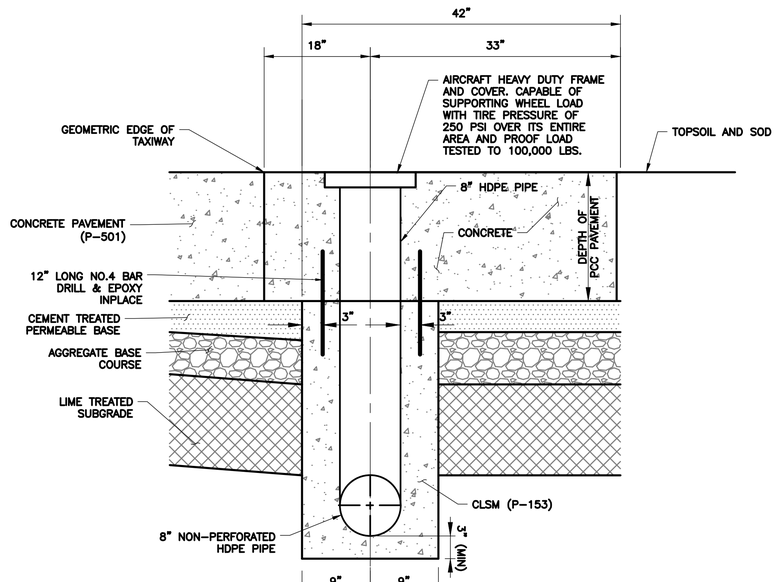


PLAN



SECTION

2 UNDERDRAIN CLEANOUT – TYPE II
NTS



A SECTION
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN DETAILS

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.

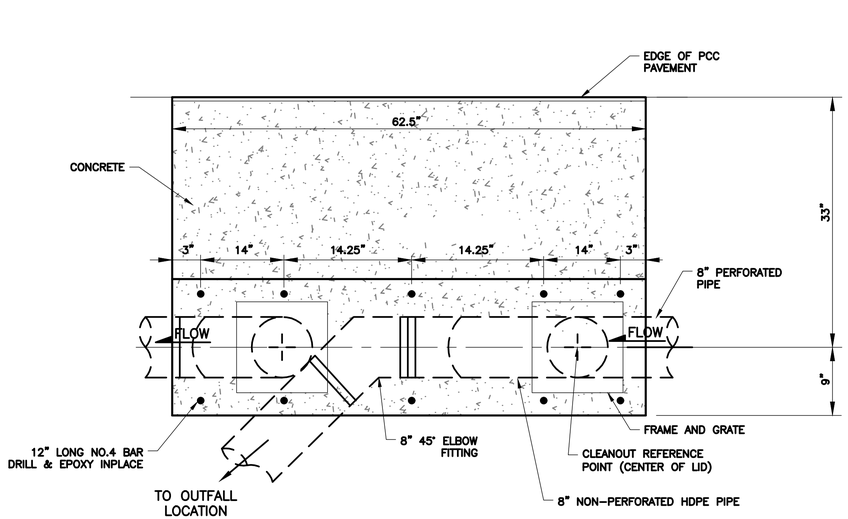
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

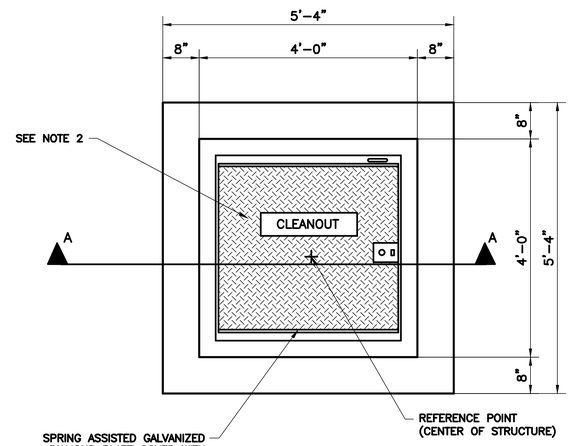
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CU502
of

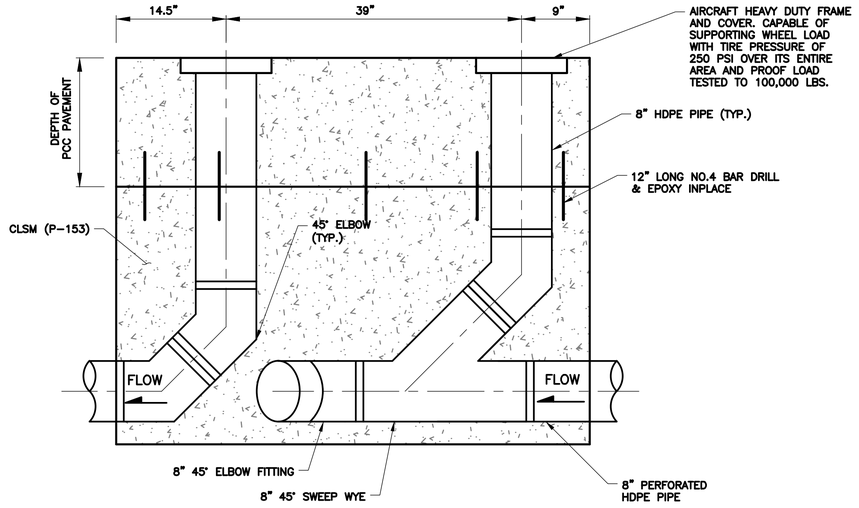


PLAN



NOTES:

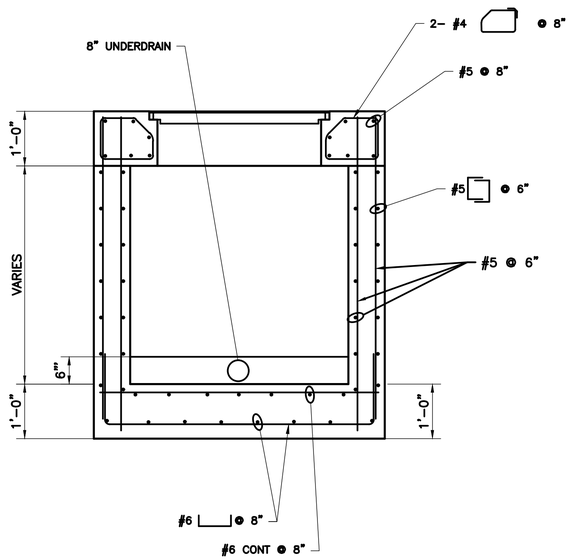
1. THE STRUCTURES SHALL BE LOCATED AS SHOWN ON THE PLAN SHEETS.
2. ALL COVERS SHALL HAVE SURFACE LETTERING IDENTIFYING THE TYPE OF STRUCTURES.
3. ALL WALL REINFORCEMENT (LOOP AND VERTICAL) AFFECTED BY UNDERDRAIN INSTALLATION SHALL BE RELOCATED ON EITHER SIDE OF THE UNDERDRAIN BANK.



SECTION

3 UNDERDRAIN CLEANOUT – TYPE III

NTS



SECTION

1 UNDERDRAIN MANHOLE

NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

UNDERDRAIN DETAILS

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:

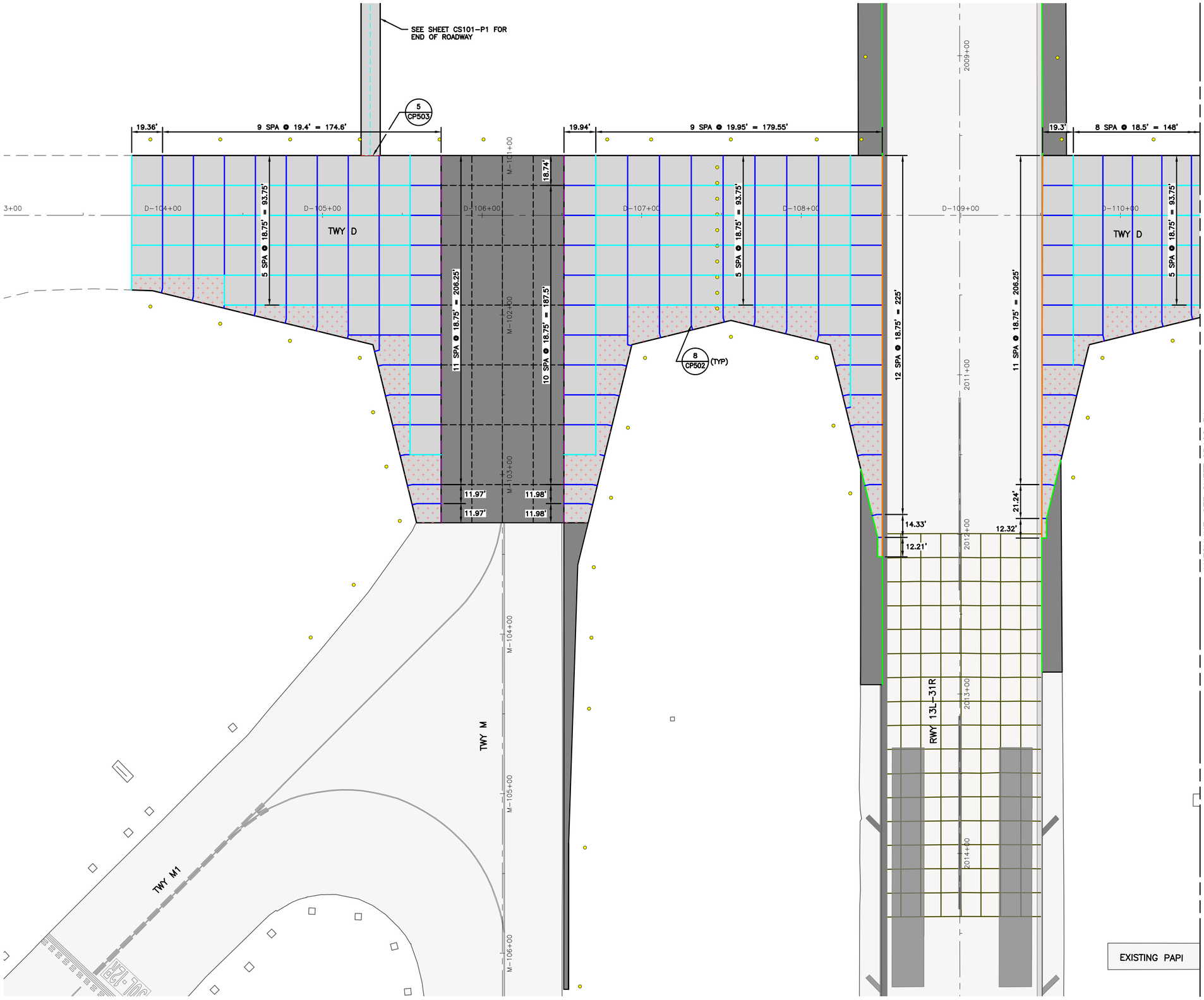
PROJECT MGR:	S. CHILDERS
DESIGNER:	A. LEE
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

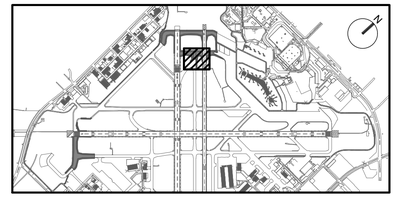
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CU503
of





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 1

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

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

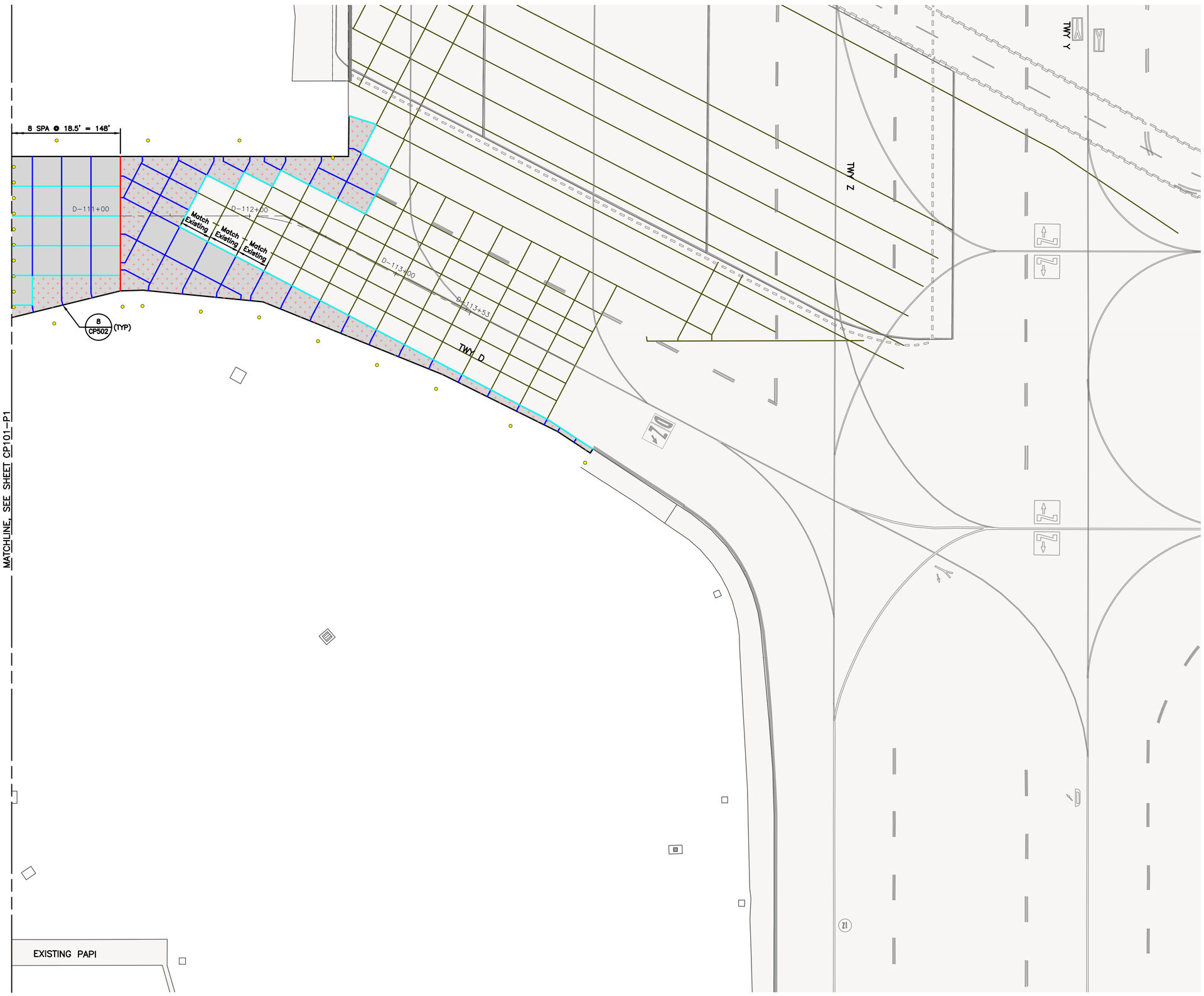
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

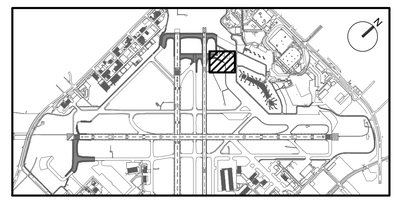
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP101-P1
of

FILENAME: H22C770A-CP101-102-P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:51:24 AM





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 1

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.

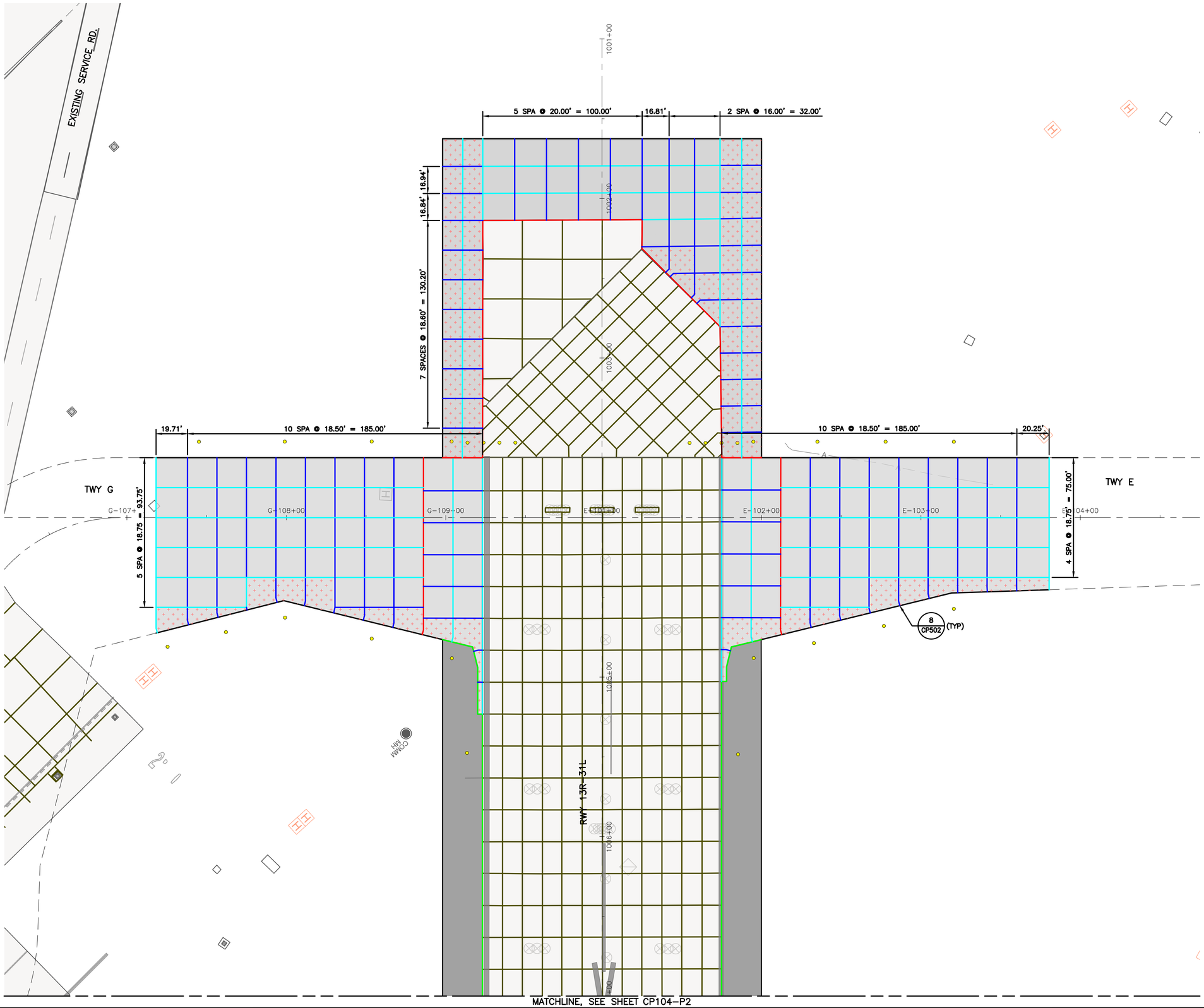
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

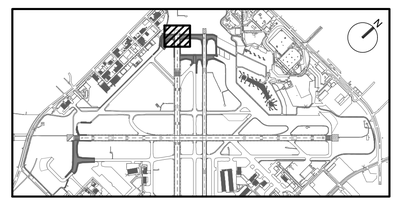
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP102–P1
of





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701-P1 THROUGH CP710-P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101-P1 THROUGH CS106-P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE-IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P-501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 2

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

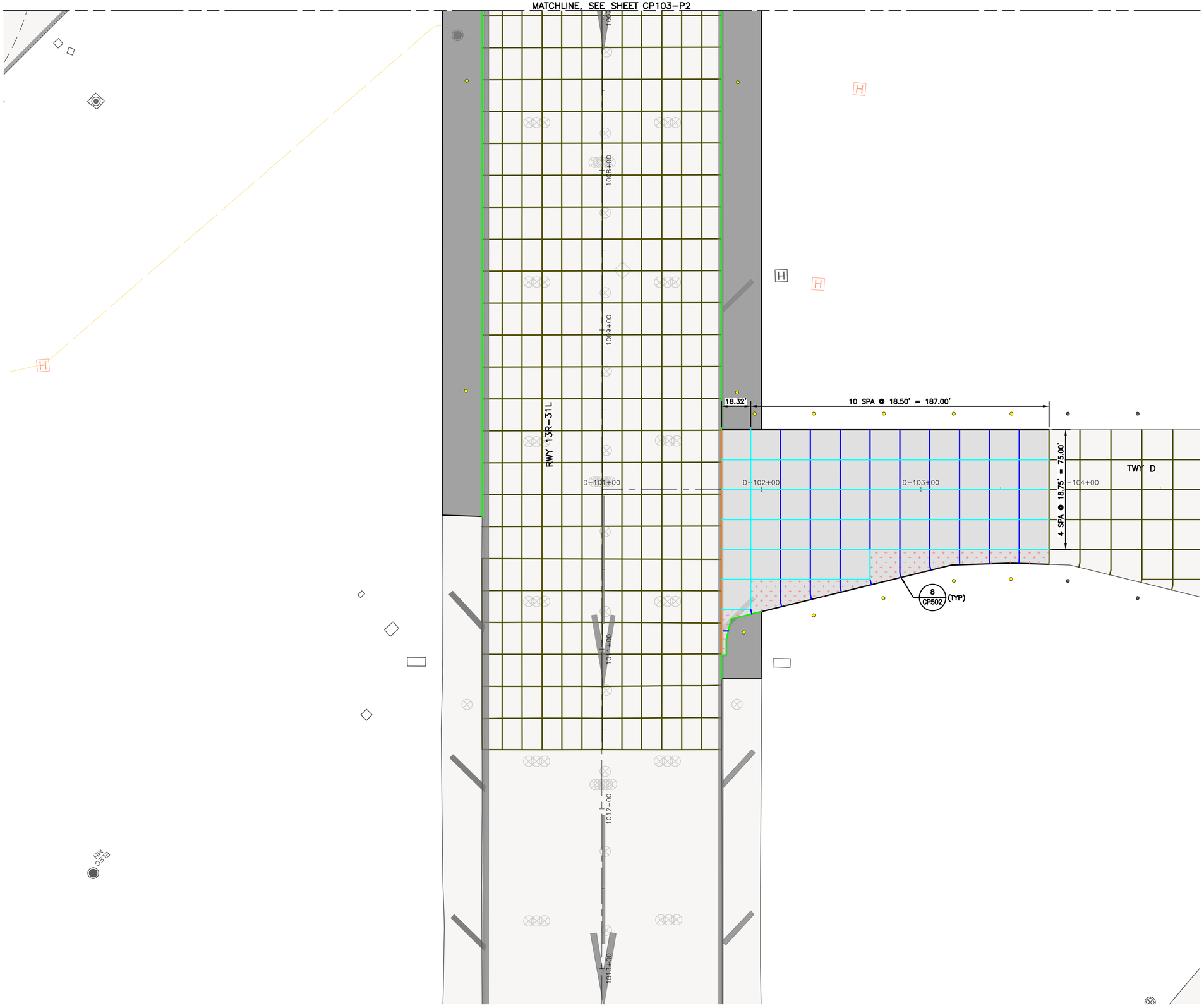
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

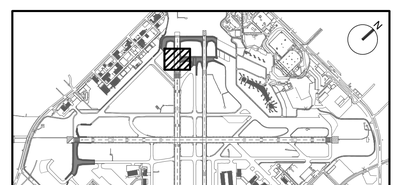
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP103-P2
of

FILENAME: H22C770A-CP103-104-P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:53:19 AM





KEY MAP

NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 / CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 / CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 / CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 / CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 / CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 / CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 / CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 / CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 / CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE

30' 0 30' 90'

SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 2

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

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770

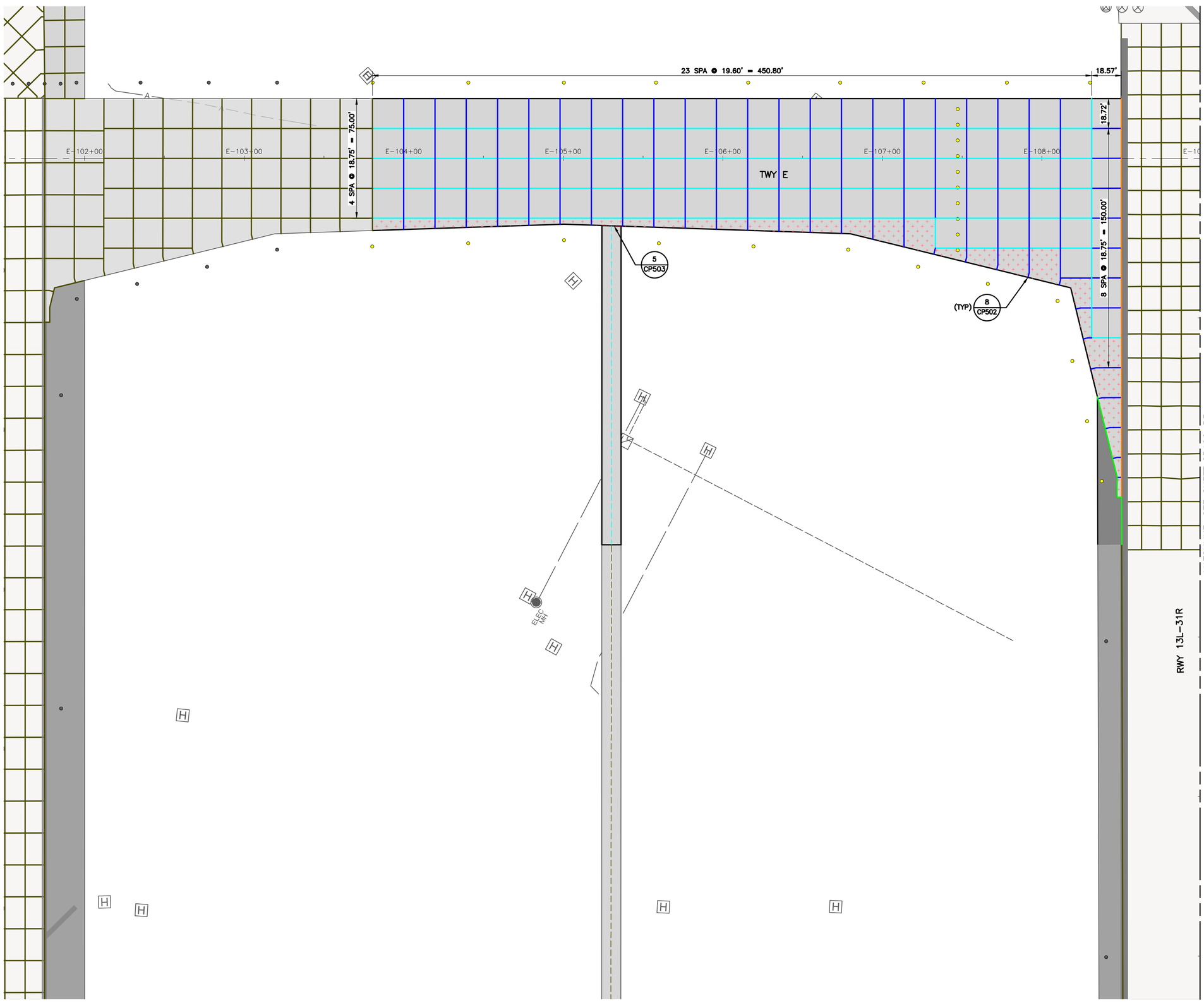
C.I.P. NO: 3-48-0110-044

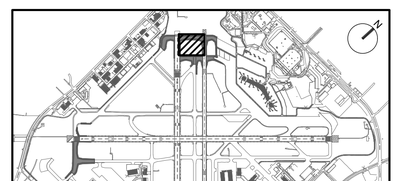
H.A.S. NO: N/A

SHEET NO: CP104–P2

of

FILENAME: H22C770A–CP103–104–P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:54:14 AM





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC (5 CP502)
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) (1 CP501)
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) (2 CP501)
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) (3 CP501)
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) (4 CP501)
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) (5 CP501)
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) (6 CP501)
- PCC ISOLATION JOINT - TYPE AG1 (7 CP501)
- PCC ROADWAY JOINT - TYPE E1 (3 CP503)
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 3

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

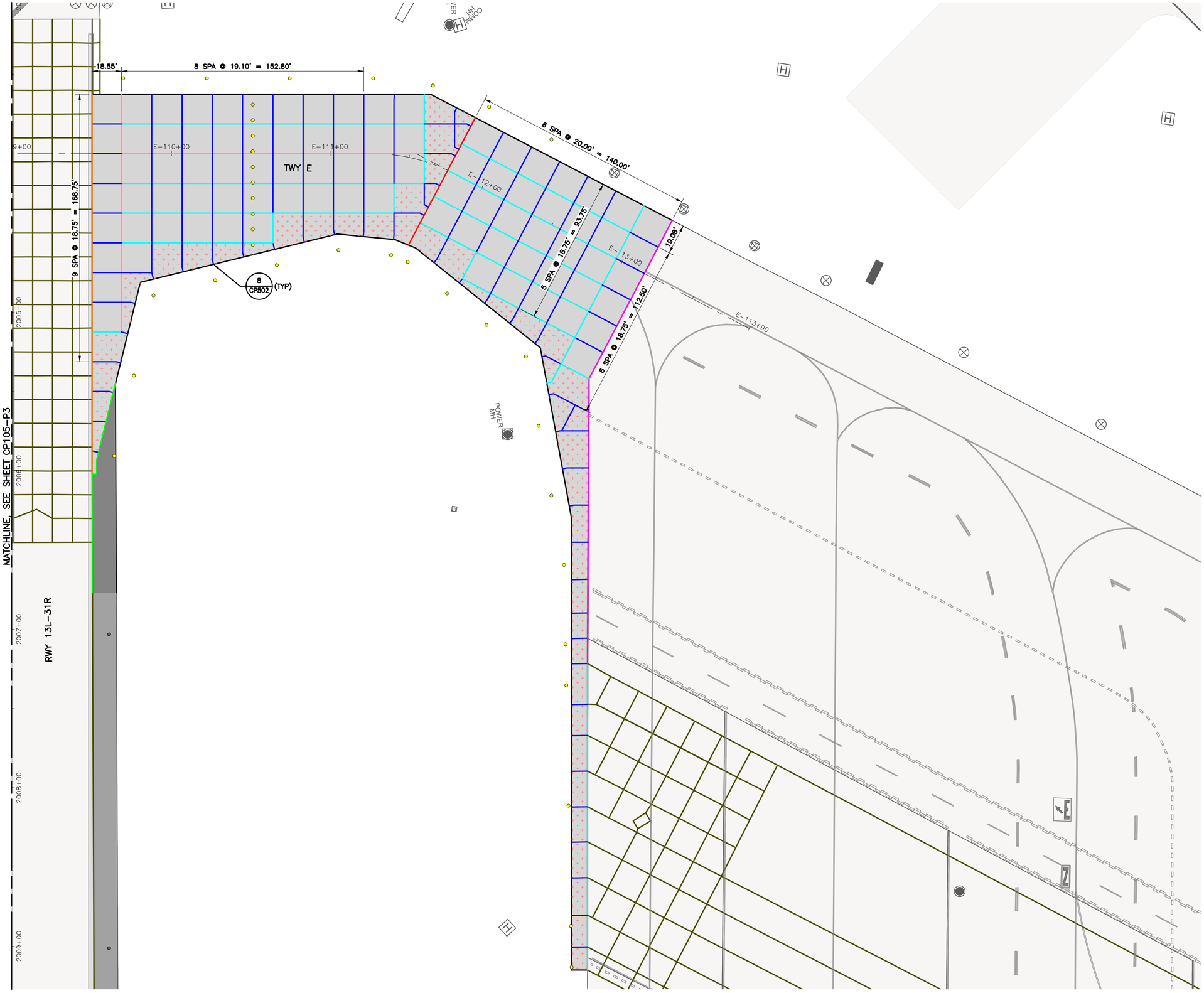
STATE OF TEXAS
THOMAS L. MILLS III
103660
PROFESSIONAL ENGINEER
02/24/2023

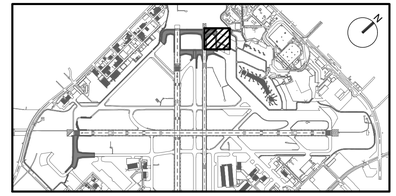
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CP105–P3
of

FILENAME: H22C770A–CP105–106–P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:55:40 AM





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701-P1 THROUGH CP710-P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101-P1 THROUGH CS106-P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE-IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P-501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN-PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 / CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 / CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 / CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 / CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 / CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 / CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 / CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 / CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 / CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 3

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

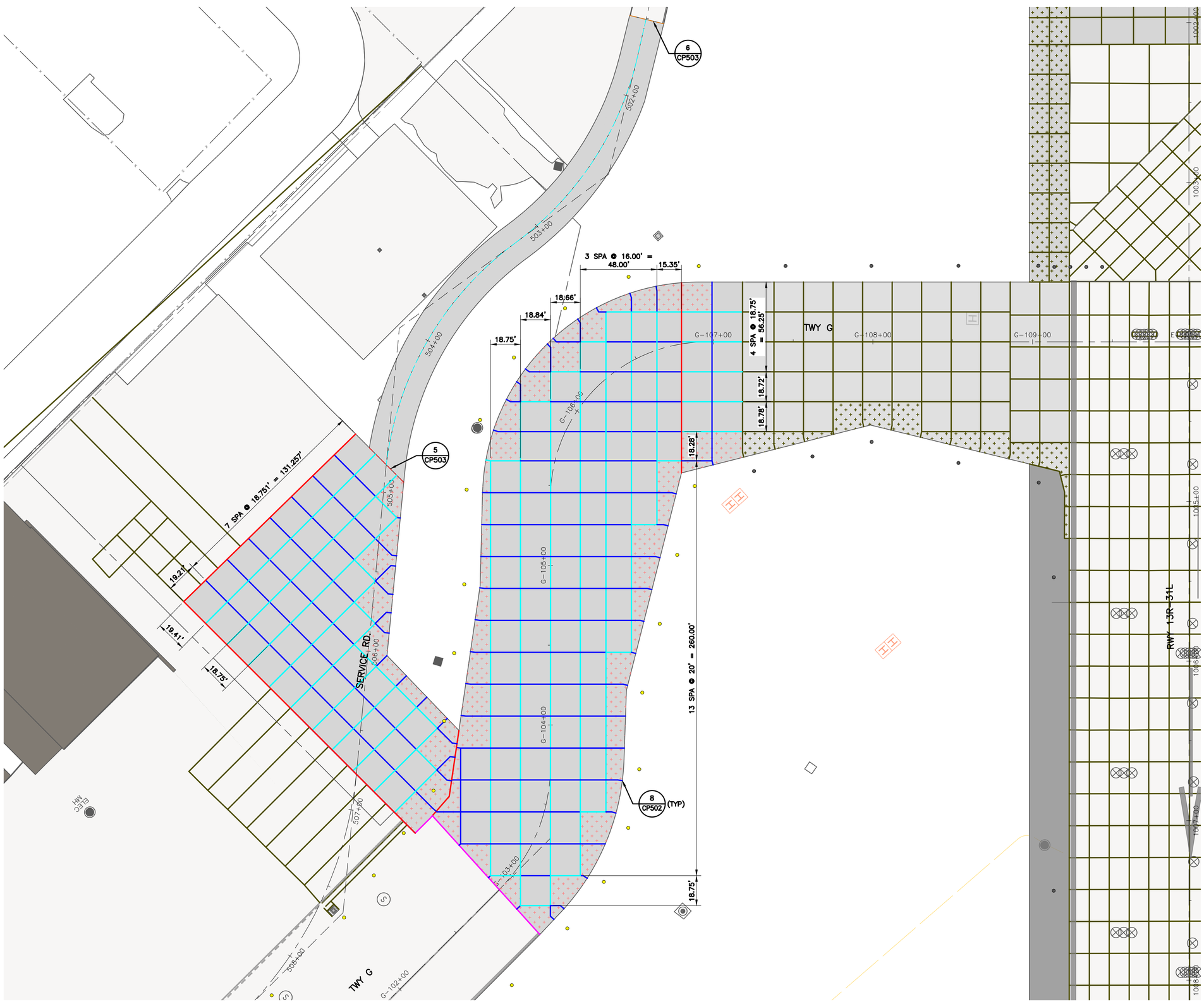
APPROVED BY:	DATE:

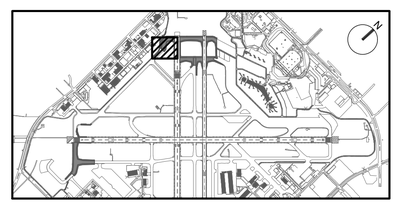
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CP106-P3

of

FILENAME: H22C770A-CP105-106-P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:56:17 AM





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 / CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 / CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 / CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 / CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 / CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 / CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 / CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 / CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 / CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 4

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

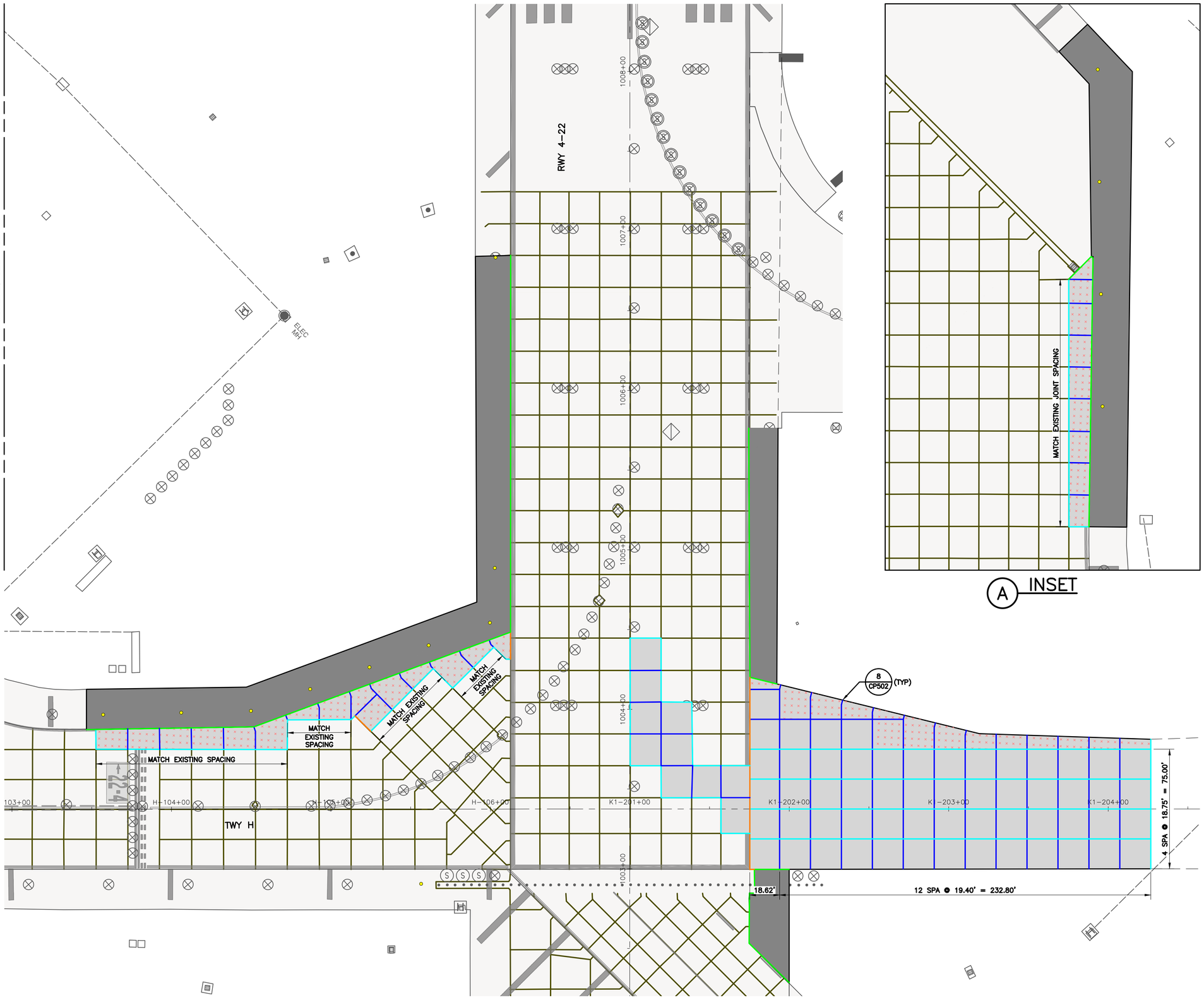
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP107–P4
of

FILENAME: H22C770A–CP107–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:59:45 AM



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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 5

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

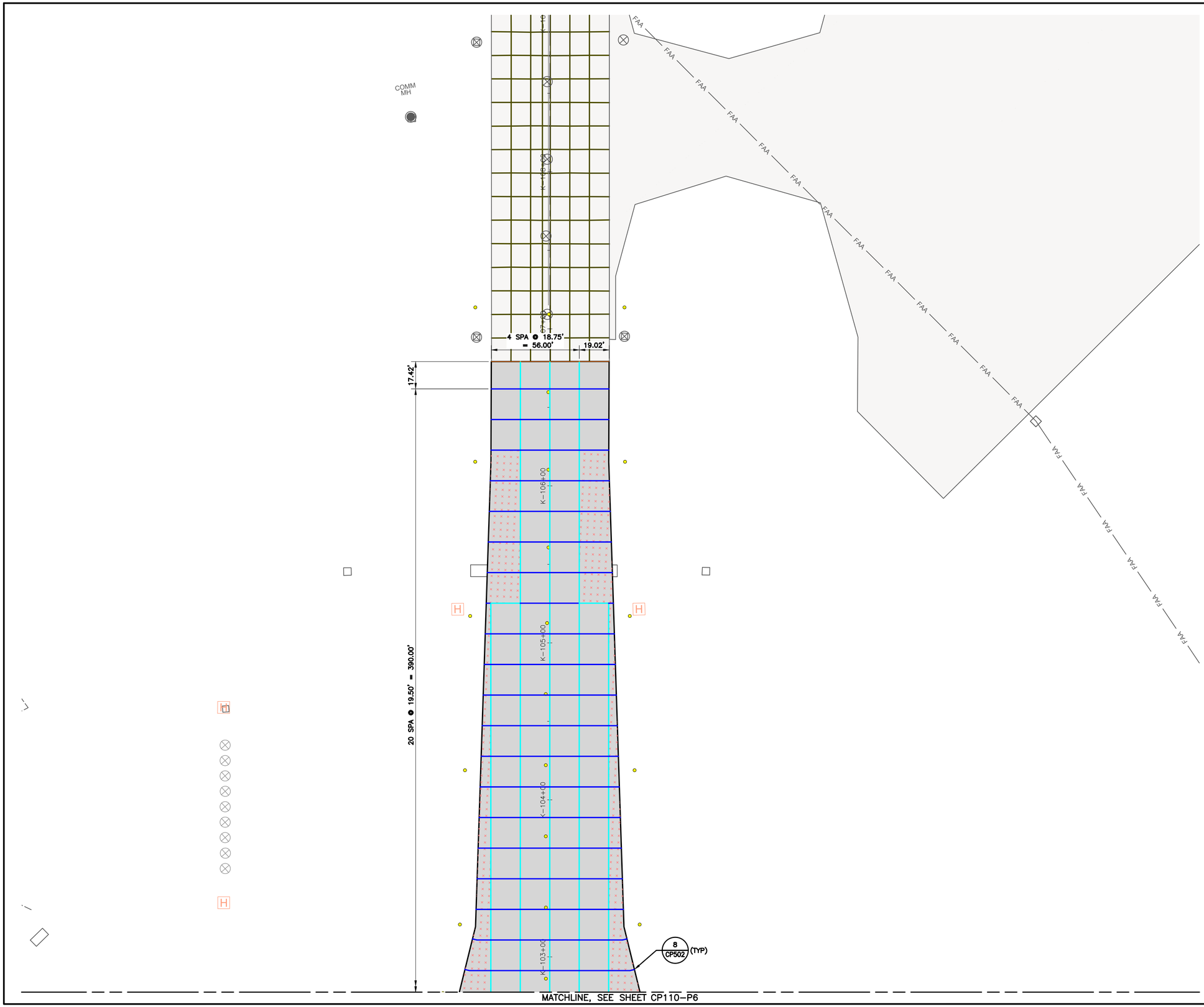
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

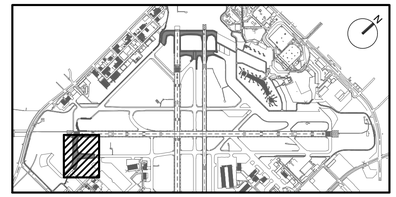
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP108-P5
of

FILENAME: H22C770A-CP108-P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:01:20 AM





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 6A & 6B

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

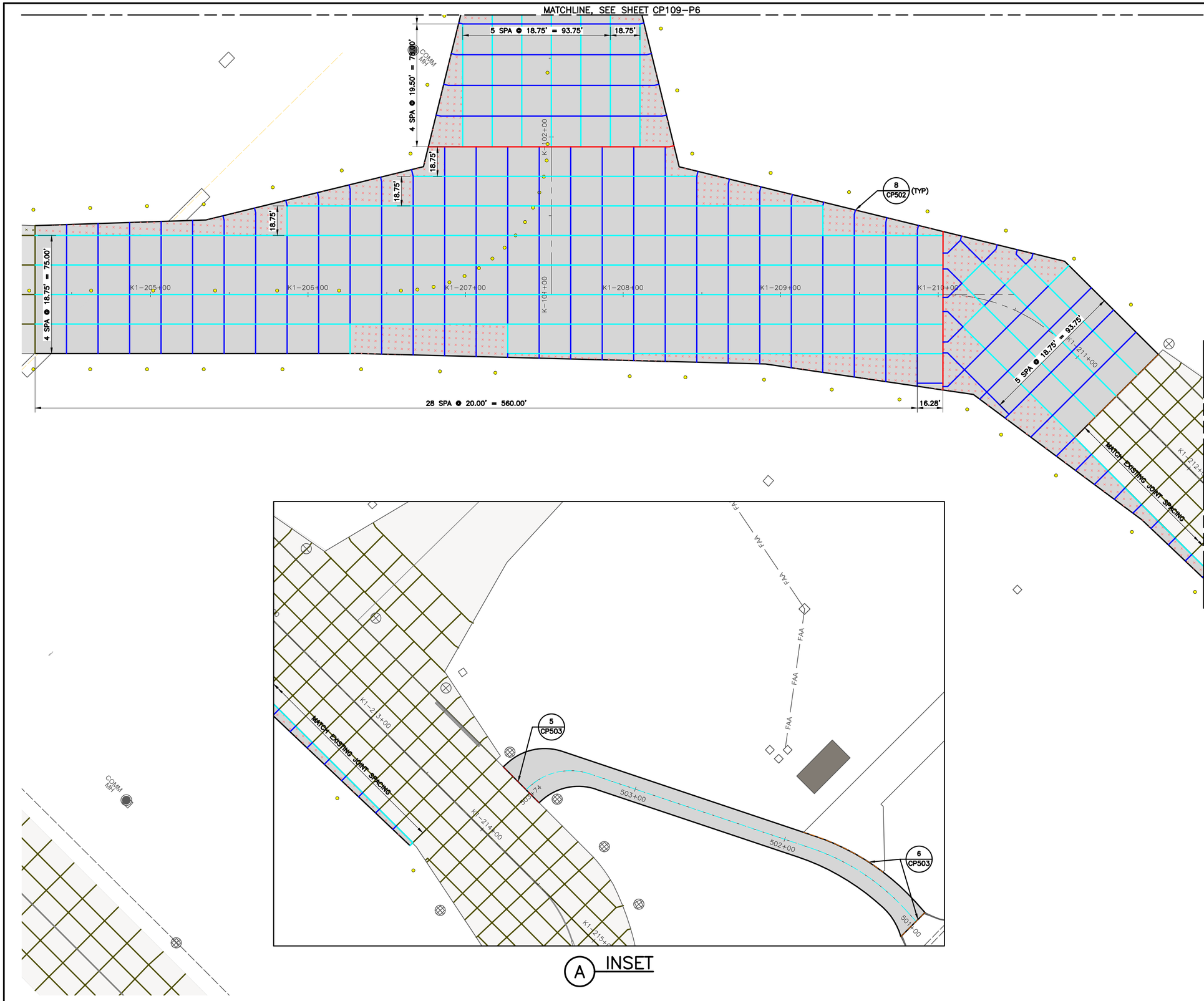
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

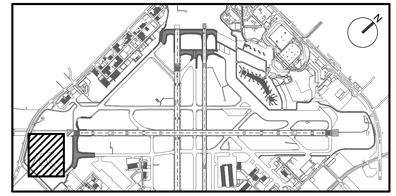
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP109–P6
of





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP701–P1 THROUGH CP710–P6.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.
5. THE CONTRACTOR SHALL SUBMIT A PROPOSED PAVING PLAN TO THE ENGINEER FOR APPROVAL. DOWELS SHALL BE INSTALLED IN ALL CONSTRUCTION JOINTS IN ACCORDANCE WITH SPECIFICATION P–501. INTERIOR SLAB LOCATIONS SHOWN WITH A DOWELED CONSTRUCTION JOINT MAY BE MODIFIED TO A DOWELED CONTRACTION JOINT, WITH APPROVAL OF THE ENGINEER.
6. CLEAN UP OF WASTE MATERIAL SHALL BE CONTINUOUS DURING THE JOINT SAWCUTTING OPERATION. CLEAN UP SHALL USE A VACUUM SWEEPER.
7. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES AND PAVED AREAS TO REMAIN. ALL UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED. DEMOLITION ACTIVITIES SHALL BE CAREFULLY CONTROLLED TO PREVENT DAMAGE TO ADJACENT CONCRETE PAVEMENT, THE UNDERLYING MATERIAL, OR EXISTING STRUCTURES TO REMAIN IN–PLACE. ANY DAMAGE TO EXISTING STRUCTURES OR PAVEMENT SHALL BE IMMEDIATELY REPORTED TO REPRESENTATIVE AND REPAIRED WITH APPROVED MATERIALS AND PROCEDURES AT THE CONTRACTORS EXPENSE.
8. CARE SHALL BE TAKEN NOT TO UNDERMINE THE EXISTING PAVEMENT TO REMAIN.
9. STRUCTURES AND LIGHTS SHOWN ARE FOR REFERENCE ONLY. SEE RESPECTIVE SHEETS FOR DETAILED DESIGN INFORMATION AND LEGEND.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- REINFORCED PCC — 5 CP502
- PCC PAVEMENT JOINT - TYPE A (THICKENED EDGE ISOLATION) — 1 CP501
- PCC PAVEMENT JOINT - TYPE AG (THICKENED EDGE ISOLATION) — 2 CP501
- PCC PAVEMENT JOINT - TYPE A1 (REINFORCED ISOLATION) — 3 CP501
- PCC PAVEMENT JOINT - TYPE C (DOWELED CONTRACTION) — 4 CP501
- PCC PAVEMENT JOINT - TYPE E (DOWELED CONSTRUCTION) — 5 CP501
- PCC PAVEMENT JOINT - TYPE G (JOINT BETWEEN PCC & HMA) — 6 CP501
- PCC ISOLATION JOINT - TYPE AG1 — 7 CP501
- PCC ROADWAY JOINT - TYPE E1 — 3 CP503
- ASPHALT PAVEMENT GRID
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- PROPOSED AIRFIELD BASE CAN FIXTURE, SEE NOTE 9

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING & REINFORCEMENT PLAN – PHASE 6A & 6B

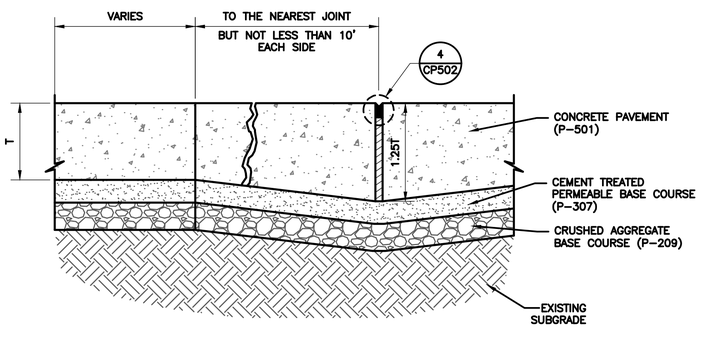
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.
REUSE OF DOCUMENTS

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

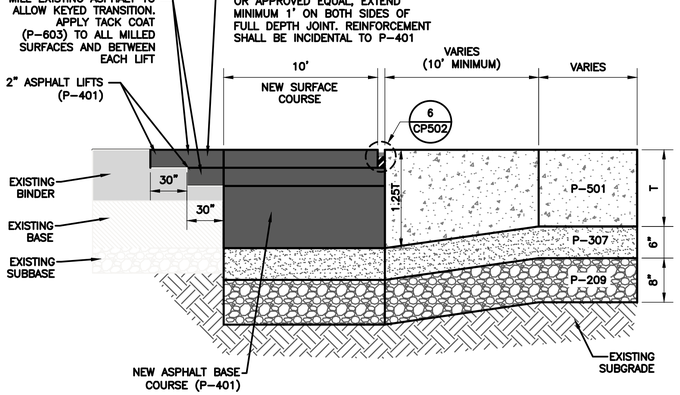
APPROVED BY:	DATE:
DIRECTOR HOUSTON AIRPORT SYSTEM	
PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CP110–P6
of	

FILENAME: H22C770A–CP109–110–P6.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:03:15 AM



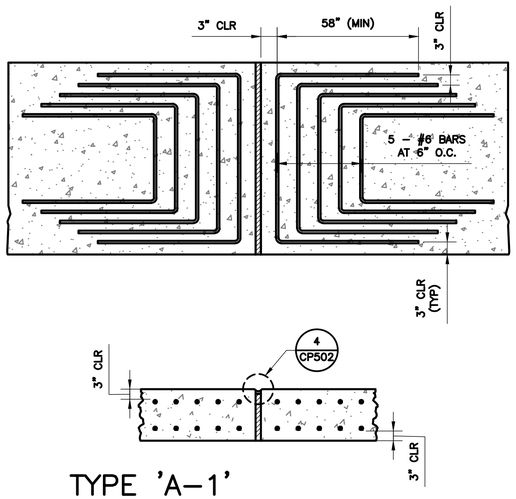
1 TYPE 'A' THICKENED EDGE ISOLATION JOINT PCC-PCC TRANSITION

N.T.S.



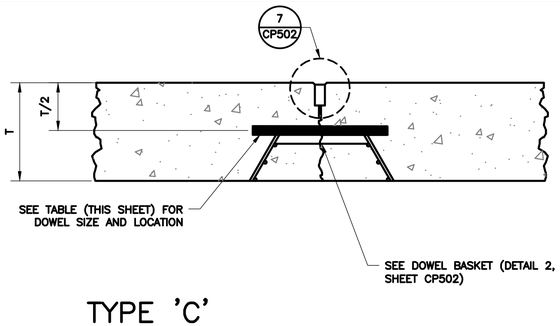
2 TYPE 'AG' THICKENED EDGE ISOLATION JOINT PCC-ASPHALT TRANSITION

N.T.S.



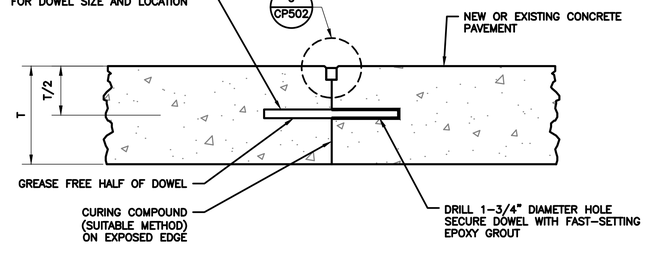
3 TYPE 'A-1' REINFORCED ISOLATION JOINT

N.T.S.



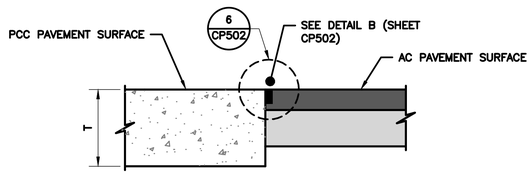
4 TYPE 'C' DOWELED CONTRACTION JOINT

N.T.S.



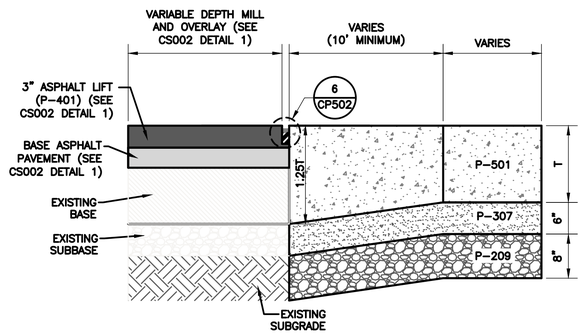
5 TYPE 'E' DOWELED CONSTRUCTION JOINT

N.T.S.



6 TYPE 'G' BUTT CONSTRUCTION JOINT

N.T.S.



7 TYPE 'AG-1' THICKENED EDGE ISOLATION JOINT PCC-ASPHALT TRANSITION

N.T.S.

GENERAL NOTES:

1. ALL JOINT CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATION P-501 OR AS NOTED. THE COST OF ALL JOINT CONSTRUCTION IS INCIDENTAL TO P-501.
2. THE CONTRACTOR MAY INTERCHANGE CONSTRUCTION JOINTS AND CONTRACTION JOINTS PER OWNER APPROVED SHOP DRAWINGS WITH ENGINEER'S APPROVAL.
3. EDGES OF CONCRETE SLABS SHALL BE COVERED WITH AN APPROVED CURING MATERIAL AT THE SAME TIME AS THE SURFACE IS CURED. AT FORMED LOCATIONS, SLAB SIDES SHALL BE CURED WHEN FORMS ARE REMVOED.
4. THE CONTRACTOR SHALL MAKE SPECIFICATIONS TO KEEP THE FINISH CONCRETE SURFACE FREE OF FOREIGN MATERIAL (I.E. AGGREGATE, OILS, ETC.) THROUGHOUT THE PROJECT. SWEEPERS, VACCUM TRUCKS, ETC. SHALL BE UTILIZED AS NECESSARY BY THE CONTRACTOR AND/OR AS DIRECTED BY THE REPRESENTATIVE TO MAINTAIN THIS PROVISION.
5. CONCRETE JOINT SPALLS, POP OUTS, AND OTHER CONCRETE SURFACE FAILURES, AS DEEMED EXCESSIVE BY THE REPRESENTATIVE AND WHICH CANNOT BE REASONABLY FILLED IN WITH JOINT SEALANT MATERIAL, SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE AIRPORT AUTHORITY IN ACCORDANCE WITH SPECIFICATION P-501.
6. ANY PAVEMENT SHOWN WITH THICKENED EDGE JOINTS WILL BE PAID FOR AS NOMINAL THICKNESS (T) PAVEMENT.
7. JOINTS SHALL NOT INTERSECT THE EDGE OF PAVEMENT NOR ANY OTHER JOINT AT AN ANGLE OF LESS THAN 90°, UNLESS OTHERWISE NOTED.

DRILLING AND BAR INSTALLATION NOTES:

1. DOWELS SHALL BE FULLY SHOP EPOXY COATED PER ASTM A1078.
2. PRIOR TO INSTALLATION IN CONTRACTION JOINTS, DOWELS SHALL BE LIGHTLY GREASED WITH A THIN COAT OF HIGH MELTING POINT GREASE OR APPROVED EQUAL AS INDICATED. IN CONSTRUCITON JOINTS, ONLY THE FREE END SHALL BE GREASED, AND ONLY AFTER INSERTION AND GROUTING INTO PLACE.
3. ALL CONSTRUCTION JOINT DOWELS SHALL BE GANG-DRILLED AND EPOXY GROUTED. INSERTION EQUIPMENT WILL NOT BE ALLOWED.
4. DOWEL DRILLING METHOD SHALL BE CAPABLE OF MAINTAINING DRILL HOLES PARALLEL TO THE CONCRETE SURFACE AND NORMAL TO THE JOINT LINE WITHIN ¼" +/- AT THE END OF THE DOWEL. DRILL HOLES SHALL BE ACCURATELY LAID OUT SO THAT THE MAXIMUM DEVIATION DOES NOT EXCEED 1" IN THE HORIZONTAL DIRECTION AND ½" IN THE VERTICAL DIRECTION. DRILL HOLE DIAMETER TO BE OF SUFFICIENT SIZE TO ACCEPT THE TYPE AND SIZE DOWEL REQUIRED.
5. AFTER DRILLING IS COMPLETE AND PRIOR TO THE INSTALLATION OF THE DOWELS, THE HOLES SHALL BE THOROUGHLY CLEANED TO REMOVE DRILLING DUST, CONCRETE CHIPS AND ANY OTHER MATERIAL DETRIMENTAL TO DEVELOPING A BOND.
6. EPOXY SHALL BE INJECTED UNIFORMLY TO THE ENTIRE CIRCUMFERENCE OF THE DOWEL HOLE SURFACE (CONTRACTOR SHALL NOT DIP AND INSERT DOWEL) AND SUFFICIENT MATERIAL PLACED IN THE HOLE SO THAT A SLIGHT AMOUNT WILL BE FORCED OUT FROM AROUND THE ENTIRE CIRCUMFERENCE WHEN THE DOWEL IS INSERTED AND TAPPED TO THE CORRECT POSITION. SMALL WEDGES MAY BE USED TO SUPPORT THE DOWEL IN CORRECT ALIGNMENT UNTIL THE MATERIAL HARDENS. THE TOLERANCE FOR DOWEL ALIGNMENT IN EITHER THE HORIZONTAL OR VERTICAL PLANE IS 1/8" PER FOOT OF DOWEL BAR.
7. SUBMIT PROPOSED EPOXY MANUFACTURER INFORMATION FOR APPROVAL BY THE REPRESENTATIVE PRIOR TO STARTING WORK.
8. ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINT DOWELS SHALL BE INSTALLED USING A WELDED WIRED BASKET ASSEMBLY APPROVED BY THE REPRESENTATIVE FIRMLY ANCHORED TO THE BASE WITH A MINIMUM OF 6 GALVANIZED STRAPS AND NAILS PER ASSEMBLY. POSITION ANCHOR STRAPS ON ALTERNATING SIDES OF THE BASKET ASSEMBLY.
9. A TRANSVERSE CONSTRUCTION JOINT SHALL BE INSTALLED AT A PLANNED JOINT WHEN PAVING OPERATIONS ARE INTERRUPTED FOR MORE THAN 30 MINUTES. IF THE INTERRUPTION OCCURS BETWEEN PLANNED JOINTS, THE FRESH CONCRETE SHALL BE REMOVED BACK TO THE PREVIOUSLY INSTALLED JOINT. NO JOINTS WILL BE ALLOWED BETWEEN THE JOINTS SHOWN ON THE JOINTING PLAN.
10. DOWEL BARS SHALL NOT BE PLACED MECHANICALLY.

JOINT SEALANT NOTES:

1. ALL JOINT CONSTRUCTION, MATERIALS AND JOINT SEALER SHALL BE IN ACCORDANCE WITH SPECIFICATION P-403, P-501, AND P-605 UNLESS OTHERWISE NOTED.
2. SEALANT RESERVOIR SHAPE FACTOR, W/D ,SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS.
3. ALL JOINT SEALANT RESERVOIRS SHOWN ON THIS SHEET SHALL BE VERIFIED BY THE SEALANT MANUFACTURER PRIOR TO CONSTRUCTION. REFER TO SECTION P-605 OF THE SPECIFICATIONS FOR FURTHER INFORMATION.
4. EXISTING JOINT SEALANT AND BACKER ROD SHALL BE COMPLETELY REMOVED BY SAWCUTTING.
5. JOINT CLEANING SHALL BE ACCOMPLISHED BY COMPRESSED AIR OR OTHER APPROVED METHOD. OTHER CLEANING METHODS SHALL BE SUBMITTED TO THE REPRESENTATIVE FOR APPROVAL.
6. CONTRACTOR SHALL THOROUGHLY CLEAN ALL JOINTS, REMOVING ALL LOOSE MATERIAL AND SHALL THOROUGHLY SWEEP (VACUUM) PAVEMENT SURFACE TO THE SATISFACTION OF THE REPRESENTATIVE PRIOR TO ACCEPTANCE.
7. SAWCUT WIDTH SHALL BE ¼" WIDE OR THE WIDTH OF THE EXISTING CONTRACTION OR CONSTRUCITON JOINTS AND 1" WIDE FOR EXPANSION JOINTS. NO EXTRA PAYMENT WILL BE MADE FOR SAWCUTS, CLEANING, BACKER ROD OR SEALANT IN JOINTS EXCEEDING DETAILED WIDTHS.
8. SAWCUT DEPTHS SHALL BE TO THE DEPTHS SHOWN IN THE DETAILS OR THE DEPTH NECESSARY TO FULLY REMOVE EXISTING BACKER ROD. NO EXTRA PAYMENT WILL BE MADE FOR SAWCUTS IN EXCESS OF DETAILED DEPTHS.
9. THE CONTRACTOR SHALL VACUUM ALL SLURRY FROM SAWCUTTING ADJACENT PAVEMENT.

DOWEL BASKET NOTES:

1. BASKETS SHALL BE FIRMLY ANCHORED TO THE BASE.
2. ALL WIRE SIZES SHOWN ARE MINIMUM SIZES.
3. DOWELS SHALL BE HELD FIRMLY IN THE WELDED ASSEMBLY AS SHOWN

CONCRETE PAVEMENT THICKNESS TABLE

SLAB THICKNESS (T)	T/2	1.25T	DOWEL DIAMETER	DOWEL LENGTH	DOWEL SPACING
16"	8"	20"	1 1/4"	20"	15"

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING DETAILS

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

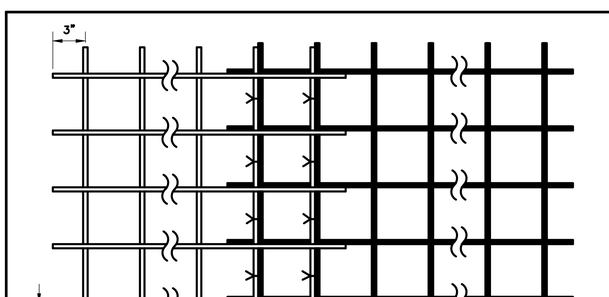
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

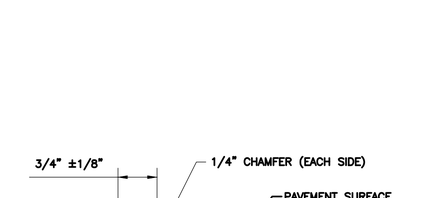
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP501 of

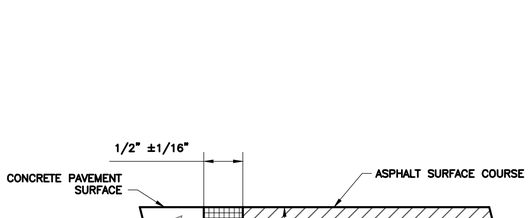
FILENAME: H22C770A-CP501-503.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:04:33 AM



1 TAXIWAY PAVEMENT WELDED WIRE FABRIC DETAIL
N.T.S.



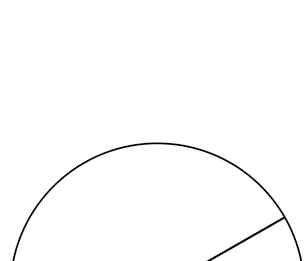
4 DETAIL A – ISOLATION JOINT
N.T.S.



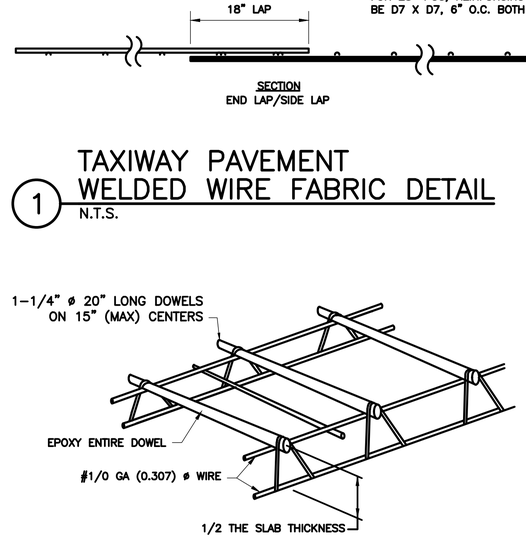
NOTES:

1. THE SHOULDER ASPHALT SURFACE COURSE (P-403) SHALL BE 0" TO 1/16" BELOW THE CONCRETE SURFACE.

6 DETAIL B – ASPHALT JOINT
N.T.S.



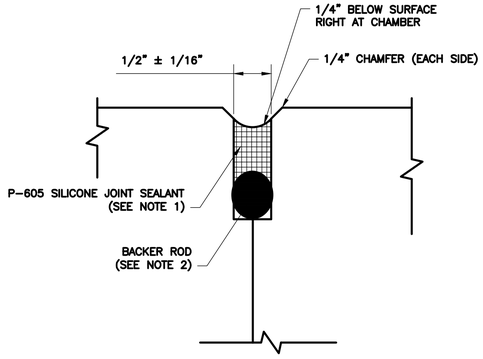
8 JOINT DOGLEG
N.T.S.



