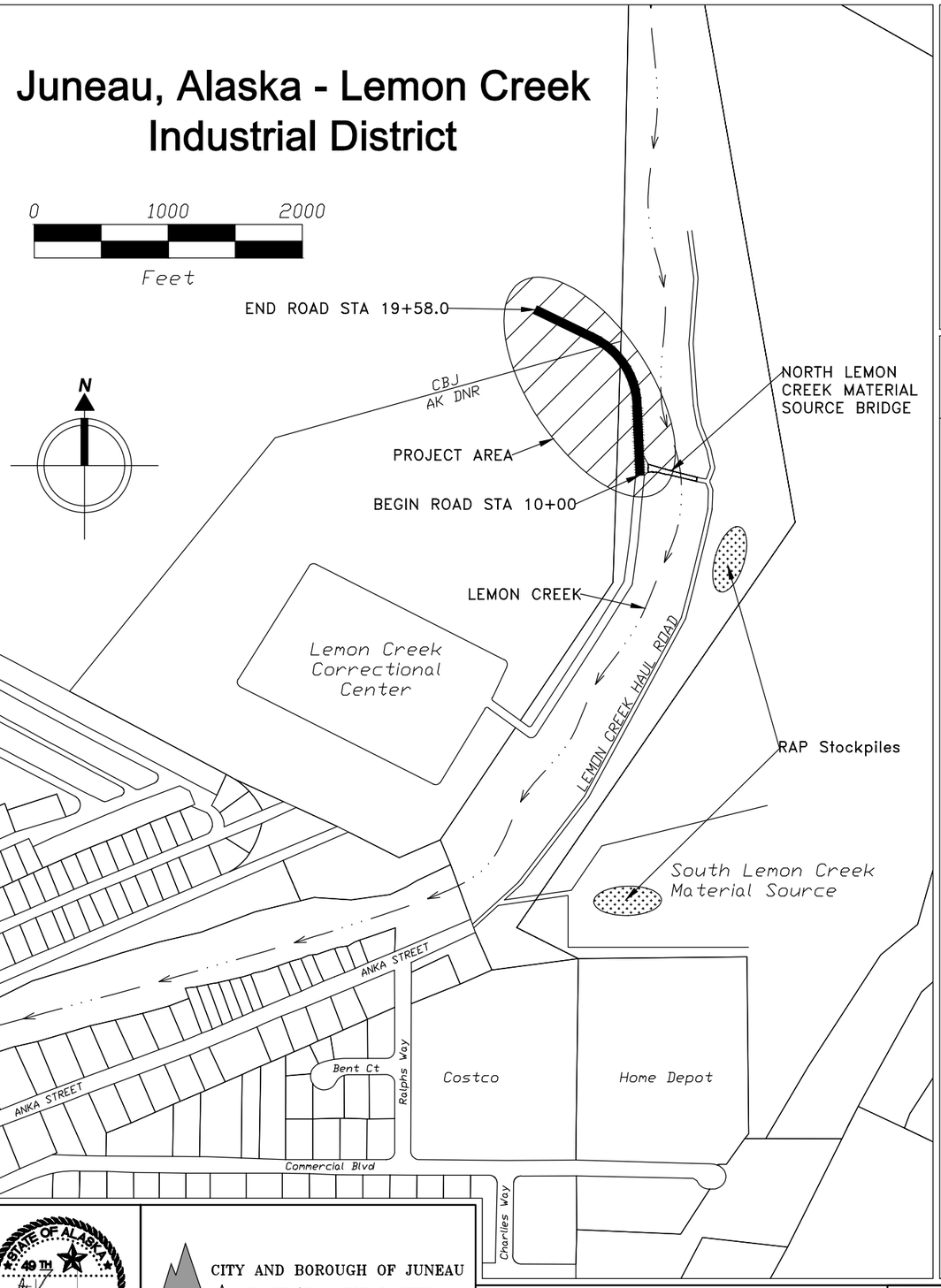
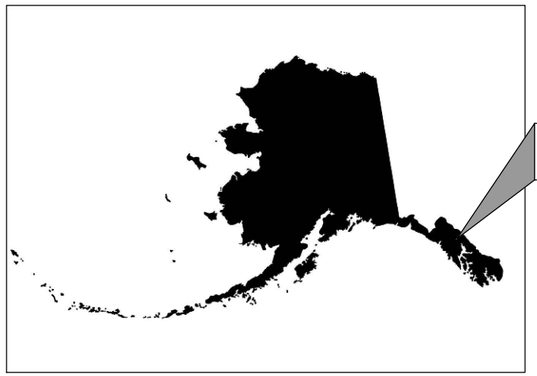
Juneau, Alaska - Lemon Creek Industrial District





DRAWING INDEX

STATE OF ALASKA 49TH
Alec M. Venechuk
EM 14270
8-18-17
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY
DEPARTMENT OF ENGINEERING

