



City of Dallas

Dallas Love Field Alternate Entry Update

**Greater Dallas Planning Council
August 13, 2020**

Mark Duebner, Director
Department of Aviation
City of Dallas

Presentation Overview



- Purpose
- Background/History
- Alternatives Evaluation
- Shortlisted Alternatives
- Project Impacts Analysis
- Next Steps



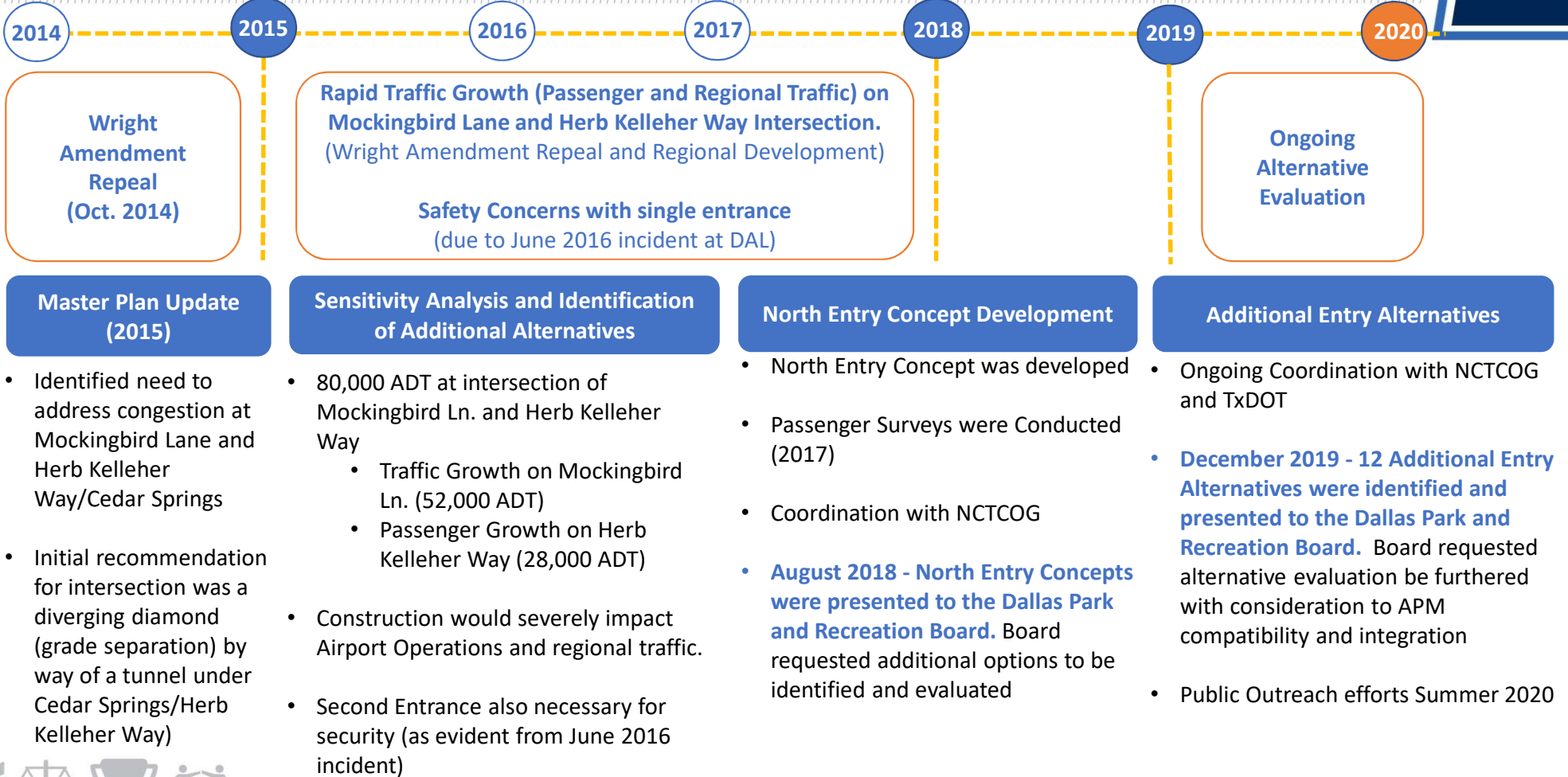
Purpose of Briefing



- Provide an update on Dallas Love Field's Alternate Entry Analysis



Background/History



Community Outreach



Community Outreach:

- **Good Neighbor Program Meetings**

- January 14th, 2020 (In Person)
- April 28th, 2020 (Virtual)
- July 14th, 2020 (Virtual)
- Quarterly Meetings to continue

- **Alternate Entry Meetings**

- June 30th, 2020 (Virtual)
141 Public Attendees and 27 Staff
- July 23rd, 2020 (Virtual)
96 Public Attendees
- September 23rd, 2020 (Virtual)
Scheduled
- September 22nd, 2020 (Virtual)

Scheduled

- **Public Outreach Survey**

- Available June 30, 2020 through September 30, 2020

NOTE: Survey responses as of 07/29/2020: 166 Total
(English: 164, Spanish:2)

