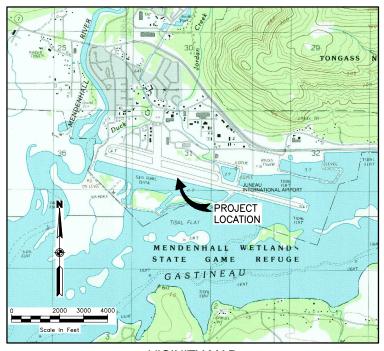
## CONSTRUCTION PLANS FOR

# CITY & BOROUGH OF JUNEAU ENGINEERING DEPARTMENT

JUNEAU INTERNATIONAL AIRPORT JNU RUNWAY 8/26 REHABILITATION CBJ CONTRACT No. E14-259 AIP No. 3-02-0133-60-2014



### **VICINITY MAP**

T 40S, R 67E, SEC 31, 32 T 40S, R 66E, SEC 36 COPPER RIVER MERIDIAN USGS JUNEAU (B-2) 1986 SW, ALASKA

RECORD DRAWING

TANTEC FROM INFORMATION AND DOCUMENTS SUPPLIED BY THE GENERAL CONTRACTOR AND INFORMATION AND COLUMENTS SUPPLIED BY THE GENERAL CONTRACTOR AND INFORMATION GRAHERED BY STANTEC, STANTEC BELIEVES THESE BRAWINGS ARE AN ACCURATE REPRESENTATION OF THE CONSTRUCTION TO THE BEST OF OUR KNOWLEDGE. AN SHADING THE STANDARD OF THE CONTRACT ASSUMES ON RESPONSIBILITY FOR ERRORS OR MISSIONS INCORPORATED AS A RESULT OF INACCURATE INFORMATION PROVIDED TO STANTEC. FIELD VERIFY INFORMATION PROVIDED TO STANTEC. FIELD VERIFY INFORMATION CONTAINED HEREON BEFORE USING.

**SHEET 1 OF 103** 

ARCHITECTURE \* ENGINEERING LAND SURVEYING \* PLANNING

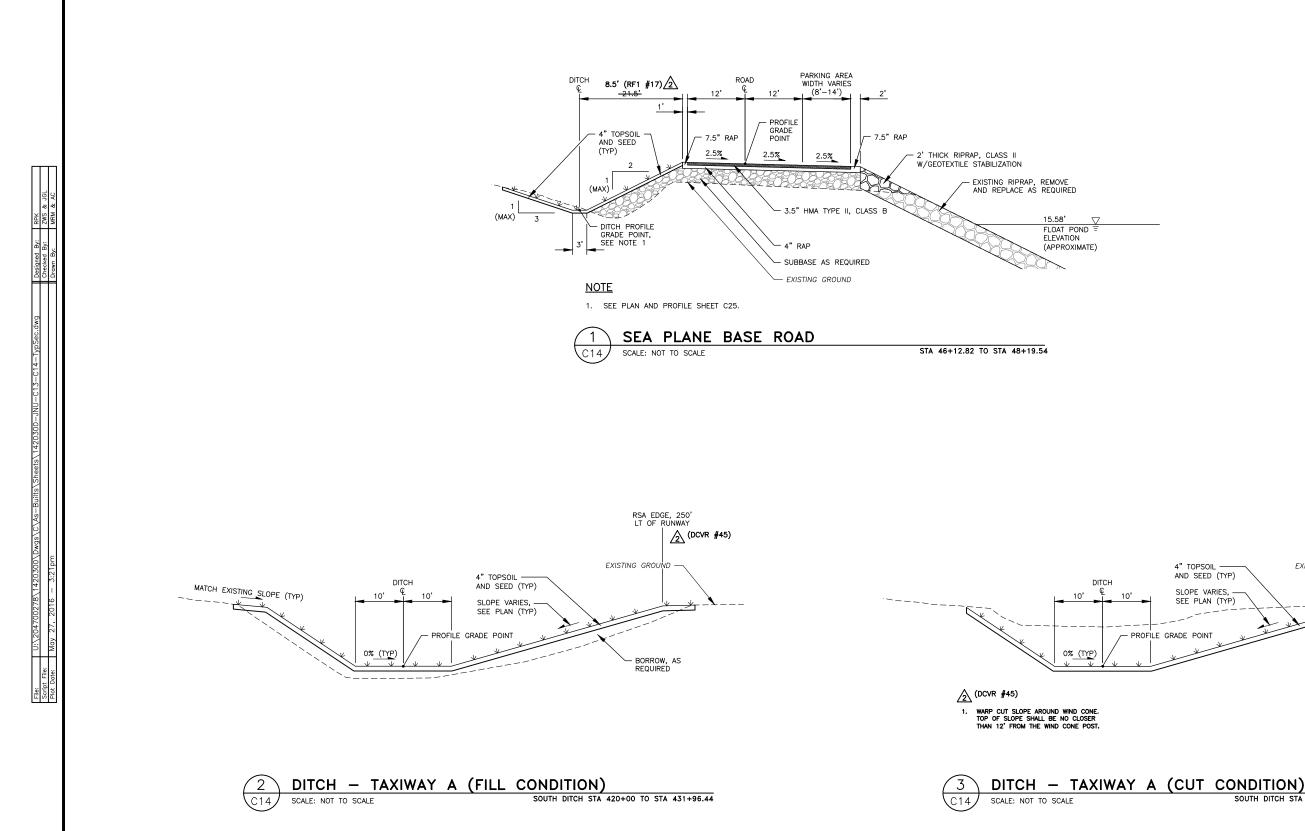


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JGL 6/25/14 1 CONFORMED DOCUMENTS