NORTH LEMON CREEK MATERIAL SOURCE
ROAD IMPROVEMENTS
CBJ CONTRACT BE17–110

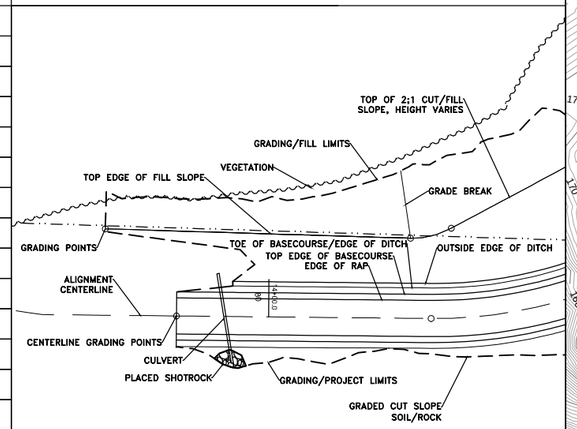
PROJECT LOCATION AND DRAWING INDEX

SHEET NO.
1 OF 8

ROAD PROFILE, GRADING POINTS, AND PIPE INVERTS

POINT ID.	DESCRIPTION	STA.	OFFSET (FT)	FINISHED GRADE EL. (FT)	NORTHING	EASTING
CL-1	Alignment	10+00.0	-- --	74.9	2386007.9	2529749.4
CL-2	Alignment	12+50.0	-- --	75.8	2386254.9	2529786.2
CL-3	Begin road	13+38.9	-- --	78.4	2386344.1	2529787.1
CL-4	Begin Curve 1	15+07.8	-- --	88.6	2386513	2529788.8
CURVE 1	R = 300.0' L	-- --	-- --	-- --	-- --	-- --
CL-5	End Curve 1	18+30.8	-- --	108.1	2386778.6	2529633.8
CL-6	End road	19+58.0	-- --	115.0	2386840.2	2529522.2
GRD-1	Grading point	12+91.1	57.3 L	80.0	2386296.9	2529729.3
GRD-2	Grading point	14+93.6	53.1 L	92.5	2386499.3	2529735.6
GRD-3	Grading point	15+22.6	59.2 L	94.0	2386525.4	2529729.5
GRD-4	Grading point	16+60.1	83.3 L	124.5	2386619.4	2529679.3
GRD-5	Grading point	18+40.0	83.3 L	135.5	2386710.2	2529585.5
GRD-6	Grading point	19+06.1	83.3 L	139.0	2386742.1	2529527.6
P1	New 18" Ø CPP, 55' +/-	15+20.8	-- --	-- --	2386526.1	2529788.7

MAP LEGEND



END TEMPORARY ROAD AT 166' ELEVATION SEE SHEET 5

STOCKPILE EXCESS USEABLE EXCAVATION HERE

END ROAD SECTION WITH SAND FACE AT ANGLE OF REPOSE SEE SHEETS 3 AND 4

END ROCK FACED SLOPE PROTECTION

END ROAD STA 19+58.0 EL. 115.0'

CONSTRUCT TEMPORARY ROAD BEGIN AT 115' ELEVATION SEE SHEET 5

PROJECT/GRADING LIMITS

PLACE BOULDER LINE BETWEEN GATE POST TO TREELINE, APPROX. 65' LONG

GRD-1 BEGIN ROCK FACED SLOPE PROTECTION

GRD-2

GRD-3

GRD-4

GRD-5

GRD-6

TOP OF CUT/FILL SLOPE SEE SHEET 3

2:1 SLOPE

GRADE -7%

GRADE -24%

GRADE -6%

0%

CUT SLOPE IN BEDROCK

CL-5 EC STA 18+30.8

IN RANGE

INSTALL GATE WITH TIE-BACK POSTS AND TELSPAR SIGN POSTS SEE SHEET 5

ELECTRIC (EXISTING)

CURVE 1 R=300.0

ESTIMATED BEDROCK EXCAVATION LIMITS, DRILL/BLAST WITHIN ROAD ALIGNMENT

CL-1

CL-2

CULVERT (EXISTING)

CL-3, BEGIN ROAD SECTION SEE SHEETS 3 AND 4

CUT SLOPE IN SOIL PLACE ROCK FACED SLOPE PROTECTION

PLACE BOULDER LINE ALONG EDGE OF ROAD, APPROX. 170' LONG

CL-4 BC STA 15+07.8

PROJECT/GRADING LIMITS

ASPHALT APRON

SETTLING POND

EXCAVATE SOIL AND EXPAND EXISTING SETTLING POND SEE SHEET 6

INSTALL 47' LONG CULVERT PIPE (P1) AND CONSTRUCT ROCK CHECK DAM AND FLUME SEE SHEET 6

CULVERT (EXISTING) CONSTRUCT ROCK FLUME

SETTLING POND (EXISTING) MUCK OUT POND TO 4' DEPTH SEE SHEET 6

BRIDGE

POND OUTLET PIPE AND CATCH BASIN (EXISTING)