- **Quarterly Community Newsletter**

- April 2020
- July 2020
- Quarterly Newsletters to continue



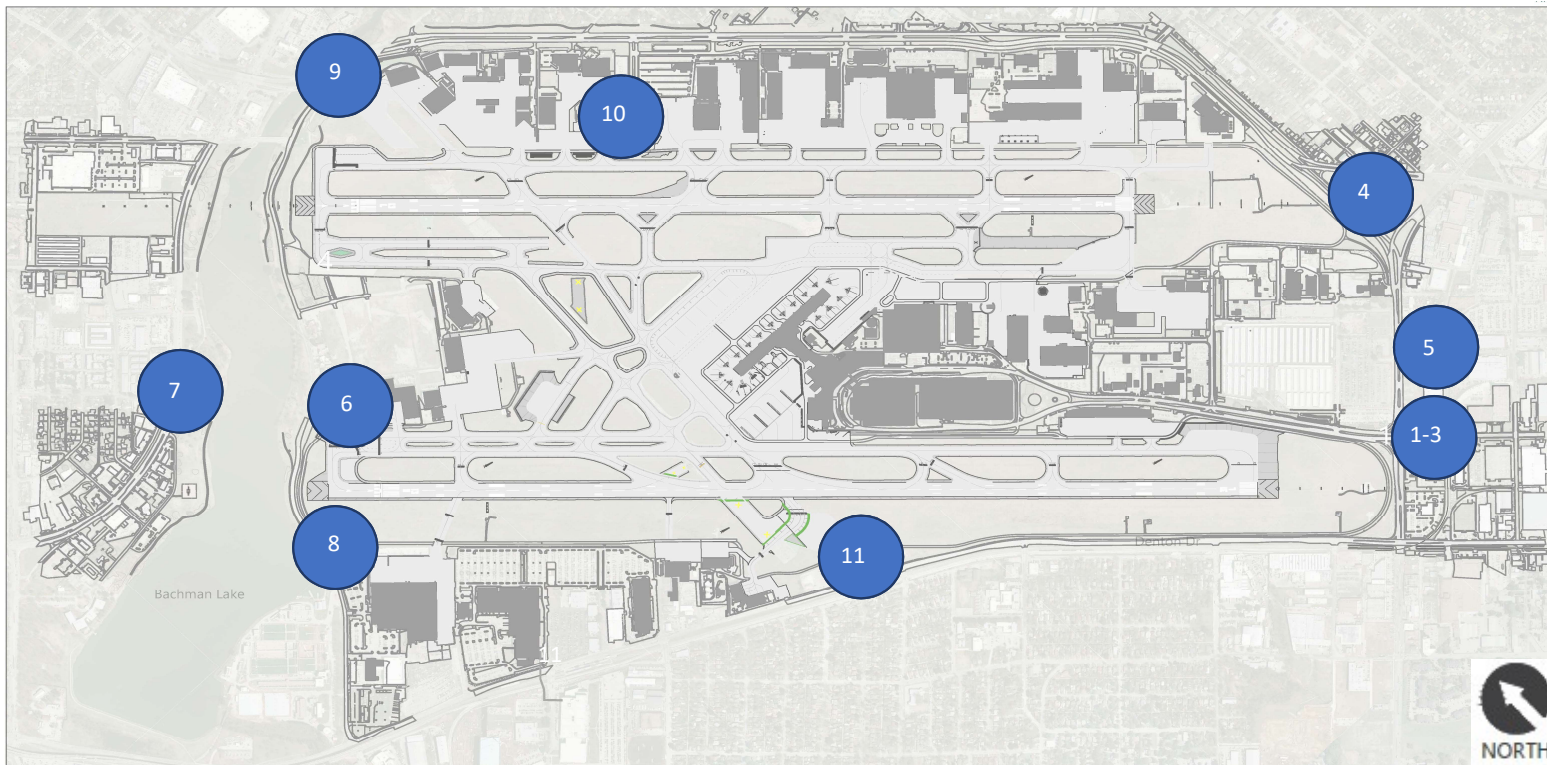
Background/History



- **Additional entry to Love Field needed due to public safety, operational issues, and congestion at Mockingbird Lane/Herb Kelleher Way intersection.**
 - Serving over 80,000 vehicles/day, the intersection operates at Level of Service “F” (intersection failure) during peak periods
 - During incidents or lane closures, long backups occur, impacting first responders' access to the airport
 - Airport operations can be severely impacted, causing public safety and operational risks
 - Any incident blocking the entrance can critically burden passenger access and evacuation operations



Alternatives Evaluation



The 11 Alternatives, in addition to the “No Action” Alternative were evaluated on the following criteria:

- Traffic Impacts
- Reduction in Vehicle Miles Travelled(VMT)
- Ability to Accommodate Automated People Mover (APM)
- Provides an Alternate Route for Emergency Needs

1. Conventional Urban Diamond Interchange
2. Diverging Diamond Interchange
3. Direct Ramp Interchange
4. U-Turn at Airdrome
5. Mockingbird Lane/Waddell Avenue
6. Shorecrest Drive - Central Airfield

7. Northwest Highway - Central Airfield
8. Shorecrest Drive - West of Runway 13R-31L
9. Lemmon Avenue / Shorecrest Drive
10. Lemmon Avenue / George Coker Circle
11. Denton Drive



Alts. 1-3: Conventional Urban Diamond Interchange



CHALLENGING Traffic Impacts

- At 7.0 MAEP(million annual enplanements), improves peak-hour Level of Service (LOS C) at Cedar Springs Road/Herb Kelleher Way; *NOTE: In 2016, 7.0 MAEP was exceeded; 2019 = 8.6 MAEP.*
- Does not significantly increase LOS
- Below grade road would grade-separate heavy traffic on Mockingbird Lane.
- Airport traffic and operations would be impacted during construction.

CRITICAL IMPACT VMT Reductions

- No reduction in VMT generated by Airport traffic

CRITICAL IMPACT APM Integration

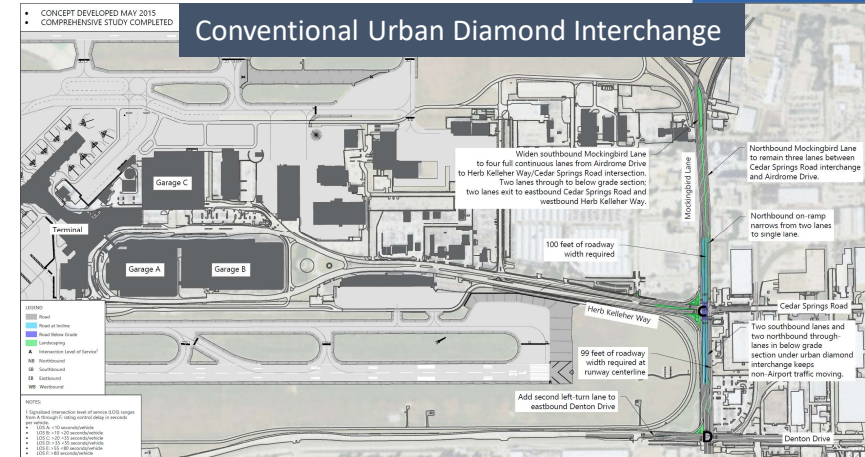
- Runway Protection Zones limit alignment.
- Major property acquisition needed due to alignment needs
- Part 77 obstructions may inhibit construction depending on APM height and location

CRITICAL IMPACT Additional Entry/Exit for Emergency Needs

- No alternate entry/exit route provided for emergency needs

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 4: U-Turn at Airdrome



NEGATIVE IMPACT Traffic Impacts

- Increased traffic will negatively impact westbound and eastbound Mockingbird Lane and Lemmon Avenue traffic
- Herb Kelleher Way/Mockingbird Lane Intersection is reduced from the current five-phase intersection to a two-phase intersection
- All traffic would enter Airport from north via widened two-lane southbound right turn into the Airport

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT

CRITICAL IMPACT VMT Reductions

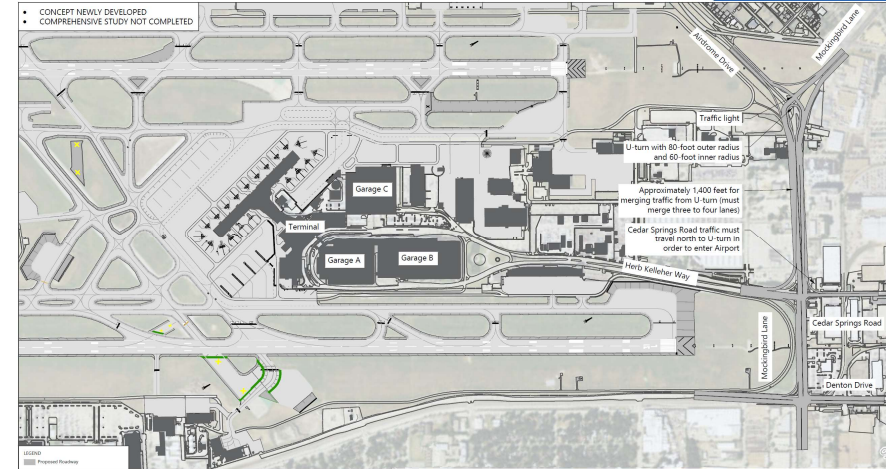
- Assumed VMT increase compared to Baseline

CRITICAL IMPACT APM Integration

- Runway Protection Zones limit alignment.
- Major property acquisition needed due to alignment needs
- Part 77 obstructions may inhibit construction depending on APM height and location

CRITICAL IMPACT Additional Entry/Exit for Emergency Needs

- No alternate entry/exit route provided for emergency needs



Alt. 5: Mockingbird Lane/Waddell Avenue



CRITICAL IMPACT Traffic Impacts

- Traffic congestion remains on Mockingbird Lane
- Addition of a second parallel entrance does little to diversify travel routes to the Airport
- No clear route to Terminal; exiting traffic would still likely use Herb Kelleher Way
- Proximity of proposed traffic signal to existing signals is less than 0.25 miles (Federal Highway Administration's recommendation), resulting in seven signals within a 5,600-foot span on Mockingbird Lane. This would cause poor signal progressing, more traffic delay, and increased risk for traffic accidents.

