

CITY OF VALDEZ
Project Title: Lowe River Dike Renovation – Phase I
Project No.: 13-310-8060
Contract No.: 1122

TO: All Recipients

Date: August 15, 2013

SUBJECT: Addendum No.1

This page Addendum forms a part of the project scope documents and modifies the project scope for the above-referenced project. **Acknowledge receipt of this Addendum in the space provided on the Bid Form.** Failure to do so may subject the Bidder to disqualification.

This four (4) page Addendum makes the following changes and/or clarifications:

1. Replace sheet G2 with revised sheet G2 dated 8/8/13 attached to this document.
2. The contractor will provide truck counts for the material hauled out of the MP 12 pit.

The following questions were submitted by a contractor:

Does the as-built survey and DNR drawings to cover the entire length or just the new area constructed?
The as-built survey covers the entire length of the levees, on state lands and also the access roads (newly constructed and previous existing) on state lands. As-built survey is not required on areas outside of state owned lands (private or City owned parcels)

Will the autocad drawings (dwg format) be provided to assist in the layout of the project?
Autocad drawings will be provided to assist in the layout. Note that stations, offsets and elevations called out in the bid documents take precedent over Autocad lines if there is a discrepancy.

Concerning the access ramps. What happens if the 10 percent grade cannot be met within the easement limits of 100 feet from centerline? Will the access ramp be steepened? If so is the grade to match the easement limits? *The 10 percent grades should easily fit within the easement limits, the grades can be steepened to 15% if it turns out there is a problem.*

DNR Survey Instructions:

Two OPUS solutions are required for monuments what is the minimum allowable amount of time between solutions? *There is not a specified time between solutions. Use your discretion.*

Other than the OPUS solutions can all work including ties be accomplished with RTK GPS? This includes the First Meridian Ties. *Yes you can use RTK strictly. Suggestion would be to shoot two of the record control monuments with a shot, break lock, shoot again, to begin the survey, and the same thing on the same point to close out the survey to show reasonably good verification of data.*

Does the city have a list of other easements in the area? The Copper Valley Electric Wind Test area comes to mind as one item. Is there an existing easement for the gravel pit adjacent to the dike?

The Copper Valley Electric MET tower was erected under a temporary land use permit and it is scheduled to be removed with summer. We do not have any record of an easement for the gravel pit adjacent to the dike but it is an ADL (ADL 228722) according to the land status plats. We are not aware of anything else.

Encroachments onto the easement shall be tied, please provide a description of encroachments? Does this include abandoned vehicles, heavy equipment permanently store on state land, lawns, private person building materials and junk, sheds, fences, outhouses, concrete wash out areas, private culverts, etc. that are within the easement area? Does this include the access road easement area also? ***None of the moveable temporary things need be shot or shown. The corners of buildings on foundations and culverts crossing access roads on state lands should be shown.***

Negotiates Material Sale Contract:

Is the surveying under this contract to be incorporated within this project or will this be a separate item the city will contract out later? ***Yes, incorporate all the necessary surveying into this project. We will not be requesting a pre-pit and post pit survey to verify the quantity of gravel extracted out of the 12 mile pit.***

Is there an existing boundary for the Material Site? If so can that document be provided? If not what boundary is item 14 of the Special Stipulations referring to? ***Please refer to the attached drawing from the State of Alaska.***

END ADDENDUM

EARTH WORK QUANTITIES: GROINS

DIKE SECTION	STATIONS		LENGTH FT	TYPE III FILL CY	CLASS II RIPRAP CY	D1 DRIVING SURFACE CY
	START	END				
EXTEND GROIN 3	100+00	100+93.79	94	75	261	25
CONNECT GROINS 1+3	109+13.79	127+87	1873	11,500	7202	474
BURY RIPRAP SCOUR TOE GROIN 3	100+93.79	109+13.79	820	0	1709	0
TOTAL						