SP-1

NLC

N

80 0 80 160 240

SCALE IN FEET
CONTOUR INTERVAL = 1'

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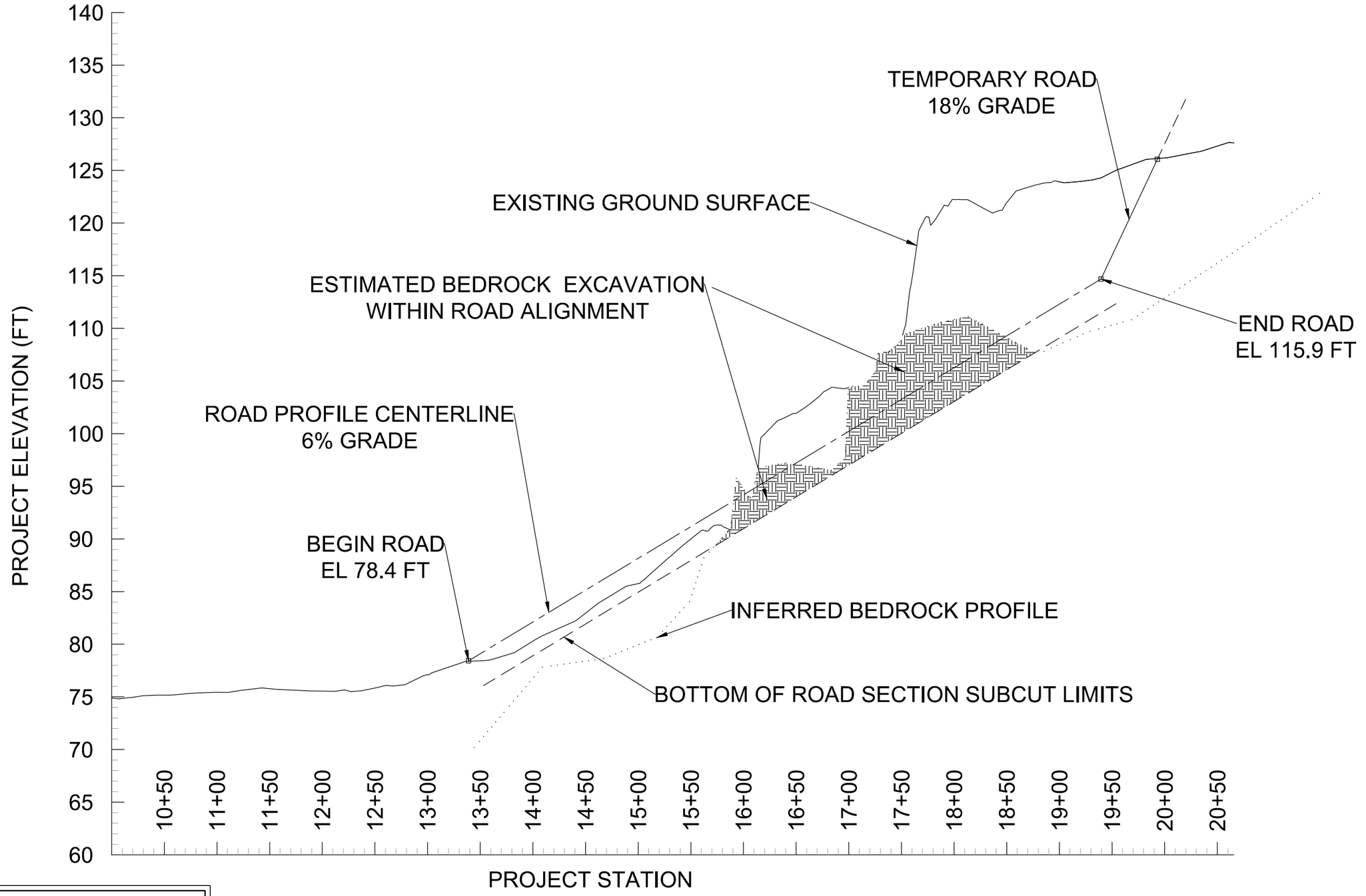
SITE PLAN, GRADING, AND ROAD ALIGNMENT

