

## Chapter 1

## Inventory of Existing Conditions

### 1.1. Introduction

This chapter is the first element in a Terminal Area Plan process that will identify terminal area functional components requiring renovation, expansion, and/or replacement to meet the needs of Friedman Memorial Airport (SUN or Airport) within the next ten years (2021-2030). The purpose of this chapter is to provide the Friedman Memorial Airport Authority (FMAA) with an inventory of existing terminal conditions and to quantify terminal spaces and types. Terminal area functional components included in this inventory are as follows:

- Vehicle Roadways and Parking
- Terminal Curbside
- Commercial Apron
- Departures Hall
- Ticketing / Check-in
- Checked Baggage Inspection System
- Airline Outbound Baggage
- Security Screening Checkpoint
- Aircraft Gates and Departures Lounge
- Restrooms and Passenger Services
- Circulation
- Baggage Claim and Arrivals Hall
- Car Rental
- Concessions
- Restrooms
- Building Support

The Airport has the following objectives in undertaking a new Terminal Area Plan:

1. Meet the immediate and near-term operational needs for the terminal area, while considering constraints on development at the present site.
2. Maintain the character of the passenger terminal that signifies its role as the community's "front door" for recreational and business travelers.
3. Establish a project budget for construction costs of the near-term improvements.
4. Plan for a phased expansion that will minimally impact operations at SUN.

This study will determine current capacity for each functional component, using industry standards for performance and level of service, and define triggers for expansion, which are the activity thresholds beyond which level of service breaks down. The need for terminal expansion is typically identified based on demand forecasts. However, this method will not be viable until stability returns to the industry following the COVID-19 pandemic. As a result, coordination with FAA concluded that this study would define development triggers, or thresholds, using quantifiable performance indicators above which specific terminal area functional components cease to perform adequately, resulting in an increase in passenger processing times, waiting, and queues, and requiring more terminal space. These triggers will be used to recommend the type, size, design, and timing of terminal area improvements in subsequent study elements.

Physical and operational deficiencies of the terminal building and its systems were identified during programming for the most recent expansion project, completed in 2015, and subsequent planning efforts. References for this chapter include airport and stakeholder meetings, examinations of plans, and a review of previous planning documents. A series of stakeholder and airport staff meetings were held in November and December of 2020. The stakeholders involved were airlines, rental car agencies, the parking company, advertising, concessionaires, and the TSA. See Appendix C: Interview Minutes.

## 1.2. Background

The Airport is located at the south end of the Sawtooth Range in the Rocky Mountains of south-central Idaho. Situated in the City of Hailey, the Airport serves Sun Valley, Ketchum, Bellevue, and other communities in and around the Wood River Valley. Hailey is 11 miles south of the resort towns of Sun Valley and Ketchum. Boise, the state capital, is approximately 100 miles due west, Idaho Falls is 115 miles due east, and Twin Falls is 65 miles due south. U.S. Highway 20 connects Boise and Idaho Falls from west to east, and the Airport is located approximately 14 miles north of U.S. Highway 20 along State Highway 75. State Highway 75 serves as the main street through the city, extending north to Ketchum and the Sawtooth National Recreation Area. Arriving and departing flights are sometimes diverted to Twin Falls during winter heavy weather events, in which case they are bused to and from the Wood River Valley. The primary local access to the SUN terminal complex and other Airport facilities is off State Highway 75 via Airport Way. Mountains to the immediate east and west have pushed the city's growth to the north and south of downtown, constraining the Airport's ability to expand to meet passenger and pilot demand.

Figure 1-1: Sun Valley, Idaho, Location Map



Source: Mead & Hunt, 2021.

Area attractions include outdoor activities such as skiing, mountain biking, snowmobiling, hiking, and fly fishing. While skiing is the main attraction in winter, Hailey is surrounded by the Sawtooth National Forest, which provides hikers and mountain bikers reasons to visit in summer as well.

### Airport Layout

The Airport has a single runway that runs from north to south. State Highway 75 is located east of and parallel to the runway, and nearly all other Airport facilities are located west of the runway. The SUN terminal complex is situated centrally in the landside area of the Airport, in a narrow band of airport property between Taxiway B to the east and the airport property line to the west, and between two general aviation areas to the north and south. Airport administration, operations, maintenance, snow removal, and aircraft rescue and firefighting (ARFF) functions are consolidated in a suite of buildings just south of the terminal building. Future growth of the terminal complex is severely constrained by topography, by the flourishing community surrounding it, and by adjacent Airport facilities.

**Figure 1-2: SUN Airport**



Source: Mead & Hunt, 2020.

The terminal building has undergone several expansions since it was first built in 1976, as it grew to accommodate additional demand and respond to an evolving aviation industry. It was originally a simple structure designed to emulate the mountain chalet-style wood construction of the Sun Valley Resort. The first addition in 1985 lengthened the building along the commercial apron from north to south. In 1991, a secure departures lounge and security screening areas were added. In 2005, a third project expanded restrooms and added mechanical space.

The building was substantially expanded in 2015 with a secure hold room addition, passenger security screening checkpoint (SSCP), and renovated, expanded restrooms. This expansion was part of a larger runway safety program undertaken to increase the size of aircraft that could use the Airport. The building was (and is) outside the runway object free area (ROFA) for these larger aircraft; however, aircraft parking positions and maneuvering areas were within the ROFA and had to be relocated. While earlier expansions aligned the hold room parallel with the runway, the new expanded hold room was built perpendicular to the runway to accommodate relocation of aircraft parking and maneuvering to the north of the building. The former hold room became a non-secure bus lounge for passengers diverted to and from Twin Falls. The renovated and expanded terminal provides modern facilities built to accommodate larger groups traveling to and from the Airport and better meets customers' expectations of modern convenience and resort-oriented design.

