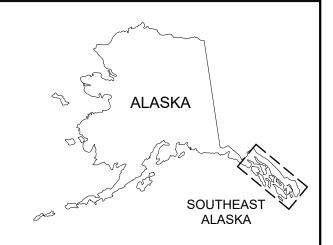
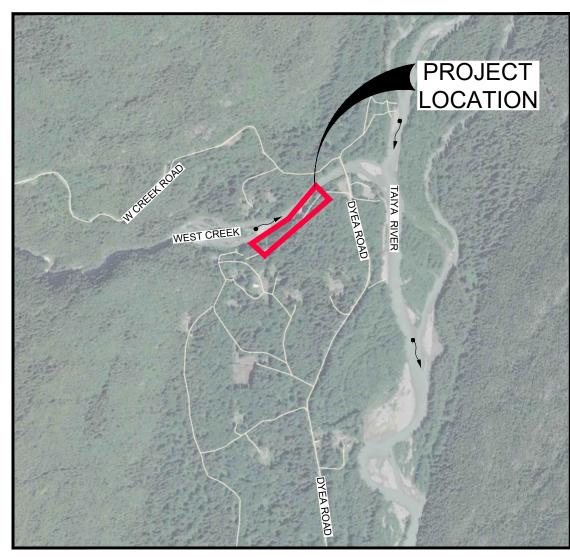
MUNICIPALITY OF SKAGWAY WEST CREEK LEVEE IMPROVEMENTS SKAGWAY, ALASKA







PROJECT LOCATION MAP

SHEET INDEX		
SHEET No.	DESCRIPTION	
C001	COVER SHEET	
C002	GENERAL NOTES, ABBREVIATIONS & SYMBOLS	
C100	SURVEY CONTROL DIAGRAM	
C101	EXISTING SITE TOPOGRAPHY	
C102	EXISTING SITE TOPOGRAPHY	
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C201	WEST CREEK SITE PLAN	
C202	GRADE POINT SUMMARY TABLES	
C300	SITE CROSS SECTIONS	
C301	SITE CROSS SECTIONS	
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C303	SITE CROSS SECTIONS	
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C400	CONSTRUCTION DETAILS	

BOROUGH MAYOR

BOROUGH VICE MAYOR

ORION HANSEN

BOROUGH ASSEMBLY

JAY BURNHAM

BOROUGH ADMINISTRATOR

PUBLIC WORKS DIRECTOR

APPROVED BY		
BOROUGH MANAGER		
SIGNATURE	DATE	
PUBLIC WORKS DIRECTOR		
SIGNATURE	DATE	

COVER SHEET

50% SUBMITTAL

MUNICIPALITY OF SKAGWAY WEST CREEK LEVEE IMPROVEMENTS

SKAGWAY, ALASKA









- 2. RIPRAP LAYOUT SHOWN ON THESE PLANS ARE SUBJECT TO MINOR REVISIONS AS APPROVED BY THE ENGINEER.
- 3. ALL EXCAVATION SPOILS, ORGANICS, WOODY DEBRIS, MUCK AND OTHER MATERIALS UNSUITABLE FOR BANK STABILIZATION BACKFILL THAT ARE GENERATED FROM THE WORK SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF AT AN OFF SITE LOCATION THAT IS PERMITTED TO PERFORM SUCH
- THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING BMPS, EROSION AND SEDIMENT CONTROL AND PHASING THE WORK SUCH AS TO MINIMIZE THE DISCHARGE OF SEDIMENTS OR OTHER POLLUTANTS FROM THE SITE INTO
- 5. A GEOTECHNICAL INVESTIGATION WAS NOT PERFORMED AS PART OF THIS DESIGN. GROUNDWATER, LARGE BOULDERS, BEDROCK, STUMPS, LOGS AND ORGANICS MAY BE ENCOUNTERED AT VARIOUS DEPTHS DURING
- 6. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH MOS NOISE ORDINANCE REQUIREMENTS PER CHAPTER 9.03 NOISE CONTROL OF THE MOS MUNICIPAL CODE. THIS IS FROM 6:00AM TO 10:00PM DURING THE CONSTRUCTION SEASON.

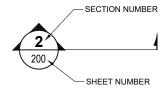
ABBREVIATIONS

DEC	STATE OF ALASKA - DEPARTMENT OF	MAX MIN	MAXIMUM
DE0.0	ENVIRONMENTAL CONSERVATION		MINIMUM
DF&G	STATE OF ALASKA - DEPARTMENT OF FISH	MOS	MUNICIPALITY OF SKAGWAY
	AND GAME	MTE	MATCH TO EXISTING
DOT&PF	STATE OF ALASKA - DEPARTMENT OF	N	NORTHING
	TRANSPORTATION AND PUBLIC FACILITIES	N/A	NOT APPLICABLE
PPROX.	APPROXIMATE	NFS	NON-FROST SUSCEPTIBLE
MP	BEST MANAGEMENT PRACTICE	No.	NUMBER
L	CENTERLINE	NTS	NOT TO SCALE
LR	CLEAR	OHW	ORDINARY HIGH WATER
OE	UNITED STATES ARMY CORPS OF ENGINEERS	OSHA	OCCUPATIONAL SAFETY & HEALTH
CONT	CONTINUOUS		ADMINISTRATION
P	CONTROL POINT	PC	POINT OF CURVATURE
TE	CONNECT TO EXISTING	PI	POINT OF INTERSECTION
Υ	CUBIC YARD	P/L	PROPERTY LINE
IΑ	DIAMETER	PP	POWER POLE
NR	STATE OF ALASKA - DEPARTMENT OF	PT	POINT OF TANGENCY
	NATURAL RESOURCES	R	RADIUS
WGS	DRAWINGS	RP	RADIUS POINT
	EASTING	RT	RIGHT
Ξ)	EXISTING	STA	STATION
.Ć	EXISTING GRADE	STD	STANDARD
L	ELEVATION	TBM	TEMPORARY BENCH MARK
OP	END OF PROJECT	TOB	TOP OF BANK
Q	EQUAL	TOS	TOP OF SLOPE
XIST	EXISTING	TYP	TYPICAL
D	FOUNDATION DRAIN	UON	UNLESS OTHERWISE NOTED
G	FINISH GRADE	VERT	VERTICAL