NOTE:

1. ANY PORTION OF THE BASKET IN CONTACT WITH THE SUBGRADE, INCLUDING CTB OR BOND BREAKER, SHALL BE EPOXY COATED.

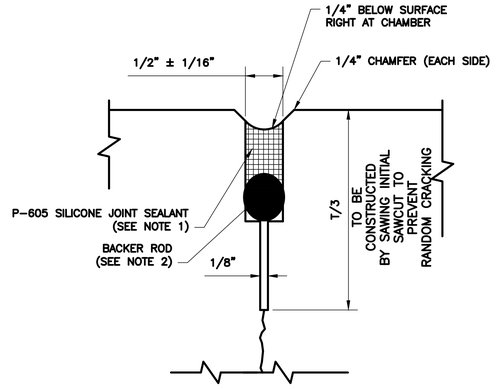
2 TYPICAL DOWEL BASKET ASSEMBLY
N.T.S.



NOTES:

1. DEPTH PER MANUFACTURER'S GUIDELINES (BASED ON THE WIDTH).
2. BACKER ROD MATERIAL MUST BE COMPATIBLE WITH THE TYPE OF SEALANT USED AND SIZED TO PROVIDE THE DESIRED SHAPE FACTOR.

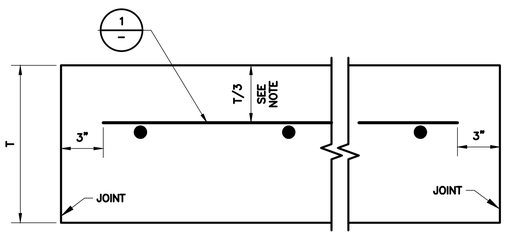
5 DETAIL C – CONSTRUCTION JOINT
N.T.S.



NOTES:

1. DEPTH PER MANUFACTURER'S GUIDELINES (BASED ON THE WIDTH).
2. BACKER ROD MATERIAL MUST BE COMPATIBLE WITH THE TYPE OF SEALANT USED AND SIZED TO PROVIDE THE DESIRED SHAPE FACTOR.

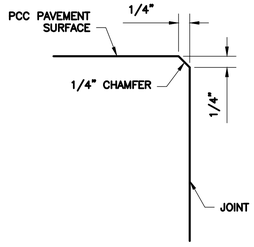
7 DETAIL D – CONTRACTION JOINT
N.T.S.



NOTE:

1. REINFORCING SHALL BE PLACED AT APPROXIMATELY THE UPPER 1/3 OF THE PANEL. IT MAY BE MOVED UP TO DECONFLICT WITH DOWELS, TO A MAXIMUM OF T/1+1" FROM THE TOP OF SLAB.

3 REINFORCED PAVEMENT (TAXIWAY PAVEMENT)
N.T.S.



9 1/4 – INCH CHAMFER
N.T.S.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING DETAILS

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.

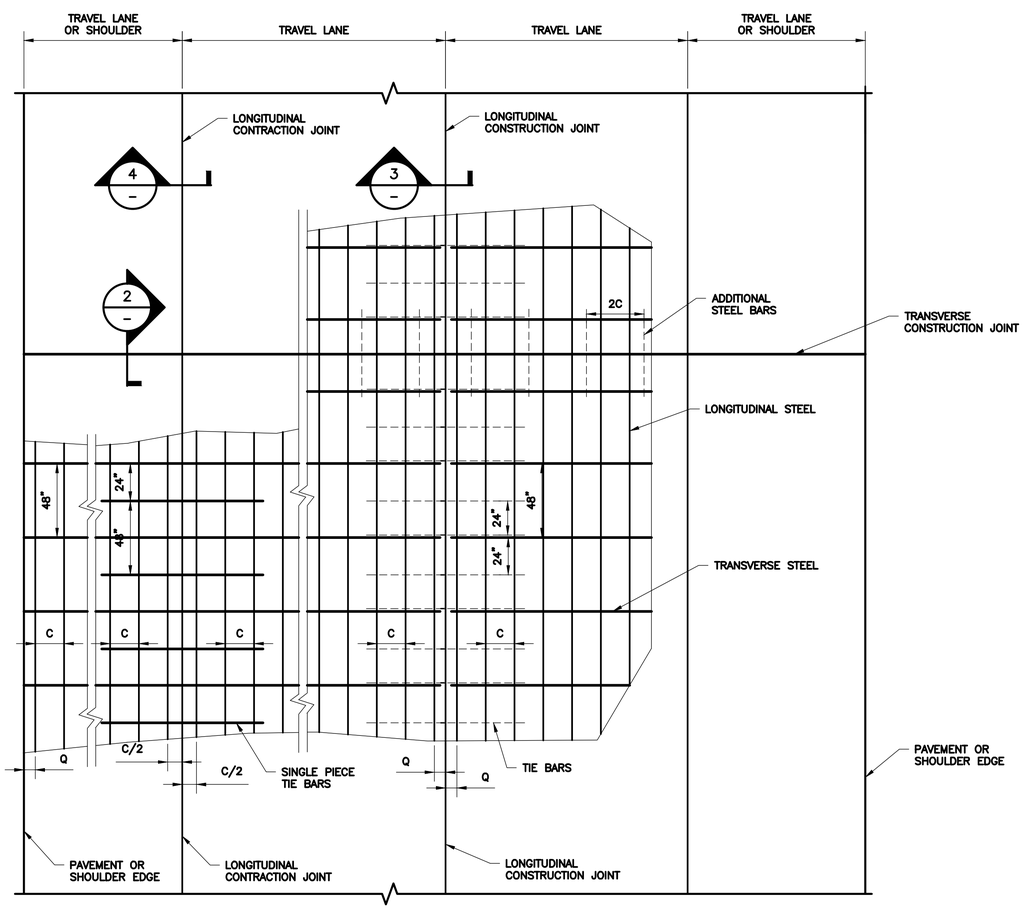
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

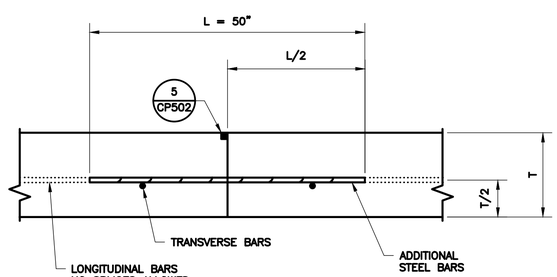
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

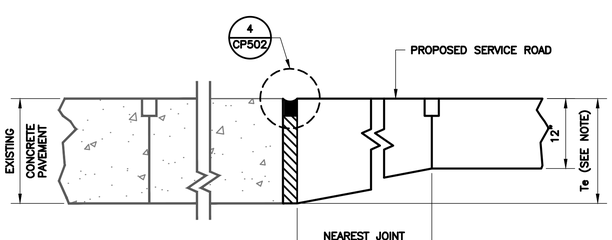
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP502
of



1 TYPICAL PAVEMENT LAYOUT
N.T.S.



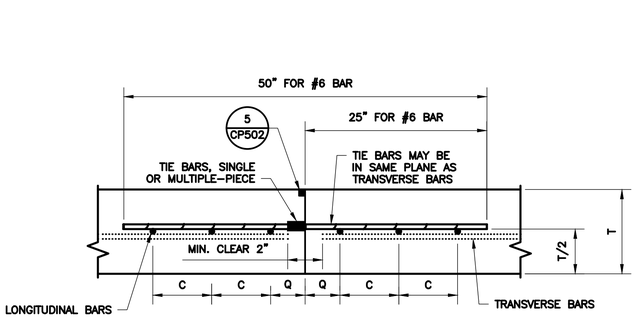
2 TRANSVERSE CONSTRUCTION JOINT (X–X)
N.T.S.



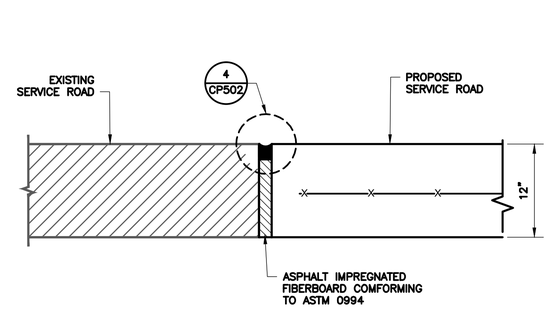
NOTE:

1. IF EXISTING PAVEMENT AT ISOLATION JOINT IS 15" OR LESS, Te SHALL MATCH THE EXISTING PAVEMENT THICKNESS. IF EXISTING PAVEMENT IS GREATER THAN 15", Te SHALL BE 15".

5 TYPE 'A2' ROADWAY THICKENED EDGE ISOLATION JOINT
N.T.S.



3 TYPE 'E1' – LONGITUDINAL CONSTRUCTION JOINT (Y–Y)
N.T.S.



6 TYPE 'A3' ROADWAY ISOLATION JOINT
N.T.S.

GENERAL NOTES:

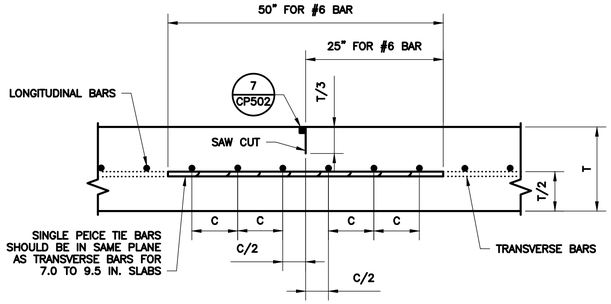
1. ALL THE REINFORCING STEEL AND TIE BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A 615 (GRADE 60) OR ASTM A 996 (GRADE 60) OR ABOVE. STEEL BAR SIZES AND SPACINGS SHALL CONFORM TO TABLE NO.1 AND TABLE NO.2.
2. STEEL BAR PLACEMENT TOLERANCE SHALL BE +/– 1 IN. HORIZONTALLY AND +/– 0.5 IN. VERTICALLY. CALCULATED AVERAGE BAR SPACING (CONCRETE PLACEMENT WIDTH / NUMBER OF LONGITUDINAL BARS) SHALL CONFORM TO TABLE NO.1.
3. PAVEMENT WIDTHS OF MORE THAN 15 FT. SHALL HAVE A LONGITUDINAL JOINT (SECTION Z–Z OR SECTION Y–Y). THESE JOINTS SHALL BE LOCATED WITHIN 6 IN. OF THE LANE LINE UNLESS THE JOINT LOCATION IS SHOWN ELSEWHERE ON THE PLANS.
4. REPLACE MISSING OR DAMAGED TIE BARS WITHOUT ADDITIONAL COMPENSATION BY DRILLING MIN.10 IN. DEEP AND GROUTING TIE BARS WITH TYPE III, CLASS C EPOXY. MEET THE PULL–OUT TEST REQUIREMENTS IN ITEM 361.
5. OMIT TIE BARS LOCATED WITHIN 18–IN. OF THE TRANSVERSE CONSTRUCTION JOINTS (SECTION X–X). USE HAND–OPERATED IMMERSION VIBRATORS TO CONSOLIDATE THE CONCRETE ADJACENT TO ALL FORMED JOINTS.
6. LONGITUDINAL REINFORCING STEEL SPLICES SHALL BE A MINIMUM OF 25 IN. STAGGER THE LAP LOCATIONS SO THAT NO MORE THAN 1/3 OF THE LONGITUDINAL STEEL IS SPLICED IN ANY GIVEN 12–FT. WIDTH AND 2–FT. LENGTH OF THE PAVEMENT.

TABLE NO.1
LONGITUDINAL STEEL

SLAB THICKNESS AND BAR SIZE		REGULAR STEEL BARS	FIRST SPACING AT EDGE OR JOINT	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT (SECTION X–X)	
T (IN.)	BAR SIZE	SPACING C (IN.)	SPACING Q. (IN.)	SPACING 2 X C (IN.)	LENGTH L (IN.)
12.0	#6	6.0	3 TO 4	12	50

TABLE NO.2
TRANSVERSE STEEL & TIE BARS

SLAB THICKNESS (IN.)	TRANSVERSE STEEL		TIE BARS AT LONGITUDINAL CONTRACTION JOINT (SECTION Z–Z)		TIE BARS AT LONGITUDINAL CONSTRUCTION JOINT (SECTION Y–Y)	
	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)
8.0 – 13.0	#5	48	#6	48	#6	24



4 TYPE 'C1' – LONGITUDINAL CONTRACTION JOINT (Z–Z)
N.T.S.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING DETAILS

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

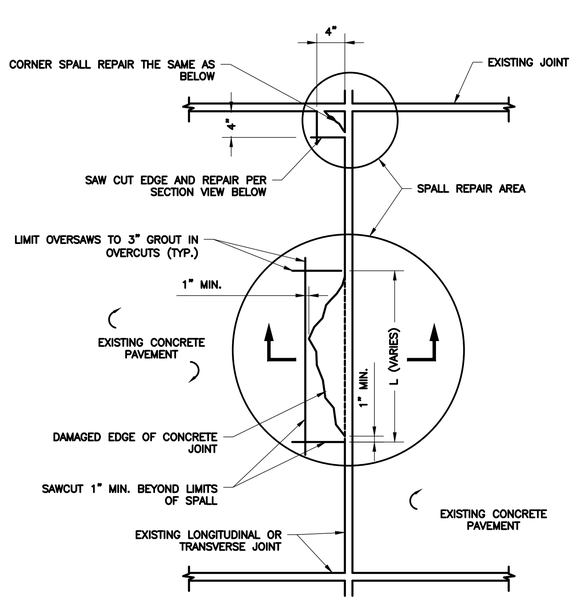
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

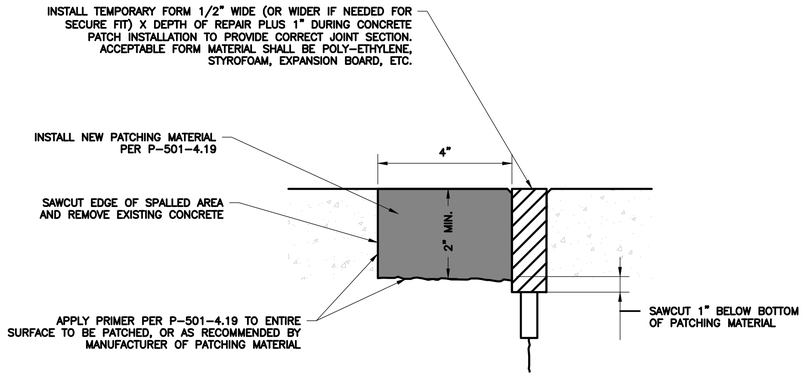
PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CP503
of



PLAN VIEW
NTS

NOTES

1. SAW CUT MINIMUM 1" CLEAR OF EXISTING SPALL, 2" MINIMUM DEPTH, REMOVE SPALLED CONCRETE AND EXISTING SEALANT WITH PATCH BOUNDARY.
2. SAW CUTS SHALL BE STRAIGHT LINES FORMING RECTANGULAR PATCHES SURROUNDING THE SPALLED AREA.
3. REMOVE UNSOUND CONCRETE AND AT LEAST 1/2" OF VISUALLY SOUND CONCRETE BETWEEN SAW CUT AND THE JOINT. MAXIMUM ALLOWABLE PNEUMATIC HAMMER SIZE IS 30 POUNDS.
4. CLEAN AND DRY AREA TO BE PATCHED BY AIR BLASTING. JOINTS AND EXPOSED CONCRETE SURFACE SHALL BE DUST-FREE PRIOR TO INSTALLATION OF SEALER.
5. INSTALL NON ABSORBENT BOARDS WITHIN THE LIMITS OF THE JOINT SEAL ALONG THE LENGTH OF THE ADJACENT CONCRETE PANEL. PROVIDE A SECURE SEAL BETWEEN BOARDS AND EXISTING CONCRETE TO ENSURE NEW PATCHING MATERIAL DOES NOT PENETRATE INTO THE JOINT.
6. PATCH SHALL BE TROWELED TOWARD THE PATCH PERIMETER, NOT AWAY FROM PATCHED PERIMETER.
7. SPALLS DEEPER THAN 1/2 THE SLAB DEPTH OR SPALLS LONGER THAN 25% OF THE ADJACENT JOINT REQUIRE REPLACEMENT OF THE ENTIRE SLAB.
8. SPALLS LESS THAN ONE INCH WIDE AND LESS THAN THE DEPTH OF THE JOINT SEALANT RESERVOIR, SHALL BE FILLED WITH JOINT SEALANT MATERIAL.
9. SECTION SHOWS SPALL REPAIR ON ONE SIDE OF THE JOINT. SOME CASES WILL REQUIRE REPAIR ON BOTH SIDES OF THE JOINT, HOWEVER THE METHODOLOGY SHALL BE FOLLOWED TO REPAIR BOTH SIDES.
10. JOINT SEALANT SHALL BE RE-ESTABLISHED PER SPECIFICATION P-605.



SECTION VIEW
NTS

1 SPALL REPAIR DETAIL
N.T.S.

FILENAME: H22C770A-CP501-503.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:05:29 AM

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING DETAILS

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.

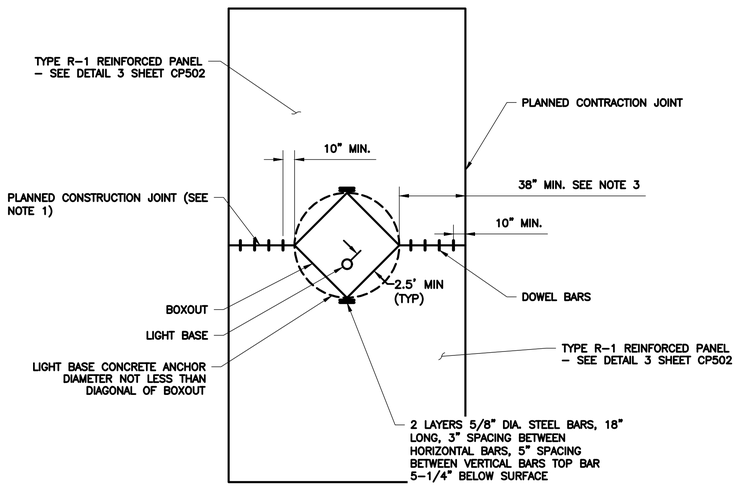
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

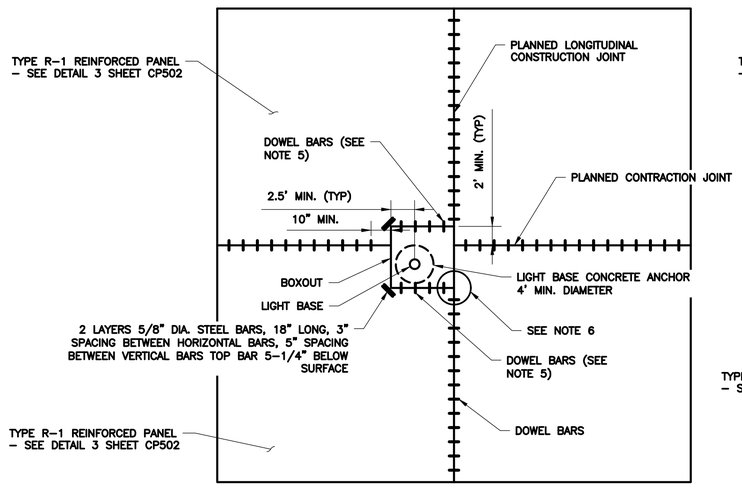
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

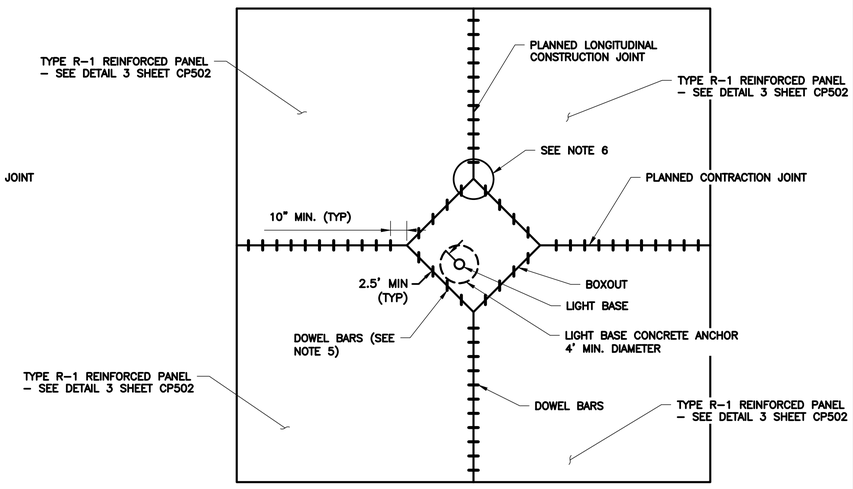
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP504
of



1 INTERIOR SLAB BOXOUT
N.T.S.



2 EDGE SLAB BOXOUT – 2 PANELS
N.T.S.



3 EDGE SLAB BOXOUT – 4 PANELS
N.T.S.

BOXOUT NOTES:

1. WHEN A BOXOUT IS USED ON A PLANNED CONTRACTION JOINT, THE JOINT SHALL BE CHANGED TO A CONSTRUCTION JOINT.
2. A BOXOUT IS NOT REQUIRED WHEN AN IN-PAVEMENT LIGHT BASE IS INSTALLED AT OR MORE THAN TWO FEET FROM A PLANNED JOINT. A BOXOUT MUST BE USED WHEN A LIGHT BASE MUST BE LOCATED CLOSER THAN TWO FEET TO A PLANNED CONSTRUCTION JOINT.
3. WHEN MINIMUM CLEARANCE FROM THE INTERIOR BOXOUT TO A PLANNED JOINT CAN NOT BE ACHIEVED, AN EDGE BOXOUT SHALL BE UTILIZED.
4. AN EDGE BOXOUT MUST INCORPORATE ALL OF THE PANEL DISTANCE BETWEEN A PLANNED JOINT AND THE LIGHT BASE. DO NOT CROSS A PLANNED JOINT WITH THE BOXOUT IF THERE IS AT LEAST 2' FROM THE LIGHT BASE TO THE PLANNED JOINT. BOXOUTS WHICH ARE REQUIRED TO CROSS A PLANNED JOINT MUST EXTEND A MINIMUM OF 2' BEYOND THE PLANNED JOINT.
5. DOWEL BARS SHALL BE ALIGNED PARALLEL WITH THE DIRECTION OF TRAFFIC ONLY. DOWELS SHALL BE SPACED AT 18" AND PLACED NO CLOSER THAN 10" FROM THE EDGE OF THE BOXOUT OR PLANNED JOINT.
6. DOWEL BAR SPACING ALONG A PLANNED PAVEMENT JOINT HAS PRECEDENCE OVER DOWL BAR SPACING ALONG THE BOXOUT JOINT. A DOWEL PLACED ALONG A BOXOUT JOINT MUST BE LOCATED AT LEAST 12" FROM THE END OF A DOWEL BAR PLACED ALONG THE INTERSECTING PAVEMENT JOINT.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT JOINTING DETAILS

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:

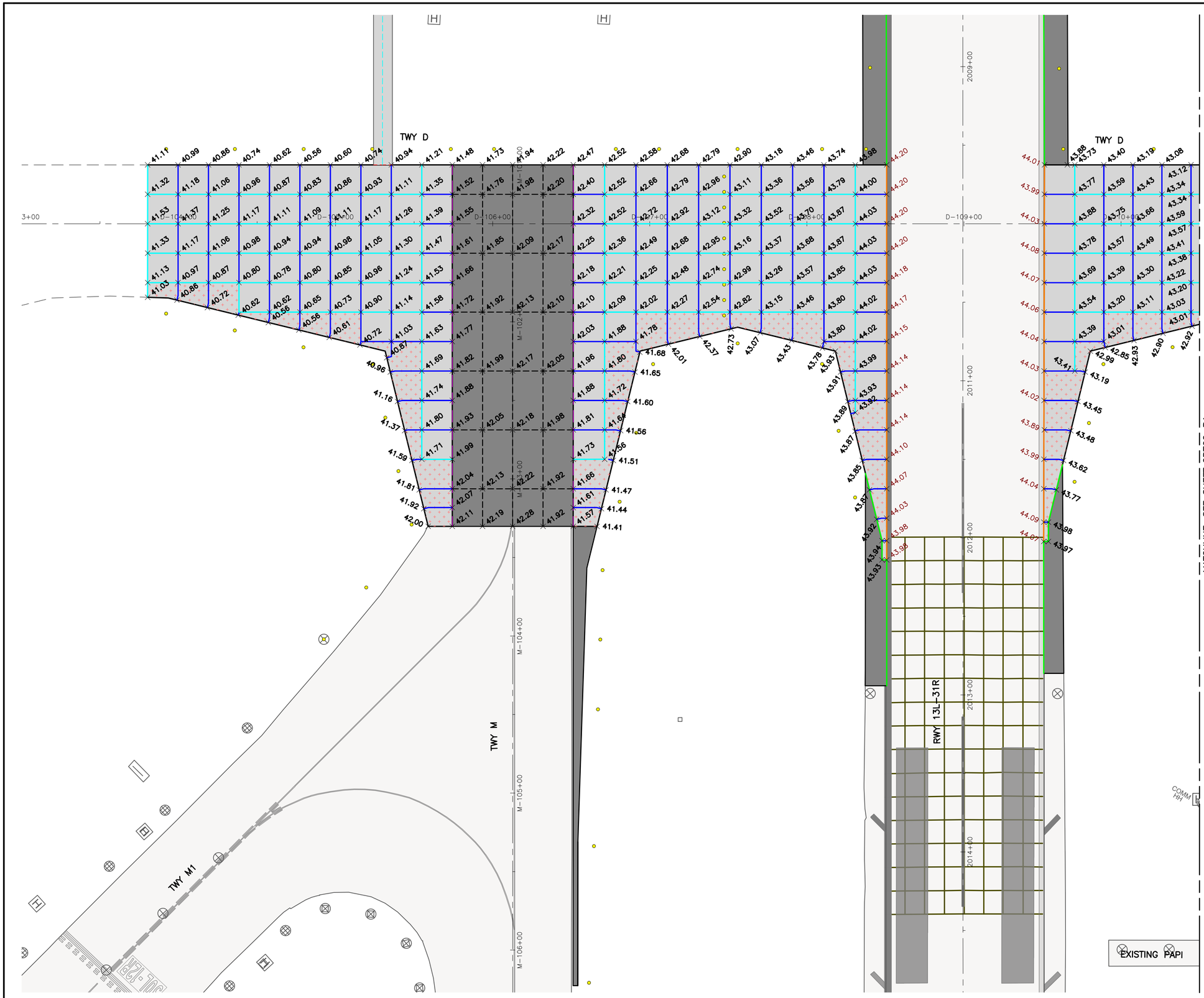
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	D. CRAWFORD
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

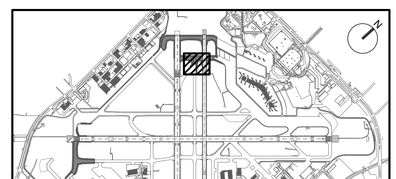
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP505
of





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
PAVEMENT SPOT ELEVATION PLAN – PHASE 1

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CP701–P1
of

MATCHLINE, SEE SHEET CP701–P1

TWY D

TWY Y

TWY Z

D–113+53

EXISTING PAPI

POWER MH

COMM HH

POWER MH

KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
PAVEMENT SPOT ELEVATION PLAN – PHASE 1

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:

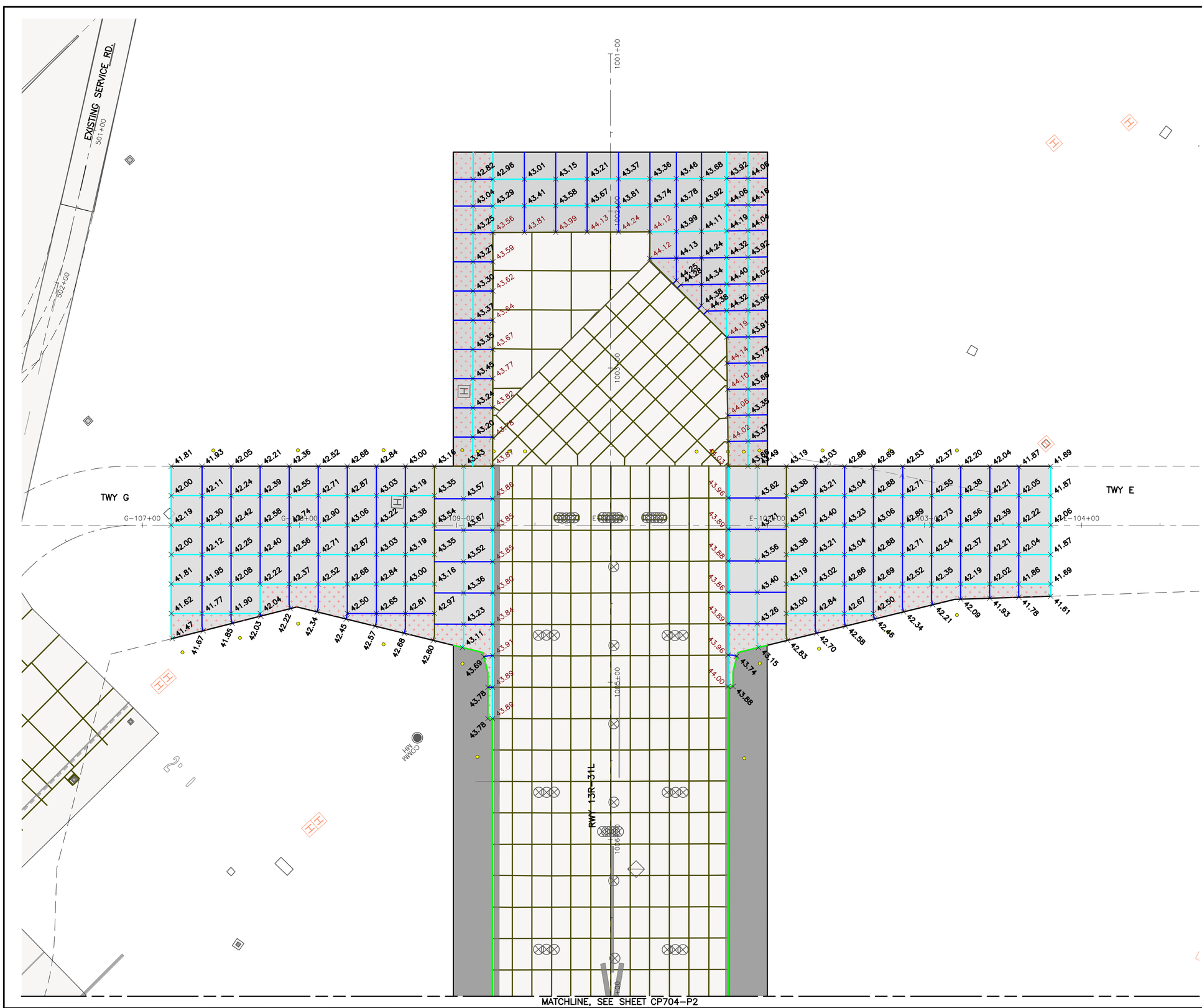
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

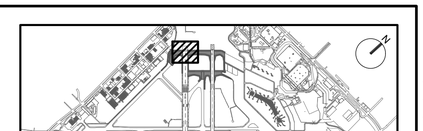
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP702–P1
of





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- +0.00 EXISTING SPOT ELEVATION
- +0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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:

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT SPOT ELEVATION PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

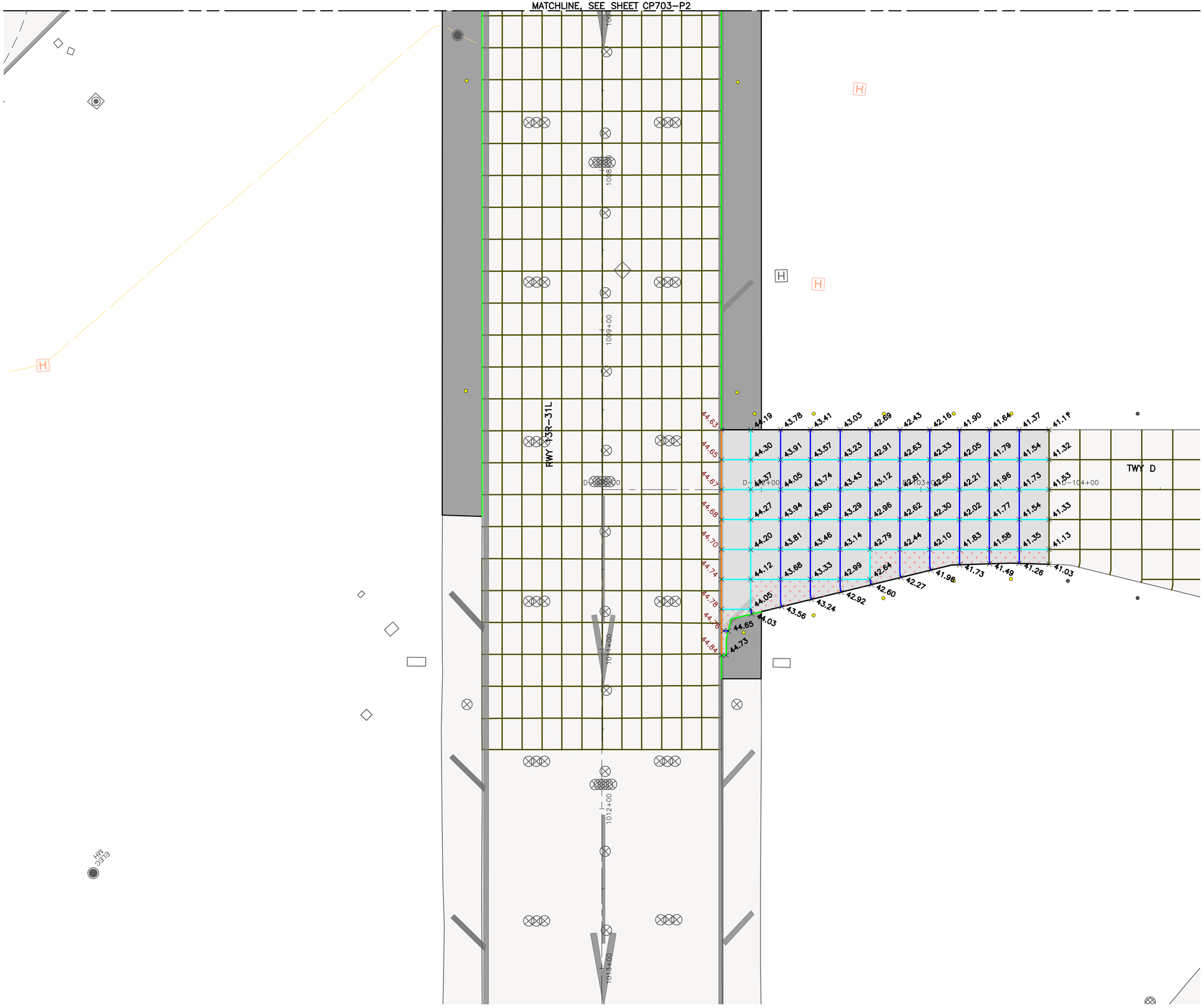
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

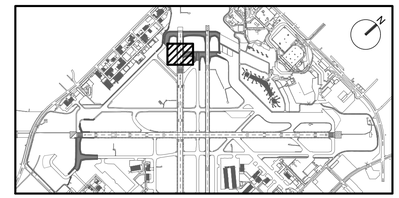
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CP703–P2
of

MATCHLINE, SEE SHEET CP703-P2





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101-P1 THROUGH CP108-P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101-P1 THROUGH CS106-P6.
4. FOR GRADING PLANS, SEE SHEETS CG101-P1 THROUGH CG109-P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE-IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- +0.00 EXISTING SPOT ELEVATION
- +0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT SPOT ELEVATION PLAN – PHASE 2

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:

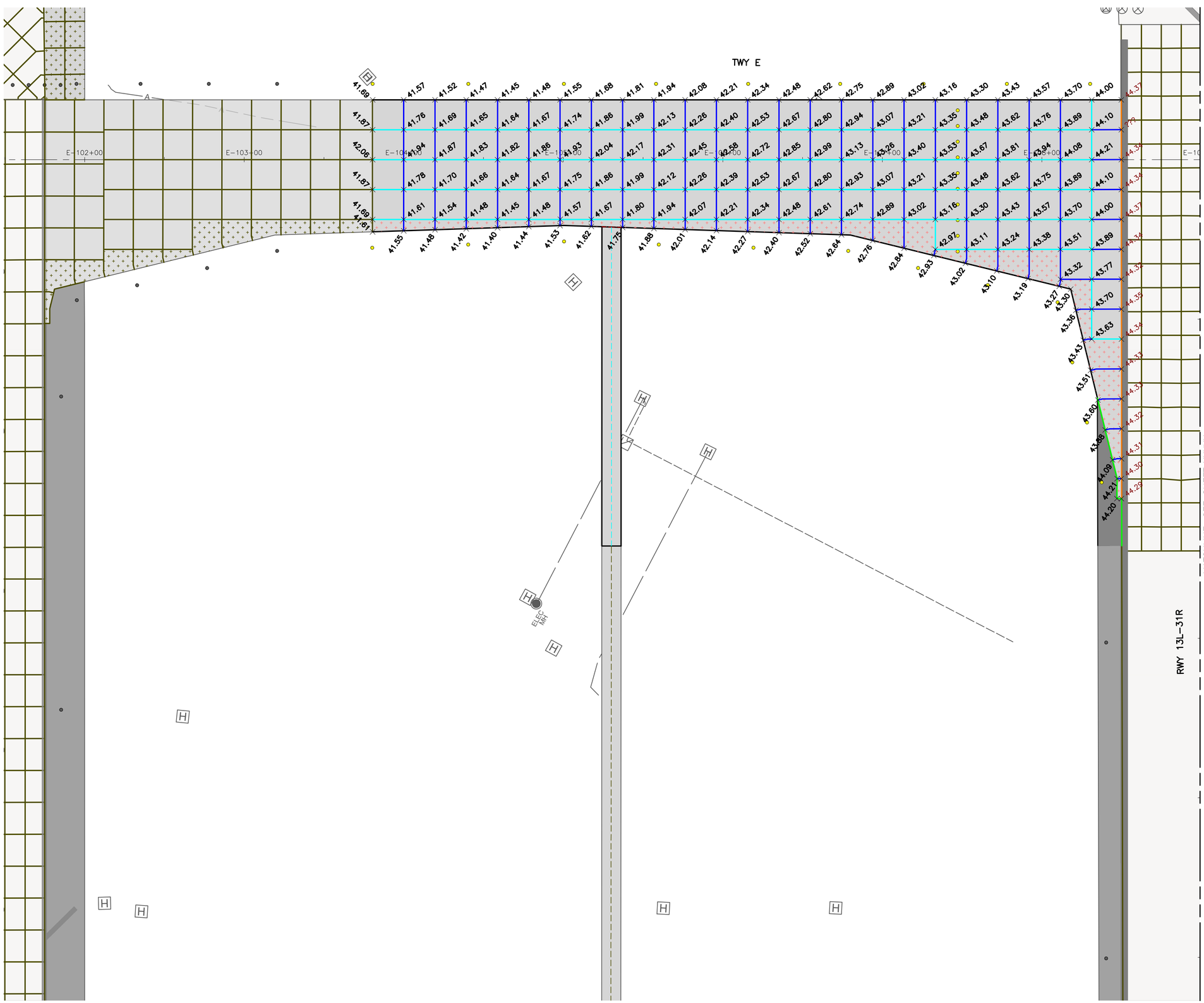
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
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: CP704-P2
of



KEY MAP

NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE

30' 0 30' 90'

SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT SPOT ELEVATION PLAN – PHASE 3

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.

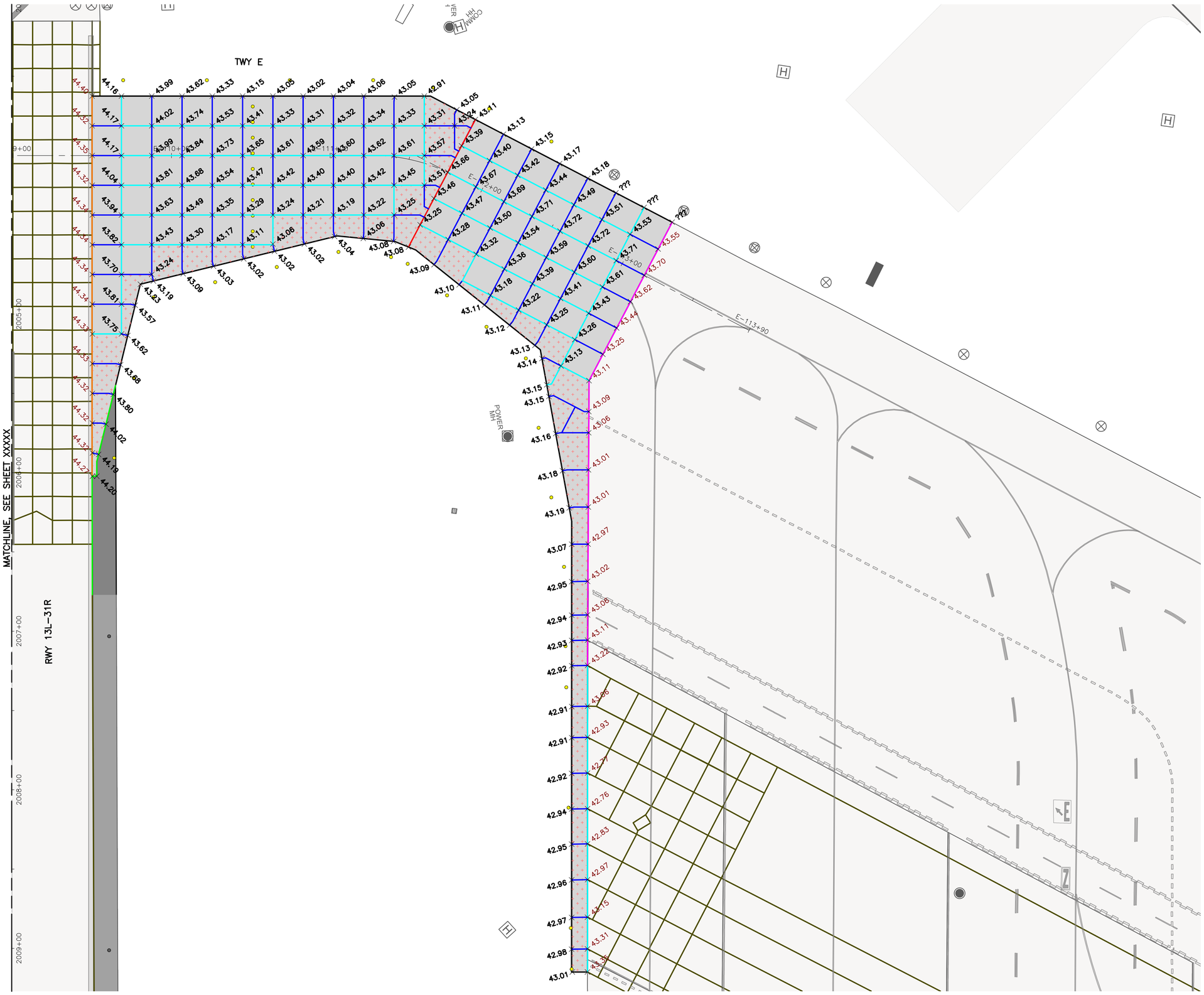
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

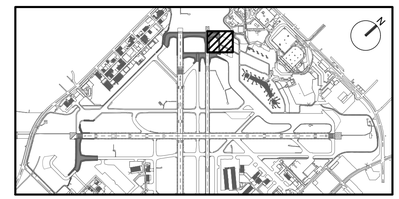
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP705–P3
of



KEY MAP
NTS



NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
PAVEMENT SPOT ELEVATION PLAN – PHASE 3

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

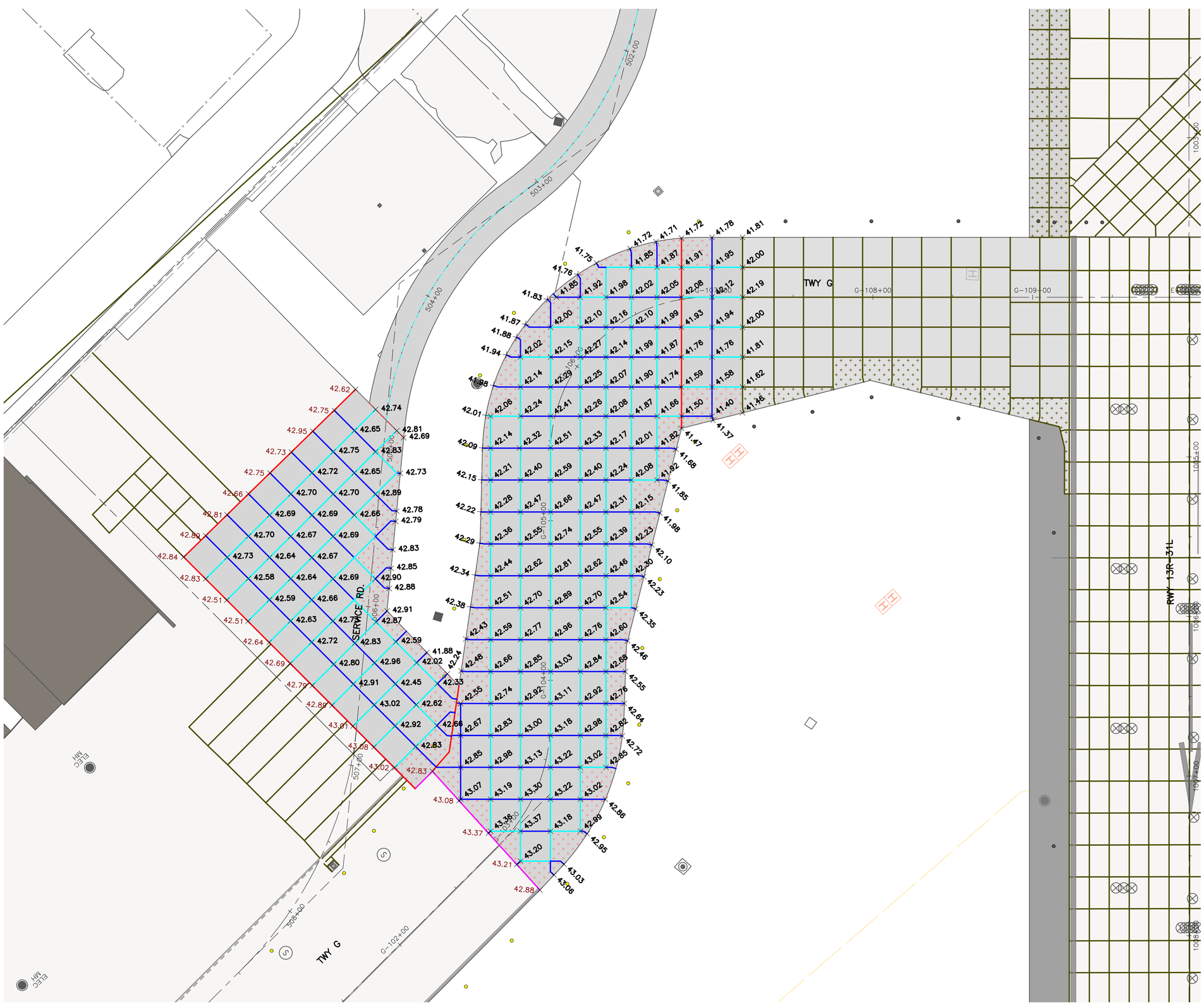
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

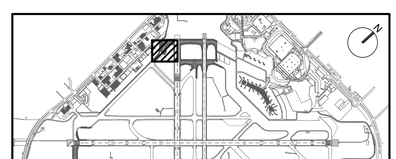
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP706–P3
of





KEY MAP

NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE

30' 0 30' 90'

SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT SPOT ELEVATION PLAN – PHASE 4

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

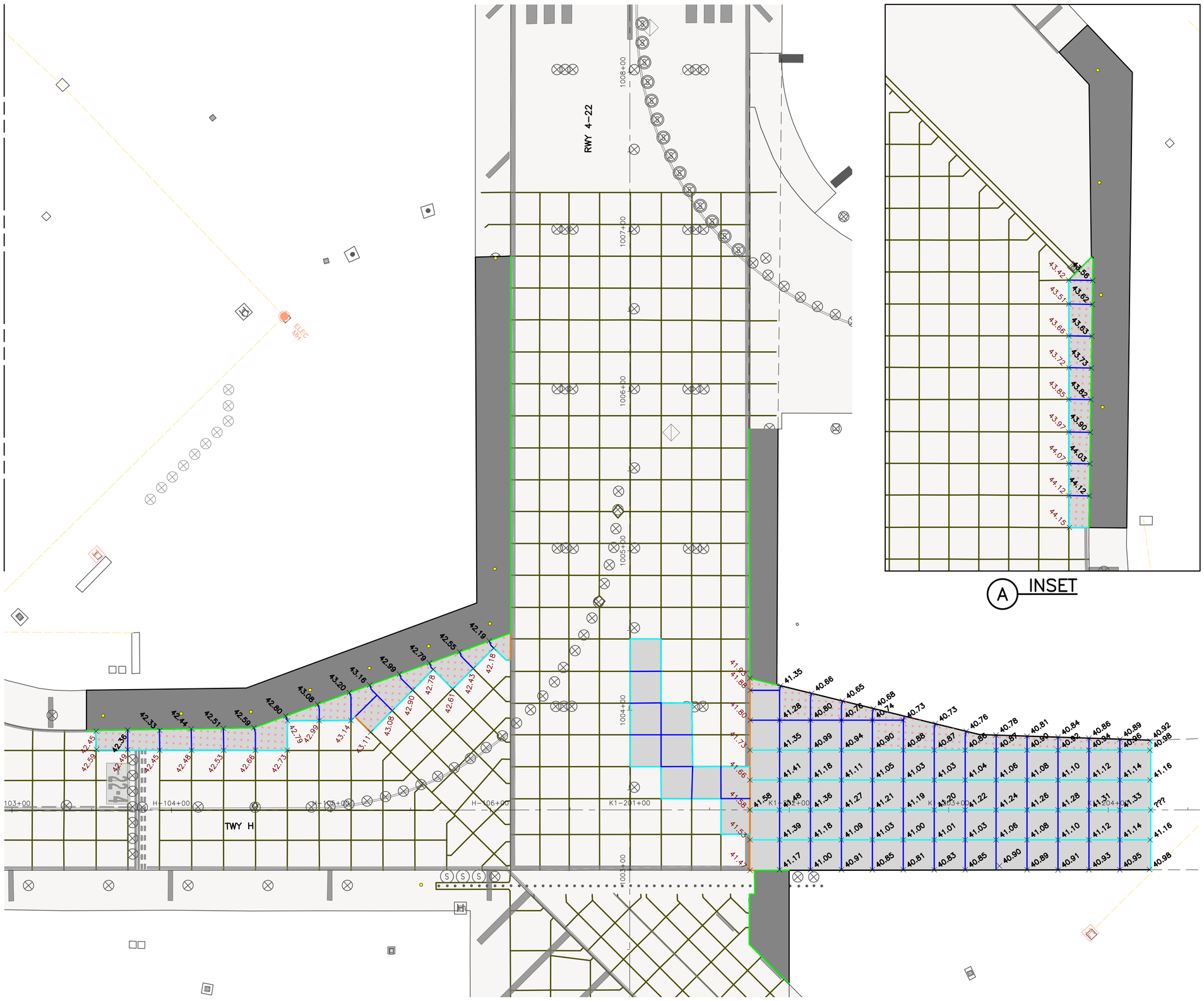
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

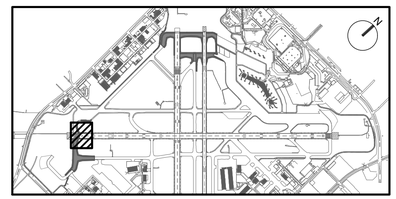
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP707–P4
of

FILENAME: H22C770A–CP707–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:18:53 AM

MATCHLINE, SEE INSET A



A INSET



KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- +0.00 EXISTING SPOT ELEVATION
- ×0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT SPOT ELEVATION PLAN – PHASE 5

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

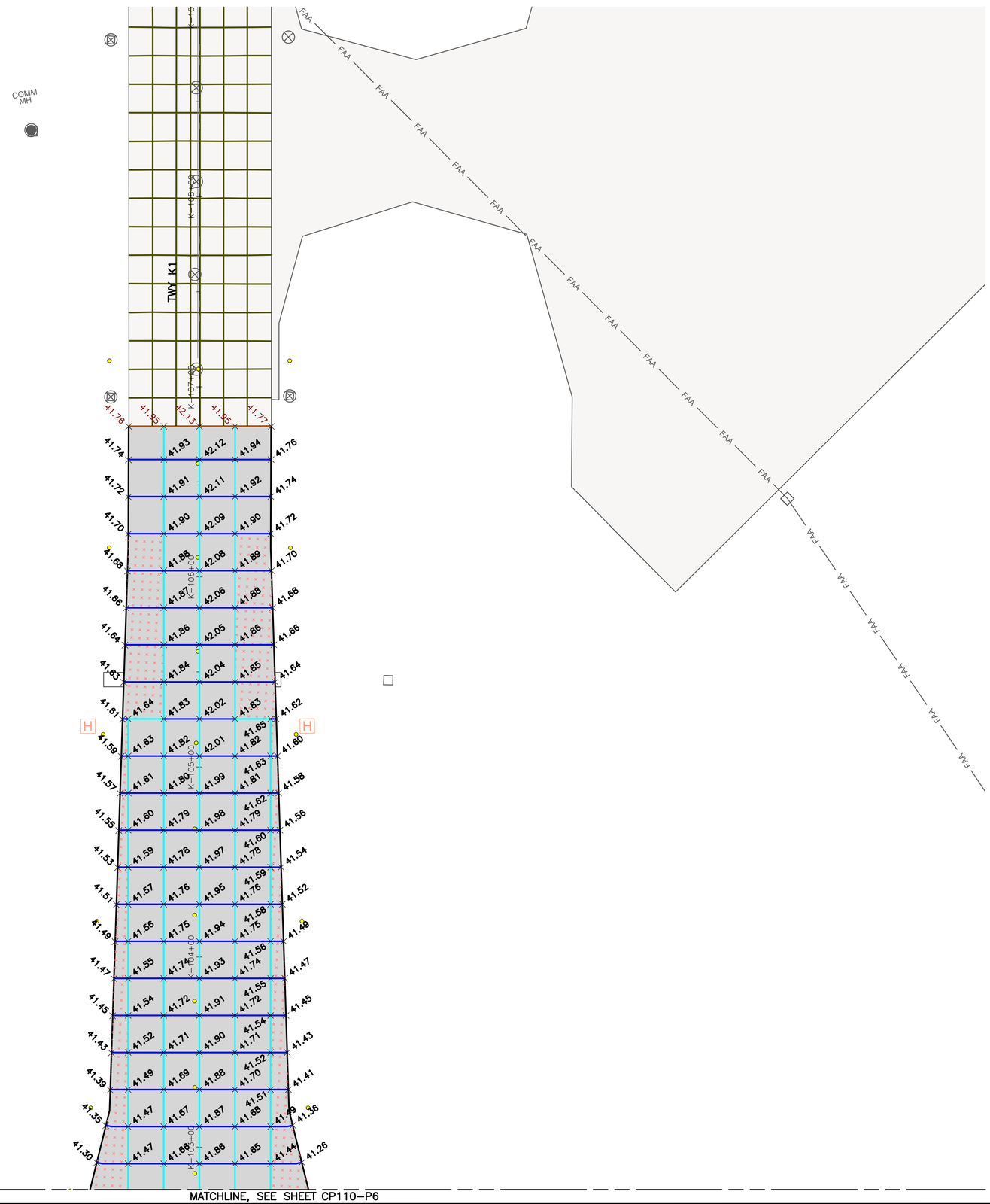
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

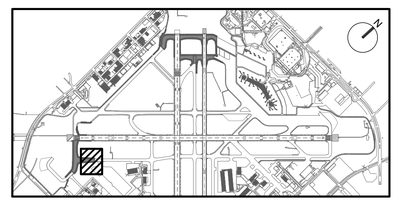
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CP708–P5
of

FILENAME: H22C770A–CP708–P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:23:12 AM





KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT SPOT ELEVATION PLAN – PHASE 6

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

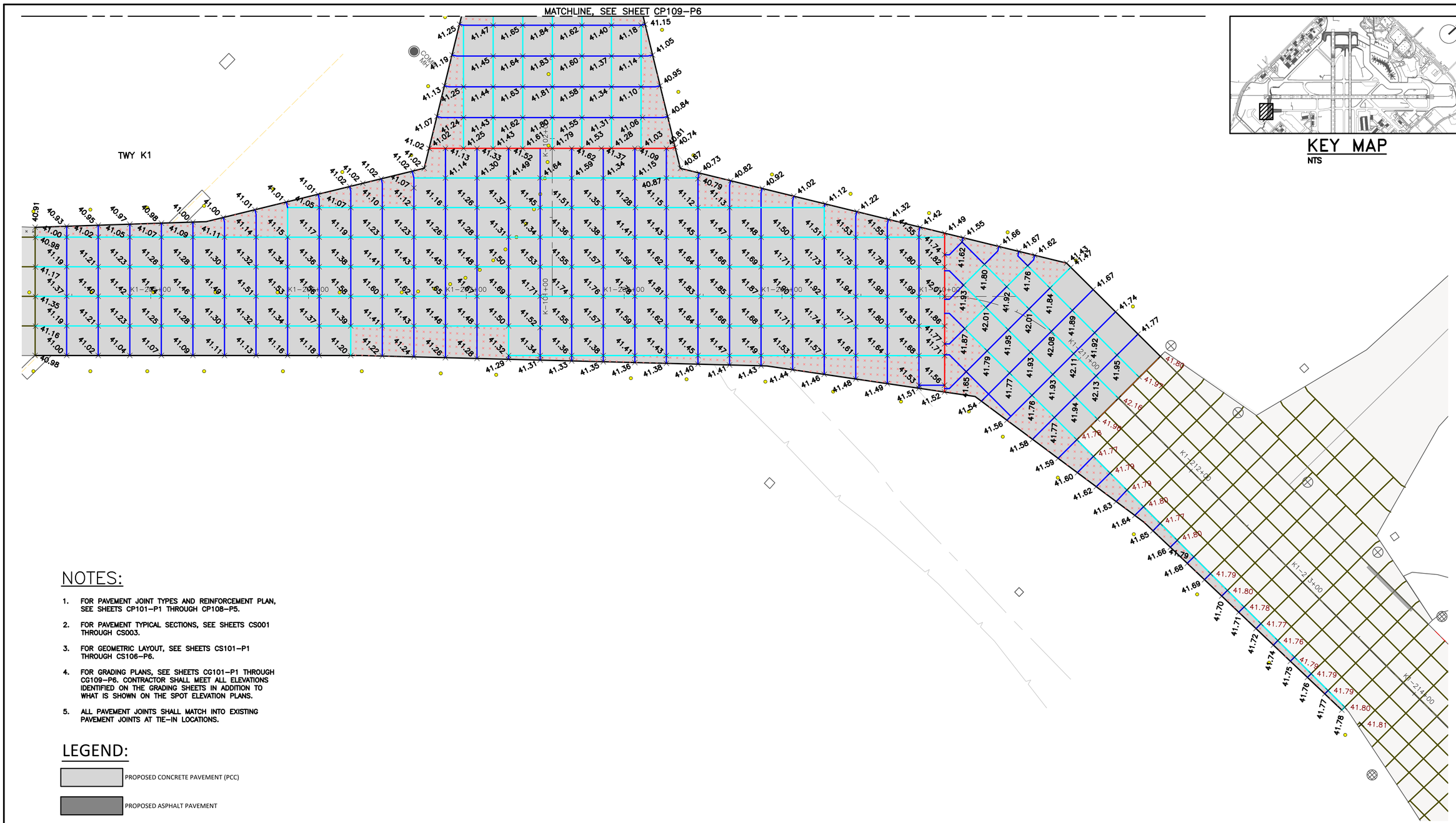
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CP709–P6
of

MATCHLINE, SEE SHEET CP109–P6



KEY MAP
NTS

NOTES:

1. FOR PAVEMENT JOINT TYPES AND REINFORCEMENT PLAN, SEE SHEETS CP101–P1 THROUGH CP108–P5.
2. FOR PAVEMENT TYPICAL SECTIONS, SEE SHEETS CS001 THROUGH CS003.
3. FOR GEOMETRIC LAYOUT, SEE SHEETS CS101–P1 THROUGH CS106–P6.
4. FOR GRADING PLANS, SEE SHEETS CG101–P1 THROUGH CG109–P6. CONTRACTOR SHALL MEET ALL ELEVATIONS IDENTIFIED ON THE GRADING SHEETS IN ADDITION TO WHAT IS SHOWN ON THE SPOT ELEVATION PLANS.
5. ALL PAVEMENT JOINTS SHALL MATCH INTO EXISTING PAVEMENT JOINTS AT TIE–IN LOCATIONS.

LEGEND:

- PROPOSED CONCRETE PAVEMENT (PCC)
- PROPOSED ASPHALT PAVEMENT
- EXISTING PAVEMENT
- EXISTING PAVEMENT JOINT
- PROPOSED GEOMETRY OUTSIDE OF CURRENT PHASE (FOR REFERENCE ONLY)
- 0.00 EXISTING SPOT ELEVATION
- 0.00 PROPOSED SPOT ELEVATION

GRAPHIC SCALE
30' 0 30' 90'
SCALE: 1" = 30'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
PAVEMENT SPOT ELEVATION PLAN – PHASE 6

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	C. MCLAIN
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

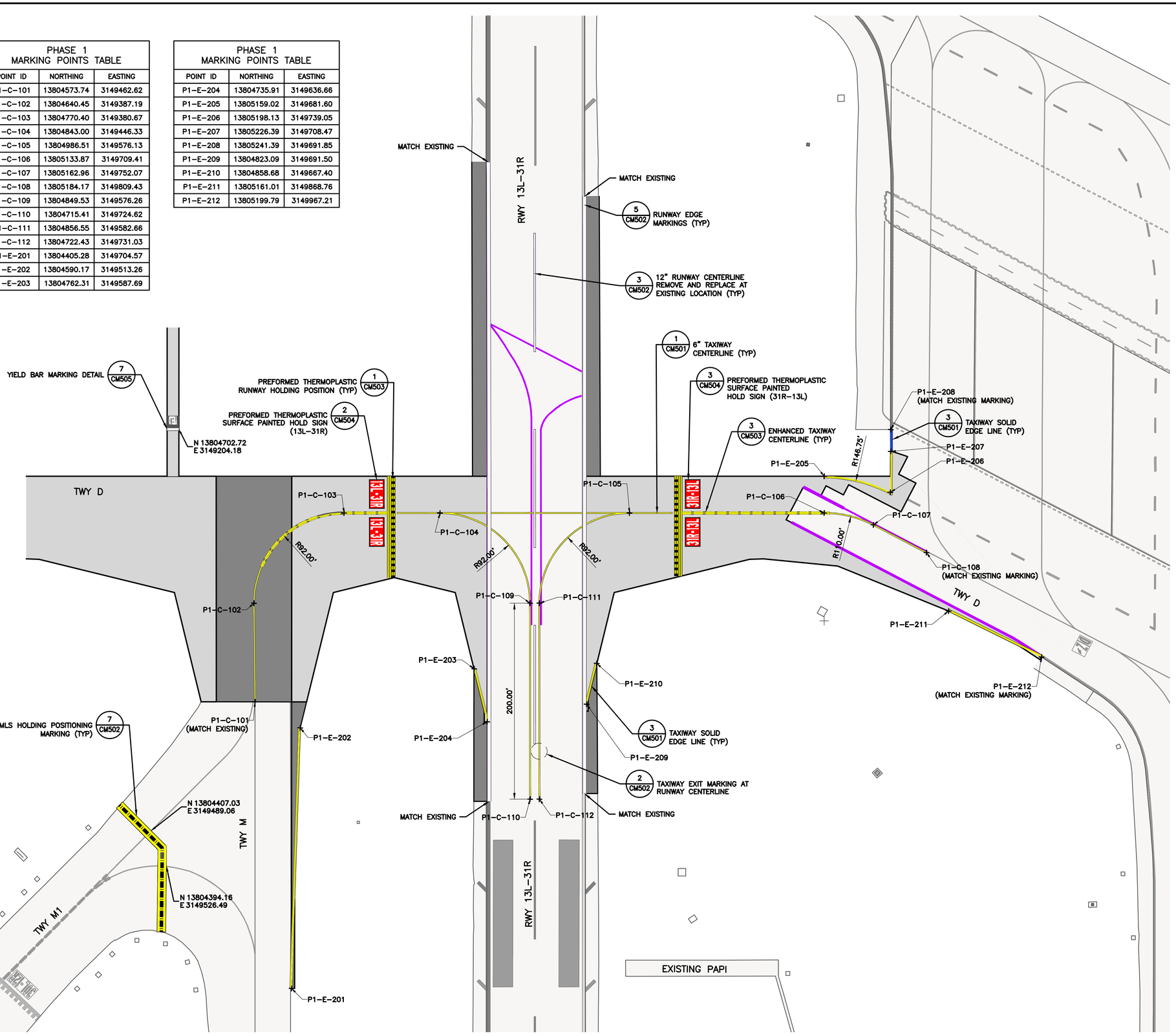
DIRECTOR
HOUSTON AIRPORT SYSTEM

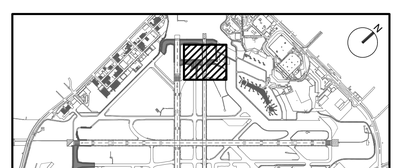
PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CP710–P6
of

FILENAME: H22C770A–CP709–710–P6.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:26:11 AM

PHASE 1 MARKING POINTS TABLE		
POINT ID	NORTHING	EASTING
P1-C-101	13804573.74	3149462.62
P1-C-102	13804640.45	3149387.19
P1-C-103	13804770.40	3149380.67
P1-C-104	13804843.00	3149446.33
P1-C-105	13804986.51	3149576.13
P1-C-106	13805133.87	3149709.41
P1-C-107	13805162.96	3149752.07
P1-C-108	13805184.17	3149809.43
P1-C-109	13804849.53	3149576.26
P1-C-110	13804715.41	3149724.62
P1-C-111	13804856.55	3149582.66
P1-C-112	13804722.43	3149731.03
P1-E-201	13804405.28	3149704.57
P1-E-202	13804590.17	3149513.26
P1-E-203	13804762.31	3149587.69

PHASE 1 MARKING POINTS TABLE		
POINT ID	NORTHING	EASTING
P1-E-204	13804735.91	3149636.66
P1-E-205	13805159.02	3149681.60
P1-E-206	13805198.13	3149739.05
P1-E-207	13805226.39	3149708.47
P1-E-208	13805241.39	3149691.85
P1-E-209	13804823.09	3149691.50
P1-E-210	13804858.68	3149667.40
P1-E-211	13805161.01	3149868.76
P1-E-212	13805199.79	3149967.21





KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6–INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 1

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

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.

