GENERAL SHEETS

No.	Sheet Number	Sheet Title
1	001 G	GENERAL NOTES AND SHEET INDEX
2	002 G	PLAN VIEW OVERALL PROJECT VICINITY MAP

TRANSPORTATION AREA (TA SERIES MAPS)

No.	Sheet Number	Sheet Title
3	TA- 300 G	PLAN VIEW TRANSPORTATION AREA INDEX MAP
4	TA- 301 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
5	TA- 301 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
6	TA- 301 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
7	TA- 301 D1	JUNGJUK PORT LAYOUT AND DETAILS
8	TA- 302 D2	JUNGJUK TAIL WALL SECTIONS
9	TA- 303 D3	JUNGJUK PORT SECTIONS
10	TA- 301 D4	MATERIAL SITE 16 LAYOUT AND DETAILS
11	TA- 302 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
12	TA- 302 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
13	TA- 302 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
14	TA- 302 D	MATERIAL SITE 13 LAYOUT AND DETAILS
15	TA- 303 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
16	TA- 303 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
17	TA- 303 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
18	TA- 303 D	MATERIAL SITE 12 LAYOUT AND DETAILS
19	TA- 304 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
20	TA- 304 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
21	TA- 304 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
22	TA- 304 D	MATERIAL SITE 10 LAYOUT AND DETAILS
23	TA- 305 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
24	TA- 305 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
25	TA- 305 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
26	TA- 305 D	MATERIAL SITE 08 and SITE 09 LAYOUT AND DETAILS
27	TA- 306 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
28	TA- 306 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
29	TA- 306 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
30	TA- 306 D	MATERIAL SITE 06 and 07 LAYOUT AND DETAILS
31	TA- 307 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
32	TA- 307 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
33	TA- 307 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
34	TA- 307 D	MATERIAL SITE 04 AND 05 LAYOUT AND DETAILS
35	TA- 308 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
36	TA- 308 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
37	TA- 308 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
38	TA- 308 D1	MATERIAL SITE 03 LAYOUT AND DETAILS
39	TA- 308 D2	JUNGJUK ROAD HILLCUT
40	TA- 309 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
41	TA- 309 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
42	TA- 309 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
43	TA- 309 D	MATERIAL SITE 02 LAYOUT AND DETAILS
44	TA- 310 A	PLAN VIEW ACCESS ROAD WETLANDS MAP
45	TA- 310 B	PLAN VIEW ACCESS ROAD ENGINEERING MAP
46	TA- 310 C	PLAN VIEW ACCESS ROAD ENGINEERING MAP - AERIAL
47	TA- 310 D1	CROOKED CREEK BRIDGE PLAN AND DETAILS
48	TA- 310 D2	MATERIAL SITE 01 LAYOUT AND DETAILS
49	TA- 311 A	PLAN VIEW AIRSTRIP WETLANDS MAP
50	TA- 311 B	PLAN VIEW AIRSTRIP ENGINEERING MAP
51	TA- 311 C	PLAN VIEW AIRSTRIP ENGINEERING MAP - AERIAL
52	TA- 311 D	AIRSTRIP SECTIONS
53	TA- 312 T	JUNGJUK ACCESS ROAD TYPICAL SECTION
54	TA- 313 T	TYPICAL POWERPOLE CLEARING LIMITS
55	TA- 314 T	TYPICAL BRIDGE/STREAM CROSSING
56	TA- 316 T	TYPICAL CULVERT

MINE SITE AREA (MA SERIES MAPS)

No.	Sheet Number	Sheet Title
57	MA- 200 G	PLAN VIEW MINE AREA INDEX MAP
58	MA- 201 A	PLAN VIEW MINE AREA WETLANDS MAP
59	MA- 201 B	PLAN VIEW MINE AREA ENGINEERING MAP
60	MA- 201 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
61	MA- 201 D1	LONG TERM ORE STOCKPILEDETAIL
62	MA- 201 D2	PRIMARY CRUSHER PAD DETAIL
63	MA- 201 D3	CONSTRUCTION LAYDOWN AREA 6 DETAIL
64	MA- 201 D4	TERRACE BORROW SITE 3 - NORTH TSF OVERBURDEN STOCKPILE
65	MA- 201 D5	MINE FLEET ASSEMBLY AREA DETAIL
66	MA- 202 A	PLAN VIEW MINE AREA WETLANDS MAP
67	MA- 202 B	PLAN VIEW MINE AREA ENGINEERING MAP
68	MA- 202 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
69	MA- 202 D1	ULTIMATE PIT DETAIL
70	MA- 202 D2	NORTH OVERBURDEN STOCKPILE 2028 DETAIL
71	MA- 202 D3	ULTIMATE PIT - SAFETY BERM DETAIL
72	MA- 203 A	PLAN VIEW MINE AREA WETLANDS MAP
73	MA- 203 B	PLAN VIEW MINE AREA ENGINEERING MAP

MINE SITE AREA (MA SERIES MAPS)

No.	Sheet Number	Sheet Title
74	MA- 203 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
75	MA- 203 D1	FSA MATERIAL SITE - SNOW GULCH DETAIL
76	MA- 203 D2	SNOW GULCH WATER DAM AND FRESHWATER RESERVOIR DETAIL
77	MA- 203 D3	MAGAZINE BOOSTER AREA PAD DETAIL
78	MA- 203 D4	AN STORAGE PAD DETAIL
79	MA- 203 D5	EMULSION PLANT PAD DETAIL
80	MA- 204 A	PLAN VIEW MINE AREA WETLANDS MAP
81	MA- 204 B	PLAN VIEW MINE AREA ENGINEERING MAP
82	MA- 204 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
83	MA- 204 D1	TERRACE BORROW SITE 4 DETAIL
84	MA- 204 D2	TERRACE BORROW SITE 5 DETAIL
85	MA- 204 D3	SOUTH OVERBURDEN STOCKPILE 2019 DETAIL
86	MA- 204 D4	POTABLE WATER WELL PADS DETAIL
87	MA- 204 D5	TAILING STORAGE FACILITY STOCKPILE 1 DETAIL
88	MA- 204 D6	TAILING STORAGE FACILITY STOCKPILE 2 DETAIL
89	MA- 204 D7	TERRACE BORROW SITE 6 DETAIL
90	MA- 204 D8	CONSTRUCTION LAYDOWN AREA 1 DETAIL
91	MA- 204 D9	CONSTRUCTION LAYDOWN AREA 2 DETAIL
92	MA- 204 D10	CONSTRUCTION LAYDOWN AREA 3 DETAIL
93	MA- 204 D11	TSF CONSTRUCTION LAYDOWN AREA 4 DETAIL
94	MA- 204 D12	ROAD TRUCKSHOP PAD DETAIL
95	MA- 204 D13	TERRACE BORROW SITE 7 DETAIL
96	MA- 204 D14	SOUTH OVERBURDEN STOCKPILE 2033 DETAIL
97	MA- 205 A	PLAN VIEW MINE AREA WETLANDS MAP
98	MA- 205 B	PLAN VIEW MINE AREA ENGINEERING MAP
99	MA- 205 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
100	MA- 205 D1	TSF YEAR 25 BOUNDARY DETAIL
101	MA- 205 D2	TSF CLOSURE SPILLWAY DETAIL
102	MA- 205 D3	TSF DRAINAGE - STORMWATER DIVERSION DETAIL
103	MA- 205 D4	TSF SEEPAGE RECOVERY SYSTEM POND DETAIL
104	MA- 206 A	PLAN VIEW MINE AREA WETLANDS MAP
105	MA- 206 B	PLAN VIEW MINE AREA ENGINEERING MAP
106	MA- 206 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
107	MA- 206 D1	MILLSITE/PLANT SITE PAD AND CONSTRUCTION CAMP DETAIL
108	MA- 206 D2	FUEL FARM PAD DETAIL
109	MA- 206 D3	CORE STORAGE YARD DETAIL
110	MA- 207 A	PLAN VIEW MINE AREA WETLANDS MAP
111	MA- 207 B	PLAN VIEW MINE AREA ENGINEERING MAP
112	MA- 207 C	PLAN VIEW MINE AREA ENGINEERING MAP - AERIAL
113	MA- 207 D1	AMERICAN CREEK LOWER CONTACT WATER DAM AND POND DETAIL
114	MA- 207 D2	AMERICAN FRESHWATER DIVERSION DAM AND POND DETAIL
115	MA- 207 D3	AMERICAN CREEK UPPER CONTACT WATER DAM AND POND DETAIL
116	MA- 207 D4	FSA MATERIAL SITE UPPER AMERICAN CREEK DETAIL
117	MA- 207 D5	WASTE ROCK FACILITY DETAIL
118	MA- 207 D6	WASTE ROCK FACILITY DRAINAGE SYSTEM DETAIL
119	MA- 207 D7	FSA MATERIAL SITE - UPPER AMERICAN RIDGE DETAIL
120	MA- 210 T	ROAD TYPICAL DETAIL
121	MA- 211 T	HAUL AND CONSTRUCTION ROAD TYPICAL DETAIL

PIPELINE STUDY AREA (PA SERIES MAPS)

No.	Sheet Number	Sheet Title
122	PA- 100 G	PLAN VIEW PIPELINE INDEX MAP
123	PA- 101 A	PLAN VIEW PIPELINE WETLANDS MAP
124	PA- 101 B	PLAN VIEW PIPELINE ENGINEERING MAP
125	PA- 101 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
126	PA- 102 A	PLAN VIEW PIPELINE WETLANDS MAP
127	PA- 102 B	PLAN VIEW PIPELINE ENGINEERING MAP
128	PA- 102 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
129	PA- 103 A	PLAN VIEW PIPELINE WETLANDS MAP
130	PA- 103 B	PLAN VIEW PIPELINE ENGINEERING MAP
131	PA- 103 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
132	PA- 104 A	PLAN VIEW PIPELINE WETLANDS MAP
133	PA- 104 B	PLAN VIEW PIPELINE ENGINEERING MAP
134	PA- 104 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
135	PA- 105 A	PLAN VIEW PIPELINE WETLANDS MAP
136	PA- 105 B	PLAN VIEW PIPELINE ENGINEERING MAP
137	PA- 105 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
138	PA- 106 A	PLAN VIEW PIPELINE WETLANDS MAP
139	PA- 106 B	PLAN VIEW PIPELINE ENGINEERING MAP
140	PA- 106 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
141	PA- 107 A	PLAN VIEW PIPELINE WETLANDS MAP
142	PA- 107 B	PLAN VIEW PIPELINE ENGINEERING MAP
143	PA- 107 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
144	PA- 108 A	PLAN VIEW PIPELINE WETLANDS MAP
145	PA- 108 B	PLAN VIEW PIPELINE ENGINEERING MAP
146	PA- 108 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
147	PA- 109 A	PLAN VIEW PIPELINE WETLANDS MAP
148	PA- 109 B	PLAN VIEW PIPELINE ENGINEERING MAP
149	PA- 109 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
150	PA- 110 A	PLAN VIEW PIPELINE WETLANDS MAP

PIPELINE STUDY AREA (PA SERIES MAPS)

No.	Sheet Number	Sheet Title
151	PA- 110 B	PLAN VIEW PIPELINE ENGINEERING MAP
152	PA- 110 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
153	PA- 111 A	PLAN VIEW PIPELINE WETLANDS MAP
154	PA- 111 B	PLAN VIEW PIPELINE ENGINEERING MAP
155	PA- 111 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
156	PA- 112 A	PLAN VIEW PIPELINE WETLANDS MAP
157	PA- 112 B	PLAN VIEW PIPELINE ENGINEERING MAP
158	PA- 112 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
159	PA- 113 A	PLAN VIEW PIPELINE WETLANDS MAP
160	PA- 113 B	PLAN VIEW PIPELINE ENGINEERING MAP
161	PA- 113 C	PLAN VIEW PIPELINE ENGINEERING MAP - AERIAL
162	PA- 130 T	TYPICAL PIPE STORAGE YARD
163	PA- 131 T	TYPICAL PIPE STOCKPILE
164	PA- 132 T	MAINLINE BLOCK VALVE ASSEMBLY
165	PA- 133 T	POWELINE
166	PA- 134 T	WINTER ROAD TYPICAL DETAIL
167	PA- 135 T	WINTER ROAD TYPICAL DETAIL
168	PA- 136 T	WINTER ROAD TURNAROUND
169	PA- 137 T	HDD ENTERY SITE EQUIPMENT LAYOUT
170	PA- 138 T	TYPICAL WATERBODY CROSSING HORIZONTAL BORE
171	PA- 139 T	TYPICAL PIG LAUNCHER 16” X 14”
172	PA- 140 T	TYPICAL PIG LAUNCHER 16” X 14”
173	PA- 141 T	SHOOFLY OR ACCESS ROAD DETAIL
174	PA- 142 T	SHOOFLY TYPICAL SECTION
175	PA- 143 T	TYPICAL FLEX-FLOAT AND ROCK FLUME BRIDGE DETAIL
176	PA- 144 T	TIMBER MAT BRIDGE AND PORTABLE WATERBODY BRIDGE DETAIL
177	PA- 145 T	TYPICAL WATERBODY CROSSING DETAIL
178	PA- 146 T	TYPICAL FLOWING WATERBODY CROSSING OPEN-CUT DETAIL
179	PA- 147 T	TYPICAL WATERBODY CROSSING OPEN-CUT
180	PA- 148 T	TYPICAL WATERBODY CROSSING DETAIL
181	PA- 149 T	TYPICAL SLOPE BREAKER WITH LONGITUDINAL CROSS SLOPES DETAIL
182	PA- 150 T	SIDE SLOPE SECTION – TWO TONED DETAIL
183	PA- 151 T	TYPICAL TRENCH BREAKER DETAIL
184	PA- 152 T	TYPICAL PIPELINE MARKER DETAIL
185	PA- 153 T	TYPICAL CATHODIC PROTECTION DETAIL
186	PA- 154 T	TYPICAL MLV FENCING DETAIL
187	PA- 155 T	RIGHT OF WAY PLAN, SUMMER GRADED R.O.W. MODE
188	PA- 156 T	RIGHT OF WAY PLAN, SUMMER GRADED R.O.W. MODE
189	PA- 157 T	CROSS SECTION, SUMMER GRADED R.O.W. MODE
190	PA- 158 T	RIGHT OF WAY PLAN, SUMMER PERMAFROST R.O.W. MODE
191	PA- 159 T	RIGHT OF WAY PLAN, SUMMER PERMAFROST R.O.W. MODE
192	PA- 160 T	CROSS SECTION, SUMMER PERMAFROST R.O.W. MODE
193	PA- 161 T	RIGHT OF WAY PLAN, SUMMER WETLANDS R.O.W. MODE
194	PA- 162 T	RIGHT OF WAY PLAN, SUMMER WETLANDS R.O.W. MODE
195	PA- 163 T	CROSS SECTION, SUMMER WETLANDS R.O.W. MODE
196	PA- 164 T	RIGHT OF WAY PLAN, WINTER GRADED R.O.W. MODE
197	PA- 165 T	RIGHT OF WAY PLAN, WINTER GRADED R.O.W. MODE
198	PA- 166 T	CROSS SECTION, WINTER GRADED R.O.W. MODE
199	PA- 167 T	RIGHT OF WAY PLAN, WINTER PERMAFROST R.O.W. MODE
200	PA- 168 T	RIGHT OF WAY PLAN, WINTER PERMAFROST R.O.W. MODE
201	PA- 169 T	CROSS SECTION, WINTER PERMAFROST R.O.W. MODE
202	PA- 170 T	RIGHT OF WAY PLAN, WINTER WETLANDS R.O.W. MODE
203	PA- 171 T	RIGHT OF WAY PLAN, WINTER WETLANDS R.O.W. MODE
204	PA- 172 T	CROSS SECTION, WINTER WETLANDS R.O.W. MODE
205	PA- 173 T	TYPICAL CAMP PLOT PLAN 100 TO 300 MAN CAMP DETAIL
206	PA- 174 T	BURIED PIPE WITH OVER-EXCAVATION IN ICE RICH SOILS

GENERAL NOTES

1. ALL PROPOSED DISTURBANCE IS INTENDED TO BE PERMANENT DISTURBANCE, UNLESS OTHERWISE SPECIFIED.
2. THE PROPOSED DISTURBANCE LIMIT OF SOME FACILITIES MAY EXTEND OUTSIDE OF THEIR DESIGNED FOOTPRINTS. WHILE THIS ADDITIONAL DISTURBANCE AREA MAY NOT BE DIRECTLY IMPACTED AS PART OF AN ACTIVITY, IT HAS BEEN ASSUMED AS PART OF THIS ANALYSIS AS A DIRECT IMPACT ASSOCIATED WITH POTENTIAL INCIDENTAL ACCESS, POTENTIAL VARIATION OR MODIFICATIONS UPON FINAL CONSTRUCTION DESIGN, CONSTRUCTION IMPLEMENTATION NEEDS, POTENTIAL STORAGE OF WASTE FROM VEGETATION CLEARING ACTIVITIES, POTENTIAL STORAGE OF SNOW FROM SNOW CLEARING ACTIVITIES, AND/OR BMP CONTROL MEASURES THAT MAY BE NEEDED.
3. SPECIFICATIONS OF FILL MATERIAL UTILIZED FOR CONSTRUCTION ACTIVITIES WILL BE DETERMINED AS ENGINEERING OF THE ASSOCIATED FACILITIES ADVANCES.
4. CUT AND FILL SLOPES ARE ASSUMED TO BE 2:1 (HORIZONTAL : VERTICAL) UNLESS OTHERWISE SPECIFIED. SLOPES MAY VARY PENDING SOIL OR ROCK TYPE ENCOUNTERED DURING EXCAVATION.
5. CROSS SECTIONS DEPICTING CUT BELOW EXISTING GROUND AND PROPOSED FILL, ASSUME EXCAVATION TO COMPETENT SOILS FOR CONSTRUCTION OF PADS OR STOCKPILES.
6. EROSION AND SEDIMENT CONTROL WILL BE PROVIDED DURING CONSTRUCTION AND OPERATIONS IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN.
7. RECLAMATION AND FINAL STABILIZATION OF DISTURBED AREAS WILL BE IN ACCORDANCE WITH THE RECLAMATION AND CLOSURE PLAN.

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

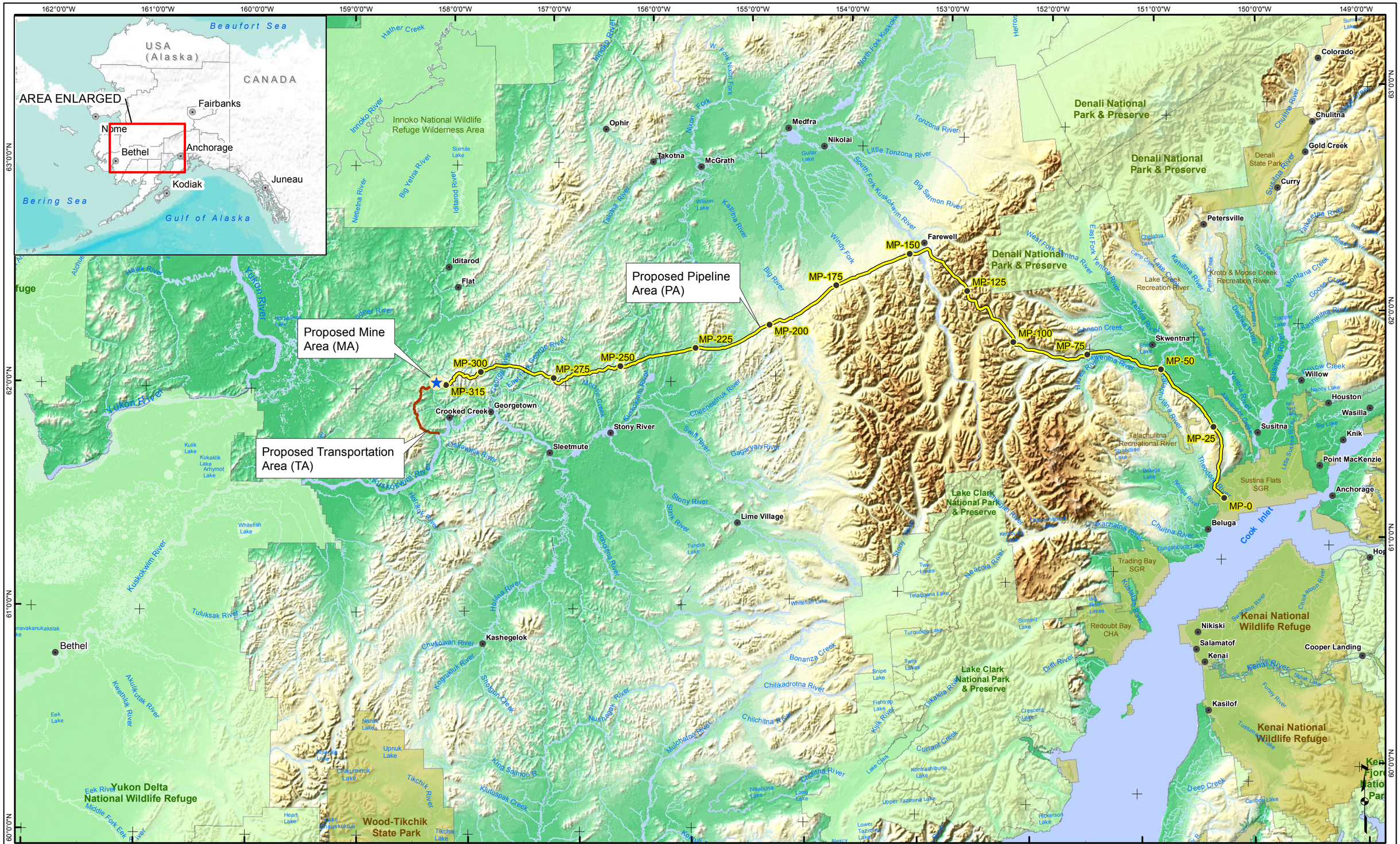
FIGURE NO:
GENERAL NOTES AND SHEET INDEX

DATE: 10/27/2015

FIGURE NO. **G001**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\G001_INDEX_ABR_20150930.mxd



Associated Engineering Drawings

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 27 miles

DATE: 10/2/2015

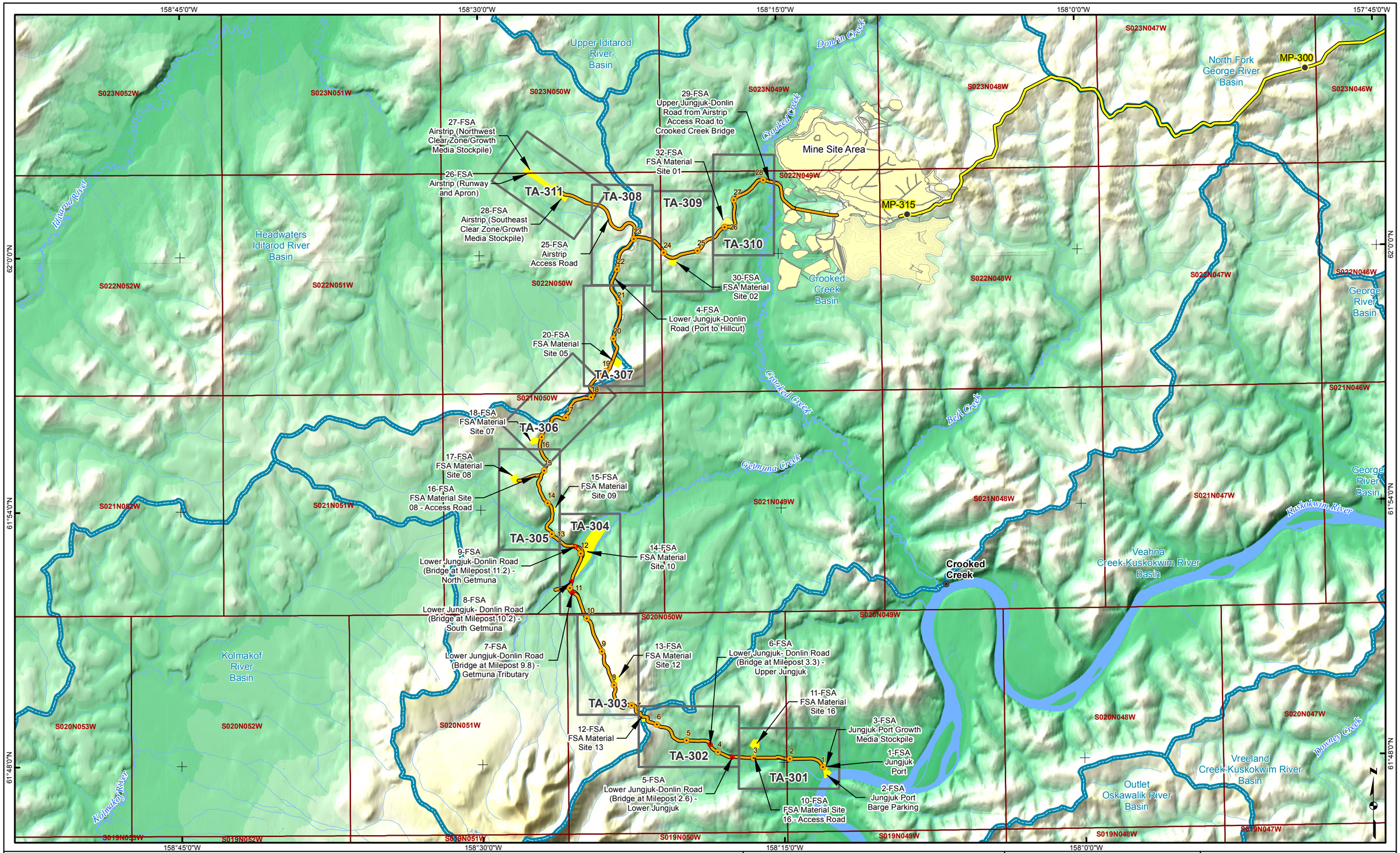
DRAWING TITLE: **PLAN VIEW OVERALL PROJECT VICINITY MAP**

FIGURE NO. **G002**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\G002_ProjectVicinity_ABR_20150928.mxd

Basemap Source: USGS, NGA, NASA, CGIAR,N Robinson,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA and the GIS User Community; Sources: Esri, USGS, NOAA



- Pipeline Milepost (MP)
- Road Milepost
- Populated Place
- Proposed Natural Gas Pipeline
- Proposed Jungjuk Road
- HUC 10 Basins (NRCS)
- Bridge
- Proposed Disturbance
- Proposed Mine Facility
- River/Stream
- Figure Page Index

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

A1-166549-80-13-006.dwg (AMEC)

0 1 2 Miles

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 2 miles

DATE: 8/13/2015

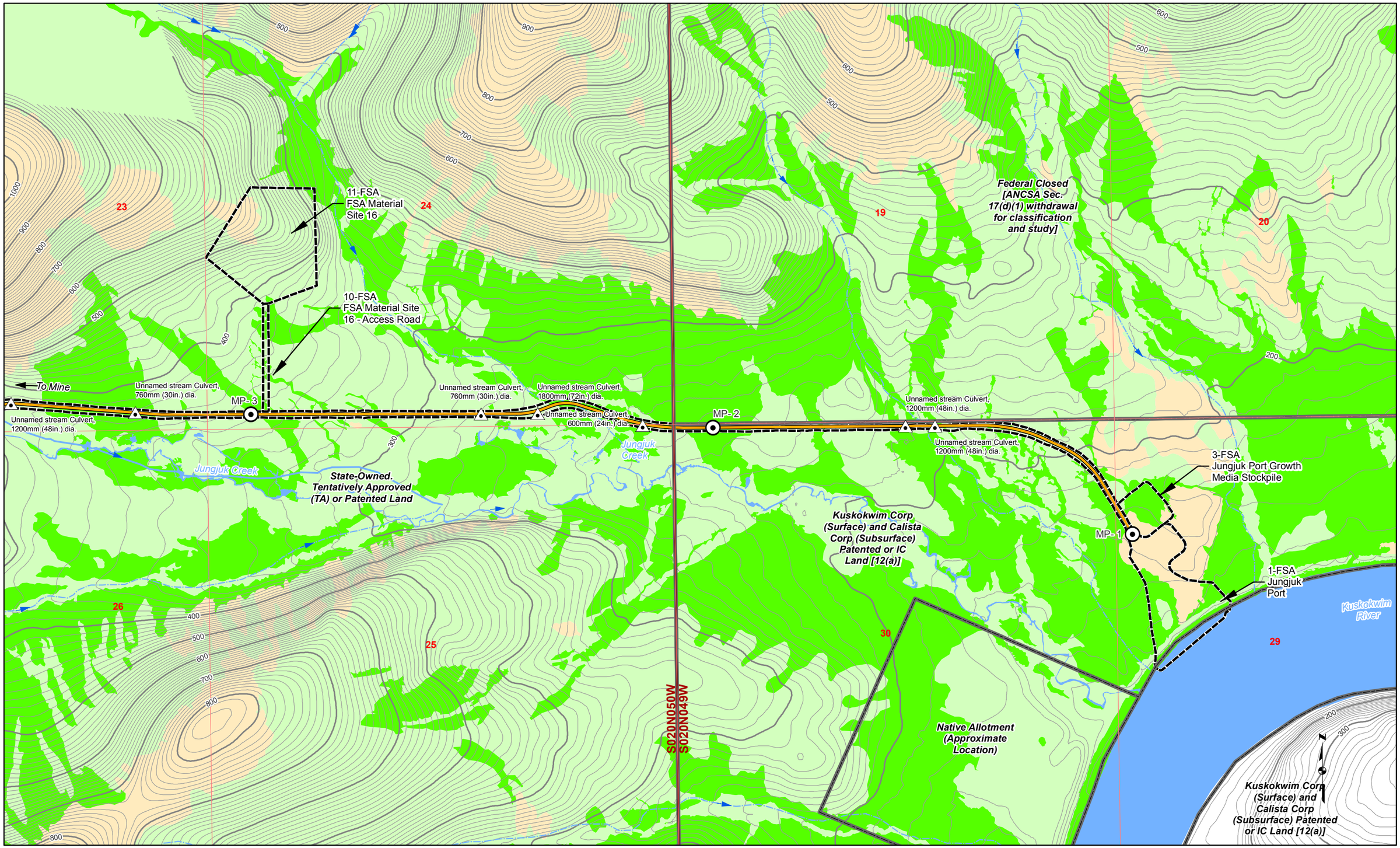
DRAWING TITLE: **PLAN VIEW TRANSPORTATION AREA INDEX MAP**

FIGURE NO. **TA-300G**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_300G_Index_ABR_20150812.mxd

Basemap Source: USGS, NGA, NASA, CGIAR,N Robinson,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA and the GIS User Community; Sources: Esri, USGS, NOAA



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/2/2015

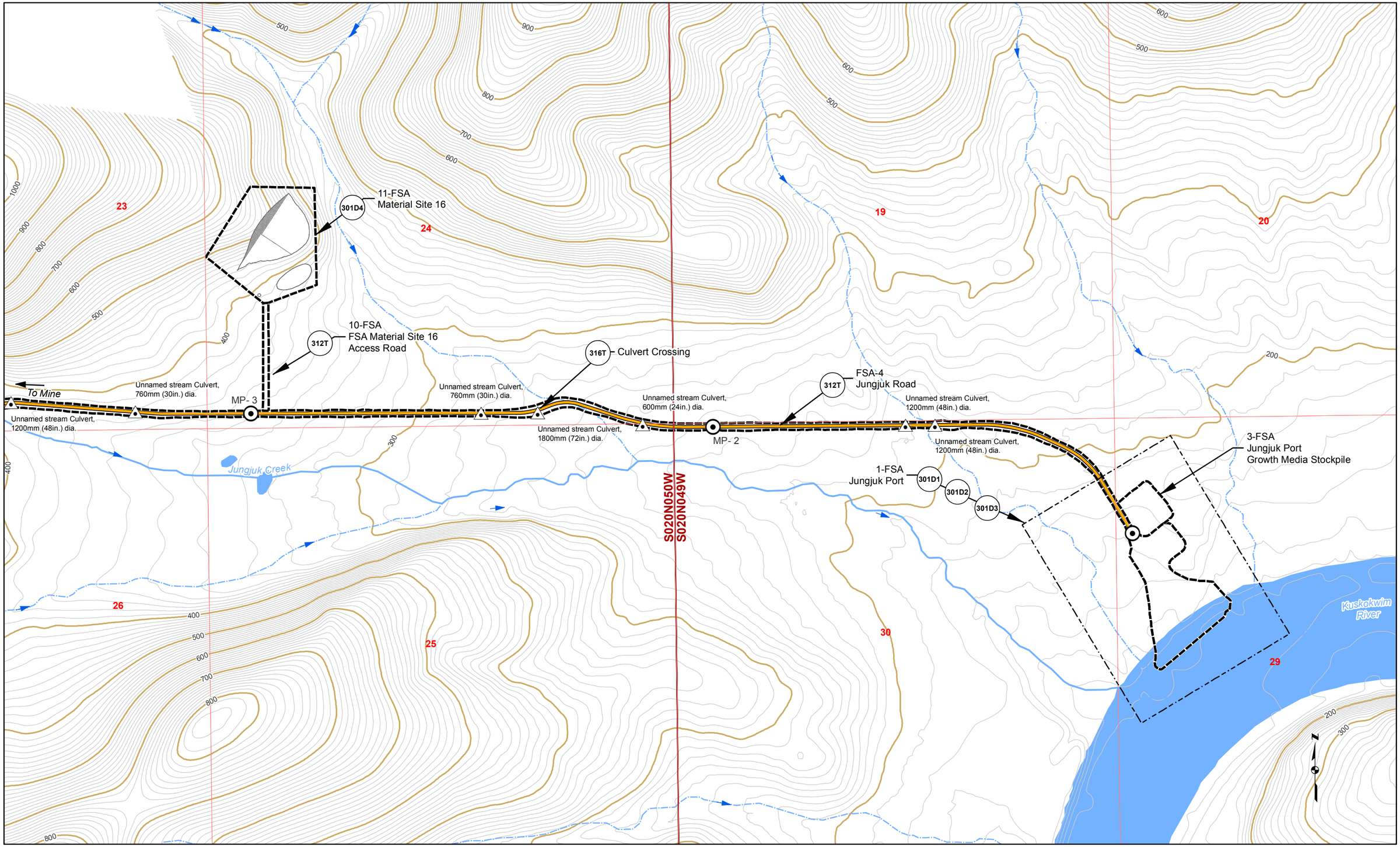
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-301A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20150813.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);01 Site Plan (PND)

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/27/2015

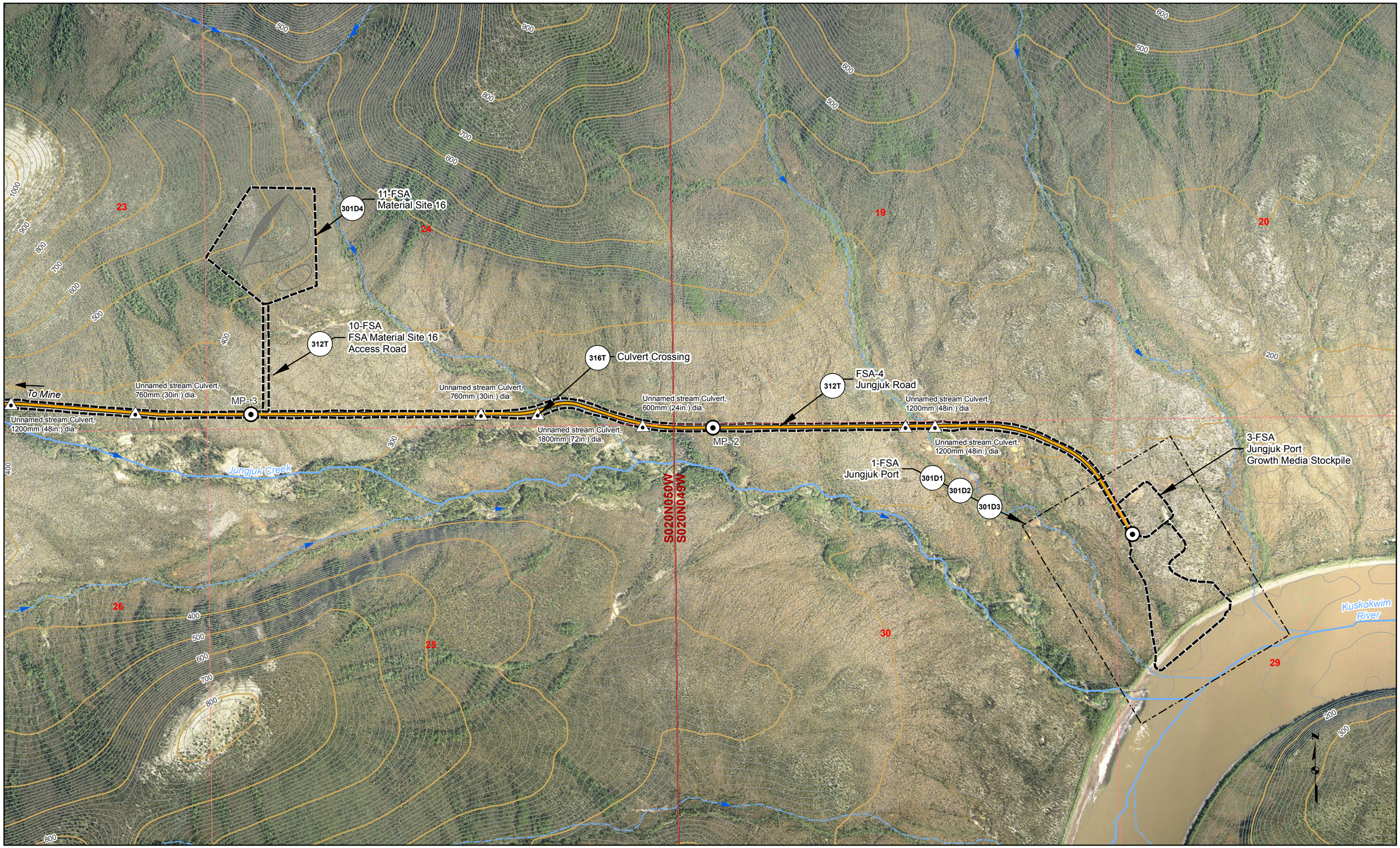
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-301B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);01 Site Plan (PND)

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/27/2015

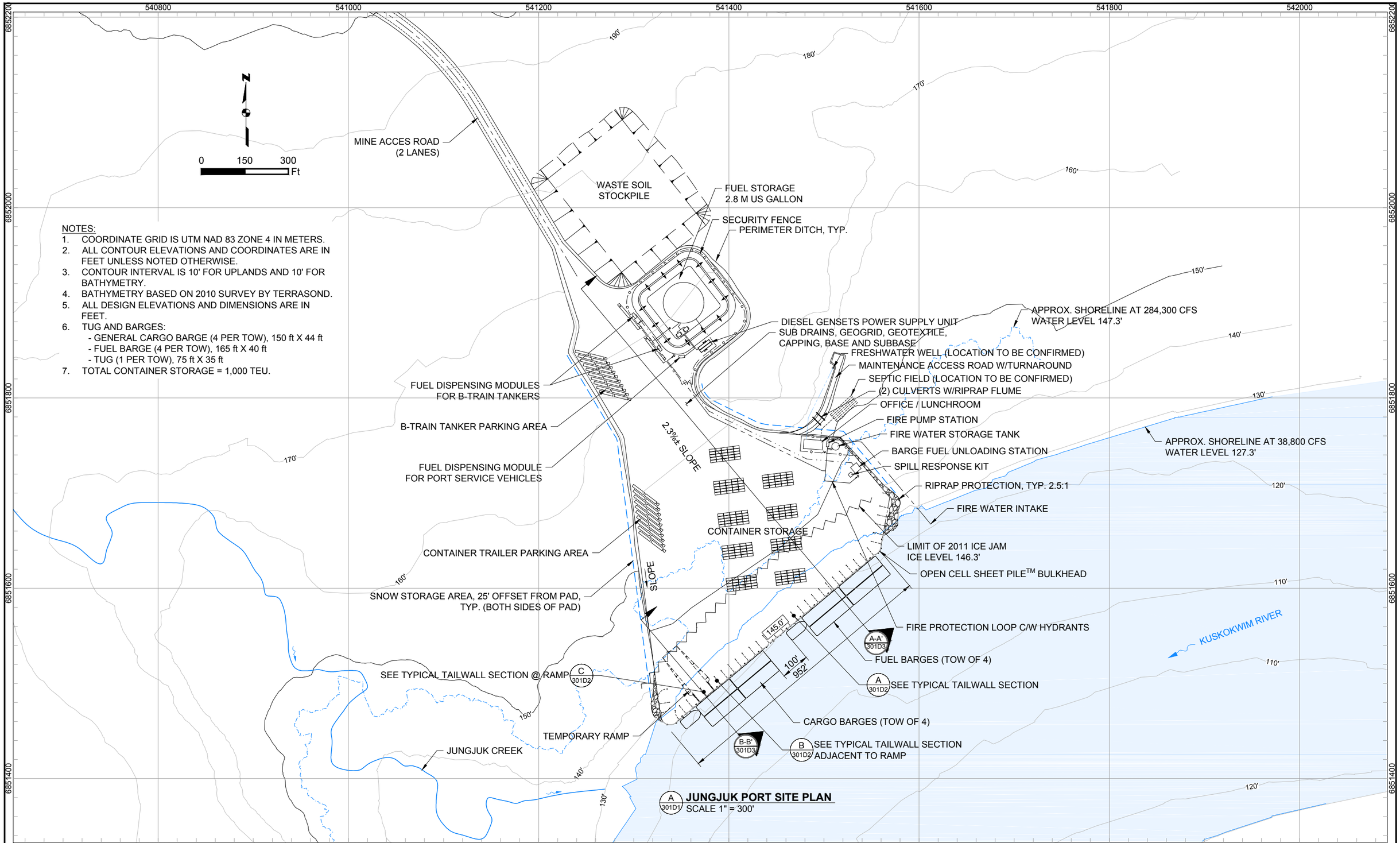
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-301C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA

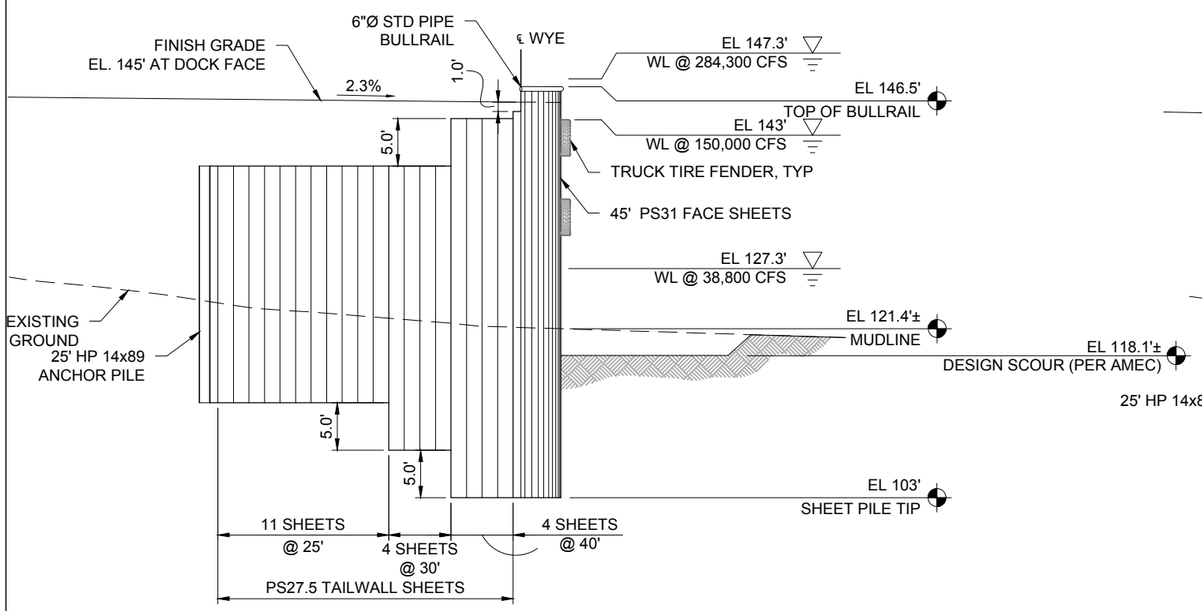


NOTES:

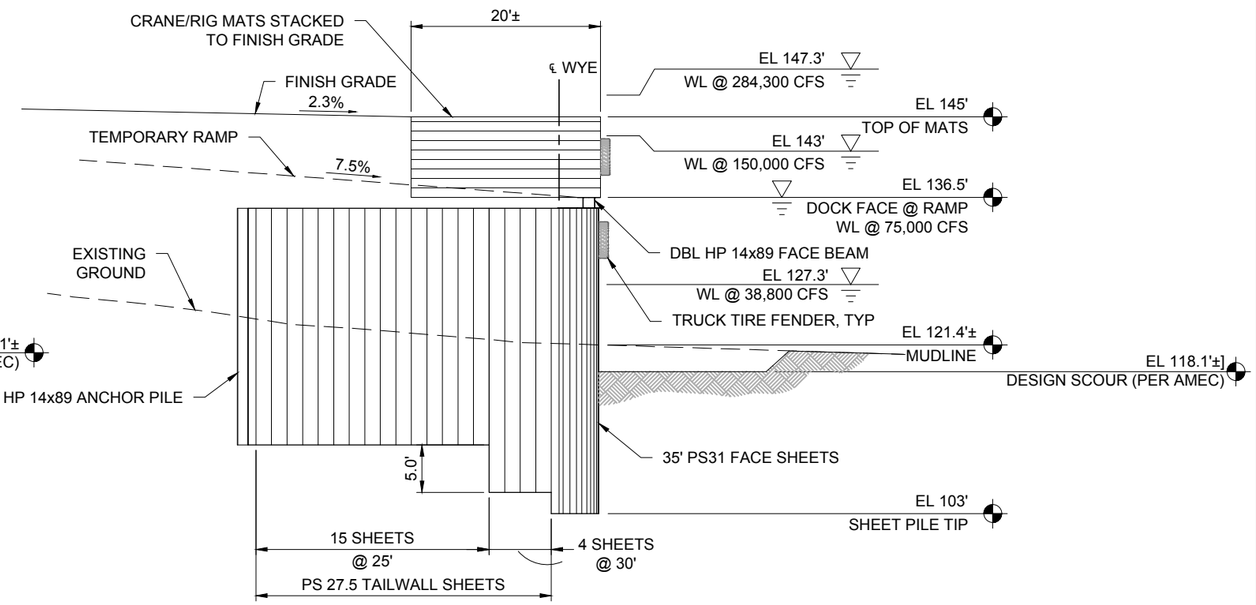
1. COORDINATE GRID IS UTM NAD 83 ZONE 4 IN METERS.
2. ALL CONTOUR ELEVATIONS AND COORDINATES ARE IN FEET UNLESS NOTED OTHERWISE.
3. CONTOUR INTERVAL IS 10' FOR UPLANDS AND 10' FOR BATHYMETRY.
4. BATHYMETRY BASED ON 2010 SURVEY BY TERRASOND.
5. ALL DESIGN ELEVATIONS AND DIMENSIONS ARE IN FEET.
6. TUG AND BARGES:
   - GENERAL CARGO BARGE (4 PER TOW), 150 ft X 44 ft
   - FUEL BARGE (4 PER TOW), 165 ft X 40 ft
   - TUG (1 PER TOW), 75 ft X 35 ft
7. TOTAL CONTAINER STORAGE = 1,000 TEU.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: JUNGJUK PORT SITE PLAN
01 Site Plan.dwg (PND) JUL 2015	NAD 1983 UTM Zone 4N	FIGURE NO. TA-301D1 / FILE NO. POA-1995-120
	SCALE: AS SHOWN / DATE: 10/2/2015	

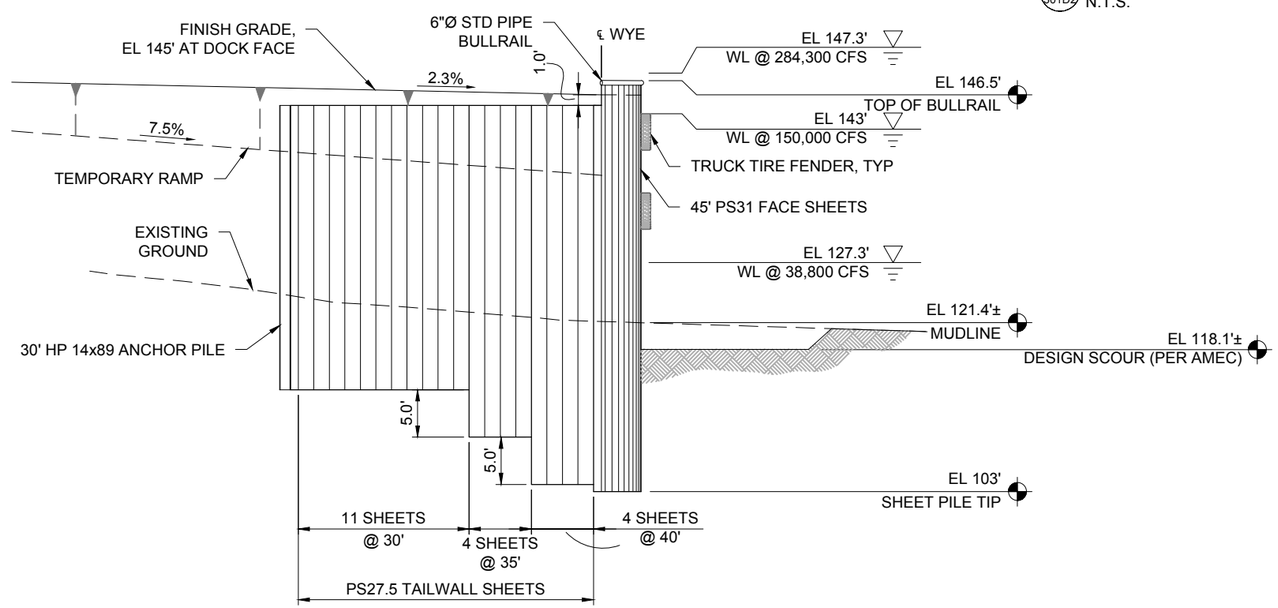
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Jungjuk_Port_ML_20150811.dwg



A 301D2 **TYPICAL TAILWALL SECTION**
N.T.S.



C 301D2 **TAILWALL SECTION @ RAMP**
N.T.S.



B 301D2 **TAILWALL SECTION ADJACENT TO RAMP**
N.T.S.

Associated Engineering Drawings
03 Tailwall Sections.dwg (PND) JUL 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

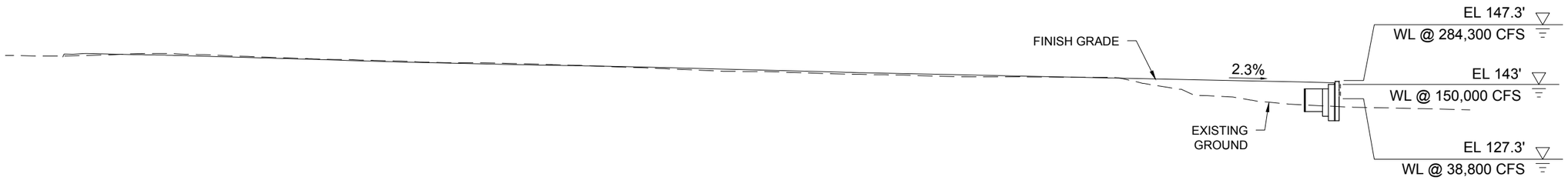
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN | DATE: 8/11/2015

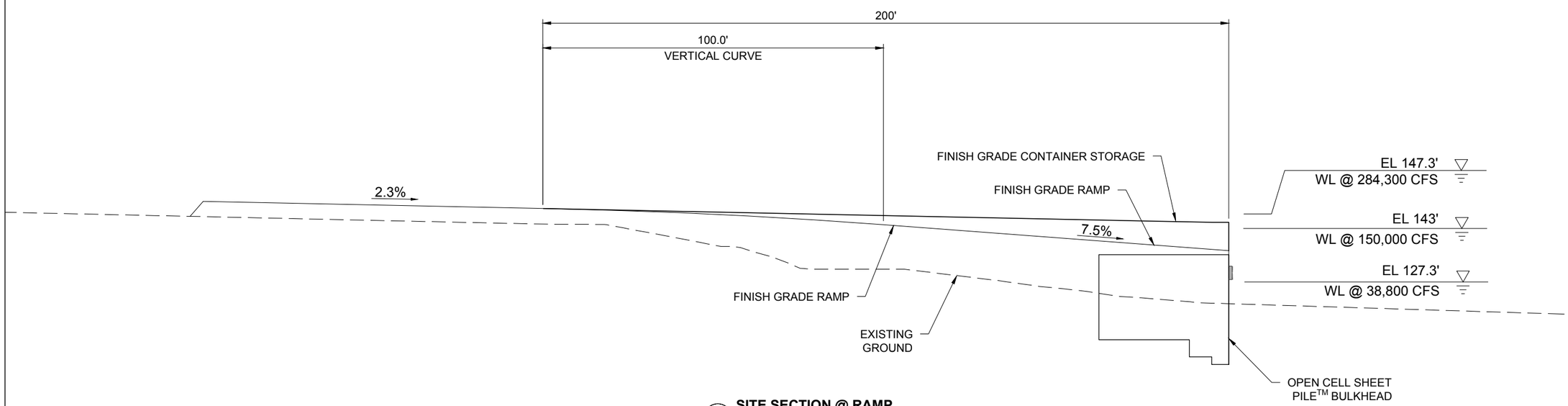
DRAWING TITLE:
JUNGJUK PORT TAILWALL SECTIONS

FIGURE NO. **TA-301D2** | FILE NO. **POA-1995-120**

PATH: C:\Users\mtengrewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Tailwall_Sec_Mt_20150811.dwg



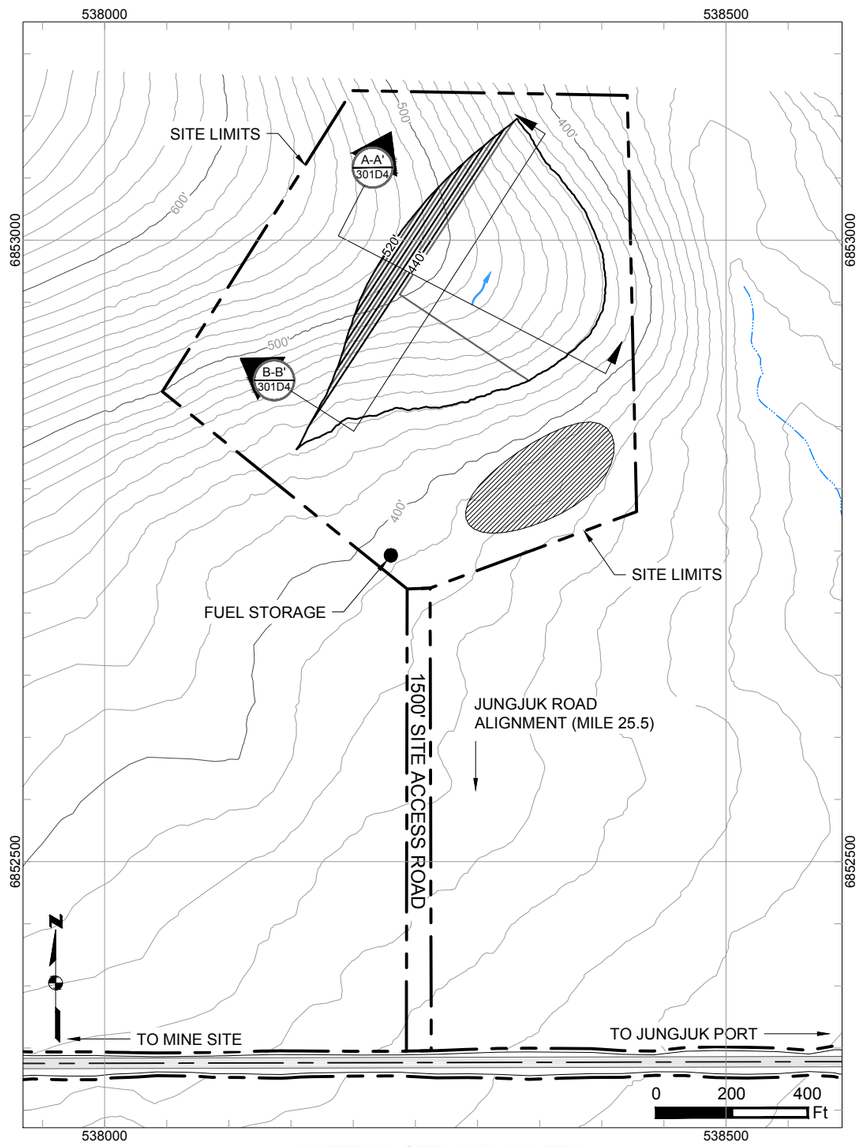
A-A' 301D3 **SITE SECTION**
N.T.S.



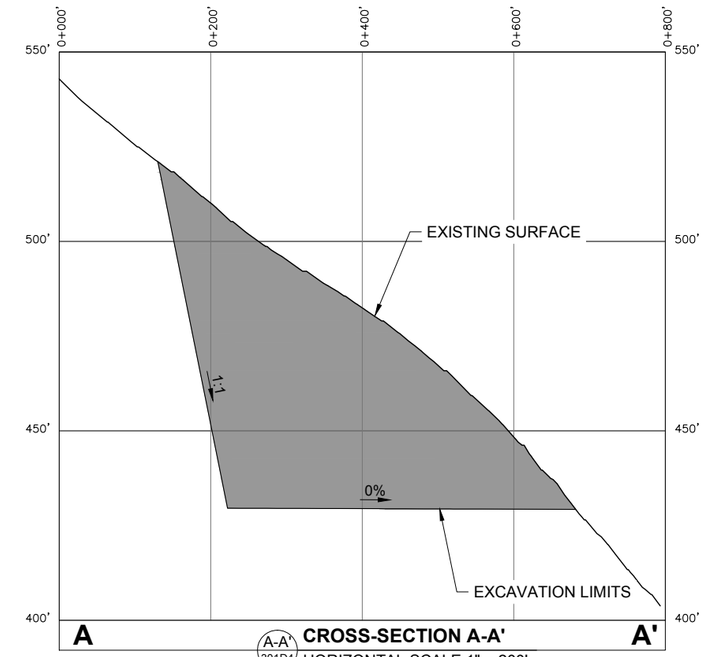
B-B' 301D3 **SITE SECTION @ RAMP**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
04 Site Sections.dwg (PND) JUL 2015	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**JUNGJUK PORT SITE SECTIONS**
	NAD 1983 UTM Zone 4N	FIGURE NO. **TA-301D3** / FILE NO. **POA-1995-120**
	SCALE: AS SHOWN / DATE: 8/11/2015	

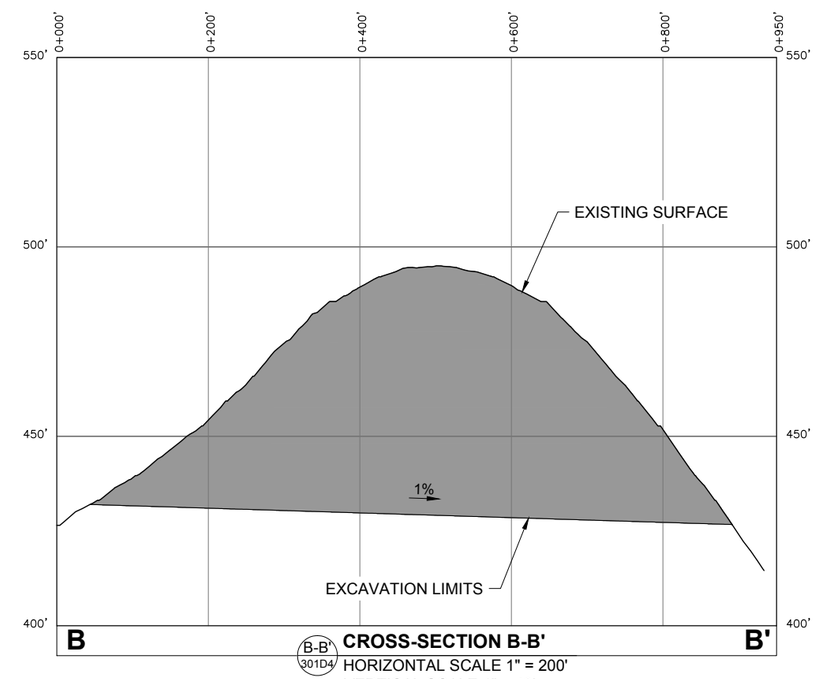
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Port_Site_Sec_ML_20150811.dwg



MATERIAL SITE 16 PLAN VIEW
SCALE 1" = 400'



A-A' 301D4 **CROSS-SECTION A-A'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'



B-B' 301D4 **CROSS-SECTION B-B'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'

Existing 10' Contours
550' Existing 50' Contours
Proposed 10' Contours
550' Proposed 20' Contours
Cut Area
Proposed Drainage Direction
Overburden And Growth Media Stockpile
Temporary Fuel Storage

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITE 16 LAYOUT AND SECTIONS
FIGURE NO. TA-301D4
FILE NO. POA-1995-120

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites_ML_20150811.dwg

To Mine

Unnamed stream Culvert, 600mm (24in.) dia.

Unnamed stream Culvert, 900mm (36in.) dia.

12-FSA
FSA Material Site 13

Unnamed stream Culvert, 760mm (30in.) dia.

Unnamed stream Culvert, 900mm (36in.) dia.

MP- 6

Unnamed stream Culvert, 900mm (36in.) dia.

State-Owned, Tentatively Approved (TA) or Patented Land

MP- 5

6-FSA
Lower Jungjuk- Donlin Road (Bridge at Milepost 3.3) - Upper Jungjuk

Jungjuk Creek

MP- 4

Unnamed stream Culvert, 900mm (36in.) dia.

Unnamed stream Culvert, 900mm (36in.) dia.

Unnamed stream Culvert, 1200mm (48in.) dia.

To Port

5-FSA
Lower Jungjuk-Donlin Road (Bridge at Milepost 2.6) - Lower Jungjuk

14 15 16 17 20 21 22 23 26 27 28 29

Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

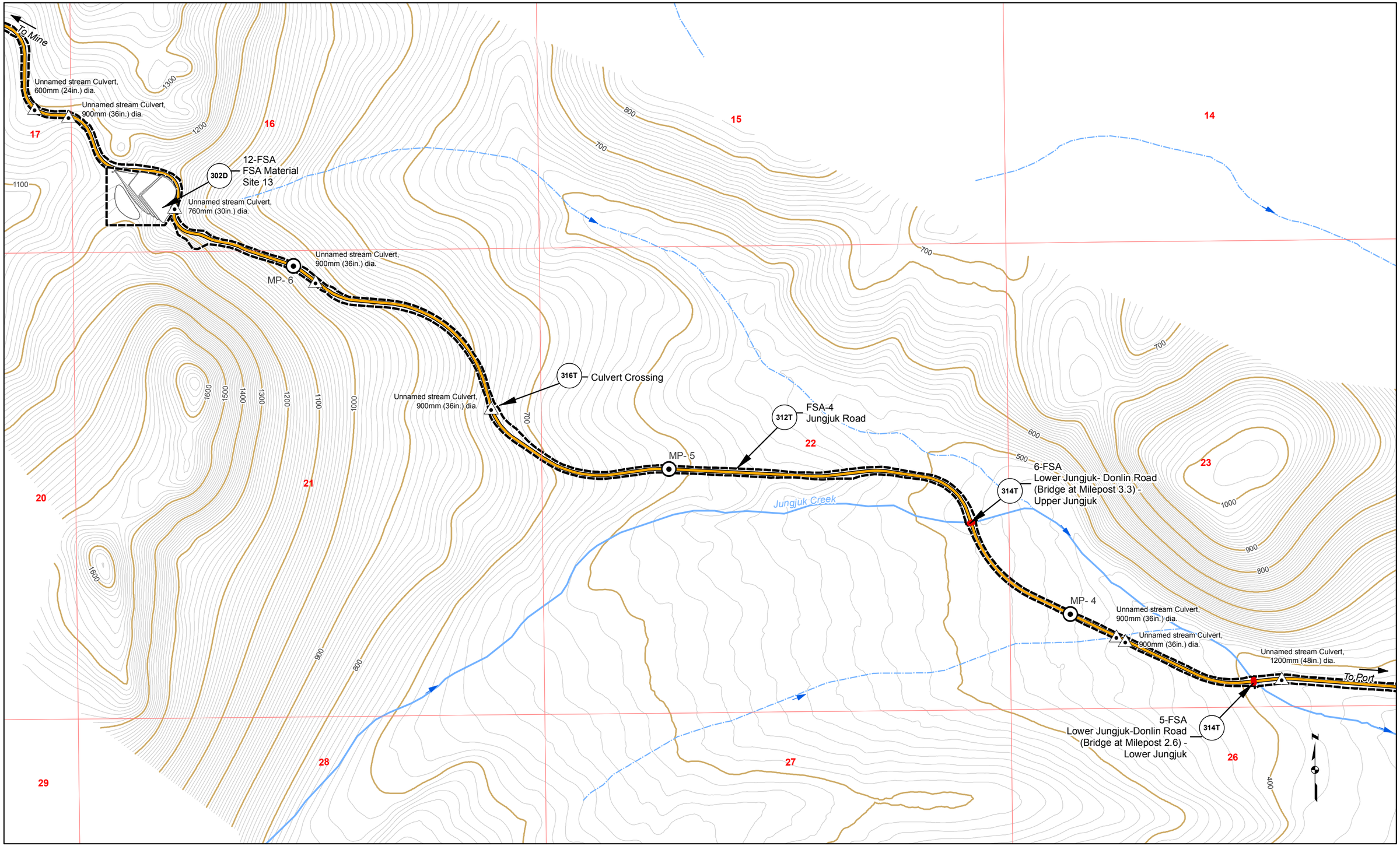
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-302A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A1TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

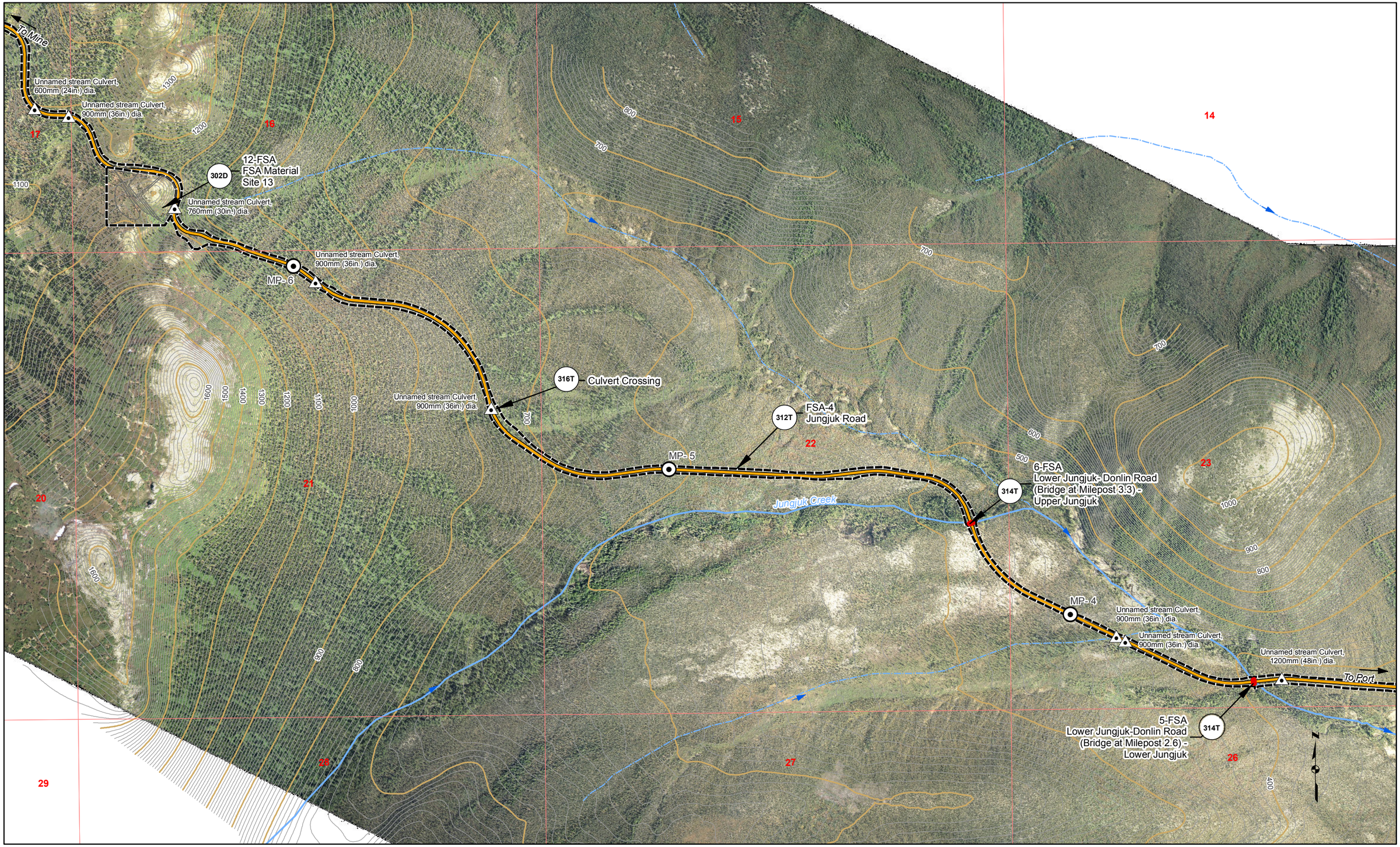
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-302B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

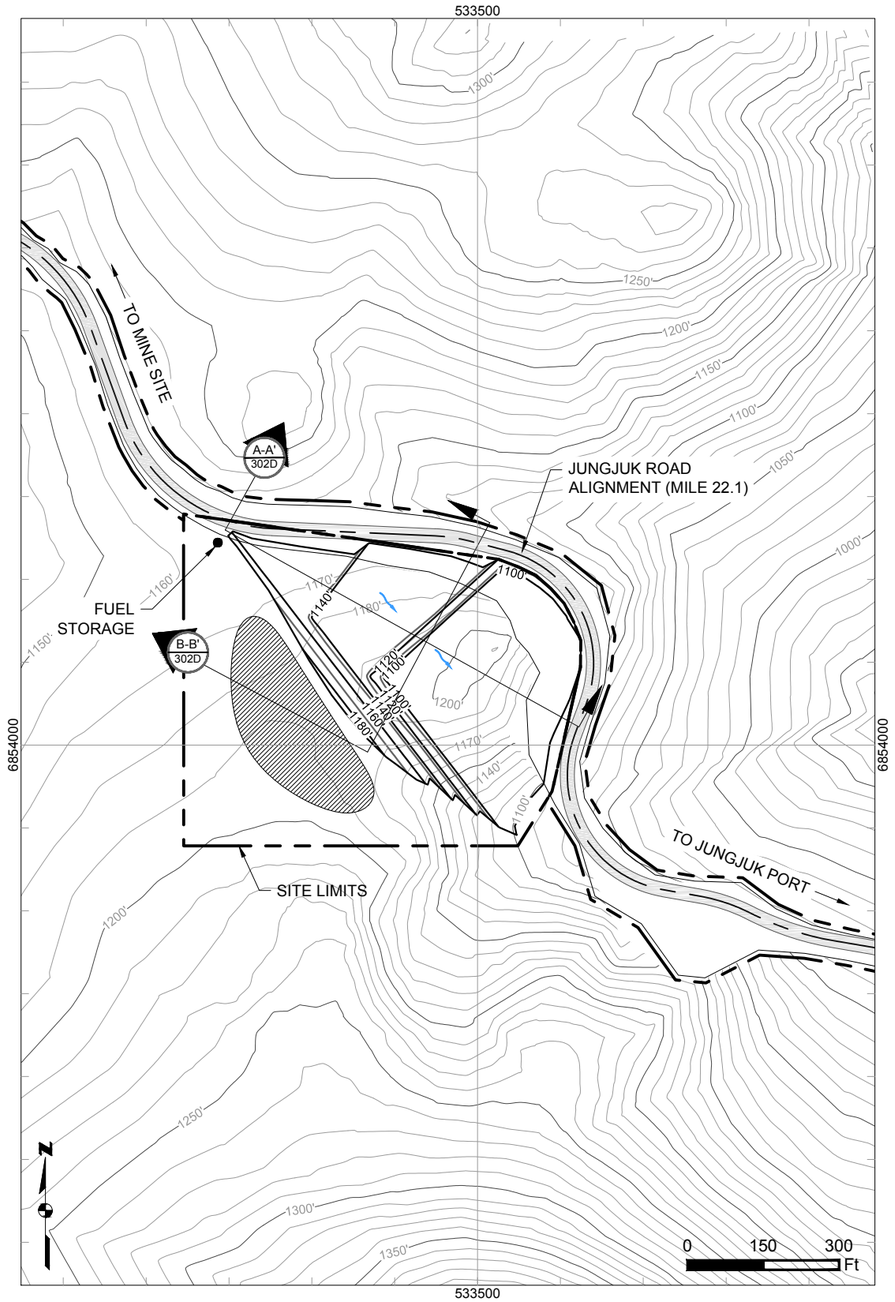
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-302C**

FILE NO. **POA-1995-120**

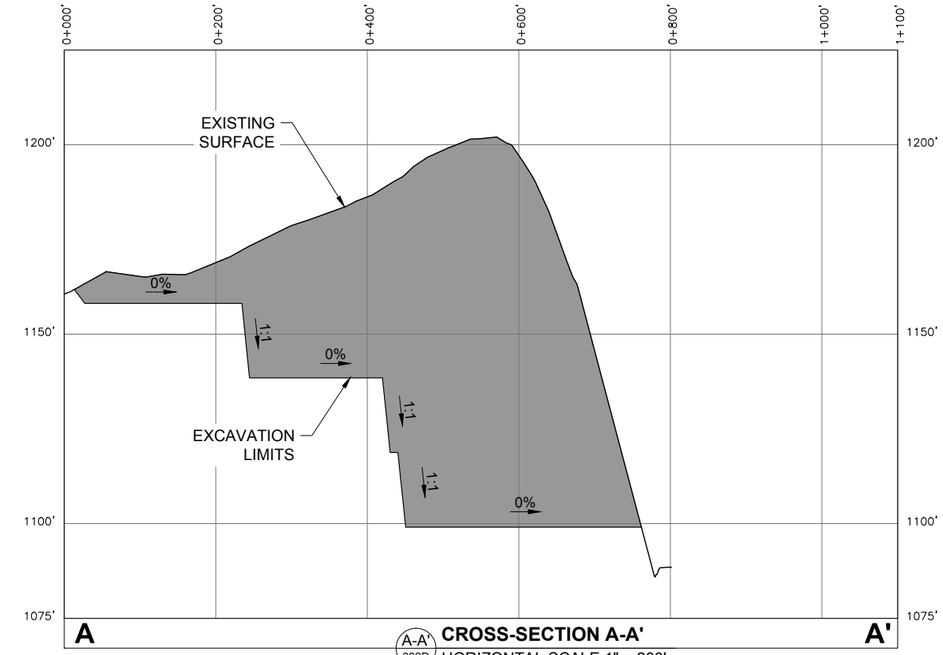
PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



MATERIAL SITE 13 PLAN VIEW

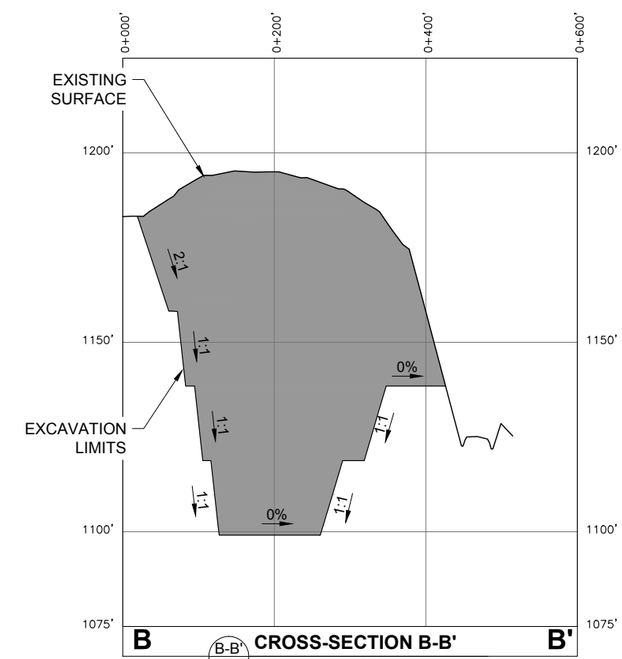
SCALE 1" = 300'



A-A' 302D **CROSS-SECTION A-A'**

HORIZONTAL SCALE 1" = 200'

VERTICAL SCALE 1" = 40'



B-B' 302D **CROSS-SECTION B-B'**

HORIZONTAL SCALE 1" = 200'

VERTICAL SCALE 1" = 40'

Existing 10' Contours	Cut Area		
550' Existing 50' Contours	Proposed Drainage Direction		
Proposed 10' Contours	Overburden And Growth Media Stockpile		
550' Proposed 20' Contours	Temporary Fuel Storage		

Associated Engineering Drawings

Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

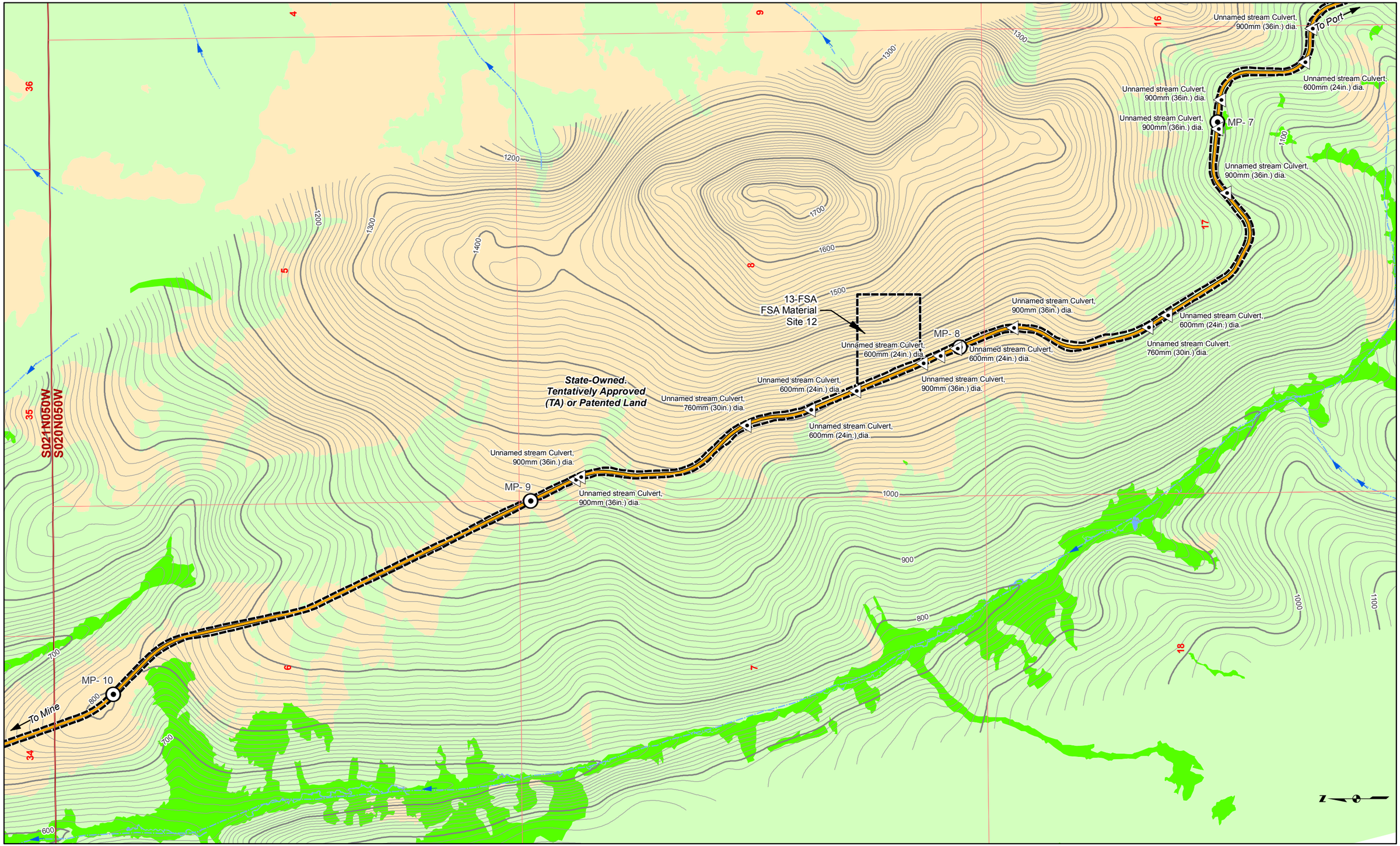
SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITE 13 LAYOUT AND SECTIONS

FIGURE NO. **TA-302D**

FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\!Donlin\181202_010_mapping_404_support\revision_a\1A_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

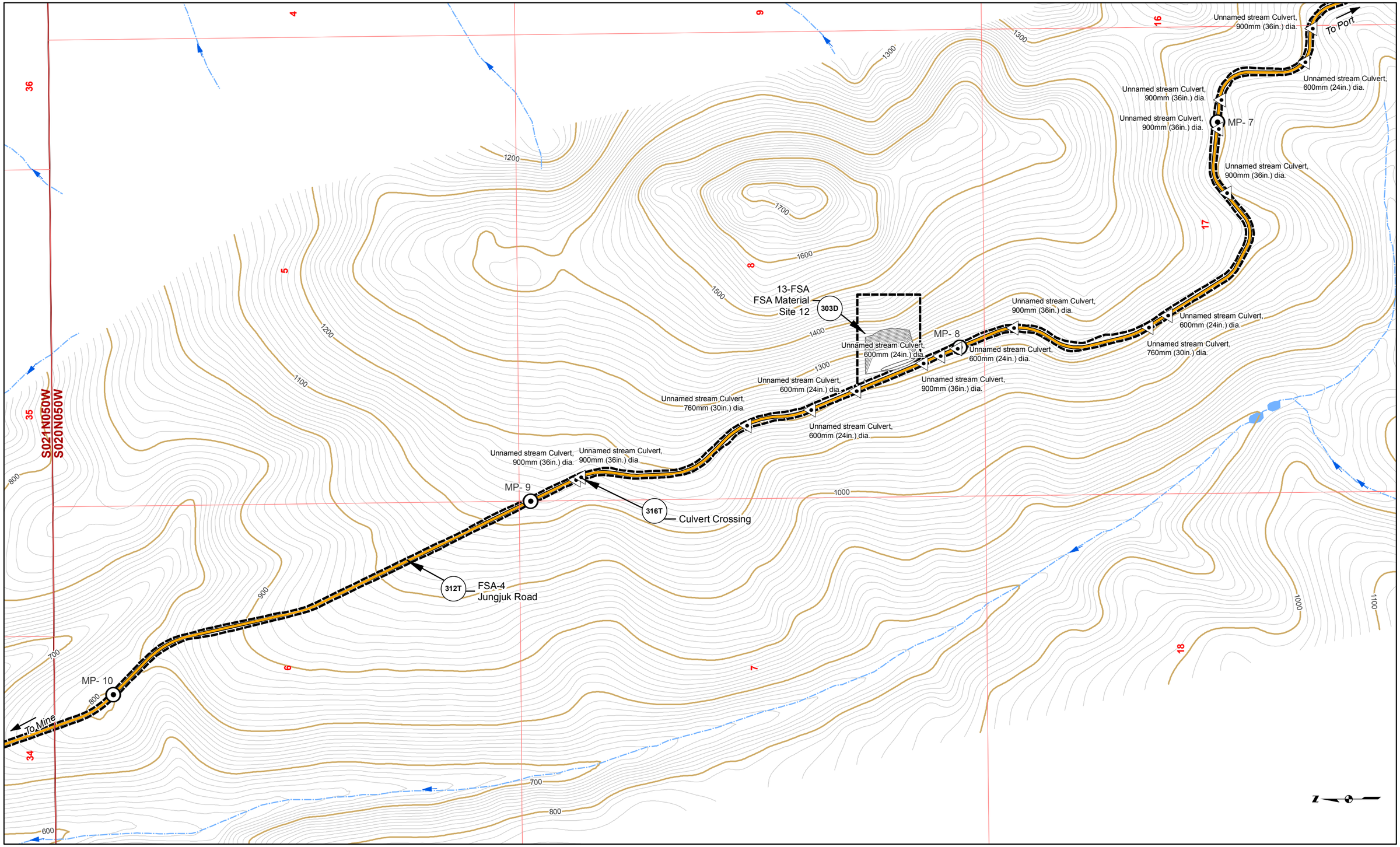
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-303A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_9XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