WITH

SYMBOLS

EXISTING	PROPOSED		
		PROPERTY LINE	
		PROPOSED PROPERTY LINE	
		PROJECT BASELINE	
		ASPHALT (DYEA ROAD)	
		EDGE OF GRAVEL	
— — — — —	—	TOP OF BANK / SLOPE	
i 19 19 19 19 19 91		TOE OF BANK / SLOPE	
110'		GROUND CONTOUR	
		STRUCTURE	
		HABITAT BOULDER	
	100	RIPRAP LAYOUT POINT	
 -		DIRECTIONAL FLOW ARROW	
		RIPRAP SLOPE	
		ORDINARY HIGH WATER LINE	
~~~~~	~~~~	TREE LINE / CLEARING LIMITS	



REFERENCE BUBBLE EXPLANATION

SHEET TITLE :

**GENERAL NOTES, ABBREVIATIONS & SYMBOLS** 

FLOW LINE

LENGTH LOW POINT LEFT

GRADE BREAK HIGH POINT INVERT ELEVATION

**MUNICIPALITY OF SKAGWAY WEST CREEK LEVEE IMPROVEMENTS** 

9109 Mendenhall Mall Rd. Ste. 4 Juneau, AK 99801 Phone: 907.780.6060 Phone: 907.760.000.
Fax: 907.586.3771 AECC163270

Juneau, AK

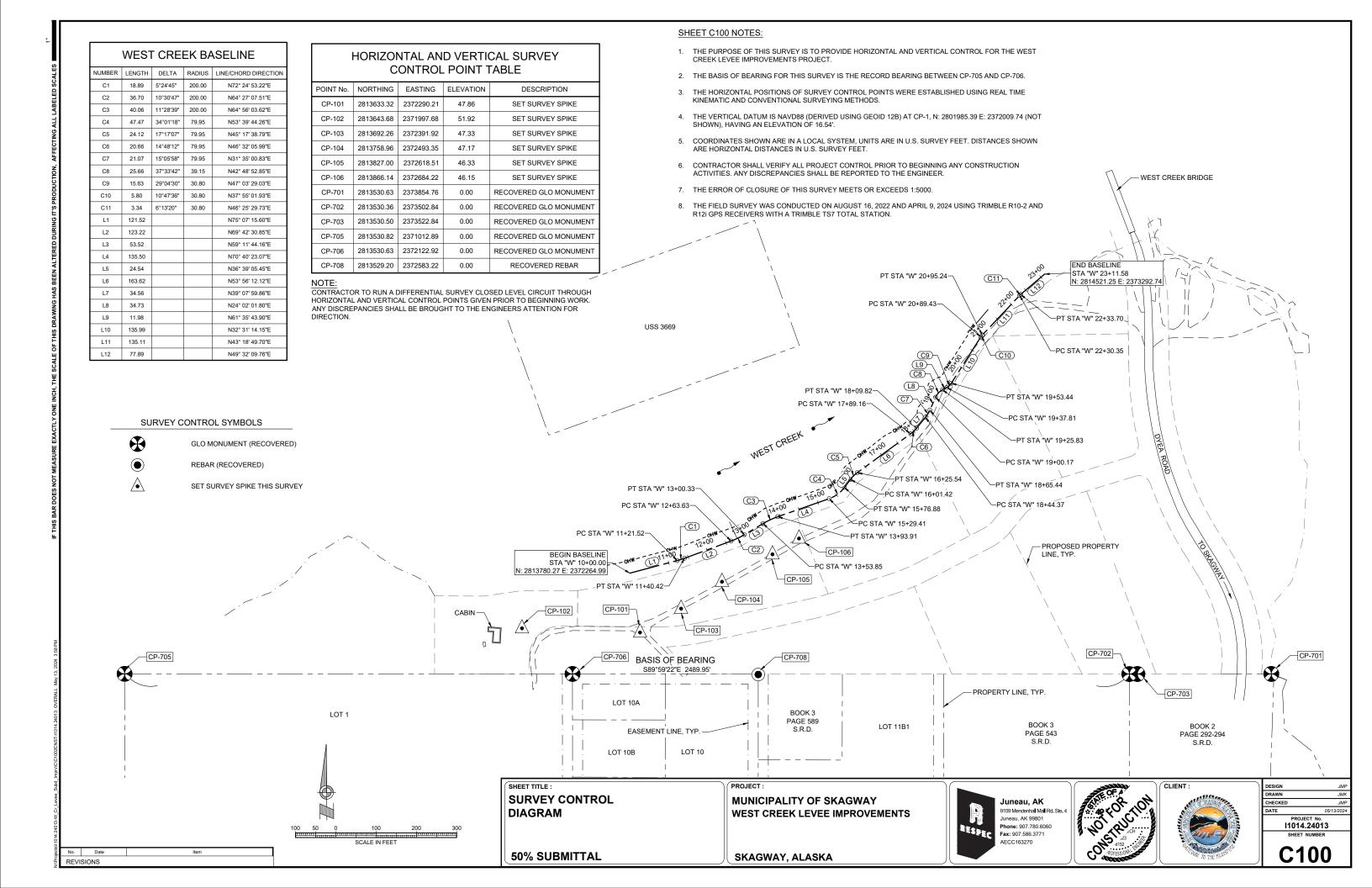


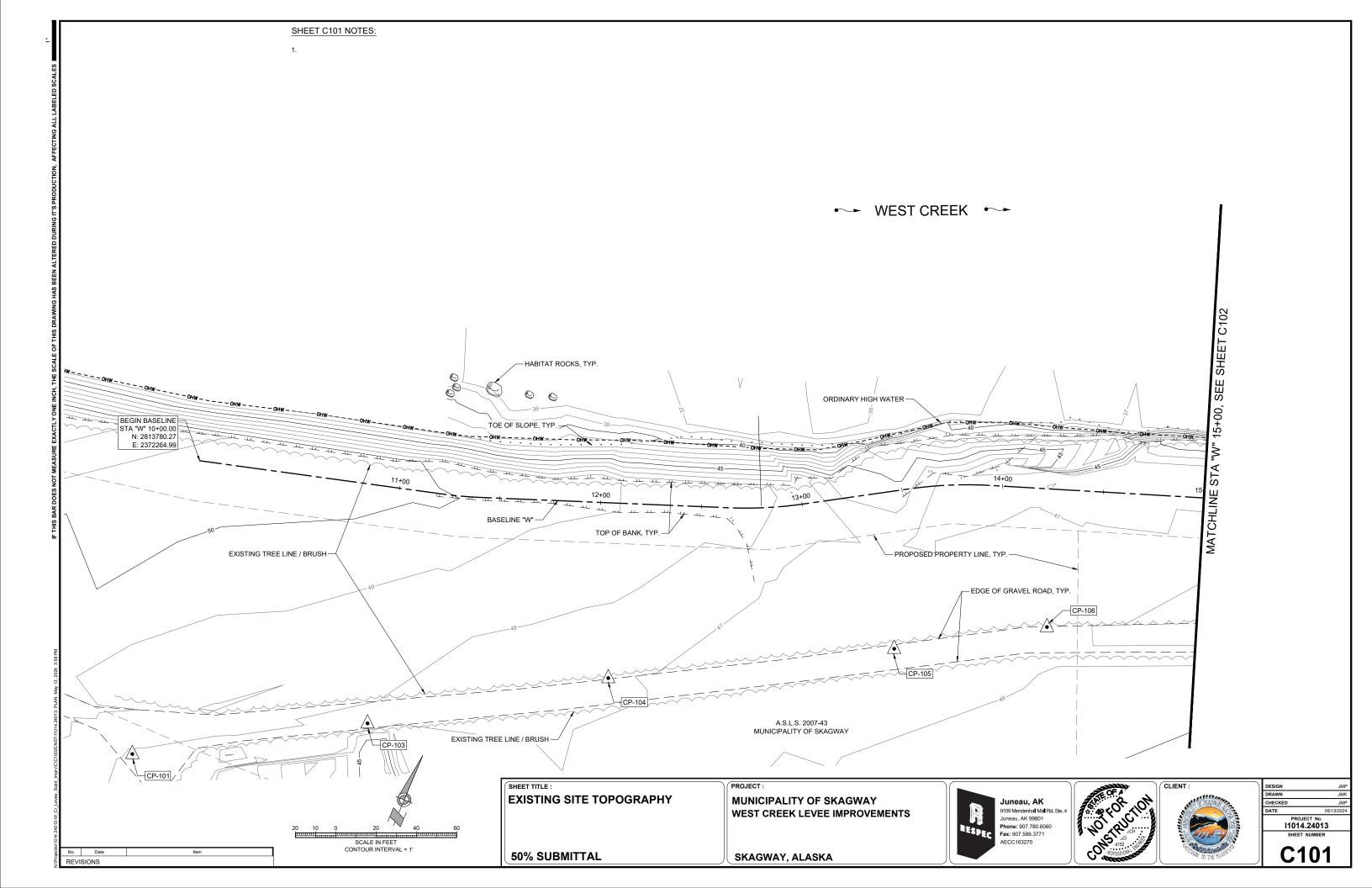


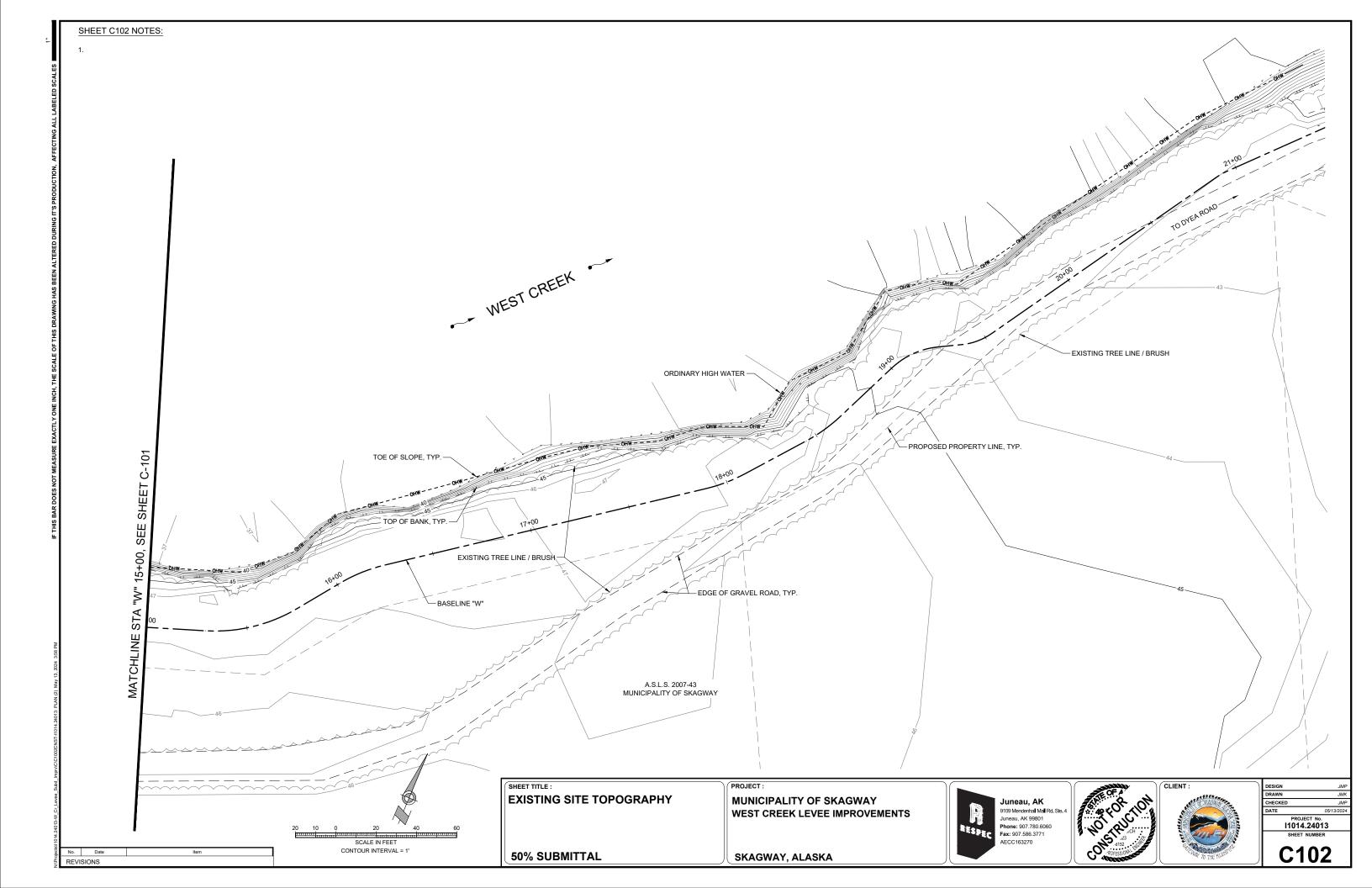
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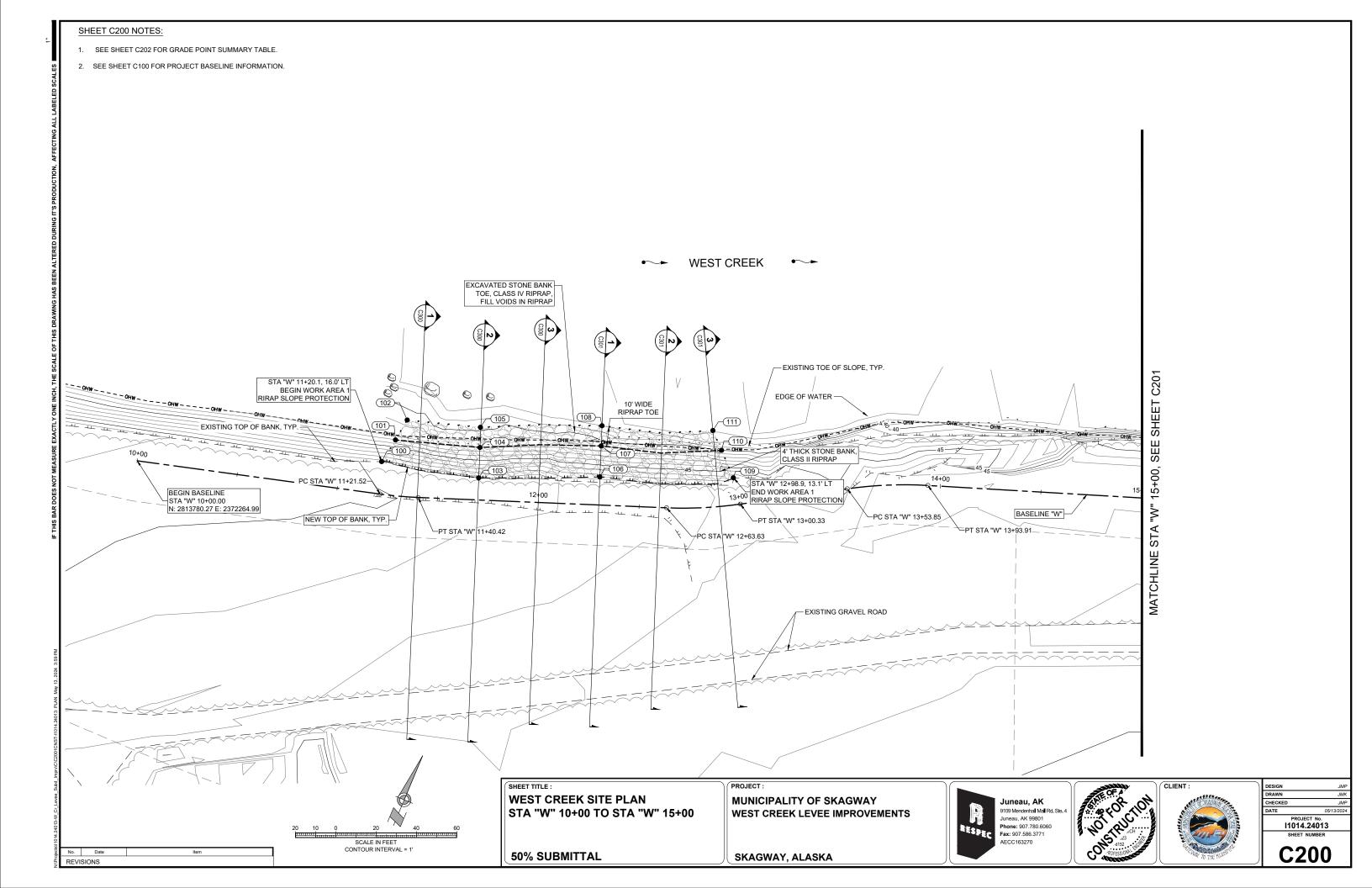
**50% SUBMITTAL** 

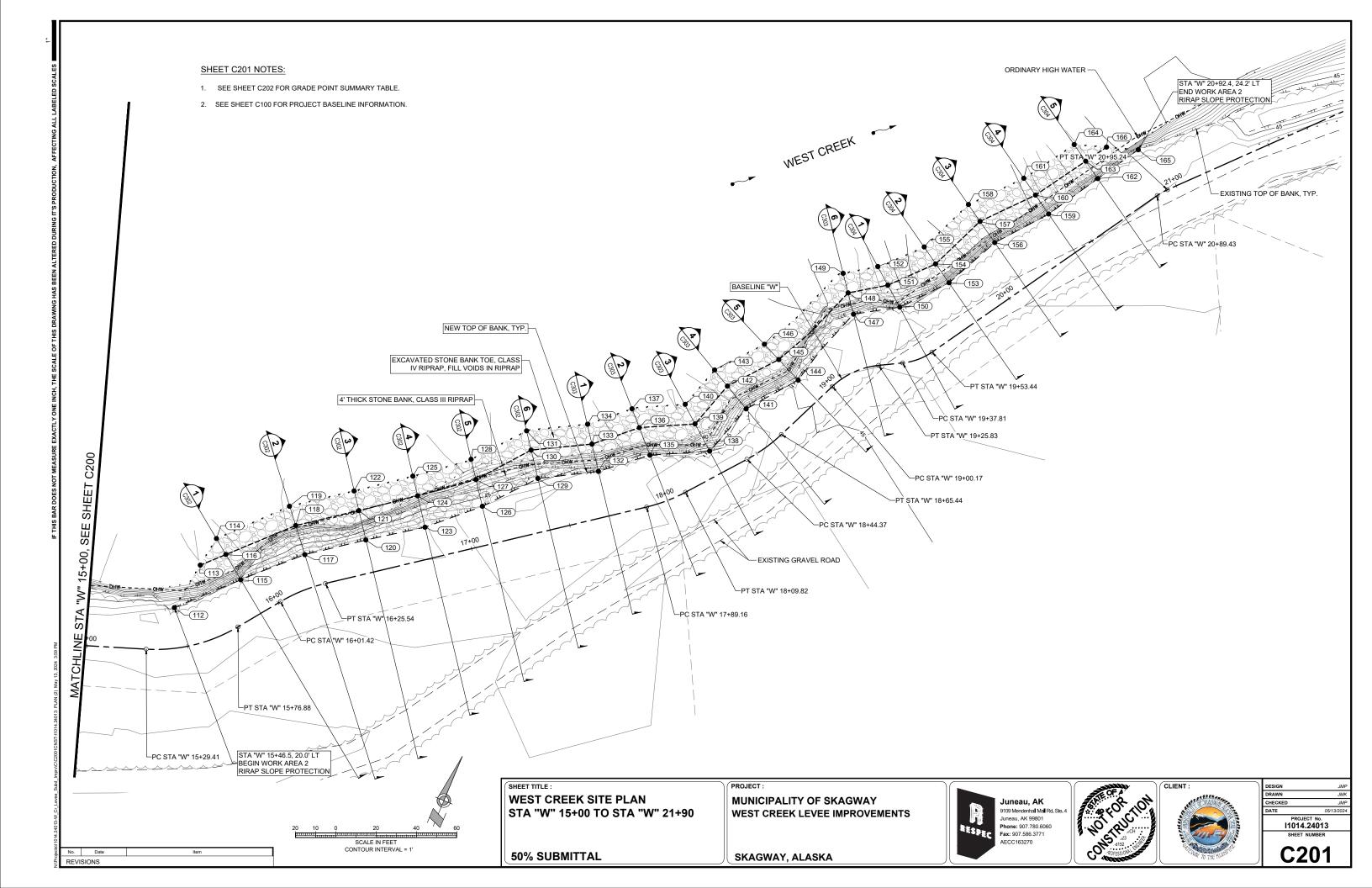
SKAGWAY, ALASKA











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GRADE POINT SUMMARY TABLE			
POINT No.	STATION / OFFSET	ELEVATION	DESCRIPTION
100	"W" 11+20.1, 16.0' LT	0.00	ТВ
101	"W" 11+26.0, 27.5' LT	0.00	TOE BENCH
102	"W" 11+31.8, 37.9' LT	0.00	TOE RIPRAP
103	"W" 11+70.0, 10.9' LT	0.00	ТВ
104	"W" 11+70.0, 26.0' LT	0.00	TOE BENCH