CRITICAL IMPACT VMT Reductions

- No reduction in VMT generated by Airport traffic

CRITICAL IMPACT APM Integration

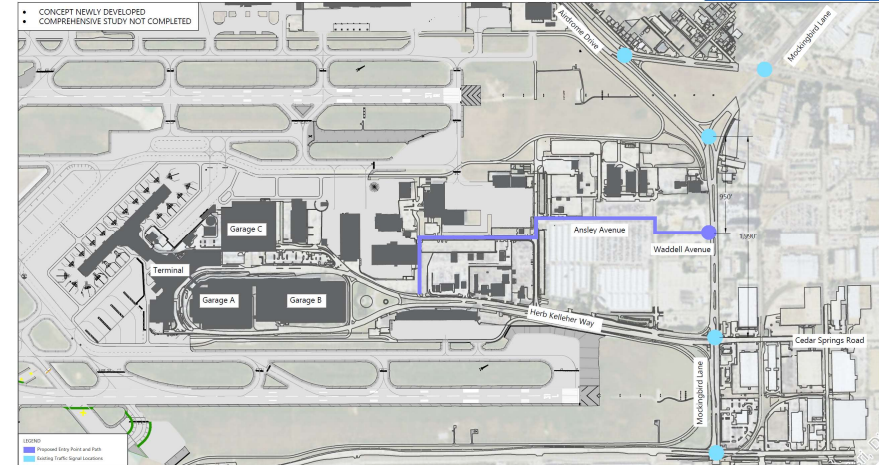
- Runway Protection Zones limit alignment.
- Major property acquisition needed due to alignment needs
- Part 77 obstructions may inhibit construction depending on APM height and location

NEUTRAL Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs. However, due to the proximity to the existing entry/exit, this is not a viable alternative during emergency situations.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 6: Shorecrest Drive Central Airfield



EXCELLENT Traffic Impacts

- More than 45 percent of Airport traffic comes from the north
- Reduce traffic on Mockingbird Lane & south arterials
- Assumed benefits at existing entrance (Local traffic impact still to be analyzed)

EXCELLENT VMT Reductions

- 5.35% reduction in VMTs from Airport traffic compared to the baseline (10,119,260 VMT)

NEUTRAL APM Integration

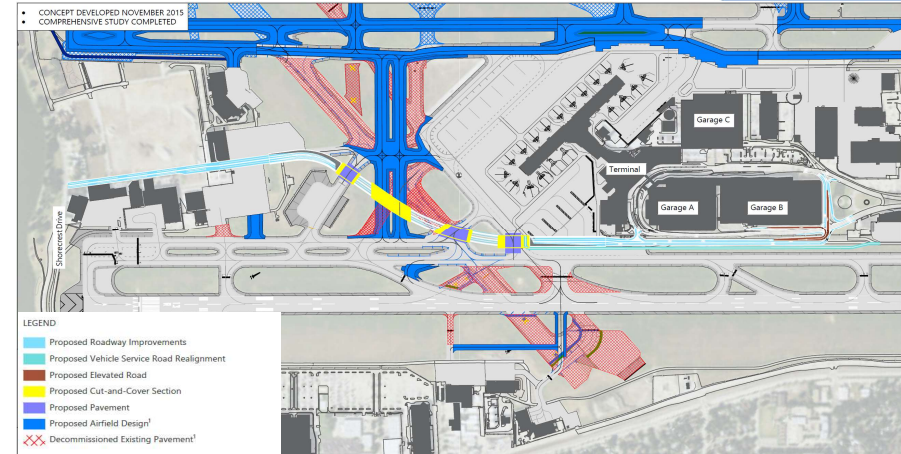
- Viable Connectivity to Bachman Station (approximately 2.5 miles)
- Viable Connectivity to Burbank Station (approximately 2.3 miles)

EXCELLENT Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs that connects to a separate roadway than the existing entry/exit.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 7: Northwest Highway Central Airfield



EXCELLENT Traffic Impacts

- More than 45 percent of Airport traffic comes from the north
- Reduce traffic on Mockingbird Lane & south arterials
- Assumed benefits at existing entrance (Local traffic impact still to be analyzed)

EXCELLENT VMT Reductions

- 5.85% reduction in VMTs from Airport traffic compared to the baseline (11,056,580 VMT)

NEUTRAL APM Integration

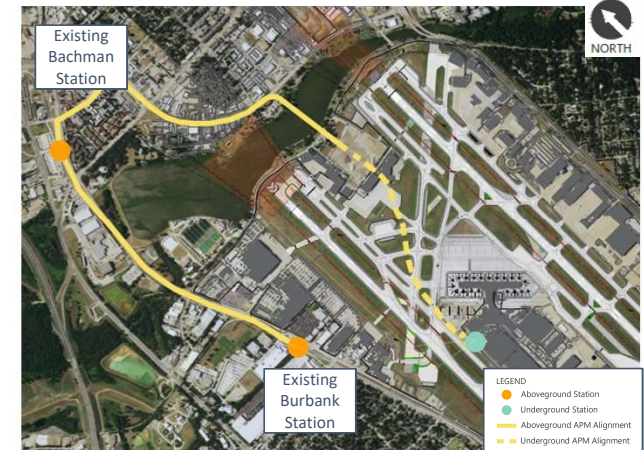
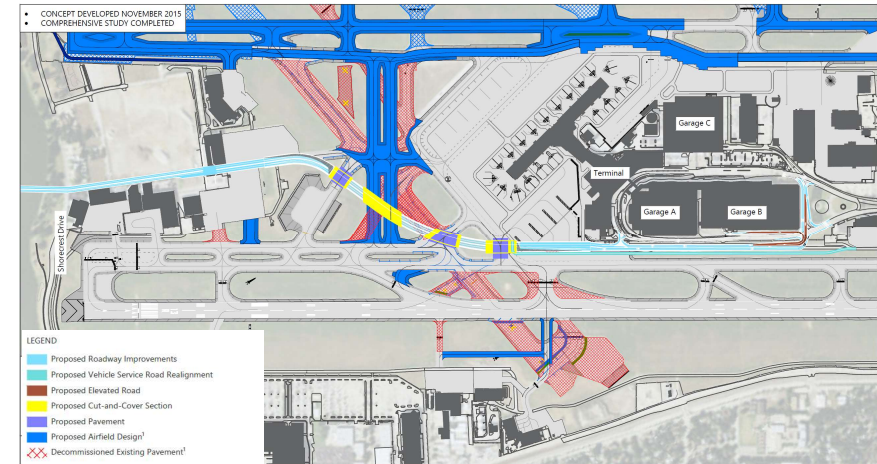
- Viable Connectivity to Bachman Station (approximately 2.1 - 2.3 miles)
- Viable Connectivity to Burbank Station (approximately 3.2 - 3.4 miles)