SHEET NO.
2 OF 8



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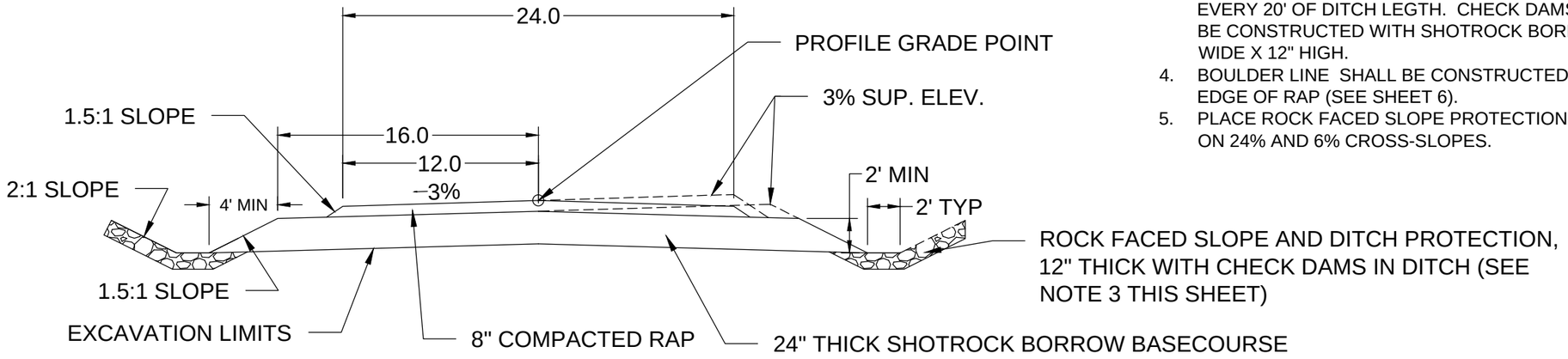
ROAD PROFILE

SHEET NO.
3 OF 8

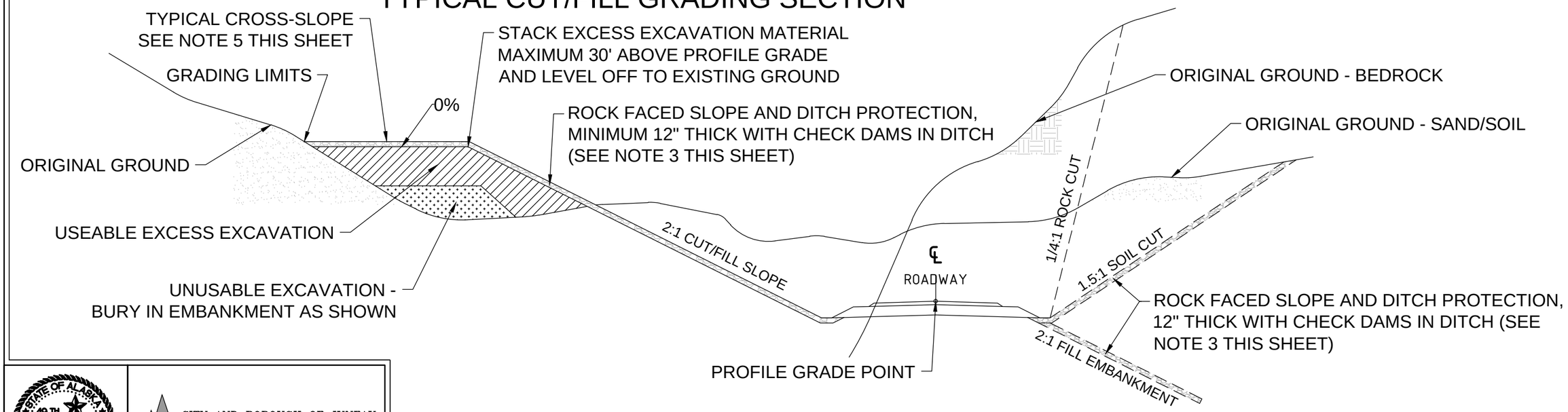
TYPICAL ROAD SECTION



NOTES

1. ALL MEASUREMENTS IN FEET, UNLESS INDICATED OTHERWISE.
2. ARMOR ALL SOIL CUT/FILL SLOPES AND DITCHES WITH SHOTROCK BORROW FROM ROAD ALIGNMENT EXCAVATION.
3. CONSTRUCT ROCK CHECK DAMS IN BOTH DITCHES EVERY 20' OF DITCH LEGTH. CHECK DAMS SHOULD BE CONSTRUCTED WITH SHOTROCK BORROW, 36" WIDE X 12" HIGH.
4. BOULDER LINE SHALL BE CONSTRUCTED ALONG EDGE OF RAP (SEE SHEET 6).
5. PLACE ROCK FACED SLOPE PROTECTION 12' THICK ON 24% AND 6% CROSS-SLOPES.