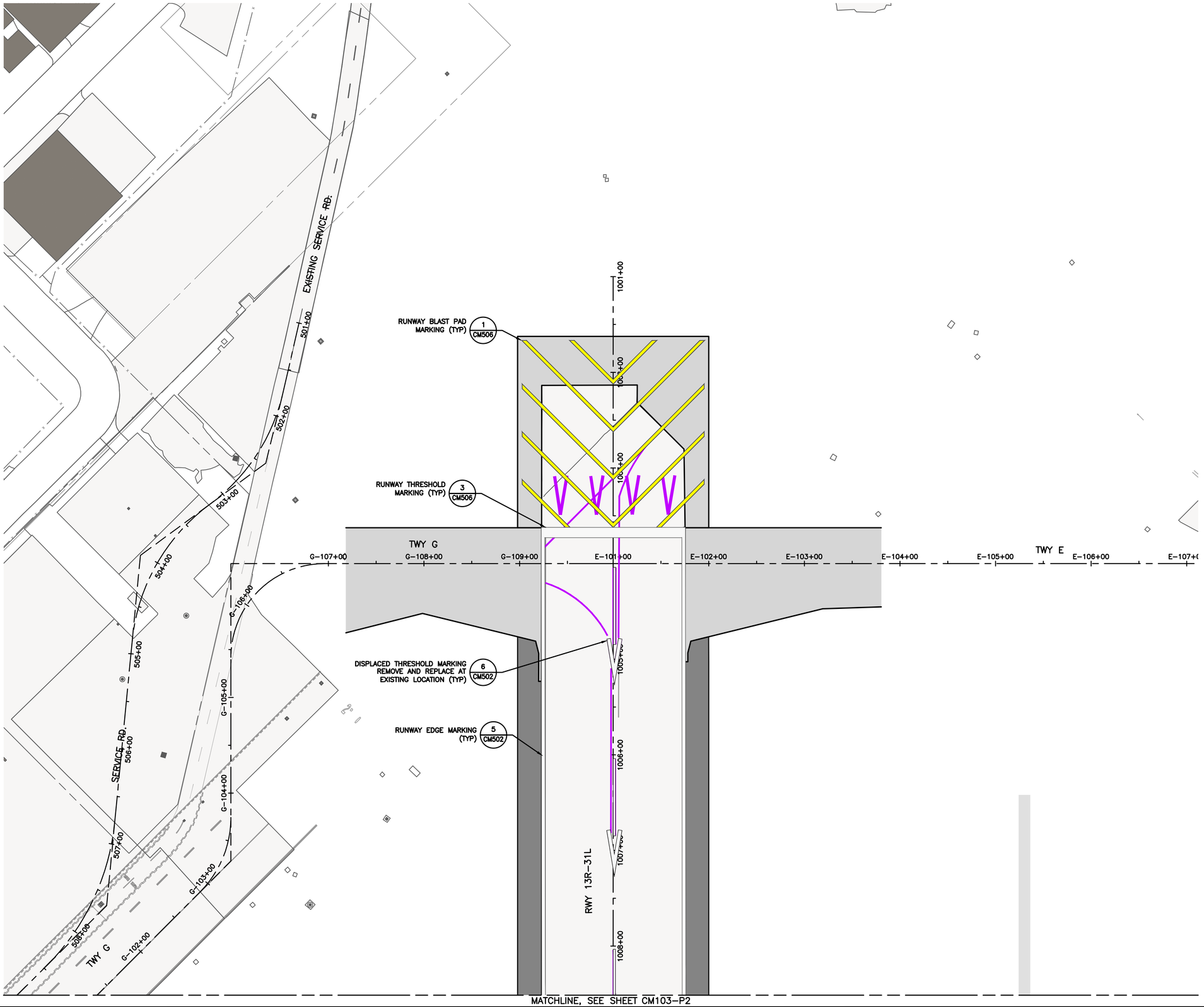
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

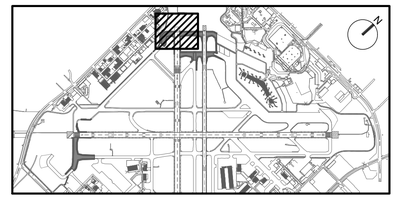
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM101–P1
of

FILENAME: H22C770A–CM101–P1.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:39:14 AM





KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6–INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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:

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 2

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

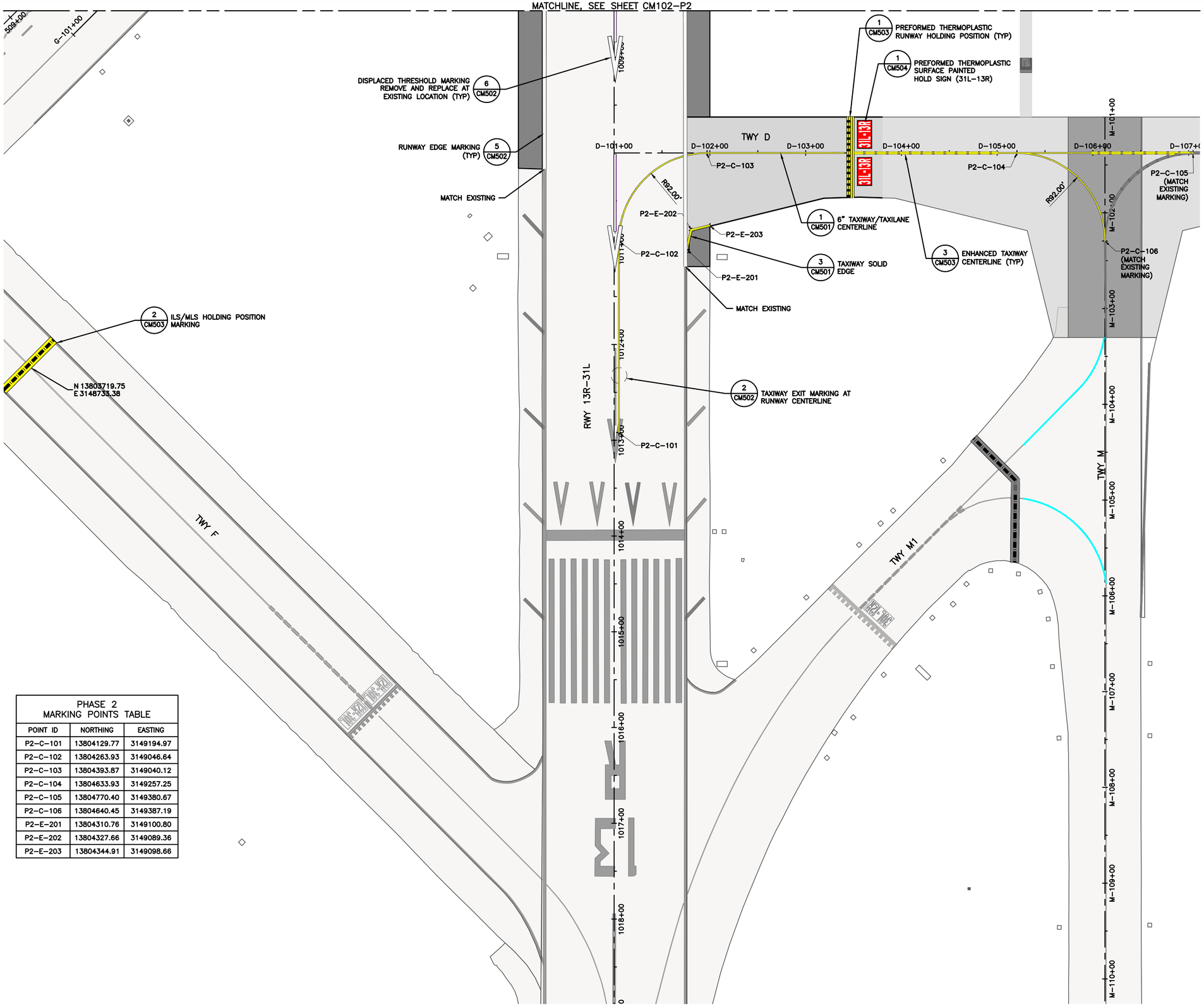
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

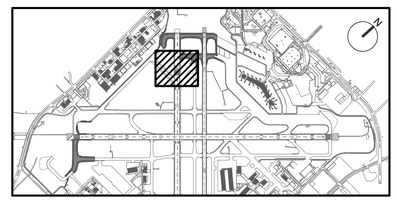
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM102–P2
of

MATCHLINE, SEE SHEET CM102–P2



PHASE 2 MARKING POINTS TABLE		
POINT ID	NORTHING	EASTING
P2–C–101	13804129.77	3149194.97
P2–C–102	13804263.93	3149046.64
P2–C–103	13804393.87	3149040.12
P2–C–104	13804633.93	3149257.25
P2–C–105	13804770.40	3149380.67
P2–C–106	13804640.45	3149387.19
P2–E–201	13804310.76	3149100.80
P2–E–202	13804327.66	3149089.36
P2–E–203	13804344.91	3149098.66



KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6–INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 2

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

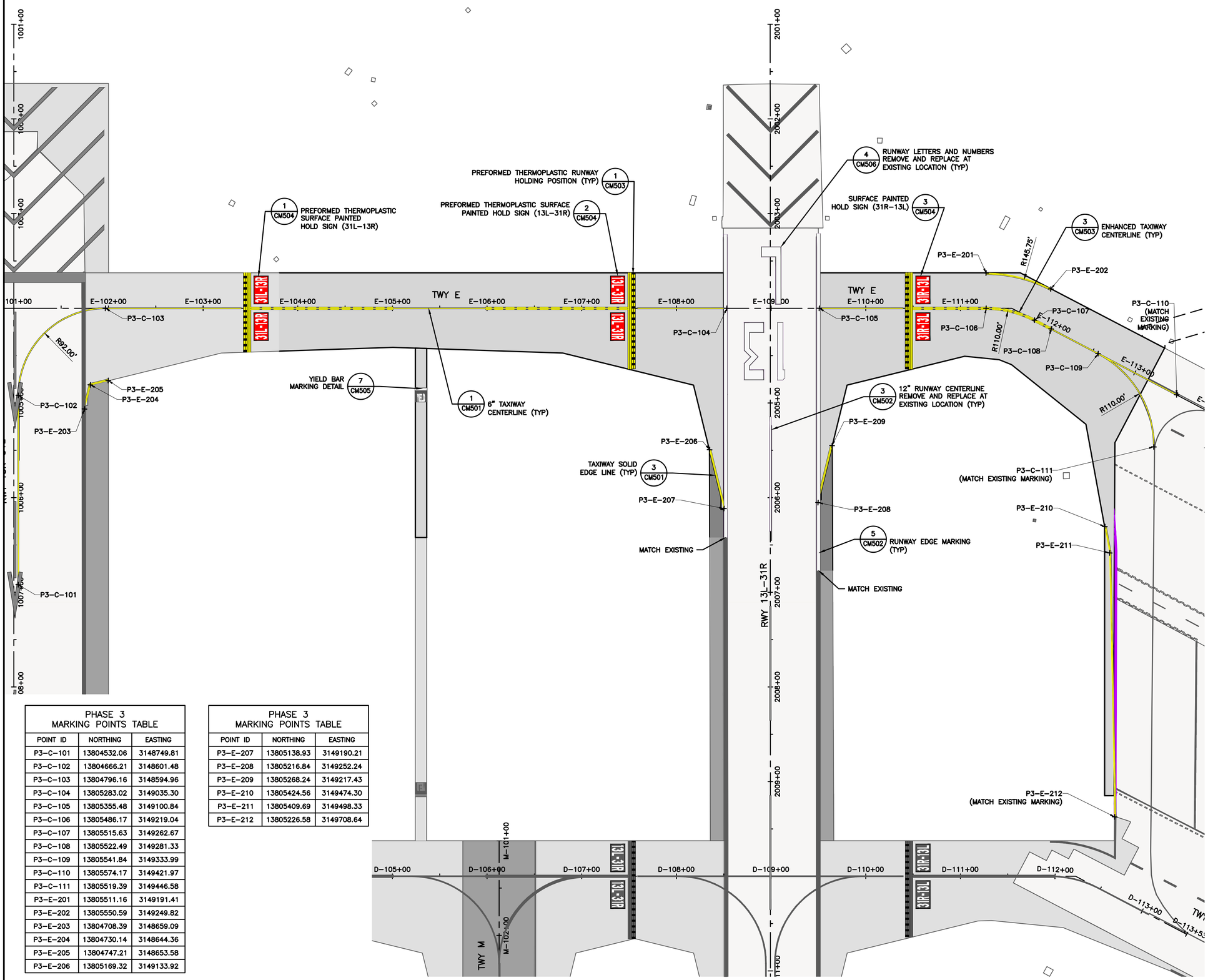
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

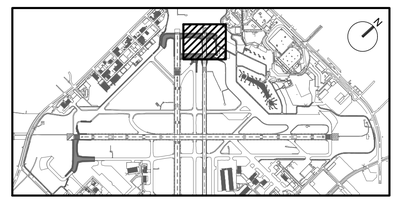
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CM103–P2
of

FILENAME: H22C770A–CM102–103–P2.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:41:19 AM





KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6–INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

PHASE 3 MARKING POINTS TABLE

POINT ID	NORTHING	EASTING
P3–C–101	13804532.06	3148749.81
P3–C–102	13804666.21	3148601.48
P3–C–103	13804796.16	3148594.96
P3–C–104	13805283.02	3149035.30
P3–C–105	13805355.48	3149100.84
P3–C–106	13805486.17	3149219.04
P3–C–107	13805515.63	3149262.67
P3–C–108	13805522.49	3149281.33
P3–C–109	13805541.84	3149333.99
P3–C–110	13805574.17	3149421.97
P3–C–111	13805519.39	3149446.58
P3–E–201	13805511.16	3149191.41
P3–E–202	13805550.59	3149249.82
P3–E–203	13804708.39	3148659.09
P3–E–204	13804730.14	3148644.36
P3–E–205	13804747.21	3148653.58
P3–E–206	13805169.32	3149133.92

PHASE 3 MARKING POINTS TABLE

POINT ID	NORTHING	EASTING
P3–E–207	13805138.93	3149190.21
P3–E–208	13805216.84	3149252.24
P3–E–209	13805268.24	3149217.43
P3–E–210	13805424.56	3149474.30
P3–E–211	13805409.69	3149498.33
P3–E–212	13805226.58	3149708.64

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 3

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

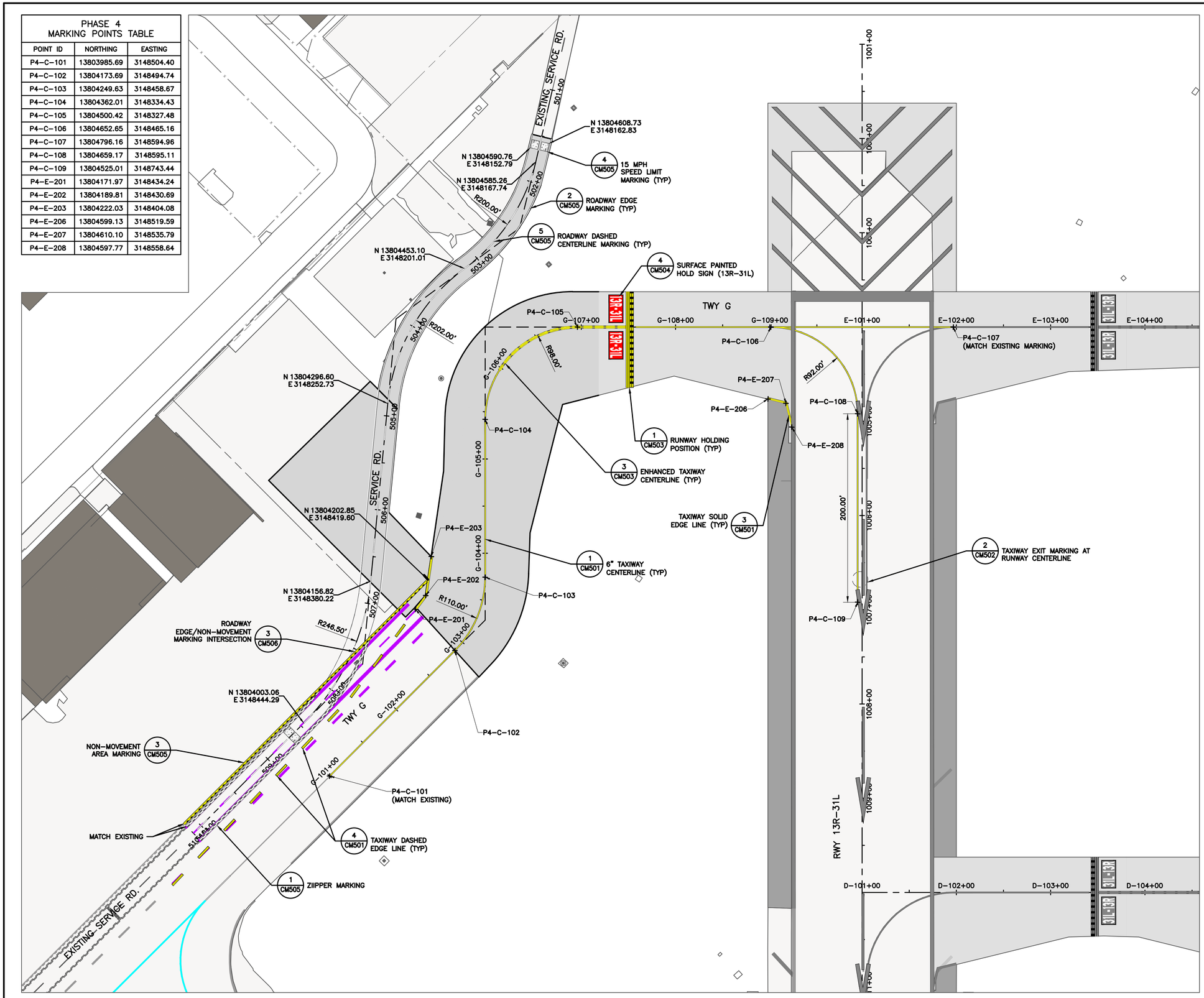
APPROVED BY:	DATE:

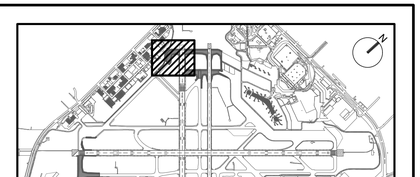
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3–48–0110–044
H.A.S. NO:	N/A
SHEET NO:	CM104–P3

of

PHASE 4 MARKING POINTS TABLE		
POINT ID	NORTHING	EASTING
P4–C–101	13803985.69	3148504.40
P4–C–102	13804173.69	3148494.74
P4–C–103	13804249.63	3148458.67
P4–C–104	13804362.01	3148334.43
P4–C–105	13804500.42	3148327.48
P4–C–106	13804652.65	3148465.16
P4–C–107	13804796.16	3148594.96
P4–C–108	13804659.17	3148595.11
P4–C–109	13804525.01	3148743.44
P4–E–201	13804171.97	3148434.24
P4–E–202	13804189.81	3148430.69
P4–E–203	13804222.03	3148404.08
P4–E–206	13804599.13	3148519.59
P4–E–207	13804610.10	3148535.79
P4–E–208	13804597.77	3148558.64





KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6–INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 4

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

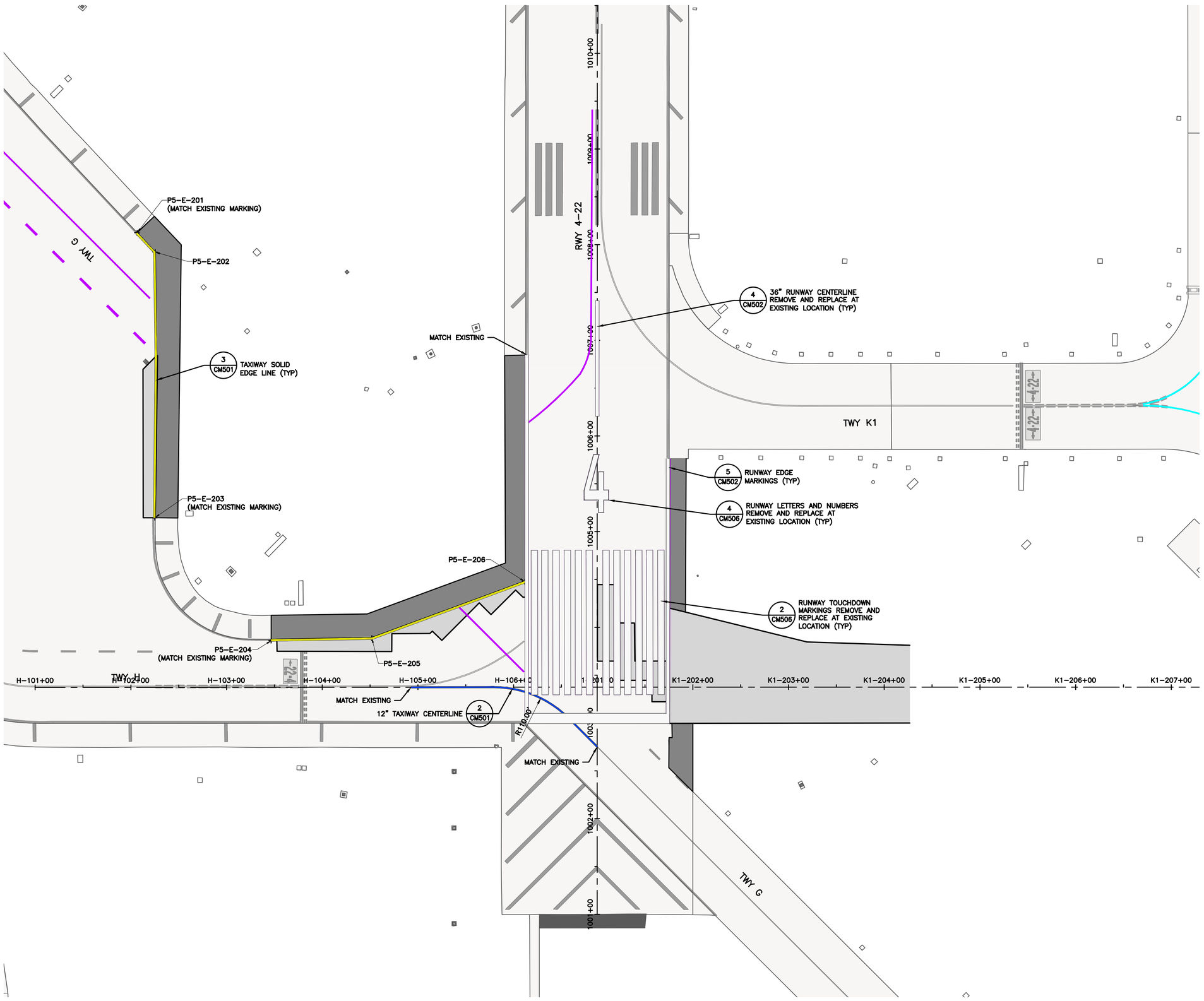
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

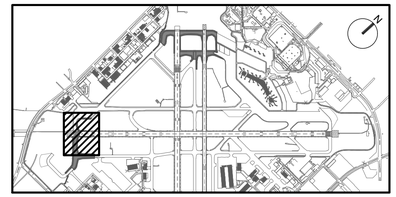
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: CM105–P4
of

FILENAME: H22C770A–CM105–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:43:31 AM





KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6-INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

PHASE 5
MARKING POINTS TABLE

POINT ID	NORTHING	EASTING
P5-E-201	13801156.84	3148685.73
P5-E-202	13801129.28	3148686.18
P5-E-203	13800923.47	3148499.85
P5-E-204	13800746.61	3148503.81
P5-E-205	13800678.12	3148583.52
P5-E-206	13800614.59	3148741.73

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 5

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

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:

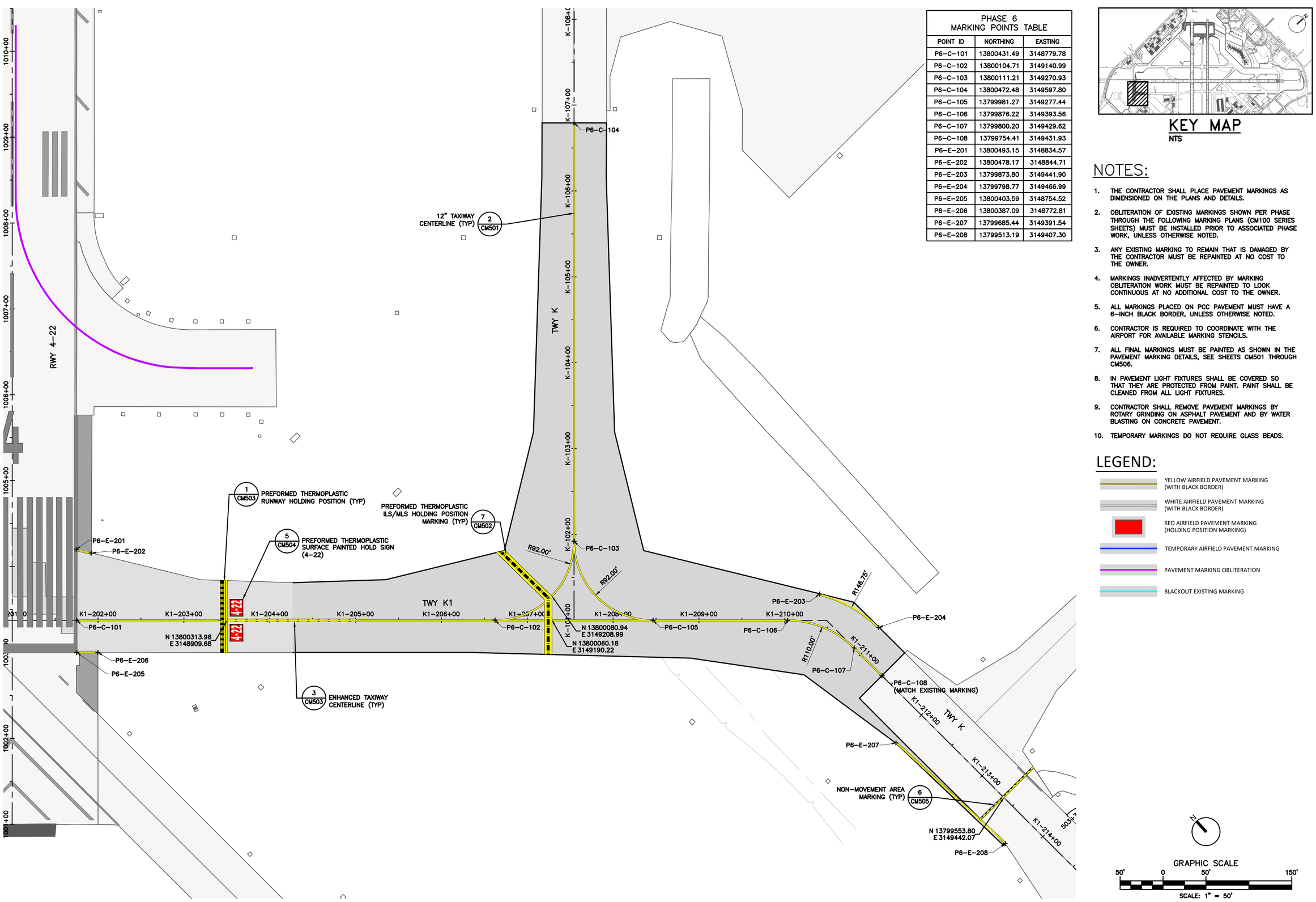
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CM106-P5
of

FILENAME: H22C770A-CM106-P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:44:28 AM



PHASE 6 MARKING POINTS TABLE

POINT ID	NORTHING	EASTING
P6–C–101	13800431.49	3148779.78
P6–C–102	13800104.71	3149140.99
P6–C–103	13800111.21	3149270.93
P6–C–104	13800472.48	3149597.80
P6–C–105	13799981.27	3149277.44
P6–C–106	13799876.22	3149393.56
P6–C–107	13799800.20	3149429.62
P6–C–108	13799754.41	3149431.93
P6–E–201	13800493.15	3148834.57
P6–E–202	13800478.17	3148844.71
P6–E–203	13799873.80	3149441.90
P6–E–204	13799798.77	3149466.99
P6–E–205	13800403.59	3148754.52
P6–E–206	13800387.09	3148772.81
P6–E–207	13799685.44	3149391.54
P6–E–208	13799513.19	3149407.30

KEY MAP
NTS

NOTES:

1. THE CONTRACTOR SHALL PLACE PAVEMENT MARKINGS AS DIMENSIONED ON THE PLANS AND DETAILS.
2. OBLITERATION OF EXISTING MARKINGS SHOWN PER PHASE THROUGH THE FOLLOWING MARKING PLANS (CM100 SERIES SHEETS) MUST BE INSTALLED PRIOR TO ASSOCIATED PHASE WORK, UNLESS OTHERWISE NOTED.
3. ANY EXISTING MARKING TO REMAIN THAT IS DAMAGED BY THE CONTRACTOR MUST BE REPAINTED AT NO COST TO THE OWNER.
4. MARKINGS INADVERTENTLY AFFECTED BY MARKING OBLITERATION WORK MUST BE REPAINTED TO LOOK CONTINUOUS AT NO ADDITIONAL COST TO THE OWNER.
5. ALL MARKINGS PLACED ON PCC PAVEMENT MUST HAVE A 6–INCH BLACK BORDER, UNLESS OTHERWISE NOTED.
6. CONTRACTOR IS REQUIRED TO COORDINATE WITH THE AIRPORT FOR AVAILABLE MARKING STENCILS.
7. ALL FINAL MARKINGS MUST BE PAINTED AS SHOWN IN THE PAVEMENT MARKING DETAILS, SEE SHEETS CM501 THROUGH CM506.
8. IN PAVEMENT LIGHT FIXTURES SHALL BE COVERED SO THAT THEY ARE PROTECTED FROM PAINT. PAINT SHALL BE CLEANED FROM ALL LIGHT FIXTURES.
9. CONTRACTOR SHALL REMOVE PAVEMENT MARKINGS BY ROTARY GRINDING ON ASPHALT PAVEMENT AND BY WATER BLASTING ON CONCRETE PAVEMENT.
10. TEMPORARY MARKINGS DO NOT REQUIRE GLASS BEADS.

LEGEND:

- YELLOW AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- WHITE AIRFIELD PAVEMENT MARKING (WITH BLACK BORDER)
- RED AIRFIELD PAVEMENT MARKING (HOLDING POSITION MARKING)
- TEMPORARY AIRFIELD PAVEMENT MARKING
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING MARKING

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 6A

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

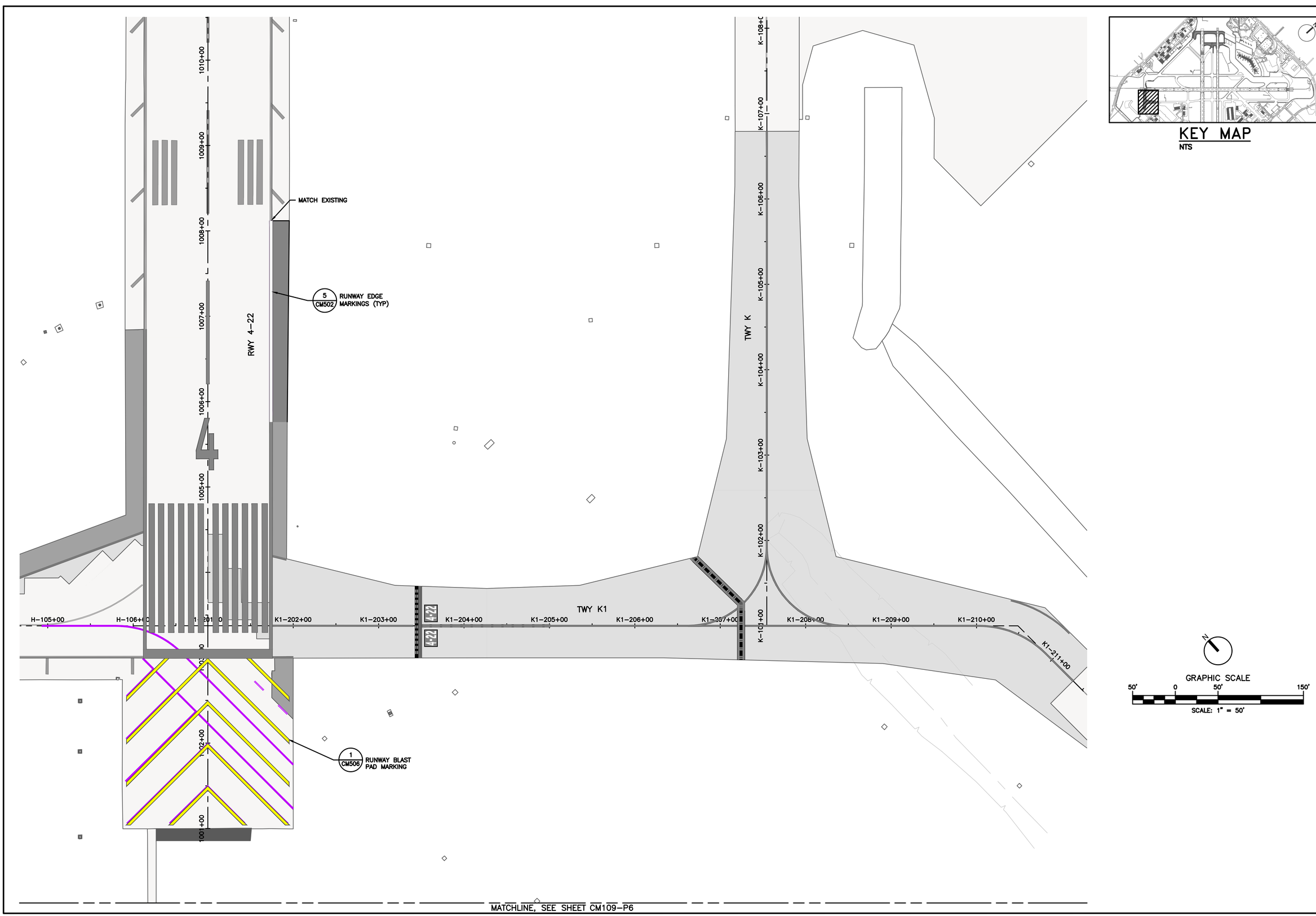
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

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: CM107–P6
of

FILENAME: H22C770A–CM107–P6.DWG PLOT DATE: 2023/02/17 PLOT TIME: 10:45:30 AM



KEY MAP
NTS

N

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 6B

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

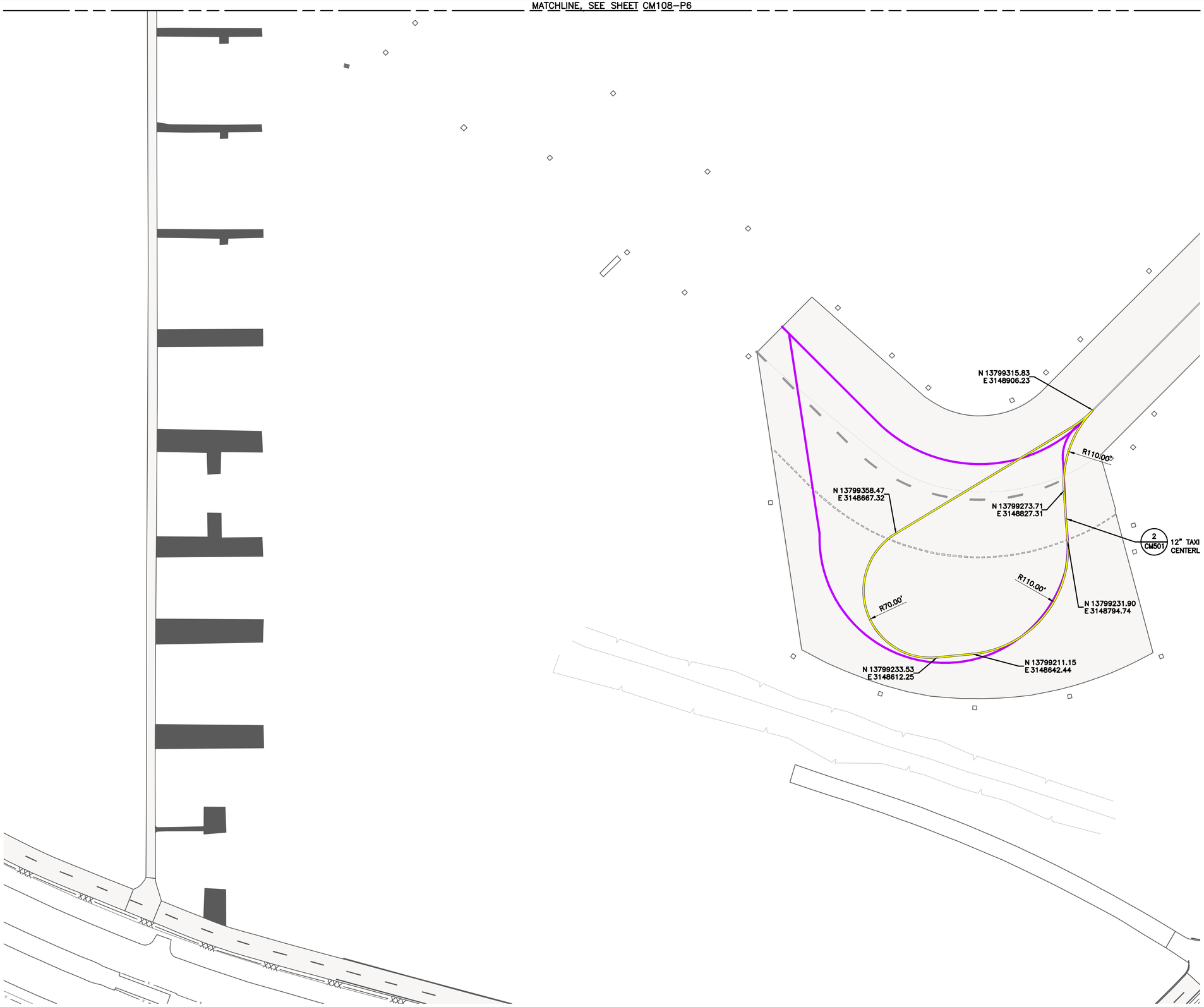
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

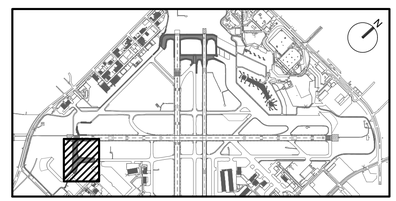
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM108–P6
of

MATCHLINE, SEE SHEET CM108–P6





KEY MAP
NTS

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING PLAN – PHASE 6B

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

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

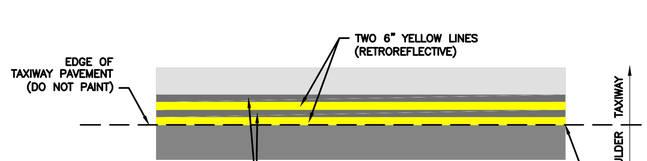
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

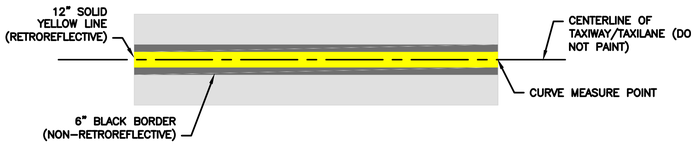
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM109–P6
of

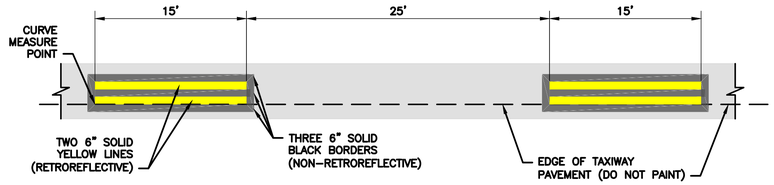
1 6" TAXIWAY/TAXILANE CENTERLINE
1" = 5'-0"



3 TAXIWAY SOLID EDGE
1" = 5'-0"



2 12" TAXIWAY/TAXILANE CENTERLINE
1" = 5'-0"



4 TAXIWAY EDGE DASHED MARKING
1" = 5'-0"

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING DETAILS

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.

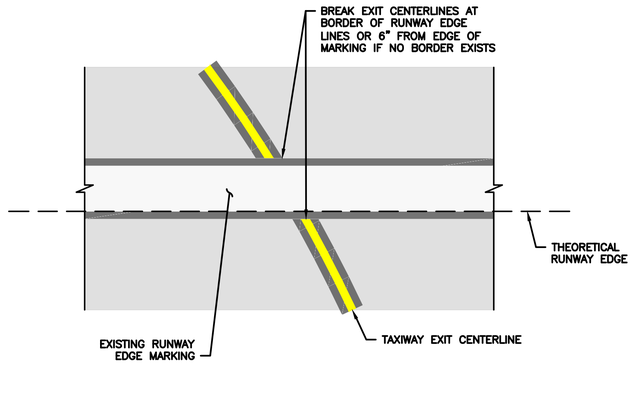
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

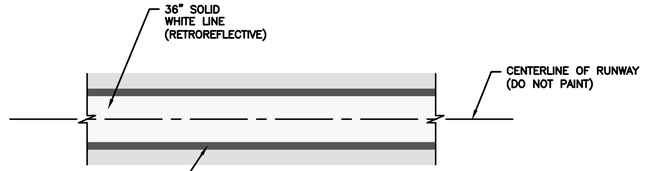
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM501
of



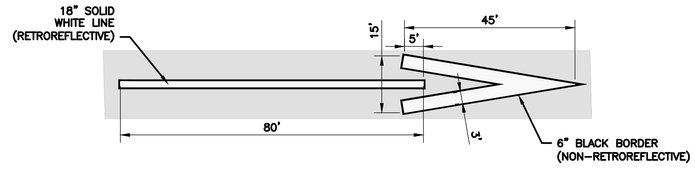
1 INTERSECTION OF EXIT MARKINGS
1" = 5'-0"

3 12" RUNWAY CENTERLINE
1" = 5'-0"

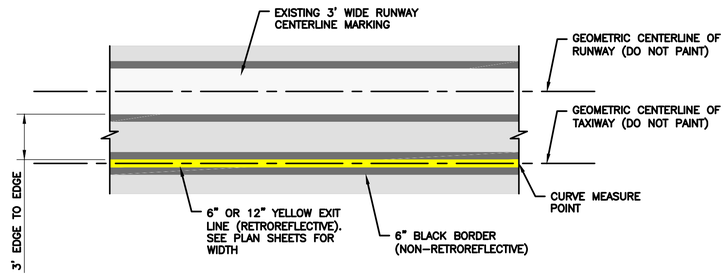


4 36" RUNWAY CENTERLINE
1" = 5'-0"

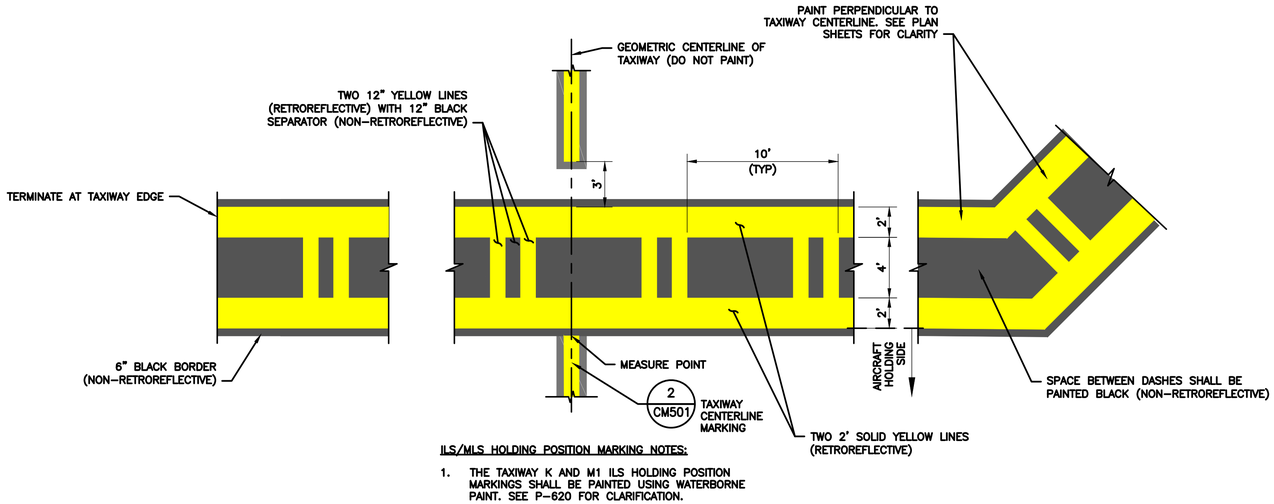
5 RUNWAY EDGE MARKINGS
1" = 5'-0"



6 DISPLACED THRESHOLD MARKING
1" = 20'-0"



2 TAXIWAY EXIT AT RUNWAY CENTERLINE
1" = 5'-0"



ILS/MLS HOLDING POSITION MARKING NOTES:

1. THE TAXIWAY K AND M1 ILS HOLDING POSITION MARKINGS SHALL BE PAINTED USING WATERBORNE PAINT. SEE P-620 FOR CLARIFICATION.

7 TAXIWAY K AND M1 ILS HOLD POSITION MARKING
1" = 5'-0"

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING DETAILS

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:

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

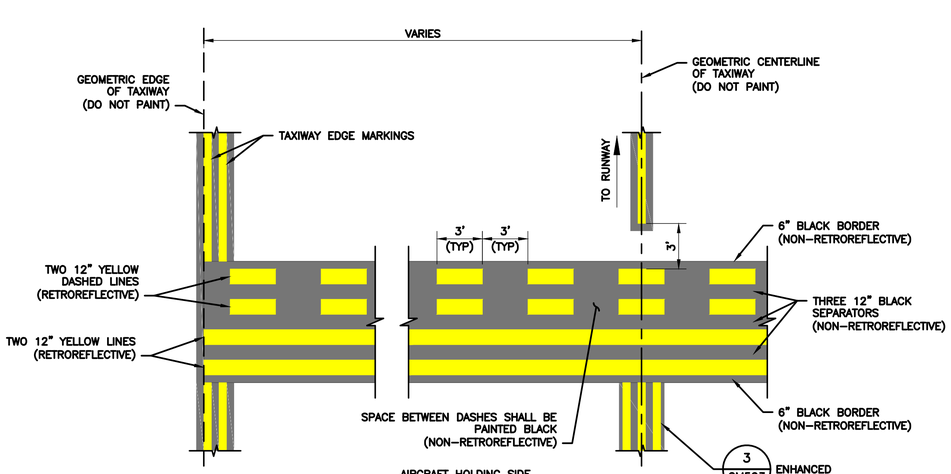
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM502
of

RUNWAY HOLDING POSITION MARKING NOTES:

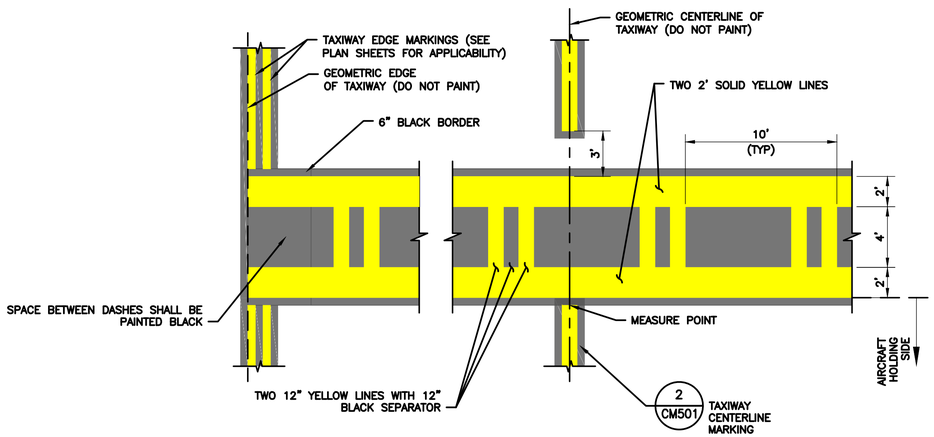
1. RUNWAY HOLDING POSITION MARKINGS SHALL BE PAINTED USING PREFORMED THERMOPLASTIC, UNLESS OTHERWISE NOTED. SEE SPECIFICATION P-620 FOR CLARIFICATION



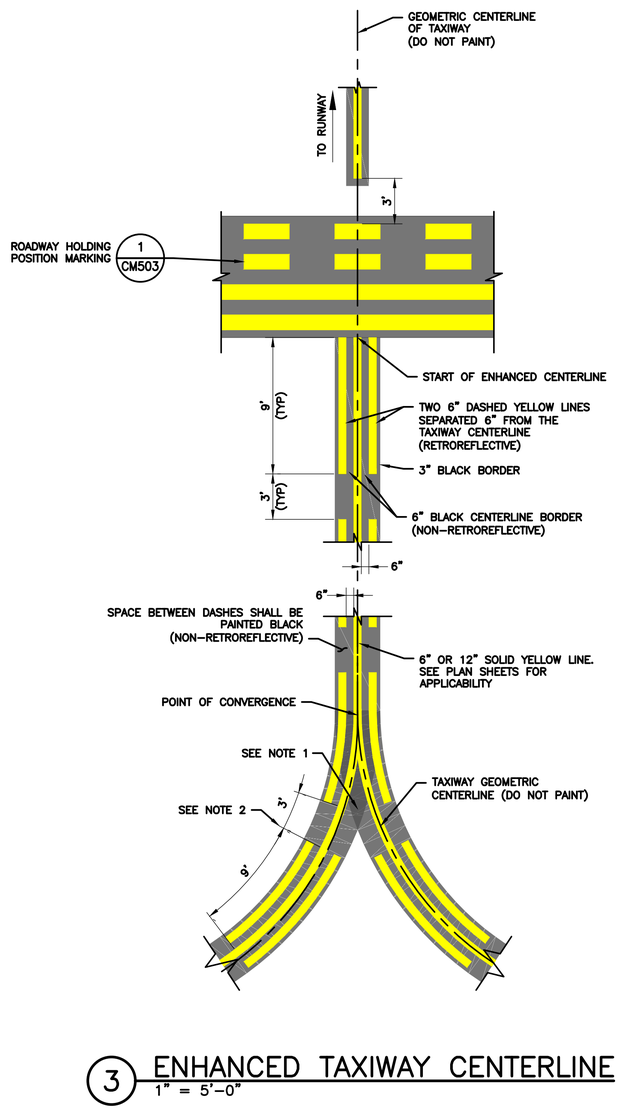
1 RUNWAY HOLDING POSITION MARKING
1" = 5'-0"

ILS/MLS HOLDING POSITION MARKING NOTES:

1. ILS HOLDING POSITION MARKINGS SHALL BE PAINTED USING PREFORMED THERMOPLASTIC, UNLESS OTHERWISE NOTED. SEE SPECIFICATION P-620 FOR CLARIFICATION



2 ILS/MLS HOLDING POSITION MARKING
1" = 5'-0"



3 ENHANCED TAXIWAY CENTERLINE
1" = 5'-0"

ENHANCED TAXIWAY CENTERLINE NOTES:

1. V-SHAPED INNER DASHES START AND STOP WITH THE OUTSIDE 9' DASHES. IF THE V-SHAPED DASHED ARE LESS THAN 5' AT THE POINT OF CONVERGENCE, THEY MAY BE OMITTED.
2. RADIAL ENHANCED CENTERLINE MEASUREMENTS ARE TAKEN ALONG THE TAXIWAY GEOMETRIC CENTERLINE STRIPE.
3. TAXIWAY CENTERLINES ARE ENHANCED WITH TWELVE 9'-0" LONG STRIPES WITH 3'-0" SPACES ENDING WITH ONE 6'-0" LONG STRIPE TOTALING 150'-0" PRIOR TO RUNWAY HOLD BAR.
4. IF THE ENHANCED CENTERLINE INTERSECTS ANOTHER TAXIWAY LOCATED WITHIN 150'-0" OF THE RUNWAY HOLD POSITION MARKING, THE ENHANCED CENTERLINE SHALL TERMINATE 5'-0" PRIOR TO THE POINT OF INTERSECTION. SEE DETAIL 2 FOR CLARIFICATION.
5. END OF THE LAST SEGMENT SHALL BE CAPPED WITH A 6" BLACK BORDER

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING DETAILS

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.

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

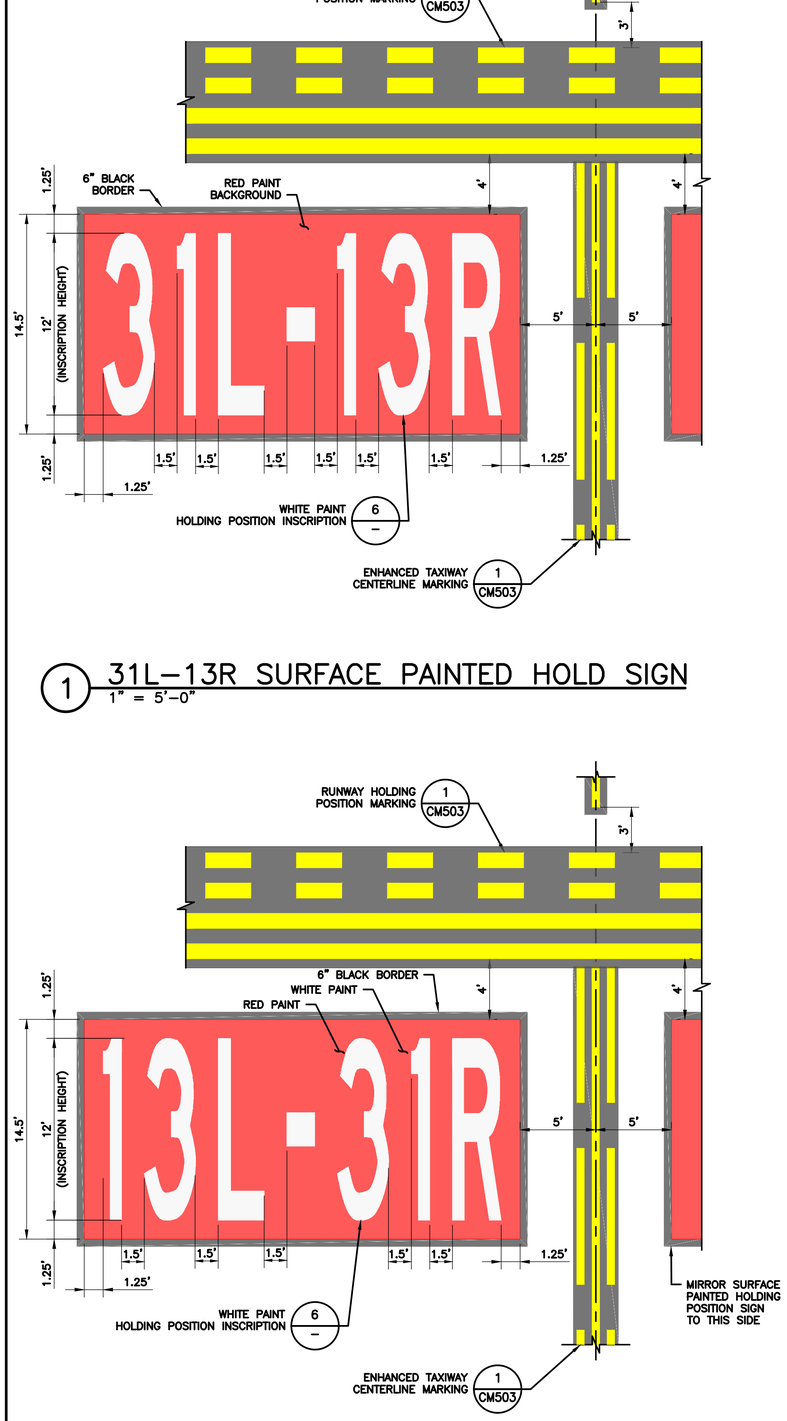
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

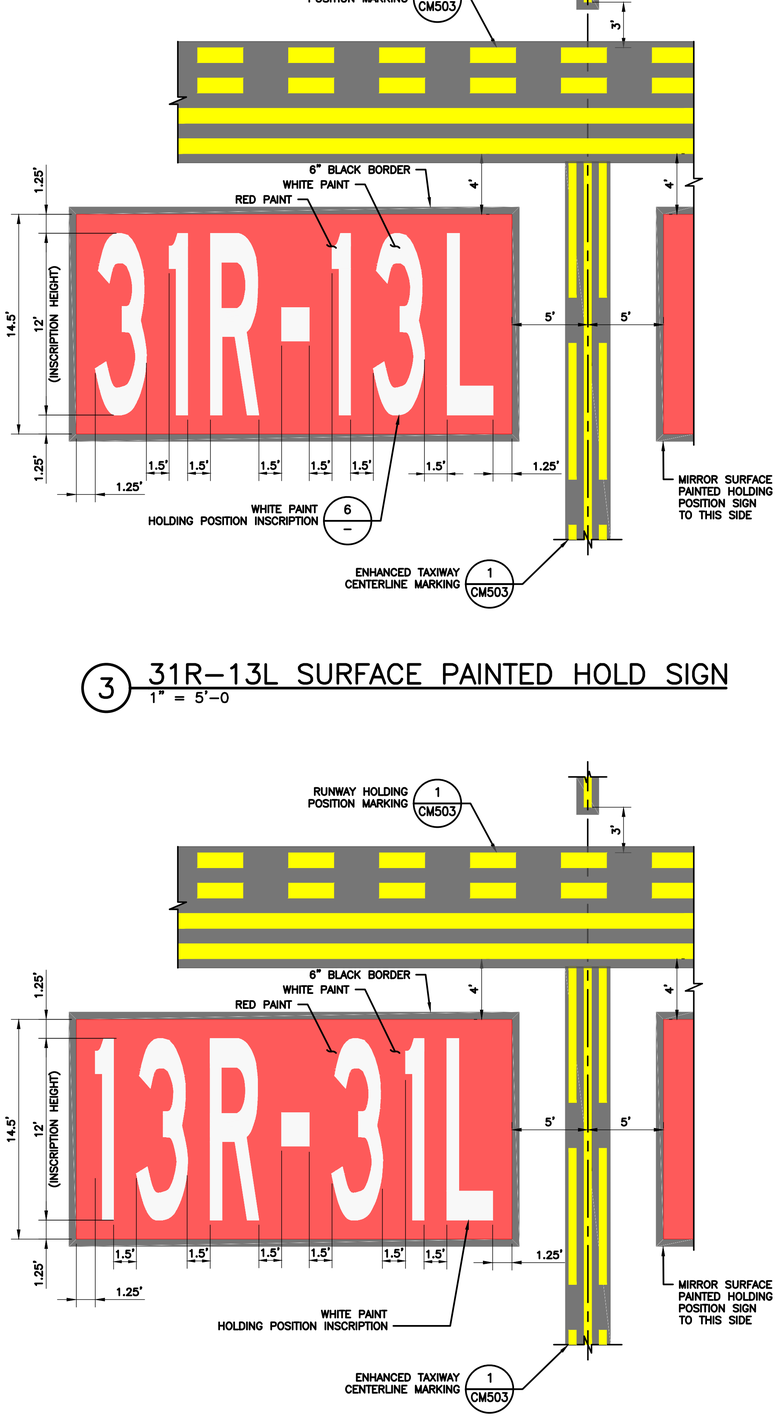
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM503
of

1 31L–13R SURFACE PAINTED HOLD SIGN
1" = 5'–0"

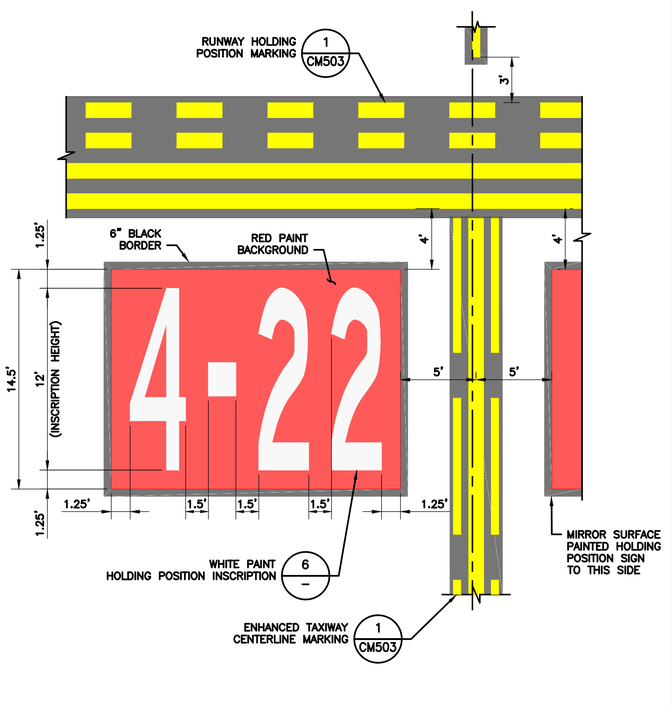


2 13L–31R SURFACE PAINTED HOLD SIGN
1" = 5'–0"

3 31R–13L SURFACE PAINTED HOLD SIGN
1" = 5'–0



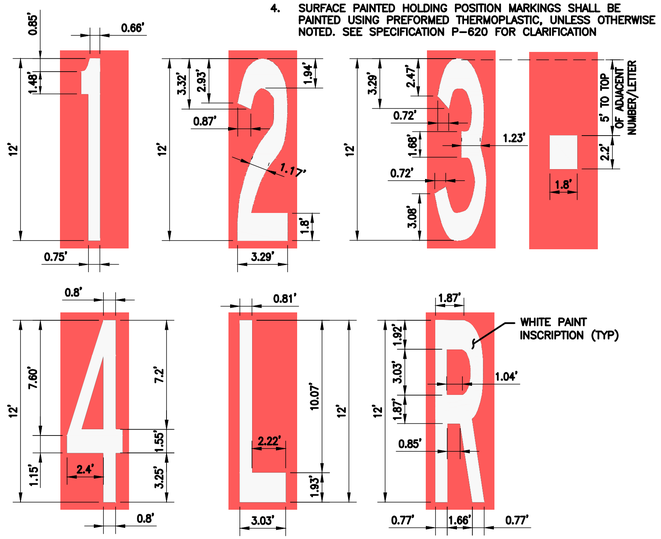
4 13R–31L SURFACE PAINTED HOLD SIGN
1" = 5'–0



5 4–22 SURFACE PAINTED HOLD SIGN
1" = 5'–0

SURFACE PAINTED HOLDING POSITION SIGN NOTES:

1. SURFACE PAINTED HOLDING POSITION SIGN SHALL BE MARKED IN ACCORDANCE TO AC 150/5340–1M.
2. FOR ALL SURFACE PAINTED LETTERING, USE STENCILS. THE CONTRACTOR SHALL PROVIDE THE PAVEMENT MARKING STENCILS TO THE AIRPORT AFTER PAVEMENT MARKINGS HAVE BEEN COMPLETED.
3. BOTH RED AND WHITE PAINT SHALL RECEIVE REFLECTIVE MEDIA; HOWEVER RED SHALL BE AT A REDUCED RATE AS SHOWN IN SPECIFICATION P–620. THE 6" BLACK BORDER DOES NOT RECEIVE REFLECTIVE MEDIA.
4. SURFACE PAINTED HOLDING POSITION MARKINGS SHALL BE PAINTED USING PREFORMED THERMOPLASTIC, UNLESS OTHERWISE NOTED. SEE SPECIFICATION P–620 FOR CLARIFICATION



6 SURFACE PAINTED HOLDING POSITION INSCRIPTIONS
1" = 5'–0"

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING DETAILS

PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

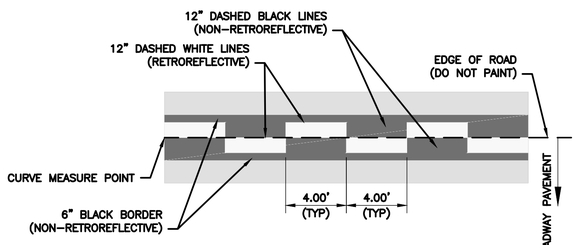
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

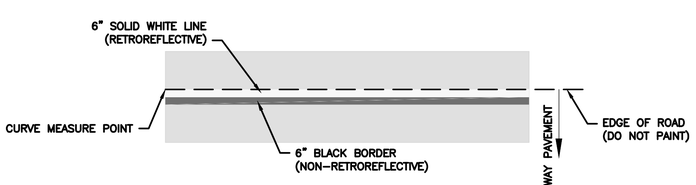
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: CM504
of

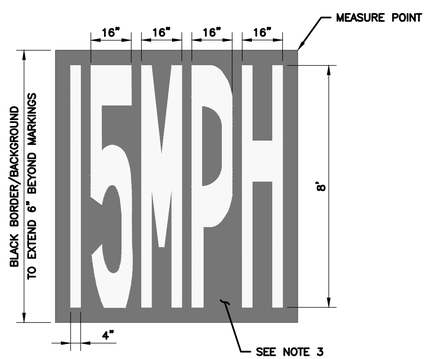
REUSE OF DOCUMENTS: THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.



1 ZIPPER MARKING
1" = 5'-0"



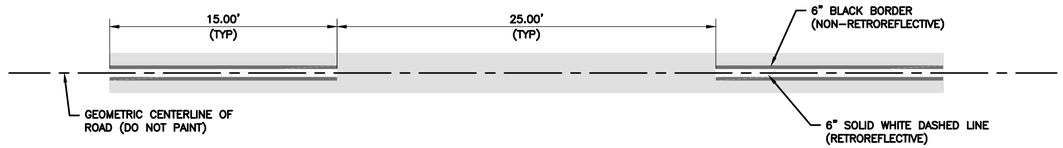
2 ROADWAY EDGE MARKING
1" = 5'-0"



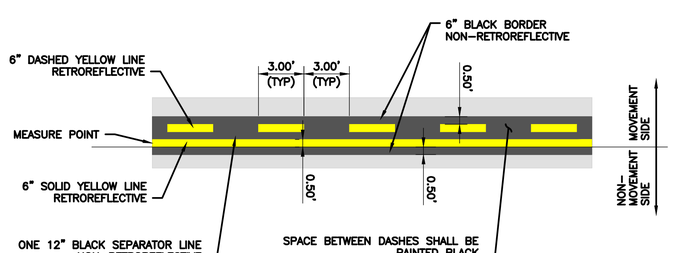
4 15 MPH SPEED LIMIT MARKING
1" = 5'-0"

ROADWAY MARKING NOTES:

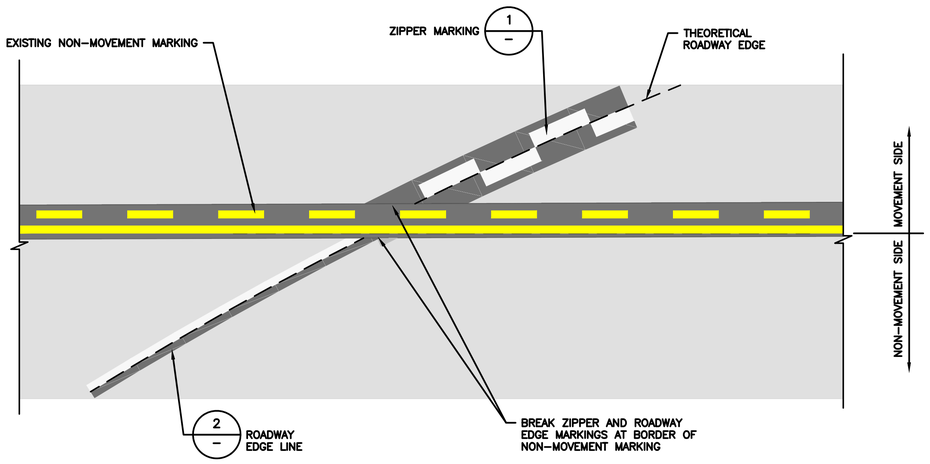
1. LETTERING SHALL CONFORM TO THE LATEST VERSION OF STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS (AASHTO, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS).
2. LETTERING SHALL BE CENTERED IN LANE.
3. SPACES BETWEEN LETTERS OR NUMBERS SHALL BE 4".
4. ALL LETTERS, ARROWS AND NUMBERS SHALL BE PAINTED WHITE ((RETROREFLECTIVE)).
5. 6" BLACK OUTLINE OR BACKGROUND IS REQUIRED ON CONCRETE PAVEMENTS AND SHALL BE (NON-RETROREFLECTIVE) UNLESS OTHERWISE NOTED.



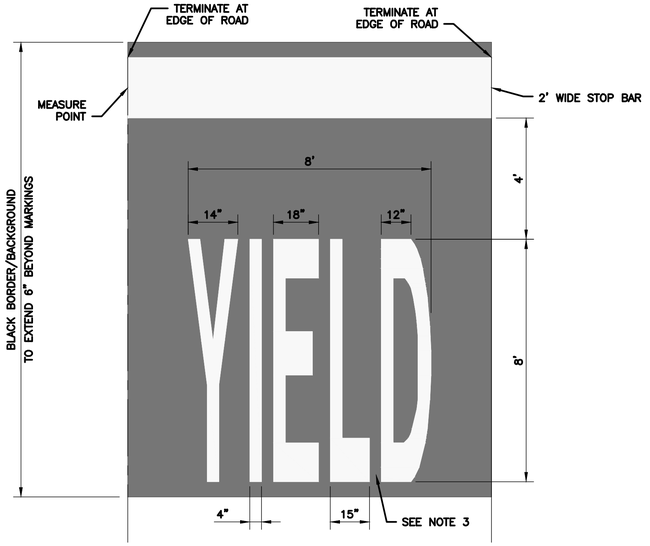
5 ROADWAY DASHED CENTERLINE MARKING
1" = 5'-0"



6 NON-MOVEMENT AREA MARKING DETAIL
1" = 5'-0"



3 ROADWAY EDGE/NON-MOVEMENT MARKING INTERSECTION
1" = 5'-0"



7 YIELD BAR MARKING DETAIL
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING DETAILS

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.