REVISIONS

JGL 5/27/16 ASBUILTS

DATE

Juneau International Airport CITY/BOROUGH OF JUNEAU 🖈 Alaska's Capital City

ARCHITECTURE • ENGINEERING

ANCHORAGE ~ FAIRBANKS ~ JUNEAU ~ WASILLA ~ SPOKANE

JUNEAU INTERNATIONAL AIRPORT JUNEAU, ALASKA RUNWAY 8-26 REHABILITATION CONTRACT NO. E14-259

SOUTH DITCH STA 420+00 TO STA 431+96.44

AIP NO. 3-02-0133-60-2014

RSA EDGE, 250' LT OF RUNWAY

EXISTING GROUND

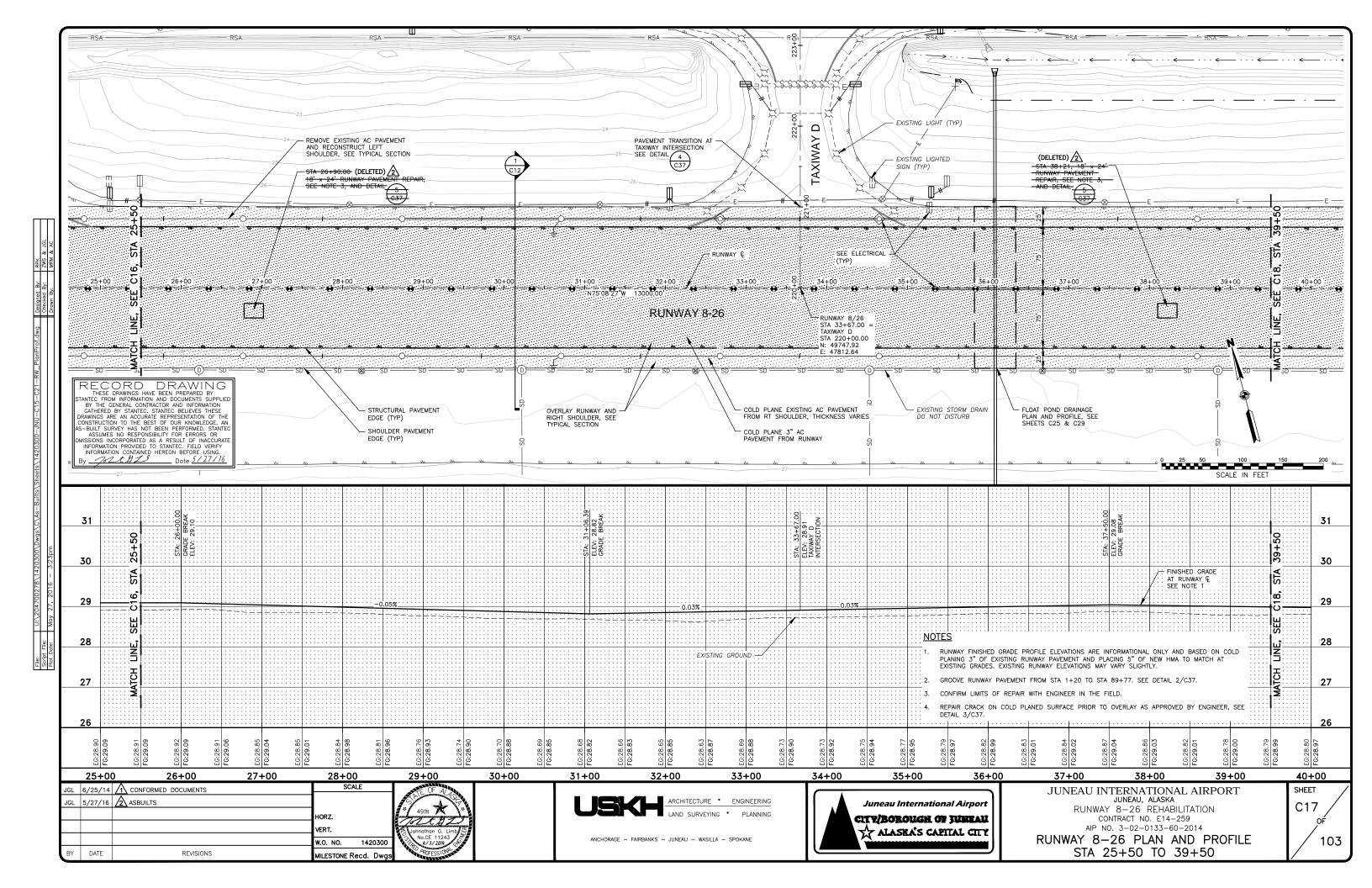
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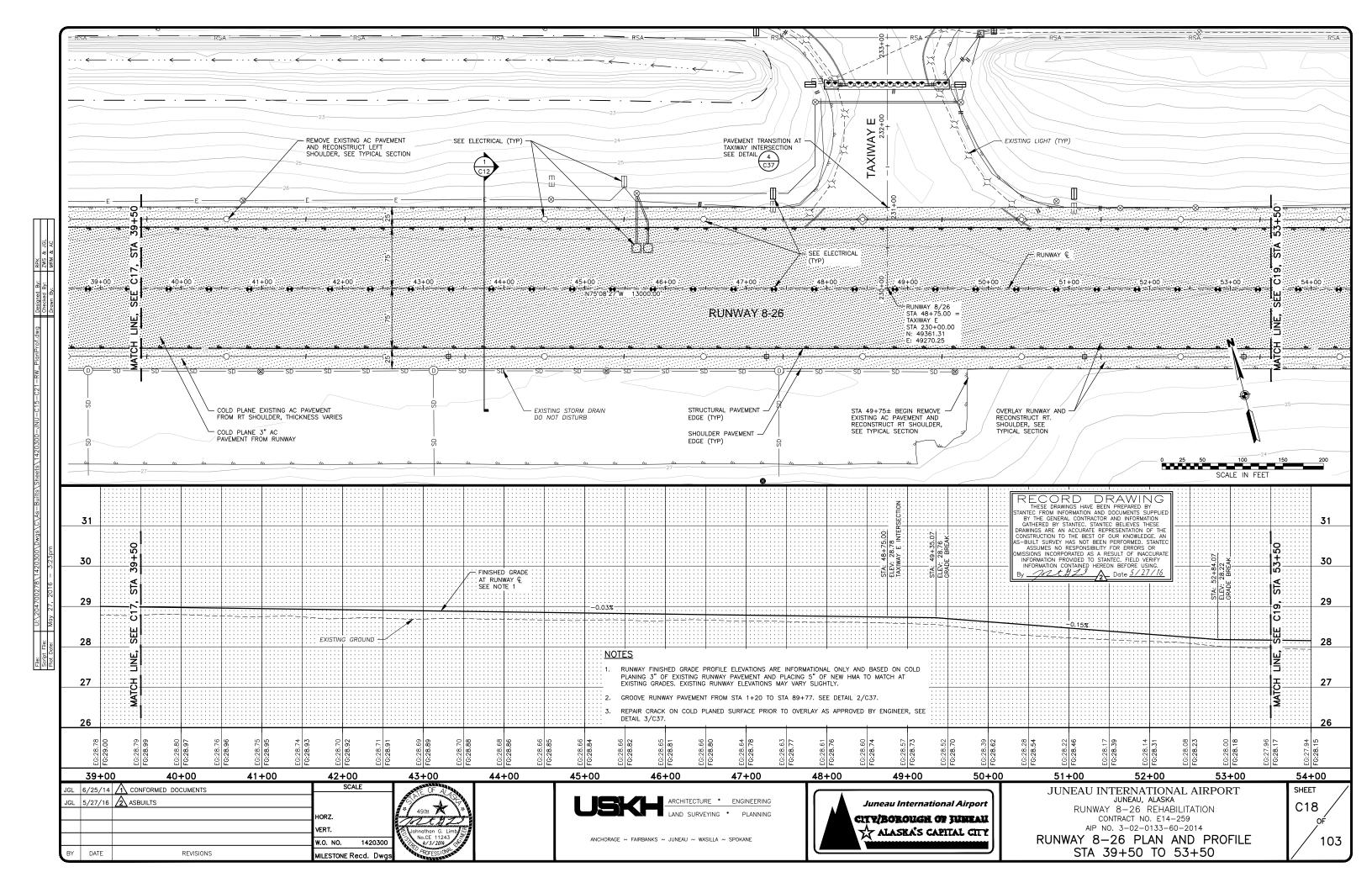
TYPICAL SECTIONS