TYPICAL CUT/FILL GRADING SECTION



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TYPICAL SECTIONS

NOTE: TOPO LINES ARE EXISTING, PRECONSTRUCTION CONDITIONS ARE APPROXIMATE

UPPER TRAIL (EXISTING)

END TEMPORARY ROAD AT 166.0 FT EL.
MATCH WITH EXISTING UPPER TRAIL

TEMPORARY ROAD, 12' WIDE SINGLE LANE
AVERAGE GRADE: 18%
CAP ROAD WITH 12" THICK SHOTROCK BORROW
LENGTH: 280'

STOCKPILE EXCESS USEABLE
SAND/GRAVEL EXCAVATION HERE

APPROX. EXTENT OF TEMPORARY
ROAD EMBANKMENT, 2:1 SLOPE

GRADE SLOPE TO MATCH
TEMPORARY ROAD

END ROAD SECTION
SEE SHEETS 3 AND 4

BEGIN TEMPORARY ROAD AT 115.0 FT EL
ALIGN WITH EXISTING TRAIL

EXPOSE BEDROCK SLOPE

2:1 SLOPE

19+00.0

N

40 0 40 80 120

SCALE IN FEET
CONTOUR INTERVAL = 1'

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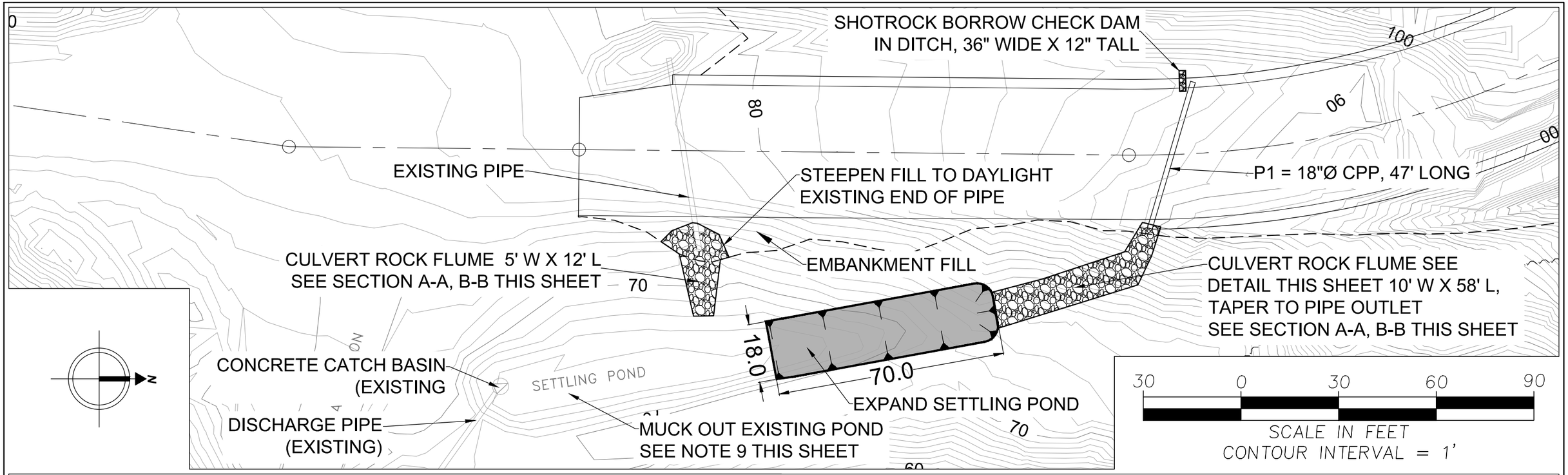
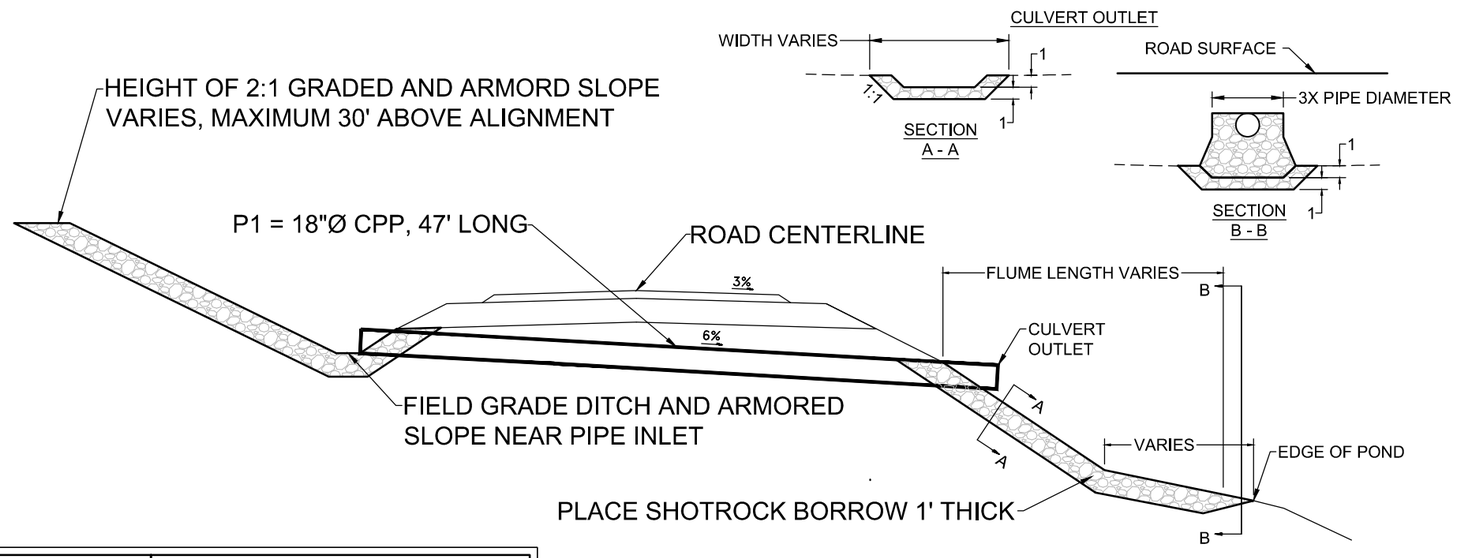
TEMPORARY ACCESS ROAD