The 2015 project essentially doubled the size of the terminal building. Today the building measures 32,905 square feet in overall interior area and 34,150 square feet in overall roof area. Three aircraft apron stands were built to serve the terminal as part of the runway safety program. As the Airport added destinations and frequencies over the last five years, a fourth gate stand was added and terminal area facilities have become more congested. Additional capacity was not built in 2015 due to costs associated with the work and competing demands for Airport capital improvement funds. The runway safety program set strict funding limits within which the FMAA sought to limit project scope to primarily address safety issues, with future expansion to be addressed in subsequent programs on an as-needed basis.

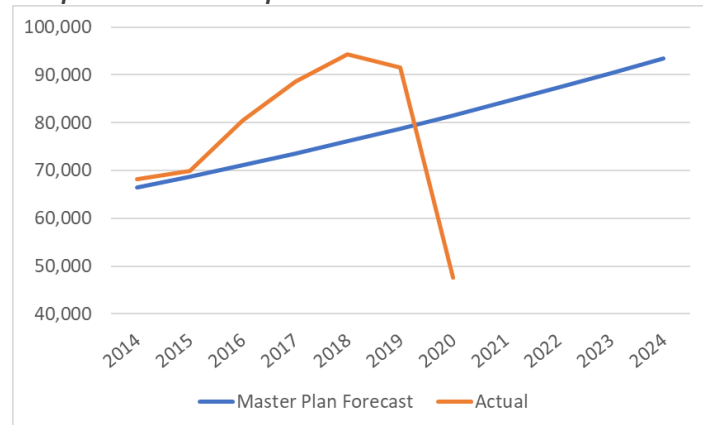
### ***National & Local Industry Trends***

The air transport industry has been hit with an unprecedented drop in passenger demand due to the worldwide COVID-19 pandemic and global recession. Prior to the pandemic, the Airport was dramatically outpacing the

enplanement forecasts from its previous Master Plan, as shown in **Figure 1-3**, and FMAA had begun to expand the ticketing area in the departures hall, which will serve as a starting point for terminal planning under this study. The current slowdown in air travel has provided some relief in reduced operations and passenger volumes, particularly during peak operating hours, when compared to recent years. Airlines and the traveling public will require time to return to the recent activity levels at SUN. Once this occurs, the airlines are expected to maintain high passenger load factors instead of adding flights early into the recovery. The industry may also reshape many of their business practices to reach profitability again, including reducing labor forces and aircraft fleets, the latter of which has already been achieved by American Airlines.<sup>1</sup>

This reduction in flights and workforce will likely continue until passenger volumes have shown steady growth beyond seasonal increases. At this time, leisure travelers are filling a gap created by the loss of the business traveler throughout the industry. The airlines responded to the crisis by reducing flights and seat capacity into airports, except for some leisure destinations. Airlines have scheduled more flights into SUN than they have historically operated for the winter ski season. Aircraft serving SUN consist primarily of the Embraer 175 (E175) operated by Skywest Airlines (on behalf of Delta and United) and Bombardier DH4 Q400 (Q400) operated by Alaska Airlines. The E175 aircraft's seat capacity has been fitted out with 70 and 76 seats by United and Delta, respectively.

**Figure 1-3: Master Plan Enplanement Forecast (2014-2024) Compared to Actual Enplanements**



Source: Mead & Hunt, 2020.

**Figure 1-4: SUN passenger terminal central entry**



Source: Mead & Hunt, 2020.

<sup>1</sup> American Airlines to Cut 100,000 Flights from its Schedule, The Dallas Morning News, 2 November 2020.



Considering the present state of the terminal area in meeting future demand and, with time to improve terminal facilities before air carriers return to operating increased frequencies out of SUN, addressing terminal needs now is appropriate given potential recovery scenarios. Activity levels in recent years provide a glimpse into future scenarios that will cause congestion in the terminal building and its environs. Therefore, this terminal area plan process will identify, define, and quantify deficiencies in existing terminal area facilities. Plausible scenarios that will require additional equipment or space to meet demand will be defined as triggers for expansion or equipment upgrades. Upon nearing and/or reaching a threshold, the Airport will be able to move forward to meet this demand. This study evaluates all facilities in the terminal area, beginning with the existing condition of the terminal building itself.

### **1.3. Terminal Area Existing Conditions: Inventory and Observations**

The process of determining facility requirements begins with assessing the existing conditions inside and surrounding the terminal building, identifying opportunities and constraints, and evaluating whether the facility can function adequately. The following sections describe existing conditions in and around the terminal.

#### ***Terminal Complex***

The passenger terminal building and adjacent facilities are referred to collectively as the terminal complex. Generally, these facilities include landside roadway access and parking, the terminal building, aircraft access and parking, and Airport administration, operations, and maintenance facilities. The SUN terminal complex includes airport property west of Runway 13/31 as indicated in **Figure 1-5**.

Figure 1-5: SUN Commercial terminal complex



### Site Constraints

As noted previously, the SUN terminal complex is constrained by topography, surrounding airport facilities, and building design. It is situated in a narrow band of airport property between Taxiway B and several off-Airport buildings, including the County Sheriff's Office and a hospital. Generally, the greatest constraint to expansion in the valley is topographic, as it is located between steep mountains to the east and west. The greatest limits to terminal expansion are defined by the ROFA on the east side of the building and the airport property line to the west.