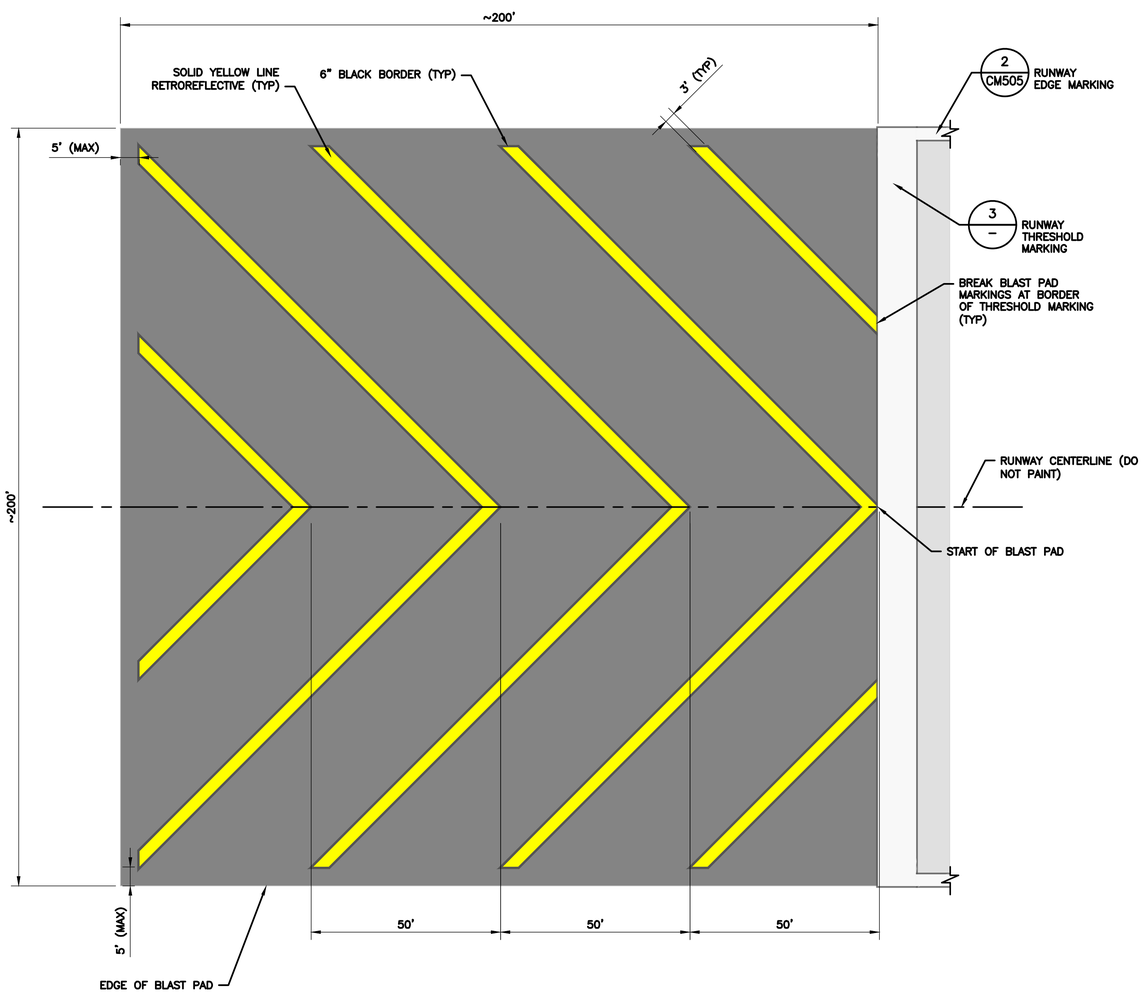
PROJECT MGR:	S. CHILDERS
DESIGNER:	D. CRAWFORD
DRAWN BY:	B. BARTLETT
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY:	DATE:

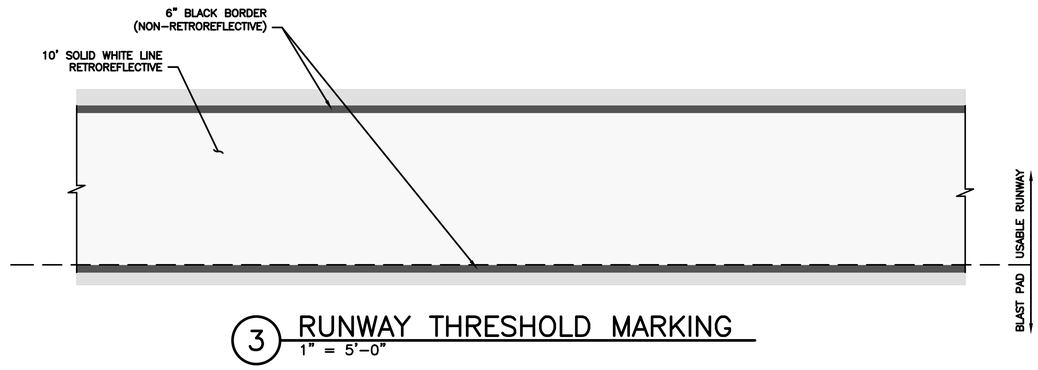
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	CM505
	of

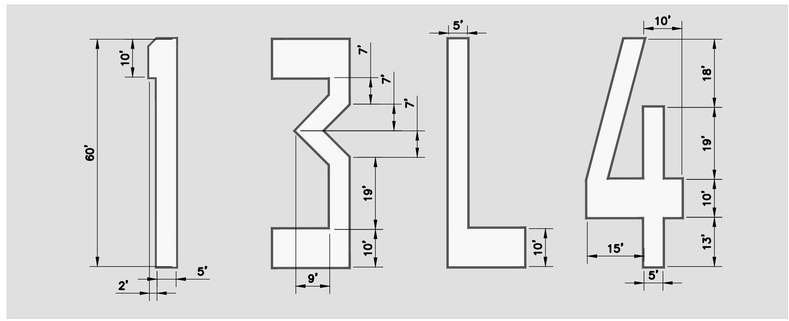


1 BLAST PAD MARKINGS
1" = 20'-0"

2 RUNWAY TOUCHDOWN MARKING
1" = 5'-0"



3 RUNWAY THRESHOLD MARKING
1" = 5'-0"



RUNWAY LETTERING AND NUMBERING NOTE:

1. FOLLOW DIMENSIONS FROM FAA ADVISORY CIRCULAR 150-5340-1M APPENDIX B WHEN PAINTING LETTERS AND NUMBERS.
2. ALL MARKINGS SHALL HAVE A 6" BLACK BORDER.

4 RUNWAY LETTERS AND NUMBERS
1" = 20'-0"

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

PAVEMENT MARKING DETAILS

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
REGISTERED
PROFESSIONAL ENGINEER
2.24.23

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: CM506
of

EXISTING AIRFIELD ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONDUIT IN PAVEMENT OR TURF
	EXISTING POWER DUCTBANK
	EXISTING POWER MANHOLE
H	EXISTING HANDHOLE
	EXISTING JUNCTION CAN
	EXISTING AIRFIELD LIGHT CAN
	EXISTING AIRFIELD SIGN

AIRFIELD ELECTRICAL DEMOLITION LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONDUIT TO BE REMOVED
	EXISTING TAXIWAY EDGE LIGHT AND BASE CAN TO BE REMOVED
	EXISTING RUNWAY EDGE LIGHT, IN-PVMT HOLD LIGHT AND BASE CAN TO BE REMOVED
S	INSTALL NEW STEEL COVER ON EXISTING LIGHT CAN
S_P	INSTALL NEW STEEL COVER ON EXISTING LIGHT CAN TO RETAIN CIRCUIT
185	EXISTING AIRFIELD SIGN AND FOUNDATION TO BE REMOVED
	EXISTING RUNWAY END LIGHTS AND BASE CAN TO BE REMOVED
H	EXISTING HANDHOLE TO BE REMOVED
	EXISTING MANHOLE TO BE REMOVED
	INSTALL CONDUIT END CAP AND PULL STRING
	PAVEMENT DEMOLITION

AIRFIELD ELECTRICAL LEGEND

SPECIFICATION SECTION	SYMBOL	DESCRIPTION
L-125	C/Y Y/C	INSTALL L-850C(L), BI-DIRECTIONAL, CLEAR/CLEAR OR CLEAR/AMBER, LED IN-PAVEMENT R/W EDGE LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW L-868, SIZE B BASE CAN. C = CLEAR, Y = YELLOW. NO DESIGNATION INDICATES CLEAR/CLEAR.
L-125	C/Y Y/C	INSTALL L-861, BI-DIRECTIONAL, CLEAR/AMBER, R/W EDGE LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW L-868, SIZE B BASE CAN. C = CLEAR, Y = YELLOW. NO DESIGNATION INDICATES CLEAR/CLEAR.
L-125	C/Y Y/C	INSTALL L-862(L), ELEVATED LED R/W EDGE LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW ADJUSTABLE DEPTH L-867, SIZE B BASE CAN. C = CLEAR, Y = YELLOW. NO DESIGNATION INDICATES CLEAR/CLEAR.
L-125		INSTALL L-862E(L), BI-DIRECTIONAL, GREEN/RED, ELEVATED LED R/W THRESHOLD/END LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW ADJUSTABLE DEPTH L-867, SIZE B BASE CAN.
L-125		INSTALL L-862E, BI-DIRECTIONAL, RED/RED, ELEVATED R/W THRESHOLD/END LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW ADJUSTABLE DEPTH L-867, SIZE B BASE CAN.
L-125		INSTALL L-852C/D(L), IN-PAVEMENT BI-DIRECTIONAL, GREEN/GREEN LED T/W CENTERLINE LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW L-868, SIZE B BASE CAN. SMALL SOLID AREA DENOTES DIRECTION OF LIGHT BEAM.
L-125		INSTALL L-804, LED ELEVATED R/W GUARD LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-867 CONNECTOR KIT. MOUNTED ON A NEW L-868, SIZE B BASE CAN.
L-125		INSTALL L-852G(L), LED R/W IN-PAVEMENT GUARD LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW L-868, SIZE B BASE CAN.
L-125		INSTALL L-852S(L), LED R/W IN-PAVEMENT STOP BAR LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW L-868, SIZE B BASE CAN.
L-125		INSTALL L-861T(L), ELEVATED LED T/W EDGE LIGHT, OVERALL HEIGHT 14", WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. MOUNTED ON A NEW L-867, SIZE B BASE CAN.
L-125		INSTALL L-852T(L), IN-PAVEMENT LED T/W EDGE LIGHT WITHOUT HEATER KIT AND PROPERLY SIZED ISOLATION TRANSFORMER ON A NEW L-868B BASE CAN IN EXISTING SHOULDER PAVEMENT.
L-125	SN01 185	SIGN ID NUMBER, SEE SHEET EL501 FOR SIGN TABLE. INSTALL L-858(L) LED, AIRFIELD GUIDANCE SIGN, MOUNTED ON A CONCRETE FOUNDATION WITH AN L-867 SIZE B, 24" DEEP BASE CAN. WITH PROPERLY SIZED ISOLATION TRANSFORMER AND L-823 CONNECTOR KIT. SN01 REPRESENTS SIGN NUMBER. RE-PURPOSED HOU SIGN NUMBER, SEE SHEET EL501 FOR SIGN TABLE.
L-125	M→ D 13R-31L	TYPICAL SIGN LEGENDS
L-108	SIGNS NW(2) 1	CIRCUIT DESIGNATIONS AS SHOWN ON PLANS
L-110	1	INSTALL ONE-WAY, TWO-INCH PVC SCHEDULE 40, UNLESS NOTED OTHERWISE, CONCRETE ENCASED UNDER PAVEMENT AND EXTERNAL 1/C #6 AWG SOLID TINNED SOFT DRAWN COPPER COUNTERPOISE WIRE. NUMBER SHOWN INDICATES NUMBER OF CONDUITS IN DUCTBANK.
L-110	FAA	INSTALL TWO-WAY, FOUR-INCH PVC SCHEDULE 40, UNLESS NOTED OTHERWISE, CONCRETE ENCASED UNDER PAVEMENT AND EXTERNAL 1/C #1/0 AWG BARE GUARD WIRE.
L-110	D	INSTALL 2" PVC DRAIN LINE FOR ELECTRICAL STRUCTURES
L-115	Ⓑ	INSTALL L-867 BASE CAN IN TURF, SHOULDER PAVEMENT OR L-868 BASE CAN IN FULL STRENGTH PAVEMENT AS NOTED ON THE PLANS.
L-115		INSTALL AIRCRAFT-RATED ELECTRICAL MANHOLE.
L-115	H	INSTALL AIRCRAFT-RATED ELECTRICAL OR COMMUNICATION HANDHOLE.

CIRCUIT TABLE

CIRCUIT ABBREVIATION ON PLANS	CIRCUIT COVERAGE	REGULATOR LOCATION
TW D/E	TAXIWAY D AND E EDGE LIGHTS	NORTH VAULT
TW G/F	TAXIWAY G, G1, G2, G3, AND F EDGE LIGHTS	NORTH VAULT
TW K CL	TAXIWAY K CENTERLINE LIGHTS	SOUTH VAULT
TW K CL (SMGCS)	TAXIWAY K CENTERLINE SMGCS LIGHTS	SOUTH VAULT
TW K	TAXIWAY K, K1, K2, R EDGE LIGHTS	SOUTH VAULT
TW M	TAXIWAY M, M1, M3 EDGE LIGHTS	NORTH VAULT
SC-NW	SIGN CIRCUIT - NORTHWEST QUADRANT	NORTH VAULT
SC-SW	SIGN CIRCUIT - SOUTHWEST QUADRANT	SOUTH VAULT
RGL-NW	RUNWAY GUARD LIGHTS - NORTHWEST QUADRANT	NORTH VAULT
RGL-SW	RUNWAY GUARD LIGHTS - SOUTHWEST QUADRANT	SOUTH VAULT
RW 13R-31L EDGE	RUNWAY 13R-31L EDGE LIGHTS	NORTH VAULT
RW 13L-31R EDGE	RUNWAY 13L-31R EDGE LIGHTS	NORTH VAULT
RW 4-22 EDGE	RUNWAY 4-22 EDGE LIGHTS	SOUTH VAULT

GENERAL NOTES:

1. ALL WORK, EQUIPMENT AND MATERIALS MUST COMPLY WITH FAA REQUIREMENTS, NFPA 70, ANSI C2, HOUSTON AIRPORT SYSTEM, AND THE CITY OF HOUSTON BUILDING CODE.
2. PROVIDE ALL LABOR, PARTS AND MATERIAL REQUIRED FOR A COMPLETE, PROPERLY WORKING ELECTRICAL LIGHTING AND SIGNAGE SYSTEM AS DESCRIBED AND INDICATED.
3. ALL WORK SHALL BE PERFORMED DURING AIRPORT OPERATING CONDITIONS AND AS SCHEDULED BY HOUSTON AIRPORT SYSTEMS OPERATIONS. UNLESS OTHERWISE INDICATED, ALL SIGNS AND LIGHTING SYSTEMS SHALL BE READY FOR USE EVERY NIGHT AND FOR EVERY LOW VISIBILITY PERIOD EXCEPT AS SHOWN AS CLOSED IN THE PHASING DRAWINGS.
4. NOTIFY ENGINEER OF ANY SIGNIFICANT DIFFERENCES BETWEEN DRAWINGS AND FIELD CONDITIONS.DEVIATIONS, PARTICULARLY REGARDING CIRCUIT ROUTING, ARE ANTICIPATED AND WILL REQUIRE COORDINATION WITH THE RESIDENT PROJECT REPRESENTATIVE.
5. PROVIDE REINFORCING FOR CONCRETE ENCASED DUCT BANKS UNDER RUNWAY AND TAXIWAY PAVEMENT. EXTEND REINFORCEMENT 5' BEYOND OUTSIDE EDGE OF SHOULDER.
6. ALL REMOVED/DEMOLISHED ITEMS SHALL HAVE THEIR ASSOCIATED BASE CANS AND/OR FOUNDATIONS REMOVED AS WELL, BACKFILL OF THE VOID CREATED TO GRADE IS INCIDENTAL TO THE DEMOLITION ITEM.
7. COORDINATE WITH H.A.S. STAFF TO LOCK OUT/TAG OUT APPROPRIATE C.C.R. PRIOR TO WORKING ON AIRFIELD CIRCUITING.
8. UNLESS OTHERWISE NOTED, ALL MATERIALS INSTALLED AS A PART OF THE PROJECT SHALL BE NEW.

LEGEND NOTE:

1. ANY FIXTURE WITH AN ASTERISK AFTER IT REQUIRES A CONCRETE BOXOUT. COORDINATE WITH CIVIL FOR THIS INSTALLATION.

LEGEND:

4XXX 16XXX

CIRCUIT NO. FIXTURE NO. CIRCUIT NO. FIXTURE NO.

NORTH VAULT CIRCUIT LEGEND:

1 13R-31L TDZ1(2)
2 13R-31L TDZ2(2)
3 13R-31L CENTERLINE(2)
4 13R-31L EDGE(2)
5 TW M/M1/M3 EDGE(2)
6 TW G/F EDGE(2)
7 TW D/E EDGE(2)
8 TW M1/M3 CENTERLINE(2)
9 TW H CENTERLINE(2)
10 TW H CENTERLINE SMGCS(2)
11 TW H EDGE(2)
12 TW Z CENTERLINE1(2)
13 TW Z CENTERLINE2(2)
14 TW Y/Z CENTERLINE SMGCS(2)
15 TW Y CENTERLINE(2)
16 RGL NW(2)
17 RGL NE(2)
18 SIGNS NW(2)
19 SIGNS NE(2)

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL NOTES AND LEGENDS

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.

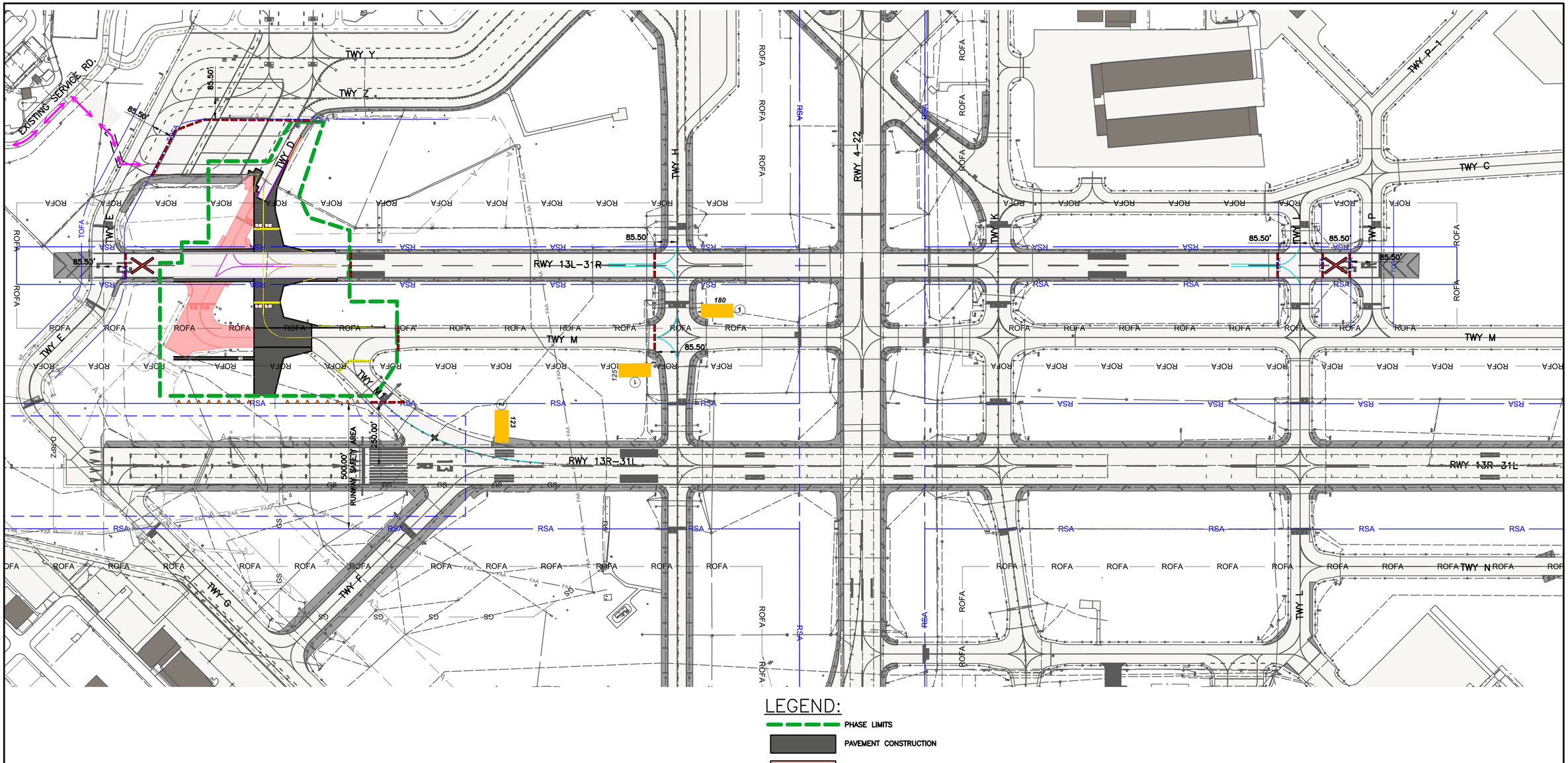
PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
REGISTERED PROFESSIONAL ENGINEER
2.24.23

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: E-001
of



LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING 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
- SIGNS REQUIRING MODIFICATION; NUMBER IN CIRCLE INDICATES NUMBER OF BLANK, SIZE 2 LUMACURVE PANELS REQUIRED. XXX INDICATES SIGN NUMBER (XXX)
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL PHASING PLAN – PHASE 1

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.

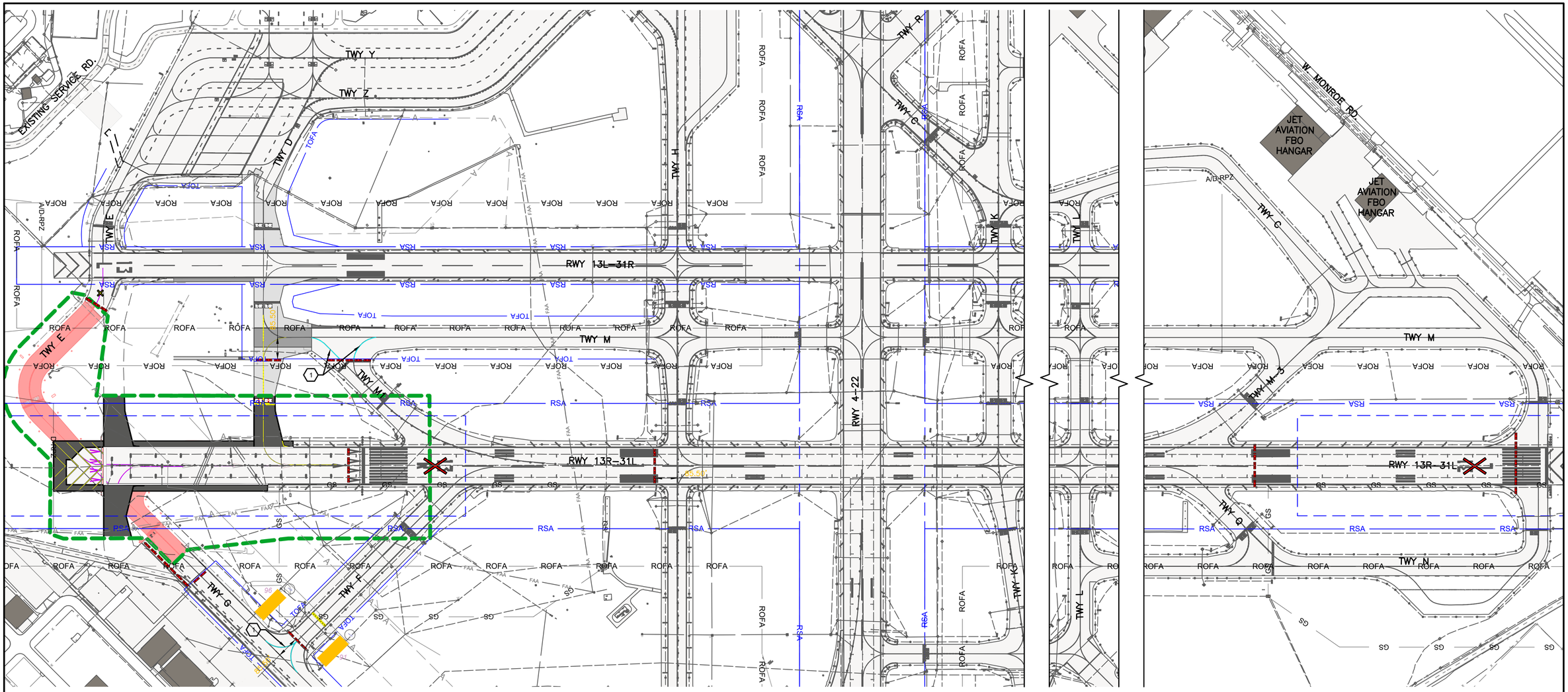
PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: E-101-P1
of



LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING 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
- XXX (X) — SIGNS REQUIRING MODIFICATION; NUMBER IN CIRCLE INDICATES NUMBER OF BLANK, SIZE 2 LUMACURVE PANELS REQUIRED. XXX INDICATES SIGN NUMBER
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
AIRFIELD ELECTRICAL PHASING PLAN – PHASE 2

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:

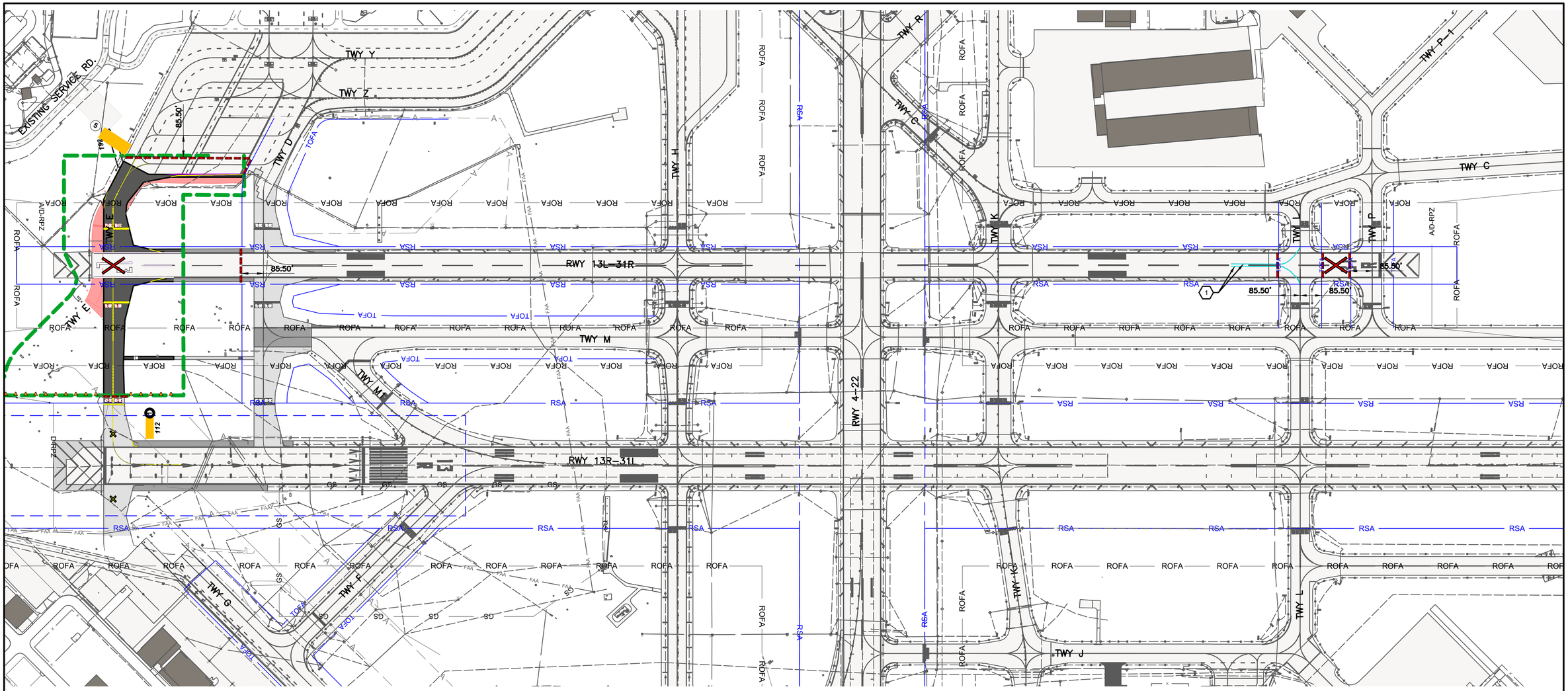
PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: E-201-P2
of



LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING 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
- XXX — SIGNS REQUIRING MODIFICATION; NUMBER IN CIRCLE INDICATES NUMBER OF BLANK, SIZE 2 LUMACURVE PANELS REQUIRED. XXX INDICATES SIGN NUMBER
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFILED ELECTRICAL PHASING PLAN – PHASE 3

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:

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

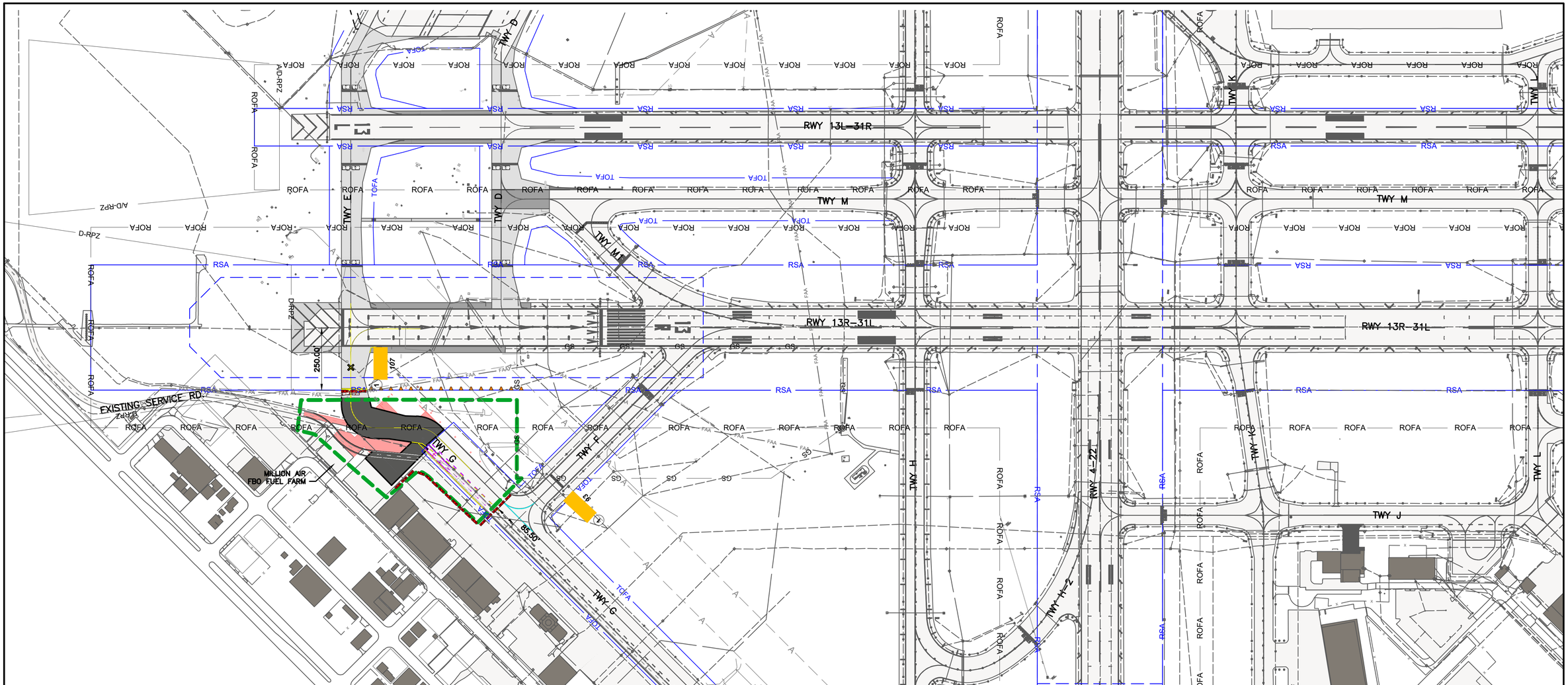
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	E-301-P3

of

FILENAME: H22C770A-E-301-P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 1:56:13 PM



LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING 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
- (X) SIGNS REQUIRING MODIFICATION; NUMBER IN CIRCLE INDICATES NUMBER OF BLANK, SIZE 2 LUMACURVE PANELS REQUIRED. XXX INDICATES SIGN NUMBER (XXX)
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
AIRFIELD ELECTRICAL PHASING PLAN – PHASE 4

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

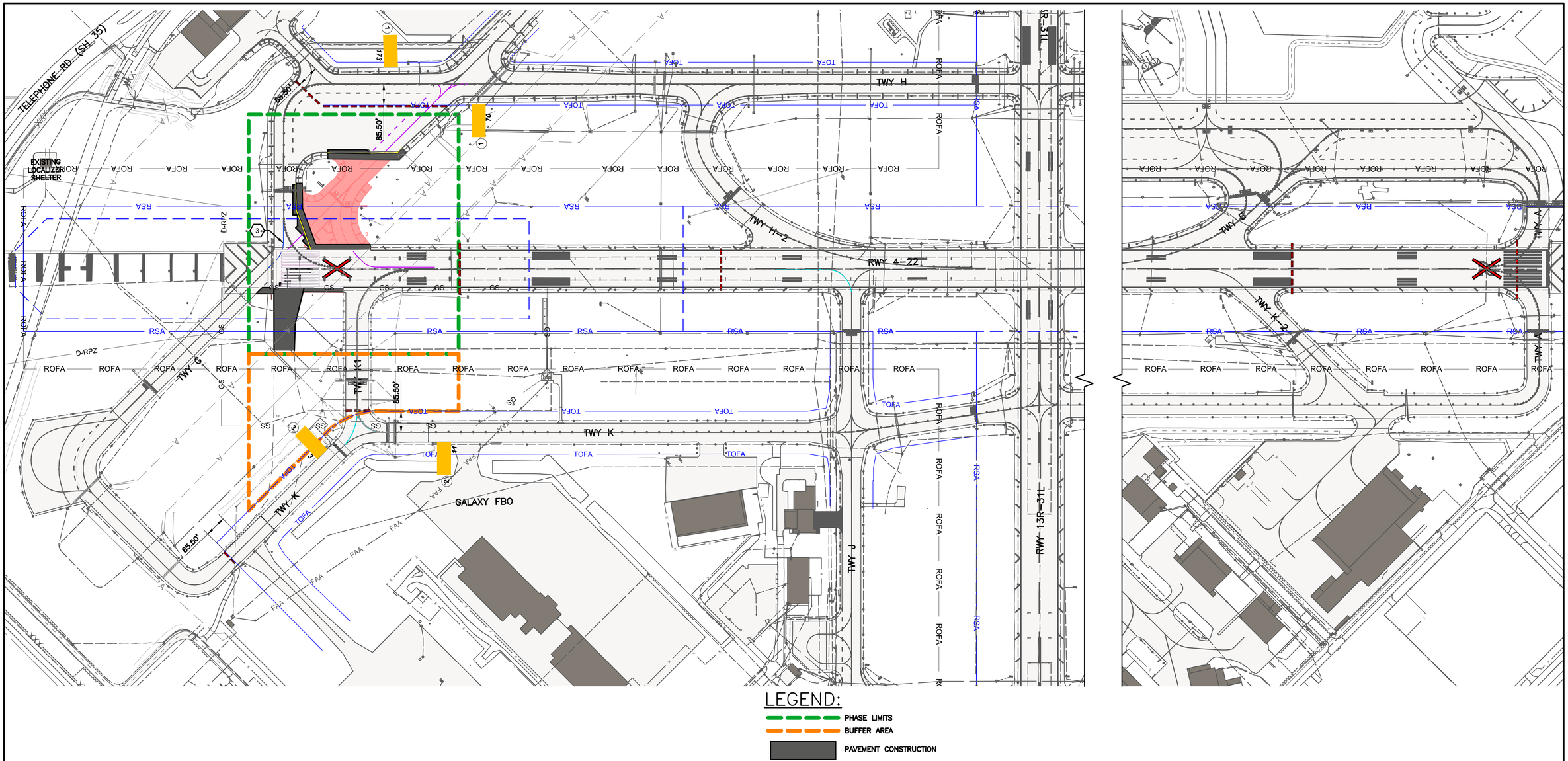
STATE OF TEXAS
JAMES A. McDONALD
119579
REGISTERED PROFESSIONAL ENGINEER
2.24.23

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: E-401-P4
of

FILENAME: H22C770A-E-401-P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 2:00:18 PM



LEGEND:

- PHASE LIMITS
- BUFFER AREA
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING 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
- (X) SIGNS REQUIRING MODIFICATION; NUMBER IN CIRCLE INDICATES NUMBER OF BLANK, SIZE 2 LUMACURVE PANELS REQUIRED. XXX INDICATES SIGN NUMBER (XXX)
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
AIRFIELD ELECTRICAL PHASING PLAN – PHASE 5

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:

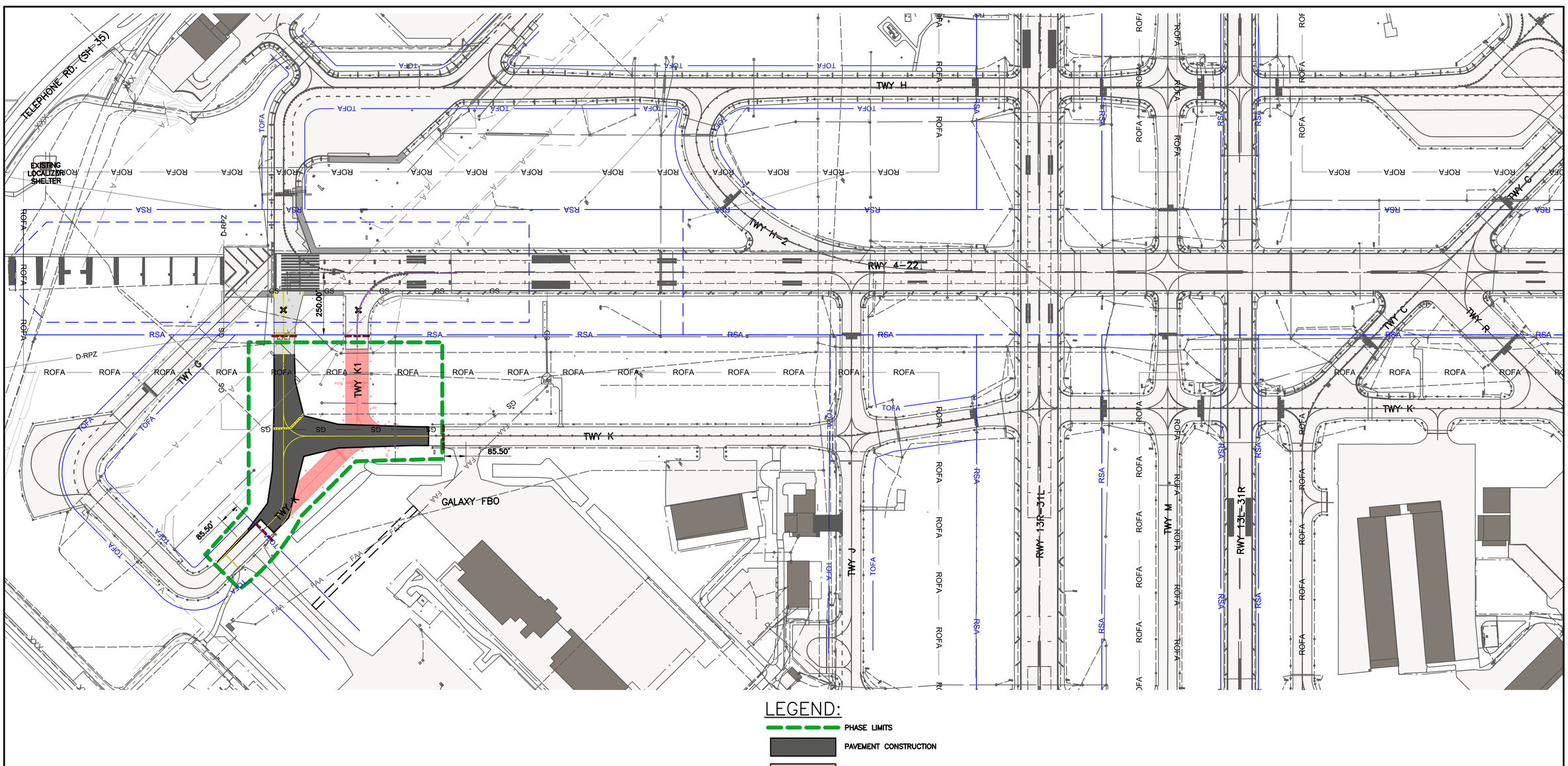
PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: E-501-P5
of



LEGEND:

- PHASE LIMITS
- PAVEMENT CONSTRUCTION
- PAVEMENT DEMOLITION
- PAVEMENT MARKING OBLITERATION
- BLACKOUT EXISTING 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
- SIGNS REQUIRING MODIFICATION; NUMBER IN CIRCLE INDICATES NUMBER OF BLANK, SIZE 2 LUMACURVE PANELS REQUIRED. XXX INDICATES SIGN NUMBER (XXX)
- TAXIWAY CLOSURE MARKER
- LIGHTED CLOSED RUNWAY MARKER SIGN

GRAPHIC SCALE
200' 0 200' 600'
SCALE: 1" = 200'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL PHASING PLAN – PHASE 6A

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

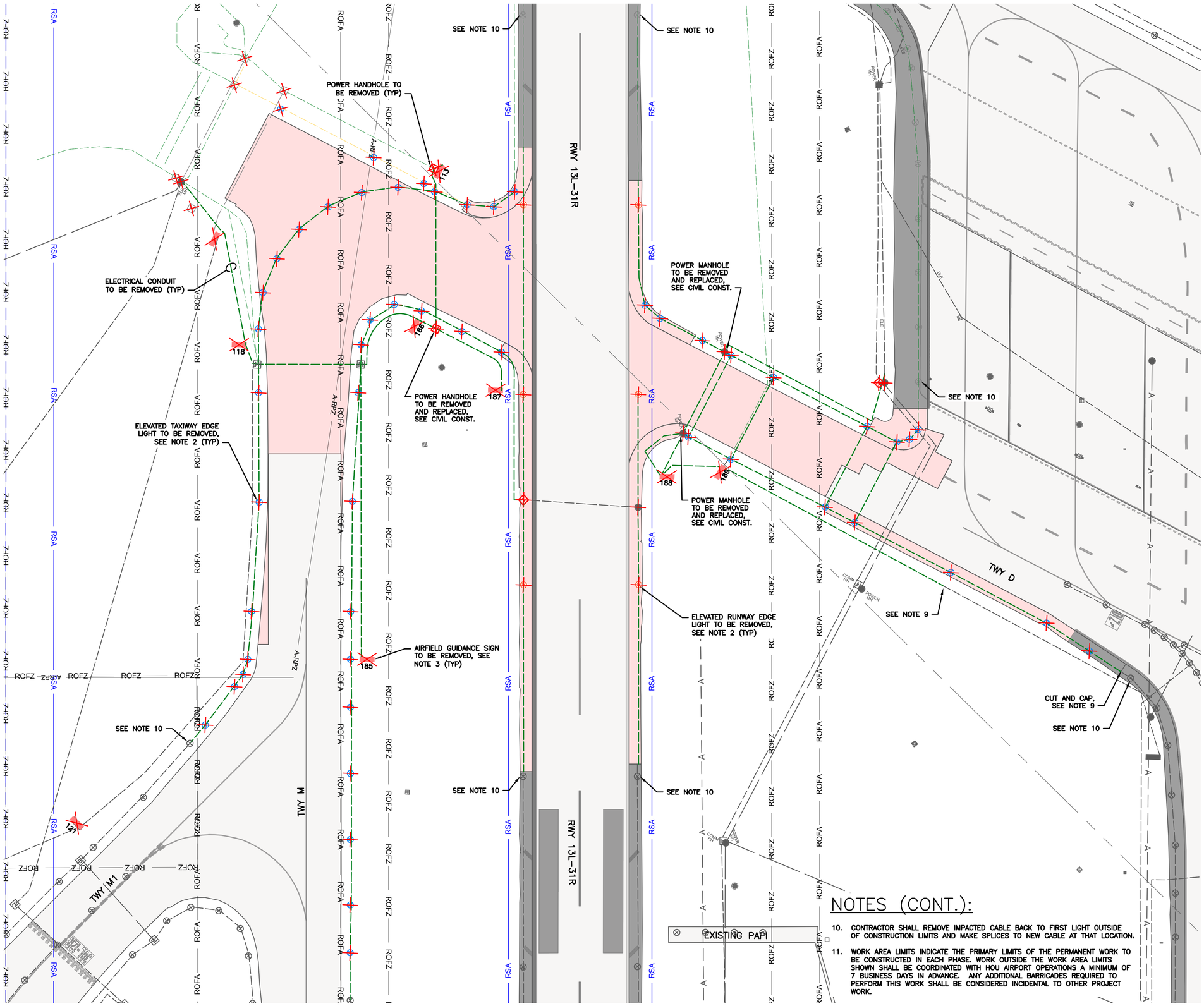
STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

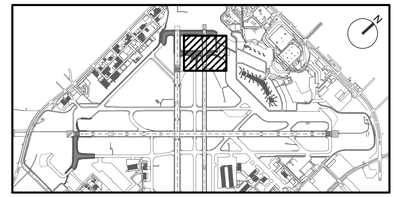
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: E-601-P6A
of

FILENAME: H22C770A-E-601-P6A.DWG PLOT DATE: 2023/02/17 PLOT TIME: 2:09:43 PM





KEY MAP

NTS

GENERAL NOTES

1. PRIOR TO THE START OF DEMOLITION, THE DEMOLITION CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR TO DETERMINE A METHOD TO PROTECT THE EXISTING COUNTERPOISE TO REMAIN AND TO MAKE THE COUNTERPOISE AVAILABLE FOR CONNECTION AFTER DEMOLITION IS COMPLETE.
2. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL MEASURE COUNTERPOISE RESISTANCE BETWEEN ADJACENT CANS AT THE LIMITS OF DEMOLITION USING AN APPROVED METER. THE DATA SHALL BE RECORDED AND RESULTS SUBMITTED TO THE RPR. WHERE CONTINUITY IS NOT FOUND, THE RPR SHALL BE NOTIFIED.
3. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL MEGGER ALL EXISTING CIRCUITS AND PROVIDE READINGS IN WRITING TO THE RPR.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF EXISTING FIXTURES TO BE REMOVED AND FIXTURES TO REMAIN. ANY FIXTURES TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL HAVE ENOUGH FIXTURES ON SITE SO THE SYSTEM CAN BE FULLY OPERATIONAL AT THE TIME OF SUBSTANTIAL COMPLETION.
5. WHERE FIXTURES ARE REMOVED AND FOUNDATIONS ARE TO REMAIN, THE CONTRACTOR SHALL INSTALL A 3/4" PIECE OF PLYWOOD SECURED WITH SIX BOLTS TO PREVENT DEBRIS FROM COLLECTING IN THE CAN PRIOR TO A NEW FIXTURE OR STEEL PLATE BEING INSTALLED PERMANENTLY.
6. REMOVAL OF BASE CANS SHALL INCLUDE REMOVAL OF CONCRETE ANCHOR, CONDUIT, AND COUNTERPOISE WITHIN THE CONCRETE ANCHOR. CUT AND CAP CONDUIT AS REQUIRED. METHOD OF REMOVAL SHALL BE DETERMINED BY CONTRACTOR. WHERE REQUIRED BY THE RPR, CONDUIT AND/OR COUNTERPOISE SHALL BE CONNECTED AND EXTENDED AS NEEDED TO ENSURE FUNCTIONALITY OF THE SYSTEM.
7. AFTER DEMOLITION IS COMPLETE, CONTRACTOR SHALL RETEST THE REMAINING COUNTERPOISE. ANY COUNTERPOISE FOUND NOT TO BE CONTINUOUS OR LOWER THAN 25 OHMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL VERIFY COUNTERPOISE AND CONDUIT TO REMAIN HAS NOT BEEN DAMAGED ANYWHERE CONSTRUCTION TAKES PLACE. THE DATA SHALL BE RECORDED AND THE RESULTS SUBMITTED TO THE RPR.
8. CONTRACTOR SHALL TURN OVER REMOVED LIGHTS, SIGNS, AND FIXTURES TO HAS MAINTENANCE FOR THEIR REVIEW. IF DIRECTED BY MAINTENANCE, ITEMS SHALL BE DISPOSED OF OFFSITE BY THE CONTRACTOR IN A TIMELY MANNER. THE AIRPORT RESERVES THE RIGHT TO RETAIN ANY AND ALL SIGNS AND LIGHT FIXTURES REMOVED AS A PART OF THIS PROJECT.

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING OF IMPACTED CIRCUITS PRIOR TO DEMOLITION PAID UNDER L–120. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY. SEE PHASING DRAWINGS FOR INFORMATION.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN–PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO FINAL GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L–868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L–867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E–001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

NOTES (CONT.):

10. CONTRACTOR SHALL REMOVE IMPACTED CABLE BACK TO FIRST LIGHT OUTSIDE OF CONSTRUCTION LIMITS AND MAKE SPLICES TO NEW CABLE AT THAT LOCATION.
11. WORK AREA LIMITS INDICATE THE PRIMARY LIMITS OF THE PERMANENT WORK TO BE CONSTRUCTED IN EACH PHASE. 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.

GRAPHIC SCALE

50' 0 50' 150'

SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

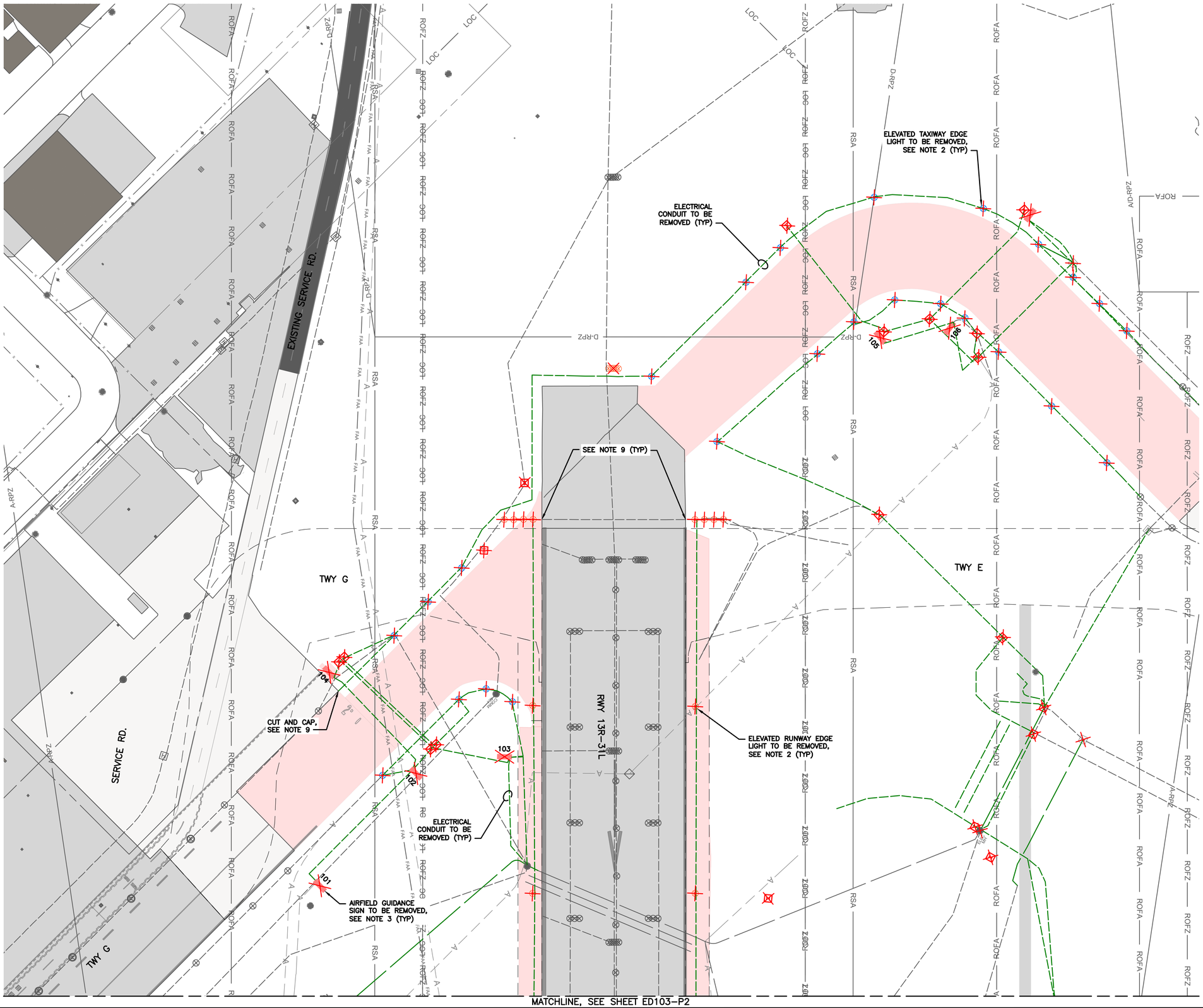
AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 1

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.

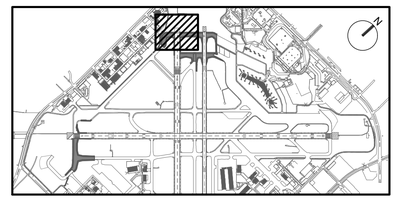
PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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:	ED101–P1
	of



MATCHLINE, SEE SHEET ED103–P2



KEY MAP
NTS

ELECTRICAL DEMOLITION NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN–PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L–868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L–867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET EL001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 2

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

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
REGISTERED PROFESSIONAL ENGINEER
2.24.23

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:	ED102–P2

of

MATCHLINE, SEE SHEET EL102-P2

AIRFIELD GUIDANCE SIGN TO BE REMOVED, SEE NOTE 3 (TYP)

ELEVATED RUNWAY EDGE LIGHT TO BE REMOVED, SEE NOTE 2 (TYP)

PROTECT EXISTING RUNWAY 13R HOME RUN STRUCTURE.

CUT AND CAP, SEE NOTE 9

ELECTRICAL CONDUIT TO BE REMOVED (TYP)

CUT AND CAP, SEE NOTE 9.

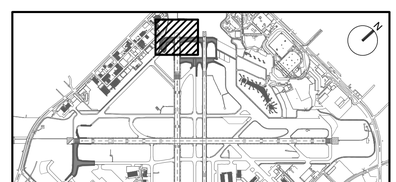
RWY 13R-31L

TWY D

TWY F

TWY M

TWY M1



KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN-PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L-868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L-867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E-001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 2

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:

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
REGISTERED
PROFESSIONAL ENGINEER
2.24.23

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:	ED103-P2
	of

CIRCUITS:
13R–31L TDZ1(2)
13R–31L TDZ2(2)
13R–31L CENTERLINE(2)
13R–31L EDGE(2)
TW M/M1/M3 EDGE(2)
TW G/F EDGE(2)
TW D/E EDGE(2)
TW M1/M3 CENTERLINE(2)
TW H CENTERLINE(2)
TW H CENTERLINE SMGCS(2)
TW H EDGE(2)
TW Z CENTERLINE1(2)
TW Z CENTERLINE2(2)
TW Y/Z CENTERLINE SMGCS(2)
TW Y CENTERLINE(2)
RGL NW(2)
RGL NE(2)
SIGNS NW(2)
SIGNS NE(2)

TO NORTH AIRFIELD LIGHTING VAULT

EXISTING SERVICE RD.

TWY E

RWY 31R–13L

TWY D

ELECTRICAL CONDUIT TO BE REMOVED (TYP)

CUT AND CAP, SEE NOTE 9.

AIRFIELD GUIDANCE SIGN TO BE REMOVED, SEE NOTE 3 (TYP)

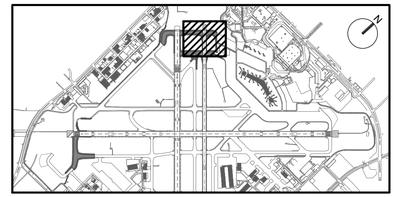
1621
1622
1623

ELEVATED RUNWAY EDGE LIGHT TO BE REMOVED, SEE NOTE 2 (TYP)

CUT AND CAP, SEE NOTE 9

CUT AND CAP, SEE NOTE 9.

ELEVATED TAXIWAY EDGE LIGHT TO BE REMOVED, SEE NOTE 2 (TYP)



KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN–PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L–868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L–867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E–001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 3

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

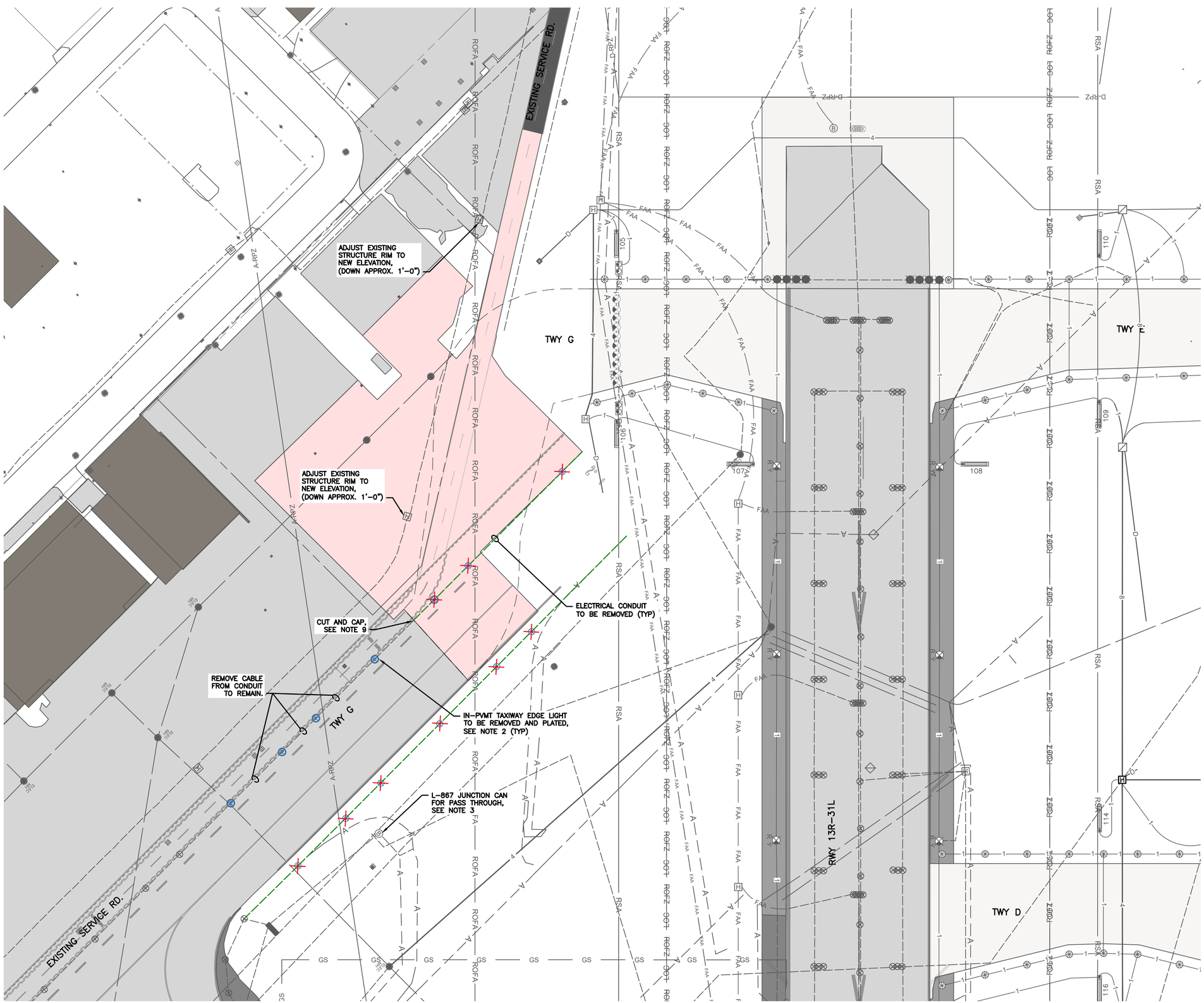
STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

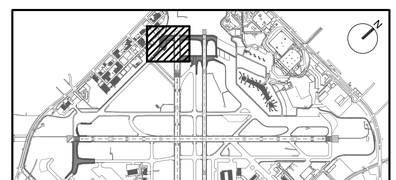
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: ED104–P3
of

FILENAME: H22C770A–ED104–P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 2:37:33 PM





KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN–PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L–868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L–867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E–001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 4

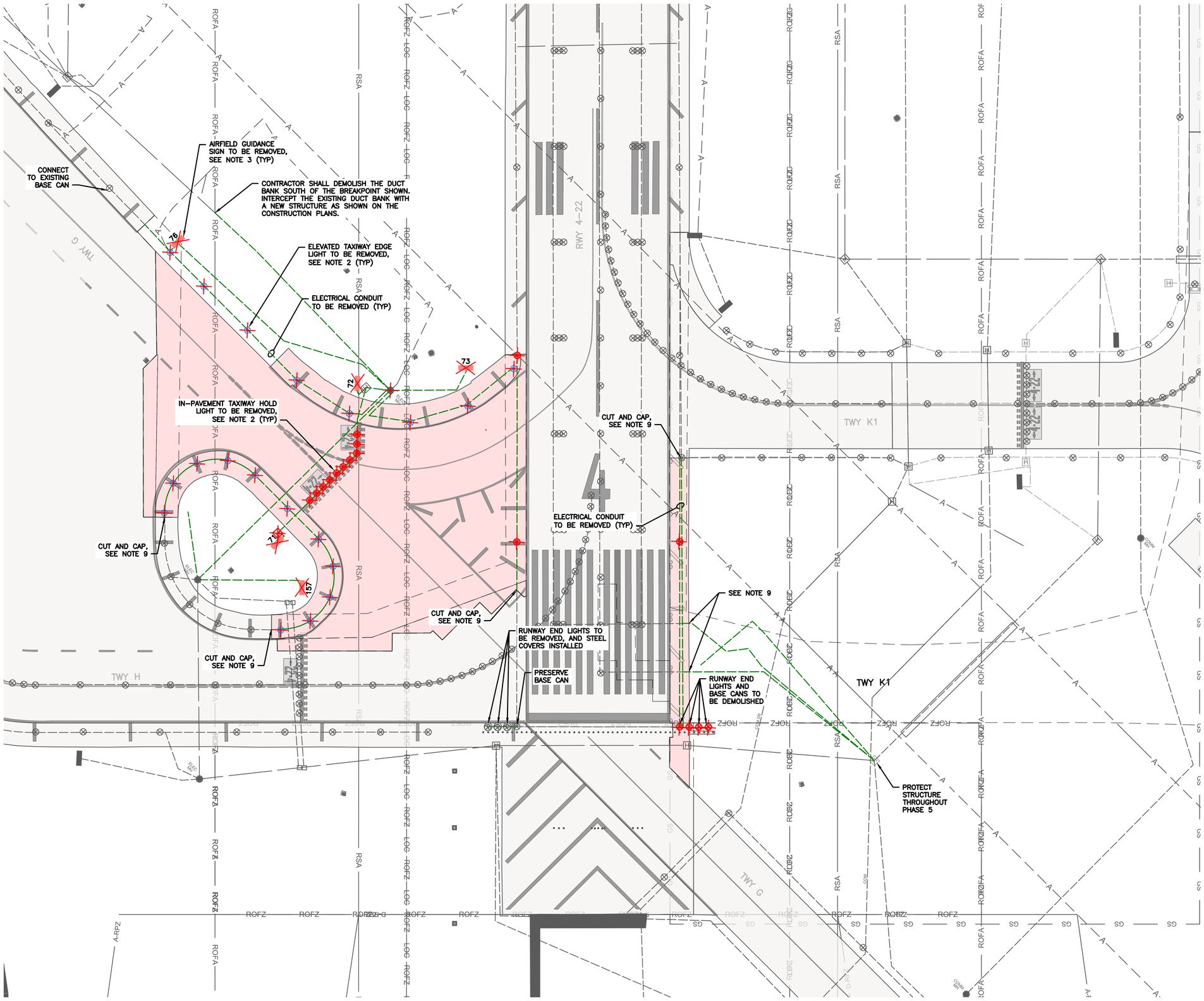
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.
REUSE OF DOCUMENTS:

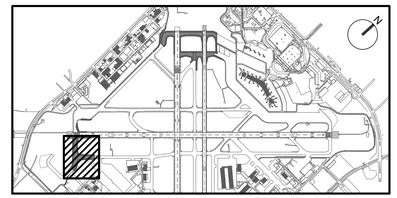
PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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:	ED105–P4
	of

FILENAME: H22C770A–ED105–P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 2:42:13 PM





KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN-PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L-868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L-867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E-001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 5

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:

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

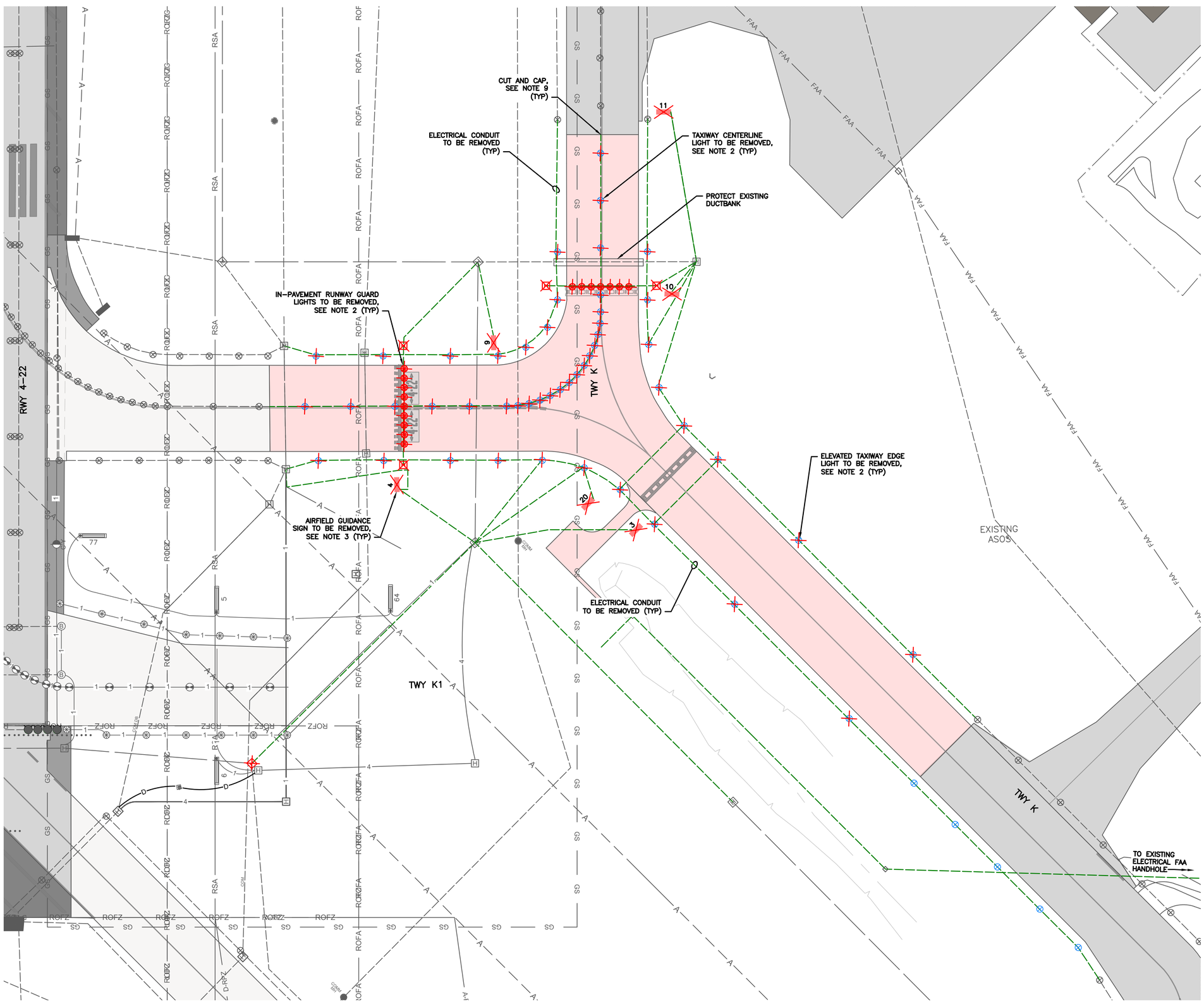
STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

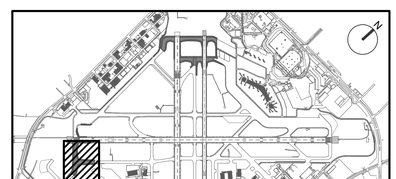
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: ED106-P5
of

FILENAME: H22C770A-ED106-P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 2:45:01 PM





KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN-PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L-868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L-867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E-001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 6A

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

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: ED107-P6
of

CUT AND CAP, SEE NOTE 9

ELECTRICAL CONDUIT TO BE REMOVED (TYP)

AIRFIELD GUIDANCE SIGN TO BE REMOVED, SEE NOTE 3 (TYP)

REMOVE CABLE FROM CONDUIT

TAXIWAY CENTERLINE LIGHT TO BE REMOVED AND LIGHT CAN COVERED WITH 3/4" STEEL COVER, (14 STEEL COVERS TOTAL)(TYP)

ELECTRICAL CONDUIT TO BE REMOVED (TYP)

TAXIWAY CENTERLINE LIGHT TO BE REMOVED, SEE NOTE 2 (TYP)

ELEVATED TAXIWAY EDGE LIGHT TO BE REMOVED, SEE NOTE 2 (TYP)

ELEVATED TAXIWAY EDGE LIGHT TO BE REMOVED, SEE NOTE 2 (TYP)

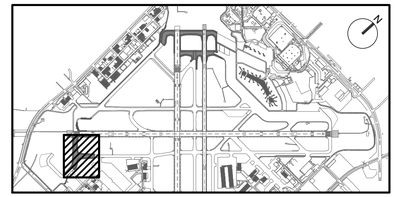
RWY 4–22

TWY K1

TWY K

EXISTING ASOS

MATCHLINE, SEE SHEET ED109–P6



KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN–PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L–868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L–867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E–001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 6B

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

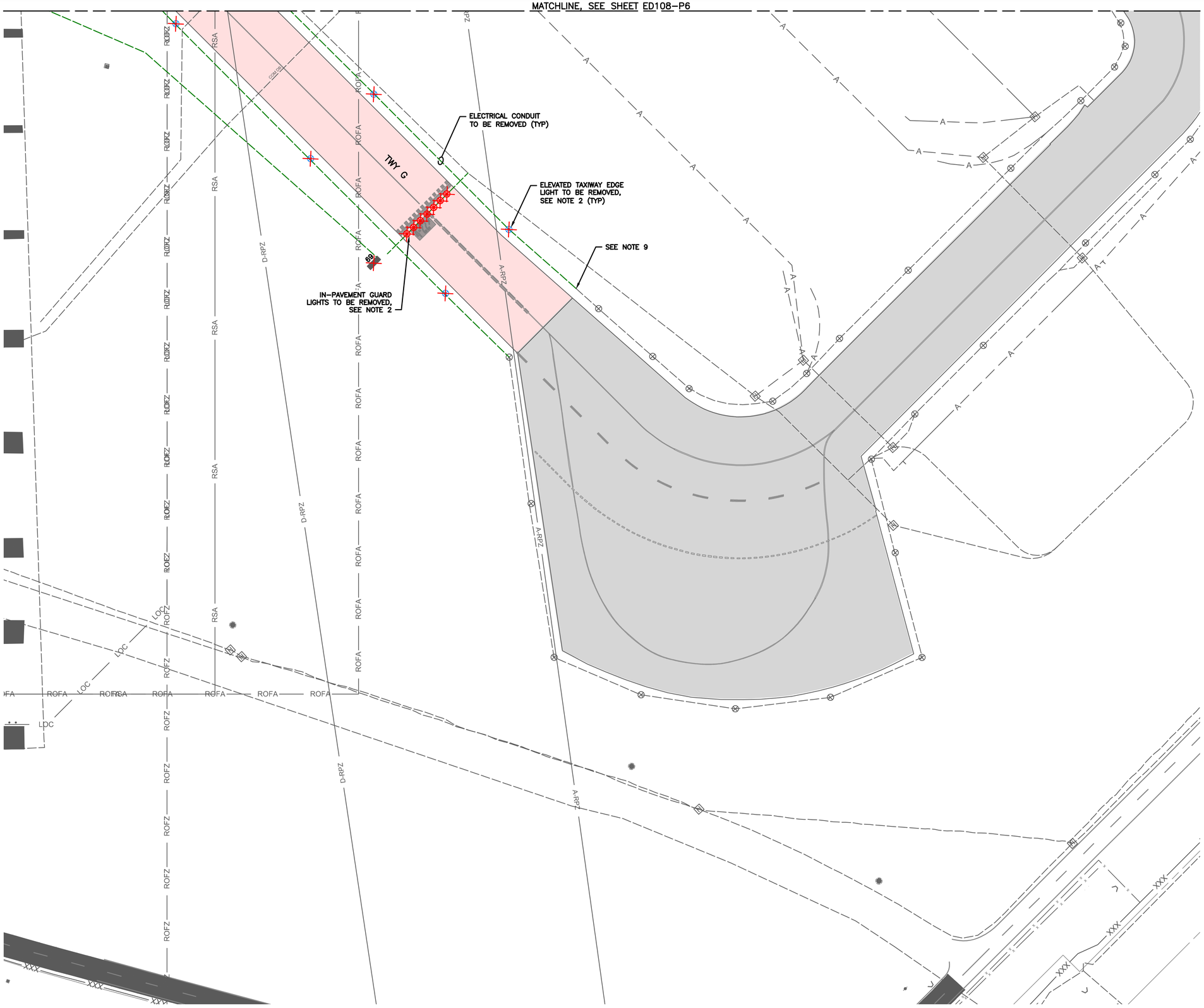
STATE OF TEXAS
JAMES A. McDONALD
119579
2.24.23

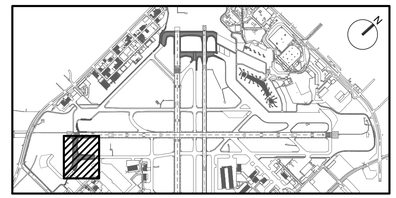
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: ED108–P6
of

MATCHLINE, SEE SHEET ED108-P6





KEY MAP
NTS

NOTES:

1. CONTRACTOR TO CONFIRM CIRCUIT ROUTING PRIOR TO DEMOLITION. PROVIDE TEMPORARY CABLE JUMPERS AS REQUIRED TO MAINTAIN CIRCUIT INTEGRITY.
2. ALL DEMOLITION OF RUNWAY, TAXIWAY AND GUIDANCE SIGNS SHALL INCLUDE REMOVAL OF LIGHT BASES, CABLE AND CONDUIT. CONTRACTOR SHALL COLLECT ALL ELEVATED AND IN-PAVEMENT LIGHTS, RGL CONTROL UNITS AND SIGN PANELS WHEN REMOVED, HAS SHALL SELECT EQUIPMENT TO BE TURNED OVER TO THE AIRPORT FOR STORAGE. CONTRACTOR TO DISPOSE OF ALL REMOVED EQUIPMENT NOT TURNED OVER TO THE AIRPORT FOR STORAGE.
3. CONTRACTOR TO REMOVE EXISTING AIRFIELD GUIDANCE SIGN AND RELATED EQUIPMENT. DEMOLISH SIGN FOUNDATION AND BACKFILL TO EXISTING OR PROPOSED GRADE. IF THE SIGN BEING REMOVED IS USED AS A PASS THROUGH FOR THE CIRCUIT, THE CONTRACTOR IS TO INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION BOX.
4. ABANDONED L-868 LIGHT BASES IN PAVEMENT TO REMAIN SHALL BE PLATED BY THE CONTRACTOR WITH 3/4"STEEL COVER.
5. CONTRACTOR SHALL CAP ABANDONED IN PLACE DUCTBANK AT EDGE OF DEMOLISHED PAVEMENT AND INSTALL PULL STRING AND DUCT MARKER.
6. L-867 BASE CANS THAT NEED TO REMAIN IN ORDER TO PRESERVE THE CIRCUIT SHALL BE PLATED BY THE CONTRACTOR WITH A 3/8" STEEL COVER.
7. COORDINATE WITH FAA TO TURN OFF AFFECTED EQUIPMENT WHEN WORKING WITHIN ILS CRITICAL AREAS.
8. SEE SHEET E-001 FOR AIRFIELD ELECTRICAL DEMOLITION LEGEND.
9. CUT EXISTING CONDUIT; AND CONNECT TO NEW, OR INSTALL PULL STRING FOR FUTURE USE.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DEMOLITION PLAN – PHASE 6B

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.