EXCELLENT Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs that connects to a separate arterial roadway than the existing entry/exit.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 8: Shorecrest Dr. West of RWY 13R-31L



EXCELLENT Traffic Impacts

- More than 45 percent of Airport traffic comes from the north
- Reduce traffic on Mockingbird Lane & south arterials
- Assumed benefits at existing entrance (Local traffic impact still to be analyzed)

EXCELLENT VMT Reductions

- 5.35% reduction in VMTs from Airport traffic compared to the baseline (10,119,260 VMT)

NEUTRAL APM Integration

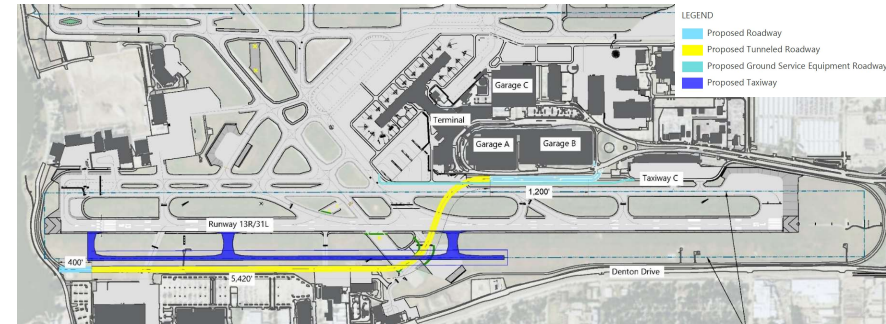
- Viable Connectivity to Bachman Station (approximately 2.1 miles)
- Viable Connectivity to Burbank Station (approximately 1.8 miles)

EXCELLENT Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs that connects to a separate arterial roadway than the existing entry/exit.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 9: Lemmon Avenue / Shorecrest Drive



GOOD Traffic Impacts

- Reduce traffic on Mockingbird Lane
- More than 45 percent of Airport traffic comes from the north
- Traffic expected to increase on Shorecrest Drive

EXCELLENT VMT Reductions

- 5.46% reduction in VMTs from Airport traffic compared to the baseline (10,319,645 VMT)

NEUTRAL APM Integration

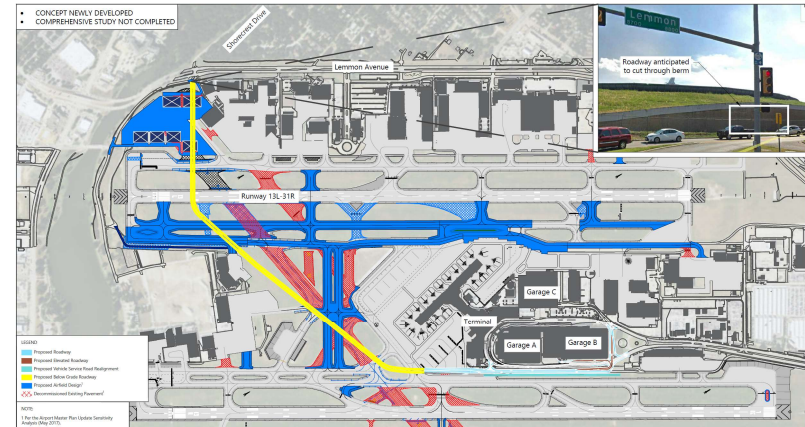
- Viable Connectivity to Bachman Station (approximately 3.2 – 3.4 miles)
- Viable Connectivity to Burbank Station (approximately 4.3 - 4.5 miles)

EXCELLENT Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs that connects to a separate arterial roadway than the existing entry/exit.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 10: Lemmon Avenue / George Coker



EXCELLENT Traffic Impacts

- Reduce traffic on Mockingbird Lane

EXCELLENT VMT Reductions

- 5.46% reduction in VMTs from Airport traffic compared to the baseline (10,319,546 VMT)

NEUTRAL APM Integration

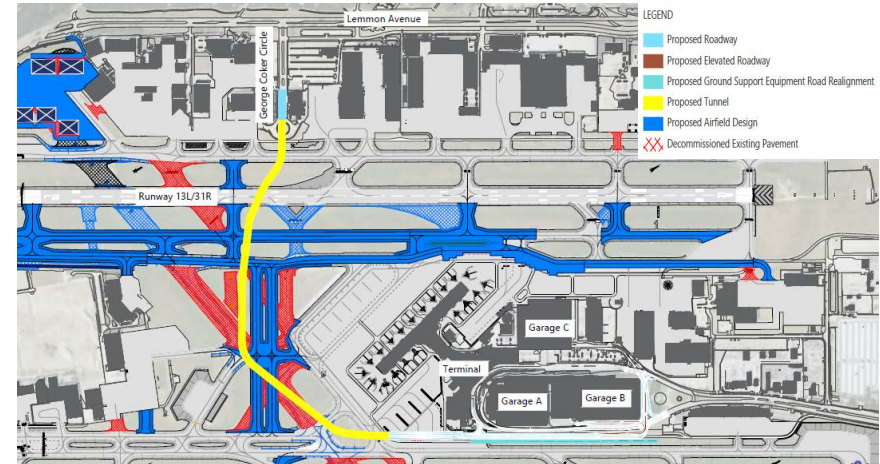
- Viable connectivity to Bachman Station (approximately 3.5 - 3.7 miles)
- Viable connectivity to Burbank Station (approximately 4.6 - 4.8 miles)

EXCELLENT Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs that connects to a separate arterial roadway than the existing entry/exit.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Alt. 11: Denton Drive



CHALLENGING Traffic Impacts

- Potentially higher use for vehicles traveling north
- Perceived less traffic reduction to Mockingbird Lane than north entrance alternatives

GOOD VMT Reductions

- 4.44% reduction in VMTs from Airport Traffic compared to the baseline (8,397,555 VMT)

CRITICAL IMPACT APM Integration

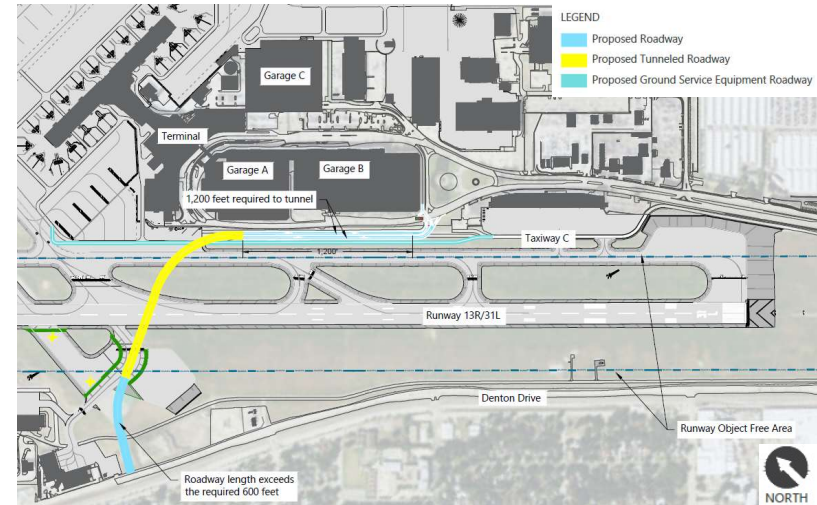
- Due to a greater than 8% grade change needed to tunnel under runway, APM integration is not viable with this configuration.