NOTE: QUANTITIES ARE FINAL IN PLACE. WITH 5% CONTINGENCY

EARTH WORK QUANTITIES: RAMPS

DESCRIPTION	TYPE III FILL	CLASS II RIPRAP	D1 DRIVING SURFACE
	CY	CY	CY
RAMPS	383	569	62
TOTAL	383	569	62

NOTE: QUANTITIES ARE FINAL IN PLACE. WITH 5% CONTINGENCY

EARTH WORK QUANTITIES: ADDITIVE ALTERNATES STA 100+94-108+00

DESCRIPTION	TYPE III FILL	CLASS II RIPRAP	D1 DRIVING SURFACE
	CY	CY	CY
ADDITIVE ALTERNATE 1	582	265	235
ADDITIVE ALTERNATE 2	1,613	543	235
ADDITIVE ALTERNATE 3	2,882	832	235

NOTE:

- QUANTITIES ARE FINAL IN PLACE. WITH 5% CONTINGENCY
- ADDITIVE ALTERNATE QUANTITIES INCLUDE RAISING ACCESS RAMPS AT STA 106+67

GENERAL NOTES

SCOPE OF WORK

PROVIDE ALL LABOR MATERIALS TOOLS EQUIPMENT AND SUPERVISION AS REQUIRED TO:

PHASE I

- CONSTRUCT APPROXIMATELY 100 FEET OF NEW GROIN EXTENSION NORTH OF EXISTING GROIN 3. THIS WILL INCLUDE AN EARTHEN EMBANKMENT, CLASS II ARMOR ROCK AND A 12 FOOT WIDE GRAVEL DRIVING SURFACE. COMPACT EXISTING EARTHEN EMBANKMENT CONSTRUCTED IN 2012 AND ADD CLASS II ARMOR ROCK AND A 12 FOOT WIDE GRAVEL DRIVING SURFACE. EXTENT OF EMBANKMENT CONSTRUCTED 2012 NOT KNOWN. BURY SCOUR TOE ON EXISTING GROIN 3 STATION 100+93.79-109+13.79.
- CONSTRUCT APPROXIMATELY 1300 FEET OF NEW GROIN EXTENSION BETWEEN EXISTING GROIN 1 AND EXISTING GROIN 3. THIS WILL INCLUDE AN EARTHEN EMBANKMENT, CLASS II ARMOR ROCK AND A 12 FOOT WIDE GRAVEL DRIVING SURFACE.
- PLUG EXISTING CRUSHED CULVERT IN EMBANKMENT OF GROIN 2.
- PROVIDE AN AS-BUILT SURVEY OF CONSTRUCTION.
- EXCAVATE TEST PITS FOR SOIL SAMPLING, 12 PITS APPROXIMATELY 6 TO 8 FEET DEEP. FOUR PITS PER GROIN TWO WITHIN THE EXISTING OR NEW EMBANKMENT AND TWO IN EXISTING GROUND ADJACENT TO THE GROINS.
- CONSTRUCT APPROXIMATELY 2,200 FT OF NEW HAUL ROAD TO CONNECT ACCESS POINT OFF OF CHALET DRIVE, BLOCK 7 LOT 20, TO THE PROJECT AREA. CLEAR AND GRUB AND REFURBISH AS NEEDED.

ADDITIVE ALTERNATE I

- RAISE EXISTING GROIN 3 ELEVATION BY 1 FOOT FROM STATION 100+00-108+00. TRANSITION TO PROPOSED ELEVATION OF CONNECTION.
- RAISE EAST ACCESS ROAD 1 FOOT AND SLOPE TO 10% MAXIMUM GRADE.

ADDITIVE ALTERNATE II

- RAISE EXISTING GROIN 3 ELEVATION BY 2 FEET FROM STATION 100+00-108+00. TRANSITION TO PROPOSED ELEVATION OF CONNECTION.
- RAISE EAST ACCESS ROAD 2 FEET AND SLOPE TO 10% MAXIMUM GRADE.

ADDITIVE ALTERNATE III

- RAISE EXISTING GROIN 3 ELEVATION BY 3 FEET FROM STATION 100+00-108+00. TRANSITION TO PROPOSED ELEVATION OF CONNECTION.
- RAISE EAST ACCESS ROAD 3 FEET AND SLOPE TO 10% MAXIMUM GRADE.