SHEET NO.
5 OF 8



CULVERT PIPE AND ROCK FLUME DETAIL



NOTES

1. ALL MEASUREMENTS IN FEET, UNLESS INDICATED OTHERWISE.
2. SLOPES ADJACENT TO P1 INLET SHOULD BE FIELD FIT.
3. EXISTING PIPES SHOULD BE LEFT IN PLACE AND OUTFALL FLUMES CONSTRUCTED AS SHOWN.
4. DITCH ALONG RIGHT SIDE OF ALIGNMENT SHOULD END AT P1 OUTLET AND SHOULD DISCHARGE INTO P1 FLUME.
5. CUT SLOPE ON RIGHT SIDE OF ALIGNMENT TRANSITIONS TO FILL EMBANKMENT AT P1 OUTLET.
6. CULVERT AND FLUME LENGTHS ARE APPROXIMATE
7. SHOTROCK BORROW CHECK DAM IN LEFT DITCH OF ROAD ALIGNMENT SHOULD BE PLACED ON DOWNGRADE SIDE OF P1 INLET AND SHOULD DIRECT DITCH WATER INTO PIPE.
8. P1 BEDDING SHOULD BE COMPACTED D-1 ROCK MATERIAL.
9. SETTLING POND EXPANSION SHOULD EXCAVATE APPROXIMATELY 70'L X 18'W X 4' DEEP. POND WALLS SHOULD SLOPE 2:1 TOWARD CENTERLINE OF POND. BOTH SHOTROCK FLUMES SHOULD DAYLIGHT AND DRAIN INTO POND. MUCK OUT EXISTING POND TO 4' BELOW BASIN INLET.