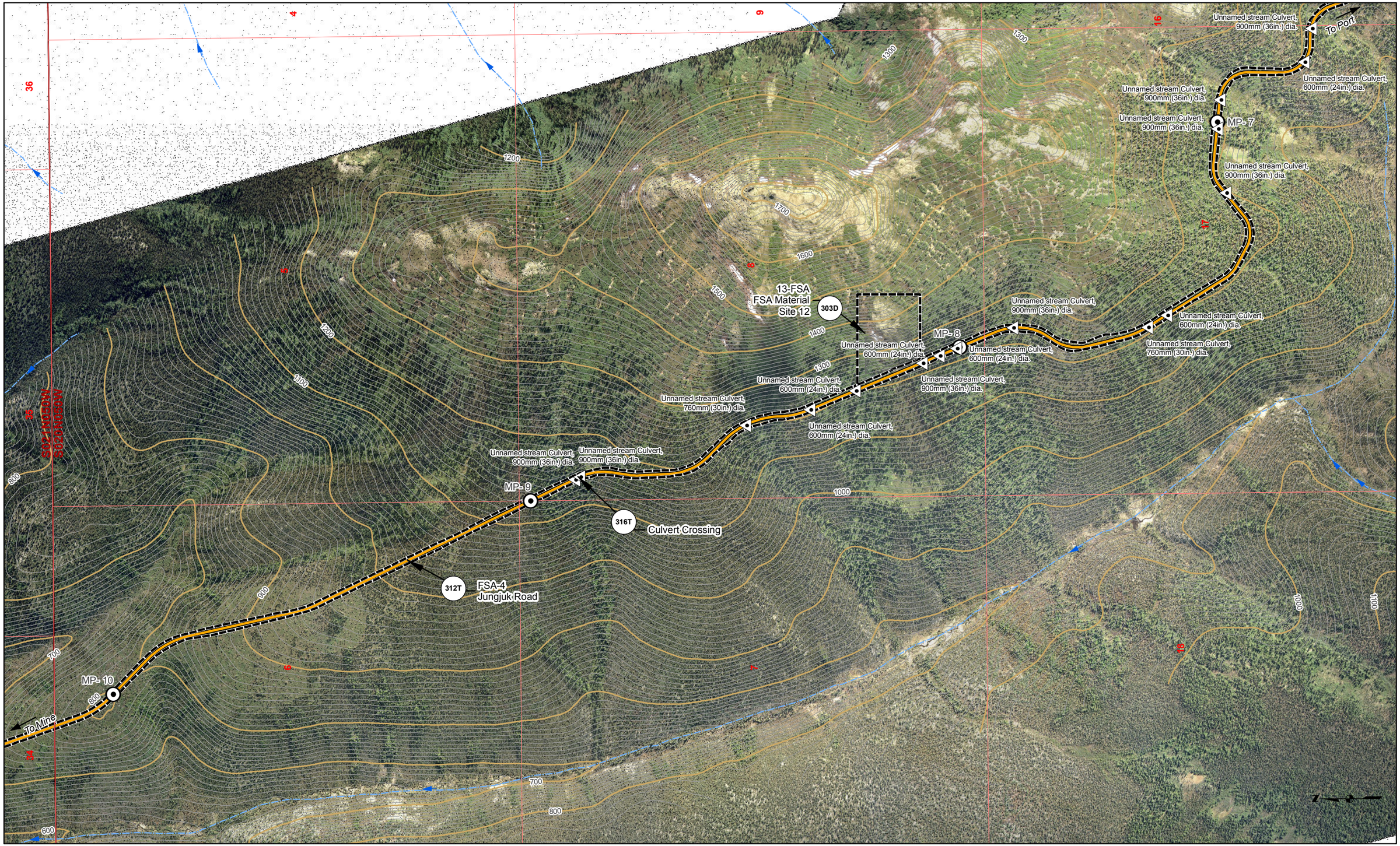
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-303B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost	Bridge	10' Contour	Cross Section
Proposed Jungjuk Road	Project Disturbance Limit	100' Contour	Powerline
	Culvert	Stream Flow Direction	
Unnamed River/Stream	Named River/Stream	Figure Detail Reference	

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

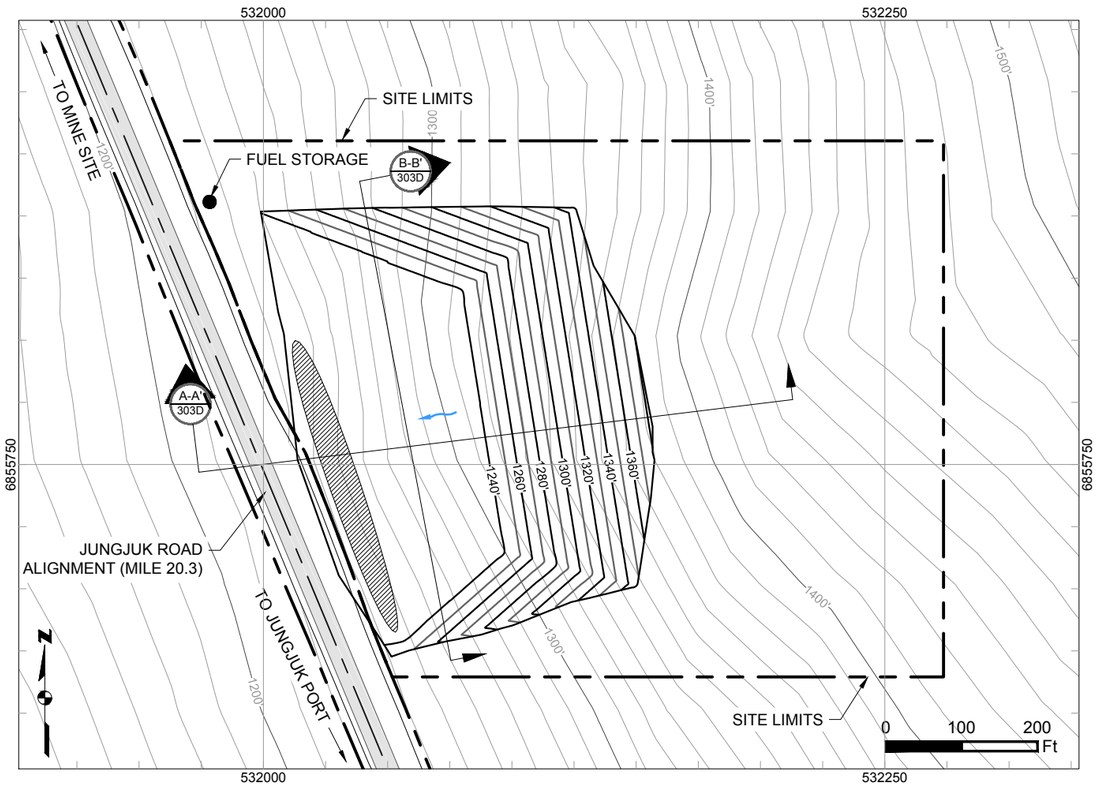
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-303C**

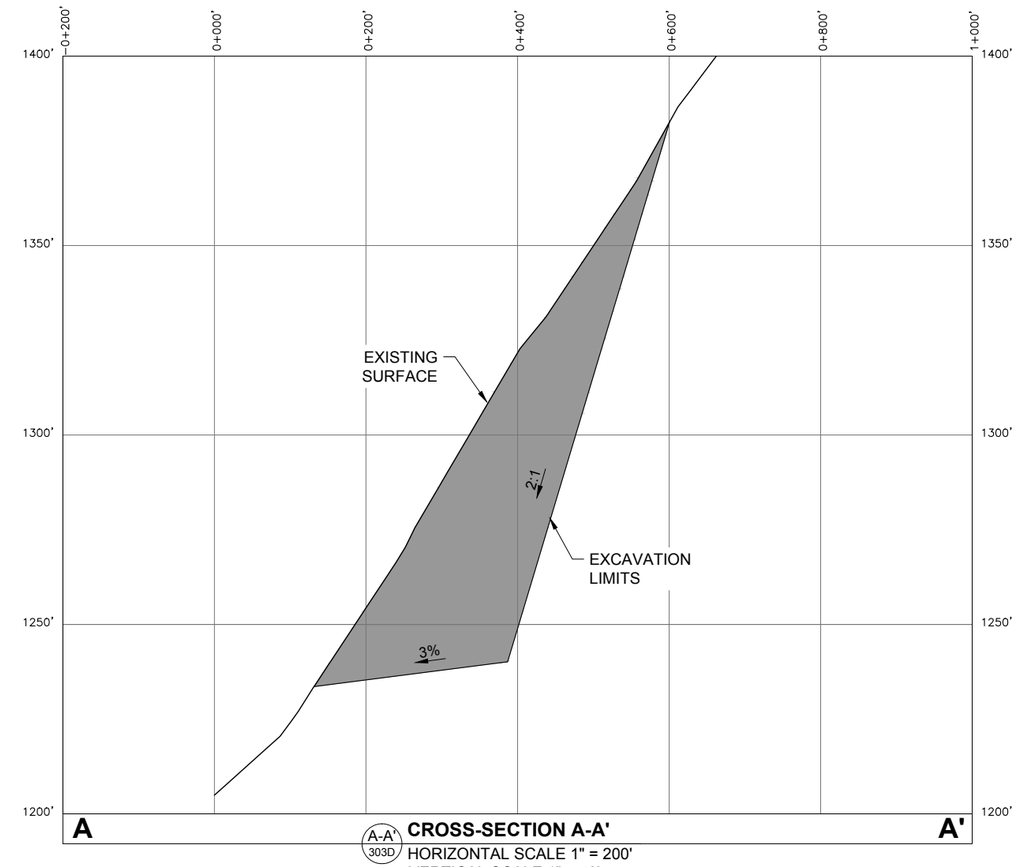
FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20150812.mxd

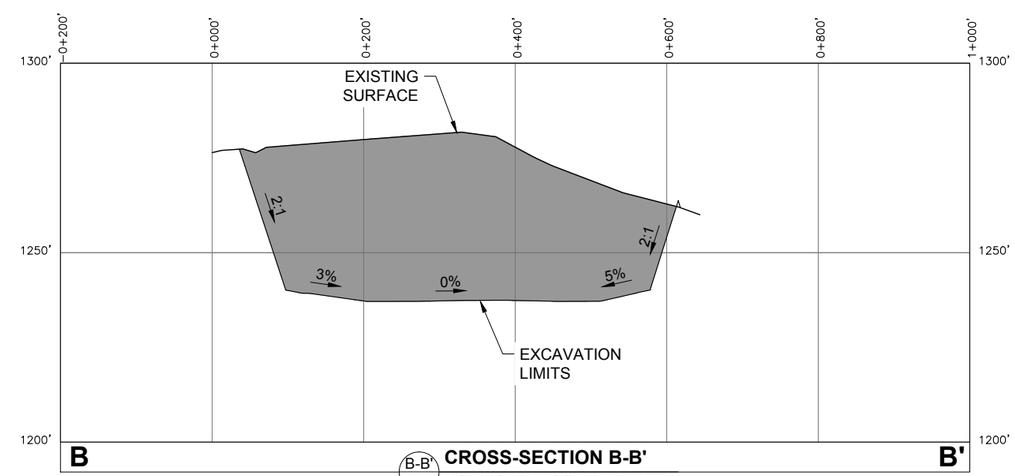
Basemap Source: Sources: Esri, USGS, NOAA



MATERIAL SITE 12 PLAN VIEW
SCALE 1" = 200'



A-A' 303D **CROSS-SECTION A-A'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'



B-B' 303D **CROSS-SECTION B-B'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'

Existing 10' Contours	Cut Area
550' Existing 50' Contours	Proposed Drainage Direction
Proposed 10' Contours	Overburden And Growth Media Stockpile
550' Proposed 20' Contours	Temporary Fuel Storage

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

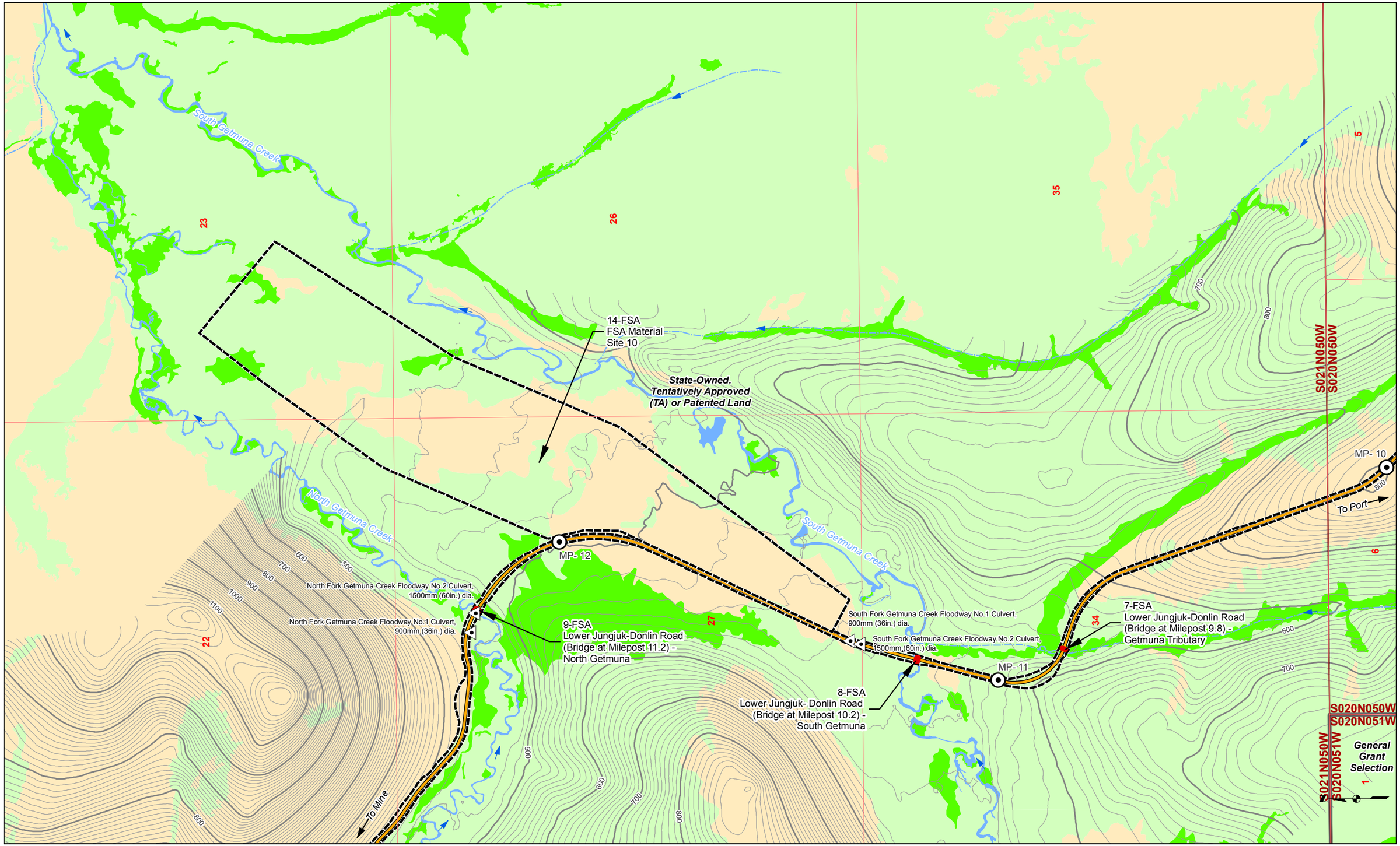
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITE 12 LAYOUT AND SECTIONS

FIGURE NO. **TA-303D**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet
DATE: 8/12/2015

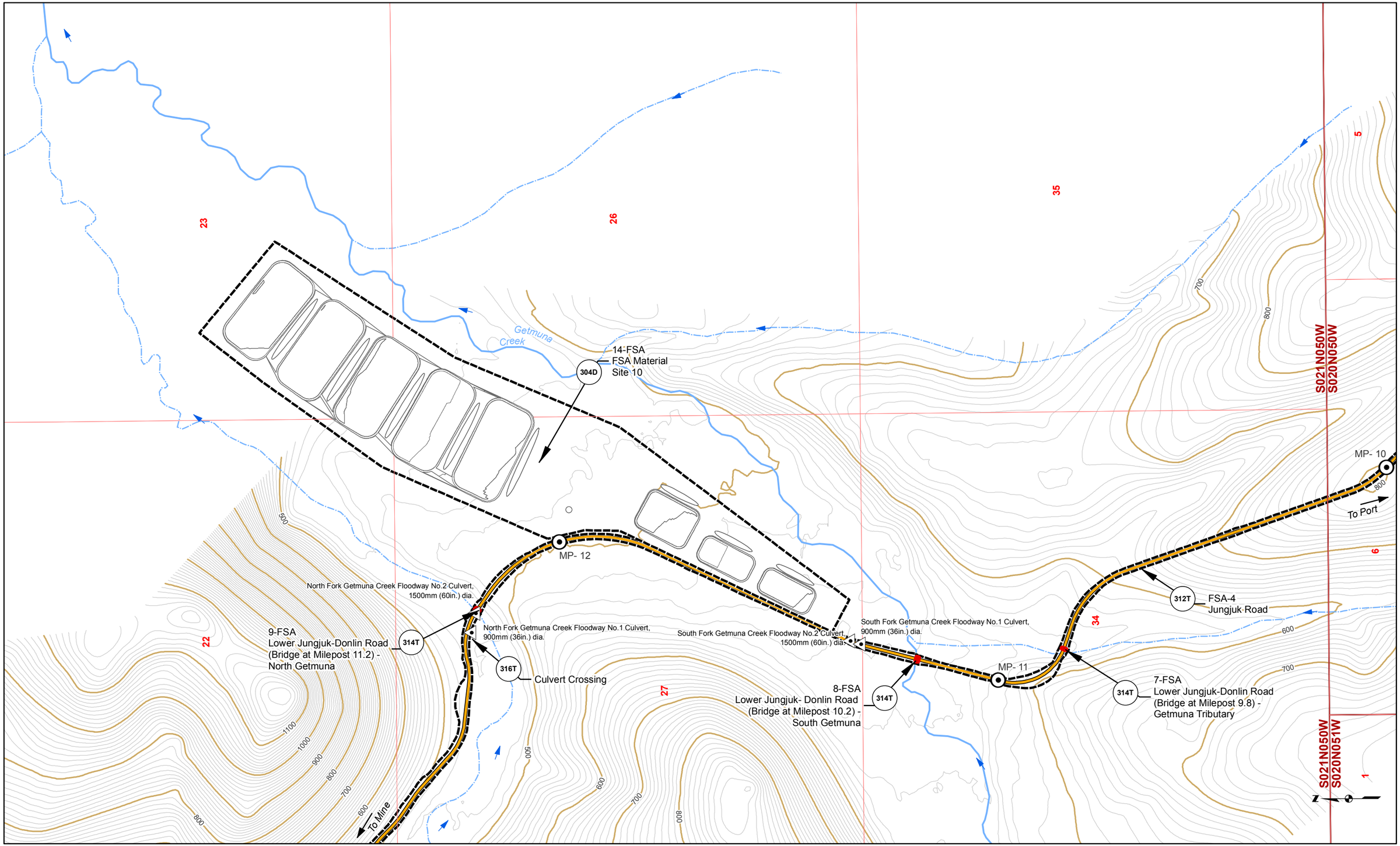
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-304A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A1TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

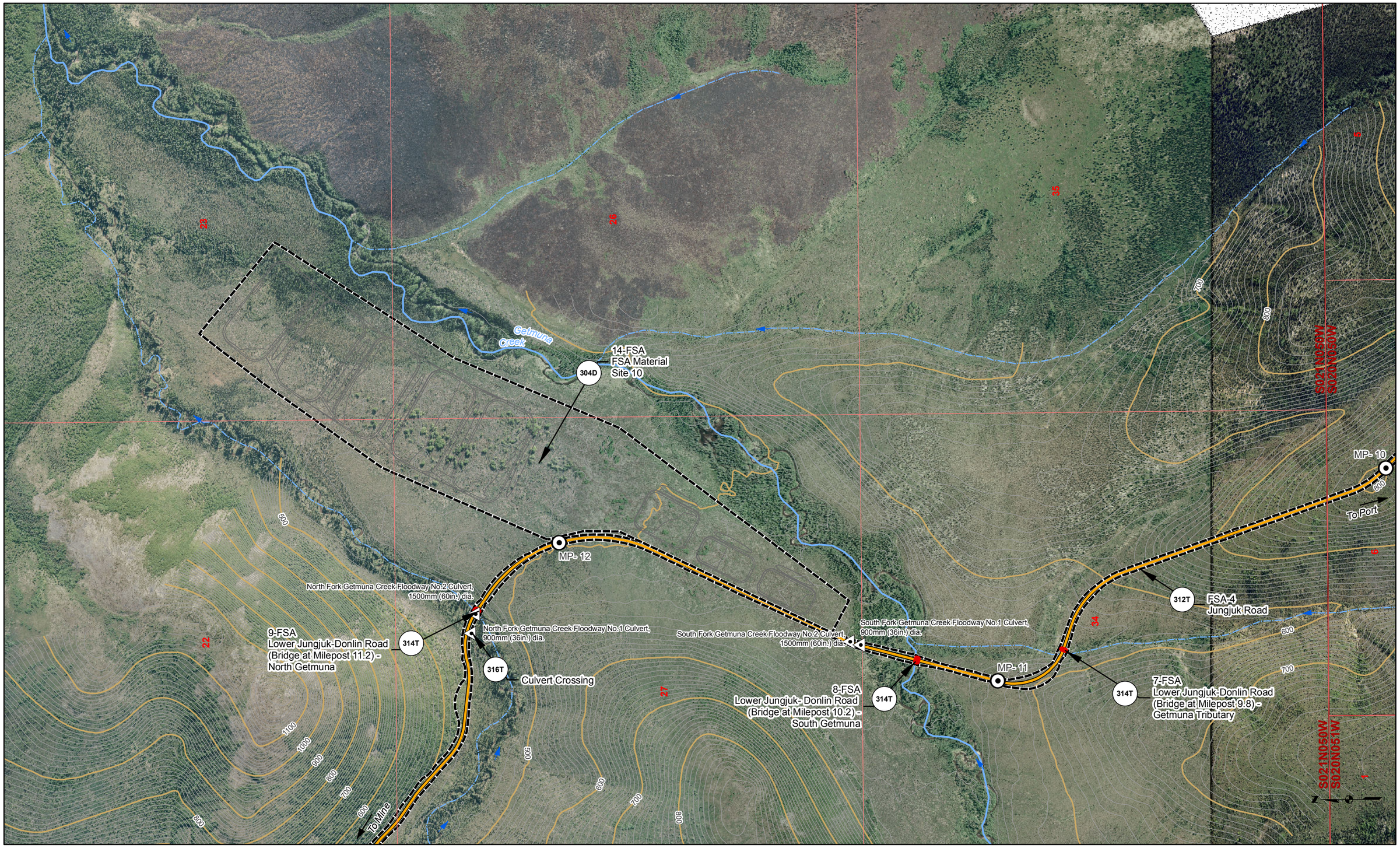
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-304B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

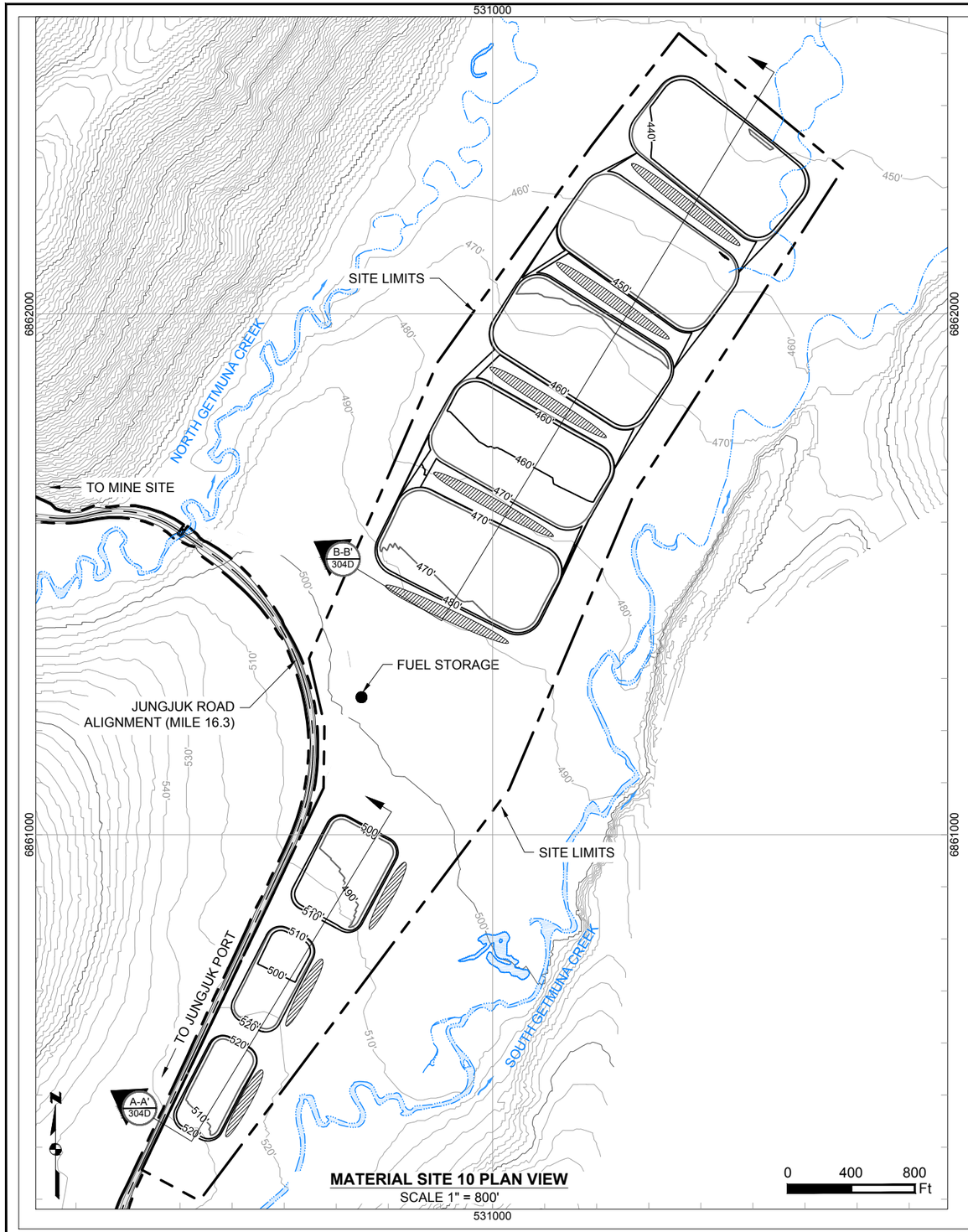
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-304C**

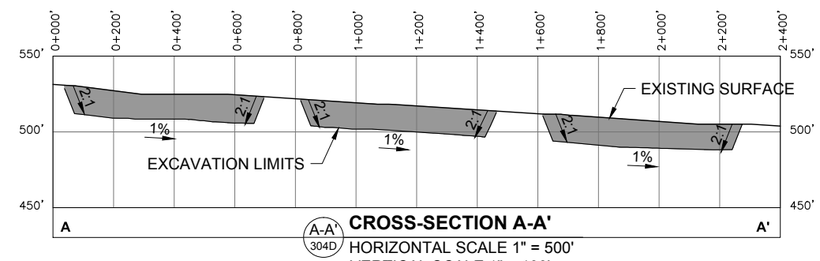
FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A1TA_3XXC_Road_MB_ABR_20150812.mxd

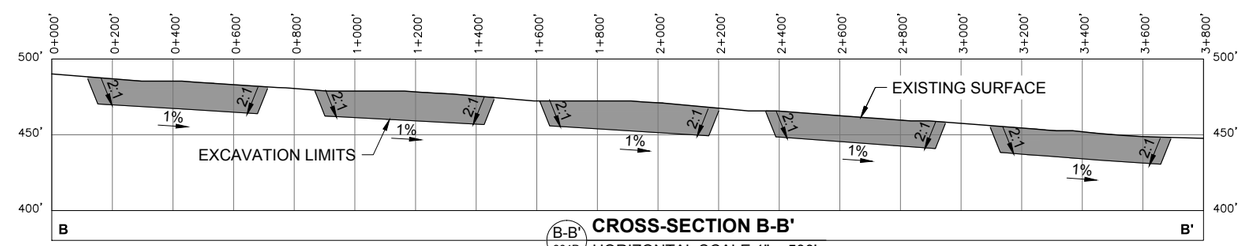
Basemap Source: Sources: Esri, USGS, NOAA



MATERIAL SITE 10 PLAN VIEW
SCALE 1" = 800'



CROSS-SECTION A-A'
A-A' 304D
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'



CROSS-SECTION B-B'
B-B' 304D
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

Existing 10' Contours	Cut Area		
550' Existing 50' Contours	Proposed Drainage Direction		
Proposed 10' Contours	Overburden And Growth Media Stockpile		
550' Proposed 20' Contours	Temporary Fuel Storage		

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

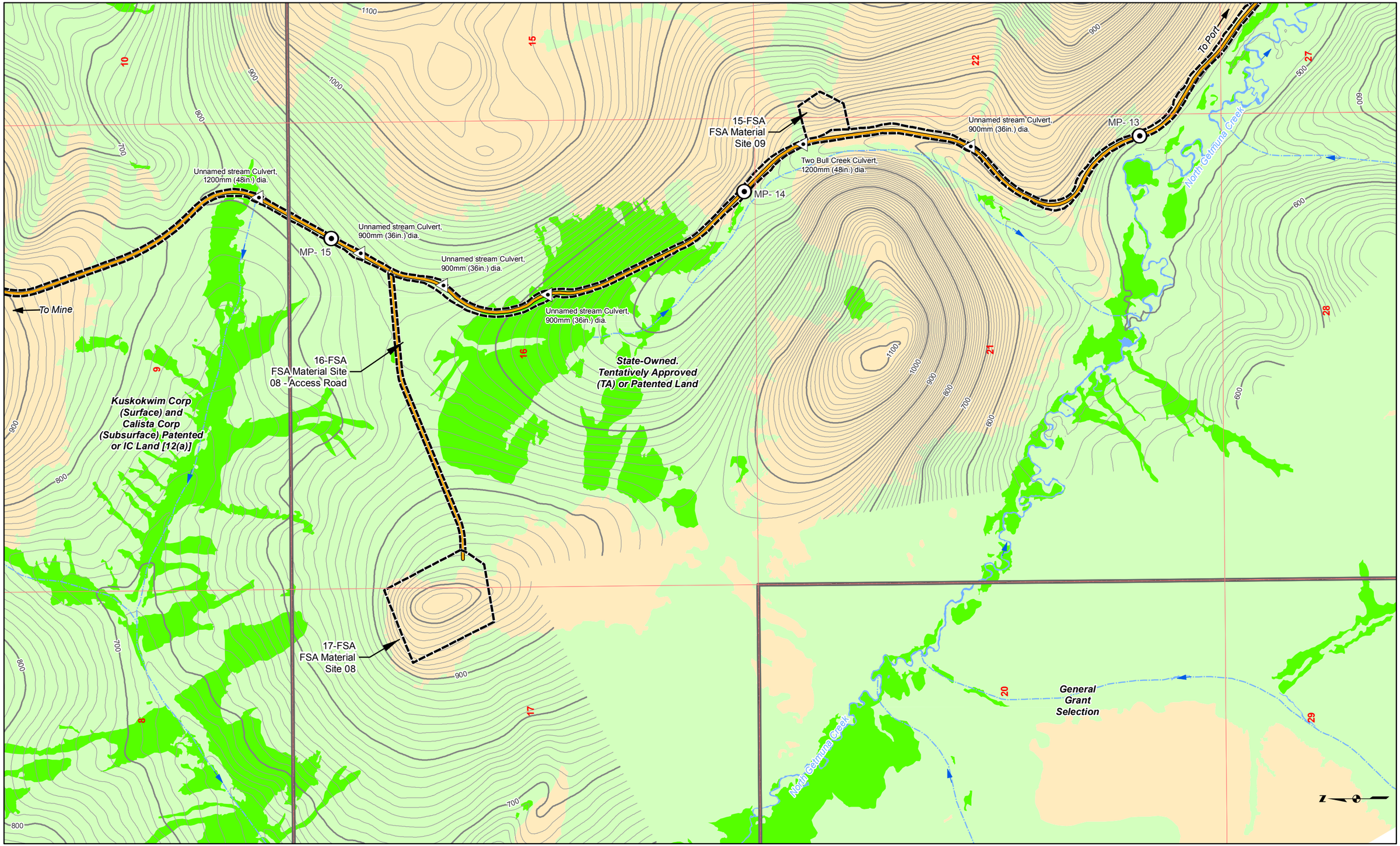
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN | DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITE 10 LAYOUT AND SECTIONS

FIGURE NO. **TA-304D**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

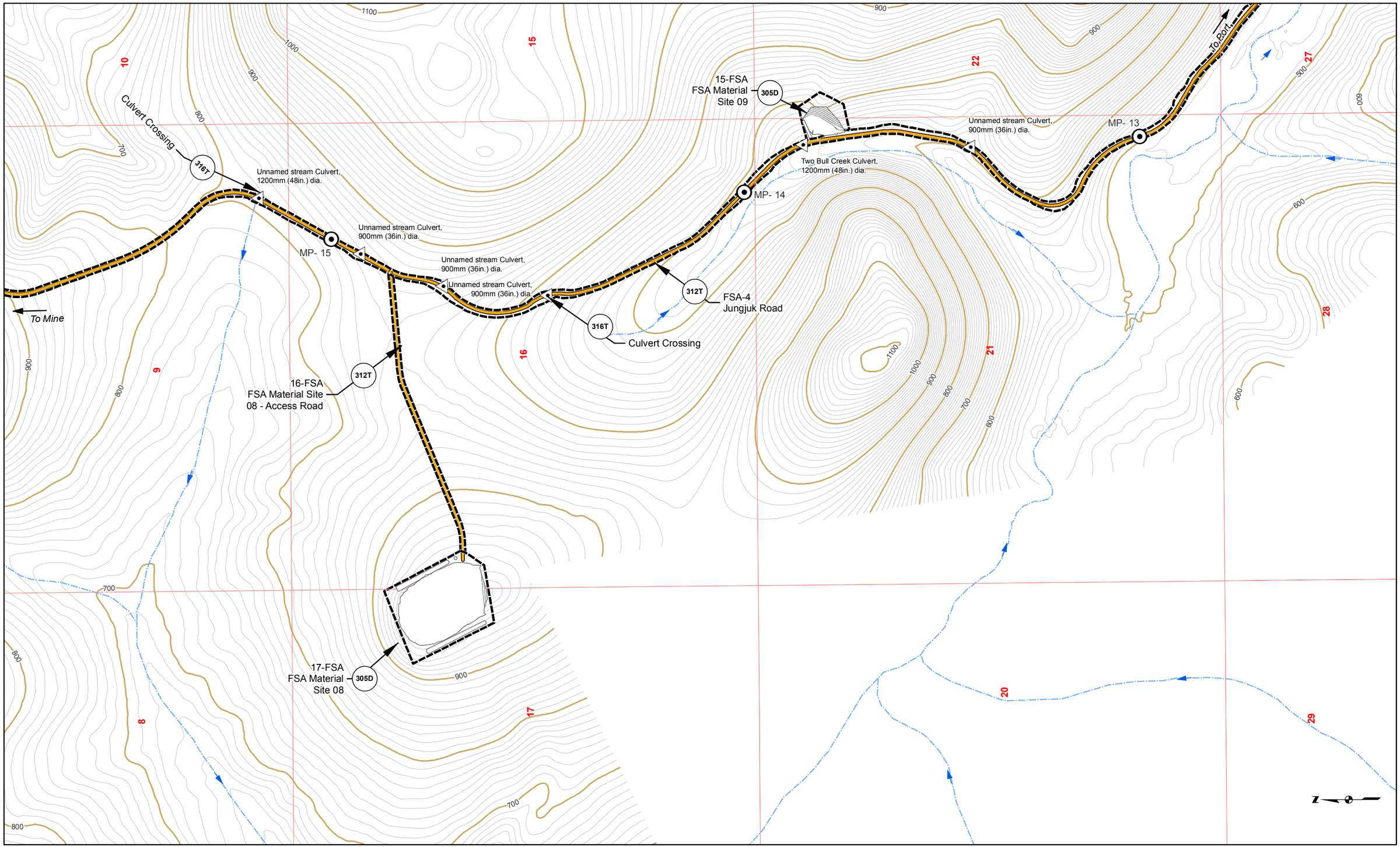
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-305A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

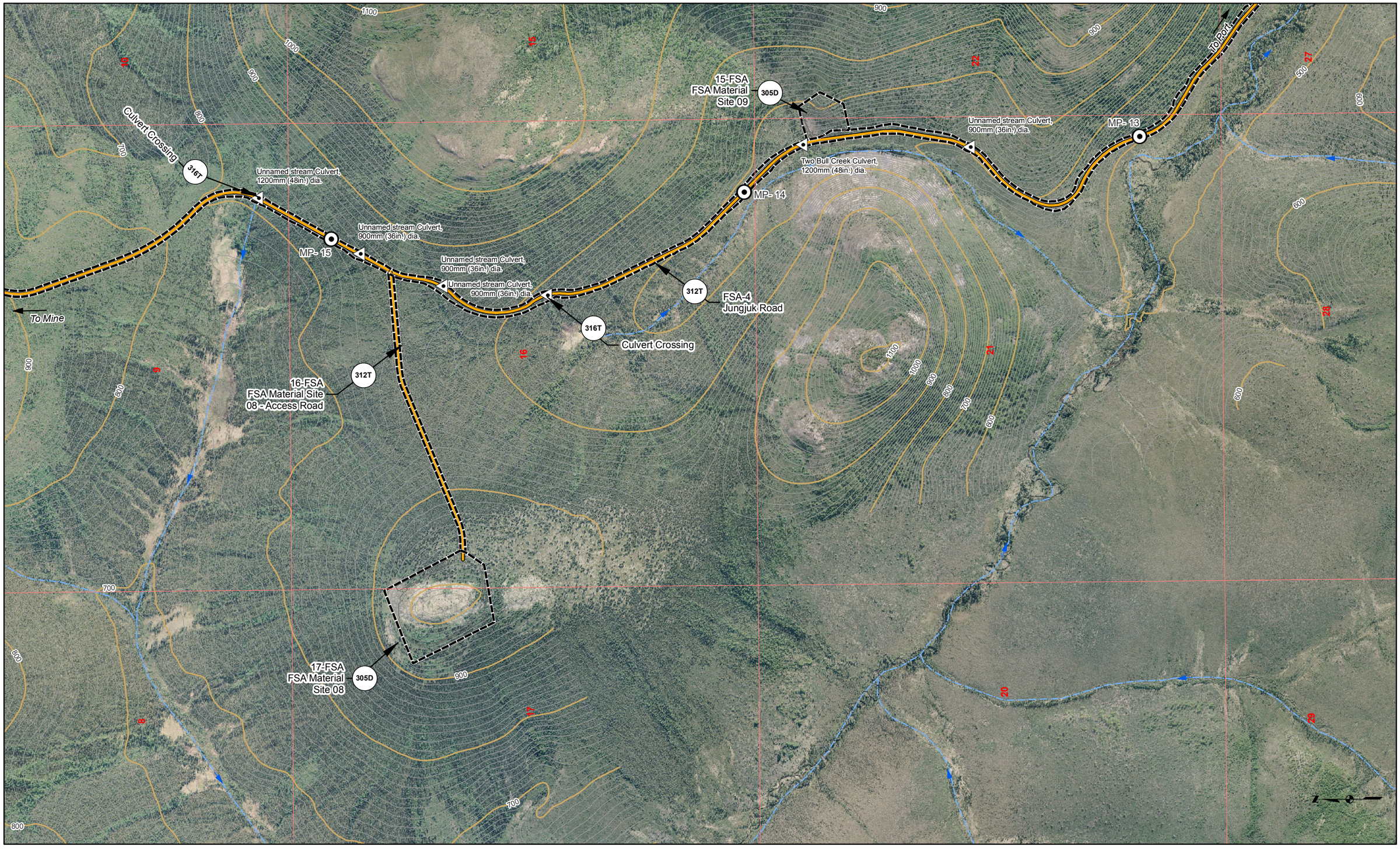
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-305B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

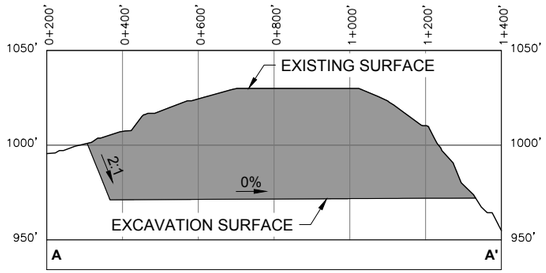
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-305C**

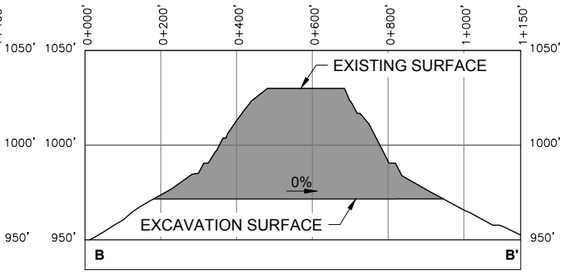
FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_5XXC_Road_MB_ABR_20150812.mxd

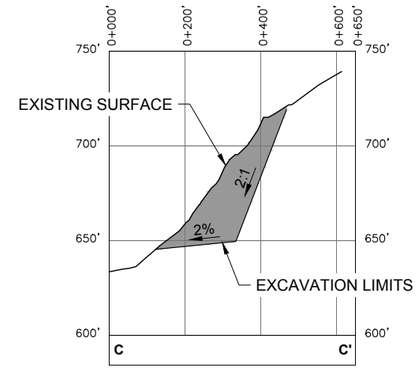
Basemap Source: Sources: Esri, USGS, NOAA



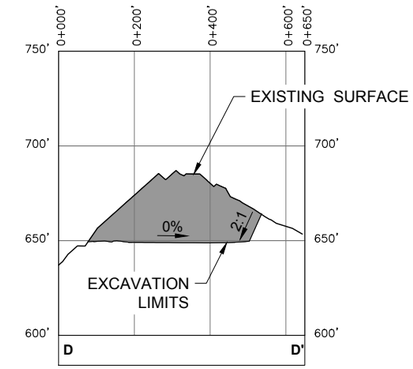
A-A' 305D CROSS-SECTION A-A'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