### Vehicle Roadways and Parking

An efficient and intuitive roadway arrival sequence is important in allowing both residents and visitors to navigate through the terminal complex smoothly. A fully developed

Figure 1-6: SUN porte-cochere

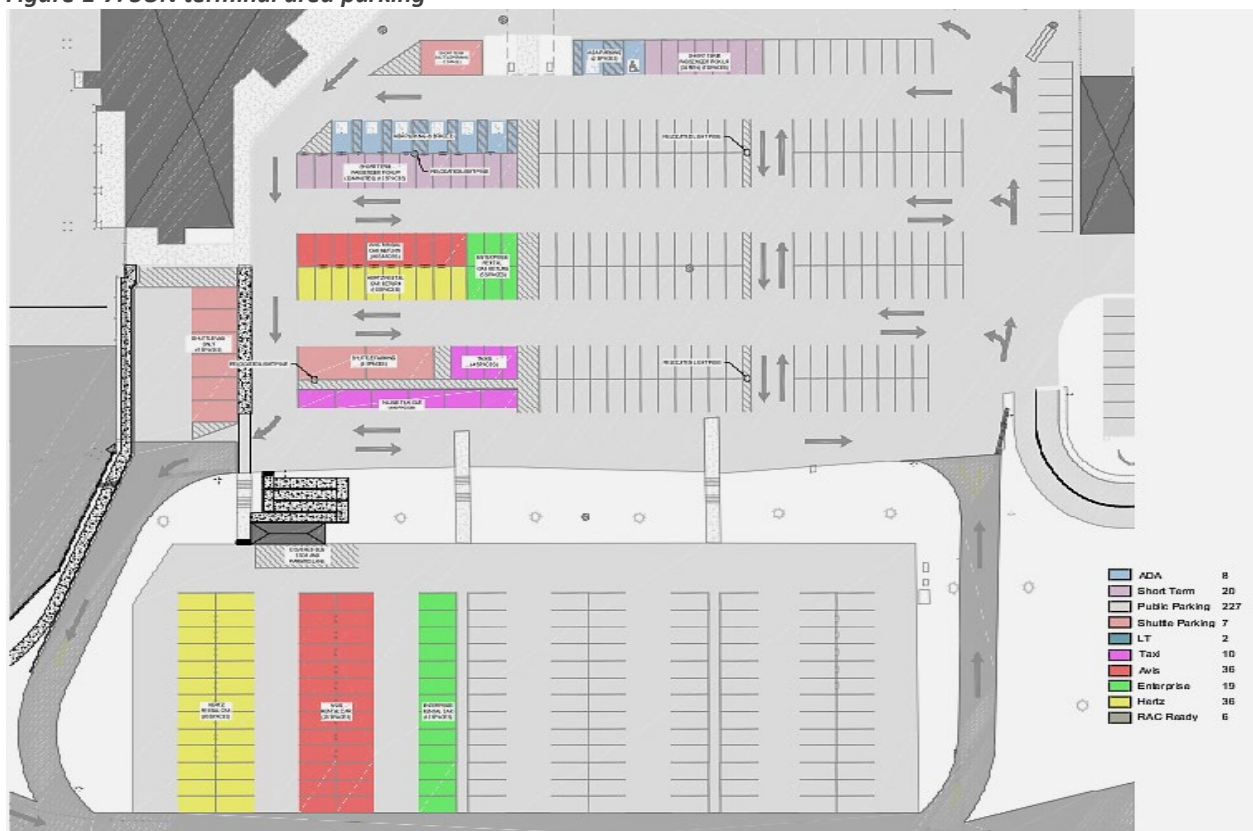


Source: Mead & Hunt, 2020.

arrival sequence gives drivers visual cues that assist them in navigating to their destinations, reducing confusion and stress. Views along the path of travel reveal landmarks such as the terminal front doors, parking areas, and pedestrian walkways.

Access to State Highway 75 north of the airport is generally straightforward; however, the local roadway sequence that connects the highway to the terminal complex includes several secondary roads that form a meandering path from Airport Way, to Aviation Drive, to Airport Creek Road, and finally to the Airport terminal entrance gate. Once through the gate, vehicles approach the passenger terminal building by entering the parking area and proceeding along a drive lane to the terminal curbside. A walkway crossing the roadway is covered by the original porte-cochere jutting out into the parking area.

**Figure 1-7: SUN terminal area parking**



Source: T.O. Engineers, 2020.

A change in topography splits the public parking lots into an upper (inner) lot and a lower (outer) lot. Lack of space to expand the lots results in frequent congestion, even when the Airport is not at its busiest. During peak periods the lots are often very full and vehicle circulation is very congested. Rental car ready stalls are parked in the upper lot as well as a small lot west of baggage claim that is also used by airport shuttles. Overflow rental car lots are located north and south of the terminal complex, with some of the rental cars parked off Airport property. Staff parking is in a small, separate lot near the Airport administration and maintenance buildings. Space near or between parking lots is set aside for piling plowed snow in the winter.

### Terminal Curbside

The terminal curbside is the location on the terminal access road that passes along the front of the terminal building, where passengers and their baggage are loaded into and unloaded out of vehicles. The SUN curbside is approximately 400 feet long, the length of the terminal building for the purposes of this study.

*Figure 1-8: SUN curbside and central entry*



Source: Mead & Hunt, 2020.