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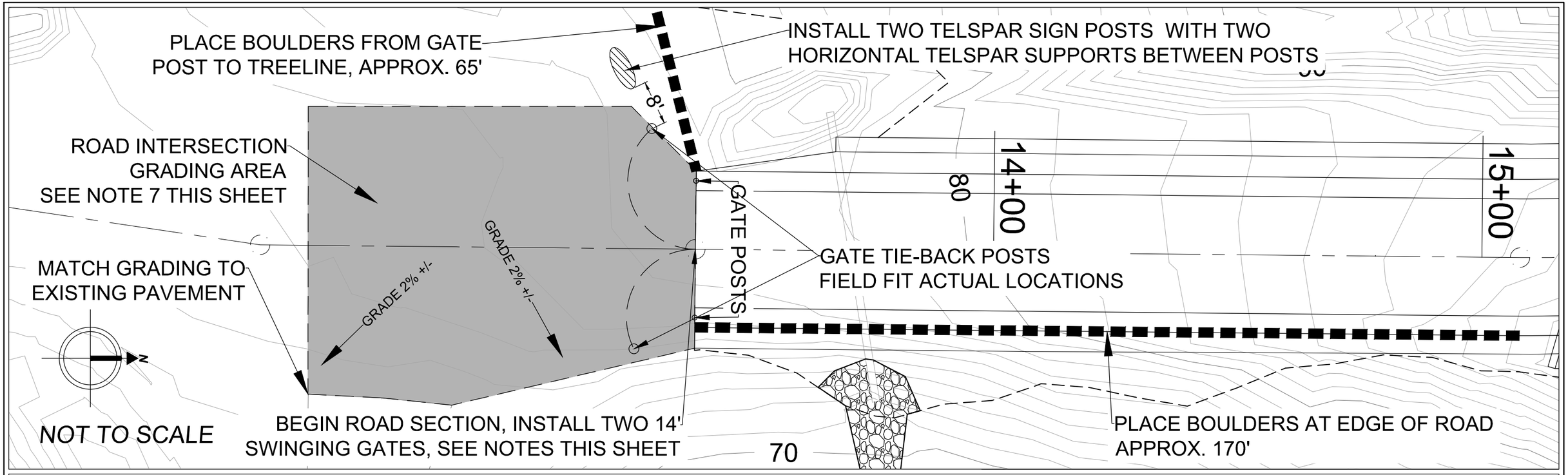
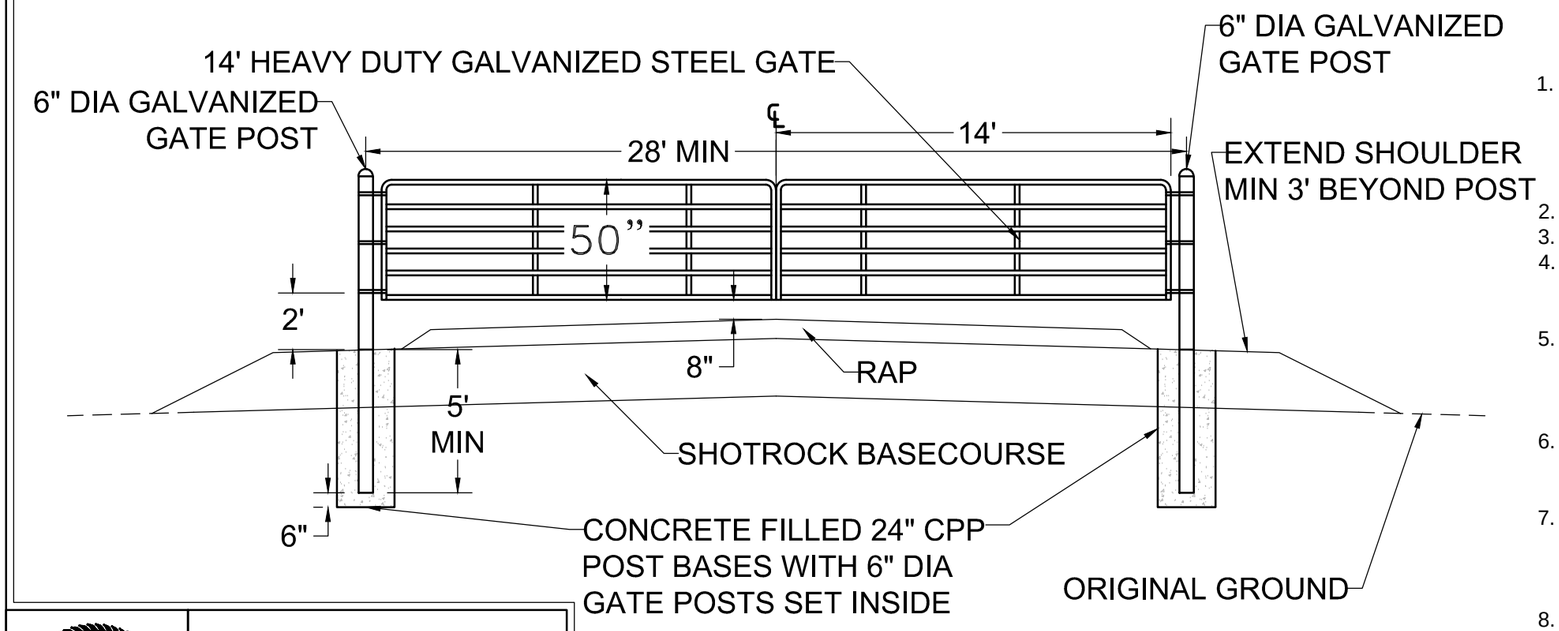
ROAD IMPROVEMENTS
CBJ CONTRACT BE17–110

PIPE, ROCK FLUME, AND POND DETAIL





NOTES

1. ALL GATE AND FENCE POSTS SHALL BE SET IN CONCRETE-FILLED CORRUGATED POLYETHYLENE PIPE (18"Ø MIN), FULLY EMBEDDED IN ROAD BASE OR IN NATIVE SOIL, WITH TOP OF CPP SET FLUSH WITH THE SURROUNDING GROUND SURFACE, AND CONCRETE DOMED TO DRAIN AWAY FROM THE POST.
2. ALL POSTS SHALL BE CAPPED OR COMPLETELY FILLED WITH CONCRETE.
3. GATES SHOULD BE INSTALLED AT STA 13+38.9
4. GATE ENDS SHOULD BE WITHIN 3" OF EACH OTHER WHEN IN THE CLOSED POSITION. GATES WILL LOCK TOGETHER WITH CHAIN AT CENTER OF ROAD ALIGNMENT.
5. 3/8" CHAIN, MIN 2' LONG, SHALL BE WELDED TO THE OPEN GATE ENDS SO THE CHAINS CAN BE LOCKED TOGETHER WHEN THE GATES ARE IN THE CLOSED POSITION. CHAINS SHALL BE LONG ENOUGH TO LOOP AROUND THE TIE-BACK POSTS TO SECURE THE GATES WHEN OPEN.
6. GATE TIE-BACK POSTS SHALL BE 2-1/2" DIAMETER FNCE POSTS, SET AND INSTALLED THE SAME AS GATE HINGE POSTS. FIELD FIT LOCATION AS REQUIRED.
7. INSTALL TWO TELSPAR SIGN POSTS PER CBJ STANDARD DETAIL 127B. SIGN POSTS SHOULD BE POSITIONED TO FACE LEMON CREEK BRIDGE. SIGN POSTS SHALL BE 3' APART, WITH FIELD LOCATION DETERMINED BY THE ENGINEER. NO SIGN INSTALLED THIS CONTRACT.
8. GRADE AREA BETWEEN GATE AND BRIDGE ASPHALT APRON TO MATCH ROAD AND APRON PROFILES. AREA IS APPROXIMATELY 4000 SQUARE FEET.