EXCELLENT Additional Entry/Exit for Emergency Needs

- Provides an alternate entry/exit for emergency needs that connects to a separate arterial roadway than the existing entry/exit.

LEGEND:

EXCELLENT
GOOD
NEUTRAL
CHALLENGING
NEGATIVE IMPACT
CRITICAL IMPACT



Shortlisted Alternatives



LEGEND

Excellent
Good
Neutral
Challenging
Negative Impact
Critical Impact

ALTERNATIVES

		Traffic Impacts	VMT Reductions	APM Applicability	Emergency Entrance/Exit	SHORTLISTED CONCEPTS
SOUTH	1-3		X	X	X	X
	4		X	X	X	X
	5	X	X	X		X
NORTH	6					→
	7					→
	8					→
EAST	9					→
	10					→
WEST	11			X		X

Shorecrest Drive - Central Airfield

Northwest Highway - Central Airfield

Shorecrest Drive - West of Runway 13R-31L

Lemmon Avenue – Shorecrest Dr.

Lemmon Avenue – George Coker

1. Conventional Urban Diamond Interchange
2. Diverging Diamond Interchange
3. Direct Ramp Interchange
4. U-Turn at Airdrome
5. Mockingbird Ln/ Waddell Ave
6. Shorecrest Dr. Central Airfield
7. Bridge from Northwest Hwy Central Airfield
8. Shorecrest Dr west of Runway 13R-31L
9. Lemmon Ave/Shorecrest Dr Intersection
10. Lemmon Ave/George Coker Cir Intersection
11. Denton Dr



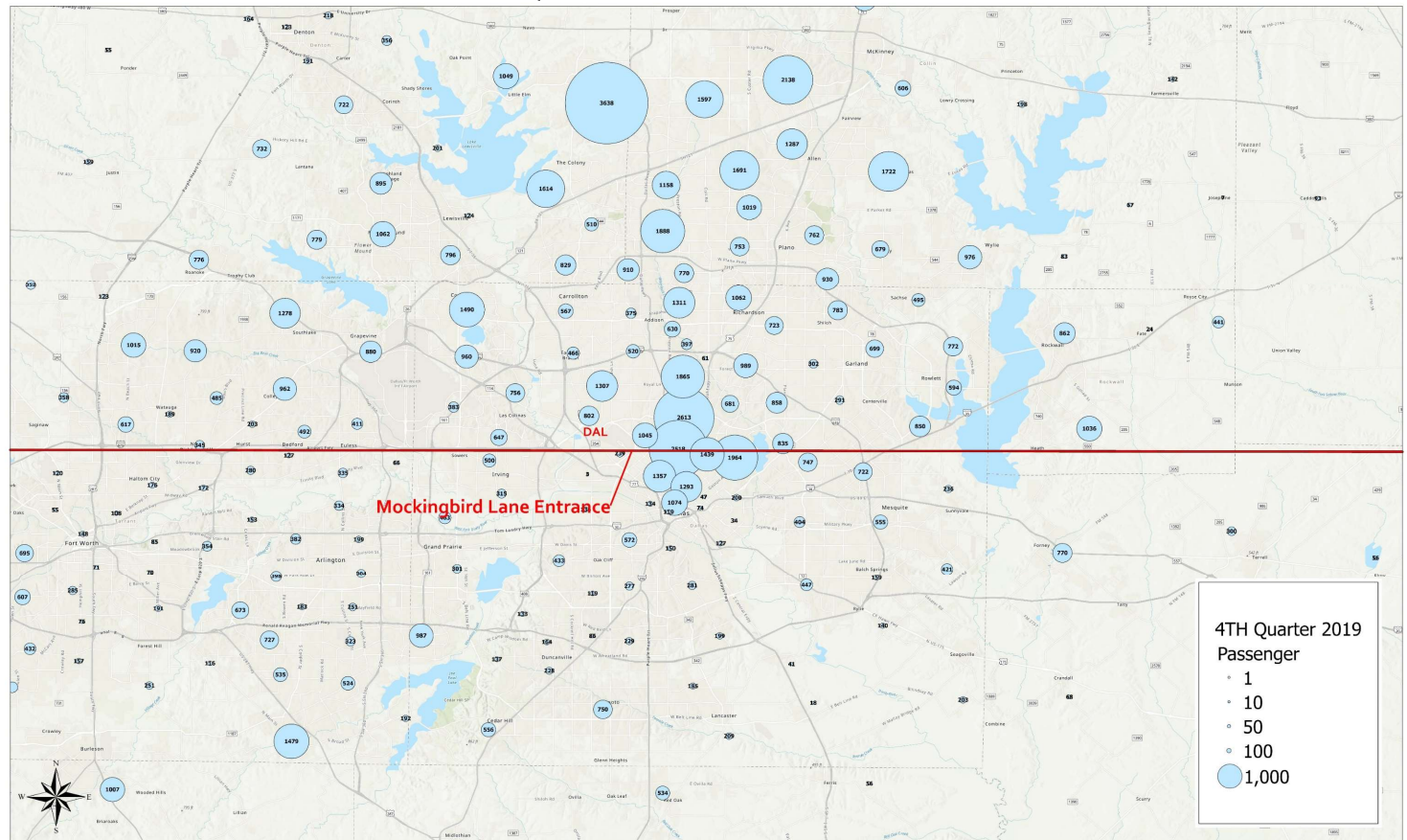
Passenger Origins by Zip Code



4th Quarter of 2019

Top 5 Destinations illustrated:

- Atlanta (ATL)
- Austin (AUS)
- Denver (DEN)
- Houston (HOU)
- San Antonio (SAT)



Source: Southwest Airlines, August 2020



Project Impacts Analysis



- Staff's analyses of the alternates to date has been at a regional/ high level - assessing overall reduction in VMT and Emissions; ability to accommodate an APM system; and the ability to provide a safe emergency response/evacuation route
- Detailed assessment of impacts to individual intersections and roadways; neighborhoods; and Bachman Lake Park will be conducted in the next phase when the shortlisted alternatives are analyzed
- It is our commitment that impacts to all roadways affected by the project will be mitigated to maintain or exceed levels of service
- If Council chooses an alternate in the vicinity of Bachman Lake, the project will endeavor to incorporate measures to enhance bicycle and pedestrian connections to the Lake and Park; and generally improve access to the Park



Next Steps



- Transportation Committee approval to move forward with further evaluation of Shortlisted Alternatives based on the following criteria:
 - Detailed Traffic Analysis
 - Emissions Analysis
 - Cost Benefit Analysis
 - APM Integration
 - Design Feasibility
- Continue Public Outreach
- Present Final Recommendation to Council in November 2020



Questions?