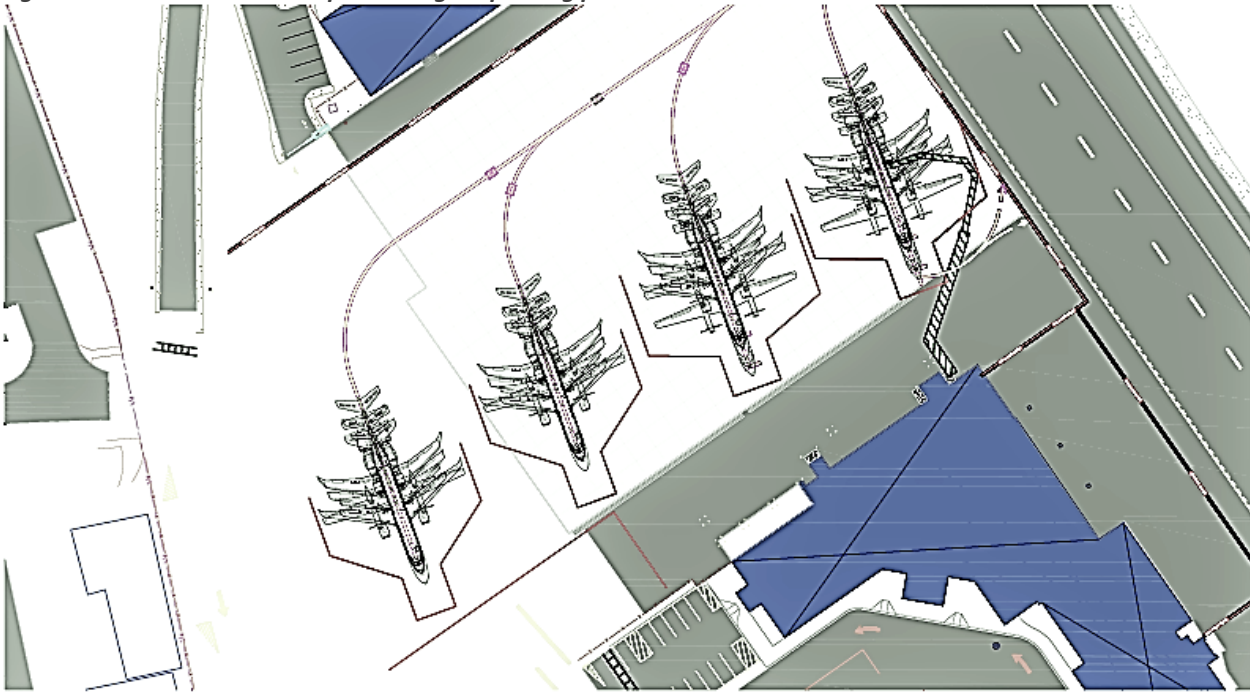
Additional circulation lanes in front of airport terminals allow vehicles to stack along the curbside during busy times, allowing moving vehicles to pass by stopped vehicles. The width of the porte cochere at SUN limits traffic flow to two lanes, with the second traffic lane doubling as a vehicle pull-out and bypass lane. The porte cochere enters the terminal departures hall, which also contains mechanical spaces, a conference room, public restrooms, public seating, and TSA offices. Entry doors at the north end of the terminal lead to the arrivals hall and baggage claim.

### Commercial Apron and Aircraft Operations

The commercial apron is used for parking, maneuvering, and taxiing aircraft, as well as the movement of ground service equipment. The apron pavement must be capable of supporting the aircraft weight and landing gear. A well-designed apron allows free movement and parking of all commercial aircraft expected to use the Airport during the peak period.



**Figure 1-9: SUN commercial apron and gate parking plan**



Source: T.O. Engineers, 2020.

During a typical departure operation, airlines will push aircraft back from the gate to the north and west. The air traffic control tower must coordinate push back operations when they occur at the same time due to off-schedule or delayed operations, sometimes causing a later departure. Adding flights to the schedule will likely exacerbate an already congested situation on the apron because flights at SUN tend to occur during the same time of day.

**Figure 1-10: SUN commercial aircraft apron**



Source: Mead & Hunt, 2020.

As passengers ground board the aircraft, their paths from the terminal gates to the aircraft must remain clear. For this reason, all ground service equipment must circulate around the tails of the aircraft. The airlines report that transition time for tugs pulling baggage carts to the inbound baggage area is long and not all of the tugs and baggage carts can easily offload baggage at the same time during peak events.

### Airport Administration, Operations, and Maintenance Facilities

Airport administration and operations staff functions are consolidated in a multi-purpose facility located south of the terminal building. Constructed in 2015, the facility is approximately 14,000 square feet in size and has immediate access to the secured airside through an access gate near the building. Other functions of the facility include snow removal equipment (SRE) storage, Aircraft Rescue and Fire Fighting (ARFF) equipment storage, and equipment maintenance.

The SRE portion of the facility, approximately 7,200 square feet, contains four vehicle bays which are designed for equipment to pull or back into the facility. Additional SRE spaces includes a restroom, maintenance office, welding shop, combustible liquid storage, maintenance storage, and maintenance shop. This space is inadequate for SRE, as the existing facility is not large enough for the existing and planned equipment, and much of the Airport's equipment fleet must be stored in a separate cold storage building and several aircraft hangars not intended for this use. This study includes an SRE space analysis for SRE attachments, associated space, and related facilities to quantify the Airport's needs for existing and future equipment and to plan for future equipment storage improvements.