RIPRAP

THE RIP RAP ARMOR SURFACE AND SCOUR TOE SHALL CONSIST OF EVENLY GRADED STONES THAT ARE HARD, ANGULAR, AND HAVE NO MORE THAN 50% WEAR AT 500 REVOLUTIONS AS DETERMINED BY AASHTO T96. THE LEAST DIMENSION OF ANY PIECE OF STONE SHALL BE NOT LESS THAN ONE-FOURTH (1/4) ITS GREATEST DIMENSION. DO NOT USE ROUNDED BOULDERS OR COBBLES.

MEET THE FOLLOWING GRADATION FOR THE CLASS SPECIFIED. PERCENTS ARE BY TOTAL WEIGHT, WEIGHTS ARE FOR EACH STONE:

A. CLASS II RIP RAP

- 0-10% WEIGHING MORE THAN 400 POUNDS
- 50-85% WEIGHING 200 POUNDS OR MORE
- 5-15% WEIGHING UP TO 25 POUNDS

B. CLASS III RIP RAP

- 0-10% WEIGHING MORE THAN 1400 POUNDS
- 50% OR MORE WEIGHING 700 POUNDS OR MORE
- 15% OR MORE WEIGHING 200 POUNDS OR LESS
- 5-15% WEIGHING UP TO 25 POUNDS

TYPE III CLASSIFIED FILL

EMBANKMENT FILL SHALL CONSIST OF MATERIAL MEETING THE REQUIREMENTS OF TYPE III CLASSIFIED FILL AS SPECIFIED IN SECTION 20.05 ARTICLE 5.2 OF THE CITY OF VALDEZ STANDARD SPECIFICATIONS.

FOR THE EMBANKMENT CORE STRUCTURE, TYPE III CLASSIFIED FILL SHALL CONTAIN AT LEAST 15% OF 3 INCH OR LARGER ROCK (15% OF TOTAL MATERIAL BY WEIGHT SHALL BE 3 INCH DIAMETER OR LARGER).

THE SPECIFIED MATERIAL SHALL BE CONSTRUCTED AT THE LOCATIONS AND TO THE LINES AND GRADES INDICATED ON THE PLANS. THE MATERIAL SHALL BE PLACED AND SPREAD UNIFORMLY IN SUCCESSIVE HORIZONTAL LAYERS NOT EXCEEDING TWELVE (12) INCHES IN LOOSE THICKNESS. THE LAYERS SHALL BE CARRIED UP FULL WIDTH FROM THE BOTTOM OF THE FILL TO AVOID THE NECESSITY OF WIDENING THE EDGES AFTER THE CENTER HAS BEEN BROUGHT TO GRADE. WATER OR AERATE THE MATERIAL TO ENSURE EACH LAYER CAN BE COMPACTED TO FORM A DENSE MASS, FREE OF PUMPING. COMPACT EACH LAYER UNIFORMLY WITH A MINIMUM OF FOUR FULL COVERAGES USING THE SPECIFIED SMOOTH DRUM VIBRATORY ROLLER

IT IS ANTICIPATED THAT EMBANKMENT FILL WILL CONSIST OF A MIX OF ROUNDED COBBLES, GRAVEL AND SAND. COMPACTION EQUIPMENT FOR EMBANKMENT FILL SHALL BE A VIBRATORY ROLLER HAVING A SMOOTH DRUM, EXERTING A DYNAMIC FORCE OF AT LEAST 30,000 POUNDS PER IMPACT AND OPERATING AT A FREQUENCY OF AT LEAST 1,000 VIBRATIONS PER MINUTE. LIMIT ROLLER SPEED TO NO MORE THAN 1 1/2 MPH.

IF THE EMBANKMENT FILL MATERIAL VARIES FROM THAT ANTICIPATED, THE CONTRACTOR MAY SELECT COMPACTION EQUIPMENT MORE APPROPRIATE FOR THE MATERIAL TYPE PROVIDING THE SAME COMPACTIVE FORCE. THE SELECTED COMPACTION EQUIPMENT MUST BE APPROVED BY THE ENGINEER.

D1 SURFACE COURSE

THE AGGREGATE DRIVING SURFACE SHALL BE CONSTRUCTED OF D1 AGGREGATE CONSISTING OF CRUSHED STONE OR CRUSHED GRAVEL. D1 SHALL BE FREE OF ORGANIC MATERIALS. SEE SPECIFICATIONS FOR MATERIAL GRADATION REQUIREMENTS.

