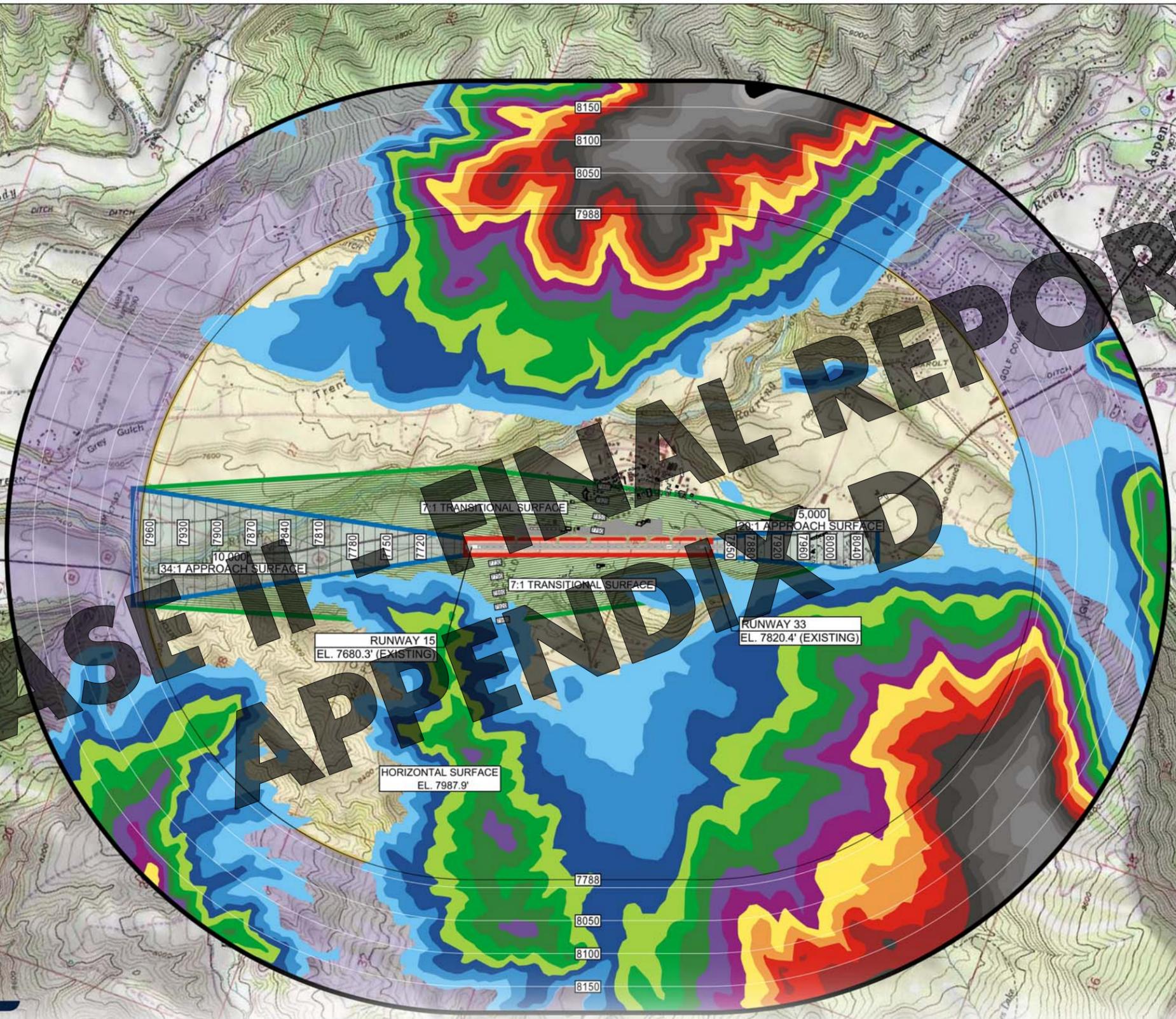


TERRAIN PENETRATION LEGEND

0' TO 100'	1,000' TO 1,100'
100' TO 200'	1,100' TO 1,200'
200' TO 300'	1,200' TO 1,300'
300' TO 400'	1,300' TO 1,400'
400' TO 500'	1,400' TO 1,500'
500' TO 600'	1,500' TO 1,600'
600' TO 700'	1,600' TO 1,700'
700' TO 800'	1,700' TO 1,900'
800' TO 900'	1,900' TO 2,000'
900' TO 1,000'	2,000' TO 2,500'



PHASE II - FINAL REPORT
APPENDIX D



ASPEN/PITKIN COUNTY AIRPORT
FUTURE AIR SERVICE PLANNING STUDY - PHASE II - STEP C
AIRPORT AIRSPACE DRAWING

MAY 30, 2014



TABLE OF CONTENTS

- INDEX
- ALTERNATIVE REFINEMENT
- EXISTING CONDITION MATRIX
- MASTER PLAN CONDITION MATRIX
- ALTERNATIVE 5a
SHIFT RW 25' WEST AND WIDEN TO 150'
TW "A" 350', TW "B" 350'
- ALTERNATIVE 6
SHIFT RW 80' WEST AND WIDEN TO 150'
TW "A" 400', NO TW "B"
- ALTERNATIVE 10
SHIFT RW 25' WEST AND WIDEN TO 150'
TW "A" 360' (15' SHIFT EAST), TW "B" 360'
- ALTERNATIVE 11
SHIFT RW 80' WEST AND WIDEN TO 150'
TW "A" 400', TW "B" 320'
- ALTERNATIVE 12
SHIFT RW 80' WEST AND WIDEN TO 150'
TW "A" 400'
TW "B" 320' SOUTH OF AOC
TW "B" 400' NORTH OF AOC
- ALTERNATIVE 13
SHIFT RW 43' WEST AND ROTATE 0.17° ABOUT
RUNWAY 15 THRESHOLD, WIDEN TO 150'
TW "A" 380' NORTH OF TAXIWAY "A5"
TW "A" 380' TO 387' SOUTH OF TAXIWAY "A5"
TW "B" 320' SOUTH OF AOC
TW "B" 400' NORTH OF AOC

AIRCRAFT EVALUATION FOR ASPEN/PITKIN COUNTY AIRPORT

AIRCRAFT TECHNICAL SPECIFICATIONS

AIRCRAFT TYPE	WINGSPAN		MAX LW (LBS)	ASE PERFORMANCE -CAPABLE	MEETS / DOES NOT MEET ASE OPERATIONAL RESTRICTIONS
	FEET/INCHES	METER			
Current Regional Aircraft					
CRJ-700	76' 3"	23.2	67,000	YES	Meets
Q-400	93' 3"	28.4	62,000	YES	Meets
CRJ-900	81' 7"	24.9	73,500	NO	Meets
CRJ-1000	85' 11"	26.2	81,500	NO	Meets
E-170	85' 4"	26	72,312	NO	Meets
E-175	85' 4"	26	74,957	NO	Meets
E-190	94' 3"	28.7	94,799	NO	Meets
E-195	94' 3"	28.7	99,208	NO	Meets
Future Regional Aircraft					
E-175 E2	101' 7"	31.0	86,201	TBD	Does not meet
E-190 E2	110' 6"	33.7	109,018	TBD	Does not meet
E-195 E2	110' 6"	33.7	118,498	TBD	Does not meet
MRJ-70 Standard	95' 9"	29.2	79,807	TBD	Does not meet
MRJ-90 Standard	95' 9"	29.2	83,776	TBD	Does not meet
CS100 Base	115' 1"	35.1	110,000	YES	Does not meet
CS300 Base	115' 1"	35.1	121,500	YES	Does not meet
Comparison Non-Regional Aircraft					
Airbus A319	111' 11"	34.1	138,000	N/A	Does not meet
Boeing 737-700	117' 5"	35.7	128,928	N/A	Does not meet
Boeing 717	93' 5"	28.5	100,000	N/A	Does not meet

Source: Manufacturers

FAA STANDARD SUMMARY

- ASPEN/PITKIN COUNTY AIRPORT - RDC D-III
- FAA STANDARD CRITERIA
 RUNWAY WIDTH - 100'
 RUNWAY SAFETY AREA (RSA) - 500'
 RUNWAY OBJECT FREE AREA (ROFA) - 800'
 TAXIWAY WIDTH - 50'
 TAXIWAY SAFETY AREA (TSA) - 118'
 TAXIWAY OBJECT FREE AREA (TOFA) - 186'
 TAXIWAY CENTERLINE TO OBJECT SEPARATION = WS*(0.7)+10
 TAXILANE OBJECT FREE AREA (TOFA) - 162'
 TAXILANE CENTERLINE TO OBJECT SEPARATION = WS*(0.6)+10
 RUNWAY TO TAXIWAY CENTERLINE SEPARATION - 400'
 TAXIWAY HOLDLINES FROM RUNWAY CENTERLINE - 277'

ASPEN/PITKIN COUNTY AIRPORT - CURRENT FAA MODIFICATION TO STANDARD IN PLACE

- RUNWAY TO TAXIWAY CENTERLINE SEPARATION - 320'
- TAXIWAY OBJECT FREE AREA (TOFA) - TAXIWAY "A" ONLY - 169' (93' RUNWAY SIDE AND 76' APRON SIDE)
- TAXIWAY HOLDLINES FROM RUNWAY CENTERLINE - 272.5'

PITKIN COUNTY ORDINANCE

- 95' WINGSPAN RESTRICTION
- 100,000 LB. MAX. LANDED WEIGHT



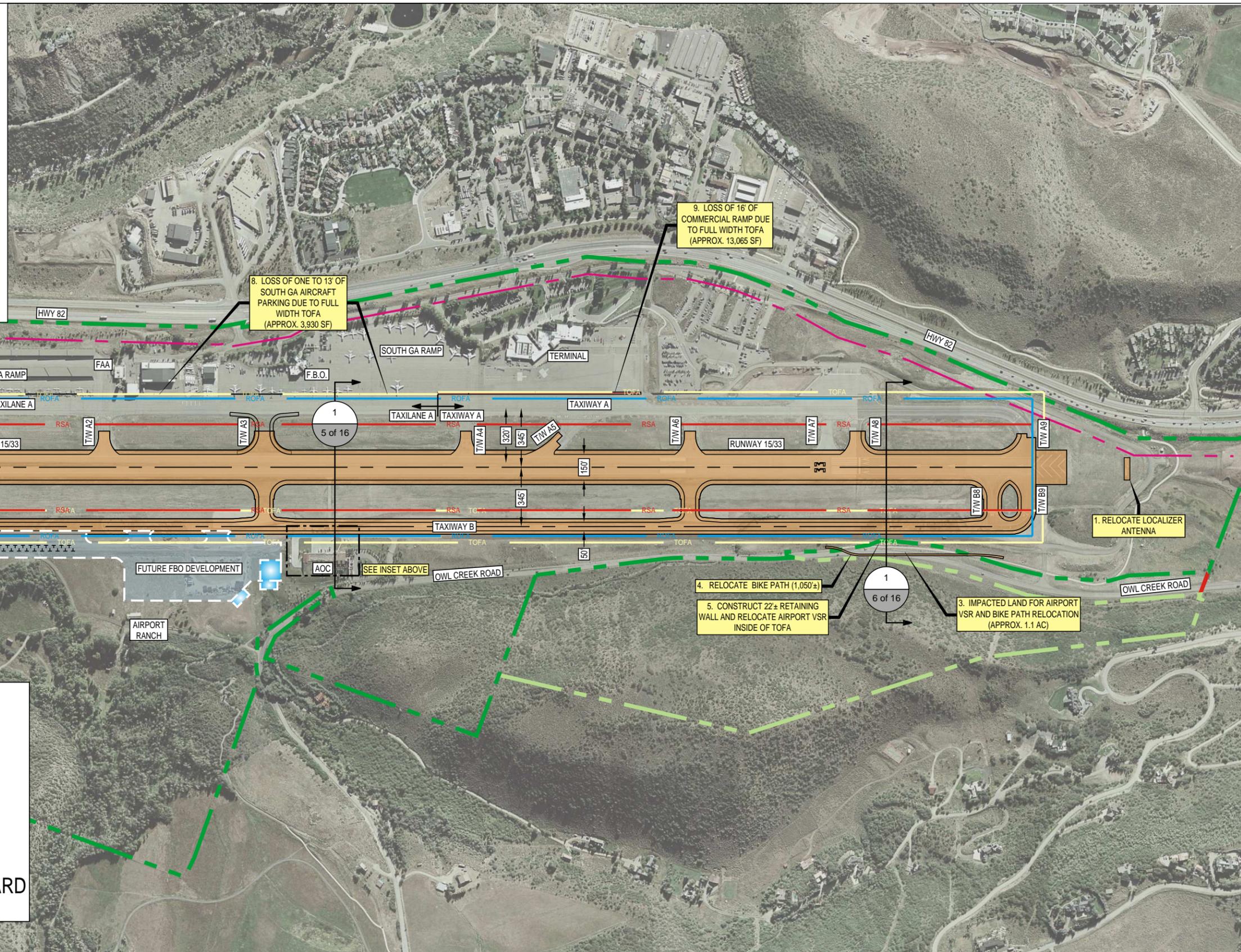
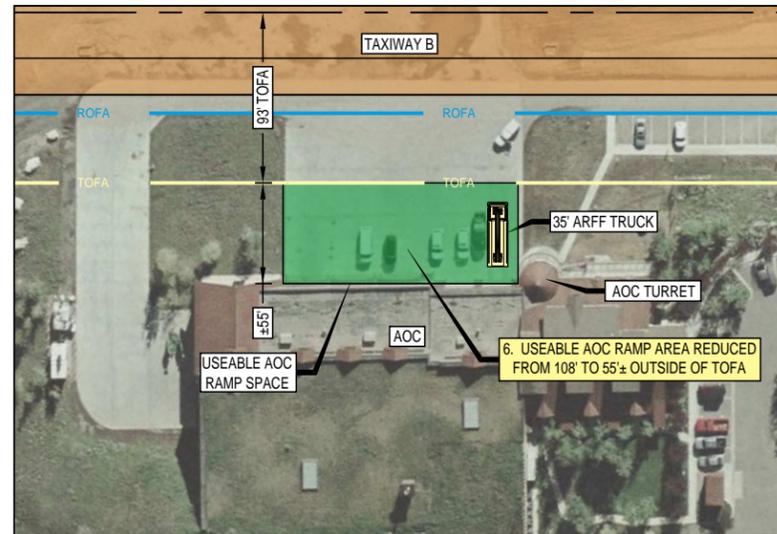
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 ASPEN, COLORADO
 FUTURE AIR SERVICE STUDY - PHASE II
 INDEX

DATE: MAY 30, 2014

ALTERNATIVE	MASTER PLAN CONDITION												
	RE-ORIENT TERMINAL AREA PLAN AND BUILDINGS TO REALIGNED RUNWAY	OVERALL NET REDUCTION IN COMMERCIAL RAMP AREA	OVERALL NET REDUCTION IN SOUTH GA RAMP AREA	OVERALL NET REDUCTION IN NORTH GA RAMP AREA	RECONFIGURED NORTH GA RAMP AREA	WEST SIDE FBO DEVELOPMENT SHIFTS TO WEST	IMPACTS TO AIRPORT RANCH STRUCTURES	POTENTIAL WEST SIDE FBO RAMP RECONFIGURATION	PIPE OWL CREEK	ENCROACHES ON OWL CREEK RIPARIAN CORRIDOR	NO WEST SIDE FBO DEVELOPMENT	FUTURE FBO SHIFTS TO EAST SIDE OF AIRFIELD	RELOCATE SMALL GA OPERATIONS TO WEST SIDE OF AIRFIELD
ALTERNATIVE 5a		✓	✓	✓		✓			✓	✓			
ALTERNATIVE 6		✓	✓	✓							✓		
ALTERNATIVE 10		✓	✓		✓	✓			✓	✓			
ALTERNATIVE 11		✓	✓		✓			✓	✓	✓	✓	✓	✓
ALTERNATIVE 12		✓	✓	✓		✓	✓	✓	✓	✓			
ALTERNATIVE 13	✓	✓			✓	✓	✓	✓	✓	✓			



ASPEN/PITKIN COUNTY AIRPORT
 ASPEN, COLORADO
 FUTURE AIR SERVICE STUDY - PHASE II
 MASTER PLAN CONDITIONS
 DATE: MAY 30, 2014

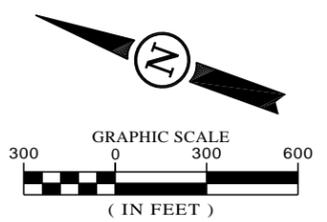


- CONDITIONS**
- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
 - 345' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)
 - 345' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)
 - RESCINDS ONE MODIFICATION TO STANDARD EAST SIDE TAXIWAY "A" TOFA

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON EXISTING AIRCRAFT PARKING
- ASE PROPERTY LINE
- BURLINGAME RANCH PROPERTY LINE
- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- CDOT PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK



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ALTERNATIVE 5a**

DATE: MAY 30, 2014

SHEET 1 OF 16

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TERMINAL AREA AND COMMERCIAL AND SOUTH GA RAMP IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH GA RAMP
- **COMMERCIAL RAMP AIRCRAFT**
CS100 AIRCRAFT (115' 1" WINGSPAN)

NET AIRCRAFT RAMP IMPACT (SF)
COMMERCIAL - 14,775 LESS THAN MASTER PLAN
SOUTH GA - 9,460 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

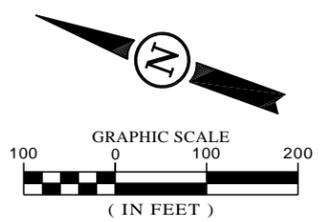
IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING

ASE PROPERTY LINE

HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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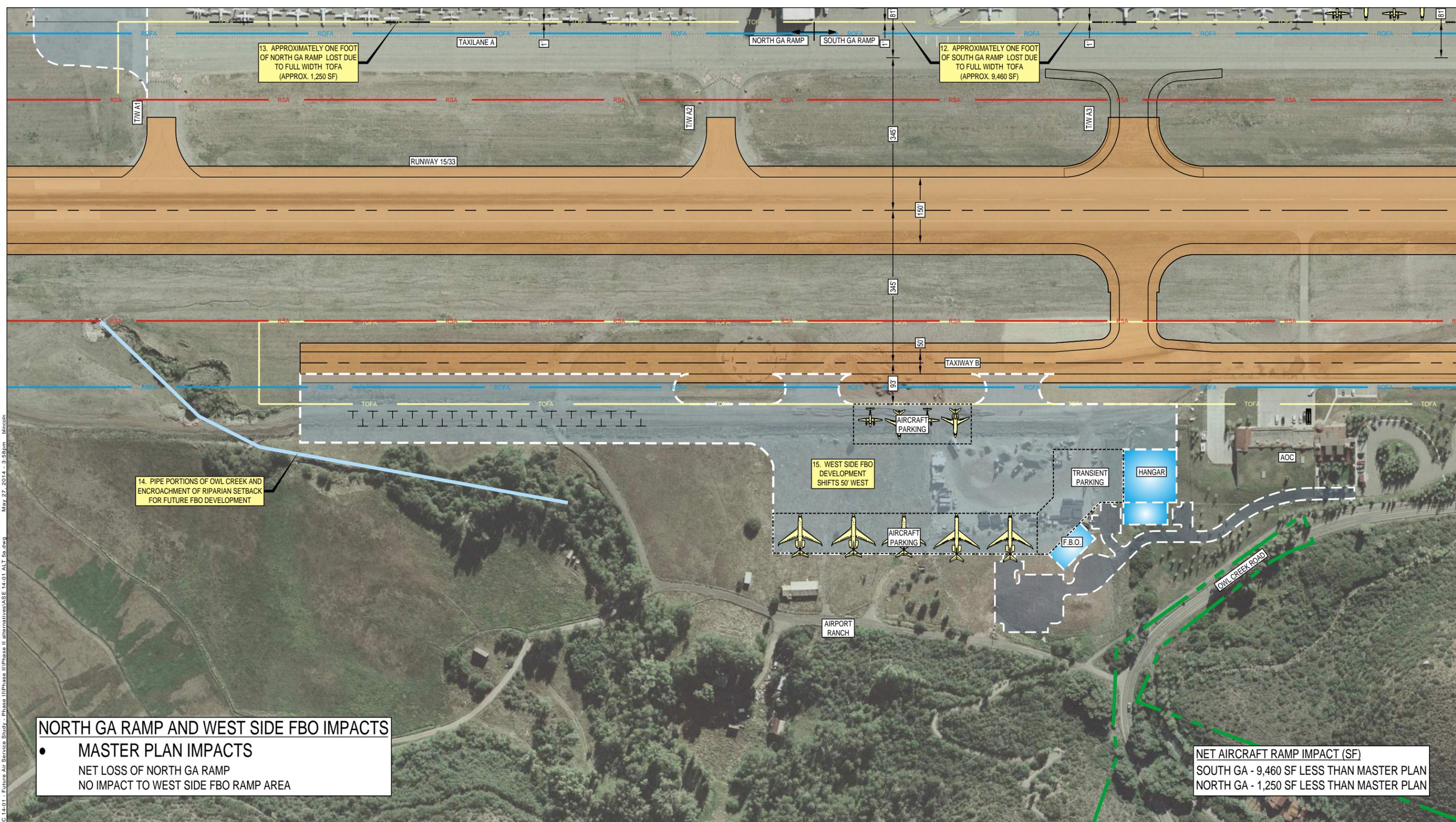
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SHEET 3 OF 16

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13. APPROXIMATELY ONE FOOT OF NORTH GA RAMP LOST DUE TO FULL WIDTH TOFA (APPROX. 1,250 SF)

12. APPROXIMATELY ONE FOOT OF SOUTH GA RAMP LOST DUE TO FULL WIDTH TOFA (APPROX. 9,460 SF)

14. PIPE PORTIONS OF OWL CREEK AND ENCROACHMENT OF RIPARIAN SETBACK FOR FUTURE FBO DEVELOPMENT

15. WEST SIDE FBO DEVELOPMENT SHIFTS 50' WEST

NORTH GA RAMP AND WEST SIDE FBO IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF NORTH GA RAMP
NO IMPACT TO WEST SIDE FBO RAMP AREA

NET AIRCRAFT RAMP IMPACT (SF)
SOUTH GA - 9,460 SF LESS THAN MASTER PLAN
NORTH GA - 1,250 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING

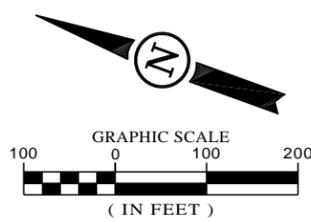
ASE PROPERTY LINE

LEGEND

MASTER PLAN LAYOUT AIRCRAFT PAVEMENT

MASTER PLAN LAYOUT BUILDINGS

MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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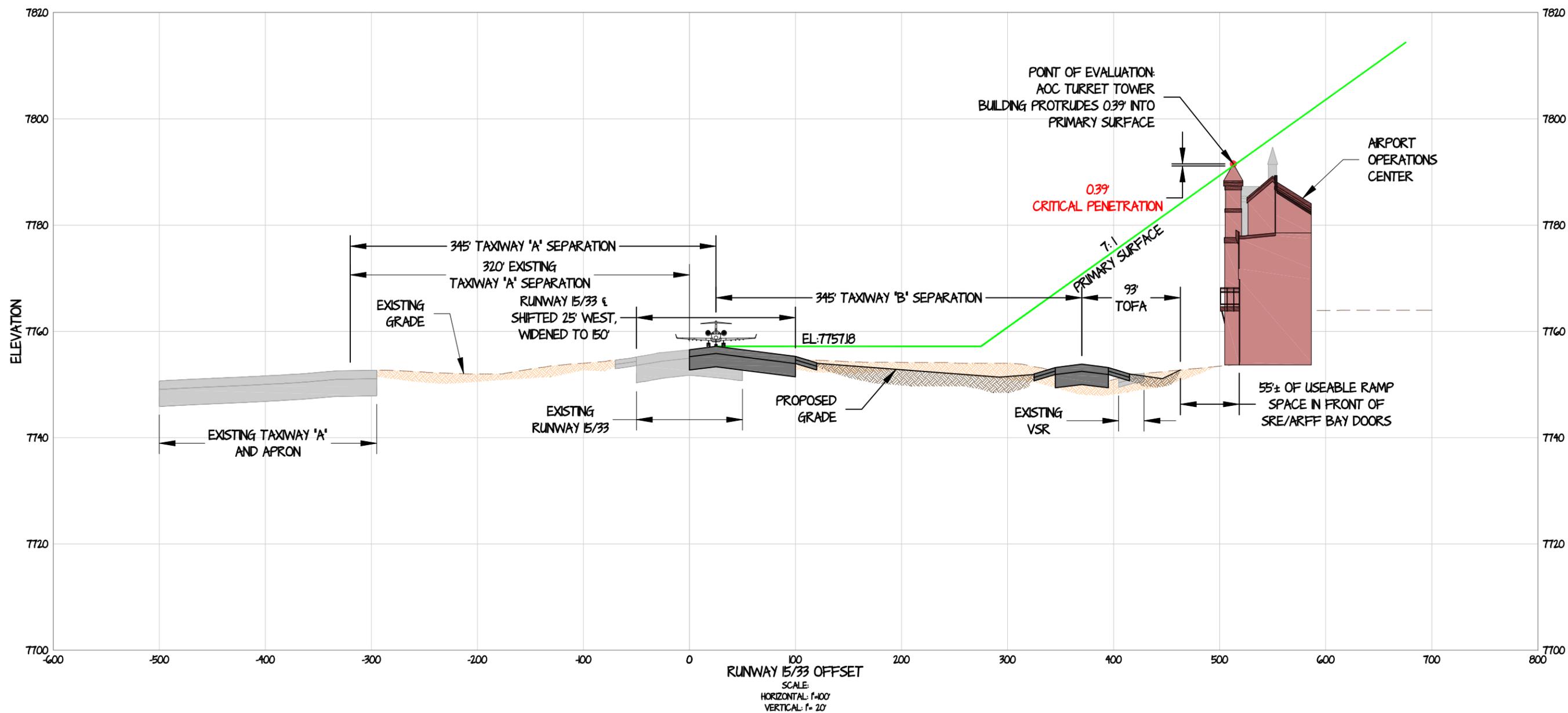
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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 5a**

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SHEET 4 OF 16

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ALTERNATIVE 5a - AIRPORT OPERATIONS CENTER - PART 77 AND RAMP SPACE EVALUATION



CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- 345' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)
- 345' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)



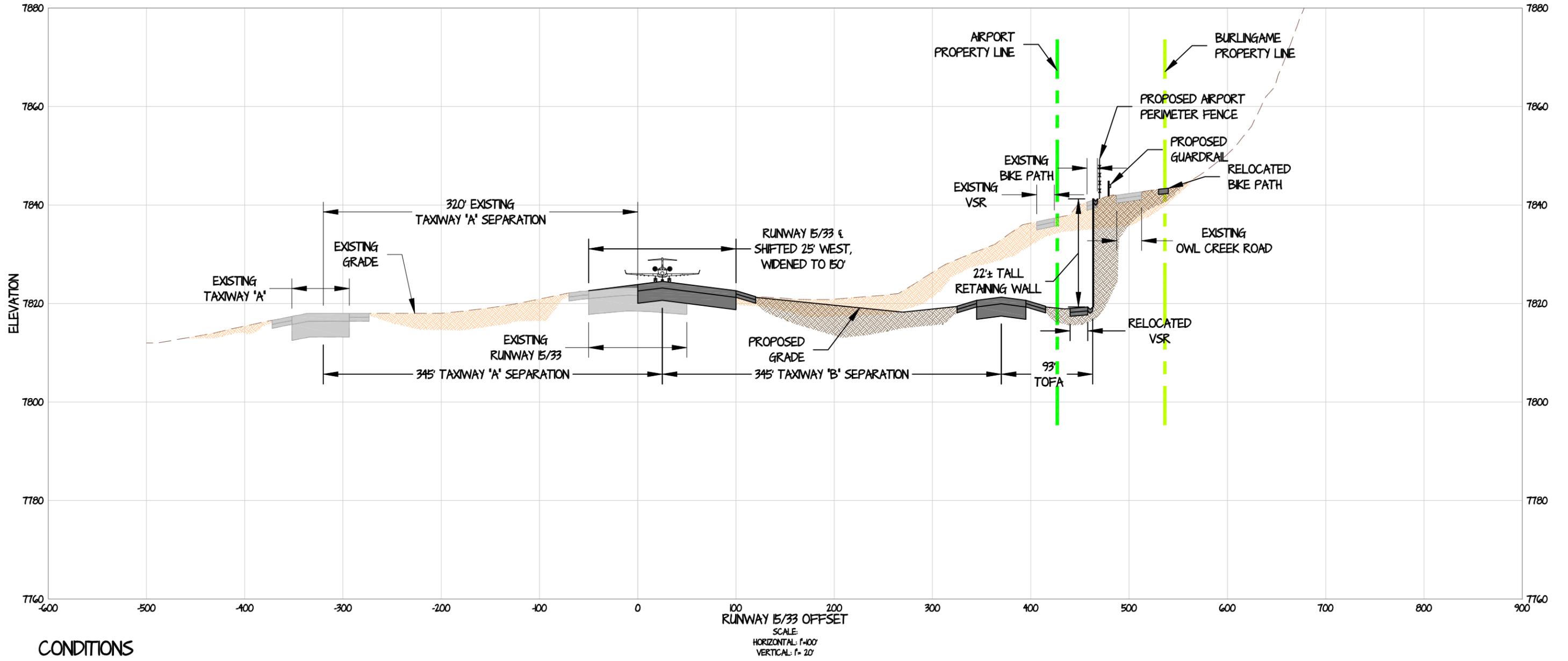
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SHEET 5 OF 16

ALTERNATIVE 5a - SOUTH END OF AIRFIELD APPROXIMATELY TAXIWAY "A8" - OWL CREEK ROAD PINCH POINT EVALUATION



CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- 345' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)
- 345' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)



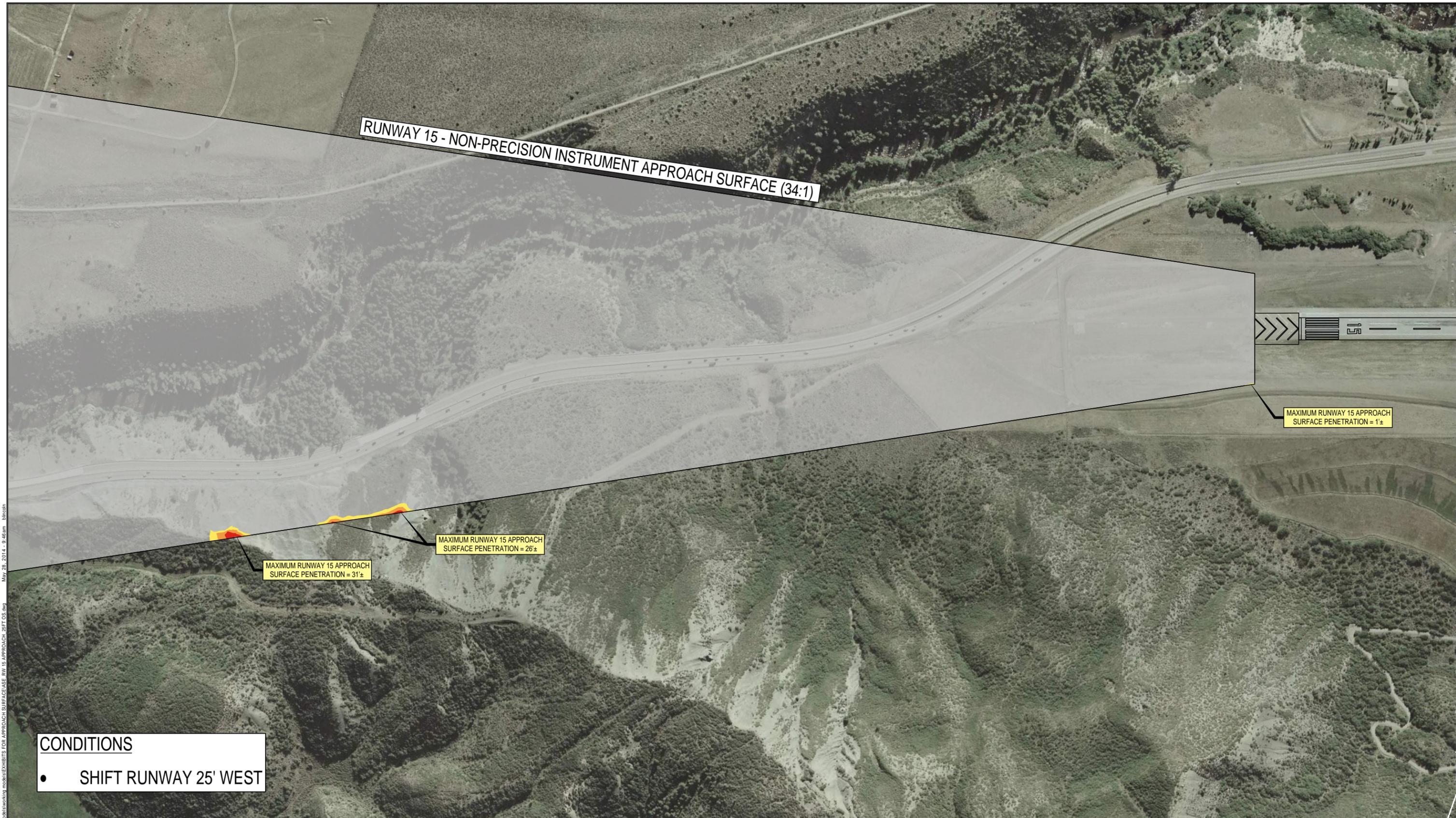
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SHEET 6 OF 16

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RUNWAY 15 - NON-PRECISION INSTRUMENT APPROACH SURFACE (34:1)

15

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 1'±

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 26'±

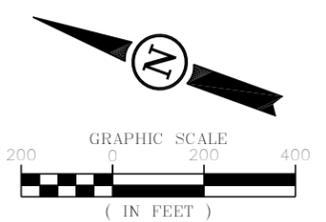
MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 31'±

CONDITIONS

- SHIFT RUNWAY 25' WEST

RUNWAY 15 APPROACH PENETRATIONS

	0' TO 10'		20' TO 30'
	10' TO 20'		30' TO 40'




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SHEET 10 OF 16

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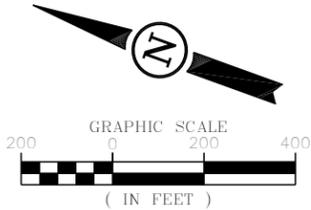


CONDITIONS

- SHIFT RUNWAY 25' WEST

RUNWAY 33 APPROACH PENETRATIONS

	0' TO 10'		30' TO 40'		70' TO 80'
	10' TO 20'		40' TO 50'		80' TO 90'
	20' TO 30'		50' TO 60'		



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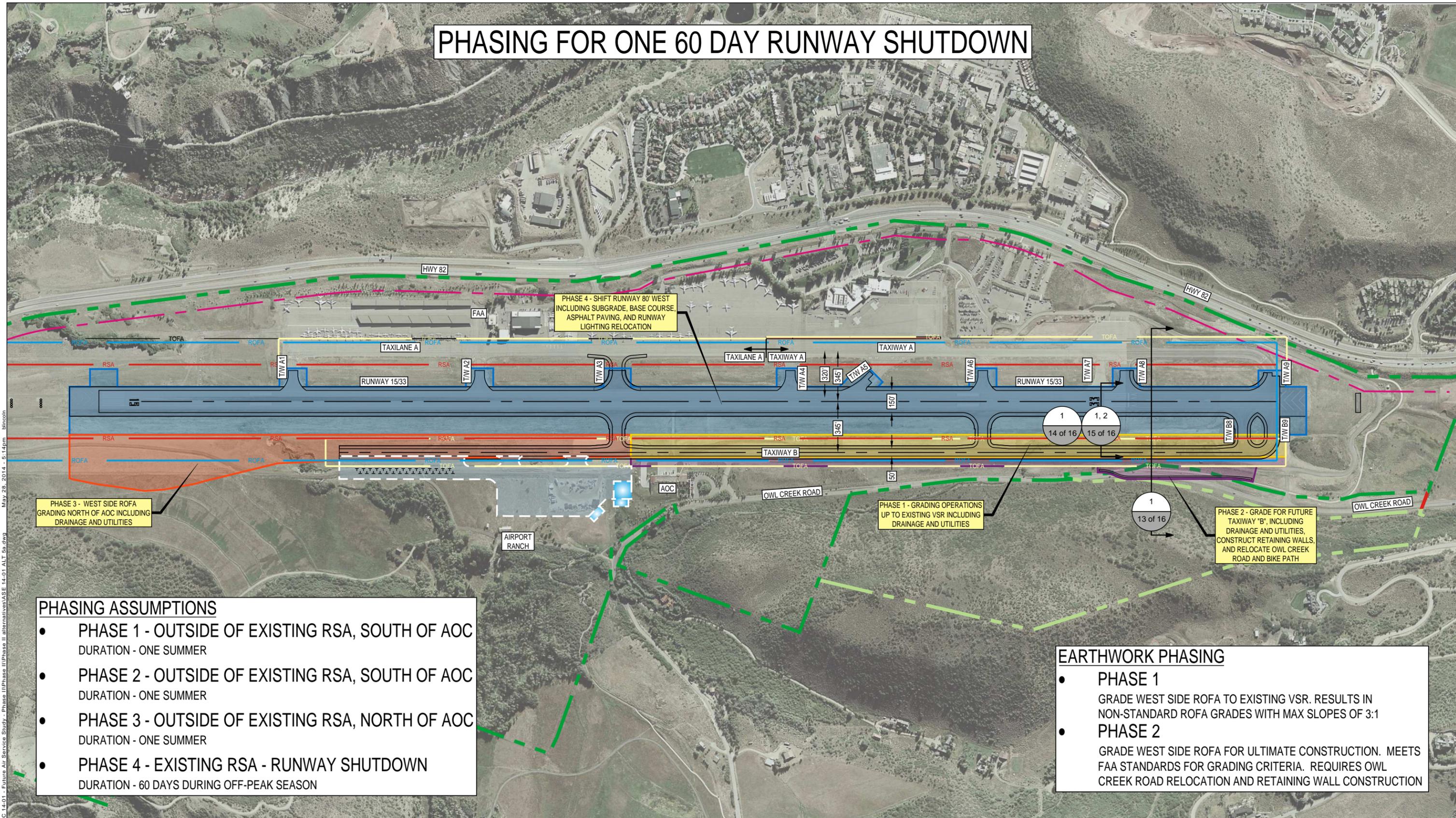
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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 5a**

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SHEET 11 OF 16

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PHASING FOR ONE 60 DAY RUNWAY SHUTDOWN



PHASE 4 - SHIFT RUNWAY 80' WEST INCLUDING SUBGRADE, BASE COURSE, ASPHALT PAVING, AND RUNWAY LIGHTING RELOCATION

PHASE 3 - WEST SIDE ROFA GRADING NORTH OF AOC INCLUDING DRAINAGE AND UTILITIES

PHASE 1 - GRADING OPERATIONS UP TO EXISTING VSR INCLUDING DRAINAGE AND UTILITIES

PHASE 2 - GRADE FOR FUTURE TAXIWAY 'B', INCLUDING DRAINAGE AND UTILITIES, CONSTRUCT RETAINING WALLS, AND RELOCATE OWL CREEK ROAD AND BIKE PATH

- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3
ASE PROPERTY LINE	PHASE 2	PHASE 4
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK	CDOT PROPERTY LINE

GRAPHIC SCALE (IN FEET): 0, 300, 600

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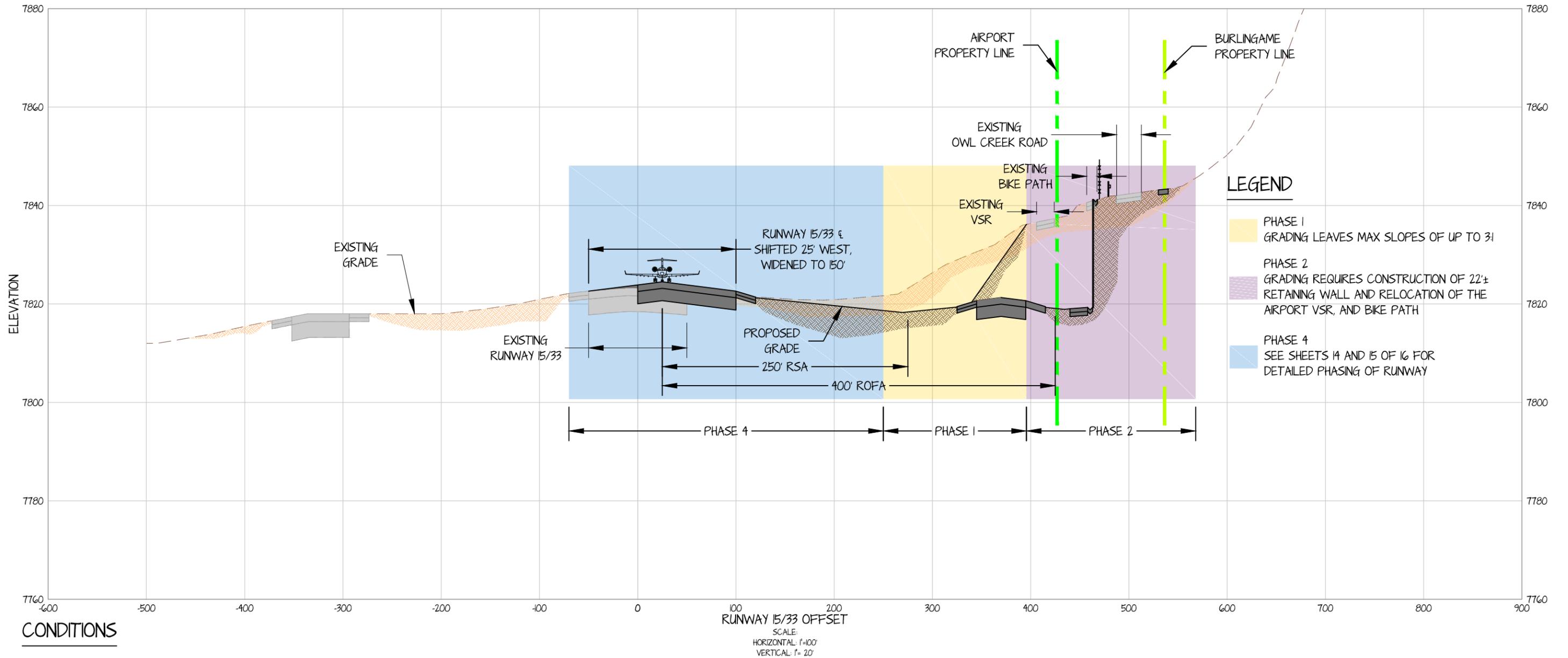
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ALTERNATIVE 5a**

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SHEET 12 OF 16

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ALTERNATIVE 5a - RSA AND ROFA GRADING - ONE 60 DAY RUNWAY SHUTDOWN



CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- 345' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)
- 345' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (345' RUNWAY/TAXIWAY SEPARATION)



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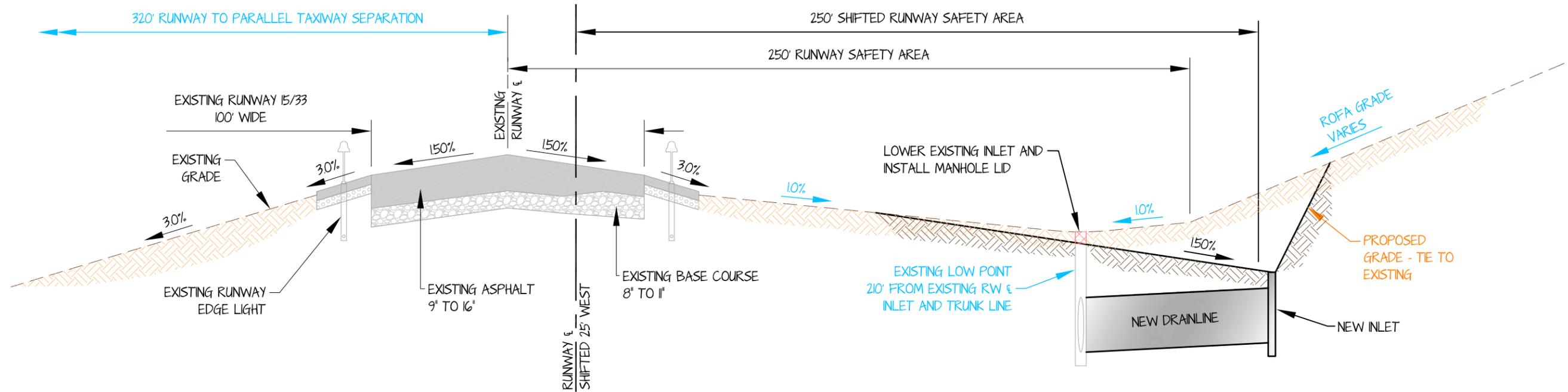
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SHEET 13 OF 16

NOTE:

ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
12 of 16

ALTERNATIVE 5a - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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ALTERNATIVE 5a

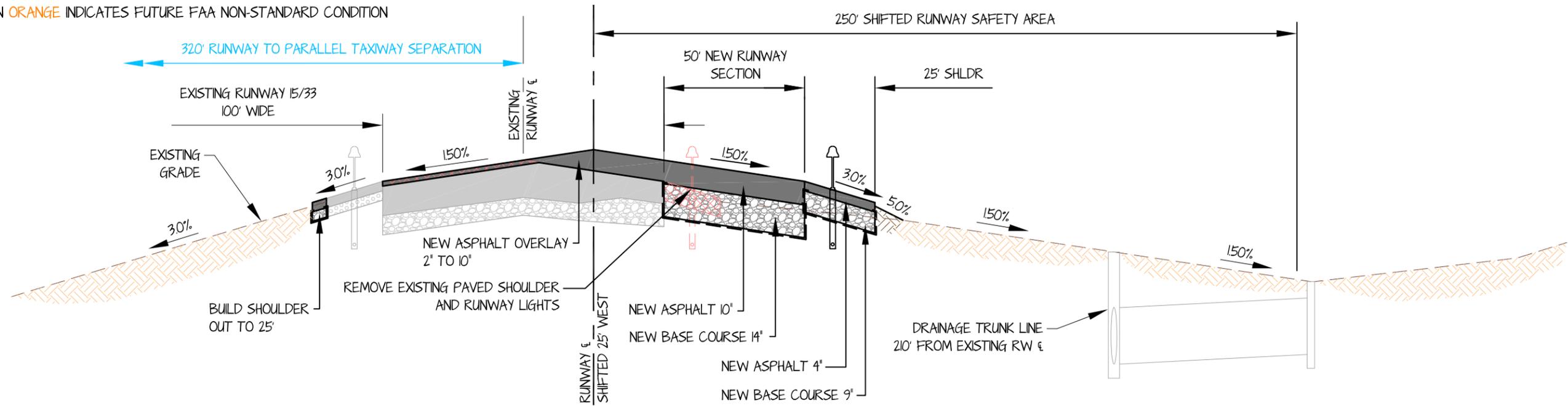
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SHEET 14 OF 16

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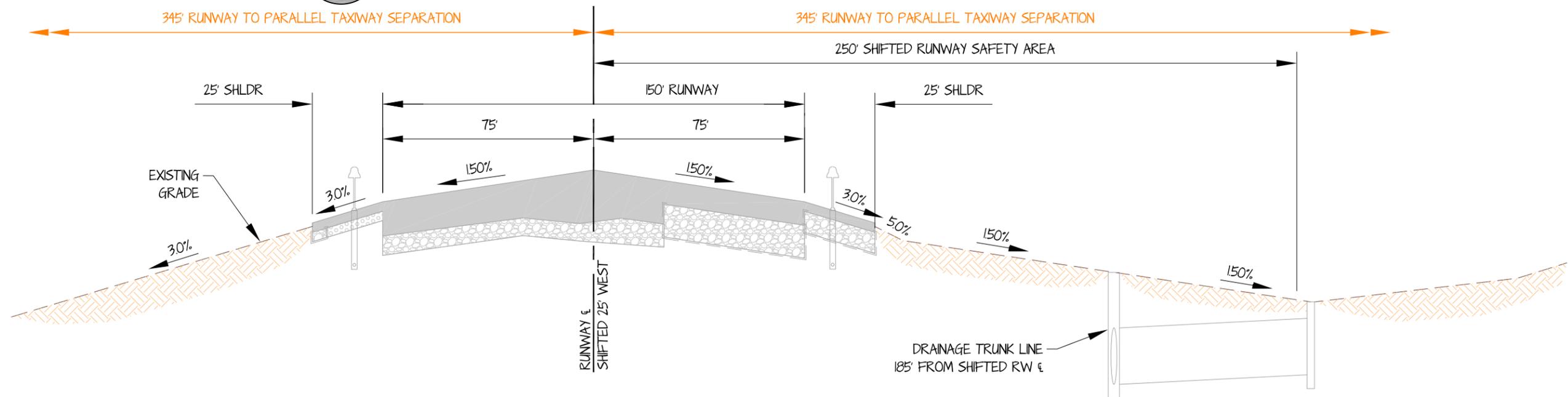
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
12 of 16

ALTERNATIVE 5a - PHASE 4 - 25' RUNWAY SHIFT - 60 DAY SHUTDOWN



2
12 of 16

ALTERNATIVE 5a - 25' RUNWAY SHIFT FINAL CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CONNECTOR TAXIWAYS "B8" AND "B9" TED-IN AFTER RUNWAY SHIFT



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 ALTERNATIVE 5a

DATE: MAY 30, 2014

SHEET 15 OF 16

LOCAL AND FEDERAL CONSIDERATIONS

POTENTIAL LOCAL REVIEW AND APPROVALS

PITKIN COUNTY

- **LOCATION AND EXTENTS REVIEW**
PROPOSED IMPROVEMENTS IN COMPLIANCE WITH THE WEST OF MAROON CREEK PLAN (WOMP)
- **ASPEN/PITKIN COUNTY AIRPORT DESIGN GUIDELINES APPROVAL**
PROPOSED IMPROVEMENTS IN COMPLIANCE AIRPORT DESIGN GUIDELINES (APRIL, 2014)
- **BUILDING PERMIT (TITLE II)**
ANY STRUCTURES MEETING THE "BUILDING" DEFINITION WHICH DOES NOT INCLUDE ROADS, PAVEMENT, FENCES, RETAINING WALLS OR OTHER SITE IMPROVEMENTS THE DO NOT ENCLOSE SPACES FOR THE PROTECTION OF PERSONS, ANIMALS, OR PROPERTY
- **ENVIRONMENTAL HEALTH (TITLE 6)**
ADDRESS APPLICABLE PROVISIONS OF TITLE 6 IN CONSTRUCTION DOCUMENTS AND CONTRACTS

CITY OF ASPEN

- **BURLINGAME OPEN SPACE PARCEL CHANGE IN USE (PUBLIC VOTE)**
RELOCATION OF OWL CREEK TRAIL ONTO BURLINGAME OPEN SPACE PARCEL

ASPEN VALLEY LAND TRUST (AVLT)

- **CONSENT PURSUANT TO DEED OF CONSERVATION EASEMENT**
RELOCATION OF OWL CREEK TRAIL ONTO BURLINGAME OPEN SPACE PARCEL REQUIRES APPROVAL BY THE AVLT BOARD OF DIRECTORS

POTENTIAL FEDERAL REVIEW AND APPROVALS

UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

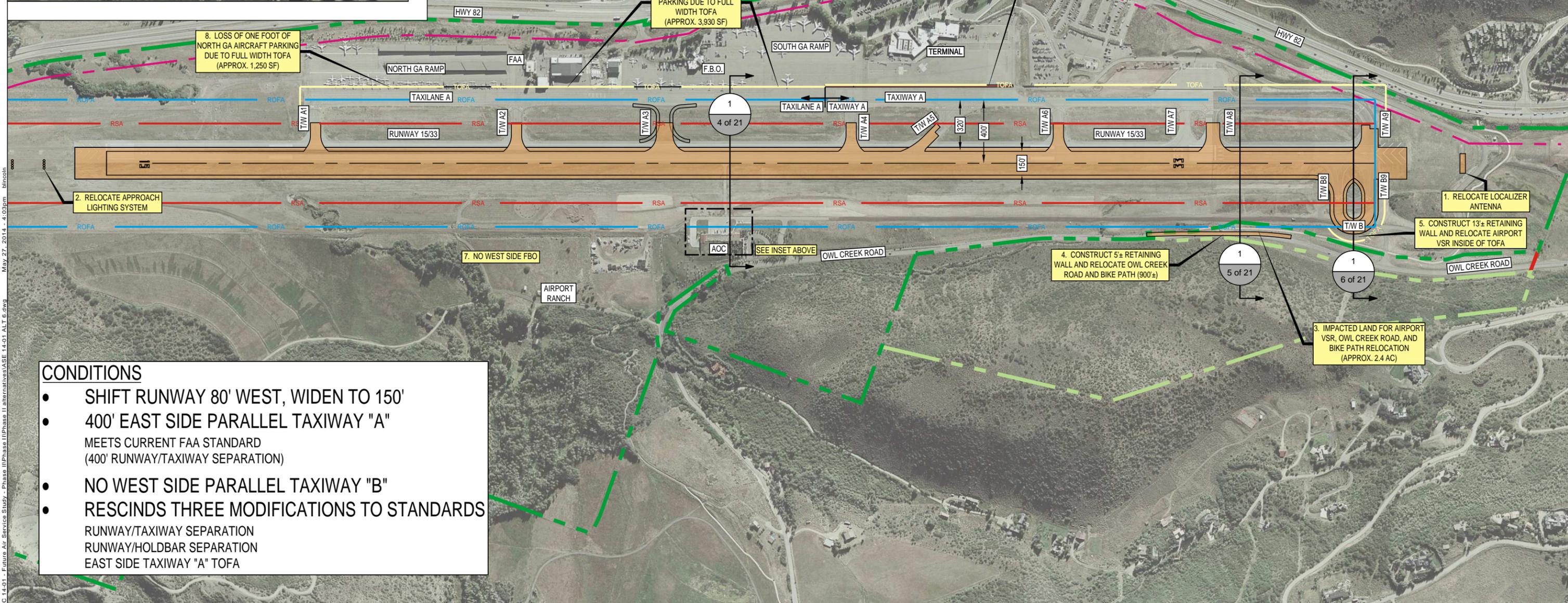
- **404 PERMIT**
PENDING DETERMINATION OF 3 WETLANDS AREAS DESCRIBED IN THE TEXT OF THE 2012 MASTER PLAN UPDATE

FEDERAL AVIATION ADMINISTRATION

- **ALP/MASTER PLAN UPDATE**
- **ENVIRONMENTAL ASSESSMENT**
- **OBSTRUCTION EVALUATION/AIRSPACE ANALYSIS**
- **NAVAID RELOCATION/UPDATE**
- **MODIFICATIONS TO DESIGN STANDARDS**

RUNWAY/PARALLEL TAXIWAY SEPARATION
RUNWAY/TAXIWAY HOLDLINE SEPARATION
RUNWAY AND TAXIWAY LONGITUDINAL GRADIENT
RUNWAY SAFETY AREA LONGITUDINAL GRADIENT
RUNWAY CENTERLINE TO AIRCRAFT PARKING AREA

NOTE: THE LOCAL AND FEDERAL CONSIDERATIONS PRESENTED FOR THIS ALTERNATIVE ARE NOT THE EXTENT OF REVIEWS AND APPROVALS. AS THE DESIGN OF ANY ALTERNATIVE PROGRESSES, IT IS LIKELY THAT MORE REVIEWS AND APPROVALS WILL BE REQUIRED. IT IS EXPECTED THAT THE REVIEW AND APPROVALS IDENTIFIED ABOVE WILL TAKE ONE YEAR OR LONGER TO COMPLETE.