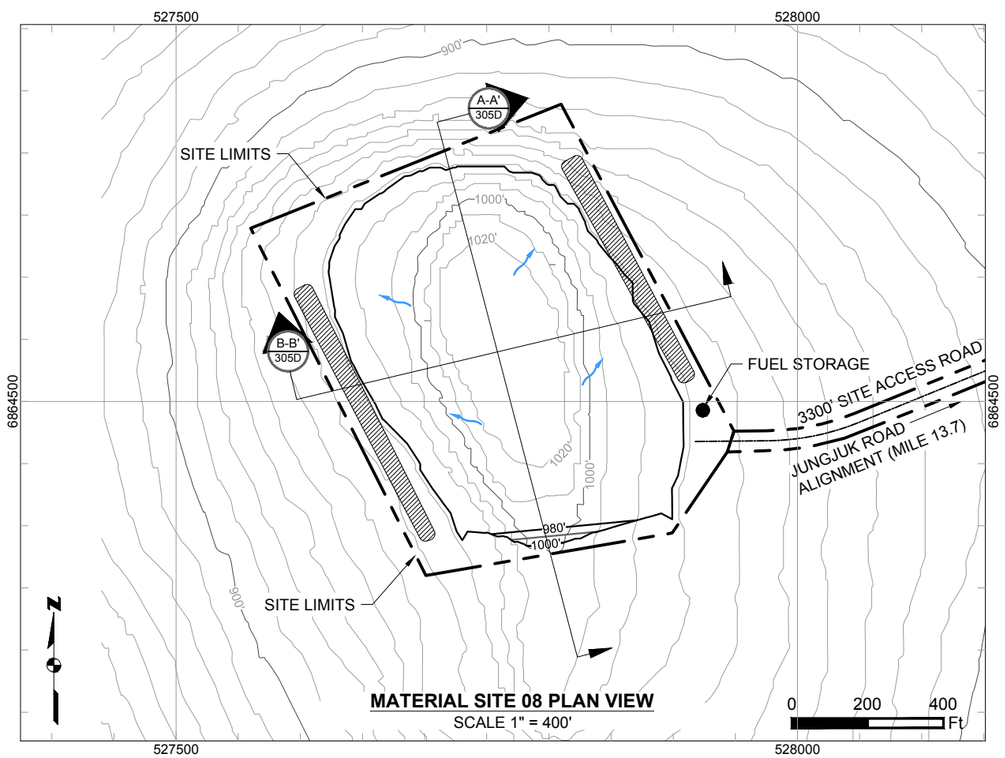
B-B' 305D CROSS-SECTION B-B'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



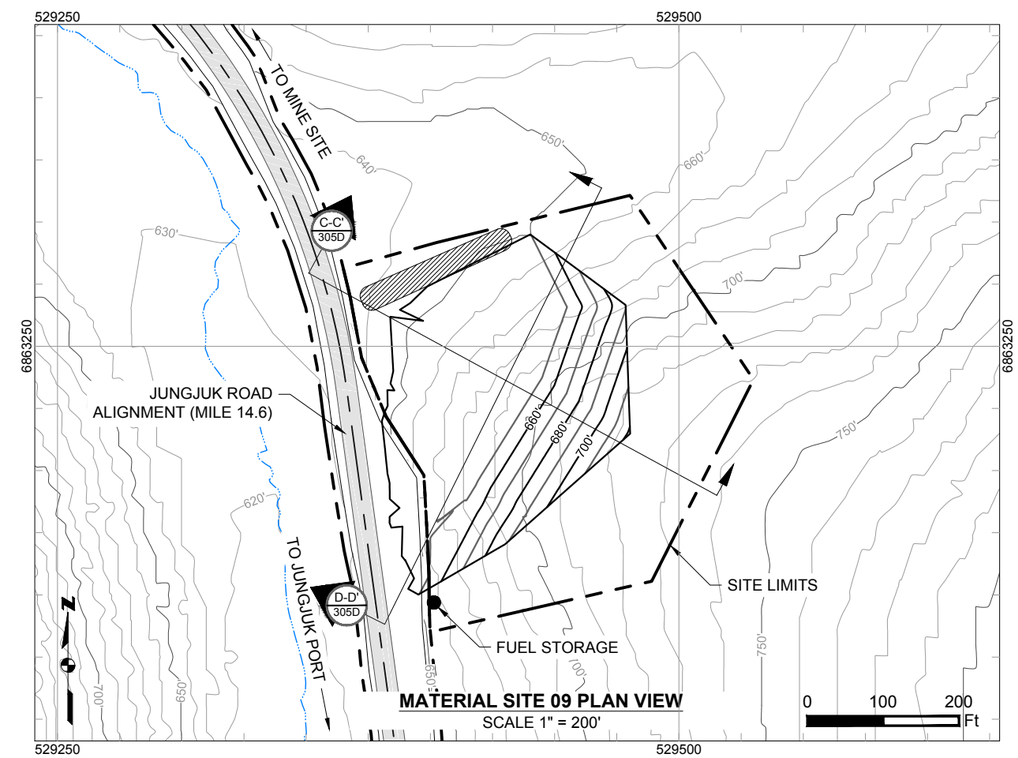
C-C' 305D CROSS-SECTION C-C'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



D-D' 305D CROSS-SECTION D-D'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



MATERIAL SITE 08 PLAN VIEW
SCALE 1" = 400'



MATERIAL SITE 09 PLAN VIEW
SCALE 1" = 200'

Existing 10' Contours	Cut Area
550' Existing 50' Contours	Proposed Drainage Direction
Proposed 10' Contours	Overburden And Growth Media Stockpile
550' Proposed 20' Contours	Temporary Fuel Storage

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

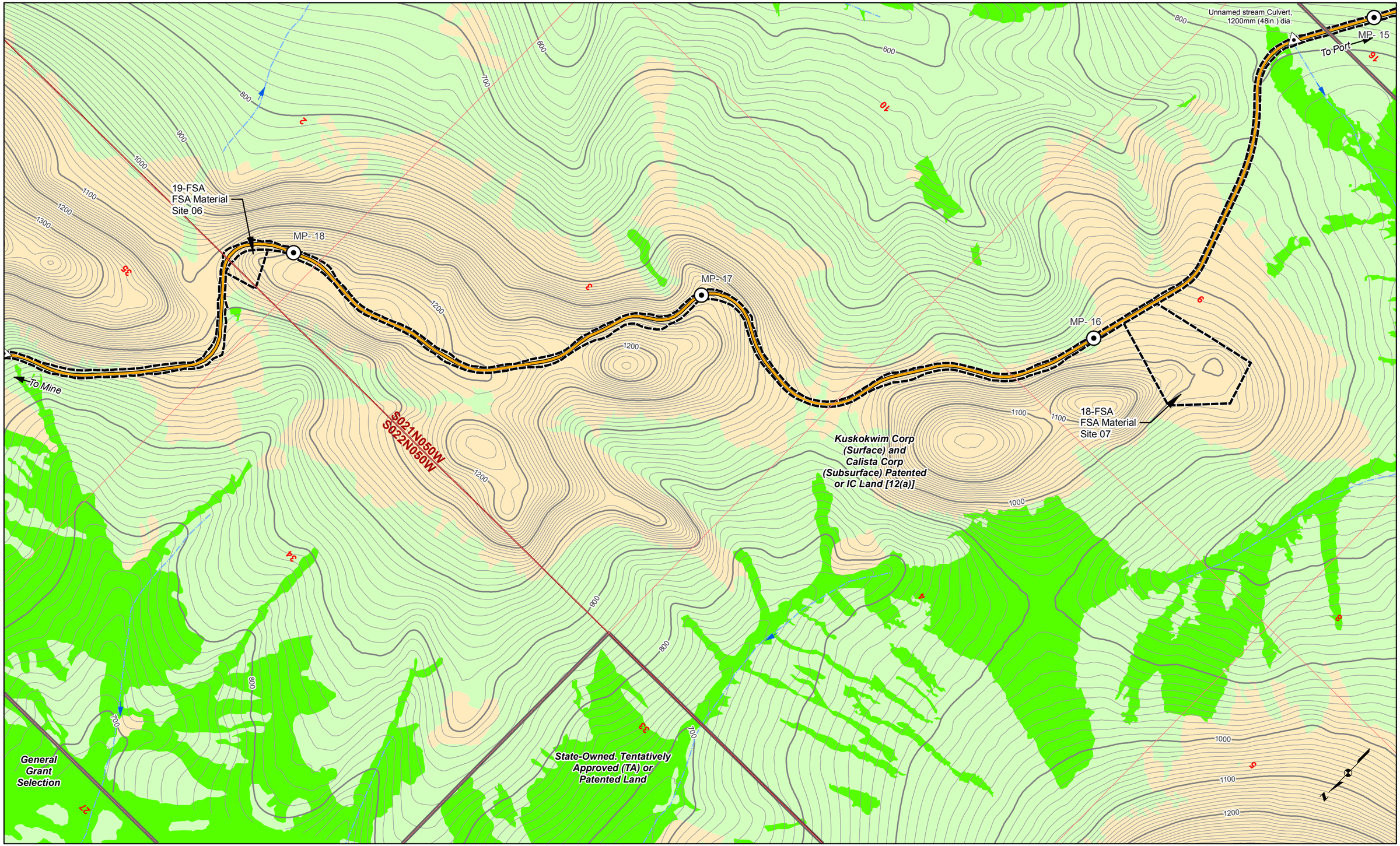
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN | DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITES 08 & 09 LAYOUTS AND SECTIONS

FIGURE NO. TA-305D | FILE NO. POA-1995-120

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a1\A_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

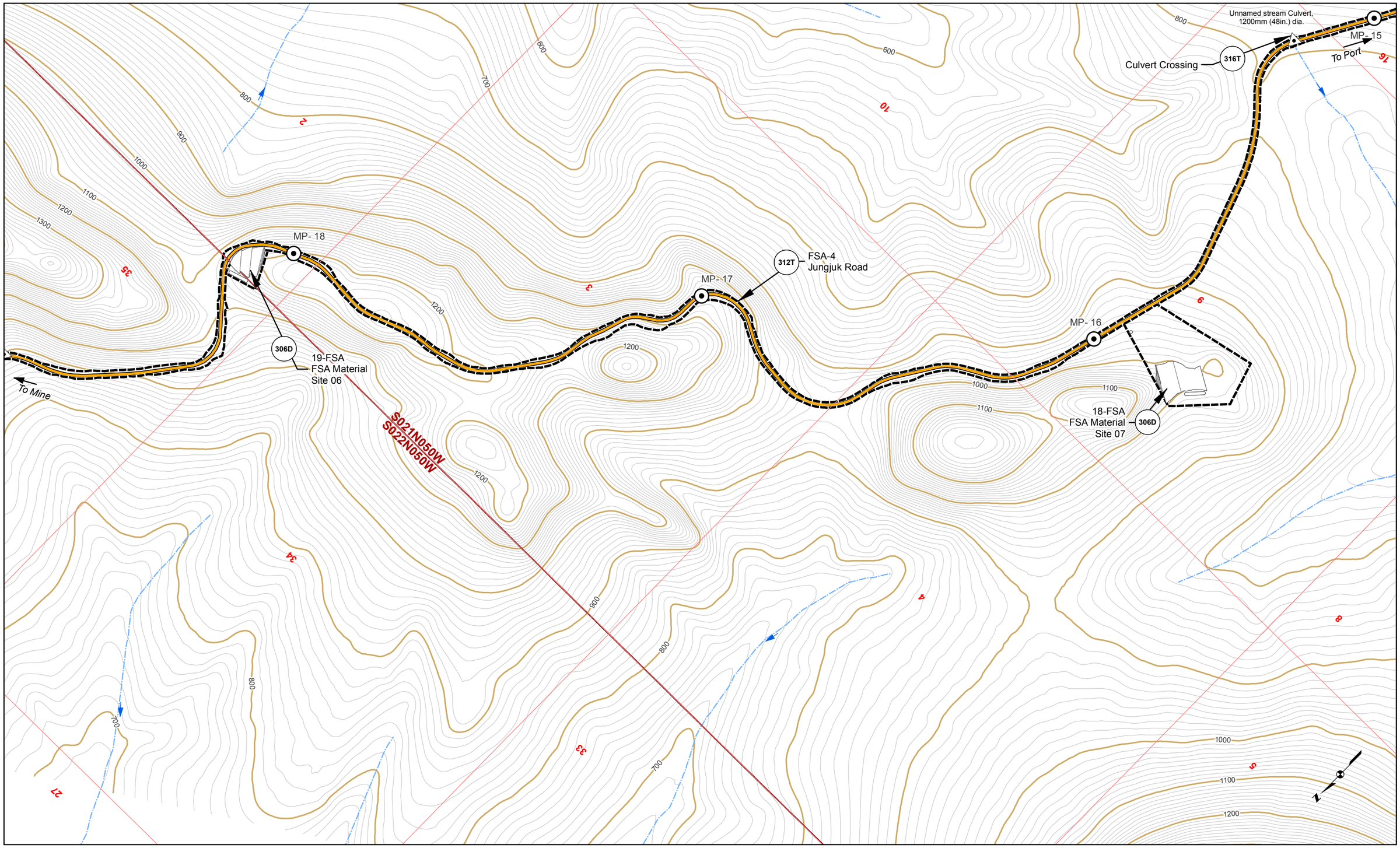
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-306A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A1TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/27/2015

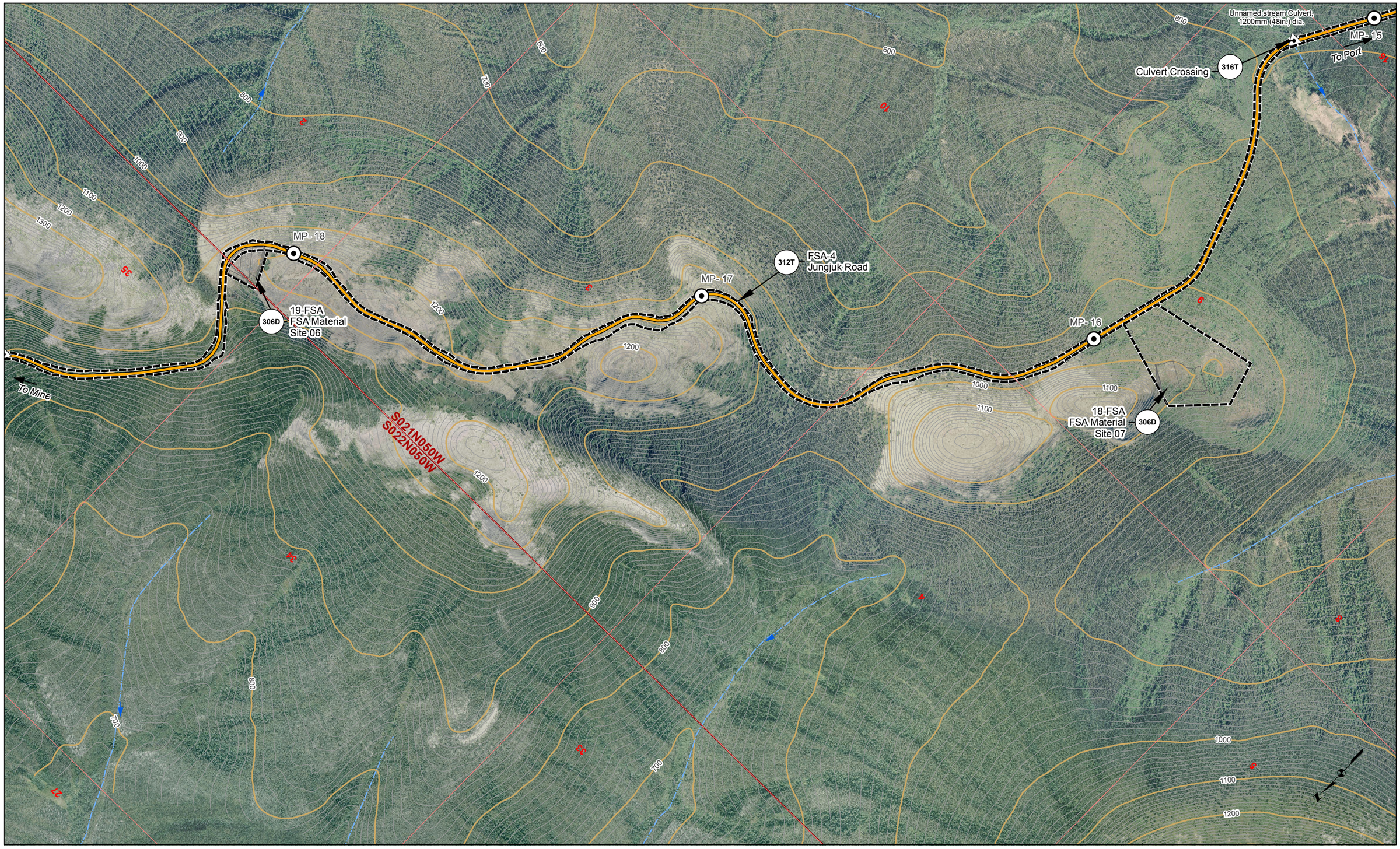
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-306B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/27/2015

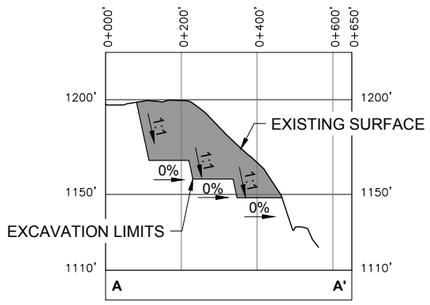
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-306C**

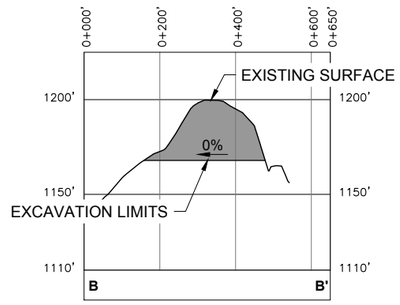
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20151005.mxd

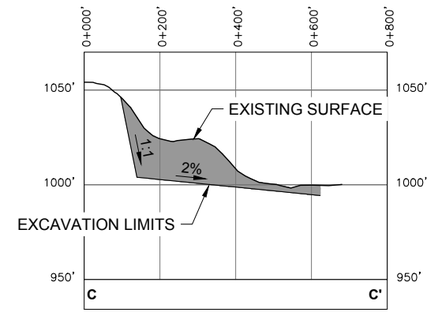
Basemap Source: Sources: Esri, USGS, NOAA



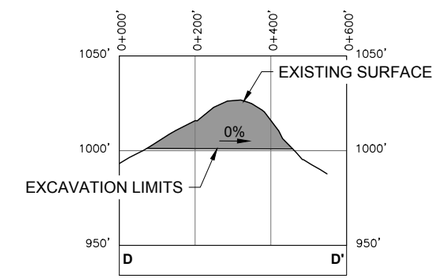
A-A' 306D CROSS-SECTION A-A'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



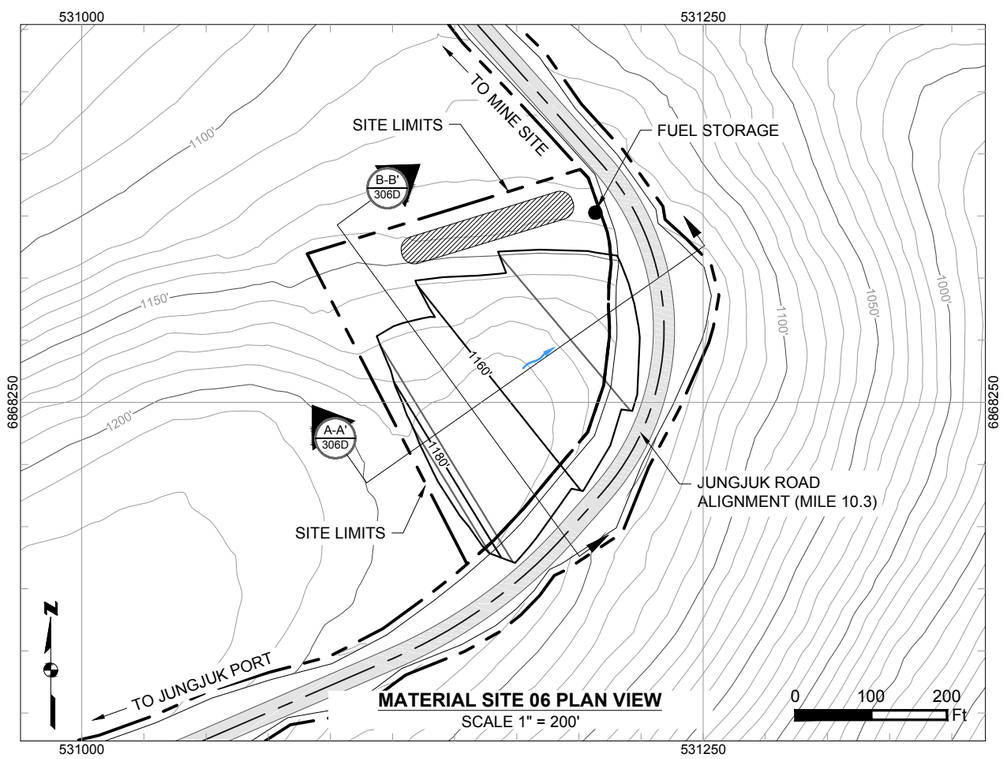
B-B' 306D CROSS-SECTION B-B'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



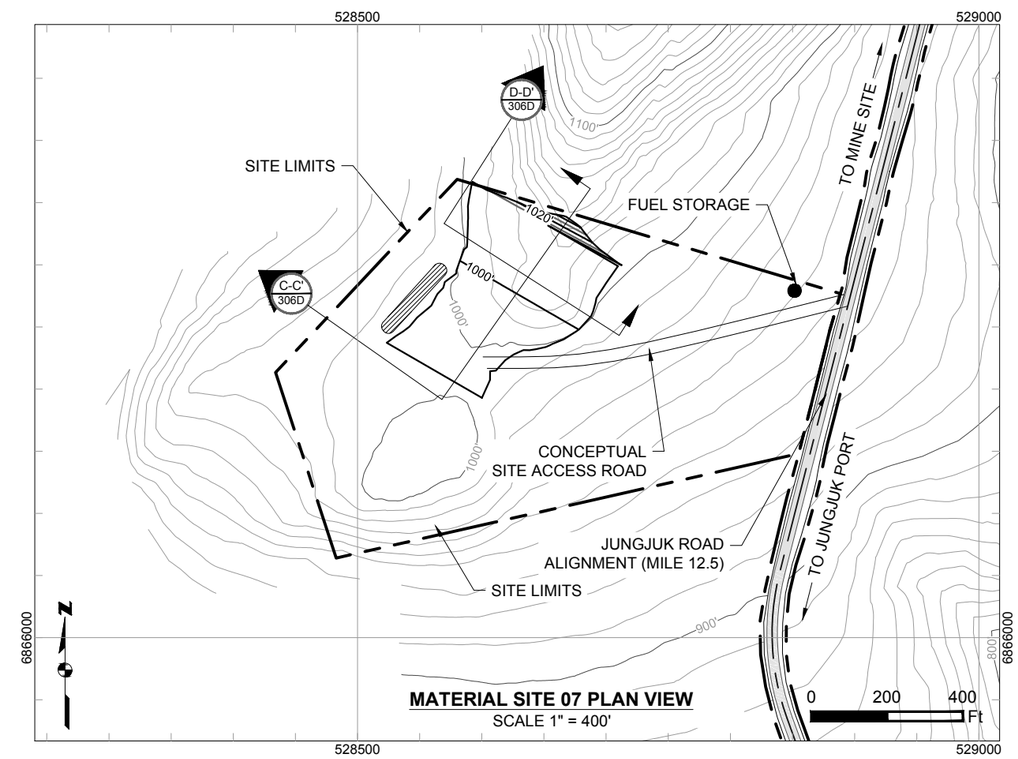
C-C' 306D CROSS-SECTION C-C'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



D-D' 306D CROSS-SECTION D-D'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



MATERIAL SITE 06 PLAN VIEW
SCALE 1" = 200'



MATERIAL SITE 07 PLAN VIEW
SCALE 1" = 400'

Existing 10' Contours	Cut Area
550' Existing 50' Contours	Proposed Drainage Direction
Proposed 10' Contours	Overburden And Growth Media Stockpile
550' Proposed 20' Contours	Temporary Fuel Storage

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

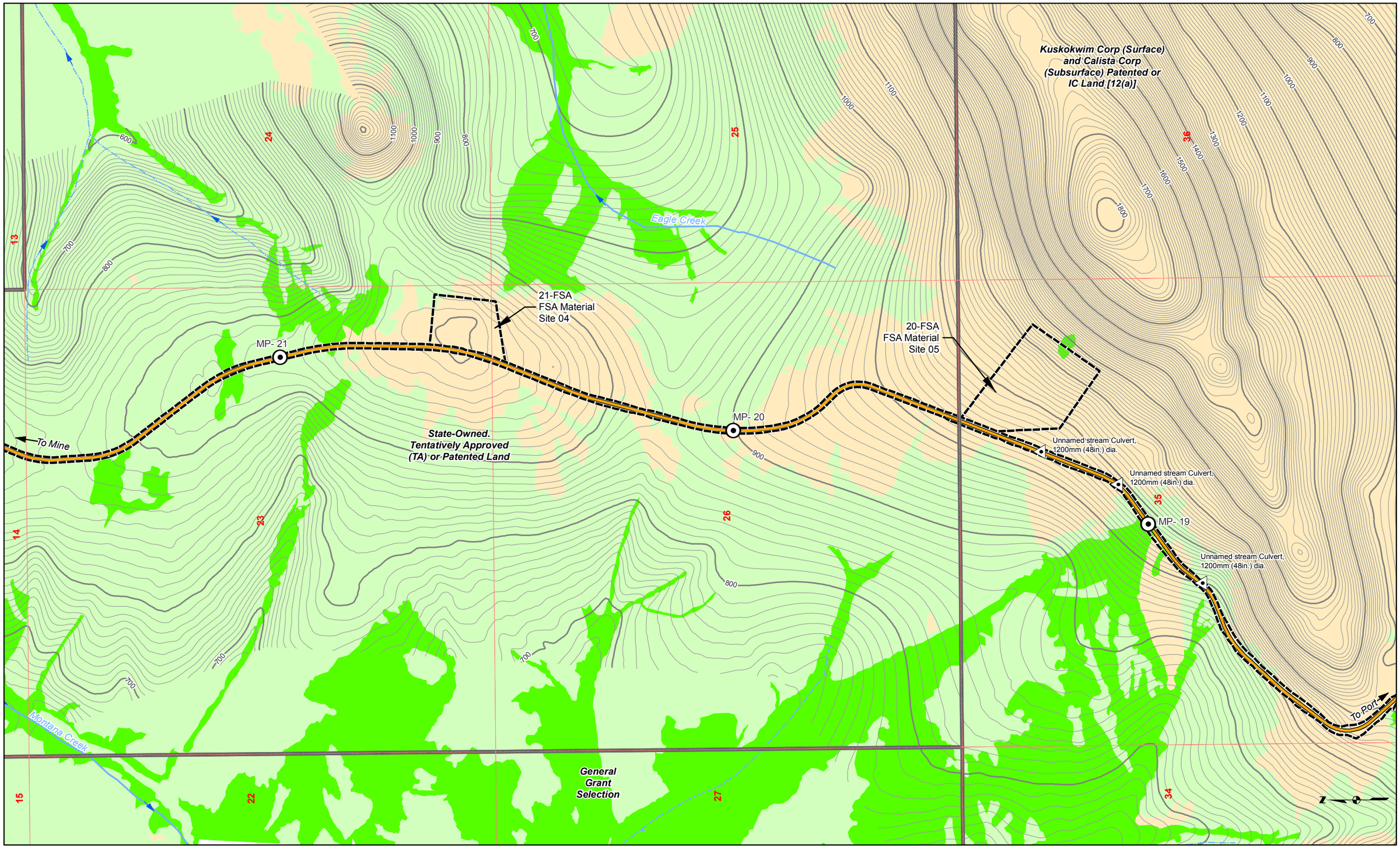
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITES 06 & 07 LAYOUTS AND SECTIONS

FIGURE NO. **TA-306D**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

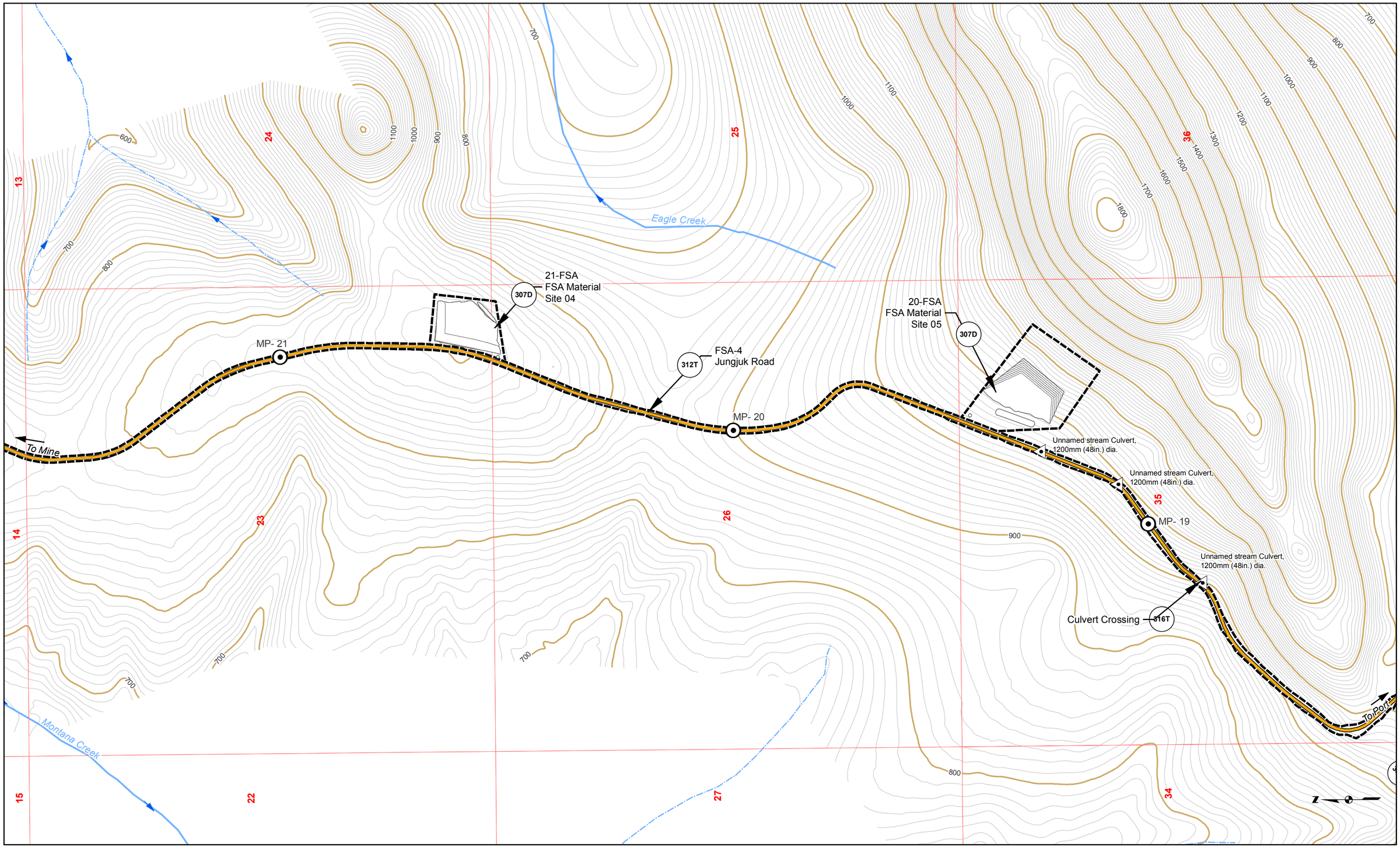
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-307A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

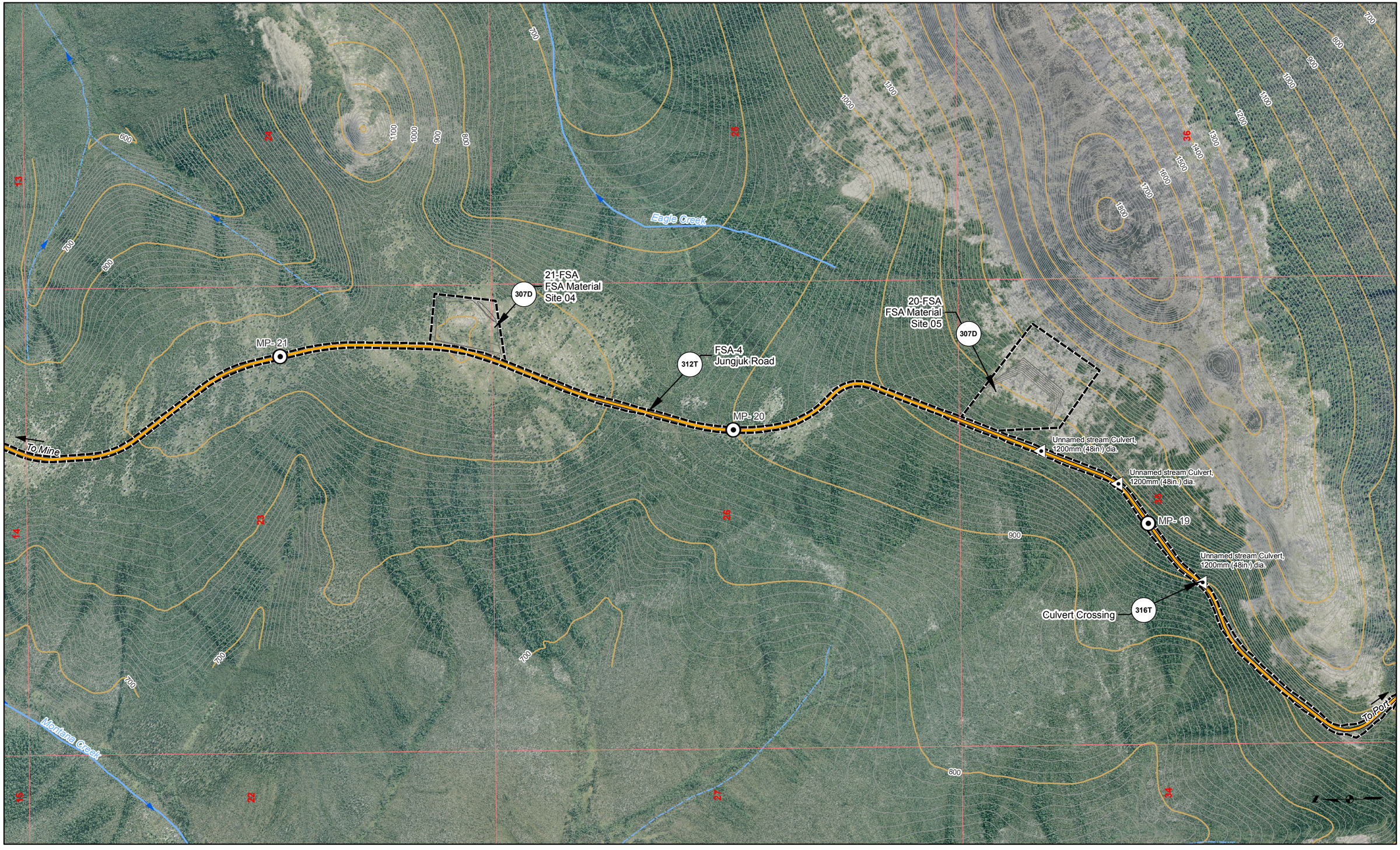
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-307B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A1TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

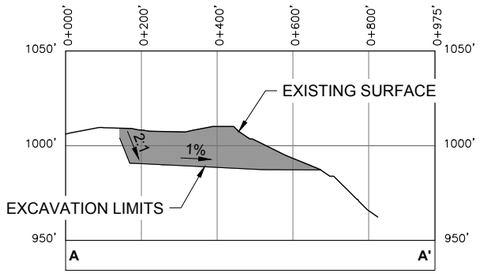
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-307C**

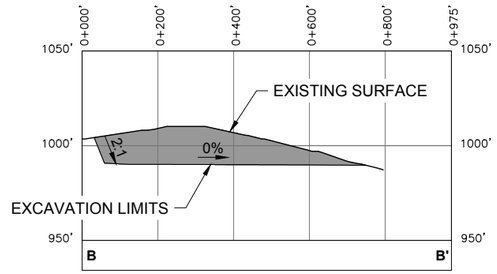
FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20150812.mxd

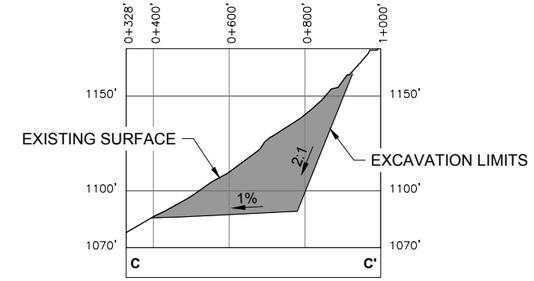
Basemap Source: Sources: Esri, USGS, NOAA



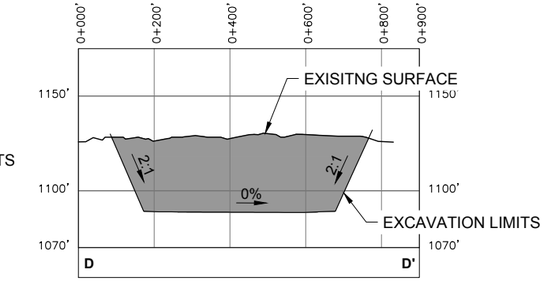
A-A' 307D CROSS-SECTION A-A'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



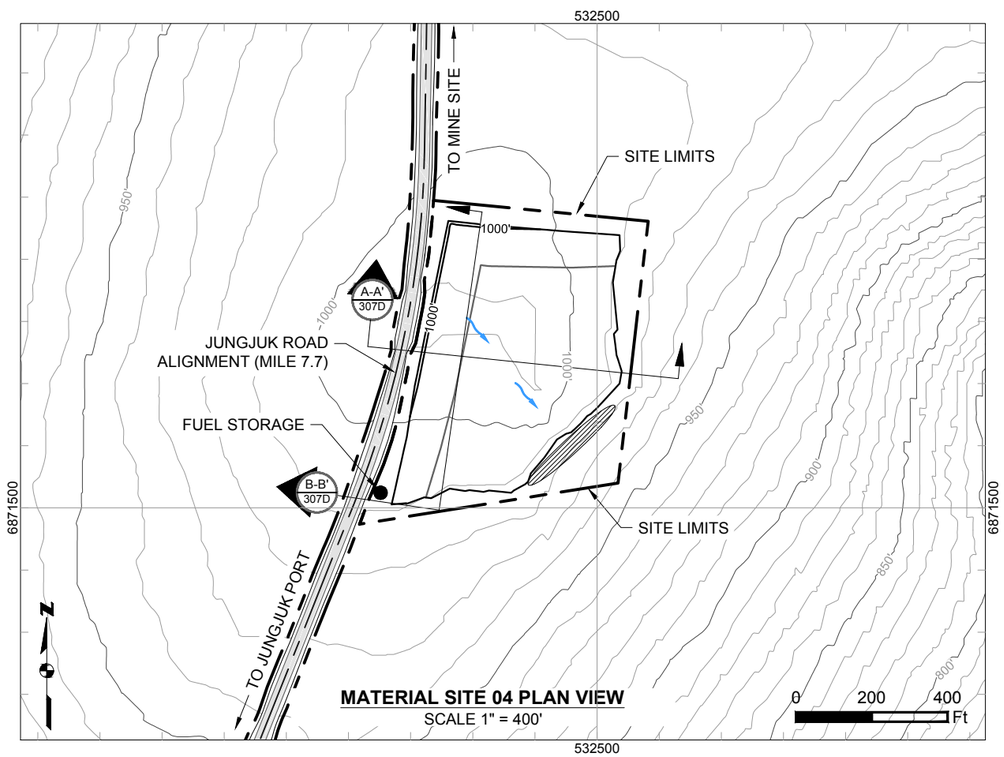
B-B' 307D CROSS-SECTION B-B'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



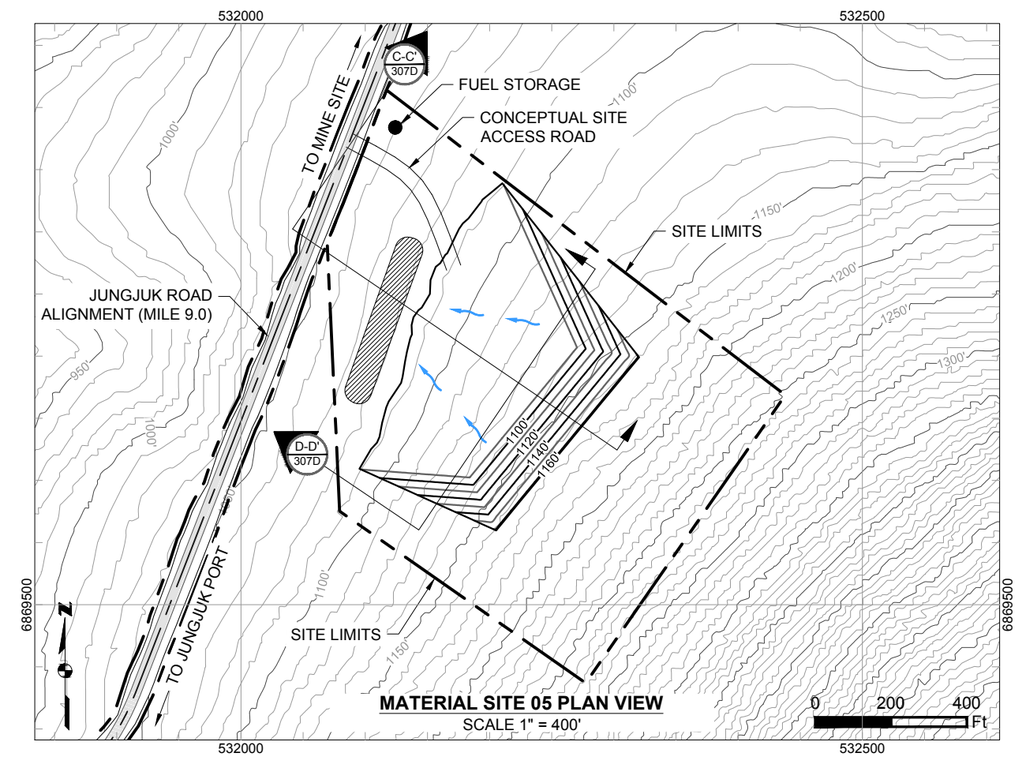
C-C' 307D CROSS-SECTION C-C'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



D-D' 307D CROSS-SECTION D-D'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



MATERIAL SITE 04 PLAN VIEW
SCALE 1" = 400'



MATERIAL SITE 05 PLAN VIEW
SCALE 1" = 400'