Dallas Love Field Alternate Entry Update

**Greater Dallas Planning Council
August 13, 2020**

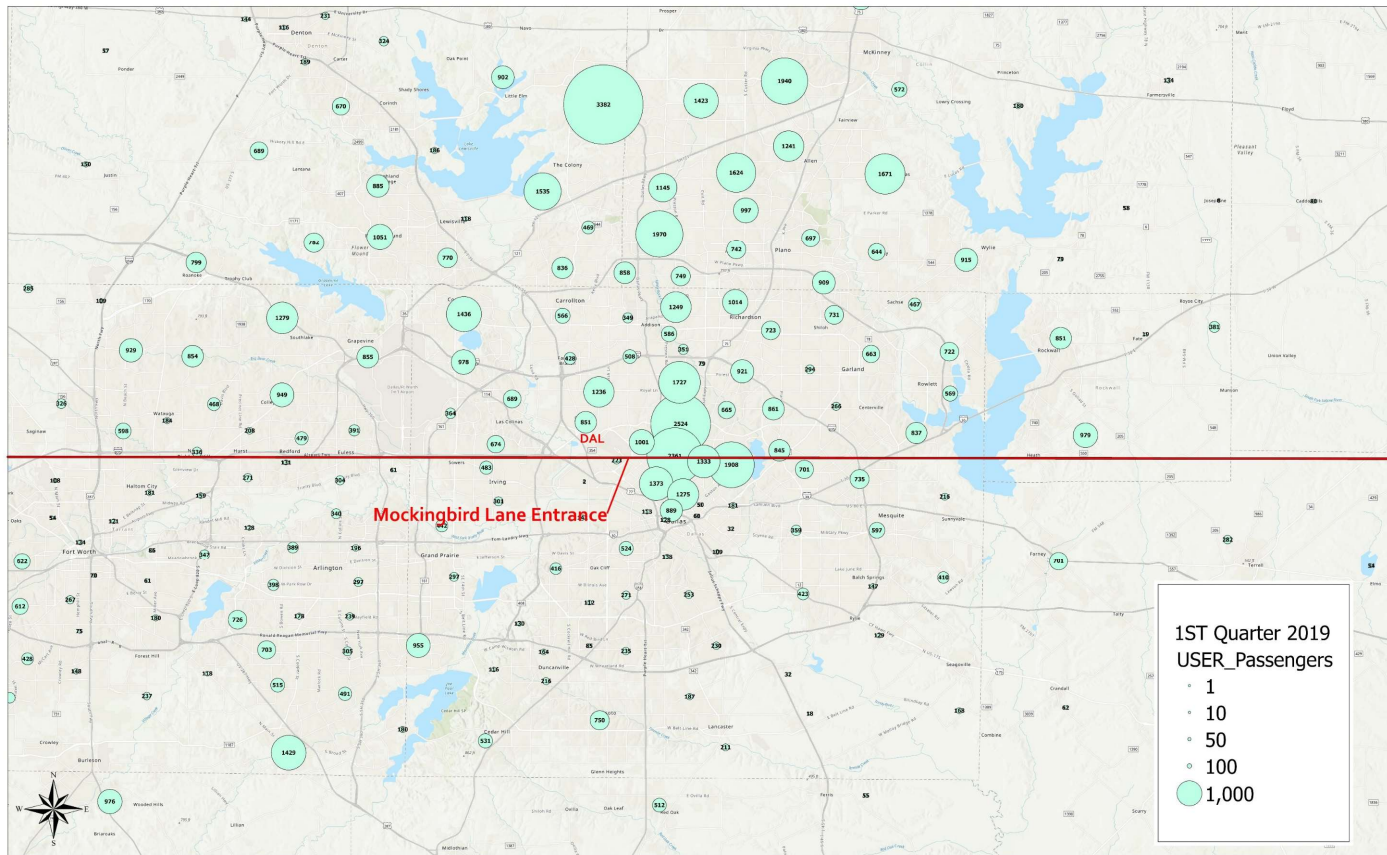
Mark Duebner, Director
Department of Aviation
City of Dallas



Appendix



TOP 5 Destinations (ATL, AUS, DEN, HOU, SAT) Passengers by Zip Code - 1st Quarter 2019



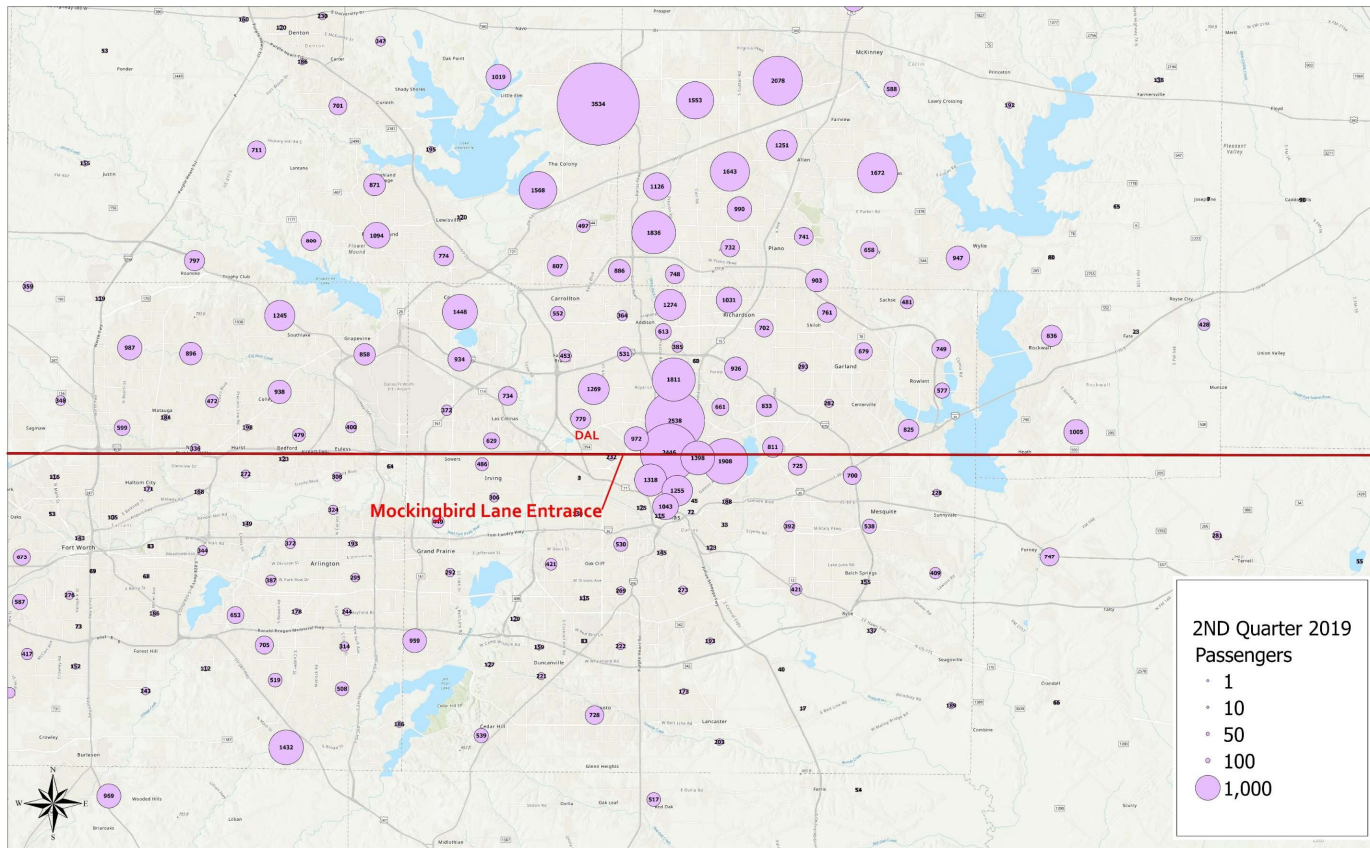
Source: Southwest Airlines, August 2020



Appendix



TOP 5 Destinations (ATL, AUS, DEN, HOU, SAT) Passengers by Zip Code - 2nd Quarter 2019