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GATE DETAIL

SHEET NO.
7 OF 8

LEGEND

- TREELINE
- PROPERTY LINE.
- DRAINAGE LINE
- TOE OF BANK
- TOP OF BANK
- BEDROCK
- •76.4 SPOT ELEVATIONS
- EDGE OF ASPHALT
- GRAVEL

NOTES:

1. PROJECT MAPPING IS BASED ON STATE PLANE, NAD83, (2011) (EPHOCH: 2010.0000), ALASKA ZONE 1, DERIVED FROM OPUS SOLUTION FOR CONTROL MONUMENT SP–1. OPUS POSITION AND SUBORDINATE CONTROL POINTS SHOWN WERE DETERMINED BY A HIGH PRECISION GPS CONTROL SURVEY USING TRIMBLE R7 AND R8 RECEIVERS, DIFFERENTIALLY CORRECTED AND PROCESSED USING TRIMBLE BUSINESS CENTER, VER. 3.22 SOFTWARE.
2. VERTICAL DATUM FOR THIS SURVEY AND MAPPING IS BASED ON AK DOT/PF CONTROL POINT AS–72 WITH ELEVATION PROVIDED BY AK DOT/PF OF 25.213 M.L.L.W. (2011). VERTICAL DIFFERENCE BETWEEN AS–72 AND CONTROL POINT SP–1 WAS DETERMINED BY SIMULTANEOUS GPS OBSERVATION CORRECTED AND PROCESSED USING TRIMBLE BUSINESS CENTER, VER. 3.22 SOFTWARE EMPLOYING GEOID 12A.
3. LIDAR DATA WAS PROVIDED BY USGS EARTH EXPLORER AND CONVERTED TO STATE PLANE, NAD83, ALASKA ZONE 1, U.S. SURVEY FEET COORDINATES USING GLOBAL MAPPER V17.0.

CONTROL POINTS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
500	2386753.09	2529974.02	97.33	SP–1
501	2386251.70	2530027.58	76.34	SP–2
502	2386217.36	2529767.11	75.47	SP–3
505	2386852.36	2529661.95	164.87	NLCP–1
506	2387123.66	2529408.73	211.70	NLCP–2
510	2387076.68	2529113.31	210.86	NLCP–3

STATE OF ALASKA
ASLS 2004-22
TRACT B-2

CBJ
ASLS 2004-22
TRACT B-1

CBJ
TRACT A-2,
U.S.S. 5504
PLAT No. 98-27

CBJ
LOT 2B
RSH SUB. II

NLCP–3
NLCP–2
NLCP–1
SP–3
SP–2
SP–1

•165.7
•165.1
•127.1
•170.2
•125.3
•125.0
•122.3
•76.6
•75.4
•75.6
•77.4

12"CPP
INV EL=76.43
12"CPP
INV EL=76.14
R&M ALUM
PRIMARY MON
12"CPP
INV EL=68.68
STOCKPILE
ELECTRIC SWITCH BOX
OUTLET NOT LOCATED
DOWL HKM
ALUM. MONUMENT
18"CPP
INV EL=73.14
18"CPP
INV EL=70.59
I–BEAM (TYP)
SETTLEMENT POND
18"CPP
INV EL=62.55
BRIDGE
STOCKPILES
LIMITS OF FIELD SURVEY
CBJ ALUM. CAP
TRACT A, TRACT B
USMS 609

LEMON CREEK
LEMON CREEK

N

50 0 50 100
SCALE IN FEET
CONTOUR INTERVAL=10'

REVISIONS			
REV	DATE	DESCRIPTION	BY

DOWL
WWW.DOWL.COM

NORTH LEMON CREEK
MATERIAL SOURCE MAPPING 2016

EXISTING CONDITIONS & CONTROL

JUNEAU, AK

PROJECT	70858.01
DATE	MAY 2016

SHEET 8 OF 8