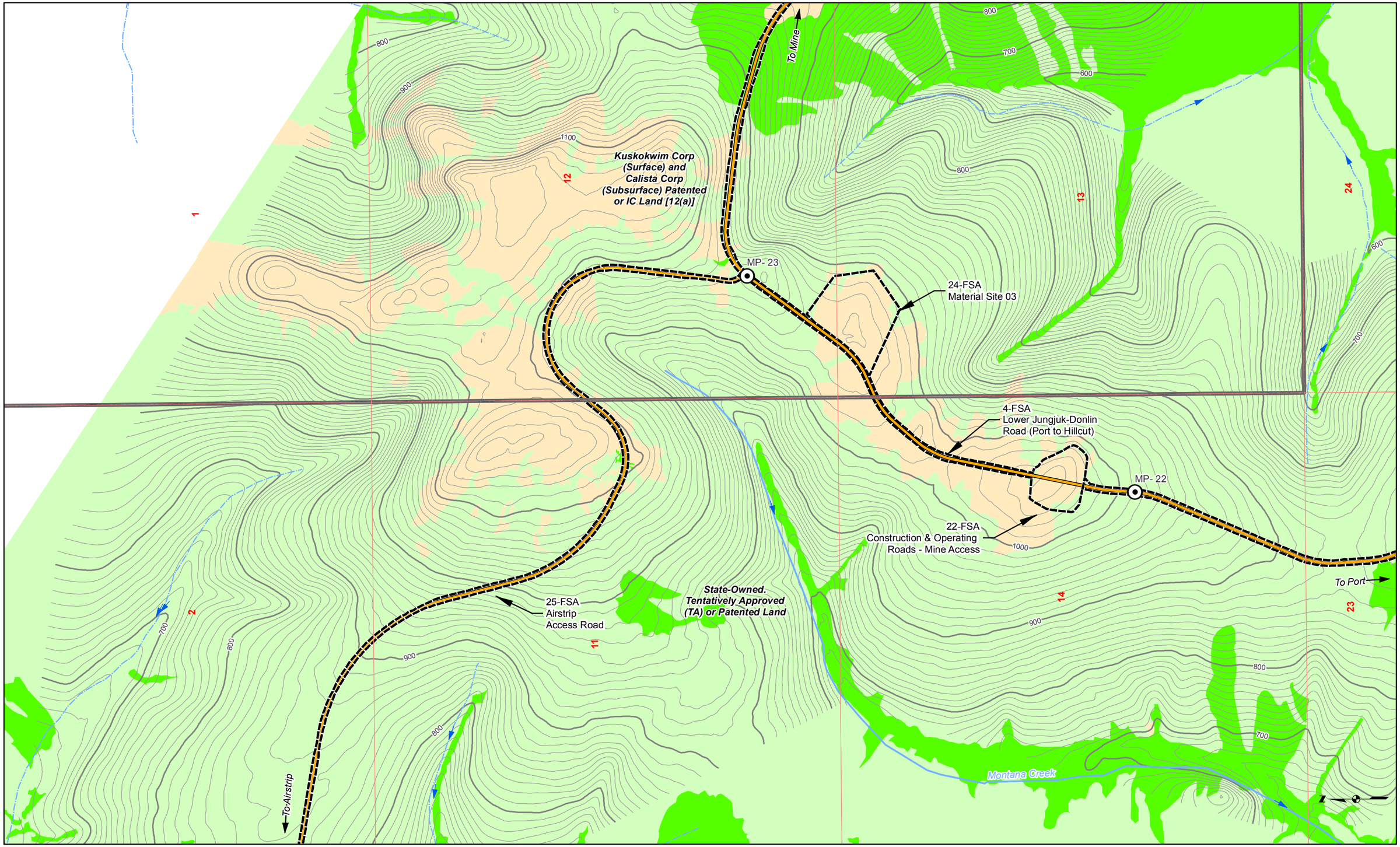
Existing 10' Contours	Cut Area
550' Existing 50' Contours	Proposed Drainage Direction
Proposed 10' Contours	Overburden And Growth Media Stockpile
550' Proposed 20' Contours	Temporary Fuel Storage

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITES 04 & 05 LAYOUTS AND SECTIONS
FIGURE NO. **TA-307D**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a1\A_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

A1-166549-80-13-006.dwg (AMEC)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/2/2015

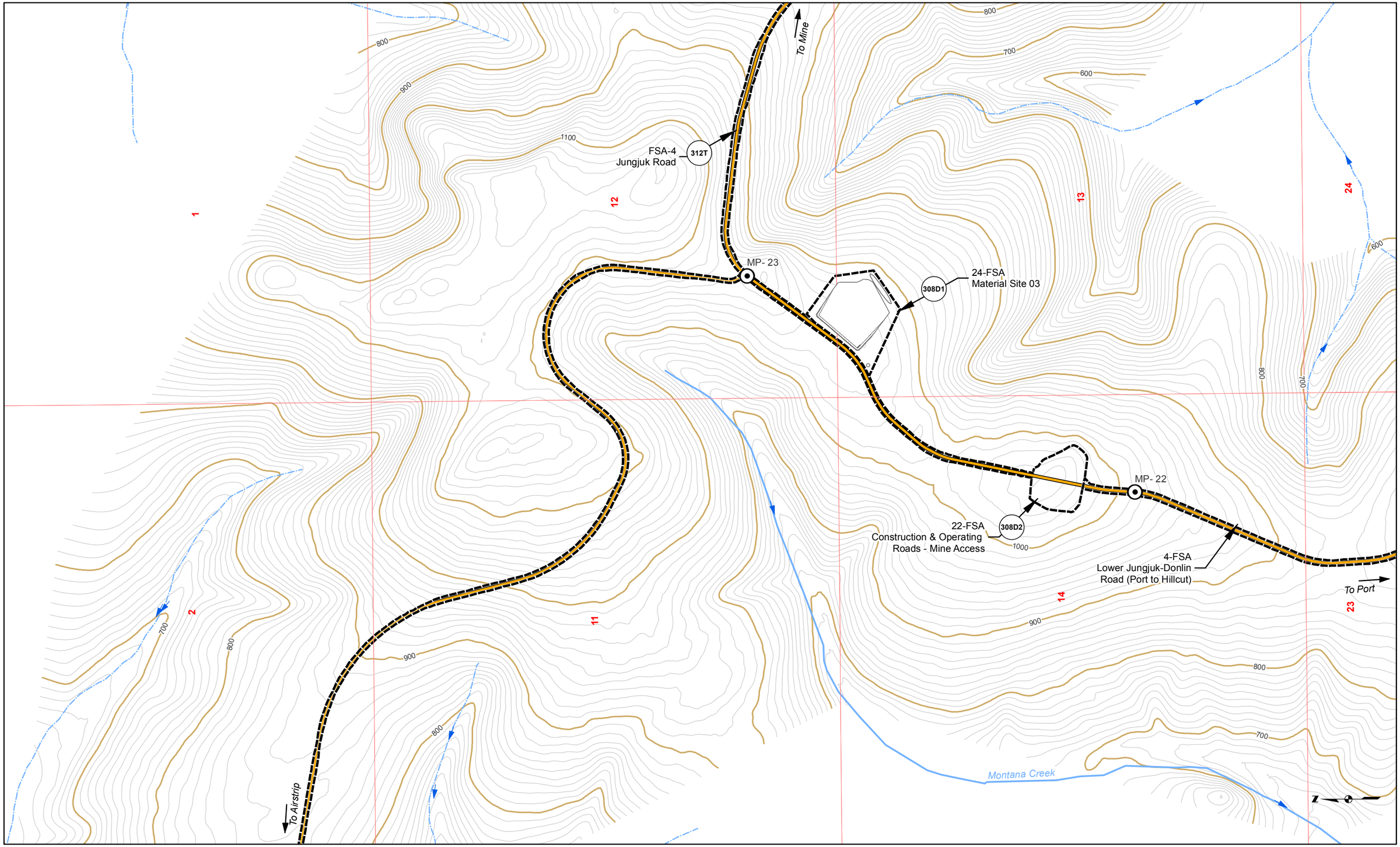
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-308A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20150813.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon);A1-166549-80-13-006.dwg (AMEC)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/27/2015

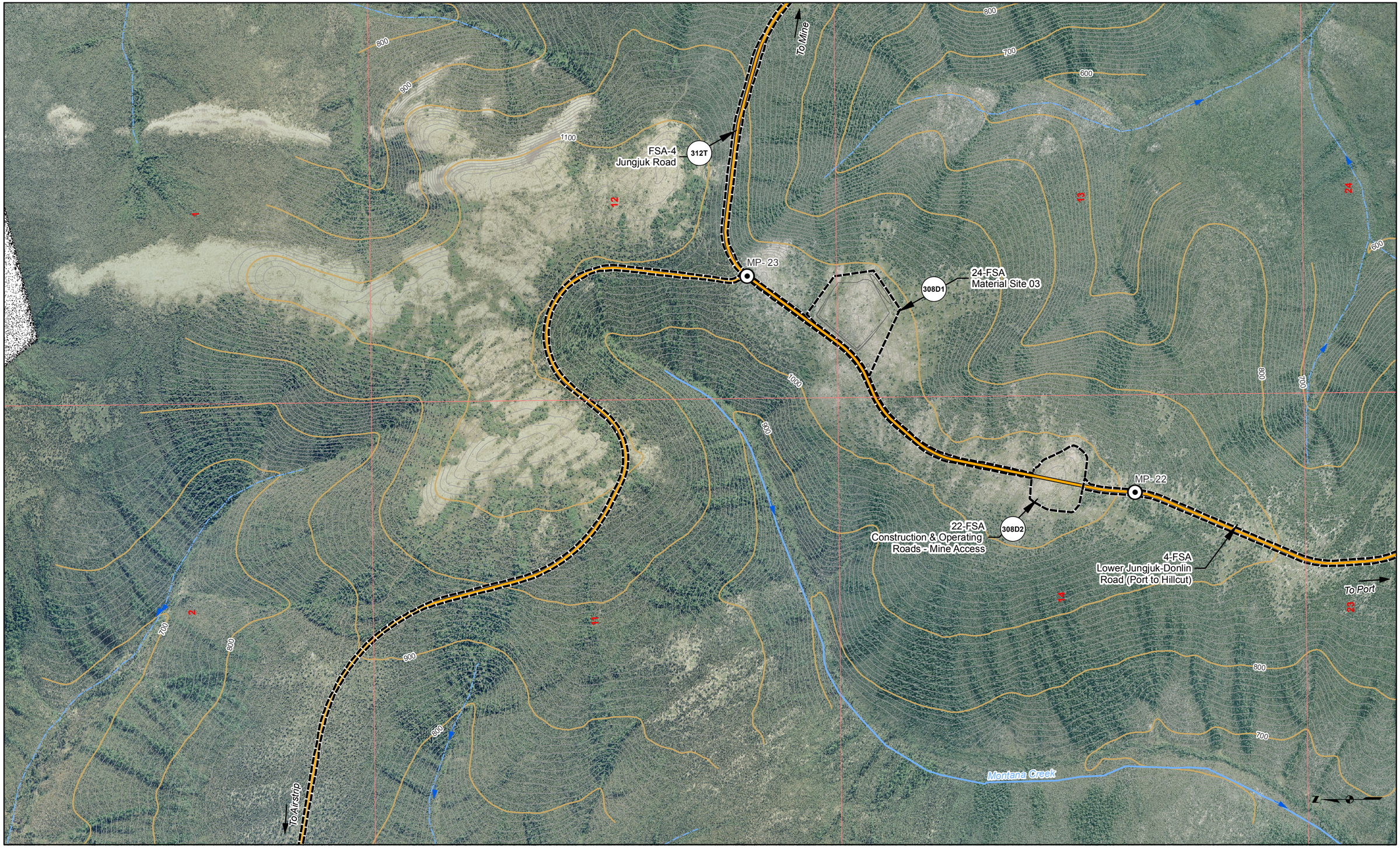
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-308B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon);A1-166549-80-13-006.dwg (AMEC)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/27/2015

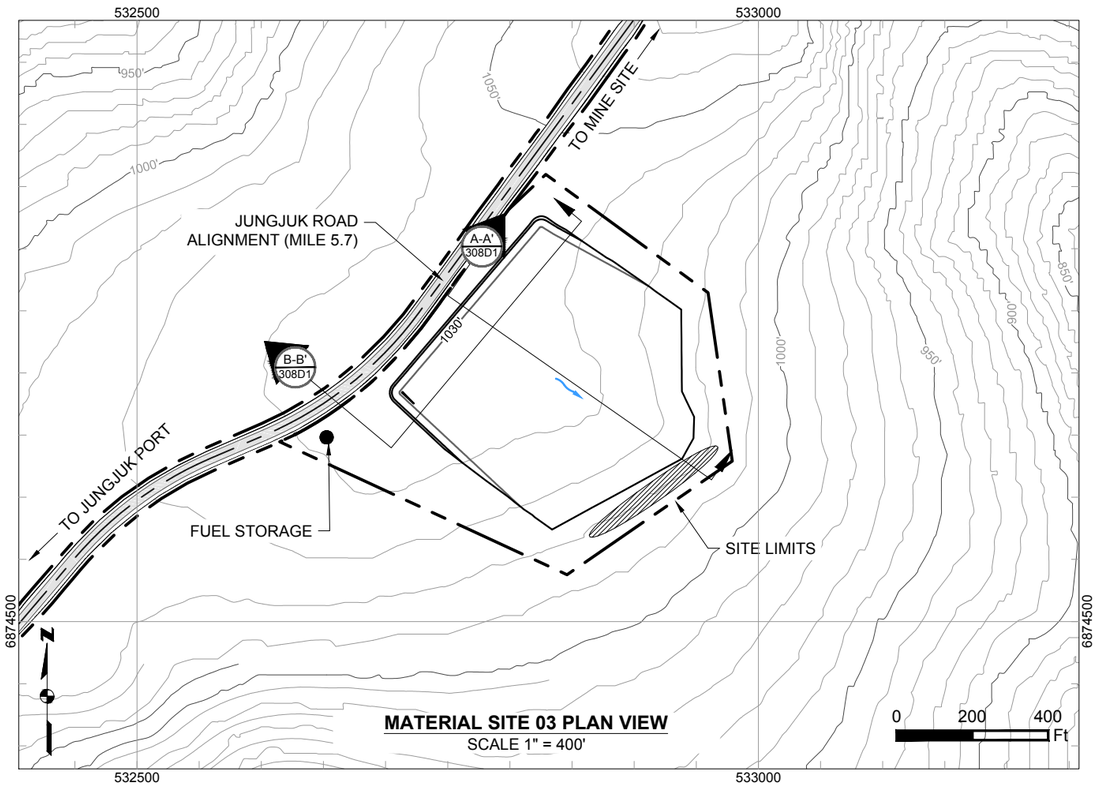
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-308C**

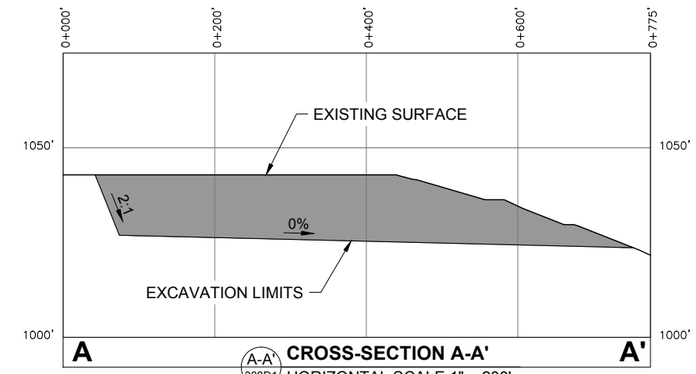
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20151005.mxd

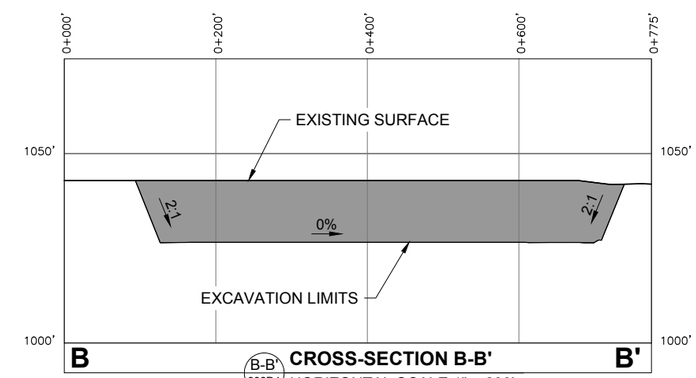
Basemap Source: Sources: Esri, USGS, NOAA



MATERIAL SITE 03 PLAN VIEW
SCALE 1" = 400'



A-A' 308D1 **CROSS-SECTION A-A'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'



B-B' 308D1 **CROSS-SECTION B-B'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'

Existing 10' Contours	Cut Area		
550' Existing 50' Contours	Proposed Drainage Direction		
Proposed 10' Contours	Overburden And Growth Media Stockpile		
550' Proposed 20' Contours	Temporary Fuel Storage		

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

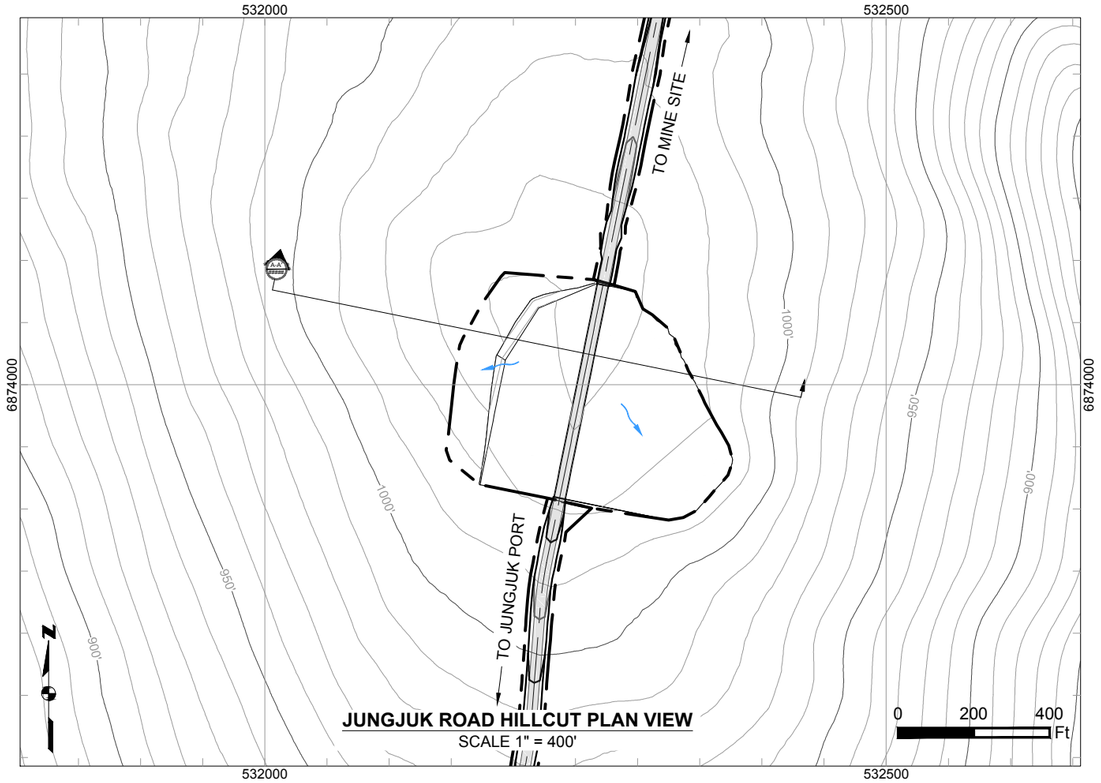
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN DATE: 8/11/2015

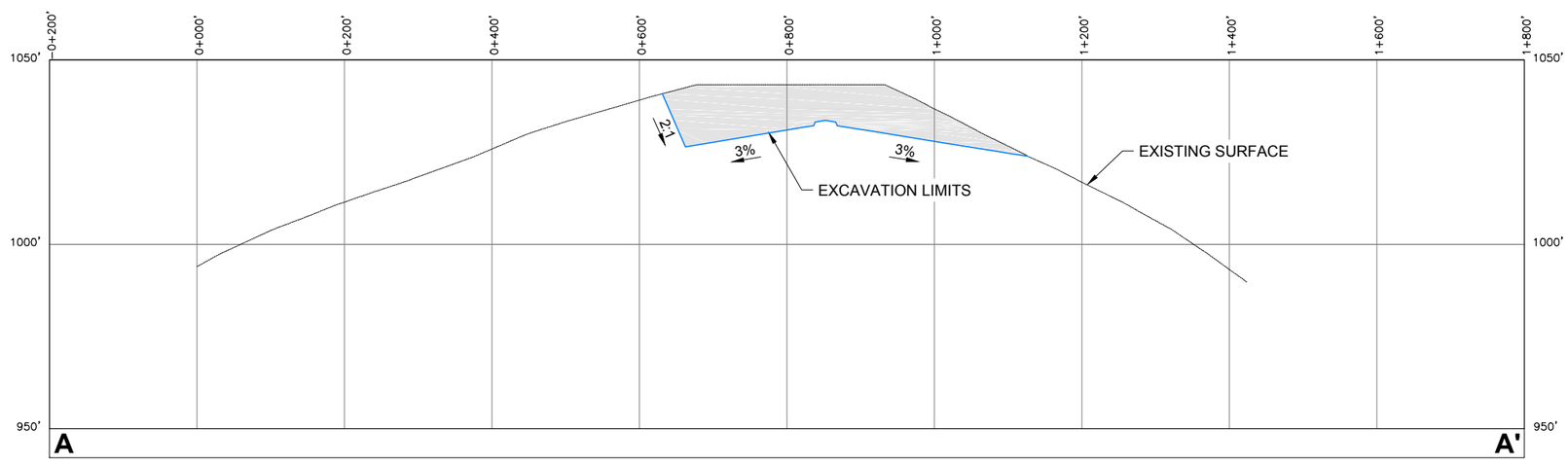
DRAWING TITLE:
MATERIAL SITE 03 LAYOUT AND SECTIONS

FIGURE NO. **TA-308D1**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\DropboX\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites_ML_20150811.dwg



JUNGJUK ROAD HILLCUT PLAN VIEW
SCALE 1" = 400'



A-A' 308D2 **CROSS-SECTION A-A'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'

Existing 10' Contours
550' Existing 50' Contours
Proposed 10' Contours
550' Proposed 20' Contours
Cut Area
Proposed Drainage Direction

Associated Engineering Drawings

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: AS SHOWN DATE: 8/18/2015

DRAWING TITLE: **JUNGJUK ROAD HILLCUT**

FIGURE NO. **TA-308D2** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites.dwg

To Mine

MP- 25

MP- 24

30-FSA
FSA Material
Site 02

Kuskokwim Corp
(Surface) and
Calista Corp
(Subsurface) Patented
or IC Land [12(a)]

S022N049W
S022N050W

To Port

Eagle Creek

State-Owned.
Tentatively Approved
(TA) or Patented Land

N

Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-309A**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA

To Mine

To Port

MP- 25

MP- 24

FSA-4
Jungjuk Road

312T

30-FSA
FSA Material
Site 02

309D

S022N049W
S022N050W

Eagle Creek

5 8 17 20 6 7 18 19 1 12 13 24

500 600 700 800 900 1000

Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

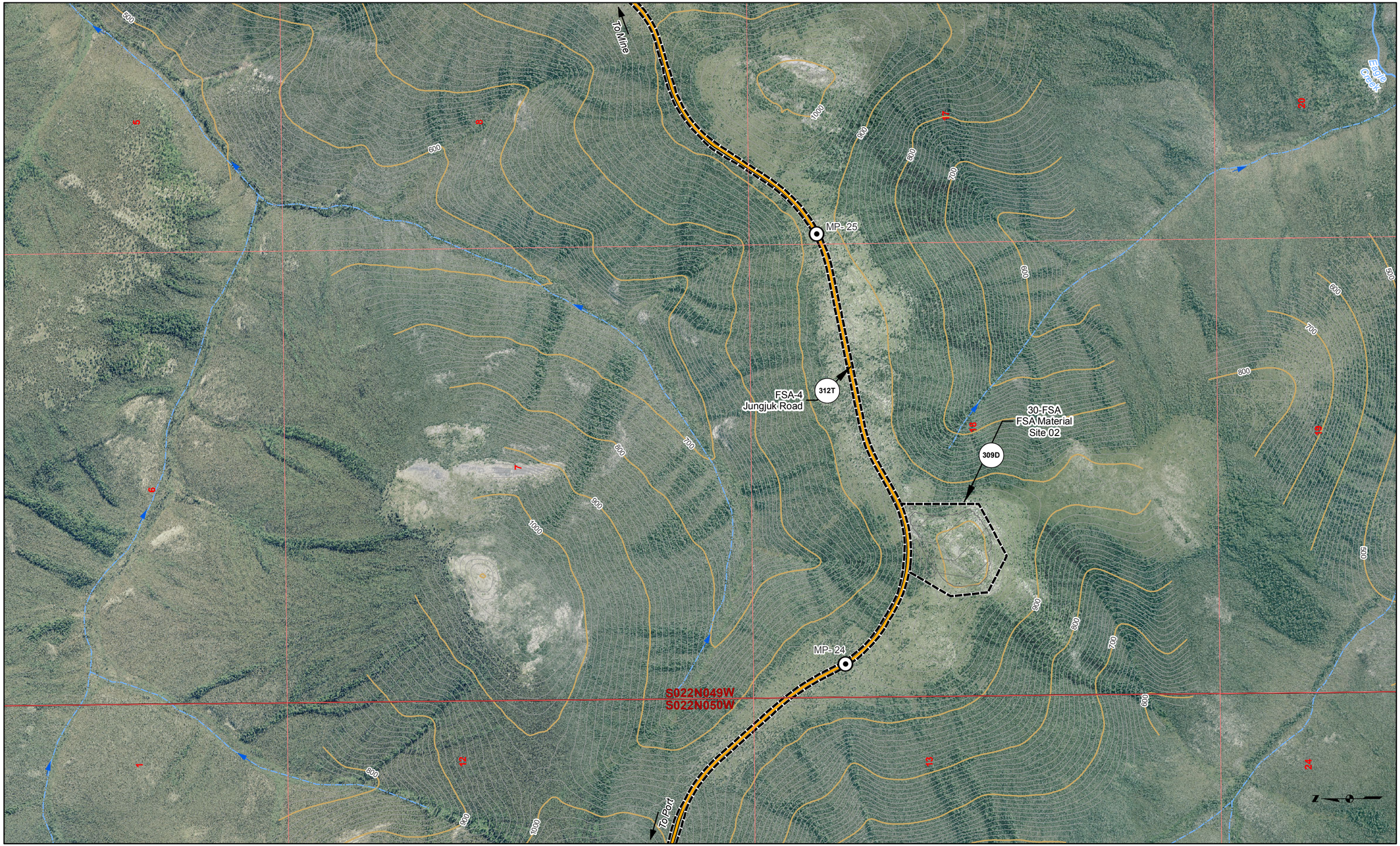
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-309B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A1TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

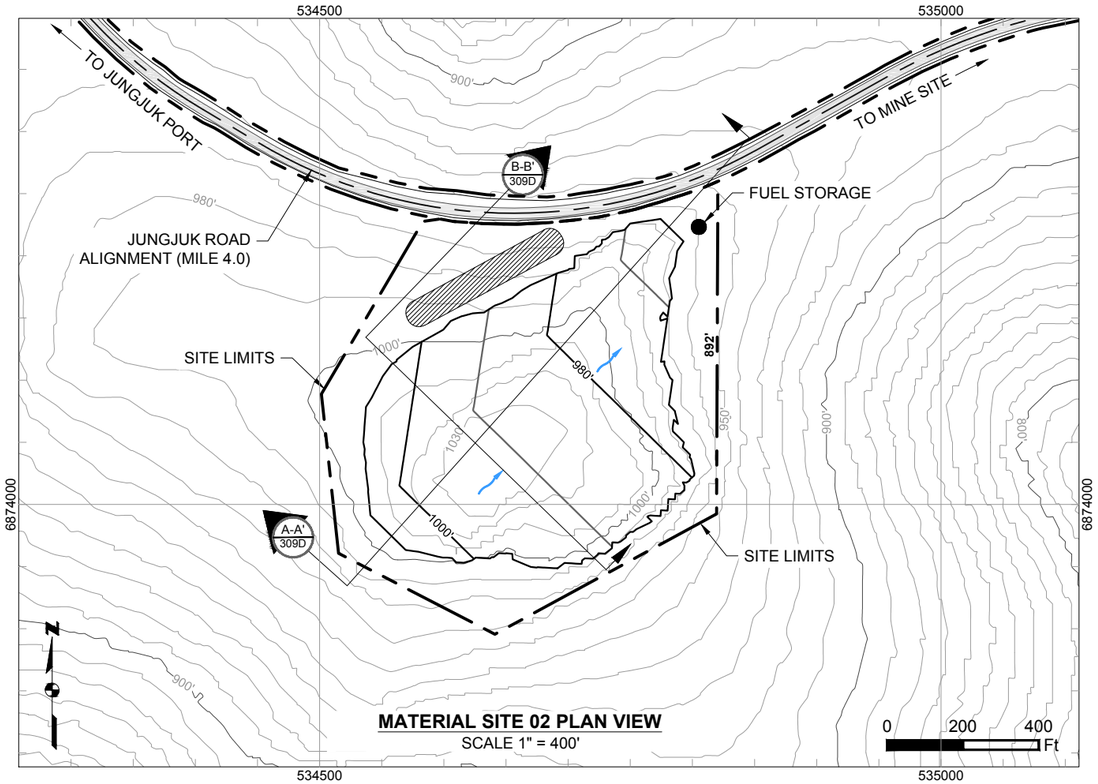
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-309C**

FILE NO. **POA-1995-120**

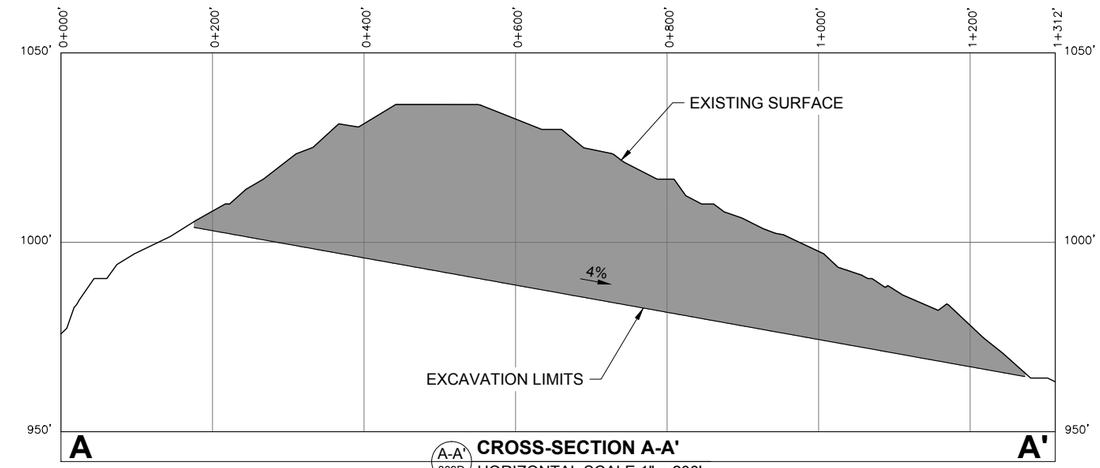
PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA

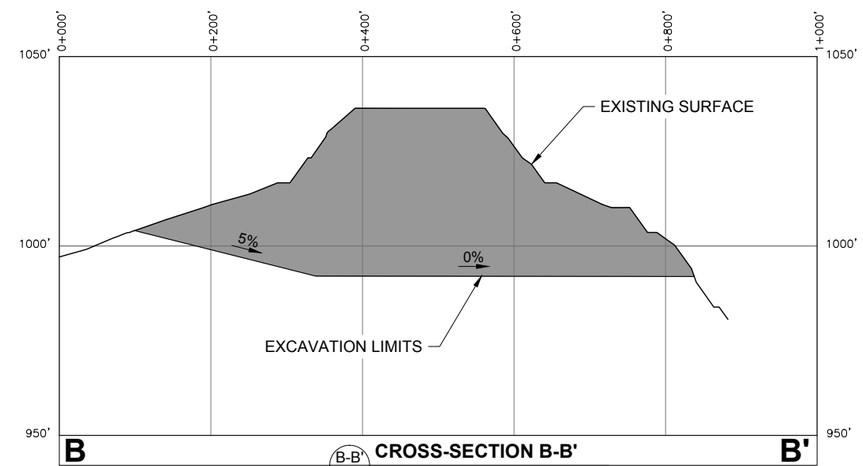


MATERIAL SITE 02 PLAN VIEW
SCALE 1" = 400'

0 200 400 Ft



A-A' 309D **CROSS-SECTION A-A'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'



B-B' 309D **CROSS-SECTION B-B'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'

Existing 10' Contours	Cut Area		
550' Existing 50' Contours	Proposed Drainage Direction		
Proposed 10' Contours	Overburden And Growth Media Stockpile		
550' Proposed 20' Contours	Temporary Fuel Storage		

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

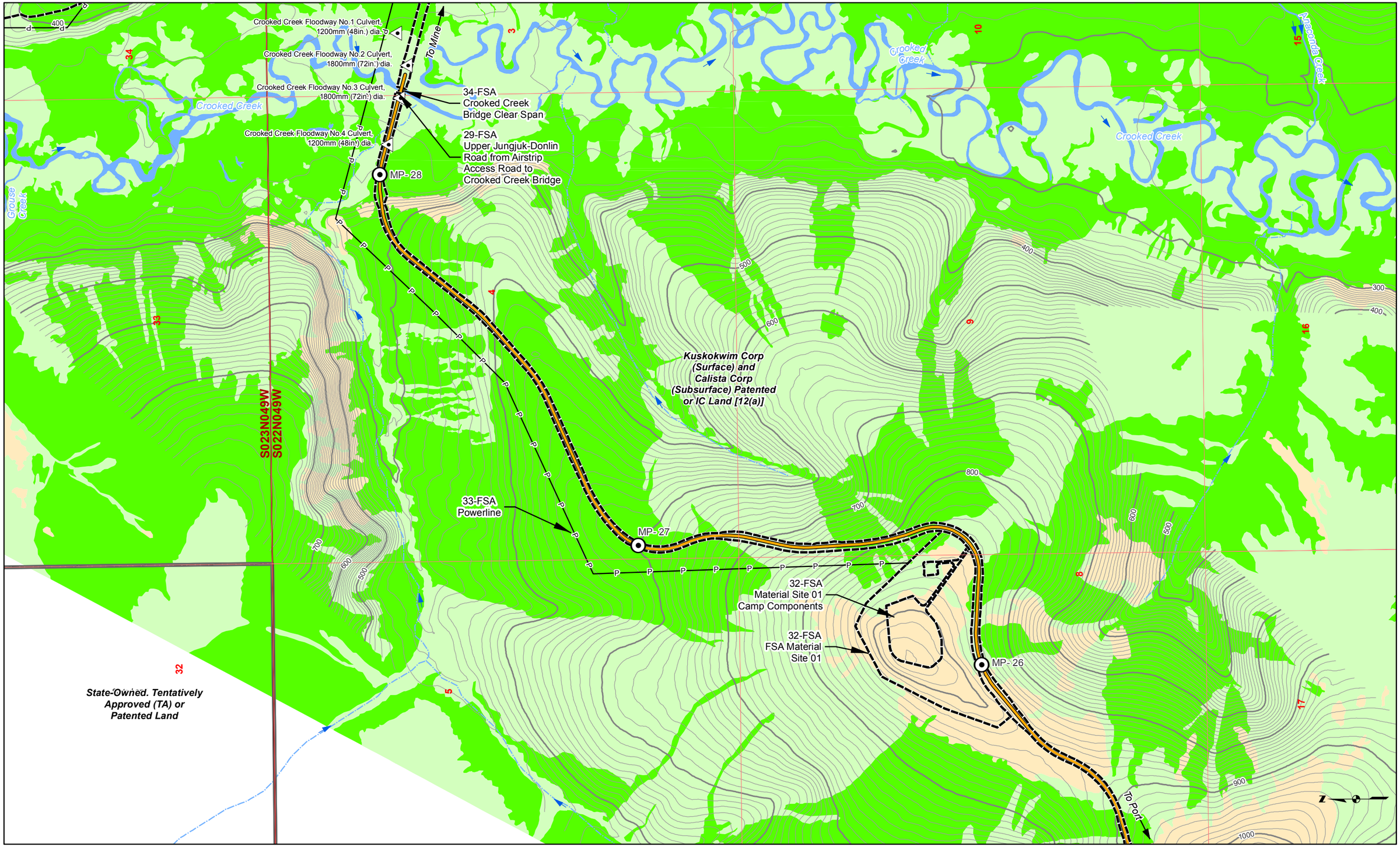
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITE 02 LAYOUT AND SECTIONS

FIGURE NO. **TA-309D**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\D\Donlin\181202_010_mapping_404_support\revision_a\1A_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

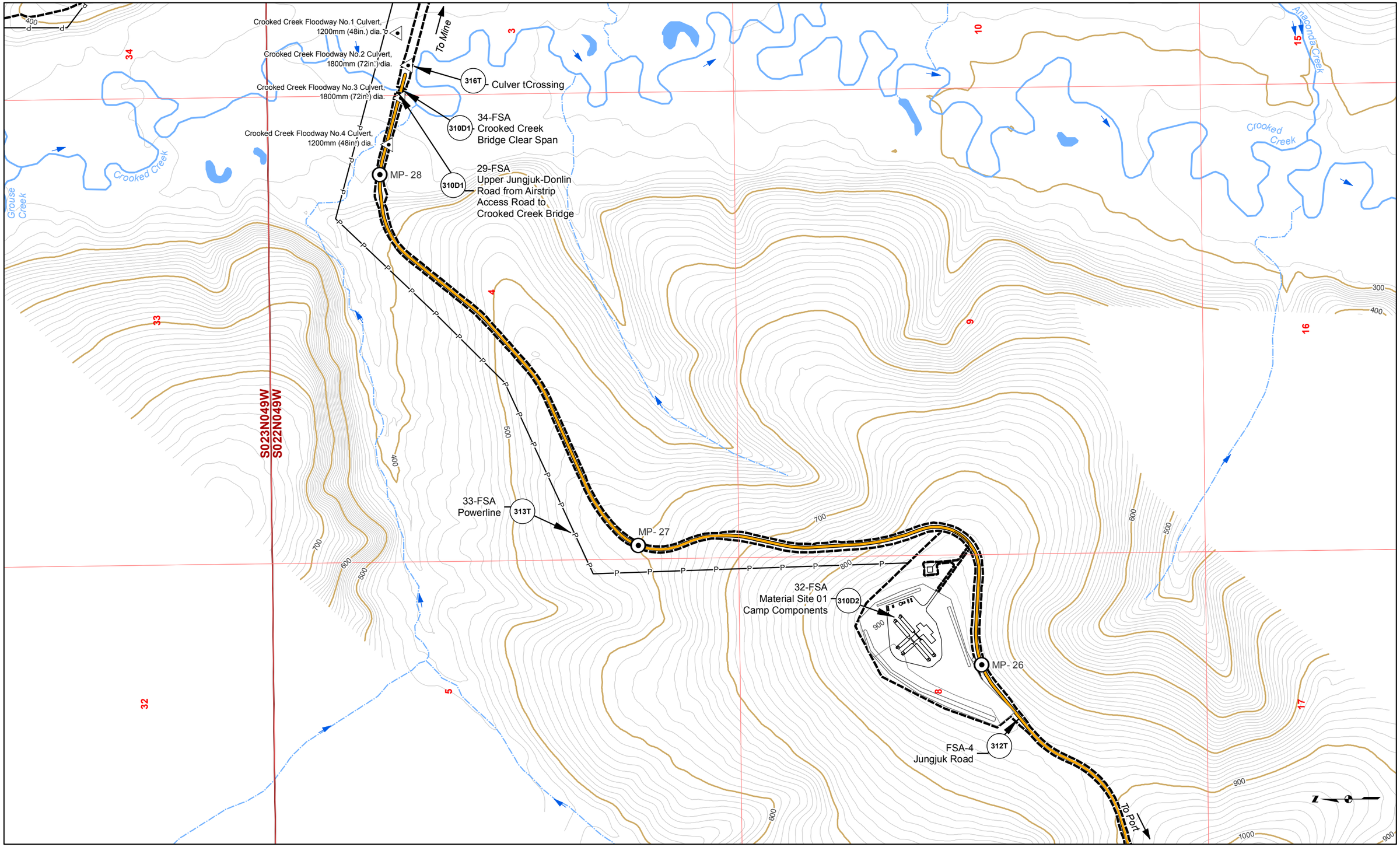
DRAWING TITLE: **PLAN VIEW ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-310A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/5/2015