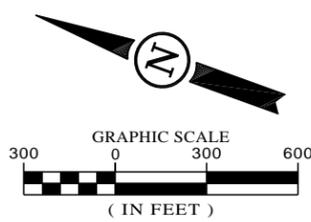
CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A" MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- NO WEST SIDE PARALLEL TAXIWAY "B"
- RESCINDS THREE MODIFICATIONS TO STANDARDS
 RUNWAY/TAXIWAY SEPARATION
 RUNWAY/HOLDBAR SEPARATION
 EAST SIDE TAXIWAY "A" TOFA

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAYMENT

LEGEND

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON EXISTING AIRCRAFT PARKING
- ASE PROPERTY LINE
- BURLINGAME RANCH PROPERTY LINE
- CDOT PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK



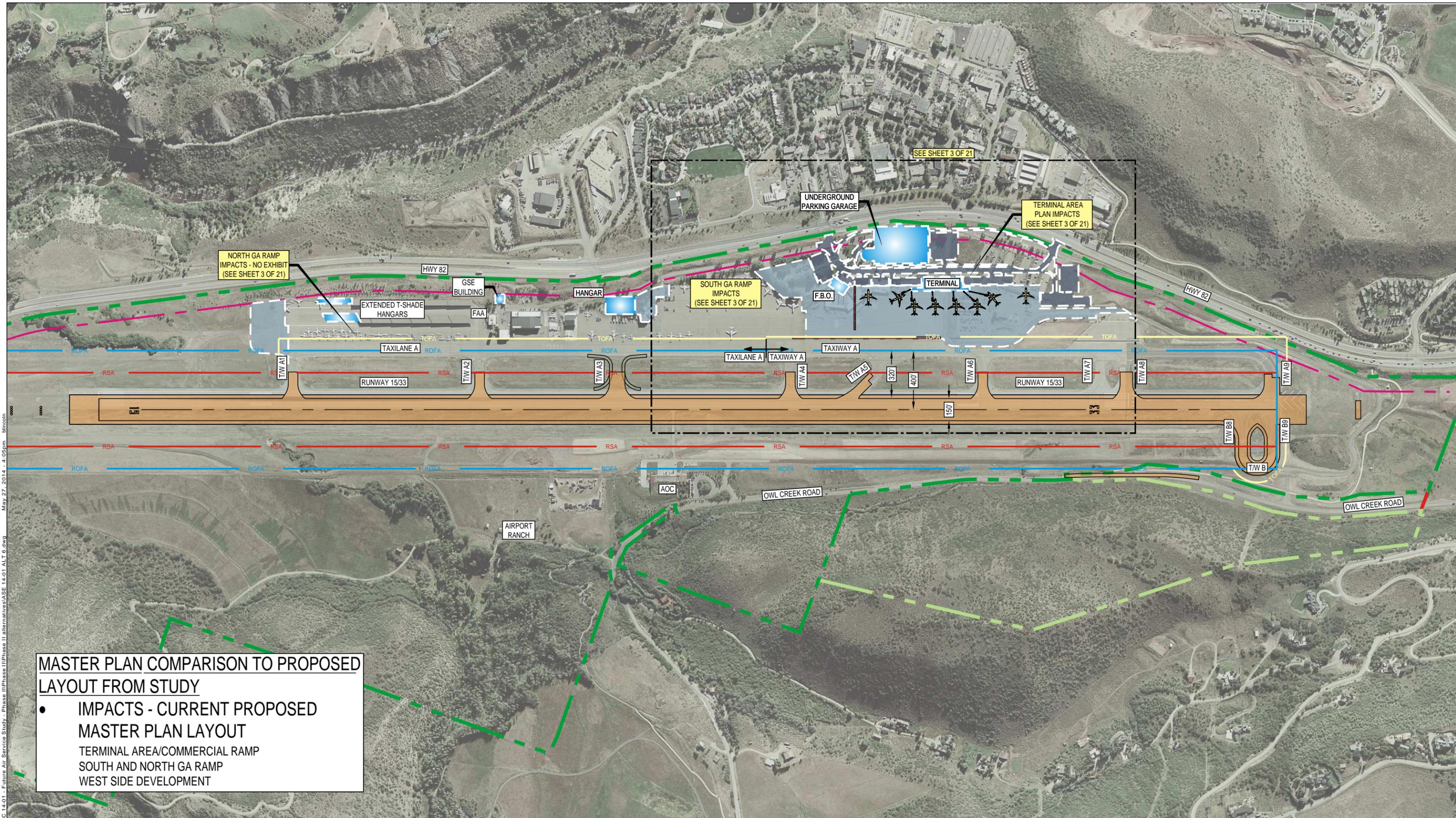
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 ASPEN, COLORADO
 FUTURE AIR SERVICE STUDY - PHASE II
 ALTERNATIVE 6

DATE: MAY 30, 2014

SHEET 1 OF 21



May 27, 2014 - 4:05pm blincoln
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MASTER PLAN COMPARISON TO PROPOSED LAYOUT FROM STUDY

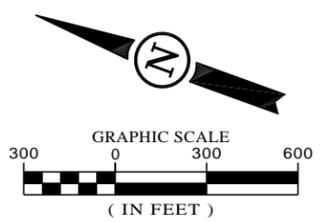
- IMPACTS - CURRENT PROPOSED MASTER PLAN LAYOUT
- TERMINAL AREA/COMMERCIAL RAMP
- SOUTH AND NORTH GA RAMP
- WEST SIDE DEVELOPMENT

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
 MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
 MASTER PLAN LAYOUT BUILDINGS
 MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS

LEGEND

MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
 MASTER PLAN LAYOUT BUILDINGS
 MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS

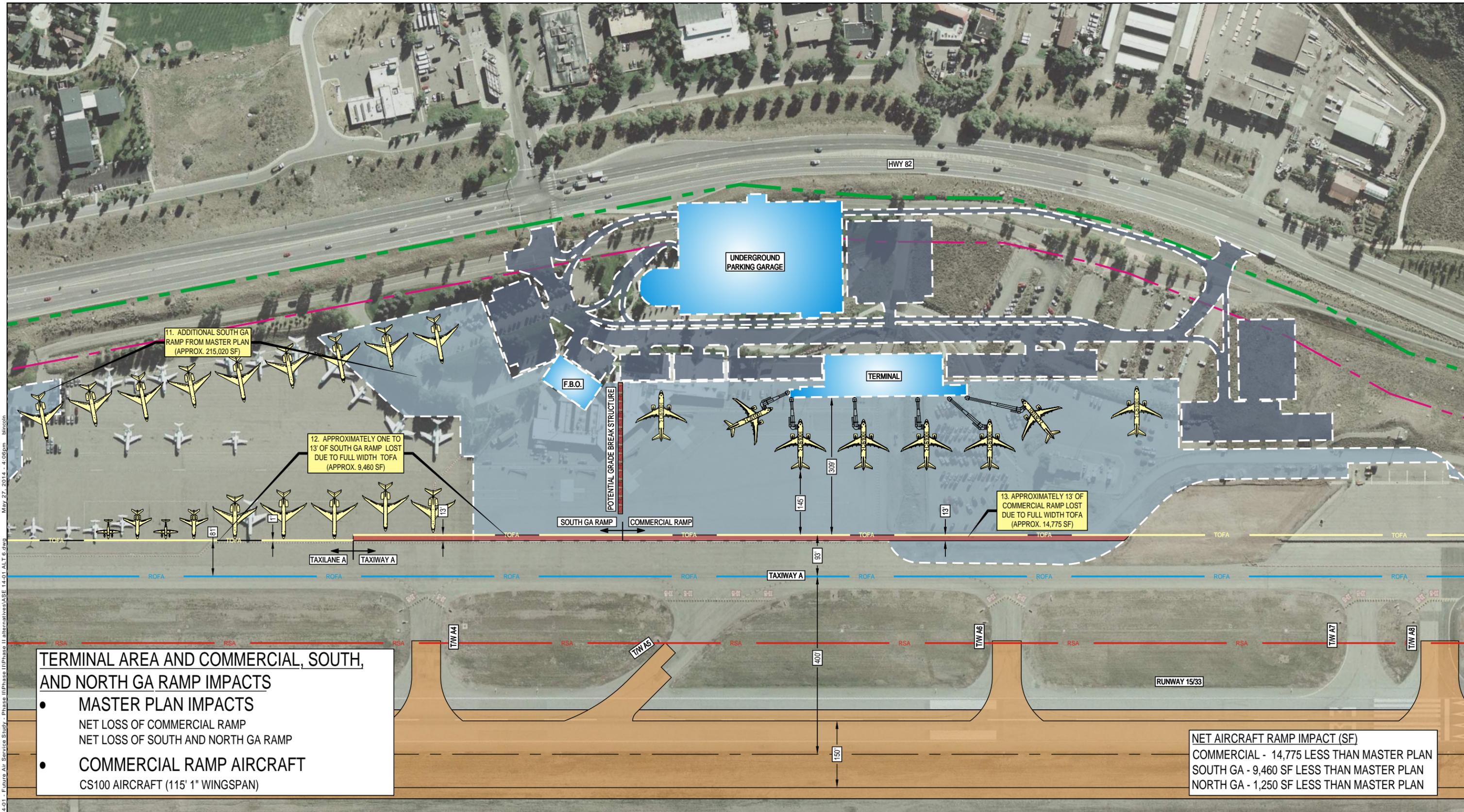


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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 6

DATE: MAY 30, 2014
 SHEET 2 OF 21



TERMINAL AREA AND COMMERCIAL, SOUTH, AND NORTH GA RAMP IMPACTS

- MASTER PLAN IMPACTS
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH AND NORTH GA RAMP
- COMMERCIAL RAMP AIRCRAFT
CS100 AIRCRAFT (115' 1" WINGSPAN)

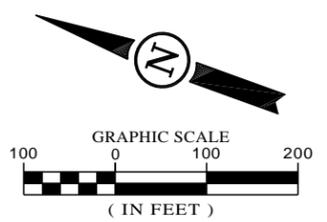
NET AIRCRAFT RAMP IMPACT (SF)
 COMMERCIAL - 14,775 LESS THAN MASTER PLAN
 SOUTH GA - 9,460 SF LESS THAN MASTER PLAN
 NORTH GA - 1,250 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING
- ASE PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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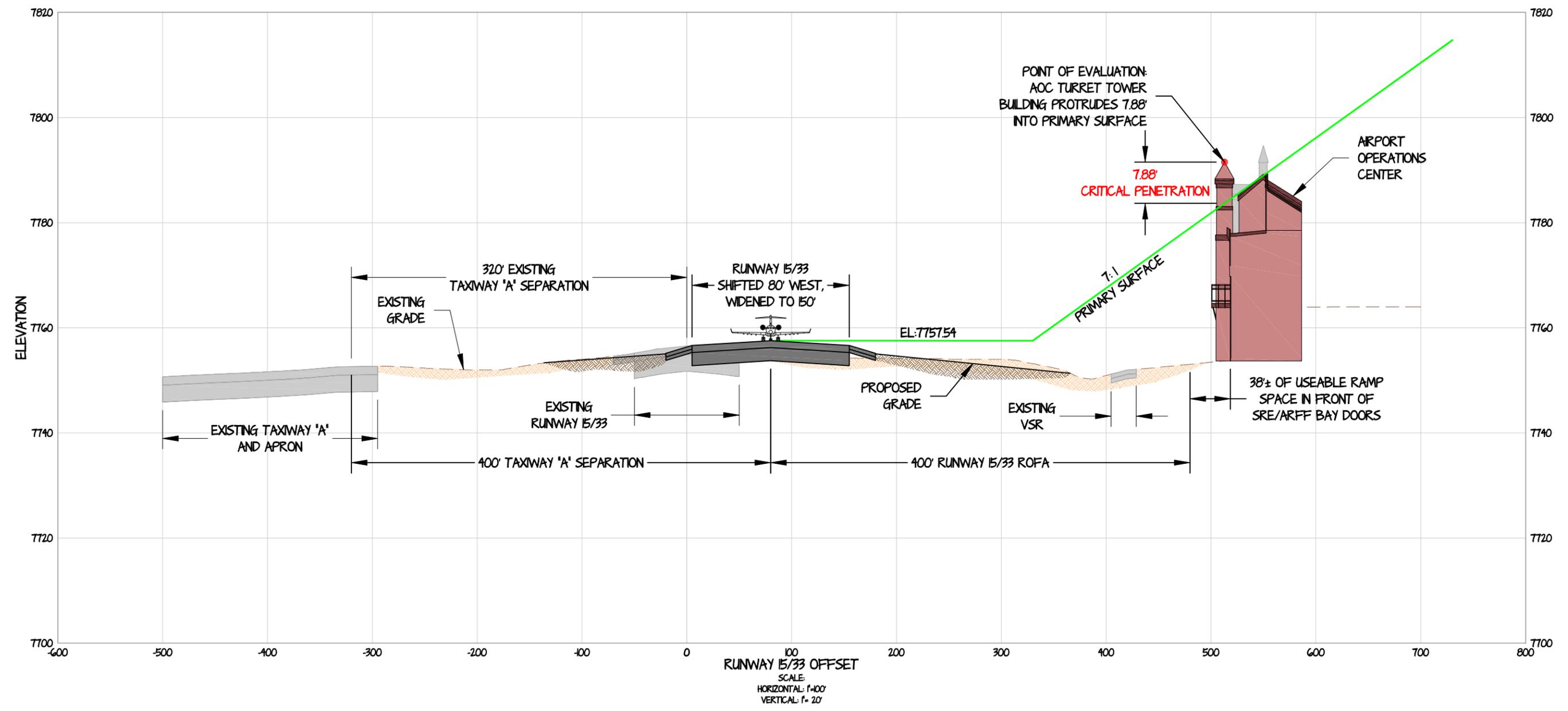
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 FUTURE AIR SERVICE STUDY - PHASE II
 ALTERNATIVE 6**

DATE: MAY 30, 2014

SHEET 3 OF 21

May 27, 2014 - 4:06pm blincoln
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ALTERNATIVE 6 - AIRPORT OPERATIONS CENTER - PART 77 AND RAMP SPACE EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY 'A' MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- NO WEST SIDE PARALLEL TAXIWAY 'B'



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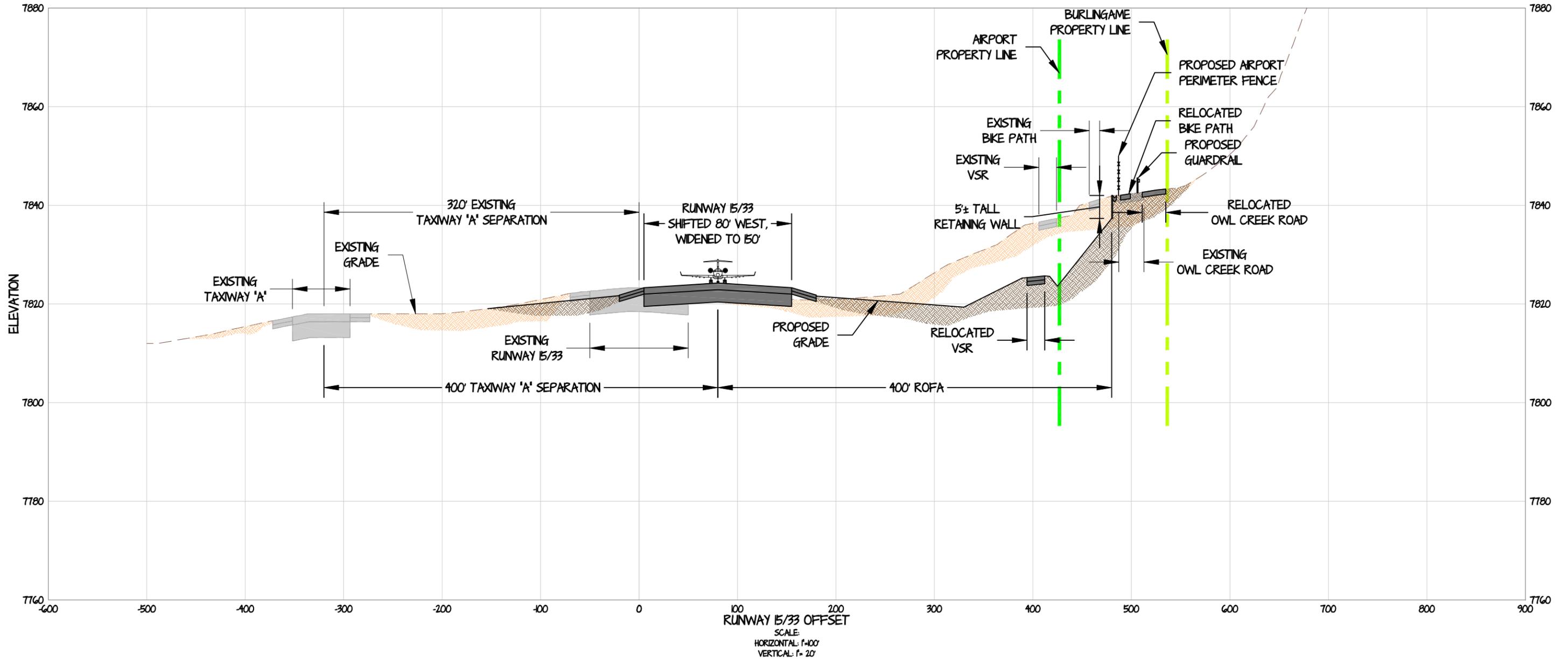
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ALTERNATIVE 6

DATE: MAY 30, 2014

SHEET 4 OF 21

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ALTERNATIVE 6 - SOUTH END OF AIRFIELD APPROXIMATELY TAXIWAY "A8" - OWL CREEK ROAD PINCH POINT EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A" MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- NO WEST SIDE PARALLEL TAXIWAY "B"



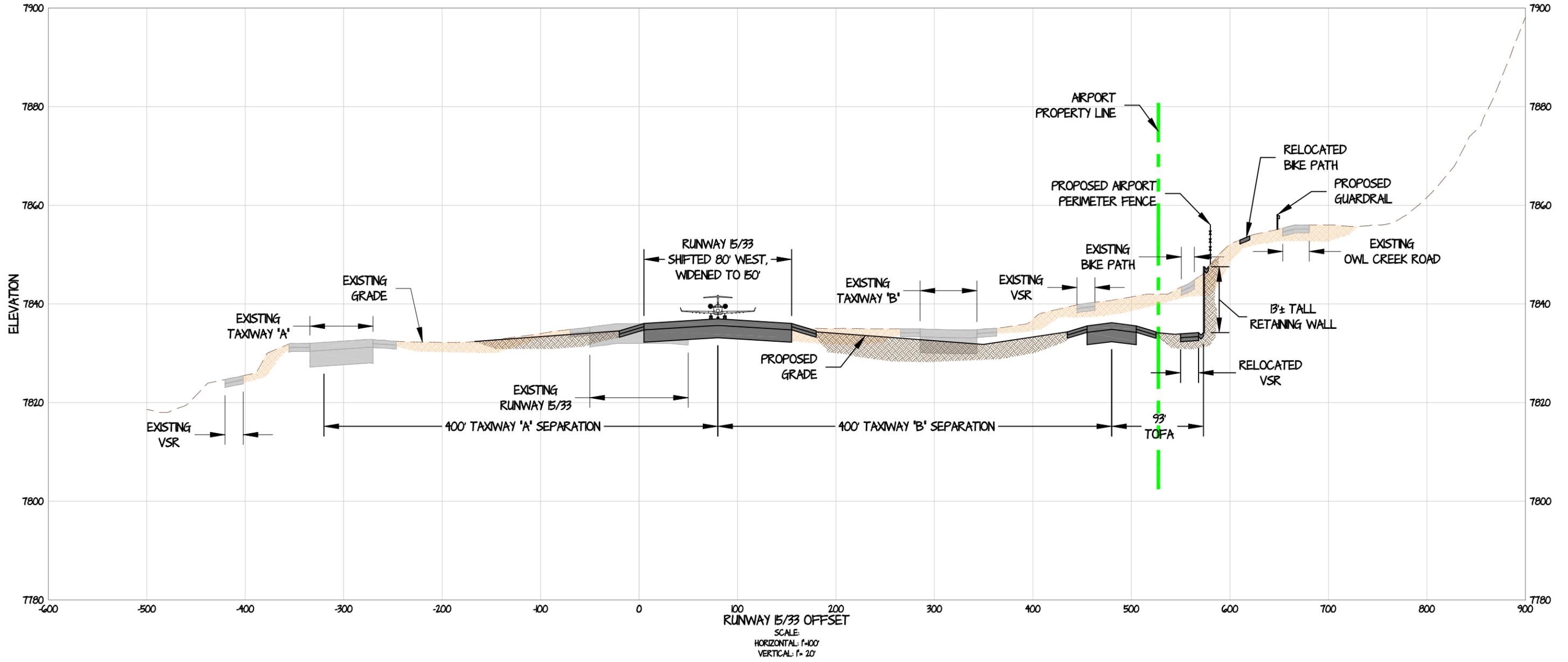
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ALTERNATIVE 6

DATE: MAY 30, 2014

SHEET 5 OF 21

ALTERNATIVE 6 - SOUTH END OF AIRFIELD - TAXIWAY "B" TEACUP AREA EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A" MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- NO WEST SIDE PARALLEL TAXIWAY "B"



ASPEN/PITKIN COUNTY AIRPORT
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 FUTURE AIR SERVICE STUDY - PHASE II
 ALTERNATIVE 6

DATE: MAY 30, 2014

SHEET 6 OF 21

APPROACH PROCEDURES ANALYSIS

Runway	Procedure Name	Type	Public/Private	Existing Runway Configuration with Updated Criteria and Obstacles (State 1)					80ft Offset to the West Configuration (State 5)					
				A	B	C	Comment	Typical Aircraft Using Procedure	A	B	C	Comment	Typical Aircraft Using Procedure	Operational Impact
15	VOR/DME - C	Circling Only	Public	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	New circling criteria, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	9780 (2099) 1 3/4 mi	10420 (2759) 1 3/4 mi	11660 (4019) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	Minimal impact when compared to state 1
15	RNAV/GPS - F	Circling Only	Public	10140 (2459) 1 3/4 mi	10460 (2799) 1 3/4 mi	11740 (4099) 3 mi	New circling criteria, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	10140 (2459) 1 3/4 mi	10400 (2719) 1 3/4 mi	11780 (4099) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	Minimal impact when compared to state 1
15	LOC-DME - E	Circling Only	Public	9760 (2079) 3 mi	10460 (2799) 3 mi	11640 (3999) 3 mi	New circling criteria, several waivers are required, approach modeled as an LOC straight in, but straight in minimums are disregarded	Turboprop and smaller	9740 (2059) 3 mi	10420 (2759) 3 mi	11660 (4019) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required, approach modeled as an LOC straight in, but straight in minimums are disregarded	Turboprop and smaller	Minimal impact when compared to state 1
15	LOC-DME RWY 15	Straight In	Public-Special	9380 (1699) 3 mi	9380 (1699) 3 mi	9380 (1699) 3 mi	Several waivers exist for this procedure, visibility increased due to straight-in minimums, even though they aren't published	Regional Jets, Business Jets, Turboprops and smaller	9380 (1699) 3 mi	9380 (1699) 3 mi	9380 (1699) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required	Regional Jets, Business Jets, Turboprops and smaller	Minimal impact when compared to state 1
15	LOC-DME RWY 15	Straight In (With MAP CG and Alternate Instructions)	Public-Special	8880 (1199) 3 mi	8880 (1199) 3 mi	8880 (1199) 3 mi	MAP Climb of 330ft/nm to 11100ft Several waivers exist for this procedure, visibility increased due to straight-in minimums, even though they aren't published	Regional Jets, Business Jets, Turboprops and smaller	8940 (1259) 3 mi	8940 (1259) 3 mi	8940 (1259) 3 mi	MAP Climb of 330ft/nm to 10000ft New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required	Regional Jets, Business Jets, Turboprops and smaller	Moderate impact when compared to state 1. No change to MAP gradient will result in reduced OEI SMAP landing weight impacts.
15	LOC-DME RWY 15	Circling	Public-Special	9760 (2079) 3 mi	10460 (2799) 3 mi	11640 (3999) 3 mi	Several waivers exist for this procedure, visibility increased due to straight-in minimums, even though they aren't published	Regional Jets, Business Jets, Turboprops and smaller	9740 (2059) 3 mi	10420 (2759) 3 mi	11660 (4019) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required	Regional Jets, Business Jets, Turboprops and smaller	Minimal impact when compared to state 1
15	RNAV (RNP 0.3) 15	Straight In (With MAP CG)	Private - RNP-AR - Non FAR 121			8078 (397) MALSF On 1 3/8mi MALSF Out 1 5/8 mi	MAP Climb of 1000ft/nm to 9100, then 475 ft/nm to 10900ft Numerous waivers exist for this procedure	High Performance Business Jets Only			8300 (619) 1 1/2 mi	MAP Climb of 1000ft/nm to 9100, then 475 ft/nm to 10900ft Initial estimates based on procedure design results. Shifting the runway any amount will have significant impacts on this particular approach which will cause a complete redesign	High Performance Business Jets Only	High impact when compared to state 1
15	Visual	Straight In	Public	13680 (6000) 10 mi	13680 (6000) 10 mi	13680 (6000) 10 mi	Visual maneuver with radar guidance for "straight in" approach to runway 15 following visual references.	Turboprop and smaller	13681 (6000) 10 mi	13681 (6000) 10 mi	13681 (6000) 10 mi	Visual maneuver with radar guidance for "straight in" approach to runway 15 following visual references.	Turboprop and smaller	No impact when compared to state 1.
15	Visual	Circling/FMS Visual	Private-Special	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments	Turboprop and smaller	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments	Turboprop and smaller	No impact when compared to state 1.
33	Visual	Circling	Public	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	No impact when compared to state 1.
33	Visual	Circling/FMS Visual	Private-Special	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	No impact when compared to state 1.

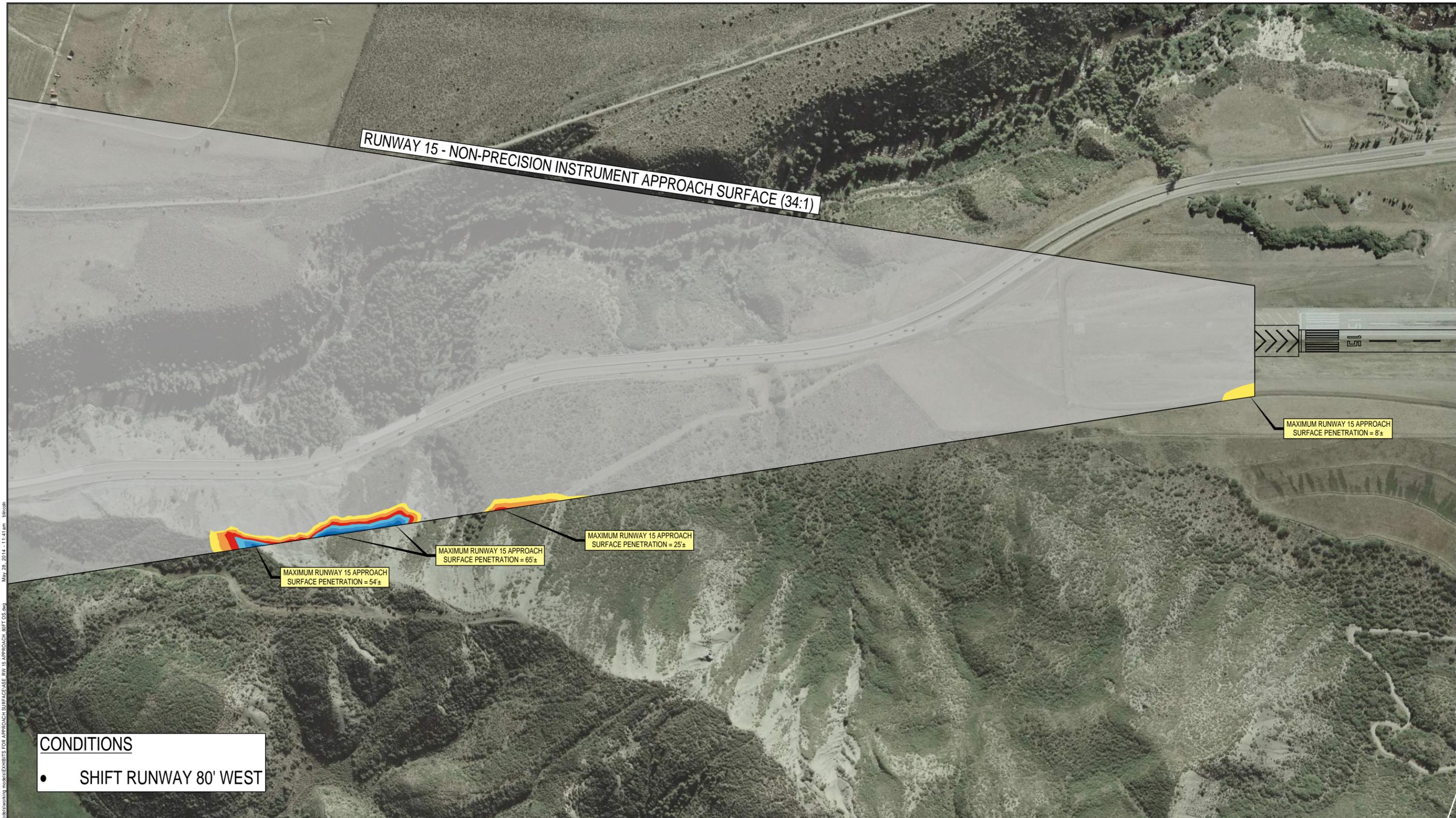
Note: Detailed environmental analysis has not been performed for this study. Operational impacts on specific aircraft/operators have been generalized to match average environmental conditions.
Missed Approach climb gradients which terminate at altitudes above 10000ft require special performance analysis techniques not available for all aircraft



**ASPEN/PITKIN COUNTY AIRPORT
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ALTERNATIVE 6**

DATE: MAY 30, 2014 SHEET 7 OF 21

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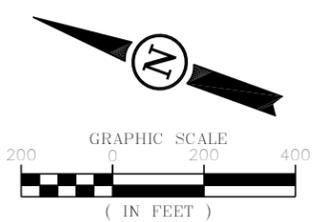
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 May 28, 2014 - 11:41am bmcsh

CONDITIONS

- SHIFT RUNWAY 80' WEST

RUNWAY 15 APPROACH PENETRATIONS

 0' TO 10'	 30' TO 40'	 60' TO 70'
 10' TO 20'	 40' TO 50'	
 20' TO 30'	 50' TO 60'	



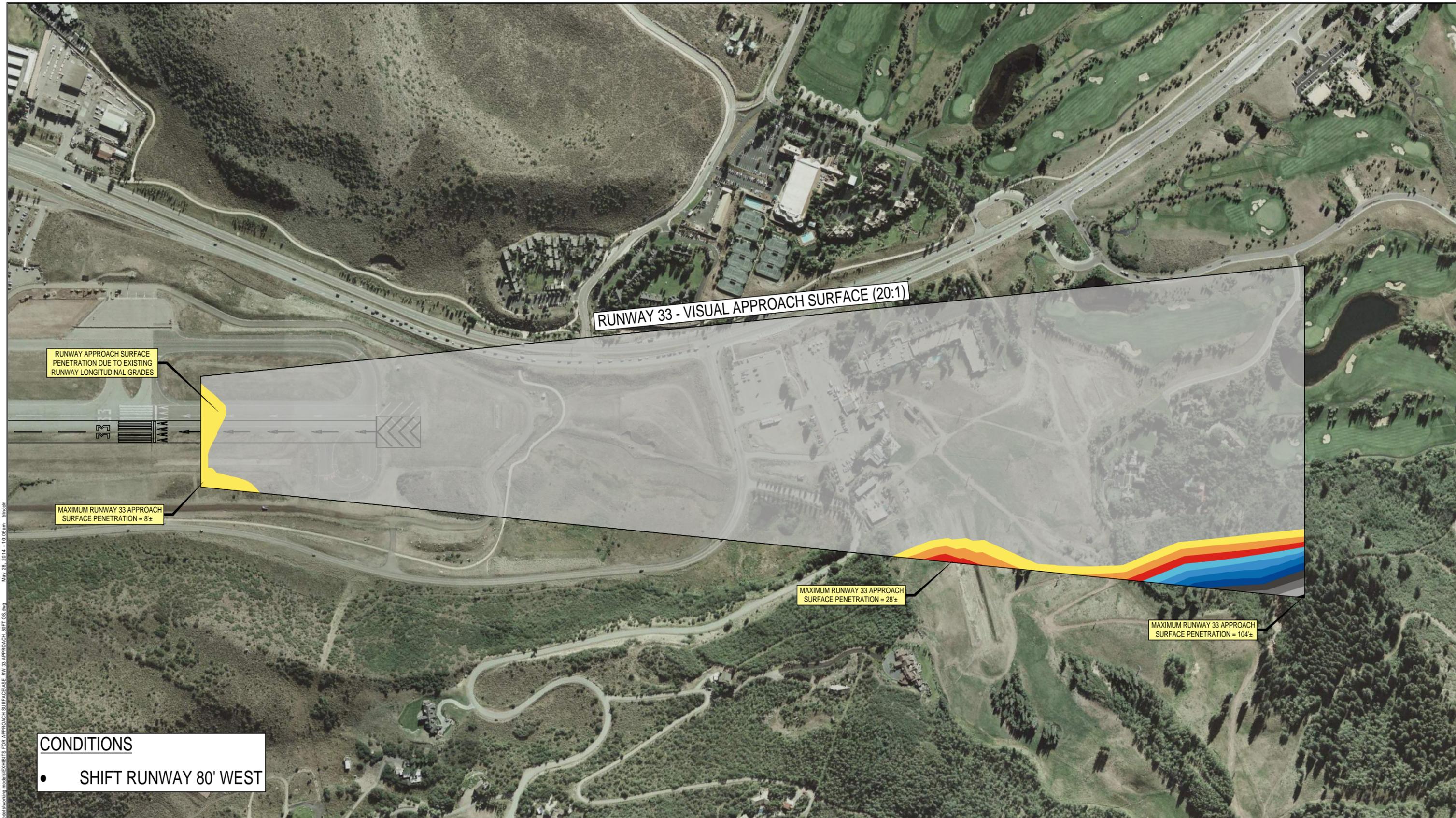
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SHEET 10 OF 21



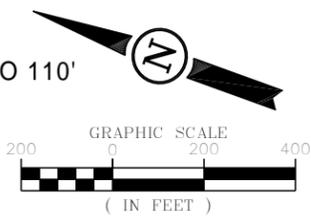
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 May 28, 2014 - 10:06am bmcsh

CONDITIONS

- SHIFT RUNWAY 80' WEST

RUNWAY 33 APPROACH PENETRATIONS

0' TO 10'	30' TO 40'	70' TO 80'	100' TO 110'
10' TO 20'	40' TO 50'	80' TO 90'	
20' TO 30'	50' TO 60'	90' TO 100'	



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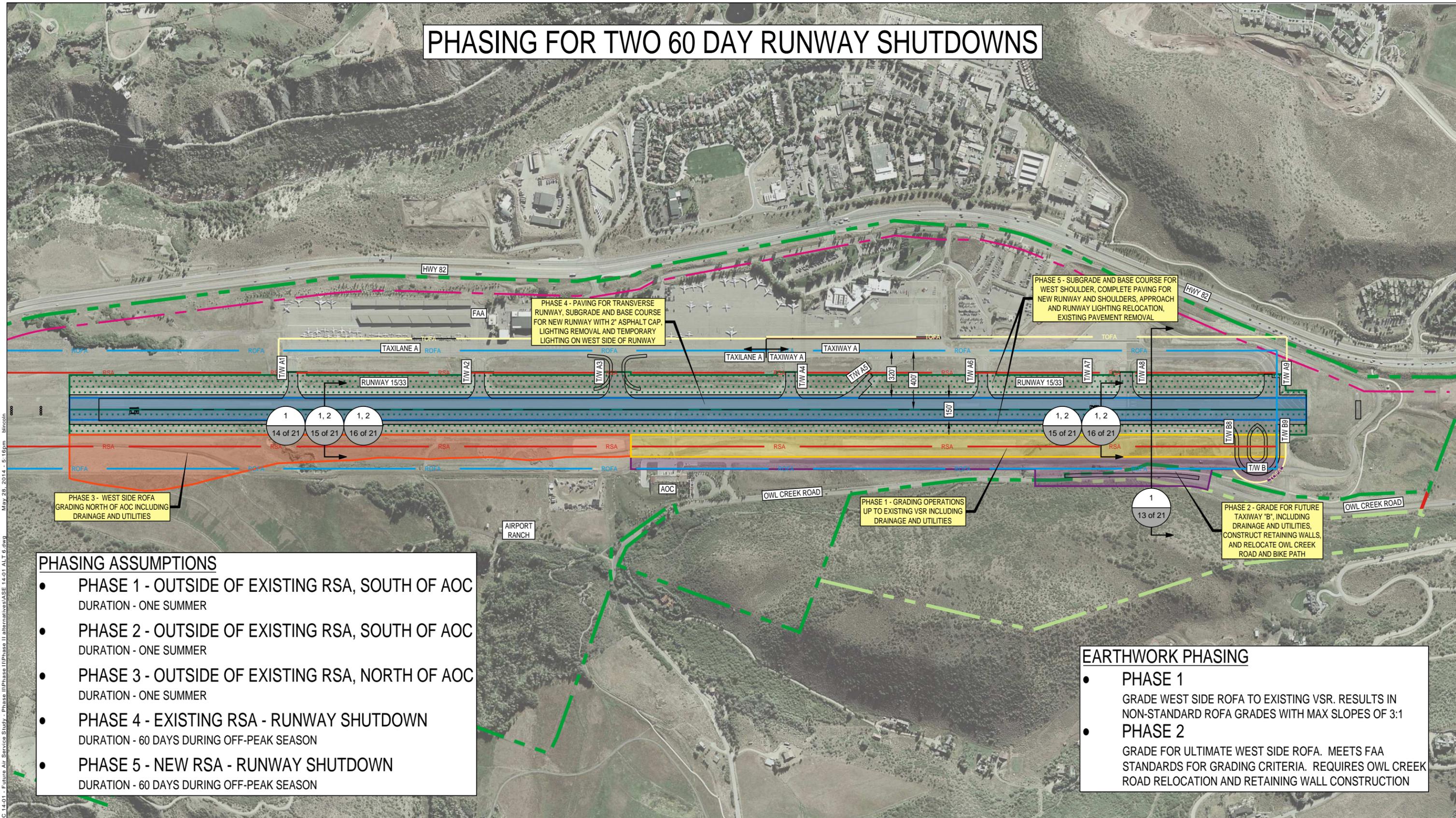
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 ALTERNATIVE 6

DATE: MAY 30, 2014

SHEET 11 OF 21

PHASING FOR TWO 60 DAY RUNWAY SHUTDOWNS



PHASE 4 - PAVING FOR TRANSVERSE RUNWAY, SUBGRADE AND BASE COURSE FOR NEW RUNWAY WITH 2" ASPHALT CAP, LIGHTING REMOVAL AND TEMPORARY LIGHTING ON WEST SIDE OF RUNWAY

PHASE 5 - SUBGRADE AND BASE COURSE FOR WEST SHOULDER, COMPLETE PAVING FOR NEW RUNWAY AND SHOULDERS, APPROACH AND RUNWAY LIGHTING RELOCATION, EXISTING PAVEMENT REMOVAL

PHASE 3 - WEST SIDE ROFA GRADING NORTH OF AOC INCLUDING DRAINAGE AND UTILITIES

PHASE 1 - GRADING OPERATIONS UP TO EXISTING VSR INCLUDING DRAINAGE AND UTILITIES

PHASE 2 - GRADE FOR FUTURE TAXIWAY "B", INCLUDING DRAINAGE AND UTILITIES, CONSTRUCT RETAINING WALLS, AND RELOCATE OWL CREEK ROAD AND BIKE PATH

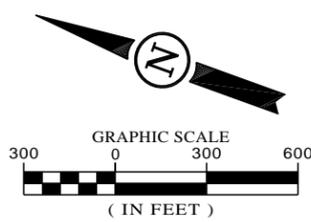
- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON
 - PHASE 5 - NEW RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE FOR ULTIMATE WEST SIDE ROFA. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3	PHASE 5
PHASE 2	PHASE 4	CDOT PROPERTY LINE	ASE PROPERTY LINE
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK		



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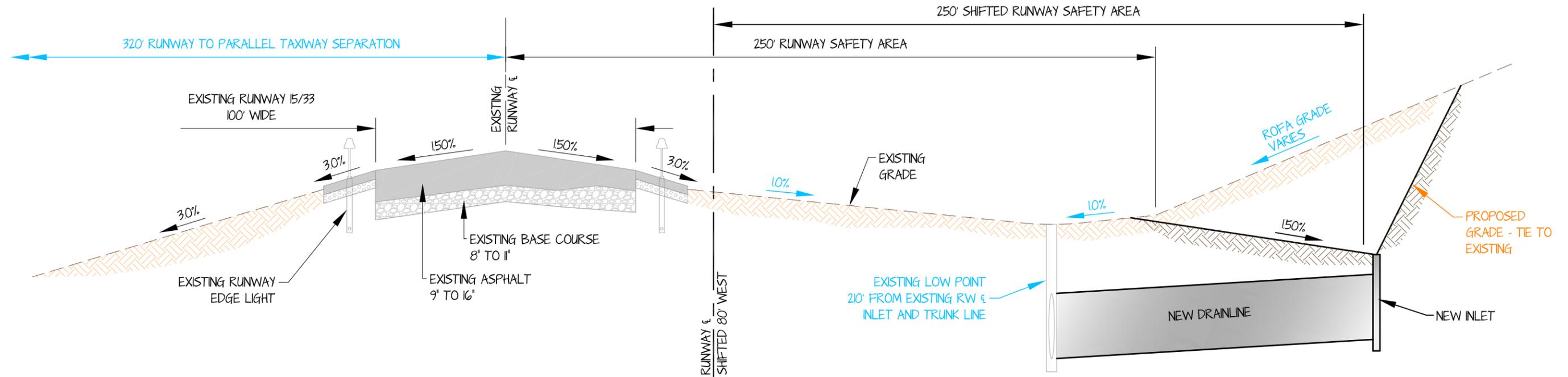
DATE: MAY 30, 2014
SHEET 12 OF 21

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NOTE:

ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
12 of 21

ALTERNATIVE 6 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING - NO WEST SIDE DEVELOPMENT

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST DIE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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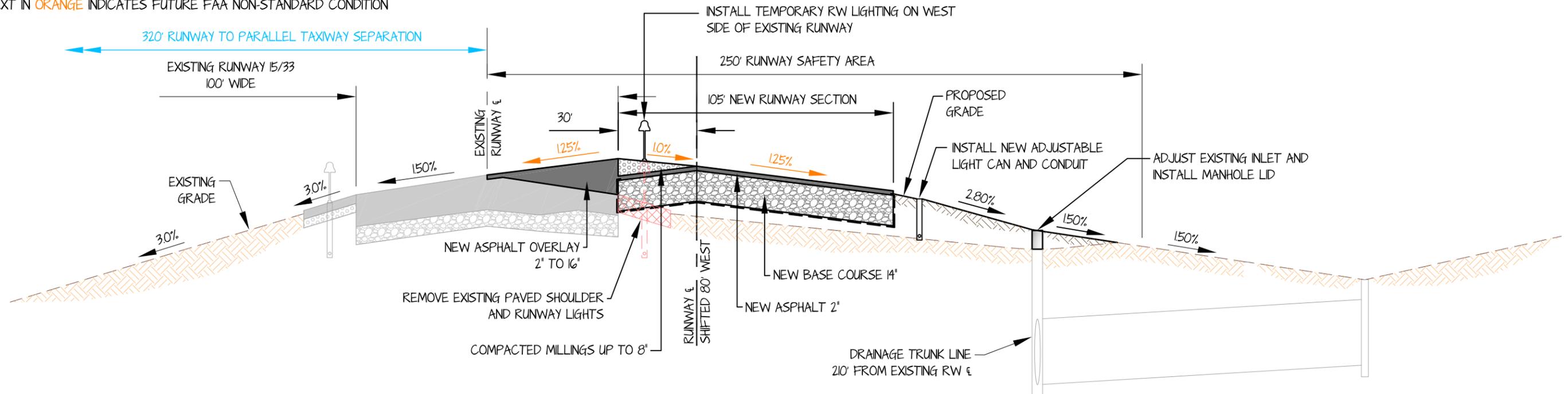
SHEET 14 OF 21

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NOTE:

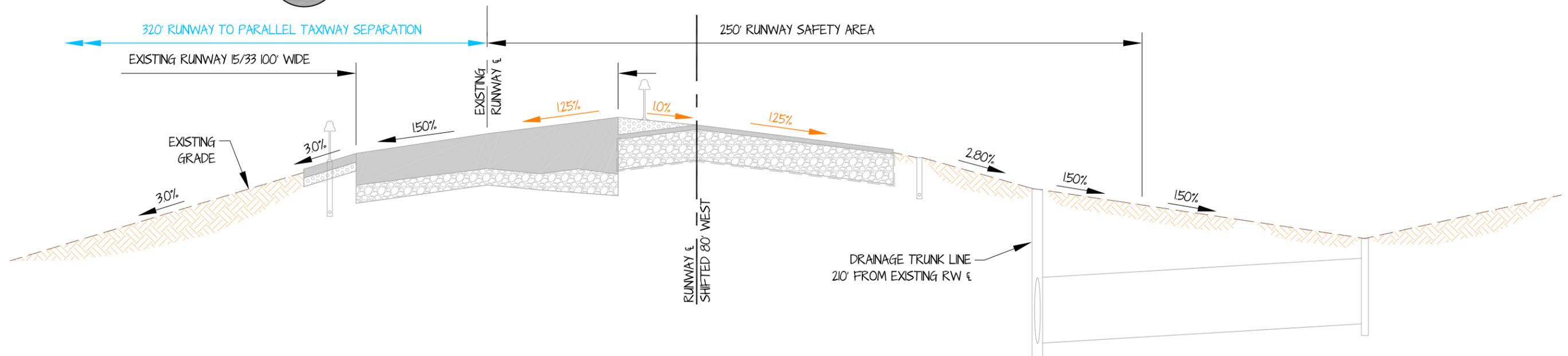
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
12 of 21

ALTERNATIVE 6 - PHASE 4 - 80' RUNWAY SHIFT - FIRST 60 DAY SHUTDOWN



2
12 of 21

ALTERNATIVE 6 - TEMPORARY RUNWAY CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- FAA ALLOWS NON-STANDARD TRANSVERSE RUNWAY AND SAFETY AREA GRADES ON EAST SIDE DURING TEMPORARY RUNWAY OPERATING CONDITIONS



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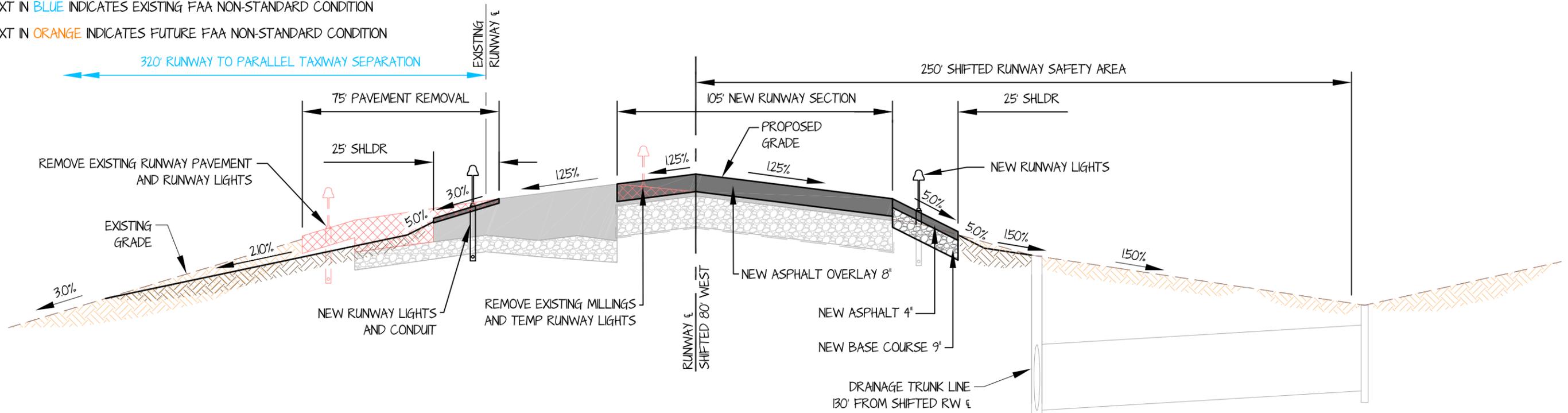
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 ALTERNATIVE 6
 DATE: MAY 30, 2014
 SHEET 15 OF 21

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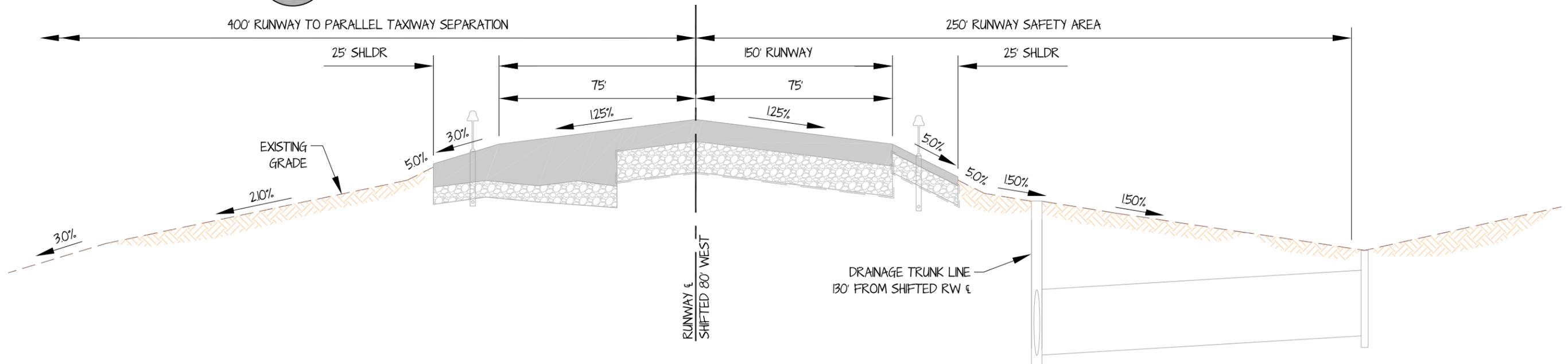
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1 ALTERNATIVE 6 - PHASE 5 - 80' RUNWAY SHIFT - SECOND 60 DAY SHUTDOWN
12 of 21