SPREAD AND SHAPE THE MATERIAL TO THE REQUIRED GRADE AND SECTION. WATER OR AERATE AS NEEDED TO MAINTAIN OPTIMUM MOISTURE CONTENT FOR COMPACTION. COMPACT THE LAYER TO A DENSITY OF 98% MAXIMUM DENSITY OR GREATER.

MATERIAL SHALL BE COMPACTED IN SUCH A MANNER THAT THE SURFACE IS MAINTAINED AND THE AGGREGATES ARE UNIFORMLY KEYED. THE SURFACE SHALL BE GENERALLY UNIFORM AND EVEN AFTER COMPACTION.

APPLICABLE STANDARDS AND SPECIFICATIONS

ALL FEDERAL STATE AND LOCAL CODES, REGULATIONS, AND STANDARDS PLUS THE FOLLOWING LATEST VERSIONS ARE PART OF THESE PLANS AND SPECIFICATIONS.

- CITY OF VALDEZ STANDARD SPECIFICATIONS
- ASTM STANDARDS AND SPECIFICATIONS
- STATE OF ALASKA 18ACC70 WATER QUALITY REGULATIONS.
- AISC HANDBOOK OF STEEL DRAINAGE & HIGHWAY CONSTRUCTION PRODUCTS

DESIGN FLOOD AND DIKE ELEVATIONS

THE ESTIMATION OF THE DESIGN FLOOD IS BASED ON A HYDROLOGIC ANALYSIS OF THE LOWE RIVER WATERSHED. THE LEVEE DESIGN IS BASED IN PART ON A US ARMY CORPS OF ENGINEERS HEC RAS COMPUTER MODEL OF THE LOWE RIVER. THIS MODEL WAS USED BY THE PROJECT TEAM TO ESTIMATE DESIGN FLOOD ELEVATIONS AND VELOCITIES. THE MODEL WAS CALIBRATED USING DATA FROM THE OCTOBER 2006 LOWE RIVER FLOOD EVENT. THE OCTOBER 2006 FLOOD EVENT

EXCEEDED THE 100 YEAR RETURN INTERVAL FLOOD AND APPROXIMATED THE 500 YEAR RETURN INTERVAL FLOOD.

THE MODEL AND THE DESIGN OF IMPROVEMENTS ASSUME THAT THE EXISTING DIKE NEAR THE OUTLET OF KEYSTONE CANYON IS IN PLACE AND FUNCTIONING PROPERLY. THIS EXISTING DIKE IS KNOWN LOCALLY AS THE 12 MILE DIKE OR THE DOT DIKE. IN OCTOBER 2006 THIS DIKE WAS BREACHED AND FLOOD WATERS ENTERED THE NORDIC AND ALPINE WOODS SUBDIVISION AREA BY FLOWING OUTSIDE THE NORMAL RIVER CHANNEL IN A PATHWAY ROUGHLY PARALLEL TO THE RICHARDSON HIGHWAY. THIS PROJECT PROVIDES NO IMPROVEMENTS TO PROTECT THE SUBDIVISION FROM A REPEAT OF THIS TYPE OF EVENT OR FROM A FAILURE OF THIS UPSTREAM DIKE. THIS PROJECT DOES PROVIDE IMPROVEMENTS TO REDUCE THE RISK OF FLOODING FROM A 100 YEAR RETURN INTERVAL FLOOD EVENT WITH THE LOWE RIVER IN ITS NORMAL CHANNEL.

ELEVATIONS OF THE TOP OF DIKE HAVE BEEN SET AT 3 FEET ABOVE THE DESIGN FLOOD BASED ON THE HEC RAS MODEL. THE UPSTREAM END OF EACH DIKE HAS AN ADDITIONAL 1 FOOT OF FREEBOARD TO MEET FEMA LEVEE CERTIFICATION REQUIREMENTS.