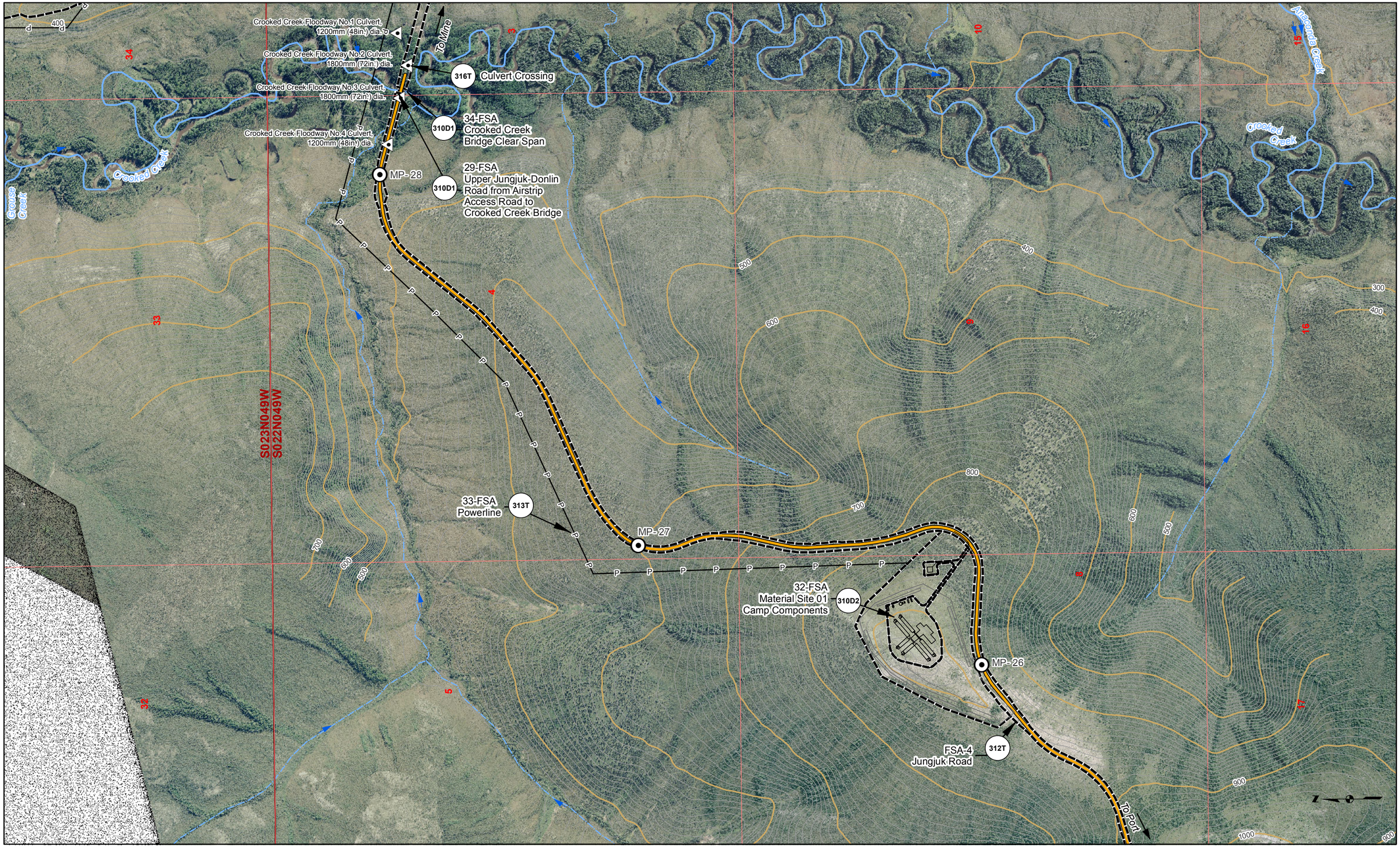
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-310B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

ACAD-Donlin Jungjuk Alignment and toes.dxf (Recon);

Donlin_Jungjuk_MaterialSites_Rev3_150202 (Recon)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 10/5/2015

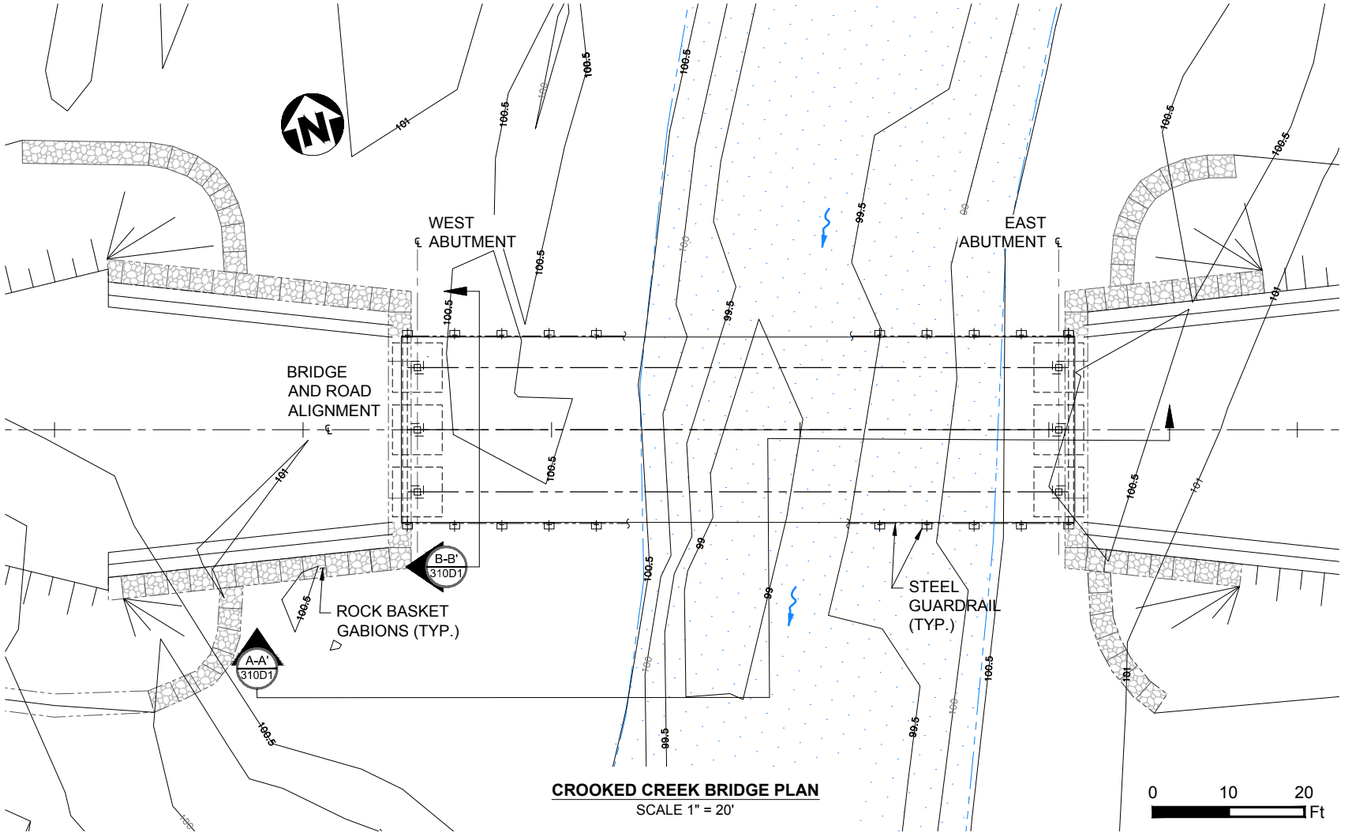
DRAWING TITLE: **PLAN VIEW ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-310C**

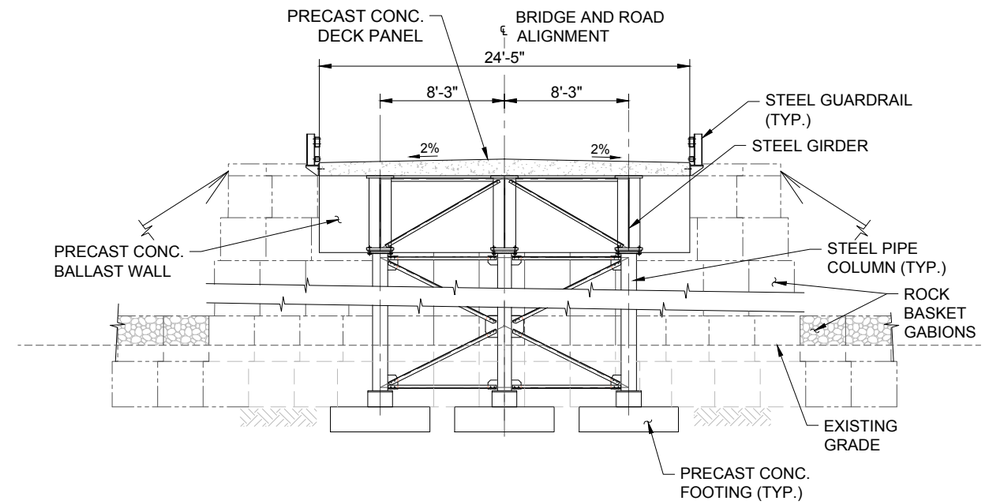
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20151005.mxd

Basemap Source: Sources: Esri, USGS, NOAA

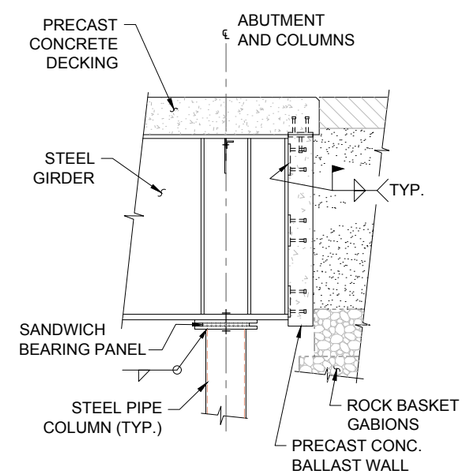


CROOKED CREEK BRIDGE PLAN
SCALE 1" = 20'

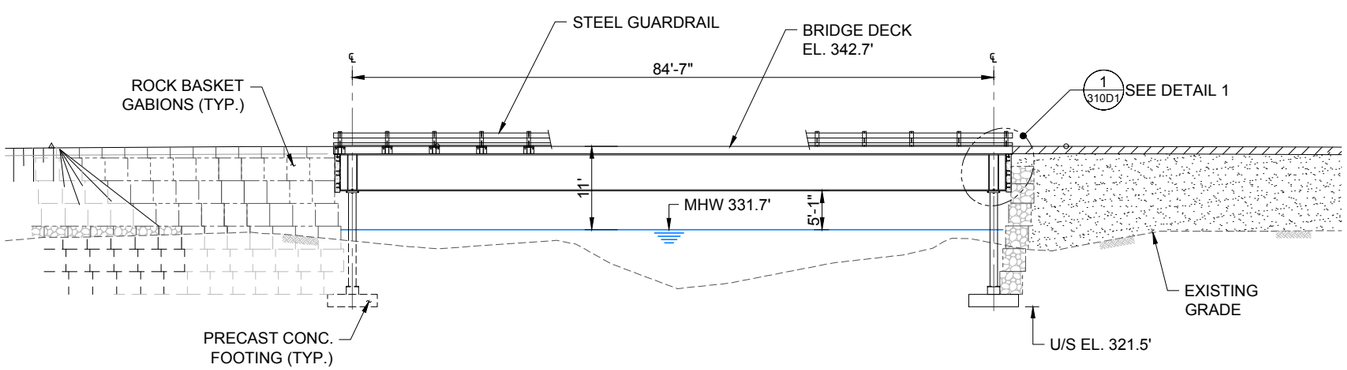


B-B' 310D1 **CROOKED CREEK BRIDGE SECTION B-B'**
SCALE 1" = 10'

0 5 10 Ft



1 310D1 **DETAIL**
SCALE 1" = 4'



A-A' 310D1 **CROOKED CREEK BRIDGE SECTION A-A'**
SCALE 1" = 20'

0 10 20 Ft

DESIGN TRUCKS:

- AUTOCLAVE VESSEL TRANSPORTER:
DOUBLE 18-LINE INTERCOMBI SCHEUERLE TRAILERS
- 785C MINING TRUCK (EMPTY)
- L-100 OFF HIGHWAY TRUCK
- AUTOCLAVE TRAILER AND 785C TRUCK SHALL TRAVEL ON CENTERLINE OF BRIDGE WITH MAXIMUM SPEED OF 10 km/h TO REDUCE THE DYNAMIC IMPACT ON THE BRIDGE STRUCTURE.

NOTES:

1. DESIGN LIFE: 25 YEARS
2. HYDROLOGY STUDY REQUIRED.
3. ENVIRONMENTAL SITE INVESTIGATION REQUIRED.
4. CONTOUR ELEVATIONS ARE IN METERS.
5. ALLOWABLE PRRESSURE OF SOIL = 10,400 psf [500 kPa]
6. GUARDRAIL WILL INCLUDE SPLASH GUARD SKIRT.
7. DIMENSIONS ARE SUBJECT TO CHANGE / NOT FOR CONSTRUCTION.

Associated Engineering Drawings
A1-166549-10-13-301 (AMEC) 04/05/2011

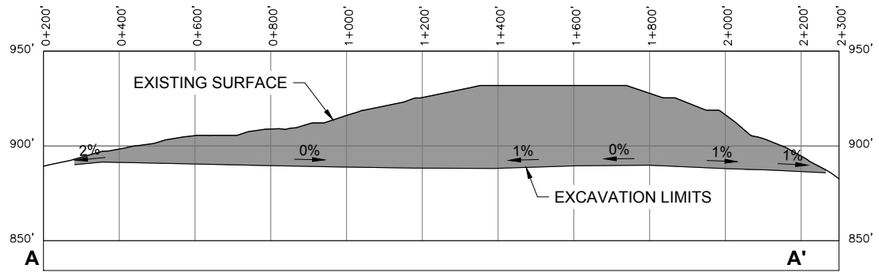
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 8/11/2015

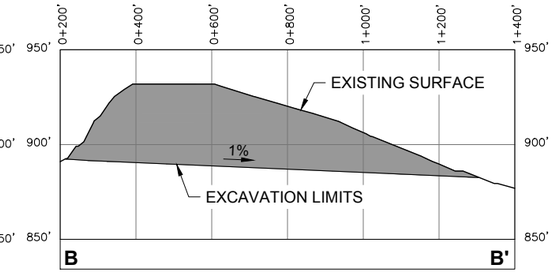
DRAWING TITLE:
CROOKED CREEK BRIDGE PLAN AND DETAILS

FIGURE NO. **TA-310D1**
FILE NO. **POA-1995-120**

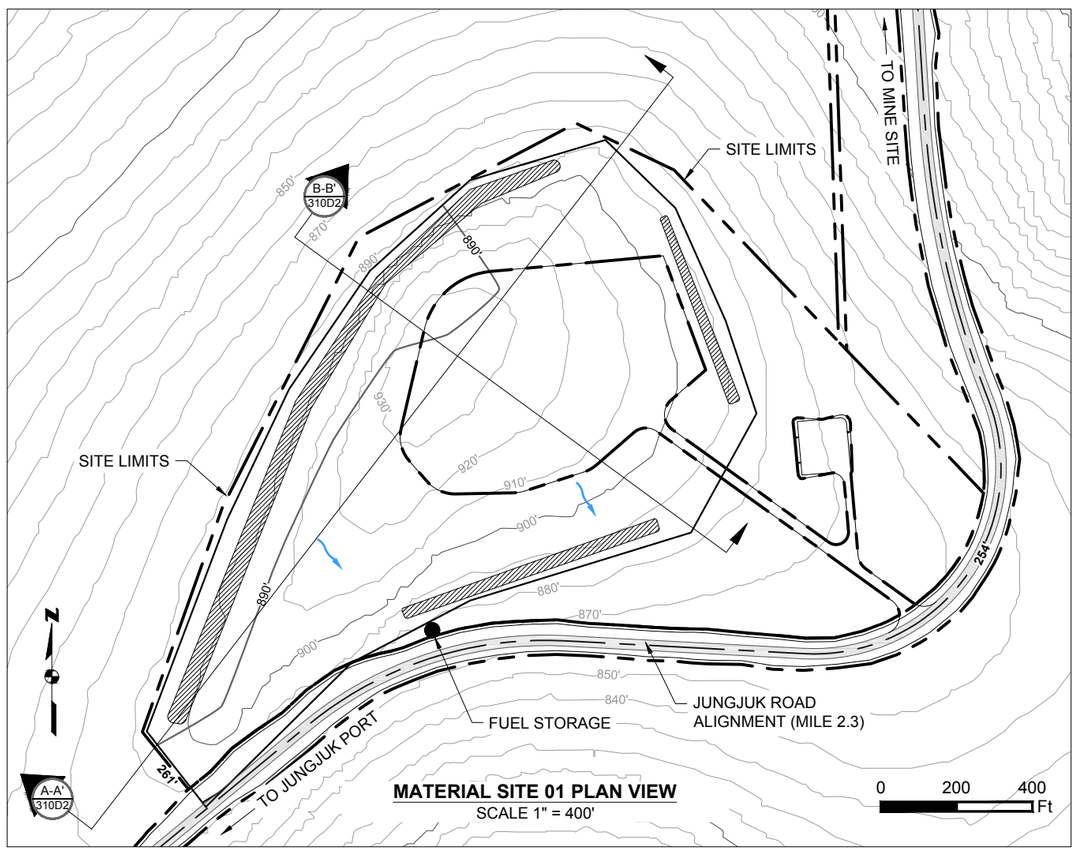
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Crooked_Creek_Xing_Mt_20150811.dwg



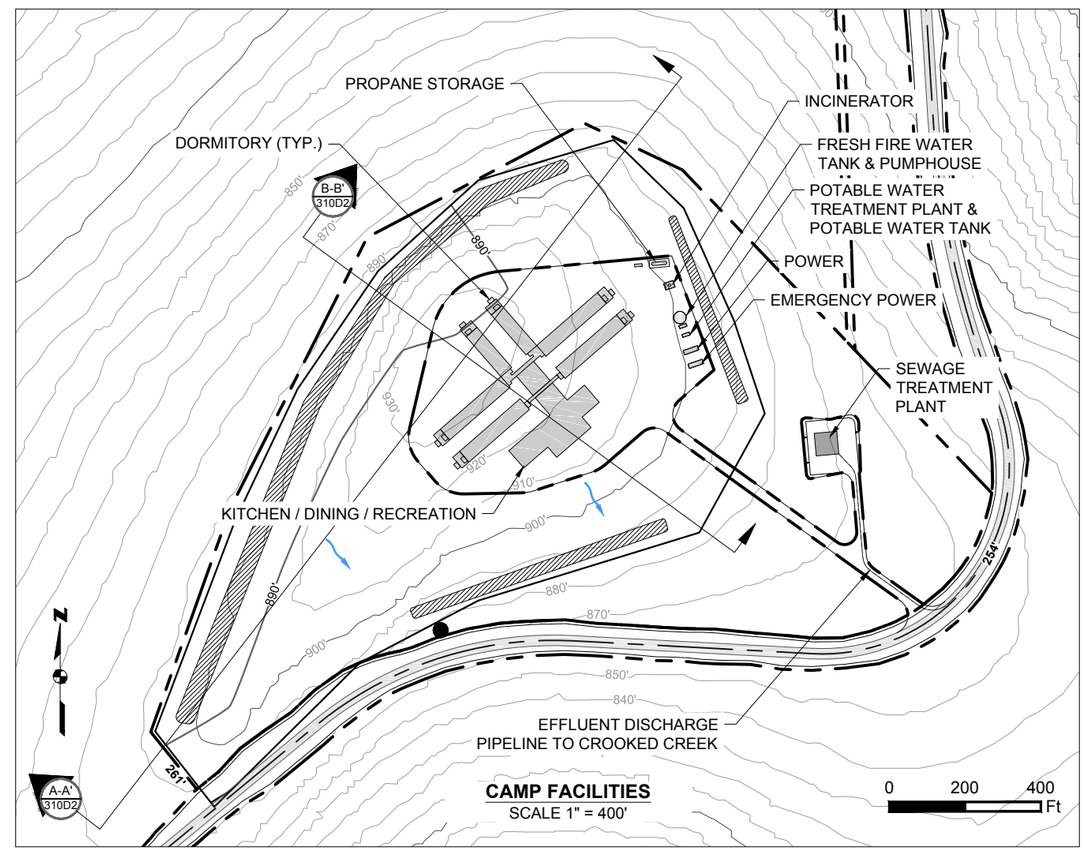
A-A' 310D2 **CROSS-SECTION A-A'**
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



B-B' 310D2 **CROSS-SECTION B-B'**
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



MATERIAL SITE 01 PLAN VIEW
SCALE 1" = 400'



CAMP FACILITIES
SCALE 1" = 400'

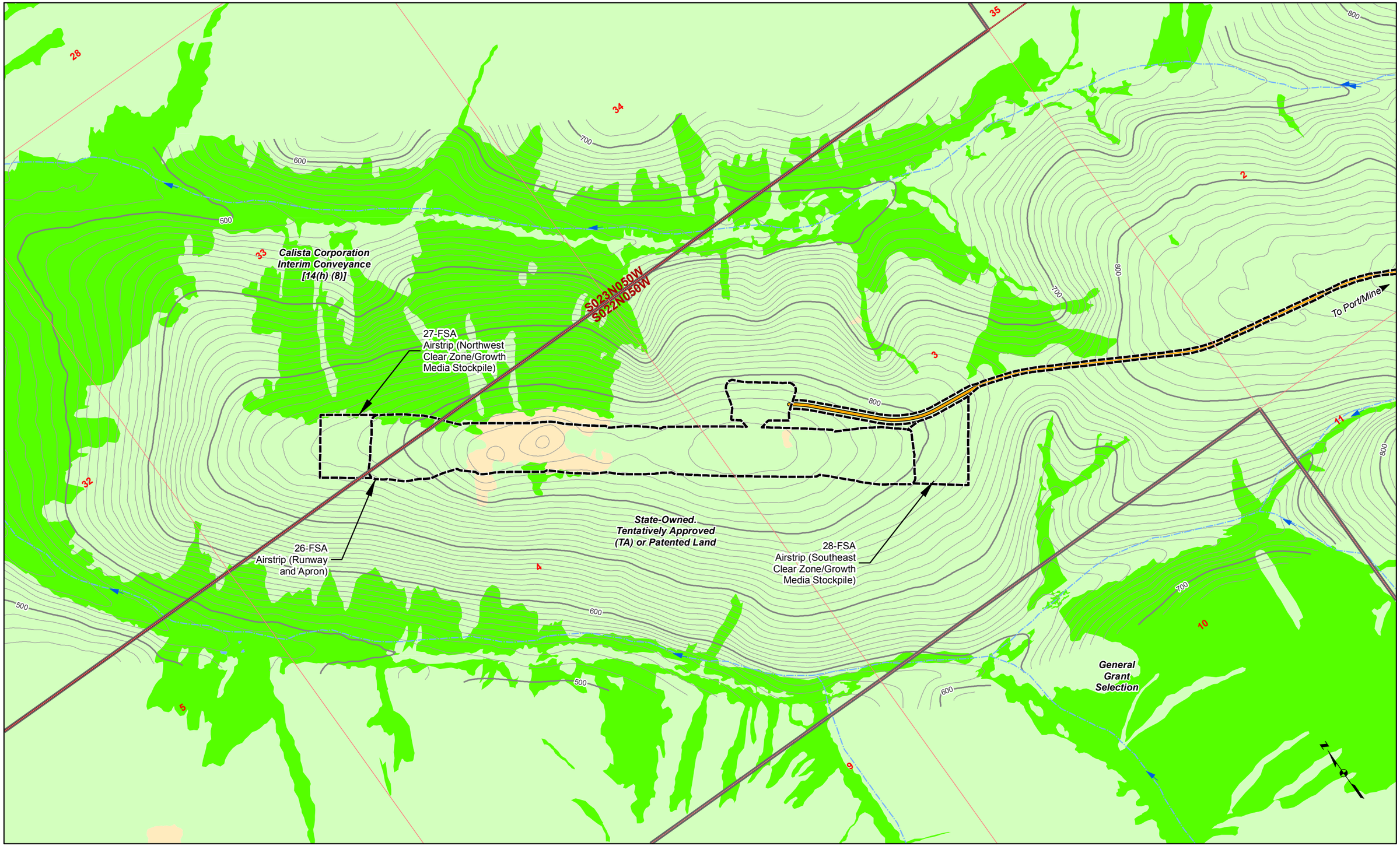
Existing 10' Contours	Cut Area
550' Existing 50' Contours	Proposed Drainage Direction
Proposed 10' Contours	Overburden And Growth Media Stockpile
550' Proposed 20' Contours	Temporary Fuel Storage

Associated Engineering Drawings
Donlin_Jungjuk_MaterialSites_Rev3_150202.dwg (RECON) FEB 2015;
A1-166549-10-13-008 vrm.dwg (AMEC) AUG 2011

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 8/11/2015

DRAWING TITLE:
MATERIAL SITE 01 LAYOUT AND SECTIONS
FIGURE NO. TA-310D2
FILE NO. POA-1995-120

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Material_sites_ML_20150811.dwg



Land Status
Road Milepost
Mosaic
Upland
Waters
Wetlands
Powerline
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

A1-166549-80-13-006.dwg (AMEC)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

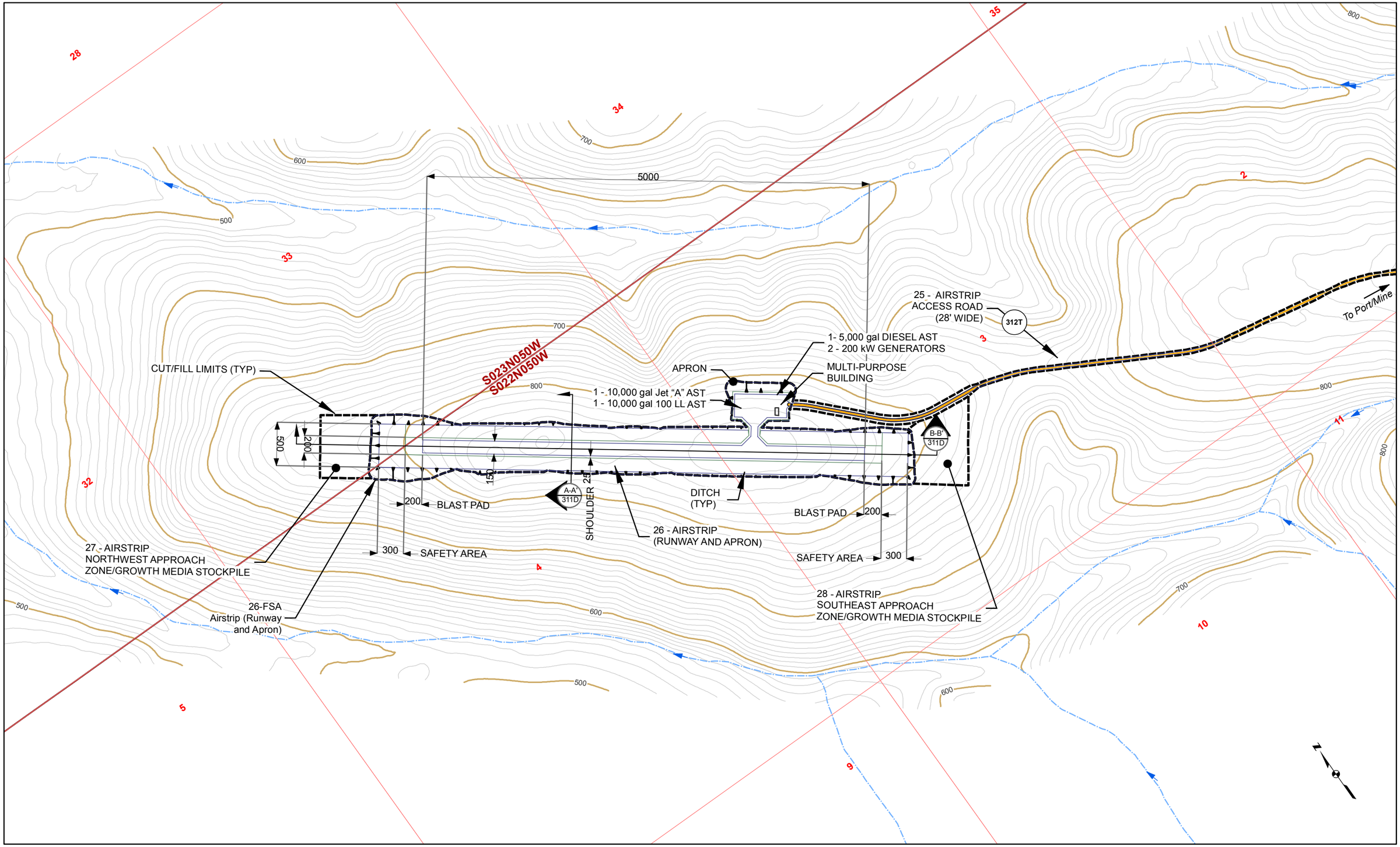
SCALE: 1 inch = 1,000 feet
DATE: 8/13/2015

DRAWING TITLE: **PLAN VIEW AIRSTRIP & ACCESS ROAD WETLANDS MAP**

FIGURE NO. **TA-311A**
FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXA_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

A1-166549-80-13-020.dwg (AMEC);

A1-166549-80-13-006.dwg (AMEC)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

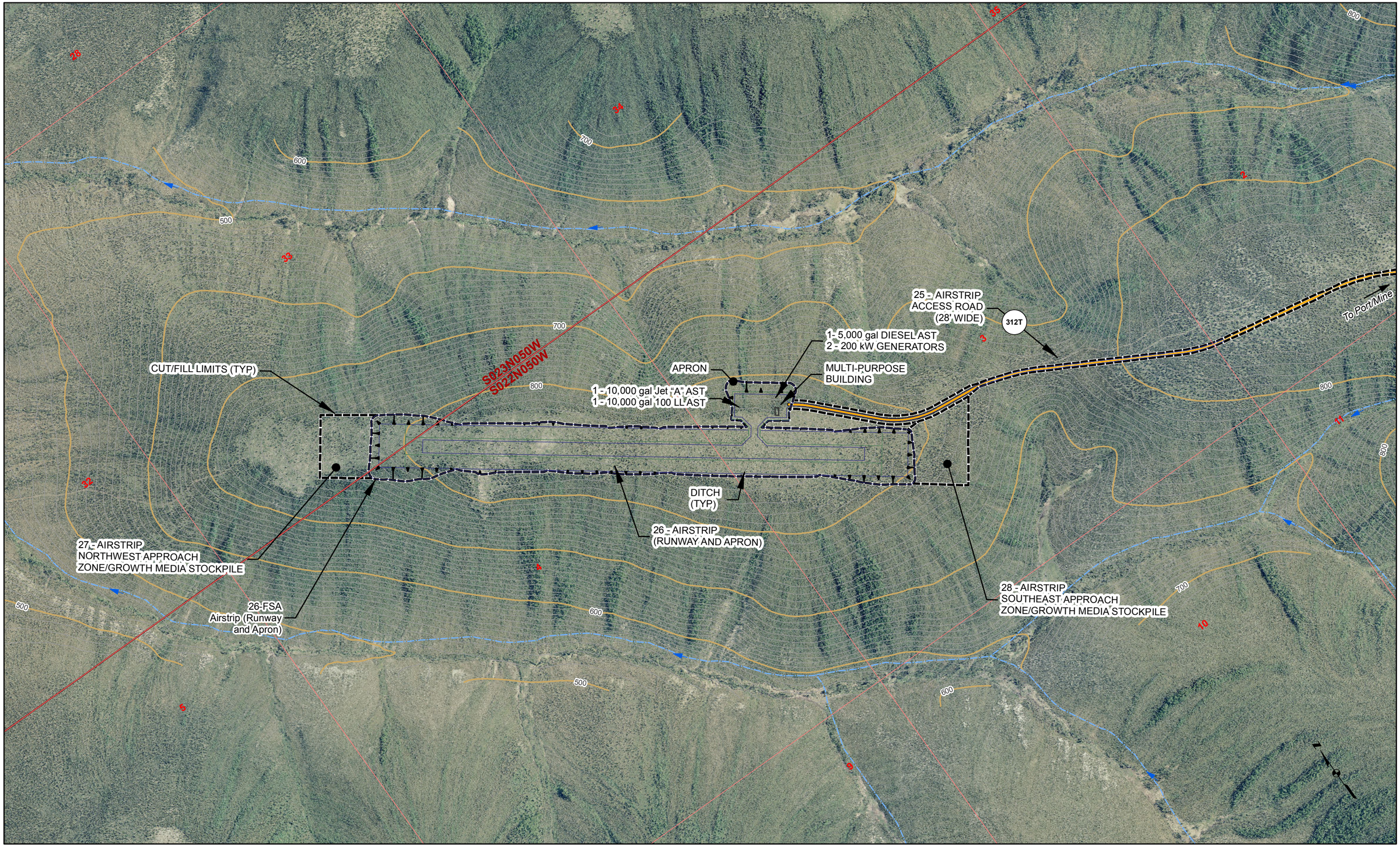
DRAWING TITLE: **PLAN VIEW AIRSTRIP & ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-311B**

FILE NO. **POA-1995-120**

PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXB_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



Road Milepost
Proposed Jungjuk Road
Bridge
Project Disturbance Limit
Culvert
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Powerline
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

A1-166549-80-13-020.dwg (AMEC);

A1-166549-80-13-006.dwg (AMEC)

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet

DATE: 8/12/2015

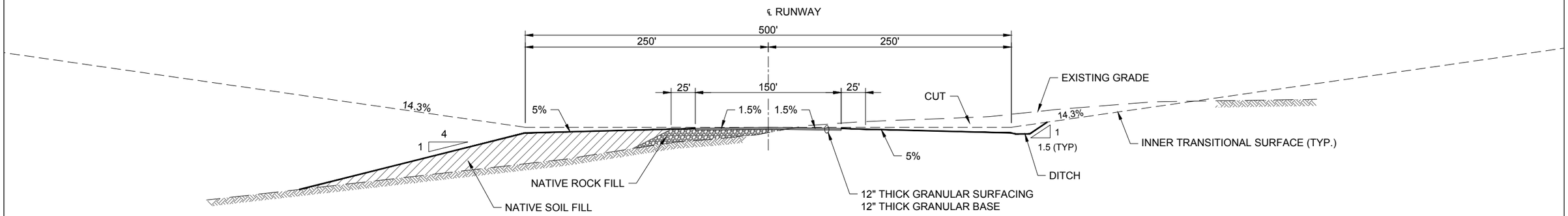
DRAWING TITLE: **PLAN VIEW AIRSTRIP & ACCESS ROAD ENGINEERING MAP**

FIGURE NO. **TA-311C**

FILE NO. **POA-1995-120**

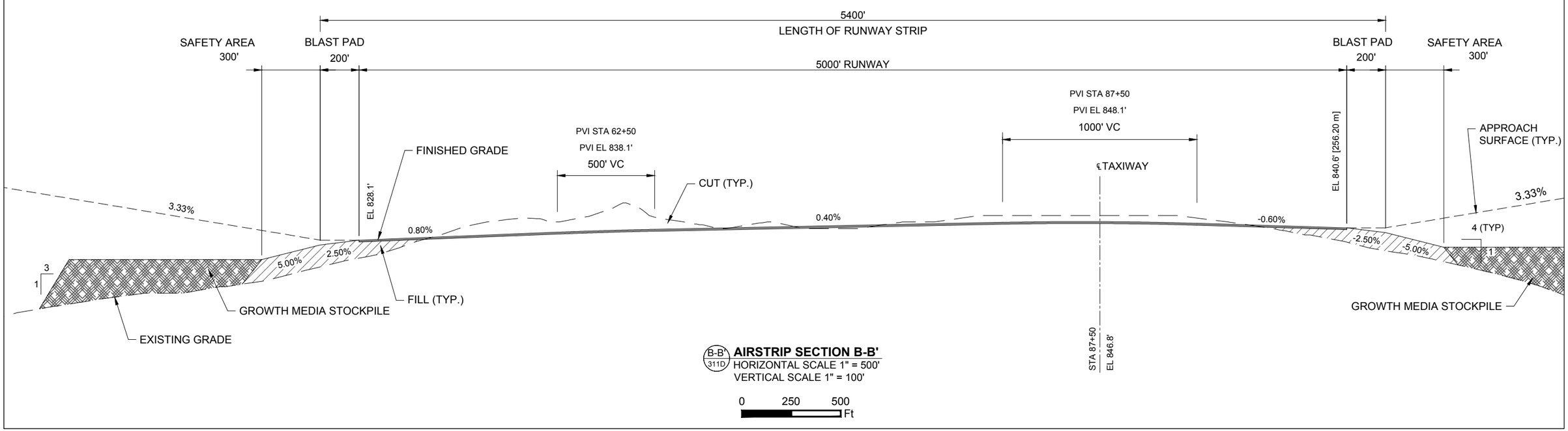
PATH: C:\Users\aradel\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_3XXC_Road_MB_ABR_20150812.mxd

Basemap Source: Sources: Esri, USGS, NOAA



A-A' 311D **AIRSTRIP SECTION A-A'**
HORIZONTAL SCALE 1" = 100'
VERTICAL SCALE 1" = 100'

0 50 100 Ft

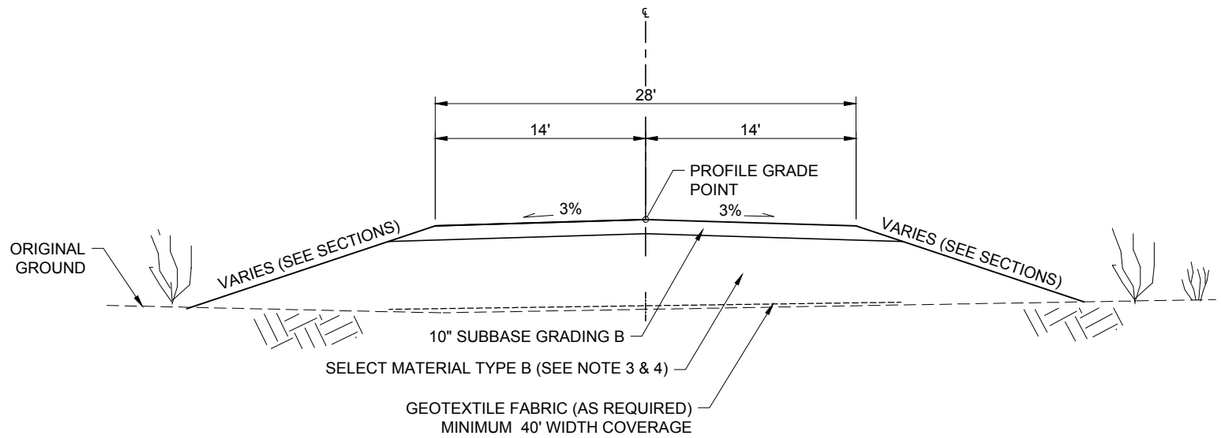


B-B' 311D **AIRSTRIP SECTION B-B'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

0 250 500 Ft

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
A1-166549-80-13-020 (AMEC) 04/05/2011; A1-166549-80-13-021 (AMEC) 04/05/2011	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**AIRSTRIP SECTIONS**
	SCALE: AS SHOWN DATE: 8/11/2015	FIGURE NO. **TA-311D** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Airstrip_Section_ML_20150811.dwg



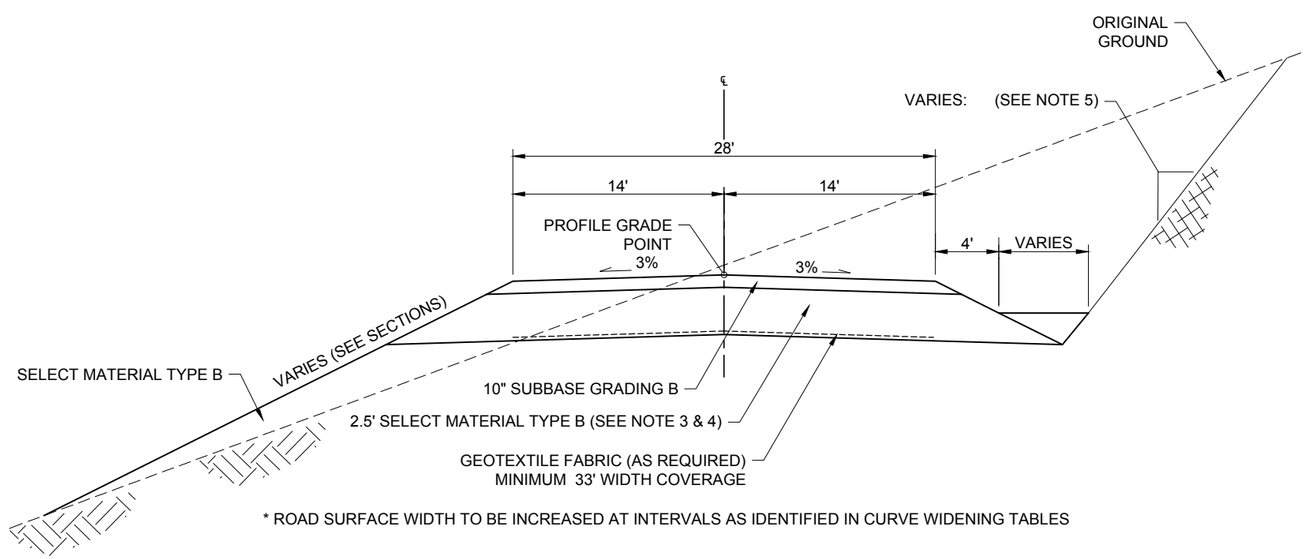
SECTION TYPICAL FOR WETLAND AND PERMAFROST INTERVALS IN MOSTLY LEVEL TERRAIN.

A-A' 312T **ROAD TYPICAL SECTION FOR WETLAND OR PERMAFROST AREAS**
SCALE 1" = 10'

0 5 10 Ft

NOTES:

1. CLEARING LIMITS ARE TOE OF FILL.
2. SUBASE GRADING B; TO CONSIST OF 3" MINUS, WELL GRADED, GRANULAR MATERIAL WITH 6 TO 10% PASSING THE 200 SIEVE. MATERIAL TO BE DURABLE
3. SELECT MATERIAL TYPE B; TO CONSIST OF COARSE ROCK OR GRAVEL. NON-FROST-SUSCEPTIBLE.
4. DEPTH OF FILL WILL VARY DEPENDING ON SOIL TYPE AND CONDITION. 6' TOTAL EMBANKMENT DEPTH WILL TYPICALLY BE THE MINIMUM.
5. TO THE EXTENT POSSIBLE, NATIVE VEGETATION AND GROUND SURFACE TO BE LEFT INPLACE.



* ROAD SURFACE WIDTH TO BE INCREASED AT INTERVALS AS IDENTIFIED IN CURVE WIDENING TABLES

B-B' 312T **ROAD TYPICAL SECTION FOR AREAS WITH GOOD SOILS OR ROCK**
SCALE 1" = 10'

0 5 10 Ft

NOTES:

1. CLEARING LIMITS MIN. 3.3' BEYOND TOP OF CUT OR TOE OF FILL.
2. SUBASE GRADING B; TO CONSIST OF 3" MINUS, WELL GRADED, GRANULAR MATERIAL WITH 6 TO 10% PASSING THE 200 SIEVE. MATERIAL TO BE DURABLE
3. SELECT MATERIAL TYPE B; TO CONSIST OF COARSE ROCK OR GRAVEL. NON-FROST-SUSCEPTIBLE.
4. DEPTH OF FILL WILL VARY DEPENDING ON SOIL TYPE AND CONDITION. 3.3' TOTAL EMBANKMENT DEPTH WILL TYPICALLY BE THE MINIMUM.
5. BACKSLOPES WILL VARY DEPENDENT UPON SOIL TYPES OR ROCK CHARACTERISTICS.
   TYPICAL:
   3.0 : 1 FOR WET SILTY COLLUVIAL SOIL
   2.0 : 1 FOR WELL DRAINED SILT AND SILTY GRAVEL
   1.5 : 1 FOR WELL DRAINED SILT AND SILTY GRAVEL UP TO 1.0 : 1 FOR ROCK
6. ACCOMODATE EXCESS EXCAVATION AND WASTE DISPOSAL BY FLATTENING AND/OR EXTENDING INSLOPE. EXTENT TO BE DETERMINED BY FIELD ENGINEER.