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

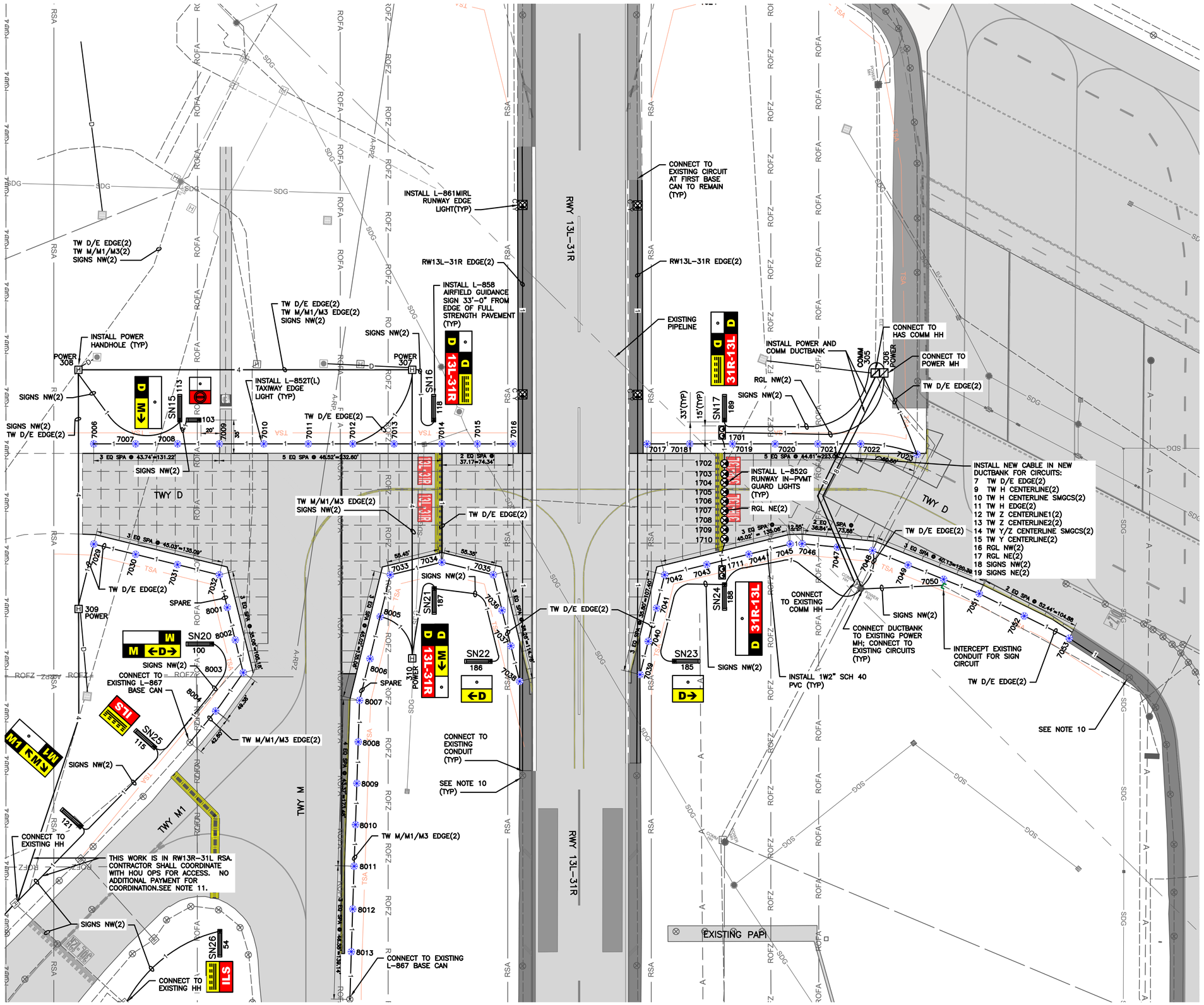
STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

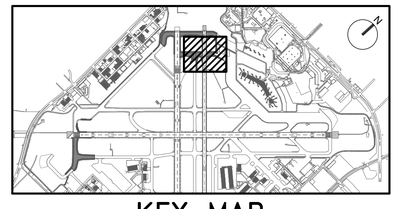
APPROVED BY:	DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	ED109-P6

of





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E–001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L–867B BASE.
6. CONNECT TO EXISTING L–867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. ALL NEW POWER AND COMMUNICATION MANHOLES AND HANDHOLES SHALL BE DRAINED BY A 4" MINIMUM PVC PIPE TO THE NEAREST STORM WATER CATCH BASIN. DRAIN PIPES SHALL BE EQUIPPED WITH A BACKFLOW FLAP DEVICE AS SHOWN IN THE DETAILS.
9. CONTRACTOR SHALL COVER ANY PART OF A SIGN LEADING TO A CLOSED AREA IN A METHOD APPROVED BY HOU OPERATIONS.
10. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).
11. 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.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

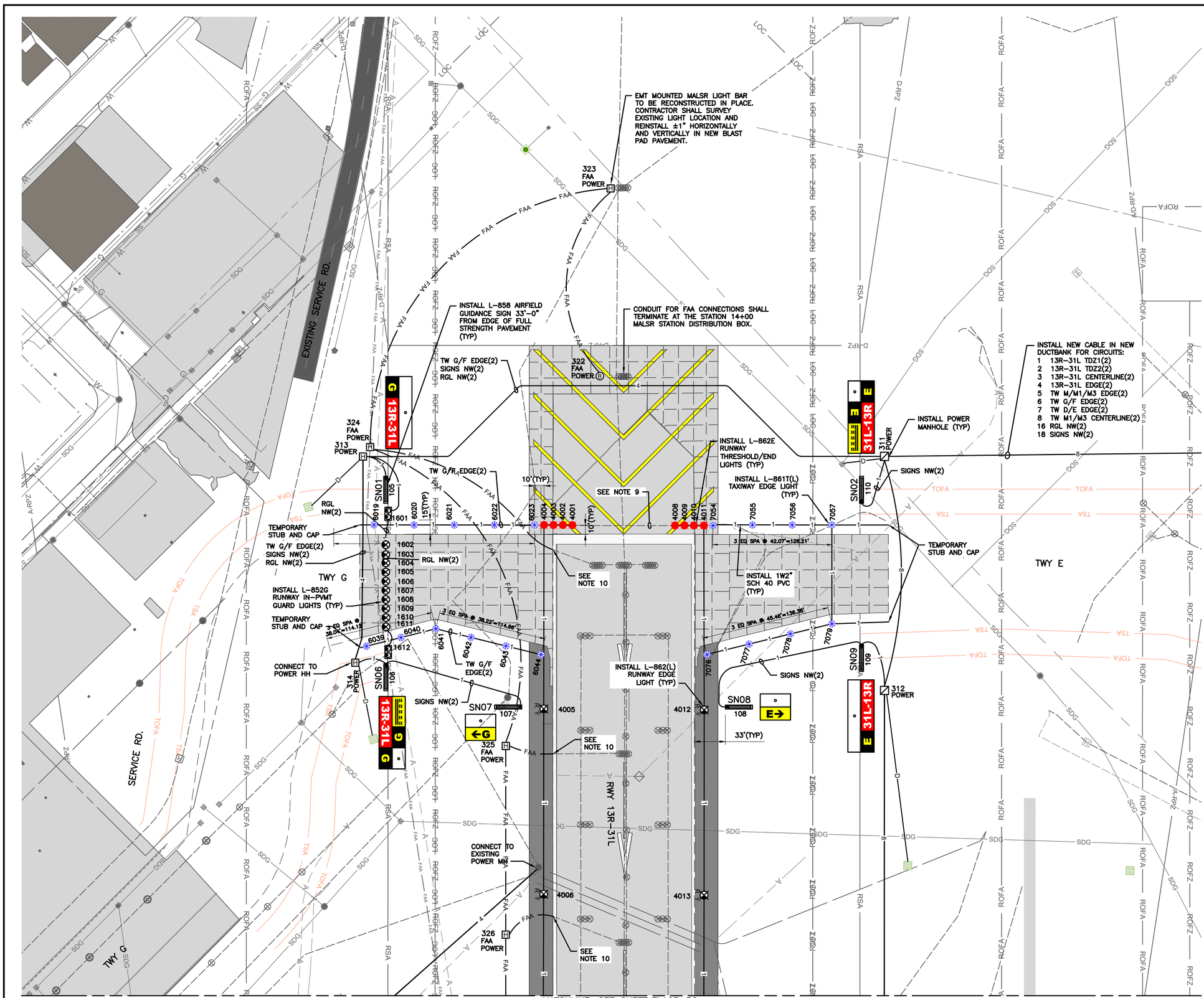
FAA NON-STANDARD TAXIWAYS PROJECT
AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 1

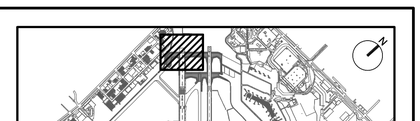
PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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:	EL101–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.





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E-001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L-867B BASE.
6. CONNECT TO EXISTING L-867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).
9. INSTALL RW13R-31L EDGE(2) IN EXISTING CONDUIT BETWEEN LIGHTS 4003 AND 4010. LIGHTS 4001, 4002, 4003, 4008, 4009 AND 4010 SHALL BE INSTALLED ON NEW BASECANS CORED TO INTERCEPT EXISTING CONDUIT.
10. CONTRACTOR SHALL FIELD LOCATE EXISTING CONDUIT EXITING THE FULL STRENGTH PAVEMENT FOR APPROACH LIGHTING SYSTEM CONDUIT TIE-IN. LOCATION MAY VARY FROM WHAT IS SHOWN ON THE PLANS, CONTRACTOR WILL BE PAID FOR LENGTH INSTALLED.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT
AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 2

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:

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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:	EL102-P2
of	

INSTALL L-867 BASE CAN TO RETAIN CIRCUIT, SEE SHEET EL501 (TYP)

POWER

CONNECT TO EXISTING POWER MH

FOR ILS SIGN LOCATION, SEE DETAIL 1, THIS SHEET

INSTALL L-862(L) RUNWAY EDGE LIGHT (TYP)

INSTALL L-861T(L) TAXIWAY EDGE LIGHT (TYP)

TW D/E EDGE(2)

4007

4014

7001

7002

7003

7004

7005

31L-13R

33'(TYP)

SN14

114

3 EQ SPA @ 44.29'=132.87'

2 EQ SPA @ 35.74' =71.48'

CONNECT TO EXISTING POWER MANHOLE

SIGNS NW(2)

SN15

113

103

327 FAA POWER

SEE NOTE 10, SHEET EL102-P2

TW D/E EDGE(2)

CONNECT TO EXISTING AIRFIELD LIGHT CAN AND CABLE

INSTALL 1W2" SCH 40 PVC (TYP)

2 EQ SPA @ 35.74' =71.48'

3 EQ SPA @ 45.99'=136.77'

7027

7026

7025

7024

SN19

116

CONNECT TO EXISTING POWER MANHOLE

TW D/E EDGE(2)

SIGNS NW(2)

CONNECT TO EXISTING CIRCUIT (TYP)

SN18

119

328 FAA POWER

INSTALL L-858 AIRFIELD GUIDANCE SIGN 33'-0" FROM EDGE OF FULL STRENGTH PAVEMENT (TYP)

RWY 13R-31L

TWY F

TWY M

TWY M1

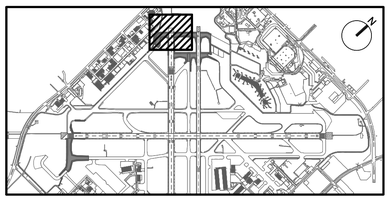
SN26

54

CONNECT TO EXISTING L-867 BASE CAN

329 FAA POWER

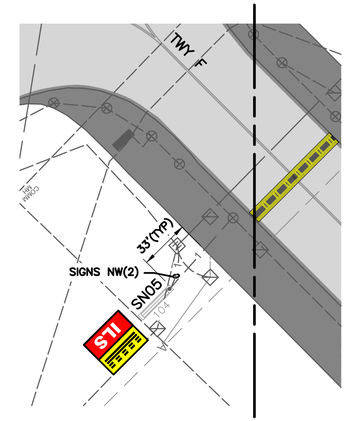
TO WIND CONE



KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E-001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L-867B BASE.
6. CONNECT TO EXISTING L-867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).



1 ILS SIGN LOCATION
NTS

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

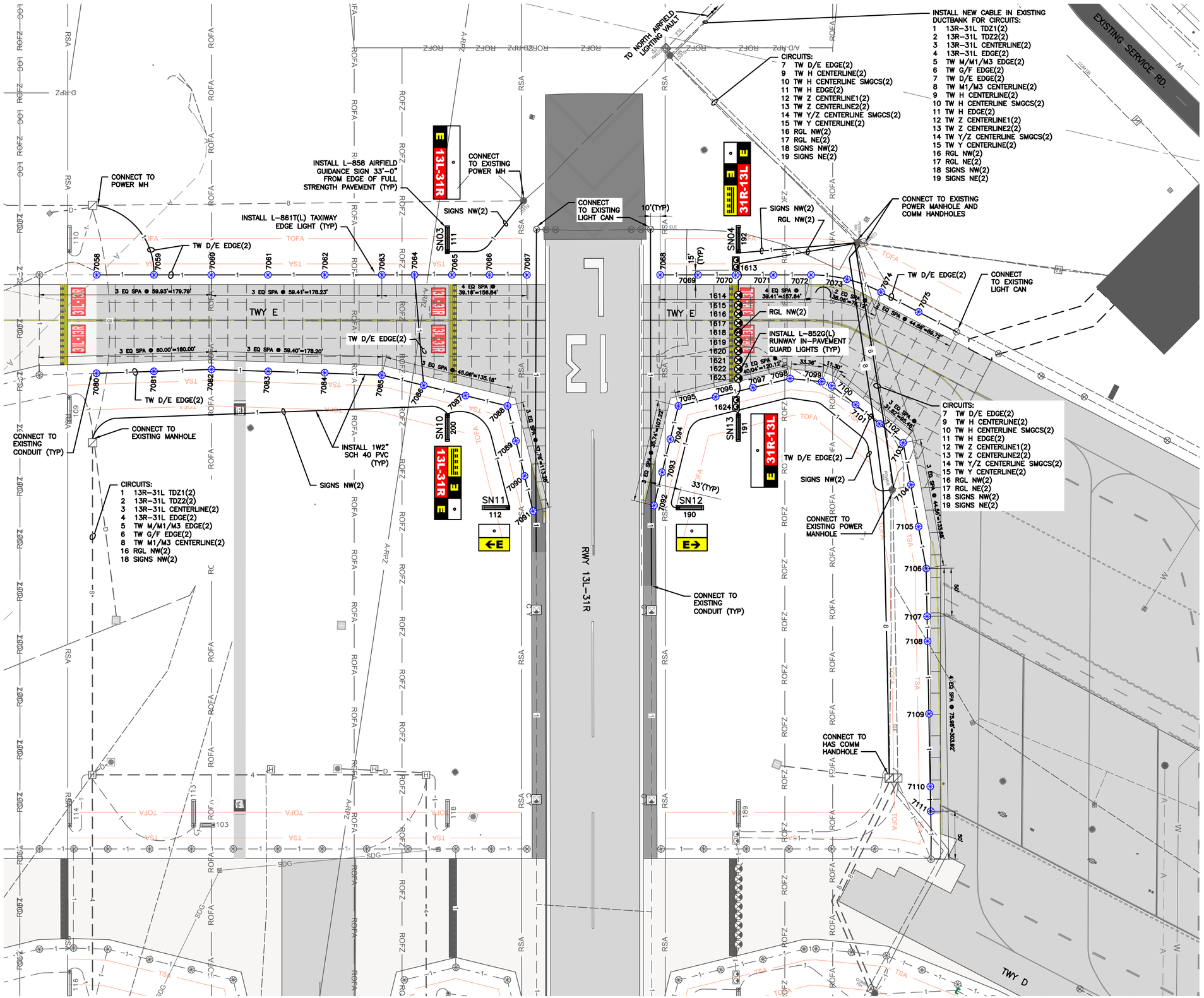
FAA NON-STANDARD TAXIWAYS PROJECT
AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 2

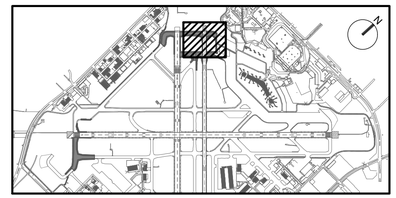
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.
REUSE OF DOCUMENTS:

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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:	EL103-P2
	of





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E-001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L-867B BASE.
6. CONNECT TO EXISTING L-867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 3

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

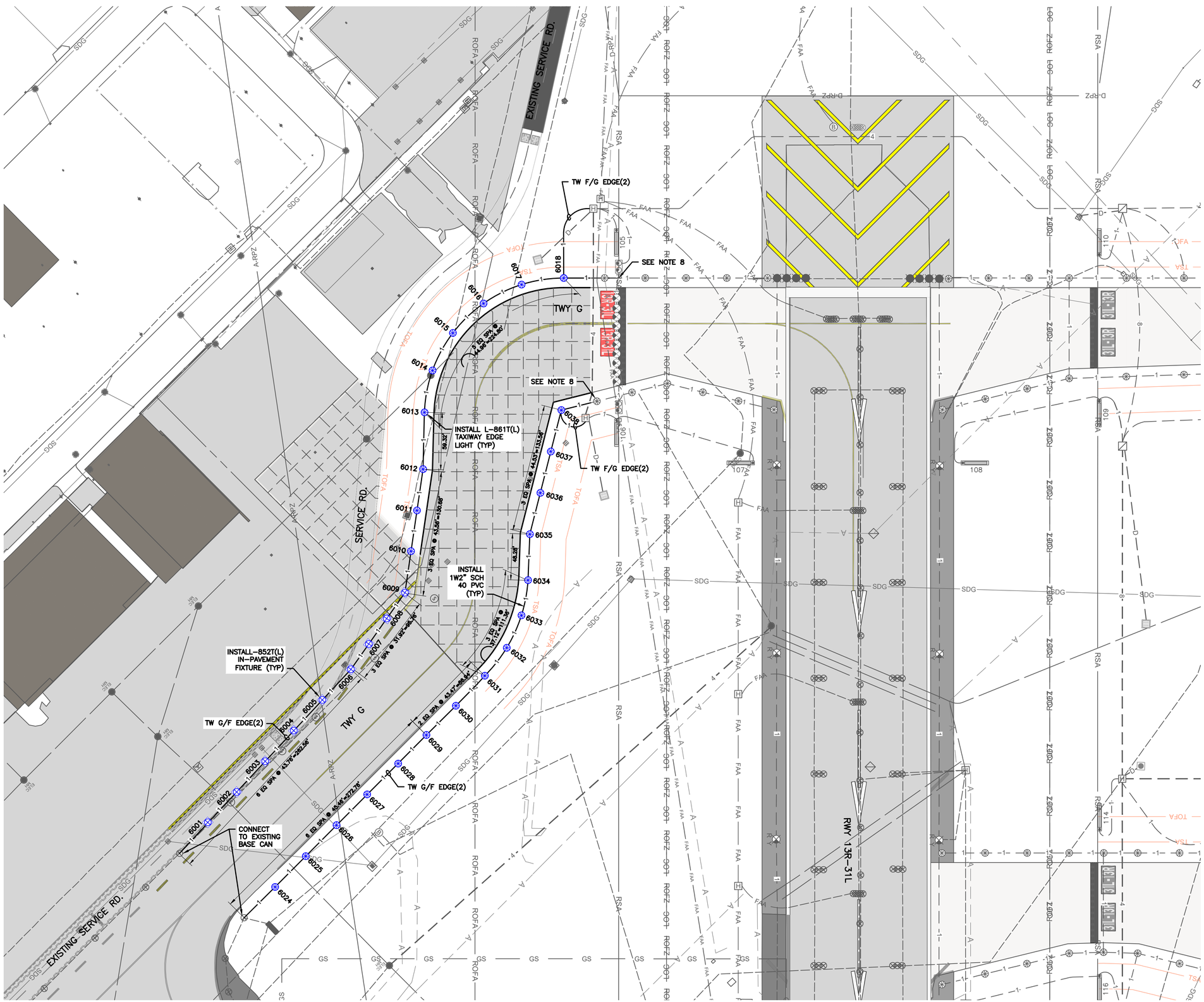
STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

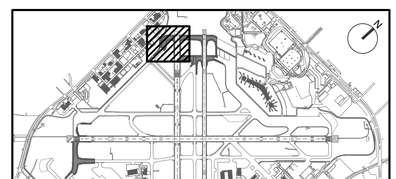
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL104-P3
of

FILENAME: H22C770A-EL104-P3.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:33:31 AM





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E-001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L-867B BASE.
6. CONNECT TO EXISTING L-867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 4

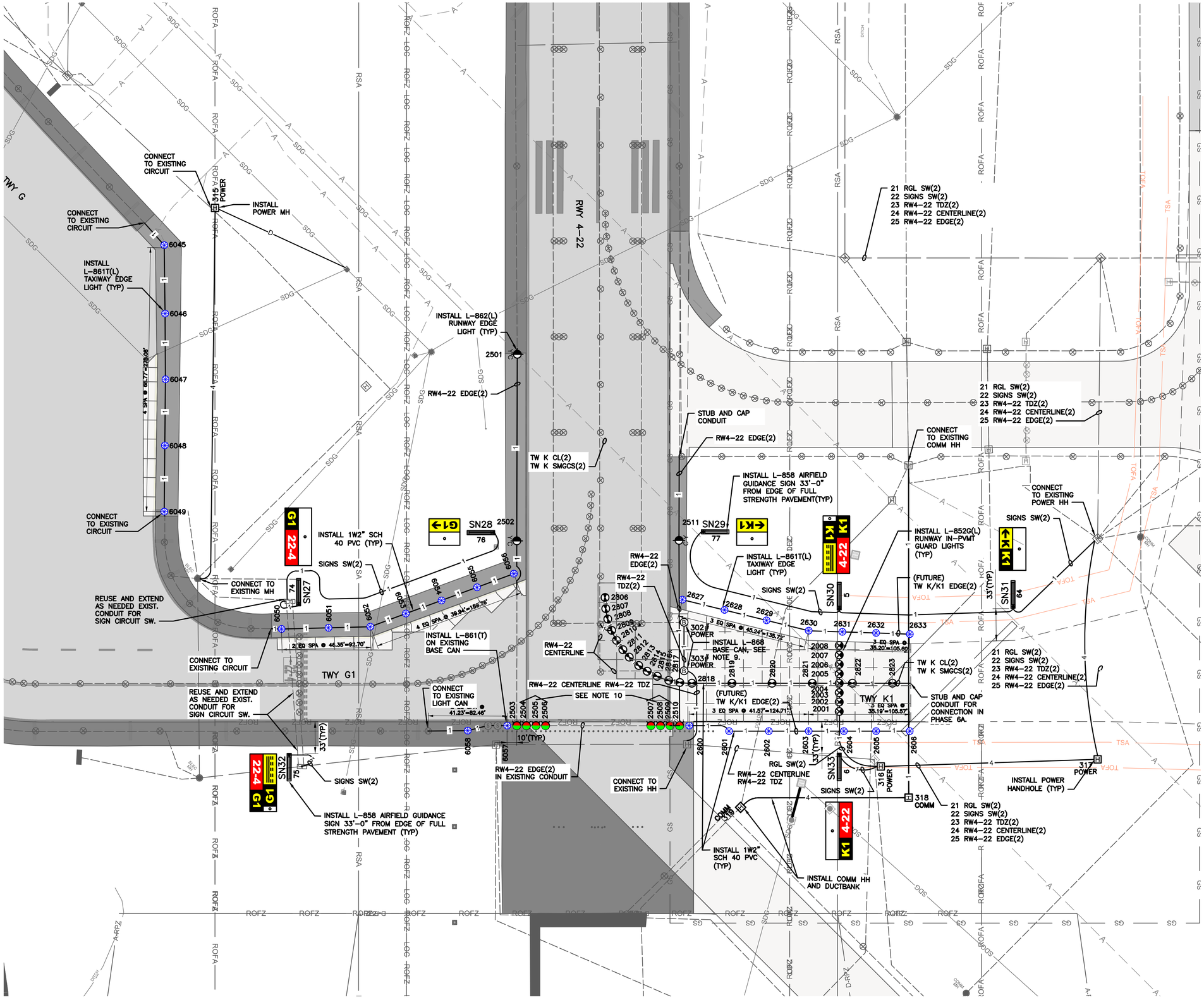
THIS DOCUMENT, AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, IS THE PROPERTY OF JACOBS AND IS NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF JACOBS.
REUSE OF DOCUMENTS:

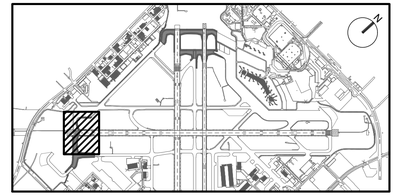
PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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:	EL105-P4
of	

FILENAME: H22C770A-EL105-P4.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:42:34 AM





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E-001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L-867B BASE.
6. CONNECT TO EXISTING L-867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).
9. CONTRACTOR SHALL FIELD LOCATE EXISTING CONDUIT AND INTERCEPT FOR ACCESS TO RUNWAY CIRCUITS. STRUCTURES 302 AND 303 MUST BE PLACED TO INTERCEPT THE EXISTING RUNWAY TOUCHDOWN ZONE AND CENTERLINE LIGHTING CONDUITS RESPECTIVELY. STRUCTURE COORDINATES ARE PROVIDED FOR THIS EFFORT ON EL511, BUT SHOULD BE FIELD VERIFIED AND SUPERSEDED AS NEEDED TO CONNECT THE CONDUIT.. CONTRACTOR SHALL ENSURE ELEVATION OF BASECAN MATCHES FINAL FINISHED PAVEMENT GRADE.
10. LIGHTS 2504 TO 2509 WILL BE INSTALLED ON NEW BASE CANS CORED INTO EXISTING EXISTING PAVEMENT.

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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:

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 5

PROJECT MGR:	
DESIGNER:	N. DERES
DRAWN BY:	K. ALMOND
CHECKED BY:	
SCALE:	AS SHOWN
DATE:	02/24/2023

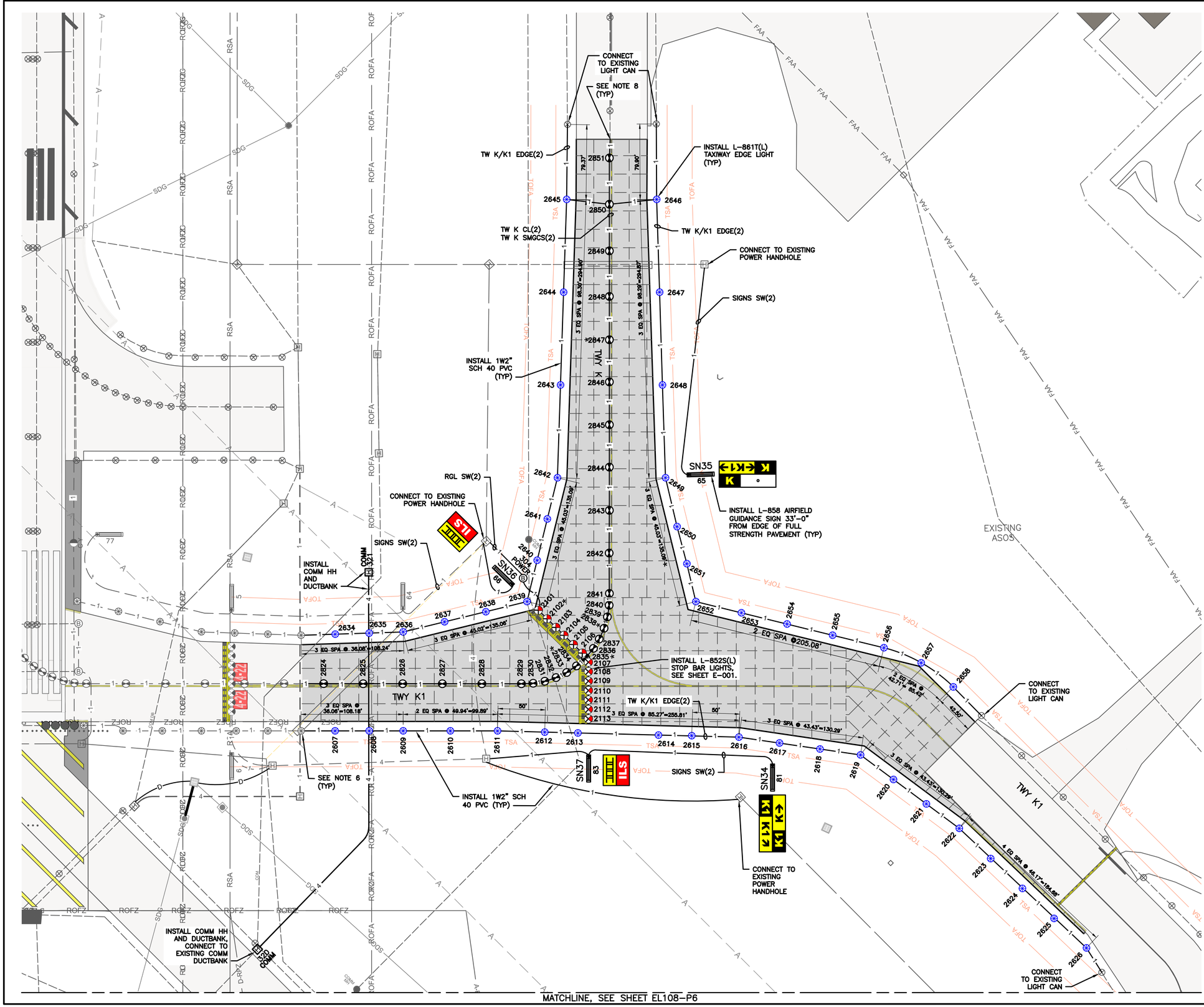
STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

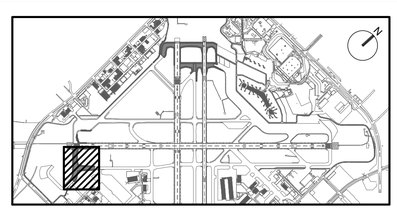
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL106-P5
of

FILENAME: H22C770A-EL106-P5.DWG PLOT DATE: 2023/02/17 PLOT TIME: 11:49:51 AM





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E-001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L-867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L-867B BASE.
6. CONNECT TO EXISTING L-867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 6A

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

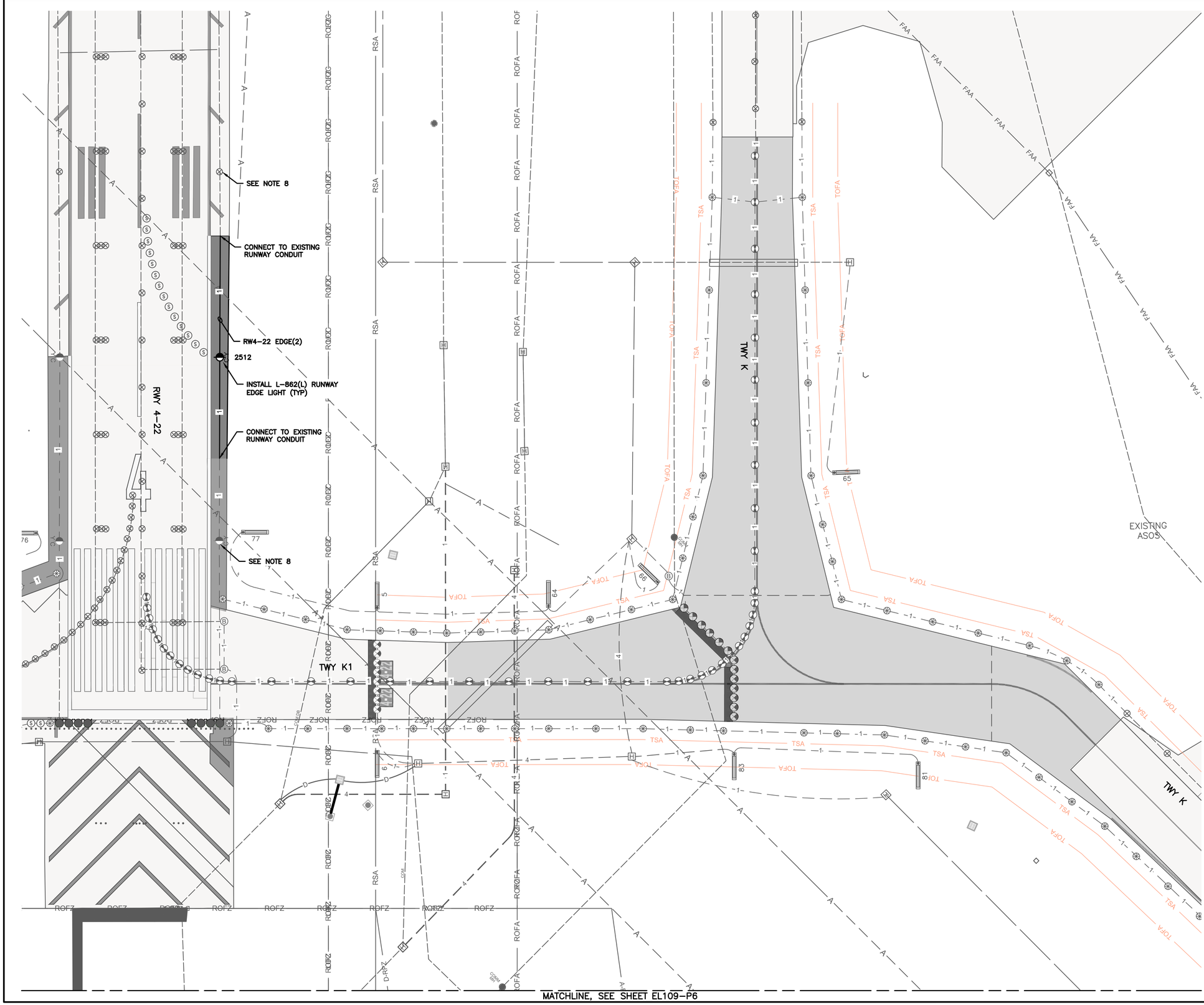
PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

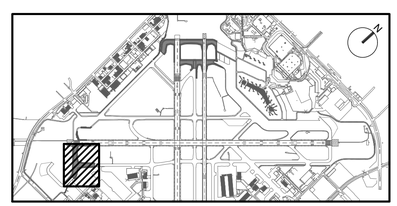
STATE OF TEXAS
JAMES A. McDONALD
119579
REGISTERED PROFESSIONAL ENGINEER
2.24.23

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: EL107-P6
of





KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E–001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L–867B BASE.
6. CONNECT TO EXISTING L–867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 6B

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
2.24.23

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: EL108–P6
of

MATCHLINE, SEE SHEET EL108–P6

INSTALL L–861T TAXIWAY EDGE LIGHT (TYP)

INSTALL 1W2" SCH 40 PVC (TYP)

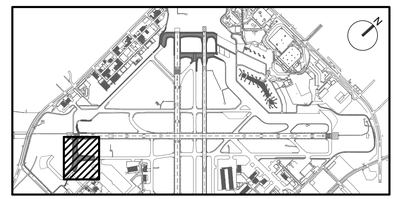
TW K/K1 EDGE(2)

2859

2860

2861

CONNECT TO EXISTING BASE CAN



KEY MAP
NTS

NOTES:

1. FOR AIRFIELD ELECTRICAL LEGEND, SEE SHEET E–001.
2. FOR REPANELING SIGN TABLE, SEE SHEET EL501.
3. CONTRACTOR TO INSTALL CURVED FACE, LED AIRFIELD SIGNS, SIZE 2. NEW SIGNS SHALL HAVE POWER LEG WHERE CABLES ENTER SIGN, EXTERNAL ON/OFF SWITCH AND SIGN NUMBER AFFIXED TO SHORT END OF SIGN FACING TAXIWAY.
4. IF A SIGN BEING REMOVED IN DEMOLITION IS PART OF A 'PASS THROUGH' FOR THE CIRCUIT, THE CONTRACTOR SHALL INSTALL A NEW L–867 JUNCTION CAN IN ITS PLACE AND REPLACE THE CIRCUIT BACK TO THE NEAREST JUNCTION POINT ON EITHER SIDE OF THE JUNCTION CAN.
5. EXTEND EXISTING CONDUIT INTO NEW L–867B BASE.
6. CONNECT TO EXISTING L–867 BASE CAN.
7. CONTRACTOR SHALL ENLIST MANUFACTURERS OF EXISTING AIRFIELD LIGHTING CONTROL AND MONITORING SYSTEM (ALCMS) TO PERFORM GRAPHICAL CHANGES AS REQUIRED. SEE SPECIFICATIONS FOR DETAILS.
8. CONTRACTOR SHALL CONNECT CIRCUIT IN CLOSEST EXISTING BASECAN TO REMAIN (TYP).

GRAPHIC SCALE
50' 0 50' 150'
SCALE: 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL LIGHTING & SIGNAGE PLAN – PHASE 6B

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:

PROJECT MGR:
DESIGNER: N. DERES
DRAWN BY: K. ALMOND
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: EL109–P6
of

FILENAME: H22C770A–EL108–109–P6.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:01:24 PM

SIGN TABLE

SIGN ID	SIGN LEGEND SIDE A	SIGN LEGEND SIDE B	SIGN TYPE SIDE A	SIGN TYPE SIDE B	MODULES	ISOLATION TRANSFORMER SIZE	ARROW ORIENTATION	COMMENTS	REPURPOSED HOU SIGN #	SHEET REFERENCE	NORTHING	EASTING
SN01	G 13R-31L	∘	L/R	X	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	105	EL102–P2	13,804,584.720	3,148,308.767
SN02	∘ E	31L-13R E	X/L/Y	R/L	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	110	EL102–P2	13,804,958.596	3,148,646.817
SN03	E 13L-31R	∘	L/R	X	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	111	EL104–P3	13,805,251.375	3,148,912.188
SN04	∘ E	31R-13L E	X/L/Y	R/L	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	192	EL104–P3	13,805,477.067	3,149,115.864
SN05		ILS	R	Y	2	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	104	EL103–P2	13,803,610.959	3,148,728.338
SN06	∘ G	13R-31L G	X/L/Y	R/L	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	106	EL102–P2	13,804,470.799	3,148,434.926
SN07	←G	∘	Y	X	1	100W	270° LT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	107	EL102–P2	13,804,546.746	3,148,565.415
SN08	∘	E→	X	Y	1	100W	90°RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	108	EL102–P2	13,804,706.838	3,148,710.262
SN09	E 31L-13R	∘	L/R	X	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	109	EL102–P2	13,804,858.173	3,148,757.855
SN10	∘ E	13L-31R E	X/L/Y	R/L	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	200	EL104–P3	13,805,138.818	3,149,036.638
SN11	←E	∘	Y	X	1	100W	270° LT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	112	EL104–P3	13,805,121.631	3,149,152.533
SN12	∘	E→	X	Y	1	100W	90° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	190	EL104–P3	13,805,250.314	3,149,269.698
SN13	E 31R-13L	∘	L/R	X	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	191	EL104–P3	13,805,364.301	3,149,240.600
SN14	∘ D	31L-13R D	X/L/Y	R/L	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	114	EL103–P2	13,804,556.328	3,149,091.997
SN15	D M→	∘	L/Y	X	2	100W	90° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	113	EL101–P1	13,804,652.495	3,149,178.975
SN16	D 13L-31R	D ∘	L/R	R/L/Y	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	118	EL101–P1	13,804,849.334	3,149,357.003
SN17	∘ D	31R-13L D	X/L/Y	R/L	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	189	EL101–P1	13,805,074.760	3,149,560.892
SN18	∘	D→	X	Y	1	100W	90° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	119	EL103–P2	13,804,308.277	3,149,153.097
SN19	D 31L-13R	D ∘	L/R	Y/L/X	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	116	EL103–P2	13,804,455.818	3,149,202.948
SN20	M ←D→	M M1↗	L/Y	L/Y	3	100W	270°LT:90°RT/45°RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	100	EL101–P1	13,804,523.010	3,149,374.835
SN21	∘ ←M D	D 13L-31R	X/Y/L	R/L	4	100W	270° LT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	187	EL101–P1	13,804,734.118	3,149,485.189
SN22	←D	∘	Y	X	1	100W	270° LT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	186	EL101–P1	13,804,726.768	3,149,583.584
SN23	∘	D→	X	Y	1	100W	90° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	185	EL101–P1	13,804,866.735	3,149,710.023
SN24	D 31R-13L	∘	L/R	X	4	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	188	EL101–P1	13,804,961.977	3,149,685.702
SN25		ILS	Y	R	2	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	115	EL101–P1	13,804,404.919	3,149,414.947
SN26	ILS		R	Y	2	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	54	EL101–P1	13,804,327.681	3,149,600.610
SN27	G1 22-4	∘	L/R	X	3	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	74	EL106–P5	13,800,753.367	3,148,548.044
SN28	∘	G1→	X	Y	2	100W	90° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	76	EL106–P5	13,800,672.715	3,148,751.116
SN29	←K1	∘	Y	X	2	100W	270° LT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	77	EL106–P5	13,800,528.478	3,148,911.893
SN30	K1	4-22 K1	X/L/Y	R/L	3	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	5	EL106–P5	13,800,371.702	3,148,963.945
SN31	←K K1	∘	Y/L	X	2	100W	270° LT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	64	EL107–P6	13,800,251.178	3,149,099.626
SN32	G1	22-4 G1	X/L/Y	R/L	3	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	75	EL106–P5	13,800,645.719	3,148,437.446
SN33	K1 4-22	∘	L/R	X	3	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	6	EL107–P6	13,800,260.678	3,148,863.511
SN34	K1 K→	K1 K1↗	L/Y	L/Y	3	100W	90° LT : 45° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	81	EL107–P6	13,799,867.269	3,149,280.447
SN35	K ←K1→	K ∘	L/Y	L/X	3	100W	270° LT : 90° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	65	EL107–P6	13,800,155.061	3,149,418.718
SN36	ILS		R	Y	2	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	80	EL107–P6	13,800,192.023	3,149,203.532
SN37	ILS		R	Y	2	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	83	EL107–P6	13,800,005.052	3,149,142.372
SN38	M1 ↖M↘	M1 ∘	L/Y	L/X	3	100W	315° LT : 135° RT	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	100	EL101–P1	13,804,292.452	3,149,424.579
SN39	⊖	∘	R	X	1	100W	–	AIRFIELD SIGN, LED, SIZE 2, STYLE 5	103	EL101–P1	13,804,670.259	3,149,192.345

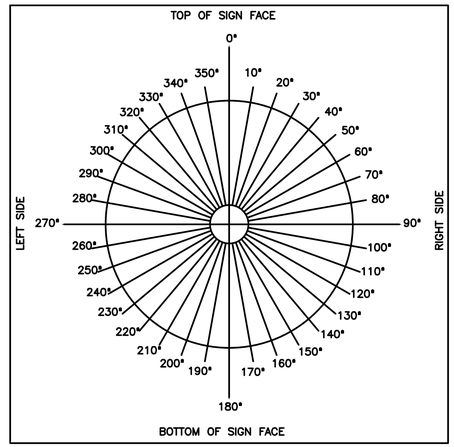
1 NEW SIGN TABLE
NTS

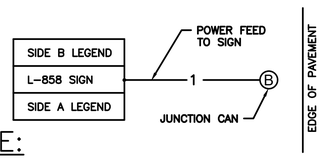
SIGN TABLE NOTES:

1. ALL SIGNS SHALL CONFORM TO FAA AC 150/5345–44K.
   A. STYLE 5 – 1 STEP, 5.5A
   B. CLASS 1
   C. MODE 2
2. ALL SIGNS SHALL BE INTERNALLY LIGHTED LED SIGNS.
3. THE SIDE A LEGEND REFERS TO A SIGN FACE ON THE LEFT SIDE OF THE SIGN CABINET WHEN VIEWED FROM THE ASSOCIATED RUNWAY OR TAXIWAY CENTERLINE.
4. LAYOUT OF SIGN LEGENDS BY MANUFACTURER SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
5. ALL LOCATIONS ARE SUBJECT TO FIELD VERIFICATION BY THE CONTRACTOR AND APPROVAL BY THE ENGINEER.
6. ALL SIGN FACES SHALL BE RETRO–REFLECTIVE.
7. SIGNS SHALL BE ORDERED WITH ONE TETHER PER LEG,
8. SEE SHEET EL505 FOR SIGN DETAILS.
9. SEE SPECIFICATION L–125 FOR ADDITIONAL SIGN REQUIREMENTS.

SIGN TABLE LEGEND:

Y INFORMATION SIGN – BLACK CHARACTERS ON A YELLOW BACKGROUND.
R MANDATORY SIGN – WHITE CHARACTERS ON A RED BACKGROUND.
L LOCATION SIGN – YELLOW CHARACTERS ON A BLACK BACKGROUND.
X BLANK PANEL





NOTE:
1. SEE SHEET EL505, DETAIL 3 FOR AIRFIELD SIGN REFERENCE POINT.

2 SIGN LEGEND DETAIL
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

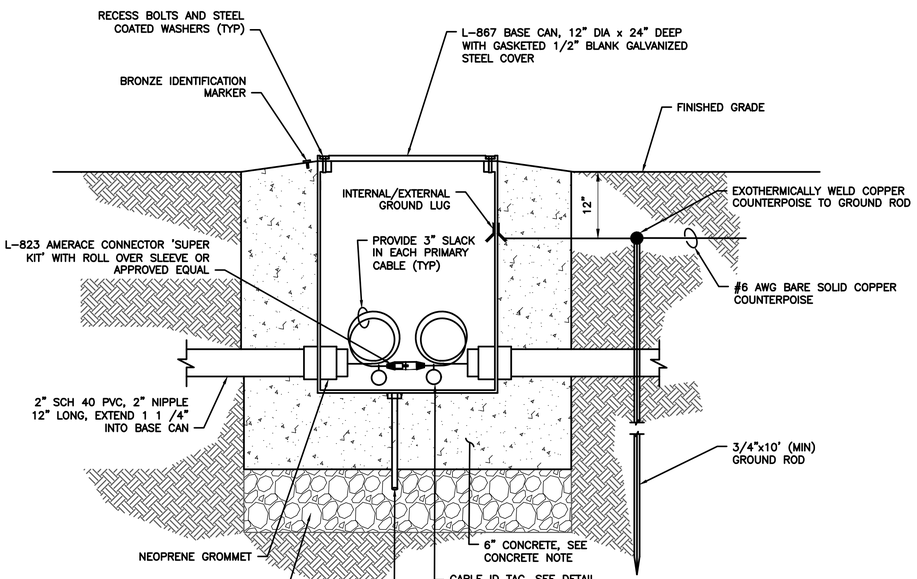
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

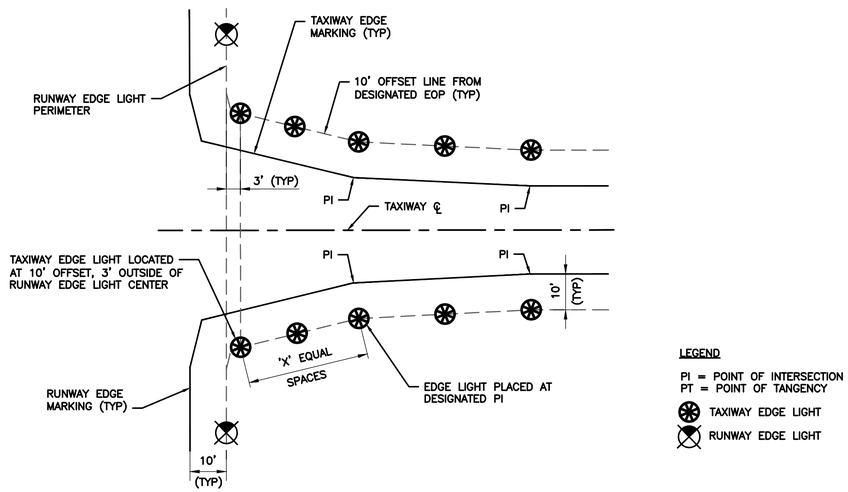
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3–48–0110–044
H.A.S. NO: N/A
SHEET NO: EL501
of



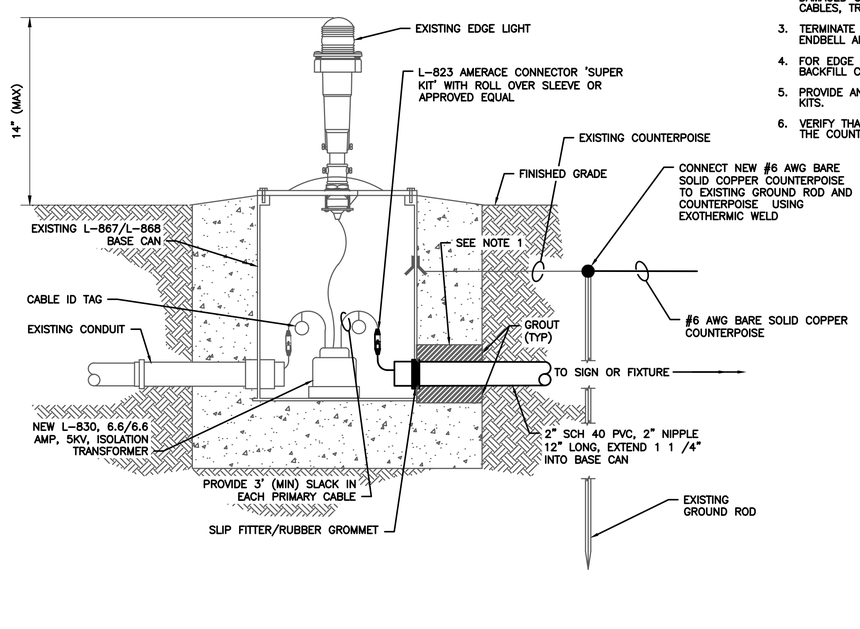
1 L-867 JUNCTION BOX DETAIL
NTS



2 TYPICAL TAXIWAY EDGE LIGHTING AT RUNWAY INTERSECTION
NTS

CONCRETE NOTE:
CONCRETE FOR BACKFILL, SIGN PADS AND BASE CANS IN THE RUNWAY/TAXIWAY SAFETY AREAS, IN EXISTING PAVEMENT OR IN AREAS OTHERWISE INDICATED IN THE DETAILS AND DRAWINGS SHALL CONFORM TO THE REQUIREMENTS OF FAA SPECIFICATION P-610. A CONCRETE MIX DESIGN SHALL BE SUBMITTED AND APPROVED BEFORE COMMENCEMENT OF WORK.

NOTES:
1. USE CORE DRILL TO PENETRATE BASE CAN ANCHOR.
2. USE HOLE SAW TO CUT HOLE IN BASE CAN. REPAIR DAMAGED GALVANIZED SURFACES. PROTECT EXISTING CABLES, TRANSFORMERS, ETC FROM DAMAGE.
3. TERMINATE CONDUIT IN BASE CAN UTILIZING AN ENDBELL AND SLIP FITTER/RUBBER GROMMET.
4. FOR EDGE LIGHT LOCATED IN SHOULDER PAVEMENT, BACKFILL CONDUIT TRENCH WITH P-610.
5. PROVIDE AND INSTALL TRANSFORMER AND CONNECTOR KITS.
6. VERIFY THAT EXISTING LIGHT BASE CAN IS BONDED TO THE COUNTERPOISE SYSTEM.

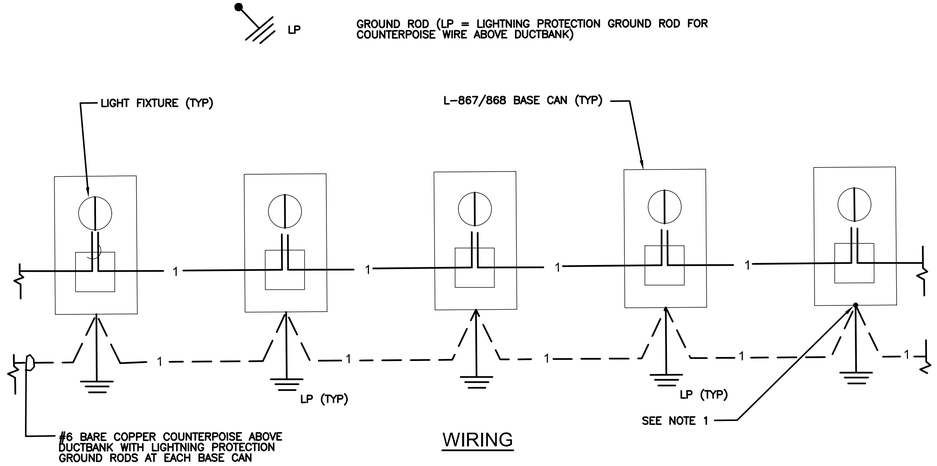


3 EXTENDING DUCT/CONDUIT FROM EXISTING L-867 BASE CAN
NTS

LEGEND:
1 — 1 #8 AWG, 5KV, PER CIRCUIT. EDGE LIGHTING CABLES, CONTINUES FOR LENGTH OF CIRCUIT (TYP)

1 — 1 #6 BARE COPPER COUNTERPOISE WIRE ABOVE DUCTBANK WITH LIGHTNING PROTECTION GROUND RODS AT EACH BASE CAN

LP — GROUND ROD (LP = LIGHTNING PROTECTION GROUND ROD FOR COUNTERPOISE WIRE ABOVE DUCTBANK)



WIRING

NOTE:
1. BOND EACH BASE CAN TO COUNTERPOISE CABLE/GUARD WIRE VIA EXTERNAL GROUND LUG. THIS APPLIES TO ALL BASE CANS,

4 LIGHTING CONDUIT/WIRING CONFIGURATION
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

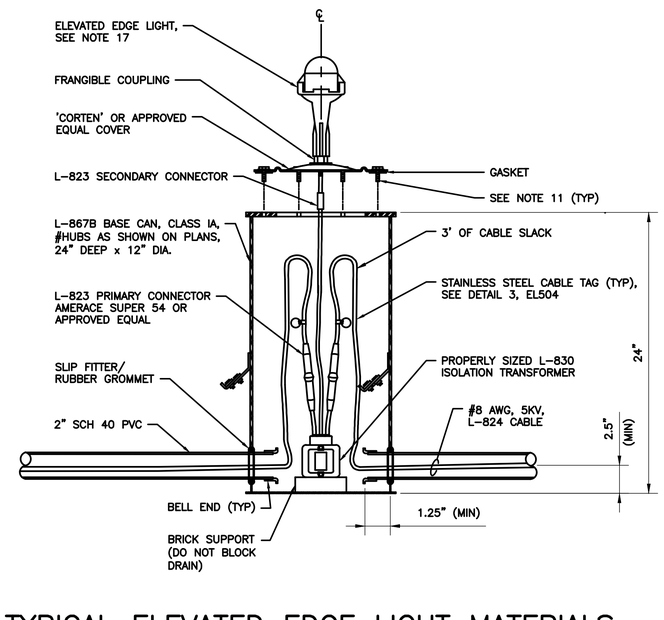
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

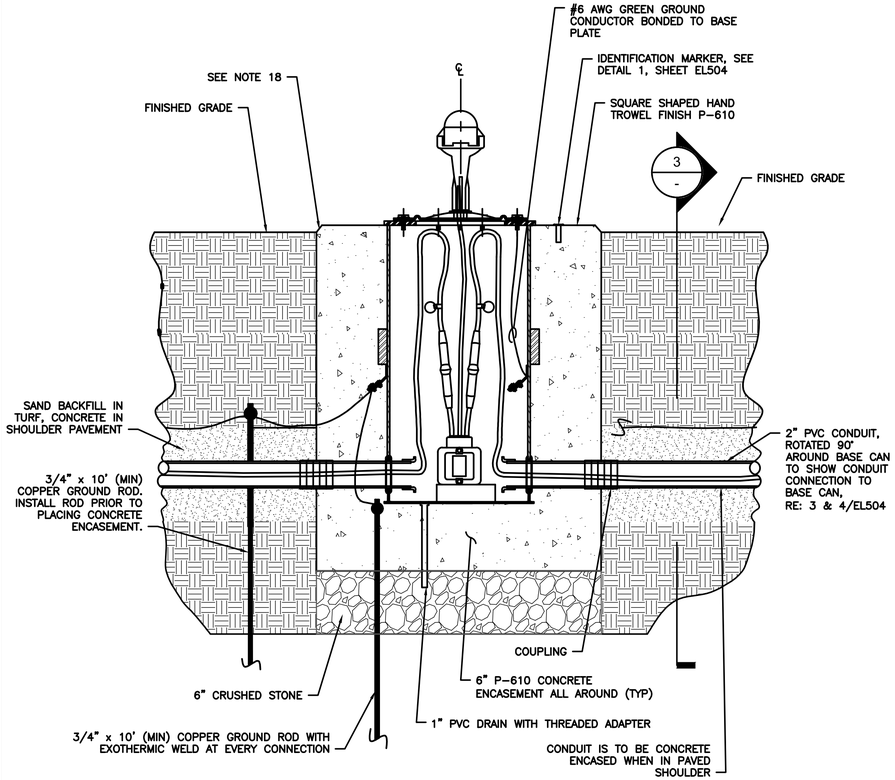
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL502
of



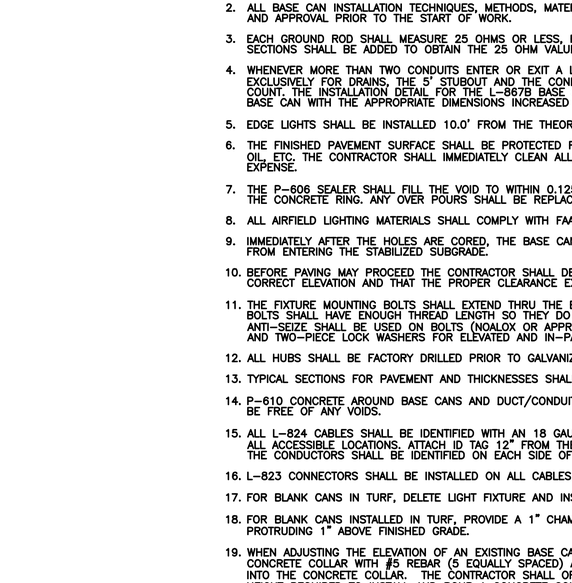
1 TYPICAL ELEVATED EDGE LIGHT MATERIALS
NTS



2 ELEVATED EDGE LIGHT INSTALLED IN TURF
NTS

ELEVATED FIXTURE NOTES:

1. THE ELEVATED EDGE LIGHTS SHALL BE 14" HIGH UNLESS NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
2. ALL BASE CAN INSTALLATION TECHNIQUES, METHODS, MATERIALS, ETC., SHALL BE SUBMITTED TO THE RESIDENT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
3. EACH GROUND ROD SHALL MEASURE 25 OHMS OR LESS, PRIOR TO CONNECTION TO THE GROUND SYSTEM. ADDITIONAL GROUND ROD SECTIONS SHALL BE ADDED TO OBTAIN THE 25 OHM VALUE.
4. WHENEVER MORE THAN TWO CONDUITS ENTER OR EXIT A L-867B BASE CAN, A L-867D BASE CAN SHALL BE USED. CONDUITS USED EXCLUSIVELY FOR DRAINS, THE 5' STUBOUT AND THE CONDUIT FROM THE L-867B BASE TO THE SIGN SHALL BE EXCLUDED FROM THE COUNT. THE INSTALLATION DETAIL FOR THE L-867B BASE CAN SHALL BE USED AS A GUIDE FOR THE INSTALLATION OF THE L-867D BASE CAN WITH THE APPROPRIATE DIMENSIONS INCREASED TO ACCOMMODATE THE LARGER BASE CAN.
5. EDGE LIGHTS SHALL BE INSTALLED 10.0' FROM THE THEORETICAL EDGE OF THE FULL STRENGTH PAVEMENT.
6. THE FINISHED PAVEMENT SURFACE SHALL BE PROTECTED FROM FOREIGN SUBSTANCES WHICH COULD CAUSE STAINING, IE. CONCRETE, OIL, ETC. THE CONTRACTOR SHALL IMMEDIATELY CLEAN ALL SPILLS AND CORRECT/CLEAN ANY STAINED SURFACES AT THE CONTRACTOR'S EXPENSE.
7. THE P-606 SEALER SHALL FILL THE VOID TO WITHIN 0.125" OF THE TOP EDGE OF THE CONCRETE RING AT THE LOWEST POINT OF THE CONCRETE RING. ANY OVER POURS SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
8. ALL AIRFIELD LIGHTING MATERIALS SHALL COMPLY WITH FAA SPECIFICATIONS AND REQUIREMENTS.
9. IMMEDIATELY AFTER THE HOLES ARE CORED, THE BASE CANS SHALL BE INSTALLED AND THE P-610 PLACED SO AS TO PREVENT WATER FROM ENTERING THE STABILIZED SUBGRADE.
10. BEFORE PAVING MAY PROCEED THE CONTRACTOR SHALL DEMONSTRATE TO THE RESIDENT ENGINEER THAT THE BASE CANS ARE AT THE CORRECT ELEVATION AND THAT THE PROPER CLEARANCE EXISTS BETWEEN THE BASE CAN AND THE PAVING TRAIN.
11. THE FIXTURE MOUNTING BOLTS SHALL EXTEND THRU THE BASE CAN MOUNTING FLANGE INTO THE BASE CAN A MIN. OF 0.5". THE BOLTS SHALL HAVE ENOUGH THREAD LENGTH SO THEY DO NOT SHOULDER OUT BEFORE THE FIXTURE IS SECURELY TIGHTENED. ANTI-SEIZE SHALL BE USED ON BOLTS (NOALOX OR APPROVED EQUAL). CONTRACTOR SHALL PROVIDE STAINLESS STEEL HARDWARE AND TWO-PIECE LOCK WASHERS FOR ELEVATED AND IN-PAVEMENT FIXTURES.
12. ALL HUBS SHALL BE FACTORY DRILLED PRIOR TO GALVANIZING.
13. TYPICAL SECTIONS FOR PAVEMENT AND THICKNESSES SHALL BE PER CIVIL PLANS.
14. P-610 CONCRETE AROUND BASE CANS AND DUCT/CONDUIT SHALL BE COMPLETELY CONSOLIDATED BY MECHANICAL MEANS AND SHALL BE FREE OF ANY VOIDS.
15. ALL L-824 CABLES SHALL BE IDENTIFIED WITH AN 18 GAUGE STAINLESS STEEL TAG WITH ITS RESPECTIVE CIRCUIT/LOOP NUMBER AT ALL ACCESSIBLE LOCATIONS. ATTACH ID TAG 12" FROM THE L-823 CONNECTORS OR MID LOOP, IF NO CONNECTORS ARE REQUIRED. THE CONDUCTORS SHALL BE IDENTIFIED ON EACH SIDE OF THE CONNECTORS OR LOOP.
16. L-823 CONNECTORS SHALL BE INSTALLED ON ALL CABLES, IN EACH MANHOLE, BASE CAN, OR OTHER ACCESSIBLE LOCATIONS.
17. FOR BLANK CANS IN TURF, DELETE LIGHT FIXTURE AND INSTALL 3/8" STEEL COVER.
18. FOR BLANK CANS INSTALLED IN TURF, PROVIDE A 1" CHAMFER ON THE EDGE OF THE CONCRETE COLLAR WITH THE CONCRETE COLLAR PROTRUDING 1" ABOVE FINISHED GRADE.
19. WHEN ADJUSTING THE ELEVATION OF AN EXISTING BASE CAN IN TURF, CONTRACTOR SHALL DOWEL THE TOP OF THE EXISTING CONCRETE COLLAR WITH #5 REBAR (5 EQUALLY SPACED) AND EPOXY THE REBAR TO THE CONCRETE COLLAR TO EXTEND 10" MINIMUM INTO THE CONCRETE COLLAR. THE CONTRACTOR SHALL ORDER A BASE CAN SPACER RING AND/OR BASE CAN EXTENSION TO THE HEIGHT REQUIRED TO INSTALL AND POUR A CONCRETE COLLAR EXTENSION TO THE PROPOSED NEW FINISHED GRADE (SEE NOTE 18). THE NEW CONCRETE COLLAR AROUND THE NEW SPACER RING AND/OR EXTENSION RING SHALL BE THE SAME DIMENSIONS AS THE EXISTING COLLAR. CONTRACTOR SHALL PROVIDE A MINIMUM OF 1" COVER FROM THE TOP OF THE VERTICAL REBAR TO THE TOP OF THE NEW CONCRETE COLLAR EXTENSION.