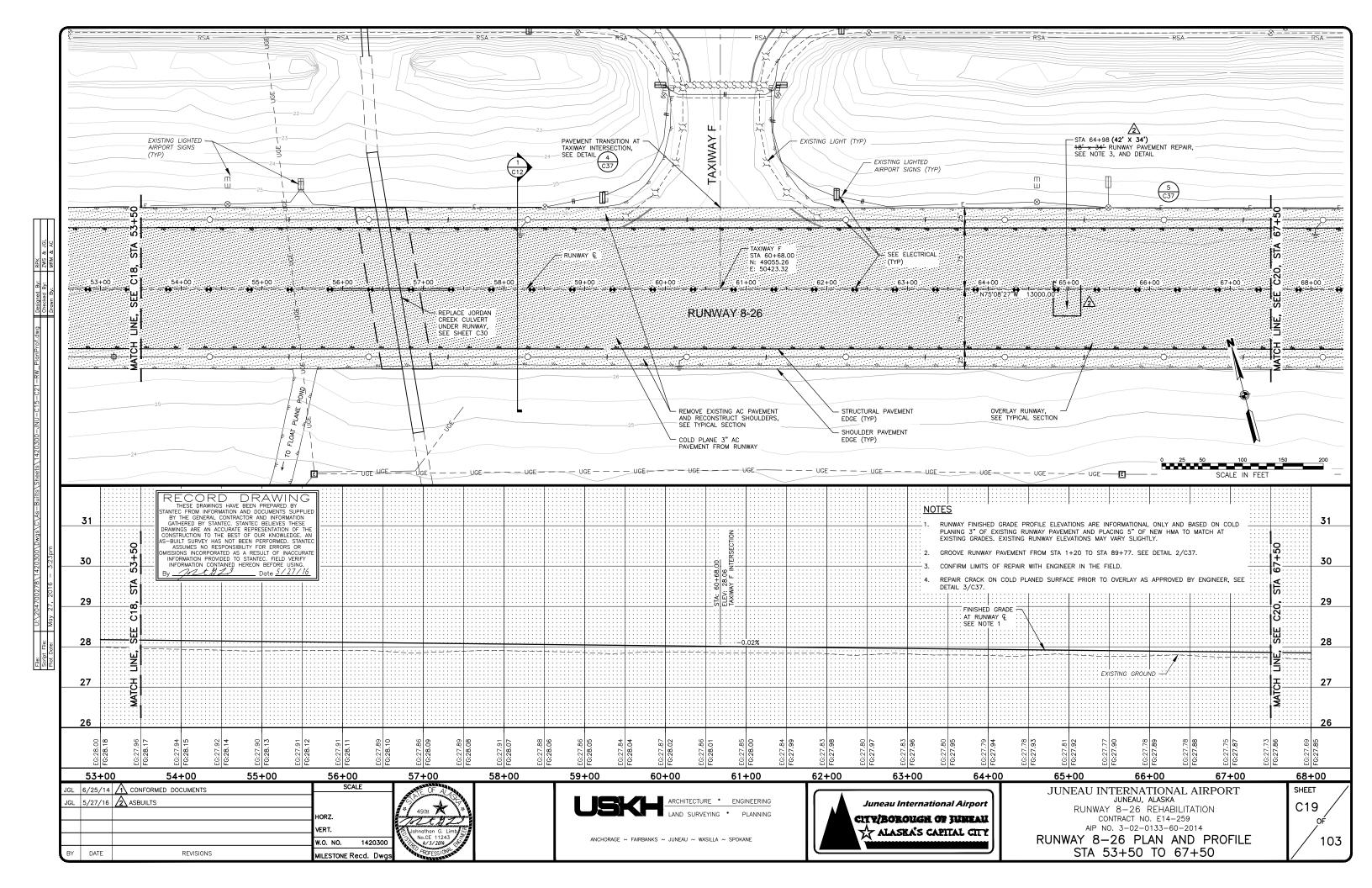
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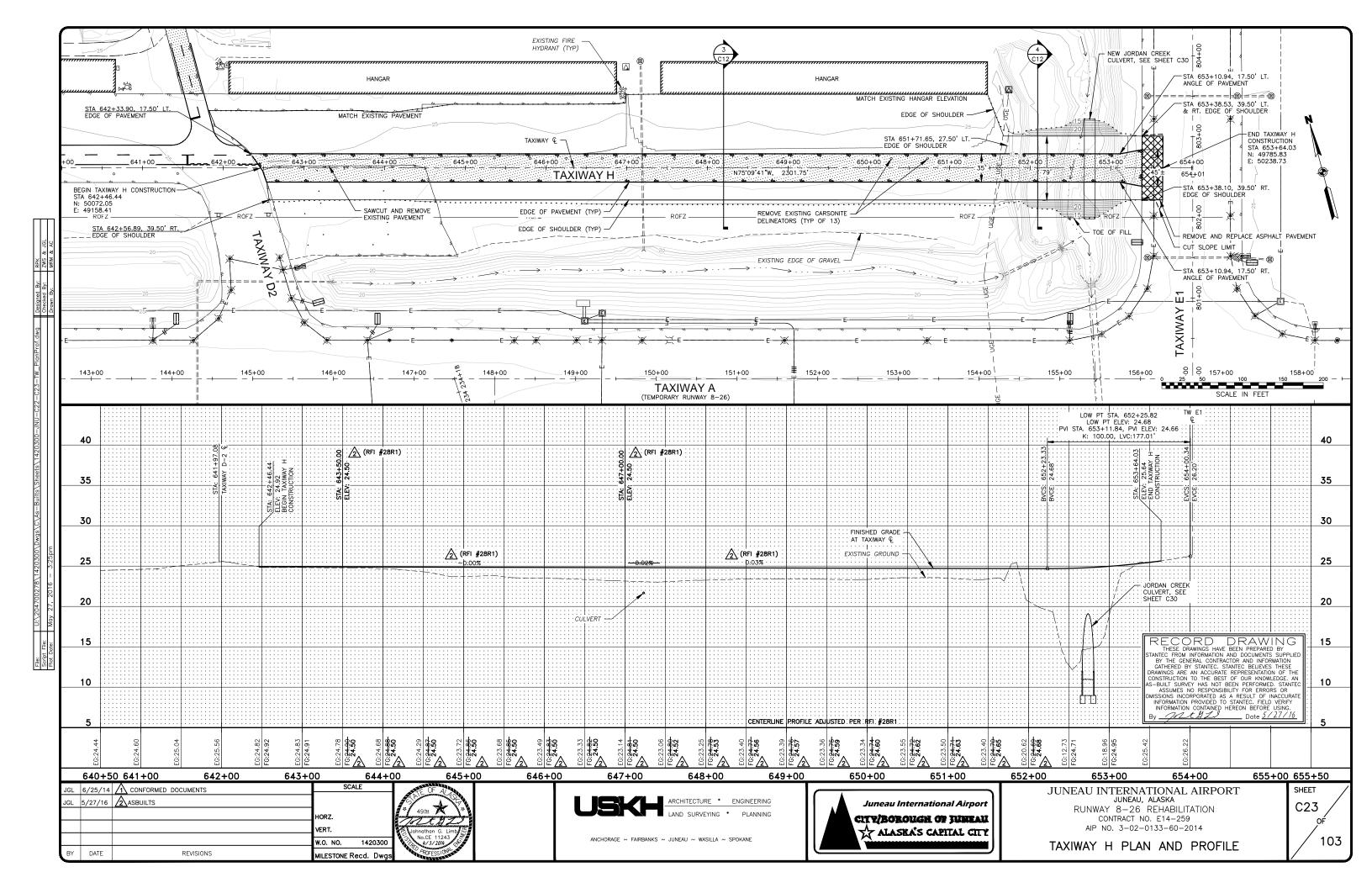
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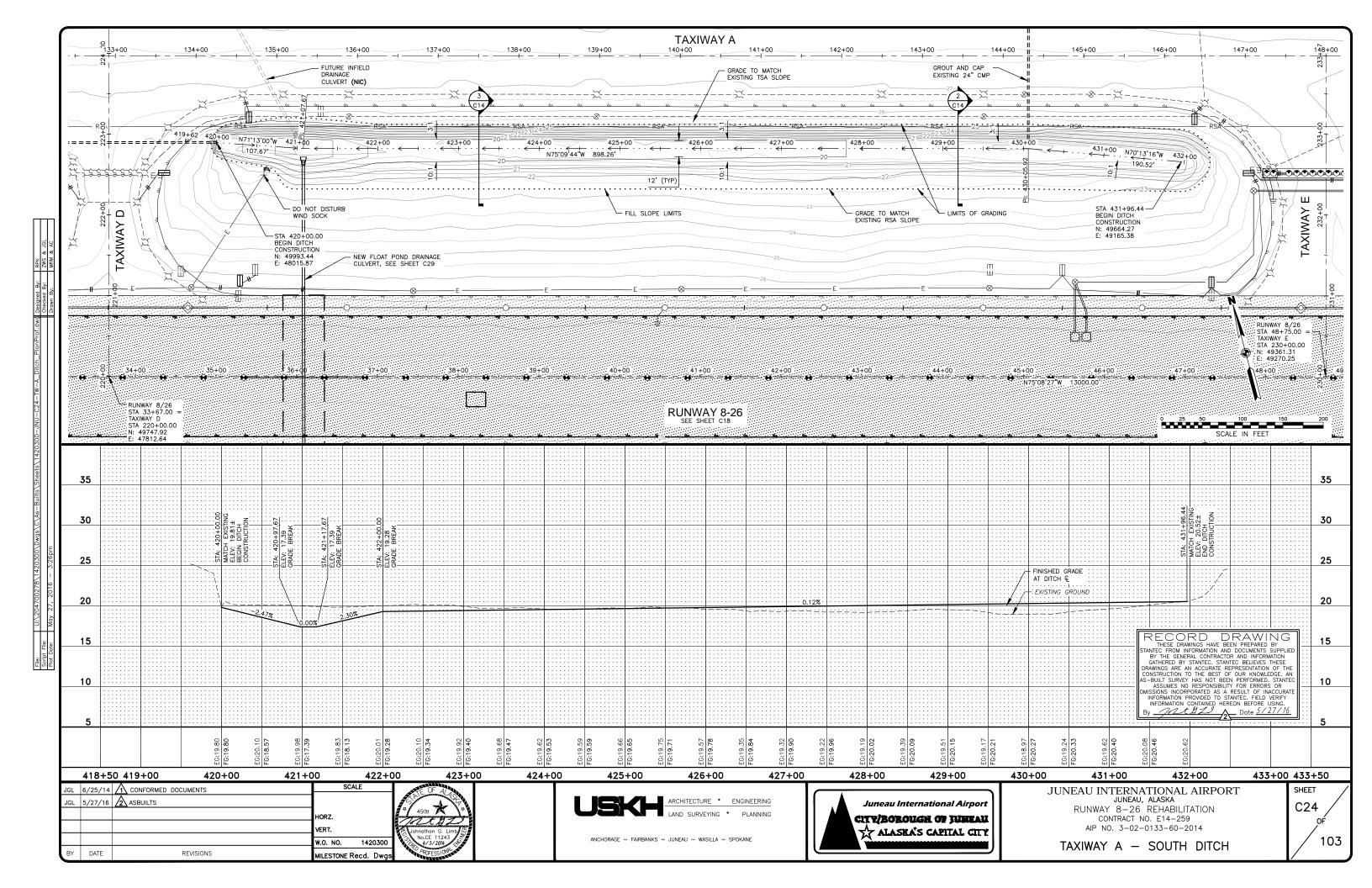
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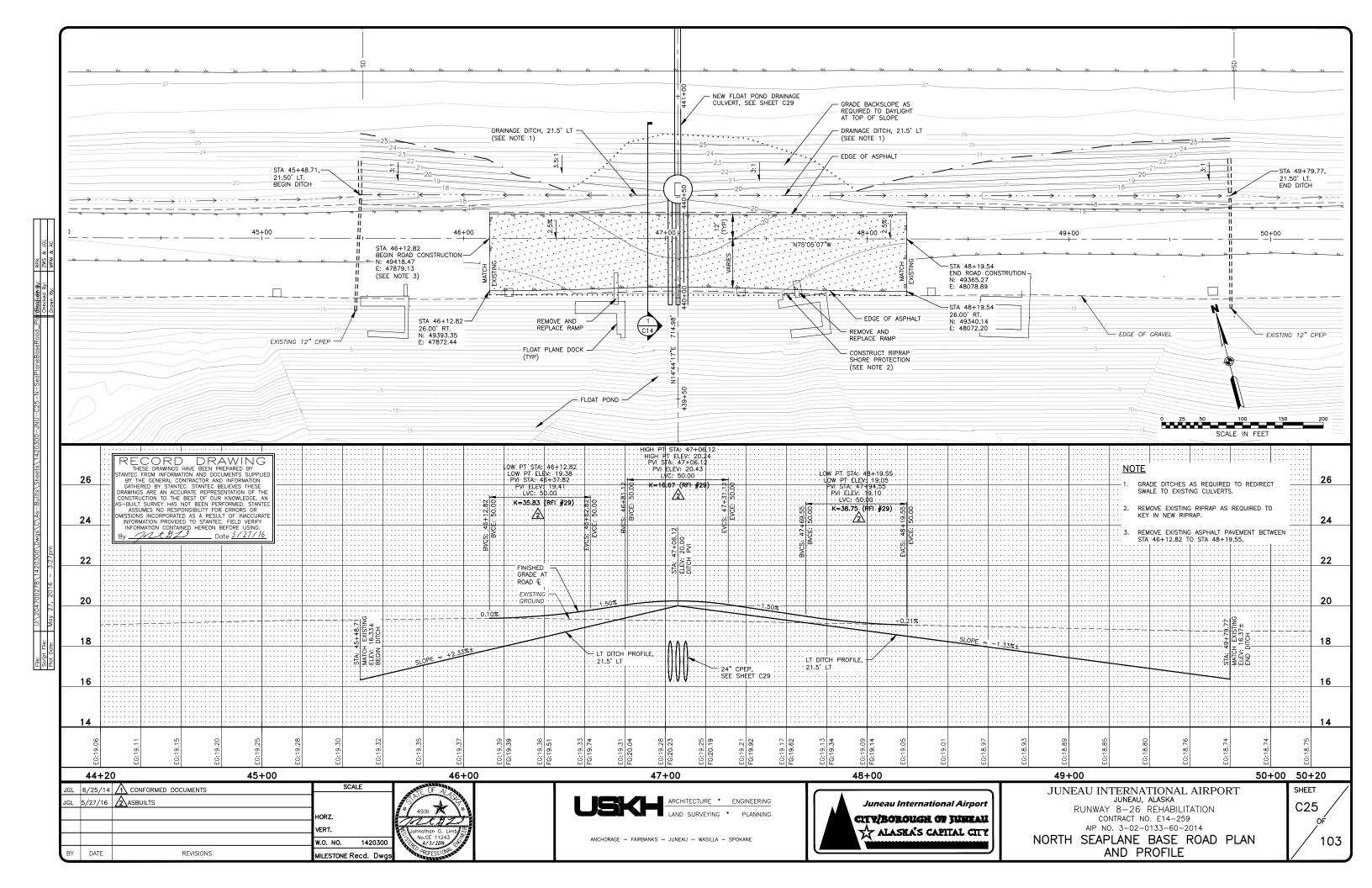


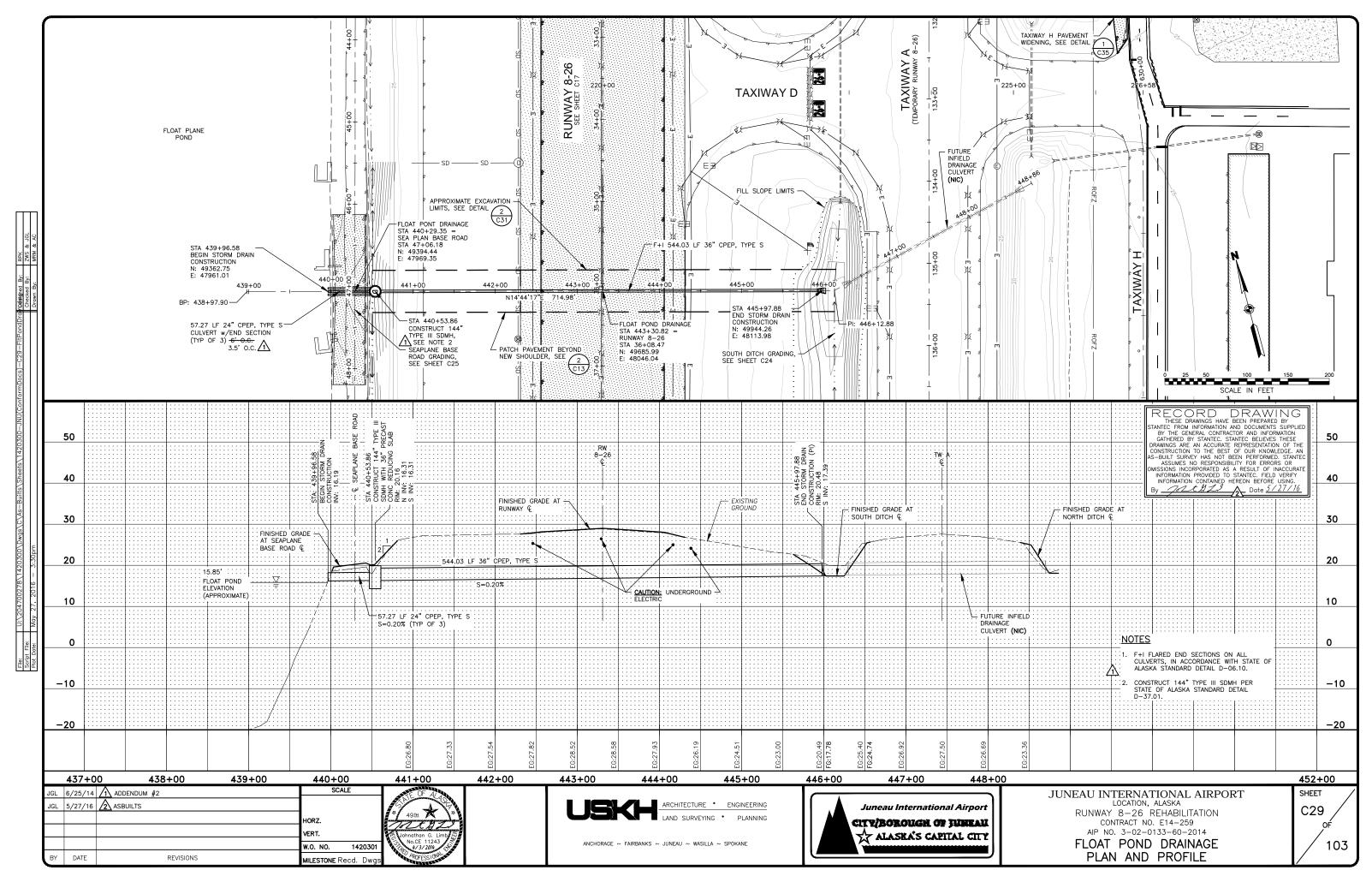


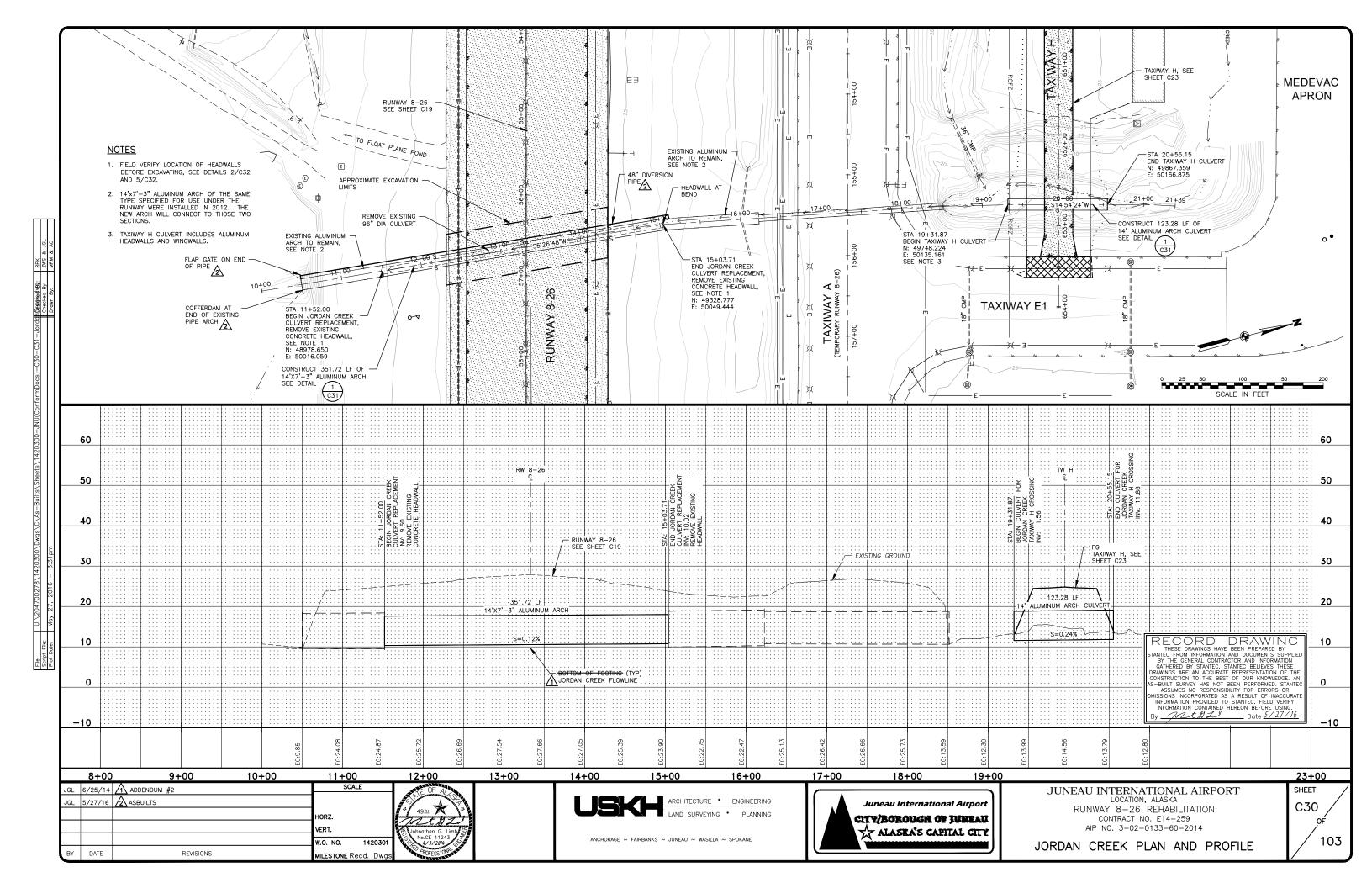


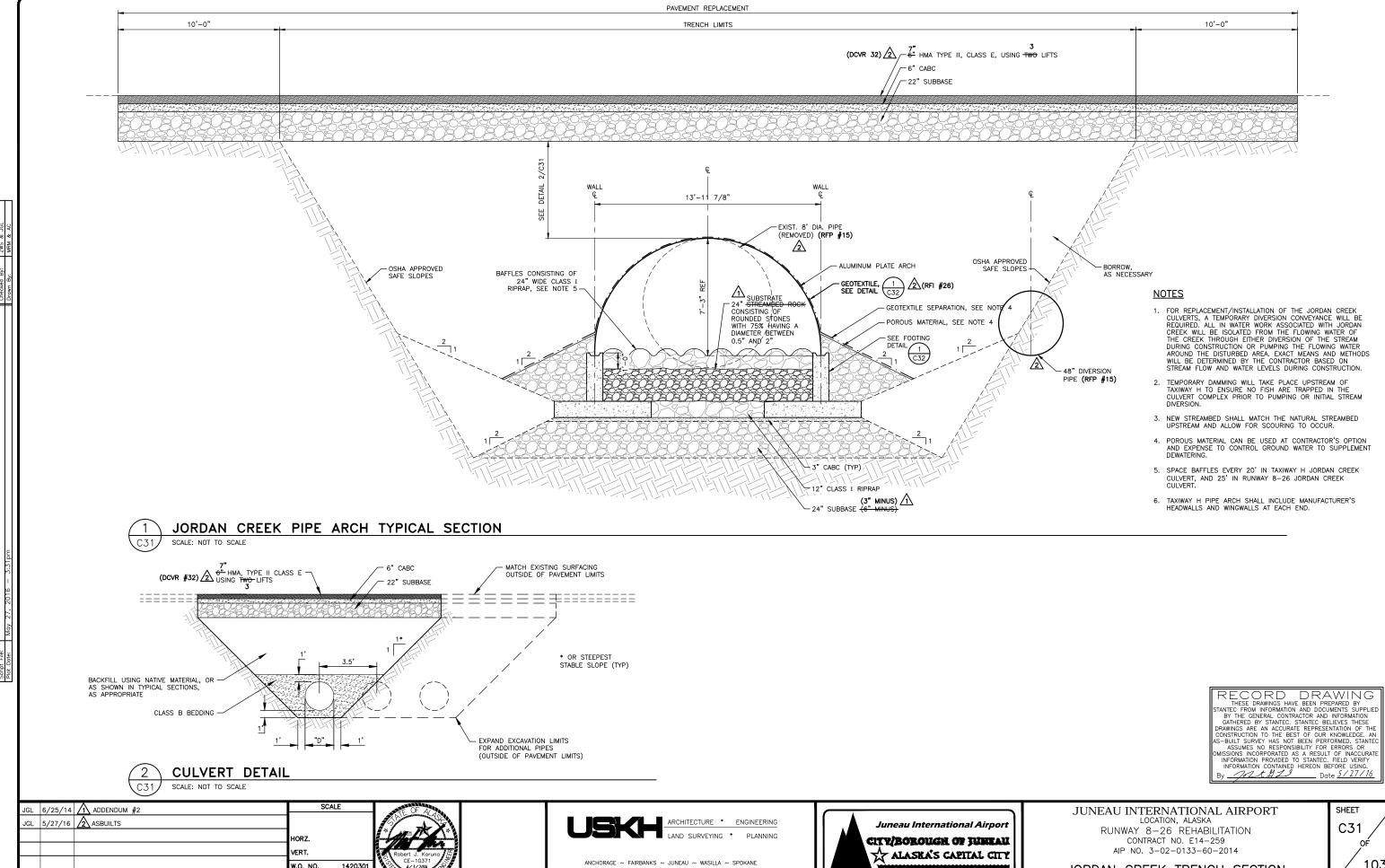












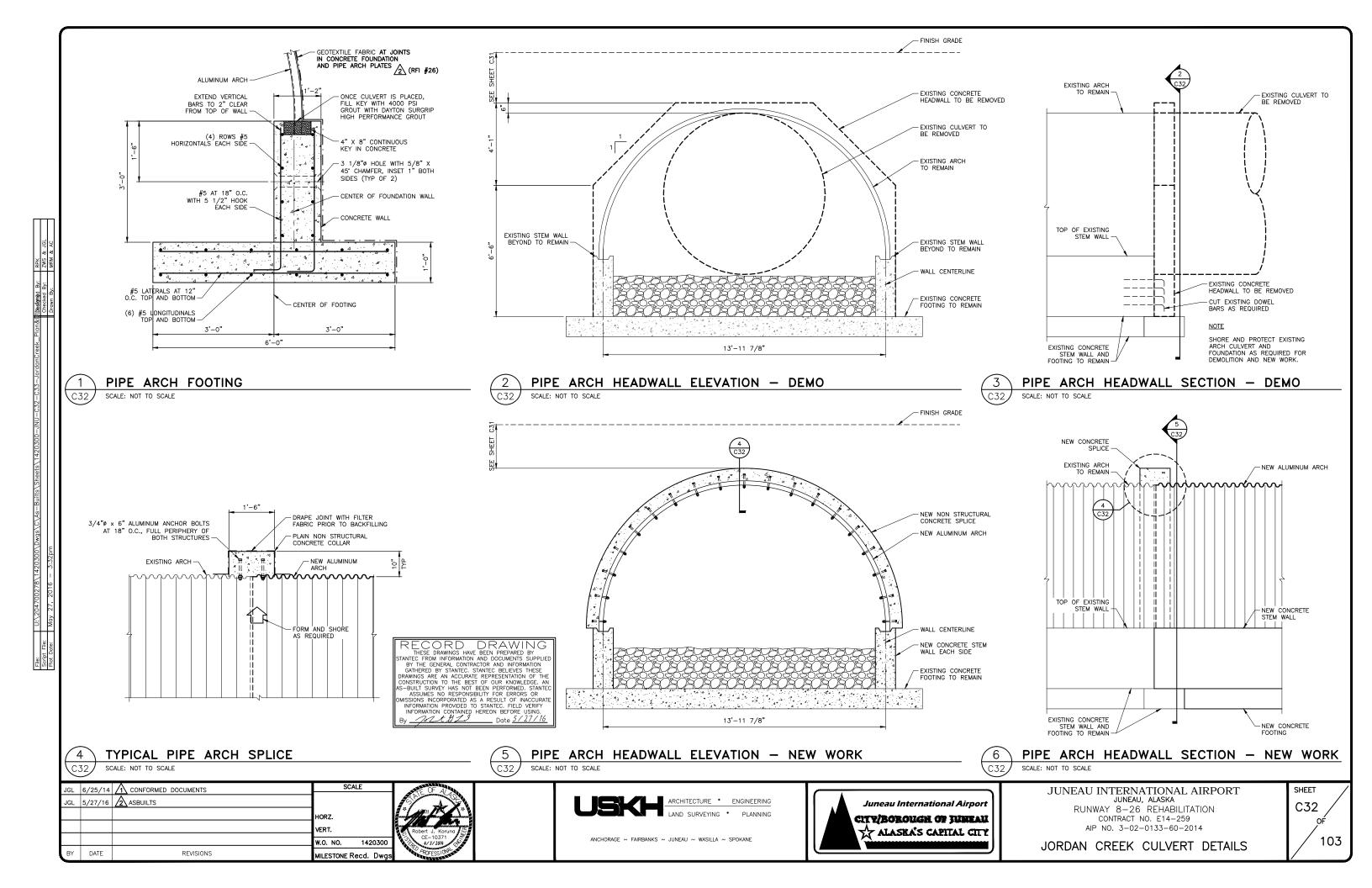
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JORDAN CREEK TRENCH SECTION



(APPLIES TO ARCH FOUNDATION)

#### SCOPE:

FOUNDATION DESIGN OF OPEN-BOTTOM ARCH CULVERT. CULVERT DESIGN BY OTHERS. FOUNDATION HAS BEEN DESIGNED BASED ON REACTIONS SUPPLIED BY CULVERT ENGINEER. USKH TAKES NO RESPONSIBILITY FOR CULVERT DESIGN OR ACCURACY OF PEACTIONS.

#### CODE:

2009 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC) WITH CITY/BOROUGH OF JUNEAU AMENDMENTS.

#### **DESIGN LOADS:**

LIVE LOAD:
BOEING 737-900 ER AIRCRAFT:
MTOW = 187,700 LB
REACTIONS PER CULVERT ENGINEER:
RV = 9,310 LB/FT
Rh = 360 LB/FT INWARD

#### **FOUNDATIONS:**

SPREAD FOOTINGS	DESIGN SOIL BEARING VALUE
SPREAD FOOTINGS ON FIRM UNDISTURBED SOIL	2,000 PSF

#### CONCRETE:

TYPICAL CONCRETE COMPRESSIVE STRENGTHS				
CONCRETE	MINIMUM 28 DAY COMPRESSIVE STRENGTH	SLUMP AT PLACEMENT		
UNLESS NOTED OTHERWISE, ALL CONCRETE SHALL BE	4,000 PSI	—4 1/2" MAXIMUM		

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".

CONCRETE CONTAINING SUPERPLASTICIZING ADMIXTURE SHALL HAVE A SLUMP NOT EXCEEDING 3", TO BE FIELD VERIFIED, PRIOR TO ADDING ADMIXTURE, AND NOT EXCEEDING 8" AT PLACEMENT.

ADDITION OF WATER TO THE BATCH FOR MATERIAL WITH INSUFFICIENT SLUMP WILL NOT BE PERMITTED.

MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED TO BE VIBRATED ONLY AROUND UNDER—FLOOR DUCTS, ETC. CAST CLOSURE POUR AROUND COLUMNS AFTER DEAD LOAD IS APPLIED. UNLESS APPROVED OTHERWISE IN WRITING BY THE ARCHITECT, ALL CONCRETE SLABS ON GRADE SHALL BE BONDED BY CONSTRUCTION JOINTS, KEYED OR SAW CUT, SUCH THAT THE ENCLOSED AREA DOES NOT EXCEED 400 SQUARE FEET. KEYED CONSTRUCTION JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING. ALL OTHER JOINTS MAY BE SAW CUT.

#### **REINFORCING:**

	TYPICAL REINFORCING BAR STRENGTHS
#3 OR LARGER———————————————————————————————————	ASTM A615 (GR60) DEFORMED — ASTM A706 (GR60) LOW ALLOY, DEFORMED

TYPICAL CLEAR CONCRE	TE COVERAGE
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EAR	TH 3"
FORMED CONCRETE EXPOSED TO EARTH OR WEATHER	#6 AND LARGER— 2" #5 AND SMALLER— 1 1/2"
FORMED CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:  SLABS OR WALLS	#6 AND LARGER—2"  #5 AND SMALLER—1 1/2"
BEAMS (TO PRIMARY REINFORCEMENT OR STIRRUPS) ————————————————————————————————————	1 1/2"

#### LAP SPLICES IN CONCRETE

UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE BEAMS, WALLS, AND SLABS SHALL BE CLASS "B" TENSION LAP SPLICES AND LAP SPLICES IN CONCRETE COLUMNS SHALL BE STANDARD COMPRESSION LAP SPLICES PER LATEST EDITION OF ACI 318, BUT NOT LESS THAN 50 BAR DIAMETERS. STAGGER ALTERNATE SPLICES A MINIMUM OF ONE LAP LENGTH.

ALL SPLICE LOCATIONS SUBJECT TO APPROVAL. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS. REINFORCING BAR SPACINGS GIVEN ARE MAXIMUM ON CENTERS (O.C.). ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. CONCRETE COLUMN DOWEL EMBEDMENT SHALL BE A STANDARD COMPRESSION DOWEL EMBEDMENT LENGTH ACCORDING TO THE LATEST EDITION OF ACIL 31.8

#### **SPECIAL INSPECTIONS:**

SPECIAL INSPECTION IS REQUIRED DURING THE FOLLOWING OPERATIONS PER IBC CHAPTER 17:

CONCRETE: DURING TAKING OF SPECIMENS AND PLACEMENT OF ALL CONCRETE. SEE PROJECT SPECIFICATIONS FOR FREQUENCY OF TESTING AND STRENGTH REQUIREMENTS.

REINFORCING STEEL: DURING PLACEMENT OF REINFORCING STEEL.

BOLTING: STRUCTURAL BOLTING AND BOLT TIGHTENING.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

1. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

2. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE CBJ AND TO THE ENGINEER OF RECORD. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE CBJ.

3. UPON COMPLETION OF THE ASSIGNED WORK, THE SPECIAL INSPECTOR SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.

#### GENERAL:

THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING OF LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC.

WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.

OPTIONS ARE FOR CONTRACTOR CONVENIENCE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF AN OPTION IS CHOSEN AND CONTRACTOR SHALL COORDINATE ALL DETAILS.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.

WHERE ANY DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES, AND SPECIFICATIONS, THE

ANY ENGINEERING DESIGN PROVIDED BY OTHERS AND SUBMITTED FOR REVIEW SHALL BEAR THE SEAL OF A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF ALASKA.

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JUNEAU INTERNATIONAL AIRPORT JUNEAU, ALASKA RUNWAY 8–26 REHABILITATION CONTRACT NO. E14–259

AIP NO. 3-02-0133-60-2014

JORDAN CREEK CULVERT NOTES

MATCH EXISTING

COLD PLANE DEPTH 3"

AT 100' LEFT OF RW Q

INITIAL EDGE OF PAVEMENT REMOV. FOR EARTHWORK SAW CUT, TACK CRUSHED AGGREGATE BASE COURSE COAT, AND MATCH EXISTING ELEVATION AND GRADES EXISTING PAVEMENT EXISTING (SEE NOTE) COURSE PROVIDE NEW SUBBASE AS REQUIRED, SEE SITE SECTIONS

#### <u>NOTE</u>

REMOVE ADDITIONAL PAVEMENT, AFTER NEW CRUSHED AGGREGATE BASE COURSE IS PLACED AND COMPACTED, AS REQUIRED TO REMOVE ALL UPHEAVAL OR BROKEN/CRACKED PAVEMENT THAT OCCURS AFTER THE INITIAL SAWCUT IS MADE.

PAVEMENT CUT AND MATCH SCALE: NOT TO SCALE

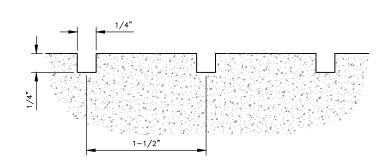
SEE NOTE 1

VARIES, MAX 1.5%

COLD PLANE DEPTH 3"

MATCH EXISTING RW CROSS SLOPE

SCALE: NOT TO SCALE



#### **NOTES**

- 1. SEE SECTION P-630 FOR ADDITIONAL REQUIREMENTS FOR PAVEMENT GROOVING.
- GROOVE RUNWAY FROM 75' LT. AND RT. OF RUNWAY CENTERLINE FROM STA. 1+20.00 TO STA. 89+77.00
- 3. GROOVE RUNWAY PRIOR TO PLACING PAVEMENT MARKINGS.

RUNWAY PAVEMENT GROOVING

PROFILE GRADE POINT -EXISTING PAVEMENT SURFACE TWO LIFTS HMA, SEE TYPICAL SECTION

### **NOTES**

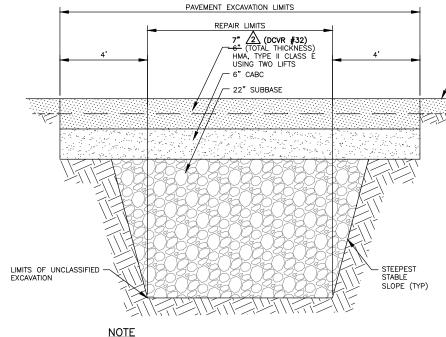
2 (RFI #53)

- ONE INCH

  1. MODIFY COLD PLANE DEPTH FROM ZERO INCHES AT 75 FEET
  LEFT TO 3" AT 100 FEET LEFT TO TRANSITION TOP LIFT OF
  OVERLAY TO MATCH EXISTING TAXIWAY PAVEMENT. (RFI #57R)
- 2. APPLY TACK COAT TO ALL COLD PLANED SURFACES AND SUCCESSIVE LIFTS PRIOR TO PAVING.

(DCVR #36) 23 TRANSITION THE RUNWAY SHOULDER SLOPES TO THE TAXIWAY SHOULDERS OVER 50 FEET PRIOR TO THE POINT OF CURVATURE OF THE TAXIWAYS SHOULDER PAVEMENT EDGE AT THE NEW RUNWAY SHOULDER PAVEMENT EDGE.

TYPICAL PAVEMENT TRANSITION AT TAXIWAY INTERSECTIONS



LIMITS SHOWN IN PLAN VIEW ARE APPROXIMATE. ACTUAL LIMITS TO BE DETERMINED BY THE ENGINEER.

RUNWAY PAVEMENT REPAIR

SCALE: NOT TO SCALE

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BY DATH MALE arkapparack repair detail SCALE: NOT TO SCALE FULLY DRIVEN POSITION CUT LINK AND ATTACH LOAD LOCK 3/8" SHACKLE RLINWAY POSITION COLDPLANE AND OVERLAY BELOW FINISH GRADE (D) TING BASE COURSE EXISTING FILL AL UMINUM DRIVE ROD MATERIAL SWAGE (TYP) 138-DB1C ALUMINUM -DUCKBILL ANCHOR OR APPROVED FOUAL APPROX. 80 EACH ANCHORS — (NOT USED ON PROJECT) 3/8" TO BE <del>5/16"</del> PROF COIL, GALVANIZED (30" LONG). MUMINUM SWAGE AND COIL CHAIN SHALL EXCEED IN STRENGTH THE

COLD PLANED SURFACE

TACK COAT

2

SCALE: NOT TO SCALE

C37

CRACK REPAIR PROCEDURES

BROOM AND &OMPRESSED AIR.

1. CLEAN CRACKS OF ALL LOOSE MATERIAL WITH

€ CRACK

2. FILL CRACKS 3/8" WIDE AND LARGER WITH COMPACTED MIXTURE OF EMULSITED ASPHALT AND FINE TO MEDIUM SAND, UNTIL EVEL WITH COLD PLANED SURFACE. CRACKS SMALLER THAN 3/8" SHALL BE FIXED WITH HOT BITUMINOUS MATERIAL.

ASPHALT EMULSION/SAND

OR HOT BITUMINOUS

SCALE: NOT TO SCALE

JGL	6/25/14	/1\ ADDENDUM #2	SCALE	
JGL	5/27/16	<u>^</u> ASBUILTS		
			HORZ.	*
			VERT.	
			W.O. NO. 1420301	
BY	DATE	REVISIONS	MILESTONE Recd. Dwgs	1 7



ANCHORAGE ~ FAIRBANKS ~ JUNEAU ~ WASILLA ~ SPOKANE



JUNEAU INTERNATIONAL AIRPORT LOCATION, ALASKA

AIRCRAFT TIE-DOWN SOIL ANCHOR

PROVIDE TWO 18" TALL ORANGE TRAFFIC CONES FOR EACH RARKING POSITION. STENCIL THE PARKING POSITION NUMBER ON ONE SONE AND ATTACH TO RIGHT WING TIE—DOWN WITH DOUBLE SAFETY WIRE IN SEQUENTIAL ORDER AS INDICATED ON MARKING PLANS.

SEE ALTERNATIVE DESIGN, SHEET C37A (RFP #4)

RUNWAY 8-26 REHABILITATION CONTRACT NO. E14-259 AIP NO. 3-02-0133-60-2014

**DETAILS** 

SHEET C37

103