Associated Engineering Drawings

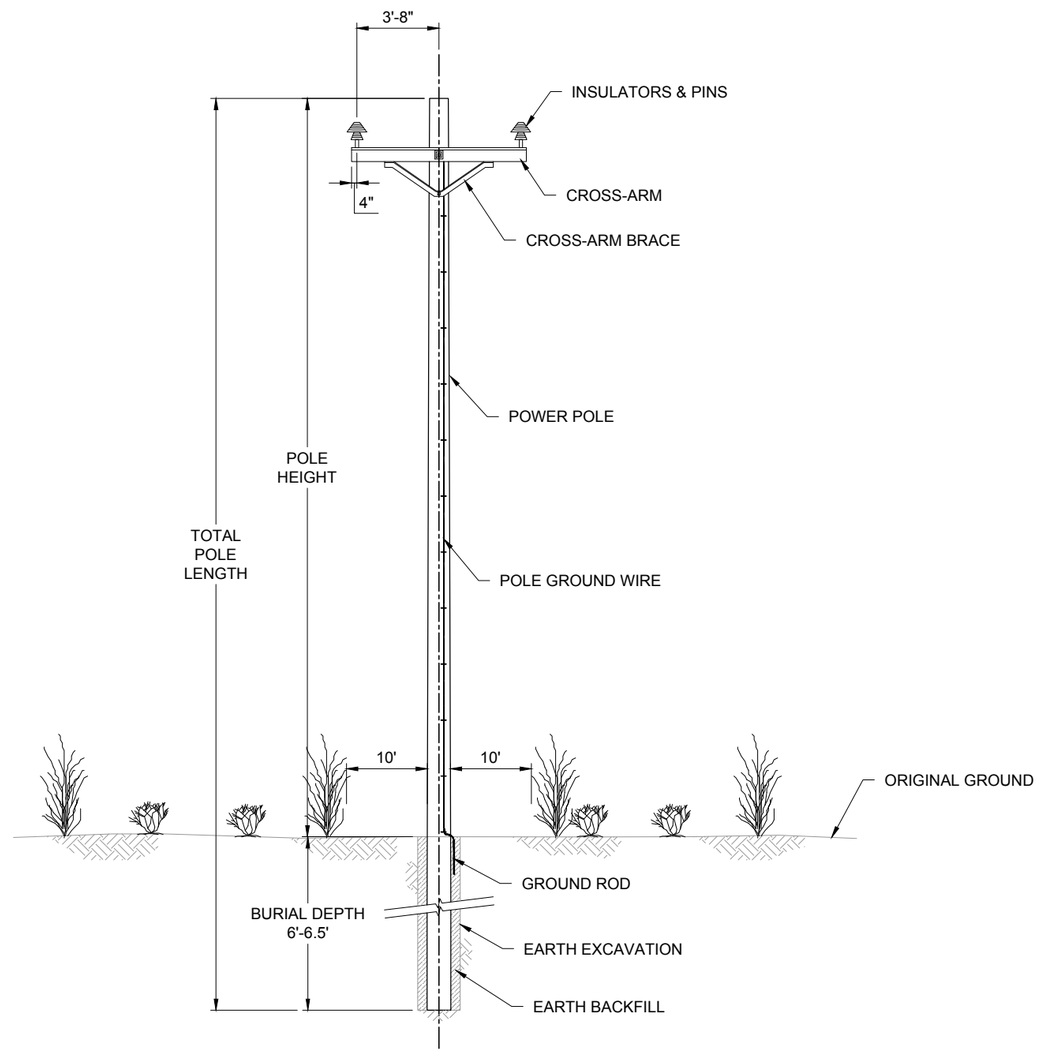
A1-166549-4100-C-0097 (RECON/AMEC) MAR 2012;
A1-166549-4100-S-101 (RECON/AMEC) MAR 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

DRAWING TITLE: **ROAD TYPICAL SECTIONS**

SCALE: AS SHOWN | DATE: 8/11/2015 | FIGURE NO. **TA-312T** | FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\1A_Access_Road_Typicals_ML_20150811.dwg



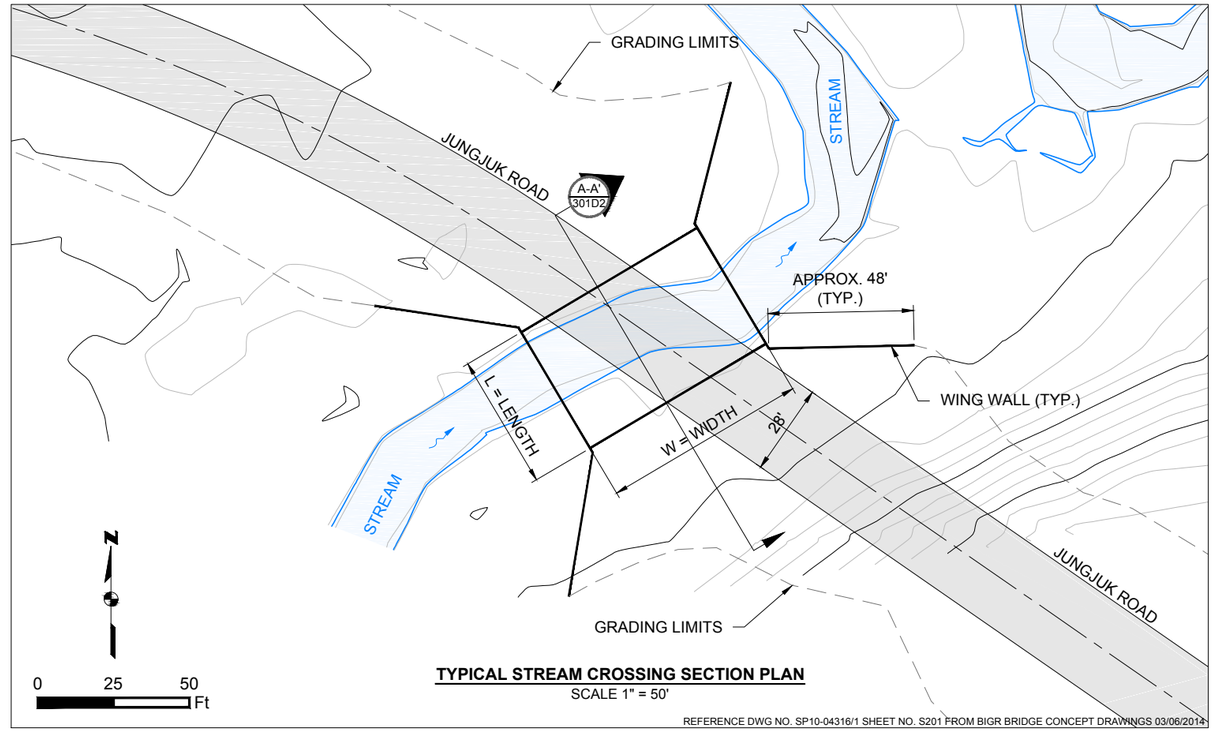
A 313T **POWERPOLE SECTION**
N.T.S.

NOTES:

1. CLEARING LIMITS TO BE MIN. 10' EACH SIDE OF POWER POLE.
2. MULCH AND ORGANIC DEBRIS FROM CLEARING TO REMAIN ON GROUND SURFACE.
3. SOIL NOT TO BE DISTURBED EXCEPT AT SPECIFIC LOCATIONS AS PERMITTED.
4. DIMENSIONS ARE APPROXIMATE.

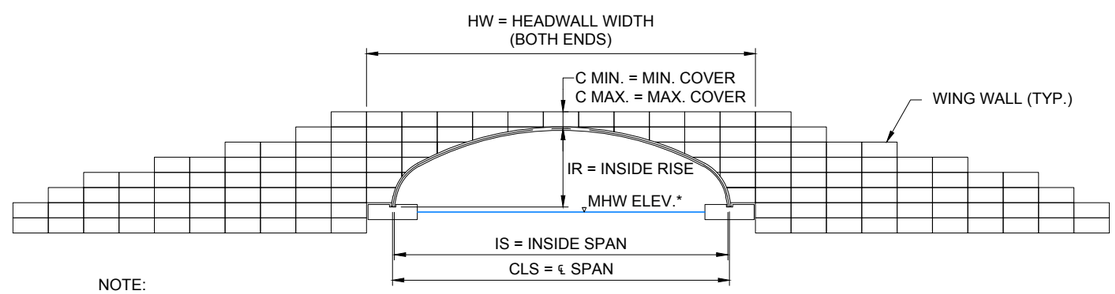
Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL POWERPOLE CLEARING LIMITS DETAILS**	
M21E-DT-EE_01.dwg (BAKER) SEP 2014	NAD 1983 UTM Zone 4N	FIGURE NO. **TA-313T**	FILE NO. **POA-1995-120**
	SCALE: AS SHOWN DATE: 8/11/2015		

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Powerpole_ML_20150811.dwg



TYPICAL STREAM CROSSING SECTION PLAN
SCALE 1" = 50'

REFERENCE DWG NO. SP10-04316/1 SHEET NO. S201 FROM BIGR BRIDGE CONCEPT DRAWINGS 03/06/2014



NOTE:
- STRUCTURE LENGTH AND HEAD/WING WALL LAYOUT TO BE DETERMINED PENDING FINAL SITE SURVEY AND GRADING PLAN.
* MHW ELEVATION IS FOR GRAPHIC DISPLAY ONLY, THE ACTUAL ELEVATIONS ARE PENDING HYDROLOGIC AND HYDRAULIC STUDY AND DESIGN

0 10 20
Ft

A-A' 314T **TYPICAL STREAM CROSSING SECTION A-A'**
SCALE 1" = 20'

CREEK CROSSING DIMENSIONS

	W	L	HW	IR	C MIN.	C MAX.	IS	CLS
NORTH FORK GETMUNA CREEK	67'-6"	44'-5 1/2"	48'	10'-1 1/8"	2'	3'	44'-0 3/16"	44'-5 9/16"
SOUTH FORK GETMUNA CREEK	70'	44'-5 1/2"	48'	10'-1 1/8"	2'	3'	44'-0 3/16"	44'-5 9/16"
GETMUNA TRIBUTARY CREEK	70'	30'-10 1/2"	40'	9'-11 1/4"	3'	4'	30'-5 1/16"	30'-10 9/16"
UPPER JUNGJUK CREEK	50'	29'-11 3/4"	32'	10'-10 3/4"	3'	4'	29'-6 3/8"	29'-11 7/8"
LOWER JUNGJUK CREEK	40'-7 3/4"	67'-6"	44'	14'-10 3/16"	3'	4'	40'-2 3/16"	40'-7 11/16"

DIMENSIONS BASED ON REFERENCE DRAWINGS SP10-04316/1 S101, S201, S102, S202, S103, S203, S104, S205 FROM BIGR BRIDGE CONCEPT DRAWINGS.

Associated Engineering Drawings
SP10-04316/1 S101 (BIGR) 03/06/2014

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

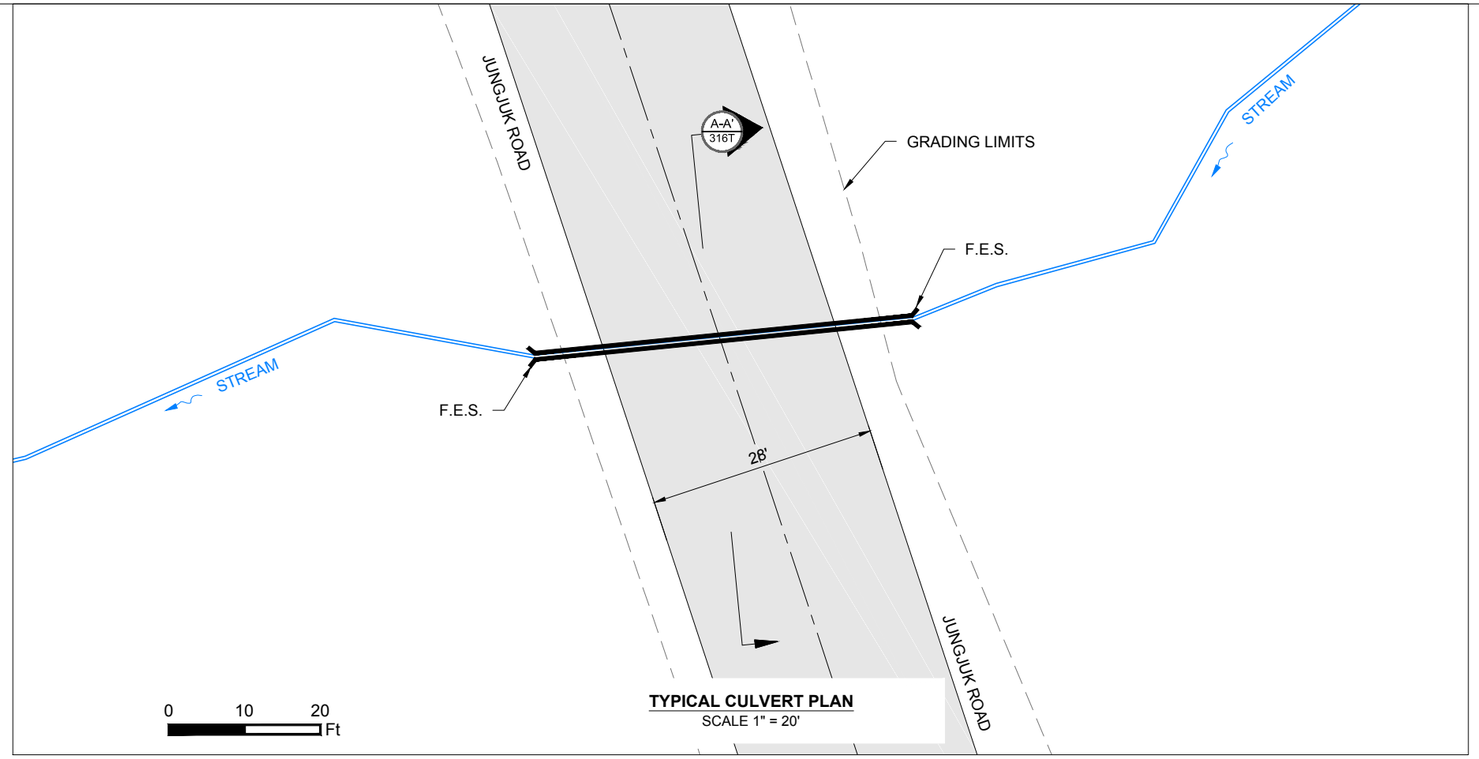
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 8/11/2015

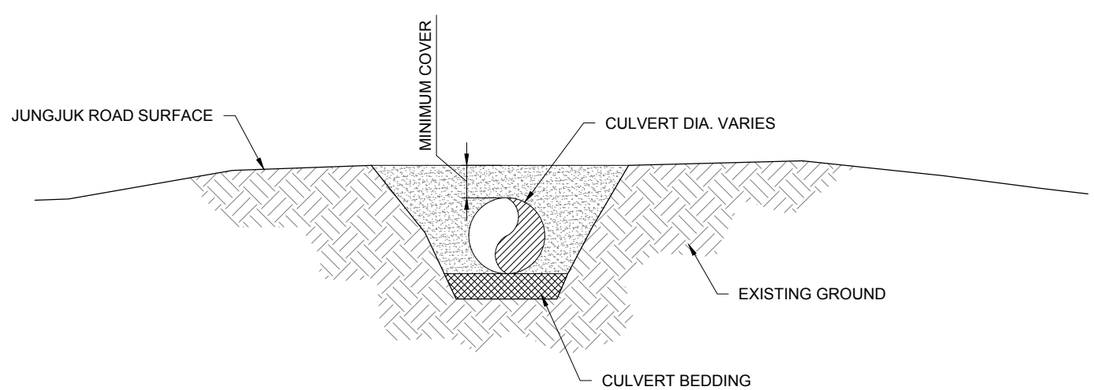
DRAWING TITLE:
TYPICAL BRIDGE STREAM CROSSING

FIGURE NO. **TA-314T**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\TA_Stream_Xing_ML_20150811.dwg



TYPICAL CULVERT PLAN
SCALE 1" = 20'



NOTE: MINIMUM COVER AND CULVERT BEDDING TO BE DETERMINED WITH SITE SPECIFIC DESIGN.

0 6 12 In

A-A' 316T **TYPICAL CULVERT SECTION A-A'**
SCALE 1" = 1'

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL CULVERT**	
	NAD 1983 UTM Zone 4N	FIGURE NO. **TA-316T**	FILE NO. **POA-1995-120**
	SCALE: AS SHOWN DATE: 8/11/2015		

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\TA_Culvert_ML_20150811.dwg

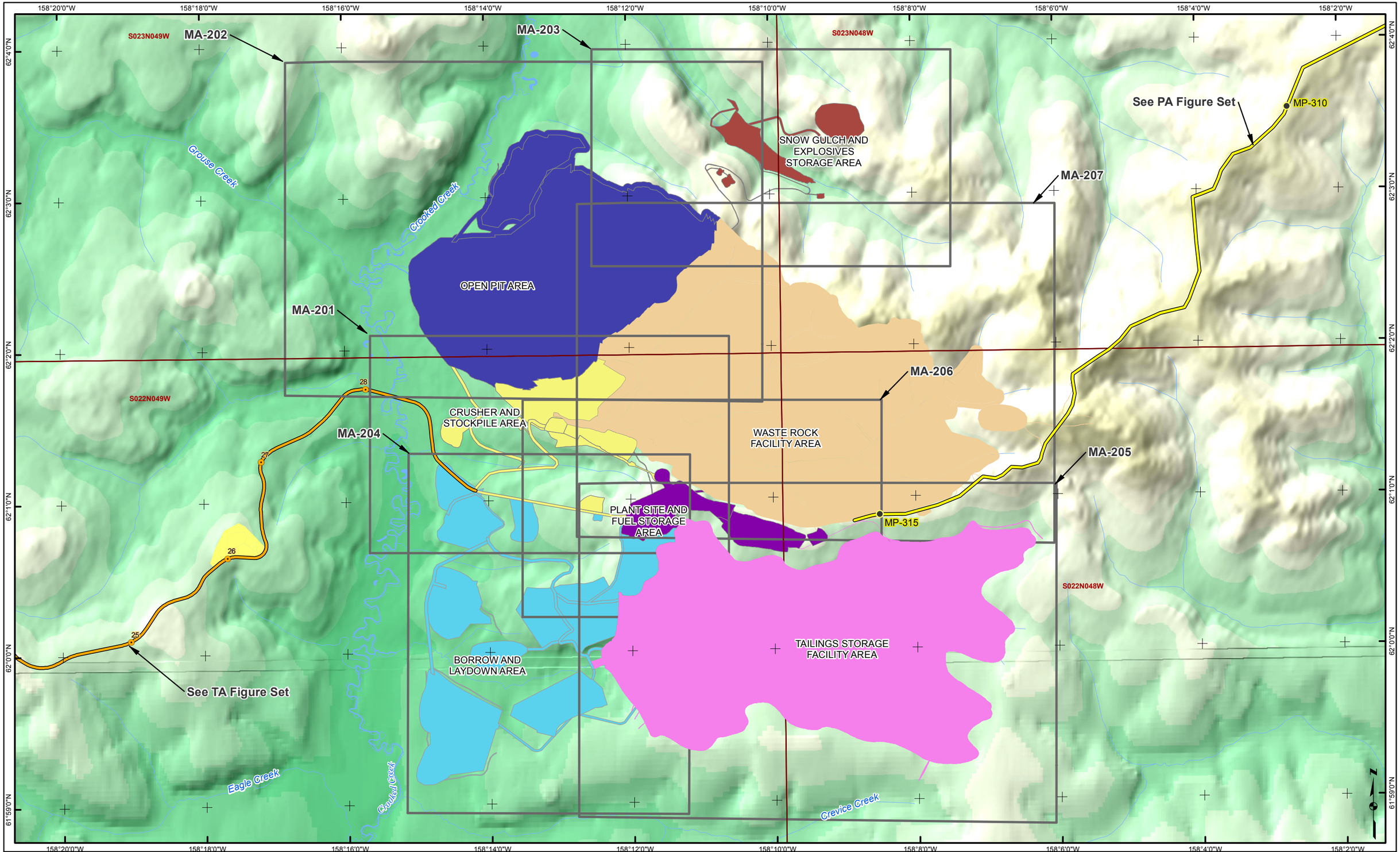


Figure Set

- Pipeline Milepost (MP)
- Road Milepost
- Proposed Natural Gas Pipeline
- Proposed Jungjuk Road
- River/Stream
- MA-206
- MA-203
- MA-207
- MA-205
- MA-202
- MA-204
- MA-201

Associated Engineering Drawings

0 1,750 3,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 3,500 feet
DATE: 10/5/2015

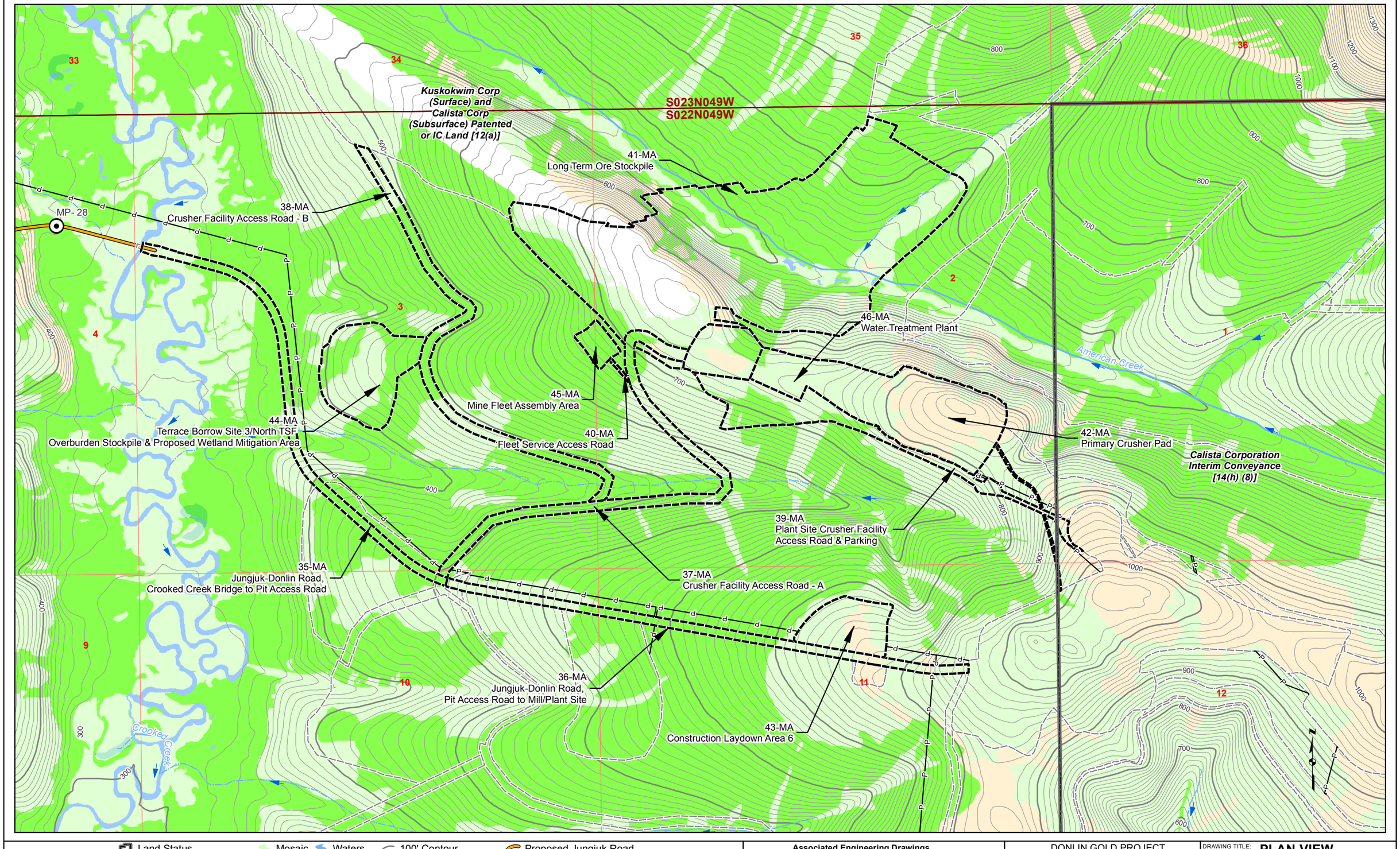
DRAWING TITLE: **PLAN VIEW MINE AREA INDEX MAP**

FIGURE NO. **MA-200G**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_200G_Index_ABR_20150928.mxd

Basemap Source: USGS, NGA, NASA, CGIAR,N Robinson,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA and the GIS User Community; Sources: Esri, USGS, NOAA



Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

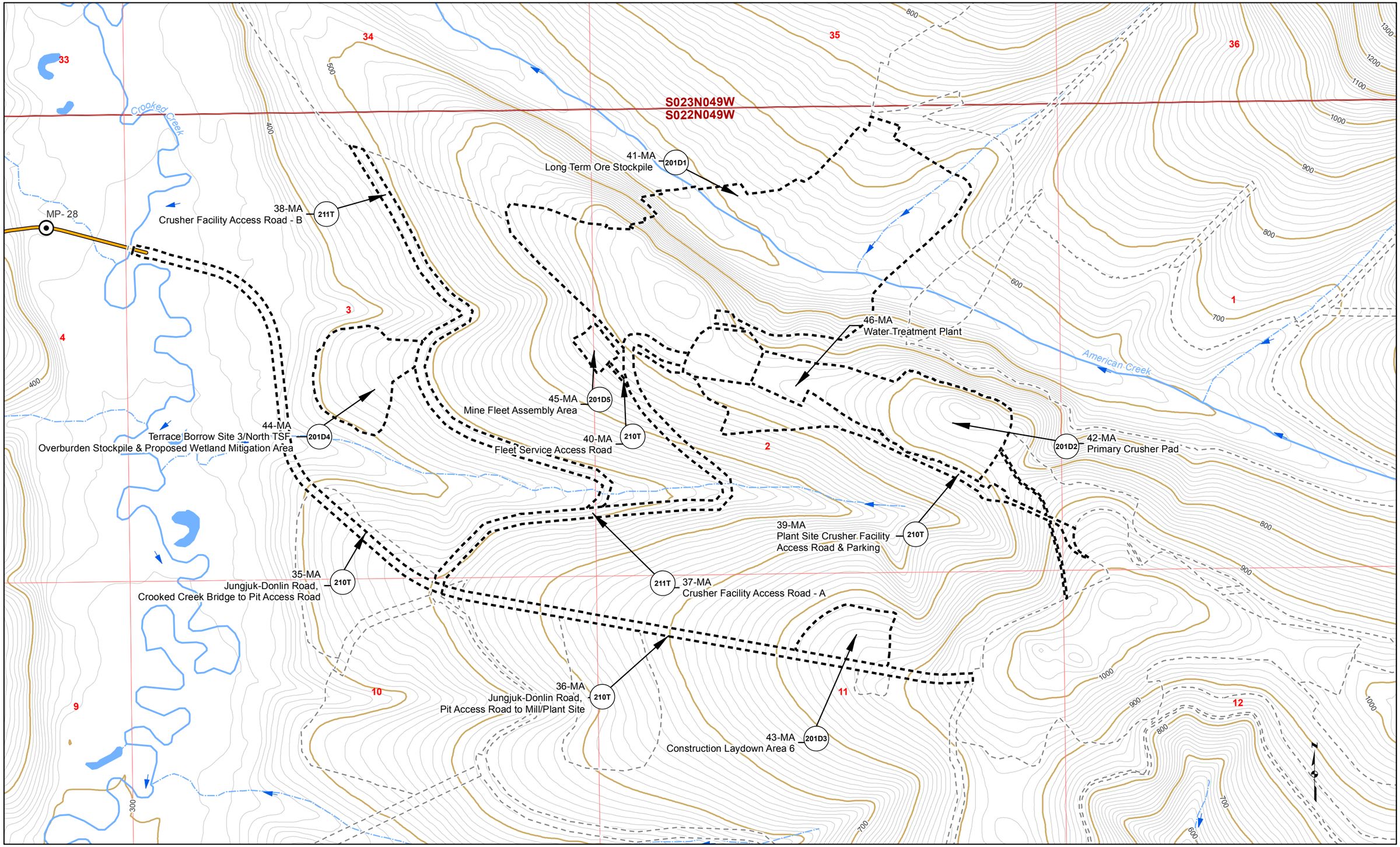
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-201A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

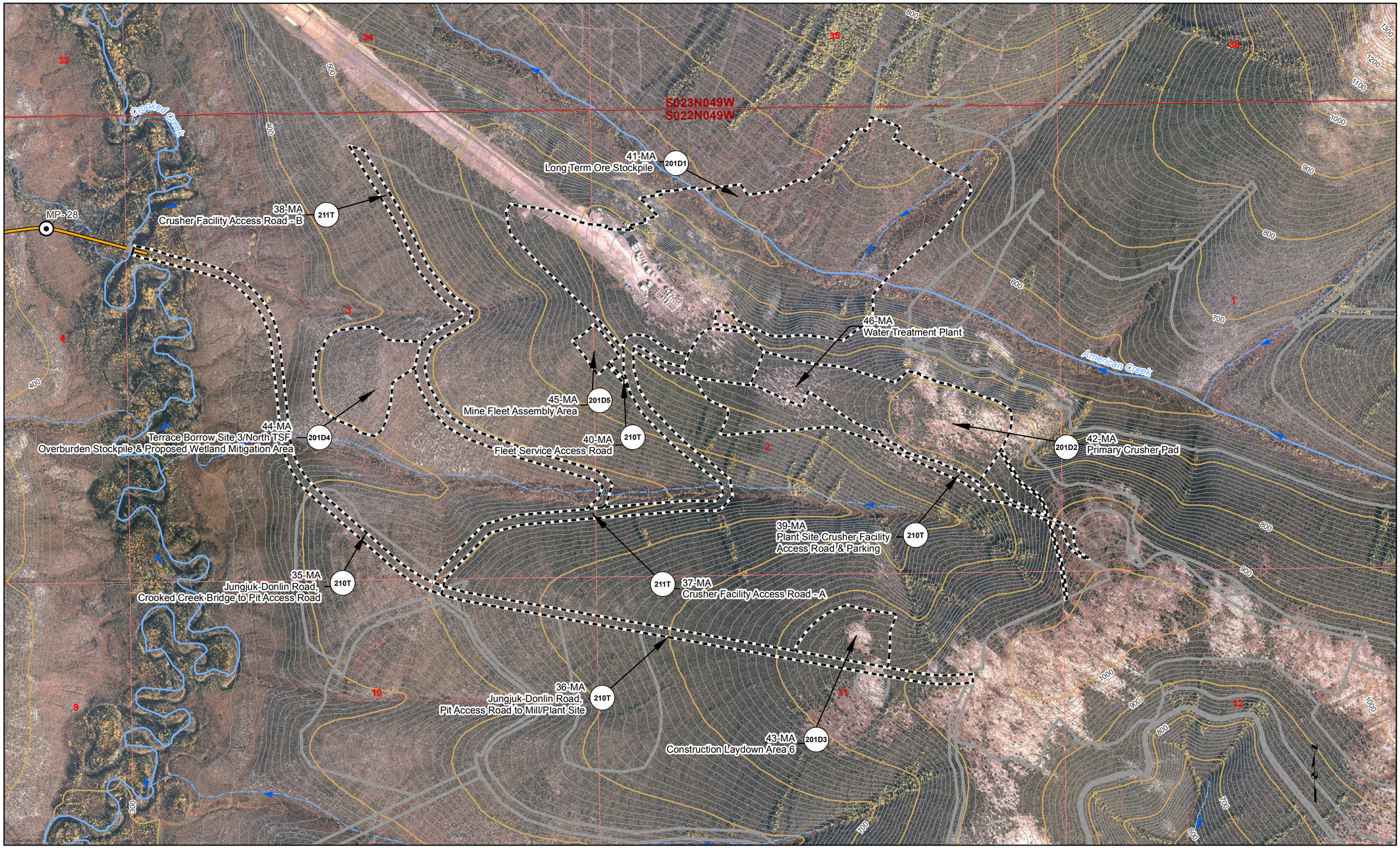
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-201B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

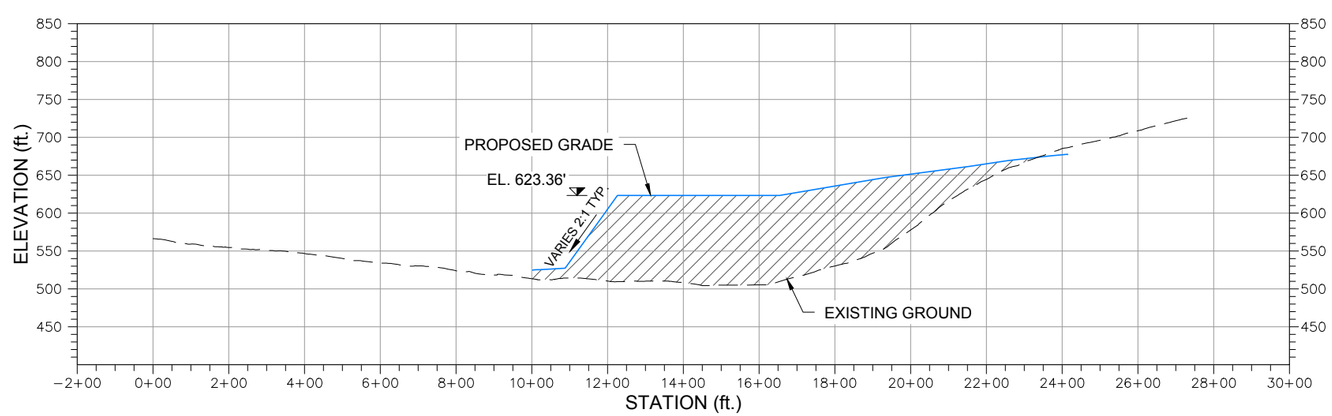
FIGURE NO. **MA-201C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd

LONG TERM ORE STOCKPILE PLAN

SCALE 1" = 500'



A-A' 201D1 **LONG TERM ORE STOCKPILE SECTION A-A'**

HORIZONTAL SCALE 1" = 400'

VERTICAL SCALE 1" = 200'

Existing 10' Contours
700' Existing 50' Contours
Proposed 10' Contours
700' Proposed 50' Contours
Fill Area
Exisitng Ground
Proposed Grade
Project Disturbance

NOTE:
STOCKPILE WILL VARY IN SIZE AND SHAPE THROUGHOUT THE MINE LIFE. AT THE END OF MINE LIFE, ALL STOCKPILED ORE WILL BE FED TO THE PLANT AND THE STOCKPILE WILL NO LONGER EXIST.

Associated Engineering Drawings

ORE_STOCKPILE_BERM_AND_SUMP.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

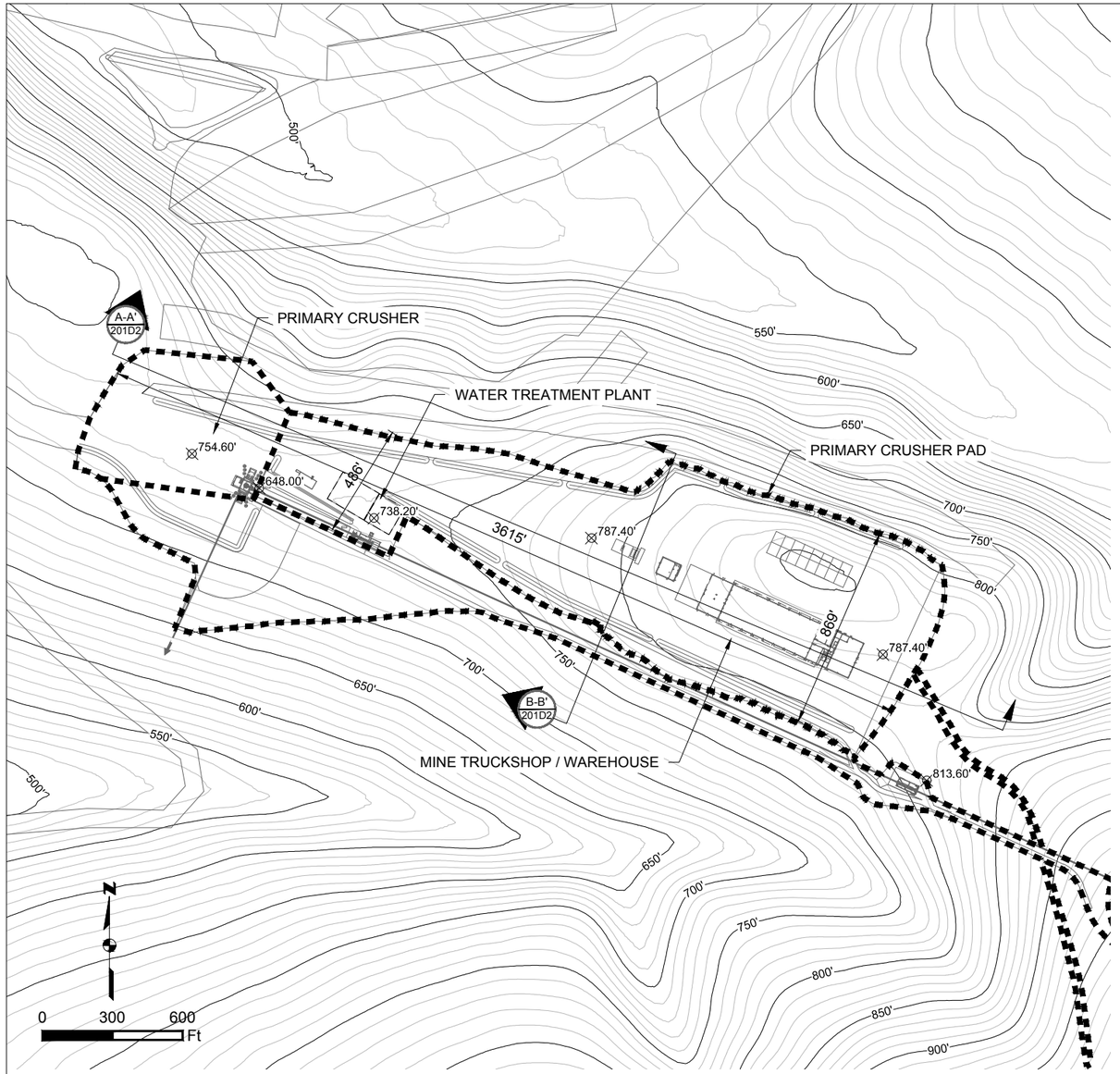
SCALE: AS SHOWN DATE: 9/11/2015

DRAWING TITLE:
LONG TERM ORE STOCKPILE DETAIL

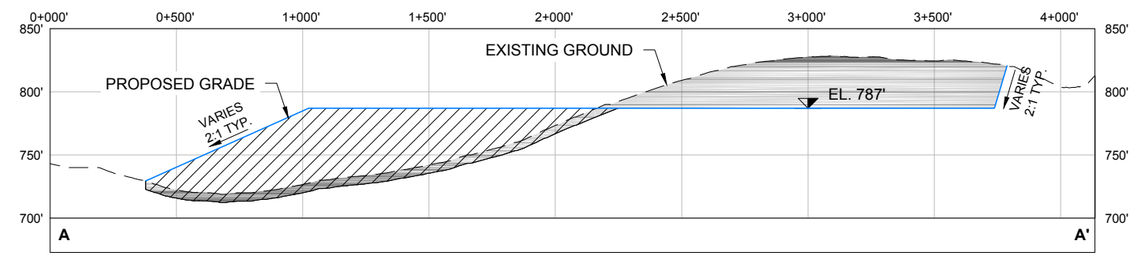
FIGURE NO. **MA-201D1**

FILE NO. **POA-1995-120**

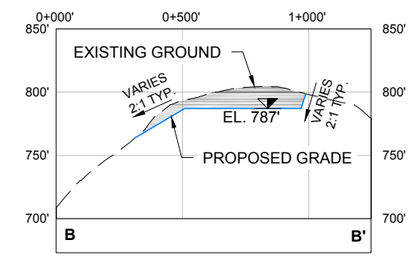
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Long_Term_Ore_Stockpile.dwg



PRIMARY CRUSHER PAD PLAN
SCALE 1" = 600'



A-A' 201D2 **PRIMARY CRUSHER PAD SECTION A-A'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 201D2 **PRIMARY CRUSHER PAD SECTION B-B'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

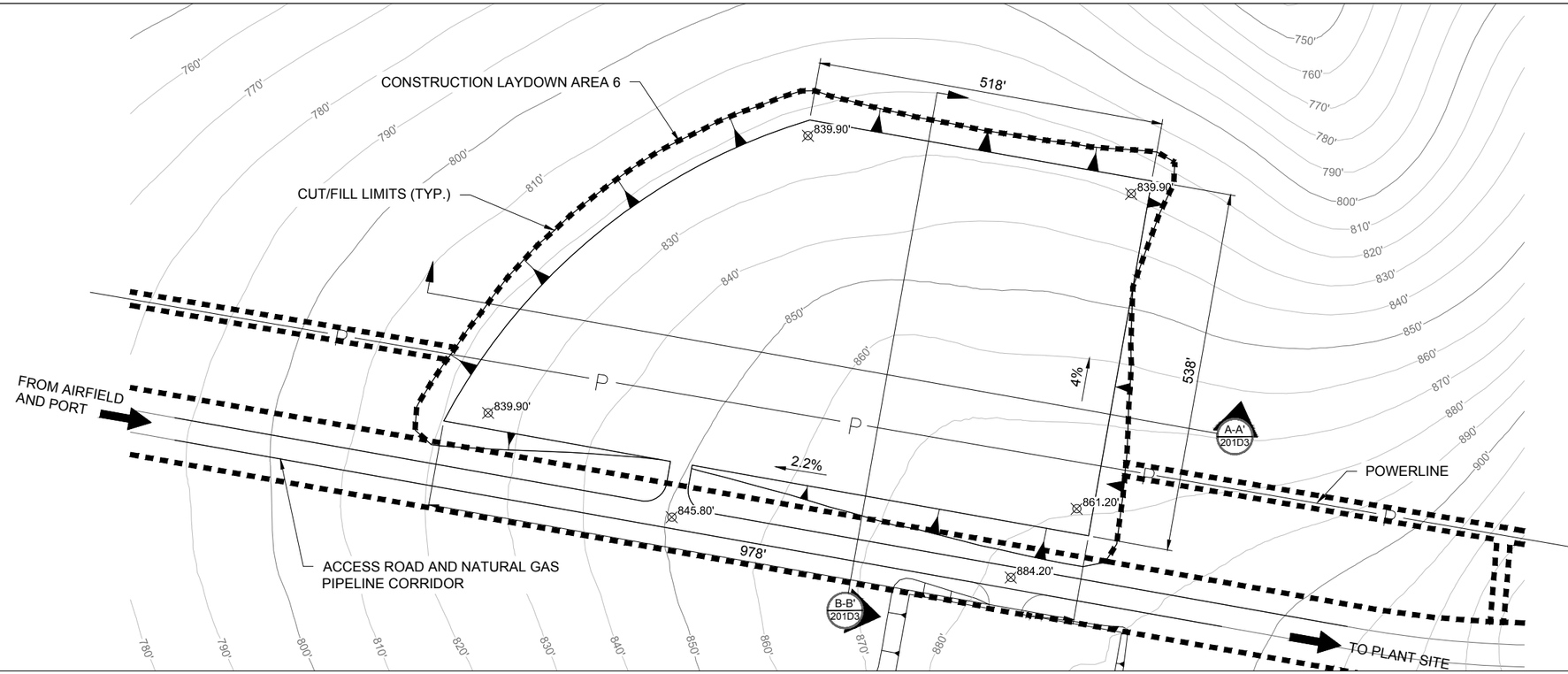
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
PRIMARY_CRUSHER,_WATER_TREATMENT_PLANT_AND_MINE_TRUCKSHOP.dwg (BGC) JUN 2012; ExToCad_Water Treatment_polys.DWG (NovaGold) AUG 2015

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

DRAWING TITLE:
PRIMARY CRUSHER PAD DETAIL
FIGURE NO. **MA-201D2**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Primary_Crusher_Pad.dwg



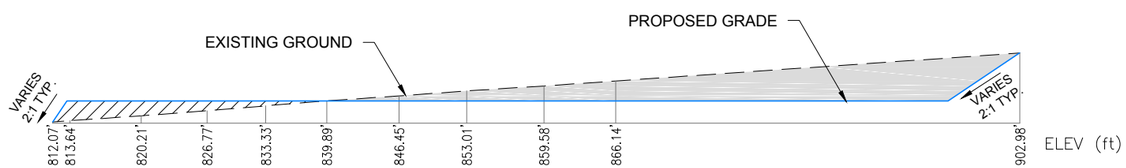
NOTES:

1. ALL EXISTING CONTOUR ELEVATIONS ARE IN FEET UNLESS NOTED OTHERWISE.
2. ALL PROPOSED ELEVATIONS AND DIMENSIONS ARE IN FEET UNLESS NOTED OTHERWISE.