ENVIRONMENTAL PROTECTION

THE CONTRACTOR SHALL PROVIDE ENVIRONMENTAL PROTECTION AND TEMPORARY EROSION AND POLLUTION CONTROL AT ALL EXCAVATION SITES. TEMPORARY STREAM DIVERSION AND OR SILT FENCES AS REQUIRED TO MINIMIZE INTRUSION OF SEDIMENTATION INTO THESE WATER BODIES. THE EXISTING STREAMS SHALL BE ISOLATED FROM THE WORK AREAS BY SILT FENCES.

PROVISIONS SHALL BE MADE TO MINIMIZE THE INTRUSION OF SEDIMENT INTO THE LOCAL WATER BODIES.

AFTER CONSTRUCTION THE EFFECTED AREAS SHALL BE REVEGETATED WITH NATIVE MATERIALS.

CONSTRUCTION SAFETY

THE CONTRACTOR SHALL CALL FOR UTILITY LOCATES PRIOR TO BEGINNING EXCAVATION. THIS SHALL INCLUDE ALL LOCAL UTILITY PROVIDERS AND THE ONE CALL STATEWIDE LOCATE NUMBER 1 800 478- 3121. THE CONTRACTOR SHALL ALSO CALL COPPER VALLEY ELECTRIC ASSOCIATION AT 835-4201 FOR LOCATES.

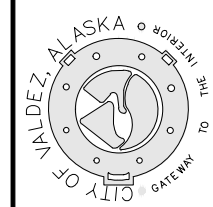
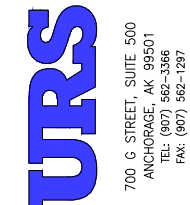
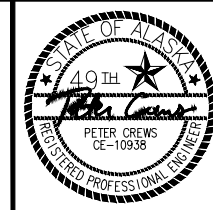
THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING OSHA EXCAVATION SAFETY STANDARDS INCLUDING USING A TRENCH BOX AND OR PROVIDING SHORING AND BRACING FOR CERTAIN EXCAVATION SITUATIONS.

PLUG CULVERT

PLUG CULVERT END AND REMOVE REMAINDER OF EXISTING PIPE AT STA 208+00 ON EXISTING GROIN 2 (SEE STATIONING LOCATION ON SHEET G4). CUT PIPE AS CLOSE AS POSSIBLE TO THE EXISTING RIP RAP ON SOUTH END OF PIPE, FILL REMAINING SECTION OF PIPE BETWEEN CUT AND SOUTH END OF PIPE WITH CONCRETE, MINIMUM 3000 PSI. REMOVE REMAINING PORTION OF PIPE BETWEEN CUT AND NORTH END OF PIPE, BACKFILL AND COMPACT TRENCH TO TOP OF EXISTING GROIN PER SPECIFICATION SECTION 90.17.

HAUL ROAD

CONSTRUCT NEW HAUL ROAD USING TYPE III FILL MATERIAL. HAUL ROAD TO BE APPROXIMATELY 1 FOOT THICK AND 12 FEET IN WIDTH. CLEAR AND GRUB AS NECESSARY TO ALLOW FOR THE ACCESS OF PROPOSED HAUL VEHICLES.



NOTES / REVISIONS:

- ADD #1 8/08/13

CITY OF VALDEZ
VALDEZ FLOOD CONTROL
LOWE RIVER DIKE RENOVATION PHASE I
VALDEZ, ALASKA
GENERAL NOTES AND QUANTITIES

PROJECT No: 26219959

DATE: 08/08/2013

DESIGNED: JD

DRAWN BY: BG

CHECKED BY: PC

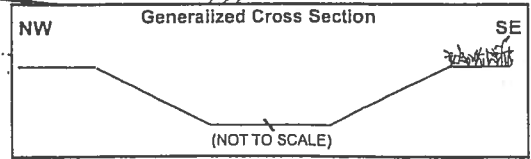
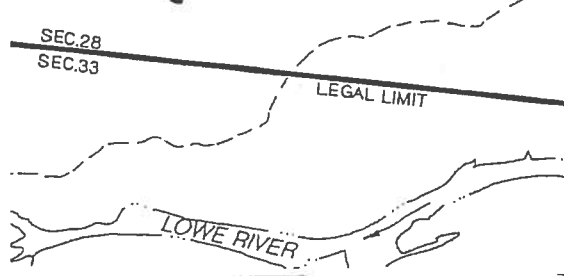
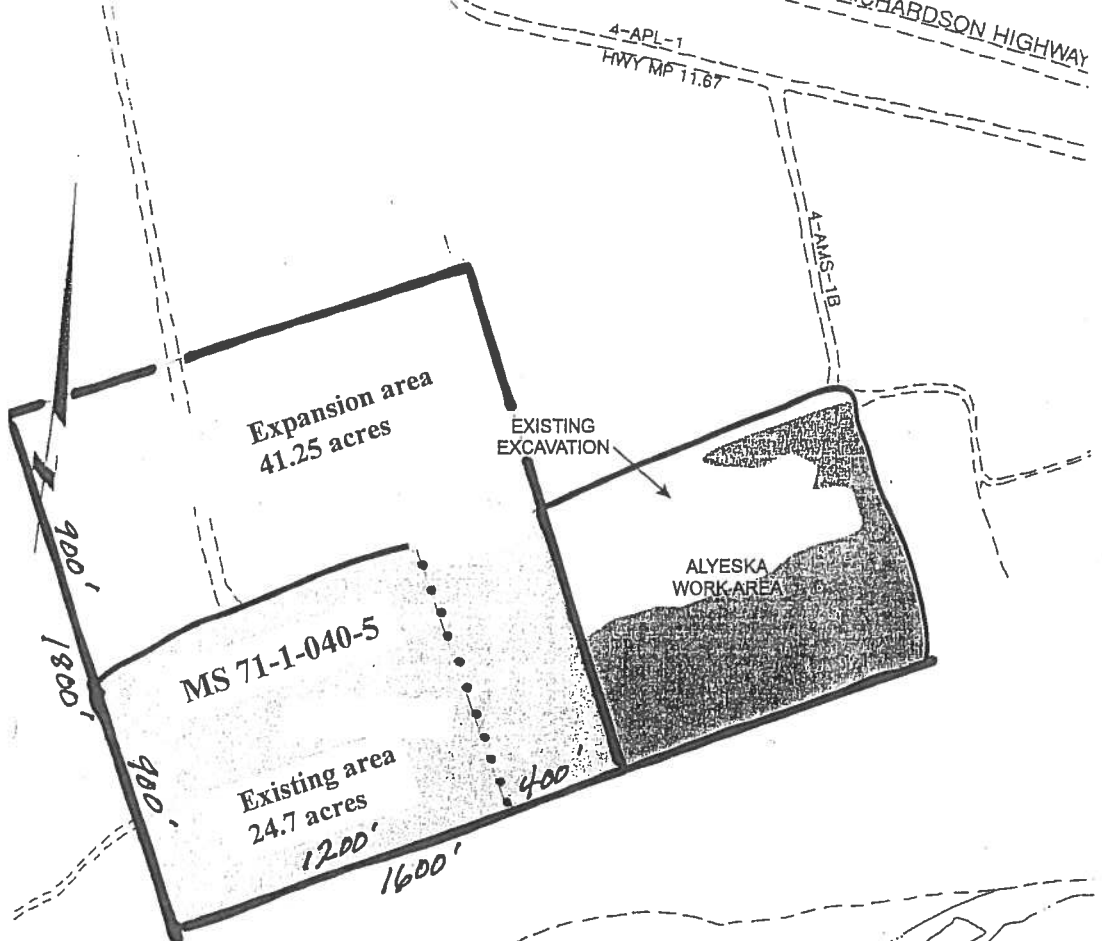
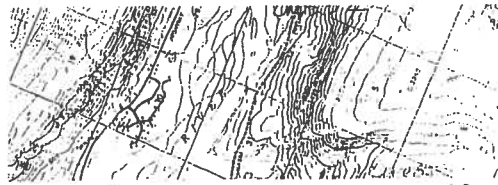
SHEET:

G2

PAGE: 2 OF 13

FOR
CONSTRUCTION

T9S, R4W, CRM
 W/in W 1/2 Section 28
 South of the Richardson Highway
 With access thereto n Sections 28 & 29



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
 PLAT SHOWING MATERIAL SOURCE

MS 71-1-040-5

NORTHERN REGION	DATE 11/1/2006
	65.95 ACRE