3 CONDUIT SECTION A
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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.

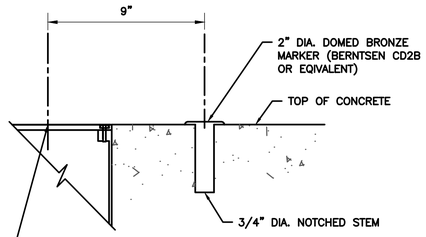
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

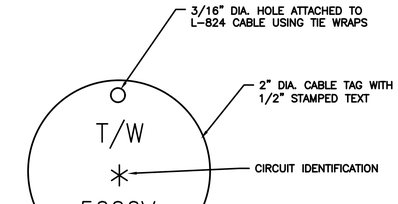
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL503
of



NOTES FOR IDENTIFICATION MARKER:

1. IDENTIFICATION SHALL BE STAMPED USING 1/4" FIGURES AND LETTERS UNIFORMLY SPACED ON THE BRONZE MARKER.
2. IDENTIFICATION MARKERS SHALL BE UNIFORMLY INSTALLED ADJACENT TO TAXIWAY AND RUNWAY ELEVATED EDGE LIGHTS. PREFERRED LOCATION IS ON A LINE PERPENDICULAR TO RUNWAY OR TAXIWAY CENTERLINE, INBOARD OF LIGHT FIXTURE.

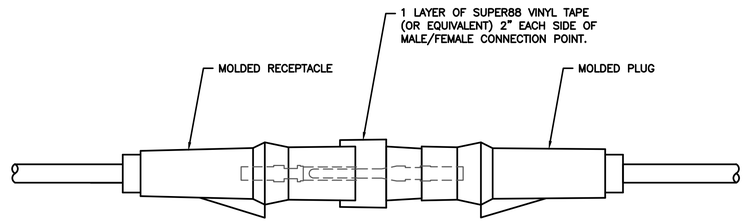
1 BASE CAN IDENTIFICATION MARKER
NTS



NOTES:

1. ENGRAVE EACH TAG WITH THE CIRCUIT ID AS ORDERED BY THE ENGINEER.
2. ATTACH EACH TAG WITH A #16 BRASS JACK CHAIN.

3 STAINLESS STEEL CABLE ID TAG
NTS



SPLICE KIT SPECIFICATIONS:

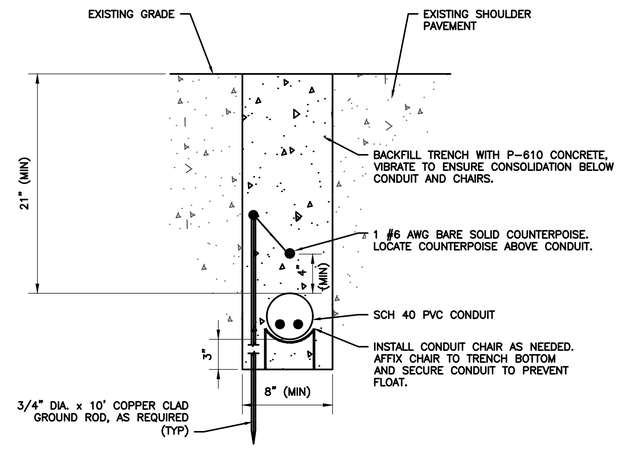
1. WORKERS PERFORMING SPLICING WORK MUST BE TRAINED AND CERTIFIED BY THE CONNECTOR KIT MANUFACTURER TO POSSES THE PROPER SPLICING ABILITIES. CERTIFICATION DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER.
2. VERIFY THAT ALL SPLICERS DISPLAY A VISIBLE BADGE TO INDICATE SPLICING CERTIFICATION AND HAVE AT LEAST THREE YEARS OF HIGH VOLTAGE SPLICING EXPERIENCE AND HAVE BEEN TRAINED BY THE KIT MANUFACTURER.
3. CONNECTORS SHALL BE PLUG AND RECEPTACLE TYPE IN ACCORDANCE WITH FAA SPECIFICATIONS, AND SHALL BE APPLIED IN ACCORDANCE WITH SERIES LIGHTING CABLE MANUFACTURER INSTRUCTIONS.

NOTE: CONNECTOR SHALL BE PLUG AND RECEPTACLE TYPE, AMERACE 54 SUPER SERIES, INTEGRO KIT, OR APPROVED EQUAL, IN ACCORDANCE WITH FAA SPECIFICATION. SUBMIT CATALOG CUT SHEET AND PRODUCT SAMPLE FOR APPROVAL AND TESTING. CONNECTOR KIT SHALL BE APPLIED IN ACCORDANCE WITH SERIES LIGHTING CABLE MANUFACTURERS WRITTEN INSTRUCTIONS. ACTUAL OUTSIDE DIAMETER (OVER JACKET) OF SERIES LIGHTING CABLE SHALL BE USED TO DETERMINE CONNECTOR KIT SIZE REQUIREMENT.

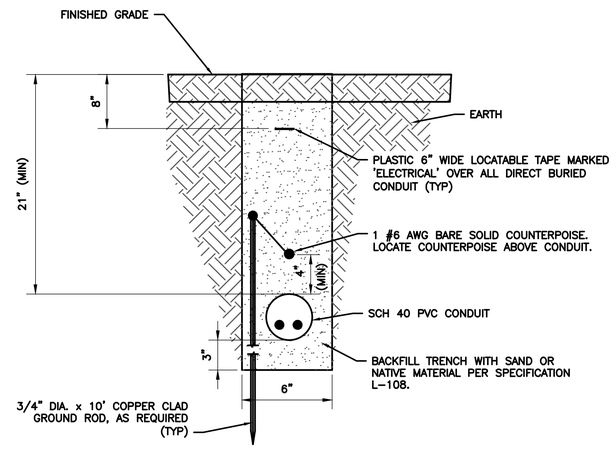
CABLE DIAMETER MIN.	CABLE DIAMETER MAX.	AMERACE SIZE SYMBOL	AMERACE SIZE NUMBER
0.320	0.430	D	54 SUPER-D4-D4

CABLE DIAMETER MIN.	CABLE DIAMETER MAX.	INTEGRO SIZE SYMBOL	INTEGRO SIZE NUMBER
0.320	0.430	11805-01 OR 11805-05	INTEGRO COMPLETE KIT

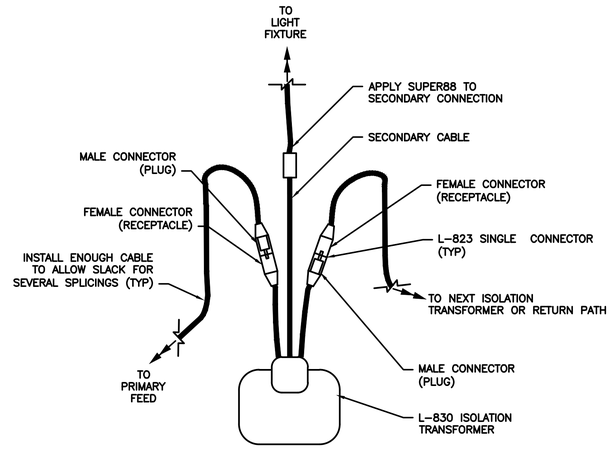
5 FOR SPLICING OF 1/C #8, 5KV SERIES CABLE VIA L-823 CONNECTOR KIT (TYP) (FOR LIGHTING BASES, HH AND MH)
NTS



2 TYPICAL CONDUIT INSTALLATION IN EXISTING SHOULDER PAVEMENT
NTS



4 TYPICAL CONDUIT INSTALLATION IN EARTH
NTS



NOTES:

1. INSTALL ISOLATION TRANSFORMER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE ISOLATION TRANSFORMER WITH L-823 COMPATIBLE WITH AMERACE SUPERKIT.

6 TYPICAL ISOLATION TRANSFORMER CONNECTION DETAIL
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

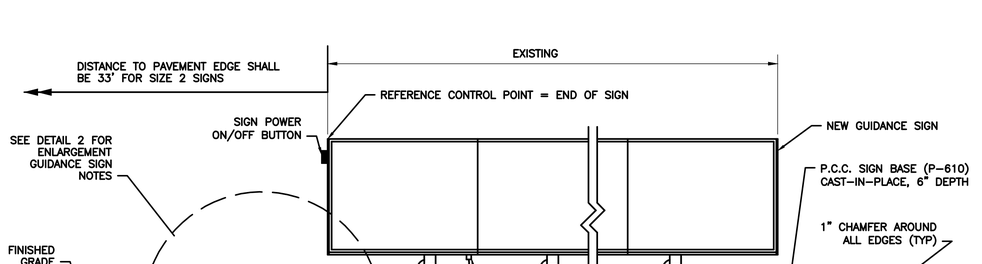
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

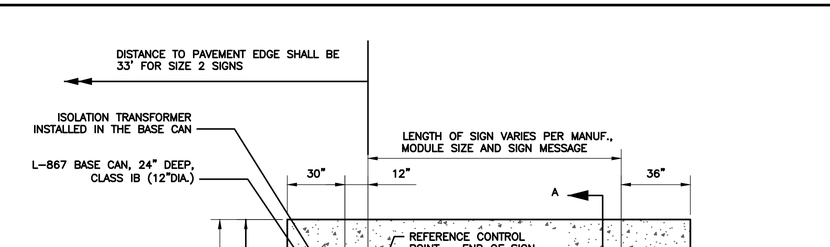
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

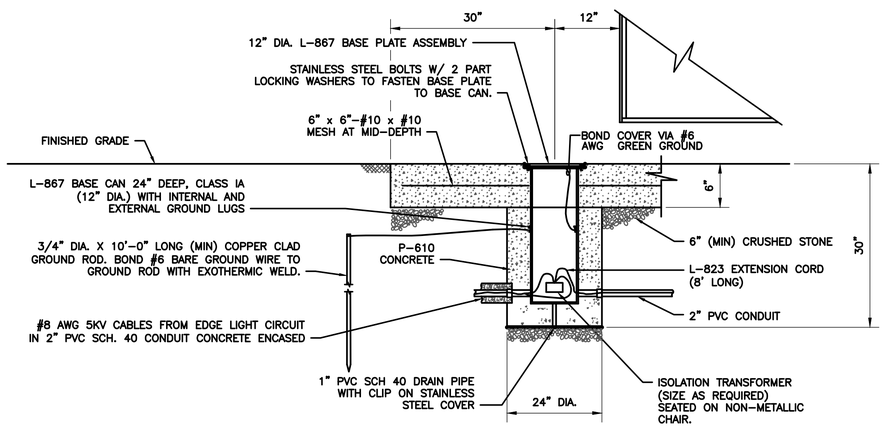
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL504
of



1 AIRFIELD GUIDANCE SIGN BASE PLAN–FRONT VIEW (UP TO 4 MODULES)
NTS



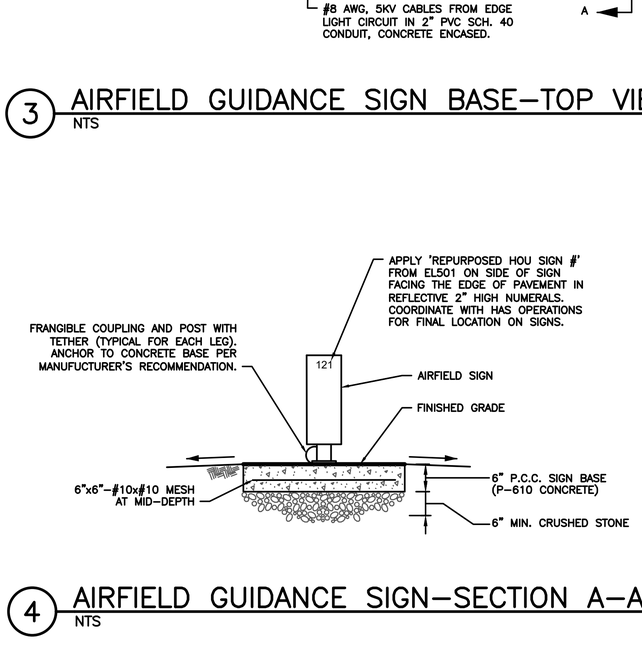
3 AIRFIELD GUIDANCE SIGN BASE–TOP VIEW
NTS



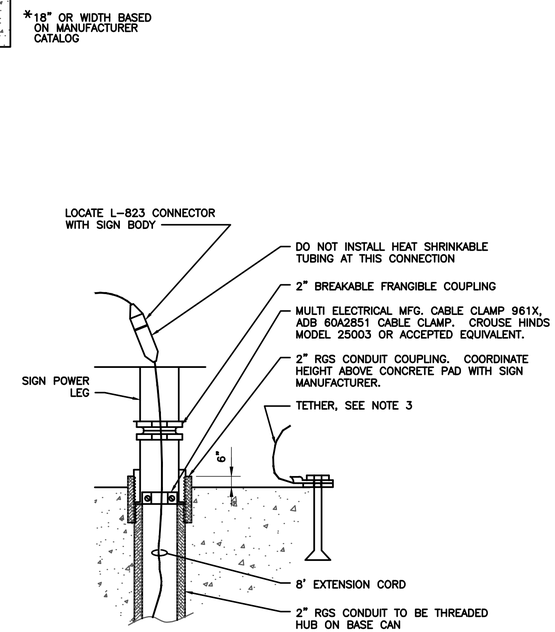
GUIDANCE SIGN NOTES

1. FINISHED GRADE AROUND FOUNDATION SHALL SLOPE TO DRAIN AWAY FROM SIGN.
2. PCC SIGN BASE SHALL HAVE A 28 DAY STRENGTH OF 4000 PSI.
3. CRUSHED AGGREGATE BASE COURSE SHALL BE COMPACTED TO 90% MAXIMUM DENSITY PER ASTM D 1557.
4. SIGNS SHALL BE ANCHORED TO CONCRETE BASE WITH BOLTS, NUTS, WASHERS AND CONCRETE ANCHORS. ALL MATERIAL SHALL BE MADE OF STAINLESS STEEL.
5. COORDINATE INSTALLATION WORK WITH THE SIGNS MANUFACTURER AND COMPLY WITH THEIR REQUIREMENTS AND RECOMMENDATIONS.
6. ALL SIGN LAMPS MUST BE CAPABLE OF BEING SERVICED WITHOUT THE USE OF TOOLS.
7. SOME SIGN MANUFACTURERS REQUIRE SEPARATE GROUNDING FOR THE SIGN ITSELF. REFER TO THE MANUFACTURER'S CATALOG.
8. POWER TO THE SIGN MUST BE PROVIDED THROUGH BREAKAWAY CABLE CONNECTORS INSTALLED AT THE L-867 SIGN JUNCTION CAN.
9. THERE MUST BE NO ABOVE GROUND ELECTRICAL CONNECTION BETWEEN SIGNS IN A SIGN ARRAY.
10. RUNWAY HOLD POSITION SIGNS MUST BE INSTALLED NO CLOSER TO THE RUNWAY THAN IN-LINE WITH THE OUTBOARD LINE OF THE HOLD POSITION MARKING, AND NO FURTHER THAN 10' FROM THAT MARKING.

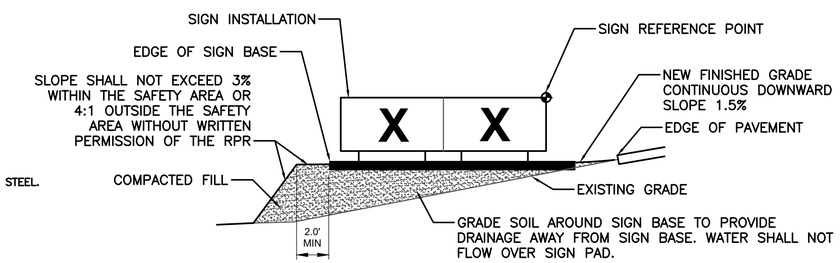
2 AIRFIELD GUIDANCE SIGN BASE PLAN – DETAIL A
NTS



4 AIRFIELD GUIDANCE SIGN–SECTION A–A
NTS



6 SIGN POWER LEG
NTS



NOTE:
EXCAVATION, GRADING, SITE PREPARATION, FILL, SOD, ETC. FOR SIGNS IS INCIDENTAL TO THE SIGN PAY ITEM.

5 GRADING AND FILL DETAIL
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

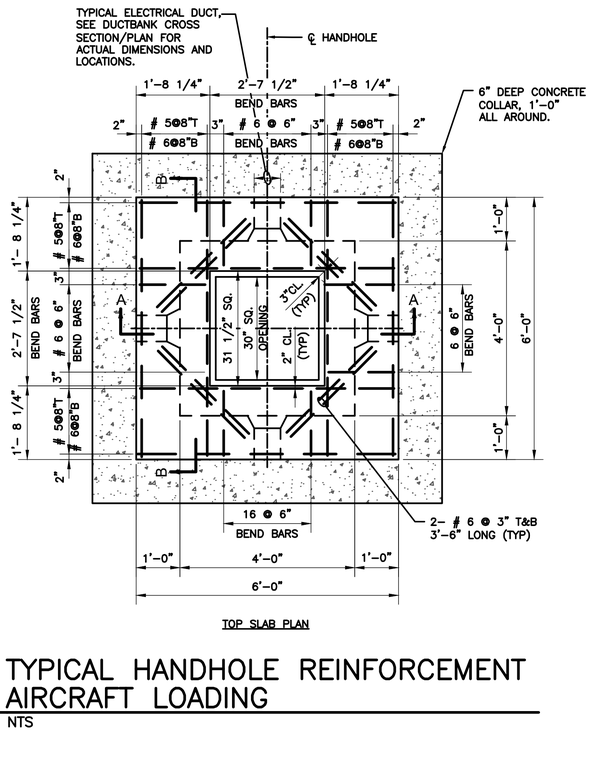
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

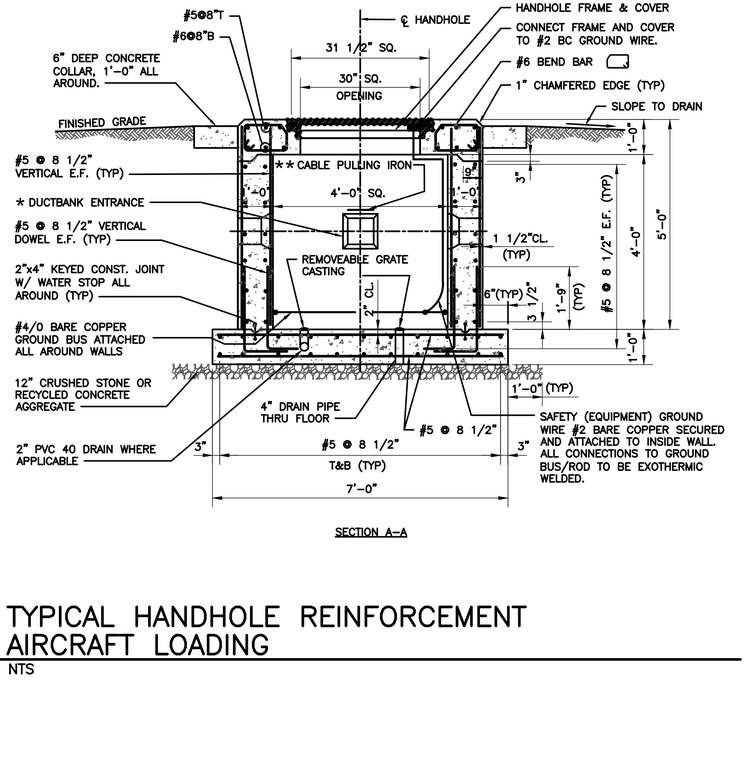
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL505
of



TOP SLAB PLAN

1 TYPICAL HANDHOLE REINFORCEMENT AIRCRAFT LOADING

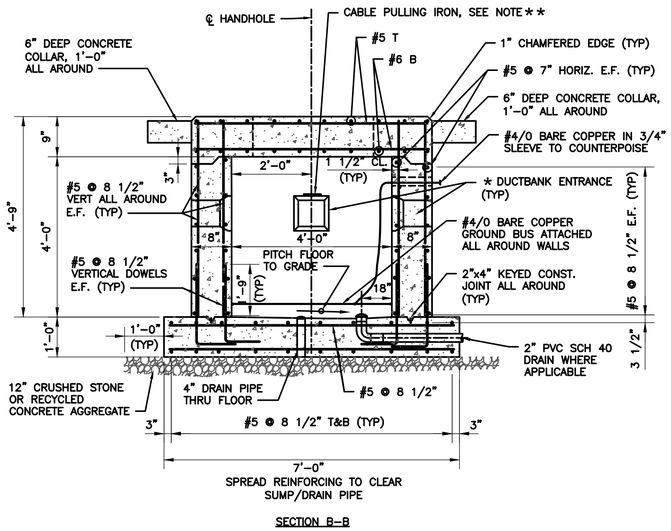
NTS



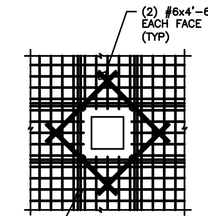
SECTION A–A

2 TYPICAL HANDHOLE REINFORCEMENT AIRCRAFT LOADING

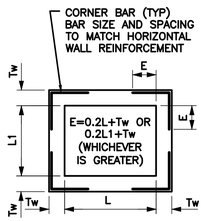
NTS



SECTION B–B



ADDITIONAL REINFORCEMENT AROUND DUCTBANK ENTRANCE FOR HS20 LOADING



** PLAN CORNER REINFORCEMENT FOR AIRCRAFT LOADING

3 TYPICAL HANDHOLE REINFORCEMENT AIRCRAFT LOADING

NTS

REFERENCE:

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 2002 THROUGH CURRENT INTERIMS.

LOADING:

LIVE LOAD HS20

DESIGN CRITERIA:

1. EXCEPT AS NOTED, MINIMUM COMPRESSIVE STRENGTH FOR ELECTRICAL MANHOLE AND HANDHOLE f'c=4,000 psi @ 28 DAYS.
2. REINFORCEMENT: fy=60,000 psi (ASTM A615).
3. IF SOIL BORING DATA ARE NOT AVAILABLE, ASSUME ALLOWABLE SOIL BEARING CAPACITY = 2 ksf.

ABBREVIATIONS:

AASHTO	–	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
A/E	–	A/E = ARCHITECT/ ENGINEER
B	–	BOTTOM
CED	–	COMMON ELECTRICAL DUCTBANK
CL	–	CLEARANCE
E.F	–	EACH FACE
E.W.	–	EACH WAY
f'c	–	COMPRESSIVE FORCE
FAA	–	FEDERAL AVIATION ADMINISTRATION
HH	–	HANDHOLE
MH	–	MANHOLE
N.T.S.	–	NOT TO SCALE
RSA	–	RUNWAY SAFETY AREA
SCH.	–	SCHEDULE
SQ	–	SQUARE
T	–	TOP
TSA	–	TAXIWAY SAFETY AREA
TYP	–	TYPICAL
W, L, H	–	WIDTH, LENGTH, HEIGHT

NOTES:

1. THE TYPICAL INSIDE CLEAR DIMENSIONS FOR HH AND MH SHALL BE AS FOLLOWS:
   HH: 4'W x 4'L X 4'H
   MH: 6'W x 8'L x 6'–6"H
2. STRUCTURES INCLUDED IN THIS PROJECT MUST BE ABLE TO SUPPORT AIRCRAFT LOADING (DEFINED AS 100,000 LBS).
3. IF THE CONTRACTOR OPTS TO USE PRECAST MANHOLES AND HANDHOLES, THE CONTRACTOR MUST SUBMIT STRUCTURAL DESIGN CALCULATIONS, SIGNED AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF TEXAS, TO VERIFY THAT THE STRUCTURES CAN SUPPORT THE ABOVE AIRCRAFT LOADING. THE CONTRACTOR MUST SUBMIT SHOP DRAWINGS DETAILING ALL CONNECTIONS AND INSERTS TO BE CAST IN THE STRUCTURE TO INCLUDE AMONG OTHERS, DRAIN PIPE, MH/HH FRAME AND COVER, GROUND ROD SLEEVE, PULL IRON, KNOCK–OUTS FOR DUCT BANKS, ETC.
3. MANHOLE/HANDHOLE FRAME AND COVER TO BE SQUARE, SPRING ASSIST, DUCTILE IRON, HINGED WITH A CLEAR OPENING OF 30" X 30". SPRING ASSIST MECHANISM MUST NOT OBSTRUCT THE OPENING. PROVIDE LID WITH ONE LIFT HANDLE AND TWO STAINLESS STEEL LOCKING BOLTS. THE FRAME MUST BE CAST INTO THE TOP SLAB WITHIN THE AIRCRAFT OPERATION AREA (AOA) USE 100,000 LB. RATED FRAME AND COVER LID WITH 2" HIGH LETTERS. SEE SPECIFICATION L–115 AND CONTRACT DRAWINGS FOR THE CAST LETTERING REQUIRED FOR EACH LID.
4. FOR CABLE SUPPORT RACK DETAIL AND NOTES, SEE SHEET EA–202.
5. TOP SLAB DIAGONAL BARS NOT SHOWN FOR CLARITY, FOR PLACEMENT, SEE TOP SLAB PLAN, DETAIL NO. 1.
6. FOR SPACING OF THE TOP SLAB REINFORCEMENT, SEE TOP SLAB PLAN, DETAIL NO. 1.
7. SUBGRADE BENEATH HANDHOLE FOOTING MUST BE PREPARED TO MEET A MINIMUM BEARING CAPACITY OF 2 KSF. CONTRACTOR TO VERIFY BEARING TO 3 FEET (MIN). COST OF VERIFYING AND PROVIDING THE REQUIRED MINIMUM BEARING IS INCIDENTAL TO AND INCLUDED IN THE PRICE OF THE HANDHOLE.
8. * ACTUAL SIZE, LOCATION AND NUMBER OF DUCTBANK ENTRANCE DEPENDS ON DESIGN REQUIREMENT. REFER TO DUCTBANK LAYOUT AND SECTIONS. MAXIMUM OPENING 2'–51#2"x2'–51#2" (9 WAY–4"O SCH. 40 PVC CONDUIT).
9. ** LOCATION OF PULLING IRON DEPENDS ON DUCTBANK LOCATIONS. IT MUST BE APPROXIMATELY LOCATED ALONG THE AXIS OF THE OPPOSITE DUCTBANK TO BE PULLED.
10. STRUCTURE GROUNDING SHALL MEET REQUIREMENTS SET FORTH IN FAA ORDER FAA–C–1391e, FIGURE 5.11.3–1.

4 GENERAL NOTES AND DESIGN ASSUMPTIONS FOR HH AND MH SUBJECT TO AIRCRAFT LOADING

NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

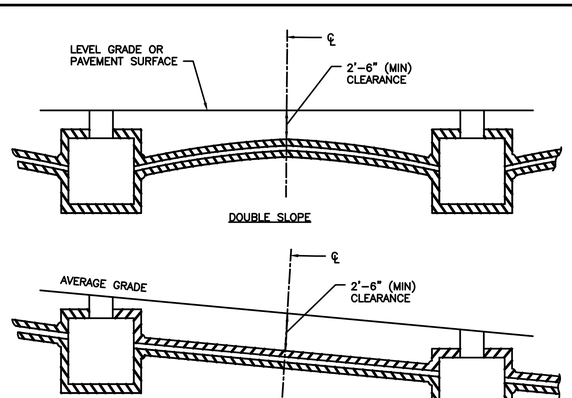
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: EL506
of

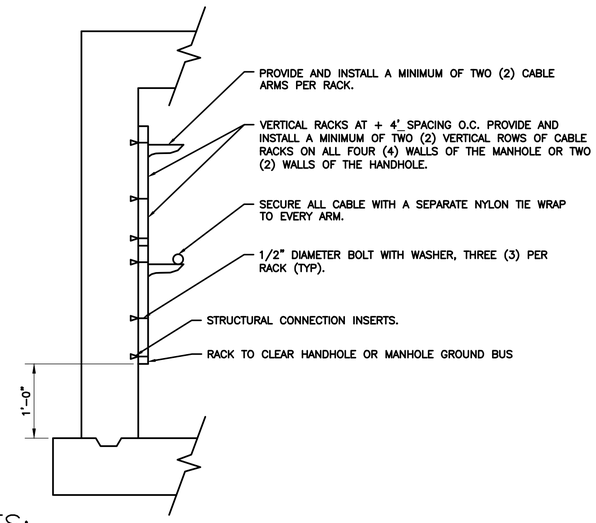


NOTES:

1. ALL DUCTBANKS SHALL BE PITCHED TO DRAIN INTO HANDHOLES / MANHOLES.
2. MINIMUM DEPTH FOR ALL DUCT RUNS SHALL BE MEASURED AT C.L. OF RUNS.
3. WHERE DUCT SAG IS UNAVOIDABLE, DUCT MUST BE INSTALLED MIN. 42" BELOW FINISH GRADE.

1 TYPICAL MANHOLD/HANDHOLE DUCTBANK RELATION

NTS

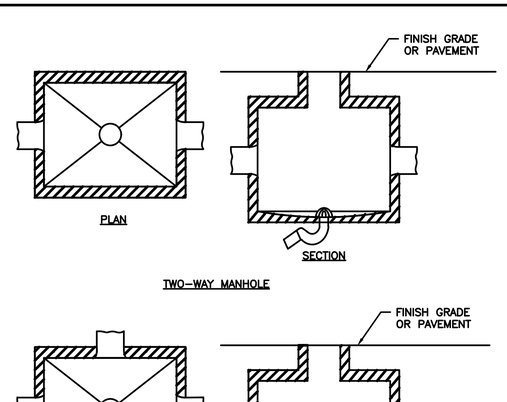


NOTES:

1. CABLE RACKS MUST BE HEAVY DUTY, STANDARD YELLOW FIBERGLASS REINFORCED NYLON WITH ADJUSTABLE BASE.
2. HANDHOLE RACK SHALL BE 3" SADDLE RACKS UNDERGROUND DEVICES # 35R2 OR EQUAL.
3. MANHOLE RACK SHALL BE 14" HEAVY DUTY RACK, UNDERGROUND DEVICES # CR16-B OR EQUAL.

3 TYPICAL NON-METALLIC CABLE SUPPORT RACKS

NTS

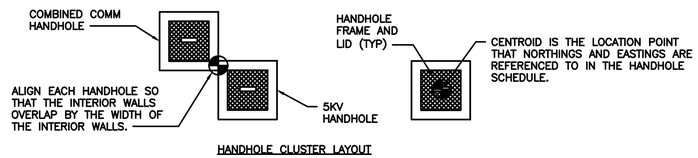


NOTE:

1. DRAIN ALL MANHOLES / HANDHOLES WITH 4" PVC 80 DRAIN WHERE APPLICABLE.

2 TYPICAL MANHOLE/HANDHOLE DETAILS

NTS



HANDHOLE CLUSTER LAYOUT

LEGEND:

◓ = HANDHOLE CLUSTER CENTROID. CONCRETE ENCASED DUCTBANK WILL BE MEASURED FROM THE CENTROID OF ONE HANDHOLE CLUSTER TO THE NEXT. NO SEPARATE PAYMENT WILL BE MADE FOR THE INDIVIDUAL DUCTBANK FINGERS THAT ENTER INTO EACH HANDHOLE.

NOTES:

1. FOR STRUCTURAL NOTES AND REINFORCEMENT, SEE HANDHOLE AND MANHOLE DETALS.
2. PROVIDE AND INSTALL TWO (2) CABLE RACKS ON ALL FOUR (4) WALLS – 36" BELOW HANDHOLE INTERIOR TOP SLAB AS REQUIRED BY THE CONTRACT DOCUMENTS. PROVIDE AND INSTALL A MINIMUM OF TWO (2) RACK ARMS PER RACK.
3. PROVIDE AND INSTALL BELL ENDS ON EACH DUCT AND GROUT AROUND CONDUIT.
4. PROVIDE KNOCK-OUTS FOR DUCTBANKS ON ALL FOUR SIDES, 12" (MIN) ABOVE FLOOR AS REQUIRED TO CLEAR GROUND BUS. NEATLY GROUT ALL DUCTS IN PLACE WITH AN APPROVED NON-SHRINK GROUT.
5. GRADING AT HANDHOLE CLUSTERS MUST BE SLOPED TO MEET EXISTING GRADE.

4 AIRFIELD ELECTRICAL HANDHOLE DETAILS

NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.
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:

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

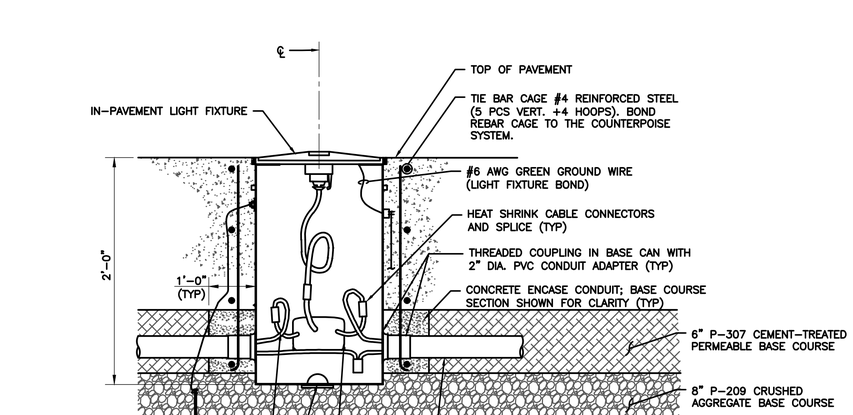
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

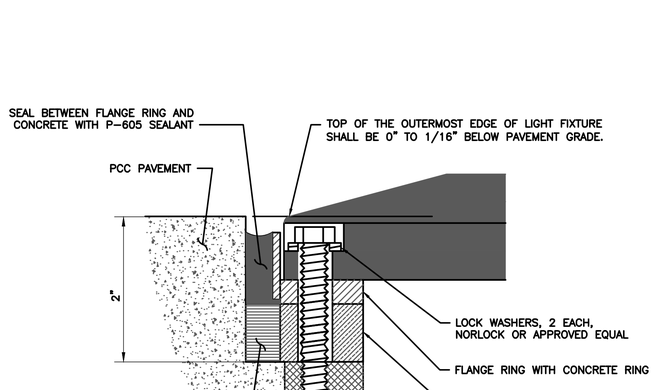
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL507
of



NOTE: BASE CAN SHALL BE A CLASS I, L–868B, 24" DEEP BASE WITH AN 11.25" BOLT CIRCLE.

1 SEMIFLUSH IN–PAVEMENT LIGHT DETAIL IN NEW PCC PAVEMENT (ITEM TO BE VERIFIED WITH PAVEMENT SECTIONS ON CIVIL PLANS)

NTS



2 FIXTURE MOUNTING DETAIL

NTS

NOTES FOR INSTALLATION OF NEW IN–PAVEMENT LIGHT:

1. USE MANUFACTURER'S SETTING JIG FOR PROPERLY ALIGNING NEW L–868 BASES. SECURE SETTING JIG TO PREVENT MOVEMENT DURING CONCRETE ENCASEMENT.
2. ALL LIGHT BASES SHALL BE PROPERLY POSITIONED, ALIGNED, AND INSPECTED PRIOR TO PLACING CONCRETE. ANY BASE INSTALLED INCORRECTLY SHALL BE REMOVED AND REINSTALLED ACCORDING TO DESIGN CRITERIA. ALL CONDUIT SHALL BE PROPERLY SECURED IN PLACE BEFORE PLACING CONCRETE. TIGHT CONNECTIONS MUST BE ASSURED TO PREVENT CONCRETE FROM ENTERING BASE OR CONDUIT.
3. DO NOT USE SHIPPING BOLTS. USE STAINLESS STEEL BOLTS INTENDED FOR LIGHT FIXTURE INSTALLATION. USE TWO PIECE LOCK WASHERS AND TORQUE PER MANUFACTURER'S INSTRUCTIONS. ANTI–SEIZE COMPOUND SHALL BE APPLIED.
4. BOLTS FOR USE ON IN–PAVEMENT RUNWAY LIGHTS SHALL BE COATED STEEL BOLTS.
5. LIGHT POSITION TOLERANCES:

   LONGITUDINAL: +/–2' FROM STATIONING OR EXISTING LIGHT BASE BEING REPLACED.

   TRANSVERSE: +/–1/4" TRANSVERSE FROM LINE OF R/W EDGE LIGHTS.

   BASE ORIENTATION: PARALLEL TO R/W CENTERLINE +/–1/2 DEGREE.
6. THE CAN SHALL BE INSTALLED SUCH THAT THE LIGHT BEAM (CENTER OF LIGHT BASE) IS ALIGNED AS DESCRIBED PER AC 150/5340–30, PARAGRAPH 11.1. THE LIGHT BEAM MUST BE ALIGNED AS DESCRIBED IN THE LIGHTING SYSTEM MANUAL WITH A TOLERANCE OF 1/2 DEGREE. THE LIGHTING FIXTURE MUST BE LEVEL, AND THE TOP OF THE FIXTURE EDGE MUST BE BETWEEN +0 INCH AND –1/16 INCH FROM THE PAVEMENT TOP.
7. THE CAN SHALL BE INSTALLED IN SUCH A MANNER THAT THE MOUNTING HEIGHT SHALL BE IN ACCORDANCE WITH THE AC 150/5340–30, PARAGRAPH 11.2. ELEVATION OF THE BASE WITH RESPECT TO THE RUNWAY SURFACE AND AZIMUTH WITH RESPECT TO THE CENTERLINE ARE TWO PARAMETERS THAT MUST BE MET. IT IS ABSOLUTELY NECESSARY THAT THE ELEVATION OF THE LIGHT BASE TOP FLANGE BE AT LEAST THE THICKNESS OF THE LIGHT FITTING PLUS THE THICKNESS OF TYPICAL PAVING TOLERANCES OF 1 1/2 INCH BELOW THE PAVEMENT FINISHED SURFACE. IF LESS THAN THAT REMAINS AFTER PAVING, THE LIGHT FIXTURE WILL BE UNACCEPTABLY HIGH. IF MORE THAN 3/4 INCH IS LEFT, FLAT SPACER RINGS CAN BE USED TO BRING THE LIGHTING FIXTURES UP TO THE CORRECT ELEVATION. IN ORDER TO PRESERVE THE BASE INTEGRITY AND PROPER BOLT TORQUE, A MAXIMUM OF THREE SPACER RINGS MAY BE STACKED TOGETHER.

4 GENERAL NOTES AND DESIGN ASSUMPTIONS FOR HH AND MH SUBJECT TO AIRCRAFT LOADING

NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

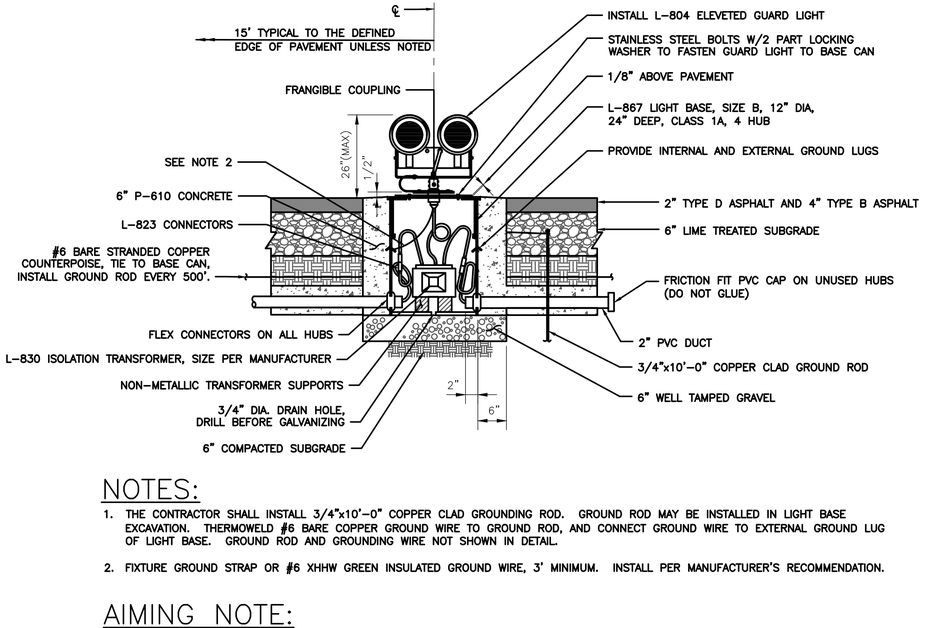
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: EL508
of



NOTES:

1. THE CONTRACTOR SHALL INSTALL 3/4"x10'-0" COPPER CLAD GROUNDING ROD. GROUND ROD MAY BE INSTALLED IN LIGHT BASE EXCAVATION. THERMOWELD #6 BARE COPPER GROUND WIRE TO GROUND ROD, AND CONNECT GROUND WIRE TO EXTERNAL GROUND LUG OF LIGHT BASE. GROUND ROD AND GROUNDING WIRE NOT SHOWN IN DETAIL.
2. FIXTURE GROUND STRAP OR #6 XHHW GREEN INSULATED GROUND WIRE, 3' MINIMUM. INSTALL PER MANUFACTURER'S RECOMMENDATION.

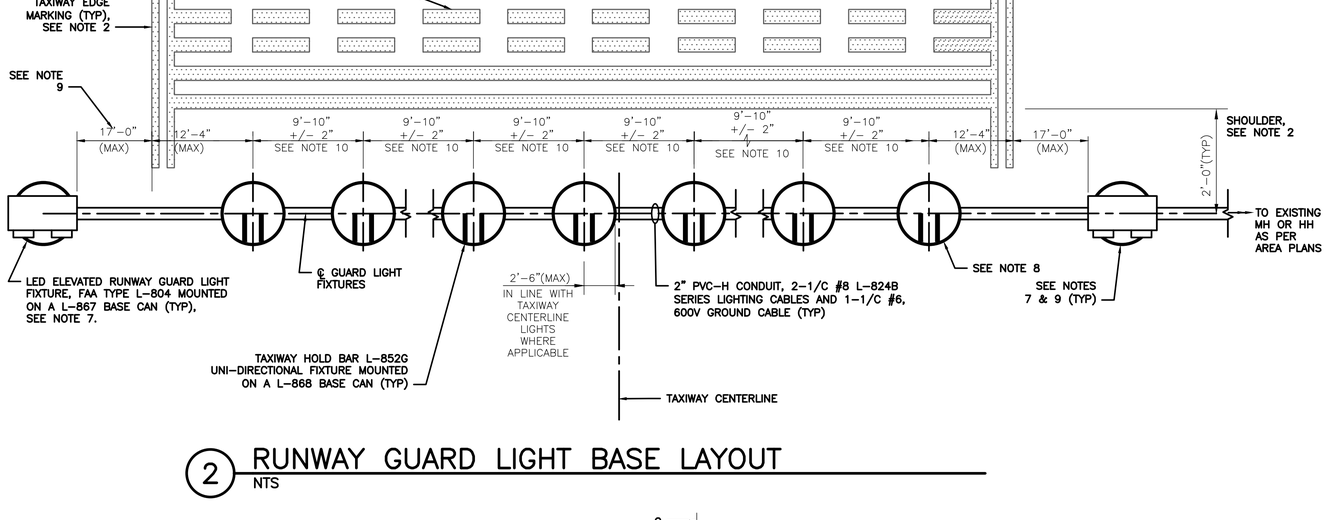
AIMING NOTE:

CONTRACTOR SHALL POSITION ALL NEW ELEVATED RUNWAY GUARD LIGHT FIXTURES 5 TO 10 DEGREES ABOVE THE HORIZONTAL AND POINTED TOWARDS CENTERLINE 150' – 200' FROM THE RUNWAY HOLDING POSITION. THE FINAL AIMING POSITION SHALL BE APPROVED BY THE ENGINEER.

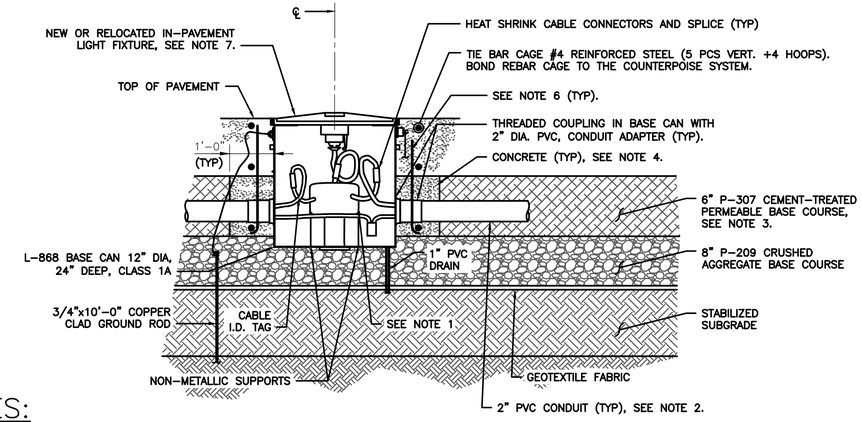
1 BASE MOUNTED ELEVATED RUNWAY GUARD LIGHT DETAIL
NTS

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND ELECTRICAL GENERAL NOTES, REFER TO E-001.
2. FOR RUNWAY AND TAXIWAY MARKING LOCATIONS, SEE CIVIL CONTRACT DRAWINGS.
3. FOR LIGHT FIXTURE LOCATION COORDINATES, SEE CIVIL CONTRACT DRAWINGS.
4. FOR LIGHT FIXTURES WITH LESS THAN 24" SEPARATION FROM JOINT TO NEAR EDGE OF LIGHT BASE, COORDINATE LOCATIONS WITH ENGINEER PRIOR TO CORING.
5. FOR EXACT NUMBER OF TAXIWAY HOLD BAR FIXTURES TO BE INSTALLED, SEE EL SERIES DRAWINGS.
6. FOR TOLERANCE REQUIREMENTS AND ALTERNATE SPACING METHODS, REFER TO FAA AC 150/5340-30, LATEST EDITION AND THE APPLICABLE FIGURE.
7. CANT THE L-804 RUNWAY GUARD LIGHTS TOWARD THE TAXIWAY CENTERLINE. THE LIGHTS SHALL BE INSTALLED SO THE LIGHT BEAM IS TILTED TO THE COCKPIT.
8. SURVEY USING THESE DIMENSIONS BEFORE INSTALLING RUNWAY GUARD LIGHT FIXTURES.
9. ELEVATED FIXTURE PAIR MAY BE MOVED ANYWHERE BETWEEN 10'-17' FROM THE EDGE OF DEFINED TAXIWAY. FIXTURES MAY ALSO BE SHIFTED UP TO 10' FURTHER FROM THE OUTBOARD EDGE OF YELLOW HOLDING POSITION STRIPE TO AVOID UNDESIRABLE SPOTS.
10. CONTRACTOR SHALL UTILIZE COORDINATES FOR LAYOUT OF IN-PAVEMENT LIGHTS AND VERIFY IN FIELD THAT LIGHT SPACING MEETS THIS DETAIL. IN SOME ARRAYS, ONE LIGHT HAS BEEN SHIFTED 1' TO AVOID A PAVEMENT JOINT, WHICH IS ACCEPTABLE WHERE DESIGNED ONLY.



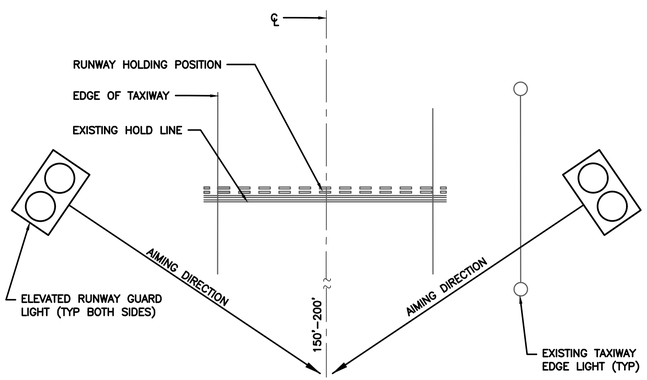
2 RUNWAY GUARD LIGHT BASE LAYOUT
NTS



NOTES:

1. L-830 ISOLATION TRANSFORMER – NEW OR RELOCATED.
2. CONCRETE ENCASEMENT FOR ELECTRICAL CONDUIT MAY VARY WITHIN THE BITUMINOUS BASE COURSE AND SHALL HAVE A 3" MINIMUM COVER (TYP).
3. CONDUIT OPENINGS IN BASE CANS SHALL BE LOCATED SUCH THAT THE CONDUIT IS PLACED WITHIN THE 6"BITUMINOUS CONCRETE BASE COURSE LAYER. TO PROTECT THE ATPB (PERMEABLE) LAYER. CONDUIT & BASE AND SHALL BE INSTALLED AFTER BITUMINOUS CONCRETE BASE COURSE HAS BEEN PLACED. POSITION BASE CAN AS REQUIRED TO PLACE 2" DIA. HUB FOR DRAINAGE WITHIN THE 6" ATPB (PERMEABLE) LAYER.
4. CONCRETE AROUND BASE CAN AND CONDUIT. PLACE CONCRETE ANCHOR USING CARE THAT NEITHER JIG NOR LIGHT BASE ALIGNMENT IS DISTURBED (TYP.). FOR EXPEDIENCY, CONTRACTOR MAY USE EPOXY CONCRETE.
5. USE S.S. BOLTS WITH 2 PART LOCKING WASHERS TO ATTACH THE FIXTURE TO BASE CAN WITH ANTI-SEIZE.
6. #6 AWG BARE COPPER COUNTERPOISE WIRE EXOTHERMICALLY BONDED TO THE EXTERNAL CAN LUG CONTINUOUS FROM CAN TO CAN. REFER TO DETAIL NO. 3/ES-120 FOR COUNTERPOISE AND GROUND ROD CIRCUIT DIAGRAMS.
7. THE EDGE RIM OF THE IN-PAVEMENT FIXTURE MUST BE FLUSH AND LEVEL WITH THE TOP OF PAVEMENT IN ALL DIRECTIONS.
8. THE CONTRACTOR MUST DETERMINE BASE CANS AND EXTENSION RINGS OF APPROPRIATE DEPTHS TO MEET THE PAVING METHOD ADOPTED BY THE CONTRACTOR. THE TOTAL DEPTH OF BASE CAN AND EXTENSION RING MUST BE 24 INCHES.
9. RELOCATION OF IN PAVEMENT RUNWAY GUARD LIGHTS INCLUDES INDIVIDUAL LIGHT FIXTURE, ISOLATION TRANSFORMER, LIGHT FIXTURE REMOTE BRITENESS UNITS AND IN PAVEMENT RGL LIGHT BAR SYNCRONIZTION UNIT.
10. RELOCATION OF IN ELEVATED RUNWAY GUARD LIGHTS INCLUDES INDIVIDUAL LIGHT FIXTURE, ISOLATION TRANSFORMER AND LIGHT FIXTURE DUAL REMOTE BRITENESS UNITS.

4 SEMIFLUSH IN-PAVEMENT RUNWAY GUARD LIGHT ON NEW BASE DETAIL
NTS



AIMING NOTE:

CONTRACTOR SHALL POSITION ALL NEW ELEVATED RUNWAY GUARD LIGHT FIXTURES 5 TO 10 DEGREES ABOVE THE HORIZONTAL AND POINTED TOWARDS CENTERLINE 150' – 200' FROM THE RUNWAY HOLDING POSITION. THE FINAL AIMING POSITION SHALL BE APPROVED BY THE ENGINEER.

* NOTE:

THE PROPOSED OFFSET OF THE ELEVATED RUNWAY GUARD LIGHT BASE HAS A TOLERENCE OF –5', +2'. THE LOCATION OF THE ELEVATED RUNWAY GUARD LIGHT BASE MUST BE LOCATED SO AS TO NOT INTERFERE WITH THE READABILITY OF THE RUNWAY HOLDING POSITION SIGNS. THE FINAL LOCATION OF THE ELEVATED RUNWAY GUARD LIGHT BASE SHALL BE APPROVED BY THE ENGINEER BEFORE THE CONTRACTOR COMMENCES ANY WORK.

3 ELEVATED RUNWAY GUARD LIGHT AIMING DIAGRAM
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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.

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

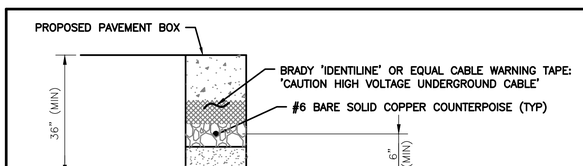
STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

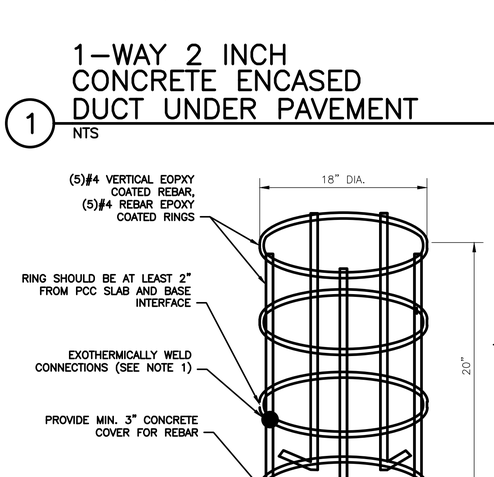
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL509
of

FILENAME: H22C770A-EL509.DWG PLOT DATE: 2023/02/17 PLOT TIME: 1:09:05 PM



1-WAY 2 INCH CONCRETE ENCASED DUCT UNDER PAVEMENT

1 NTS

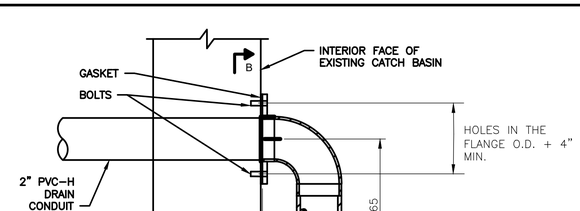


NOTE:

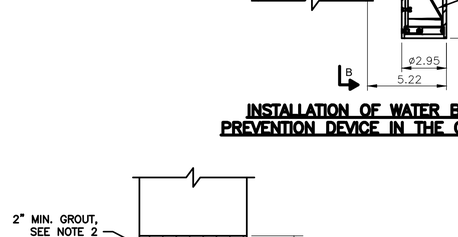
1. FOLLOWING EXOTHERMICALLY WELDING CONNECTIONS, PATCH WELDED AREAS WITH EPOXY.

TYPICAL LIBHT BASE REBAR CAGE DETAIL

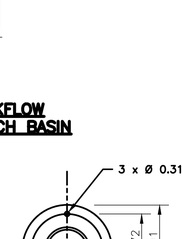
2 NTS



INSTALLATION OF WATER BACKFLOW PREVENTION DEVICE IN THE CATCH BASIN



SECTION A-A
LIGHT CAN DRAIN TIE-IN DETAIL



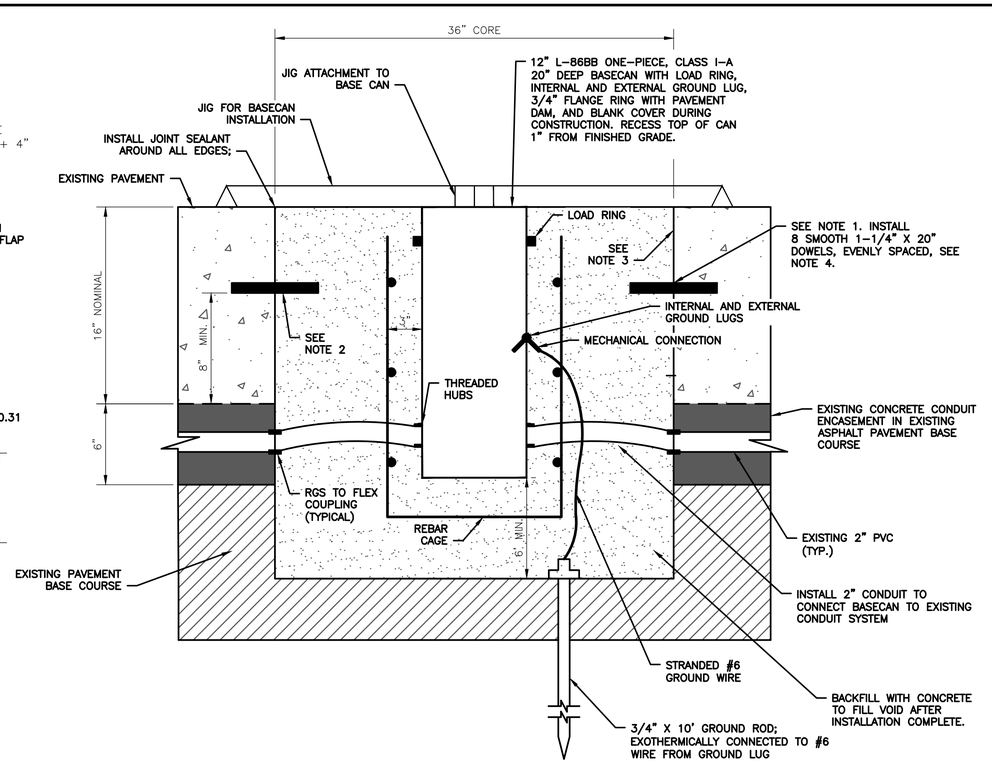
SECTION A-A

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE ELECTRICAL LEGEND SHEET.
2. GROUT, IF NEEDED, SHALL BE NON-SHRINK, NON-METALLIC GROUT IN CONFORMANCE WITH ASTM C1107.
3. FURNISH AND INSTALL BACKFLOW PREVENTION DEVICE AT DRAINAGE CONDUIT ENTRANCE. MATCH DRAINAGE CONDUIT DIAMETER SIZE.
4. CONTRACTOR SHALL WIRE BRUSH THE WALLS AND REMOVE ALL WATER AND ANY DEBRIS/SAND FROM ALL DRAINAGE CATCH BASINS WHICH HAVE AN ELECTRICAL CONDUIT DRAIN ENTERING INTO IT.

STORMWATER BACKFLOW PREVENTION DEVICE INSTALLATION

3 NTS



NOTES:

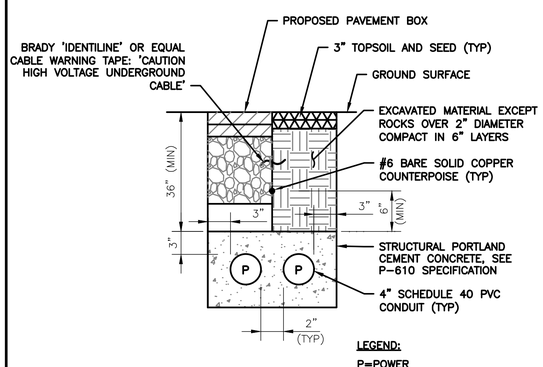
1. INSTALL 8 EVENLY SPACED, SMOOTH 1 1/4" X 20" DOWELS. PAINT AND OIL EXPOSED HALF OF DOWEL ONLY.
2. EPOXY DOWEL INTO DRILLED SOCKET IN PAVEMENT SLAB.
3. COAT HORIZONTAL AND VERTICAL FACES WITH DOUBLE APPLICATION OF MEMBRANE FORMING CURING COMPOUND PRIOR TO PLACING NEW PCC, PROTECT DOWEL BARS FROM CURE MATERIAL.
4. ADJUST DOWEL INSTALLATION TO PROVIDE CLEARANCE FROM BASE CAN. MAY BE INSTALLED WITH 12" EMBEDDED IF NEEDED FOR CLEARANCE.

INSTALLATION OF NEW BASE CAN IN EXISTING PAVEMENT BY 36" CORE

4 NTS

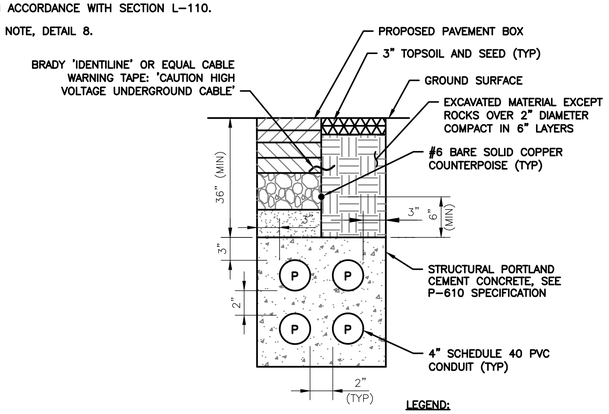
GENERAL NOTES & ASSUMPTIONS-CONCRETE ENCASED DUCTBANK:

1. CONTRACTOR TO REFER TO PLAN AND PROFILE SHEETS FOR INFORMATION ON POSSIBLE UTILITY CONFLICTS WITHIN THE IMMEDIATE VICINITY OF THE PROPOSED DUCTBANKS.
2. CONTRACTOR MUST PROVIDE COUNTERPOISE AND WARNING TAPE OVER CENTERLINE OF DUCTBANK AS SHOWN FOR EVERY LINEAR FOOT OF DUCTBANK. CONTRACTOR MUST PROVIDE PULL CORD IN ALL EMPTY CONDUITS OF DUCTBANKS IN ACCORDANCE WITH SECTION L-110.
3. ALL DUCTBANKS CONSTRUCTED UNDER PAVEMENT SHALL BE REINFORCED. SEE GENERAL NOTE, DETAIL 8.



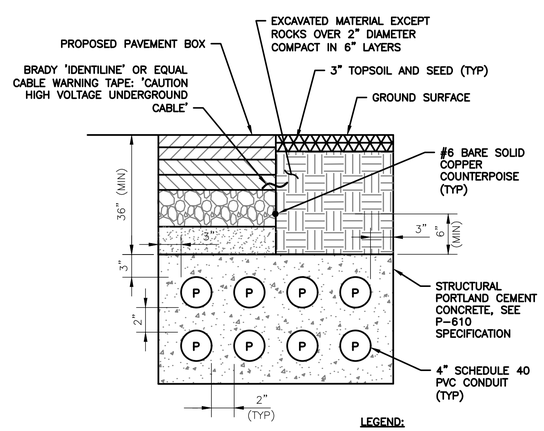
2-WAY 4-INCH CONCRETE ENCASED DUCTBANK

5 NTS



4-WAY 4-INCH CONCRETE ENCASED DUCTBANK

6 NTS

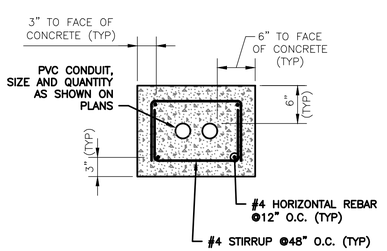


8-WAY 4-INCH CONCRETE ENCASED DUCTBANK

9 NTS

GENERAL NOTE:

1. THE DIMENSIONS SHOWN ON THIS DETAIL 8 SHALL BE EXTRAPOLATED FOR ANY CONCRETE ENCASED DUCTBANK REQUIRING REINFORCEMENT PER NOTE 8.