### Terminal Building

The 2015 terminal building renovation and expansion project provided adequate functionality to meet requirements at that time and served as a transition to a more modern facility, within funding constraints of the overall runway safety program. Other studies have been completed since 2015 to evaluate areas that were not renovated or expanded by the 2015 project, which mainly include ticketing, baggage check-in, TSA checked baggage screening, airline outbound baggage make-up, and airline ticketing offices. Other areas of concern include the security screening checkpoint (SSCP), restrooms, departures lounge, baggage claim, and vehicle parking.

### Departures Hall

The departures hall includes ticketing, baggage check-in, and ancillary support functions, including airline ticket offices, line cargo ground operations, and TSA checked baggage inspection system.

### Ticketing / Check-In

Delta and United Airlines (operated by Skywest Airlines) occupy the first ticket office from left to right, facing the ticket counters, followed by Alaska/Horizon Air. The TSA baggage screening area and airline ticket offices (ATO) are located directly behind the airline ticket counters, with the ATOs at either end of the counters and baggage screening in between. The passenger queuing space in front of the counters is undersized, resulting in passenger queues blocking the corridor to SSCP to the north. While this is an economical use of space, it does not allow for efficient check-in and baggage screening functions, particularly because most resort visitors check multiple bags. A large vertical mechanical chase in the middle of the queuing and circulation area further constrains passenger movement through the area. As a result, all functional components in the departures hall are very crowded and congested during peak periods.

While self-service check-in and bag-tag positions are being implemented industry-wide, these services are oriented toward business travelers and leisure destinations will continue to require sufficient space in the departures hall

for traditional check-in functions. As a result, there is not a simple technology solution that will transform the current space into an efficient ticketing hall. In addition, many passengers who regularly use SUN prefer a full-service experience.

Airline leased areas include ticket counters, offices, and baggage make-up areas, segmented by airline as shown in **Table 1-1**.

**Table 1-1: Airline Leased Spaces in Departures Hall**

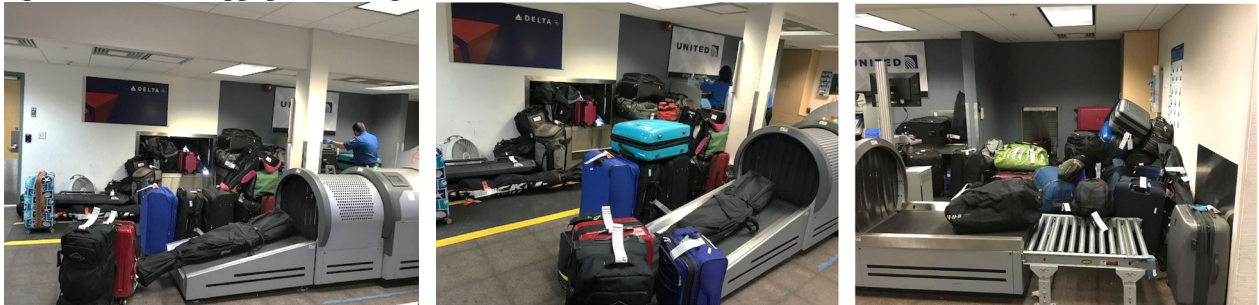
Airline	Leased Area (SF)
<b>Alaska Airlines</b> (Exclusive Use Ticket Counters, Offices, and Baggage Make-up)	1,466
<b>Delta Airlines</b> (Shared Exclusive Use Ticket Counters)	208
<b>United Airlines</b> (Shared Exclusive Use Ticket Counters)	208
<b>Delta/United</b> (Shared Exclusive Use Offices and Baggage Make-up)	1,281
<b>Total Leased Space</b>	<b>3,163</b>

Source: Mead & Hunt, 2020.

#### Checked Baggage Inspection System (CBIS)

The TSA operates a manual loading and unloading system with one CTX-80DR explosive detection (EDS) machine located directly behind the ticket counters. There is approximately 340 square feet of space available for baggage screening. Ticket agents check baggage, then set it on the floor next to the EDS machine and a TSA officer places the bag on the conveyor. This system currently processes approximately 200 bags per hour. At present, there are two secondary screening podiums to clear alarmed bags. Baggage check-in at SUN averages approximately 0.75 bags per passenger, about 25 percent higher than the industry standard for domestic airports. The TSA processes the most bags per day during the two-week winter peak period.

**Figure 1-11: SUN baggage screening area**



Source: Mead & Hunt, 2020; TSA, 2020.

The space shared by TSA baggage screening and airline ticketing is small, and there are no baggage takeaway conveyors from the counters. TSA officers must lift and load them onto the EDS machine. Once a bag has been cleared, a TSA officer places it onto a run-out belt into United and Delta's (Skywest) outbound baggage room or onto a slide into Alaska/Horizon's outbound baggage room. The limited space around the EDS machine causes delays due to bags stacking up adjacent to the machine. It also poses a risk to TSA staff lifting the bags, retrieving them from the cleared belt and delivering them to the outbound baggage area. Airline employees stage bags in the

screening area when backups occur, creating a trip hazard for TSA employees. The location and layout of the baggage screening operation should be considered temporary and relocated to its own space when the departures hall is expanded.

#### Airline Outbound Baggage Area

Airline outbound baggage make-up is a manual operation. There is not a common-use baggage make-up device. Instead, TSA officers place baggage on a conveyor (Skywest) or slide (Horizon) leading to the airlines' baggage makeup rooms. Several columns obstruct movement through the make-up rooms, which are too small for baggage tugs to drive through. Instead, baggage carts are pushed into and pulled out of the make-up areas to stage on the apron. In addition, the floor heights of the two make-up rooms are different, making it difficult to combine the rooms to improve circulation. The rooms also serve a storage function, including radio charging stations and heavy weather gear.