105	"W" 11+69.8, 36.0' LT	0.00	TOE RIPRAP
106	"W" 12+30.0, 13.9' LT	0.00	ТВ
107	"W" 12+30.0, 29.3' LT	0.00	TOE BENCH
108	"W" 12+30.0, 39.3' LT	0.00	TOE RIPRAP
109	"W" 12+98.6, 13.4' LT	0.00	ТВ
110	"W" 12+94.0, 27.6' LT	0.00	TOE BENCH
111	"W" 12+90.0, 37.8' LT	0.00	TOE RIPRAP
112	"W" 15+46.5, 20.0' LT	0.00	ТВ
113	"W" 15+76.1, 35.8' LT	0.00	TOE BENCH
114	"W" 15+90.0, 43.1' LT	0.00	TOE RIPRAP
115	"W" 15+90.0, 19.4' LT	0.00	ТВ
116	"W" 15+90.0, 33.9' LT	0.00	TOE BENCH
117	"W" 16+20.0, 16.5' LT	0.00	ТВ
118	"W" 16+20.0, 31.6' LT	0.00	TOE BENCH
119	"W" 16+19.9, 41.6' LT	0.00	TOE RIPRAP
120	"W" 16+50.0, 16.3' LT	0.00	ТВ
121	"W" 16+50.0, 31.3' LT	0.00	TOE BENCH
122	"W" 16+49.9, 41.3' LT	0.00	TOE RIPRAP
123	"W" 16+80.0, 15.7' LT	0.00	ТВ
124	"W" 16+80.0, 31.7' LT	0.00	TOE BENCH
125	"W" 16+80.0, 41.7' LT	0.00	TOE RIPRAP
126	"W" 17+10.0, 19.2' LT	0.00	ТВ
127	"W" 17+10.0, 32.8' LT	0.00	TOE BENCH
128	"W" 17+10.0, 43.1' LT	0.00	TOE RIPRAP
129	"W" 17+40.0, 26.2' LT	0.00	ТВ
130	"W" 17+40.0, 40.7' LT	0.00	TOE BENCH
131	"W" 17+40.0, 50.5' LT	0.00	TOE RIPRAP
132	"W" 17+70.0, 22.7' LT	0.00	ТВ
133	"W" 17+70.0, 36.6' LT	0.00	TOE BENCH
134	"W" 17+70.2, 46.7' LT	0.00	TOE RIPRAP

GRADE POINT SUMMARY TABLE			
POINT No.	STATION / OFFSET	ELEVATION	DESCRIPTION
135	"W" 18+00.0, 24.1' LT	0.00	ТВ
136	"W" 18+00.0, 38.7' LT	0.00	TOE BENCH
137	"W" 18+00.0, 48.7' LT	0.00	TOE RIPRAP
138	"W" 18+30.0, 12.3' LT	0.00	ТВ
139	"W" 18+30.0, 27.6' LT	0.00	TOE BENCH
140	"W" 18+30.3, 38.4' LT	0.00	TOE RIPRAP
141	"W" 18+60.0, 21.1' LT	0.00	ТВ
142	"W" 18+60.0, 35.7' LT	0.00	TOE BENCH
143	"W" 18+60.4, 45.9' LT	0.00	TOE RIPRAP
144	"W" 18+90.0, 13.9' LT	0.00	ТВ
145	"W" 18+90.0, 27.9' LT	0.00	TOE BENCH
146	"W" 18+90.0, 38.3' LT	0.00	TOE RIPRAP
147	"W" 19+20.0, 27.2' LT	0.00	ТВ
148	"W" 19+20.0, 38.1' LT	0.00	TOE BENCH
149	"W" 19+20.0, 48.1' LT	0.00	TOE RIPRAP
150	"W" 19+50.0, 27.4' LT	0.00	ТВ
151	"W" 19+34.3, 39.1' LT	0.00	TOE BENCH
152	"W" 19+30.3, 48.8' LT	0.00	TOE RIPRAP
153	"W" 19+80.0, 23.4' LT	0.00	ТВ
154	"W" 19+79.9, 34.8' LT	0.00	TOE BENCH
155	"W" 19+80.0, 45.0' LT	0.00	TOE RIPRAP
156	"W" 20+10.0, 26.8' LT	0.00	ТВ
157	"W" 20+10.0, 39.6' LT	0.00	TOE BENCH
158	"W" 20+10.0, 49.7' LT	0.00	TOE RIPRAP
159	"W" 20+40.0, 23.2' LT	0.00	ТВ
160	"W" 20+40.0, 34.6' LT	0.00	TOE BENCH
161	"W" 20+40.0, 44.7' LT	0.00	TOE RIPRAP
162	"W" 20+70.0, 23.7' LT	0.00	ТВ
163	"W" 20+70.0, 34.2' LT	0.00	TOE BENCH
164	"W" 20+70.0, 44.2' LT	0.00	TOE RIPRAP
165	"W" 20+92.4, 24.2' LT	0.00	ТВ
166	"W" 20+82.5, 34.0' LT	0.00	TOE BENCH

# **ABBREVIATIONS**

TOP OF BANK

SHEET TITLE:

GRADE POINT SUMMARY TABLES

PROJECT:

MUNICIPALITY OF SKAGWAY
WEST CREEK LEVEE IMPROVEMENTS

SKAGWAY, ALASKA

Juneau, AK
9109 Mendenhal Mal Rd. Ste. 4
Juneau, AK 99801
Phone: 907.780.6060
Fax: 907.586.3771
AECC163270



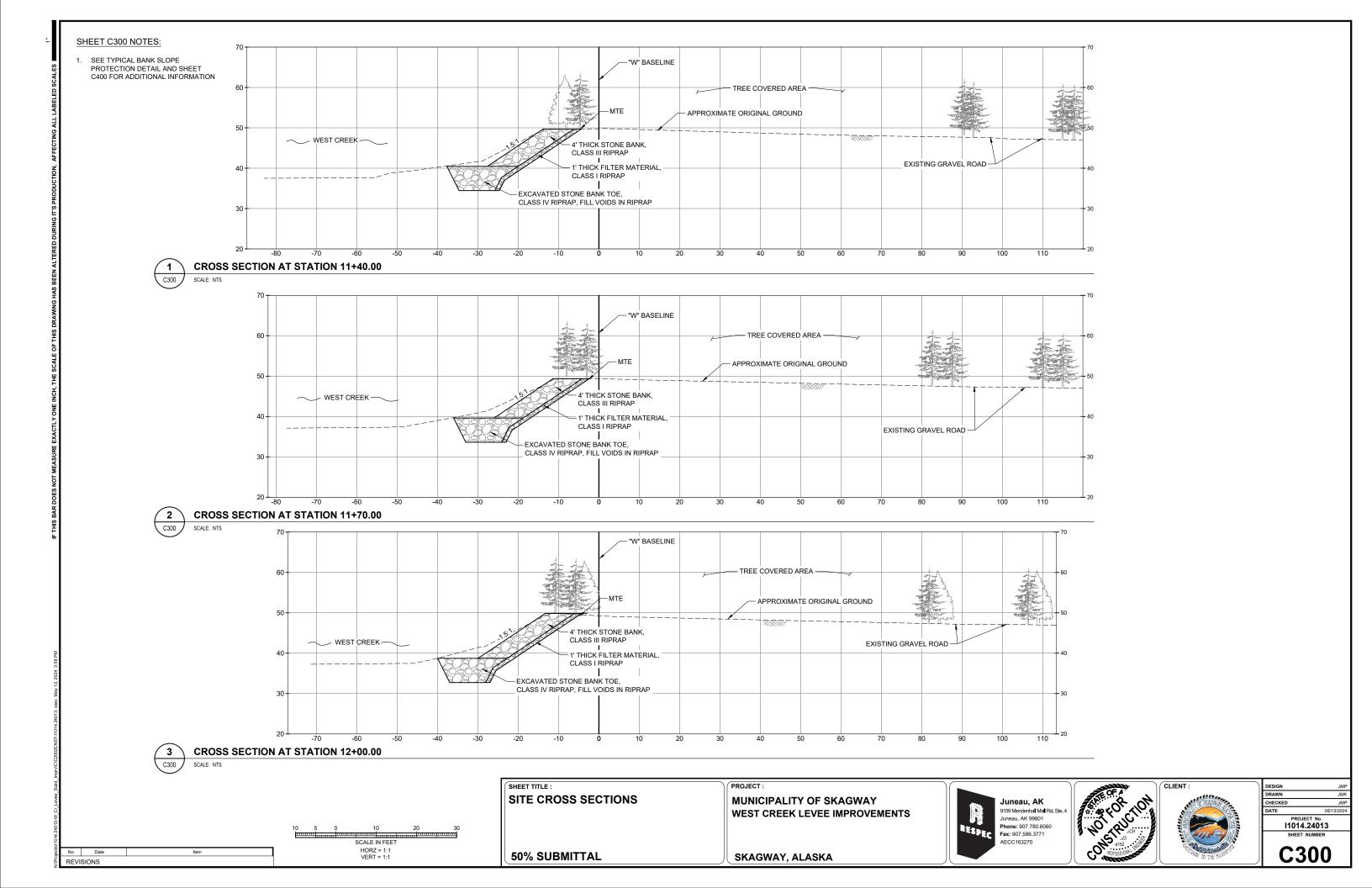


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DRAWN JMK
CHECKED JMP
DATE 05/13/2024
PROJECT No.
I1014.24013
SHEET NUMBER

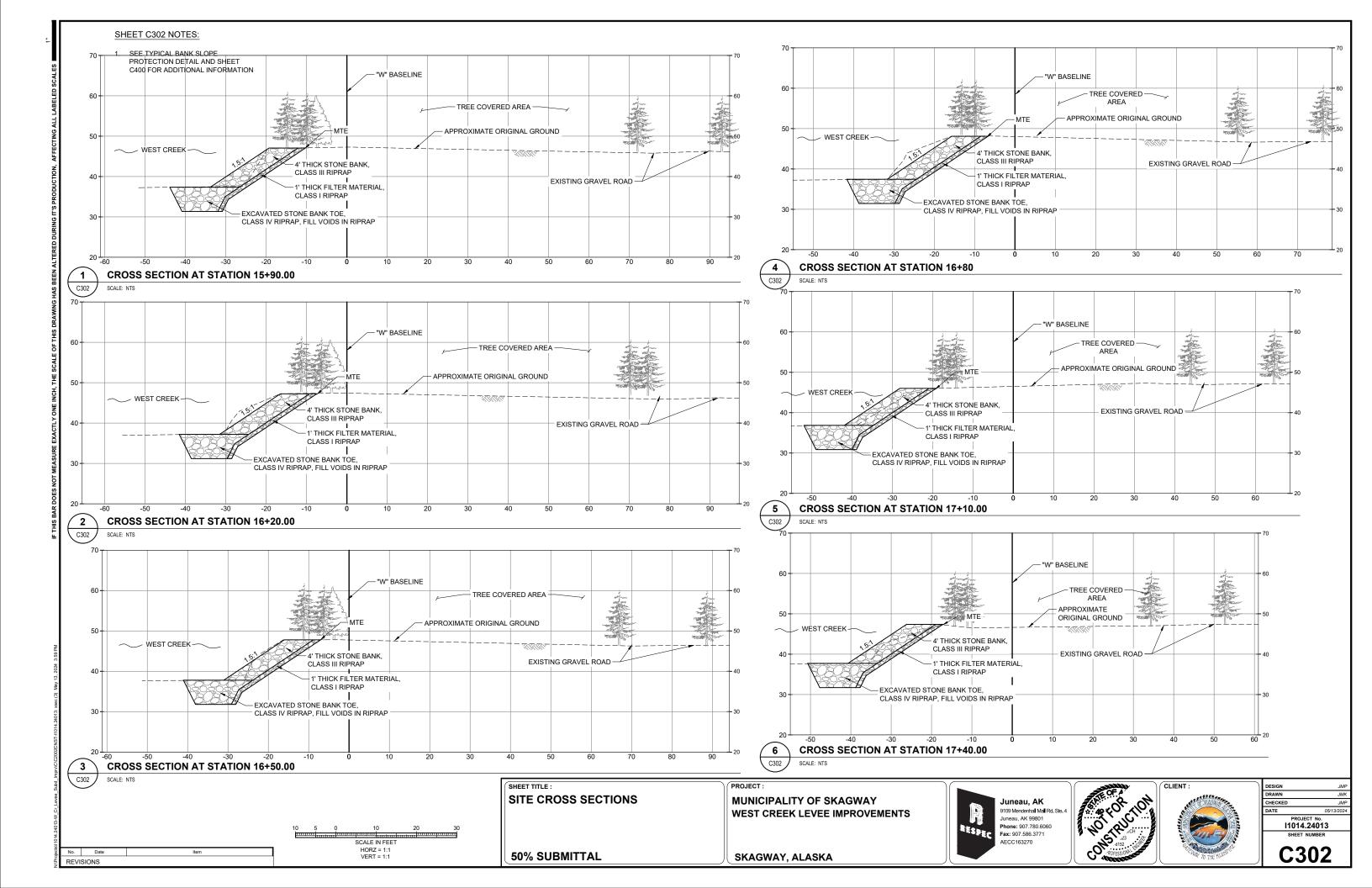
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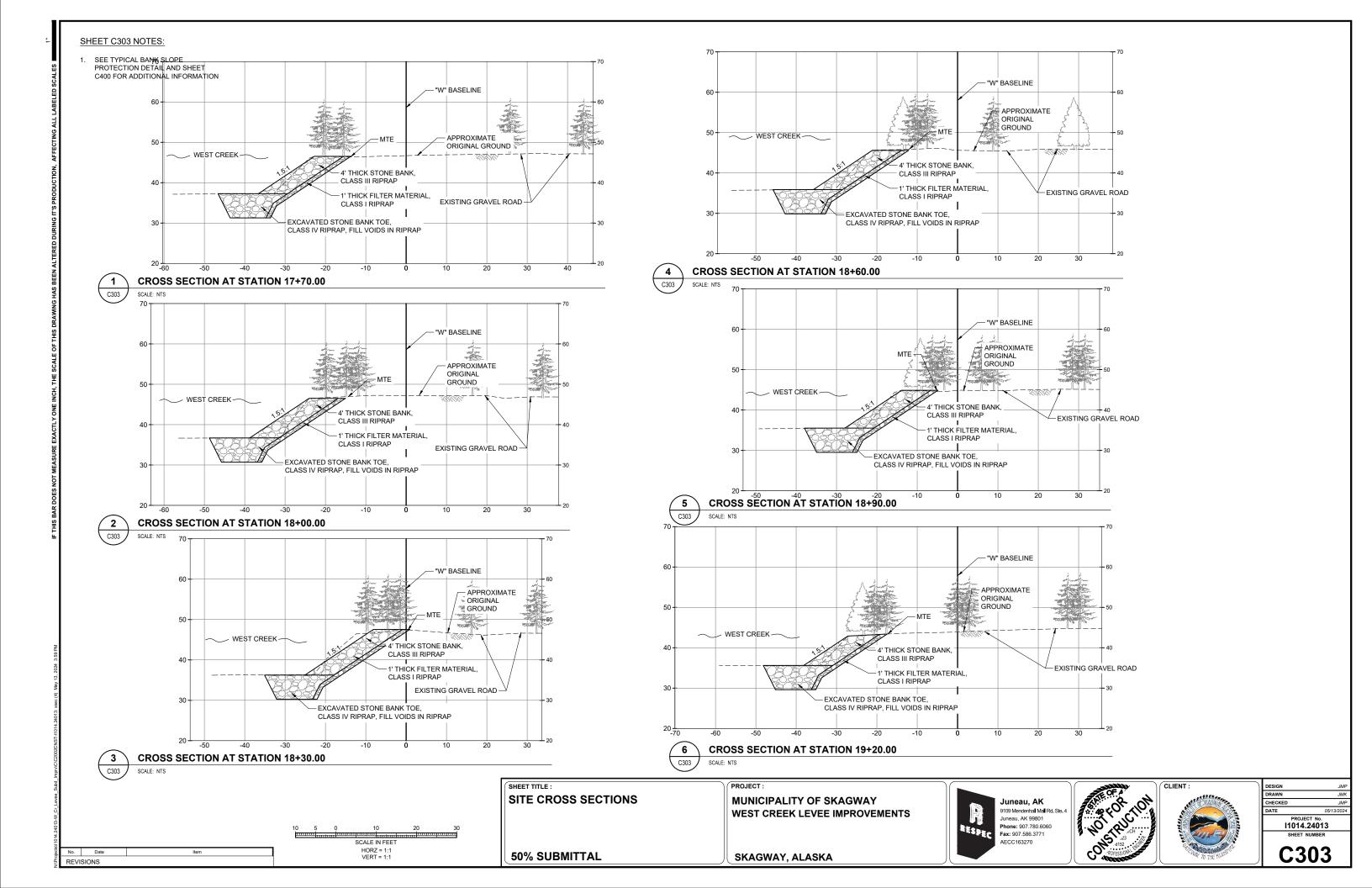
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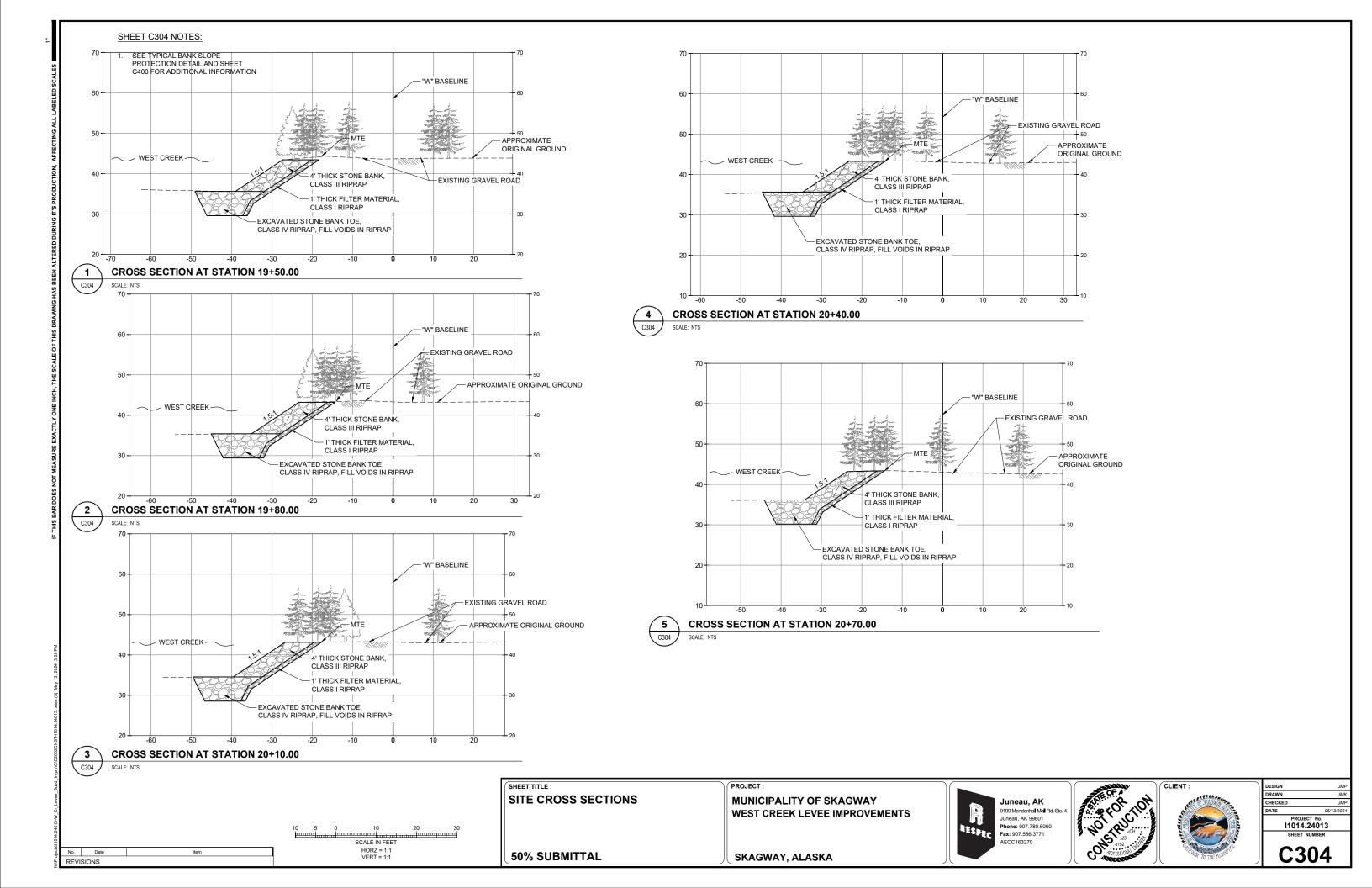
Date Item 50% SUBMITTAL



SHEET C301 NOTES: 1. SEE TYPICAL BANK SLOPE PROTECTION DETAIL AND SHEET C400 FOR ADDITIONAL INFORMATION - "W" BASELINE TREE COVERED AREA APPROXIMATE ORIGINAL GROUND WEST CREEK-4' THICK STONE BANK, CLASS III RIPRAP 1' THICK FILTER MATERIAL, EXISTING GRAVEL ROAD CLASS I RIPRAP -EXCAVATED STONE BANK TOE, - CLASS IV RIPRAP, FILL VOIDS IN RIPRAP **CROSS SECTION AT STATION 12+30.00** "W" BASELINE TREE COVERED AREA APPROXIMATE ORIGINAL GROUND 4' THICK STONE BANK, WEST CREEK -CLASS III RIPRAP 1' THICK FILTER MATERIAL, EXISTING GRAVEL ROAD -CLASS I RIPRAP EXCAVATED STONE BANK TOE, CLASS IV RIPRAP, FILL VOIDS IN RIPRAP **CROSS SECTION AT STATION 12+60.00** "W" BASELINE - TREE COVERED AREA --MTE - APPROXIMATE ORIGINAL GROUND - 4' THICK STONE BANK, CLASS III RIPRAP WEST CREEK — - 1' THICK FILTER MATERIAL EXISTING GRAVEL ROAD -CLASS I RIPRAP EXCAVATED STONE BANK TOE, CLASS IV RIPRAP, FILL VOIDS IN RIPRAP **CROSS SECTION AT STATION 12+90.00** SCALE: NTS SHEET TITLE : PROJECT: CLIENT: SITE CROSS SECTIONS **MUNICIPALITY OF SKAGWAY** Juneau, AK 9109 Mendenhall Mall Rd. Ste. 4 **WEST CREEK LEVEE IMPROVEMENTS** Juneau, AK 99801 11014.24013 Phone: 907.780.6060 Phone: 907.700.00005 Fax: 907.586.3771 SCALE IN FEET AECC163270 C301 **50% SUBMITTAL** SKAGWAY, ALASKA







#### TYPICAL BANK SLOPE PROTECTION DETAIL

C400 SCALE: NTS

NOTE - VIEW LOOKING DOWNSTREAM AHEAD IN STATIONING

#### **TYPICAL SECTION NOTES:**

- 1. STONE FOR THIS WORK SHALL BE HARD ANGULAR QUARRY STONES AND HAVE A PERCENTAGE OF WEAR OF NOT MORE THAN 50 AT 500 REVOLUTIONS AS DETERMINED BY ASTM C 535. THE LEAST DIMENSION OF ANY PIECE OF STONE SHALL BE NOT LESS THAN ½ ITS GREATEST DIMENSION STONES SHALL MEET THE FOLLOWING GRADATION REQUIREMENT FOR THE CLASS SPECIFIED.
- 2. CLASS I RIPRAP: NO MORE THAN TEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH MORE THAN 50 POUNDS PER PIECE, AND NO MORE THAN FIFTY PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH LESS THAN 25 POUNDS PER PIECE.
- CLASS II RIPRAP: NO MORE THAN TEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH MORE THAN 400 POUNDS PER PIECE, AND NO MORE THAN FIFTEEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH LESS THAN 25 POUNDS PER PIECE. THE STONES SHALL BE EVENLY GRADED AND A MINIMUM OF 50% BY WEIGHT OF THE STONES SHALL WEIGH 200 POUNDS OR MORE PER PIECE.
- CLASS III RIPRAP: NO MORE THAN TEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH MORE THAN 1,400 POUNDS PER PIECE, AND NO MORE THAN FIFTEEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH LESS THAN 25 POUNDS PER PIECE. THE STONES SHALL BE EVENLY GRADED AND A MINIMUM OF 50% BY WEIGHT OF THE STONES SHALL WEIGH 700 POUNDS OR MORE PER PIECE.
- CLASS IV RIPRAP: NO MORE THAN TEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH MORE THAN 5,400 POUNDS PER PIECE, AND NO MORE THAN FIFTEEN PERCENT OF THE STONES BY TOTAL WEIGHT SHALL WEIGH LESS THAN 400 POUNDS PER PIECE. THE STONES SHALL BE EVENLY GRADED AND A MINIMUM OF 50% BY WEIGHT OF THE STONES SHALL WEIGH 2,000 POUNDS OR MORE PER PIECE.
- SLOPES TO BE PROTECTED WITH RIPRAP SHALL BE FREE OF BRUSH, TREES, STUMPS AND OTHER OBJECTIONABLE MATERIAL AND SHALL BE DRESSED TO A REASONABLY SMOOTH SURFACE
- 7. CLASS I RIPRAP FILTER LAYER SHALL BE PLACED PRIOR TO PLACING RIPRAP, AS SHOWN ON THE DRAWINGS.
- RIPRAP STONES SHALL BE HANDLED OR PLACED TO THE THICKNESS, HEIGHT AND LENGTH SHOWN ON THE DRAWINGS, OR AS STAKED WITH A MINIMUM OF
- 9. UNDESIRABLE VOIDS WITHIN THE RIPRAP SHALL BE FILLED WITH SMALL STONES OR SPALLS. THE ROCK SHALL BE MANIPULATED SUFFICIENTLY BY MEANS OF A BULLDOZER, EXCAVATOR, ROCK TONGS OR OTHER SUITABLE EQUIPMENT TO SECURE A REASONABLY REGULAR SURFACE AND KEYED IN MASS STABILITY.
- 10. RIPRAP PROTECTION SHALL BE PLACED TO ITS FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH MANNER AS TO AVOID DAMAGING THE FILTER LAYER OR DISPLACING THE UNDERLYING MATERIAL PLACING OF RIPRAP PROTECTION IN LAYERS OR BY DUMPING INTO CHUTES OR BY SIMILAR METHODS LIKELY TO CAUSE SEGREGATION WILL NOT BE PERMITTED.
- 11. ALL RIPRAP SHALL BE SO PLACED AND DISTRIBUTED SUCH THAT THERE WILL BE NO LARGE ACCUMULATION OR AREA COMPOSED MAINLY OF EITHER THE LARGER OR SMALL SIZES OF STONE.
- 12. THE CONTRACTOR SHALL PROVIDE A LEVEL, COMPACT AREA OF SUFFICIENT SIZE TO DUMP AND SORT TYPICAL LOADS OF RIRAP AT AN APPROVED LOCATION AND SHALL DUMP LOADS AS SPECIFIED IN THIS AREA, AND SHALL ASSIST THE ENGINEER AS NEEDED TO SORT AND MEASURE THE STONES FOR THE PURPOSE OF DETERMINING IF THE RIPRAP IS WITHIN SPECIFICATIONS. MECHANICAL EQUIPMENT AS NEEDED TO ASSIST IN THIS SORTING SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST.
- 13. THE CONTRACTOR SHALL PHASE THE WORK AS SUCH TO MINIMIZE THE NEED FOR IN-WATER WORK AND REDUCE THE POTENTIAL FOR DISCHARGE OF SEDIMENT OR OTHER POLLUTANTS FROM THE WORK AREA TO ADJOINING WATER BODIES. IDEALLY WORK BELOW ORDINARY HIGH WATER (OHW) WILL BE PERFORMED DURING SEASONAL LOW FLOW CREEK CONDITIONS OF WEST CREEK

Juneau, AK 9109 Mendenhall Mall Rd. Ste. Juneau, AK 99801 RESPEC Phone: 907.780.6060 Fax: 907.586.3771 AECC163270

CONSTRUCTION

CLIENT

11014.24013 C400

SHEET TITLE **CONSTRUCTION DETAILS** 

**50% SUBMITTAL** 

**MUNICIPALITY OF SKAGWAY** WEST CREEK LEVEE IMPROVEMENTS

SKAGWAY, ALASKA