PVC CONCRETE ENCASED DUCTBANK TYPICAL REINFORCEMENT

8 NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. McDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

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: EL510
of

LIGHT FIXTURE LOCATION TABLE			
FIXTURE ID	NORTHING	EASTING	LENS COLOR
1601	13804574.57	3148323.75	AMBER
1602	13804555.28	3148341.36	YELLOW
1603	13804548.20	3148349.19	YELLOW
1604	13804542.31	3148355.71	YELLOW
1605	13804535.82	3148362.86	YELLOW
1606	13804529.34	3148370.06	YELLOW
1607	13804522.87	3148377.22	YELLOW
1608	13804516.38	3148384.39	YELLOW
1609	13804509.90	3148391.56	YELLOW
1610	13804503.55	3148398.85	YELLOW
1611	13804497.07	3148406.02	YELLOW
1612	13804485.55	3148422.22	AMBER
1613	13805463.20	3149127.45	AMBER
1614	13805447.43	3149148.62	YELLOW
1615	13805440.38	3149156.42	YELLOW
1616	13805434.45	3149162.96	YELLOW
1617	13805427.98	3149170.14	YELLOW
1618	13805421.51	3149177.30	YELLOW
1619	13805415.02	3149184.48	YELLOW
1620	13805408.54	3149191.65	YELLOW
1621	13805402.05	3149198.82	YELLOW
1622	13805395.57	3149205.99	YELLOW
1623	13805389.09	3149213.16	YELLOW
1624	13805362.74	3149217.06	AMBER
1701	13805060.82	3149572.56	AMBER
1702	13805045.45	3149593.28	YELLOW
1703	13805038.19	3149601.32	YELLOW
1704	13805032.24	3149607.90	YELLOW
1705	13805025.63	3149615.21	YELLOW
1706	13805018.98	3149622.56	YELLOW
1707	13805012.37	3149629.87	YELLOW
1708	13805005.76	3149637.20	YELLOW
1709	13804999.13	3149644.53	YELLOW
1710	13804992.51	3149651.86	YELLOW
1711	13804972.06	3149670.72	AMBER
2001	13800292.93	3148892.66	YELLOW
2002	13800300.22	3148899.26	YELLOW
2003	13800307.51	3148905.85	YELLOW
2004	13800314.81	3148912.45	YELLOW
2005	13800322.09	3148919.05	YELLOW
2006	13800329.39	3148925.64	YELLOW
2007	13800336.68	3148932.24	YELLOW
2008	13800343.97	3148938.84	YELLOW
2101	13800154.46	3149205.71	RED
2102	13800141.49	3149206.53	RED
2103	13800128.51	3149207.34	RED
2104	13800116.54	3149208.09	RED
2105	13800102.56	3149208.97	RED
2106	13800089.59	3149209.79	RED
2107	13800078.08	3149208.13	RED
2108	13800070.66	3149201.42	RED
2109	13800063.24	3149194.72	RED
2110	13800055.83	3149188.01	RED
2111	13800048.41	3149181.30	RED
2112	13800041.00	3149174.59	RED
2113	13800033.58	3149167.88	RED
2501	13800795.52	3148893.92	CLEAR/YELLOW
2502	13800657.22	3148767.91	CLEAR/YELLOW
2503	13800509.69	3148634.79	GREEN/RED
2504	13800501.12	3148640.52	GREEN/RED
2505	13800494.41	3148647.94	GREEN/RED
2506	13800487.66	3148655.37	GREEN/RED
2507	13800413.91	3148736.93	GREEN/RED
2508	13800407.21	3148744.35	GREEN/RED
2509	13800400.50	3148751.76	GREEN/RED
2510	13800393.79	3148759.18	GREEN/RED
2511	13800537.53	3148888.42	CLEAR/YELLOW
2512	13800681.30	3149019.20	CLEAR/YELLOW

LIGHT FIXTURE LOCATION TABLE			
FIXTURE ID	NORTHING	EASTING	LENS COLOR
2600	13800387.10	3148766.61	BLUE
2601	13800358.14	3148790.10	BLUE
2602	13800328.52	3148822.82	BLUE
2603	13800299.19	3148855.25	BLUE
2604	13800275.64	3148881.28	BLUE
2605	13800251.97	3148907.44	BLUE
2606	13800228.37	3148933.53	BLUE
2607	13800204.18	3148960.27	BLUE
2608	13800179.98	3148987.02	BLUE
2609	13800155.78	3149013.75	BLUE
2610	13800122.27	3149050.79	BLUE
2611	13800088.77	3149087.82	BLUE
2612	13800054.20	3149124.03	BLUE
2613	13800029.96	3149149.48	BLUE
2614	13799971.15	3149211.31	BLUE
2615	13799946.99	3149237.04	BLUE
2616	13799912.33	3149273.07	BLUE
2617	13799878.84	3149300.72	BLUE
2618	13799845.35	3149328.37	BLUE
2619	13799811.85	3149356.02	BLUE
2620	13799769.25	3149364.47	BLUE
2621	13799726.65	3149372.92	BLUE
2622	13799684.05	3149381.37	BLUE
2623	13799638.00	3149384.70	BLUE
2624	13799591.97	3149388.36	BLUE
2625	13799545.94	3149391.90	BLUE
2626	13799499.75	3149396.35	BLUE
2627	13800489.37	3148849.58	BLUE
2628	13800451.91	3148874.94	BLUE
2629	13800414.65	3148900.12	BLUE
2630	13800376.95	3148925.59	BLUE
2631	13800352.40	3148950.82	BLUE
2632	13800327.93	3148976.13	BLUE
2633	13800303.45	3149001.46	BLUE
2634	13800280.08	3149028.95	BLUE
2635	13800256.77	3149056.49	BLUE
2636	13800233.47	3149084.01	BLUE
2637	13800212.05	3149123.69	BLUE
2638	13800190.65	3149163.32	BLUE
2639	13800169.28	3149202.91	BLUE
2640	13800194.51	3149240.19	BLUE
2641	13800219.75	3149277.48	BLUE
2642	13800244.99	3149314.78	BLUE
2643	13800315.66	3149383.10	BLUE
2644	13800386.33	3149451.43	BLUE
2645	13800457.02	3149519.75	BLUE
2646	13800392.98	3149590.40	BLUE
2647	13800318.13	3149526.81	BLUE
2648	13800243.21	3149463.17	BLUE
2649	13800168.18	3149399.67	BLUE
2650	13800121.58	3149374.03	BLUE
2651	13800085.84	3149355.21	BLUE
2652	13800049.31	3149335.49	BLUE
2653	13800008.14	3149363.39	BLUE
2654	13799966.97	3149391.28	BLUE
2655	13799925.76	3149419.11	BLUE
2656	13799879.43	3149450.46	BLUE
2657	13799841.16	3149469.06	BLUE
2658	13799799.43	3149477.23	BLUE
2659	13799605.13	3148777.19	BLUE
2660	13799603.45	3148743.70	BLUE
2661	13799601.77	3148710.22	BLUE
2806	13800545.23	3148791.20	YELLOW
2807	13800536.04	3148783.92	GREEN (C)
2808	13800526.61	3148778.23	YELLOW (C)
2809	13800515.22	3148773.26	GREEN (C)
2810	13800503.95	3148770.06	YELLOW (C)
2811	13800492.35	3148768.36	GREEN (C)

LIGHT FIXTURE LOCATION TABLE			
FIXTURE ID	NORTHING	EASTING	LENS COLOR
2812	13800482.09	3148768.12	YELLOW (D)
2813	13800468.98	3148769.55	GREEN (D)
2814	13800458.57	3148772.12	YELLOW (D)
2815	13800447.63	3148776.33	GREEN (D)
2816	13800436.50	3148782.47	YELLOW (D)
2817	13800427.10	3148789.47	GREEN (D)
2818	13800418.06	3148798.31	YELLOW (D)
2819	13800389.97	3148829.40	GREEN (D)
2820	13800361.85	3148860.46	YELLOW (D)
2821	13800333.74	3148891.53	GREEN (D)
2822	13800305.63	3148922.60	YELLOW (D)
2823	13800277.51	3148953.67	GREEN (D)
2824	13800249.40	3148984.74	YELLOW (D)
2825	13800221.29	3149015.81	GREEN (C)
2826	13800193.19	3149046.89	YELLOW (C)
2827	13800165.08	3149077.96	GREEN (C)
2828	13800136.97	3149109.03	YELLOW (C)
2829	13800100.80	3149149.66	GREEN (C)
2830	13800100.80	3149149.66	YELLOW (C)
2831	13800094.14	3149160.24	GREEN (C)
2832	13800089.01	3149171.64	YELLOW (C)
2833	13800085.51	3149183.63	GREEN (C)
2834	13800083.70	3149196.00	YELLOW (C)
2835	13800083.67	3149209.02	GREEN (D)
2836	13800085.49	3149221.87	YELLOW (D)
2837	13800088.63	3149232.94	GREEN (D)
2838	13800093.63	3149244.41	YELLOW (D)
2839	13800100.16	3149255.09	GREEN (D)
2840	13800108.12	3149264.75	YELLOW (D)
2841	13800117.24	3149273.33	GREEN (D)
2842	13800149.05	3149301.85	GREEN/YELLOW (D)
2843	13800182.50	3149332.42	GREEN (D)
2844	13800216.40	3149363.08	GREEN (D)
2845	13800249.70	3149393.22	GREEN (D)
2846	13800283.30	3149423.62	GREEN (D)
2847	13800316.45	3149453.61	GREEN (D)
2848	13800350.47	3149484.39	GREEN (C)
2849	13800386.17	3149516.69	GREEN (C)
2850	13800422.86	3149549.89	GREEN (C)
2851	13800459.20	3149582.76	GREEN (C)
4001	13804715.85	3148458.46	RED/RED (C)
4002	13804708.46	3148451.72	RED/RED (C)
4003	13804701.07	3148444.99	RED/RED (C)
4004	13804693.70	3148438.25	RED/RED (C)
4005	13804562.60	3148582.68	RED/YELLOW (C)
4006	13804430.85	3148728.28	RED/YELLOW (C)
4007	13804300.24	3148872.06	RED/YELLOW
4008	13804796.27	3148531.66	RED/RED
4009	13804803.66	3148538.41	RED/RED
4010	13804811.05	3148545.16	RED/RED
4011	13804818.84	3148552.27	RED/RED
4012	13804688.04	3148697.39	RED/YELLOW
4013	13804556.28	3148842.87	RED/YELLOW
4014	13804425.56	3148986.77	RED/YELLOW
6001	13803871.80	3148460.90	BLUE
6002	13803915.43	3148457.44	BLUE
6003	13803959.03	3148453.69	BLUE
6004	13804002.64	3148450.06	BLUE
6005	13804046.24	3148446.31	BLUE
6006	13804089.82	3148442.56	BLUE
6007	13804121.40	3148435.48	BLUE
6008	13804153.06	3148428.38	BLUE
6009	13804185.27	3148421.15	BLUE
6010	13804218.97	3148393.31	BLUE
6011	13804252.12	3148365.94	BLUE
6012	13804285.72	3148338.19	BLUE
6013	13804326.63	3148295.24	BLUE
6014	13804362.19	3148268.47	BLUE

LIGHT FIXTURE LOCATION TABLE			
FIXTURE ID	NORTHING	EASTING	LENS COLOR
6015	13804404.17	3148253.68	BLUE
6016	13804448.56	3148252.30	BLUE
6017	13804491.31	3148264.37	BLUE
6018	13804528.50	3148288.79	BLUE
6019	13804560.06	3148317.35	BLUE
6020	13804591.64	3148345.91	BLUE
6021	13804623.19	3148374.45	BLUE
6022	13804654.75	3148403.00	BLUE
6023	13804686.29	3148431.53	BLUE
6024	13803878.71	3148557.95	BLUE
6025	13803784.31	3148555.63	BLUE
6026	13803969.47	3148553.16	BLUE
6027	13804014.75	3148550.83	BLUE
6028	13804060.34	3148548.65	BLUE
6029	13804102.19	3148546.34	BLUE
6030	13804145.61	3148544.34	BLUE
6031	13804188.93	3148541.41	BLUE
6032	13804225.56	3148535.12	BLUE
6033	13804259.60	3148520.32	BLUE
6034	13804289.32	3148497.66	BLUE
6035	13804322.94	3148463.36	BLUE
6036	13804360.01	3148438.68	BLUE
6037	13804397.07	3148414.02	BLUE
6038	13804434.13	3148389.35	BLUE
6039	13804468.00	3148407.38	BLUE
6040	13804501.24	3148425.07	BLUE
6041	13804534.88	3148442.97	BLUE
6042	13804556.31	3148474.62	BLUE
6043	13804577.75	3148506.30	BLUE
6044	13804599.17	3148537.93	BLUE
6045	13801126.58	3148696.47	BLUE
6046	13801073.07	3148649.29	BLUE
6047	13801021.94	3148603.45	BLUE
6048	13800971.22	3148556.74	BLUE
6049	13800920.41	3148509.96	BLUE
6050	13800747.42	3148518.60	BLUE
6051	13800715.47	3148555.78	BLUE
6052	13800687.00	3148588.92	BLUE
6053	13800672.24	3148625.67	BLUE
6054	13800657.49	3148662.41	BLUE
6055	13800642.73	3148699.16	BLUE
6056	13800627.47	3148737.17	BLUE
6057	13800514.57	3148625.72	BLUE
6058	13800538.33	3148591.62	BLUE
7001	13804418.80	3148998.62	BLUE
7002	13804452.30	3149028.92	BLUE
7003	13804484.85	3149058.36	BLUE
7004	13804517.39	3149087.79	BLUE
7005	13804544.17	3149112.01	BLUE
7006	13804570.41	3149135.75	BLUE
7007	13804602.86	3149165.09	BLUE
7008	13804635.33	3149194.46	BLUE
7009	13804667.73	3149223.76	BLUE
7010	13804702.06	3149254.98	BLUE
7011	13804736.65	3149286.09	BLUE
7012	13804771.02	3149317.43	BLUE
7013	13804803.14	3149346.24	BLUE
7014	13804840.23	3149379.78	BLUE
7015	13804867.79	3149404.71	BLUE
7016	13804895.36	3149429.65	BLUE
7017	13804999.33	3149523.68	BLUE
7018	13805032.37	3149553.56	BLUE
7019	13805065.44	3149583.47	BLUE
7020	13805098.56	3149613.38	BLUE
7021	13805131.60	3149643.35	BLUE
7022	13805164.89	3149673.41	BLUE
7023	13805201.26	3149720.93	BLUE
7024	13804326.78	3149100.53	BLUE

LIGHT FIXTURE LOCATION TABLE			
FIXTURE ID	NORTHING	EASTING	LENS COLOR
7025	13804367.45	3149122.48	BLUE
7026	13804407.07	3149143.86	BLUE
7027	13804447.14	3149165.48	BLUE
7028	13804474.51	3149188.64	BLUE
7029	13804500.16	3149213.42	BLUE
7030	13804525.39	3149250.70	BLUE
7031	13804550.63	3149287.99	BLUE
7032	13804575.88	3149325.29	BLUE
7033	13804708.50	3149445.23	BLUE
7034	13804757.29	3149471.56	BLUE
7035	13804788.31	3149517.33	BLUE
7036	13804770.18	3149551.07	BLUE
7037	13804752.09	3149584.79	BLUE
7038	13804734.06	3149618.49	BLUE
7039	13804832.09	3149697.55	BLUE
7040	13804861.77	3149677.53	BLUE
7041	13804891.43	3149657.61	BLUE
7042	13804921.09	3149637.51	BLUE
7043	13804960.99	3149659.04	BLUE
7044	13805000.84	3149680.54	BLUE
7045	13805039.98	3149701.65	BLUE
7046	13805049.56	3149709.75	BLUE
7047	13805074.43	3149737.10	BLUE
7048	13805099.30	3149764.47	BLUE
7049	13805116.79	3149800.52	BLUE
7050	13805134.29	3149836.58	BLUE
7051	13805151.85	3149872.78	BLUE
7052	13805171.06	3149921.55	BLUE
7053	13805190.27	3149970.31	BLUE
7054	13804826.09	3148558.88	BLUE
7055	13804857.48	3148586.37	BLUE
7056	13804888.68	3148614.59	BLUE
7057	13804919.88	3148642.82	BLUE
7058	13804964.29	3148682.98	BLUE
7059	13805008.77	3148723.17	BLUE
7060	13805053.19	3148763.38	BLUE
7061	13805097.08	3148803.08	BLUE
7062	13805141.16	3148842.79	BLUE
7063	13805185.37	3148882.94	BLUE
7064	13805210.68	3148905.75	BLUE
7065	13805239.73	3148932.10	BLUE
7066	13805268.77	3148958.36	BLUE
7067	13805297.84	3148984.65	BLUE
7068	13805401.12	3149078.07	BLUE
7069	13805430.33	3149104.49	BLUE
7070	13805459.54	3149130.96	BLUE
7071	13805488.80	3149157.37	BLUE
7072	13805518.03	3149183.81	BLUE
7073	13805542.92	3149212.49	BLUE
7074	13805560.21	3149246.28	BLUE
7075	13805575.51	3149287.91	BLUE
7076	13804729.65	3148655.86	BLUE
7077	13804770.14	3148677.60	BLUE
7078	13804809.83	3148699.02	BLUE
7079	13804849.62	3148720.49	BLUE
7080	13804895.15	3148759.01	BLUE
7081	13804941.10	3148797.89	BLUE
7082	13804986.99	3148836.72	BLUE
7083	13805029.69	3148878.00	BLUE
7084	13805072.43	3148918.78	BLUE
7085	13805115.13	3148960.60	BLUE
7086	13805140.39	3148997.93	BLUE
7087	13805165.58	3149035.15	BLUE
7088	13805190.83	3149072.46	BLUE
7089	13805172.89	3149105.68	BLUE
7090	13805154.98	3149138.90	BLUE
7091	13805137.01	3149172.20	BLUE
7092	13805234.68	3149252.54	BLUE

LIGHT FIXTURE LOCATION TABLE			
FIXTURE ID	NORTHING	EASTING	LENS COLOR
7093	13805264.28	3149232.47	BLUE
7094	13805293.83	3149212.44	BLUE
7095	13805323.45	3149192.42	BLUE
7096	13805358.69	3149211.44	BLUE
7097	13805393.93	3149230.45	BLUE
7098	13805429.17	3149249.47	BLUE
7099	13805451.60	3149274.14	BLUE
7100	13805456.51	3149284.32	BLUE
7101	13805461.60	3149315.73	BLUE
7102	13805478.25	3149351.76	BLUE
7103	13805448.32	3149416.45	BLUE
7104	13805448.33	3149416.45	BLUE
7105	13805424.87	3149454.34	BLUE
7106	13805401.41	3149492.22	BLUE
7107	13805368.58	3149529.93	BLUE
7108	13805351.55	3149549.48	BLUE
7109	13805301.69	3149606.74	BLUE
7110	13805251.81	3149664.02	BLUE
7111	13805234.81	3149683.57	BLUE
8001	13804559.23	3149356.14	BLUE
8002	13804542.58	3149387.00	BLUE
8003	13804525.93	3149417.86	BLUE
8004	13804477.64	3149428.22	BLUE
8005	13804671.22	3149470.47	BLUE
8006	13804633.92	3149495.93	BLUE
8007	13804596.66	3149520.94	BLUE
8008	13804566.50	3149552.12	BLUE
8009	13804536.36	3149583.31	BLUE
8010	13804506.22	3149614.49	BLUE
8011	13804476.10	3149645.67	BLUE
8012	13804445.04	3149677.84	BLUE
8013	13804413.97	3149709.99	BLUE

BASE CAN, MANHOLE, HANDHOLE LOCATION TABLE				
STRUCTURE ID	NORTHING	EASTING	ELEVATION	STRUCT. TYPE
301	13803997.25	3148588.46	42.56	POWER
302#	13800470.73	3148834.98	41.47	POWER
303#	13800433.16	3148800.99	41.45	POWER
304	13800190.48	3149216.39	40.50	POWER
305	13805225.92	3149628.68	42.80	COMM
306	13805232.64	3149634.70	42.77	POWER
307	13804869.27	3149301.55	41.93	POWER
308	13804610.50	3149067.51	40.37	POWER
309	13804442.97	3149253.07	40.02	POWER
310	13804666.94	3149525.25	40.49	POWER
311	13805010.02	3148626.28	40.68	POWER
312	13804843.60	3148810.25	40.72	POWER
313	13804600.09	3148255.84	42.31	POWER
314	13804447.54	3148412.40	40.94	POWER
315	13801119.93	3148761.97	43.41	POWER
316	13800221.33	3148886.47	40.37	POWER
317	13800074.90	3149059.23	40.76	POWER
318	13800177.57	3148886.13	40.61	COMM
319	13800287.82	3148749.23	41.12	COMM
320	13800087.94	3148744.12	41.77	COMM
321	13800304.87	3149099.32	40.36	COMM
322	13804843.19	3148360.92	43.58	POWER
323	13804985.28	3148221.04	41.90	POWER
324	13804612.47	3148253.25	42.28	POWER
325	13804506.58	3148584.73	42.35	POWER
326	13804372.41	3148733.05	43.46	POWER
327	13804238.14	3148881.58	43.57	POWER
328	13804103.95	3149029.58	43.44	POWER
329	13803969.79	3149178.22	43.68	POWER

SEE NOTE 9, SHEET EL106–P5.

1 FIXTURE AND STRUCTURE LOCATION TABLES
NTS

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

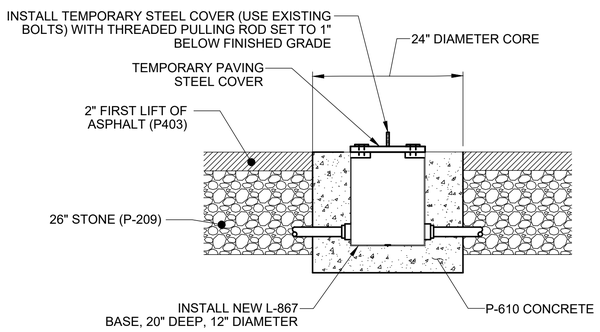
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
LICENSED PROFESSIONAL ENGINEER
2.24.23

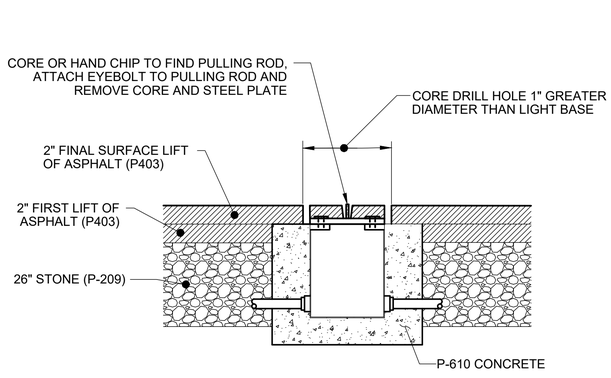
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

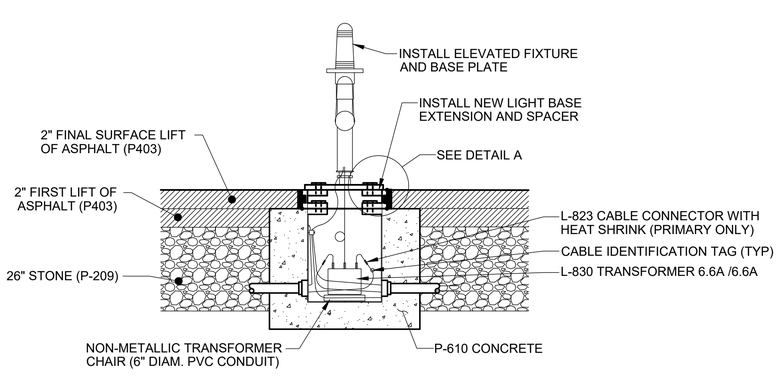
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL511
of



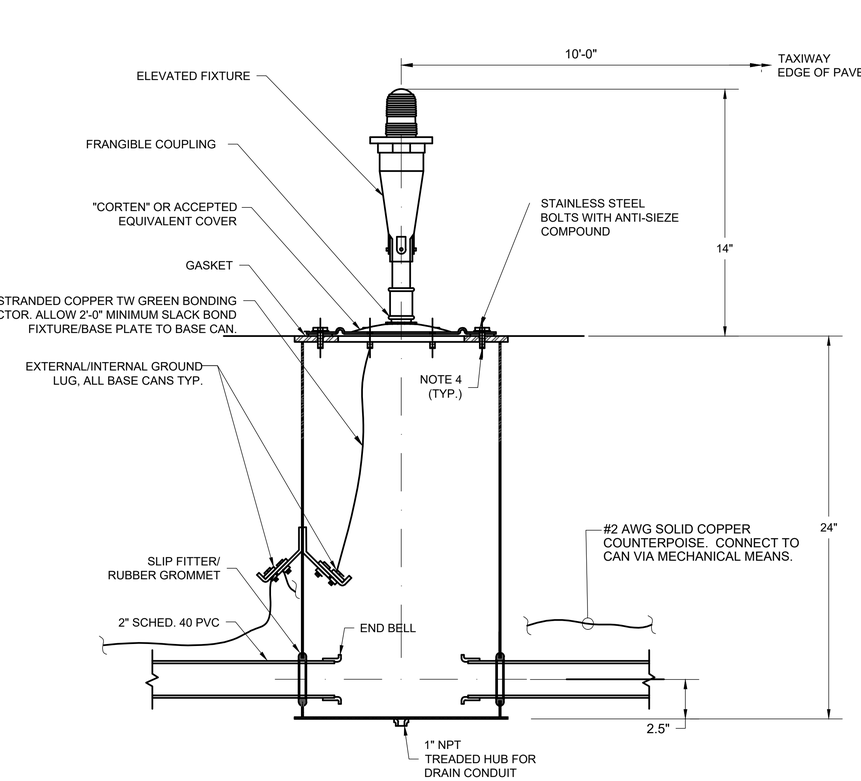
STEP 1



STEP 2



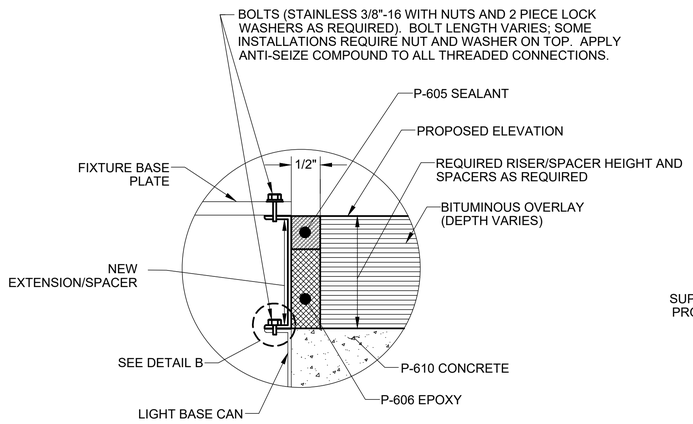
STEP 3



TYPICAL L-867B BASE CAN

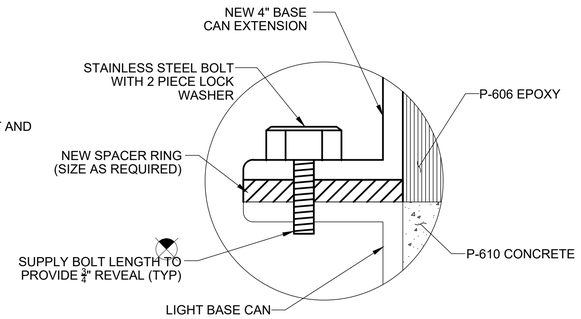
1 NEW ELEVATED LIGHT FIXTURE INSTALLATION METHOD IN ASPHALT SHOULDER DETAIL

NTS



DETAIL A

NTS



DETAIL B NEW 4" BASE CAN EXTENSION

NTS

ELEVATED FIXTURE NOTES:

1. TAXIWAY LIGHTS SHALL BE 14" HIGH UNLESS NOTED OTHERWISE IN THE CONTRACT DOCUMENTS.
2. ALL BASE CAN INSTALLATION TECHNIQUES, METHODS, MATERIALS, ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK.
3. THE FINISHED PAVEMENT SURFACE SHALL BE PROTECTED FROM FOREIGN SUBSTANCES WHICH COULD CAUSE STAINING, (IE. CONCRETE, OIL, ETC.) THE CONTRACTOR SHALL IMMEDIATELY CLEAN ALL SPILLS AND CORRECT/CLEAN ANY STAINED SURFACES AT THE CONTRACTOR'S EXPENSE.
4. THE BASE CAN COVER MOUNTING BOLTS SHALL EXTEND THRU THE BASE CAN MOUNTING FLANGE INTO THE BASE CAN A MIN. OF 0.5". THE BOLTS SHALL HAVE ENOUGH THREAD LENGTH SO THEY DO NOT SHOULDER OUT BEFORE THE FIXTURE IS SECURELY TIGHTENED. ALL BOLTING HARDWARE SHALL BE STAINLESS STEEL AND INSTALLED WITH ANTI-SIEZE COMPOUND.
5. P-610 CONCRETE AROUND BASE CANS SHALL BE COMPLETELY CONSOLIDATED BY MECHANICAL MEANS AND SHALL BE FREE OF ANY VOIDS.
6. BASE CANS SHALL BE LEVEL WITHIN ONE DEGREE. CONTRACTOR SHALL BE RESPONSIBLE TO LEVEL (WITHIN ONE DEGREE) ANY BASE CANS WHICH SETTLE DURING CONSTRUCTION OR THROUGHOUT THE WARRANTY PERIOD.
7. BEFORE PLACING CONCRETE THE CONTRACTOR SHALL DEMONSTRATE TO THE ENGINEER THAT THE BASE CANS ARE LEVEL AND AT THE CORRECT LOCATION, ELEVATION AND AZIMUTH.
8. THE P-610 CONCRETE, FOR USE IN EXISTING PAVEMENTS, SHALL BE PER THE SPECIFICATIONS. NO CORROSIVE ADDITIVES (SUCH AS CALCIUM CHLORIDE) OR CORROSIVE MIXTURES WILL BE PERMITTED.
9. CONDUIT OPENINGS SHALL BE COVERED WITH DUCT TAPE DURING CASTING PROCESS TO PREVENT DEBRIS FROM COLLECTING IN OPENINGS.
10. FOR CLARITY PURPOSES DETAILS DO NOT INCLUDE ALL OF THE REQUIRED RISERS, SPACERS AND EXTENSIONS TO PERFORM NECESSARY ADJUSTMENTS.

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

AIRFIELD ELECTRICAL DETAILS

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:

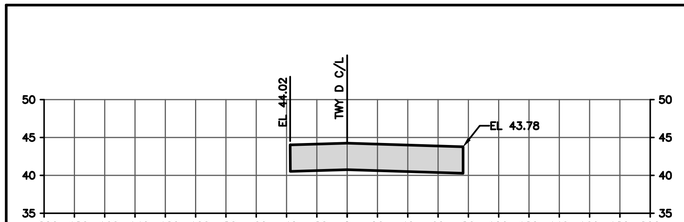
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 02/24/2023

STATE OF TEXAS
JAMES A. MCDONALD
119579
REGISTERED
PROFESSIONAL ENGINEER
2.24.23

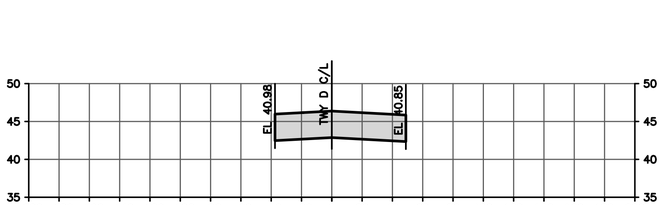
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

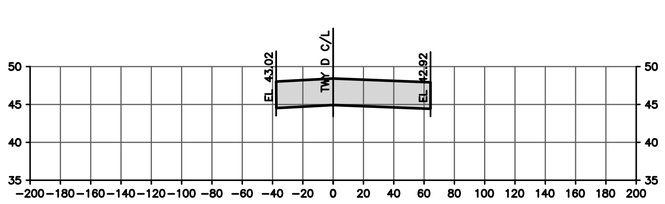
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: EL512
of



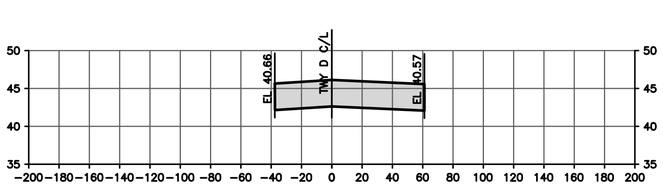
STA D–102+00



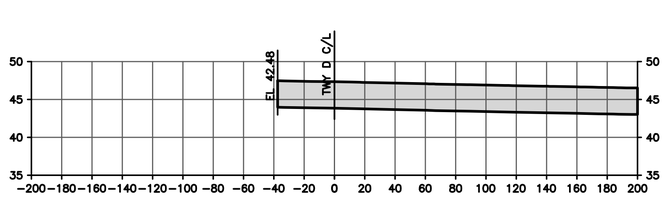
STA D–104+00



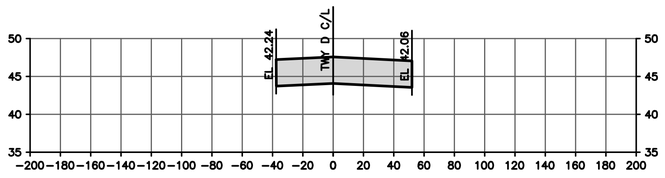
STA D–102+50



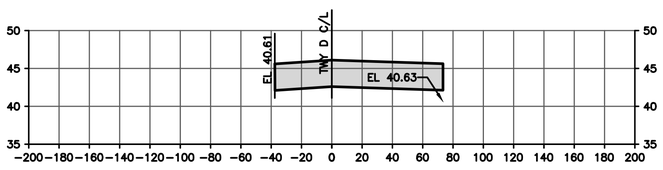
STA D–104+50



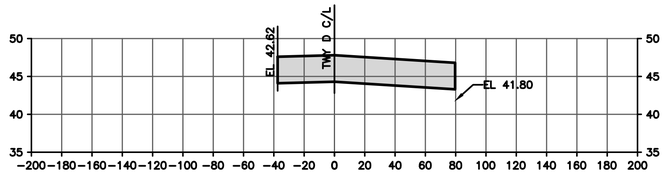
STA D–106+54.13



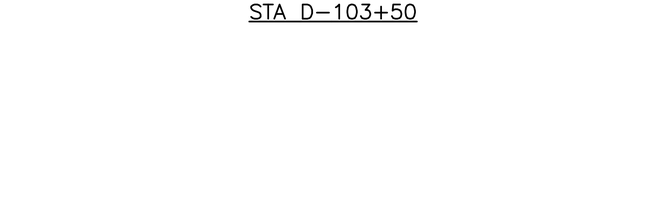
STA D–103+00



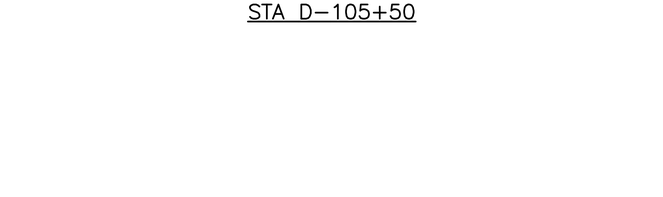
STA D–105+00



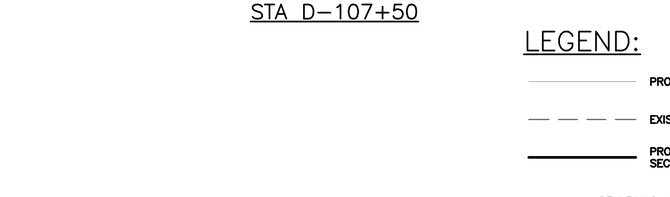
STA D–107+00



STA D–103+50



STA D–105+50



STA D–107+50

LEGEND:

PROPOSED GRADE

EXISTING GRADE

PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY D

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

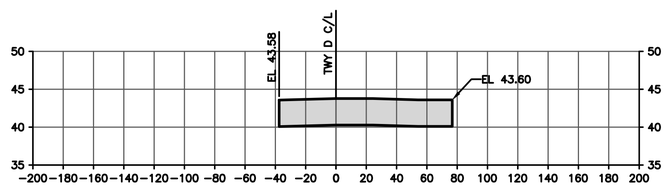
PROJECT NO: 770

C.I.P. NO: 3–48–0110–044

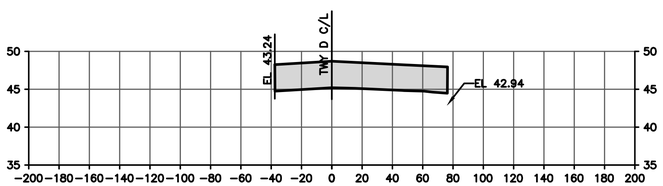
H.A.S. NO: N/A

SHEET NO: XS301

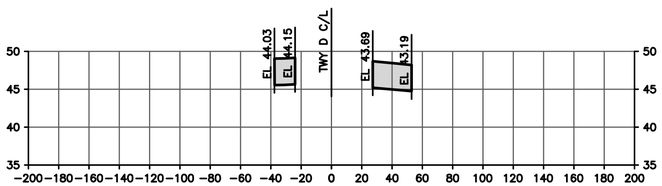
of



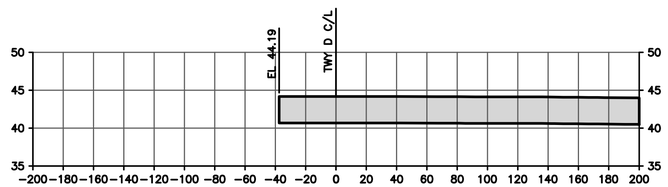
STA D–108+00



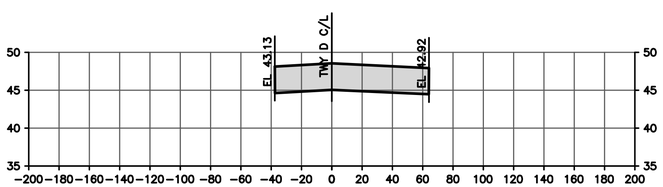
STA D–110+00



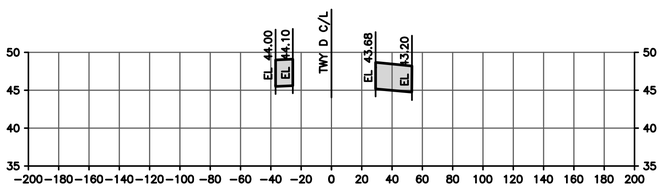
STA D–111+94.77



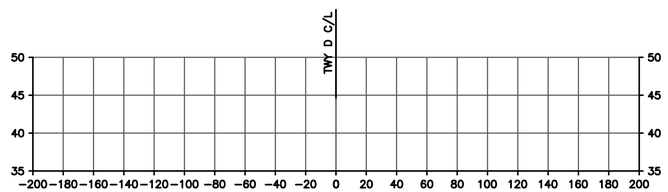
STA D–108+50



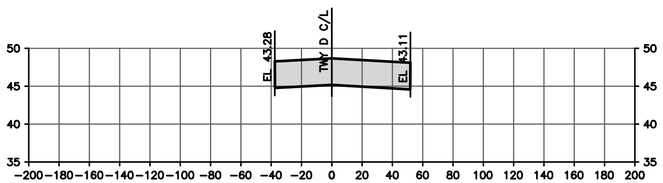
STA D–110+50



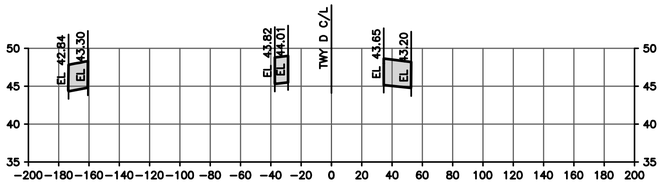
STA D–112+00



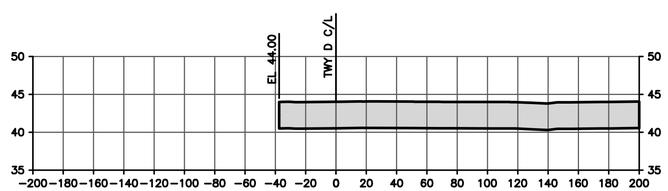
STA D–109+00



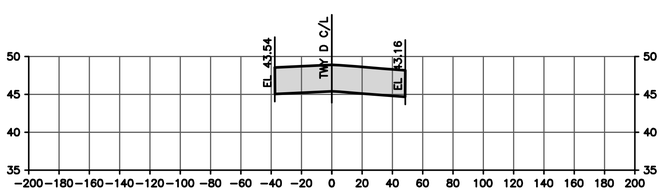
STA D–111+00



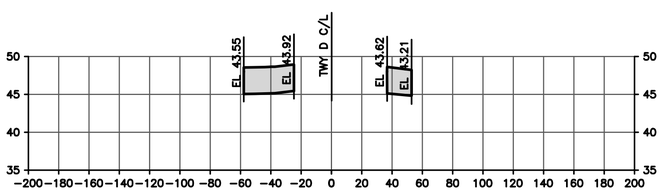
STA D–112+21.25



STA D–109+52.56



STA D–111+50



STA D–112+47.73

LEGEND:

PROPOSED GRADE

EXISTING GRADE

PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

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"

©JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY D

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
PROFESSIONAL ENGINEER
LICENSED
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

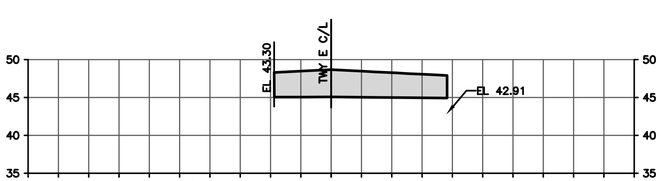
PROJECT NO: 770

C.I.P. NO: 3-48-0110-044

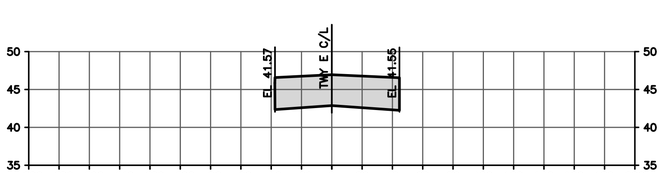
H.A.S. NO: N/A

SHEET NO: XS302

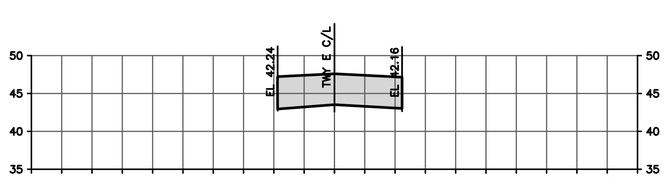
of



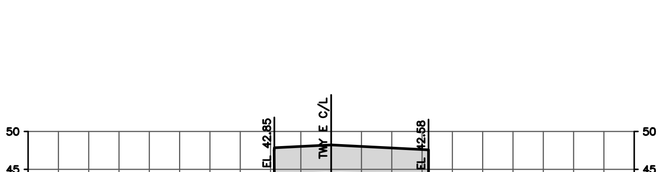
STA E−102+00



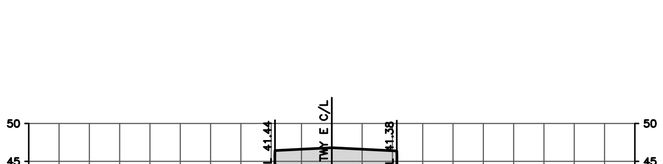
STA E−104+00



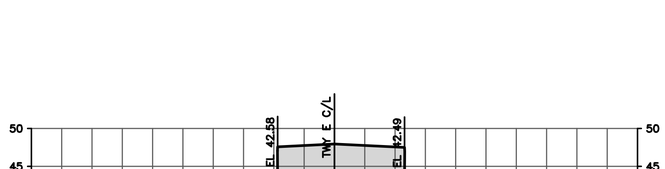
STA E−106+00



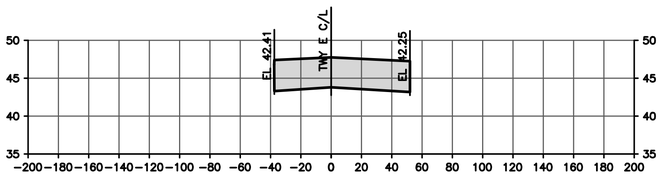
STA E−102+50



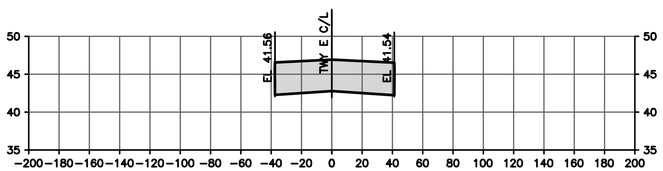
STA E−104+50



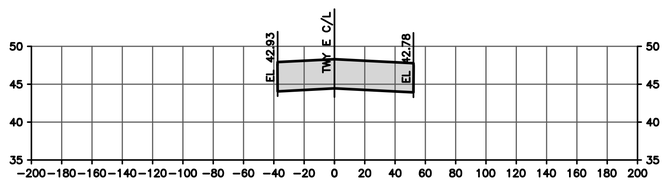
STA E−106+50



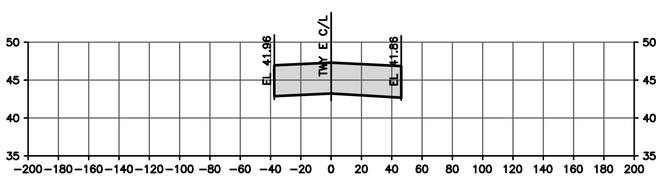
STA E−103+00



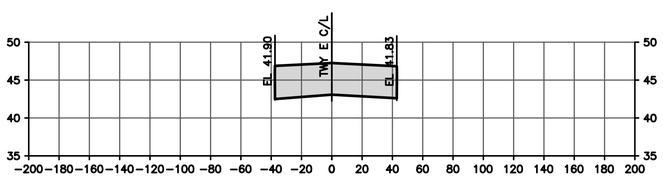
STA E−105+00



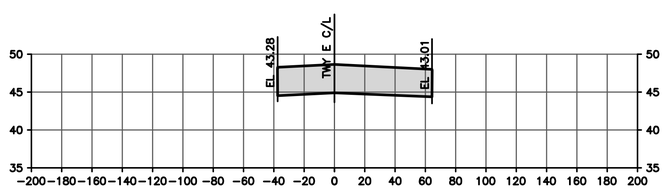
STA E−107+00



STA E−103+50



STA E−105+50



STA E−107+50

LEGEND:

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY E

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.

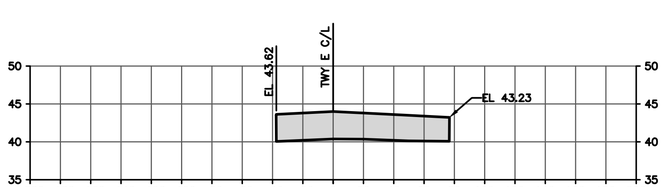
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	S. WAZIRI
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

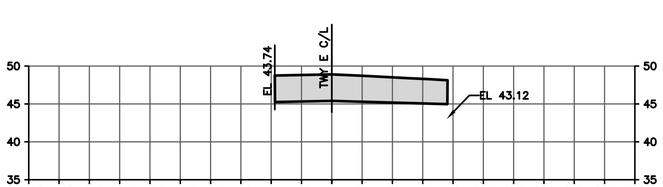
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

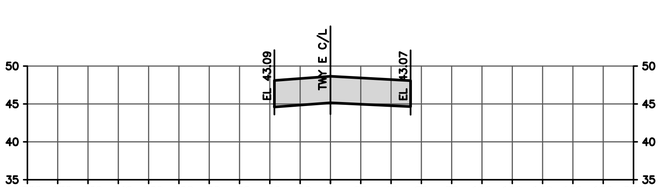
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO: XS311
of



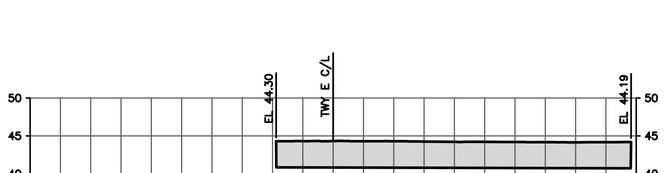
STA E−108+00



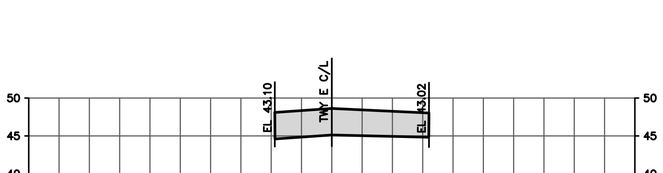
STA E−110+00



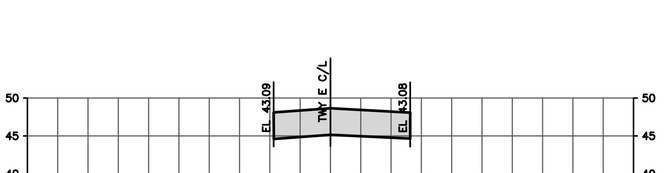
STA E−111+50



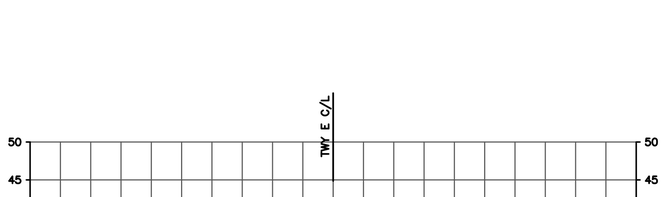
STA E−108+46.29



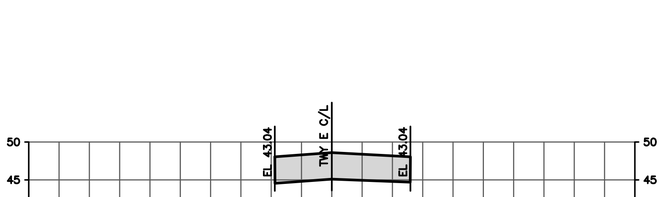
STA E−110+50



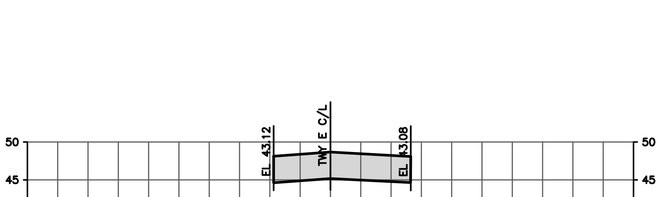
STA E−111+53.71



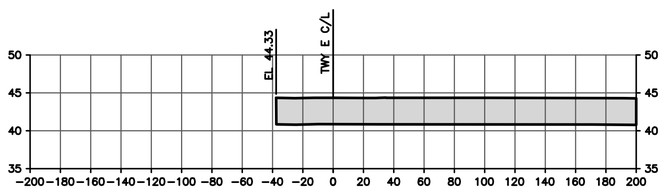
STA E−109+00



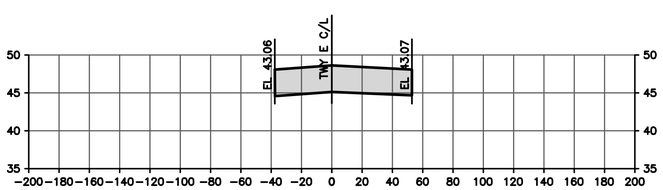
STA E−111+00



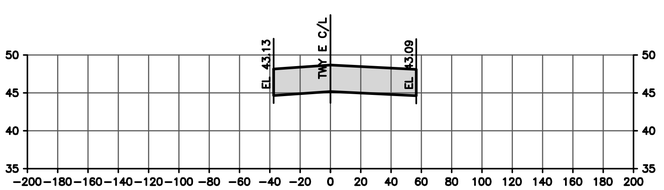
STA E−111+80.29



STA E−109+50



STA E−111+27.12



STA E−112+00

LEGEND:

PROPOSED GRADE

EXISTING GRADE

PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY E

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

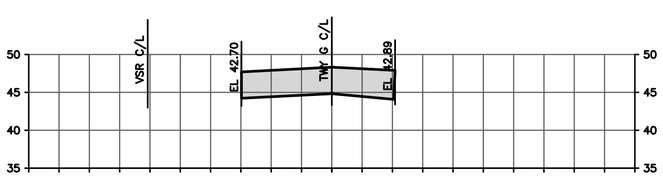
PROJECT NO: 770

C.I.P. NO: 3-48-0110-044

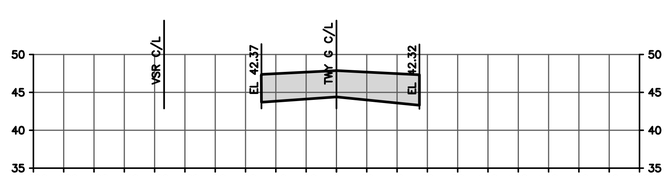
H.A.S. NO: N/A

SHEET NO: XS312

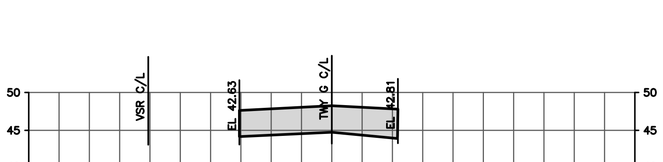
of



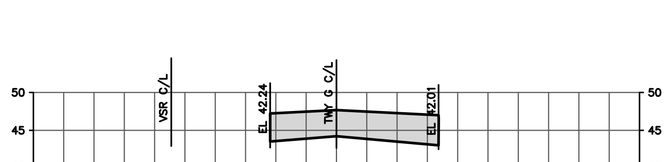
STA G−103+31.38



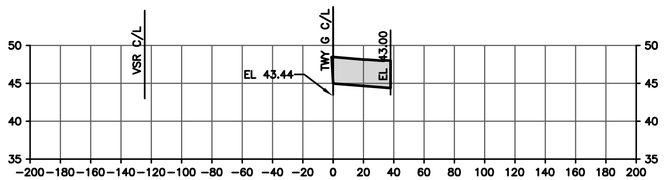
STA G−104+50



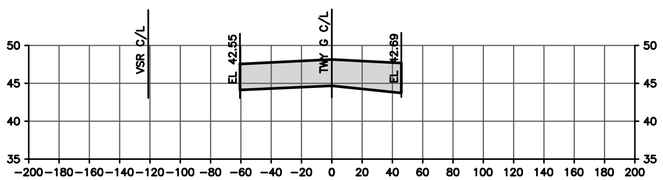
STA G−103+50



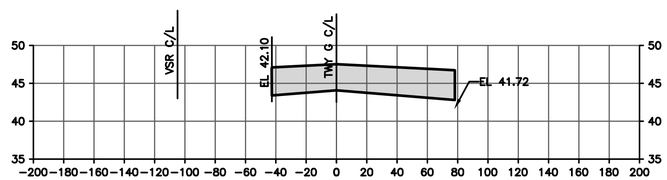
STA G−105+00



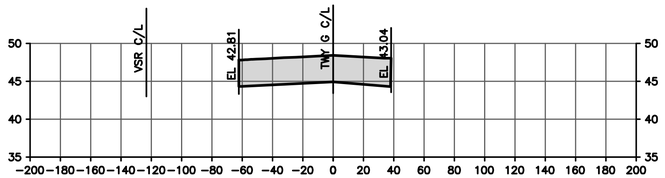
STA G−102+88.25



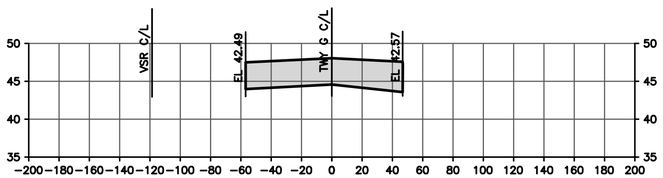
STA G−103+74.51



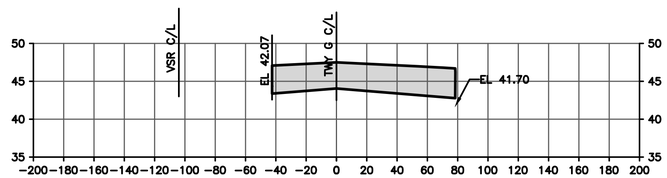
STA G−105+42.04



STA G−103+00



STA G−104+00



STA G−105+50

LEGEND:

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

FILENAME: H22C770A−XS321−XS322.DWG PLOT DATE: 2023/02/17 PLOT TIME: 12:51:19 PM

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY G

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:

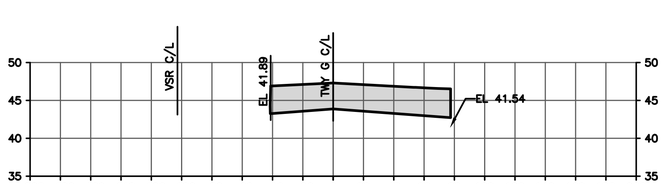
PROJECT MGR:	S. CHILDERS
DESIGNER:	B. BARTLETT
DRAWN BY:	S. WAZIRI
CHECKED BY:	R. EHTESHAM
SCALE:	AS SHOWN
DATE:	02/24/2023

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

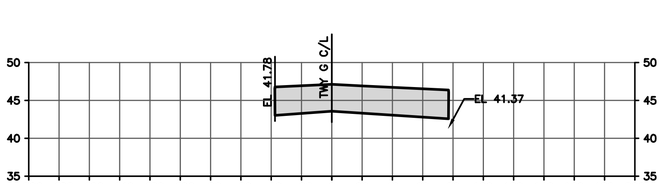
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

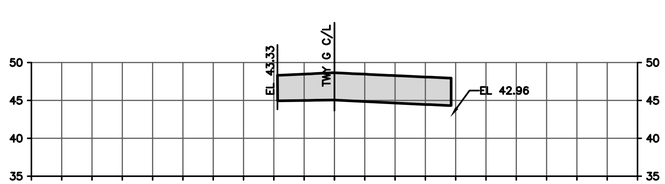
PROJECT NO: 770
C.I.P. NO: 3−48−0110−044
H.A.S. NO: N/A
SHEET NO: XS321
of



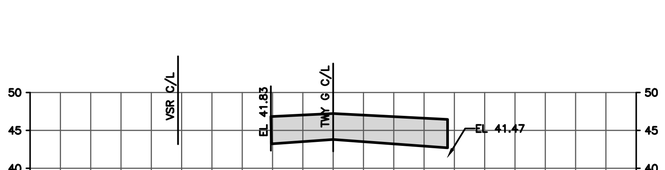
STA G−106+00



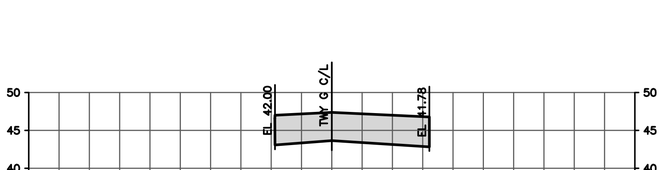
STA G−107+00



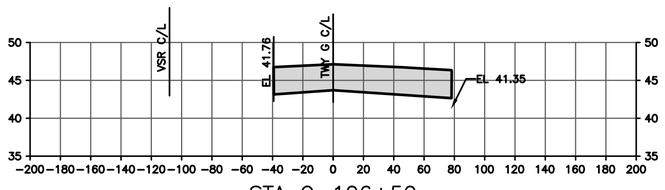
STA G−109+00



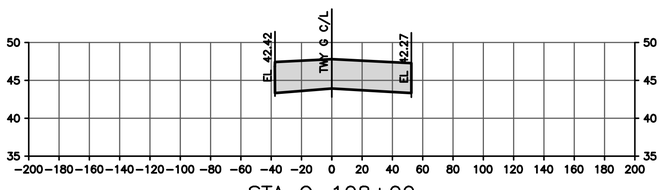
STA G−106+19.01



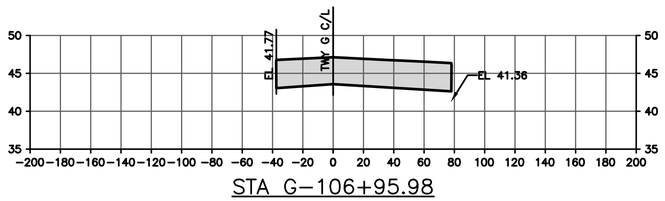
STA G−107+50



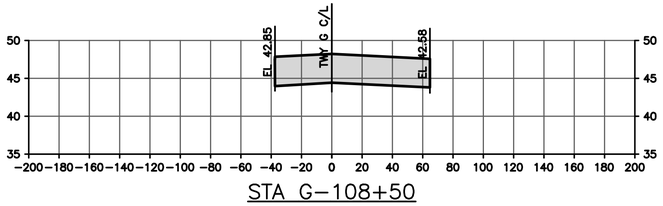
STA G−106+50



STA G−108+00



STA G−106+95.98



STA G−108+50

LEGEND:

PROPOSED

EXISTING G

PROPOSED SECTION O

GRAPHIC SCALE

50' 0 50'

HORIZONTAL SCALE: 1" =

5' 0 5'

VERTICAL SCALE: 1" =

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY G

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

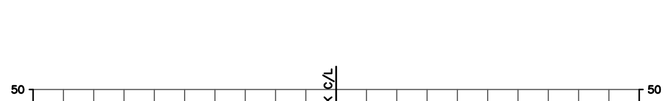
PROJECT NO: 770

C.I.P. NO: 3-48-0110-044

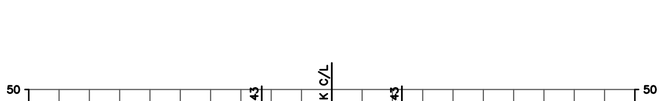
H.A.S. NO: N/A

SHEET NO: XS322

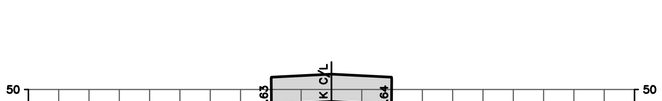
of



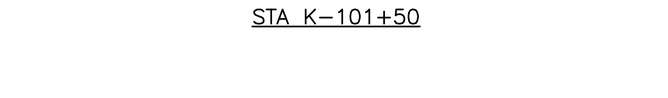
STA K–101+50



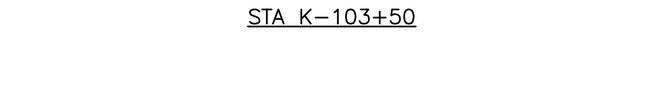
STA K–103+50



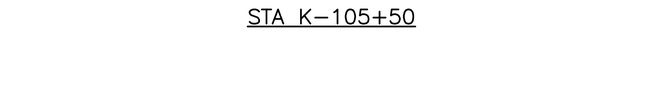
STA K–105+50



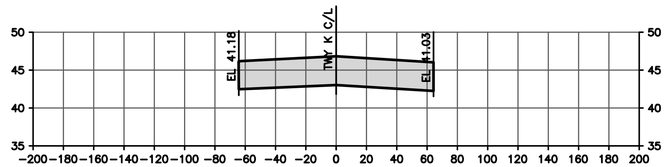
STA K–102+00



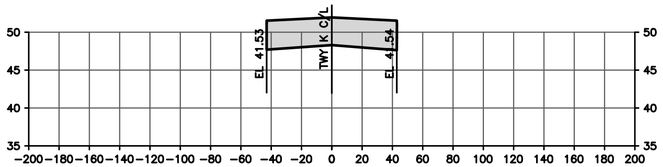
STA K–104+00



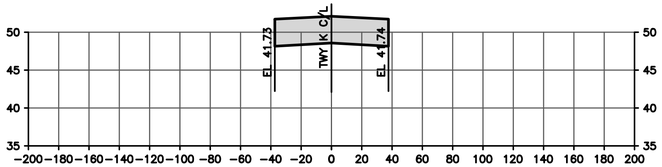
STA K–106+00



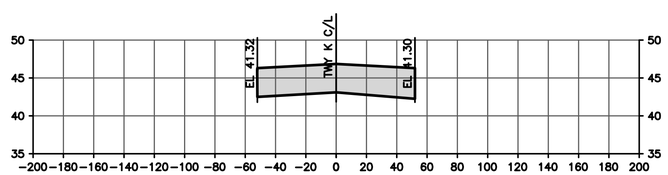
STA K–102+50



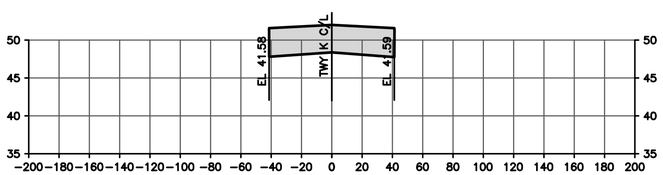
STA K–104+50



STA K–106+50



STA K–103+00



STA K–105+00

LEGEND:

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY K

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

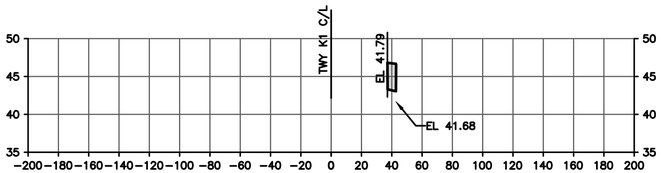
PROJECT NO: 770

C.I.P. NO: 3-48-0110-044

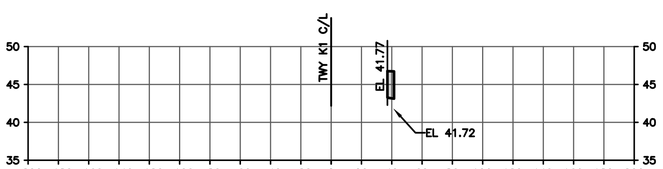
H.A.S. NO: N/A

SHEET NO: XS331

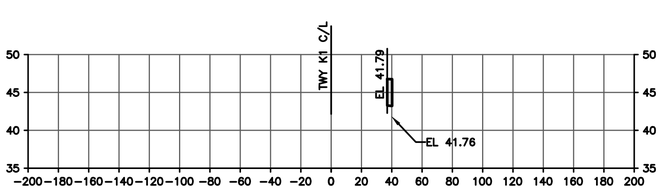
of



STA K1−212+50



STA K1−213+00



STA K1−213+50

LEGEND:

PROPOSED GRADE

EXISTING GRADE

PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY K1

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

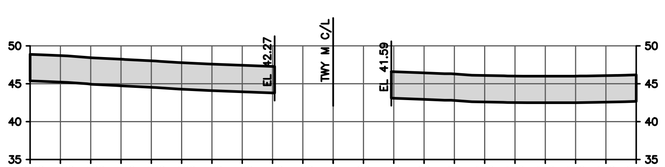
PROJECT NO: 770

C.I.P. NO: 3−48−0110−044

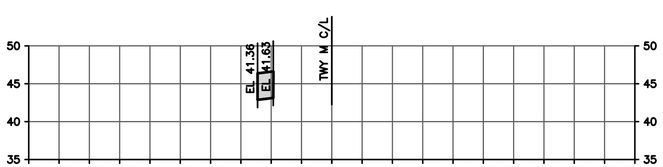
H.A.S. NO: N/A

SHEET NO: XS343

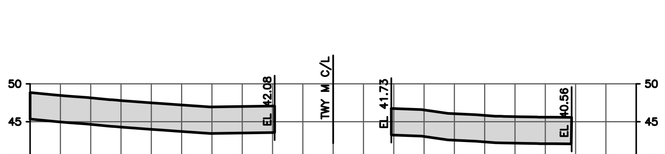
of



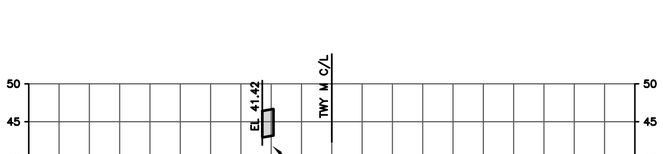
STA TW M−101+50



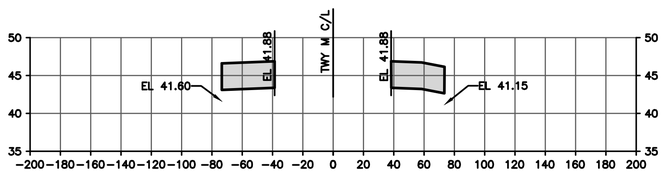
STA TW M−103+50



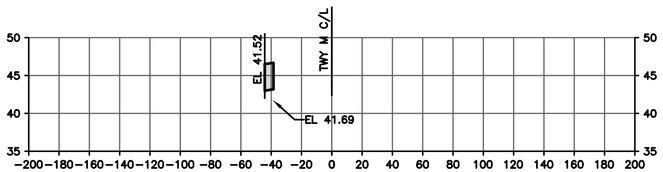
STA TW M−102+00



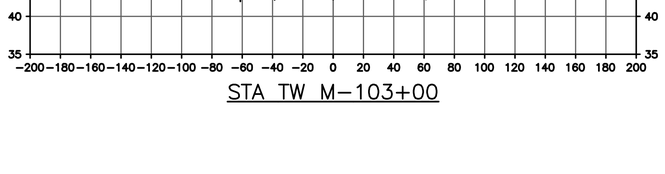
STA TW M−104+00



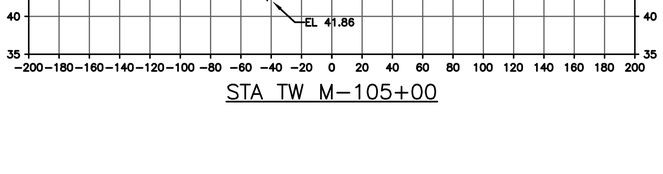
STA TW M−102+50



STA TW M−104+50



STA TW M−103+00



STA TW M−105+00

LEGEND:

- PROPOSED GRADE
- EXISTING GRADE
- PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – TAXIWAY M

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.

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

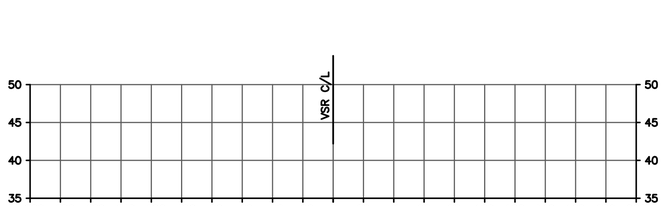
STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY:	DATE:

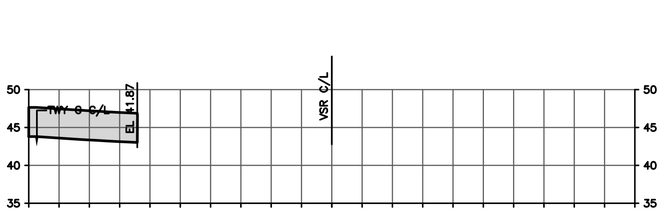
DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO:	770
C.I.P. NO:	3-48-0110-044
H.A.S. NO:	N/A
SHEET NO:	XS351

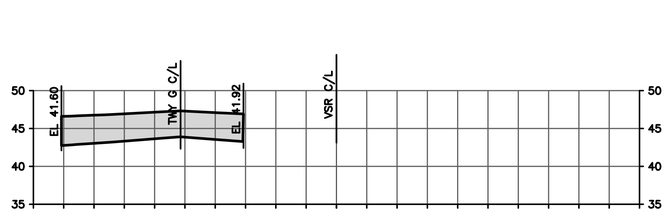
of



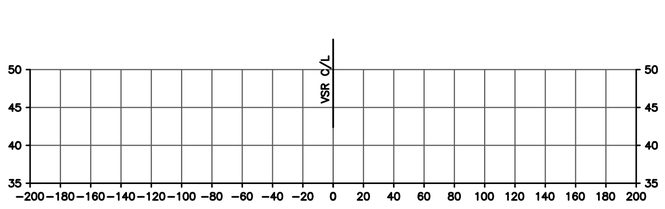
STA VSR−501+50



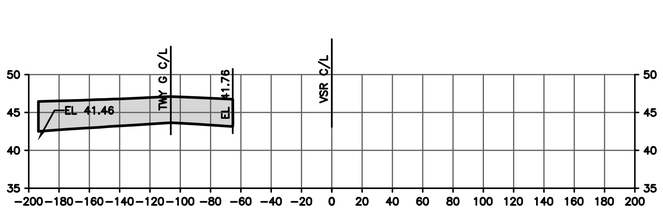
STA VSR−502+50



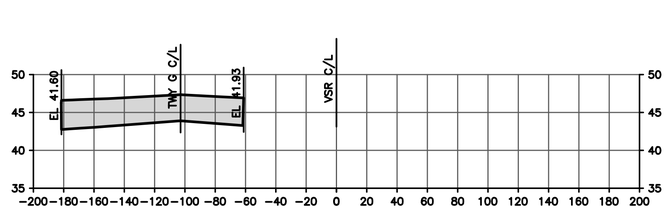
STA VSR−504+00



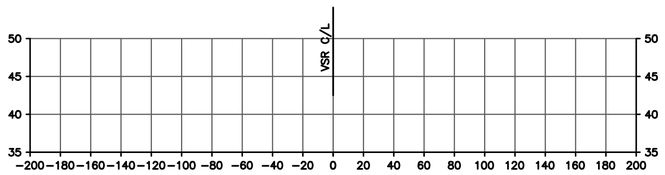
STA VSR−501+78.05



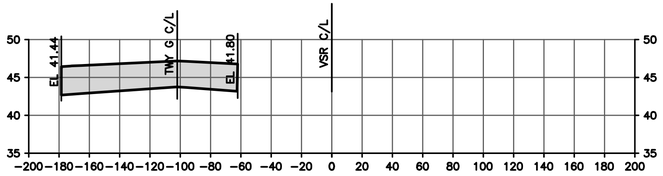
STA VSR−503+00



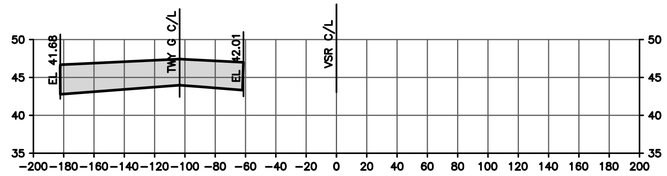
STA VSR−504+02



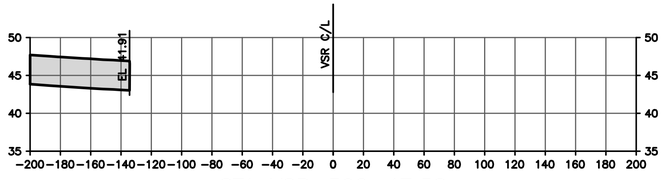
STA VSR−502+00



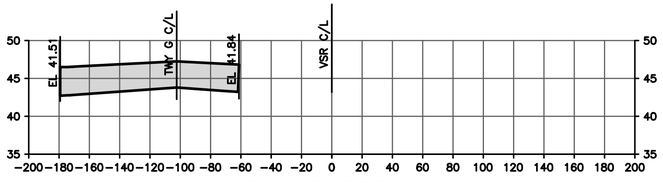
STA VSR−503+17.12



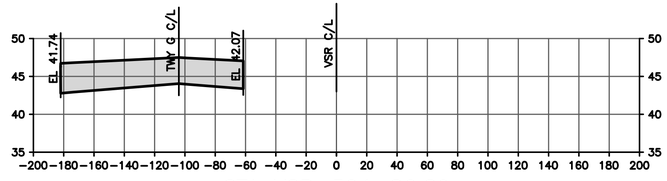
STA VSR−504+50



STA VSR−502+47.58



STA VSR−503+50



STA VSR−504+86.89

LEGEND:

PROPOSED GRADE

EXISTING GRADE

PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – VSR

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.