2 ALTERNATIVE 6 - 80' RUNWAY SHIFT FINAL CONDITION
12 of 21

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-4 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT



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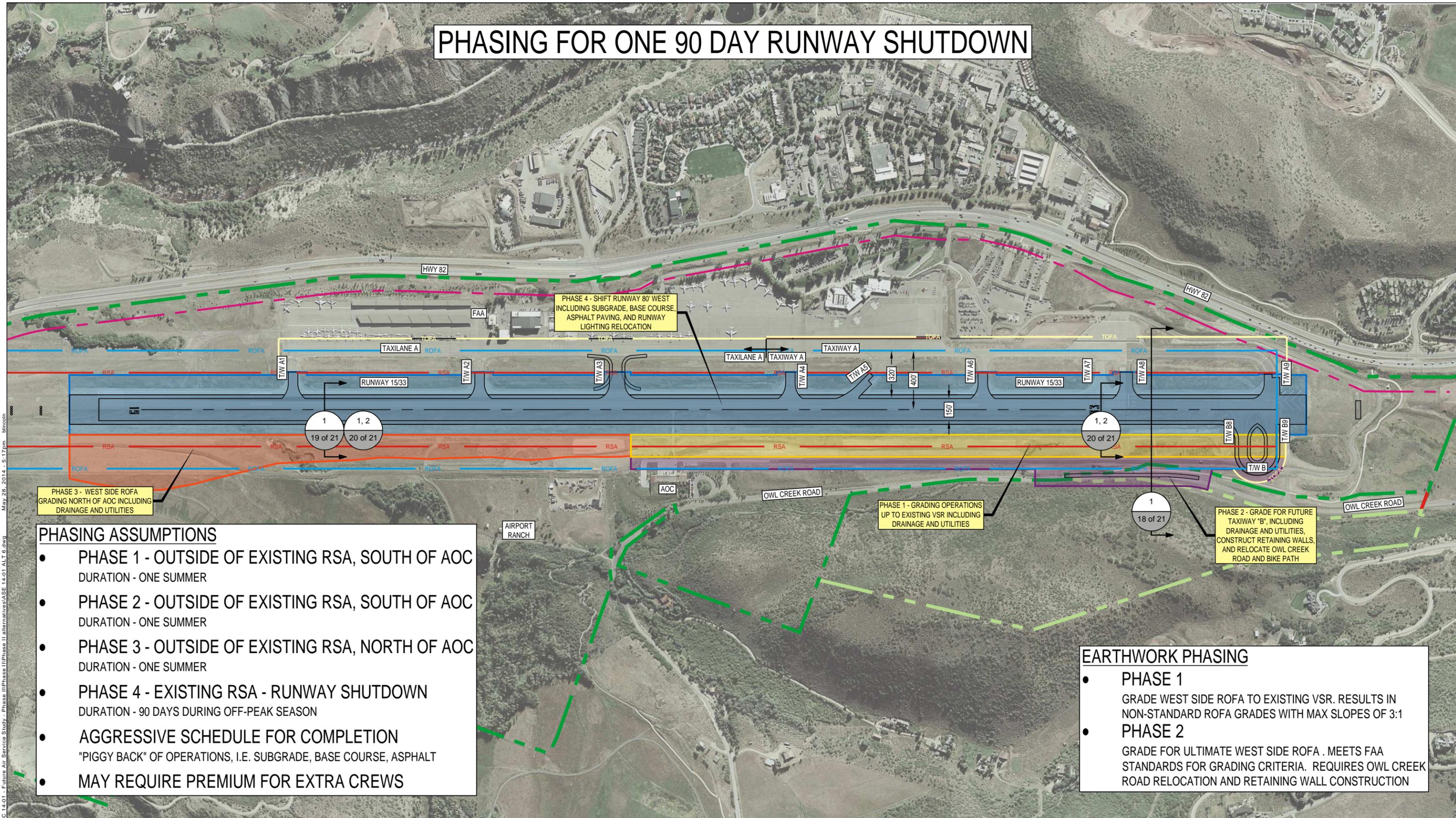
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PHASING FOR ONE 90 DAY RUNWAY SHUTDOWN



PHASE 4 - SHIFT RUNWAY 80' WEST INCLUDING SUBGRADE, BASE COURSE, ASPHALT PAVING, AND RUNWAY LIGHTING RELOCATION

PHASE 3 - WEST SIDE ROFA GRADING NORTH OF AOC INCLUDING DRAINAGE AND UTILITIES

PHASE 1 - GRADING OPERATIONS UP TO EXISTING VSR INCLUDING DRAINAGE AND UTILITIES

PHASE 2 - GRADE FOR FUTURE TAXIWAY 'B', INCLUDING DRAINAGE AND UTILITIES, CONSTRUCT RETAINING WALLS, AND RELOCATE OWL CREEK ROAD AND BIKE PATH

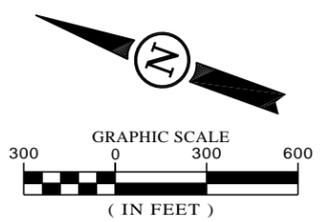
- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 90 DAYS DURING OFF-PEAK SEASON
 - AGGRESSIVE SCHEDULE FOR COMPLETION
"PIGGY BACK" OF OPERATIONS, I.E. SUBGRADE, BASE COURSE, ASPHALT
 - MAY REQUIRE PREMIUM FOR EXTRA CREWS

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE FOR ULTIMATE WEST SIDE ROFA . MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3
ASE PROPERTY LINE	PHASE 2	PHASE 4
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK	CDOT PROPERTY LINE



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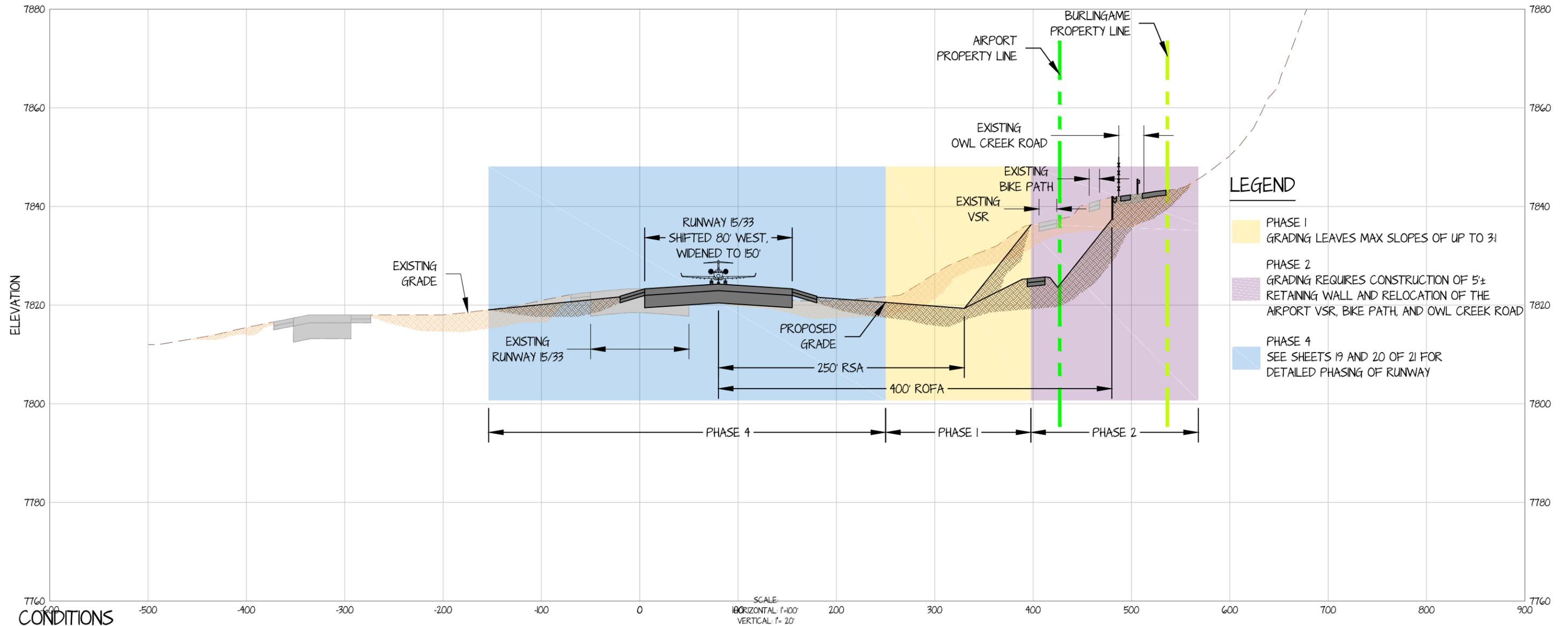
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ALTERNATIVE 6

DATE: MAY 30, 2014

SHEET 17 OF 21

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ALTERNATIVE 6 - RSA AND ROFA GRADING - ONE 90 DAY RUNWAY SHUTDOWN



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A" MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- NO WEST SIDE PARALLEL TAXIWAY "B"



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ALTERNATIVE 6

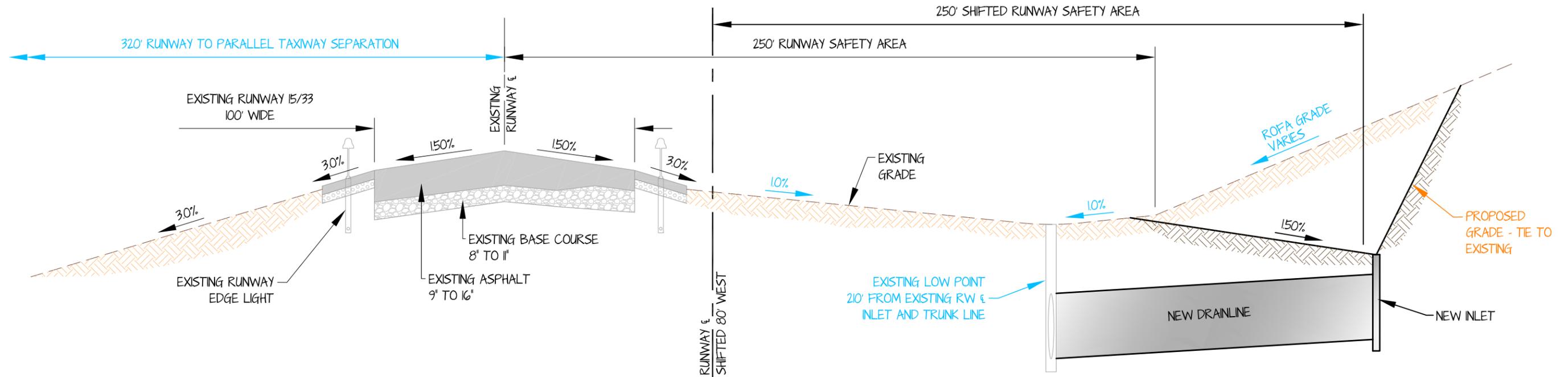
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1
17 of 21

ALTERNATIVE 6 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING - NO WEST SIDE DEVELOPMENT

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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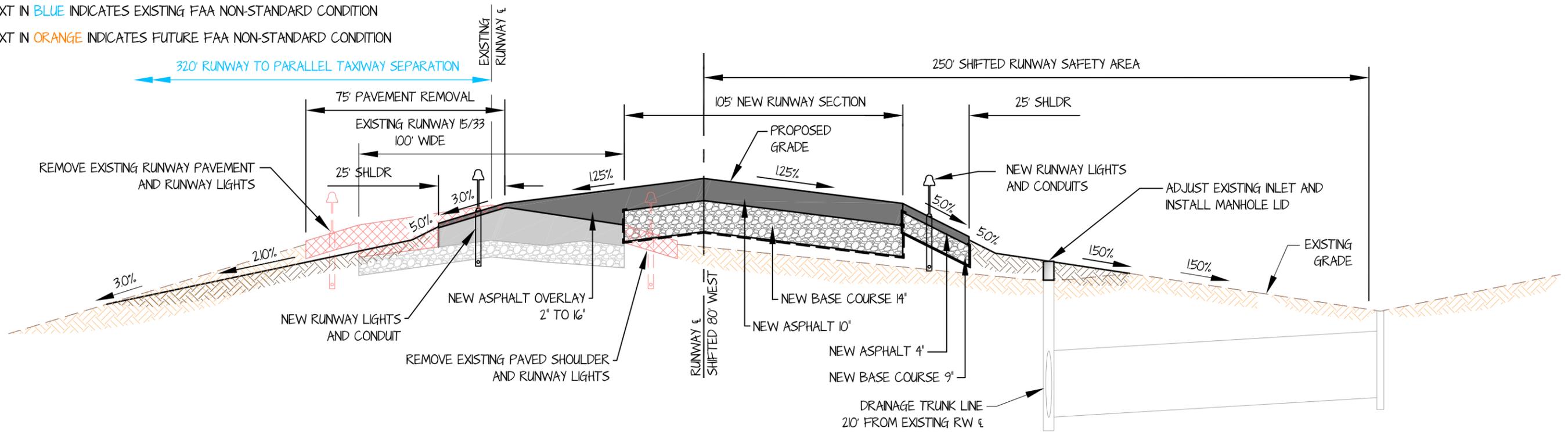
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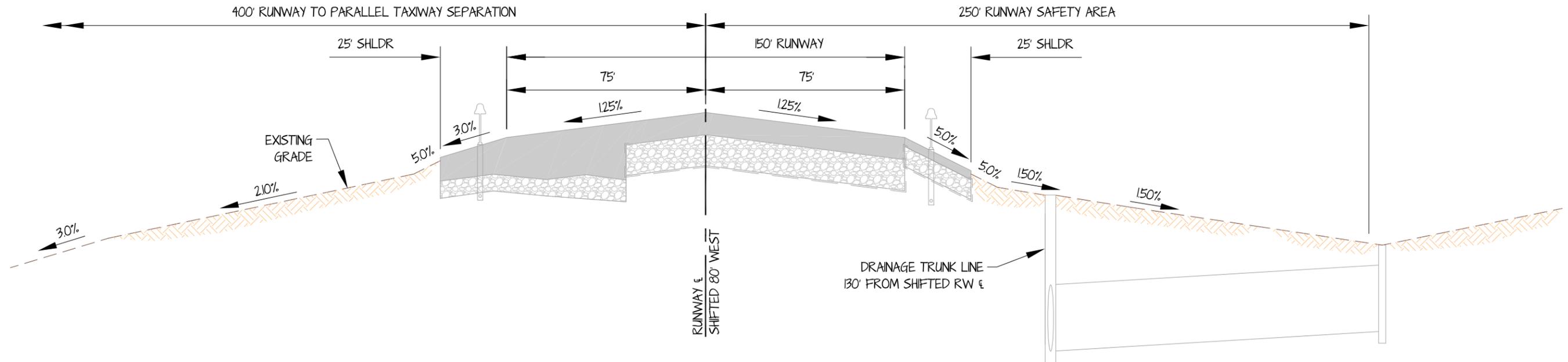
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1 ALTERNATIVE 6 - PHASE 4 - 80' RUNWAY SHIFT - 90 DAY SHUTDOWN
17 of 21



2 ALTERNATIVE 6 - 80' RUNWAY SHIFT FINAL CONDITION
17 of 21

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT



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LOCAL AND FEDERAL CONSIDERATIONS

POTENTIAL LOCAL REVIEW AND APPROVALS

PITKIN COUNTY

- **LOCATION AND EXTENTS REVIEW**
PROPOSED IMPROVEMENTS IN COMPLIANCE WITH THE WEST OF MAROON CREEK PLAN (WOMP)
- **ASPEN/PITKIN COUNTY AIRPORT DESIGN GUIDELINES APPROVAL**
PROPOSED IMPROVEMENTS IN COMPLIANCE AIRPORT DESIGN GUIDELINES (APRIL, 2014)
- **BUILDING PERMIT (TITLE II)**
ANY STRUCTURES MEETING THE "BUILDING" DEFINITION WHICH DOES NOT INCLUDE ROADS, PAVEMENT, FENCES, RETAINING WALLS OR OTHER SITE IMPROVEMENTS THE DO NOT ENCLOSE SPACES FOR THE PROTECTION OF PERSONS, ANIMALS, OR PROPERTY
- **ENVIRONMENTAL HEALTH (TITLE 6)**
ADDRESS APPLICABLE PROVISIONS OF TITLE 6 IN CONSTRUCTION DOCUMENTS AND CONTRACTS

CITY OF ASPEN

- **BURLINGAME OPEN SPACE PARCEL CHANGE IN USE (PUBLIC VOTE)**
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL

ASPEN VALLEY LAND TRUST (AVLT)

- **CONSENT PURSUANT TO DEED OF CONSERVATION EASEMENT**
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL REQUIRES APPROVAL BY THE AVLT BOARD OF DIRECTORS

POTENTIAL FEDERAL REVIEW AND APPROVALS

UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

- **404 PERMIT**
PENDING DETERMINATION OF 3 WETLANDS AREAS DESCRIBED IN THE TEXT OF THE 2012 MASTER PLAN UPDATE

FEDERAL AVIATION ADMINISTRATION

- **ALP/MASTER PLAN UPDATE**
- **ENVIRONMENTAL ASSESSMENT**
- **OBSTRUCTION EVALUATION/AIRSPACE ANALYSIS**
- **NAVAID RELOCATION/UPDATE**
- **MODIFICATIONS TO DESIGN STANDARDS**
RUNWAY AND TAXIWAY LONGITUDINAL GRADIENT
RUNWAY SAFETY AREA LONGITUDINAL GRADIENT
RUNWAY CENTERLINE TO AIRCRAFT PARKING AREA

NOTE: THE LOCAL AND FEDERAL CONSIDERATIONS PRESENTED FOR THIS ALTERNATIVE ARE NOT THE EXTENT OF REVIEWS AND APPROVALS. AS THE DESIGN OF ANY ALTERNATIVE PROGRESSES, IT IS LIKELY THAT MORE REVIEWS AND APPROVALS WILL BE REQUIRED. IT IS EXPECTED THAT THE REVIEW AND APPROVALS IDENTIFIED ABOVE WILL TAKE ONE YEAR OR LONGER TO COMPLETE.



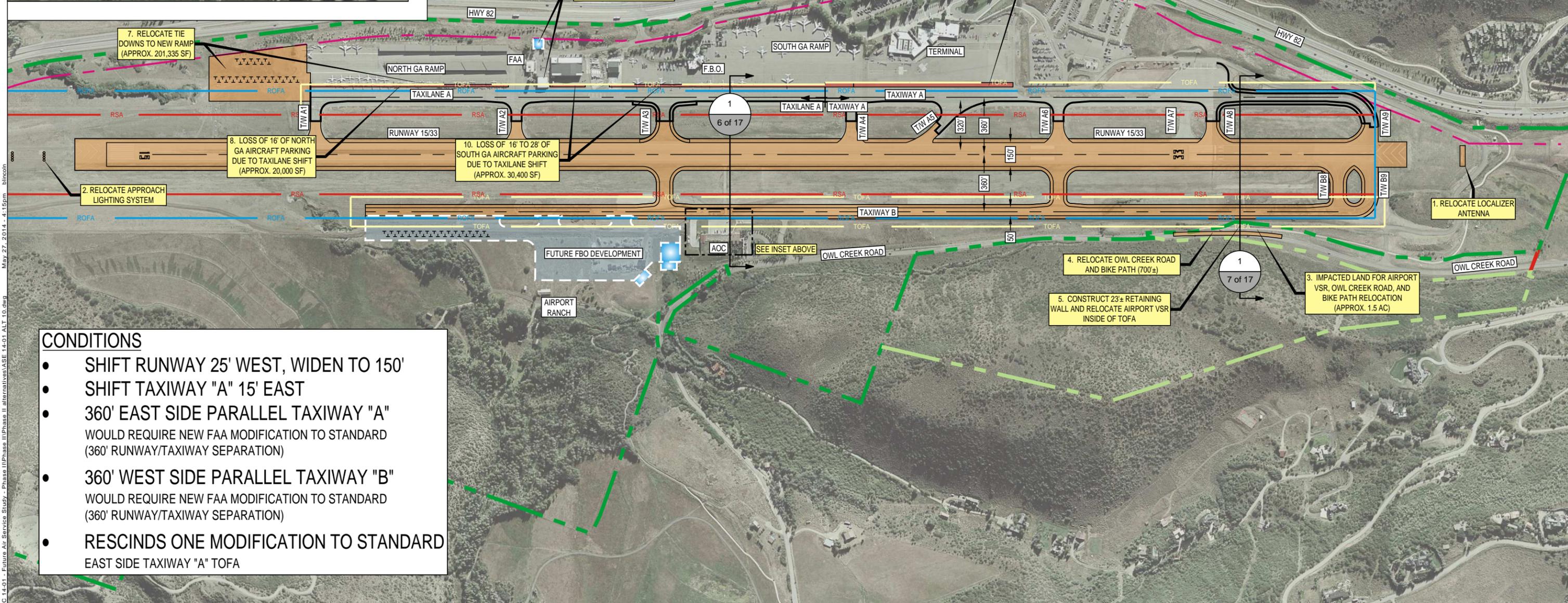
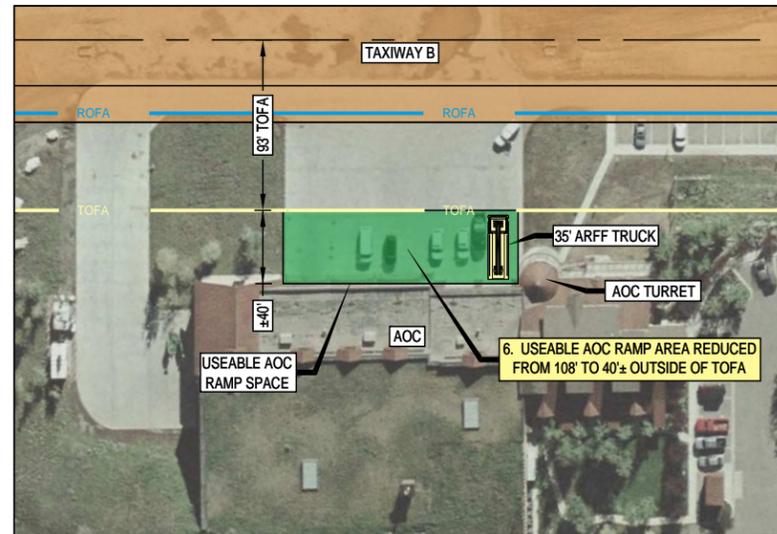
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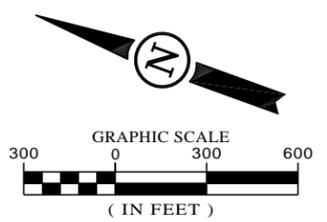
CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- SHIFT TAXIWAY "A" 15' EAST
- 360' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)
- 360' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)
- RESCINDS ONE MODIFICATION TO STANDARD EAST SIDE TAXIWAY "A" TOFA

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
IMPACT ON EXISTING AIRCRAFT PARKING	MASTER PLAN LAYOUT BUILDINGS
ASE PROPERTY LINE	CDOT PROPERTY LINE
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK



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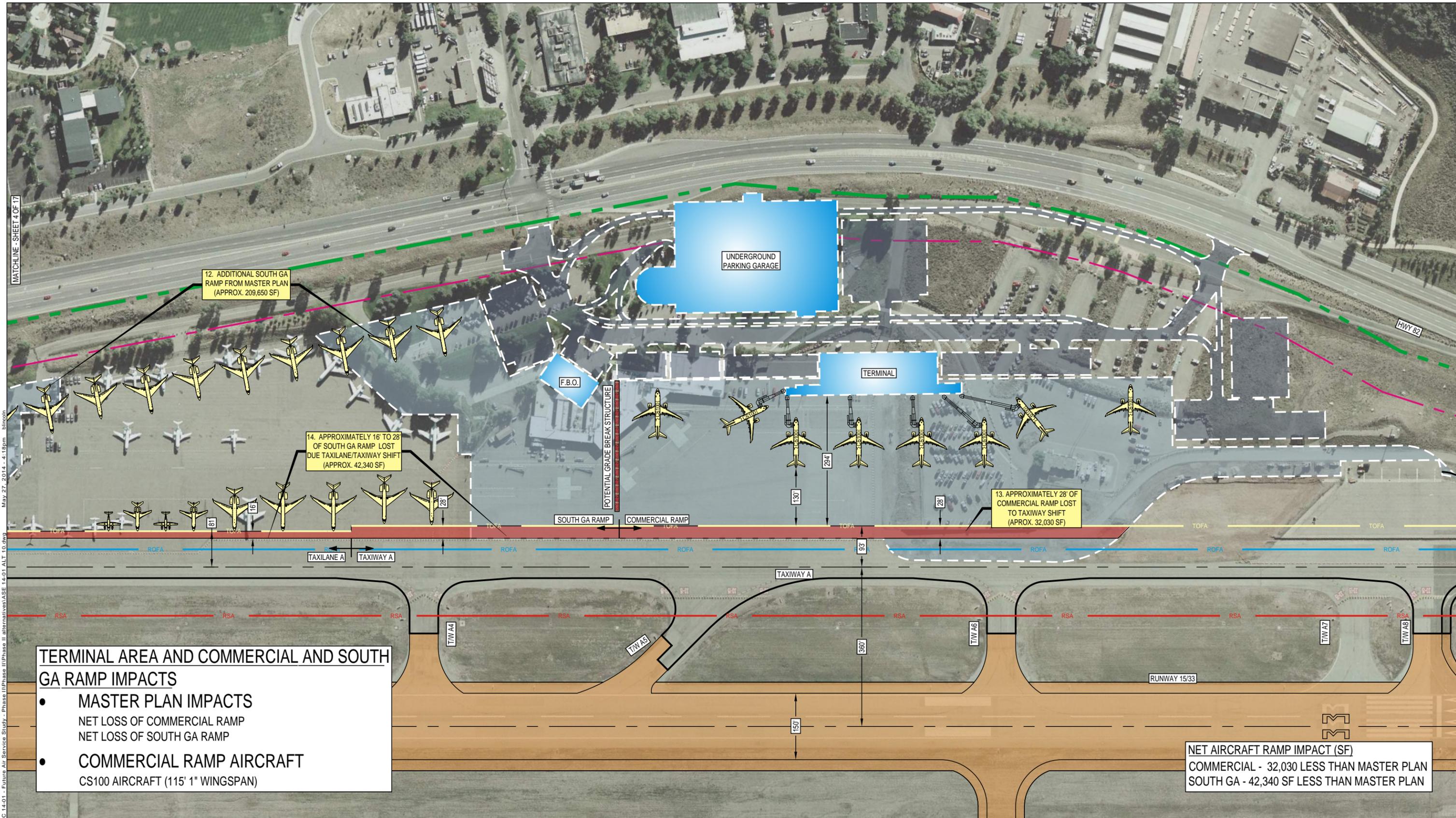
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MATCHLINE - SHEET 4 OF 17

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TERMINAL AREA AND COMMERCIAL AND SOUTH GA RAMP IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH GA RAMP
- **COMMERCIAL RAMP AIRCRAFT**
CS100 AIRCRAFT (115' 1" WINGSPAN)

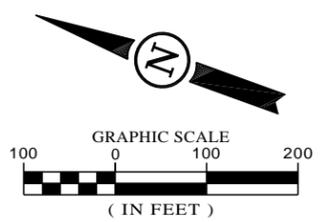
NET AIRCRAFT RAMP IMPACT (SF)
COMMERCIAL - 32,030 LESS THAN MASTER PLAN
SOUTH GA - 42,340 SF LESS THAN MASTER PLAN

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING
- ASE PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



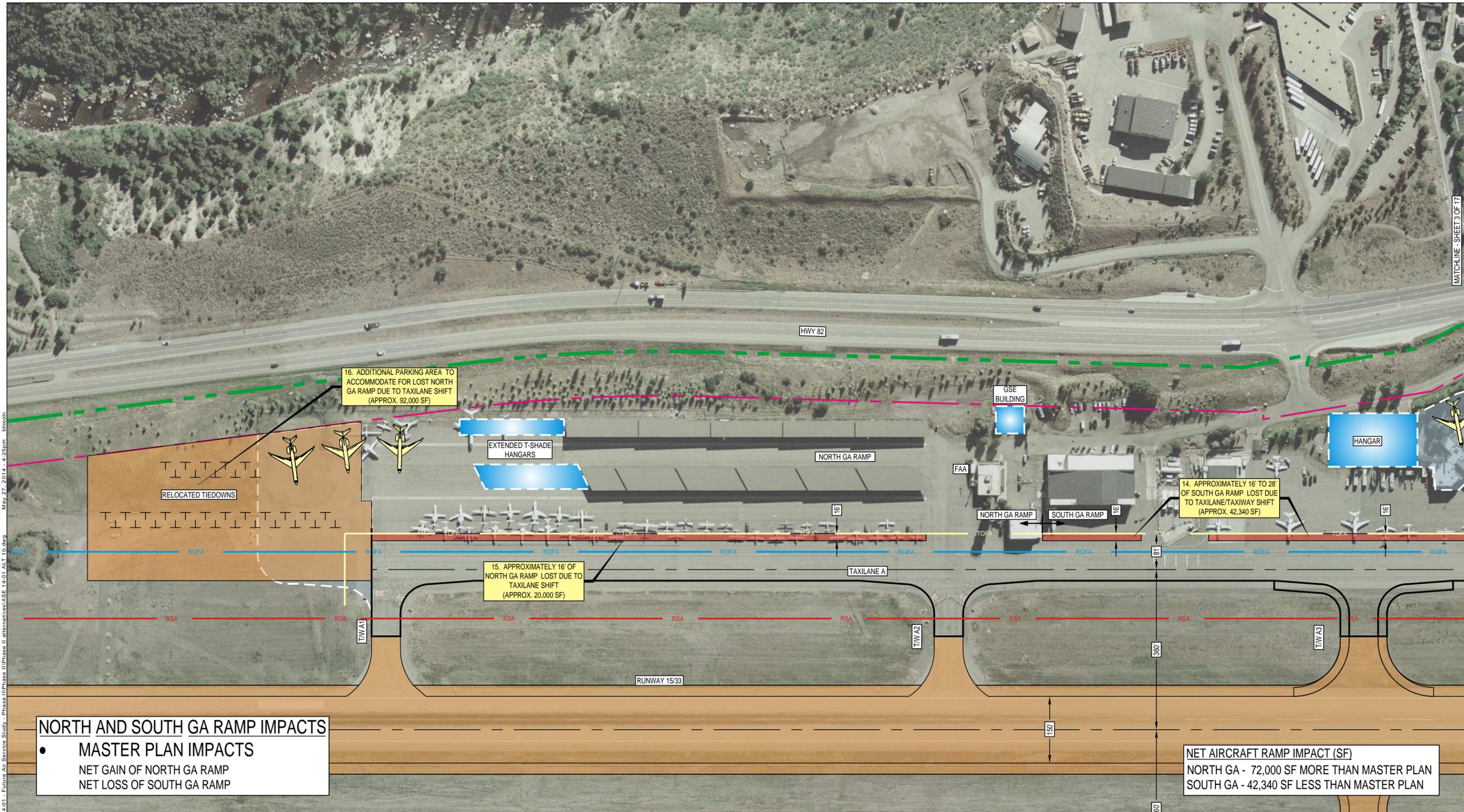
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SHEET 3 OF 17



NORTH AND SOUTH GA RAMP IMPACTS

- **MASTER PLAN IMPACTS**
 NET GAIN OF NORTH GA RAMP
 NET LOSS OF SOUTH GA RAMP

NET AIRCRAFT RAMP IMPACT (SF)
 NORTH GA - 72,000 SF MORE THAN MASTER PLAN
 SOUTH GA - 42,340 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

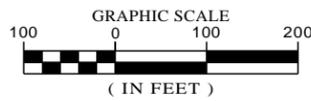
IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING

ASE PROPERTY LINE

HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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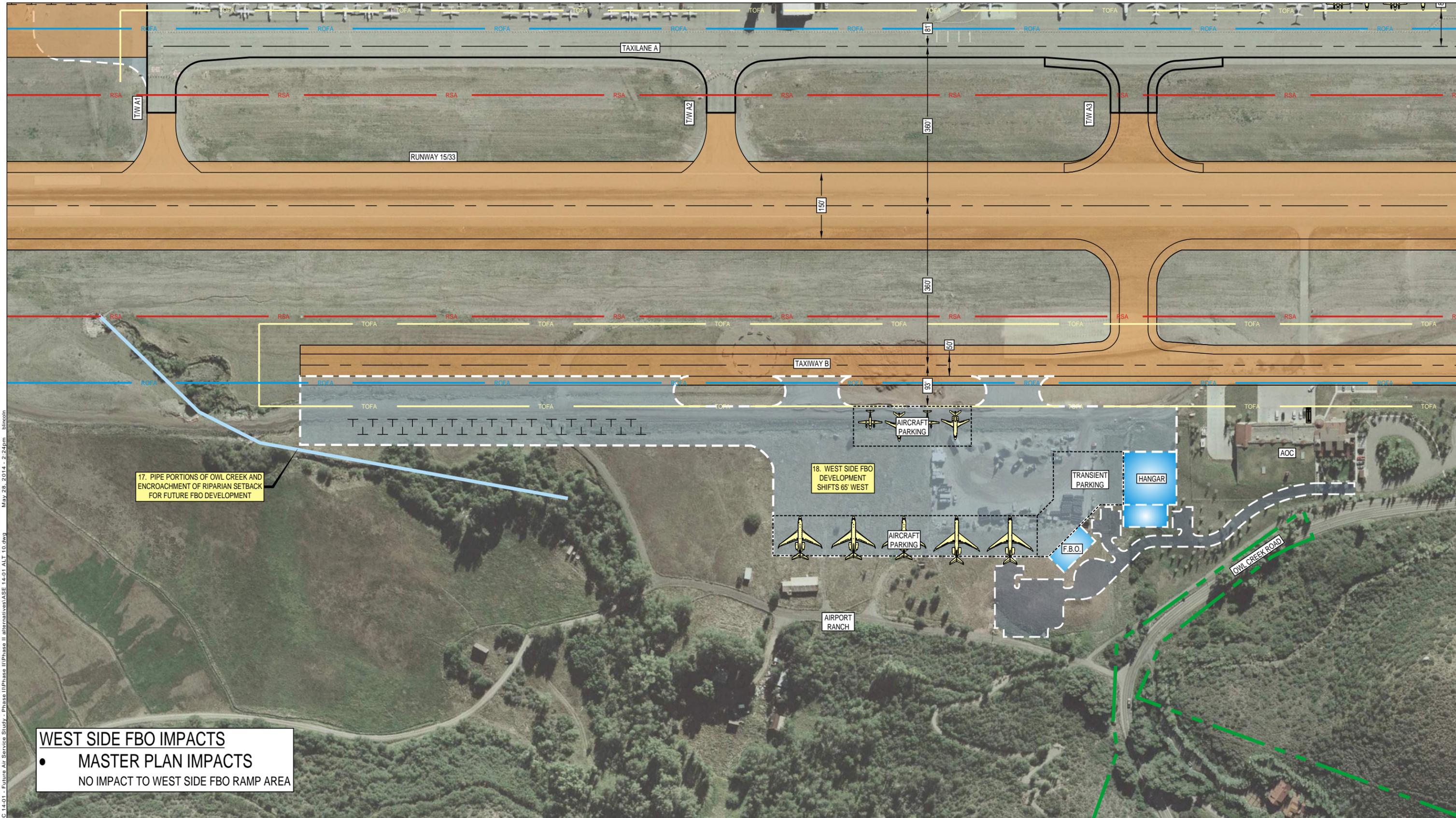
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17. PIPE PORTIONS OF OWL CREEK AND ENCROACHMENT OF RIPARIAN SETBACK FOR FUTURE FBO DEVELOPMENT

18. WEST SIDE FBO DEVELOPMENT SHIFTS 65' WEST

WEST SIDE FBO IMPACTS

- **MASTER PLAN IMPACTS**
- NO IMPACT TO WEST SIDE FBO RAMP AREA

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

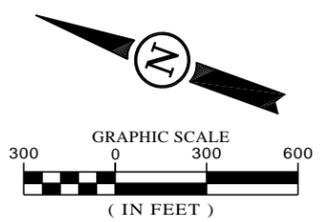
ASE PROPERTY LINE

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MASTER PLAN LAYOUT AIRCRAFT PAVEMENT

MASTER PLAN LAYOUT BUILDINGS

MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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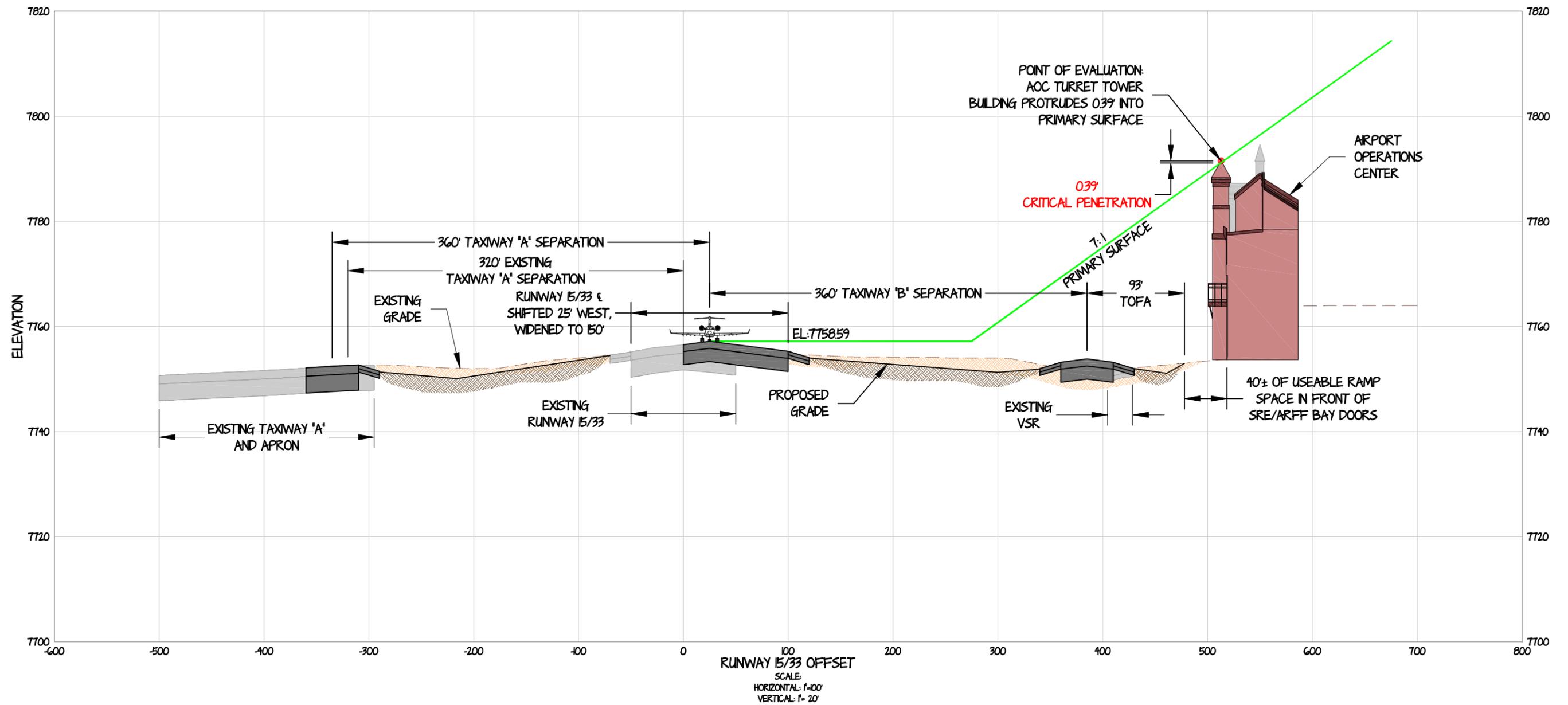
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SHEET 5 OF 17

ALTERNATIVE 10 - AIRPORT OPERATIONS CENTER - PART 77 AND RAMP SPACE EVALUATION



CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- SHIFT TAXIWAY 'A' 15' EAST
- 360' EAST SIDE PARALLEL TAXIWAY 'A' WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)
- 360' WEST SIDE PARALLEL TAXIWAY 'B' WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)



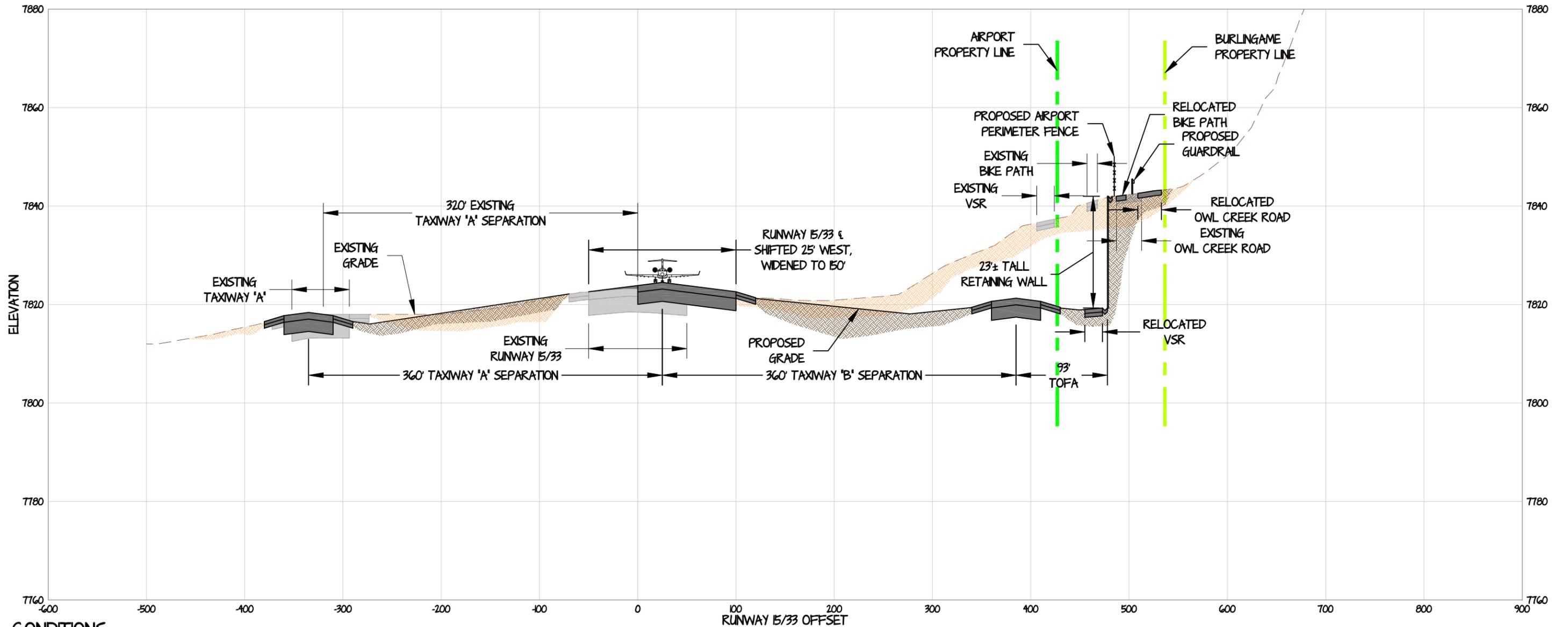
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 ALTERNATIVE 10

DATE: MAY 30, 2014

SHEET 6 OF 17

ALTERNATIVE 10 - SOUTH END OF AIRFIELD APPROXIMATELY TAXIWAY "A8" - OWL CREEK ROAD PINCH POINT EVALUATION



CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- SHIFT TAXIWAY "A" 15' EAST
- 360' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)
- 360' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'



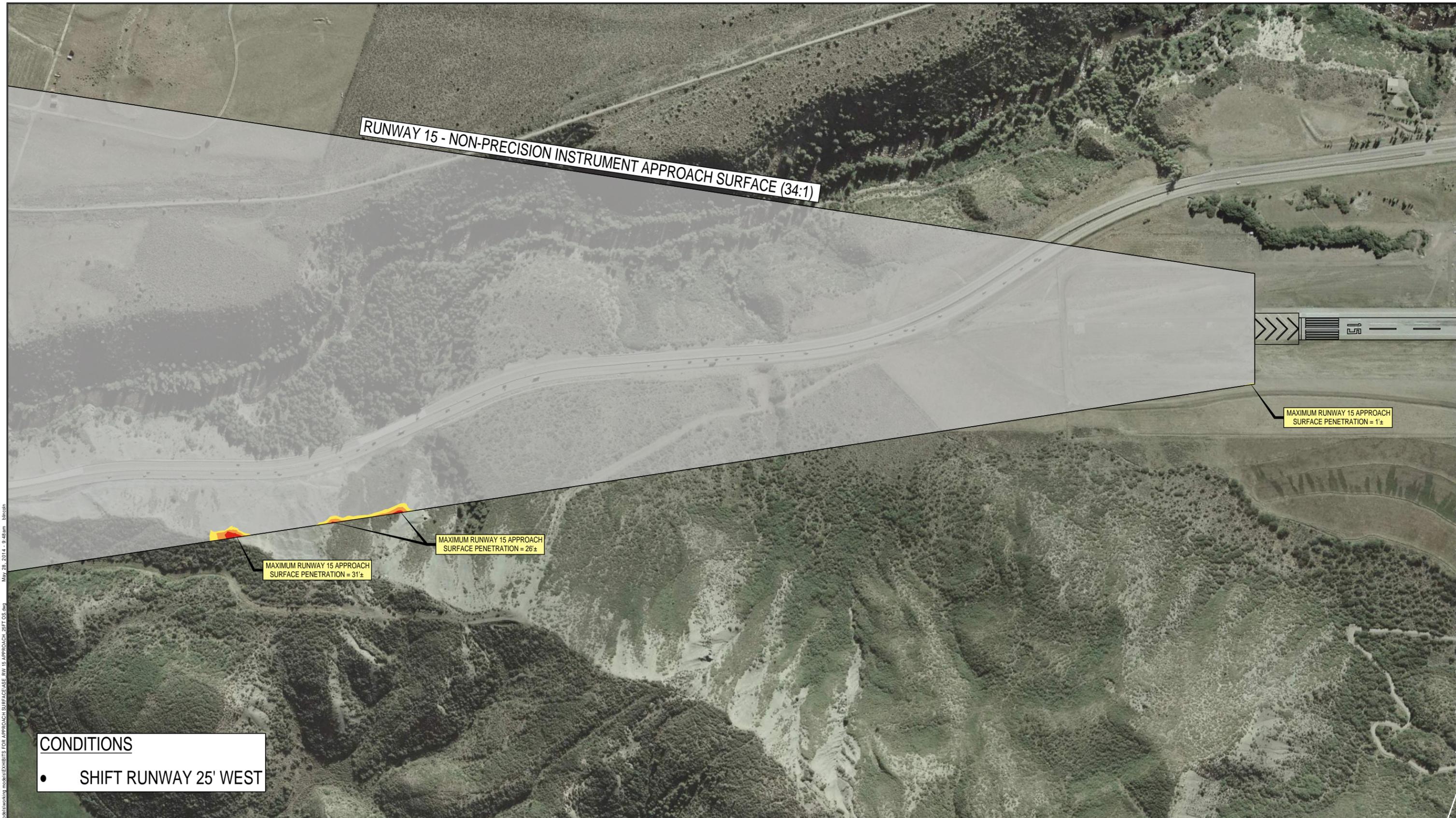
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RUNWAY 15 - NON-PRECISION INSTRUMENT APPROACH SURFACE (34:1)

15

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 1±

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 26±

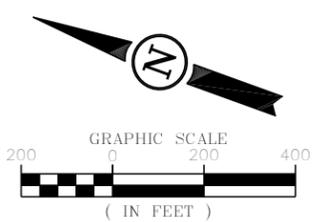
MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 31±

CONDITIONS

- SHIFT RUNWAY 25' WEST

RUNWAY 15 APPROACH PENETRATIONS

	0' TO 10'		20' TO 30'
	10' TO 20'		30' TO 40'



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ASPEN/PITKIN COUNTY AIRPORT
 ASPEN, COLORADO
 FUTURE AIR SERVICE STUDY - PHASE II
 ALTERNATIVE 10
 DATE: MAY 30, 2014
 SHEET 11 OF 17

I:\Programs\ASAP\Planning\2013 Runway Realignment Model\working models\EXHIBITS FOR APPROACH SURFACE RW 15 APPROACH_05FT_05.dwg
 May 28, 2014 - 9:48am
 bircoln



RUNWAY APPROACH SURFACE PENETRATION DUE TO EXISTING RUNWAY LONGITUDINAL GRADES

MAXIMUM RUNWAY 33 APPROACH SURFACE PENETRATION = 5±

MAXIMUM RUNWAY 33 APPROACH SURFACE PENETRATION = 14±

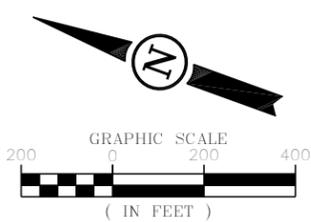
MAXIMUM RUNWAY 33 APPROACH SURFACE PENETRATION = 89±

CONDITIONS

- SHIFT RUNWAY 25' WEST

RUNWAY 33 APPROACH PENETRATIONS

	0' TO 10'		30' TO 40'		70' TO 80'
	10' TO 20'		40' TO 50'		80' TO 90'
	20' TO 30'		50' TO 60'		



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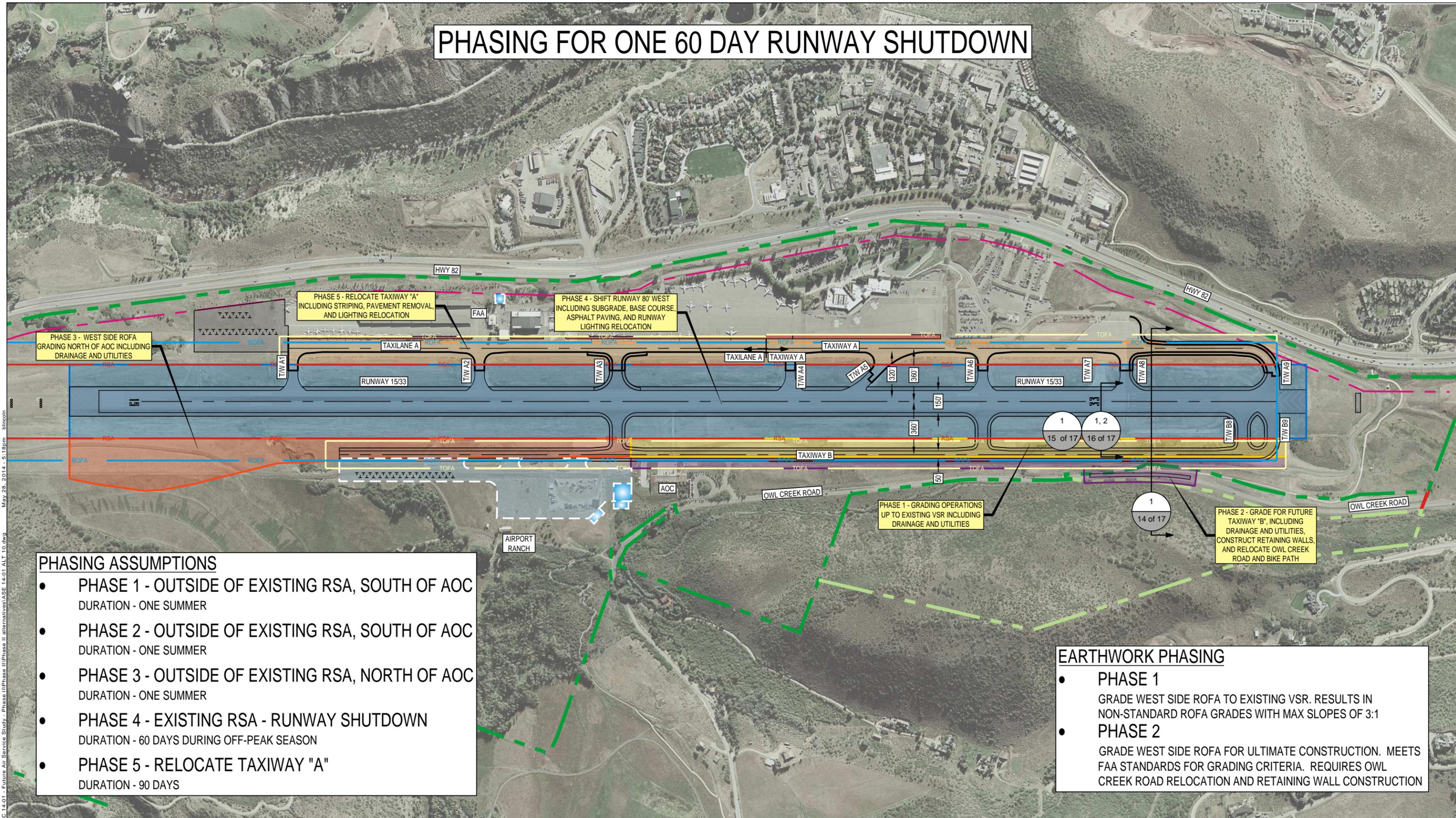
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ALTERNATIVE 10

DATE: MAY 30, 2014

SHEET 12 OF 17

I:\Programs\ASAP\Planning\2013 Runway Realignment Model\working models\EXHIBITS FOR APPROACH SURFACE RW 33 APPROACH_05FT_05.dwg May 28, 2014 - 10:01 am bmcsh

PHASING FOR ONE 60 DAY RUNWAY SHUTDOWN



- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON
 - PHASE 5 - RELOCATE TAXIWAY "A"
DURATION - 90 DAYS

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3	PHASE 5
PHASE 2	PHASE 4	ASE PROPERTY LINE	CDOT PROPERTY LINE
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK	NORTH	GRAPHIC SCALE (IN FEET)

ASPEN/PITKIN COUNTY AIRPORT
OWNED AND OPERATED BY PITKIN COUNTY

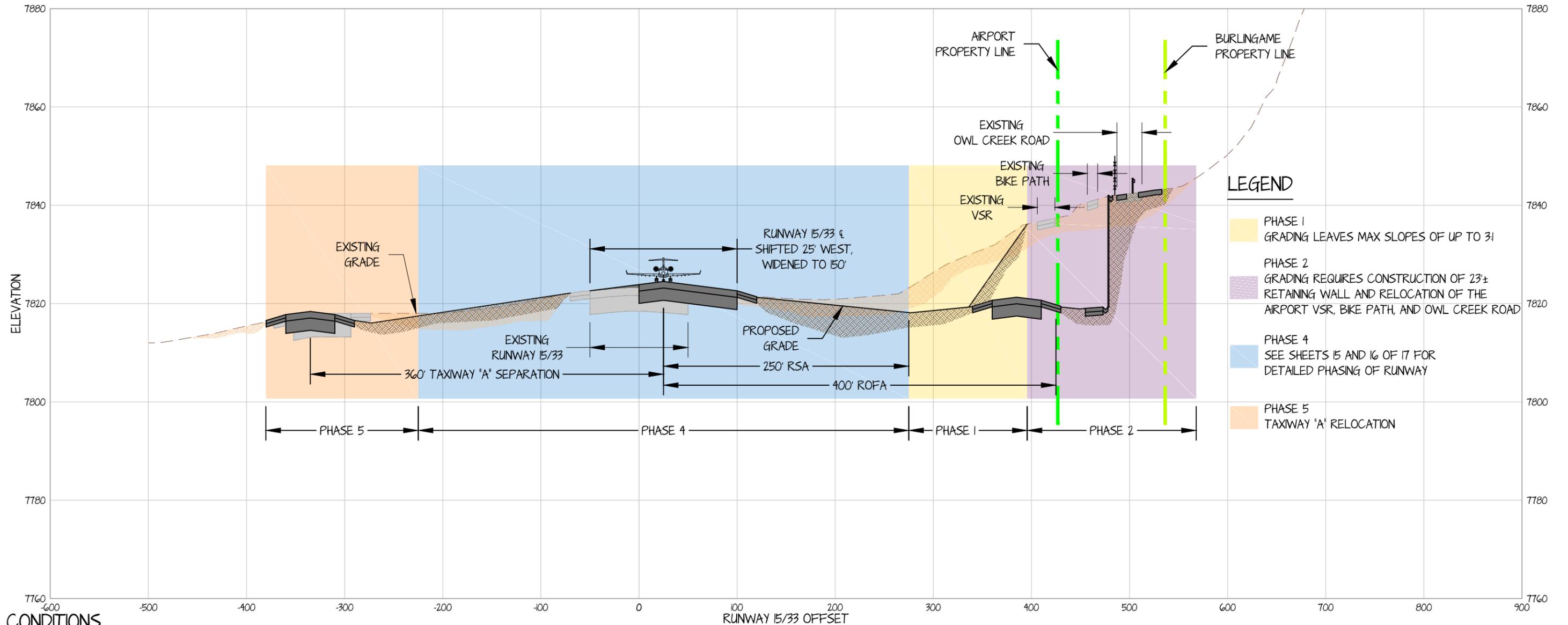
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ALTERNATIVE 10

DATE: MAY 30, 2014
SHEET 13 OF 17

ALTERNATIVE 10 - RSA AND ROFA GRADING - ONE 60 DAY RUNWAY SHUTDOWN



CONDITIONS

- SHIFT RUNWAY 25' WEST, WIDEN TO 150'
- SHIFT TAXIWAY "A" 15' EAST
- 360' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)
- 360' WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (360' RUNWAY/TAXIWAY SEPARATION)



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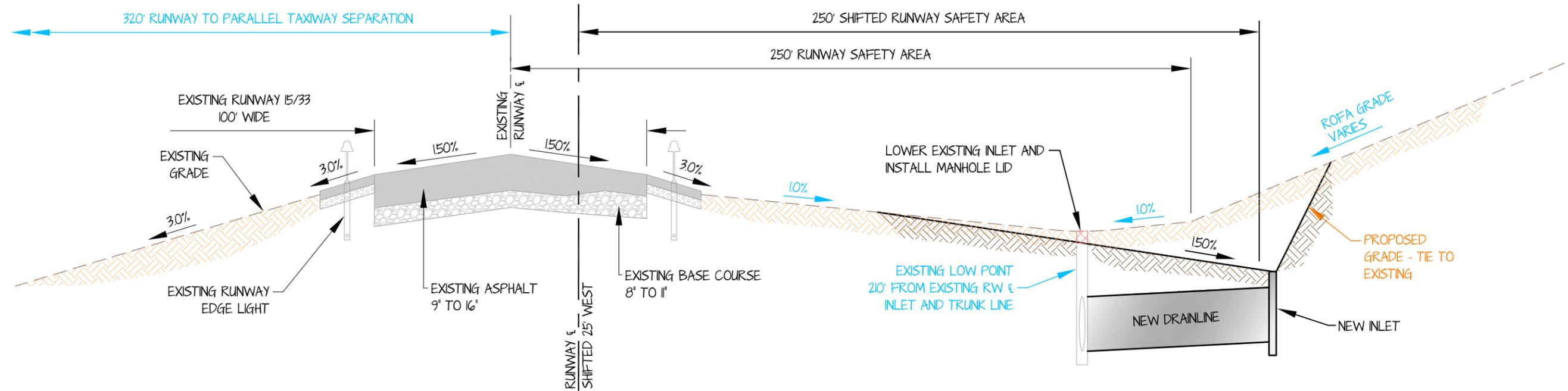
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SHEET 14 OF 17

NOTE:

ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
13 of 17

ALTERNATIVE 10 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINE ON BOTH THE EAST SIDE AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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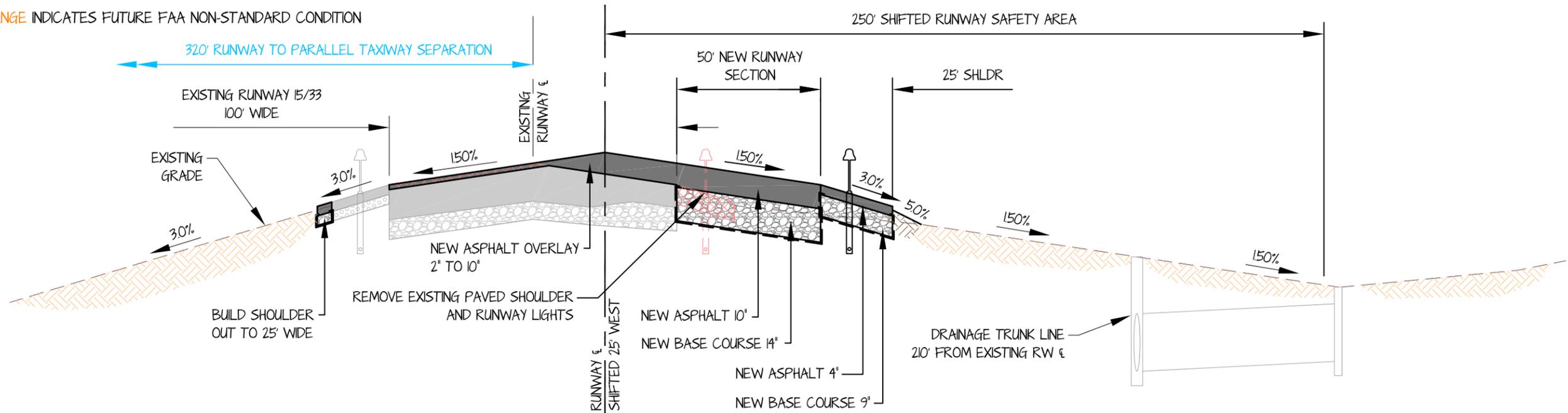
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SHEET 15 OF 17

NOTE:

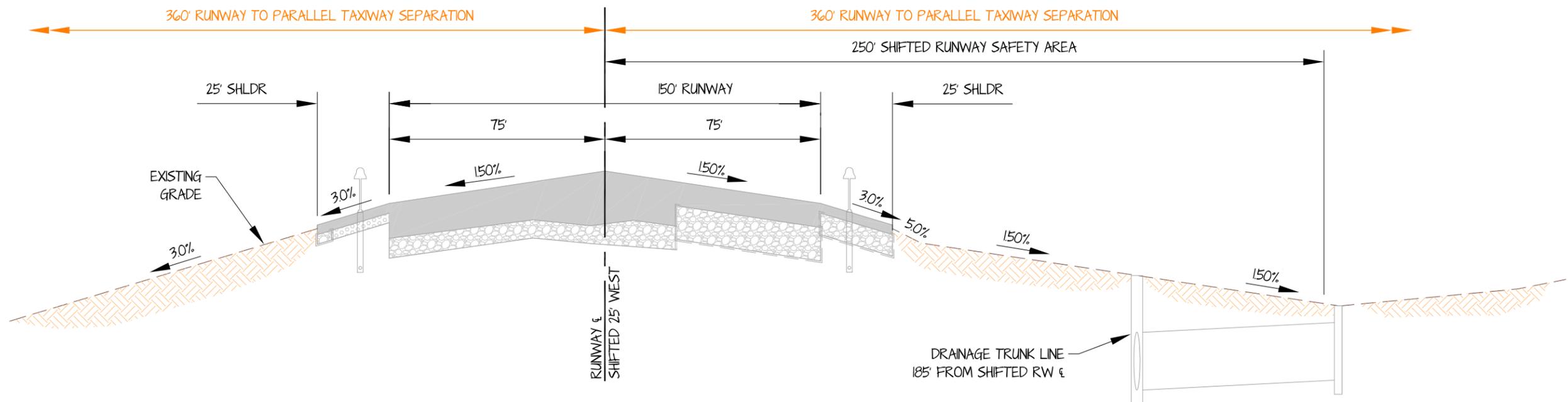
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
13 of 17

ALTERNATIVE 10 - PHASE 4 - 25' RUNWAY SHIFT - 60 DAY SHUTDOWN



2
13 of 17

ALTERNATIVE 10 - 25' RUNWAY SHIFT FINAL CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CONNECTOR TAXIWAYS "B8" AND "B9" TED-IN AFTER RUNWAY SHIFT
- PHASE 5 WORK PERFORMED AFTER RUNWAY SHIFT



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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 10

DATE: MAY 30, 2014

SHEET 16 OF 17

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LOCAL AND FEDERAL CONSIDERATIONS

POTENTIAL LOCAL REVIEW AND APPROVALS

PITKIN COUNTY

- LOCATION AND EXTENTS REVIEW
PROPOSED IMPROVEMENTS IN COMPLIANCE WITH THE WEST OF MAROON CREEK PLAN (WOMP)
- ASPEN/PITKIN COUNTY AIRPORT DESIGN GUIDELINES APPROVAL
PROPOSED IMPROVEMENTS IN COMPLIANCE AIRPORT DESIGN GUIDELINES (APRIL, 2014)
- BUILDING PERMIT (TITLE II)
ANY STRUCTURES MEETING THE "BUILDING" DEFINITION WHICH DOES NOT INCLUDE ROADS, PAVEMENT, FENCES, RETAINING WALLS OR OTHER SITE IMPROVEMENTS THE DO NOT ENCLOSE SPACES FOR THE PROTECTION OF PERSONS, ANIMALS, OR PROPERTY
- ENVIRONMENTAL HEALTH (TITLE 6)
ADDRESS APPLICABLE PROVISIONS OF TITLE 6 IN CONSTRUCTION DOCUMENTS AND CONTRACTS

CITY OF ASPEN

- BURLINGAME OPEN SPACE PARCEL CHANGE IN USE (PUBLIC VOTE)
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL

ASPEN VALLEY LAND TRUST (AVLT)

- CONSENT PURSUANT TO DEED OF CONSERVATION EASEMENT
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL REQUIRES APPROVAL BY THE AVLT BOARD OF DIRECTORS

POTENTIAL FEDERAL REVIEW AND APPROVALS

UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

- 404 PERMIT
PENDING DETERMINATION OF 3 WETLANDS AREAS DESCRIBED IN THE TEXT OF THE 2012 MASTER PLAN UPDATE

FEDERAL AVIATION ADMINISTRATION

- ALP/MASTER PLAN UPDATE
- ENVIRONMENTAL ASSESSMENT
- OBSTRUCTION EVALUATION/AIRSPACE ANALYSIS
- NAVAID RELOCATION/UPDATE
- MODIFICATIONS TO DESIGN STANDARDS

RUNWAY/PARALLEL TAXIWAY SEPARATION
RUNWAY/TAXIWAY HOLDLINE SEPARATION
RUNWAY AND TAXIWAY LONGITUDINAL GRADIENT
RUNWAY SAFETY AREA LONGITUDINAL GRADIENT
RUNWAY CENTERLINE TO AIRCRAFT PARKING AREA

NOTE: THE LOCAL AND FEDERAL CONSIDERATIONS PRESENTED FOR THIS ALTERNATIVE ARE NOT THE EXTENT OF REVIEWS AND APPROVALS. AS THE DESIGN OF ANY ALTERNATIVE PROGRESSES, IT IS LIKELY THAT MORE REVIEWS AND APPROVALS WILL BE REQUIRED. IT IS EXPECTED THAT THE REVIEW AND APPROVALS IDENTIFIED ABOVE WILL TAKE ONE YEAR OR LONGER TO COMPLETE.

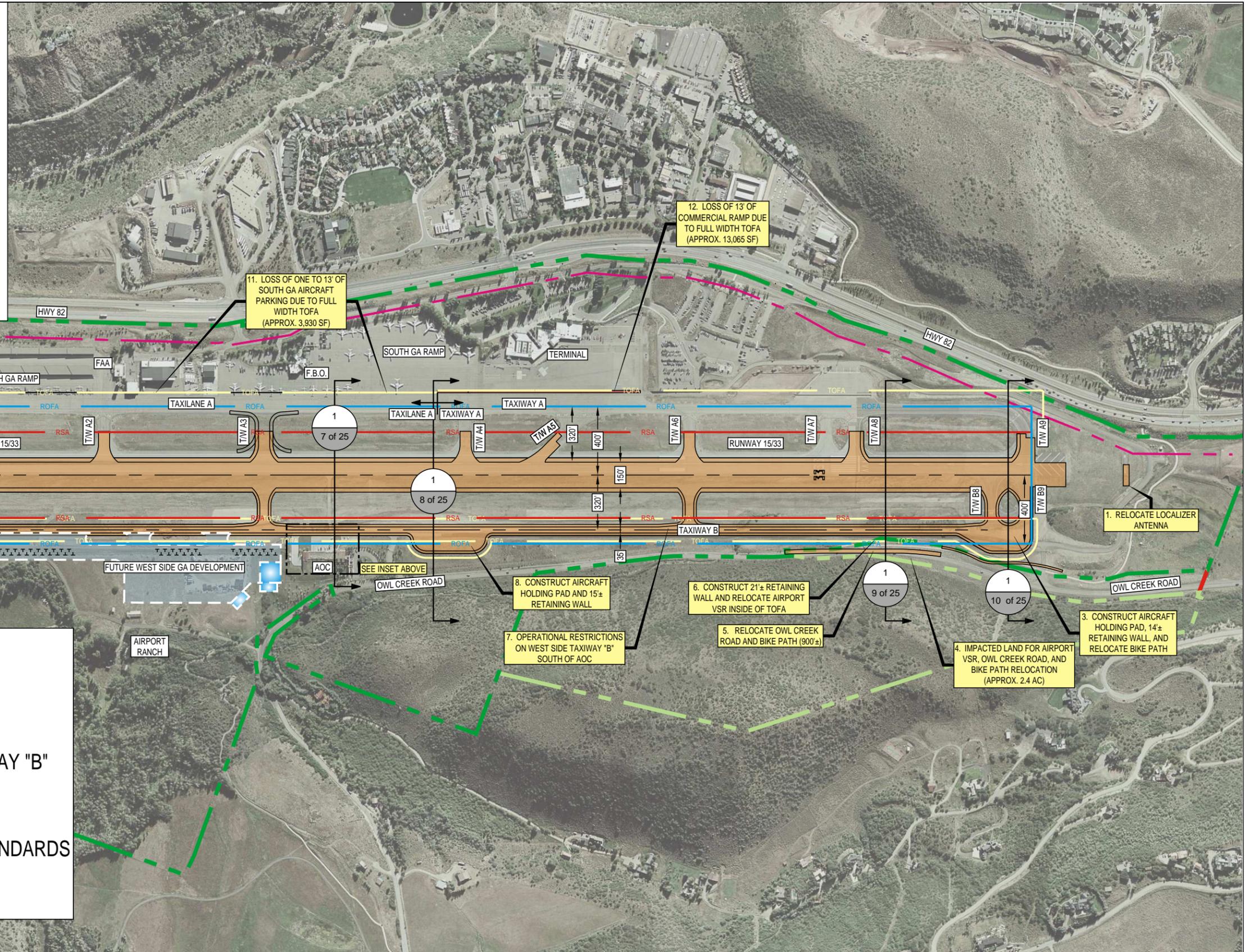
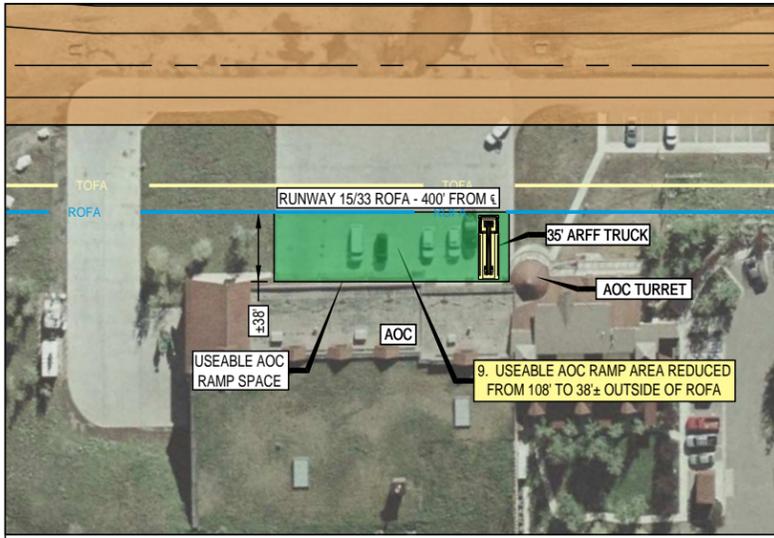


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ALTERNATIVE 10

DATE: MAY 30, 2014

SHEET 17 OF 17



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A" MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (320' RUNWAY/TAXIWAY SEPARATION) LIMITED TO ADG II AIRCRAFT
- RESCINDS THREE MODIFICATIONS TO STANDARDS
EAST SIDE TAXIWAY "A" TOFA
EAST SIDE RUNWAY/TAXIWAY SEPARATION
EAST SIDE RUNWAY/HOLDBAR SEPARATION

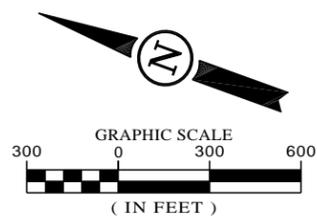
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- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON EXISTING AIRCRAFT PARKING
- ASE PROPERTY LINE
- BURLINGAME RANCH PROPERTY LINE

LEGEND

- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- CDOT PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK



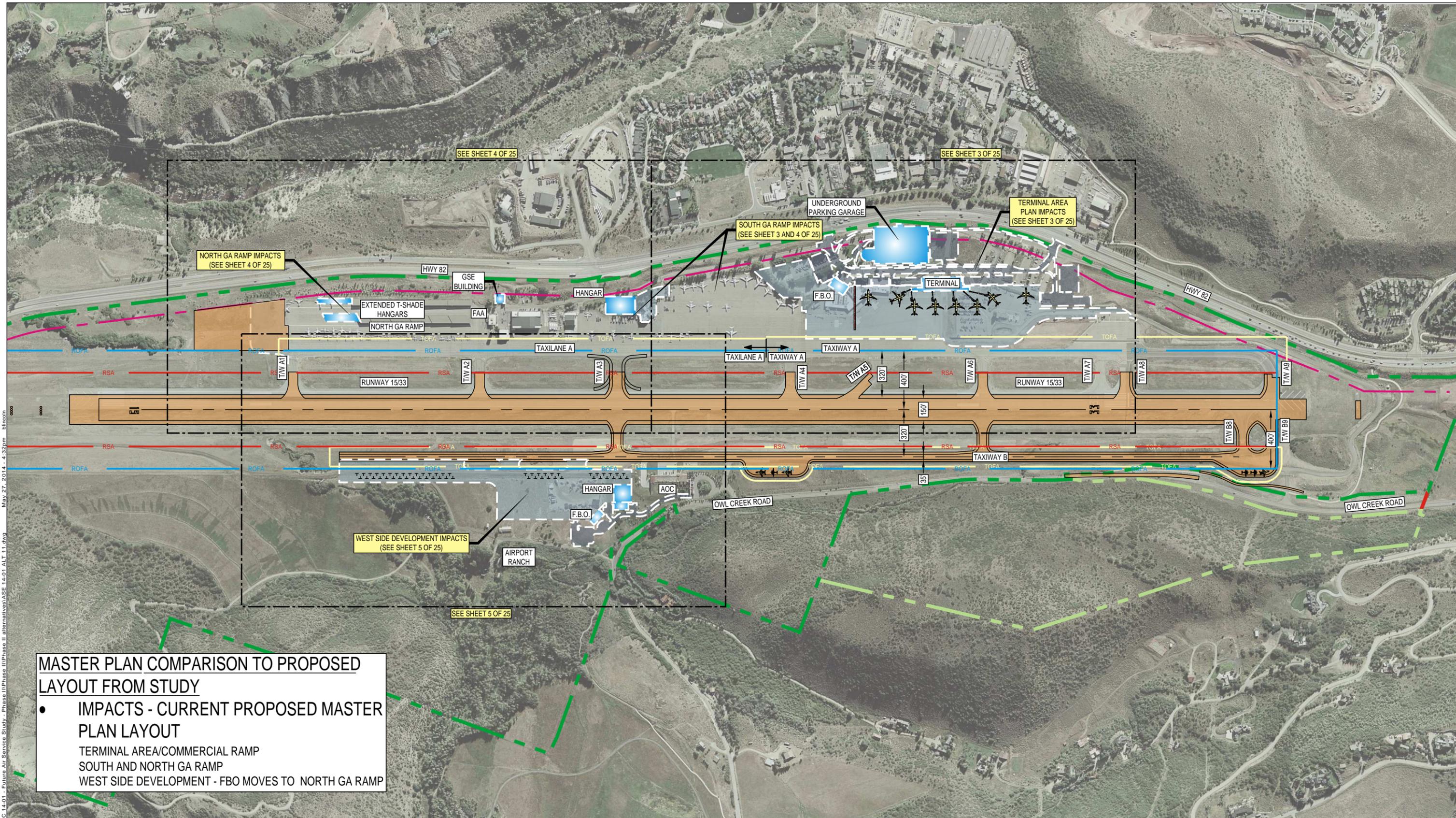
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DATE: MAY 30, 2014

SHEET 1 OF 25



MASTER PLAN COMPARISON TO PROPOSED LAYOUT FROM STUDY

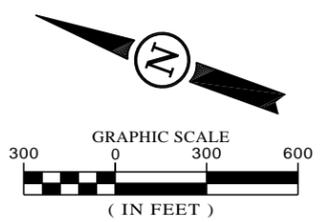
- IMPACTS - CURRENT PROPOSED MASTER PLAN LAYOUT
 - TERMINAL AREA/COMMERCIAL RAMP
 - SOUTH AND NORTH GA RAMP
 - WEST SIDE DEVELOPMENT - FBO MOVES TO NORTH GA RAMP

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 May 27, 2014 - 4:32pm bilcon

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT
 PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
 ASE PROPERTY LINE
 BURLINGAME RANCH PROPERTY LINE
 CDOT PROPERTY LINE
 HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

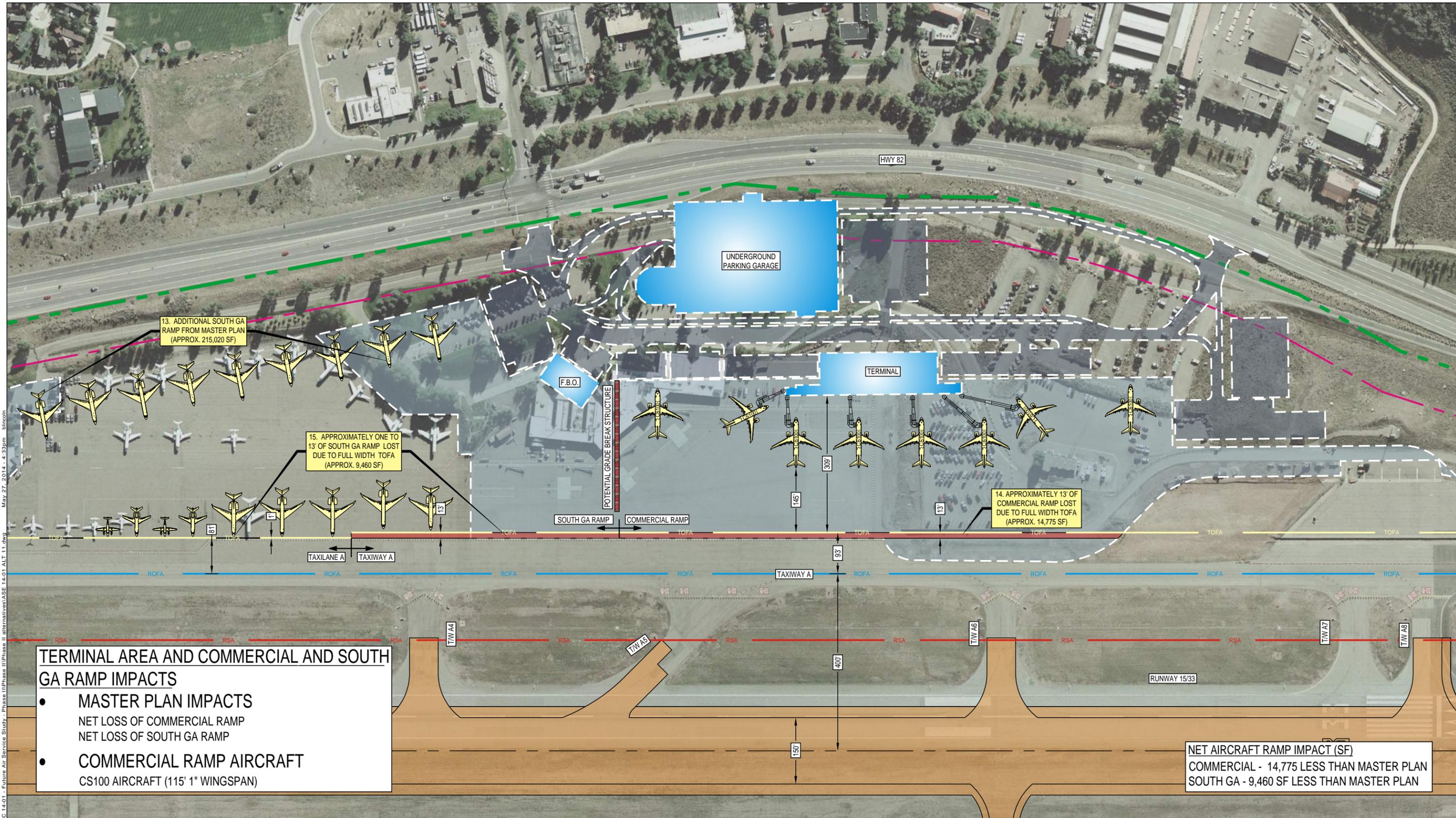
- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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ALTERNATIVE 11
 DATE: MAY 30, 2014
 SHEET 2 OF 25



TERMINAL AREA AND COMMERCIAL AND SOUTH GA RAMP IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH GA RAMP
- **COMMERCIAL RAMP AIRCRAFT**
CS100 AIRCRAFT (115' 1" WINGSPAN)

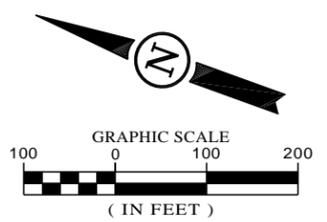
NET AIRCRAFT RAMP IMPACT (SF)
COMMERCIAL - 14,775 LESS THAN MASTER PLAN
SOUTH GA - 9,460 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING
- ASE PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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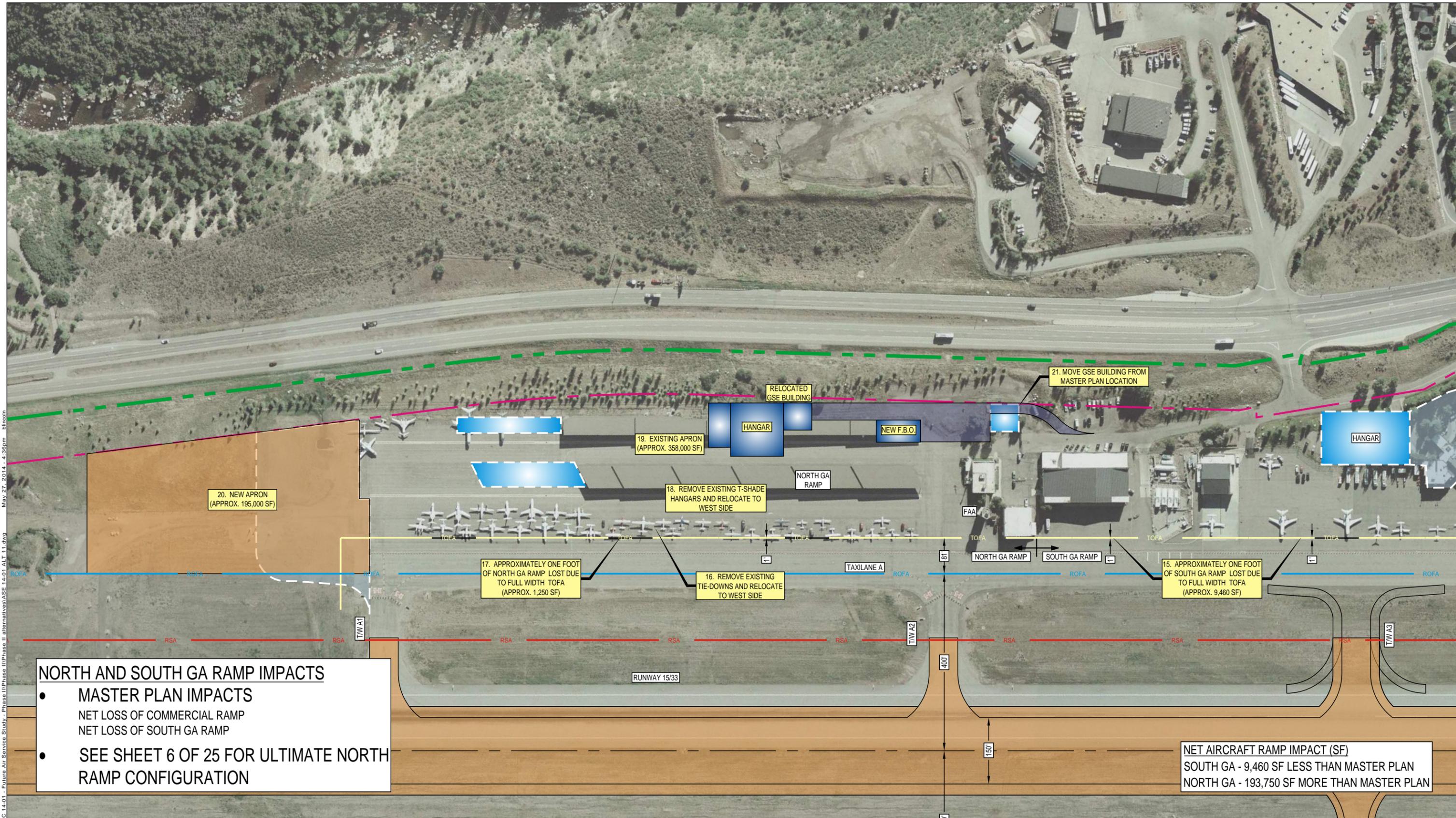
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DATE: MAY 30, 2014

SHEET 3 OF 25

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NORTH AND SOUTH GA RAMP IMPACTS

- MASTER PLAN IMPACTS
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH GA RAMP
- SEE SHEET 6 OF 25 FOR ULTIMATE NORTH RAMP CONFIGURATION

NET AIRCRAFT RAMP IMPACT (SF)
SOUTH GA - 9,460 SF LESS THAN MASTER PLAN
NORTH GA - 193,750 SF MORE THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING

ASE PROPERTY LINE

HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

MASTER PLAN LAYOUT AIRCRAFT PAVEMENT

MASTER PLAN LAYOUT BUILDINGS

MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS

RECONFIGURED AIRCRAFT PAVEMENT FROM AIR SERVICE STUDY

RECONFIGURED BUILDINGS FROM AIR SERVICE STUDY

RECONFIGURED ROADS AND PARKING LOTS FROM AIR SERVICE STUDY

GRAPHIC SCALE (IN FEET)

100 0 100 200



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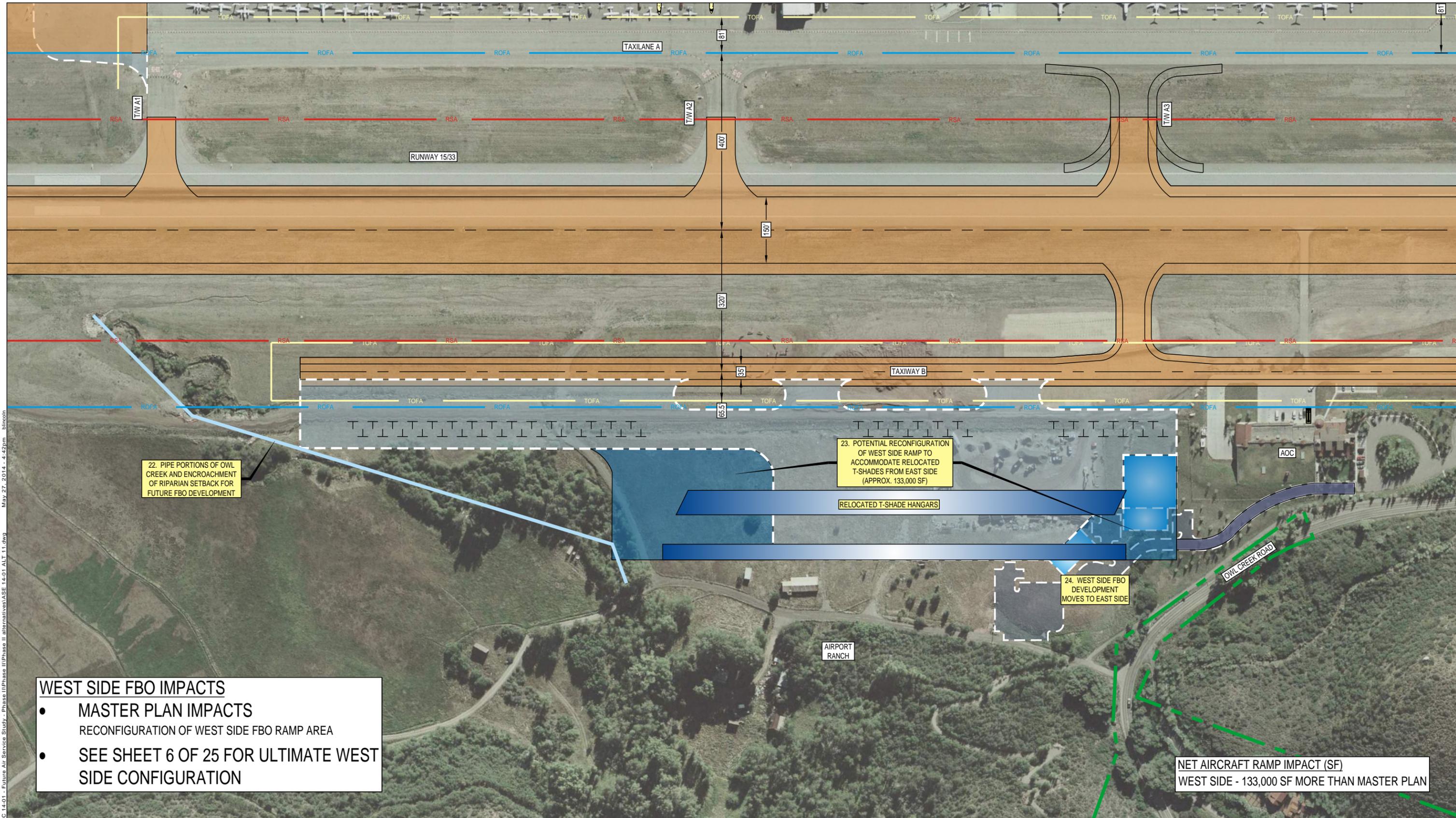
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SHEET 4 OF 25

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22. PIPE PORTIONS OF OWL CREEK AND ENCROACHMENT OF RIPARIAN SETBACK FOR FUTURE FBO DEVELOPMENT

23. POTENTIAL RECONFIGURATION OF WEST SIDE RAMP TO ACCOMMODATE RELOCATED T-SHADES FROM EAST SIDE (APPROX. 133,000 SF)

RELOCATED T-SHADE HANGARS

24. WEST SIDE FBO DEVELOPMENT MOVES TO EAST SIDE

WEST SIDE FBO IMPACTS

- MASTER PLAN IMPACTS RECONFIGURATION OF WEST SIDE FBO RAMP AREA
- SEE SHEET 6 OF 25 FOR ULTIMATE WEST SIDE CONFIGURATION

NET AIRCRAFT RAMP IMPACT (SF)
WEST SIDE - 133,000 SF MORE THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

ASE PROPERTY LINE

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	MASTER PLAN LAYOUT AIRCRAFT PAVEMENT	RECONFIGURED AIRCRAFT PAVEMENT FROM AIR SERVICE STUDY
MASTER PLAN LAYOUT BUILDINGS	RECONFIGURED BUILDINGS FROM AIR SERVICE STUDY	RECONFIGURED ROADS AND PARKING LOTS FROM AIR SERVICE STUDY
MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS		

GRAPHIC SCALE (IN FEET)

100 0 100 200

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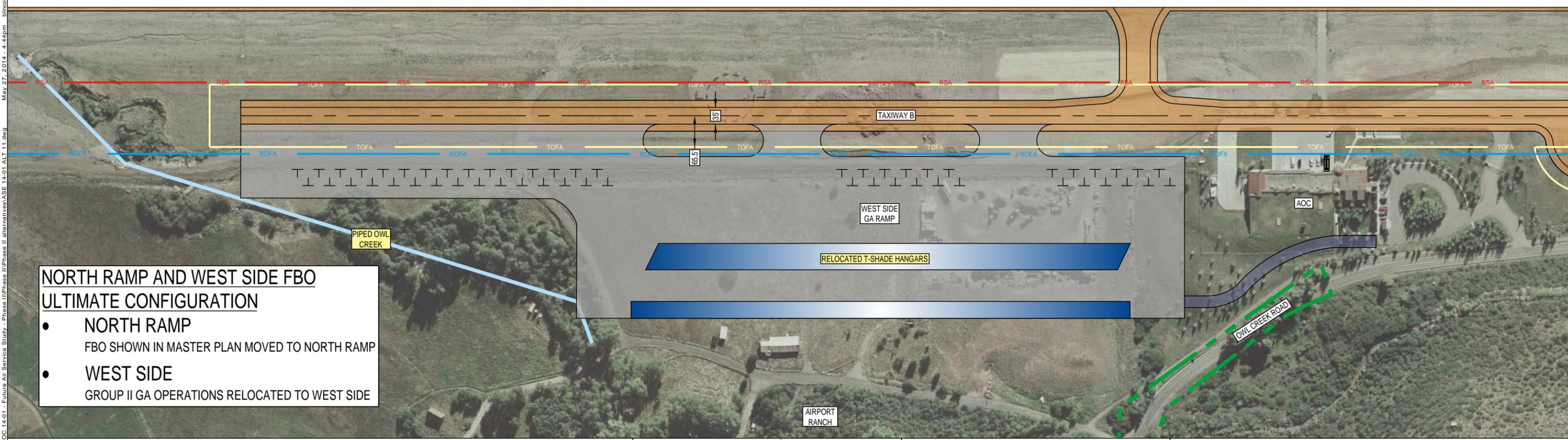
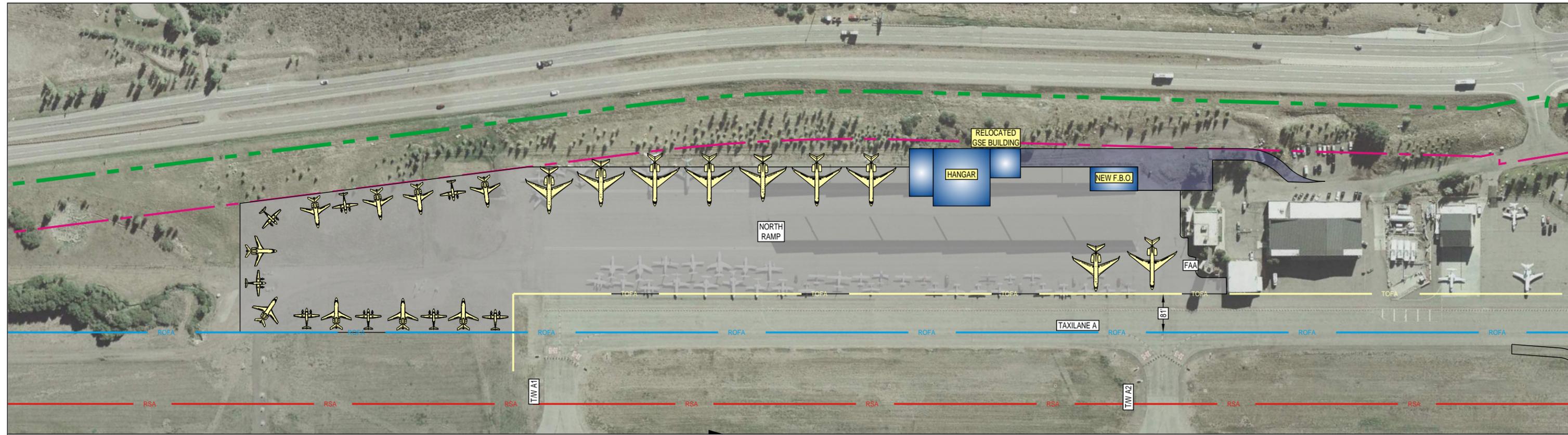
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SHEET 5 OF 25

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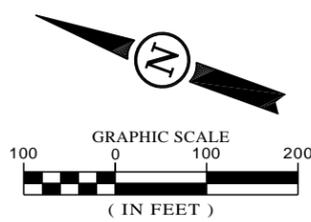
ULTIMATE AIRCRAFT PAVEMENT CONFIGURATION

ASE PROPERTY LINE
HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

RECONFIGURED BUILDINGS FROM AIR SERVICE STUDY

RECONFIGURED ROADS AND PARKING LOTS FROM AIR SERVICE STUDY



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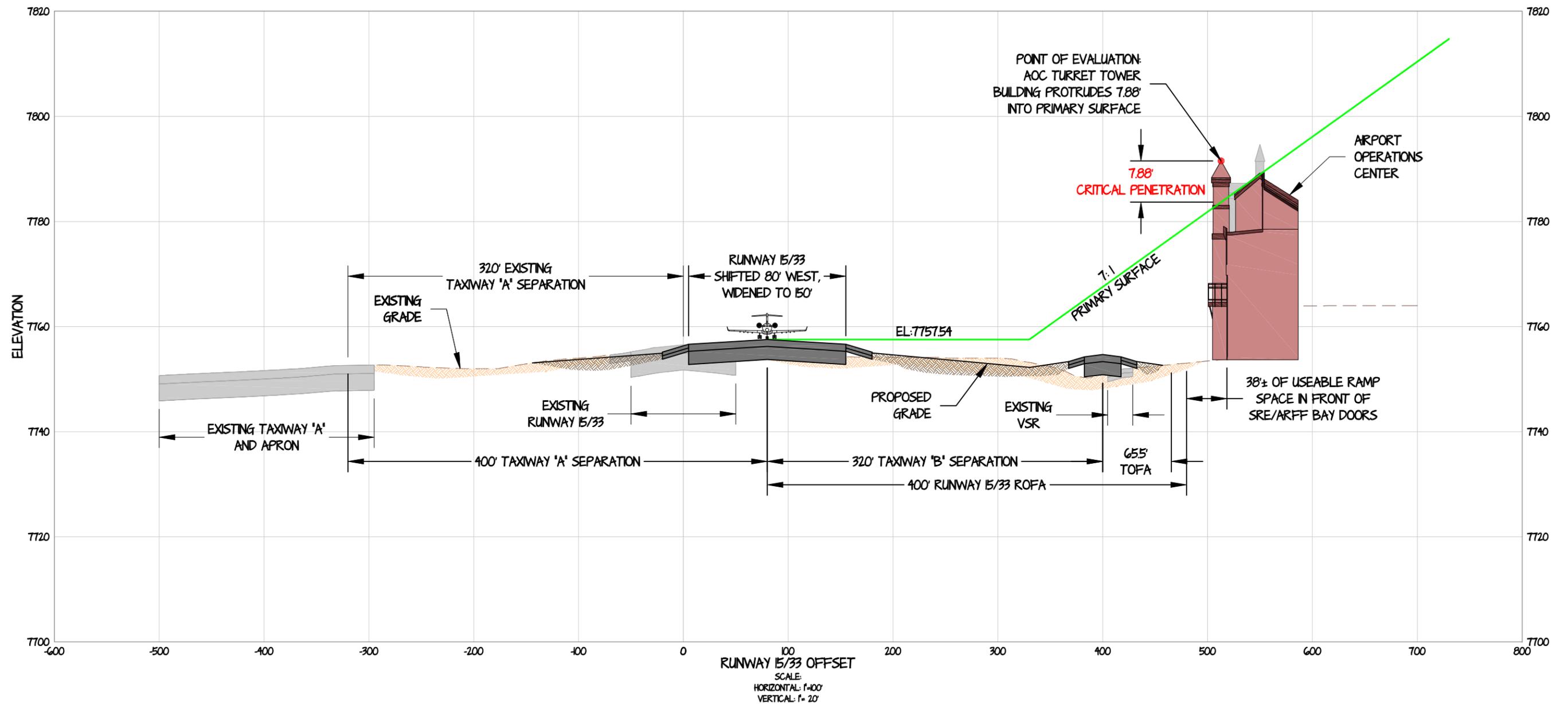
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SHEET 6 OF 25

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ALTERNATIVE II - AIRPORT OPERATIONS CENTER - PART 77 AND RAMP SPACE EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)
LIMITED TO ADG I AIRCRAFT



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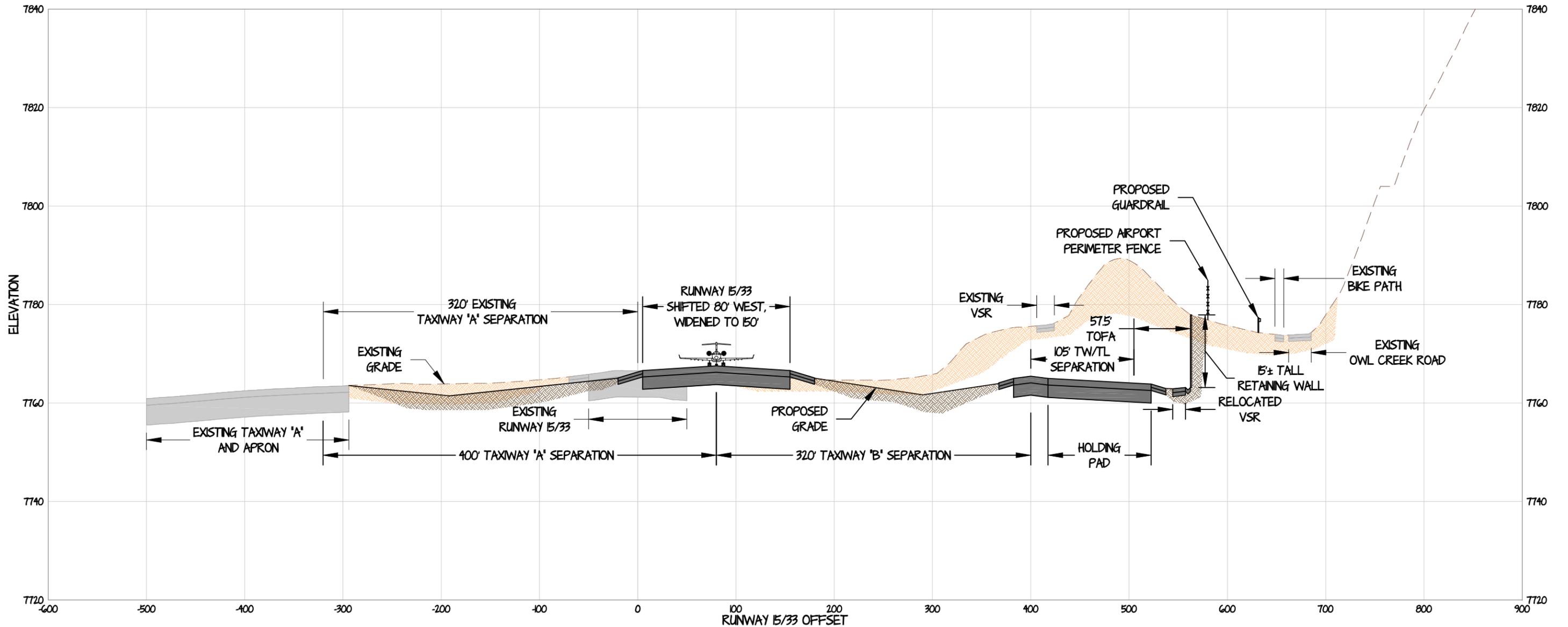
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ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 7 OF 25

ALTERNATIVE II - TAXIWAY "A4" - TAXIWAY "B" HOLDING PAD EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)
LIMITED TO ADG II AIRCRAFT

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'



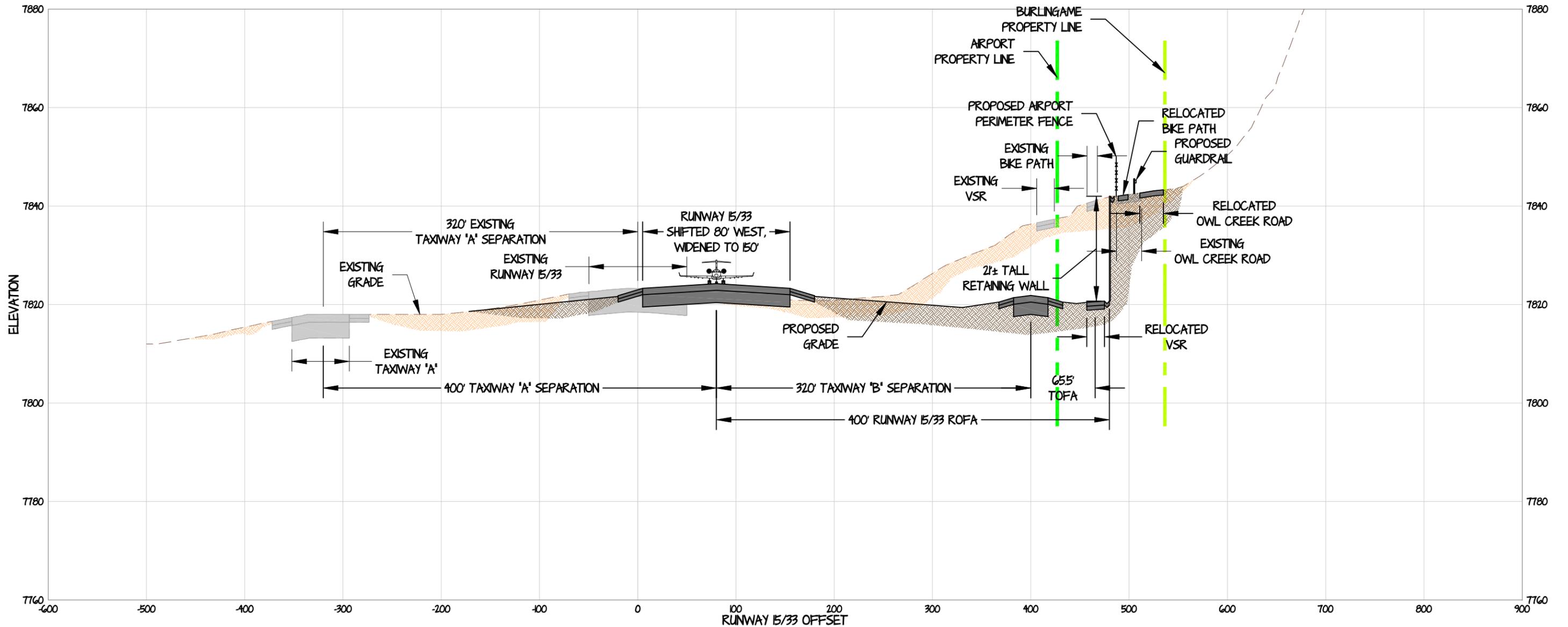
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ASPEN, COLORADO
FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 8 OF 25

ALTERNATIVE II - SOUTH END OF AIRFIELD APPROXIMATELY TAXIWAY "A8" - OWL CREEK ROAD PINCH POINT EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)
LIMITED TO ADG II AIRCRAFT



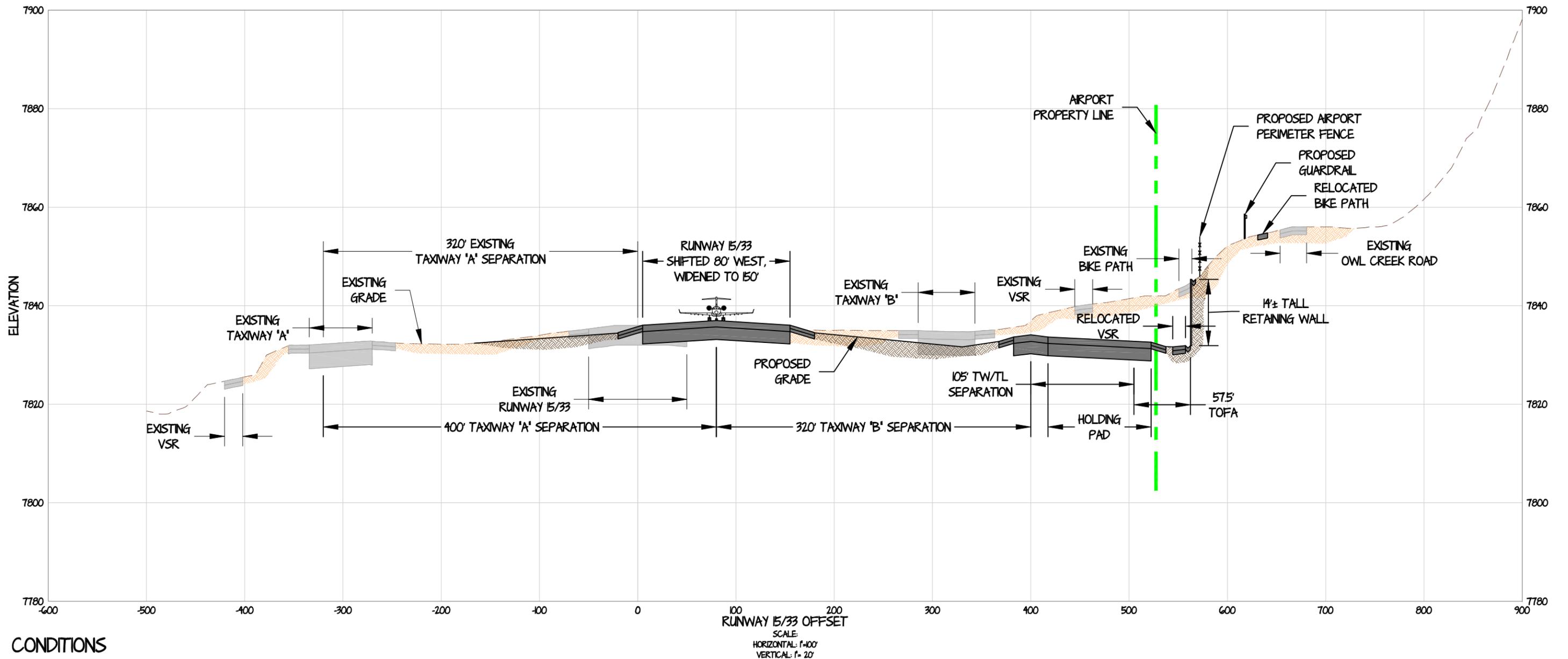
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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 9 OF 25

ALTERNATIVE II - SOUTH END OF AIRFIELD - TAXIWAY "B" TEACUP AREA EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)
LIMITED TO ADG I AIRCRAFT



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ASPEN, COLORADO
FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 10 OF 25

APPROACH PROCEDURES ANALYSIS

Runway	Procedure Name	Type	Public/Private	Existing Runway Configuration with Updated Criteria and Obstacles (State 1)					80ft Offset to the West Configuration (State 5)					
				A	B	C	Comment	Typical Aircraft Using Procedure	A	B	C	Comment	Typical Aircraft Using Procedure	Operational Impact
15	VOR/DME - C	Circling Only	Public	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	New circling criteria, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	9780 (2099) 1 3/4 mi	10420 (2759) 1 3/4 mi	11660 (4019) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	Minimal impact when compared to state 1
15	RNAV/GPS - F	Circling Only	Public	10140 (2459) 1 3/4 mi	10460 (2799) 1 3/4 mi	11740 (4099) 3 mi	New circling criteria, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	10140 (2459) 1 3/4 mi	10400 (2719) 1 3/4 mi	11780 (4099) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, several waivers are required, stepdown fix altitude increased to accommodate category C approach MDA which will require another waiver for the new Final Descent Angle	Turboprop and smaller	Minimal impact when compared to state 1
15	LOC-DME - E	Circling Only	Public	9760 (2079) 3 mi	10460 (2799) 3 mi	11640 (3999) 3 mi	New circling criteria, several waivers are required, approach modeled as an LOC straight in, but straight in minimums are disregarded	Turboprop and smaller	9740 (2059) 3 mi	10420 (2759) 3 mi	11660 (4019) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required, approach modeled as an LOC straight in, but straight in minimums are disregarded	Turboprop and smaller	Minimal impact when compared to state 1
15	LOC-DME RWY 15	Straight In	Public-Special	9380 (1699) 3 mi	9380 (1699) 3 mi	9380 (1699) 3 mi	Several waivers exist for this procedure, visibility increased due to straight-in minimums, even though they aren't published	Regional Jets, Business Jets, Turboprops and smaller	9380 (1699) 3 mi	9380 (1699) 3 mi	9380 (1699) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required	Regional Jets, Business Jets, Turboprops and smaller	Minimal impact when compared to state 1
15	LOC-DME RWY 15	Straight In (With MAP CG and Alternate Instructions)	Public-Special	8880 (1199) 3 mi	8880 (1199) 3 mi	8880 (1199) 3 mi	MAP Climb of 330ft/nm to 11100ft Several waivers exist for this procedure, visibility increased due to straight-in minimums, even though they aren't published	Regional Jets, Business Jets, Turboprops and smaller	8940 (1259) 3 mi	8940 (1259) 3 mi	8940 (1259) 3 mi	MAP Climb of 330ft/nm to 10000ft New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required	Regional Jets, Business Jets, Turboprops and smaller	Moderate impact when compared to state 1. No change to MAP gradient will result in reduced OEI SMAP landing weight impacts.
15	LOC-DME RWY 15	Circling	Public-Special	9760 (2079) 3 mi	10460 (2799) 3 mi	11640 (3999) 3 mi	Several waivers exist for this procedure, visibility increased due to straight-in minimums, even though they aren't published	Regional Jets, Business Jets, Turboprops and smaller	9740 (2059) 3 mi	10420 (2759) 3 mi	11660 (4019) 3 mi	New circling criteria, runway 15/33 shifted 80ft to the west, IASE LOC and DME shifted to the west, several waivers are required	Regional Jets, Business Jets, Turboprops and smaller	Minimal impact when compared to state 1
15	RNAV (RNP 0.3) 15	Straight In (With MAP CG)	Private - RNP-AR - Non FAR 121			8078 (397) MALSF On 1 3/8mi MALSF Out 1 5/8 mi	MAP Climb of 1000ft/nm to 9100, then 475 ft/nm to 10900ft Numerous waivers exist for this procedure	High Performance Business Jets Only			8300 (619) 1 1/2 mi	MAP Climb of 1000ft/nm to 9100, then 475 ft/nm to 10900ft Initial estimates based on procedure design results. Shifting the runway any amount will have significant impacts on this particular approach which will cause a complete redesign	High Performance Business Jets Only	High impact when compared to state 1
15	Visual	Straight In	Public	13680 (6000) 10 mi	13680 (6000) 10 mi	13680 (6000) 10 mi	Visual maneuver with radar guidance for "straight in" approach to runway 15 following visual references.	Turboprop and smaller	13681 (6000) 10 mi	13681 (6000) 10 mi	13681 (6000) 10 mi	Visual maneuver with radar guidance for "straight in" approach to runway 15 following visual references.	Turboprop and smaller	No impact when compared to state 1.
15	Visual	Circling/FMS Visual	Private-Special	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments	Turboprop and smaller	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments	Turboprop and smaller	No impact when compared to state 1.
33	Visual	Circling	Public	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	No impact when compared to state 1.
33	Visual	Circling/FMS Visual	Private-Special	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	9780 (2099) 1 3/4 mi	10460 (2799) 1 3/4 mi	11640 (3999) 3 mi	Procedure will not require significant adjustments. Approach to runway 33 will remain N/A at night due to 34:1 and 20:1 penetrations	Turboprop and smaller	No impact when compared to state 1.

Note: Detailed environmental analysis has not been performed for this study. Operational impacts on specific aircraft/operators have been generalized to match average environmental conditions.
Missed Approach climb gradients which terminate at altitudes above 10000ft require special performance analysis techniques not available for all aircraft

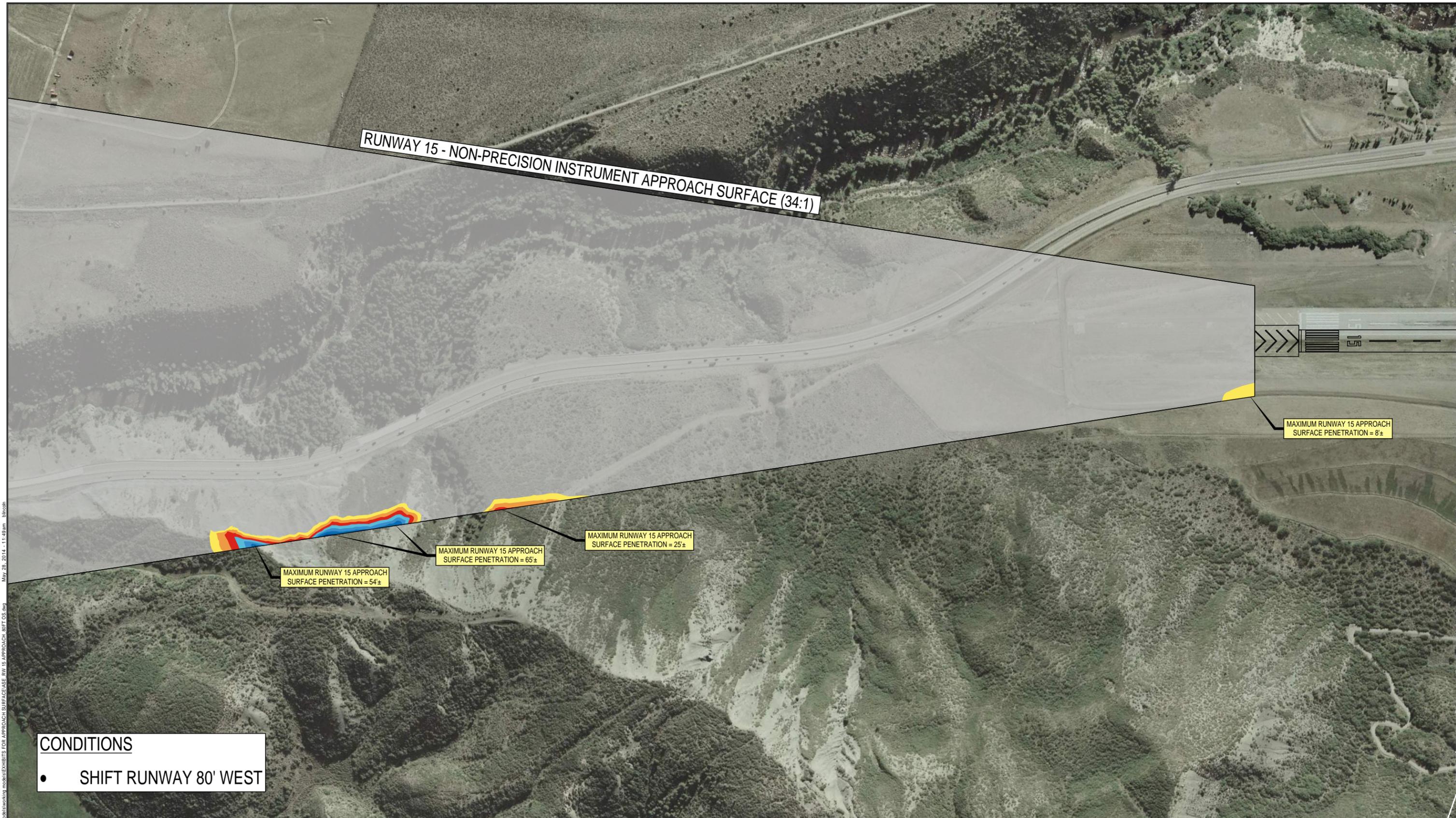


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ALTERNATIVE 11**

DATE: MAY 30, 2014

SHEET 11 OF 25

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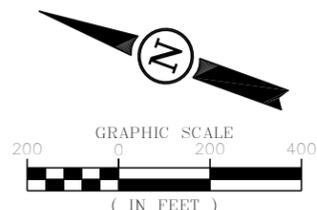
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 May 28, 2014 - 11:49am bmcsh

CONDITIONS

- SHIFT RUNWAY 80' WEST

RUNWAY 15 APPROACH PENETRATIONS

 0' TO 10'	 30' TO 40'	 60' TO 70'
 10' TO 20'	 40' TO 50'	
 20' TO 30'	 50' TO 60'	

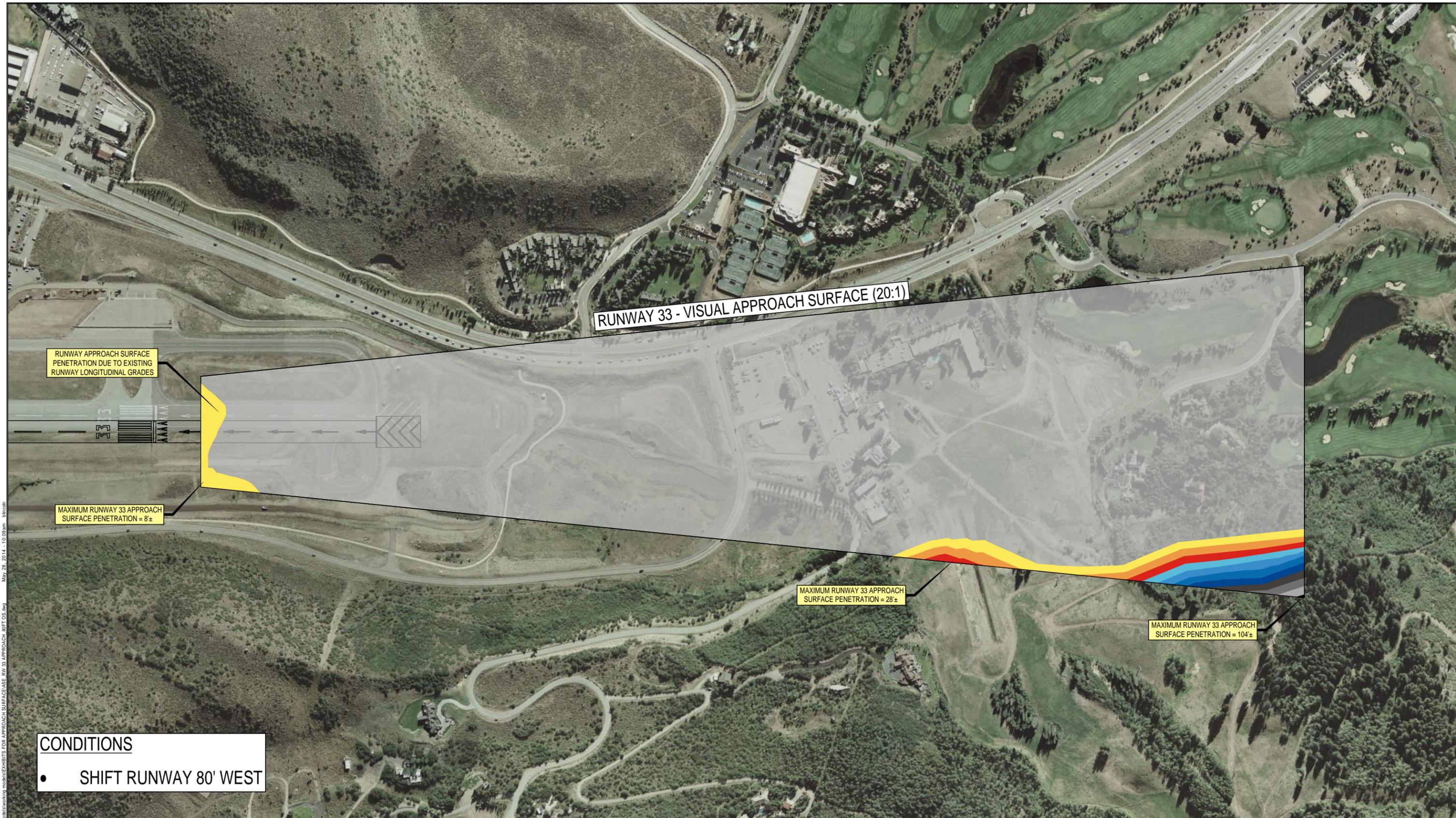


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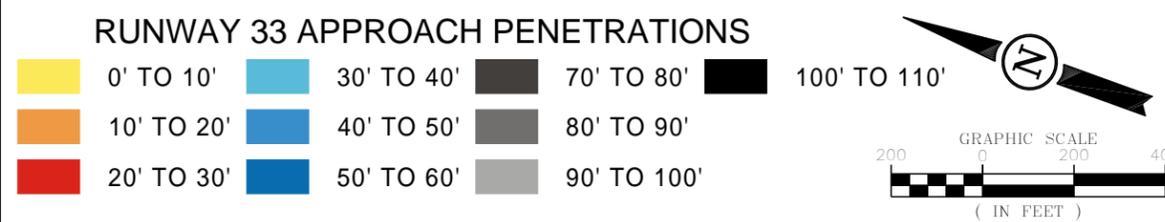
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CONDITIONS

- SHIFT RUNWAY 80' WEST



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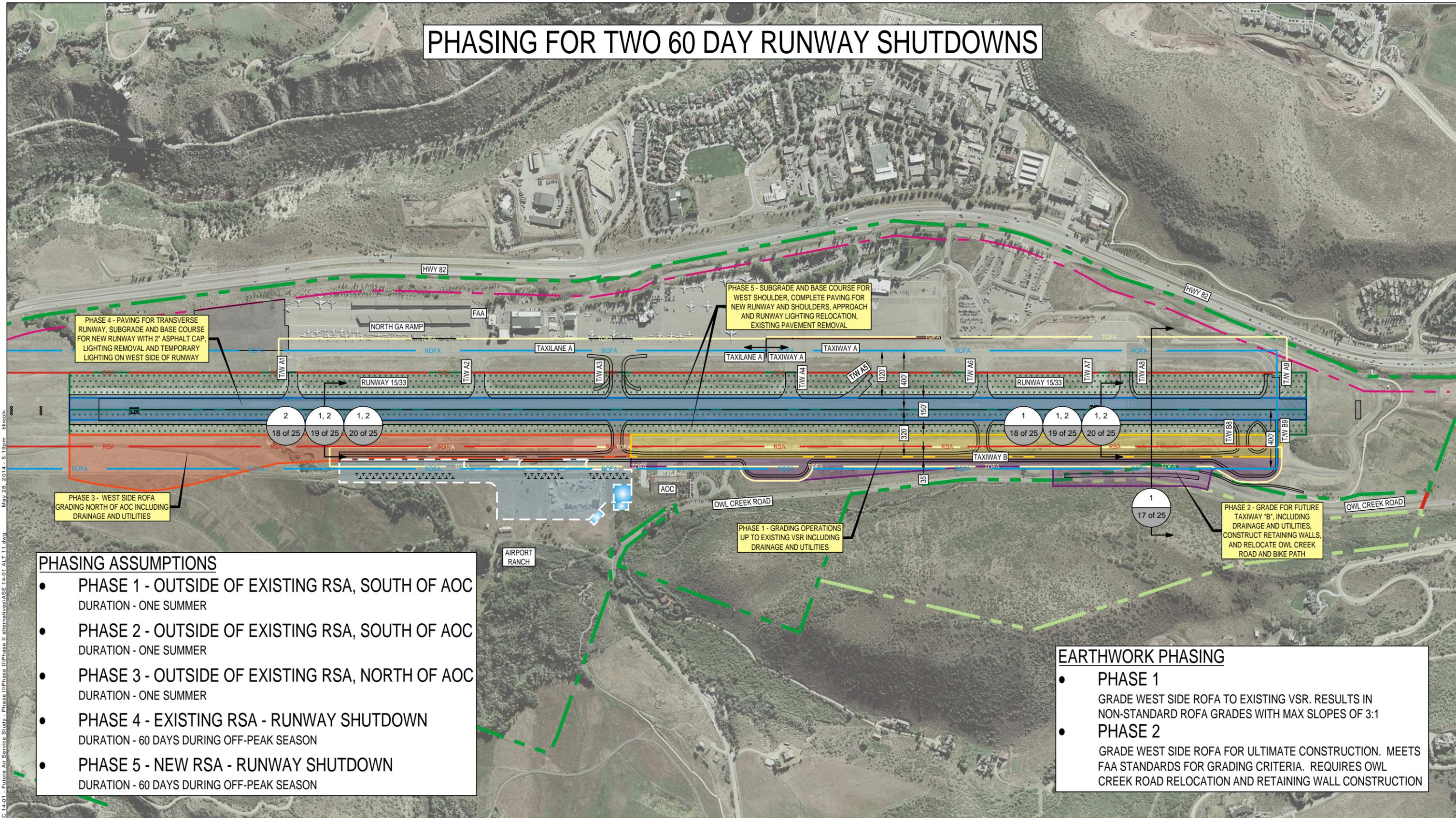
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 ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 15 OF 25

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 May 28, 2014 - 10:09am bmcch

PHASING FOR TWO 60 DAY RUNWAY SHUTDOWNS



- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON
 - PHASE 5 - NEW RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3	PHASE 5
PHASE 2	PHASE 4	CDOT PROPERTY LINE	
ASE PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK		
BURLINGAME RANCH PROPERTY LINE			

GRAPHIC SCALE (IN FEET)
300 0 300 600

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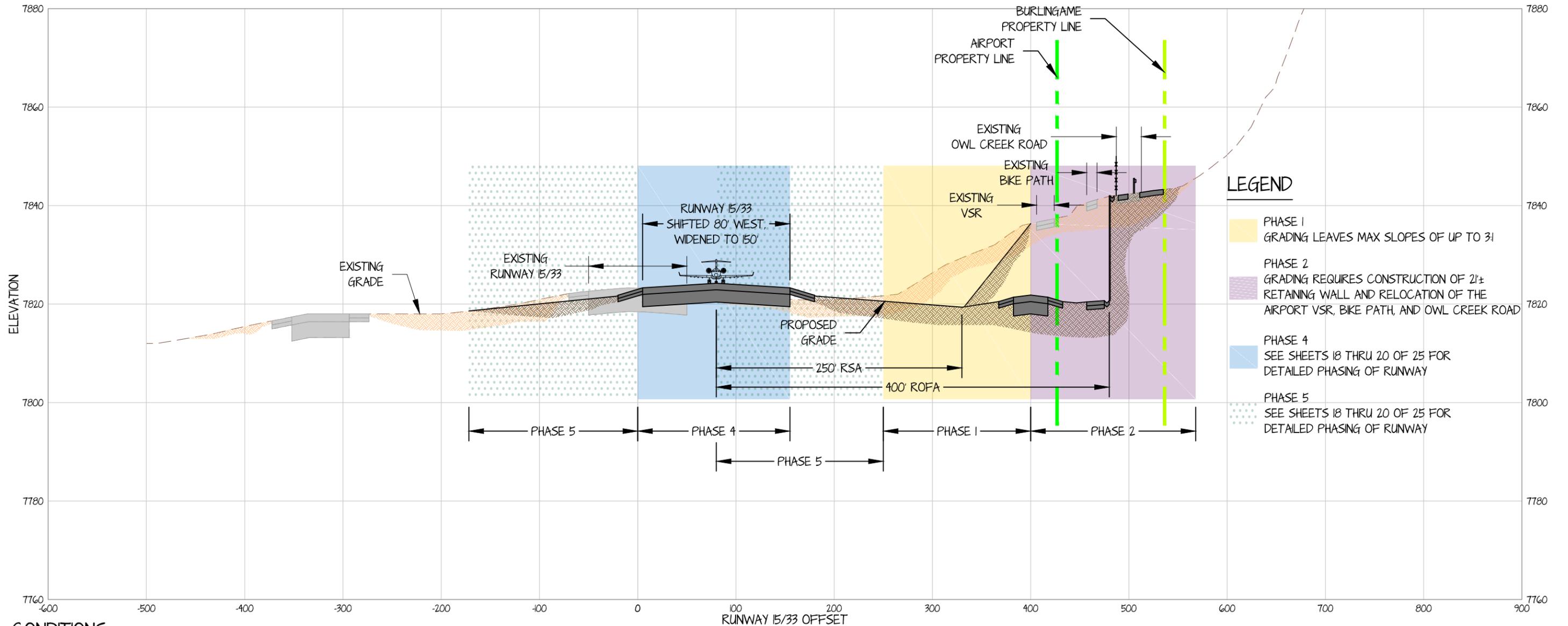
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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 11**

DATE: MAY 30, 2014
SHEET 16 OF 25

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ALTERNATIVE II - RSA AND ROFA GRADING - TWO 60 DAY RUNWAY SHUTDOWNS



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)
LIMITED TO ADG II AIRCRAFT

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"= 20'



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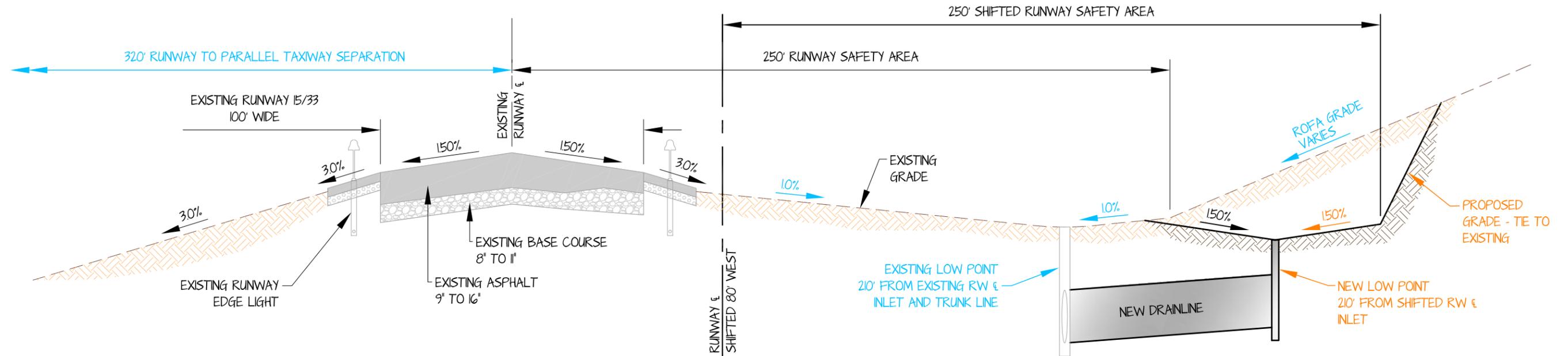
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SHEET 17 OF 25

NOTE:

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1
16 of 25

ALTERNATIVE II - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 320' WEST SIDE TAXIWAY

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE THE CAPACITY FOR ULTIMATE BUILDOUT



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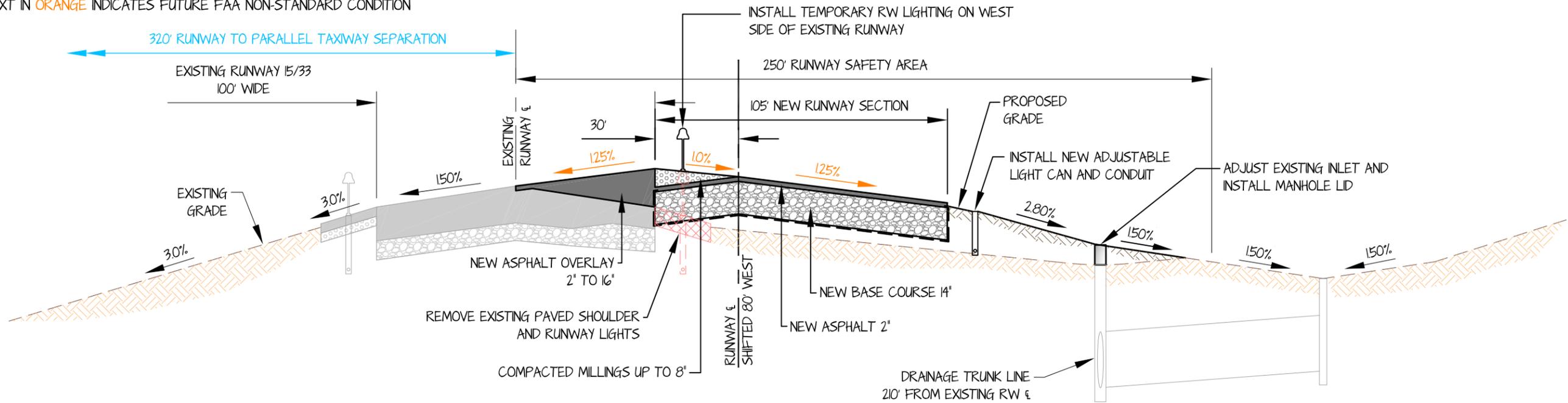
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SHEET 18 OF 25

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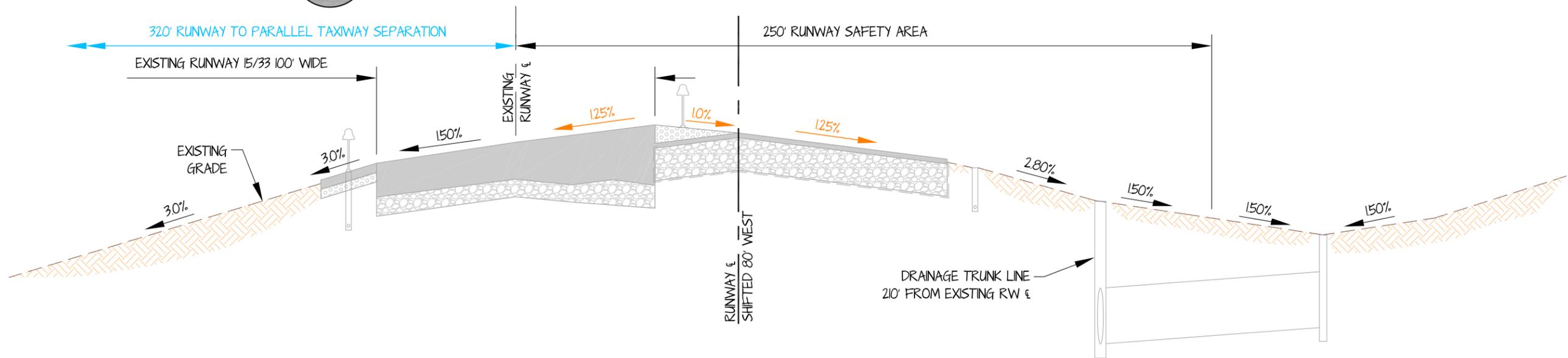
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1
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ALTERNATIVE II - PHASE 4 - 80' RUNWAY SHIFT - FIRST 60 DAY SHUTDOWN



2
16 of 25

ALTERNATIVE II - TEMPORARY RUNWAY CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- FAA ALLOWS NON-STANDARD TRANSVERSE RUNWAY AND SAFETY AREA GRADES ON EAST SIDE DURING TEMPORARY RUNWAY OPERATING CONDITIONS



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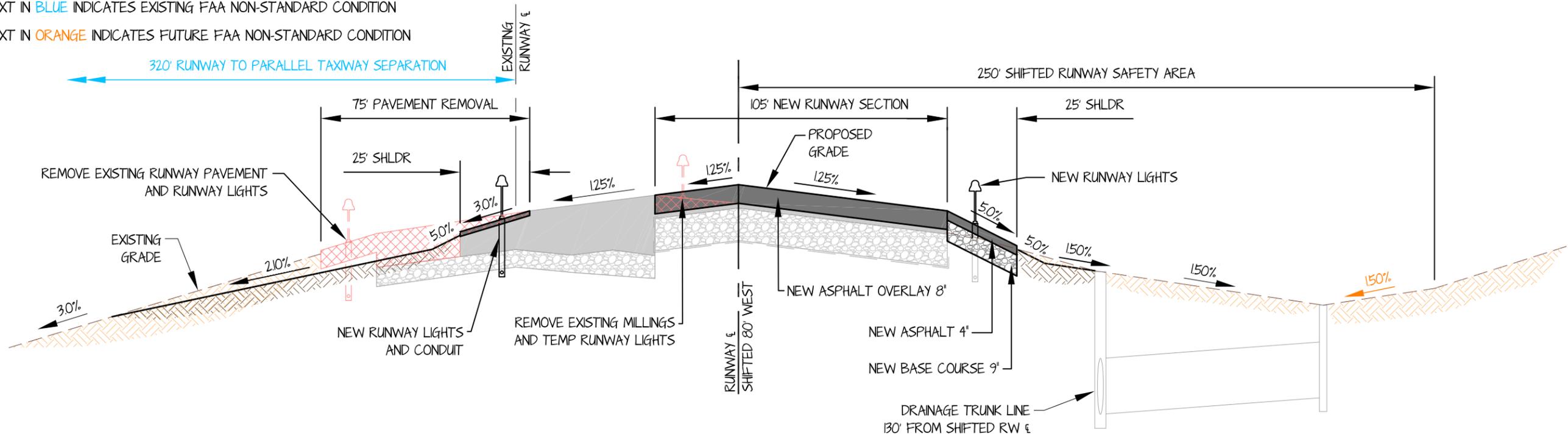
SHEET 19 OF 25

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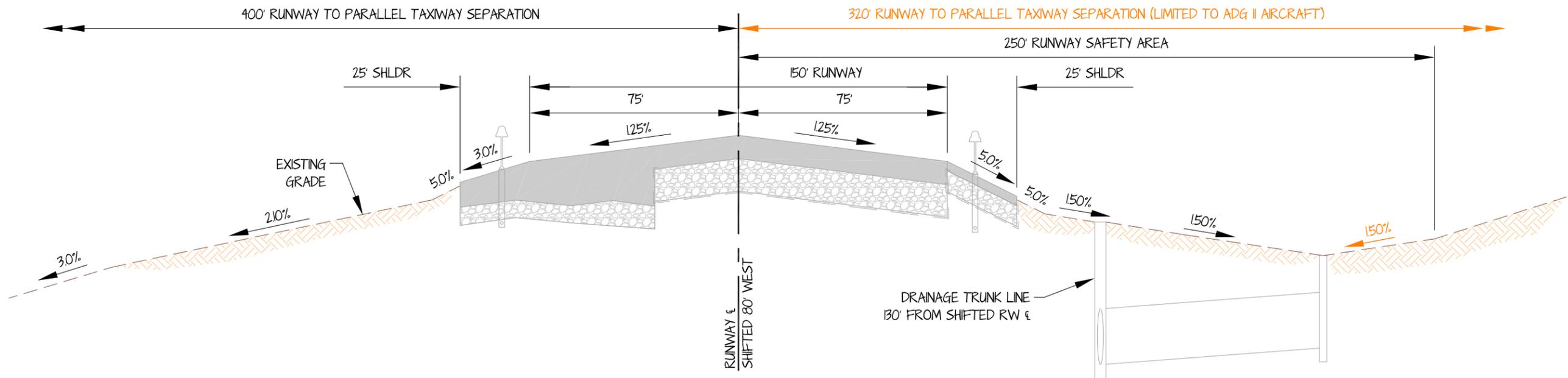
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1
16 of 25

ALTERNATIVE II - PHASE 5 - 80' RUNWAY SHIFT - SECOND 60 DAY SHUTDOWN



2
16 of 25

ALTERNATIVE II - 80' RUNWAY SHIFT FINAL CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-4 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT



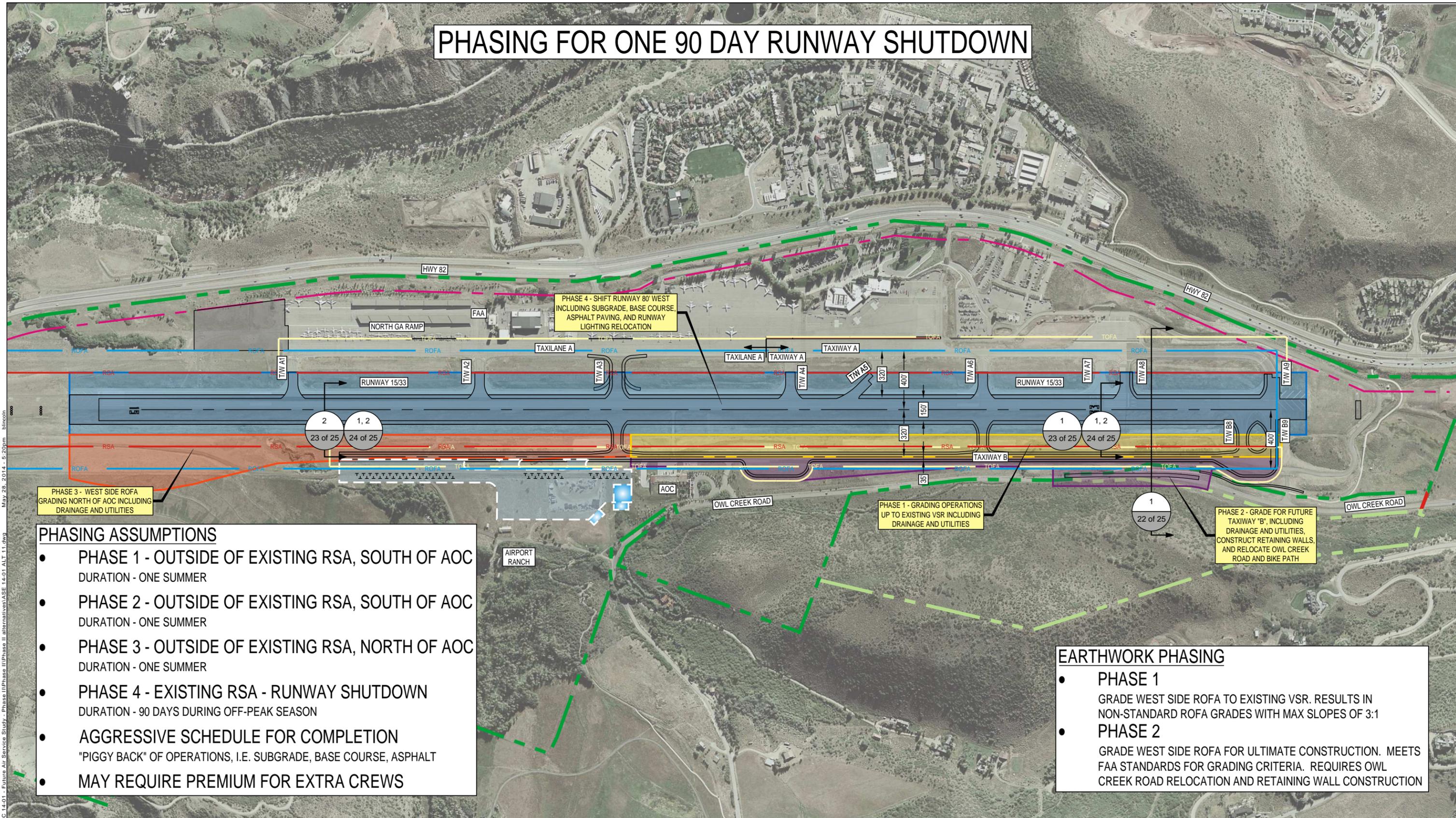
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ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 20 OF 25

PHASING FOR ONE 90 DAY RUNWAY SHUTDOWN



PHASE 4 - SHIFT RUNWAY 80' WEST INCLUDING SUBGRADE, BASE COURSE, ASPHALT PAVING, AND RUNWAY LIGHTING RELOCATION

PHASE 3 - WEST SIDE ROFA GRADING NORTH OF AOC INCLUDING DRAINAGE AND UTILITIES

PHASE 1 - GRADING OPERATIONS UP TO EXISTING VSR INCLUDING DRAINAGE AND UTILITIES

PHASE 2 - GRADE FOR FUTURE TAXIWAY 'B', INCLUDING DRAINAGE AND UTILITIES, CONSTRUCT RETAINING WALLS, AND RELOCATE OWL CREEK ROAD AND BIKE PATH

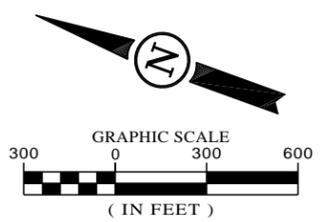
- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 90 DAYS DURING OFF-PEAK SEASON
 - AGGRESSIVE SCHEDULE FOR COMPLETION
"PIGGY BACK" OF OPERATIONS, I.E. SUBGRADE, BASE COURSE, ASPHALT
 - MAY REQUIRE PREMIUM FOR EXTRA CREWS

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3
ASE PROPERTY LINE	PHASE 2	PHASE 4
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK	CDOT PROPERTY LINE



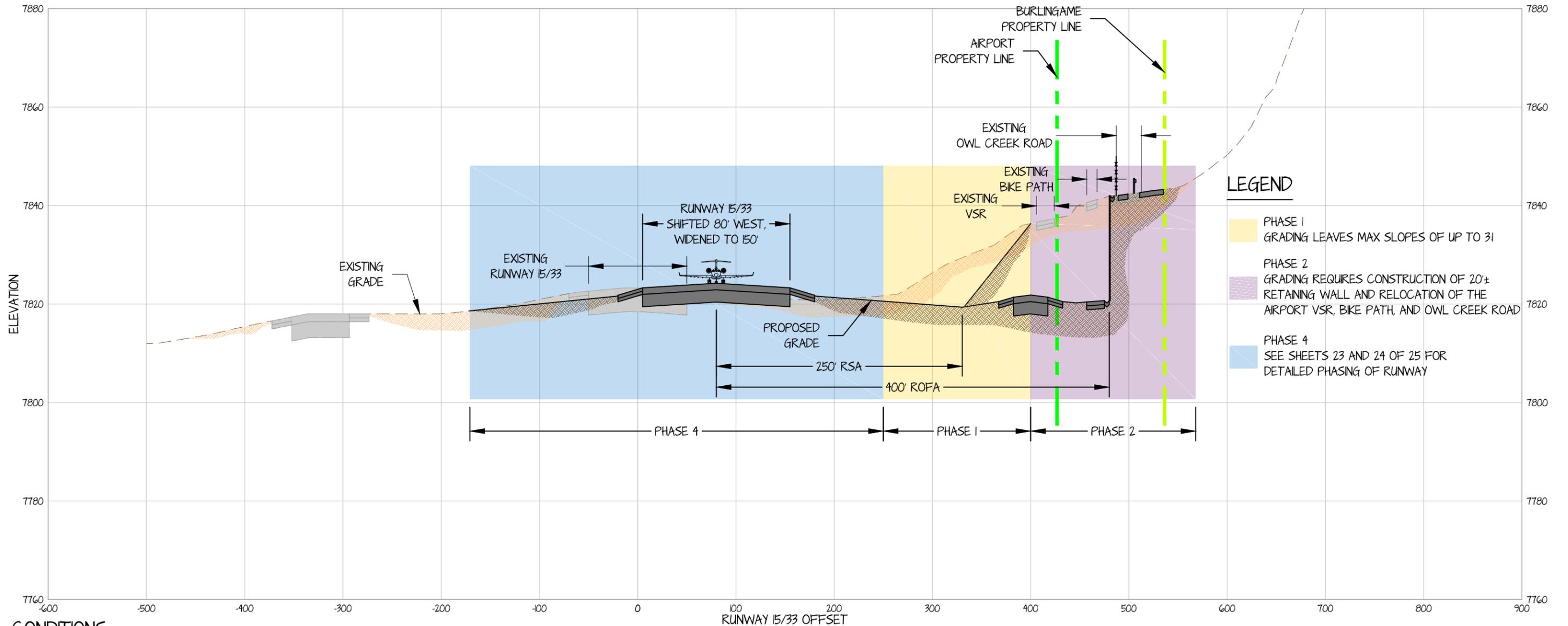
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ALTERNATIVE 11
DATE: MAY 30, 2014
SHEET 21 OF 25

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ALTERNATIVE II - RSA AND ROFA GRADING - ONE 90 DAY RUNWAY SHUTDOWN



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)
LIMITED TO ADG II AIRCRAFT



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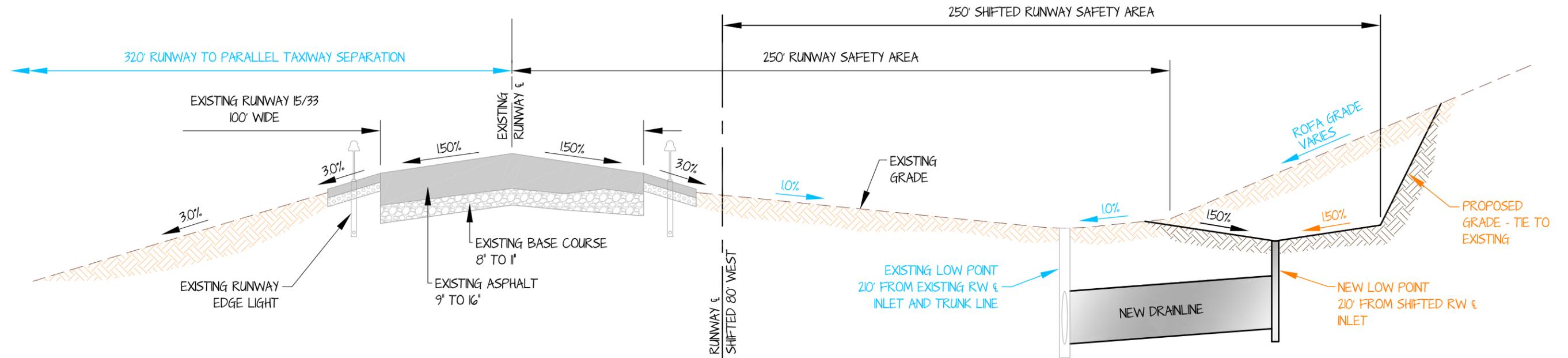
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SHEET 22 OF 25

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1
21 of 25

ALTERNATIVE II - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 320' WEST SIDE TAXIWAY

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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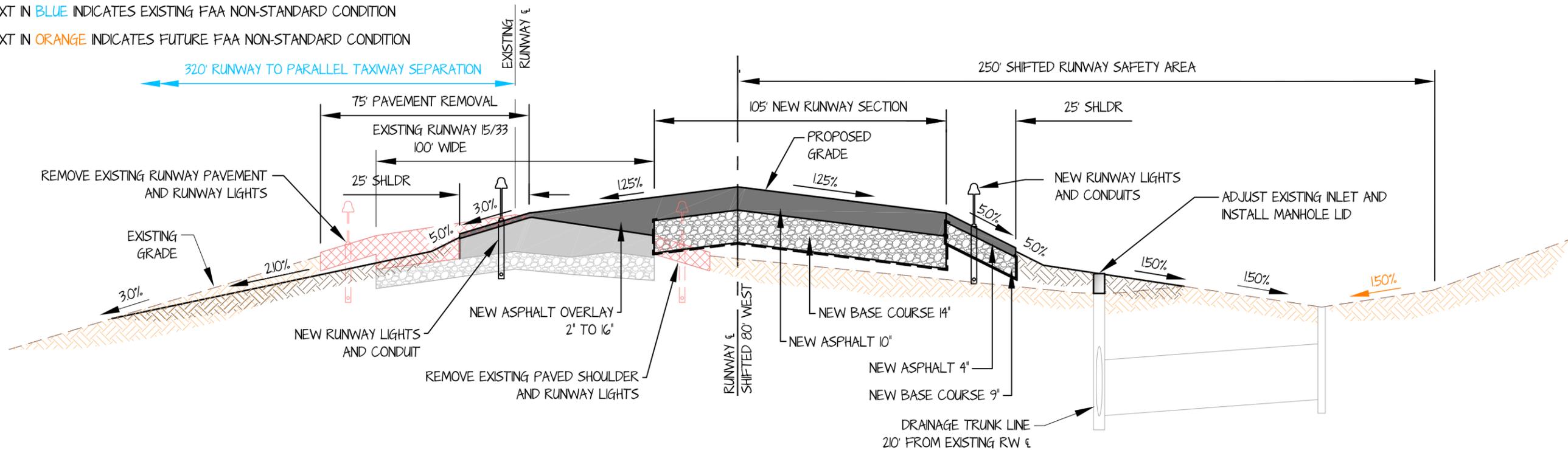
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NOTE:

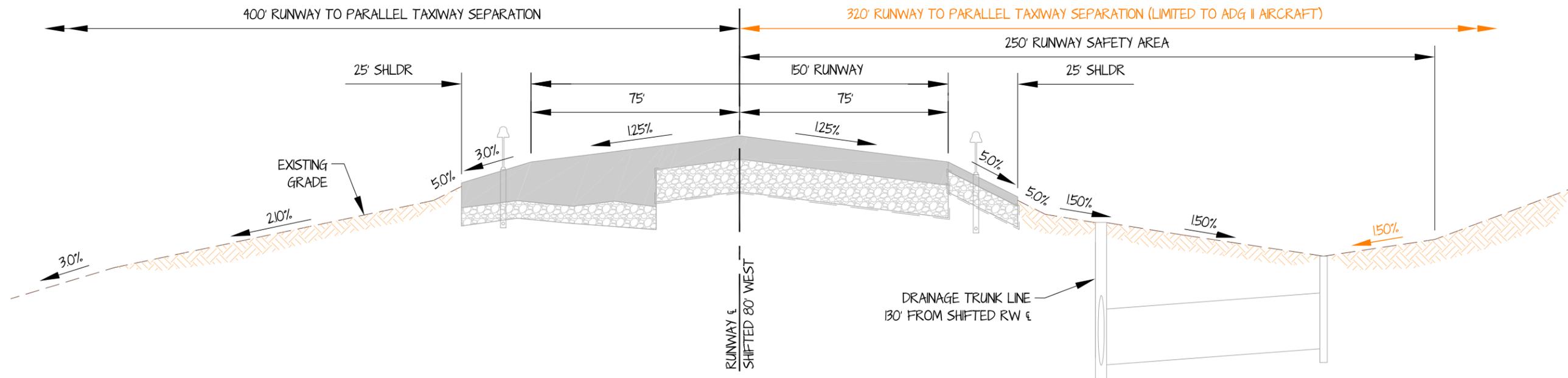
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
21 of 25

ALTERNATIVE II - PHASE 4 - 80' RUNWAY SHIFT - 90 DAY SHUTDOWN



2
21 of 25

ALTERNATIVE II - 80' RUNWAY SHIFT FINAL CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT



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ASPEN, COLORADO
FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 24 OF 25

LOCAL AND FEDERAL CONSIDERATIONS

POTENTIAL LOCAL REVIEW AND APPROVALS

PITKIN COUNTY

- **LOCATION AND EXTENTS REVIEW**
PROPOSED IMPROVEMENTS IN COMPLIANCE WITH THE WEST OF MAROON CREEK PLAN (WOMP)
- **ASPEN/PITKIN COUNTY AIRPORT DESIGN GUIDELINES APPROVAL**
PROPOSED IMPROVEMENTS IN COMPLIANCE AIRPORT DESIGN GUIDELINES (APRIL, 2014)
- **BUILDING PERMIT (TITLE II)**
ANY STRUCTURES MEETING THE "BUILDING" DEFINITION WHICH DOES NOT INCLUDE ROADS, PAVEMENT, FENCES, RETAINING WALLS OR OTHER SITE IMPROVEMENTS THE DO NOT ENCLOSE SPACES FOR THE PROTECTION OF PERSONS, ANIMALS, OR PROPERTY
- **ENVIRONMENTAL HEALTH (TITLE 6)**
ADDRESS APPLICABLE PROVISIONS OF TITLE 6 IN CONSTRUCTION DOCUMENTS AND CONTRACTS

CITY OF ASPEN

- **BURLINGAME OPEN SPACE PARCEL CHANGE IN USE (PUBLIC VOTE)**
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL

ASPEN VALLEY LAND TRUST (AVLT)

- **CONSENT PURSUANT TO DEED OF CONSERVATION EASEMENT**
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL REQUIRES APPROVAL BY THE AVLT BOARD OF DIRECTORS

POTENTIAL FEDERAL REVIEW AND APPROVALS

UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

- **404 PERMIT**
PENDING DETERMINATION OF 3 WETLANDS AREAS DESCRIBED IN THE TEXT OF THE 2012 MASTER PLAN UPDATE

FEDERAL AVIATION ADMINISTRATION

- **ALP/MASTER PLAN UPDATE**
- **ENVIRONMENTAL ASSESSMENT**
- **OBSTRUCTION EVALUATION/AIRSPACE ANALYSIS**
- **NAVAID RELOCATION/UPDATE**
- **MODIFICATIONS TO DESIGN STANDARDS**

RUNWAY/PARALLEL TAXIWAY SEPARATION
RUNWAY/TAXIWAY HOLDLINE SEPARATION
RUNWAY AND TAXIWAY LONGITUDINAL GRADIENT
RUNWAY SAFETY AREA LONGITUDINAL GRADIENT
RUNWAY CENTERLINE TO AIRCRAFT PARKING AREA

NOTE: THE LOCAL AND FEDERAL CONSIDERATIONS PRESENTED FOR THIS ALTERNATIVE ARE NOT THE EXTENT OF REVIEWS AND APPROVALS. AS THE DESIGN OF ANY ALTERNATIVE PROGRESSES, IT IS LIKELY THAT MORE REVIEWS AND APPROVALS WILL BE REQUIRED. IT IS EXPECTED THAT THE REVIEW AND APPROVALS IDENTIFIED ABOVE WILL TAKE ONE YEAR OR LONGER TO COMPLETE.

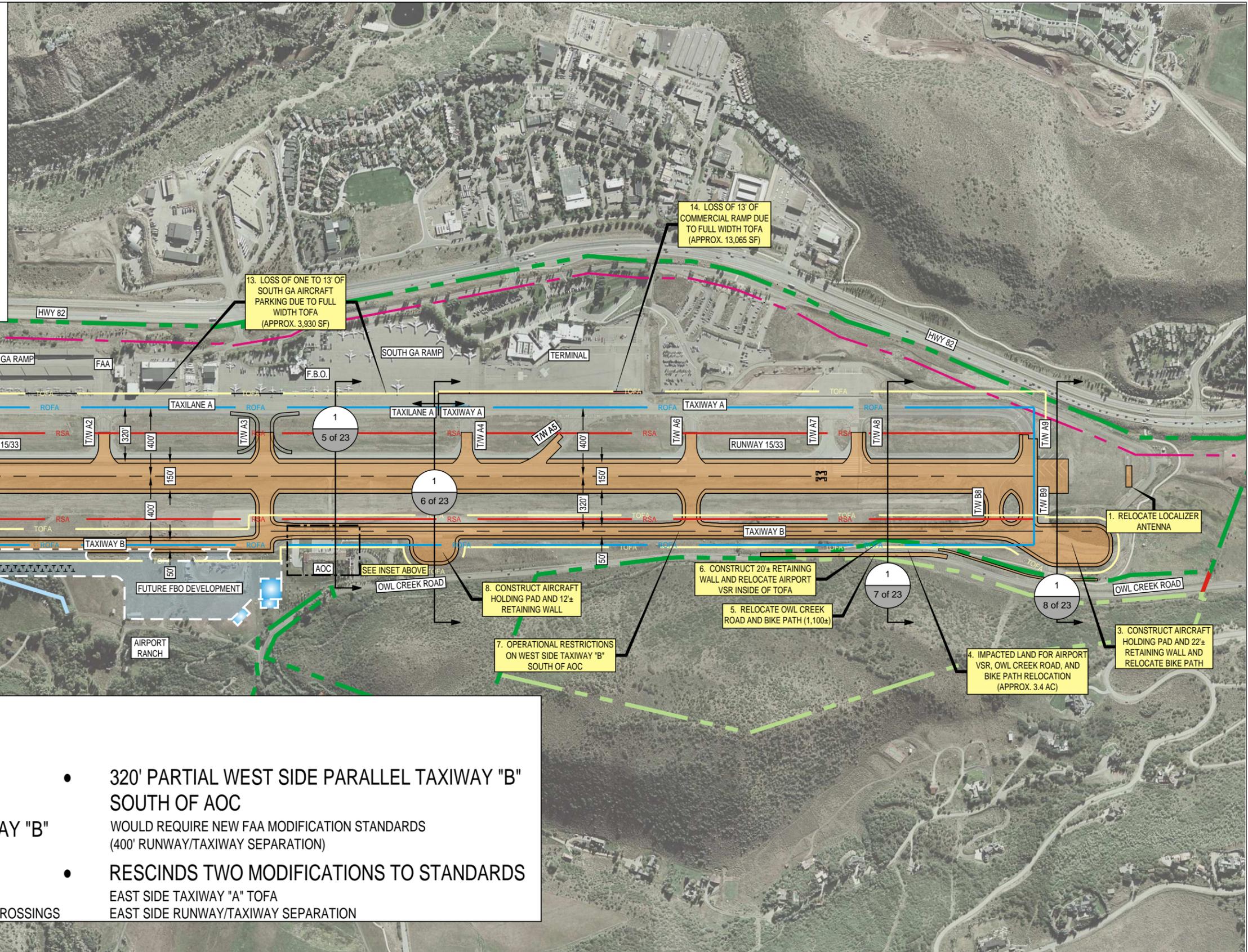
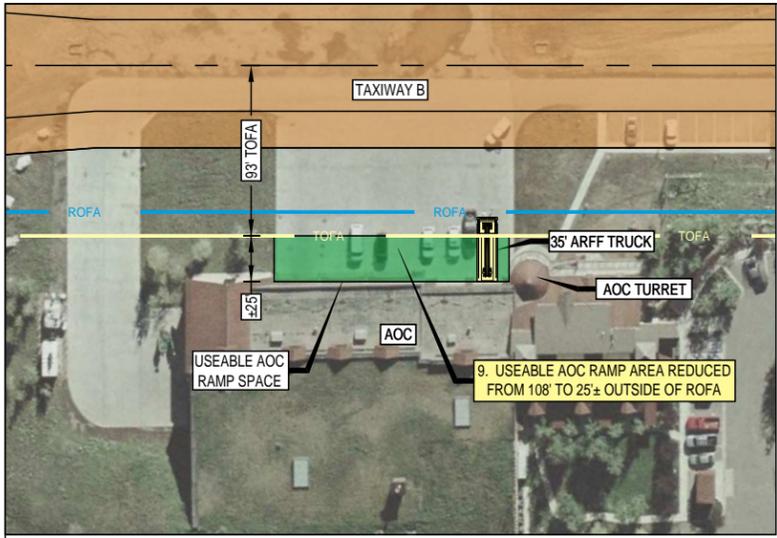


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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 11

DATE: MAY 30, 2014

SHEET 25 OF 25



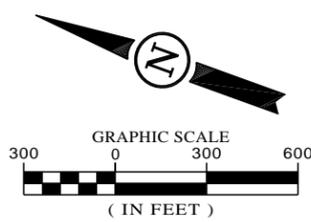
CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A" MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION)
- 400' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" WITH RUNWAY CROSSING NORTH OF AOC MEETS CURRENT FAA STANDARD (400' RUNWAY/TAXIWAY SEPARATION) CONFLICTS WITH FAA RECOMMENDATION TO AVOID RUNWAY CROSSINGS
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC WOULD REQUIRE NEW FAA MODIFICATION STANDARDS (400' RUNWAY/TAXIWAY SEPARATION)
- RESCINDS TWO MODIFICATIONS TO STANDARDS EAST SIDE TAXIWAY "A" TOFA EAST SIDE RUNWAY/TAXIWAY SEPARATION

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

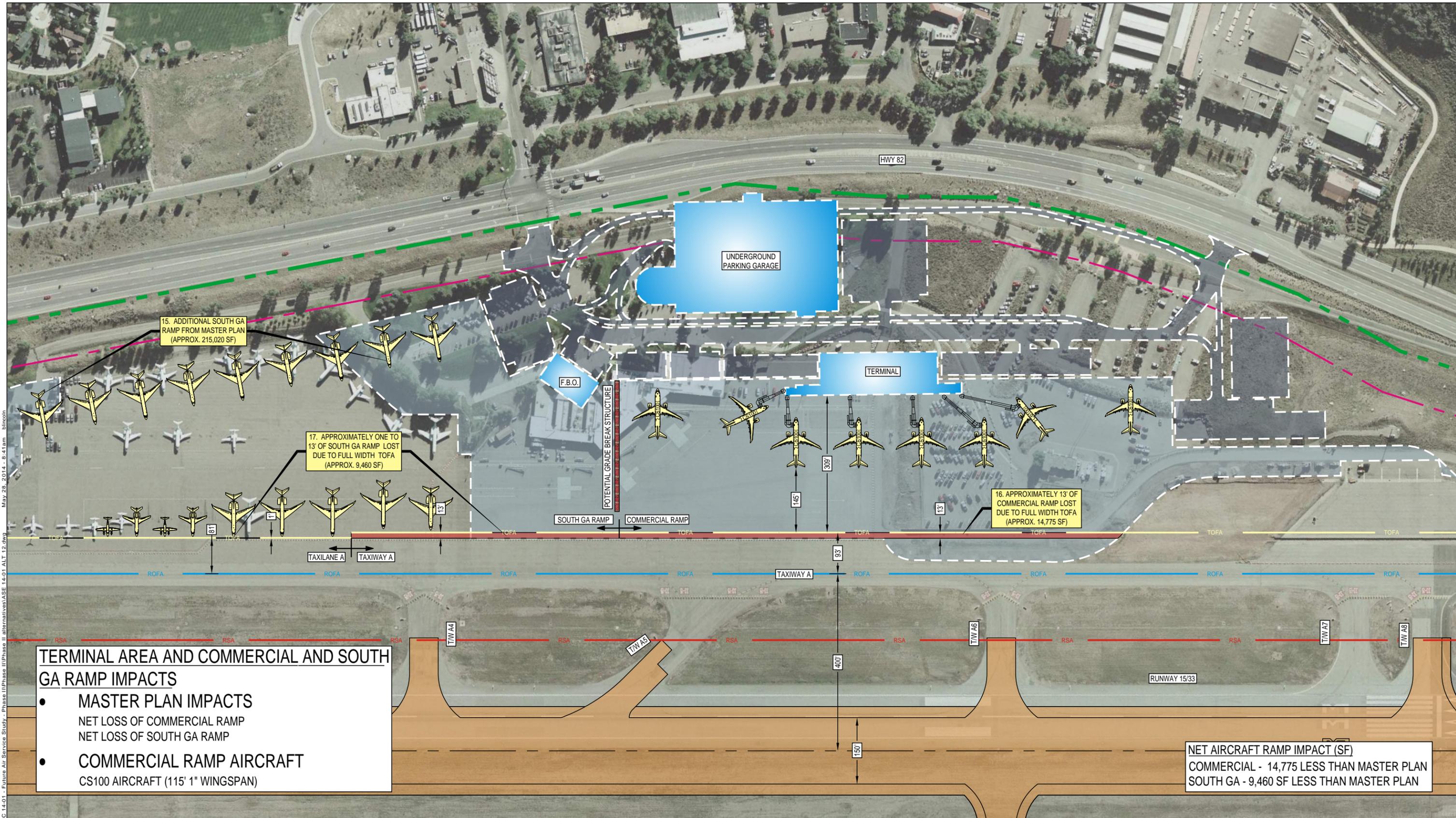
LEGEND

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON EXISTING AIRCRAFT PARKING
- ASE PROPERTY LINE
- BURLINGAME RANCH PROPERTY LINE
- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- CDOT PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK



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 ALTERNATIVE 12
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 SHEET 1 OF 23



May 28, 2014 - 8:41am billocin
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TERMINAL AREA AND COMMERCIAL AND SOUTH GA RAMP IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH GA RAMP
- **COMMERCIAL RAMP AIRCRAFT**
CS100 AIRCRAFT (115' 1" WINGSPAN)

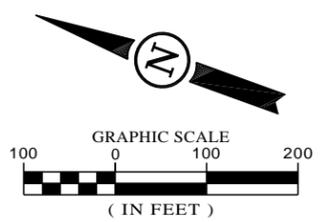
NET AIRCRAFT RAMP IMPACT (SF)
 COMMERCIAL - 14,775 LESS THAN MASTER PLAN
 SOUTH GA - 9,460 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING
- ASE PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

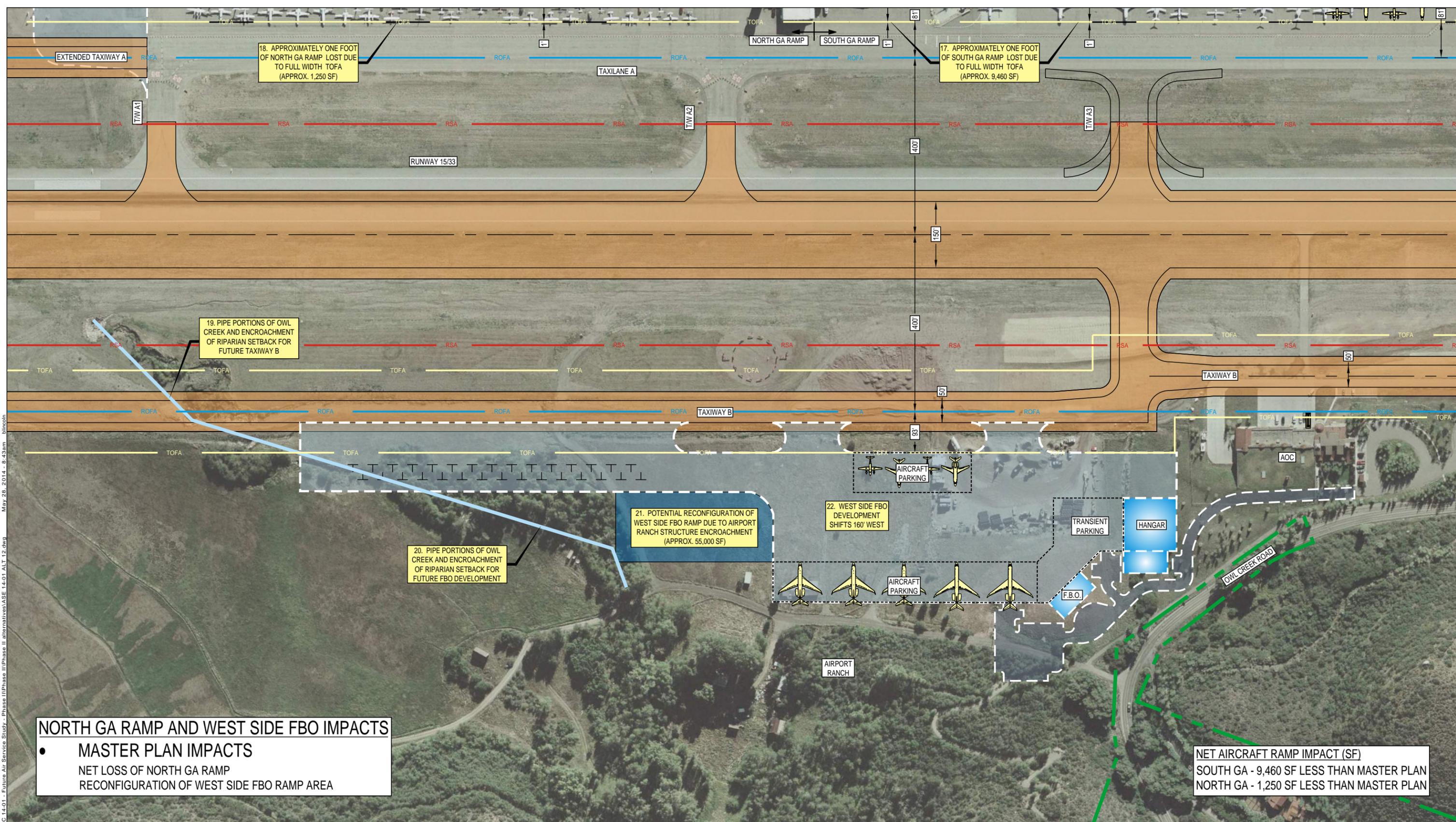
- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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 FUTURE AIR SERVICE STUDY - PHASE II
 ALTERNATIVE 12**

DATE: MAY 30, 2014 SHEET 3 OF 23



NORTH GA RAMP AND WEST SIDE FBO IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF NORTH GA RAMP
RECONFIGURATION OF WEST SIDE FBO RAMP AREA

NET AIRCRAFT RAMP IMPACT (SF)
SOUTH GA - 9,460 SF LESS THAN MASTER PLAN
NORTH GA - 1,250 SF LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

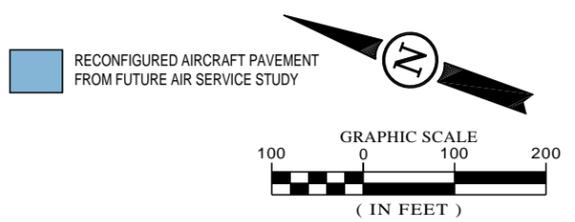
PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING

ASE PROPERTY LINE

LEGEND

	MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
	RECONFIGURED AIRCRAFT PAVEMENT FROM FUTURE AIR SERVICE STUDY
	MASTER PLAN LAYOUT BUILDINGS
	MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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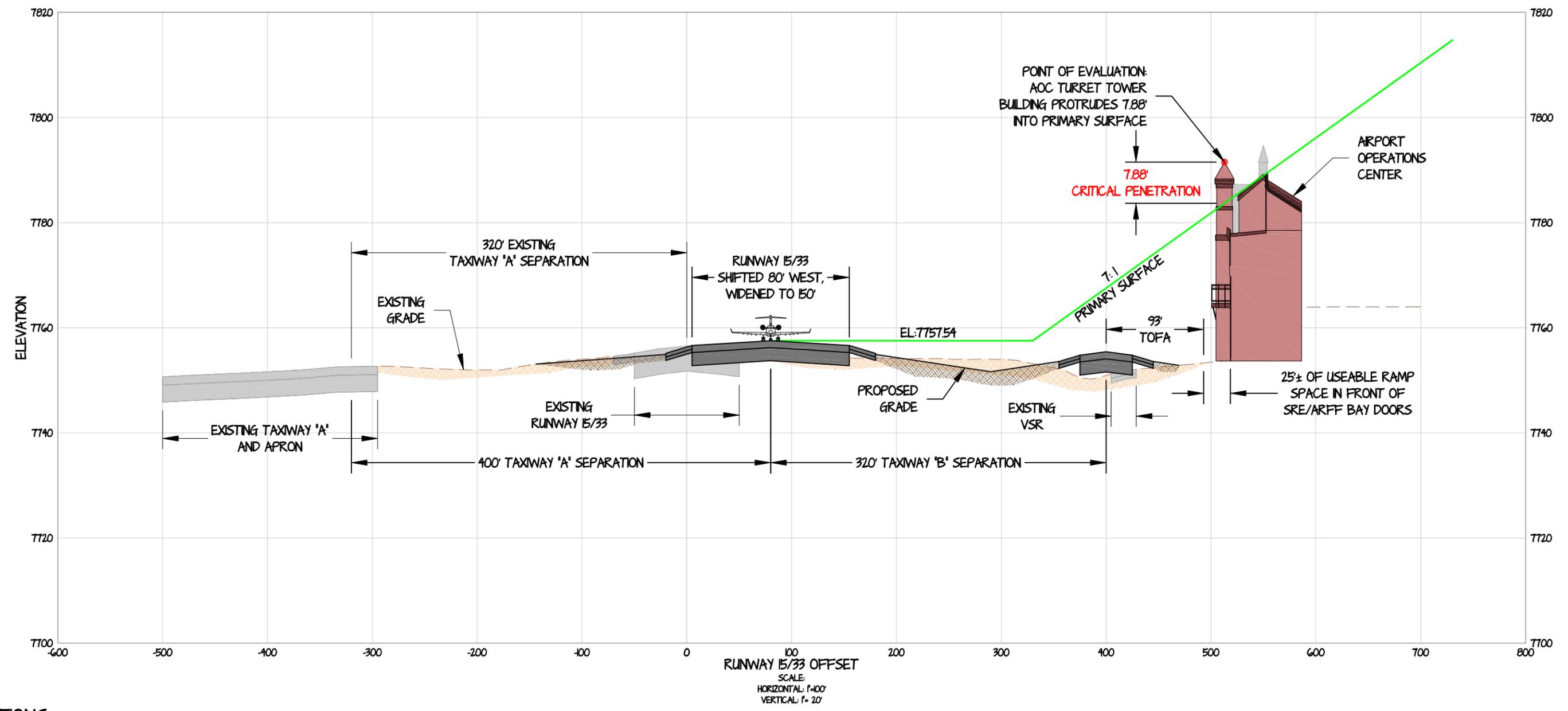
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ASPEN, COLORADO
FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 12**

DATE: MAY 30, 2014

SHEET 4 OF 23

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ALTERNATIVE 12 - AIRPORT OPERATIONS CENTER - PART 77 AND RAMP SPACE EVALUATION



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 400' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
RUNWAY CROSSING AT RUNWAY 15 THRESHOLD (CONFLICTS WITH FAA RECOMMENDATIONS)
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)

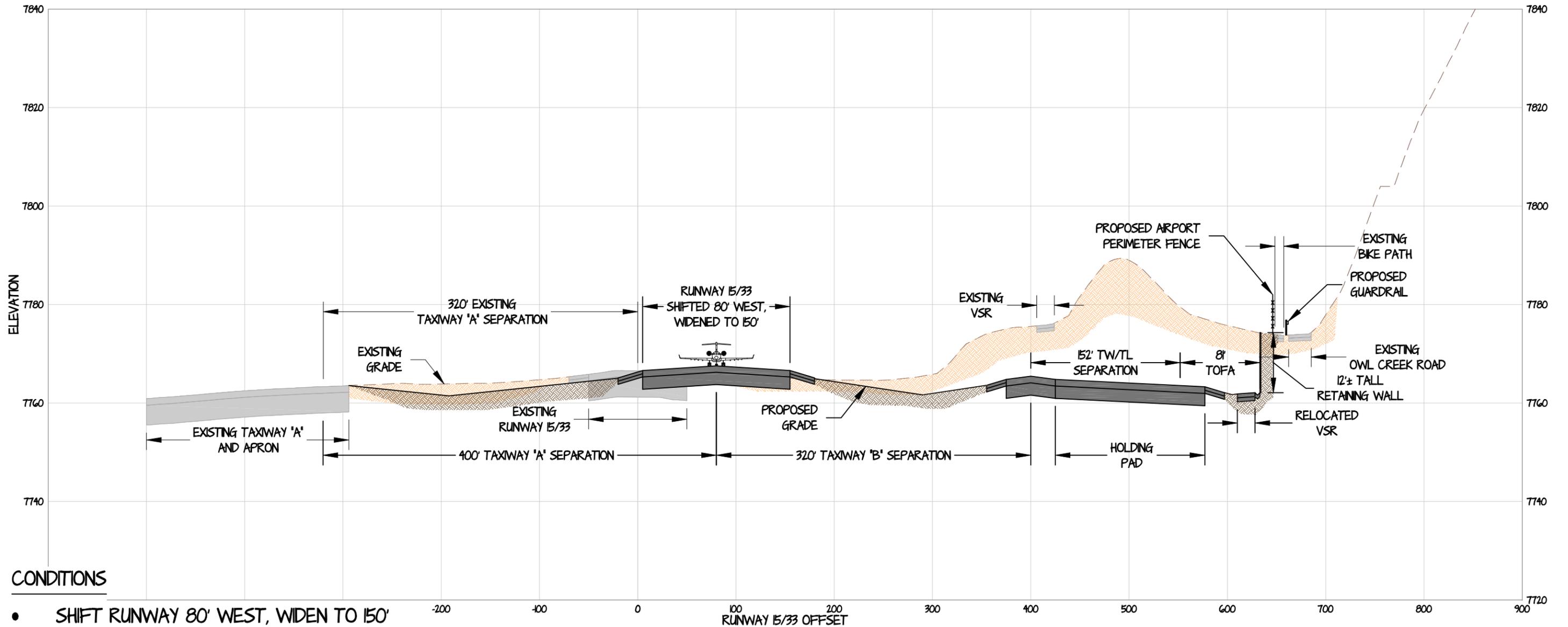


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 ALTERNATIVE 12
 DATE: MAY 30, 2014
 SHEET 5 OF 23

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 May 28, 2014 - 10:46am blincoln

ALTERNATIVE 12 - TAXIWAY "A4" - TAXIWAY "B" HOLDING PAD EVALUATION



CONDITIONS

- **SHIFT RUNWAY 80' WEST, WIDEN TO 150'**
- **400' EAST SIDE PARALLEL TAXIWAY "A"**
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- **400' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC**
RUNWAY CROSSING AT RUNWAY 15 THRESHOLD (CONFLICTS WITH FAA RECOMMENDATIONS)
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- **320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC**
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)



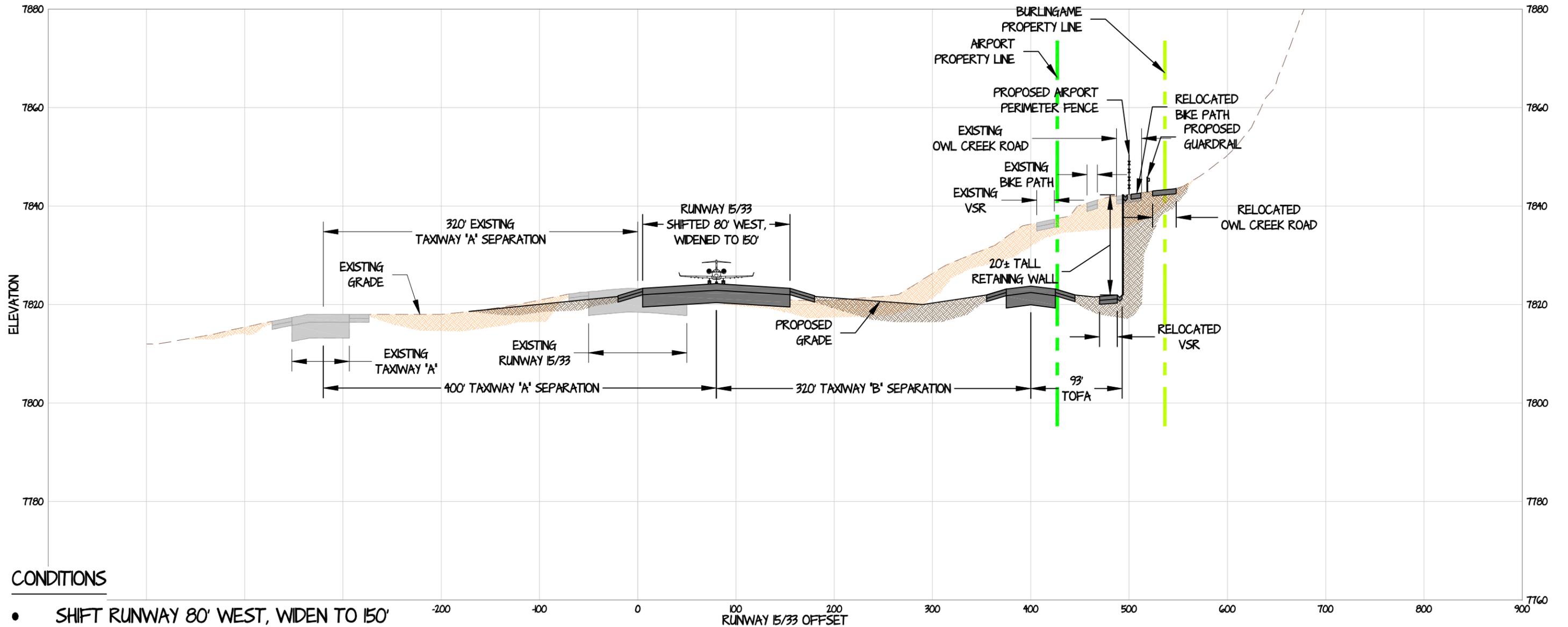
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 ALTERNATIVE 12

DATE: MAY 30, 2014

SHEET 6 OF 23

ALTERNATIVE 12 - SOUTH END OF AIRFIELD APPROXIMATELY TAXIWAY "A8" - OWL CREEK ROAD PINCH POINT EVALUATION



CONDITIONS

- **SHIFT RUNWAY 80' WEST, WIDEN TO 150'**
- **400' EAST SIDE PARALLEL TAXIWAY "A"**
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- **400' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC**
RUNWAY CROSSING AT RUNWAY 15 THRESHOLD (CONFLICTS WITH FAA RECOMMENDATIONS)
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- **320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC**
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'



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ALTERNATIVE 12

DATE: MAY 30, 2014

SHEET 7 OF 23

RUNWAY 15 - NON-PRECISION INSTRUMENT APPROACH SURFACE (34:1)

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 8'±

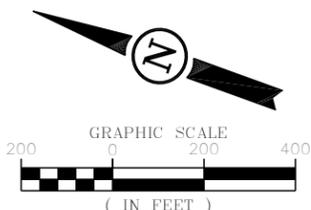
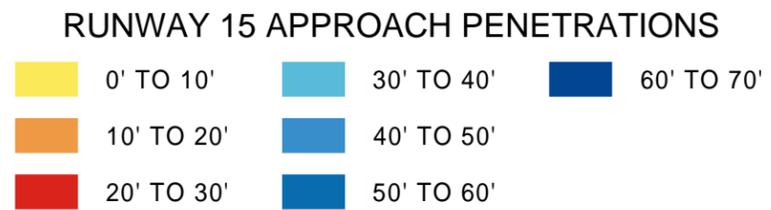
MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 25'±

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 65'±

MAXIMUM RUNWAY 15 APPROACH SURFACE PENETRATION = 54'±

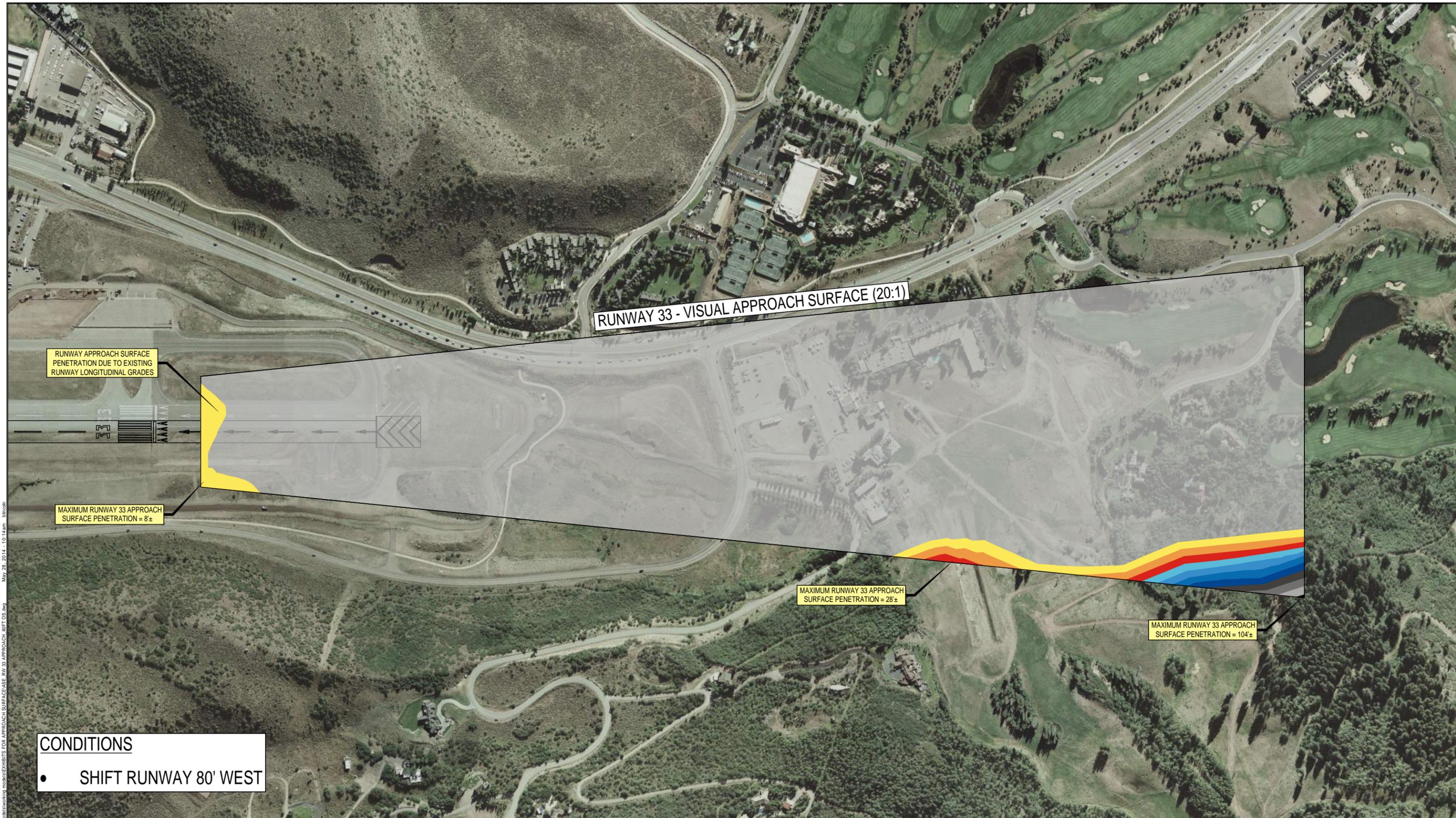
CONDITIONS

- SHIFT RUNWAY 80' WEST



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ALTERNATIVE 12
DATE: MAY 30, 2014
SHEET 12 OF 23

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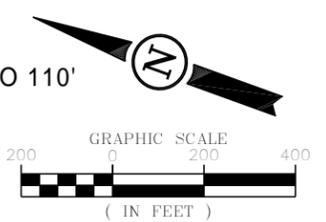
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 May 28, 2014 - 10:14am bmcsh

CONDITIONS

- SHIFT RUNWAY 80' WEST

RUNWAY 33 APPROACH PENETRATIONS

0' TO 10'	30' TO 40'	70' TO 80'	100' TO 110'
10' TO 20'	40' TO 50'	80' TO 90'	
20' TO 30'	50' TO 60'	90' TO 100'	



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OWNED AND OPERATED BY PITKIN COUNTY

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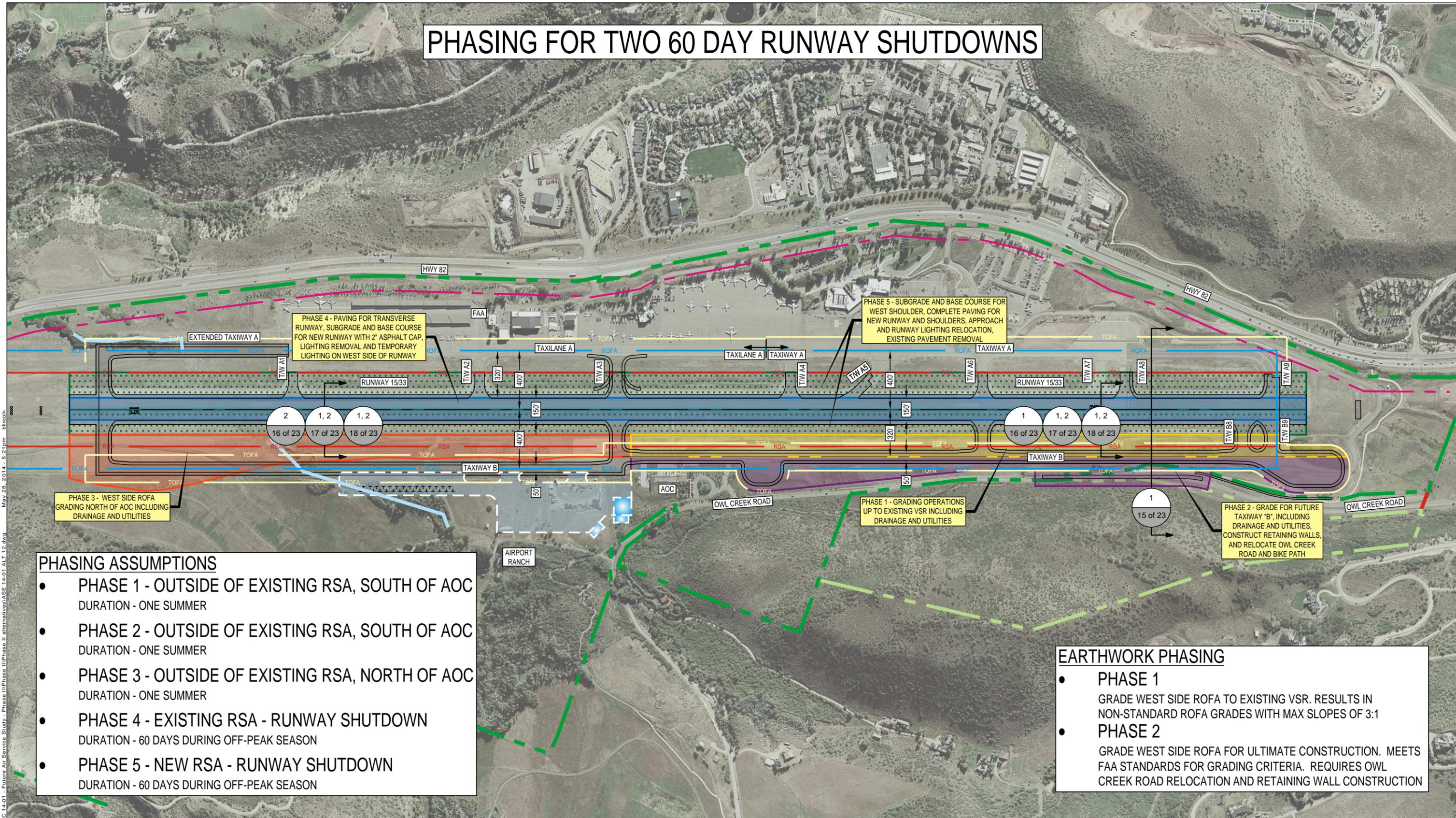
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 ALTERNATIVE 12**

DATE: MAY 30, 2014

SHEET 13 OF 23

PHASING FOR TWO 60 DAY RUNWAY SHUTDOWNS



PHASING ASSUMPTIONS

- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
- PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
- PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
- PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON
- PHASE 5 - NEW RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON

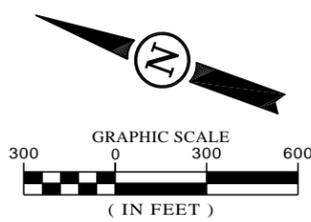
EARTHWORK PHASING

- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
- PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3	PHASE 5
PHASE 2	PHASE 4	CDOT PROPERTY LINE	ASE PROPERTY LINE
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK		



ASPEN/PITKIN COUNTY AIRPORT
OWNED AND OPERATED BY PITKIN COUNTY

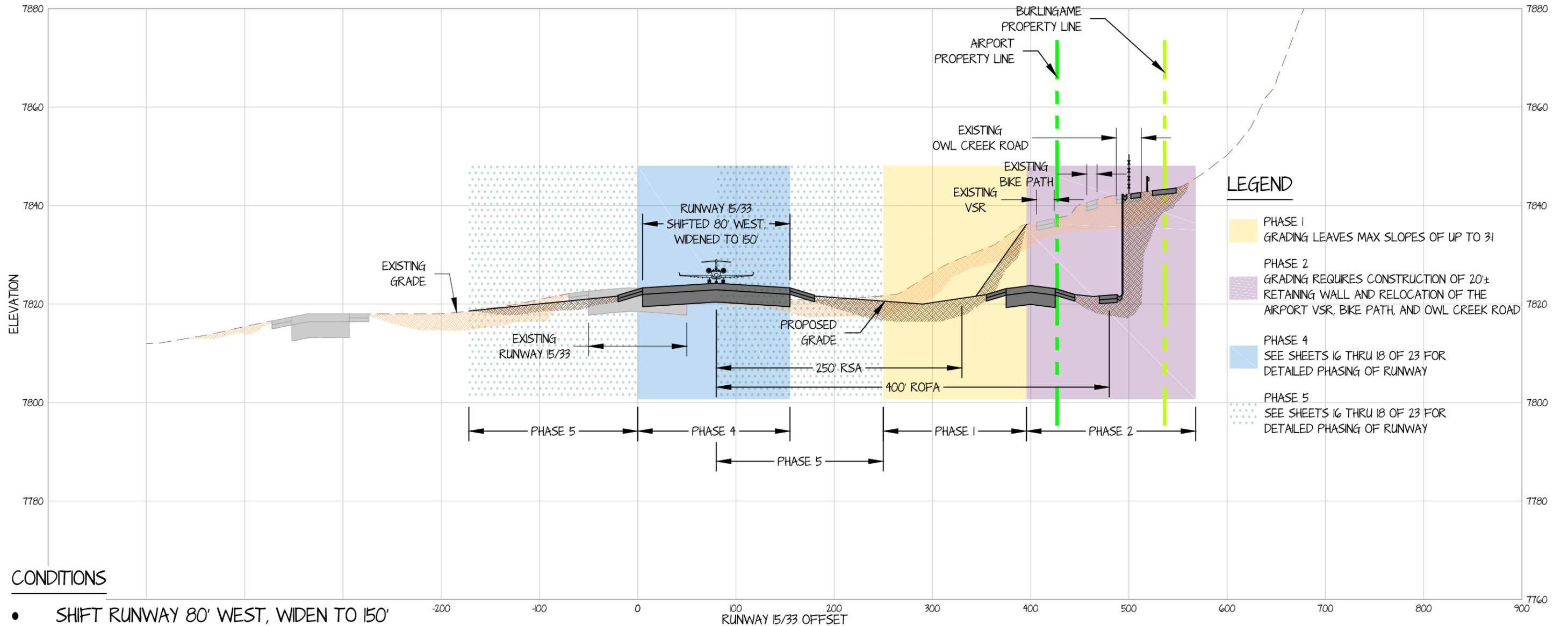
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ALTERNATIVE 12**

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ALTERNATIVE 12 - RSA AND ROFA GRADING - TWO 60 DAY RUNWAY SHUTDOWNS



CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 400' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
RUNWAY CROSSING AT RUNWAY 15 THRESHOLD (CONFLICTS WITH FAA RECOMMENDATIONS)
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)



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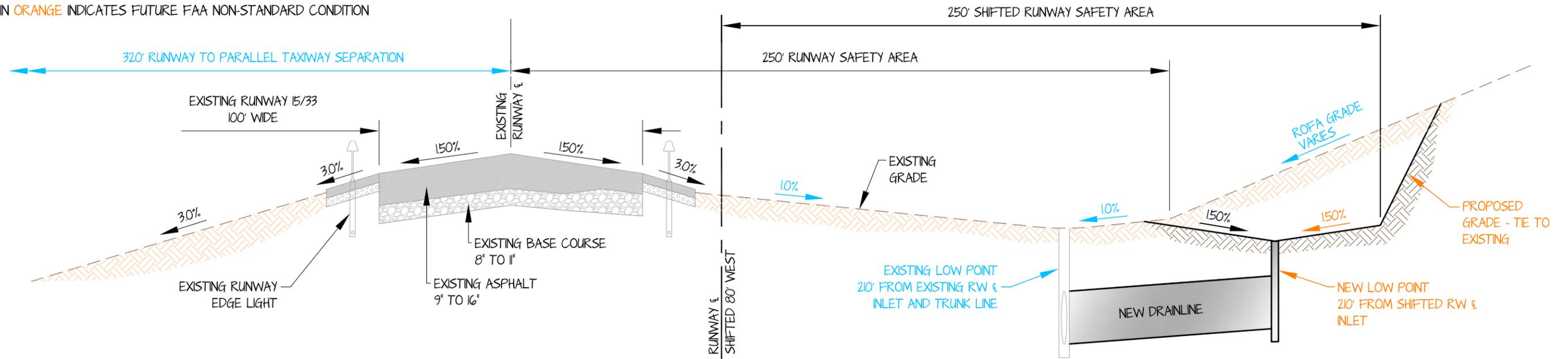
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 FUTURE AIR SERVICE STUDY - PHASE II
 ALTERNATIVE 12
 DATE: MAY 30, 2014
 SHEET 15 OF 23

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NOTE:

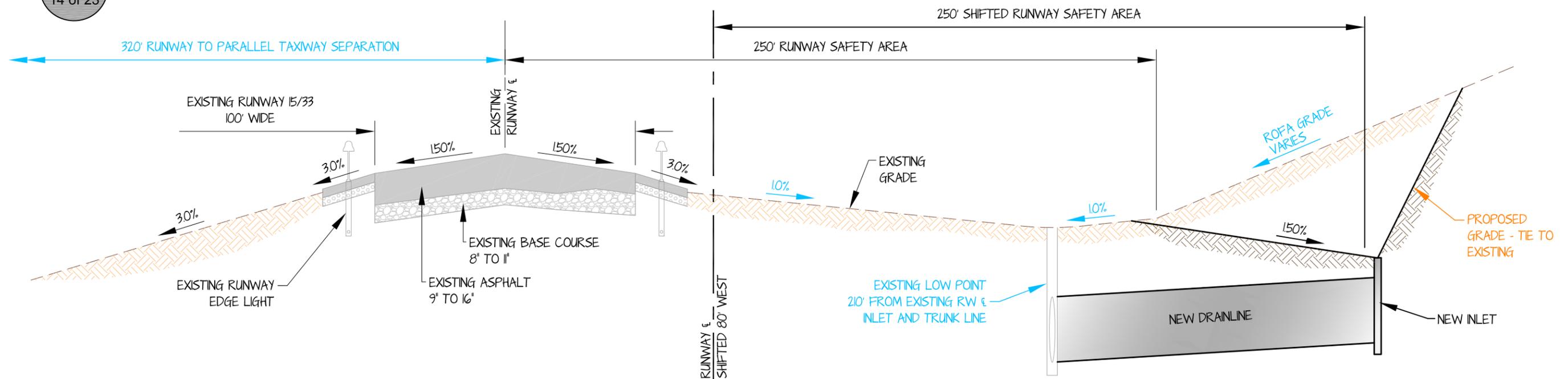
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
14 of 23

ALTERNATIVE 12 - PHASE 1 - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 320' WEST SIDE TAXIWAY



2
14 of 23

ALTERNATIVE 12 - PHASE 1 - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 400' WEST SIDE TAXIWAY

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES 1 AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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DATE: MAY 30, 2014

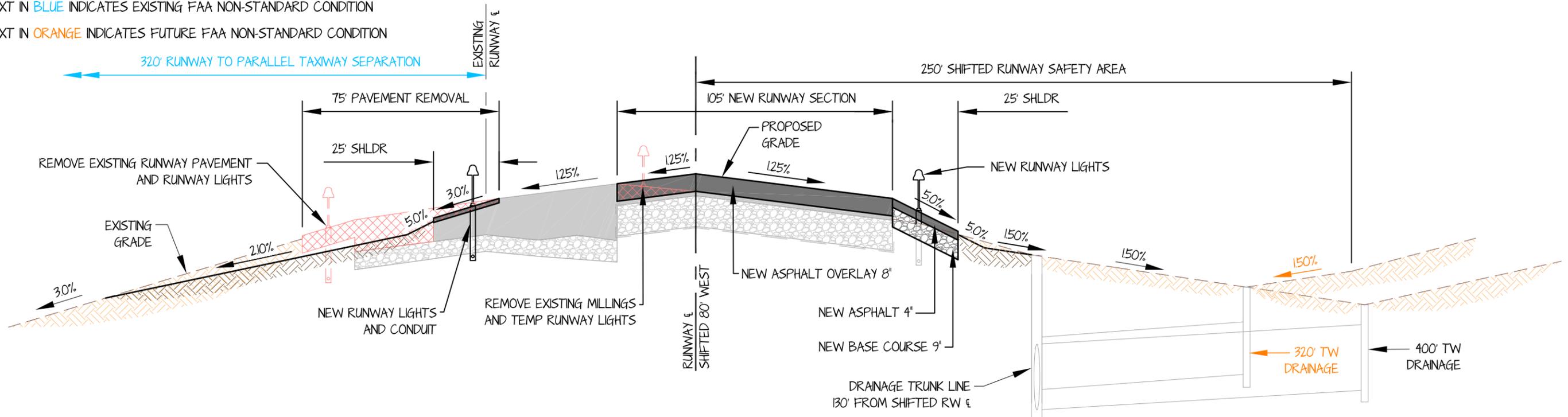
SHEET 16 OF 23

I:\Projects\ASE\Engineering\ASE_LDC_#101 - Future Air Service Study - Phase II\Phase I\Construction Phasing\Drawings\ALT 2 ASE 80'FT SHIFTT - 2 PHASE 1.dwg May 23, 2014 10:51am pibore

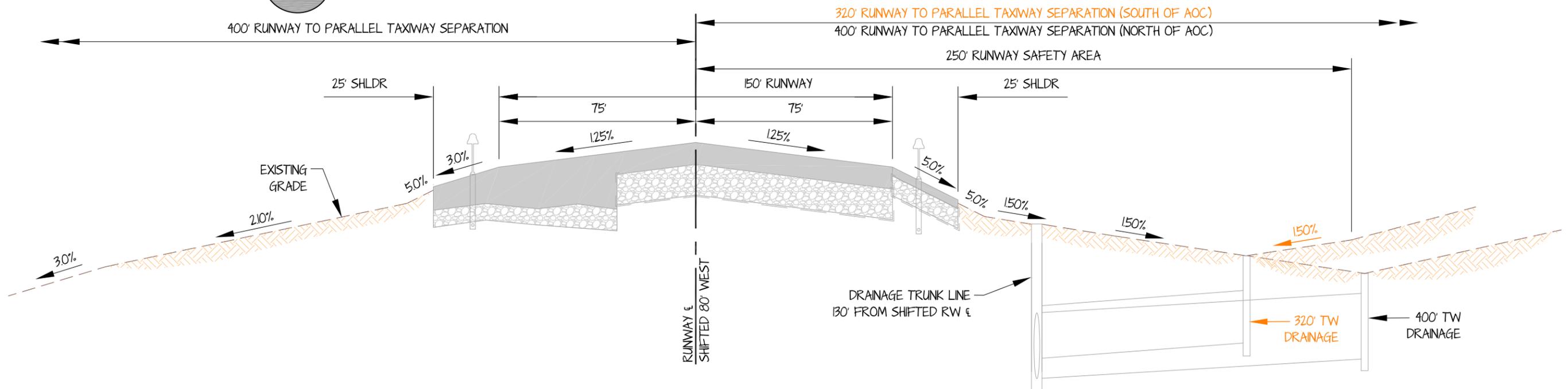
NOTE:

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ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1 ALTERNATIVE 12 - PHASE 5 - 80' RUNWAY SHIFT - SECOND 60 DAY SHUTDOWN
14 of 23



2 ALTERNATIVE 12 - 80' RUNWAY SHIFT FINAL CONDITION
14 of 23

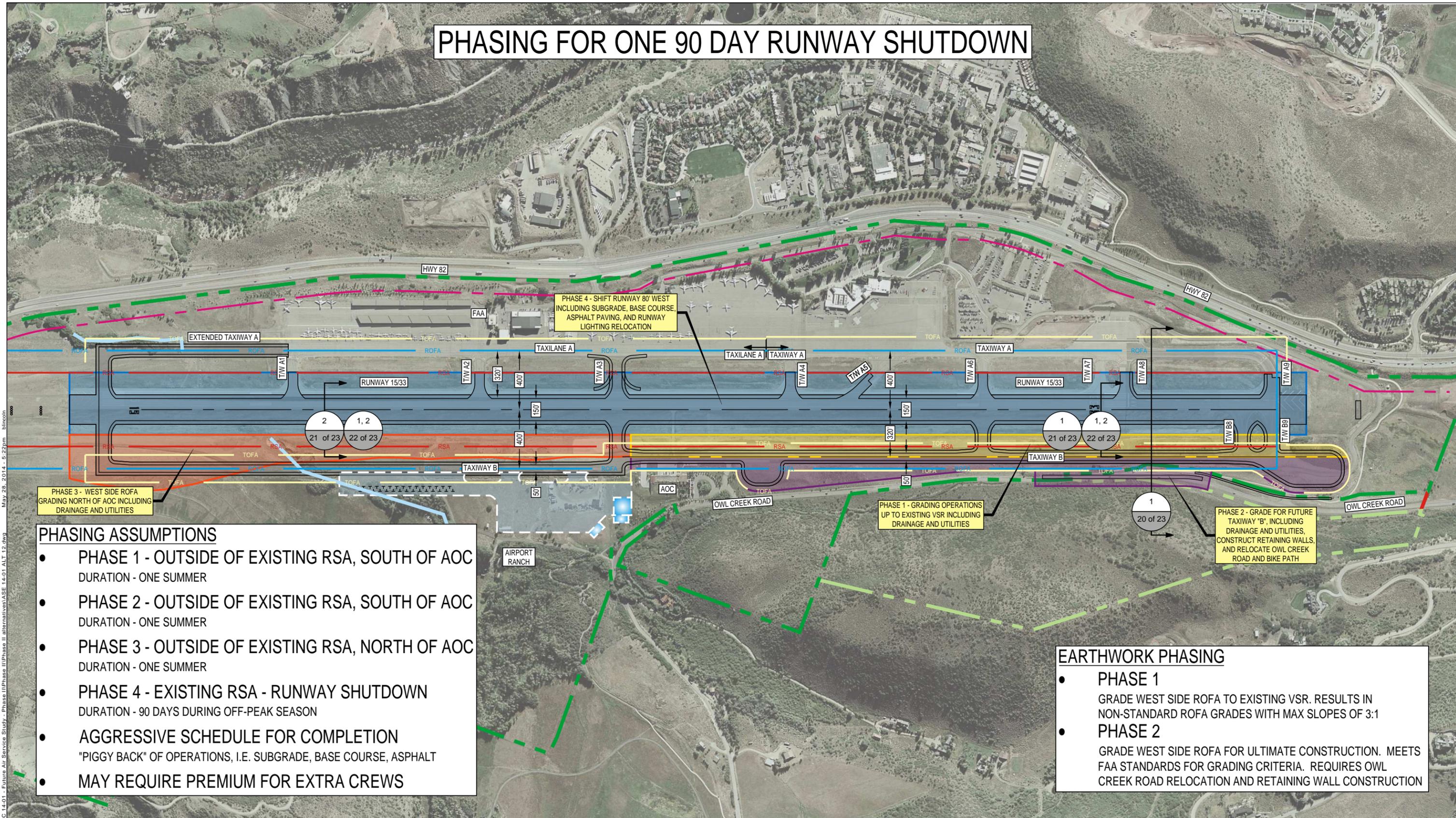
PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-4 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT



ASPEN/PITKIN COUNTY AIRPORT
ASPEN, COLORADO
FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 12
DATE: MAY 30, 2014
SHEET 18 OF 23

PHASING FOR ONE 90 DAY RUNWAY SHUTDOWN



PHASE 4 - SHIFT RUNWAY 80' WEST INCLUDING SUBGRADE, BASE COURSE, ASPHALT PAVING, AND RUNWAY LIGHTING RELOCATION

PHASE 3 - WEST SIDE ROFA GRADING NORTH OF AOC INCLUDING DRAINAGE AND UTILITIES

PHASE 1 - GRADING OPERATIONS UP TO EXISTING VSR INCLUDING DRAINAGE AND UTILITIES

PHASE 2 - GRADE FOR FUTURE TAXIWAY 'B', INCLUDING DRAINAGE AND UTILITIES, CONSTRUCT RETAINING WALLS, AND RELOCATE OWL CREEK ROAD AND BIKE PATH

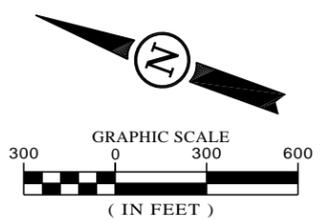
- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 90 DAYS DURING OFF-PEAK SEASON
 - AGGRESSIVE SCHEDULE FOR COMPLETION
"PIGGY BACK" OF OPERATIONS, I.E. SUBGRADE, BASE COURSE, ASPHALT
 - MAY REQUIRE PREMIUM FOR EXTRA CREWS

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3
PHASE 2	PHASE 4	
ASE PROPERTY LINE	CDOT PROPERTY LINE	
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK	



ASPEN/PITKIN COUNTY AIRPORT
OWNED AND OPERATED BY PITKIN COUNTY

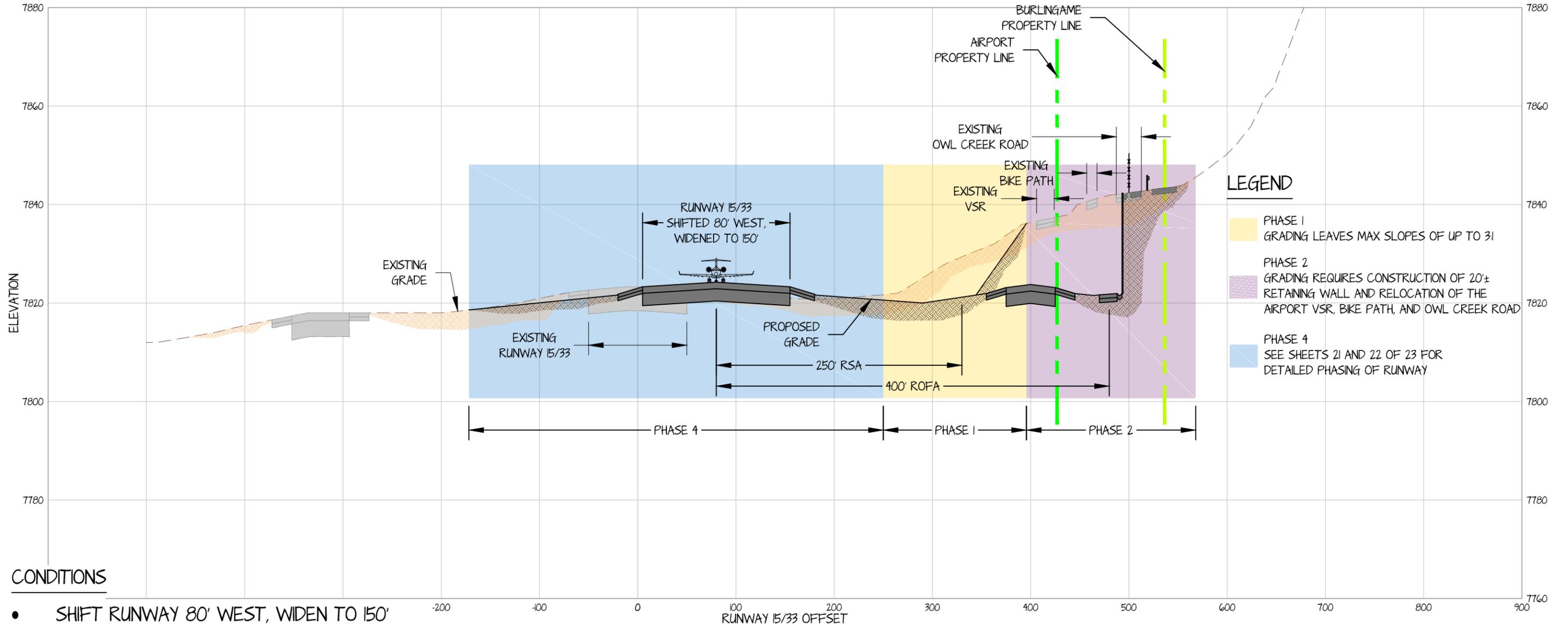
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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 12**

DATE: MAY 30, 2014 SHEET 19 OF 23

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ALTERNATIVE 12 - RSA AND ROFA GRADING - ONE 90 DAY RUNWAY SHUTDOWN



LEGEND

- PHASE 1
GRADING LEAVES MAX SLOPES OF UP TO 3:1
- PHASE 2
GRADING REQUIRES CONSTRUCTION OF 20'±
RETAINING WALL AND RELOCATION OF THE
AIRPORT VSR, BIKE PATH, AND OWL CREEK ROAD
- PHASE 4
SEE SHEETS 21 AND 22 OF 23 FOR
DETAILED PHASING OF RUNWAY

CONDITIONS

- SHIFT RUNWAY 80' WEST, WIDEN TO 150'
- 400' EAST SIDE PARALLEL TAXIWAY "A"
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 400' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
RUNWAY CROSSING AT RUNWAY 15 THRESHOLD (CONFLICTS WITH FAA RECOMMENDATIONS)
MEETS CURRENT FAA STANDARD
(400' RUNWAY/TAXIWAY SEPARATION)
- 320' PARTIAL WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"= 20'



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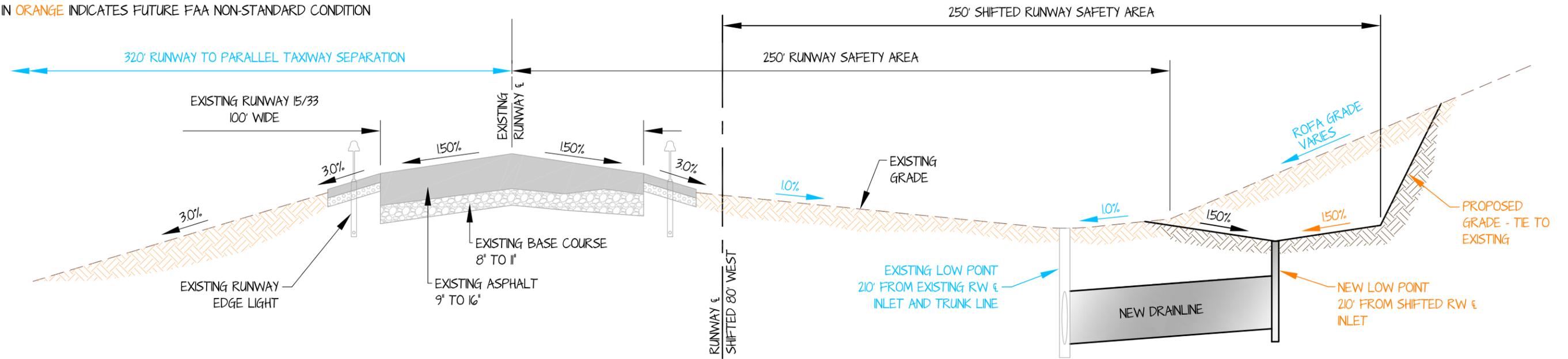
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ASPEN, COLORADO
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ALTERNATIVE 12
DATE: MAY 30, 2014
SHEET 20 OF 23

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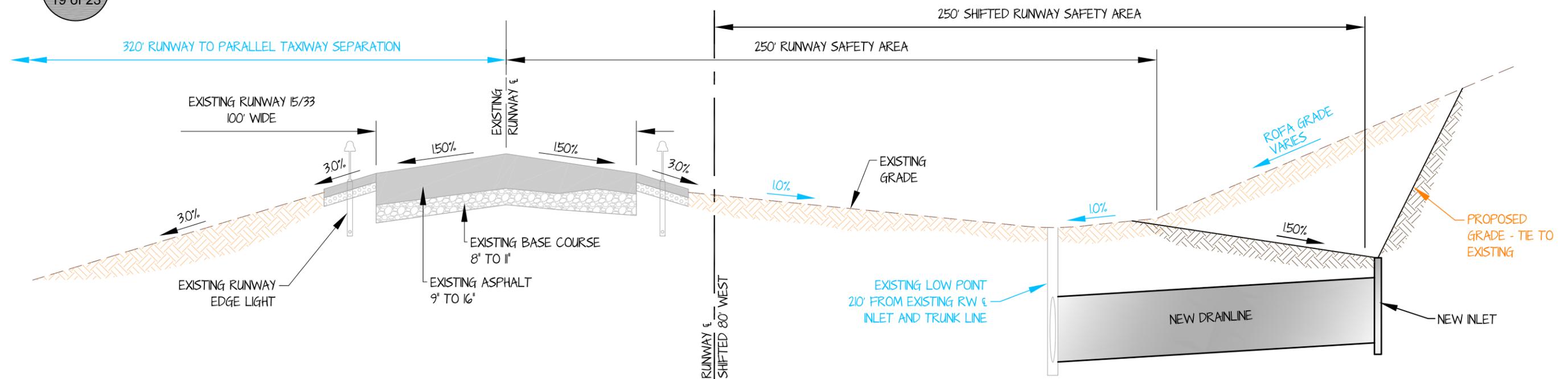
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
19 of 23

ALTERNATIVE 12 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 320' WEST SIDE TAXIWAY



2
19 of 23

ALTERNATIVE 12 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 400' WEST SIDE TAXIWAY

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES 1 AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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ASPEN, COLORADO
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ALTERNATIVE 12

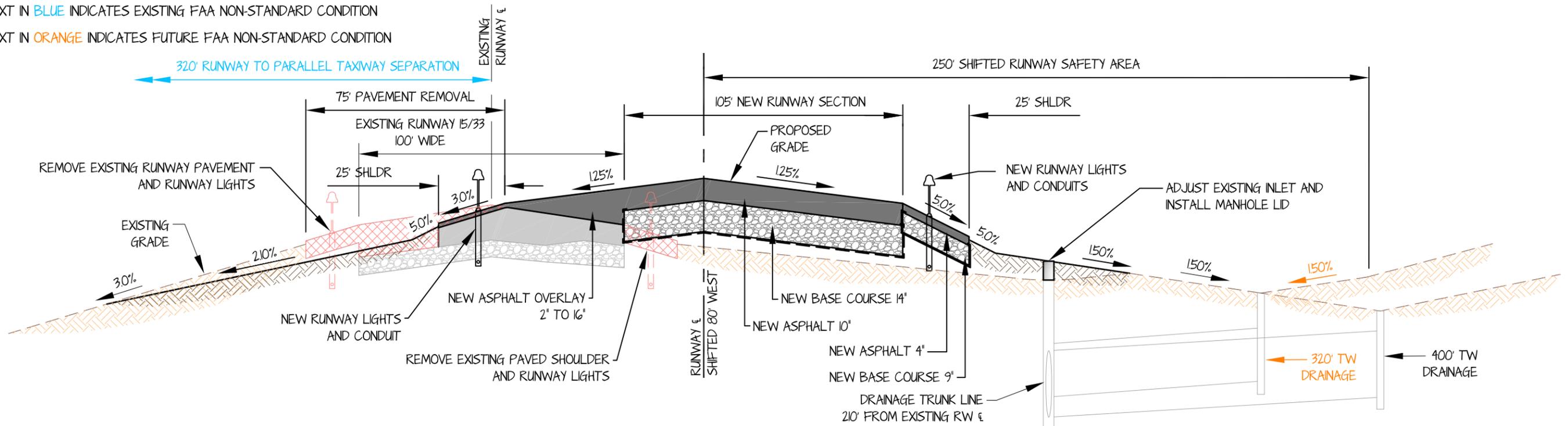
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SHEET 21 OF 23

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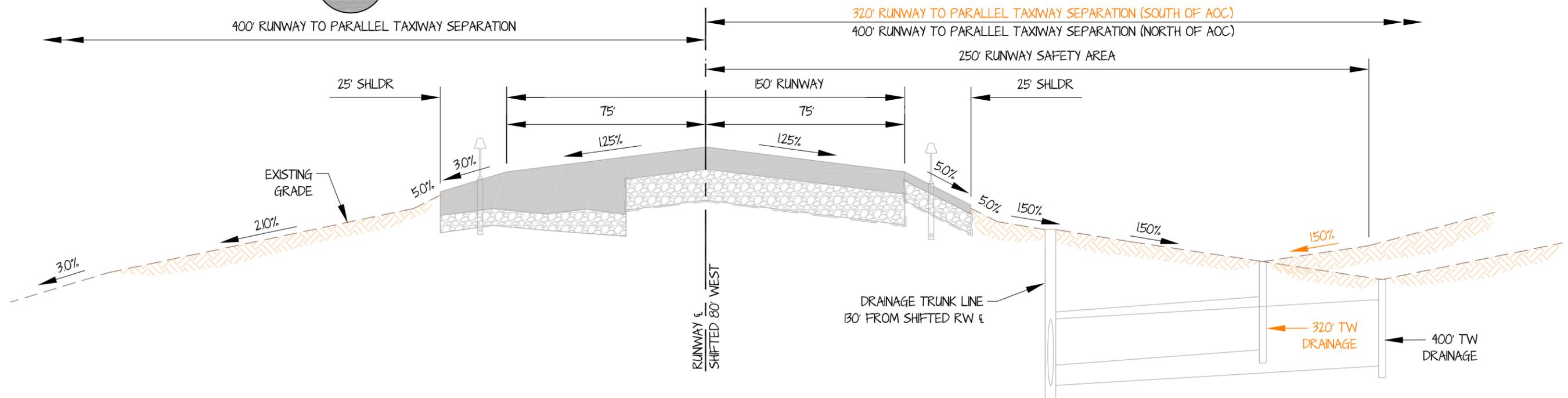
ALL TEXT IN **BLUE** INDICATES EXISTING FAA NON-STANDARD CONDITION

ALL TEXT IN **ORANGE** INDICATES FUTURE FAA NON-STANDARD CONDITION



1
19 of 23

ALTERNATIVE 12 - PHASE 4 - 80' RUNWAY SHIFT - 90 DAY SHUTDOWN



2
19 of 23

ALTERNATIVE 12 - 80' RUNWAY SHIFT FINAL CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT



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SHEET 22 OF 23

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LOCAL AND FEDERAL CONSIDERATIONS

POTENTIAL LOCAL REVIEW AND APPROVALS

PITKIN COUNTY

- **LOCATION AND EXTENTS REVIEW**
PROPOSED IMPROVEMENTS IN COMPLIANCE WITH THE WEST OF MAROON CREEK PLAN (WOMP)
- **ASPEN/PITKIN COUNTY AIRPORT DESIGN GUIDELINES APPROVAL**
PROPOSED IMPROVEMENTS IN COMPLIANCE AIRPORT DESIGN GUIDELINES (APRIL, 2014)
- **BUILDING PERMIT (TITLE II)**
ANY STRUCTURES MEETING THE "BUILDING" DEFINITION WHICH DOES NOT INCLUDE ROADS, PAVEMENT, FENCES, RETAINING WALLS OR OTHER SITE IMPROVEMENTS THE DO NOT ENCLOSE SPACES FOR THE PROTECTION OF PERSONS, ANIMALS, OR PROPERTY
- **ENVIRONMENTAL HEALTH (TITLE 6)**
ADDRESS APPLICABLE PROVISIONS OF TITLE 6 IN CONSTRUCTION DOCUMENTS AND CONTRACTS

CITY OF ASPEN

- **BURLINGAME OPEN SPACE PARCEL CHANGE IN USE (PUBLIC VOTE)**
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL

ASPEN VALLEY LAND TRUST (AVLT)

- **CONSENT PURSUANT TO DEED OF CONSERVATION EASEMENT**
RELOCATION OF OWL CREEK ROAD/RIGHT-OF-WAY ONTO BURLINGAME OPEN SPACE PARCEL REQUIRES APPROVAL BY THE AVLT BOARD OF DIRECTORS

POTENTIAL FEDERAL REVIEW AND APPROVALS

UNITED STATES ARMY CORPS OF ENGINEERS (USACE)

- **404 PERMIT**
PIPING OF OWL CREEK
PENDING DETERMINATION OF 3 WETLANDS AREAS DESCRIBED IN THE TEXT OF THE 2012 MASTER PLAN UPDATE

FEDERAL AVIATION ADMINISTRATION

- **ALP/MASTER PLAN UPDATE**
- **ENVIRONMENTAL ASSESSMENT**
- **OBSTRUCTION EVALUATION/AIRSPACE ANALYSIS**
- **NAVAID RELOCATION/UPDATE**
- **MODIFICATIONS TO DESIGN STANDARDS**

RUNWAY/PARALLEL TAXIWAY SEPARATION
RUNWAY/TAXIWAY HOLDLINE SEPARATION
RUNWAY AND TAXIWAY LONGITUDINAL GRADIENT
RUNWAY SAFETY AREA LONGITUDINAL GRADIENT
RUNWAY CENTERLINE TO AIRCRAFT PARKING AREA

NOTE: THE LOCAL AND FEDERAL CONSIDERATIONS PRESENTED FOR THIS ALTERNATIVE ARE NOT THE EXTENT OF REVIEWS AND APPROVALS. AS THE DESIGN OF ANY ALTERNATIVE PROGRESSES, IT IS LIKELY THAT MORE REVIEWS AND APPROVALS WILL BE REQUIRED. IT IS EXPECTED THAT THE REVIEW AND APPROVALS IDENTIFIED ABOVE WILL TAKE ONE YEAR OR LONGER TO COMPLETE.

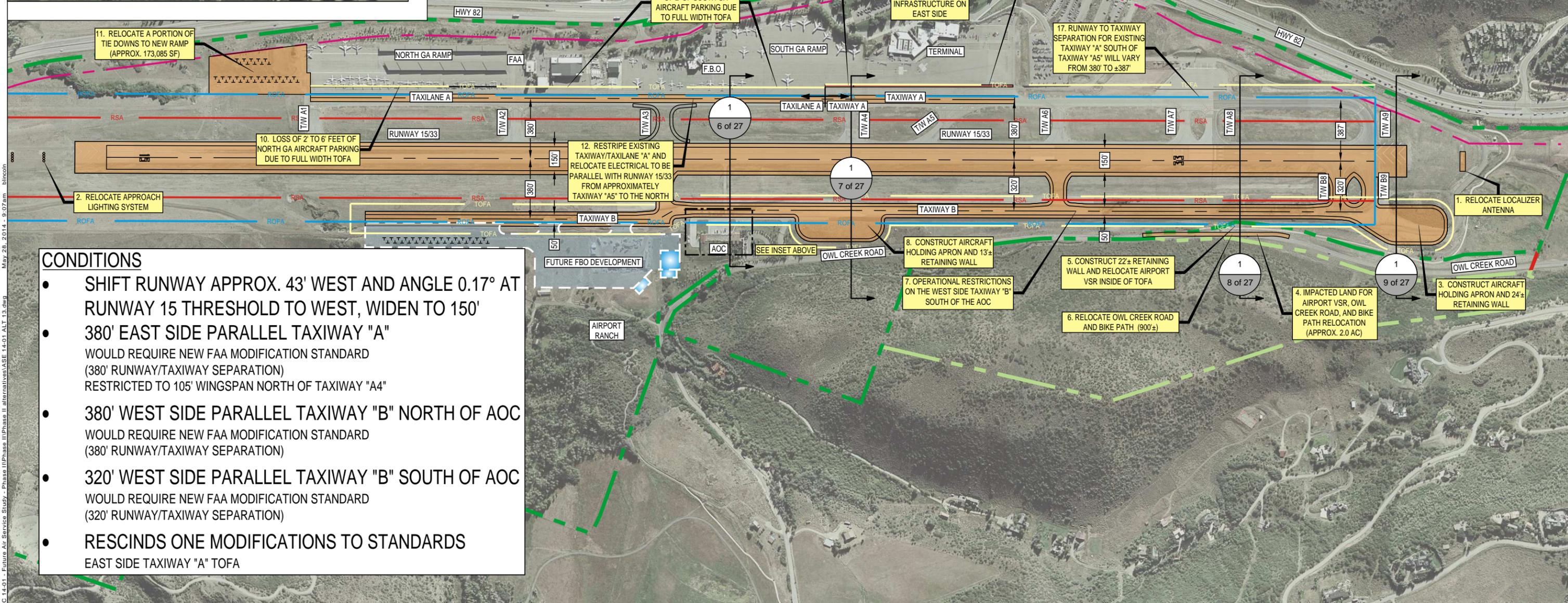
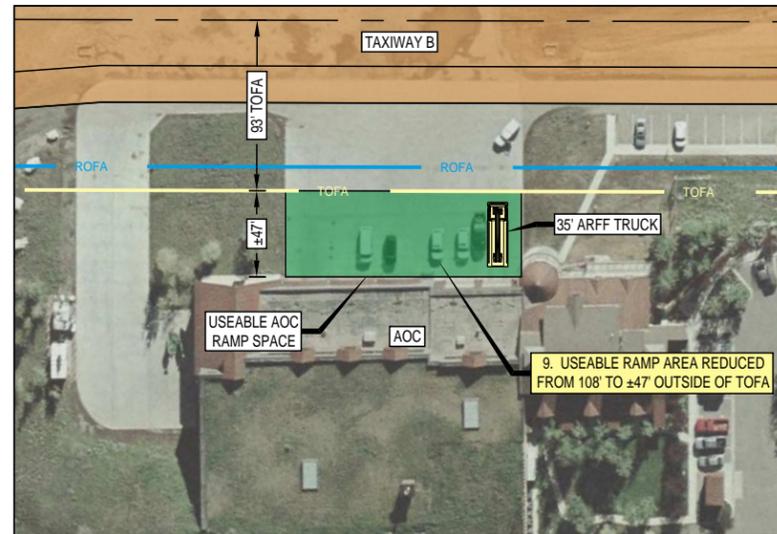


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ALTERNATIVE 12

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SHEET 23 OF 23



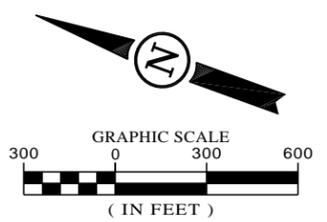
CONDITIONS

- SHIFT RUNWAY APPROX. 43' WEST AND ANGLE 0.17° AT RUNWAY 15 THRESHOLD TO WEST, WIDEN TO 150'
- 380' EAST SIDE PARALLEL TAXIWAY "A" WOULD REQUIRE NEW FAA MODIFICATION STANDARD (380' RUNWAY/TAXIWAY SEPARATION) RESTRICTED TO 105' WINGSPAN NORTH OF TAXIWAY "A4"
- 380' WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC WOULD REQUIRE NEW FAA MODIFICATION STANDARD (380' RUNWAY/TAXIWAY SEPARATION)
- 320' WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC WOULD REQUIRE NEW FAA MODIFICATION STANDARD (320' RUNWAY/TAXIWAY SEPARATION)
- RESCINDS ONE MODIFICATIONS TO STANDARDS EAST SIDE TAXIWAY "A" TOFA

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON EXISTING AIRCRAFT PARKING
- ASE PROPERTY LINE
- BURLINGAME RANCH PROPERTY LINE
- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- CDOT PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK



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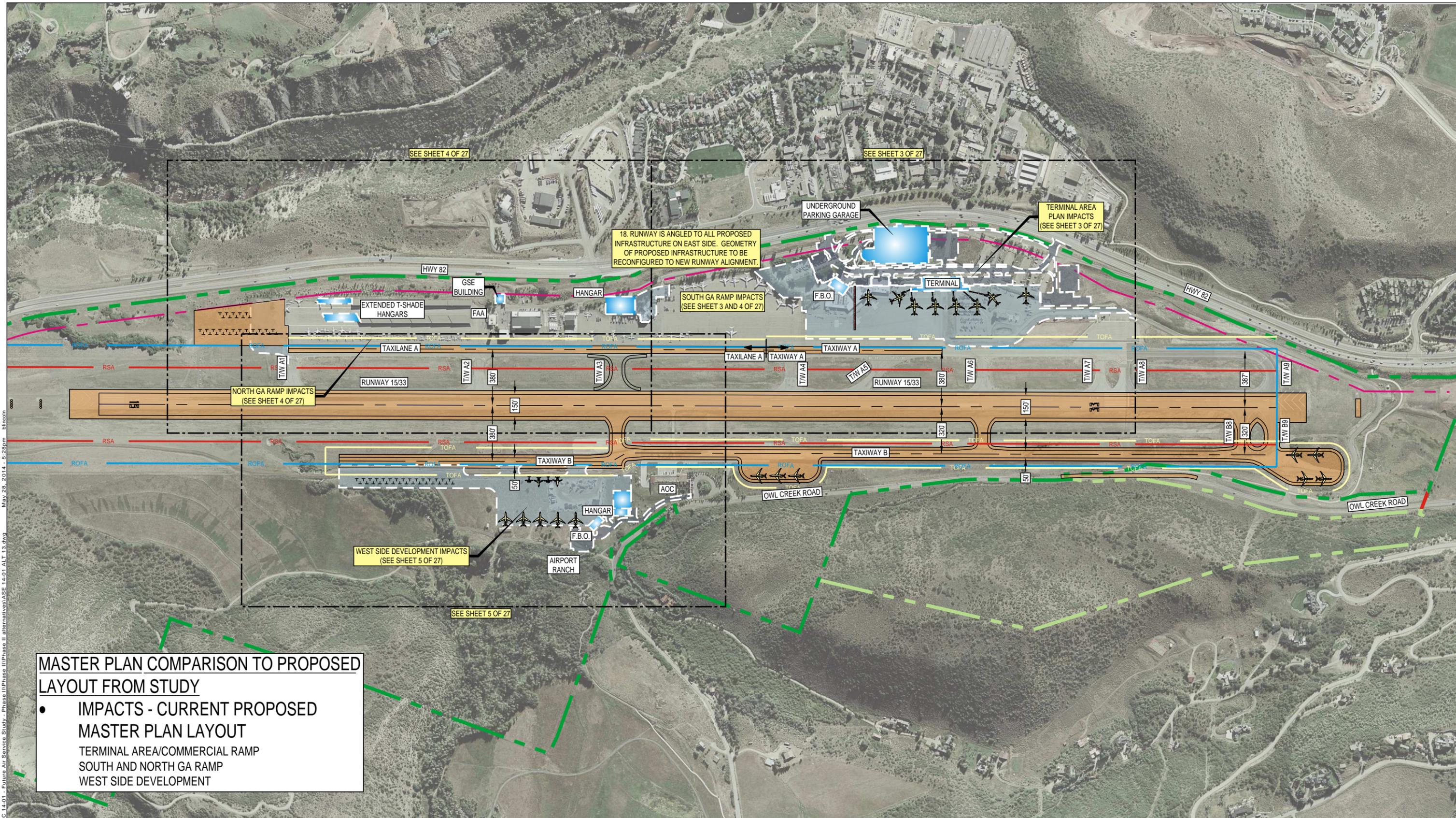
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 ALTERNATIVE 13

DATE: MAY 30, 2014

SHEET 1 OF 27



MASTER PLAN COMPARISON TO PROPOSED LAYOUT FROM STUDY

- IMPACTS - CURRENT PROPOSED MASTER PLAN LAYOUT
- TERMINAL AREA/COMMERCIAL RAMP
- SOUTH AND NORTH GA RAMP
- WEST SIDE DEVELOPMENT

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

ASE PROPERTY LINE

BURLINGAME RANCH PROPERTY LINE

CDOT PROPERTY LINE

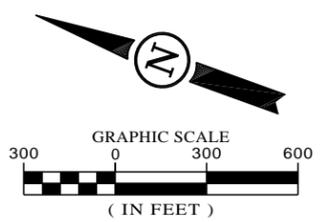
HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

MASTER PLAN LAYOUT AIRCRAFT PAVEMENT

MASTER PLAN LAYOUT BUILDINGS

MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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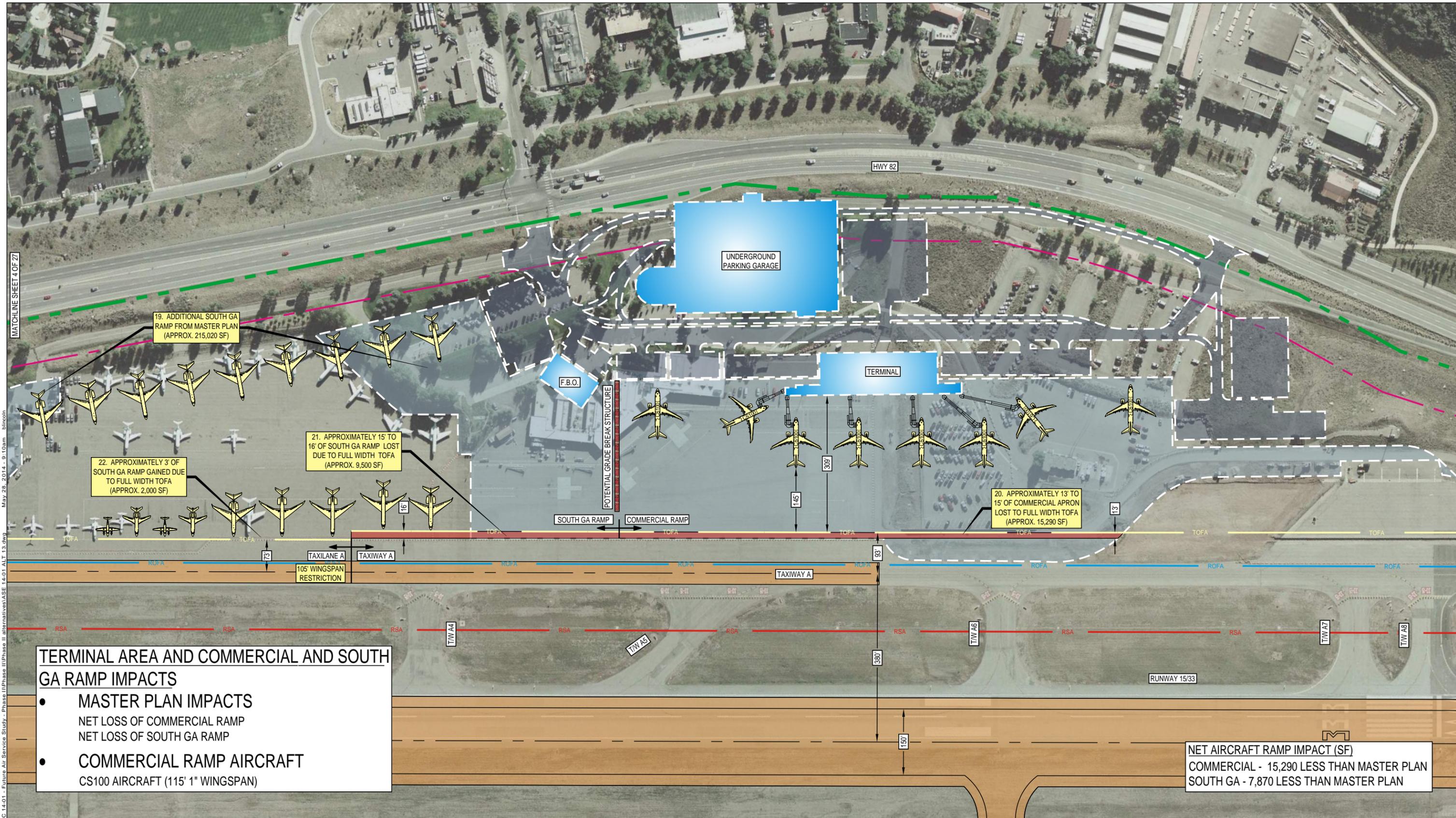
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SHEET 2 OF 27

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 MATCHLINE SHEET 4 OF 27



TERMINAL AREA AND COMMERCIAL AND SOUTH GA RAMP IMPACTS

- **MASTER PLAN IMPACTS**
NET LOSS OF COMMERCIAL RAMP
NET LOSS OF SOUTH GA RAMP
- **COMMERCIAL RAMP AIRCRAFT**
CS100 AIRCRAFT (115' 1" WINGSPAN)

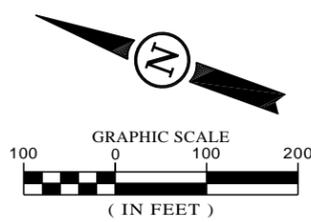
NET AIRCRAFT RAMP IMPACT (SF)
 COMMERCIAL - 15,290 LESS THAN MASTER PLAN
 SOUTH GA - 7,870 LESS THAN MASTER PLAN

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

- PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
- IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING
- ASE PROPERTY LINE
- HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

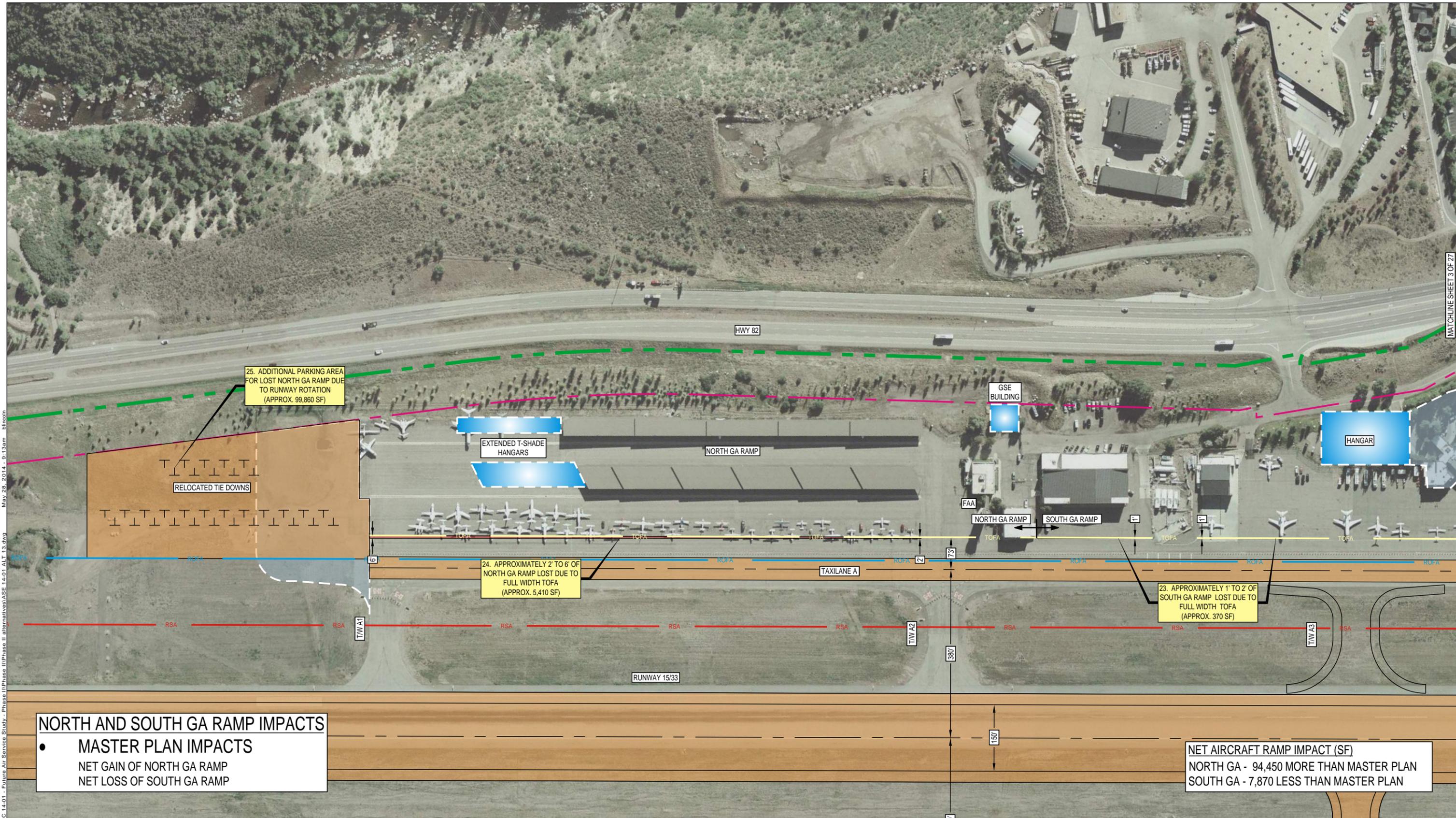
- MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
- MASTER PLAN LAYOUT BUILDINGS
- MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS



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 SHEET 3 OF 27



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MATCHLINE SHEET 3 OF 27

NORTH AND SOUTH GA RAMP IMPACTS

- MASTER PLAN IMPACTS**
- NET GAIN OF NORTH GA RAMP
- NET LOSS OF SOUTH GA RAMP

NET AIRCRAFT RAMP IMPACT (SF)

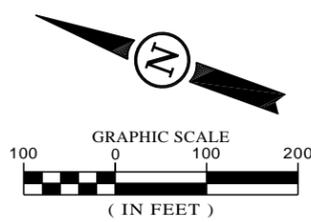
NORTH GA - 94,450 MORE THAN MASTER PLAN
 SOUTH GA - 7,870 LESS THAN MASTER PLAN

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY
 IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING
 ASE PROPERTY LINE
 HIGHWAY 82 100' RIGHT-OF-WAY SETBACK

LEGEND

MASTER PLAN LAYOUT AIRCRAFT PAVEMENT
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26. PIPE PORTIONS OF OWL CREEK AND ENCROACHMENT OF RIPARIAN SETBACK FOR FUTURE FBO DEVELOPMENT

27. POTENTIAL RECONFIGURATION OF WEST SIDE FBO RAMP DUE TO AIRPORT RANCH STRUCTURE ENCROACHMENT (APPROX. 55,000 SF)

28. WEST SIDE FBO DEVELOPMENT SHIFTS 105' WEST

NORTH GA RAMP AND WEST SIDE FBO IMPACTS
 • MASTER PLAN IMPACTS
 RECONFIGURATION OF WEST SIDE FBO RAMP AREA

ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY

IMPACT ON PROPOSED MASTER PLAN AIRCRAFT PARKING

ASE PROPERTY LINE

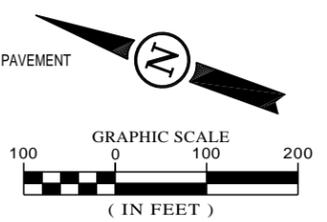
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MASTER PLAN LAYOUT AIRCRAFT PAVEMENT

MASTER PLAN LAYOUT BUILDINGS

MASTER PLAN LAYOUT ROADWAYS AND PARKING LOTS

RECONFIGURED AIRCRAFT PAVEMENT FROM AIR SERVICE STUDY



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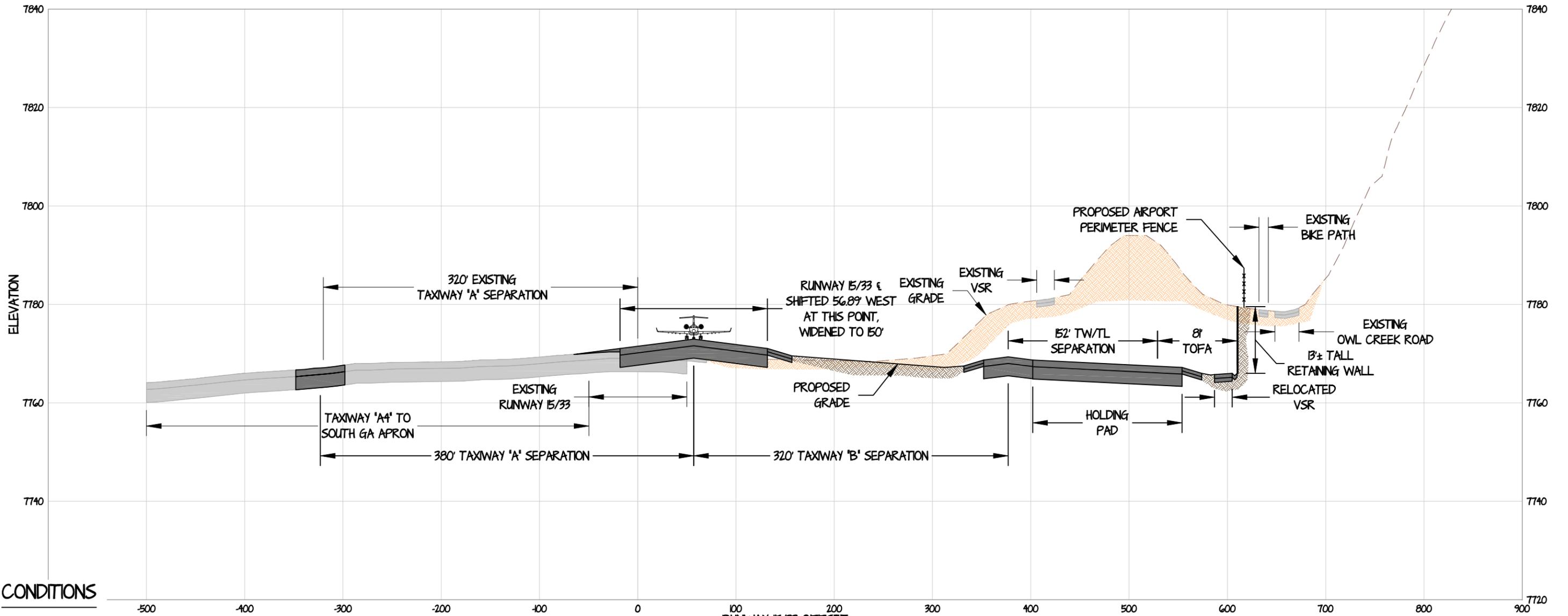
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 ALTERNATIVE 13

DATE: MAY 30, 2014

SHEET 5 OF 27

ALTERNATIVE B - TAXIWAY "A4" - TAXIWAY "B" HOLDING PAD EVALUATION



CONDITIONS

- SHIFT RUNWAY APPROX. 43' WEST AND ANGLE 0.17° TO WEST, WIDEN TO 150'
- 380' EAST SIDE PARALLEL TAXIWAY "A"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(380' RUNWAY/TAXIWAY SEPARATION)
- 380' WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(380' RUNWAY/TAXIWAY SEPARATION)
- 320' WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'



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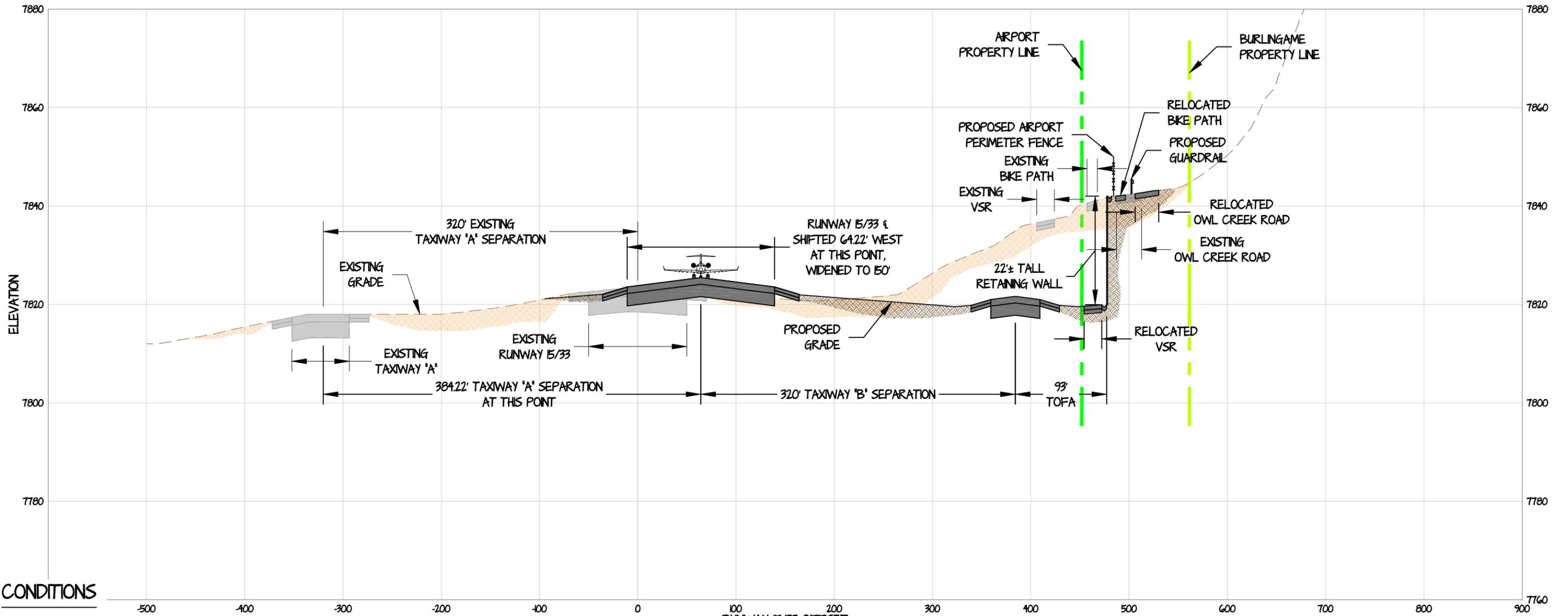
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FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 13

DATE: MAY 30, 2014

SHEET 7 OF 27

ALTERNATIVE 13 - SOUTH END OF AIRFIELD APPROXIMATELY TAXIWAY "A8" - OWL CREEK ROAD PINCH POINT EVALUATION



CONDITIONS

- SHIFT RUNWAY APPROX. 43' WEST AND ANGLE 0.17° TO WEST, WIDEN TO 150'
- 380' EAST SIDE PARALLEL TAXIWAY "A"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(380' RUNWAY/TAXIWAY SEPARATION)
- 380' WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(380' RUNWAY/TAXIWAY SEPARATION)
- 320' WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'



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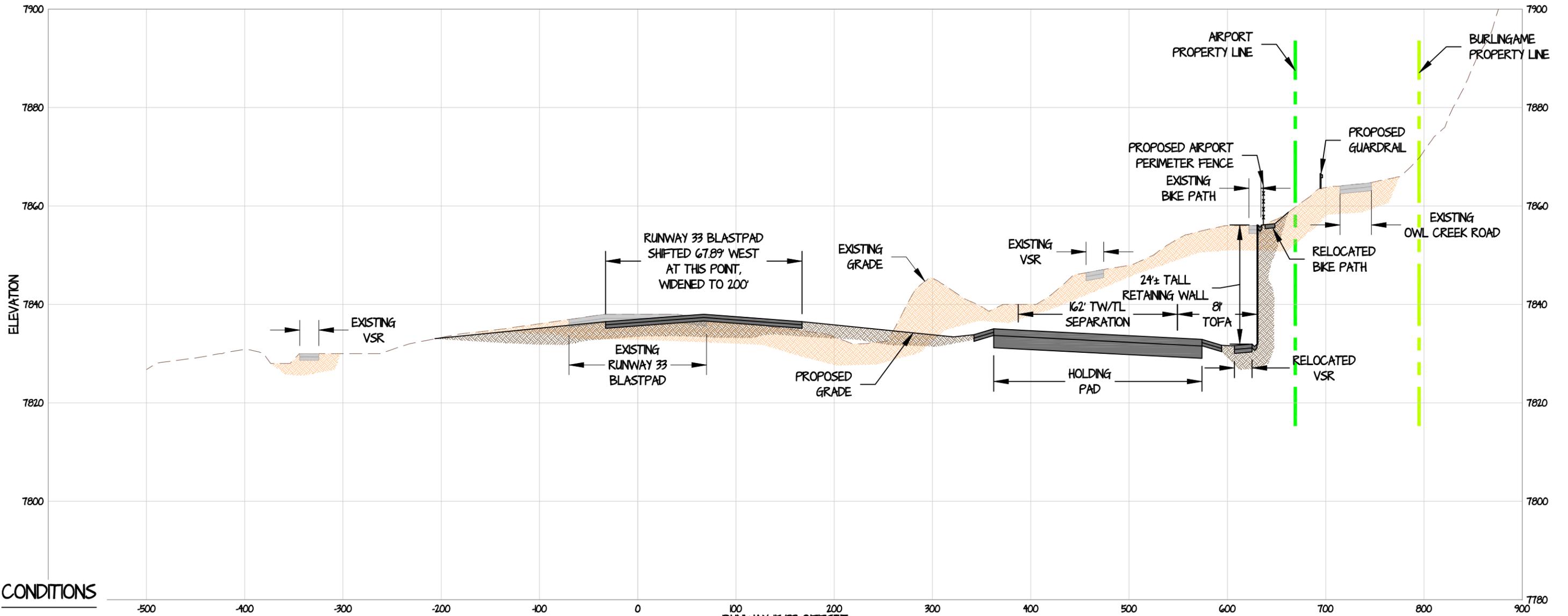
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ALTERNATIVE 13

DATE: MAY 30, 2014

SHEET 8 OF 27

ALTERNATIVE 13 - RUNWAY 33 BLAST PAD - SOUTH HOLDING PAD EVALUATION



CONDITIONS

- SHIFT RUNWAY APPROX. 43' WEST AND ANGLE 0.17° TO WEST, WIDEN TO 150'
- 380' EAST SIDE PARALLEL TAXIWAY "A"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(380' RUNWAY/TAXIWAY SEPARATION)
- 380' WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(380' RUNWAY/TAXIWAY SEPARATION)
- 320' WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD
(320' RUNWAY/TAXIWAY SEPARATION)

SCALE:
HORIZONTAL: 1"=100'
VERTICAL: 1"=20'

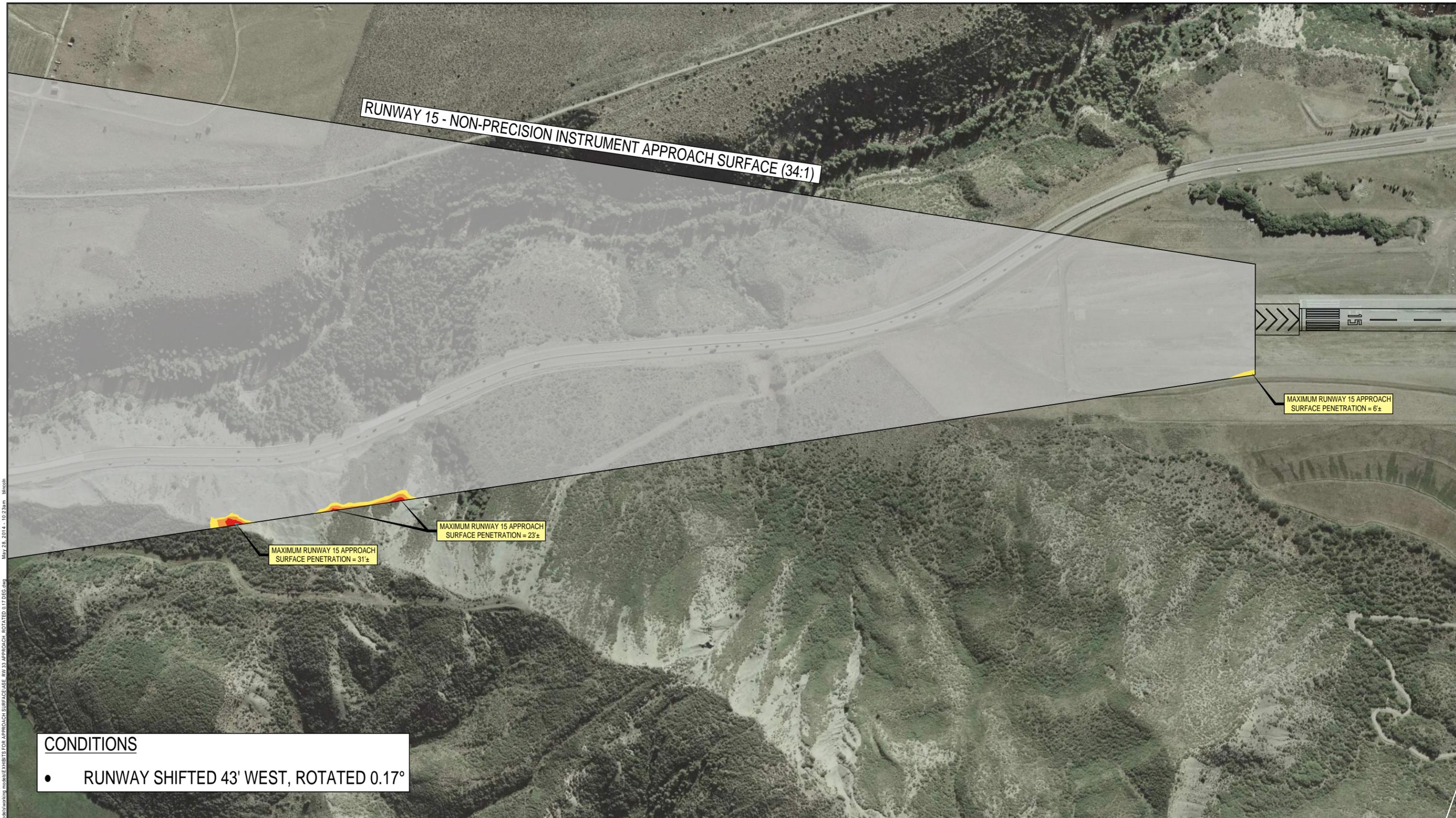


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ASPEN, COLORADO
FUTURE AIR SERVICE STUDY - PHASE II
ALTERNATIVE 13

DATE: MAY 30, 2014

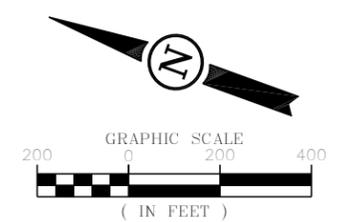
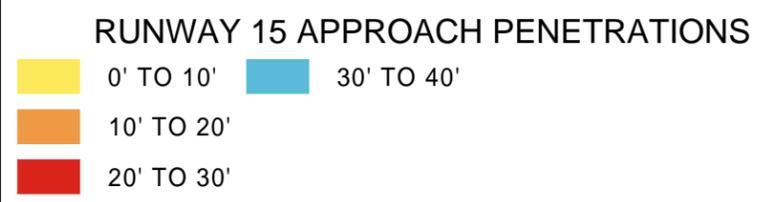
SHEET 9 OF 27



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 May 26, 2014 - 10:23am blinch

CONDITIONS

- RUNWAY SHIFTED 43' WEST, ROTATED 0.17°



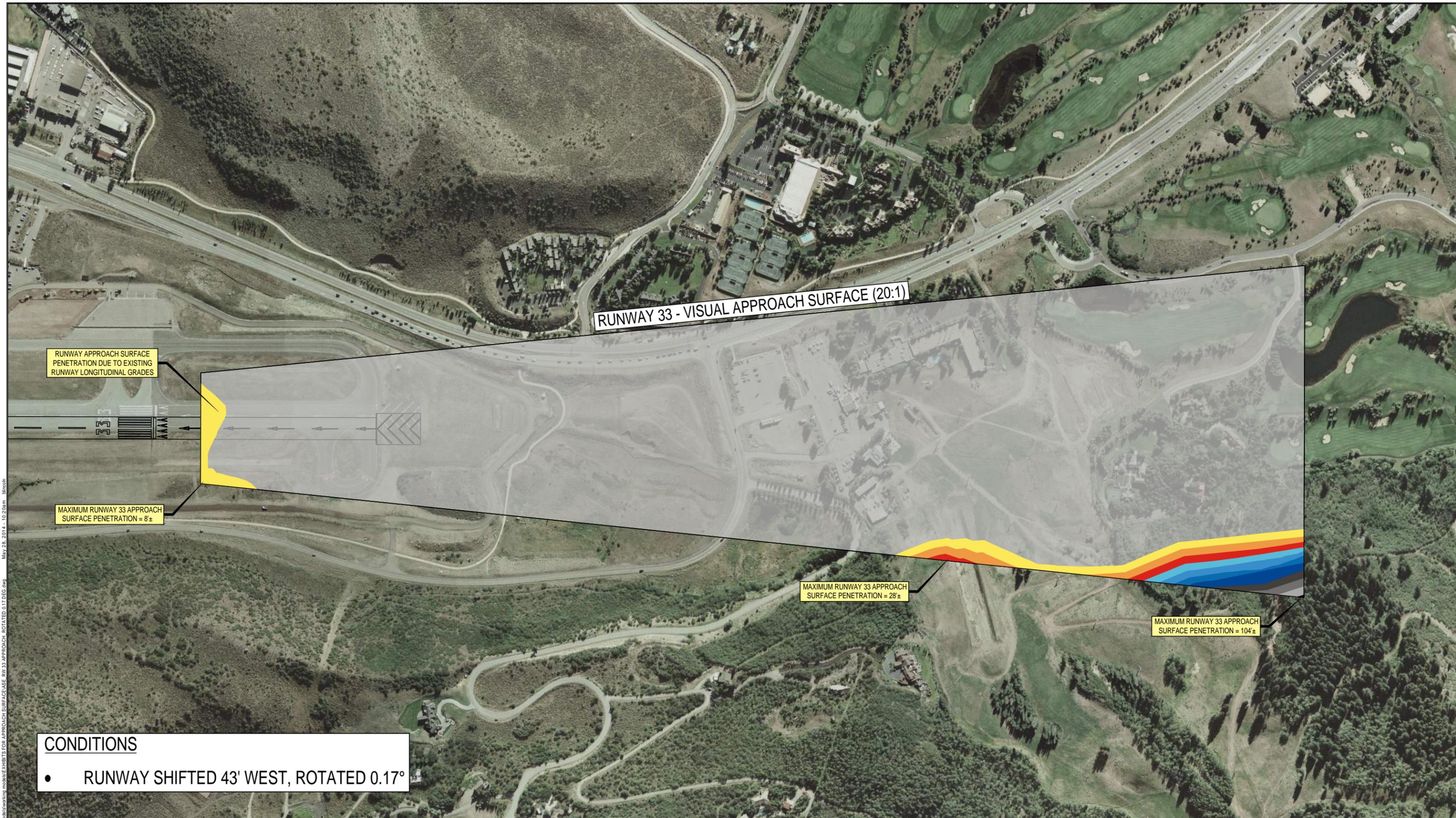
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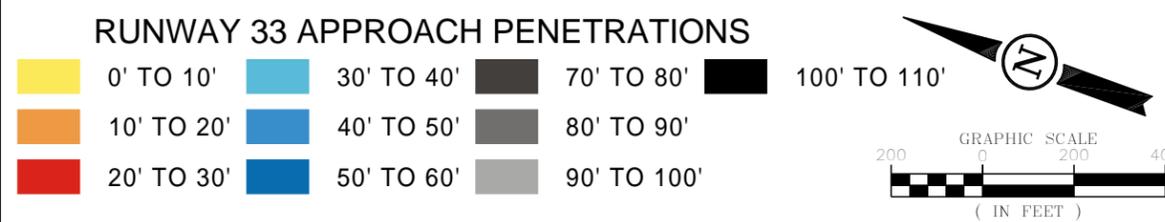
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DATE: MAY 30, 2014 SHEET 13 OF 27



CONDITIONS

- RUNWAY SHIFTED 43' WEST, ROTATED 0.17°



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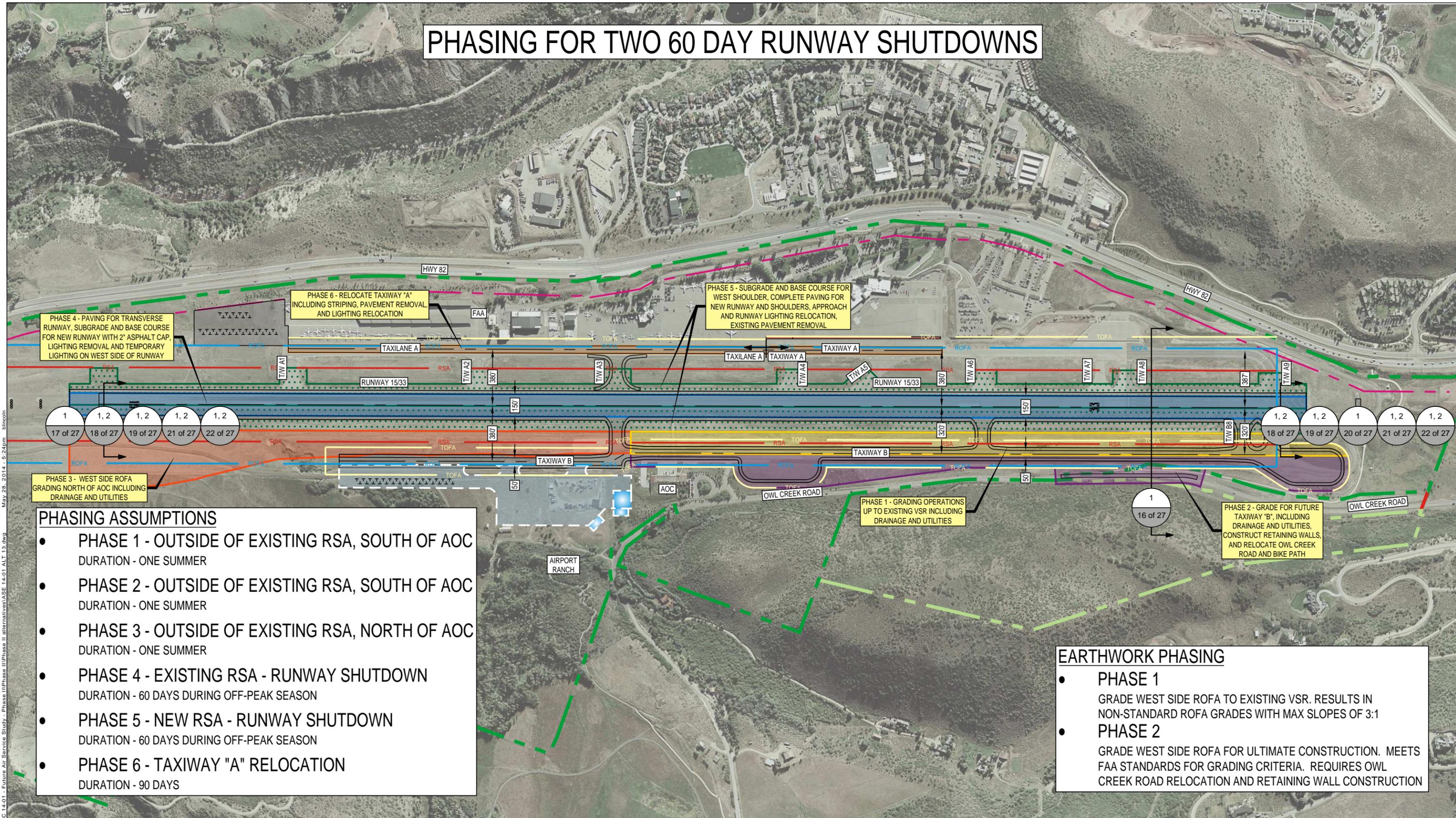
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DATE: MAY 30, 2014

SHEET 14 OF 27

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PHASING FOR TWO 60 DAY RUNWAY SHUTDOWNS



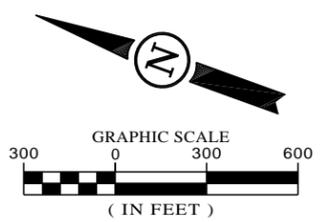
- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON
 - PHASE 5 - NEW RSA - RUNWAY SHUTDOWN
DURATION - 60 DAYS DURING OFF-PEAK SEASON
 - PHASE 6 - TAXIWAY "A" RELOCATION
DURATION - 90 DAYS

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3	PHASE 5
PHASE 2	PHASE 4	PHASE 6	
ASE PROPERTY LINE	CDOT PROPERTY LINE		
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK		



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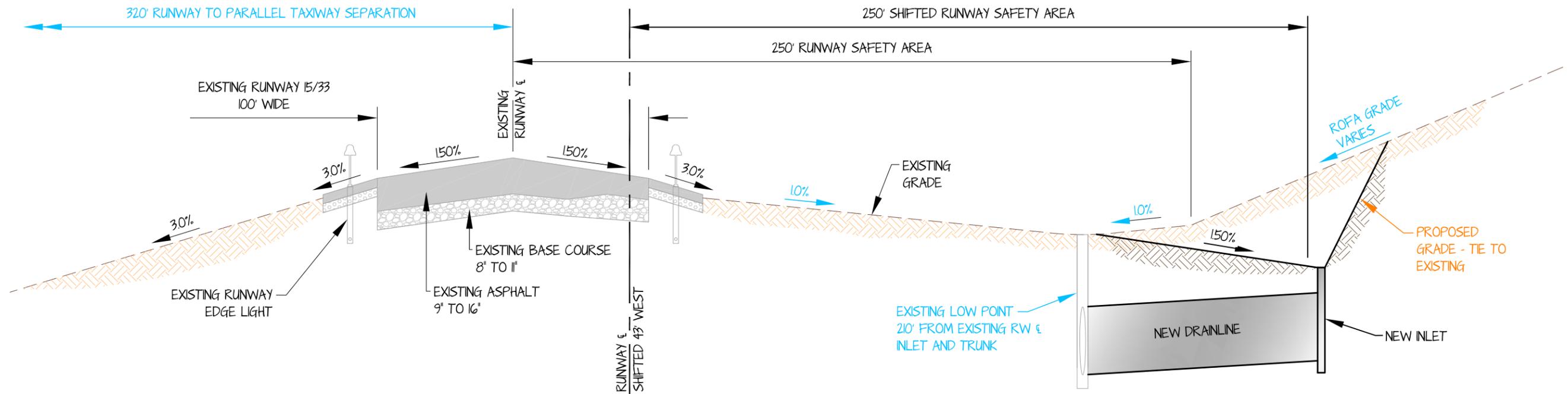
SHEET 15 OF 27

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NOTE:

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1
15 of 27

ALTERNATIVE 13 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING AT RUNWAY 15 END

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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ALTERNATIVE 13

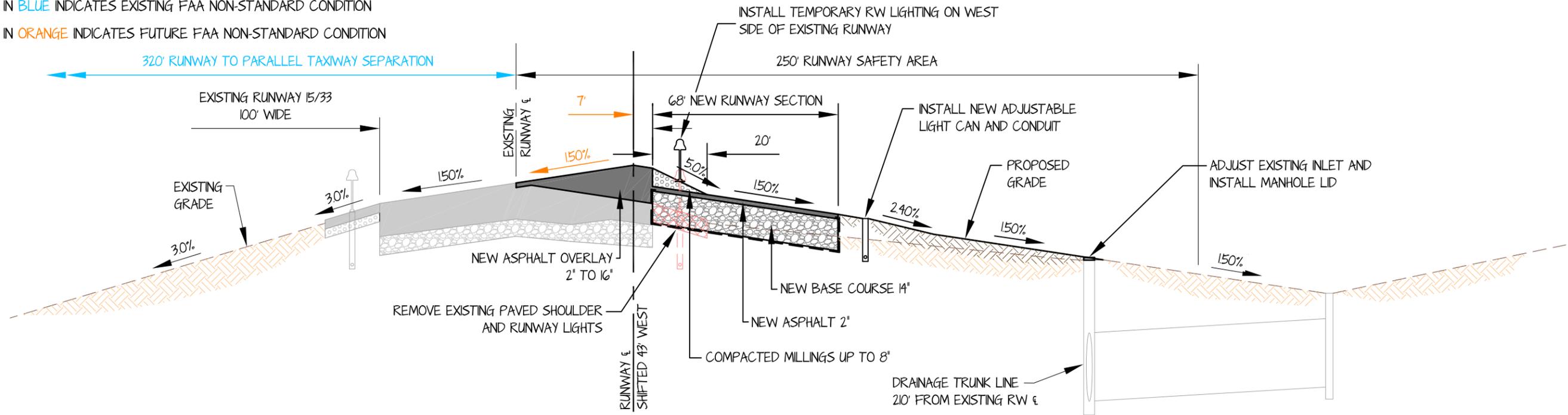
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SHEET 17 OF 27

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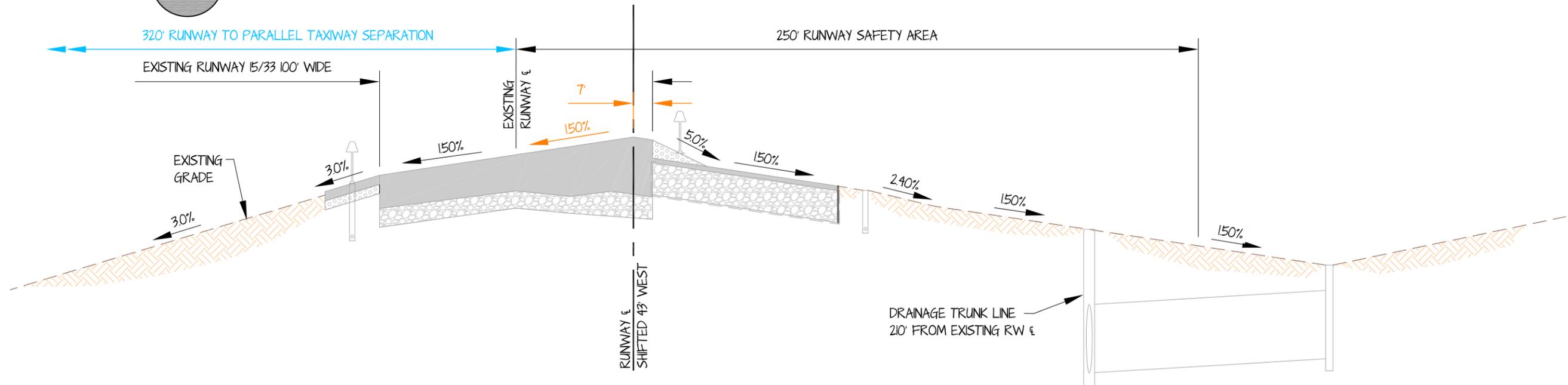
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1
15 of 27

ALTERNATIVE 13 - PHASE 4 - 43' SHIFT AND ROTATED - FIRST 60 DAY SHUTDOWN (RUNWAY 15 END)



2
15 of 27

ALTERNATIVE 13 - TEMPORARY RUNWAY CONDITIONS (RUNWAY 15 END)

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- FAA ALLOWS NON-STANDARD TRANSVERSE RUNWAY AND SAFETY AREA GRADES ON EAST SIDE DURING TEMPORARY RUNWAY OPERATING CONDITIONS
- PHASE 6 WORK IS PERFORMED BETWEEN 60 DAY RUNWAY SHUTDOWNS



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ALTERNATIVE 13

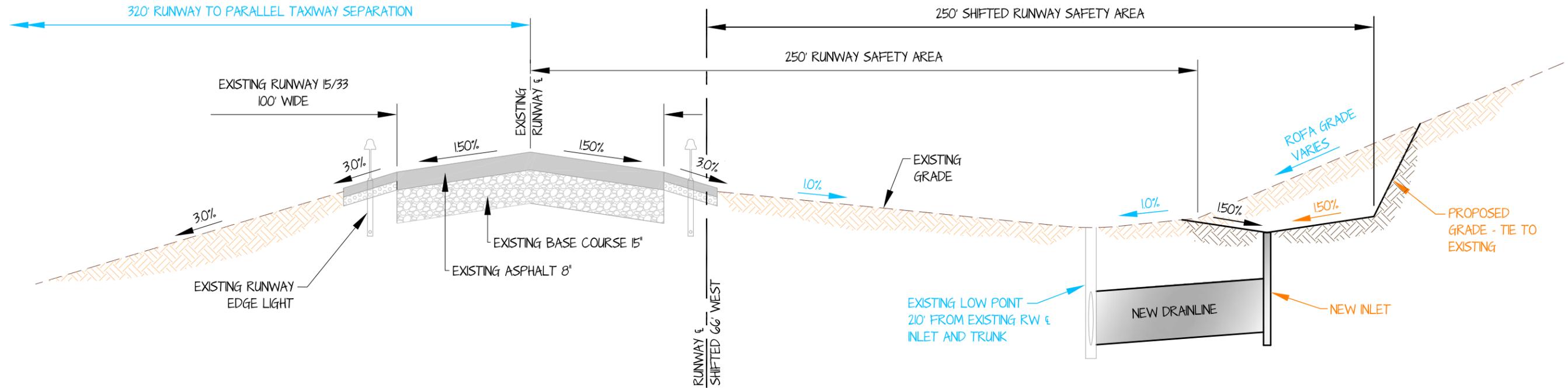
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SHEET 18 OF 27

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1
15 of 27

ALTERNATIVE 13 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING AT RUNWAY 33 END

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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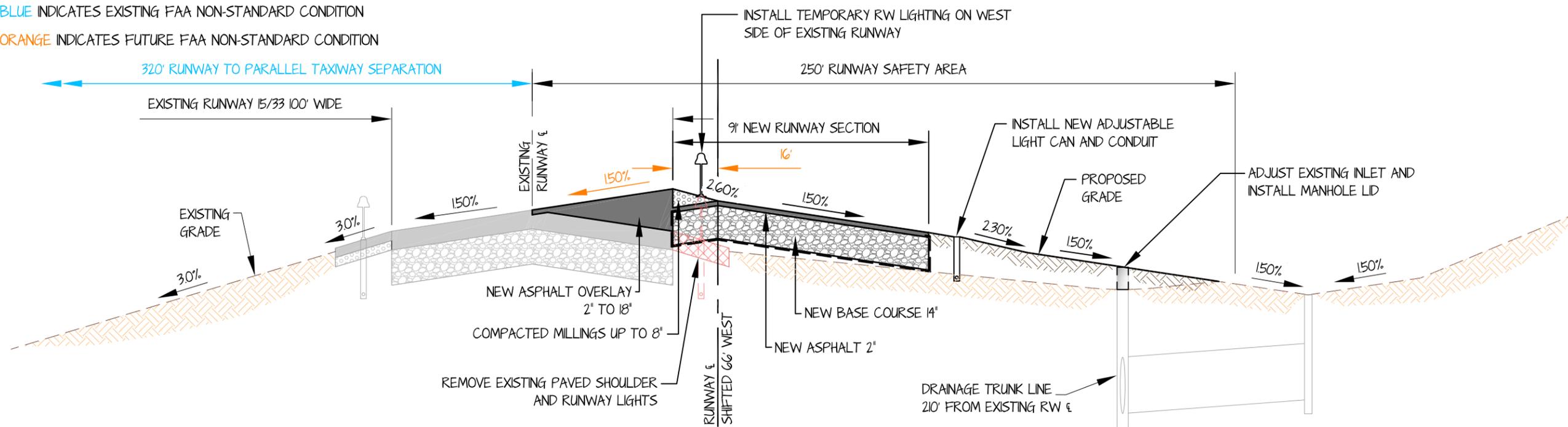
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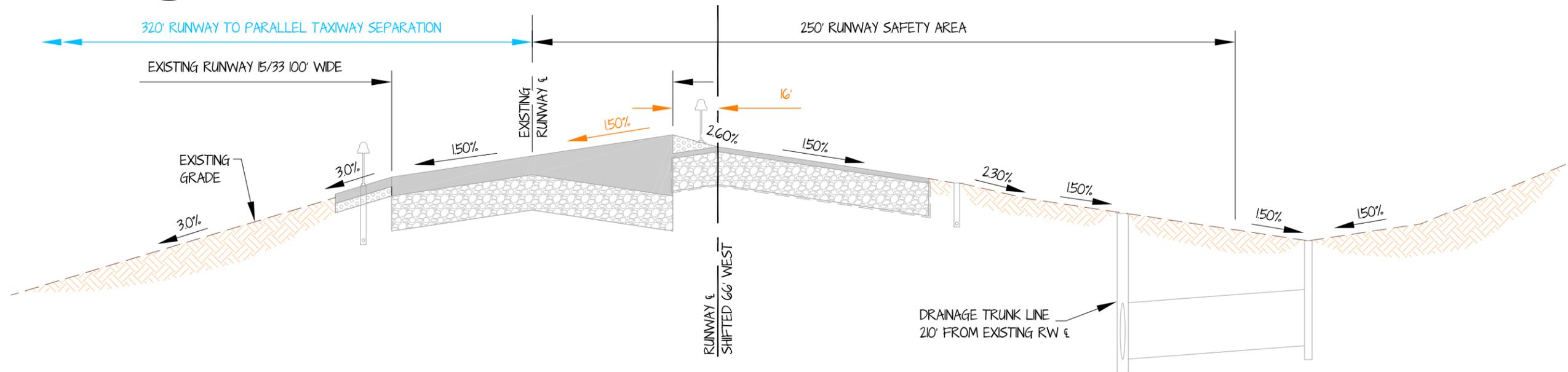
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1
15 of 27

ALTERNATIVE 13 - PHASE 4 - 66' SHIFT AND ROTATED - FIRST 60 DAY SHUTDOWN (RUNWAY 33 END)



2
15 of 27

ALTERNATIVE 13 - TEMPORARY RUNWAY CONDITIONS (RUNWAY 33 END)

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- FAA ALLOWS NON-STANDARD TRANSVERSE RUNWAY AND SAFETY AREA GRADES ON EAST SIDE DURING TEMPORARY RUNWAY OPERATING CONDITIONS
- PHASE 6 WORK IS PERFORMED BETWEEN 60 DAY RUNWAY SHUTDOWNS



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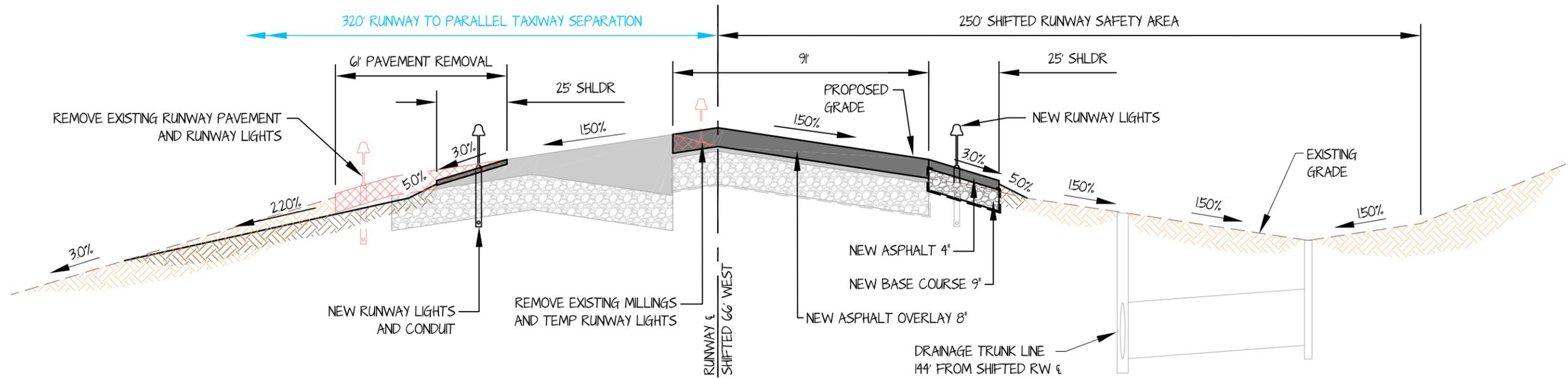
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SHEET 21 OF 27

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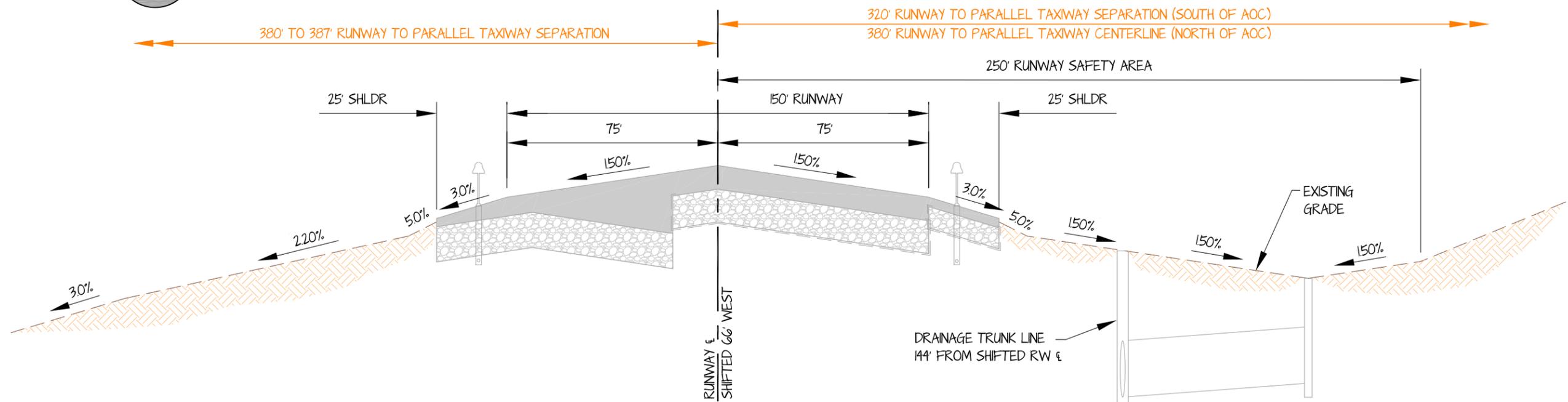
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1
15 of 27

ALTERNATIVE 13 - PHASE 5 - 66' SHIFT AND ROTATED - SECOND 60 DAY SHUTDOWN (RUNWAY 33 END)



2
15 of 27

ALTERNATIVE 13 - 66' RUNWAY SHIFT AND ROTATED FINAL CONDITION (RUNWAY 33 END)

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-4 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS 'B8' AND 'B9' TIED-IN AFTER RUNWAY SHIFT

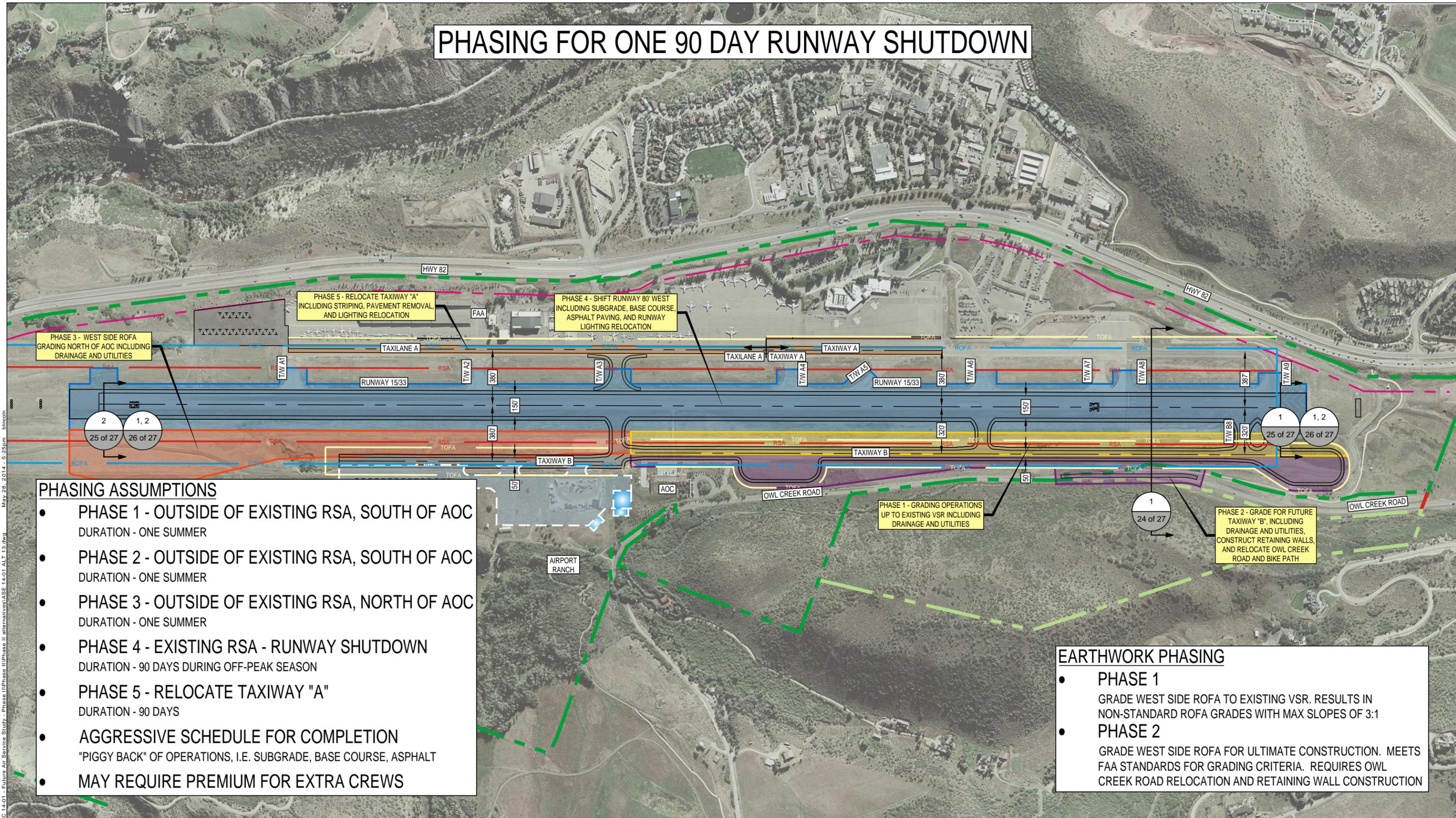


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ALTERNATIVE 13

DATE: MAY 30, 2014

SHEET 22 OF 27

PHASING FOR ONE 90 DAY RUNWAY SHUTDOWN



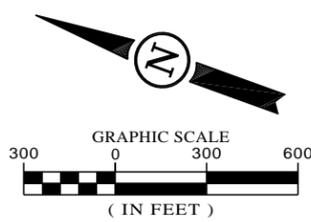
- ### PHASING ASSUMPTIONS
- PHASE 1 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 2 - OUTSIDE OF EXISTING RSA, SOUTH OF AOC
DURATION - ONE SUMMER
 - PHASE 3 - OUTSIDE OF EXISTING RSA, NORTH OF AOC
DURATION - ONE SUMMER
 - PHASE 4 - EXISTING RSA - RUNWAY SHUTDOWN
DURATION - 90 DAYS DURING OFF-PEAK SEASON
 - PHASE 5 - RELOCATE TAXIWAY "A"
DURATION - 90 DAYS
 - AGGRESSIVE SCHEDULE FOR COMPLETION
"PIGGY BACK" OF OPERATIONS, I.E. SUBGRADE, BASE COURSE, ASPHALT
 - MAY REQUIRE PREMIUM FOR EXTRA CREWS

- ### EARTHWORK PHASING
- PHASE 1
GRADE WEST SIDE ROFA TO EXISTING VSR. RESULTS IN NON-STANDARD ROFA GRADES WITH MAX SLOPES OF 3:1
 - PHASE 2
GRADE WEST SIDE ROFA FOR ULTIMATE CONSTRUCTION. MEETS FAA STANDARDS FOR GRADING CRITERIA. REQUIRES OWL CREEK ROAD RELOCATION AND RETAINING WALL CONSTRUCTION

- ALL RSA'S, ROFA'S, AND TOFA'S SHOWN ARE FOR PROPOSED AIRCRAFT PAVEMENT

LEGEND

PROPOSED AIRFIELD AND ROAD LAYOUT FROM AIR SERVICE STUDY	PHASE 1	PHASE 3	PHASE 5
PHASE 2	PHASE 4		
ASE PROPERTY LINE	CDOT PROPERTY LINE		
BURLINGAME RANCH PROPERTY LINE	HIGHWAY 82 100' RIGHT-OF-WAY SETBACK		



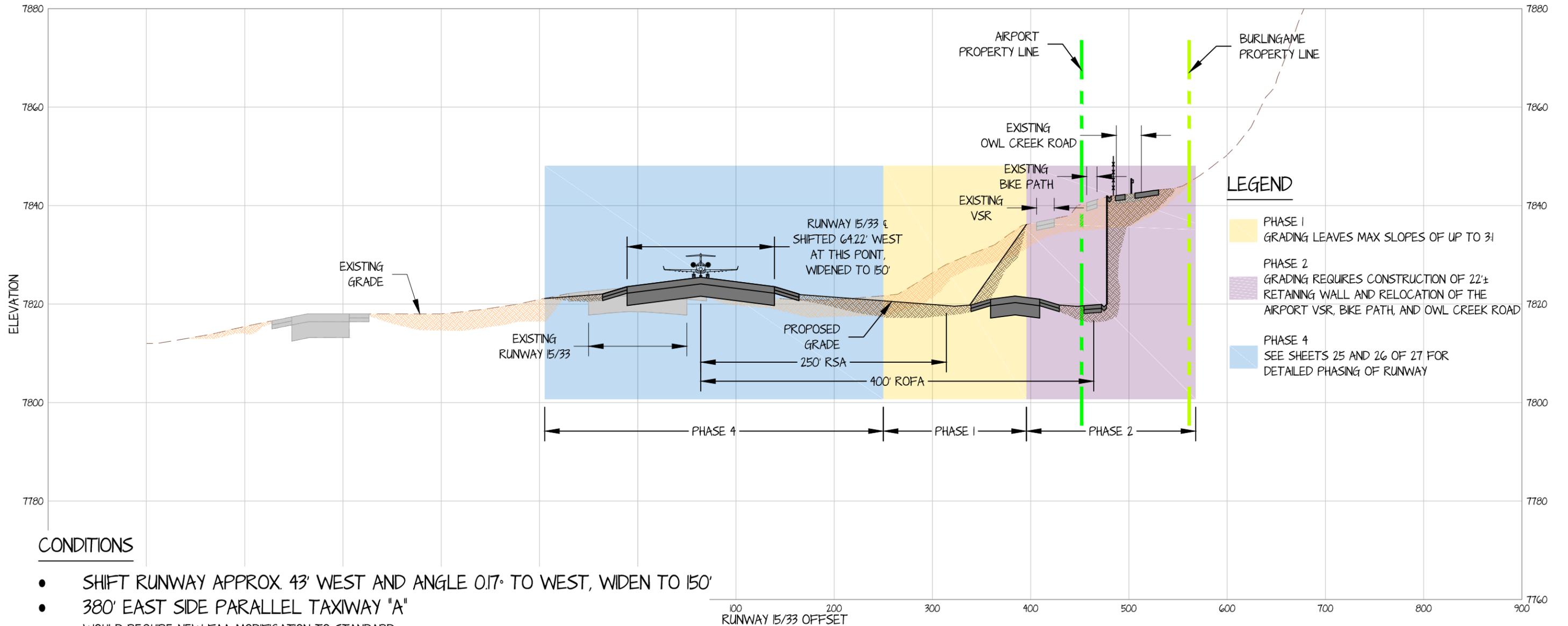
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ALTERNATIVE 13 - RSA AND ROFA GRADING - ONE 90 DAY RUNWAY SHUTDOWN



LEGEND

- PHASE 1
GRADING LEAVES MAX SLOPES OF UP TO 3:1
- PHASE 2
GRADING REQUIRES CONSTRUCTION OF 22'± RETAINING WALL AND RELOCATION OF THE AIRPORT VSR, BIKE PATH, AND OWL CREEK ROAD
- PHASE 4
SEE SHEETS 25 AND 26 OF 27 FOR DETAILED PHASING OF RUNWAY

CONDITIONS

- SHIFT RUNWAY APPROX 43' WEST AND ANGLE 0.17° TO WEST, WIDEN TO 150'
- 380' EAST SIDE PARALLEL TAXIWAY "A"
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (380' RUNWAY/TAXIWAY SEPARATION)
- 380' WEST SIDE PARALLEL TAXIWAY "B" NORTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (380' RUNWAY/TAXIWAY SEPARATION)
- 320' WEST SIDE PARALLEL TAXIWAY "B" SOUTH OF AOC
WOULD REQUIRE NEW FAA MODIFICATION TO STANDARD (320' RUNWAY/TAXIWAY SEPARATION)

100 200 300 400 500 600 700 800 900
 RUNWAY 15/33 OFFSET
 SCALE:
 HORIZONTAL: 1"=100'
 VERTICAL: 1"= 20'

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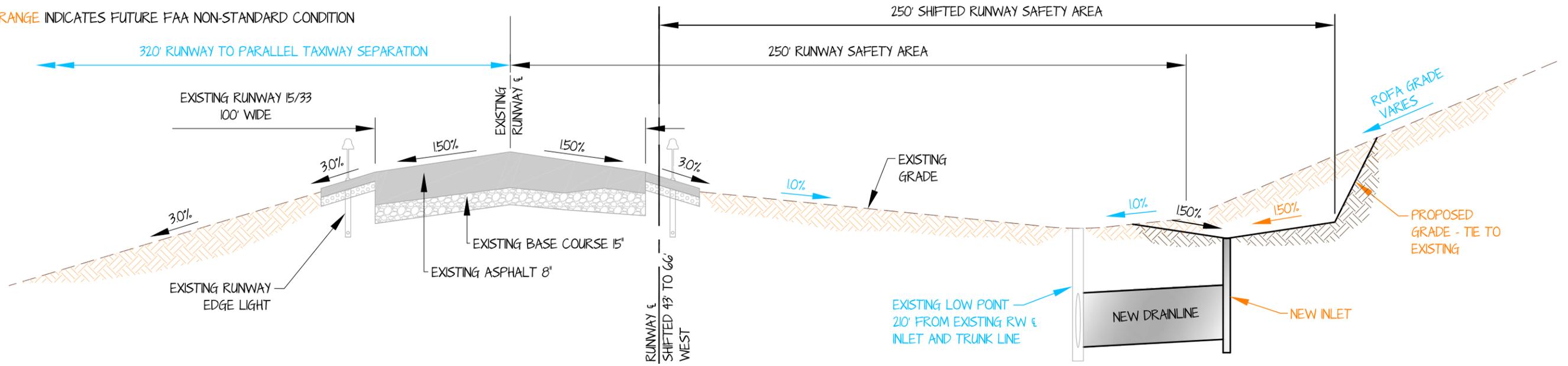
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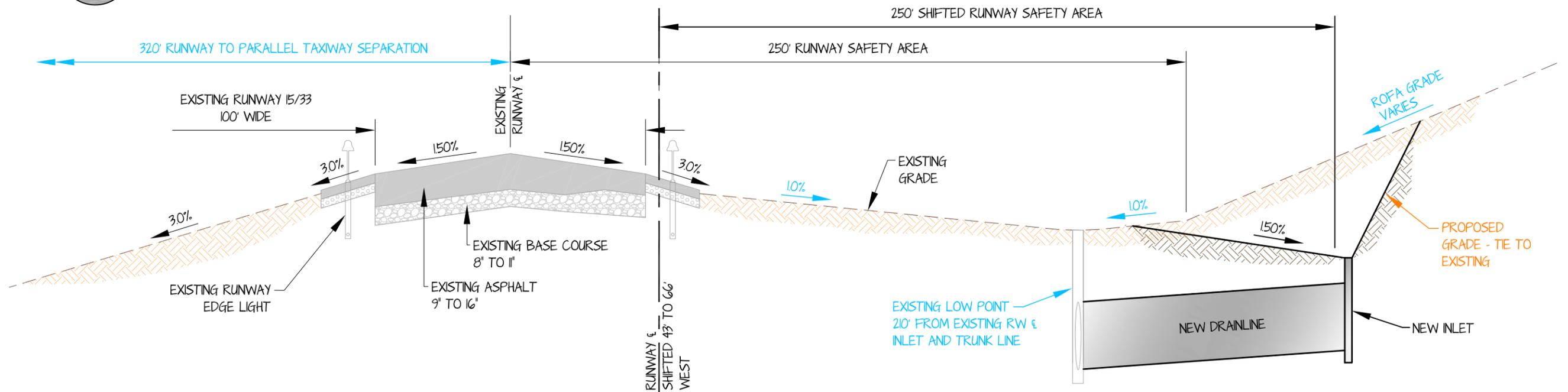
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1
23 of 27

ALTERNATIVE 13 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 320' WEST SIDE TAXIWAY



2
23 of 27

ALTERNATIVE 13 - PHASE I - DRAINAGE IMPROVEMENTS/SAFETY AREA GRADING FOR 380' WEST SIDE TAXIWAY

PHASING ASSUMPTIONS

- NIGHT WORK WITHIN EXISTING RUNWAY SAFETY AREA
- FAA ALLOWS TEMPORARY NON-STANDARD ROFA GRADING BETWEEN PHASES I AND 2
- EXISTING DRAINAGE TRUNK LINES ON BOTH THE EAST AND WEST SIDE OF THE RUNWAY HAVE CAPACITY FOR ULTIMATE BUILDOUT



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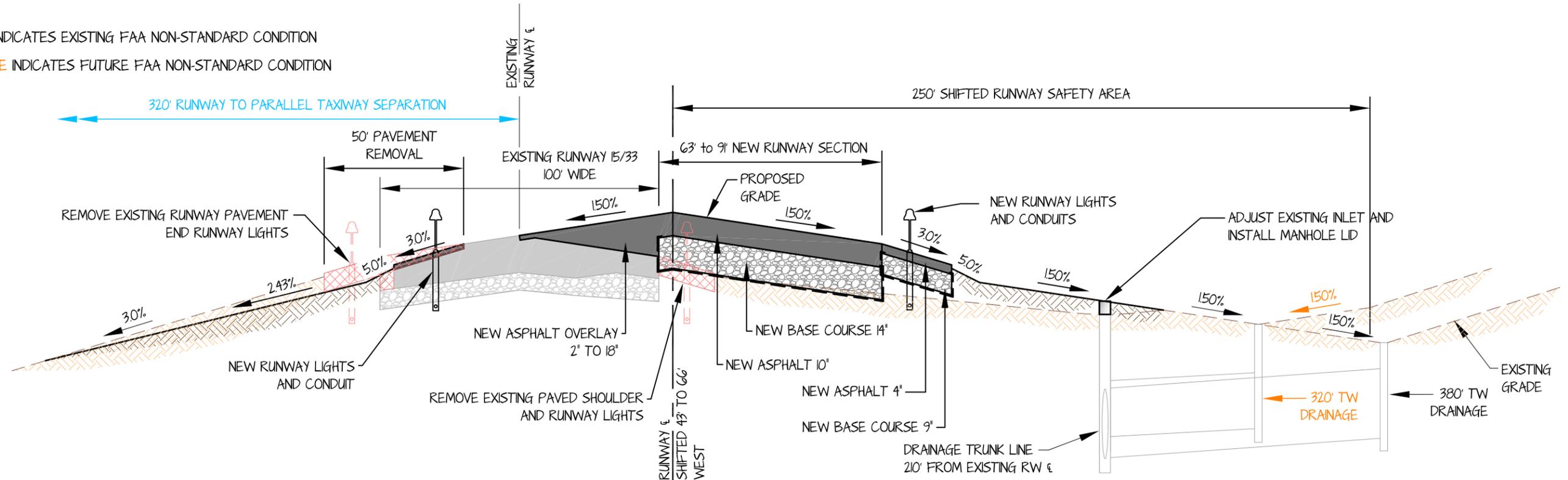
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SHEET 25 OF 27

NOTE:

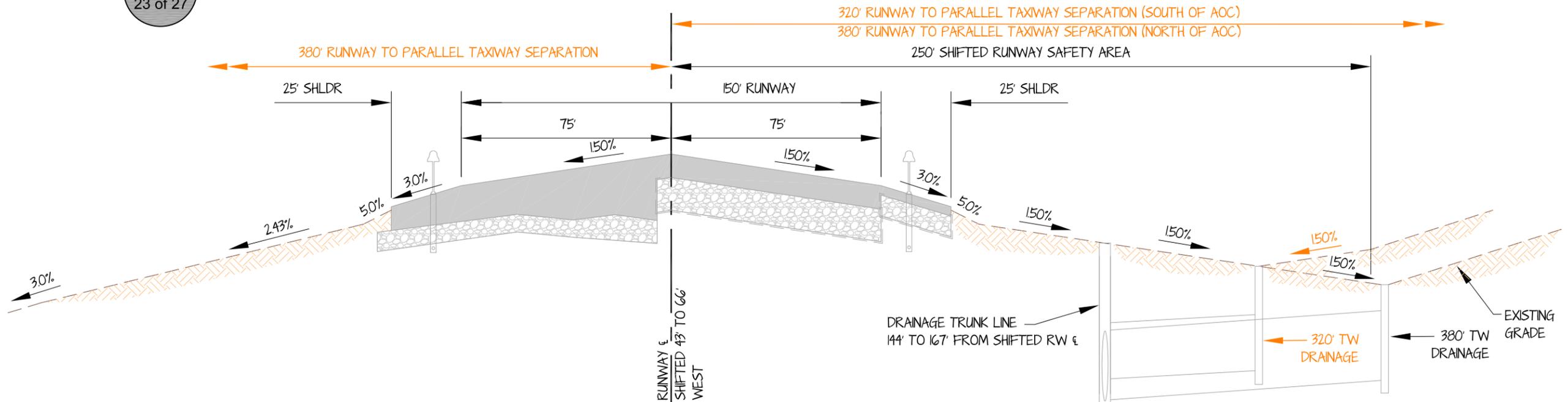
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1
23 of 27

ALTERNATIVE 13 - PHASE 4 - RUNWAY SHIFTED 43' TO 66' AND ROTATED - 90 DAY SHUTDOWN



2
23 of 27

ALTERNATIVE 13 - RUNWAY SHIFTED 43' TO 66' AND ROTATED FINAL CONDITION

PHASING ASSUMPTIONS

- ALL WORK IN PHASES 1-3 IS COMPLETE
- ALL MATERIAL FOR RUNWAY CONSTRUCTION IS STOCKPILED ON-SITE
- ASPHALT PLANT ON-SITE
- 24-HOUR WORK SCHEDULE DURING RUNWAY SHUTDOWN
- CRITICAL CONNECTOR TAXIWAYS TIED IN ON EAST SIDE
- REMAINDER OF EAST SIDE CONNECTOR TAXIWAYS AND CONNECTOR TAXIWAYS "B8" AND "B9" TIED IN AFTER RUNWAY SHIFT



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SHEET 26 OF 27