#### Security Screening Checkpoint

The TSA security screening checkpoint (SSCP) is located north of the departures hall and is comprised of one standard screening lane with an Advanced Imaging Technology (AIT) machine used to screen most passengers. Pre-Check authorized passengers use an adjacent magnetometer for screening. The TSA operates a "blended screening operation" in which both sets of passengers are processed through one lane. Pre-Check passengers typically have a shorter wait in queue, as they can keep belts and shoes on and their laptops in their carry-on bag.

The processing capacity of a standard screening lane is between 150 to 180 passengers per hour on average. Based on discussions with TSA, screening lane capacity at SUN is limited to about 130 passengers per hour. A larger than standard queueing area, approximately 600 square feet, allows passengers to wait in an area without obstructing adjacent circulation flow during a peak hour.

Figure 1-12: SUN SSCP



Source: Mead & Hunt, 2020.

The TSA processed an average of 275 passengers a day in 2019. This average does not reflect the broad range between peak and off-peak passenger levels throughout the year, but it is useful in setting minimum requirements for system design. TSA staff screened an average of 2.3 carry-on bags for each passenger over the course of the year. The months of January, March, July, and August were peak months, with July and August logging the most passengers and carry-ons for the year. December has an abridged peak, beginning December 17th, running through December 31st, 2020, and continuing into the first week of January 2021. Prior to the December peak, there are only three departures a day.

#### Gates and Departure Lounge

Aircraft gates are designated doors in the terminal building that passengers pass through when boarding or disembarking from the aircraft. There are four ground-boarding aircraft parking gate stands at SUN, located parallel to the departures lounge on the north side of the building. Currently, passengers walk across the apron



and use mobile ramps to board the aircraft. This was an acceptable level of service when fewer, smaller aircraft types were used at the Airport. The amount of activity currently experienced on the apron warrants the consideration of boarding bridges.

**Figure 1-13: SUN departures lounge**



Source: Mead & Hunt, 2020.

The types of aircraft operating from SUN are limited due to FAA restrictions on aircraft size, with a 100-foot wingspan set as the maximum wingspan that will have adequate runway to taxiway separation on the airfield.

**Table 1-2** lists the types of commercial aircraft that can operate at SUN.

**Table 1-2: Aircraft dimensions and capacities**

Aircraft Type	Aircraft Length	Wingspan	Total # of PAX seats
Q400	107' 9"	93' 3"	76
ERJ175	104' 0"	85' 4"	76
CRJ900	118' 10"	81' 6"	76 to 90
CRJ700	106' 7"	76' 3"	66 to 78
CRJ200	87' 10"	68' 8"	50
ERJ145	98' 0"	65' 9"	50

Source: FAA Characteristics Database, 2020.

Arriving passengers enter the departures lounge through the gates and exit the secure area through a revolving exit door, which leads directly into the nonsecure area with the great room/arrival hall waiting area to the left and baggage claim to the right. The departures lounge is a single 3,910 square-foot open area with a circulation corridor and access to public restrooms and a small coffee concession. About 3,030 square feet of the departures

lounge is designated for seating and about 880 square feet is used for gate podiums. The secure area was built to support three gates; however, the lounge supports four aircraft parking positions today.

A breakdown of departures lounge space is included in **Table 1-3**.

**Table 1-3: Departures Lounge Seating & Boarding Corridor Areas By Gate**

Gate Number	Seating Area (SF)	Gate Ticket Lift & Boarding Corridor (SF)	Total Gate Area (SF)
Gate 1	1,010	285	1,295
Gate 2	1,010	285	1,295
Gate 3	1,010	310	1,320
<b>Total</b>	<b>3,030</b>	<b>880</b>	<b>3,910</b>

Source: Mead & Hunt, 2020.

### Restrooms and Passenger Services

Public restrooms are required by building codes in all buildings that are open to the public. In airports and many other public buildings, a successful restroom program provides restroom modules, consisting of multiple user rooms with stalls and single-user restrooms, typically with drinking fountains and a janitor closet nearby. The modules in airports should be designed at convenient locations with the appropriate number of plumbing fixtures and amount of circulation space for the high-intensity usage typical of airport terminals.

Restrooms at SUN are located in both secure and non-secure areas of the terminal. There are two non-secure restroom modules. One is centrally located, between the arrivals hall and departures hall along the corridor from ticketing to the security checkpoint, with entrances from each area. A single-user restroom is also located within this restroom block with a separate entry door. Another, smaller, restroom module is located on the south end of the terminal near the bus lounge and TSA support areas. There is a small restroom module in the departures lounge, located near the concession area and security checkpoint exit. A single-user restroom and drinking fountains are also located within this module.

**Table 1-4: SUN Restrooms**

Restroom	Size (SF)
Non-Secure Restrooms: Central	810
Non-Secure Restrooms: South	395
Secure Restrooms	725
<b>Total Restroom Area</b>	<b>1,940</b>

Source: Mead & Hunt, 2020.

Most spaces in the terminal serve the public. Passenger services in public areas may include non-revenue producing services that are beneficial or necessary for specific segments of the population, such as mother's rooms, service animal relief areas, business areas, play areas, wheelchair spaces, baggage cart storage, and a sensory room or quiet space, which is provided for passengers with sensory processing disorders such as autism. The terminal building at SUN does not include spaces for any of these services.

Mother's rooms and service animal relief areas are now required in certain airports by federal legislation. Service animal relief areas can be located either inside the building, a choice for most larger terminals, or outside the building. Business areas, play areas, wheelchair spaces, and sensory rooms are not required by law but are industry

standard best practices. Baggage cart storage is not needed at SUN due to the short distance from the curbside to the departures hall and arrivals hall.

### Circulation

Circulation space allows people to move through the building, providing access to and connection between terminal components. It includes building entries, corridors, and hallways. For small airports, component operations often intrude onto what is considered circulation space. Readily noticeable even at larger airports are the queues that form at the checkpoint, with passengers taking over the terminal corridor, a space intended for circulation. This is due to how spaces are connected in small terminals, typically with few transition spaces between the processing areas. Overflow from functional components into circulation space is generally tolerated because it usually occurs over a short period of time.

Circulation at the SUN departures hall suffers from the ticket queue being undersized, especially during peak times. This has worsened in recent years as aircraft in the commercial fleet have increased in size, increasing peak demand in this space. Aggravating the congestion, a large vertical mechanical chase in an otherwise open area intended for circulation constrains passenger movement between the departures hall and the SSCP, sometimes completely blocking the circulation flow to the north portion of the building. Furthermore, there is only a small space for transition between the main circulation corridor and the SSCP queue.

Arrivals hall circulation begins at the exit from the departures lounge. Passengers who are not claiming baggage can bypass baggage claim and head directly to the curb to meet their party or on to the parking areas. Passengers with checked baggage proceed directly to the baggage claim area, where an additional building exit accesses the curbside and parking areas. On the secure side of the checkpoint, the circulation area makes an efficient path from the checkpoint exit to the departures lounge exit, passing the restrooms and concessions area along the way. The total circulation space is less than the amount needed during peak times. As a result, circulation in the secure area can become congested as well.

### Baggage Claim and Arrivals Hall

The arrivals hall is where passengers claim baggage and connect with meeter/greeters. It includes public areas such as baggage claim, waiting area seating, and queuing for car rental counters. It also includes non-public areas that support these public functions, such as the baggage offloading lanes. The 2015 expansion project included a large lobby area with a fireplace and art installations, referred to as the great room. The great room has proved to be underutilized as could be repurposed for other uses.

A slide baggage claim device runs along most of the north wall of the baggage claim area. Three overhead doors are opened for delivery of baggage onto the slide. The claim area includes passenger queueing area, rental car offices, and a small vending area.

**Figure 1-14: SUN baggage claim area**



Source: Mead & Hunt, 2020.

The inbound baggage drop-off zone, where tugs offload baggage in the secure operations area outside the building, is located under cover but is open to the elements. Airline crews raise one of three overhead doors to unload bags onto the slide for passengers to claim. Odd or oversized bags such as bikes or skis are carried into the claim area if they cannot be set onto the slide. There is limited space for tug maneuvering in this area of the apron and two tugs will sometimes stack when flights arrive during the same period.

#### Car Rental

Car rental operations occupy the south area of the baggage claim hall. Three car rental companies serve SUN, including Enterprise, Hertz, and National. The car rental offices and counter areas are 670 square feet in total area.

#### Concessions

There is one concession at the terminal, Freedom House Coffee, which occupies a 380 square foot space adjacent to the departures lounge on the secure side. Given that the Airport is less than ten minutes from downtown Hailey, a gift store or restaurant would have difficulty operating at the Airport without revenue from adjacent airport businesses. A vending area is located between the ticket counter area and great room/arrival hall. Sometimes, when a flight is diverted, the coffee shop will provide snacks and beverages near the 180 square foot vending alcove in the bus lounge.

#### Building Support Space

Building support spaces are the portions of the building that house essential services, including the mechanical, plumbing, electrical, and information systems. Several of these systems were improved as a part of the 2015 expansion project; however, there are some legacy portions of the systems that were not included in the project.



The building systems occupy approximately 2,795 square feet in total area in the SUN terminal, approximately 8.5 percent of the functional area of the terminal. While the amount of space needed for these functions varies between climates and often varies between buildings in the same climate, this amount is lower than average.

Other support space includes a location to remove trash and recycling from the building and bring deliveries in. Trash and recycling are brought out the south entry door to dumpsters located behind a screen wall south of the terminal. Trash and delivery trucks utilize the curbside roadway for access. Generally, it is recommended that the routes for these services are diverted from the public curbside.

#### **1.4. Considerations for Terminal Planning**

Based on discussion with FMAA staff and stakeholders, the following were noted as challenges for the airport along with requirements for expansion. A subsequent chapter will study these challenges in further depth and identify activity triggers for addressing them.

##### ***Curbside & Parking***

1. The curbside can become easily congested due to having only two lanes: the curbside pick-up and drop-off lane and a pull-out and bypass lane. Airports typically have at least three lanes, allowing the middle lane to serve as the stacking (double-parking) and pull-out lane, with the outer lane serving as the bypass lane.
2. The terminal roadway and curbside is typically separate from parking, i.e. vehicles could access the curb only from the entrance south of the departures hall, and not through the parking lot, entering the curbside lanes at various points along the length of the lanes, as is the case in the existing lot. This is necessary to be able to plow snow from the parking lot and curb lanes.
3. Passengers dwelling in their cars on the curb awaiting their parties is an issue, which is why the parking ambassador program was begun, to assist passengers and to encourage them to move their cars away from the curb.
4. Rental cars staged in the parking lot take up much-needed passenger parking spaces. Car rental companies allow cars parked outside designated return spaces to sit overnight rather than removing them from the lot. The companies pay a fee for this, but they do not seem to be concerned about the cost.
5. Public parking is insufficient during peak seasons, with demand exceeding supply. Long-term parking is available but it too is short spaces during peak seasons. The Airport has considered building a long-term lot further to the south and providing a shuttle for passengers to the terminal.
6. A public parking deck built over the lower-level parking lot would provide some relief; however, the building's height may pose problems for the community because it would be the tallest facility in the area and lighting the deck would have to meet the City's dark sky ordinance. A second level deck would be acceptable as it would not exceed the height of other buildings and lighting the deck would be similar to lighting the upper parking lot. Finding sufficient parking to serve the operation while the deck is built would also be a challenge.
7. Plans have been designed for the existing gravel overflow parking area. While farther away than the lower lot, passengers would still be able to walk to the terminal from this lot.
8. Charter vehicles range in size from large SUVs to coaches and space for them away from the curb is preferred as it would reduce congestion at the curb.
9. A quick turnaround facility (QTA) for car rental agencies closer to the terminal, consisting of space for cleaning vehicle interiors and fueling facilities, would be preferred by agency staff.

### ***Departures Hall***

1. The departures hall is too small for the activity that occurs there. Every component and ancillary space occupies area that was built years ago when the Airport was operating smaller aircraft and served fewer passengers.
2. All areas in the departures hall are inadequately sized, including passenger waiting, circulation, and queueing areas, the number of counter positions, TSA checked baggage screening, airline ticket offices and support space, airline outbound baggage make-up, and sheltered and enclosed spaces for ramp equipment.
3. The Airport met with carriers and TSA headquarters regarding a new mini-inline checked baggage system. Alternate G is the preferred plan of all created by RLB.
4. A single SSCP lane serves both Pre-Check and standard passenger and carry-on screening. A second lane is required to meet increasing demand during peak travel seasons. Without expansion, other options, such as new technology or taking over the existing queue area for a second device, may be necessary.

### ***Secure Hold Room***

1. Four aircraft parking stands are supported by a departures lounge designed to support three flights. Expansion will have to occur to the west, moving baggage claim to provide additional area for the new lounge.
2. Larger restrooms and more fixtures are necessary to serve passengers in the lounge. A mother's room and service animal relief area should be included within this block.

### ***Gate Hardstands***

1. The airlines have been able to manage with four gates; however, the departures lounge is sized for three gates and additional gates will be necessary as the flight schedules mature over time. The master plan update shows ramp apron expansion to the north, removing an existing hangar, for additional hardstand. This could serve as staging for aircraft to pull up into an open gate stand next to the secure hold room, rather than serving as stands used to board and disembark passengers, unless the passengers were bused to these stands.
2. Passenger boarding bridges should be considered as an alternative to ground-boarding aircraft

### ***Baggage Claim***

1. The baggage claim hall is too small for multiple closely spaced arriving flights. A larger area is necessary to give passengers and accumulated bags room to gather, for passengers to claim bags when they arrive, and to make their way away from the claim device.
2. One or more recirculating baggage claim devices would modernize the operation and provide a higher level of service to passengers and a better airline delivery system.
3. The baggage claim hall is too small for the rental car counters to face the claim devices. New devices would require car rental counter and office space to function properly.
4. A new bank of restrooms within the claim hall would better serve this area, as passengers currently must walk to the restrooms at the center of the building.
5. An additional exit from the arrivals hall would provide another location on the curb for passengers who are being met by others.

### 1.5. Terminal Inventory Summary

A summary of the terminal area program is presented in **Table 1-5**.

**Table 1-5: SUN Terminal Facility Space Assessment**

<b>SUN Terminal Facility</b>	<b>Existing</b>
<b>Concourse</b>	
<i>Gates: Ground Boarding</i>	4
<i>Departures Lounge and Seating</i>	3,920 SF
<i>Circulation</i>	1,640 SF
<i>Restrooms</i>	725 SF
<i>Public Concessions and Vending</i>	380 SF
<b>Concourse Total</b>	<b>6,665 SF</b>
<b>SSCP</b>	
<i>Number of CP Lanes</i>	1
<i>Passenger Screening</i>	1,655 SF
<i>SSCP Queueing</i>	540 SF
<i>SSCP Exit</i>	275 SF
<b>SSCP Total</b>	<b>2,470 SF</b>
<b>Terminal Public Spaces</b>	
<i>Baggage Carousels</i>	1
<i>Circulation and Queuing</i>	8,235 SF
<i>Shuttle and Departures Seating</i>	2,275 SF
<i>Waiting and Bag Claim</i>	2,160 SF
<i>Public Restrooms</i>	1,215 SF
<i>Public Concessions and Vending</i>	180 SF
<i>Support Space</i>	0 SF
<b>Subtotal Terminal Public Spaces</b>	<b>14,065 SF</b>
<b>Terminal Non-Public (NP) Screening and Conveyors</b>	
<i>(NP) Baggage Screening and Conveyors</i>	340 SF
<i>(NP) Inbound/Outbound Baggage</i>	1,700 SF
<i>(NP) Airline Areas</i>	1,480 SF
<i>(NP) Car Rental Areas</i>	675 SF
<i>(NP) Leased Space</i>	1,490 SF
<i>(NP) Airport Offices and Support Areas</i>	1,225 SF
<b>Subtotal Nonpublic</b>	<b>6,910 SF</b>
<b>Building Structure, Utilities and Chases</b>	<b>2,795 SF</b>
<b>Terminal Total</b>	<b>23,770 SF</b>

Source: Mead & Hunt, 2020.

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