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

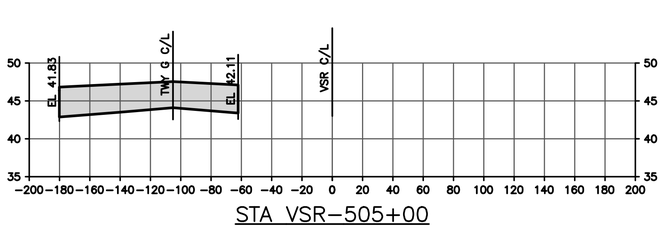
PROJECT NO: 770

C.I.P. NO: 3−48−0110−044

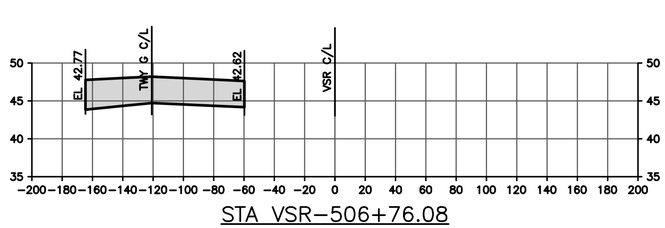
H.A.S. NO: N/A

SHEET NO: XS371

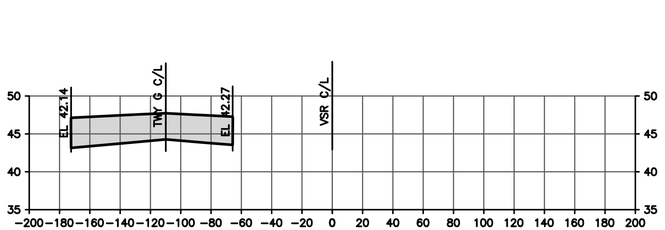
of



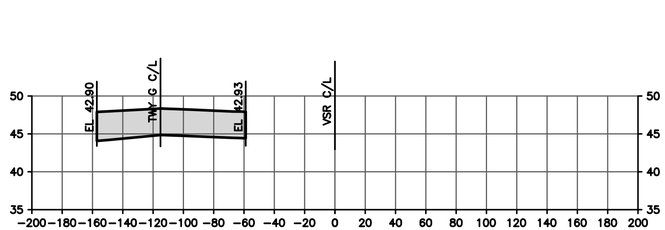
STA VSR−505+00



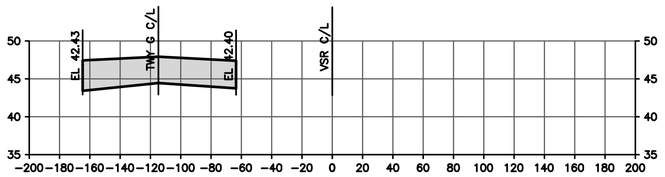
STA VSR−506+76.08



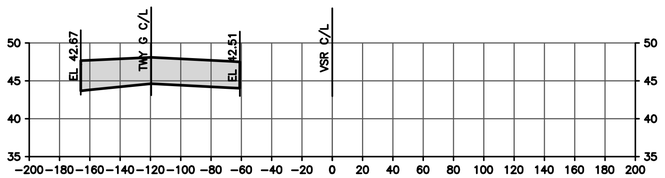
STA VSR−505+50



STA VSR−507+00



STA VSR−506+00



STA VSR−506+50

LEGEND:

PROPOSED GRADE

EXISTING GRADE

PROPOSED PAVEMENT SECTION OUTLINE

GRAPHIC SCALE

50' 0 50' 150'

HORIZONTAL SCALE: 1" = 50'

5' 0 5' 15'

VERTICAL SCALE: 1" = 5'

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"

© JACOBS 2022. ALL RIGHTS RESERVED.

REVISIONS

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

FAA NON-STANDARD TAXIWAYS PROJECT

CROSS SECTIONS – VSR

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:

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

STATE OF TEXAS
THOMAS L. MILLS III
103660
LICENSED
PROFESSIONAL ENGINEER
02/24/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

PROJECT NO: 770

C.I.P. NO: 3-48-0110-044

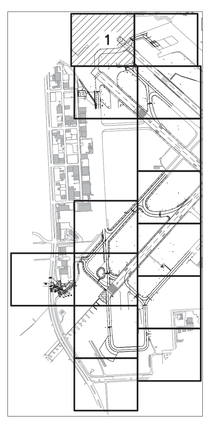
H.A.S. NO: N/A

SHEET NO: XS372

of

NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL B)	T1	30	0	
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	
HOUSTON AIRPORT SYSTEMS (LVL D)	(T3)	30	0	
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	(E1)	10	0	
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	
CENTERPOINT (LVL D)	(E2)	10	0	
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	
CENTERPOINT OVERHEAD (LVL D)	(OHE2)	10	0	
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	
COH WATERLINE (LVL D)	(W1)	170	0	
COH STORM SEWER (LVL C)	(SS1)	90	0	
COH STORM SEWER (LVL D)	(SS1)	90	0	
HAS STORM SEWER (LVL C)	(SS2)	90	0	
HAS STORM SEWER (LVL D)	(SS2)	90	0	
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	
SHELL PIPELINE (LVL D)	(G3)	50	0	

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

TEXAS REGISTERED ENGINEERING FIRM F-10055
LANE M. LEASE 98546 REGISTERED PROFESSIONAL ENGINEER
2/13/2023
UTILITY ENGINEER

STATE OF TEXAS REGISTERED
LEO M. DELATORRE 5113 PROFESSIONAL LAND SURVEYOR
2/13/2023

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"

© JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

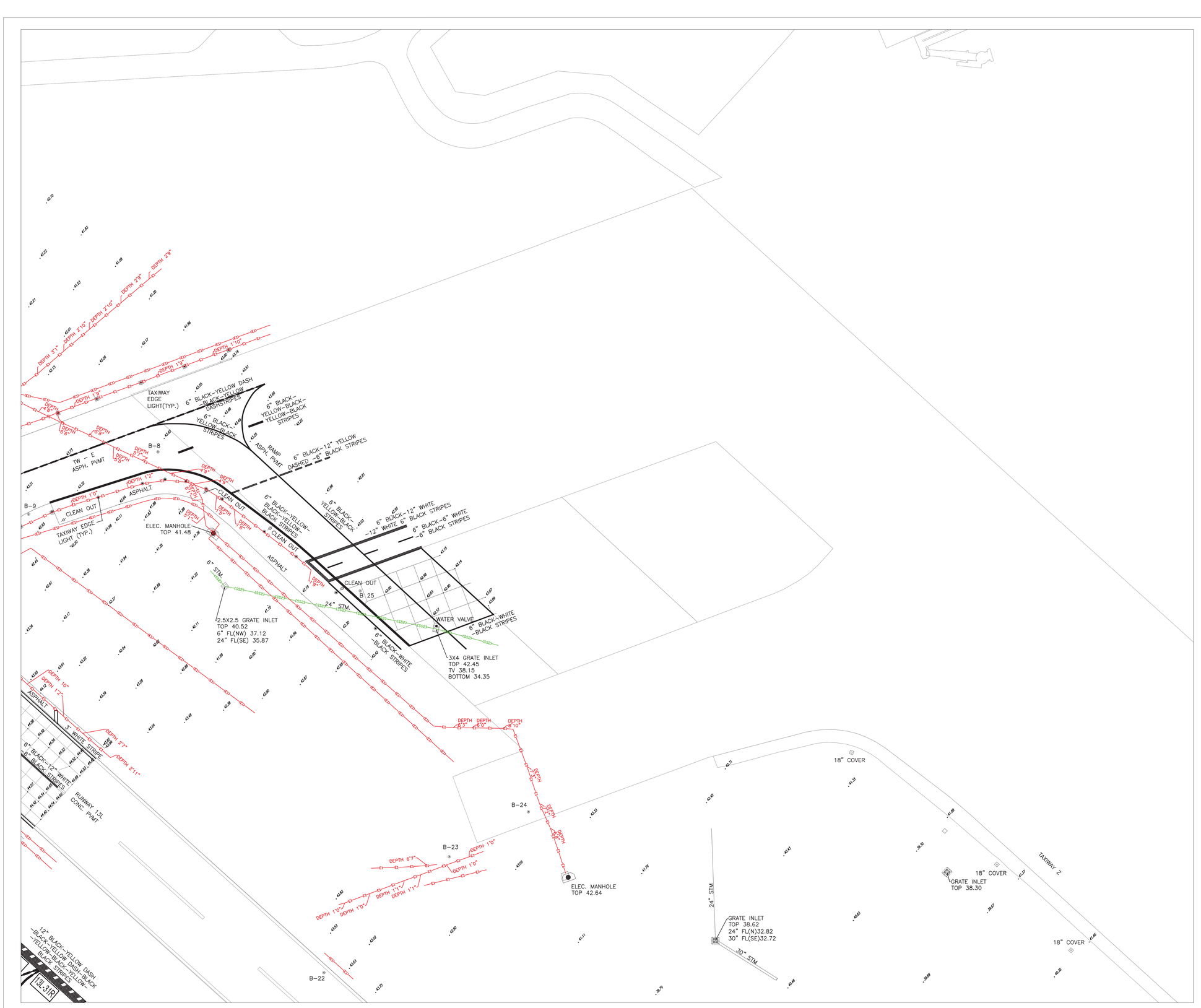
LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

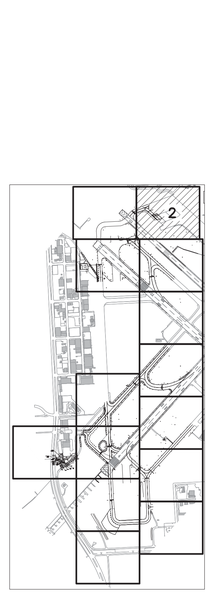
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO:

FILENAME: HOU NONSTANDARD TAXIWAYS TOPO SHEETS.DWG PLOT DATE: 2023/02/13 PLOT TIME: 9:11:30 AM



NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNINCATIONS (LVL B)	T1	30	0	T1 T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	T2 T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	(T2)	30	0	(T2) (T2) (T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	(E1)	10	0	E1 E1 E1 E1 E1
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	(E1) (E1) (E1) (E1) (E1)
CENTERPOINT (LVL B)	E2	10	0	E2 E2 E2 E2 E2
CENTERPOINT (LVL D)	(E2)	10	0	(E2) (E2) (E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	OHE2 OHE2 OHE2
CENTERPOINT OVERHEAD (LVL D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	(WW1) (WW1) (WW1)
COH WATERLINE (LVL D)	(W1)	170	0	(W1) (W1) (W1)
COH STORM SEWER (LVL C)	(SS1)	90	0	(SS1) (SS1) (SS1)
COH STORM SEWER (LVL D)	(SS1)	90	0	(SS1) (SS1) (SS1)
HAS STORM SEWER (LVL C)	(SS2)	90	0	(SS2) (SS2) (SS2)
HAS STORM SEWER (LVL D)	(SS2)	90	0	(SS2) (SS2) (SS2)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	(G1) (G1) (G1)
SHELL PIPELINE (LVL D)	(G3)	50	0	(G3) (G3) (G3)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

RICO SUBSURFACE UTILITY ENGINEERING, INC. STATE OF TEXAS LANE M. LEASE 98546 LICENSED PROFESSIONAL ENGINEER 2/13/2023 F-10055
UTILITY ENGINEER

STATE OF TEXAS REGISTERED LAND SURVEYOR LEO M. DELATORRE 5113 PROFESSIONAL LAND SURVEYOR
2/13/2023

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"

© JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

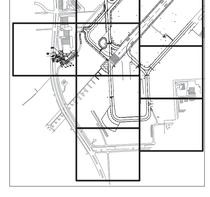
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL 8)	T1	30	0	T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL 8)	(T2)	30	0	T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL 0)		30	0	T2 T2 T2 T2
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 8)	(E1)	10	0	E1 E1 E1 E1
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 0)	E1	10	0	E1 E1 E1 E1
CENTERPOINT (LVL 8)	(E2)	10	0	E2 E2 E2 E2
CENTERPOINT (LVL 0)	E2	10	0	E2 E2 E2 E2
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CENTERPOINT OVERHEAD (LVL 0)	OHE2	10	0	OHE2 OHE2 OHE2
CITY OF HOUSTON TRAFFIC SIGNAL (LVL 8)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	(WW1) (WW1) (WW1) (WW1)
COH WATERLINE (LVL D)	(W1)	170	0	(W1) (W1) (W1) (W1)
COH STORM SEWER (LVL C)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1)
COH STORM SEWER (LVL D)	SS1	90	0	SS1 SS1 SS1 SS1
HAS STORM SEWER (LVL C)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2)
HAS STORM SEWER (LVL D)	SS2	90	0	SS2 SS2 SS2 SS2
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	G1 G1 G1 G1
SHELL PIPELINE (LVL D)	G3	50	0	G3 G3 G3 G3

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

REVISED AUGUST 2012 UTILITY ENGINEERING, INC. STATE OF TEXAS LANE M. LEASE 98546 LICENSED PROFESSIONAL ENGINEER 2/13/2023 F-10059

UTILITY ENGINEER

STATE OF TEXAS REGISTERED LEO M. DELATORRE 5113 PROFESSIONAL LAND SURVEYOR 2/13/2023

0 50 100 150

SCALE : 1" = 50'

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"

© JACOBS 2022 ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

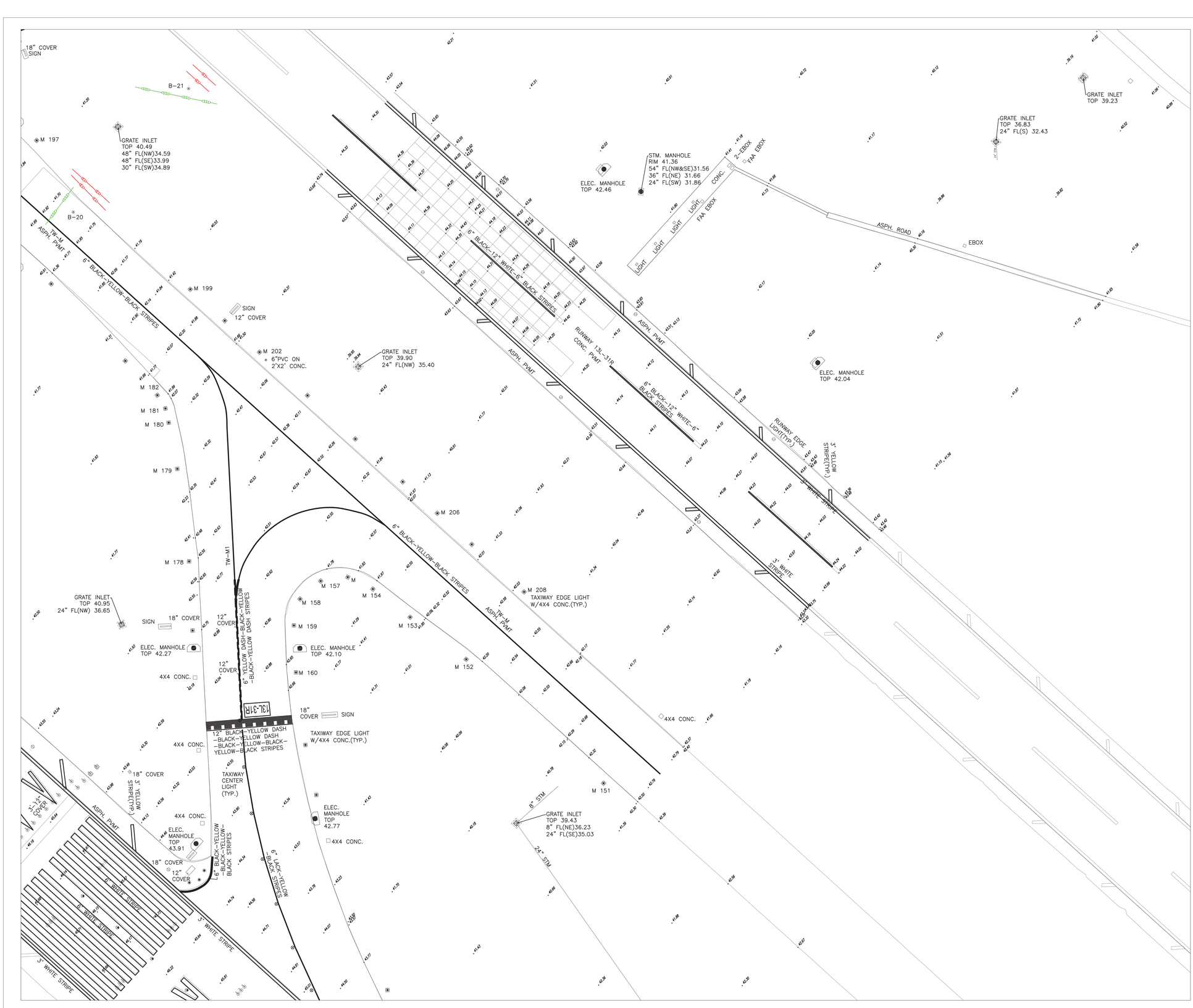
LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

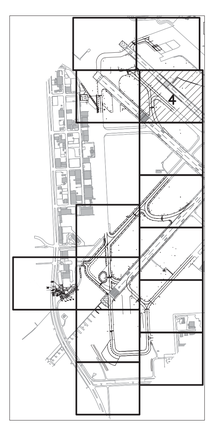
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO:

FILENAME: HOU NONSTANDARD TAXIWAYS TOPO SHEETS.DWG PLOT DATE: 2023/02/13 PLOT TIME: 9:11:50 AM



NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS-MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL. B)	T1	30	0	T1 T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL. B)	T2	30	0	T2 T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL. D)	(T2)	30	0	(T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL. B)	(E)	10	0	(E) (E) (E) (E) (E)
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL. D)	(E)	10	0	(E) (E) (E) (E) (E)
CENTERPOINT (LVL. B)	E	10	0	E E E E E
CENTERPOINT (LVL. D)	(E)	10	0	(E) (E) (E) (E) (E)
CENTERPOINT OVERHEAD (LVL. C)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CENTERPOINT OVERHEAD (LVL. D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL. B)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL. D)	(WW1)	90	0	(WW1) (WW1) (WW1)
COH WATERLINE (LVL. D)	(W1)	100	0	(W1) (W1) (W1)
COH STORM SEWER (LVL. C)	(SS1)	90	0	(SS1) (SS1) (SS1)
COH STORM SEWER (LVL. D)	(SS1)	90	0	(SS1) (SS1) (SS1)
HAS STORM SEWER (LVL. C)	(SS2)	90	0	(SS2) (SS2) (SS2)
HAS STORM SEWER (LVL. D)	(SS2)	90	0	(SS2) (SS2) (SS2)
GAS, NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL. D)	(G1)	50	0	(G1) (G1) (G1)
SHELL PIPELINE (LVL. D)	(G3)	50	0	(G3) (G3) (G3)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

REGISTERED PROFESSIONAL SUBSURFACE UTILITY ENGINEERING INC. STATE OF TEXAS LANE M. LEASE 98546 LICENSED 2/13/2023 7-10059
UTILITY ENGINEER

STATE OF TEXAS REGISTERED LEO M. DELATORRE 5113 PROFESSIONAL LAND SURVEYOR
2/13/2023

0 50 100 150
SCALE : 1" = 50'

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"

© JACOBS 2022 ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

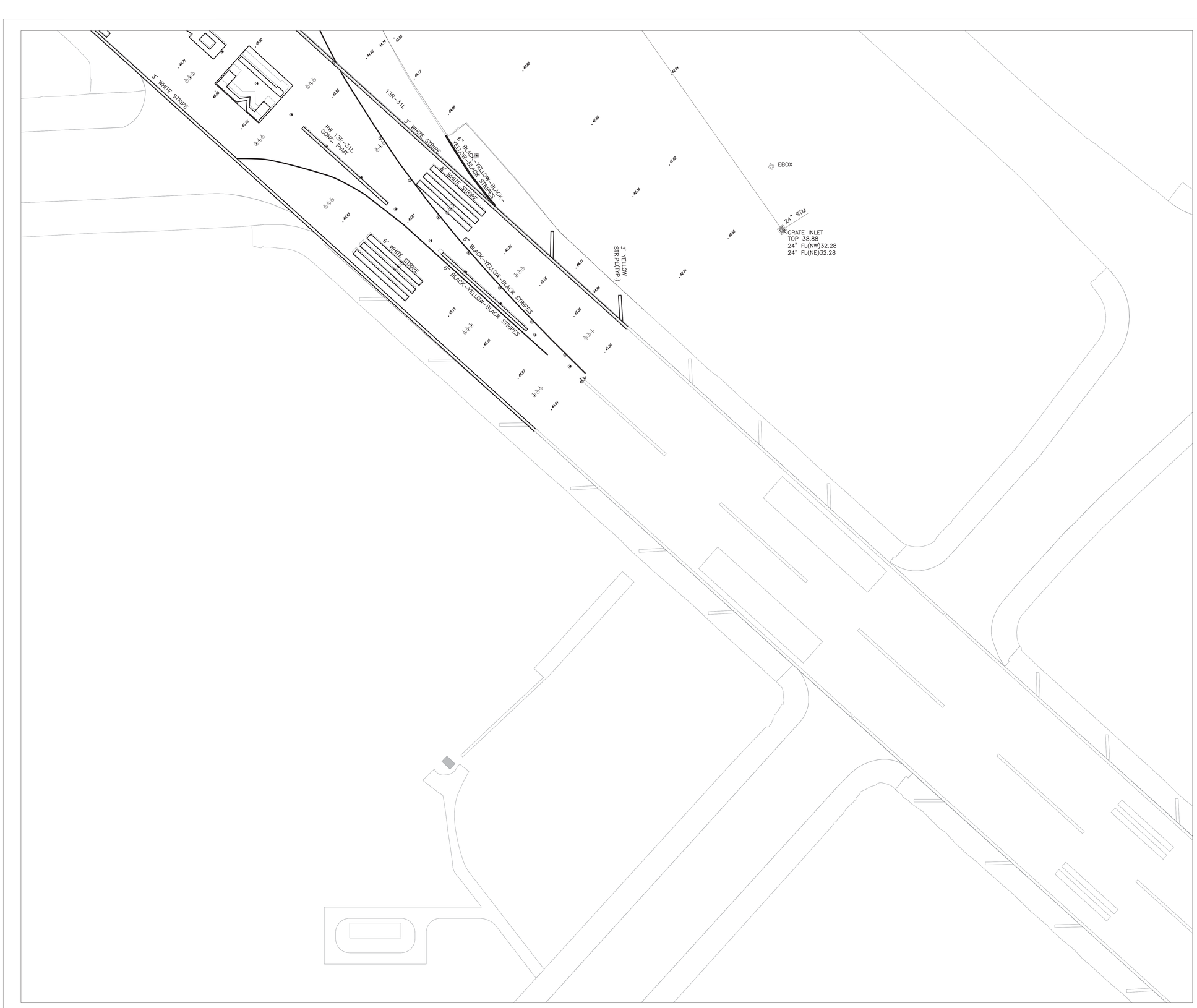
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

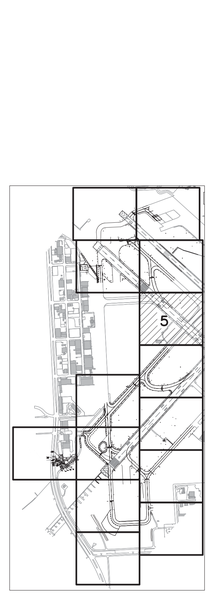
DIRECTOR
HOUSTON AIRPORT SYSTEM

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



NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL B)	T1	30	0	T1 T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	T2 T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	(T2)	30	0	(T2) (T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	(E)	10	0	E E E E E
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	(E) (E) (E) (E)
CENTERPOINT (LVL B)	E2	10	0	E2 E2 E2 E2 E2
CENTERPOINT (LVL D)	(E2)	10	0	(E2) (E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CENTERPOINT OVERHEAD (LVL D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	WW1 WW1 WW1 WW1 WW1
COH WATERLINE (LVL D)	(W1)	170	0	W1 W1 W1 W1 W1
COH STORM SEWER (LVL C)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1) (SS1)
COH STORM SEWER (LVL D)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1) (SS1)
HAS STORM SEWER (LVL C)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2) (SS2)
HAS STORM SEWER (LVL D)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2) (SS2)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	(G1) (G1) (G1) (G1)
SHELL PIPELINE (LVL D)	(G3)	50	0	(G3) (G3) (G3) (G3)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

REECE SUBSURFACE UTILITY ENGINEERING, INC. — STATE OF TEXAS — LANE M. LEASE — 98546 — LICENSED PROFESSIONAL ENGINEER — 2/13/2023 — F-10055

UTILITY ENGINEER

STATE OF TEXAS — REGISTERED — LEO M. DELATORRE — 5113 — PROFESSIONAL — LAND SURVEYOR

2/13/2023

0 50 100 150

SCALE : 1" = 50'

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"

©JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

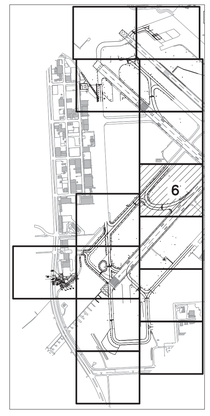
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL. B)	T1	30	0	T1 T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL. B)	T2	30	0	T2 T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL. D)	(T2)	30	0	(T2) (T2) (T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL. B)	(E)	10	0	E E E E E
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL. D)	(E)	10	0	(E) (E) (E) (E) (E)
CENTERPOINT (LVL. B)	E2	10	0	E2 E2 E2 E2 E2
CENTERPOINT (LVL. D)	(E2)	10	0	(E2) (E2) (E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL. C)	(OHE2)	10	0	OHE2 OHE2 OHE2 OHE2 OHE2
CENTERPOINT OVERHEAD (LVL. D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL. B)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL. D)	(WW1)	90	0	(WW1) (WW1) (WW1) (WW1) (WW1)
COH WATERLINE (LVL. D)	(W1)	170	0	(W1) (W1) (W1) (W1) (W1)
COH STORM SEWER (LVL. C)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1) (SS1)
COH STORM SEWER (LVL. D)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1) (SS1)
HAS STORM SEWER (LVL. C)	SS2	90	0	SS2 SS2 SS2 SS2 SS2
HAS STORM SEWER (LVL. D)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2) (SS2)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL. D)	(G1)	50	0	G1 G1 G1 G1 G1
SHELL PIPELINE (LVL. D)	(G3)	50	0	G3 G3 G3 G3 G3

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

REVISED SUBSURFACE UTILITY ENGINEERING, INC. STATE OF TEXAS LANE M. LEASE 98546 LICENSED PROFESSIONAL ENGINEER 2/13/2023 F-10055
UTILITY ENGINEER

STATE OF TEXAS REGISTERED LEO M. DELATORRE 5113 PROFESSIONAL LAND SURVEYOR
2/13/2023

0 50 100 150
SCALE : 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

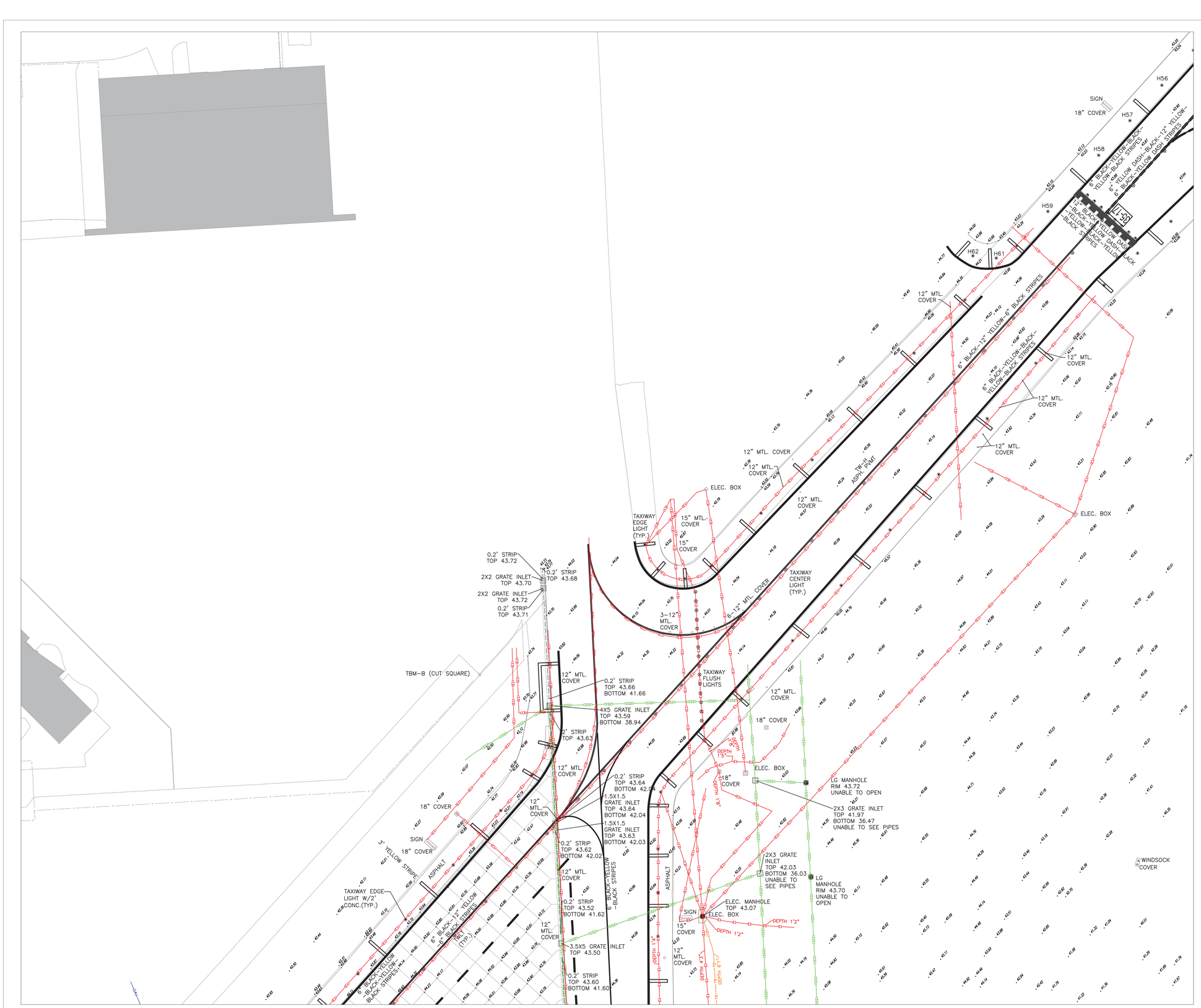
LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

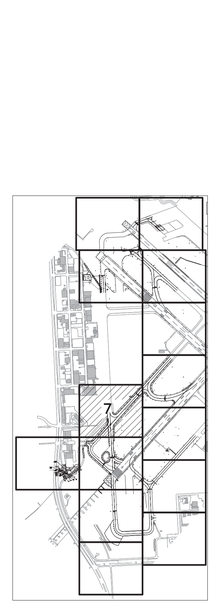
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO:

FILENAME: HOU NONSTANDARD TAXIWAYS TOPO SHEETS.DWG PLOT DATE: 2023/02/13 PLOT TIME: 9:12:21 AM



NOTES:

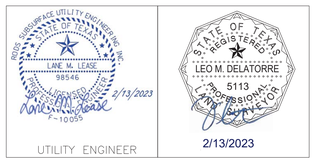
1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL B)	T1	30	0	T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	[T2]	30	0	[T2] [T2] [T2] [T2]
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	E1	10	0	E1 E1 E1 E1
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	[E1]	10	0	[E1] [E1] [E1] [E1]
CENTERPOINT (LVL B)	E2	10	0	E2 E2 E2 E2
CENTERPOINT (LVL D)	[E2]	10	0	[E2] [E2] [E2] [E2]
CENTERPOINT OVERHEAD (LVL C)	[OHE2]	10	0	OHE2 OHE2 OHE2 OHE2
CENTERPOINT OVERHEAD (LVL D)	[OHE2]	10	0	[OHE2] [OHE2] [OHE2] [OHE2]
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	[WW1]	90	0	WW1 WW1 WW1 WW1
COH WATERLINE (LVL D)	[W1]	170	0	W1 W1 W1 W1
COH STORM SEWER (LVL C)	[SS1]	90	0	SS1 SS1 SS1 SS1
COH STORM SEWER (LVL D)	[SS1]	90	0	[SS1] [SS1] [SS1] [SS1]
HAS STORM SEWER (LVL C)	[SS2]	90	0	SS2 SS2 SS2 SS2
HAS STORM SEWER (LVL D)	[SS2]	90	0	[SS2] [SS2] [SS2] [SS2]
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	[G1]	50	0	G1 G1 G1 G1
SHELL PIPELINE (LVL D)	[G3]	50	0	G3 G3 G3 G3

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.



0 50 100 150

SCALE : 1" = 50'

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"

© JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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.

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

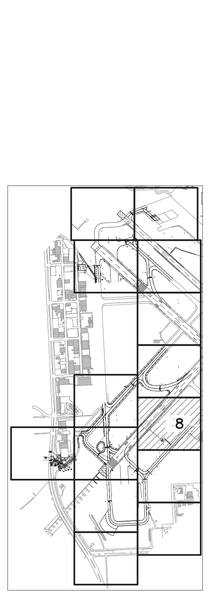
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

NOTES:

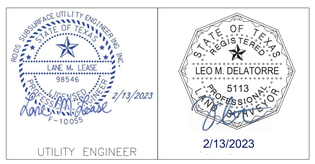
1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.

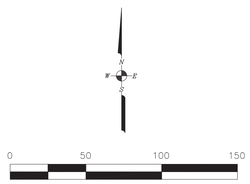


LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL 8)	T1	30	0	
HOUSTON AIRPORT SYSTEMS (LVL 8)	T2	30	0	
HOUSTON AIRPORT SYSTEMS (LVL 0)	(T2)	30	0	
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 8)	(E)	10	0	
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 0)	(E1)	10	0	
CENTERPOINT (LVL 8)	(E2)	10	0	
CENTERPOINT (LVL 0)	(E3)	10	0	
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	
CENTERPOINT OVERHEAD (LVL 0)	(OHE2)	10	0	
CITY OF HOUSTON TRAFFIC SIGNAL (LVL 8)	TSE1	10	0	
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	
COH WATERLINE (LVL D)	(W1)	170	0	
COH STORM SEWER (LVL C)	(SS1)	90	0	
COH STORM SEWER (LVL D)	(SS1)	90	0	
HAS STORM SEWER (LVL C)	(SS2)	90	0	
HAS STORM SEWER (LVL D)	(SS2)	90	0	
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	
SHELL PIPELINE (LVL D)	(G3)	50	0	

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.





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"

© JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

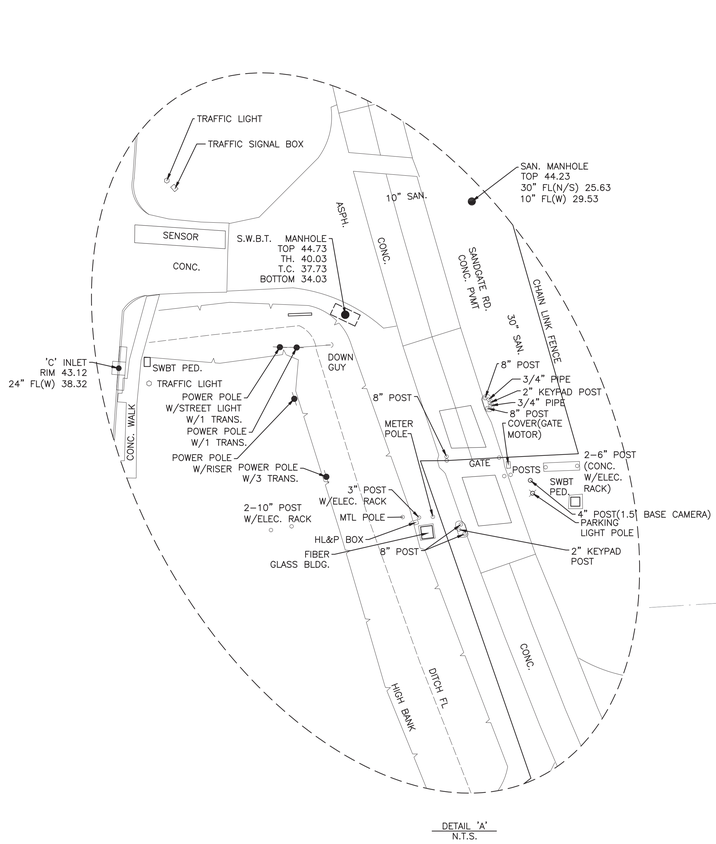
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

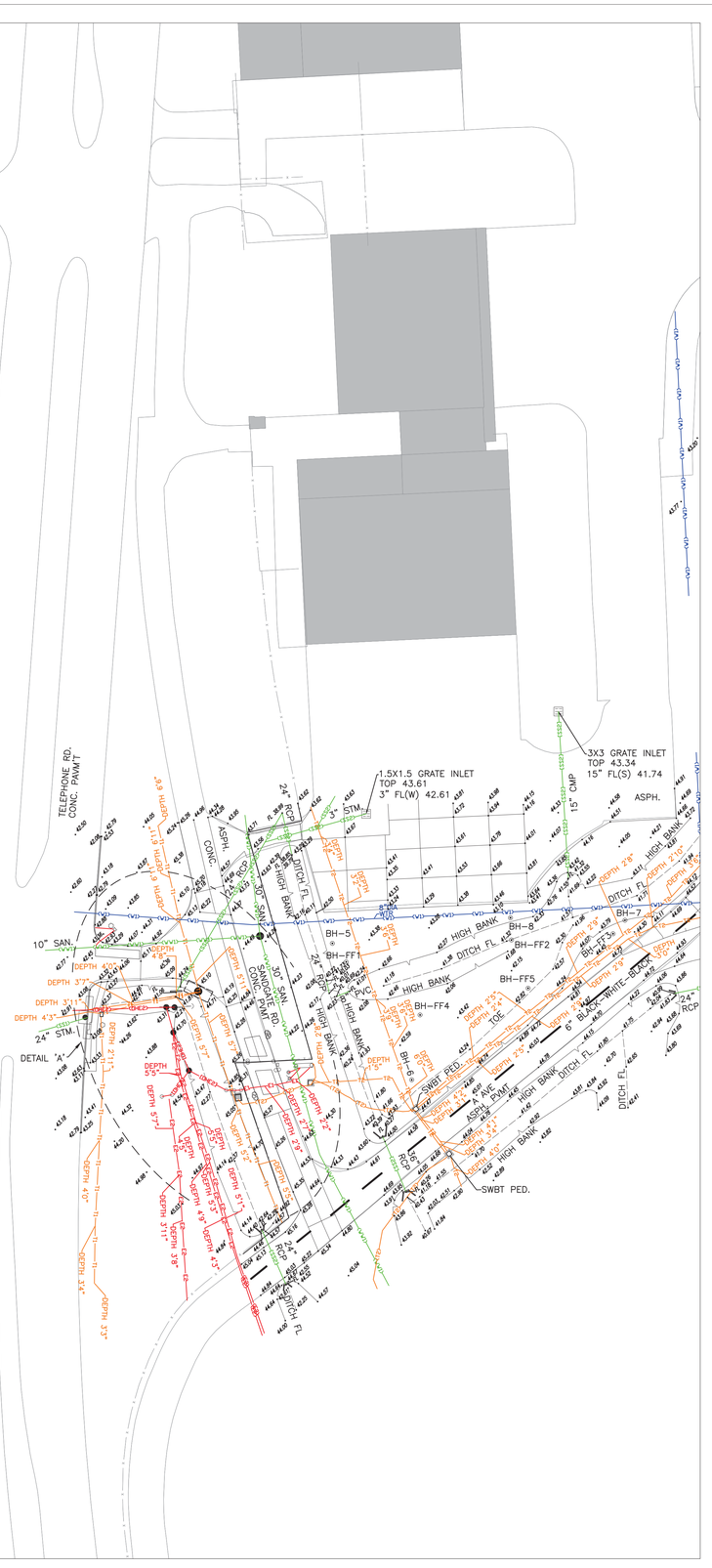
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

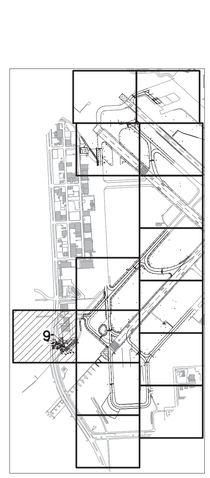


DETAIL 'A'
N.T.S.



NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS-MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL 8)	T1	30	0	T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL 8)	T2	30	0	T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL 0)	(T2)	30	0	(T2) (T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 8)	(E)	10	0	(E) (E) (E) (E)
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 0)	(E1)	10	0	(E1) (E1) (E1) (E1)
CENTERPOINT (LVL 0)	(E)	10	0	(E) (E) (E) (E)
CENTERPOINT OVERHEAD (LVL 0)	(OHE)	10	0	(OHE) (OHE) (OHE) (OHE)
CENTERPOINT OVERHEAD (LVL 8)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL 8)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL 0)	(WW1)	90	0	(WW1) (WW1) (WW1) (WW1)
COH WATERLINE (LVL 0)	(W1)	170	0	(W1) (W1) (W1) (W1)
COH STORM SEWER (LVL C)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1)
COH STORM SEWER (LVL D)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1)
HAS STORM SEWER (LVL C)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2)
HAS STORM SEWER (LVL D)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2)
GAS, NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL 0)	(G1)	50	0	(G1) (G1) (G1) (G1)
SHELL PIPELINE (LVL D)	(G3)	50	0	(G3) (G3) (G3) (G3)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE OBTAINED BY TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

0 50 100 150
SCALE : 1" = 50'

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"

© JACOBS 2022 ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

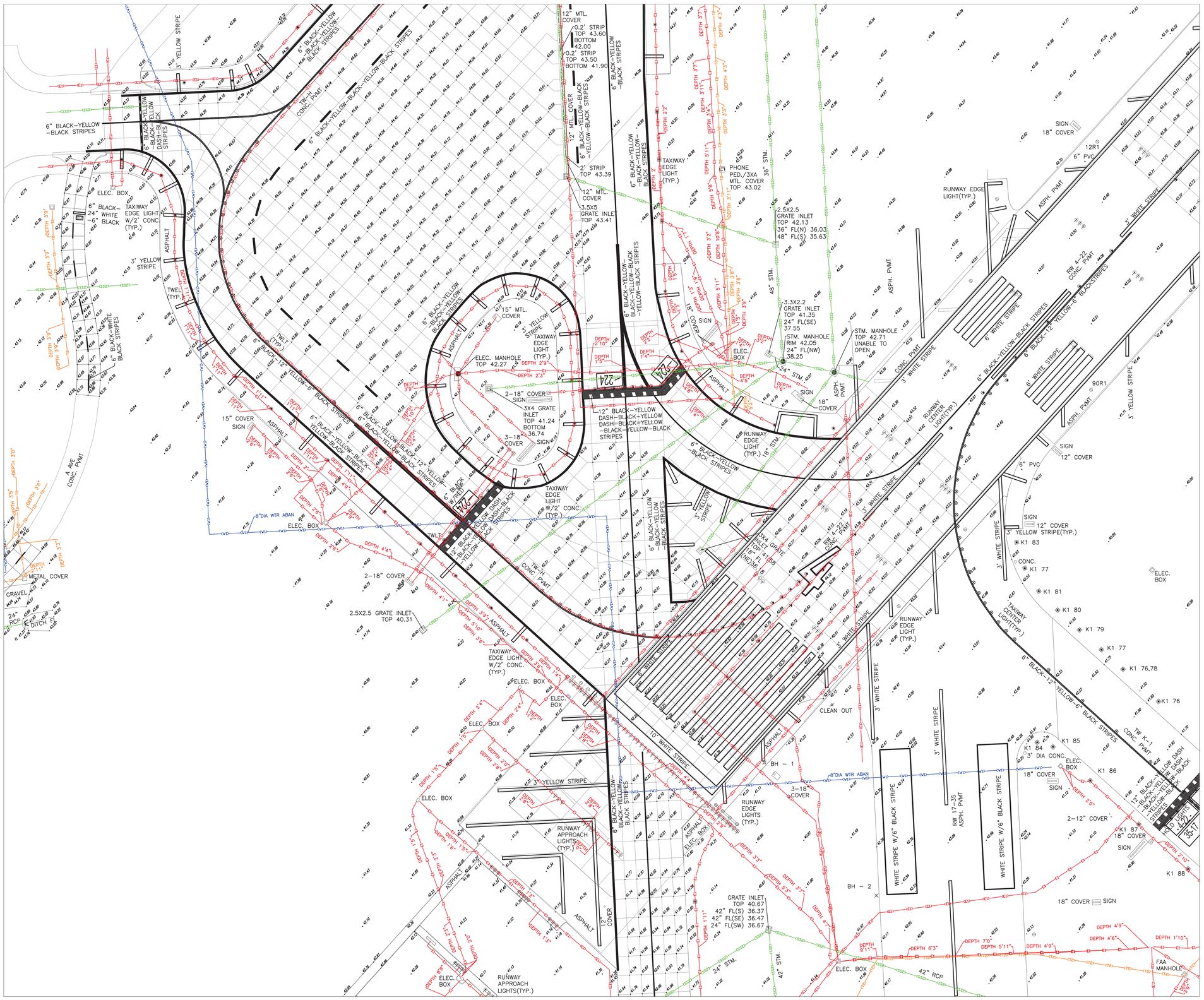
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

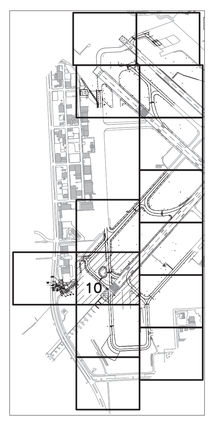
DIRECTOR
HOUSTON AIRPORT SYSTEM

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



NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL. B)	T1	30	0	T1 T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL. B)	T2	30	0	T2 T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL. D)	(T2)	30	0	(T2) (T2) (T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL. B)	(E1)	10	0	(E1) (E1) (E1) (E1) (E1)
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL. D)	(E1)	10	0	(E1) (E1) (E1) (E1) (E1)
CENTERPOINT (LVL. B)	E2	10	0	E2 E2 E2 E2 E2
CENTERPOINT (LVL. D)	(E2)	10	0	(E2) (E2) (E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL. C)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2) (OHE2)
CENTERPOINT OVERHEAD (LVL. D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL. B)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL. D)	(WW1)	90	0	(WW1) (WW1) (WW1) (WW1) (WW1)
COH WATERLINE (LVL. D)	(W1)	170	0	(W1) (W1) (W1) (W1) (W1)
COH STORM SEWER (LVL. C)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1) (SS1)
COH STORM SEWER (LVL. D)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1) (SS1)
HAS STORM SEWER (LVL. C)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2) (SS2)
HAS STORM SEWER (LVL. D)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2) (SS2)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL. D)	(G1)	50	0	(G1) (G1) (G1) (G1) (G1)
SHELL PIPELINE (LVL. D)	(S1)	50	0	(S1) (S1) (S1) (S1) (S1)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

REVISED SUBSURFACE UTILITY ENGINEERING
STATE OF TEXAS
LANE M. LEASE
98546
LICENSED PROFESSIONAL ENGINEER
2/13/2023
F-10059
UTILITY ENGINEER

STATE OF TEXAS
REGISTERED
LEO M. DELATORRE
5113
PROFESSIONAL
ENGINEER
2/13/2023

0 50 100 150
SCALE : 1" = 50'

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"

© JACOBS 2022 ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

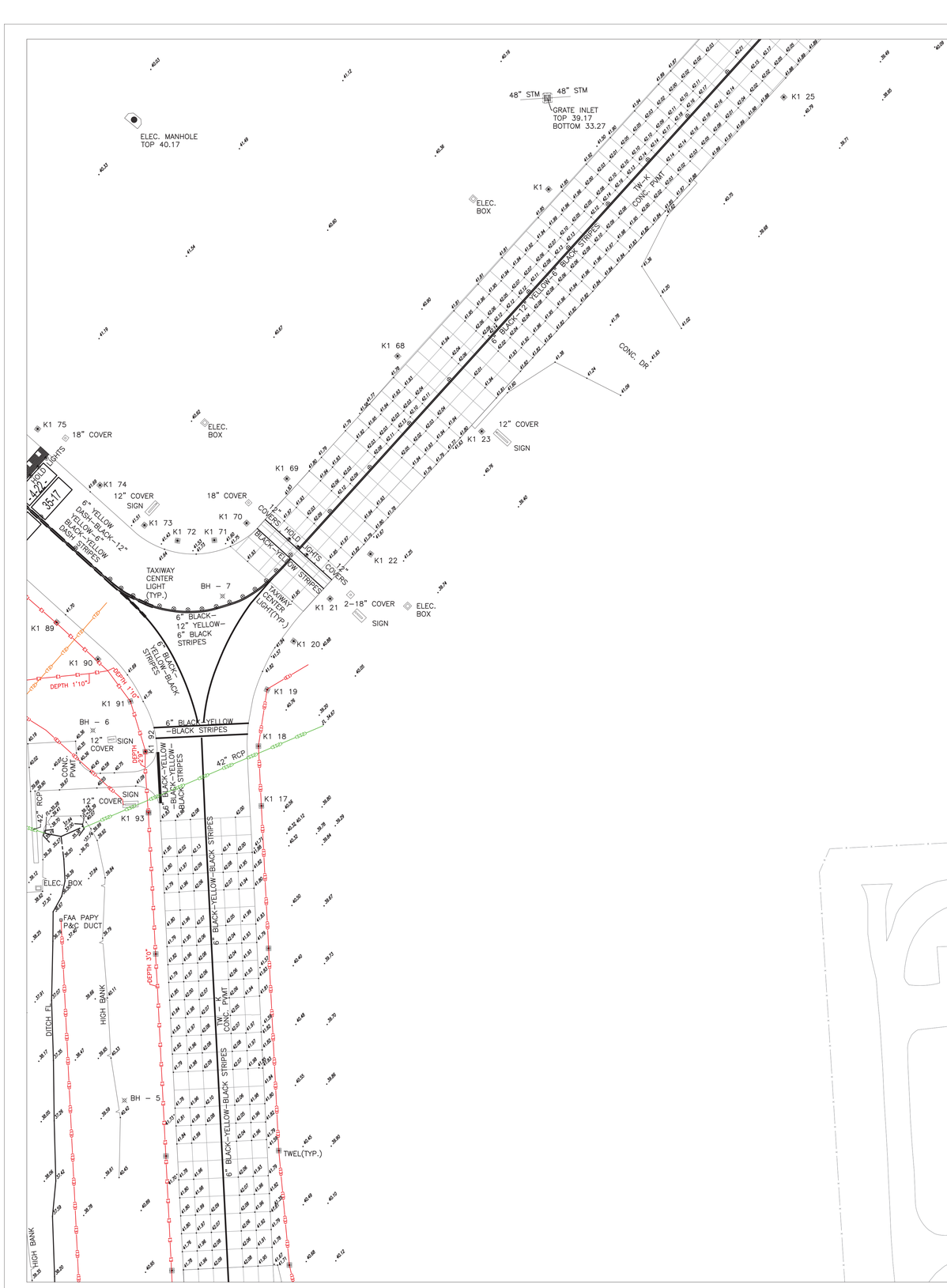
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

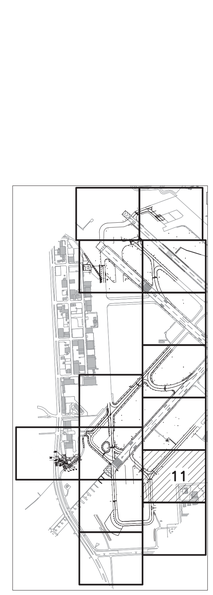
DIRECTOR
HOUSTON AIRPORT SYSTEM

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



NOTES:

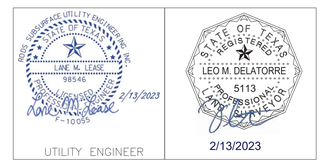
1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL B)	T1	30	0	T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	(T2)	30	0	(T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	(E1)	10	0	E1 E1 E1
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	(E1) (E1) (E1)
CENTERPOINT (LVL B)	E2	10	0	E2 E2 E2
CENTERPOINT (LVL D)	(E2)	10	0	(E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CENTERPOINT OVERHEAD (LVL D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	(WW1) (WW1) (WW1)
COH WATERLINE (LVL D)	(W1)	170	0	(W1) (W1) (W1)
COH STORM SEWER (LVL C)	(SS1)	90	0	(SS1) (SS1) (SS1)
COH STORM SEWER (LVL D)	(SS1)	90	0	(SS1) (SS1) (SS1)
HAS STORM SEWER (LVL C)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2)
HAS STORM SEWER (LVL D)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	(G1) (G1) (G1)
SHELL PIPELINE (LVL D)	(GS)	50	0	(GS) (GS) (GS)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.



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"

©JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

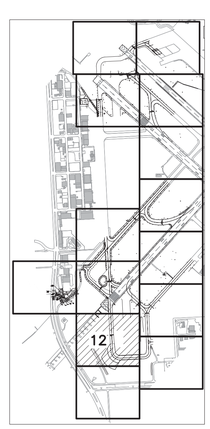
APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

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

NOTES:

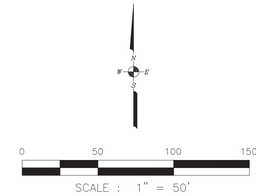
1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNINUCATIONS (LVL 8)	T1	30	0	T1 T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL 8)	T2	30	0	T2 T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	(T2)	30	0	(T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL 8)	E1	10	0	E1 E1 E1 E1 E1
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	(E1) (E1) (E1)
CENTERPOINT (LVL 8)	E2	10	0	E2 E2 E2 E2 E2
CENTERPOINT (LVL D)	(E2)	10	0	(E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	OHE2 OHE2 OHE2
CENTERPOINT OVERHEAD (LVL 8)	OHE2	10	0	OHE2 OHE2 OHE2
CITY OF HOUSTON TRAFFIC SIGNAL (LVL 8)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	(WW1) (WW1) (WW1)
COH WATERLINE (LVL D)	(W1)	170	0	(W1) (W1) (W1)
COH STORM SEWER (LVL C)	(SS1)	90	0	(SS1) (SS1) (SS1)
COH STORM SEWER (LVL D)	(SS1)	90	0	(SS1) (SS1) (SS1)
HAS STORM SEWER (LVL C)	(SS2)	90	0	(SS2) (SS2) (SS2)
HAS STORM SEWER (LVL D)	(SS2)	90	0	(SS2) (SS2) (SS2)
GAS, NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	(G1) (G1) (G1)
SHELL PIPELINE (LVL D)	(G3)	50	0	(G3) (G3) (G3)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE OBTAINED BY TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.



0 50 100 150

SCALE : 1" = 50'

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"

© JACOBS 2022 ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

RYAN SURFACE UTILITY ENGINEERING, INC.
STATE OF TEXAS
LANE M. LEASE
98546
F-10059
2/13/2023
UTILITY ENGINEER

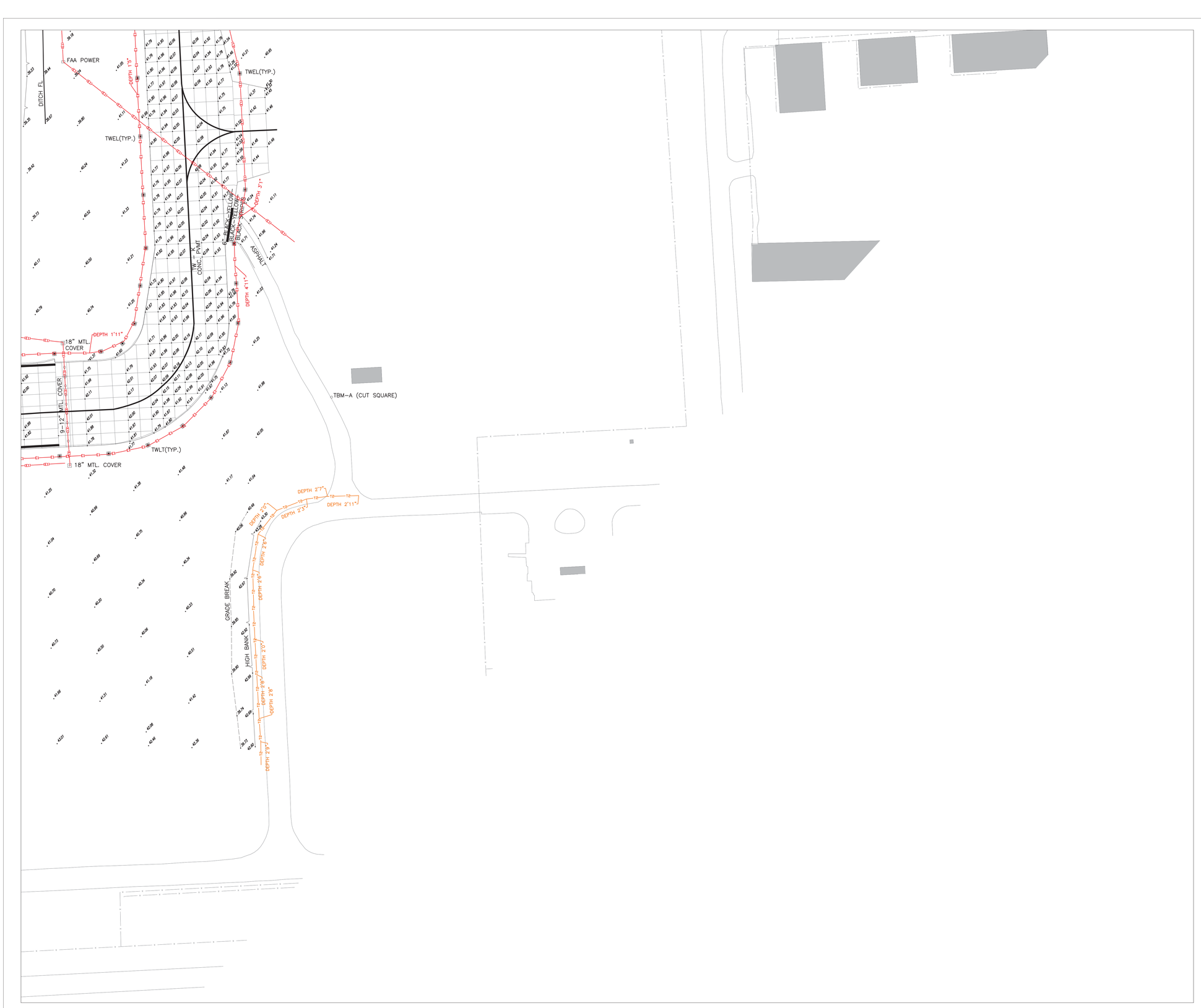
STATE OF TEXAS
REGISTERED
LEO M. DELATORRE
5113
PROFESSIONAL
SURVEYOR
2/13/2023

APPROVED BY: DATE:

DIRECTOR
HOUSTON AIRPORT SYSTEM

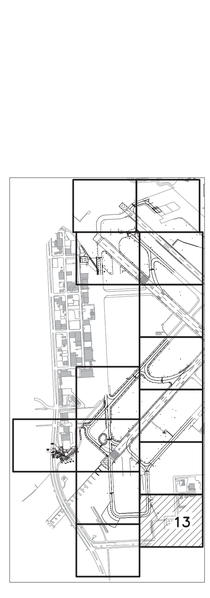
PROJECT NO: 770
C.I.P. NO: 3-48-0110-044
H.A.S. NO: N/A
SHEET NO:

FILENAME: HOU NONSTANDARD TAXIWAYS TOPO SHEETS.DWG PLOT DATE: 2023/02/13 PLOT TIME: 9:13:22 AM



NOTES:

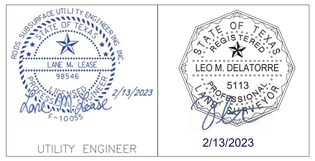
1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.

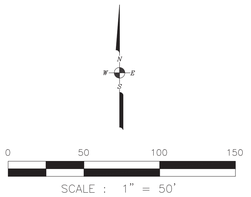


LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS-MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL B)	T1	30	0	T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	(T2)	30	0	(T2) (T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	E1	10	0	E E E E
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	(E) (E) (E) (E)
CENTERPOINT (LVL B)	E2	10	0	E2 E2 E2 E2
CENTERPOINT (LVL D)	(E2)	10	0	(E2) (E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL C)	[OHE2]	10	0	[OHE2] [OHE2] [OHE2]
CENTERPOINT OVERHEAD (LVL D)	(OHE2)	10	0	(OHE2) (OHE2) (OHE2)
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	TSE1 TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	(WW1) (WW1) (WW1) (WW1)
COH WATERLINE (LVL D)	(W1)	170	0	(W1) (W1) (W1) (W1)
COH STORM SEWER (LVL C)	[SS1]	90	0	[SS1] [SS1] [SS1] [SS1]
COH STORM SEWER (LVL D)	(SS1)	90	0	(SS1) (SS1) (SS1) (SS1)
HAS STORM SEWER (LVL C)	[SS2]	90	0	[SS2] [SS2] [SS2] [SS2]
HAS STORM SEWER (LVL D)	(SS2)	90	0	(SS2) (SS2) (SS2) (SS2)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	(G1) (G1) (G1) (G1)
SHELL PIPELINE (LVL D)	(GS)	50	0	(GS) (GS) (GS) (GS)

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.





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"

© JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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:

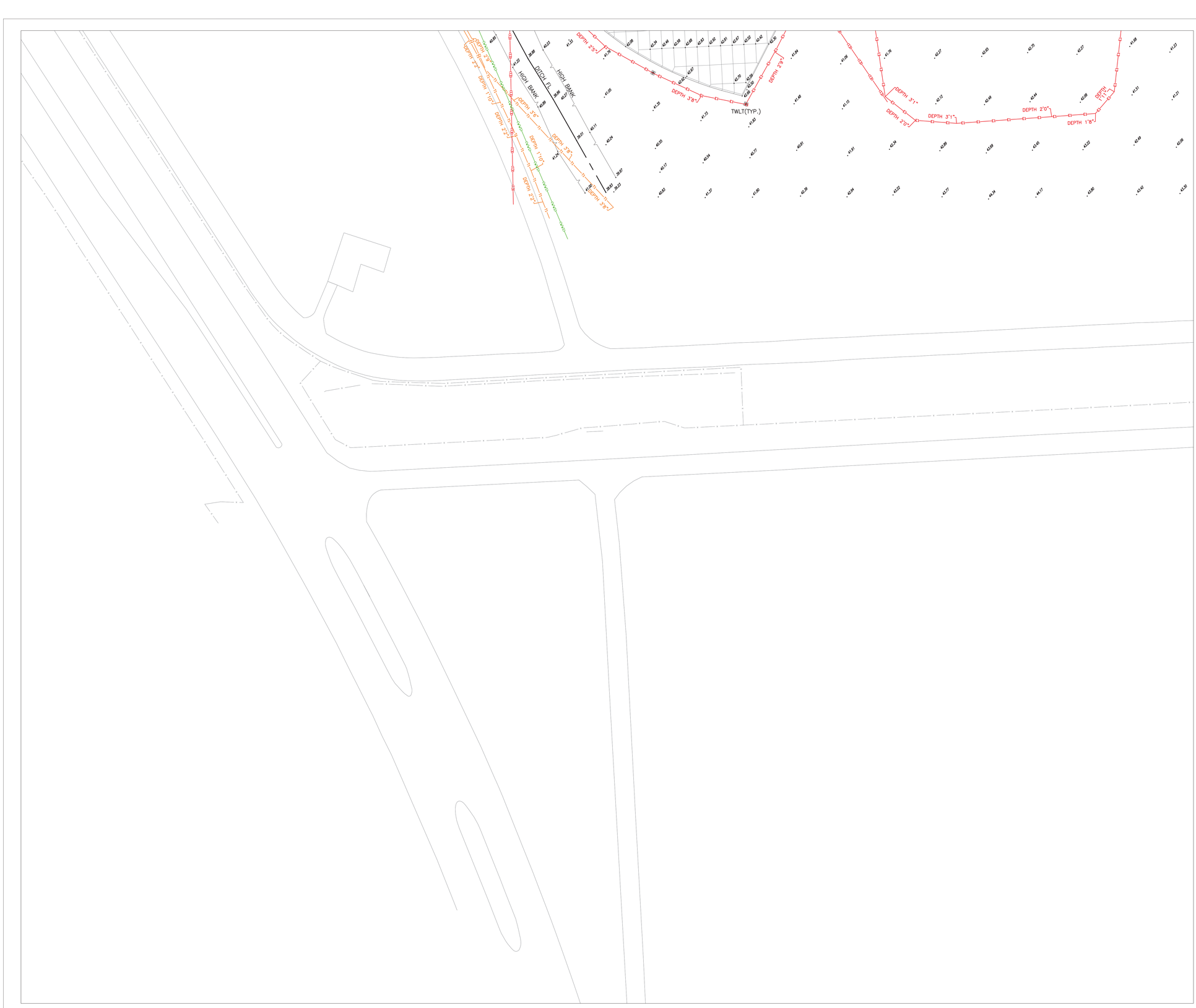
PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

APPROVED BY: DATE:

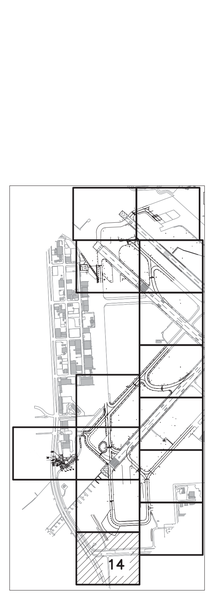
DIRECTOR
HOUSTON AIRPORT SYSTEM

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



NOTES:

1. COORDINATES ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH CENTRAL ZONE, NAD 83 (2011), EPOCH 2010.00. AIRPORT SACS MONUMENT "HOBBY" (NGS AW 6522) WAS HELD FOR PROJECT CONTROL. HORIZONTAL CONTROL SURVEY WAS PERFORMED USING GPS AND THE GEOID 12A MODEL. HOBBY GRID COORDINATES: N=13,798,754.41; E=3,151,530.86. UNIT OF MEASURE = U.S. SURVEY FOOT.
2. ALL COORDINATES SHOWN HEREON HAVE BEEN SCALED UP TO SURFACE VALUES USING A SURFACE ADJUSTMENT FACTOR OF 1.00013. TO CONVERT TO GRID COORDINATES USE THE FOLLOWING FORMULA: SURFACE / 1.00013 = GRID.
3. ALL ELEVATIONS ARE REFERENCED TO NAVD 88. AIRPORT SACS MONUMENT "HOBBY" WAS HELD FOR PROJECT CONTROL. VERTICAL CONTROL SURVEY WAS PERFORMED USING DIGITAL LEVELING AND CLOSED LEVEL LOOP PROCEDURES. HOBBY ELEVATION = 12.36 METERS OR 40.55 FEET.



LEGEND FOR HOBBY AIRPORT
NON STANDARDS TAXIWAYS–MILLION AIR TANK FARM
HOUSTON, TX

UTILITY	SYMBOL	COLOR	LINE WEIGHT	LINE STYLE
COMMUNICATIONS				
AT&T COMMUNICATIONS (LVL B)	T1	30	0	T1 T1 T1 T1
HOUSTON AIRPORT SYSTEMS (LVL B)	T2	30	0	T2 T2 T2 T2
HOUSTON AIRPORT SYSTEMS (LVL D)	(T2)	30	0	(T2) (T2) (T2)
ELECTRIC ENERGY				
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL B)	(E)	10	0	E E E E
AIRPORT ELECTRIC (FAA) UNDERGROUND (LVL D)	(E1)	10	0	(E) (E) (E)
CENTERPOINT (LVL B)	E2	10	0	E2 E2 E2 E2
CENTERPOINT (LVL D)	(E2)	10	0	(E2) (E2) (E2)
CENTERPOINT OVERHEAD (LVL C)	(OHE2)	10	0	OHE2 OHE2 OHE2
CENTERPOINT OVERHEAD (LVL D)	(OHE2)	10	0	OHE2 OHE2 OHE2
CITY OF HOUSTON TRAFFIC SIGNAL (LVL B)	TSE1	10	0	TSE1 TSE1 TSE1
WATER, STORM, WASTEWATER & ENVIRONMENTAL				
COH WASTEWATER (LVL D)	(WW1)	90	0	WW1 WW1 WW1
COH WATERLINE (LVL D)	(W1)	170	0	W1 W1 W1
COH STORM SEWER (LVL C)	(S51)	90	0	S51 S51 S51
COH STORM SEWER (LVL D)	(S51)	90	0	(S51) (S51) (S51)
HAS STORM SEWER (LVL C)	(S52)	90	0	S52 S52 S52
HAS STORM SEWER (LVL D)	(S52)	90	0	(S52) (S52) (S52)
GAS NATURAL/PIPELINES				
CENTERPOINT ENERGY GAS (LVL D)	(G1)	50	0	G1 G1 G1
SHELL PIPELINE (LVL D)	(G5)	50	0	G5 G5 G5

1. ALL SUE LEVEL B UTILITIES ARE OBTAINED BY GEOPHYSICAL METHODS.
2. ALL SUE LEVEL C UTILITIES ARE DRAW FROM TOPOGRAPHIC SURVEY.
3. ALL SUE LEVEL D UTILITIES ARE DRAW FROM RECORD RESEARCH.

TEXAS REGISTERED SUBSURFACE UTILITY ENGINEERING FIRM
STATE OF TEXAS
LANE M. LEASE
98546
LICENSED PROFESSIONAL ENGINEER
2/13/2023
F-10055
UTILITY ENGINEER

STATE OF TEXAS
REGISTERED
LEO M. DELATORRE
5113
PROFESSIONAL
LAND SURVEYOR
2/13/2023

0 50 100 150
SCALE : 1" = 50'

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"

©JACOBS 2022. ALL RIGHTS RESERVED

REVISIONS

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR BID	01/11/2023	SC

FAA NON-STANDARD TAXIWAYS PROJECT
TOPOGRAPHIC SURVEY

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.

PROJECT MGR:
DESIGNER:
DRAWN BY:
CHECKED BY:
SCALE: AS SHOWN
DATE: 01/27/2023

LANDTECH
2525 North Loop West, Suite 300,
Houston, Texas 77008
T: 713-861-7068
F: 713-861-4131
TBPELS Registration No. 10019100

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: