ADDENDUM TO THE CONTRACT

for the

Juneau International Airport (JNU)
Runway Safety Area Improvements, Phase 2C Re-Bid

Contract No. BE18-213

ADDENDUM NO.: **THREE** **CURRENT DEADLINE FOR BIDS:** **July 27, 2018**

PREVIOUS ADDENDA: **TWO**

ISSUED BY: City and Borough of Juneau
ENGINEERING DEPARTMENT
155 South Seward Street
Juneau, Alaska 99801

DATE ADDENDUM ISSUED: **July 24, 2018**

The following items of the contract are modified as herein indicated. All other items remain the same. This addendum has been issued and is posted online. Please refer to the CBJ Engineering Contracts Division webpage at: http://www.juneau.org/engineering_ftp/contracts/Contracts.php

QUESTIONS AND ANSWERS

Question: Why is the HMA Type II, Class B oil called out as PG 52-28 instead of the PG 58-28 normally used by the CBJ and ADOT in Juneau?
Answer: All instances of PG 52-28 have been revised to PG 58-28. See addendum items below.

Question: Sheet 19 – TD1 has 40' section with unidentified percent grade.
Answer: Sheet 19 has been revised and re-issued. See addendum items below.

Question: Why is there grid with elevations shown that vary from what the typical section called for a uniform 1% cross slope? There are also slopes shown from 0.1% to 1.5%.
Answer: Typical section has been revised to reference grading sheet. See addendum items below.

Question: Grade break on Sheet 28 does not match the grade break location on Sheet 11 typical sections.
Answer: Sheet 11 typical sections have been revised. See addendum items below.

Question: G-100 Mobilization: 100-4.1c says will pay '40$' instead of '40%'.
Answer: This item has been corrected. See addendum items below.

Question: Item P-610a is included in three of the bid schedules but the spec section says it will only be valid for the work at Gate E only which is in bid tab 2.
Answer: Item P-610 has been revised. See addendum items below.

Question: Item U-100D Frostproof Hydrant is not defined in the specifications.
Answer: Frostproof Hydrant information has been added to U-100 specification. See addendum items below.

Question: Item U-200d sump pump is not defined in specifications.
Answer: Item U-200d sump pump has been added to the U-200 specification. See addendum items below.

VOLUME I - SPECIFICATIONS:

Item No. 1 Section 00 4114 – BID SCHEDULE, **REPLACE** this section in its entirety with the included **00 4114 - BID SCHEDULES-Addendum No. 3**.

Item No. 2 Section 01 5200 SECURITY AND SAFETY, **REPLACE** this specification in its entirety with the included 01 5200 SECURITY AND SAFETY.

VOLUME I, PART II – TECHNICAL SPECIFICATIONS:

Item No. 3 Item G-100 MOBILIZATION AND DEMOBILIZATION, PART 2 – METHOD OF MEASUREMENT, Section 100-4.1c, **REVISE** as follows:

c. When 50% or more of the original contract is earned, an additional 40**%**.

Item No. 4 Item F-162, PART 3 – CONSTRUCTION METHODS, 162-3.8 GATE INSTALLATION, **ADD** the following at the end of the paragraph:

Reinstall all salvaged signs at the locations on the new gate as designated by the Engineer. Use new stainless-steel hardware for all new sign installation, and provide sufficient mounting points to ensure all signs are securely fastened to the fence with no loose edges. Reinstall salvaged security camera to new gate as directed by Engineer.

Item No. 5 Item F-162, PART 3 – CONSTRUCTION METHODS**, ADD** the following after 162-3.11:

162-3.12 REMOVE EXISTING SLIDE GATE. Remove existing slide gate will include full removal of existing gate, gate posts and foundations, fence fabric, all hardware, existing gate operator, existing card reader, and all existing ancillary devices associated with the existing gate control system that are to be replaced. This item will also include removal of all existing signage on Gate E and adjacent fence panels, removal of the existing security camera mounted to the existing gate, and salvage of all removed materials to the Airport.

Item No. 6 Item F-162 CHAIN-LINK FENCE, PART 4 – METHOD OF MEASUREMENT, **DELETE** all measurement items and **REPLACE** with the following:

162-4.1. Chain-link fence will be measured along the top of the fence from center to center of end posts, excluding the length occupied by gate openings.

162-4.2. Temporary Fence will be measured along the top of the fence from center to center of end posts, excluding the length occupied by gate openings.

162-4.3. Temporary Swing Gate will be measured as complete units. Measurement will include installation at the start of work and removal after temporary gate is no longer needed.

162-4.4. 18-foot Single Cantilever Slide Gate will be measured as a complete unit. Measurement will include all motors, operators, card readers, controls, control devices, obstruction detection devices, limit switches, emergency release mechanism, loops, accessories, and all other materials and devices to provide a complete and fully-functioning gate. No separate measurement will be made for reinstallation of all salvaged signage and the salvaged security camera.

162-4.5. Remove existing slide gate will be measured as a complete unit. Measurement will include full removal of existing gate, gate posts and foundations, fence fabric, all hardware, existing gate operator, existing card reader, and all existing ancillary devices associated with the existing gate control system that are to be replaced. No separate measurement will be made for removal and salvaging of all existing signage on the gate and adjacent fence, and removal and salvage of the existing camera.

Item No. 7 Item F-162 CHAIN-LINK FENCE, PART 5 – BASIS OF PAYMENT, **REVISE** 162-5.1 as follows:

162-5.1 Payment will be made at the contract unit price per linear foot for fence and per each for **new** gates **and gate removals**.

Item No. 8 Item F-162 CHAIN-LINK FENCE, PART 5 – BASIS OF PAYMENT, **REVISE** items listed under "Payment will be made under:" to the following:

Item F-162a	Remove Chain-Link Fence - per linear foot
Item F-162b	Temporary Fence – per linear foot
Item F-162c	Temporary Swing Gate – per each
Item F-162d	18-foot Single Cantilever Slide Gate - per each
Item F-162e	Remove Existing Slide Gate – per each

Item No. 9 Item F-170 STEEL BOLLARD, PART 1 – DESCRIPTION, 170-1.1, **REVISE** this section as follows: "This item consists of replacing and/or installing new steel bollards **(guard posts) as shown on the plans and/or as required by CBJ Standard Detail**."

Item No. 10 Item F-171 POWER GATE OPERATORS, PART 2 - MATERIALS, Section 171-2.2 COMPONENTS, Part a. Operators, **ADD** the following after list item iv:

v. Operator shall include snow kit that includes snow brush and scrapers to reduce snow and ice buildup in operator and on drive rail.

Item No. 11 Item F-171 POWER GATE OPERATORS, PART 2 - MATERIALS, Section 171-2.2 COMPONENTS, Part G Control Devices, **ADD** the following after list item number 3:

4. Push Button. New Gate Operator shall include a push button that can be programmed for use by pedestrians to open the new gate from the inside (secure side) of the gate.

Item No. 12 Item F-171 POWER GATE OPERATORS, PART 3 – CONSTRUCTION REQUIREMENTS, Section 171-3.7 GUARANTEE, **REPLACE** this paragraph in its entirety with the following:

The Contractor shall guarantee that all materials or workmanship found defective within one year of final acceptance will be replaced at Contractor's expense, promptly upon notification and to the satisfaction of the Owner. The Contractor shall also provide a project-specific 5-year warranty to the Owner, from the manufacturer, for the power gate operator. The start date for the warranty will be the date of Substantial Completion of this project.

Item No. 13 Item P-209 CRUSHED AGGREGATE BASE COURSE, PART 2 – MATERIALS, **ADD** the following after 209-2.1:

209-2.2 FILTER FABRIC. Filter Fabric for temporary detour route shall be nonwoven geotextile for soil stabilization that meets AASHTO M-288.

Item No. 14 Item P-209 CRUSHED AGGREGATE BASE COURSE, PART 3 – CONSTRUCTION METHODS, **ADD** the following after 209-3.10:

209-3.11 FILTER FABRIC. Filter fabric shall be installed under temporary detour route for Gate E replacement. Fabric shall cover full-width of temporary roadway, and shall have minimum 2' overlap on any longitudinal joints.

Item No. 15 Item P-209 CRUSHED AGGREGATE BASE COURSE, PART 4 – METHOD OF MEASUREMENT, **ADD** the following at the end of this section:

No specific unit of measurement will apply to filter fabric. This item is incidental to temporary detour route construction.

Item No. 16 Item P-401 PLANT HOT MIX ASPHALT PAVEMENT, PART 8 – BASIS OF PAYMENT, Section 401-8.1 PAYMENT, Price Adjustment calculations, **REVISE** as follows:

PAB for Hot Mix Asphalt with PG **58**-28 = $100.

Item No. 17 Item P-401 PLANT HOT MIX ASPHALT PAVEMENT, PART 9 – BASIS OF PAYMENT, **REVISE** Item P-401e as follows:

Item P-401e Asphalt Cement, PG **58**-28 – per ton

Item No. 18 Item P-610 STRUCTURAL PORTLAND CEMENT CONCRETE, PART 4 – METHOD OF MEASUREMENT, Section 610-4.1, **REPLACE** this paragraph with the following:

610-4.1 Structural portland cement concrete will be measured by the number of cubic yards of concrete complete in place and accepted. Measurement will be made at the Gate E location, Aircraft Rated Storm Drain Manhole Covers, thrust blocking for NWDA Water and Sewer, and Aircraft Washdown Facility only. In computing the volume of concrete for payment, the dimensions used will be those shown on the Plans or ordered by the Engineer. No measurements or other allowances will be made for excavation and disposal of existing concrete, forms, falsework, cofferdams, pumping, bracing, cutting and sealing expansion joints, reinforcing steel, or finishing of the concrete. No deductions will be made for the volumes of reinforcing steel or embedded items. If the pay item appears at locations other than Gate E, Aircraft Rated Storm Drain Manhole Covers, thrust blocking, and Aircraft Washdown Facility, no measurement for payment will be made. All portland cement concrete not specifically measured above will be considered incidental to other bid items.

Item No. 19 Item P-610 STRUCTURAL PORTLAND CEMENT CONCRETE, PART 5 -BASIS OF PAYMENT, Section 610-5.1, **REPLACE** the first paragraph with the following:

610-5.1 Payment for P-610a at the Gate E location, Aircraft Rated Storm Drain Manhole Covers, thrust blocking for NWDA water and sewer, and Aircraft Washdown Facility will be made at the contract unit price per cubic yard for structural portland cement concrete. Reinforcing steel will be subsidiary to the work.

Item No. 20 Item U-100 WATER SYSTEM, PART 2 – MATERIALS, **ADD** the following after 100-2.15 TEMPORARY WATER SYSTEM:

100-2.16 YARD HYDRANT. Frostproof Yard Hydrant shall be Campbell J1 Heavy Duty Frostproof (YH-4) yard hydrant or approved equal. All other materials shall be as shown on the Plans.

Item No. 21 Item U-100 WATER SYSTEM, PART 3 – CONSTRUCTION REQUIREMENTS, **ADD** the following after 100-3.16 DISINFECTION:

100-3.17 YARD HYDRANT
Frostproof Yard Hydrant shall be installed as shown in the Plans or as directed by the Engineer.

Item No. 22 Item U-100 WATER SYSTEM, PART 4 – METHOD OF MEASUREMENTS, **ADD** the following:

100-4.5 Frostproof Yard Hydrants will be measured per each, installed per the Plans.

Item No. 23 Item U-100 WATER SYSTEM, PART 5 – BASIS OF PAYMENT, **ADD** the following after Item U-100c:

Item U-100d Frostproof Yard Hydrant – per each

Item No. 24 Item U-200 SANITARY SEWER SYSTEM, PART 2 – MATERIALS, **ADD** the following after 200-2.9:

200-2.10 SANITARY SEWER SUMP PUMP. Sanitary Sewer Sump Pump shall be Hydromatic OSP50AB Sump Pump or approved equal with 1-1/4" NPT discharge. All pipe, conduit, bushings, elbows, valves, couplers, and other hardware shall be as shown on the Plans.

Item No. 25 Item U-200 SANITARY SEWER SYSTEM, PART 3 – CONSTRUCTION REQUIREMENTS, **ADD** the following after 200-3.5:

200-3.6 SANITARY SEWER SUMP PUMP. Sanitary Sewer Sump Pump shall be installed per the Plans or as directed by Engineer. Sump pump installation includes installation of sump pump, conduit from pump to power source, sump pump, discharge pipe, all pipe required to route to discharge point shown in the plans, check valves, bushings, plug valves, elbows, unions, couplers, and all other necessary hardware and incidentals required to install a fully functioning sump pump system.

Item No. 26 Item U-200 SANITARY SEWER SYSTEM**,** PART 4 – METHOD OF MEASUREMENT, REPLACE this section with the following:

200-4.1 1-1/4 Inch HDPE Sewer Pipe will be measured by the linear foot of pipe installed and completed.

200-4.2 Sanitary Sewer Sump Pump will be measured per each. No separate measurement will be made for all conduit, fittings, bushings, check valves, flap valves, or other materials and hardware necessary to install a fully functioning sump pump assembly at the aircraft washdown facility.

200-4.3 Sanitary Sewer Services & Laterals will be measured per each.

Item No. 27 Item U-200 SANITARY SEWER SYSTEM, PART 5 – BASIS OF PAYMENT, **ADD** the following after Item U-200c:

Item U-200d Sanitary Sewer Sump Pump – per each

Item No. 28 Item U-500 ELECTRICAL SYSTEM, **REPLACE** this specification in its entirety with the included ITEM U-500 ELECTRICAL SYSTEM – Addendum No. 3.

VOLUME II – APPENDICES:

Item No. 29 **ADD** the included Existing Geothermal Loop Field Record Drawings as Appendix A.

VOLUME III – DRAWINGS:

The following Sheets are labeled Addendum No. 3, dated 7/23/2018:

Item No. 30 SHEET 2 ***Delete*** Sheet 2 and ***Replace*** with the attached Sheet 2.1.

Item No. 31 SHEET 3 ***Delete*** Sheet 3 and ***Replace*** with the attached Sheet 3.1.

Item No. 32 SHEET 8 ***Delete*** Sheet 8 and ***Replace*** with the attached Sheet 8.1.

Item No. 33 SHEET 10 ***Delete*** Sheet 10 and ***Replace*** with the attached Sheet 10.1.

Item No. 34 SHEET 11 ***Delete*** Sheet 11 and ***Replace*** with the attached Sheet 11.1.

Item No. 35 SHEET 12 ***Delete*** Sheet 12 and ***Replace*** with the attached Sheet 12.1.

Item No. 36 SHEET 13 ***Delete*** Sheet 13 and ***Replace*** with the attached Sheet 13.1.

Item No. 37 SHEET 14 ***Delete*** Sheet 14 and ***Replace*** with the attached Sheet 14.1.

Item No. 38 SHEET 15 ***Delete*** Sheet 15 and ***Replace*** with the attached Sheet 15.1.

Item No. 39 SHEET 19 ***Delete*** Sheet 19 and ***Replace*** with the attached Sheet 19.1.

Item No. 40 SHEET 20 ***Delete*** Sheet 20 and ***Replace*** with the attached Sheet 20.1.

Item No. 41 SHEET 21 ***Delete*** Sheet 21 and ***Replace*** with the attached Sheet 21.1.

Item No. 42 SHEET 32 ***Delete*** Sheet 32 and ***Replace*** with the attached Sheet 32.1.

Item No. 43 SHEET 37 ***Delete*** Sheet 37 and ***Replace*** with the attached Sheet 37.1.

Item No. 44 SHEET 39 ***Delete*** Sheet 39 and ***Replace*** with the attached Sheet 39.1.

Item No. 45 SHEET 41 ***Delete*** Sheet 41 and ***Replace*** with the attached Sheet 41.1.

Item No. 46 SHEET 44 ***Delete*** Sheet 44 and ***Replace*** with the attached Sheet 44.1.

Item No. 47 SHEET 45 ***Delete*** Sheet 45 and ***Replace*** with the attached Sheet 45.1.

Item No. 48 SHEET 46 ***Delete*** Sheet 46 and ***Replace*** with the attached Sheet 46.1.

Item No. 49 SHEET AD1 ***Delete*** Sheet AD1 and ***Replace*** with the attached Sheet AD1.1

By: _____
Greg Smith,
Contract Administrator

Total number of pages contained within this Addendum: 45

BASE BID SCHEDULE 1: NEDA WEST SIDE

PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	UNIT PRICE		AMOUNT	
				DOLLARS	CENTS	DOLLARS	CENTS
D-701a	Polyethylene Corrugated Pipe, 12-inch	Linear Foot	15				
D-701b	Polyethylene Corrugated Pipe, 15-inch	Linear Foot	312				
D-701c	Polyethylene Corrugated Pipe, 18-inch	Linear Foot	25				
D-701d	Polyethylene Corrugated Pipe, 36-inch	Linear Foot	25				
D-701e	Corrugated Metal Pipe, 18-Inch	Linear Foot	93				
D-701f	Connect Pipe to Existing Pipe	Each	2				
D-702a	Trench Drain	Linear Foot	180				
D-702b	Trench Drain Connection	Each	1				
D-751a	Manhole, Type I	Each	4				
D-751b	Connect to Existing Storm Drain Manhole	Each	1				
D-751c	Oil & Water Separator	Each	2				
D-751d	Manhole, Type II	Each	1				
D-751f	Adjust Field Inlets	Each	4				
D-751g	Aircraft Rated Covers	Each	4				
F-162e	Relocate Existing Gate Sensor	Each	1				
G-100a	Mobilization and Demobilization	Lump Sum	1	Lump	Sum		
G-135a	Construction Surveying by the Contractor	Lump Sum	1	Lump	Sum		
G-135b	Extra Survey Party	Hour	20				
G-150a	Equipment Rental	Hour	40				
G-300a	CPM Scheduling	Lump Sum	1	Lump	Sum		
G-700a	Airport Flagger	Contingent Sum	1	Contingent	Sum	2,000	00
G-700b	Temporary Construction Signs	Lump Sum	1	Lump	Sum		
P-152a	Unclassified Excavation	Cubic Yard	5,400				
P-154b	Subbase Course	Ton	2,600				
P-157a	Erosion, Sediment and Pollution Control Administration	Lump Sum	1	Lump	Sum		
P-157c	Temporary Erosion, Sediment and Pollution Control	Lump Sum	1	Lump	Sum		
P-157e	Temporary Erosion, Sediment and Pollution Control by Directive	Contingent Sum	1	Contingent	Sum	1,700	00

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P-157f	Withholding	Contingent Sum	1	Contingent	Sum	1,000	00
P-160a	Excavation of AC, RAP, or PCC Pavement	Square Yard	2,600				
P-165a	Removal of Structures	Lump Sum	1	Lump	Sum		
P-209b	Crushed Aggregate Base Course	Ton	8,150				
P-401a	Hot Mix Asphalt Type II, Class B	Ton	8,915				
P-401b	Hot Mix Asphalt Price Adjustment	Contingent Sum	1	Contingent	Sum	75,000	00
P-401c	Hot Mix Asphalt Type V, Class S	Ton	5,950				
P-401e	Asphalt Cement, PG 58-28	Ton	490				
P-401f	Asphalt Cement, PG 64-28	Ton	327				
P-603a	Tack Coat, PG 58-28	Ton	25				
P-610a	Structural Portland Cement Concrete	Cubic Yard	35				
P-620c	Runway and Taxiway Painting	Lump Sum	1	Lump	Sum		
P-620f	Painted Marking Removal	Lump Sum	1	Lump	Sum		
P-650e	Concrete Tiedown Anchor	Each	9				
P-660b	Reflective Marker, Type II	Each	4				
P-670a	Hazard Marker Barrier, Plastic	Each	110				
T-901a	Seeding	Acre	2				
T-901c	Water for Maintenance	M-Gal	1,000				
T-905a	Topsoiling	Square Yard	8,150				
U-700b	Extend Branch Mains	Lump Sum	1	Lump	Sum		

Base Bid Schedule No. 1 Total: _____

COMPANY NAME _____

BASE BID SCHEDULE 2: NWDA

PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	UNIT PRICE		AMOUNT	
				DOLLARS	CENTS	DOLLARS	CENTS
D-701a	Polyethylene Corrugated Pipe, 12-inch	Linear Foot	914				
D-702a	Trench Drain	Linear Foot	860				
D-702b	Trench Drain Connection	Each	3				
D-751b	Connect to Existing Storm Drain Manhole	Each	1				
D-751e	Manhole, Type III	Each	6				
F-162a	Remove Chain-Link Fence	Linear Foot	100				
F-162b	Temporary Fence	Linear Foot	120				
F-162c	Temporary Swing Gate	Each	1				
F-162d	18-foot Single Cantilever Slide Gate	Each	1				
F-162e	Remove Existing Slide Gate	Each	1				
G-100a	Mobilization and Demobilization	Lump Sum	1	Lump	Sum		
G-135a	Construction Surveying by the Contractor	Lump Sum	1	Lump	Sum		
G-135b	Survey Crew	Hour	20				
G-150a	Equipment Rental	Hour	40				
G-300a	CPM Scheduling	Lump Sum	1	Lump	Sum		
G-700a	Airport Flagger	Contingent Sum	1	Contingent	Sum	2,500	00
P-152a	Unclassified Excavation	Cubic Yard	4800				
P-152b	Unsuitable Excavation	Cubic Yard	300				
P-154b	Subbase Course	Ton	3950				
P-157a	Erosion, Sediment and Pollution Control Administration	Lump Sum	1	Lump	Sum		
P-157c	Temporary Erosion, Sediment and Pollution Control	Lump Sum	1	Lump	Sum		
P-157e	Temporary Erosion, Sediment and Pollution Control by Directive	Contingent Sum	1	Contingent	Sum	2,700	00
P-157f	Withholding	Contingent Sum	1	Contingent	Sum	1,000	00
P-160a	Excavation of AC, RAP, or PCC Pavement	Square Yard	9400				
P-165a	Removal of Structures	Lump Sum	1	Lump	Sum		
P-209b	Crushed Aggregate Base Course	Ton	3475				

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P-401a	Hot Mix Asphalt Type II, Class B	Ton	2630				
P-401b	Hot Mix Asphalt Price Adjustment	Contingent Sum	1	Contingent	Sum	12,500	00
P-401e	Asphalt Cement, PG 58-28	Ton	144.65				
P-603a	Tack Coat, PG 58-28	Ton	8				
P-620c	Runway and Taxiway Painting	Lump Sum	1	Lump	Sum		
P-610a	Structural Portland Cement Concrete	Cubic Yard	6				
P-650e	Concrete Tiedown Anchor	Each	12				
P-661a	Standard Sign	Lump Sum	1	Lump	Sum		
P-670a	Hazard Marker Barrier, Plastic	Each	110				
U-500b	Power Utility Work	Lump Sum	1	Lump	Sum		

Base Bid Schedule No. 2 Total: _____

COMPANY NAME _____

ADDITIVE ALTERNATE 1: NEDA EAST SIDE

PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	UNIT PRICE		AMOUNT	
				DOLLARS	CENTS	DOLLARS	CENTS
D-701a	Polyethylene Corrugated Pipe, 12-inch	Linear Foot	167				
D-701b	Polyethylene Corrugated Pipe, 15-inch	Linear Foot	167				
D-751e	Manhole, Type III	Each	2				
G-100a	Mobilization and Demobilization	Lump Sum	1	Lump	Sum		
G-135a	Construction Surveying by the Contractor	Lump Sum	1	Lump	Sum		
G-135b	Extra Survey Party	Hour	20				
G-150a	Equipment Rental	Hour	40				
G-300a	CPM Scheduling	Lump Sum	1	Lump	Sum		
G-700a	Airport Flagger	Contingent Sum	1	Contingent	Sum	1,500	00
P-152a	Unclassified Excavation	Cubic Yard	1,700				
P-154b	Subbase Course	Ton	13,750				
P-157a	Erosion, Sediment and Pollution Control Administration	Lump Sum	1	Lump	Sum		
P-157c	Temporary Erosion, Sediment and Pollution Control	Lump Sum	1	Lump	Sum		
P-157e	Temporary Erosion, Sediment and Pollution Control by Directive	Contingent Sum	1	Contingent	Sum	1,700	00
P-157f	Withholding	Contingent Sum	1	Contingent	Sum	1,000	00
P-160a	Excavation of AC, RAP, or PCC Pavement	Square Yard	1,270				
P-165a	Removal of Structures	Lump Sum	1	Lump	Sum		
P-209b	Crushed Aggregate Base Course	Ton	8,375				
P-401a	Hot Mix Asphalt Type II, Class B	Ton	9,100				
P-401b	Hot Mix Asphalt Price Adjustment	Contingent Sum	1	Contingent	Sum	75,000	00
P-401c	Hot Mix Asphalt Type V, Class S	Ton	6,065				
P-401e	Asphalt Cement, PG 58-28	Ton	501				
P-401f	Asphalt Cement, PG 64-28	Ton	334				
P-603a	Tack Coat, PG 58-28	Ton	26				
P-620c	Runway and Taxiway Painting	Lump Sum	1	Lump	Sum		
P-650e	Concrete Tiedown Anchor	Each	27				

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P-660b	Reflective Marker, Type II	Each	11				
T-901a	Seeding	Acre	2				
T-901c	Water for Maintenance	M-Gal	920				
T-905a	Topsoiling	Square Yard	8,525				

Additive Alternate No. 1 Total: _____

COMPANY NAME _____

ADDITIVE ALTERNATE 2: NWDA WATER & SEWER

PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	UNIT PRICE		AMOUNT	
				DOLLARS	CENTS	DOLLARS	CENTS
G-100a	Mobilization and Demobilization	Lump Sum	1	Lump	Sum		
G-135a	Construction Surveying by the Contractor	Lump Sum	1	Lump	Sum		
G-135b	Extra Survey Party	Hour	5				
G-150a	Equipment Rental	Hour	5				
G-300a	CPM Scheduling	Lump Sum	1	Lump	Sum		
P-157a	Erosion, Sediment and Pollution Control Administration	Lump Sum	1	Lump	Sum		
P-157c	Temporary Erosion, Sediment and Pollution Control	Lump Sum	1	Lump	Sum		
P-157e	Temporary Erosion, Sediment and Pollution Control by Directive	Contingent Sum	1	Contingent	Sum	500	00
P-157f	Withholding	Contingent Sum	1	Contingent	Sum	1,000	00
P-160a	Excavation of AC, RAP, or PCC Pavement	Square Yard	50				
P-165a	Removal of Structures	Lump Sum	1	Lump	Sum		
P-610a	Structural Portland Cement Concrete	Cubic Yard	4				
U-100a	Water Main	Linear Foot	145				
U-100b	Gate Valve	Each	3				
U-100e	Fire Hydrant Assembly	Each	1				
U-100f	Pipe Insulation	Board	15				
U-100g	Connect to Existing 10-inch HDPE	Lump Sum	1	Lump	Sum		
U-200a	6-Inch PVC Sewer Pipe	Linear Foot	200				
U-200b	1 1/4-Inch HDPE Sewer Pipe	Linear Foot	260				
U-200c	Sanitary Sewer Manhole	Each	2				
U-200e	Sanitary Sewer Services & Laterals	Each	2				
U-200f	Locate Sanitary Sewer Service	Each	1				

Additive Alternate No. 2 Total: _____

COMPANY NAME _____

ADDITIVE ALTERNATE 3: AIRCRAFT WASHDOWN FACILITY

PAY ITEM NO.	PAY ITEM DESCRIPTION	PAY UNIT	APPROX. QUANTITY	UNIT PRICE		AMOUNT	
				DOLLARS	CENTS	DOLLARS	CENTS
D-701a	Polyethylene Corrugated Pipe, 12-inch	Linear Foot	40				
D-751e	Manhole, Type III	Each	1				
G-100a	Mobilization and Demobilization	Lump Sum	1	Lump	Sum		
G-135a	Construction Surveying by the Contractor	Lump Sum	1	Lump	Sum		
G-135b	Extra Survey Party	Hour	2				
G-150a	Equipment Rental	Hour	2				
G-300a	CPM Scheduling	Lump Sum	1	Lump	Sum		
P-152a	Unclassified Excavation	Cubic Yard	100				
P-157a	Erosion, Sediment and Pollution Control Administration	Lump Sum	1	Lump	Sum		
P-157c	Temporary Erosion, Sediment and Pollution Control	Lump Sum	1	Lump	Sum		
P-157e	Temporary Erosion, Sediment and Pollution Control by Directive	Contingent Sum	1	Contingent	Sum	500	00
P-157f	Withholding	Contingent Sum	1	Contingent	Sum	1,000	00
P-209b	Crushed Aggregate Base Course	Ton	100				
P-610a	Structural Portland Cement Concrete	Cubic Yard	50				
U-100c	1-inch Water Service	Each	1				
U-100d	Frostproof Yard Hydrant	Each	1				
U-100f	Pipe Insulation	Boards	3				
U-200b	1-1/4-Inch HDPE Sewer Pipe	Linear Foot	20				
U-200d	Sanitary Sewer Sump Pump	Each	1				
U-200e	Sanitary Sewer Services & Laterals	Each	1				
U-500b	Power Utility Work	Lump Sum	1	Lump	Sum		
U-500c	Power Service Trenching/Cable/Conduit	Linear Foot	250				

Additive Alternate No. 3 Total: _____

COMPANY NAME _____

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this section.

1.2 SECURITY PROGRAM AT JUNEAU INTERNATIONAL AIRPORT

A. The Contractor shall:

1. Protect Work area and existing premises and Owner's operations from theft, vandalism, and unauthorized entry.
2. Prepare a Safety Plan Compliance Document in compliance with FAA Advisory Circular 150/5370-2.
3. Initiate security program, approved by Owner, prior to start of Work, including coordination of all temporary fencing, gates, and controls to meet Transportation Security Administration (TSA) and JNU Airport Security requirements.
4. Maintain program throughout construction period until Owner's occupancy.
5. All security changes necessary for construction activities to the perimeter gates, doors, and/or fence must be requested 60 days in advance. Temporary changes may be requested within 72 hours.
6. Vehicles, equipment, and stockpiled material may not be parked or staged within 6 feet of the perimeter fence, gate, and/or door.

1.3 ENTRY AND GATE E ACCESS CONTROL

A. The Contractor shall:

1. Provide a secure Work area in accordance with the drawings and other provisions relating to Airport Security.
2. Restrict entry of persons and vehicles into the project site and the airport restricted area (airport property inside the fence).
3. Allow entry only to authorized persons with proper identification.
4. Utilize gate access as outlined on Sheets AD1, AD2 and AD3 in accordance with JNU Airport security to access all work areas.
5. Construct all temporary fencing, gates and controls in accordance with applicable security requirements and contract requirements.
6. Complete all work associated with the removal, replacement, testing and start-up of the operable gate at GATE E within seven (7) contiguous calendar days. Coordinate gate shut-down and installation schedule with Project Engineer and Airport.
7. Coordinate the installation, and the subsequent removal of the temporary access gate at GATE E with the Project Engineer and Airport.
8. In addition to any detour signage which may be required by the contract, furnish and install temporary DETOUR signage to be attached to both sides of the existing fencing adjacent to the temporary access gate. Submit product data for review prior to manufacture and installation. Signs to read:
   "**GATE E DETOUR**"
   "**Gate will be open from 7:00 am to 10:00 pm daily**"

B. Owner shall control entrance of persons and vehicles related to Owner's operations. At GATE E, the Owner will open the temporary access gate at the GATE E detour at 7:00 am and will close and lock the temporary gate at 10:00 pm for each of the 7 days allotted for the gate replacement work. The Owner will also post a gate guard at the GATE E detour who will allow entry only to authorized persons with proper identification during this same time.

C. The Contractor shall be liable for any fines levied against the Airport by the TSA resulting from actions of the Contractor, or those for whom the Contractor is responsible, that cause a breach of security in the area of construction, to include any points of entry into the Air Operations Area (AOA), also known as the restricted area of the Airport, utilized for the construction project.

Failure to maintain security will also include failure to abide by the Airport badge identification program or other requirements pertaining to the security of the Airport.

1.4 AIR OPERATIONS AREA (AOA) BADGE REQUIREMENTS

A. Only Juneau International Airport Identification Badge, Law Enforcement Credentials, Federal Inspector Credentials and Airline Crew Credentials are recognized as authority to enter or be present in the restricted area of the airport without escort. Only persons identified by this system are permitted access. All Airport Identification Badges must be worn on the outermost garment above the waist.

B. Any person found in a location that is not the work area or access route to and from the work area will be removed from the area and action will be taken against violators as appropriate.

C. Security Identification Display Area (SIDA) badges are required for the Work. Contractor shall apply for clearance with Juneau International Airport Badging Office. Requirements for each employee include completing an Identification Badge/Media Application, photo proof of identity, either proof of US citizenship or work authorization paperwork, and completion of a Federal Security Threat Assessment. - Contractor shall assume a minimum of two weeks for the clearance process, however, the clearance process is conducted by TSA and delays may exceed two weeks.

D. Contractor's personnel are subject to random checks for compliance with badging and permit regulations. Such checks may be conducted by Airport Police, Airport Employees, and/or TSA.

E. Any falsifications can result in revocation of the badges for the individual in question, and any fines incurred from the violations will be passed to the responsible party.

F. The Airport Badge Application is an agreement between the Airport and the badge holder. The badge application provides all rules and procedures the badge holder must comply with while in the restricted area of the airport.

G. In order to maintain accountability for all Airport Identification Badges issued, the Contractor is responsible for physically collecting and returning to the Airport all outstanding badges no longer used for the construction project including those badges carried by persons no longer working on the project. Proof of return is the Airport Receipt issued by the Airport.

H. When someone terminates employment, the Contractor shall immediately notify the Airport so that the badge can be deactivated. If termination is outside of the normal working hours, the Contractor shall immediately notify Airport Police at 586-0899 or 321-3802 of the termination.

I. A non-refundable fine of $300.00 will be levied against the Contractor for each badge not returned within five (5) days of badge expiration, employee termination or completion of the project, whichever is sooner.

J. Should an employee lose his or her Airport Identification Badge, he or she shall immediately notify the Contractor, who shall then immediately notify the Airport to deactivate the badge access. If lost after normal business hours, the lost badge shall be reported to Airport Police. If the lost badge is found the Contractor must notify the Airport to reactivate the badge. Further, the Airport will confirm the employee's employment status prior to reactivation of a badge reported lost, then found by its owner. If requested, a replacement badge will not be issued until a replacement request letter is received and the $200.00 lost badge fee is paid. This is a separate fee from the non-refundable fine of $300.00 applied to non-returned badges. If a replacement badge is issued for a lost badge, and the $200.00 fee paid, the Contractor will not be charged the non-refundable fine of $300.00.

K. Final payment to the Contractor will not be authorized until all badges are returned to the Airport.

L. The Contractor's and subcontractor's personnel shall be badged for this project as needed to complete the Work. Upon request of the Contractor, Escort Authority may be authorized by the Owner to specific employees or subcontractors of the Contractor when the Work is limited in duration. In such cases, the Contractor is fully responsible for all such personnel.

1.5 VEHICLE ACCESS IN THE AOA

A. The TSA requires the Airport Operator to control access into and prevent unauthorized vehicles from entering the AOA. In compliance with this requirement, the Airport Operator has established procedures to authorize or deny access to the AOA and to identify and control vehicles while within the AOA.

B. When any vehicle, other than one that has prior approval from the airport operator, must travel over any portion of an area used by aircraft moving under its own power, as well as the 135-AOA ramp, it will be properly identified and an amber colored rotating beacon is required.

C. All Contractor vehicles requiring access to the AOA shall display a company name/logo. Company name/logo must be affixed to both sides of the vehicle (vehicle magnets are not prohibited in the AOA).

D. Contractor vehicles are only authorized in the areas where their contract work is being performed and on the access routes to and from that area; during contract working hours (unless otherwise required for emergencies).

E. A Contractor vehicle is authorized in the AOA only when within its area of authorization, the safety flag are properly displayed, and all occupants have the required Airport Identification Badge.

1.6 PROJECT SITE SECURITY

A. All access points into the project area must be kept secure. Temporary barriers shall be required and described in the Contractor's approved Safety Plan Compliance Document. The Contractor shall notify the Owner at least 72 hours before the following conditions:

B. When construction is to begin.

C. When Work is complete.

1.7 SAFETY PLAN

A. Contractor shall submit a written Safety Plan Compliance Document developed in accordance with FAA Advisory Circular 150/5370-2 for work in the AOA. The plan shall address the following:

1. Maintaining safe airport operations in the vicinity of the Work, including separating pedestrian, vehicles, equipment, and aircraft.
2. Maintaining clean and safe construction operations including controlling Foreign Object Debris (FOD).
3. Controlling access to the Work area through the use of temporary fencing and barricades and restricting access by unauthorized persons.
4. Understanding the safety problems and hazards described in AC 150/5370-2, Operational Safety on Airports During Construction.
5. Conducting activities so as not to violate any safety standards contained in AC 150/5370-2 or any of the references therein.
6. Promptly taking all actions necessary to prevent or remedy any unsafe or potentially unsafe conditions as soon as they are discovered.
7. Identifying locations for stockpiled materials, equipment operations, access to haul routes, and construction site parking.

8. Marking the area of Work as a hazardous area on the aircraft ramp area with barricades, traffic cones, flags, or flashers. These markings restrict access and make hazards obvious to aircraft, personnel, and vehicles. During periods of low visibility and at night, identify hazardous areas with red flashing or steady-burning light.
9. The Contractor must ensure that all trash, debris, and bird attractants are stored in proper areas. Further, all vehicles/equipment are clean of bird attractants.

B. Contractor's overall project safety plan shall be reviewed and updated at Progress Meetings and at other times as required by the Owner's Representative.

1.8 RESTRICTIONS

A. The Contractor shall not allow cameras on site or photographs to be taken by persons under the control of the Contractor except by written approval of the Owner.

B. Contractor shall, at all times, give way to all aircraft and follow directions from aircraft ground crews.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 5200

ITEM U-500 ELECTRICAL SYSTEM

PART 1 - DESCRIPTION

500-1.1 Provide all coordination work necessary to allow AEL&P to supply and install equipment and materials needed to extend or modify their existing utility services, or provide new services as shown on the Plans. Perform work in conformance with the plans and per AEL&P Specifications. All utility work shown in the Plans to be completed by others shall be paid for by the City & Borough of Juneau (CBJ). Contractor shall provide all necessary coordination with the utility companies to allow them to perform their work. All utility work related to Gate E equipment and washdown facility power service shall be paid for by the Contractor.

PART 2 - MATERIALS

500-2.1 Provide submittals neatly bound and clearly indexed, and include applicable catalog numbers, cuts, wiring diagrams, performance data, operation and maintenance manuals, etc., for all material and equipment listed in the Staking Sheets, AEL&P Specifications and RUS Detail Sheets.

PART 3 - CONSTRUCTION REQUIREMENTS

500-3.1 Follow the current AEL&P Standards and Specifications. The local utility companies can be contacted by calling the phone numbers listed in Section 50-06.

Perform all work with qualified personnel licensed for the work involved.

Perform construction work in a thorough and workmanlike manner in accordance with the Staking Sheets, plans and specifications, and the construction drawings.

Installer must be approved by AEL&P.

Record exact locations of poles, guys and anchors. Record conductor sag and temperature when conductor was installed.

Coordinate utility work to avoid conflicts with other trades, and unscheduled service outages. Coordinate with utilities to provide as-built records of their work for incorporation into final as-built drawings.

After installation is complete, test for continuity and faults. Correct any deficiencies. After testing is complete, demonstrate that work conforms with plans, specifications, and staking sheets and is a complete and operable system.

Furnish a written guarantee that any materials or workmanship completed by the Contractor that are found defective within one year of final acceptance will be replaced at the Contractor's expense, promptly upon notification and to the satisfaction of the Engineer.

PART 4 - METHOD OF MEASUREMENT

500-4.1 No specific unit of measurement will apply to this lump sum item. The Power Utility Work consists of all work required on this project to complete installation of the new Gate E and associated equipment, and a new power service for the aircraft washdown facility. New washdown facility power service will include new support rack, NEMA disconnects, breakers, receptacles, meter box, all conduit and conductors, posts, foundations, and all hardware and incidentals as shown in the Plans to provide a complete washdown facility power service.

500-4.2 Power service trenching/cable/conduit will be measured by the linear foot of completed trenching, conduit, and cable installed, including locator tape, trenching and backfill with suitable material per the Plans, all measured in place, completed, and accepted.

AEL&P utility work will be completed outside of the scope of this contract.

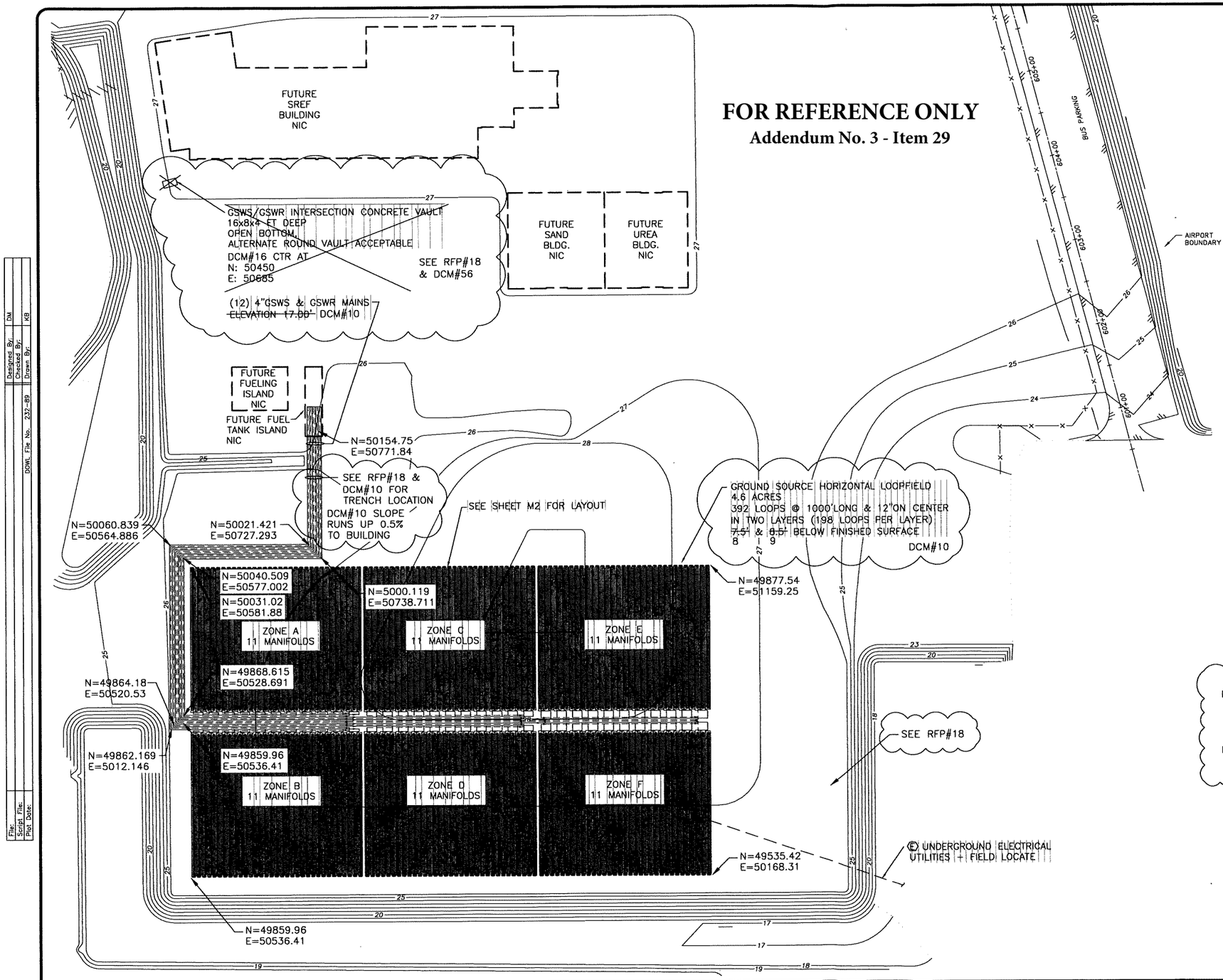
Provide all cutting, patching of asphalt and concrete needed for the utilities to do their work. Cutting and patching of concrete and asphalt shall be provided as needed and is incidental to the pay item. No other payment for this work will be provided.

PART 5 - BASIS OF PAYMENT

500-5.1 Payment will be made at the contract lump sum price for the completed and accepted job. This price will be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item U-500b	Power Utility Work – per lump sum
Item U-500c	Power Service Trenching/Cable/Conduit – per linear foot



FOR REFERENCE ONLY

Addendum No. 3 - Item 29

LOOPFIELD SIZING PARAMETERS

PEAK LOAD	2,600 MBH
8AM – 12PM	2,600 MBH
12PM – 4PM	540 MBH
4PM – 8PM	540 MBH
8PM – 8AM	540 MBH
ANNUAL EQUIVALENT FULL–LOAD HOURS	1,457
HEAT PUMP INLET TEMP	30°F
FLOWRATE	3 GPM/ NOMINAL TON
25% METHANOL	
TEMP GROUND	41°F
THERMAL CONDUCTIVITY	0.75 BTU/HR–FT–°F
THERMAL DIFFUSIVITY	0.5 FT²/DAY
REGIONAL AVERAGE TEMP. SWING	15°F
COLDEST/ WARMEST DAY	7/225
TRENCH	36" SEPARATION
PIPING	12" O.C. HORIZONTAL & VERTICAL
DOUBLE LAYER W/ OFFSET	

RECORD DRAWINGS

THESE DRAWINGS REFLECT RECORDED INFORMATION PROVIDED DURING CONSTRUCTION, INCLUDING: SURVEY INFORMATION RECORDED DURING PHASE 2A DESIGN, CONTRACTOR SURVEY, INSPECTOR SWING–TIE RECORDINGS, AND DOCUMENTED DIRECTIVES FOR MODIFICATIONS TO THE ORIGINAL PLANS.

INFORMATION PROVIDED HEREIN IS ACCURATE TO THE BEST OF OUR KNOWLEDGE.

DATE: AUGUST 2013

PND ENGINEERS, INC.

NOTES

1. REMOVE TOP 12–18 INCHES APPROXIMATELY OF OVERBURDEN AND GRADE SMOOTH, LEVEL. EXISTING SITE ELEVATIONS ARE SHOWN IN LOOPFIELD AREA FOR COORDINATION ONLY. IT IS INTENDED THAT THE LOOPFIELD WILL BE LOCATED ON TOP OF THE UNDERGROUND ELECTRICAL UTILITIES SHOWN. FIELD LOCATE UTILITIES AS REQUIRED. SEE NORTHEAST DEVELOPMENT GRADING PLAN FOR GRADING REQUIREMENTS.
2. DCM#10 INSTALL HORIZONTAL 3/4" DIA. HDPE PIPING IN EQUAL LENGTH LOOPS WITH MANIFOLDS IN REVERSE RETURN CONFIGURATION. INSTALL TWO LAYERS OF LOOPS AT APPROXIMATELY ~~7.5'~~ 8 & ~~8.5'~~ 9 BELOW FINISH GRADE. PITCH PIPING FLAT. TEST PIPING.
3. DCM#10 BED HORIZONTAL PIPING ~~IN 12" DEEP~~ WITH 3/4" MINUS NFS MATERIAL. PROVIDE 12" BEDDING OVER ALL PIPES AND 6" BEDDING BELOW ALL PIPES. COVER WITH ~~7~~ 8 FEET MW OF NATIVE BACKFILL MATERIAL, ~~6" MINUS~~ FROM THE FLOAT PLANE POND.

SYMBOLS

GSWS
GROUND SOURCE WATER SUPPLY
GSWR
GROUND SOURCE WATER RETURN

1 **SITE PLAN**

SCALE 0' 30' 60' 120'

Designed By: DM
Checked By:
Drawn By: KB
DOWL File No. 237–89
File:
Script File:
Plot Date:

BY	DATE	REVISIONS
DM	8–18–09	CONFORMED

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. D59440
FILE NO. 232–89

MURRAY & ASSOCIATES, P.C.
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FAX: 907 780–6182

STATE OF ALASKA 49th — DOUGLAS H. MURRAY ME 7870 — REGISTERED PROFESSIONAL ENGINEER
ISSUE DATE: 08–18–2009

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Juneau International Airport
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ALASKA'S CAPITAL CITY

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RUNWAY SAFETY AREA IMPROVEMENTS
CONTRACT NO. E09–186
AIP No. 3–02–0133–049–2008
SITE PLAN

SHEET M1 OF 127

FOR REFERENCE ONLY
Addendum No. 3 - Item 29

1 LOOPFIELD LAYOUT

SCALE: 0' 15' 30' 60'

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PND ENGINEERS, INC.

(12) 4"GSWS & GSWR
DCM#10 ~~ELEVATION 17.00'~~

UPPER ~~TYPICAL~~ LOOPFIELD ELEVATION 18.4'± ~~17.00'~~
DCM#10

ZONE A
11 MANIFOLDS

ZONE B
11 MANIFOLDS

ZONE C
11 MANIFOLDS

ZONE D
11 MANIFOLDS

ZONE E
11 MANIFOLDS

ZONE F
11 MANIFOLDS

ZONE MANIFOLD AND LOOPS, TYP.
SEE DETAIL ON SHEET M3.

SEE RFP#18
~~20' FROM TOE OF SLOPE~~
+ AIC GLHP FINAL RPT

SEE SHEET M1 FOR
AIC ASBUILT
COORDINATES

SEE RFP#18
~~20' FROM TOE OF SLOPE~~
+ AIC GLHP FINAL RPT

BRASS SURVEY MONUMENT, TYP. OF 8

25 26 27 25 23 20 18 17 25 20 25 20 25 20

Designed By: DM
Checked By:
Drawn By: KB
DOWL File No. 232-89
File:
Script File:
Plot Date:

BY	DATE	REVISIONS
DM	8-18-09	CONFORMED

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. D59440
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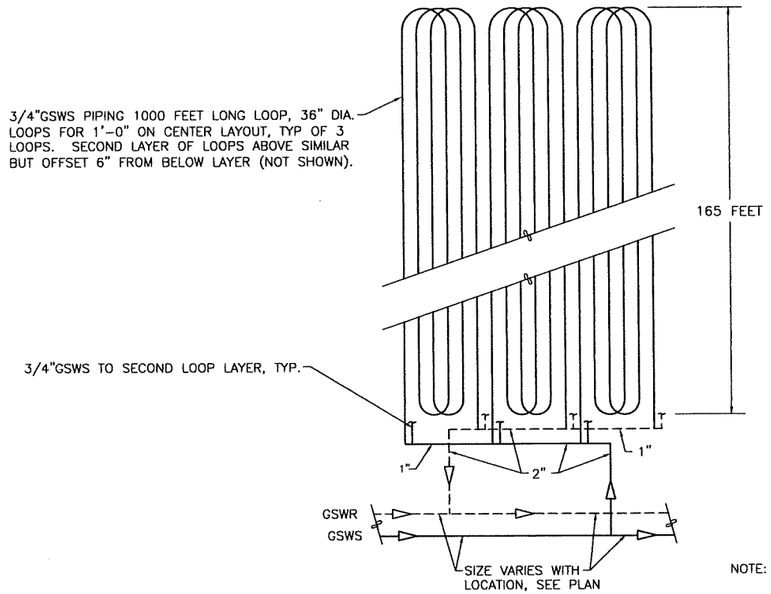
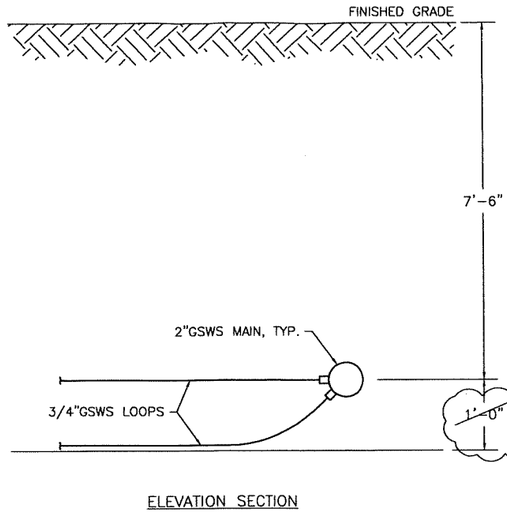
JUNEAU, ALASKA
RUNWAY SAFETY AREA IMPROVEMENTS
CONTRACT NO. E09-186
AIP No. 3-02-0133-049-2008
LOOPFIELD LAYOUT

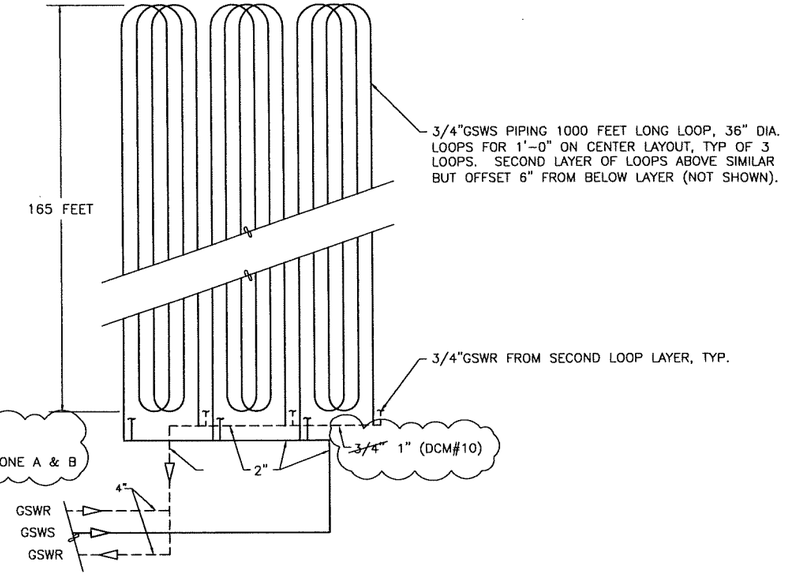
SHEET M2 OF 127



MIDDLE SECTION



ELEVATION SECTION



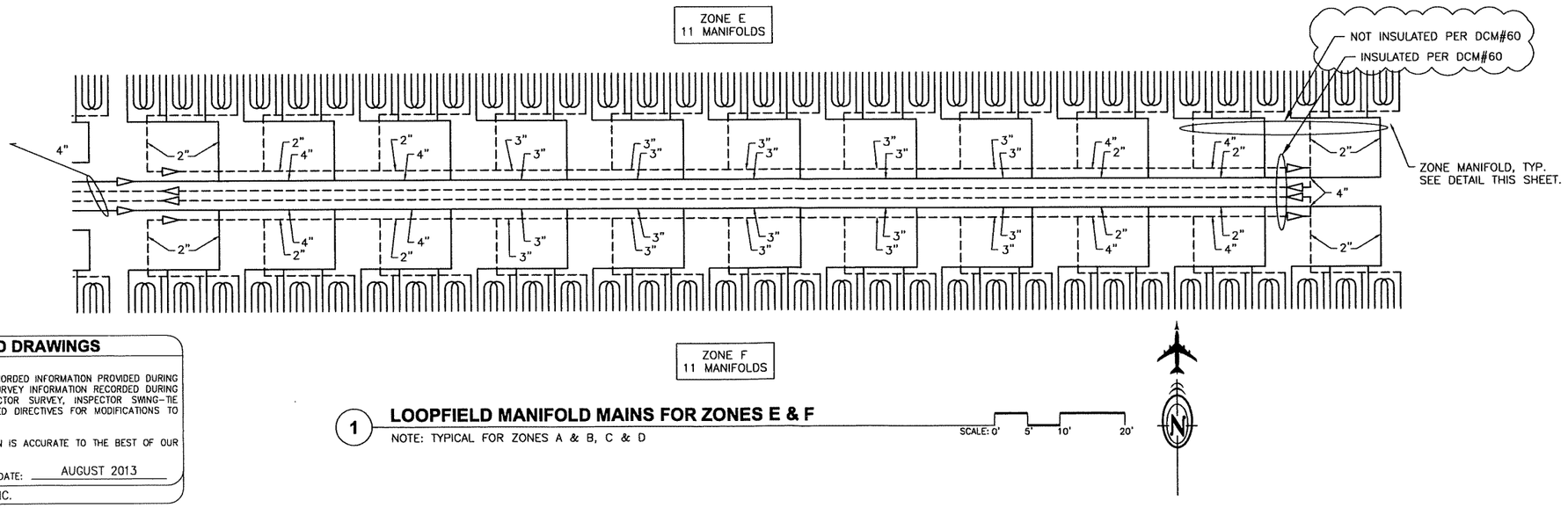
END SECTION

NOTE: EACH 1000 FOOT LOOP BUNDLE IS TO BE TIE-WIRED TO PERPENDICULAR NO. 4 REBAR RESTRAINTS LOCATED AT 10 FEET ON CENTER DOWN THE 165 FOOT LOOP LENGTH. PROVIDE TEMPORARY STAKES AS NECESSARY TO HOLD EACH LOOP IN PLACE UNTIL BACKFILLED.

(2) LOOPFIELD MANIFOLD TO ZONE MANIFOLD CONNECTION DETAIL

NO SCALE

FOR REFENCE ONLY
Addendum No. 3 - Item 29



(1) LOOPFIELD MANIFOLD MAINS FOR ZONES E & F

NOTE: TYPICAL FOR ZONES A & B, C & D

RECORD DRAWINGS

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DATE: AUGUST 2013

PND ENGINEERS, INC.

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Checked By: KB
Drawn By:
DOWL File No. 232-89
File:
Script File:
Plot Date:

BY	DATE	REVISIONS
DM	8-18-09	CONFORMED

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. D59440
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STATE OF ALASKA 49th DOUGLAS H. MURRAY ME 7870 REGISTERED PROFESSIONAL ENGINEER
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JUNEAU INTERNATIONAL AIRPORT
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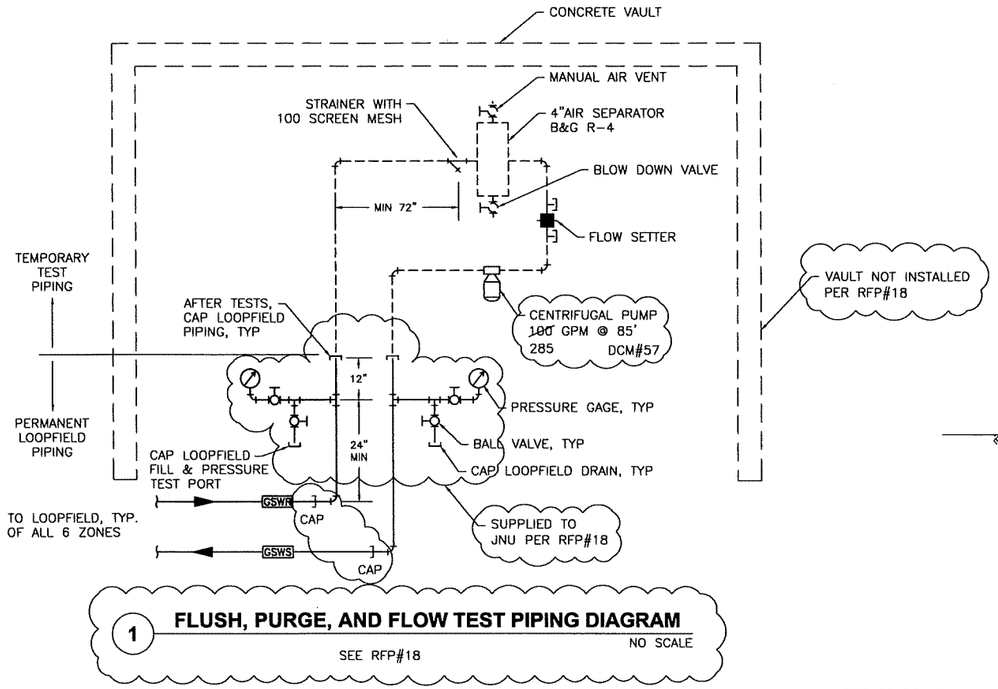
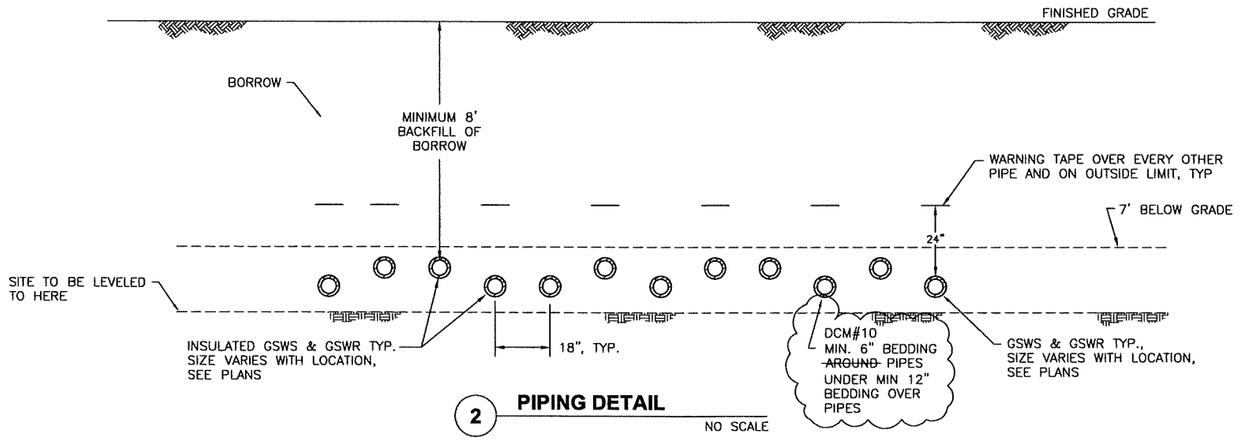
CONTRACT NO. E09-186
AIP No. 3-02-0133-049-2008
ENLARGED PIPING MAINS

SHEET M3 OF 127

FOR REFERENCE ONLY
Addendum No. 3 - Item 29



1 FLUSH, PURGE, AND FLOW TEST PIPING DIAGRAM
NO SCALE
SEE RFP#18



2 PIPING DETAIL
NO SCALE

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PND ENGINEERS, INC.

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Checked By:
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Script File:
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BY	DATE	REVISIONS
DM	8-18-09	CONFORMED

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
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ISSUE DATE: 08-18-2009

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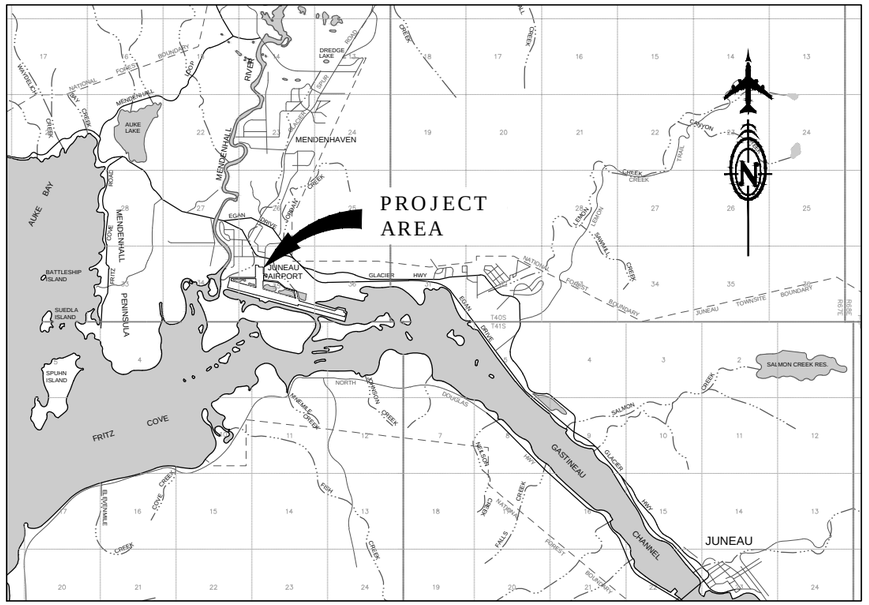
RUNWAY SAFETY AREA IMPROVEMENTS
CONTRACT NO. E09-186
AIP No. 3-02-0133-049-2008
DETAILS & DIAGRAMS

SHEET M4 OF 127



VICINITY MAP

1 0 .5 1 2

GRAPHIC SCALE
(IN MILES)

ABBREVIATIONS

ABN	ABANDONED	MAX	MAXIMUM
ACP	ASPHALT CONCRETE PAVEMENT	ME	MATCH EXISTING
AD	ALGEBRAIC DIFFERENCE	MHHW	MEAN HIGHER HIGH WATER
AEL&P	ALASKA ELECTRIC LIGHT AND POWER COMPANY	MIN	MINIMUM
ASOS	AUTOMATED SURFACE OBSERVATION SYSTEM	ML	SILT
AWPA	AMERICAN WOOD PROTECTION ASSOCIATION	MLLW	MEAN LOWER LOW WATER
BLDG	BUILDING	NOAA/NOS	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION/ NATIONAL OCEAN SERVICE
BOP	BOTTOM OF PIPE	N	NORTH
BVCE	BEGIN VERTICAL CURVE ELEVATION	NOTAMS	NOTICE TO AIRMEN
BVCS	BEGIN VERTICAL CURVE STATION	NTS	NOT TO SCALE
CABC	CRUSHED AGGREGATE BASE COURSE	OC	ON CENTER
℄	CENTERLINE	OD	OUTER DIAMETER
CAP	CORRUGATED ALUMINUM PIPE	PC	POINT OF CURVATURE
CBJ	CITY & BOROUGH OF JUNEAU	PCC	PORTLAND CEMENT CONCRETE
CJ	CONTROL JOINT	PI	POINT OF INTERSECT
CMP	CORRUGATED METAL PIPE	PRC	POINT OF REVERSE CURVATURE
C	COMMUNICATION OR CURVE	PT	POINT OF TANGENCY
CPP	CORRUGATED PLASTIC PIPE	PVC	POLYVINYL CHLORIDE
CPEP	CORRUGATED POLYETHYLENE PIPE	PVI	POINT OF VERTICAL INTERSECTION
CY	CUBIC YARD	R	RADIUS
DIA	DIAMETER	RAP	RECYCLED ASPHALT PAVEMENT
DIP	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
E	EAST OR ELECTRIC	RSA	RUNWAY SAFETY AREA
EA	EACH	RT	RIGHT
ELEC	ELECTRIC	RW OR R/W	RUNWAY
EL	ELEVATION	S	SOUTH OR SEWER
ELEV	ELEVATION	SD	SAND
EVCE	END VERTICAL CURVE ELEVATION	SD/FD	STORM DRAIN FIELD DRAIN
EVCS	END VERTICAL CURVE STATION	SDCB	STORM DRAIN CATCH BASIN
FAA	FEDERAL AVIATION ADMINISTRATION	SDMH	STORM DRAIN MANHOLE
FES	FLARED END SECTION	SDR	STANDARD DIMENSION RATIO
FG	FINISHED GROUND	SM	SILTY SAND
FT	FOOT	STA	STATION
GB	GRADE BREAK	SREF	SNOW REMOVAL EQUIPMENT FACILITY
GSHP	GROUND SOURCE HEAT PUMP	SY	SQUARE YARD
GV	GATE VALVE	TB	TEST BORING
H	HORIZONTAL	TELE	TELEPHONE
HDPE	HIGH DENSITY POLYETHYLENE	TW OR T/W	TAXIWAY
HMA	HOT MIX ASPHALT	TYP	TYPICAL
IN	INCH	UG	UNDERGROUND
INV	INVERT	V	VERTICAL
JNU	JUNEAU INTERNATIONAL AIRPORT	VB	VALVE BOX
LF	LINEAR FOOT	W	WEST
LT	LEFT		

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY BOUNDARY
		EDGE OF GRAVEL
		EDGE OF PAVEMENT
X X	X X	FENCE
S	S	SANITARY SEWER LINE
W	W	WATER LINE
AW		ABANDONED WATER LINE
E		UNDERGROUND ELECTRIC LINE
C		UNDERGROUND COMMUNICATION LINE
SD	SD	STORM DRAIN LINE
		CULVERT
120	65	CONTOUR LINE
RSA		RUNWAY SAFETY AREA
		RUNWAY CENTERLINE
		LIMIT OF CUT
		LIMIT OF FILL
		SILT FENCE
		DRAINAGE
		BUILDING
		STORM DRAIN CATCH BASIN
		SANITARY SEWER MANHOLE
		SEWER CLEANOUT
		MONITORING WELL
		WATER VALVE
		HYDRANT
		RADIO TOWER
		ELECTRIC METER
		GUY ANCHOR
		ELECTRIC LIGHT POLE
		ELECTRIC POWER POLE
		RUNWAY/TAXIWAY/APPROACH LIGHT
		TELEPHONE PEDESTAL
		SIGN
		RUNWAY DISTANCE REMAINING SIGN
		BOLLARD
		LIGHTED WIND CONE
		JAWS/WIND EQUIPMENT
IP		PIPE
		3" WETLANDS ALUMINUM MONUMENT
		PRIMARY PROPERTY CORNER MONUMENT
TB		TEST BORING
		UTILITY MARKER
		LORAN ANTENNA
		LIMIT OF WORK
		FLOATING SILT CURTAIN
		D-1 AGGREGATE BASE COURSE
		CONCRETE

GENERAL NOTES

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED ON A COMBINATION OF FIELD SURVEY, AS BUILT RECORDS, AND APPROXIMATIONS FROM AIRPORT MAINTENANCE STAFF. FIELD LOCATE UTILITIES PRIOR TO EXCAVATION.
2. CONTRACTOR LOCATE ALL UTILITIES THAT THE LOCATE CALL CENTER DOES NOT LOCATE. THIS INCLUDES FAA, CBJ, AIRPORT, AND OTHER UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
3. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH APPROVED PERMITS AND ALL TIMELINES/STIPULATIONS LISTED FOR CONSTRUCTION OF THE PROJECT.
4. UTILITY WORK (EXCLUDING ALL STORM DRAINAGE, WATER AND SEWER IN ADDITIVE ALTERNATE 2, AND POWER IN ADDITIVE ALTERNATE 3) WILL BE COMPLETED BY OTHERS. CONTRACTOR SHALL COORDINATE WITH ENGINEER.

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1

EROSION AND SEDIMENT CONTROL PLAN

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CONSTRUCTION SAFETY PHASING PLAN

SHEET TITLE	SHEET NO.
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NEDA CONSTRUCTION PHASING	AD2–AD3

1

CBJ STANDARD DRAWINGS

NO.	NAME
203	SANITARY SEWER MANHOLE TYPES I & II
205	MANHOLE HEIGHTS
206A	STANDARD MANHOLE COVER & FRAME
209	MANHOLE CONNECTION DETAILS
210	SANITARY SEWER SADDLE TEE
213	SANITARY SEWER SERVICE LATERAL
215	SANITARY SEWER CROSSING
218	COUPLING FOR DISSIMILAR SEWER PIPES
219	RESIDENTIAL PUMP STATION PRESSURE MAIN
304A	TYPE III CATCH BASIN
305	OIL–WATER SEPARATOR STORM DRAIN MANHOLE
306	STORM DRAIN MANHOLE COVER & FRAME
404	HYDRANT GUARD POSTS
406A	WATER SERVICE
407	MAINLINE VALVE
412	RIGID INSULATION

BEFORE YOU DIG
CALL FOR FREE
UNDERGROUND
LOCATION

Locate Call Center of Alaska
Juneau Area.....586–1333
Statewide.....800–478–3121
who will notify subscribed utilities only.
Other utilities need to be contacted individually.

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 49TH — Wesley A. Holden 07/23/2018 CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
#AECL848
WWW.DOWL.COM
5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/23/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
VICINITY MAP, LEGEND, NOTES, ABBREVIATIONS, & SHEET INDEX

SHEET 2.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation Design\SA14-AV-JNU-IIC-CV.dwg
Script File: -
Plot Date: July 23, 2018

Designed By:	W. HOLDEN
Checked By:	S. OSGOOD
Drawn By:	R. TEMPLADO
DOWL File No.	232-89

ESTIMATED QUANTITIES
BID SCHEDULE 1 (BASE BID): NEDA WEST SIDE

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
D–701a	POLYETHYLENE CORRUGATED PIPE, 12–INCH	LINEAR FOOT	15
D–701b	POLYETHYLENE CORRUGATED PIPE, 15–INCH	LINEAR FOOT	312
D–701c	POLYETHYLENE CORRUGATED PIPE, 18–INCH	LINEAR FOOT	25
D–701d	POLYETHYLENE CORRUGATED PIPE, 36–INCH	LINEAR FOOT	25
D–701e	CORRUGATED METAL PIPE, 18–INCH	LINEAR FOOT	93
D–701f	CONNECT PIPE TO EXISTING PIPE	EACH	2
D–702a	TRENCH DRAIN	LINEAR FOOT	180
D–702b	TRENCH DRAIN CONNECTION	EACH	1
D–751a	MANHOLE, TYPE I	EACH	4
D–751b	CONNECT TO EXISTING STORM DRAIN MANHOLE	EACH	1
D–751c	OIL & WATER SEPARATOR	EACH	2
D–751d	MANHOLE, TYPE II	EACH	1
D–751f	ADJUST FIELD INLETS	EACH	4
D–751g	AIRCRAFT RATED COVERS	EACH	4
F–162e	RELOCATE EXISTING GATE SENSOR	EACH	1
G–100a	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
G–135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	1
G–135b	EXTRA SURVEY PARTY	HOUR	20
G–150a	EQUIPMENT RENTAL	HOUR	40
G–300a	CPM SCHEDULING	LUMP SUM	1
G–700a	AIRPORT FLAGGER	CONTINGENT SUM	1
G–700b	TEMPORARY CONSTRUCTION SIGNS	LUMP SUM	1
P–152a	UNCLASSIFIED EXCAVATION	CUBIC YARD	5,400
P–154b	SUBBASE COURSE	TON	2,600
P–157a	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	1
P–157c	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	1
P–157e	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	1
P–157f	WITHHOLDING	CONTINGENT SUM	1
P–160a	EXCAVATION OF AC, RAP, OR PCC PAVEMENT	SQUARE YARD	2,600
P–165a	REMOVAL OF STRUCTURES	LUMP SUM	1
P–209b	CRUSHED AGGREGATE BASE COURSE	TON	8,150
P–401a	HOT MIX ASPHALT TYPE II, CLASS B	TON	8,915
P–401b	HOT MIX ASPHALT PRICE ADJUSTMENT	CONTINGENT SUM	1
P–401c	HOT MIX ASPHALT TYPE V, CLASS S	TON	5,950
P–401e	ASPHALT CEMENT, PG 58–28	TON	490
P–401f	ASPHALT CEMENT, PG 64–28	TON	327
P–603a	TACK COAT, PG 58–28	TON	25
P–610a	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	35
P–620c	RUNWAY AND TAXIWAY PAINTING	LUMP SUM	1
P–620f	PAINTED MARKING REMOVAL	LUMP SUM	1
P–650e	CONCRETE TIEDOWN ANCHOR	EACH	9
P–660b	REFLECTIVE MARKER, TYPE II	EACH	4
P–670a	HAZARD MARKER BARRIER, PLASTIC	EACH	110
T–901a	SEEDING	ACRE	1.7
T–901c	WATER FOR MAINTENANCE	M–GAL	1,000
T–905a	TOPSOILING	SQUARE YARD	8,150
U–700b	EXTEND BRANCH MAINS	LUMP SUM	1

ESTIMATED QUANTITIES
BID SCHEDULE 2 (BASE BID): NW DEVELOPMENT AREA

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
D–701a	POLYETHYLENE CORRUGATED PIPE, 12–INCH	LINEAR FOOT	914
D–702a	TRENCH DRAIN	LINEAR FOOT	860
D–702b	TRENCH DRAIN CONNECTION	EACH	3
D–751b	CONNECT TO EXISTING STORM DRAIN MANHOLE	EACH	1
D–751e	MANHOLE, TYPE III	EACH	6
F–162a	REMOVE CHAIN–LINK FENCE	LINEAR FOOT	25
F–162b	TEMPORARY FENCE	LINEAR FOOT	25
F–162d	24–FOOT SINGLE CANTILEVER GATE	EACH	1
G–100a	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
G–135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	1
G–135b	SURVEY CREW	HOUR	20
G–150a	EQUIPMENT RENTAL	HOUR	40
G–300a	CPM SCHEDULING	LUMP SUM	1
G–700a	AIRPORT FLAGGER	CONTINGENT SUM	1
P–152a	UNCLASSIFIED EXCAVATION	CUBIC YARD	4,800
P–152b	UNSUITABLE EXCAVATION	CUBIC YARD	300
P–154b	SUBBASE COURSE	TON	3,950
P–157a	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	1
P–157c	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	1
P–157e	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	1
P–157f	WITHHOLDING	CONTINGENT SUM	1
P–160a	EXCAVATION OF AC, RAP, OR PCC PAVEMENT	SQUARE YARD	9,400
P–165a	REMOVAL OF STRUCTURES	LUMP SUM	1
P–209b	CRUSHED AGGREGATE BASE COURSE	TON	3,400
P–401a	HOT MIX ASPHALT TYPE II, CLASS B	TON	2,630
P–401b	HOT MIX ASPHALT PRICE ADJUSTMENT	CONTINGENT SUM	1
P–401e	ASPHALT CEMENT, PG 52–28	TON	145
P–603a	TACK COAT, PG 52–28	TON	8
P–620c	RUNWAY AND TAXIWAY PAINTING	LUMP SUM	1
P–610a	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	6
P–650e	CONCRETE TIEDOWN ANCHOR	EACH	12
P–661a	STANDARD SIGN	LUMP SUM	1
P–670a	HAZARD MARKER BARRIER, PLASTIC	EACH	110
U–500b	POWER UTILITY WORK	LUMP SUM	1

ESTIMATED QUANTITIES
ADDITIVE ALTERNATE 1: NEDA EAST SIDE

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
D–701a	POLYETHYLENE CORRUGATED PIPE, 12–INCH	LINEAR FOOT	167
D–701b	POLYETHYLENE CORRUGATED PIPE, 15–INCH	LINEAR FOOT	167
D–751e	MANHOLE, TYPE III	EACH	2
G–100a	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
G–135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	1
G–135b	EXTRA SURVEY PARTY	HOUR	20
G–150a	EQUIPMENT RENTAL	HOUR	40
G–300a	CPM SCHEDULING	LUMP SUM	1
G–700a	AIRPORT FLAGGER	CONTINGENT SUM	1
P–152a	UNCLASSIFIED EXCAVATION	CUBIC YARD	1,700
P–154b	SUBBASE COURSE	TON	13,750
P–157a	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	1
P–157c	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	1
P–157e	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	1
P–157f	WITHHOLDING	CONTINGENT SUM	1
P–160a	EXCAVATION OF AC, RAP, OR PCC PAVEMENT	SQUARE YARD	1,270
P–165a	REMOVAL OF STRUCTURES	LUMP SUM	1
P–209b	CRUSHED AGGREGATE BASE COURSE	TON	8,375
P–401a	HOT MIX ASPHALT TYPE II, CLASS B	TON	9,100
P–401b	HOT MIX ASPHALT PRICE ADJUSTMENT	CONTINGENT SUM	1
P–401c	HOT MIX ASPHALT TYPE V, CLASS S	TON	6,065
P–401e	ASPHALT CEMENT, PG 58–28	TON	501
P–401f	ASPHALT CEMENT, PG 64–28	TON	334
P–603a	TACK COAT, PG 58–28	TON	26
P–620c	RUNWAY AND TAXIWAY PAINTING	LUMP SUM	1
P–650e	CONCRETE TIEDOWN ANCHOR	EACH	27
P–660b	REFLECTIVE MARKER, TYPE II	EACH	11
T–901a	SEEDING	ACRE	1.8
T–901c	WATER FOR MAINTENANCE	M–GAL	920
T–905a	TOPSOILING	SQUARE YARD	8,525

ESTIMATED QUANTITIES
ADDITIVE ALTERNATE 2: NWDA WATER & SEWER

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
G–100a	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
G–135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	1
G–135b	EXTRA SURVEY PARTY	HOUR	5
G–150a	EQUIPMENT RENTAL	HOUR	5
G–300a	CPM SCHEDULING	LUMP SUM	1
P–157a	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	1
P–157c	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	1
P–157e	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	1
P–157f	WITHHOLDING	CONTINGENT SUM	1
P–160a	EXCAVATION OF AC, RAP, OR PCC PAVEMENT	SQUARE YARD	50
P–165a	REMOVAL OF STRUCTURES	LUMP SUM	1
P–610a	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	4
U–100a	WATER MAIN	LINEAR FOOT	145
U–100b	GATE VALVE	EACH	3
U–100e	FIRE HYDRANT ASSEMBLY	EACH	1
U–100f	PIPE INSULATION	BOARD	15
U–100g	CONNECT TO EXISTING 10–INCH HDPE	LUMP SUM	1
U–200a	6–INCH PVC SEWER PIPE	LINEAR FOOT	200
U–200b	1 1/4–INCH HDPE SEWER PIPE	LINEAR FOOT	260
U–200c	SANITARY SEWER MANHOLE	EACH	2
U–200e	SANITARY SEWER SERVICES & LATERALS	EACH	2
U–200f	LOCATE SANITARY SEWER SERVICE	EACH	1

ESTIMATED QUANTITIES
ADDITIVE ALTERNATE 3: AIRCRAFT WASHDOWN FACILITY

ITEM NO.	PAY ITEM	PAY UNIT	QUANTITY
D–701a	POLYETHYLENE CORRUGATED PIPE, 12–INCH	LINEAR FOOT	40
D–751e	MANHOLE, TYPE III	EACH	1
G–100a	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1
G–135a	CONSTRUCTION SURVEYING BY THE CONTRACTOR	LUMP SUM	1
G–135b	EXTRA SURVEY PARTY	HOUR	2
G–150a	EQUIPMENT RENTAL	HOUR	2
G–300a	CPM SCHEDULING	LUMP SUM	1
P–152a	UNCLASSIFIED EXCAVATION	CUBIC YARD	100
P–157a	EROSION, SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	1
P–157c	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL	LUMP SUM	1
P–157e	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CONTINGENT SUM	1
P–157f	WITHHOLDING	CONTINGENT SUM	1
P–165a	REMOVAL OF STRUCTURES	LUMP SUM	1
P–209b	CRUSHED AGGREGATE BASE COURSE	TON	100
P–610a	STRUCTURAL PORTLAND CEMENT CONCRETE	CUBIC YARD	50
U–100c	1–INCH WATER SERVICE	EACH	1
U–100d	FROSTPROOF YARD HYDRANT	EACH	1
U–100f	PIPE INSULATION	BOARDS	3
U–200b	1–1/4–INCH HDPE SEWER PIPE	LINEAR FOOT	20
U–200d	SANITARY SEWER SUMP PUMP	EACH	1
U–200e	SANITARY SEWER SERVICES & LATERALS	EACH	1
U–500b	POWER UTILITY WORK	LUMP SUM	1
U–500c	POWER SERVICE TRENCHING/CABLE/CONDUIT	LINEAR FOOT	250

TABLE OF ESTIMATING FACTORS

ITEM NO.	ITEM DESCRIPTION	ESTIMATING FACTOR
P–154b	SUBBASE COURSE	145 LB/CF
P–209b	CRUSHED AGGREGATE BASE COURSE	145 LB/CF
P–401a	HOT MIX ASPHALT TYPE II, CLASS B	150 LB/CF
P–401c	HOT MIX ASPHALT TYPE V, CLASS S	150 LB/CF
P–401e	ASPHALT CEMENT, PG 58–28	5.5% BY WEIGHT OF P–401a
P–401f	ASPHALT CEMENT, PG 64–22	5.5% BY WEIGHT OF P–401c
P–603a	TACK COAT, PG 58–28	0.000334 TON/SY

File: C:\Civil 3D Projects\2014\23\62033–01\Aviation\Design\SA14–AV–JNU–IIC–CV.dwg
Script File: –
Plot Date: July 24, 2018
Designed By: W. HOLDEN
Checked By: S. OSBOURN
Drawn By: R. TEMPLADO
DOWL File No. 232–89

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

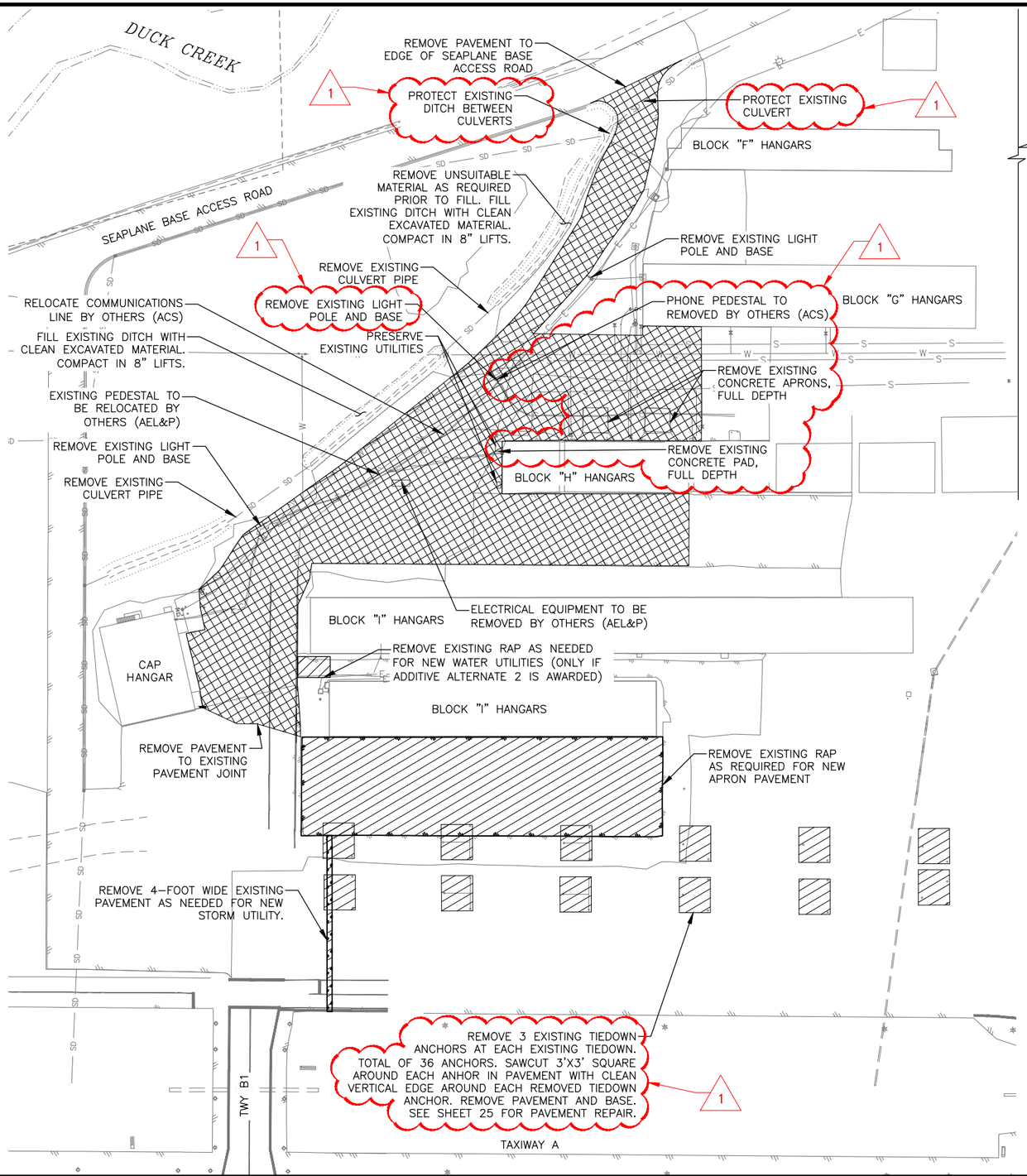
SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA — 49TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
#AECL848
WWW.DOWL.COM
5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/24/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
ESTIMATED QUANTITIES, FACTORS, & SUMMARY TABLES

SHEET 3.1 OF 46



DEMOLITION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES THAT THE LOCATE CALL CENTER DOES NOT LOCATE. THIS INCLUDES FAA, AND OTHER UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.
2. ASPHALT PAVEMENT REMOVAL SHALL BE HAULED AND STOCKPILED ON SITE AS RAP. COORDINATE STOCKPILE LOCATION WITH ENGINEER.
3. ALL EXISTING TIEDOWN ANCHORS WITHIN TAXILANE PAVEMENT REMOVAL AREAS SHALL BE FULLY REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
4. PERIMETER FENCE SHALL REMAIN SECURE AT ALL TIMES. SEE CSPP SHEET AD1.1. TEMPORARY FENCING MAY BE REQUIRED.
5. UNSUITABLE EXCAVATION MAY BE REQUIRED AT EXISTING DITCH. CONFIRM LOCATIONS AND DIMENSIONS WITH ENGINEER.
6. EXISTING CONCRETE APRONS AND PAD ARE OF UNKNOWN DEPTH AND REINFORCEMENT. CONTRACTOR IS RESPONSIBLE FOR FULL DEPTH REMOVAL AND DISPOSAL, INCLUDING ANY REINFORCEMENT THAT MAY BE PRESENT.

GATE E DEMOLITION NOTES

1. CUT AND ABANDON EXISTING GATE LOOPS IN-PLACE.
2. REMOVE ALL EXISTING SIGNAGE ON EXISTING GATE AND SALVAGE TO OWNER.
3. REMOVE EXISTING SECURITY CAMERA AND SALVAGE TO THE AIRPORT.
4. REMOVE EXISTING CARD READER, FOUNDATION, PEDESTAL, AND BOLLARDS.

LEGEND

- EDGE NEW PAVEMENT
- PERIMETER FENCE
- TO BE DEMOLISHED
- PAVEMENT AND BASE REMOVAL

BEFORE YOU DIG CALL FOR FREE UNDERGROUND LOCATION

Locate Call Center of Alaska
Anchorage Area.....278-3121
Statewide.....800-478-3121
who will notify subscribed utilities only.
Other utilities need to be contacted individually.

BY	DATE	REVISIONS
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SCALE
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VERT. SEE GRAPHIC
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STATE OF ALASKA 49TH — Wesley A. Holden 07/23/2018 CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
#AECL848
WWW.DOWL.COM
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907-780-3533
DATE: 7/23/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017
NWDA
DEMOLITION PLAN

SHEET 8.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SA14-AV-JNU-IIC-DM.dwg
Script File:
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Designed By: W. HOLDEN
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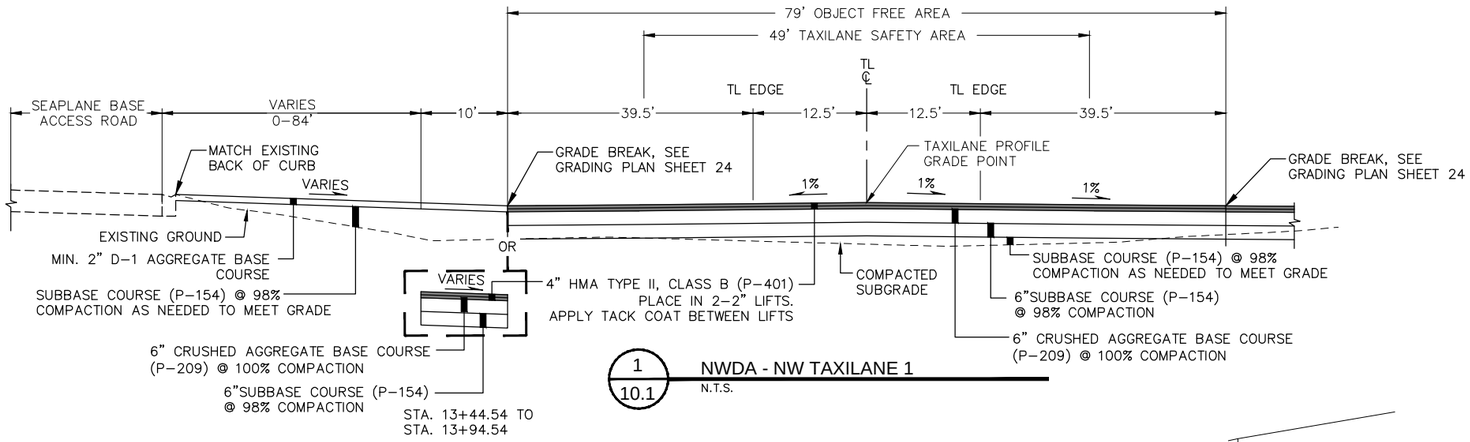
Drawn By: R. TEMPLADO
DOWL File No. 232-89



1 / 10.1 NWDA - NW TAXILANE 1
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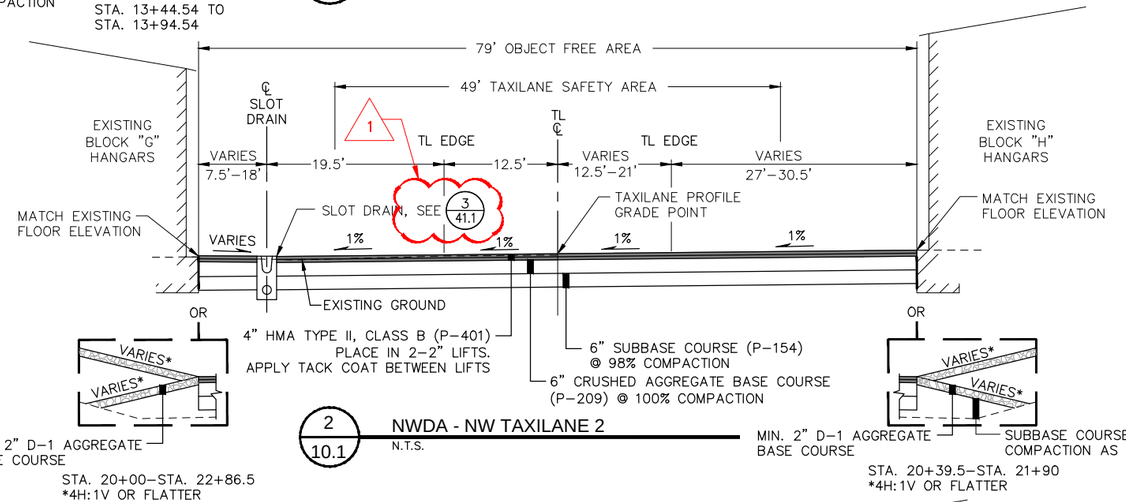
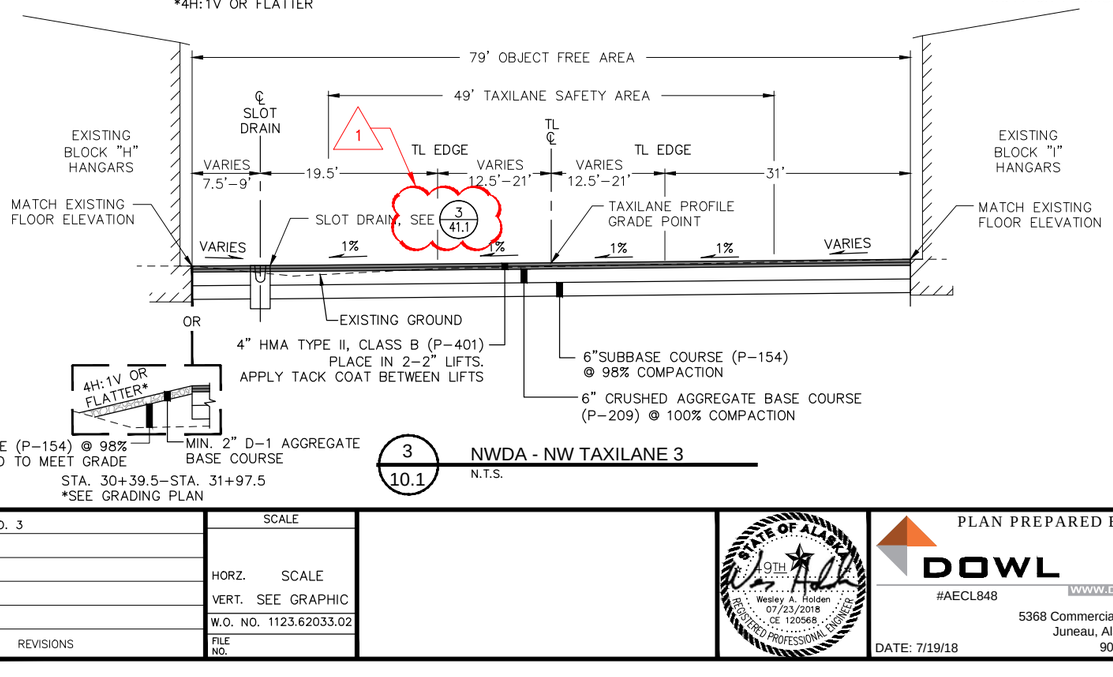
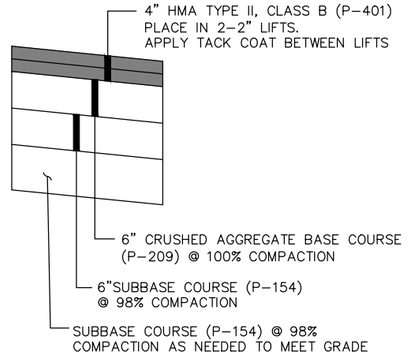


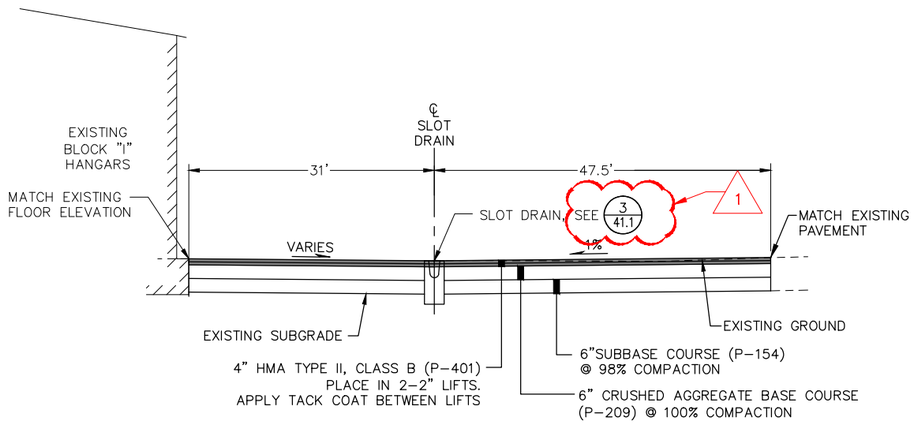
2 / 10.1 NWDA - NW TAXILANE 2
N.T.S.



3 / 10.1 NWDA - NW TAXILANE 3
N.T.S.



4 / 10.1 NWDA - APRON STRUCTURAL SECTION
N.T.S.



5 / 10.1 NWDA - APRON REPAIR AREA
N.T.S.

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA — 49TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
#AECL848
WWW.DOWL.COM
5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
NWDA
NWDA NWDA TYPICAL SECTIONS

SHEET 10.1 OF 46

Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232–89

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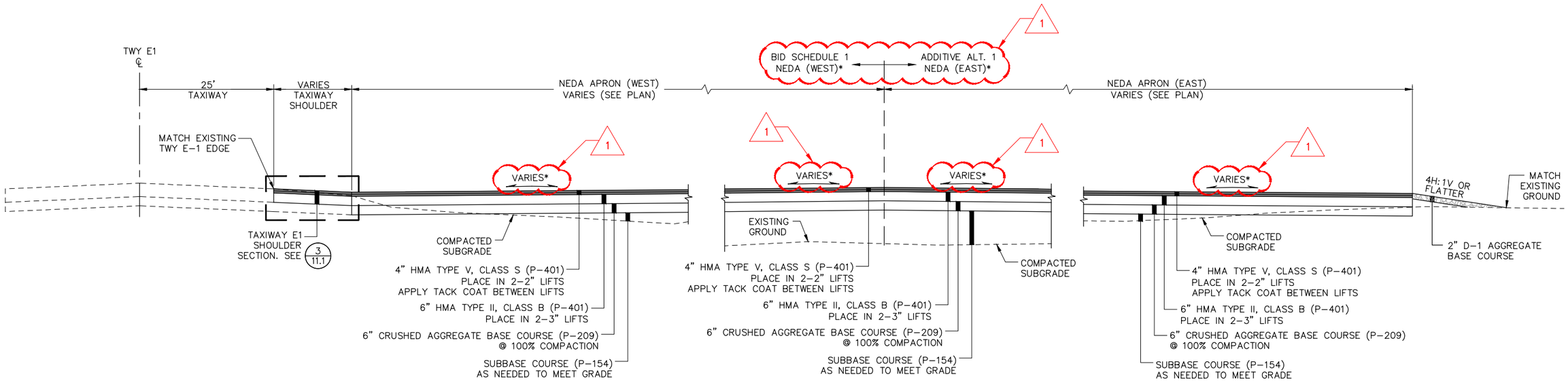
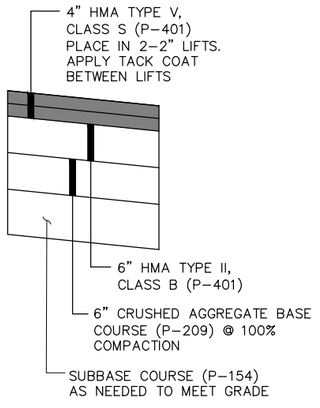
Script File:
Plot Date:



1/11.1 NEDA - APRON TYPICAL SECTION

N.T.S.

* SEE SHEETS 26-29 FOR NEDA GRADING



2/11.1 NEDA - APRON STRUCTURAL SECTION

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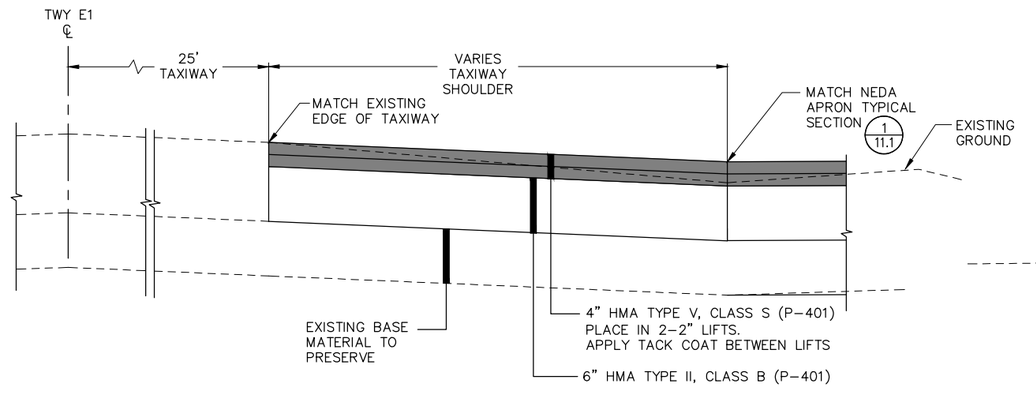

3/11.1 TAXIWAY E1 SHOULDER SECTION

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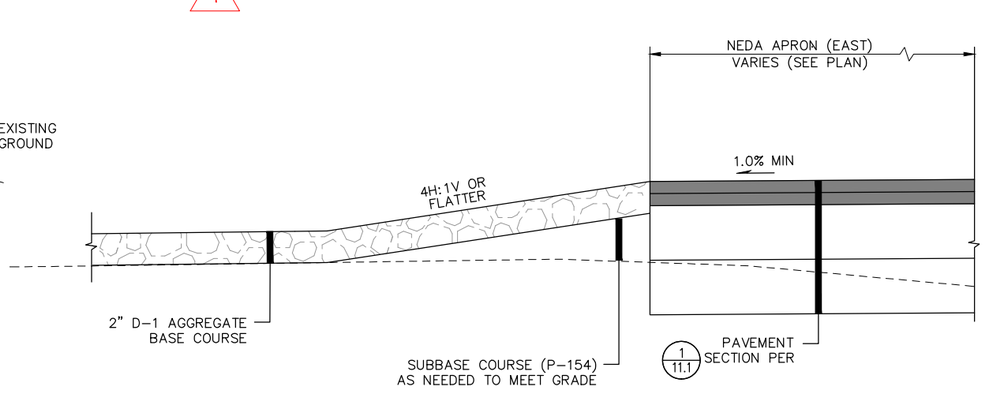


4/11.1 NEDA APRON SHOULDER SECTION

N.T.S.

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE

HORZ. SCALE

VERT. SEE GRAPHIC

W.O. NO. 1123.62033.02

FILE NO.

STATE OF ALASKA 10TH — Wesley A. Holden 07/23/2018 CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:

DOWL

#AECL848

WWW.DOWL.COM

5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533

DATE: 7/23/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA

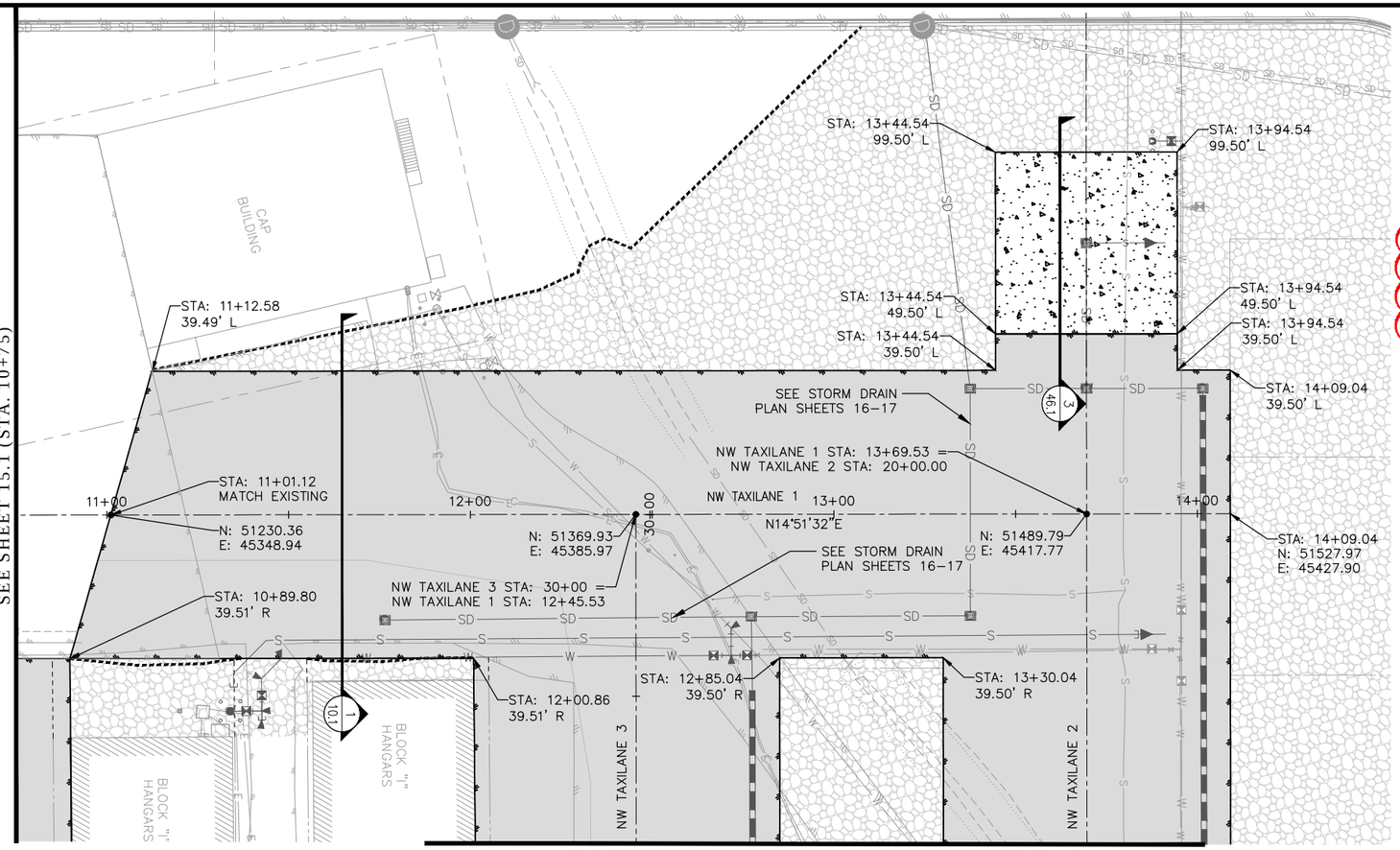
RSA IMPROVEMENTS – PHASE 2C

CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017

NEDA
NEDA APRON TYPICAL SECTIONS

SHEET 11.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation Design\SA14-AV-JNU-IIC-DT.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89



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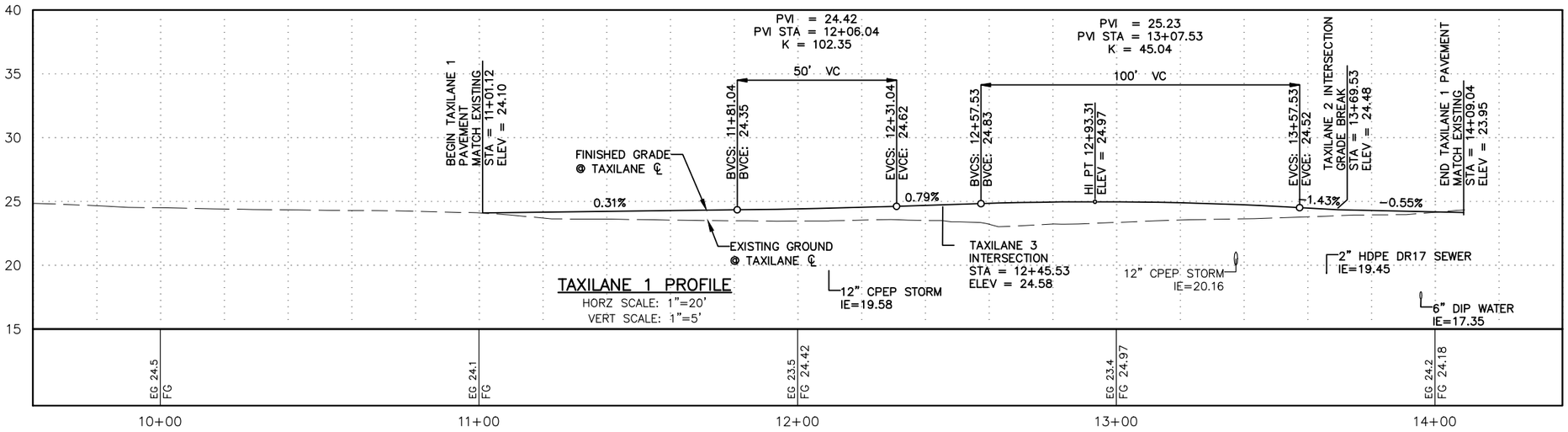
HORIZONTAL TO VERTICAL
SCALE RATIO 1:4

UTILITY NOTES

1. SEE STORM DRAIN PLAN SHEET 16–17.



TAXILANE 1 PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'

LEGEND

- PROPOSED PAVEMENT EDGE
- NEW APRON PAVEMENT
- D-1 CRUSHED AGGREGATE BASE COURSE 2" MIN DEPTH

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 10TH Wesley A. Holden 07/23/2018 REGISTERED PROFESSIONAL ENGINEER CE 120568

PLAN PREPARED BY:
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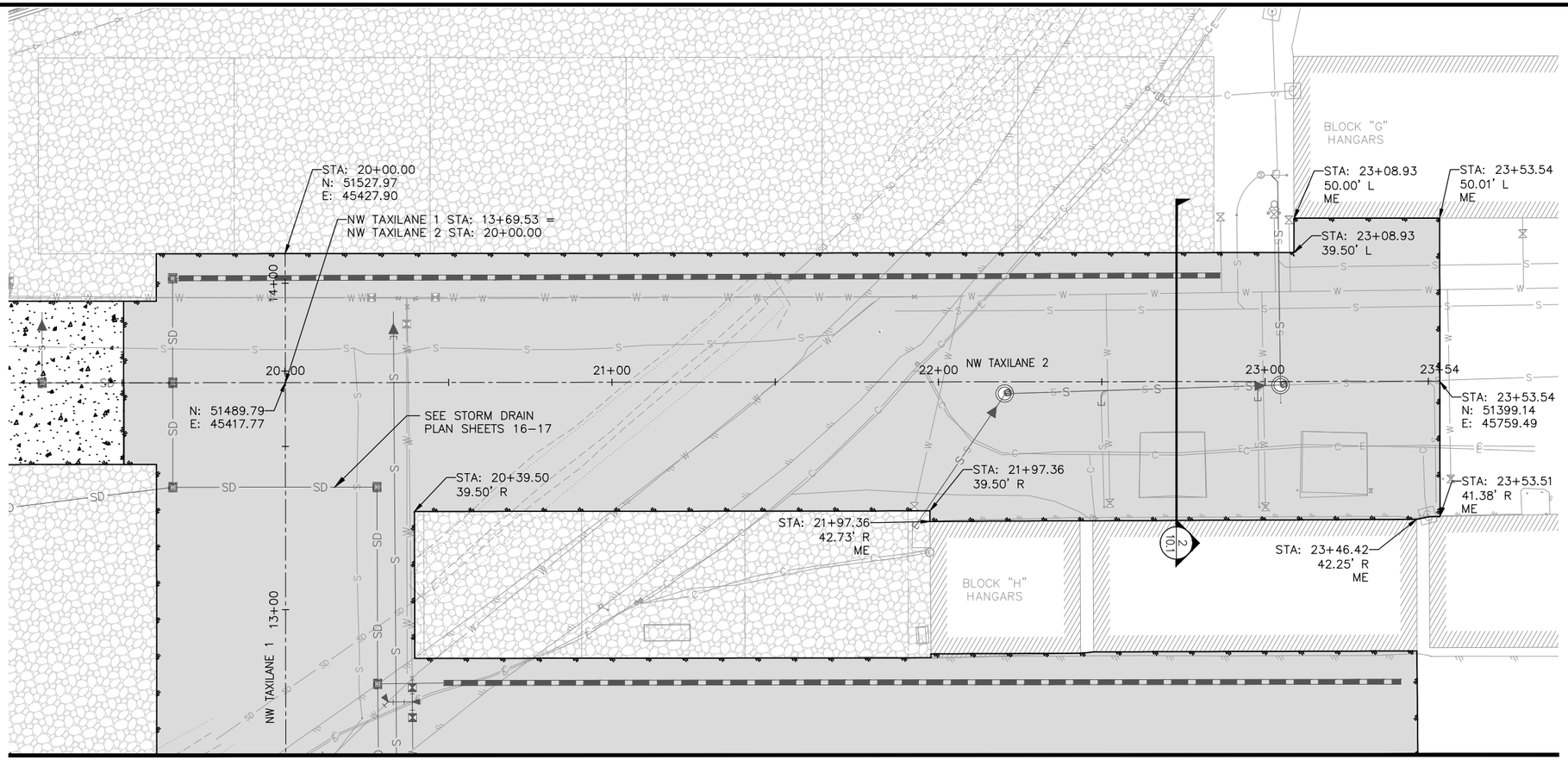
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

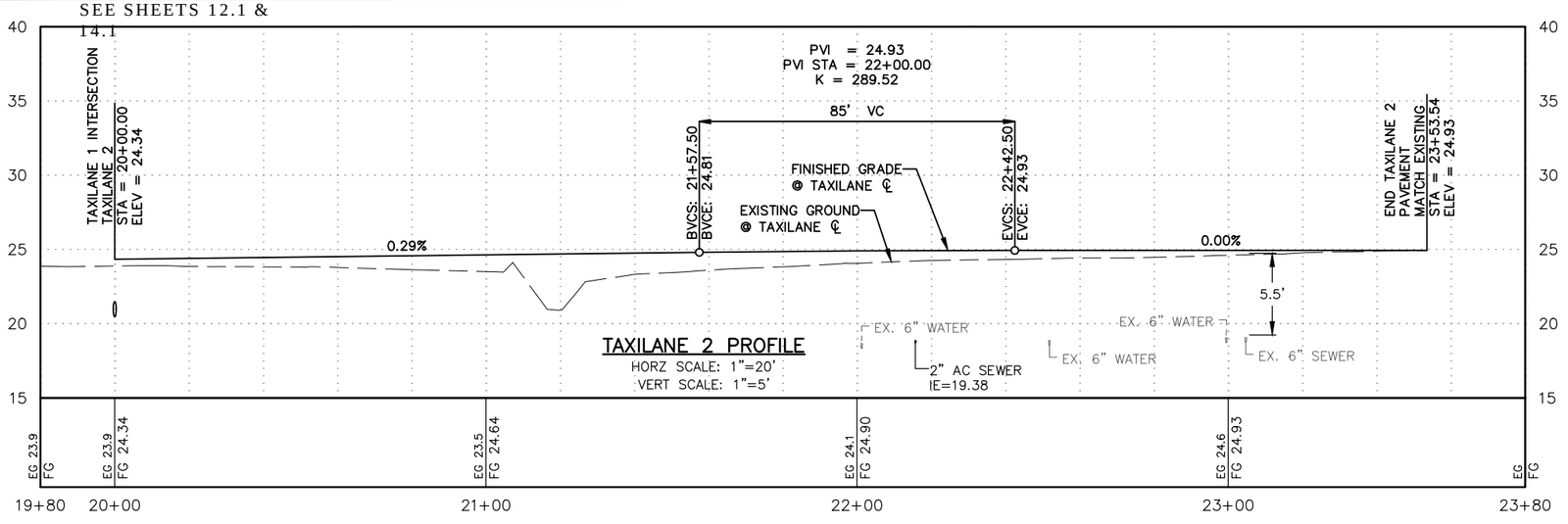
JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017
NWDA TAXILANE 1
PLAN & PROFILE

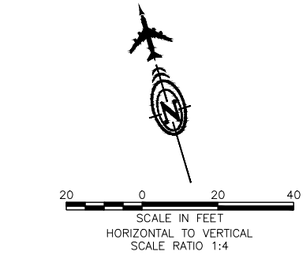
SHEET 12.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SC14-AV-JNU-IIC-PF.dwg
Script File:
Plot Date:

Designed By:	W. HOLDEN
Checked By:	S. OSGOOD
Drawn By:	R. TEMPLADO
DOWL File No.	232-89







UTILITY NOTES

1. SEE STORM DRAIN PLAN SHEET 16-17.

1

LEGEND

- PROPOSED PAVEMENT EDGE
- NEW APRON PAVEMENT
- D-1 CRUSHED AGGREGATE BASE COURSE 2" MIN DEPTH

File:	C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SC14-AV-ANU-IIC-PF.dwg	Designed By:	W. HOLDEN
Script File:		Checked By:	S. OSCOOD
Plot Date:		Drawn By:	R. TEMPLADO
		DOWL File No.	232-89

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE

HORZ. SCALE

VERT. SEE GRAPHIC

W.O. NO. 1123.62033.02

FILE NO.

STATE OF ALASKA 10TH Wesley A. Holden 07/23/2018 REGISTERED PROFESSIONAL ENGINEER CE 120568

PLAN PREPARED BY:

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#AECL848

WWW.DOWL.COM

5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533

DATE: 7/19/18

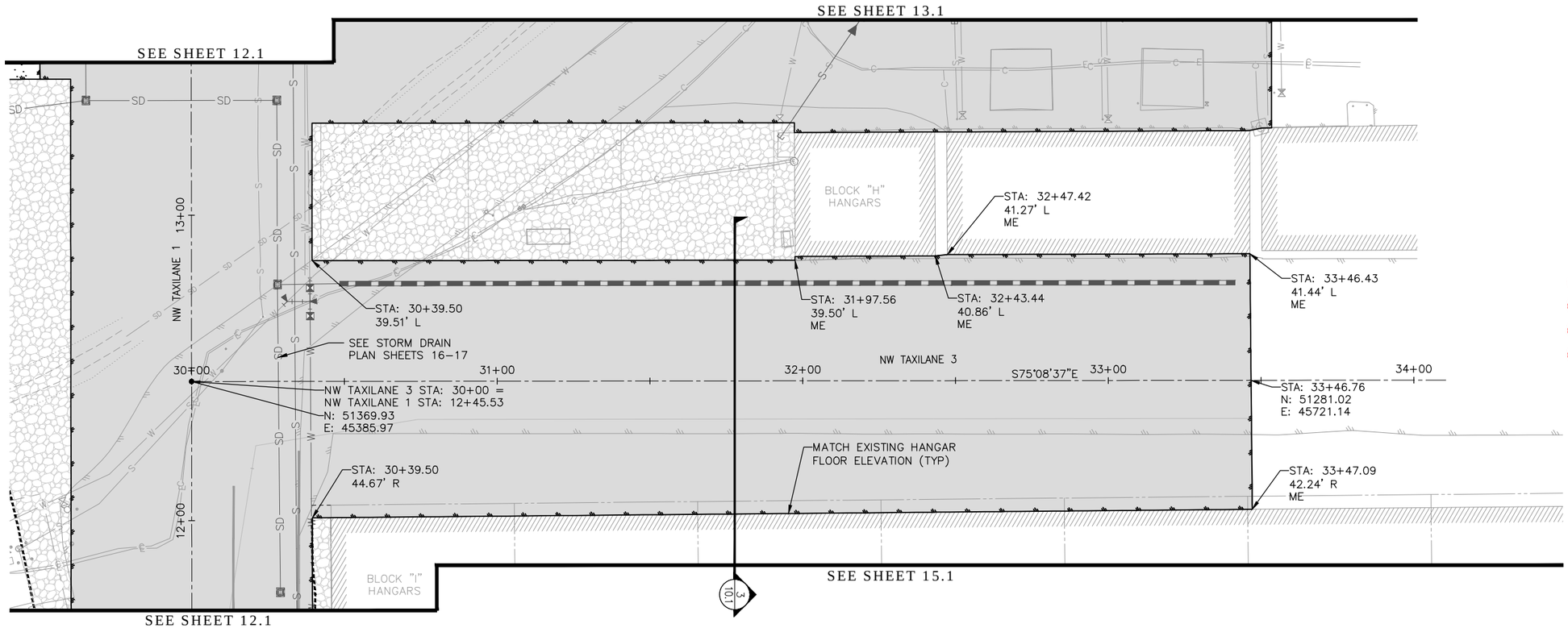
JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA

RSA IMPROVEMENTS – PHASE 2C

CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017

NWDA TAXILANE 2
PLAN & PROFILE

SHEET 13.1 OF 46



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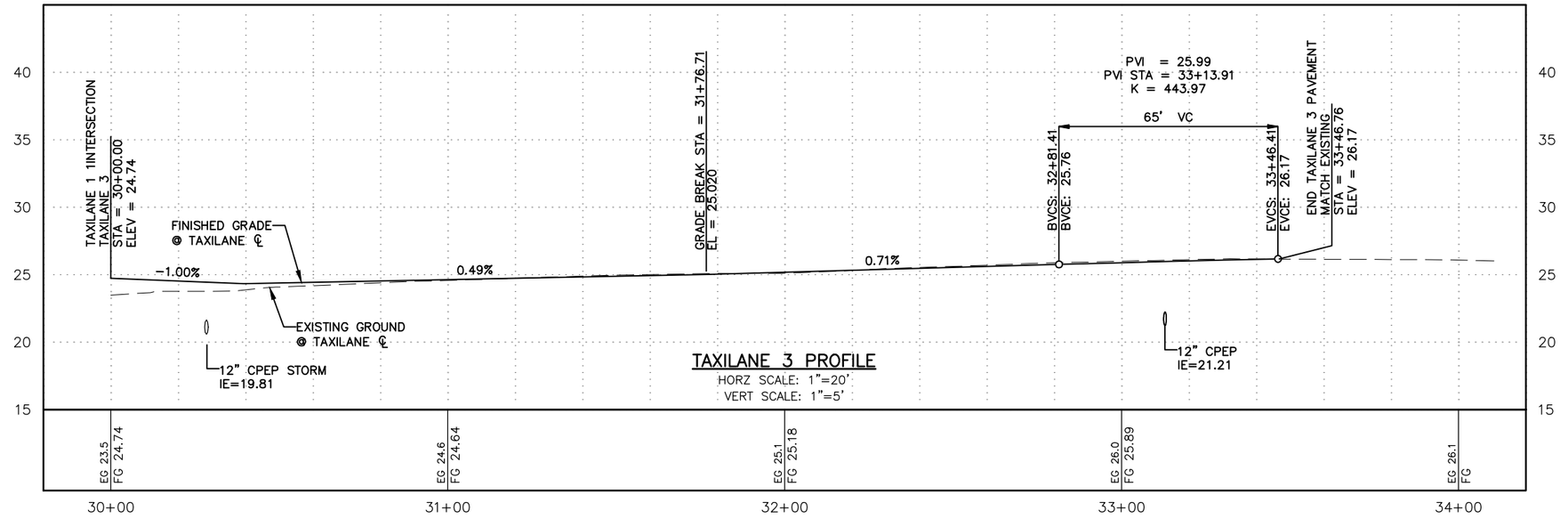
HORIZONTAL TO VERTICAL
SCALE RATIO 1:4

UTILITY NOTES

1. SEE STORM DRAIN PLAN SHEET 16–17.

1



TAXILANE 3 PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'

LEGEND

- PROPOSED PAVEMENT EDGE
- NEW APRON PAVEMENT
- D–1 CRUSHED AGGREGATE BASE COURSE 2" MIN DEPTH

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 9TH Wesley A. Holden 07/23/2018 CE 120568 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
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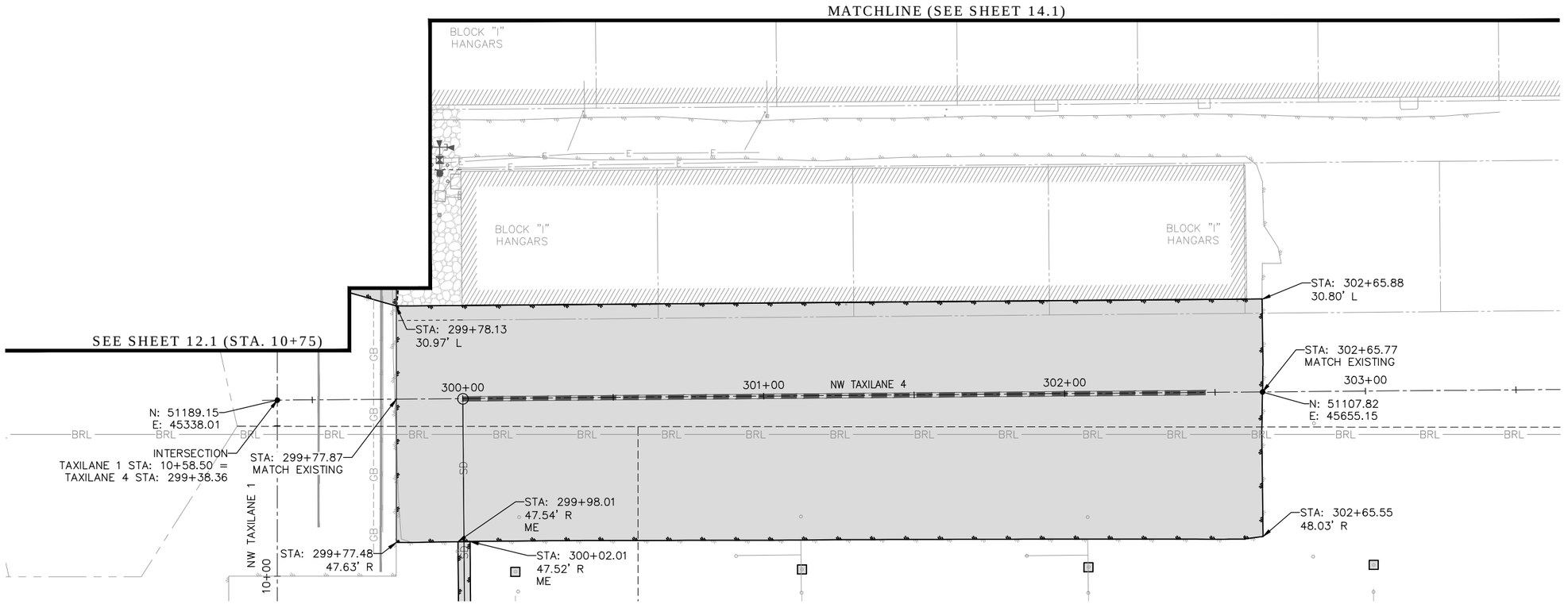
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

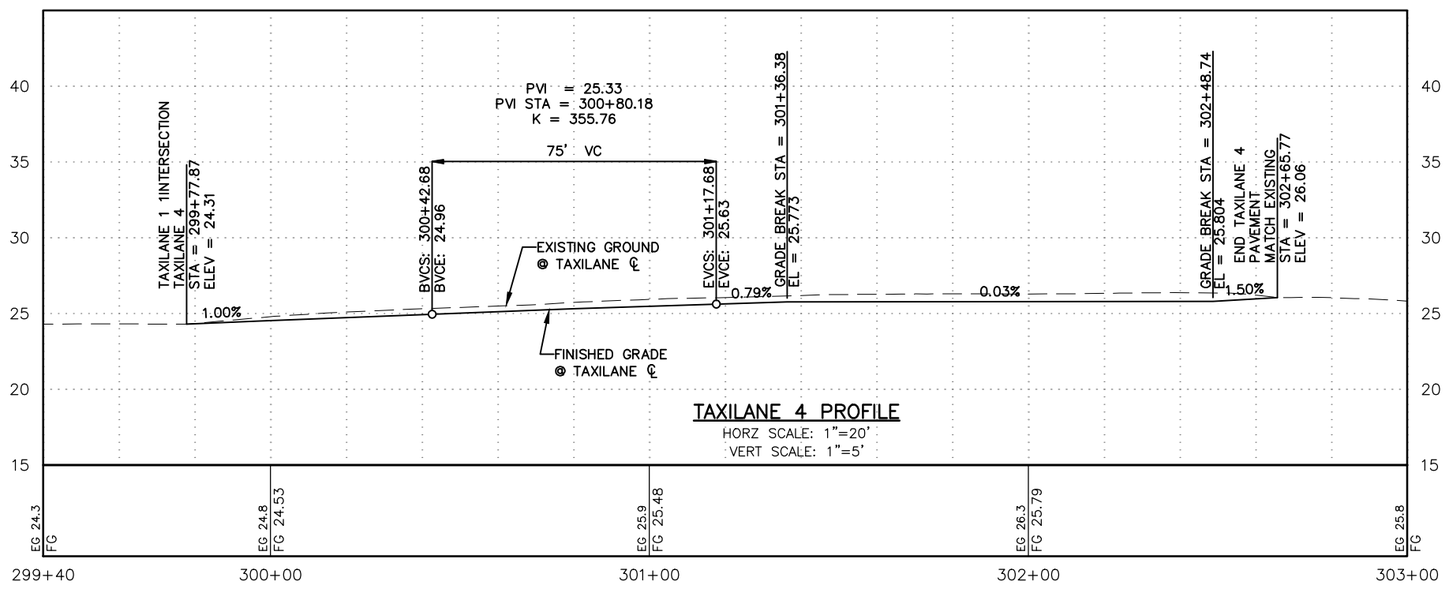
JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
NWDA TAXILANE 3
PLAN & PROFILE

SHEET 14.1 OF 46

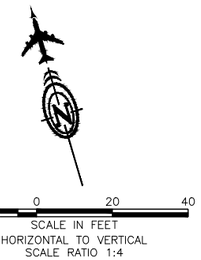
File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SC14-AV-JNU-IIC-PF.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89

MATCHLINE (SEE SHEET 14.1)





TAXILANE 4 PROFILE
HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



UTILITY NOTES

1. SEE STORM DRAIN PLAN SHEET 16–17.

1

LEGEND

- PROPOSED PAVEMENT EDGE
- NEW APRON PAVEMENT
- D-1 CRUSHED AGGREGATE BASE COURSE 2" MIN DEPTH

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA — 9TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
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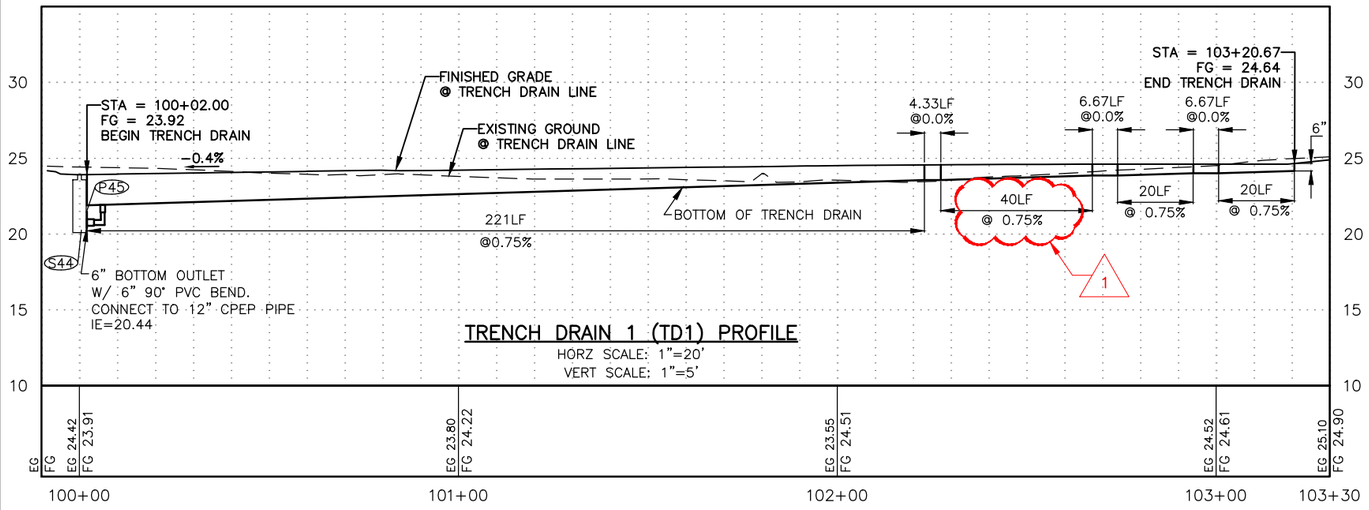
WWW.DOWL.COM
5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017
NWDA TAXILANE 4
PLAN & PROFILE

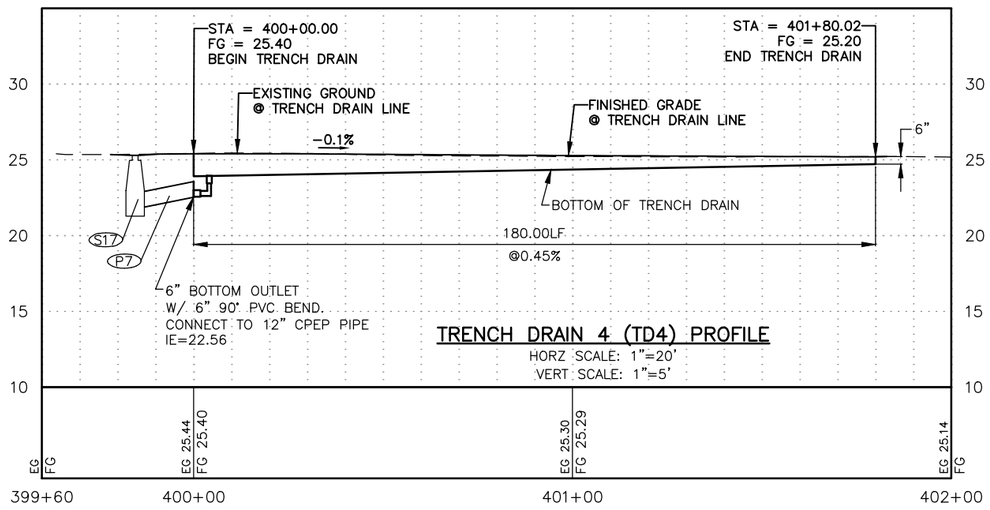
SHEET 15.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SC14-AV-ANU-IIC-PF.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89



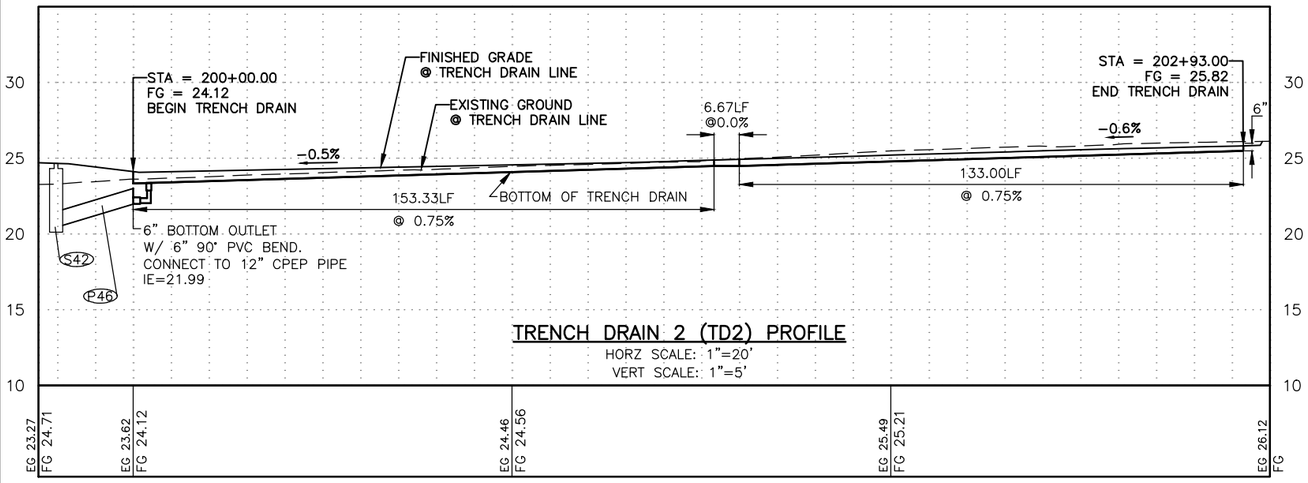
TRENCH DRAIN 1 (TD1) PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



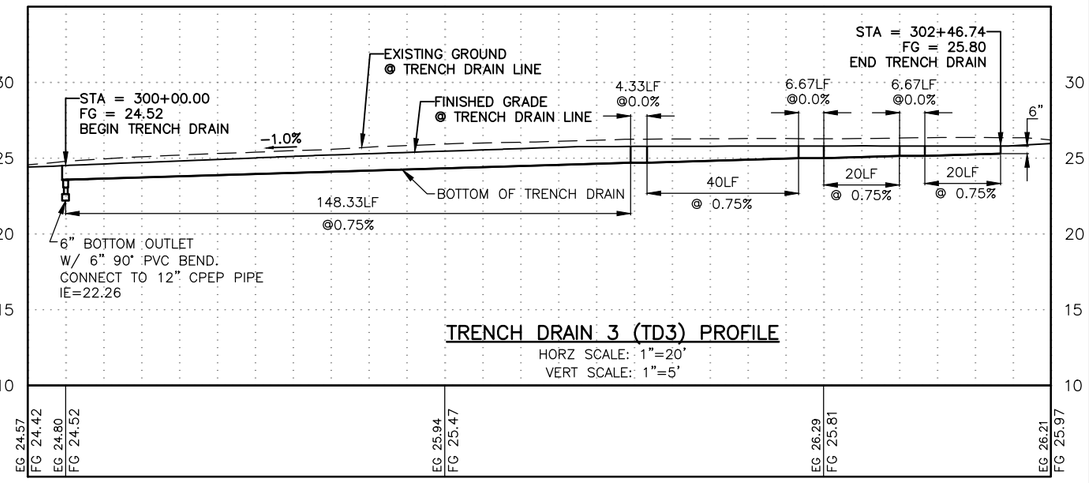
TRENCH DRAIN 4 (TD4) PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



TRENCH DRAIN 2 (TD2) PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'



TRENCH DRAIN 3 (TD3) PROFILE

HORZ SCALE: 1"=20'
VERT SCALE: 1"=5'

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA — 49TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
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Juneau, Alaska 99801
907-780-3533
DATE: 7/23/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017
NWDA
TRENCH DRAIN PROFILES

SHEET 19.1 OF 46

Designed By: W. HOLDEN
Checked By: S. OSCOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89

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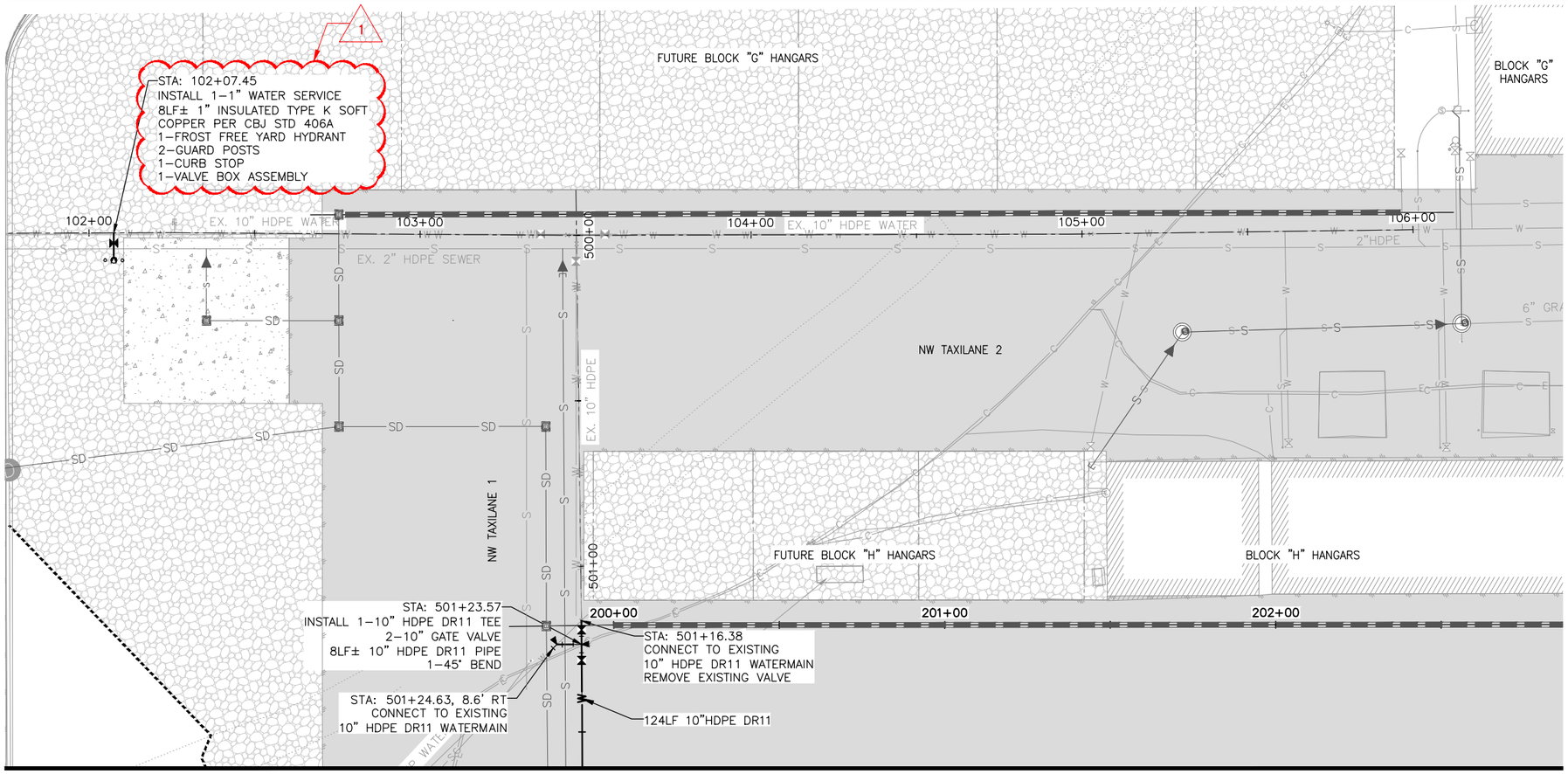
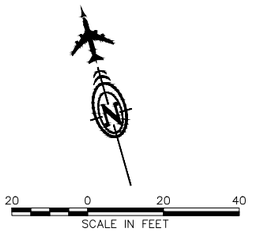
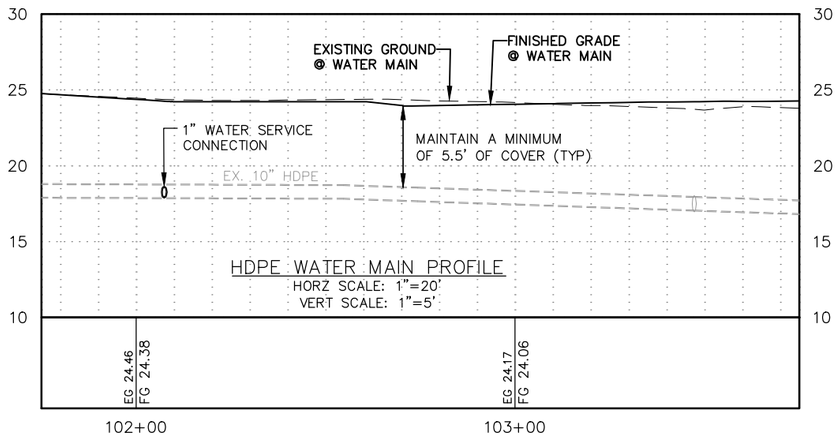


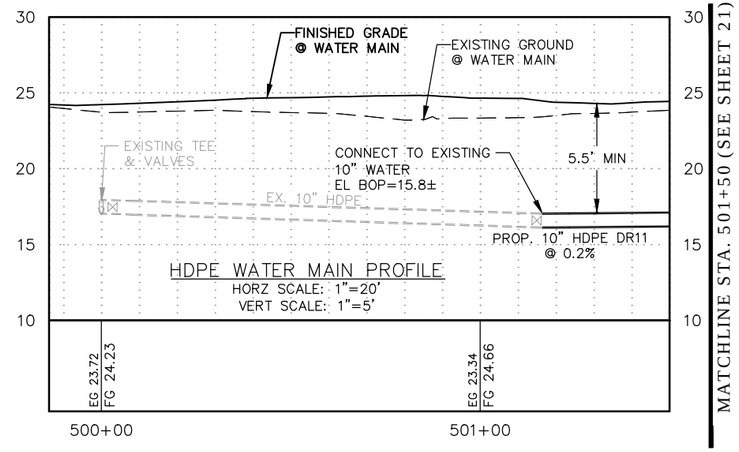


1

WATER GENERAL NOTES:

1. THRUST BLOCKS SHALL BE INSTALLED AT ALL WATER PIPE BENDS, TEES, VALVES, FIRE HYDRANTS, AND OTHER CHANGES IN DIRECTION. REFER TO CBJ STANDARD DETAILS 414A, 414B.
2. WATER PIPE MINIMUM COVER IS 5.5', FIELD ADJUST AS NEEDED TO MAINTAIN THE MINIMUM COVER. WHERE MINIMUM COVER CAN NOT BE ACHIEVED INSTALL RIGID INSULATION PER DETAIL 4 SHEET 41.1.
3. REFER TO SHEET 41.1 FOR UTILITY TRENCH DETAIL.
4. INSTALL FIRE HYDRANT PER CBJ STANDARD 403.
5. INSTALL HYDRANT GUARD POSTS PER CBJ STANDARD 404.
6. INSTALL WATER SERVICE PER CBJ STANDARD 406A.
7. INSTALL MAIN LINE VALVE PER CBJ STANDARD 407.
8. INSTALL 1" FROST FREE YARD HYDRANT PER DETAIL SHEET 46.1 WITH HYDRANT GUARD POSTS PER CBJ STANDARD 404.
9. CROSSINGS BETWEEN WATER MAINS, WATER SERVICES, AND SANITARY SEWER/STORM DRAINAGE LINES SHALL BE INSTALLED AND INSULATED PER CBJ STANDARD 412.





BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA — 9TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
#AECL848
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5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
BID ADDITIVE ALTERNATE 2
NWDA WATER PLAN & PROFILE

SHEET 20.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SA14-AV-JNU-IIC-PI.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89

WATER GENERAL NOTES:

1. THRUST BLOCKS SHALL BE INSTALLED AT ALL WATER PIPE BENDS, TEES, VALVES, FIRE HYDRANTS, AND OTHER CHANGES IN DIRECTION. REFER TO CBJ STANDARD DETAILS 414A, 414B.
2. WATER PIPE MINIMUM COVER IS 5.5', FIELD ADJUST AS NEEDED TO MAINTAIN THE MINIMUM COVER. WHERE MINIMUM COVER CAN NOT BE ACHIEVED INSTALL RIGID INSULATION PER DETAIL 4 SHEET 41.1.
3. REFER TO SHEET 41.1 FOR UTILITY TRENCH DETAIL.
4. INSTALL FIRE HYDRANT PER CBJ STANDARD 403.
5. INSTALL HYDRANT GUARD POSTS PER CBJ STANDARD 404.
6. INSTALL WATER SERVICE PER CBJ STANDARD 406A.
7. INSTALL MAIN LINE VALVE PER CBJ STANDARD 407.
8. INSTALL 1" FROST FREE YARD HYDRANT PER DETAIL SHEET 46.1 WITH HYDRANT GUARD POSTS PER CBJ STANDARD 404.
9. CROSSINGS BETWEEN WATER MAINS, WATER SERVICES, AND SANITARY SEWER/STORM DRAINAGE LINES SHALL BE INSTALLED AND INSULATED PER CBJ STANDARD 412.

1

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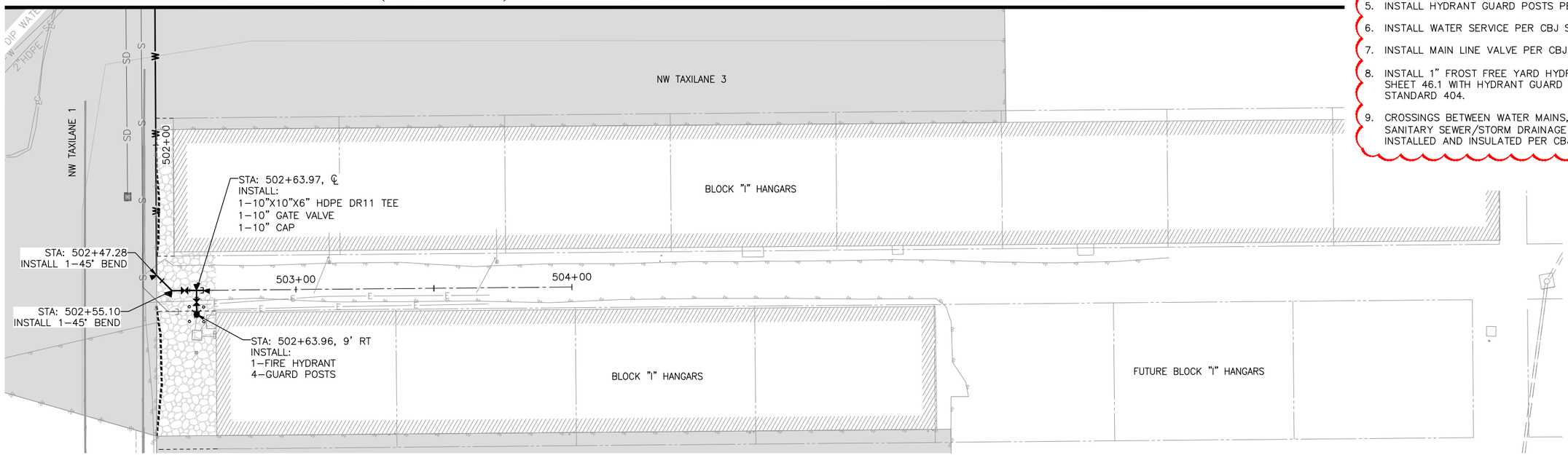
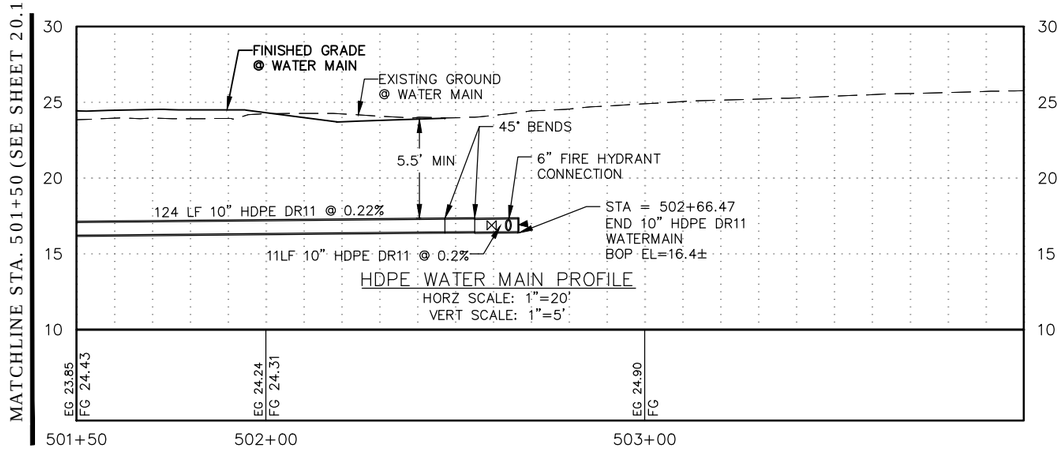
SCALE IN FEET

MATCHLINE STA. 501+50 (SEE SHEET 20.1)



MATCHLINE STA. 501+50 (SEE SHEET 20.1)



BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 19TH Wesley A. Holden 07/23/2018 CE 120568 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
DOWL
#AECL848
WWW.DOWL.COM
5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
BID ADDITIVE ALTERNATE 2
NWDA WATER PLAN & PROFILE

SHEET 21.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation Design\SA14-AV-JNU-IIC-PI.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89

EXISTING GEOTHERMAL LOOPFIELD NOTES

1. RECORD DRAWINGS FOR THE EXISTING GEOTHERMAL LOOP FIELD ARE INCLUDED IN THE APPENDICES OF THE CONTRACT DOCUMENTS.
2. CONTRACTOR SHALL REVIEW EXISTING DRAWINGS AND PROVIDE SIMILAR MATERIALS FOR NEW EXTENSIONS.
3. ALL NEW MANIFOLD PIPES SHALL BE INSULATED TO MATCH EXISTING.

1

WINGS AIRWAYS/LIFE MED.

SD SD SD SD SD SD SD SD

EXTEND 12 EXISTING 4–INCH LOOP FIELD MANIFOLD PIPES 10–FEET BEYOND EDGE OF PAVEMENT AND CAP FOR FUTURE USE. PRESERVE EXISTING POSITIVE SLOPE TO ENSURE NO LOW POINT IS CREATED IN NEW PIPES. EXTENDED PIPES SHALL BE INSULATED TO MATCH EXISTING.

1

SEE SHEET 34

SEE SHEET 33

TWELVE (12) EXISTING 4–INCH DIA. INSULATED HDPE LOOP FIELD MANIFOLD PIPES, SPACED 18" O.C. APPROXIMATELY 8' BURIED DEPTH.

TWELVE (12) 4–INCH GROUND SOURCE WATER SUPPLY & GROUND SOURCE WATER RETURN. APPROXIMATELY 8' BURIAL DEPTH WITH WARNING TAPE OVER EVERY OTHER PIPE AND ON OUTSIDE LIMIT.

INV EL=17.68
INV EL=17.61
INV EL=22.41
INV EL=19.25
INV EL=18.82
INV EL=XX
INV EL=18.26
INV EL=17.84
INV EL=18.50
INV EL=17.84
INV EL=17.14
INV EL=17.09
INV EL=17.53
INV EL=19.00
INV EL=17.16
INV EL=17.17
INV EL=20.97
INV EL=21.17
INV EL=19.88
INV EL=16.89
INV EL=16.77
INV EL=21

CONSTRUCT AIRCRAFT RATED STORM DRAIN MANHOLE COVER. SEE 1/42

ADJUST FIELD INLET EXISTING ELEV: 24.53' DESIGN ELEV: 24.62'

CONSTRUCT AIRCRAFT RATED STORM DRAIN MANHOLE COVER. SEE 1/42

ADJUST FIELD INLET EXISTING ELEV: 25.56' DESIGN ELEV: 26.28'

CONSTRUCT AIRCRAFT RATED STORM DRAIN MANHOLE COVER. SEE 1/42

REMOVE EXISTING CATCH BASIN

INSTALL NEW WATER TIGHT CONNECTION BETWEEN EXISTING 18" CMP AND REPLACED 18" CMP

ADJUST FIELD INLET EXISTING ELEV: 24.83' DESIGN ELEV: 24.90'

INSTALL 50LF NEW 18" CMP

CONSTRUCT AIRCRAFT RATED STORM DRAIN MANHOLE COVER. SEE 1/42

ADJUST FIELD INLET EXISTING ELEV: 24.58' DESIGN ELEV: 24.80'

REMOVE EXISTING CATCH BASIN

INSTALL NEW WATER TIGHT CONNECTION BETWEEN EXISTING 18" CMP AND REPLACED 18" CMP

INSTALL 43LF NEW 18" CMP

EXISTING GEOTHERMAL PIPE FIELD

TAXIWAY E1

36"CMP

48"CPP

50 0 50 100
SCALE IN FEET

File:
Script File:
Plot Date:

C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SA14-AV-JNU-IIC-PI.dwg

Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO

DOWL File No. 232-89

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
HORZ. SCALE
VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 49TH
Wesley A. Holden
07/23/2018
CE 120568
REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
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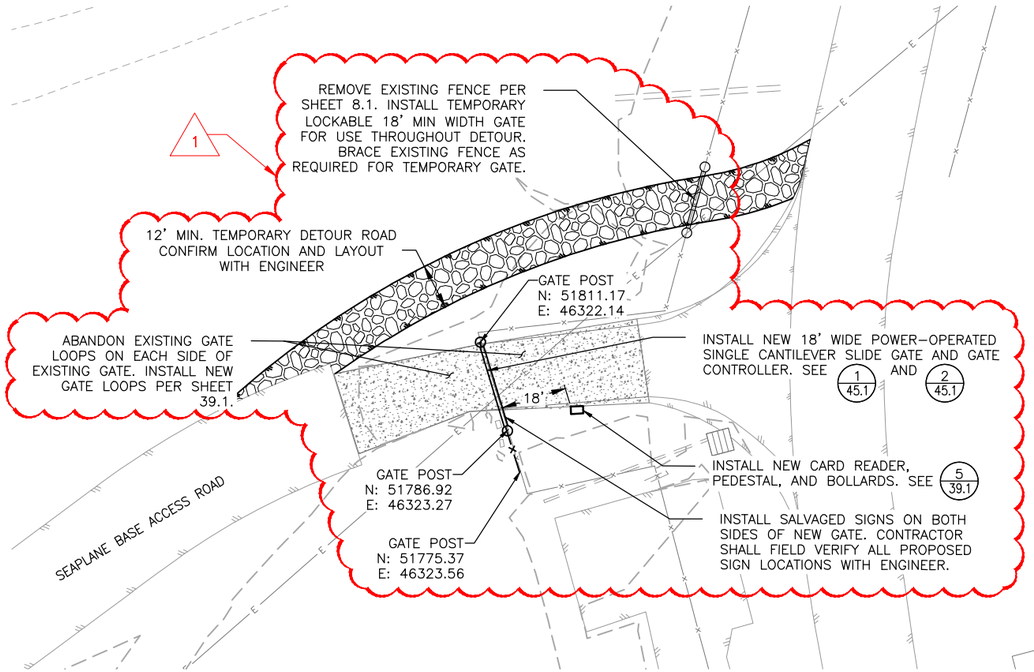
DATE: 7/24/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017
NEDA
STORM DRAIN PLAN

SHEET 32.1 OF 46



1/37.1 NWDA GATE "E" DETAIL
AS SHOWN

GENERAL NOTES

1. SEE SHEET 8.1 FOR DEMOLITION WORK.
2. CONTRACTOR SHALL MAINTAIN A SECURE PERIMETER FENCE AT ALL TIMES. SEE SECTION 015200–SECURITY AND SAFETY, AND PHASING PLAN SHEET AD1.1.
3. GATE E REPLACEMENT WORK IS LIMITED TO NO MORE THAN SEVEN (7) CALENDAR DAYS FROM START TO FINISH. GATE E MUST BE FULLY INSTALLED, TESTED, AND OPERATIONAL AT THE END OF THE 7 DAY WORK PERIOD. COORDINATE GATE SHUTDOWN SCHEDULE WITH ENGINEER AND AIRPORT.

FENCE & GATE NOTES

1. MAINTAIN A SECURE PERIMETER FENCE AT ALL TIMES. TEMPORARY FENCE MAY BE USED TO SECURE FENCE DURING GATE REPLACEMENT.
2. COORDINATE GATE SHUTDOWN SCHEDULE WITH PROJECT ENGINEER AND AIRPORT. MAXIMUM GATE DOWNTIME SHALL BE 7 DAYS.
3. NEW GATE LOOPS MAY BE INSTALLED IN EXISTING GATE LOOP LOCATIONS, OR CUT INTO EXISTING CONCRETE AT NEW LOCATIONS. SEAL PER MANUFACTURER'S RECOMMENDATION.
4. CONTRACTOR SHALL PROVIDE PUSH BUTTON ON NEW GATE OPERATOR THAT CAN BE PROGRAMMED FOR USE BY PEDESTRIANS TO OPEN THE NEW GATE.
5. INSTALL SALVAGED SIGNS FROM REMOVED GATE E ON NEW GATE. CONFIRM LAYOUT AND LOCATION OF EACH SIGN WITH ENGINEER. ATTACH USING STAINLESS STEEL FASTENERS.
6. INSTALL SALVAGED SECURITY CAMERA TO NEW GATE AT THE LOCATION DESIGNATED BY THE ENGINEER.

TEMPORARY DETOUR ROAD NOTES

1. CLEAR GROUND FOR DETOUR OF ALL EXISTING VEGETATION. CONFIRM DETOUR LAYOUT WITH ENGINEER PRIOR TO CLEARING.
2. PLACE LAYER OF FILTER FABRIC OVER CLEARED AREA.
3. PLACE AND COMPACT 6" OF D-1 AGGREGATE OVER FILTER FABRIC. MATCH ELEVATION OF EXISTING ROAD AT EACH END OF TEMPORARY DETOUR ROAD.
4. AFTER NEW GATE E IS INSTALLED AND OPERATIONAL, REMOVE D-1 AGGREGATE AND FILTER FABRIC ON THE NON-SECURED (PUBLIC) SIDE OF FENCE, AND RE-GRADE AND SEED TO PRE-CONSTRUCTION CONDITION.

LEGEND

- TEMPORARY GATE
- TEMPORARY DETOUR ROAD
- NEW GATE & FENCE
- NEW CARD READER

1

20 0 20 40
SCALE IN FEET

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\MC14-AV-JNU-IIC-FP.dwg
Script File:
Plot Date:

Designed By:	W. HOLDEN	
Checked By:	S. OSGOOD	
Drawn By:	R. TEMPLADO	
DOWL File No. 232-89		

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
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VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 49TH — Wesley A. Holden 07/23/2018 CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
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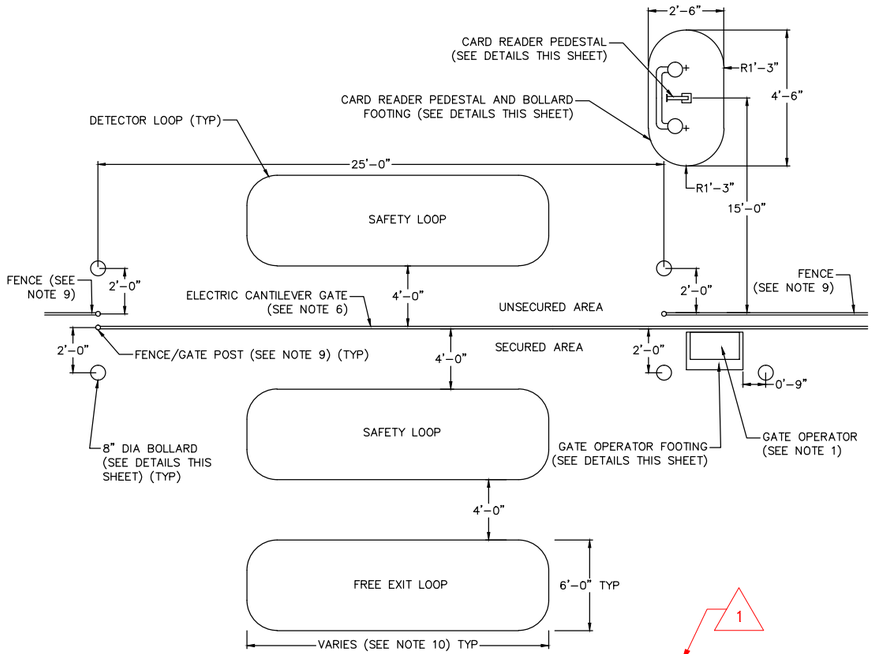
907-780-3533
DATE: 7/23/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017

NWDA FENCING PLAN

SHEET 37.1 OF 46

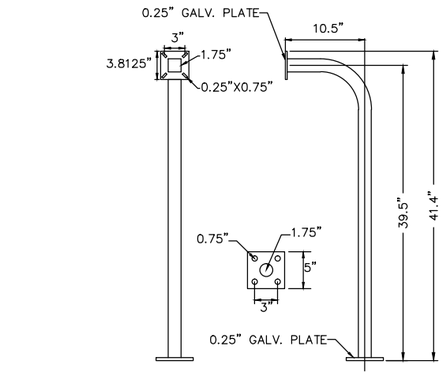


1 / 39.1 **18-FOOT SINGLE CANTILEVER SLIDE GATE LAYOUT – PLAN VIEW**

NTS

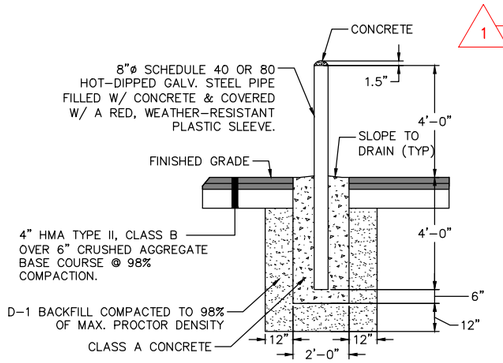
NOTE: CENTER NEW 18' GATE IN EXISTING CONCRETE SLAB. CONFIRM LAYOUT WITH ENGINEER.

1



2 / 39.1 **CARD READER PEDESTAL – ELEVATION AND PLAN VIEWS**

NTS

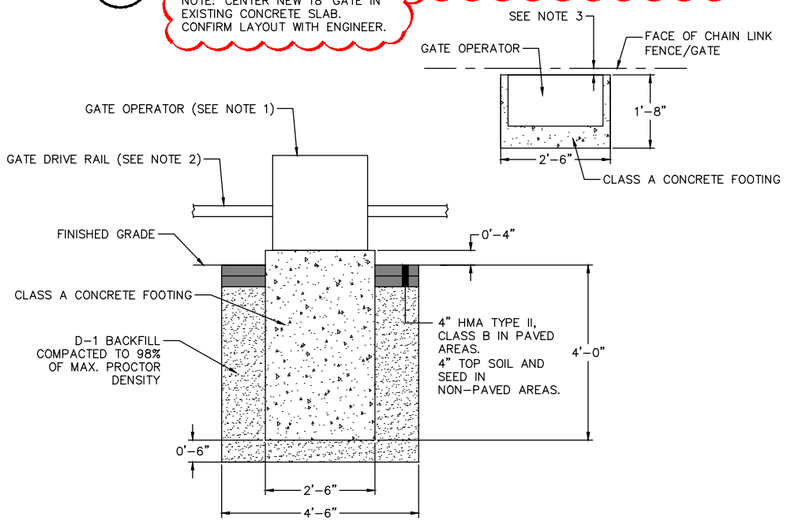


3 / 39.1 **EXTERIOR CONCRETE BOLLARD – ELEVATION VIEW**

NTS

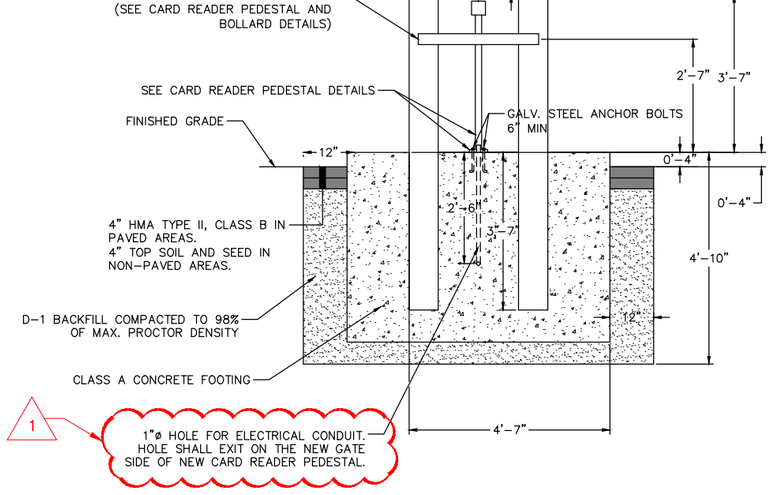
NOTES:

1. GATE OPERATOR SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER.
2. GATE DRIVE RAIL SHALL BE INSTALLED AS REQUIRED BY THE MANUFACTURER.
3. SPACING BETWEEN THE GATE OPERATOR AND THE CHAIN LINK FENCE/GATE SHALL MEET THE REQUIREMENTS SPECIFIED BY THE GATE OPERATOR MANUFACTURER.
4. THE BOLLARDS AND 3"ø PIPE AROUND THE CARD READER PEDESTAL SHALL BE PAINTED WITH RED ENAMEL PAINT, OR AS DIRECTED BY THE ENGINEER.
5. THE CARD READER PEDESTAL SHALL BE 1.75"ø SCHEDULE 40 OR 80 HOT-DIPPED GALV. STEEL PIPE. THE PIPE SHALL BE PAINTED WITH BLACK ENAMEL PAINT.
6. SEE ELECTRIC CANTILEVER GATE DETAILS AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER FOR PROPER INSTALLATION. THE DIRECTION IN WHICH EACH GATE WILL OPEN SHALL BE ACCORDING TO WHAT IS SHOWN ON THE FENCE LAYOUT PLAN SHEETS OR AS DIRECTED BY THE ENGINEER.
8. EXISTING SOILS BENEATH CONCRETE FOOTINGS SHALL BE COMPACTED TO A FIRM FOUNDATION, AS DIRECTED BY THE ENGINEER.
9. CHAIN LINK FENCE SHALL BE INSTALLED AS SHOWN ON THE FENCE LAYOUT PLAN AND CHAIN LINK FENCE DETAILS.
10. THE WIDTH OF EACH LOOP SHALL BE SUCH THAT A MINIMUM DISTANCE OF 5 FEET IS MAINTAINED BETWEEN THE EDGE OF THE LOOP AND THE EDGE OF THE PAVED ROADWAY, OR AS DIRECTED BY THE ENGINEER.



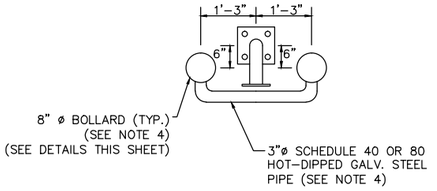
4 / 39.1 **GATE OPERATOR FOOTING– ELEVATION AND PLAN VIEWS**

NTS



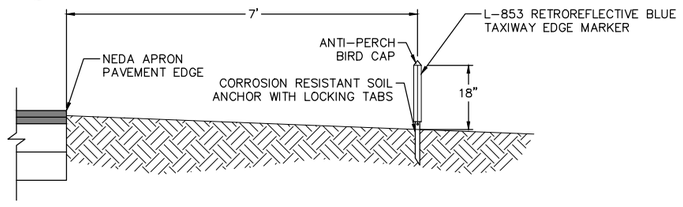
5 / 39.1 **CARD READER PEDESTAL & BOLLARD FOOTING – ELEVATION VIEW**

NTS



6 / 39.1 **CARD READER PEDESTAL AND BOLLARD – PLAN VIEW**

NTS



7 / 39.1 **EDGE REFLECTOR DETAIL**

NTS

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE

HORZ. SCALE

VERT. SEE GRAPHIC

W.O. NO. 1123.62033.02

FILE NO.

STATE OF ALASKA — 10TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:

DOWL — WWW.DOWL.COM

#AECL848

5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533

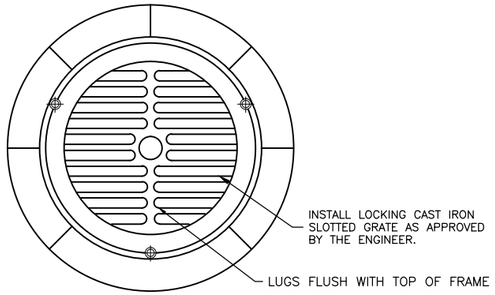
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017

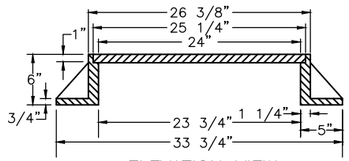
ELECTRICAL DETAILS

SHEET 39.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SA14-AV-JNU-IIC-DT.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89



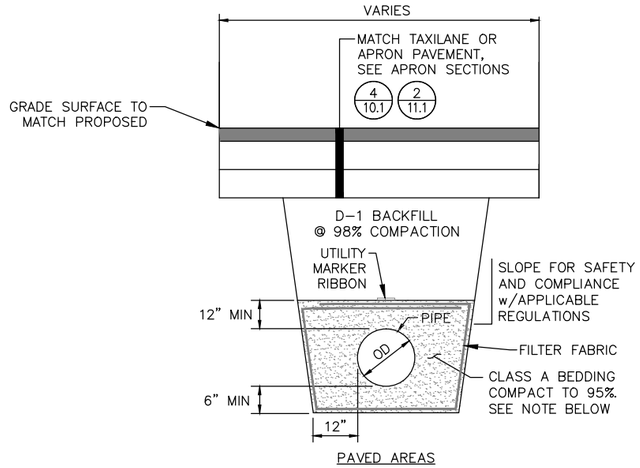
PLAN VIEW



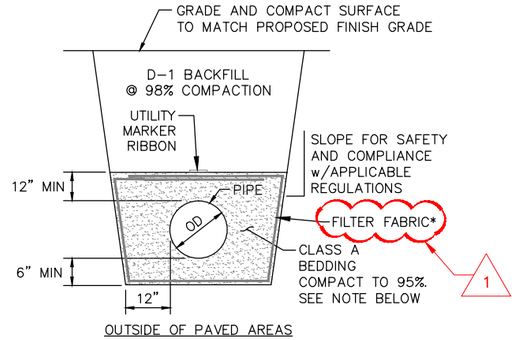
ELEVATION VIEW

NOTES:
1. COVER SHALL HAVE THE WORDS "STORM DRAIN" CAST IN.
2. FRAME AND COVER SHALL BE DUCTILE IRON.
3. THIS DETAIL IS FOR NON-AIRCRAFT RATED STORM DRAIN MANHOLES.

1 / 41.1 ROUND STORM DRAIN MANHOLE COVER & FRAME
NTS



PAVED AREAS

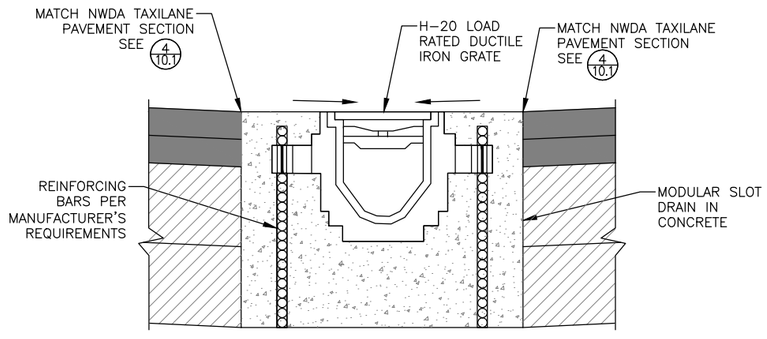


OUTSIDE OF PAVED AREAS

NOTES:
1. PIPE BEDDING TO SPRING LINE ONLY FOR ALL DUCTILE IRON PIPE.
2. BACKFILL IN ACCORDANCE WITH UTILITY SPECIFICATIONS, (U-100,U-200)

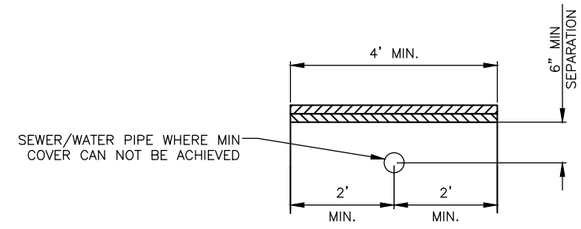
2 / 41.1 UTILITY TRENCHES
NTS

* FILTER FABRIC SHALL BE USED AS DIRECTED BY THE ENGINEER. ATTACH TO TRENCH SIDEWALL A MIN. OF 12" ABOVE TOP OF PIPE.
1



NOTE:
PROVIDE END OUTLET WITH 6" OPENING

3 / 41.1 SLOT DRAIN DETAIL
NTS



MINIMUM COVER
PRESSURE SEWER = 5'
GRAVITY SEWER = 44"
WATER MAIN/SERVICE = 5'

4 / 41.1 RIGID BOARD INSULATION DETAIL
NTS

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
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VERT. SEE GRAPHIC
W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA 49TH — Wesley A. Holden 07/23/2018 CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
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Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017

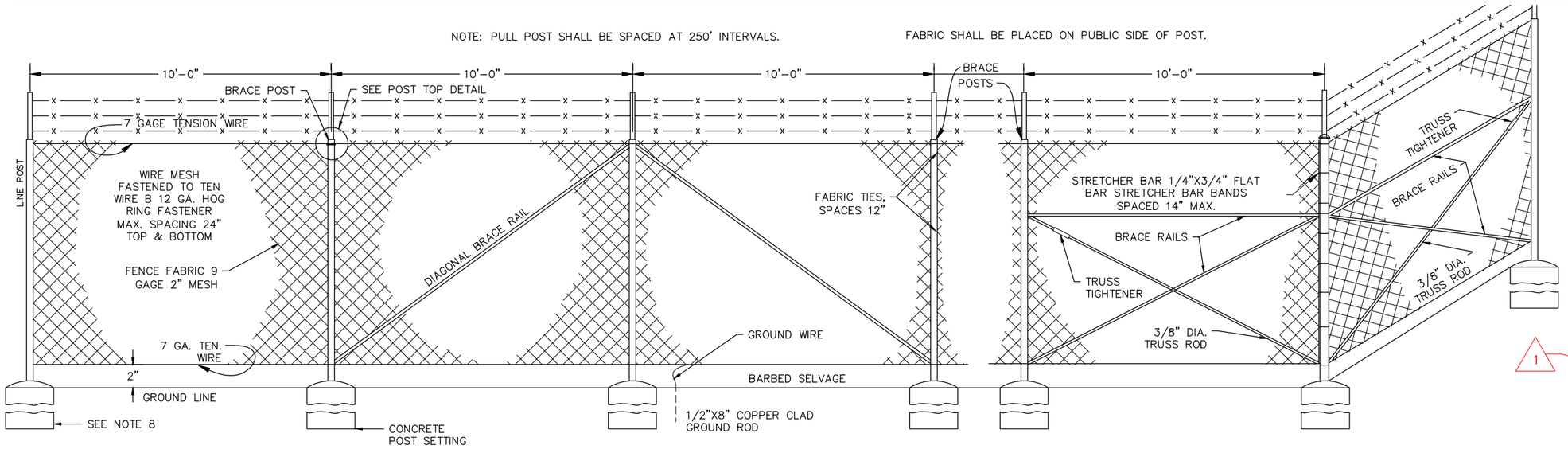
STORM DETAILS

SHEET 41.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033-01\Aviation Design\SA14-AV-JNU-IIC-DT.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89

NOTE: PULL POST SHALL BE SPACED AT 250' INTERVALS.

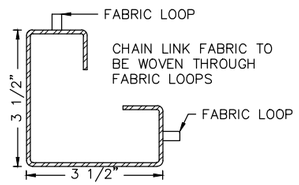
FABRIC SHALL BE PLACED ON PUBLIC SIDE OF POST.



NOTES:

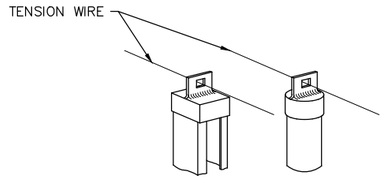
1. POSTS SHALL BE SPACED EQUAL DISTANCES APART. MAXIMUM SPACING SHALL BE 10 FEET UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
2. POST TOPS SHALL BE SECURELY FASTENED TO POST.
3. BRACE RAILS AND TRUSS RODS SHALL BE SECURELY FASTENED TO POST WITH BRACE BANDS WITH THREADED TAKE–UP ADAPTER FOR TRUSS RODS.
4. GROUND WIRE SHALL BE ATTACHED TO FENCE FABRIC BY MEANS OF A SPLIT BOLT.
5. FABRIC SHALL BE STRETCHED TO A SMOOTH UNIFORM APPEARANCE.
6. DETAILS SHOWN INDICATE GENERAL DESIGN AND DIMENSIONS MAY VARY AMONG MANUFACTURERS.
7. FOR FENCE GATE DETAILS, SEE SHEET 45.
8. LINE POST SHALL BE SET IN CONCRETE UNLESS SHOWN OTHERWISE ON THE PLANS.

TYPICAL FENCE SECTION

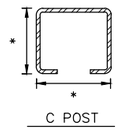


ROLL FORMED POST

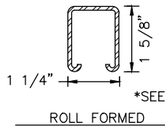
TYPICAL PULL POST



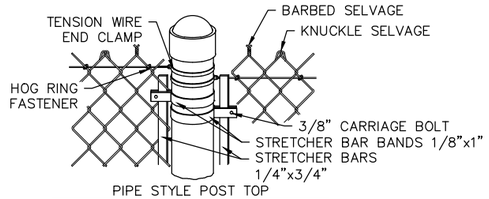
LINE POST TOPS



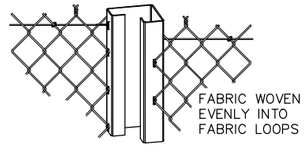
C POST



ROLL FORMED BRACE

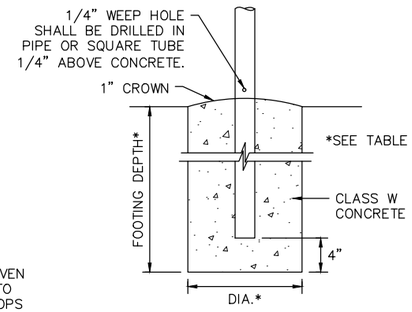


PIPE STYLE POST TOP



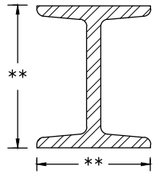
ROLL FORMED POST TOP

TYPICAL CORNER OR TERMINAL POST



CONCRETE POST SETTING

FABRIC HEIGHT	POST														TOP OR BRACE RAIL						ALTERNATE POST	
	END–CORNER–PULL								LINE–BRACE												LINE–BRACE	
	PIPE		SQUARE TUBE		ROLL FORMED		FOOTING		PIPE		C POST		FOOTING		PIPE		ROLL FORMED		H POST		H POST	
	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.	DEPTH	DIA.	SIZE	WT/FT.	SIZE	WT/FT.	DEPTH	DIA.	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.	SIZE	WT/FT.
3'	2"	3.65 #	2" X 2"	4.31 #	3 1/2"X3 1/2"	4.84 #	40"	10"	1 1/2"	2.72 #	1 7/8"X1 5/8"	2.28 #	28"	10"	1 1/4"	2.27 #	1 5/8"	1.35 #	1 1/2"X 1 5/16"	2.27 #	1 7/8"X1 5/8"	2.72 #
4'	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
5'	2"	3.65 #	2" X 2"	4.31 #	3 1/2"X3 1/2"	4.84 #	40"	10"	1 1/2"	2.72 #	1 7/8"X1 5/8"	2.28 #	28"	10"	"	"	"	"	"	"	1 7/8"X1 5/8"	2.72 #
6'	2 1/2"	5.79 #	2 1/2"X2 1/2"	5.59 #	3 1/2"X3 1/2"	4.84 #	48"	15"	2"	3.65 #	2 1/4"X1 45/64"	2.64 #	40"	12"	"	"	"	"	"	"	2 1/4"X2"	4.1 #
7'	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
8'	2 1/2"	5.79 #	2 1/2"X2 1/2"	5.59 #	3 1/2"X3 1/2"	4.84 #	48"	15"	2"	3.65 #	2 1/4"X1 45/64"	2.64 #	40"	12"	"	"	"	"	"	"	2 1/4"X2"	4.1 #



**SEE TABLE

H POST

1 / 44.1 CHAIN LINK FENCE DETAILS
NTS

BY	DATE	REVISIONS
WH	7/23/18	1 ADDENDUM NO. 3

SCALE
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W.O. NO. 1123.62033.02
FILE NO.

STATE OF ALASKA — 49TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

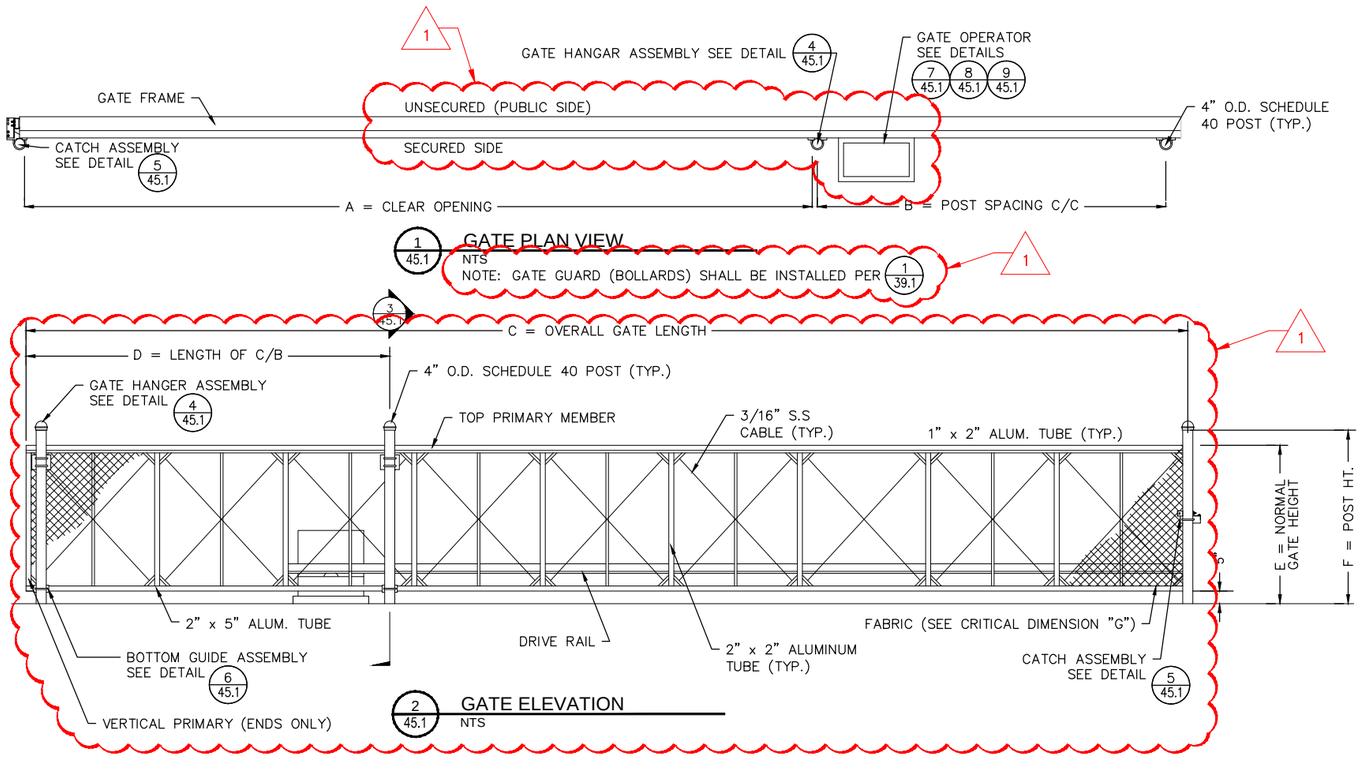
PLAN PREPARED BY:
DOWL
#AECL848
WWW.DOWL.COM
5368 Commercial Boulevard
Juneau, Alaska 99801
907-780-3533
DATE: 7/19/18

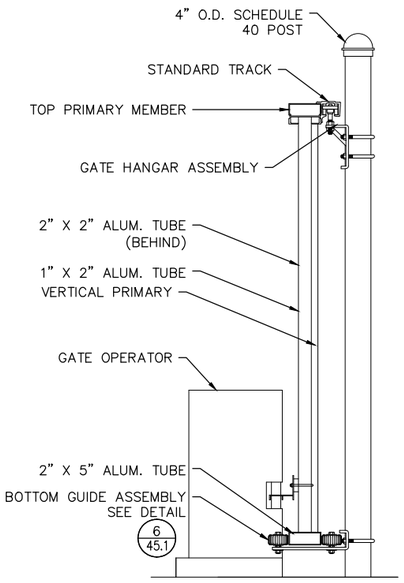
JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18–213 / AIP NO. 3–02–0103–073–2017

FENCE DETAILS

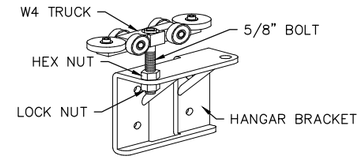
SHEET 44.1 OF 46

File: C:\Civil 3D Projects\2014\23\62033–01\Aviation Design\SA14–AV–JNU–IIC–DT.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232–89





3/45.1 ASSEMBLY SECTION
NTS



4/45.1 GATE HANGER ASSEMBLY
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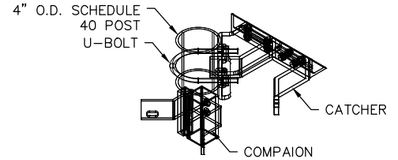

5/45.1 CATCH ASSEMBLY
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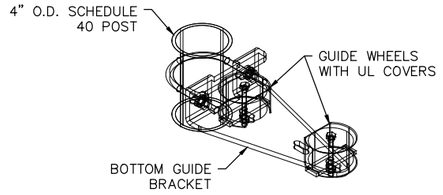

6/45.1 BOTTOM GUIDE ASSEMBLY
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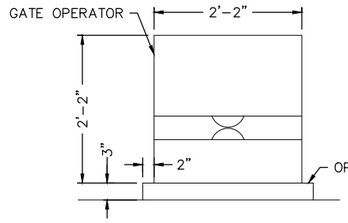

7/45.1 OPERATOR FRONT ELEVATION
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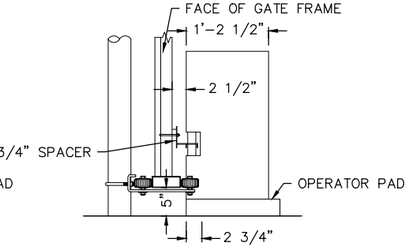
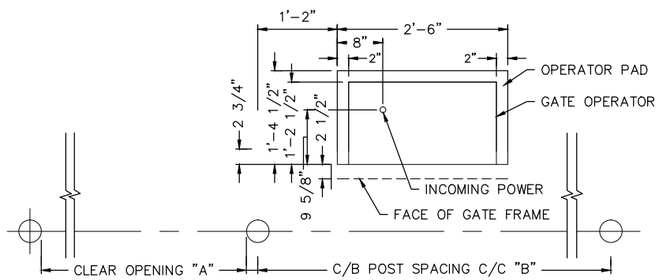


8/45.1 OPERATOR SIDE ELEVATION
NTS



9/45.1 OPERATOR PLAN AND POST LAYOUT
NTS

NOTES:
1. ALL FITTINGS PROVIDED FOR 4" O.D. SCHEDULE 40 POSTS. OTHER SIZES AVAILABLE UPON REQUEST.
2. GATE ELEVATION IS VIEWED FROM THE OUTSIDE OF THE SECURE AREA LOOKING IN.
3. THIS GENERIC DRAWING SHOWS TYPICAL GATE. GATE MANUFACTURED MAY NOT BE EXACTLY AS SHOWN.
4. FOR ADDITIONAL GATE OPERATOR INSTALLATION REQUIREMENTS, SEE SPECIFICATIONS SECTION F-171 POWER GATE OPERATORS.

1

CRITICAL DIMENSION CHART		
A	CLEAR OPENING	18'
B	COUNTERBALANCE POST SPACING C/C	*
C	OVERALL GATE LENGTH	*
D	COUNTERBALANCE LENGTH	*
E	NOMINAL GATE HEIGHT	8'
F	POST HEIGHT	*
G	FABRIC HEIGHT	8'

* PER MANUFACTURER'S RECOMMENDATION

BY	DATE	REVISIONS
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FILE NO.

STATE OF ALASKA 9TH Wesley A. Holden 07/23/2018 CE 120568 REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:
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5368 Commercial Boulevard
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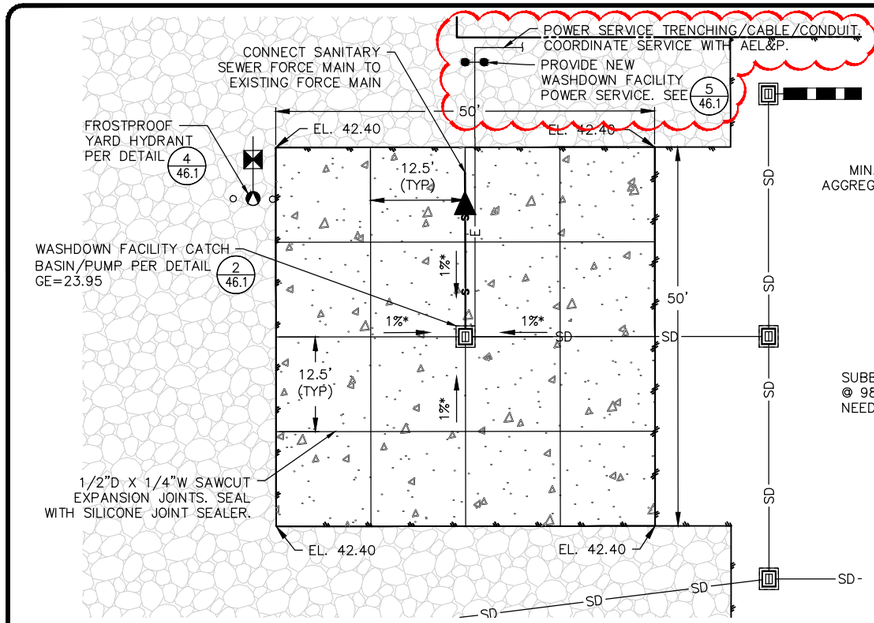
907-780-3533
DATE: 7/19/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA
RSA IMPROVEMENTS – PHASE 2C
CONTRACT NO. BE18-213 / AIP NO. 3-02-0103-073-2017

GATE DETAILS

SHEET 45.1 OF 46

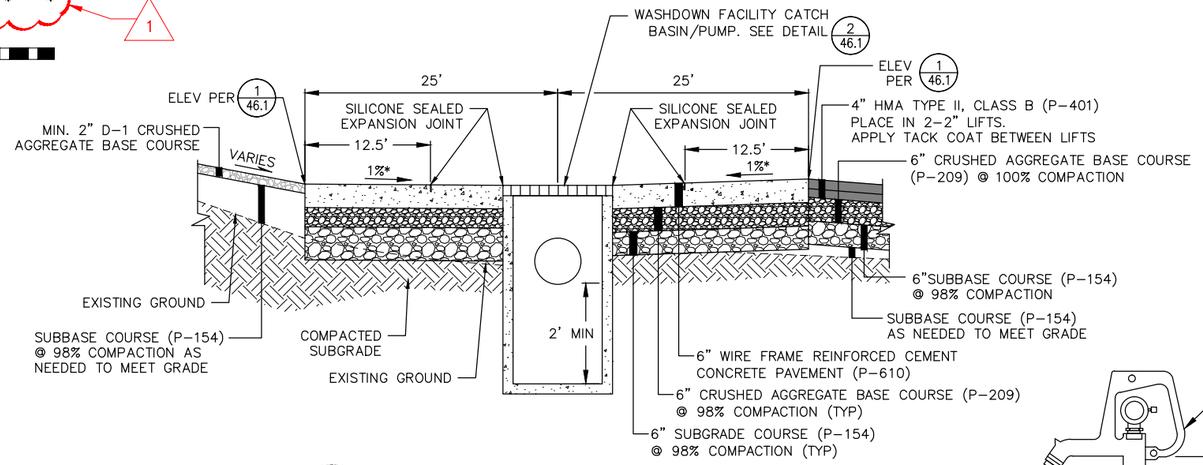
File: C:\Civil 3D Projects\2014\23\62033-01\Aviation\Design\SA14-AV-JNU-IIC-DT.dwg
Script File:
Plot Date:
Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
DOWL File No. 232-89



1 / 46.1 WASHDOWN FACILITY PLAN

SCALE: 1"=10'

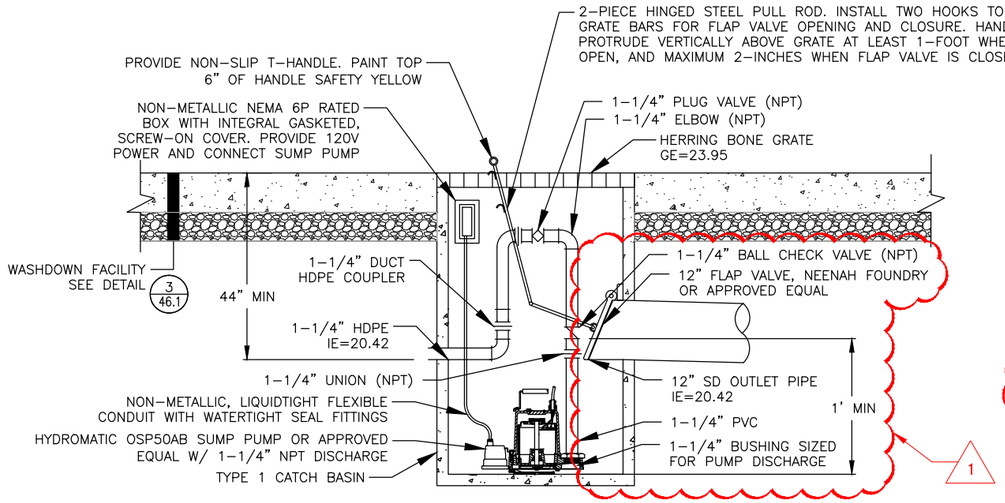
*SEE GRADING PLAN, SHEET 24



3 / 46.1 AIRCRAFT WASHDOWN FACILITY TYPICAL SECTION

NTS

*SEE GRADING PLAN, SHEET 24

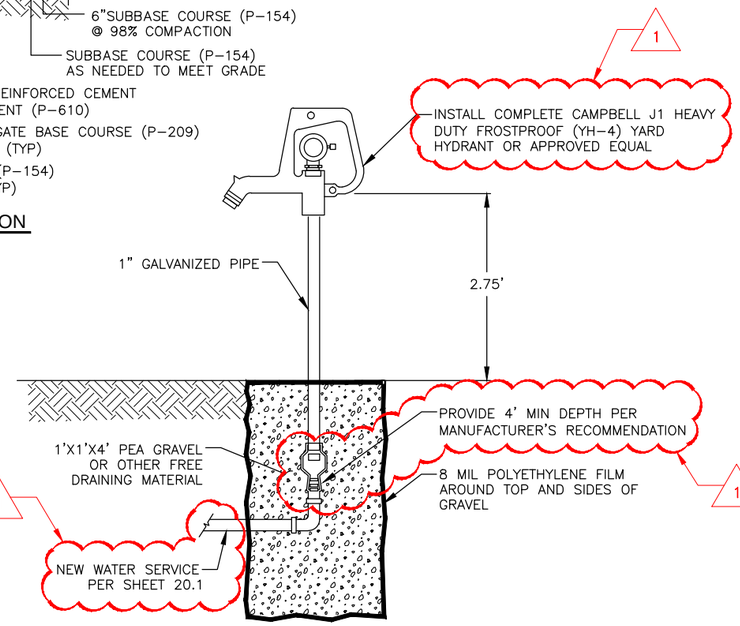


2 / 46.1 AIRCRFAFT WASHDOWN FACILITY CATCH BASIN/PUMP DETAIL

NTS

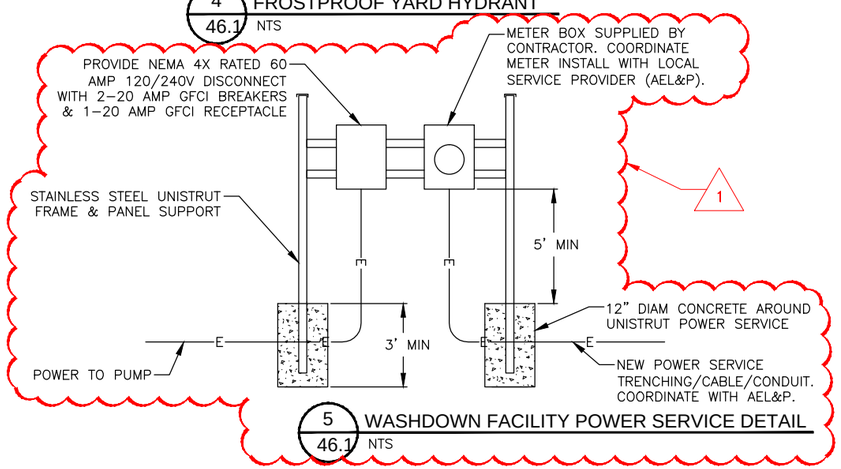
WASHDOWN FACILITY OPERATIONAL NOTES

1. WHEN WASHDOWN FACILITY IS NOT IN USE, THE VERTICALLY PROTRUDING T-HANDLE INDICATES FLOW OF WASHDOWN RUNOFF INTO STORM DRAIN SYSTEM. AIRCRAFT MAY NOT OCCUPY WASHDOWN FACILITY UNTIL HANDLE IS LOWERED.
2. DURING ACTIVE AIRCRAFT WASHDOWN USAGE, PILOT MUST LOWER T-HANDLE NEAR FLUSH WITH TOP OF GRATE. THE LOWERED T-HANDLE INDICATES CLOSURE OF FLAP VALVE, AND ALL STORMWATER RUNOFF WILL BE PUMPED INTO SANITARY SEWER FORCE MAIN.
3. INSTALLATION OF ALL ELECTRICAL COMPONENTS SHALL BE DONE IN COMPLIANCE WITH ALL APPLICABLE CODES.



4 / 46.1 FROSTPROOF YARD HYDRANT

NTS



5 / 46.1 WASHDOWN FACILITY POWER SERVICE DETAIL

NTS

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FILE NO.

STATE OF ALASKA — 49TH — Wesley A. Holden — 07/23/2018 — CE 120568 — REGISTERED PROFESSIONAL ENGINEER

PLAN PREPARED BY:

DOWL

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DATE: 7/24/18

JUNEAU INTERNATIONAL AIRPORT
JUNEAU, ALASKA

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AIRCRAFT WASHDOWN FACILITY DETAILS

SHEET 46.1 OF 46

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Script File:
Plot Date:

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Checked By:	S. OSGOOD
Drawn By:	R. TEMPLADO
DOWL File No. 232-89	

WORK AREA 1 NOTES

1. THIS WORK AREA IS WITHIN THE AIRCRAFT OPERATIONS AREA, AND INSIDE EXISTING OPERATIONAL AREAS. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 4:

   A. REMOVE PAVEMENT AND PERFORM DEMOLITION WORK.
   B. INSTALL NEW STORM DRAIN UTILITIES.
   C. INSTALL NEW WATER AND SEWER UTILITIES (ADD ALT 1).
   D. CONSTRUCT AND PAVE NWDA TAXILANES.
   E. INSTALL RAP.

2. BEFORE BEGINNING WORK IN THIS AREA, THE CONTRACTOR SHALL COMMUNICATE ALL CONSTRUCTION WORK NEEDED WITH THE PROJECT ENGINEER AND ASCO A MINIMUM OF 48 HOURS IN ADVANCE.
3. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND ASCO OF CHANGED CONDITIONS THAT MIGHT CHANGE A NOTAM. ALL CHANGES TO THE WORK SCHEDULE SHALL BE COMMUNICATED WITH THE PROJECT ENGINEER AND ASCO.
4. THE CONTRACTOR SHALL GIVE THE PROJECT ENGINEER AND ASCO A MINIMUM 5 DAY NOTICE PRIOR TO BEGINNING WORK IN FRONT OF EXISTING HANGAR DOORS.
5. ONCE THE CONTRACTOR HAS COMPLETED ALL TASKS WITHIN THIS WORK AREA, ALL TEMPORARY BARRIERS AND OTHER EQUIPMENT SHALL BE REMOVED FROM THE AREA. ONCE COMPLETED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND ASCO.

WORK AREA 2 NOTES

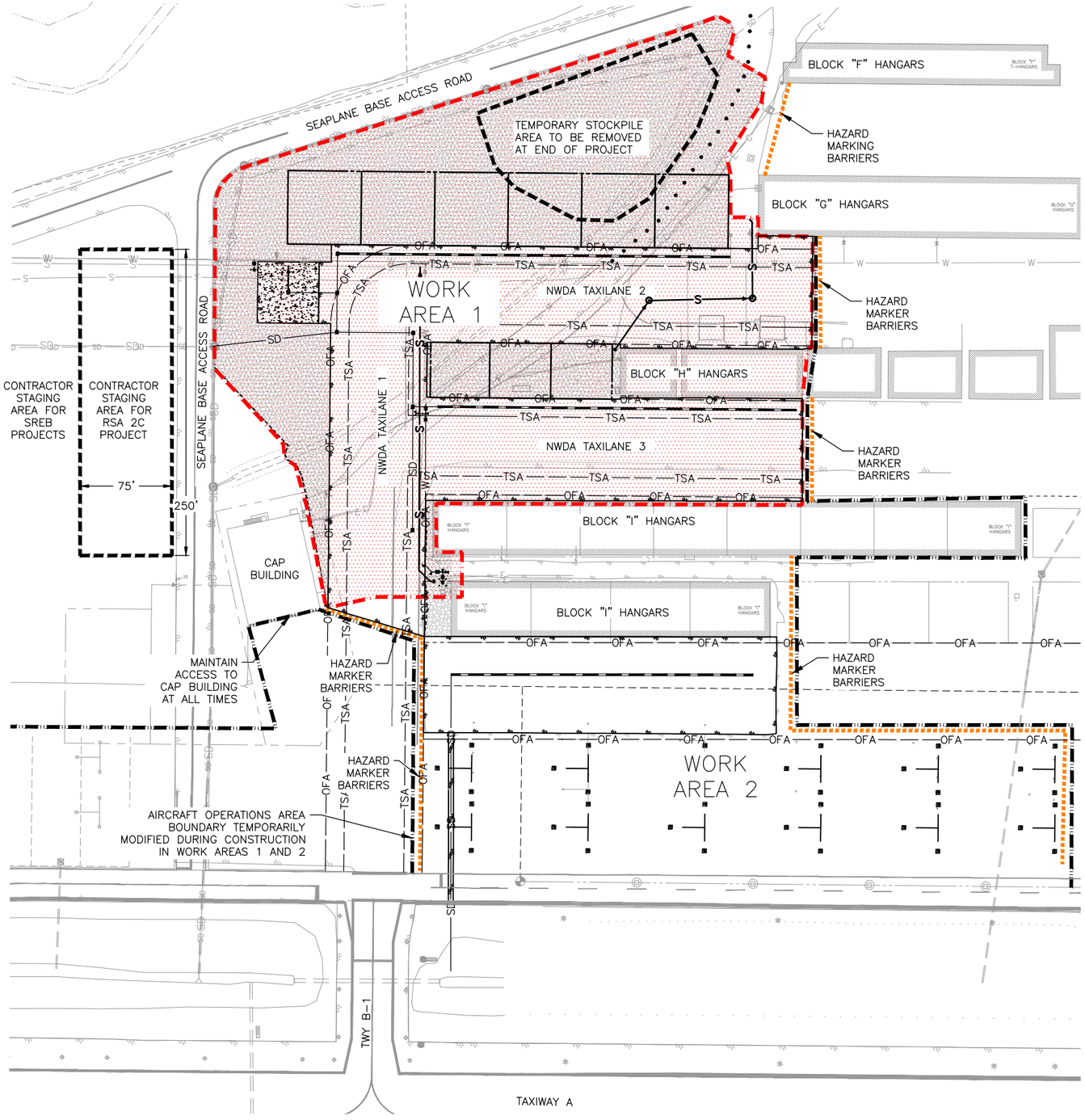
1. THIS WORK AREA IS WITHIN THE AIRCRAFT OPERATIONS AREA, AND INSIDE EXISTING OPERATIONAL AREAS. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 2:

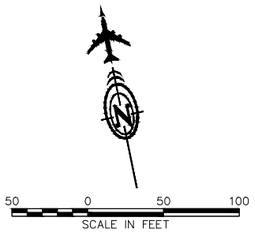
   A. REMOVE PAVEMENT AND PERFORM DEMOLITION WORK.
   B. CONSTRUCT APRON PAVEMENT.
   C. APPLY PAVEMENT MARKINGS.

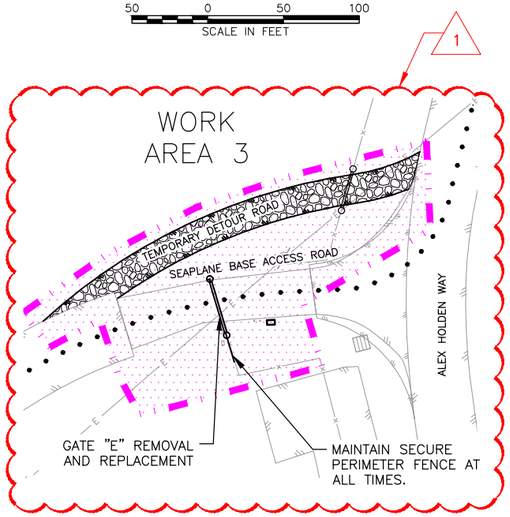
2. BEFORE BEGINNING WORK IN THIS AREA, THE CONTRACTOR SHALL COMMUNICATE ALL CONSTRUCTION WORK NEEDED WITH THE PROJECT ENGINEER AND ASCO A MINIMUM OF 48 HOURS IN ADVANCE.
3. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND ASCO OF CHANGED CONDITIONS THAT MIGHT CHANGE A NOTAM. ALL CHANGES TO THE WORK SCHEDULE SHALL BE COMMUNICATED WITH THE PROJECT ENGINEER AND ASCO.
4. THE CONTRACTOR SHALL GIVE THE PROJECT ENGINEER AND ASCO A MINIMUM 5 DAY NOTICE PRIOR TO BEGINNING WORK IN FRONT OF EXISTING HANGAR DOORS.
5. ONCE THE CONTRACTOR HAS COMPLETED ALL TASKS WITHIN THIS WORK AREA, ALL TEMPORARY BARRIERS AND OTHER EQUIPMENT SHALL BE REMOVED FROM THE AREA. ONCE COMPLETED, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND ASCO.

LEGEND

- TEMPORARY FENCING
- HAZARD MARKING BARRIER
- PROPOSED STORM DRAIN UTILITY
- TAXIWAY SAFETY AREA
- TAXIWAY OBJECT FREE AREA
- HAUL ROUTE
- AIRCRAFT OPERATIONS AREA BOUNDARY
- WORK AREA 1 BOUNDARY
- WORK AREA 2 BOUNDARY
- WORK AREA 3 BOUNDARY
- TEMPORARY RAP ROAD
- TEMPORARY STOCKPILE BOUNDARY







WORK AREA 3 NOTES

1. THIS WORK AREA IS OUTSIDE THE AIRCRAFT OPERATIONS AREA. THE FOLLOWING WORK IS INCLUDED IN WORK AREA 3:

   A. REMOVE EXISTING GATE AND ASSOCIATED EQUIPMENT.
   B. INSTALL NEW GATE AND ASSOCIATED EQUIPMENT.

2. BEFORE BEGINNING WORK IN THIS AREA, COMMUNICATE ALL CONSTRUCTION WORK NEEDED WITH THE ENGINEER AND ASCO A MINIMUM OF 48 HOURS IN ADVANCE.
3. DURING CONSTRUCTION, NOTIFY THE ENGINEER AND ASCO OF CHANGED CONDITIONS THAT MIGHT CHANGE A NOTAM. ALL CHANGES TO THE WORK SCHEDULE SHALL BE COMMUNICATED WITH THE ENGINEER AND ASCO.
4. MAINTAIN A SECURE PERIMETER FENCE AT ALL TIMES. TEMPORARY FENCING SHALL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO ENSURE A CONTINUOUS BARRIER EXISTS IN THE AIRPORT PERIMETER FENCE.
5. ONCE THE CONTRACTOR HAS COMPLETED ALL TASKS WITHIN THIS WORK AREA, ALL TEMPORARY BARRIERS AND OTHER EQUIPMENT SHALL BE REMOVED FROM THE AREA. ONCE COMPLETED, NOTIFY THE PROJECT ENGINEER AND ASCO.

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Script File:
Plot Date:

Designed By: W. HOLDEN
Checked By: S. OSGOOD
Drawn By: R. TEMPLADO
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SCALE
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CONSTRUCTION SAFETY PHASING PLAN
NWDA CONSTRUCTION PHASING

SHEET
AD1.1
OF
AD3