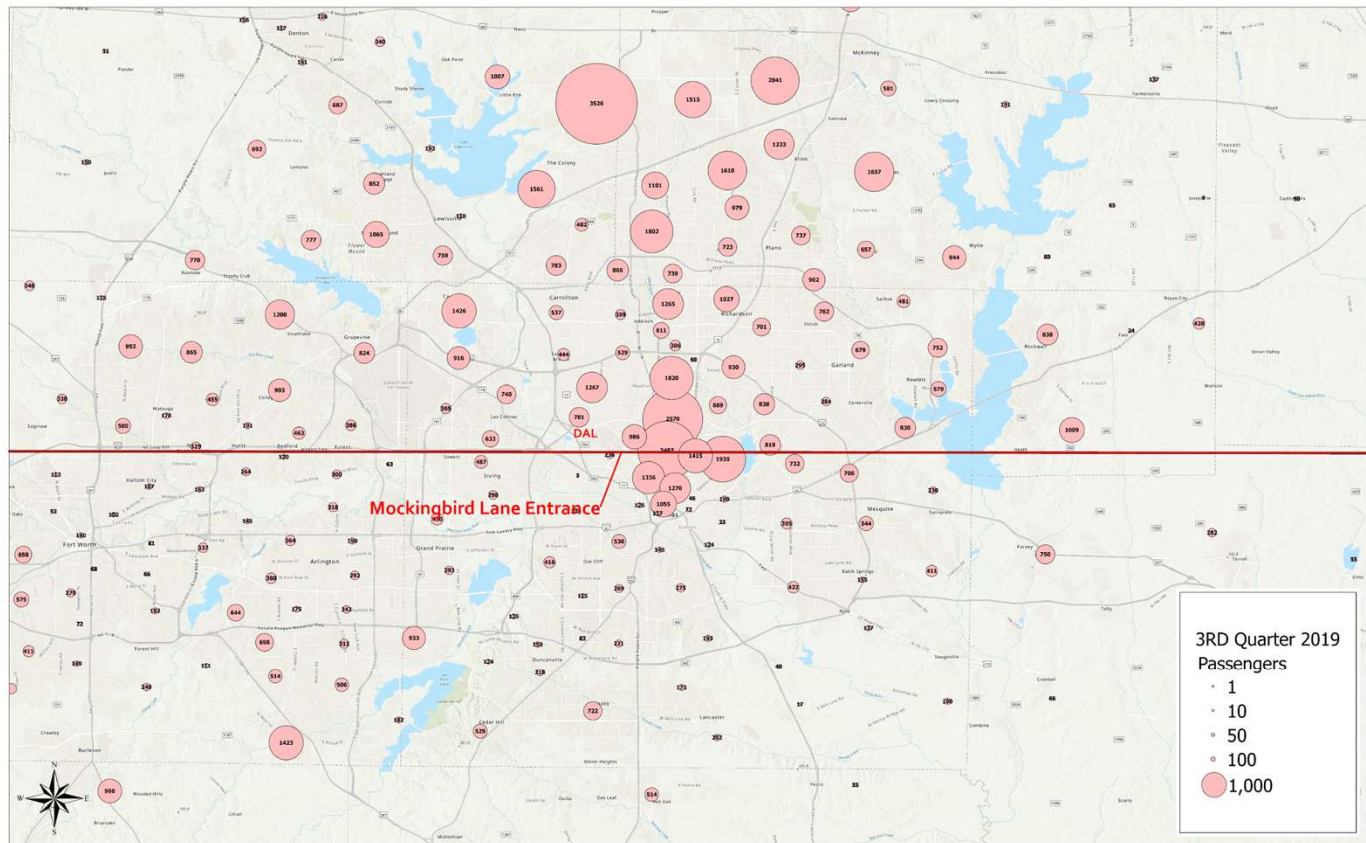
Source: Southwest Airlines, August 2020



Appendix



TOP 5 Destinations (ATL, AUS, DEN, HOU, SAT) Passengers by Zip Code - 3rd Quarter 2019



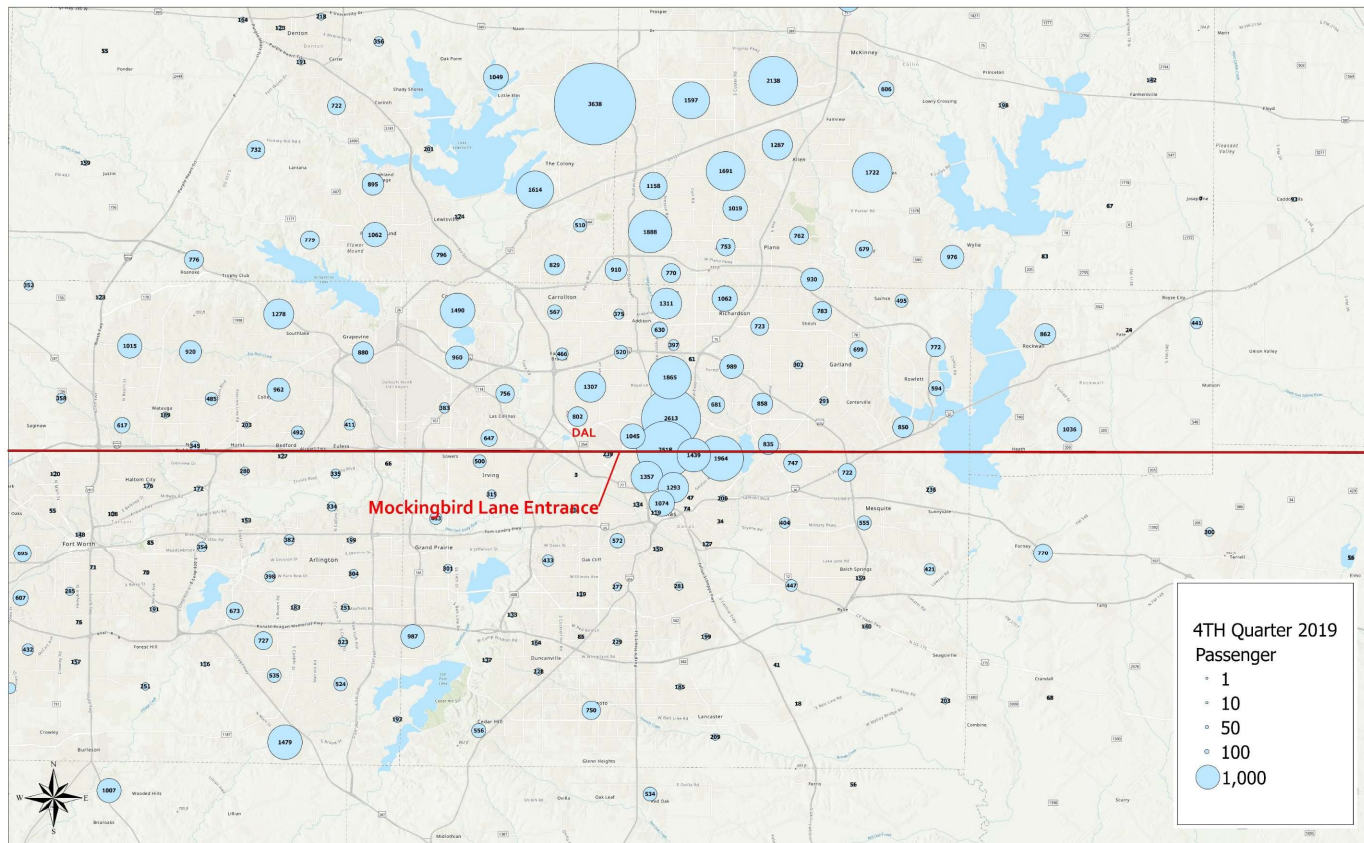
Source: Southwest Airlines, August 2020



Appendix



TOP 5 Destinations (ATL, AUS, DEN, HOU, SAT) Passengers by Zip Code - 4th Quarter 2019



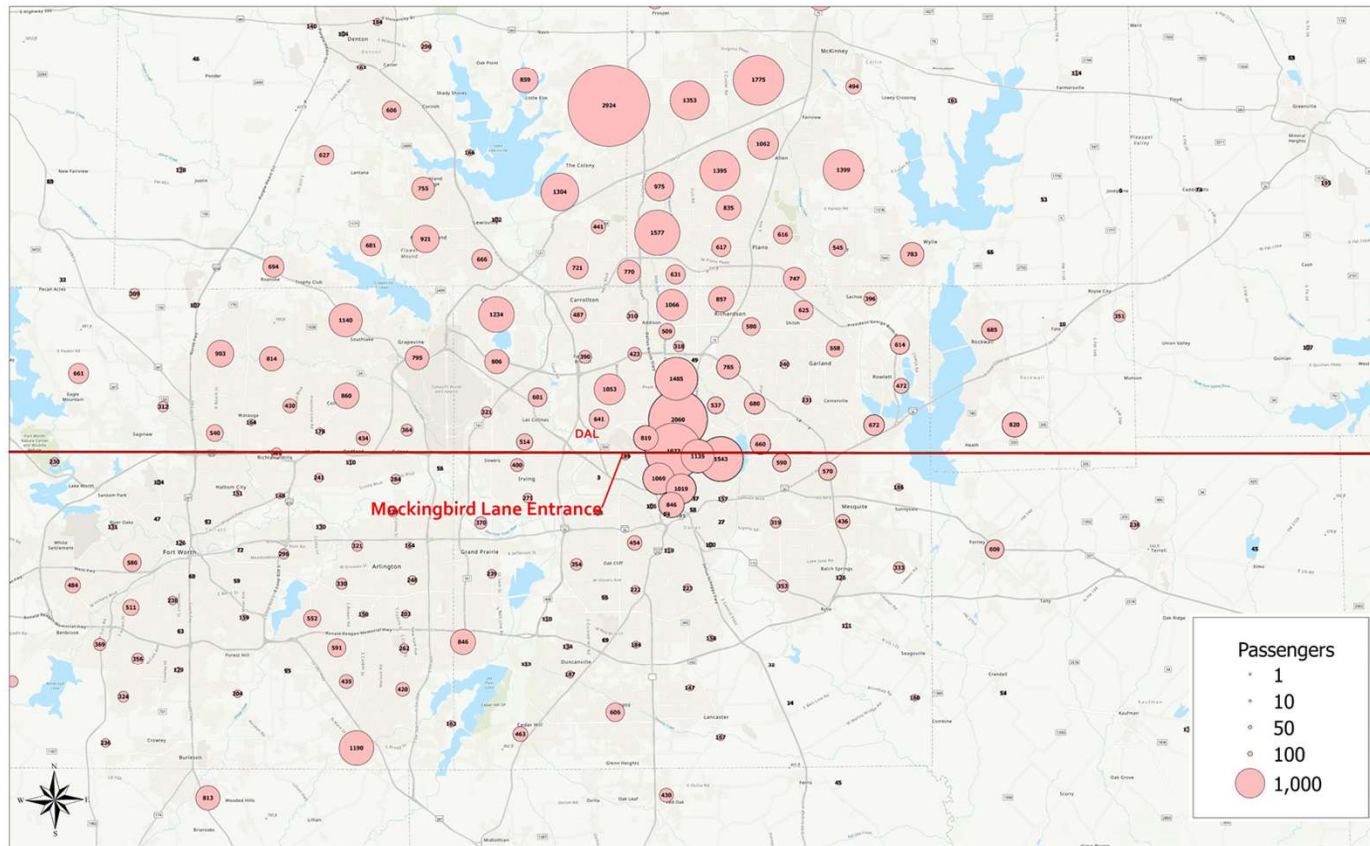
Source: Southwest Airlines, August 2020



Appendix



TOP 5 Destinations (ATL, AUS, DEN, HOU, SAT) Passengers by Zip Code - 1st Quarter 2020



Source: Southwest Airlines, August 2020



Appendix



2019 TOP 5 DESTINATIONS BY ZIP CODE							
1st Quarter Summary		2nd Quarter Summary		3rd Quarter Summary		4th Quarter Summary	
Zip Codes	Passengers	Zip Codes	Passengers	Zip Codes	Passengers	Zip Codes	Passengers
75034	3382	75034	3534	75034	3526	75034	3638
75225	2524	75225	2538	75225	2570	75225	2613
75205	2361	75205	2446	75205	2487	75205	2518
75093	1970	75070	2078	75070	2041	75070	2138
75070	1940	75214	1908	75214	1935	75214	1964
75214	1908	75093	1836	75230	1820	75093	1888
75230	1727	75230	1811	75093	1802	75230	1865
75002	1671	75002	1672	75002	1657	75002	1722
75025	1624	75025	1643	75025	1618	75025	1691
75056	1535	75056	1568	75056	1561	75056	1614
75019	1436	75035	1553	75035	1515	75035	1597
76063	1429	75019	1448	75019	1426	75019	1490
75035	1423	76063	1432	76063	1423	76063	1479
75219	1373	75206	1398	75206	1415	75206	1439
75206	1333	75219	1318	75219	1336	75219	1357
76092	1279	75248	1274	75204	1270	75248	1311
75204	1275	75229	1269	75229	1267	75229	1307
75248	1249	75204	1255	75248	1265	75204	1293
75013	1241	75013	1251	75013	1233	75013	1287
75229	1236	76092	1245	76092	1200	76092	1278
75024	1145	75024	1126	75024	1101	75024	1158
75028	1051	75028	1094	75028	1065	75201	1074
75080	1014	75201	1043	75201	1055	75028	1062
75209	1001	75080	1031	75080	1027	75080	1062
75023	997	75068	1019	75032	1009	75068	1049

2020 TOP 5 DESTINATIONS BY ZIP CODE

1st Quarter Summary	
Zip Codes	Passengers
75034	2924
75225	2060
75205	1977
75070	1775
75093	1577
75214	1543
75230	1485
75002	1399
75025	1395
75035	1353
75056	1304
75019	1234
76063	1190
76092	1140
75206	1135
75219	1069
75248	1066
75013	1062
75229	1053
75204	1019
75024	975
75028	921
76244	903
76034	860
75068	859