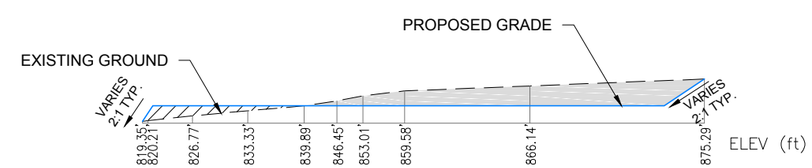
N

0 100 200 Ft

CONSTRUCTION LAYDOWN AREA 6 PLAN
SCALE 1" = 200'



A-A' 201D3 CONSTRUCTION LAYDOWN AREA 6 SECTION A-A'
N.T.S.



B-B' 201D3 CONSTRUCTION LAYDOWN AREA 6 SECTION B-B'
N.T.S.

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
M15C-SP-CN_01.dwg (BAKER) SEP 2014

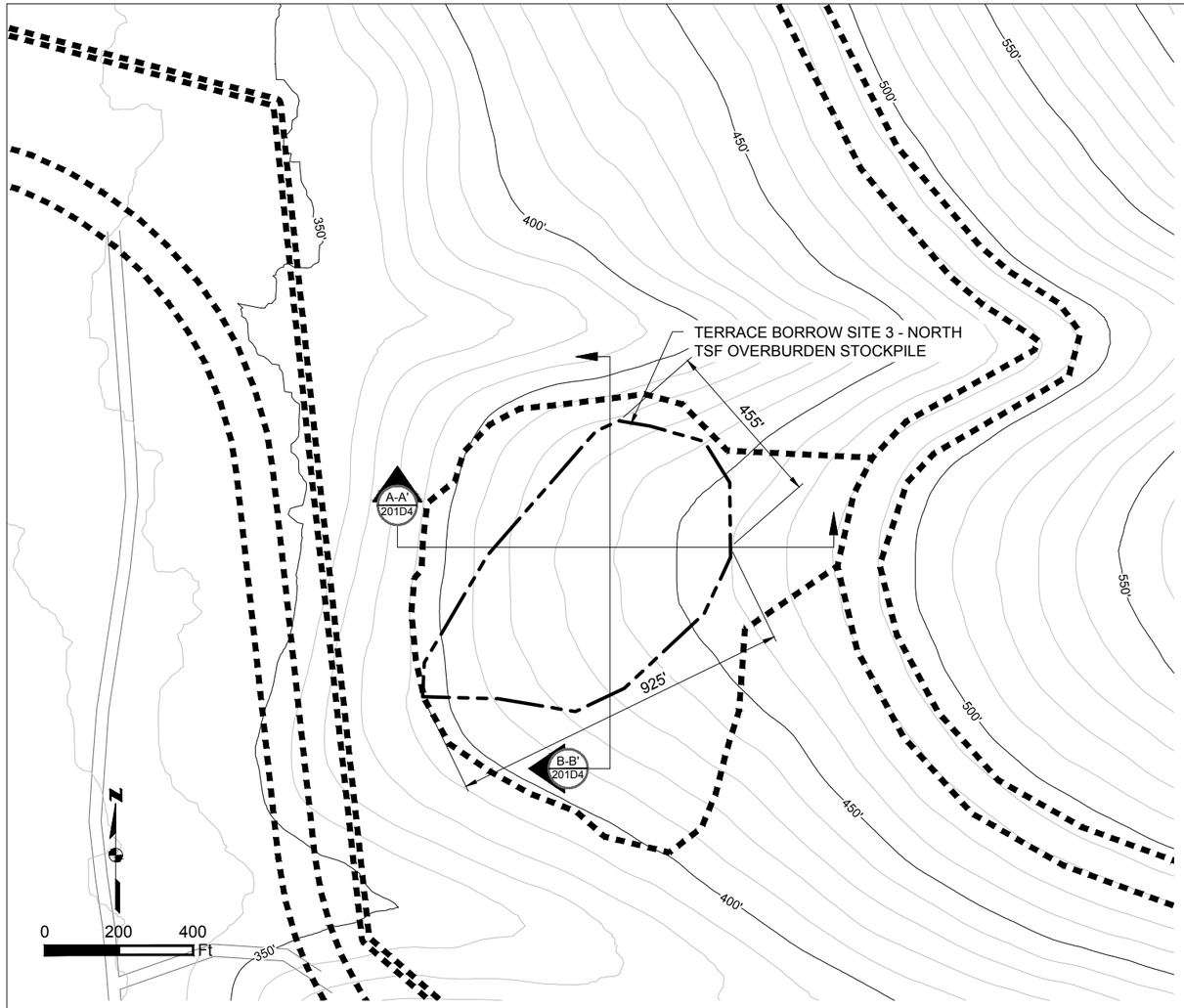
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 9/4/2015

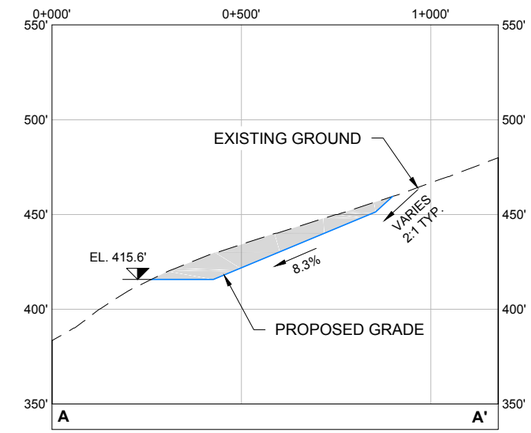
DRAWING TITLE:
CONSTRUCTION LAYDOWN AREA 6 DETAIL

FIGURE NO. **MA-201D3**
FILE NO. **POA-1995-120**

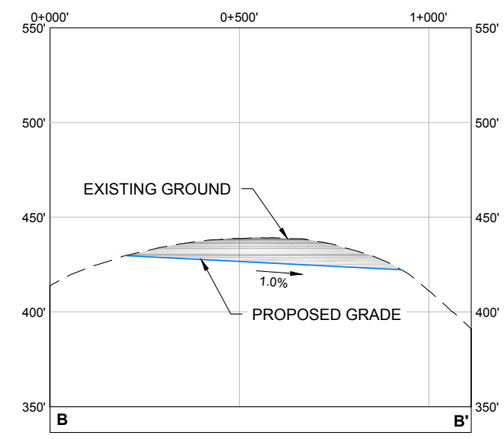
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Laydown_Area_6.dwg



TERRACE BORROW SITE 3 - NORTH TSF OVERBURDEN STOCKPILE PLAN
SCALE 1" = 400'



A-A' 201D4 TERRACE BORROW SITE 3 - NORTH TSF OVERBURDEN STOCKPILE SECTION A-A'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



B-B' 201D4 TERRACE BORROW SITE 3 - NORTH TSF OVERBURDEN STOCKPILE SECTION B-B'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'

Existing 10' Contours
700' Existing 50' Contours
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Borrow Excavation Limit*

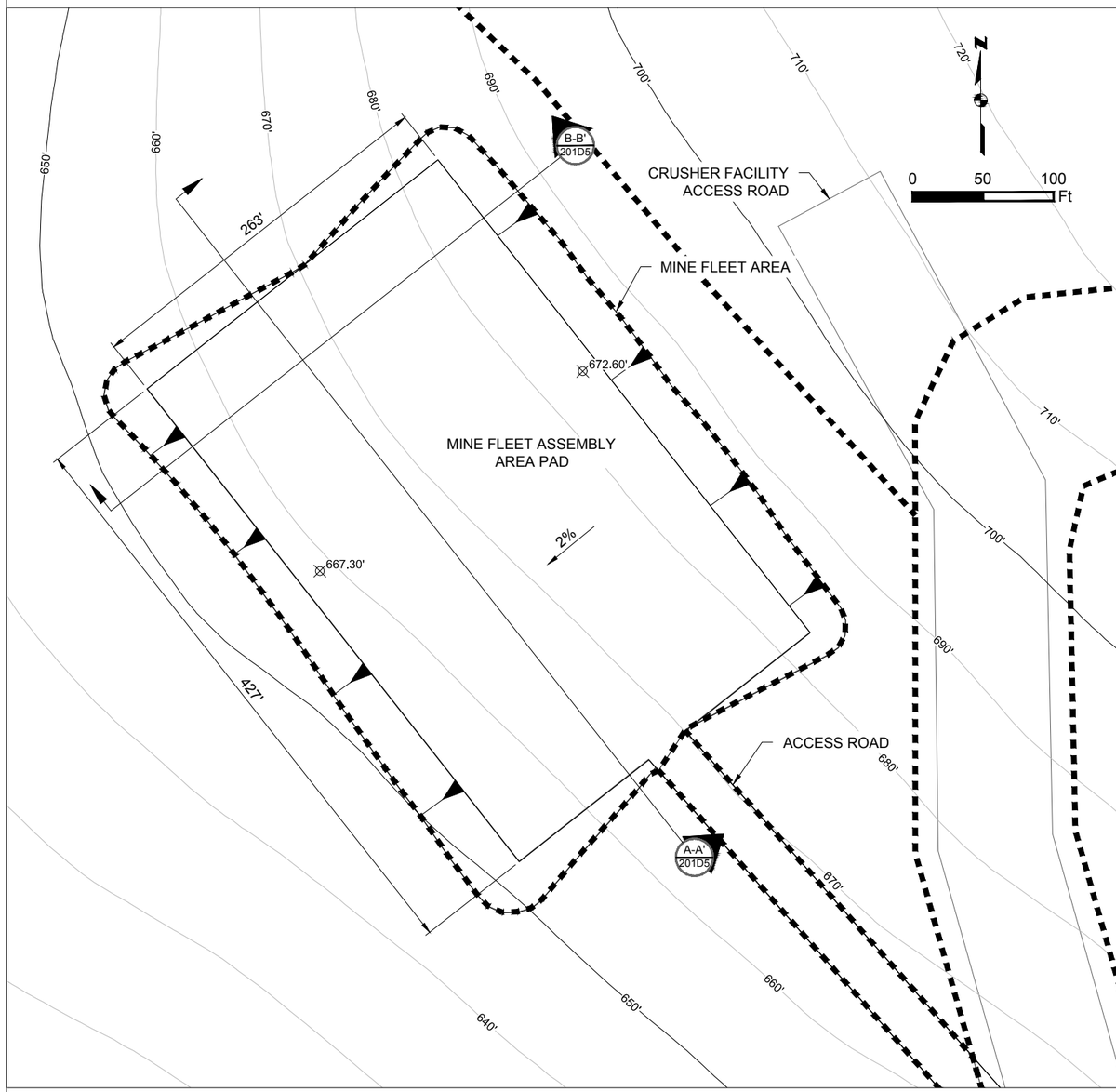
NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
TERRACE_3-5.dwg (BGC) JUN 2012

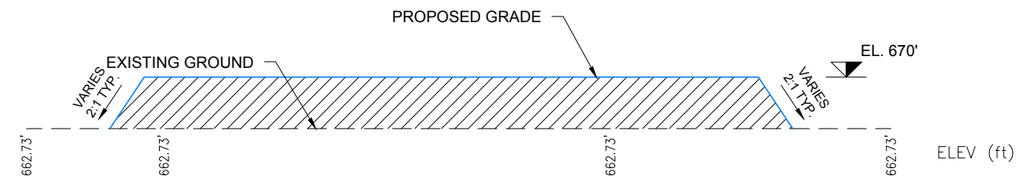
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
TERRACE BORROW SITE 3 - NORTH TSF OVERBURDEN STOCKPILE DETAIL
FIGURE NO. **MA-201D4**
FILE NO. **POA-1995-120**

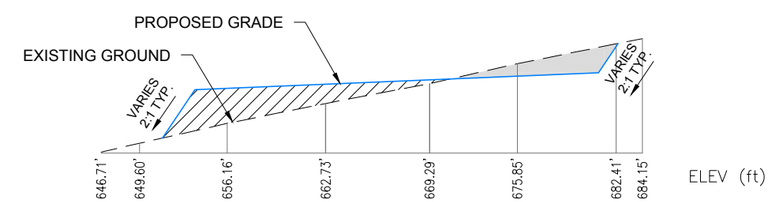
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Material_Site_Terrace_Borrow_3_4_5.dwg



MINE FLEET ASSEMBLY AREA PLAN
SCALE 1" = 100'



A-A' 201D5 **MINE FLEET ASSEMBLY AREA SECTION A-A'**
N.T.S.



B-B' 201D5 **MINE FLEET ASSEMBLY AREA SECTION A-A'**
N.T.S.

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
M12C-SP-AA_01.dwg (BAKER) SEP 2014

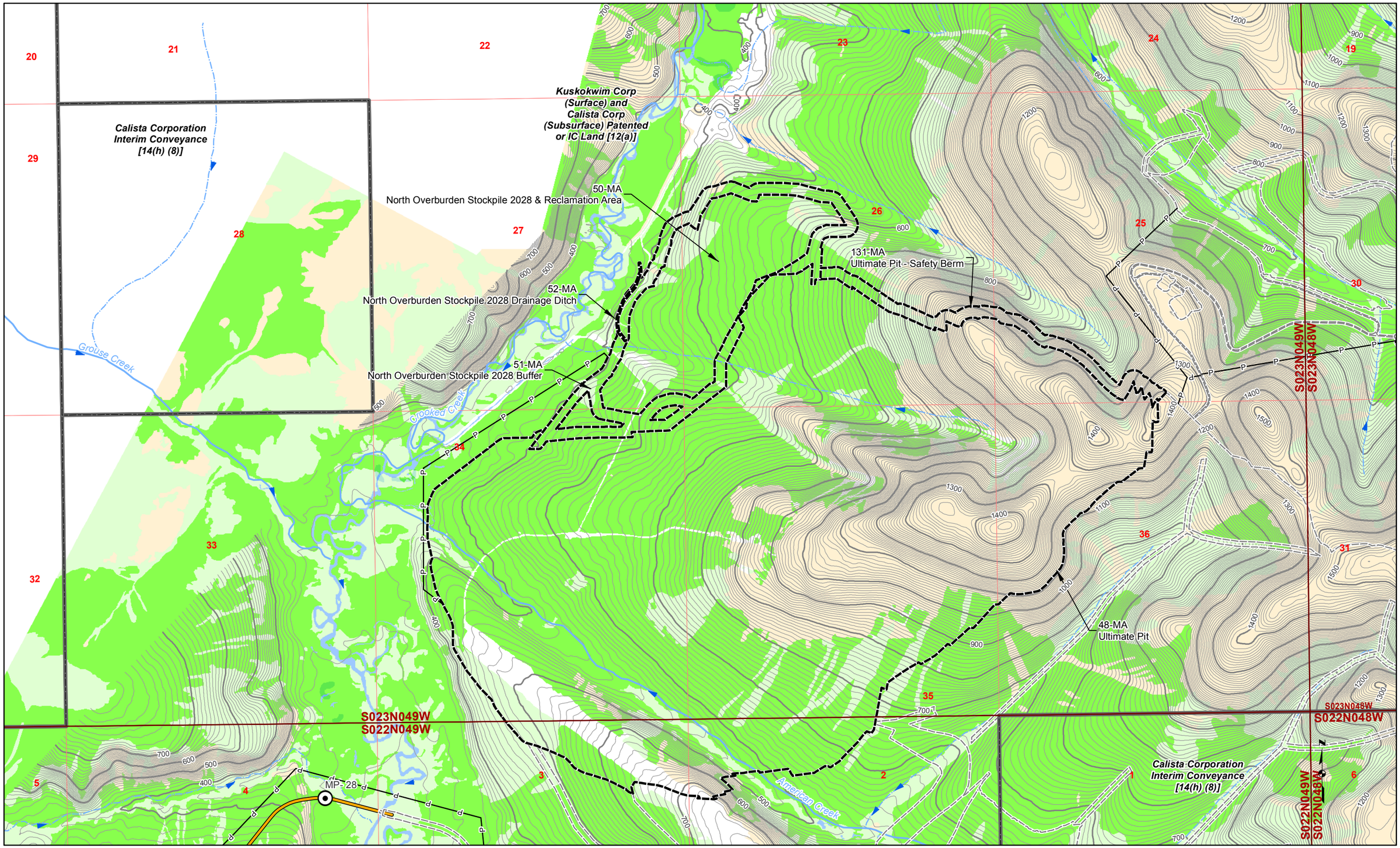
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 9/30/2015

DRAWING TITLE:
MINE FLEET ASSEMBLY AREA DETAIL

FIGURE NO. **MA-201D5**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Mine_Fleet_Assembly.dwg



Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

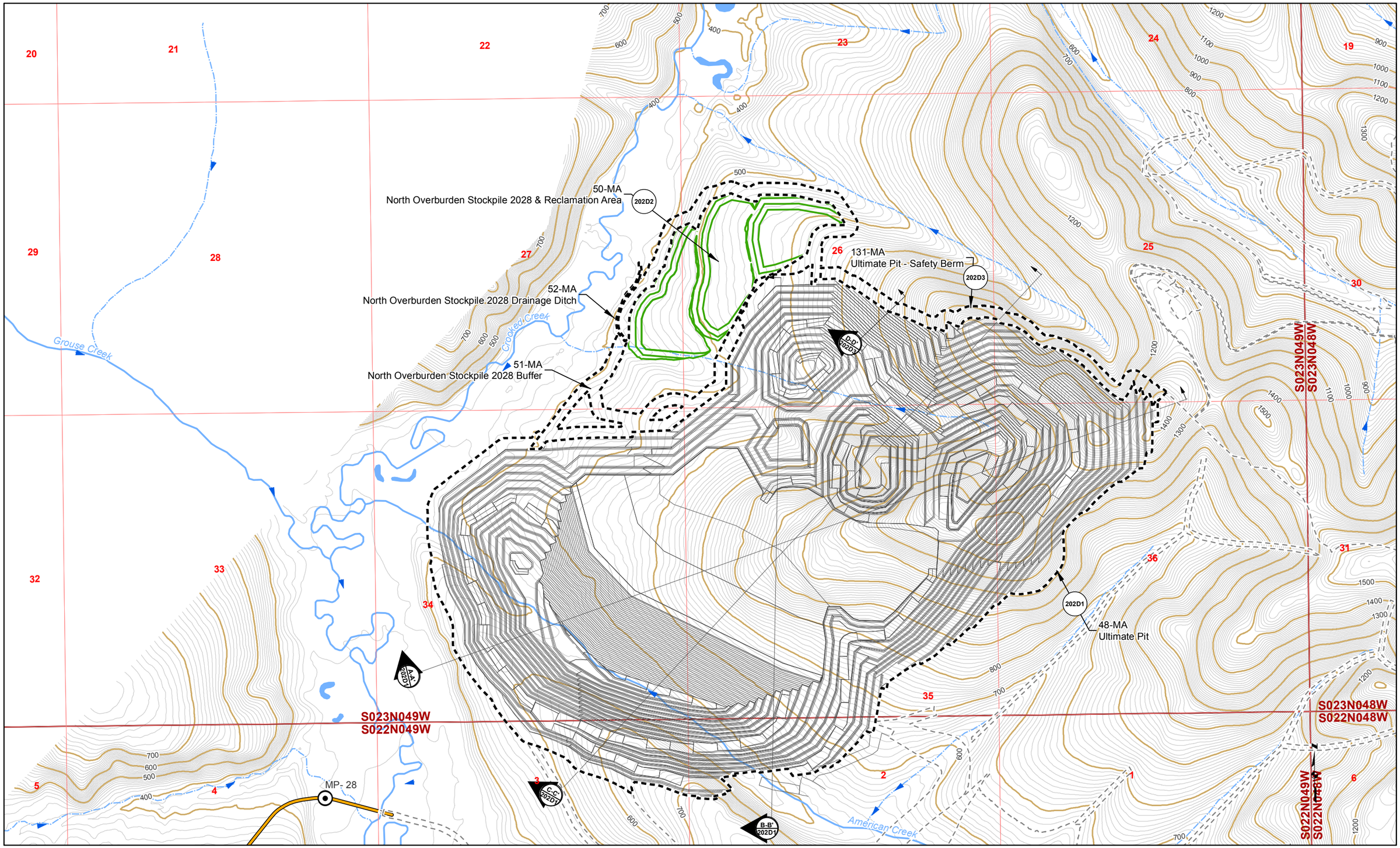
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-202A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

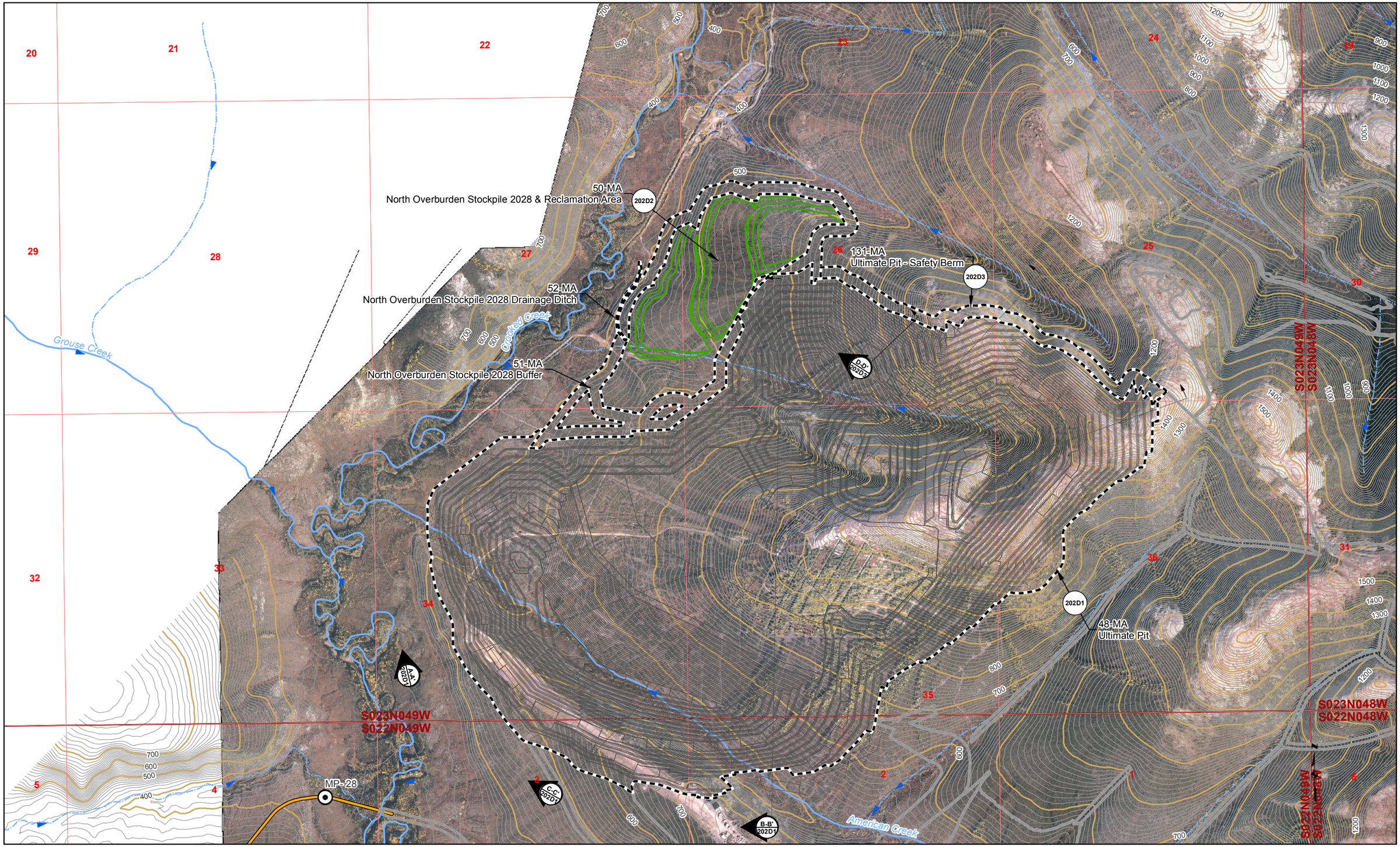
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-202B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

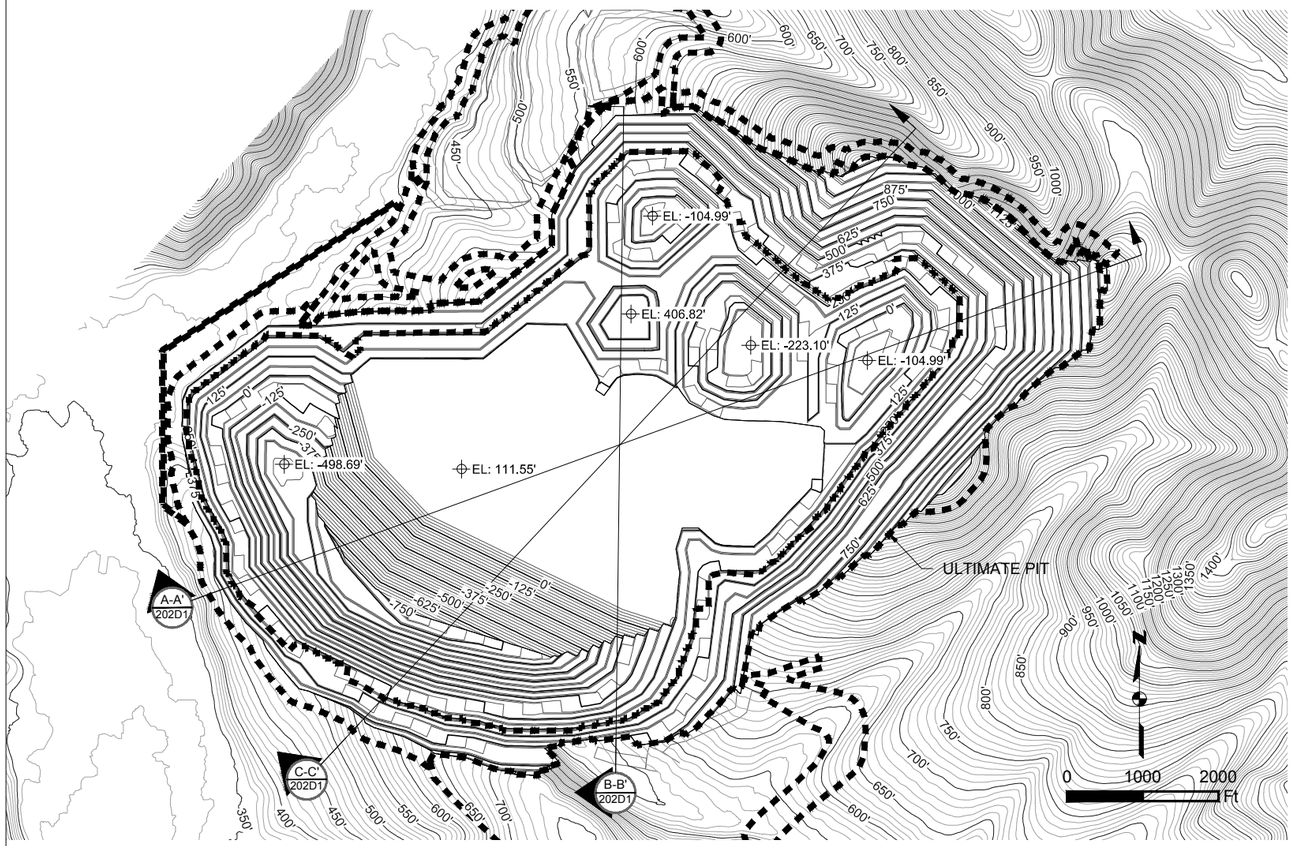
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

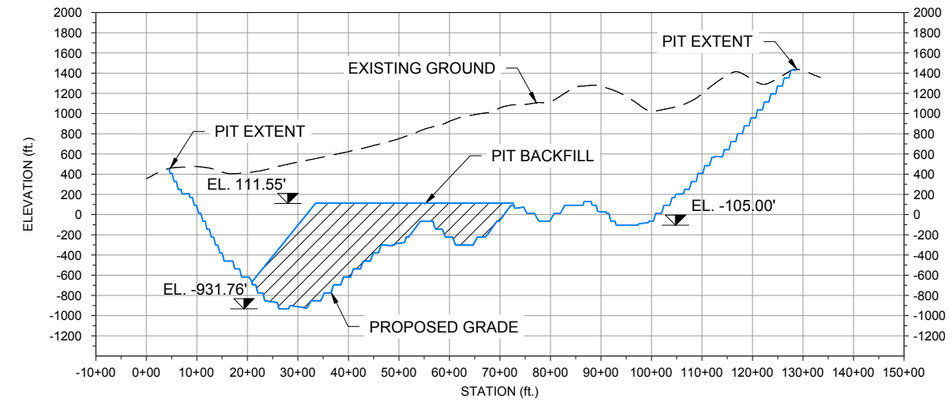
FIGURE NO. **MA-202C**

FILE NO. **POA-1995-120**

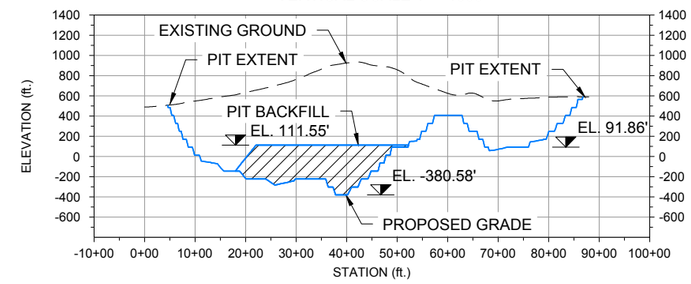
PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd



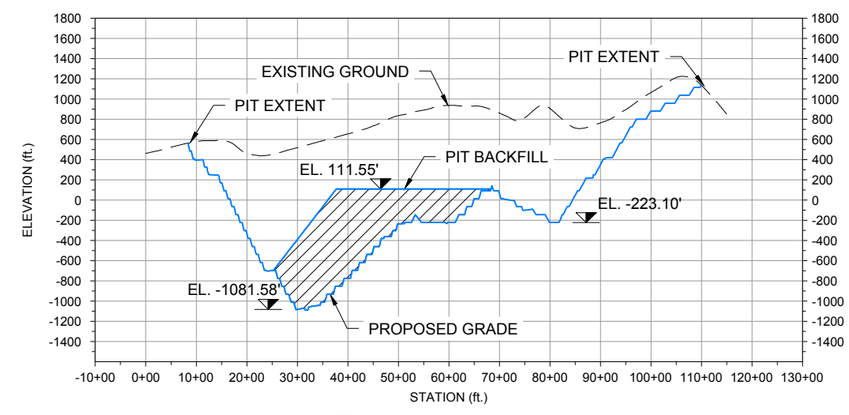
ULTIMATE PIT PLAN
SCALE 1" = 2000'



A-A' 202D1 **ULTIMATE PIT SECTION A-A'**
HORIZONTAL SCALE 1" = 3000'
VERTICAL SCALE 1" = 1500'



B-B' 202D1 **ULTIMATE PIT SECTION B-B'**
HORIZONTAL SCALE 1" = 3000'
VERTICAL SCALE 1" = 1500'



C-C' 202D1 **ULTIMATE PIT SECTION C-C'**
HORIZONTAL SCALE 1" = 3000'
VERTICAL SCALE 1" = 1500'

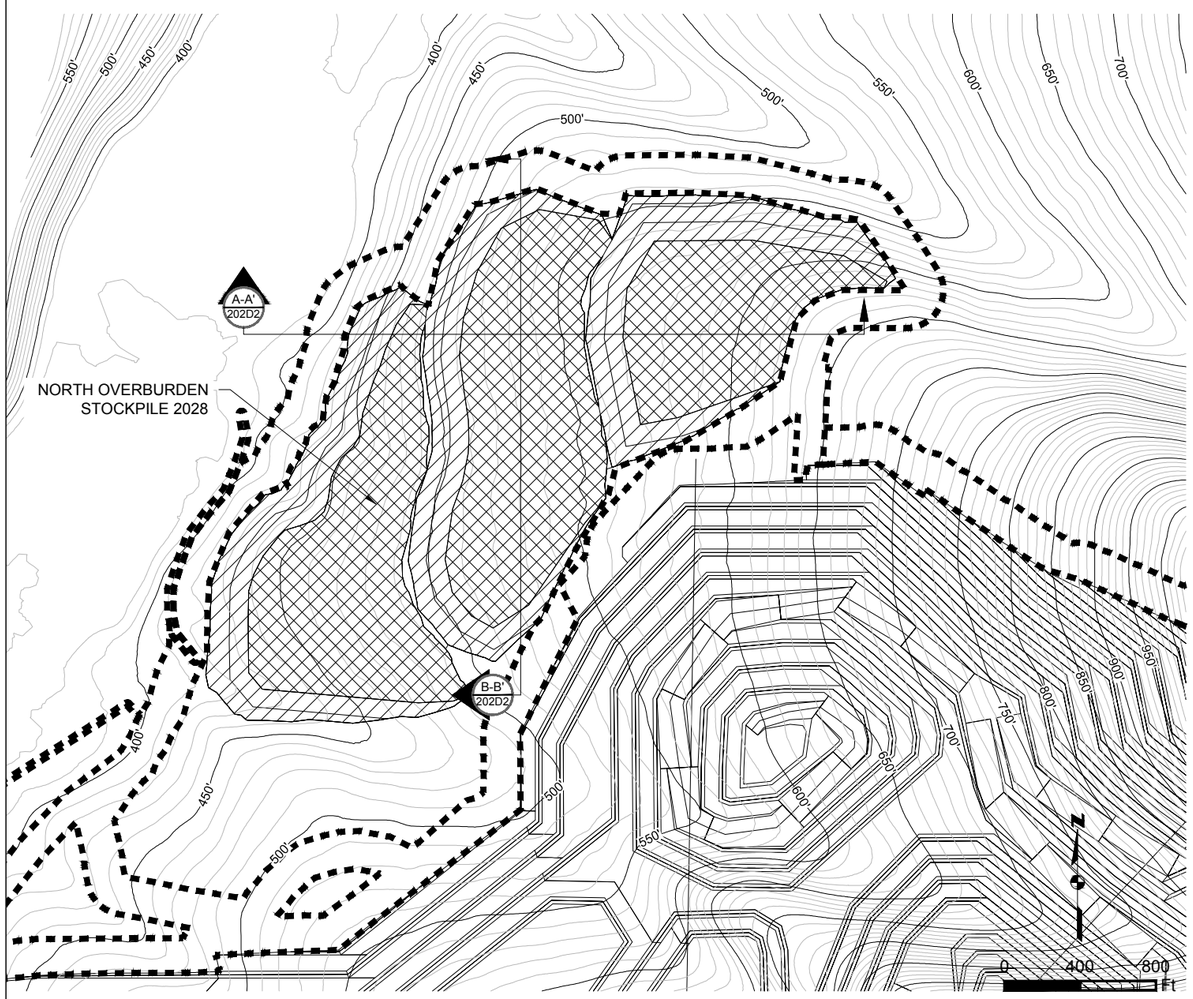
Existing 10' Contours
700' Existing 50' Contours
Proposed 10' Contours
700' Proposed 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
EOP_2036SP_6ft_Project.shp (ARCADIS) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 9/11/2015

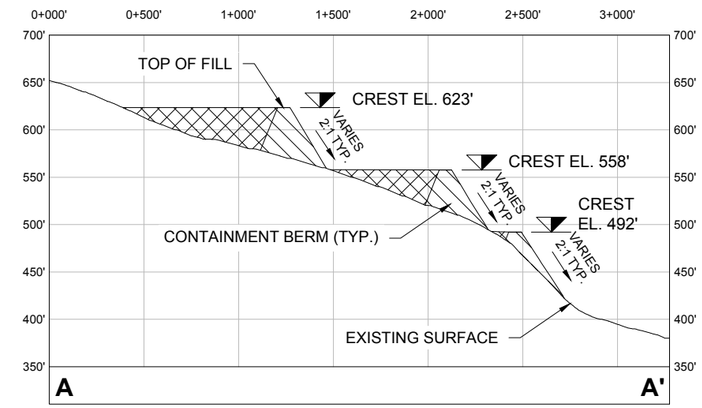
DRAWING TITLE: **ULTIMATE PIT DETAIL**
FIGURE NO. **MA-202D1**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Pit_Ultimate_2036.dwg

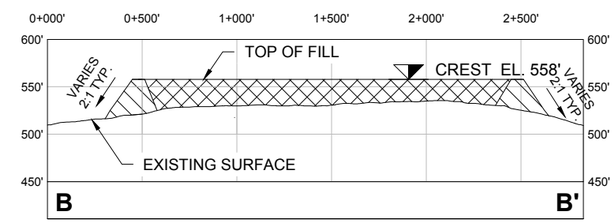


NORTH OVERBURDEN STOCKPILE 2028 PLAN
SCALE 1" = 800'

NOTE:
DRAINAGE AND EROSION CONTROLS WILL BE DEVELOPED WITHIN THE DISTURBANCE FOOTPRINT.



A-A' 202D2 **NORTH OVERBURDEN STOCKPILE 2028 SECTION A-A'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'



B-B' 202D2 **NORTH OVERBURDEN STOCKPILE 2028 SECTION B-B'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'

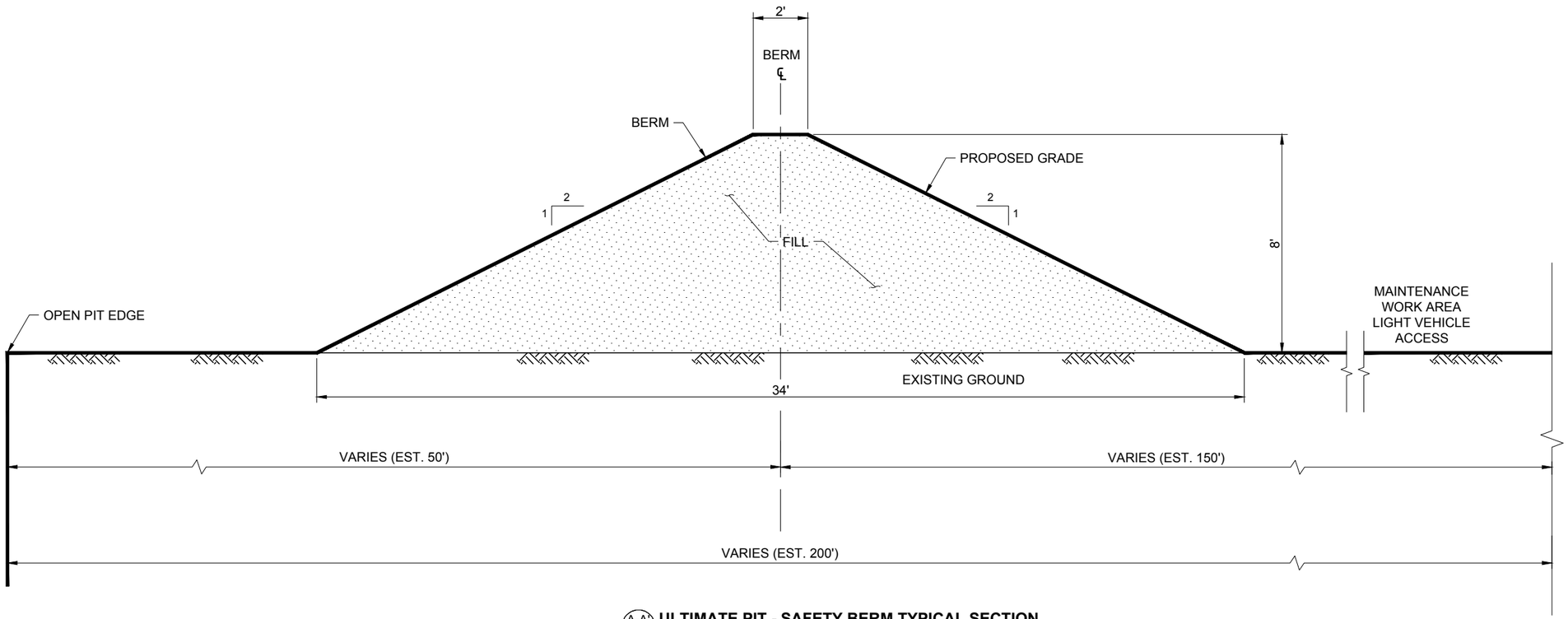
Existing 10' Contours
700' Existing 50' Contours
Project Disturbance
Berm Fill
Overburden Storage

Associated Engineering Drawings
NOB_STOCKPILE.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 9/4/2015

DRAWING TITLE:
NORTH OVERBURDEN STOCKPILE 2028 DETAIL
FIGURE NO. **MA-202D2**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_North_Overburden_Stockpile.dwg

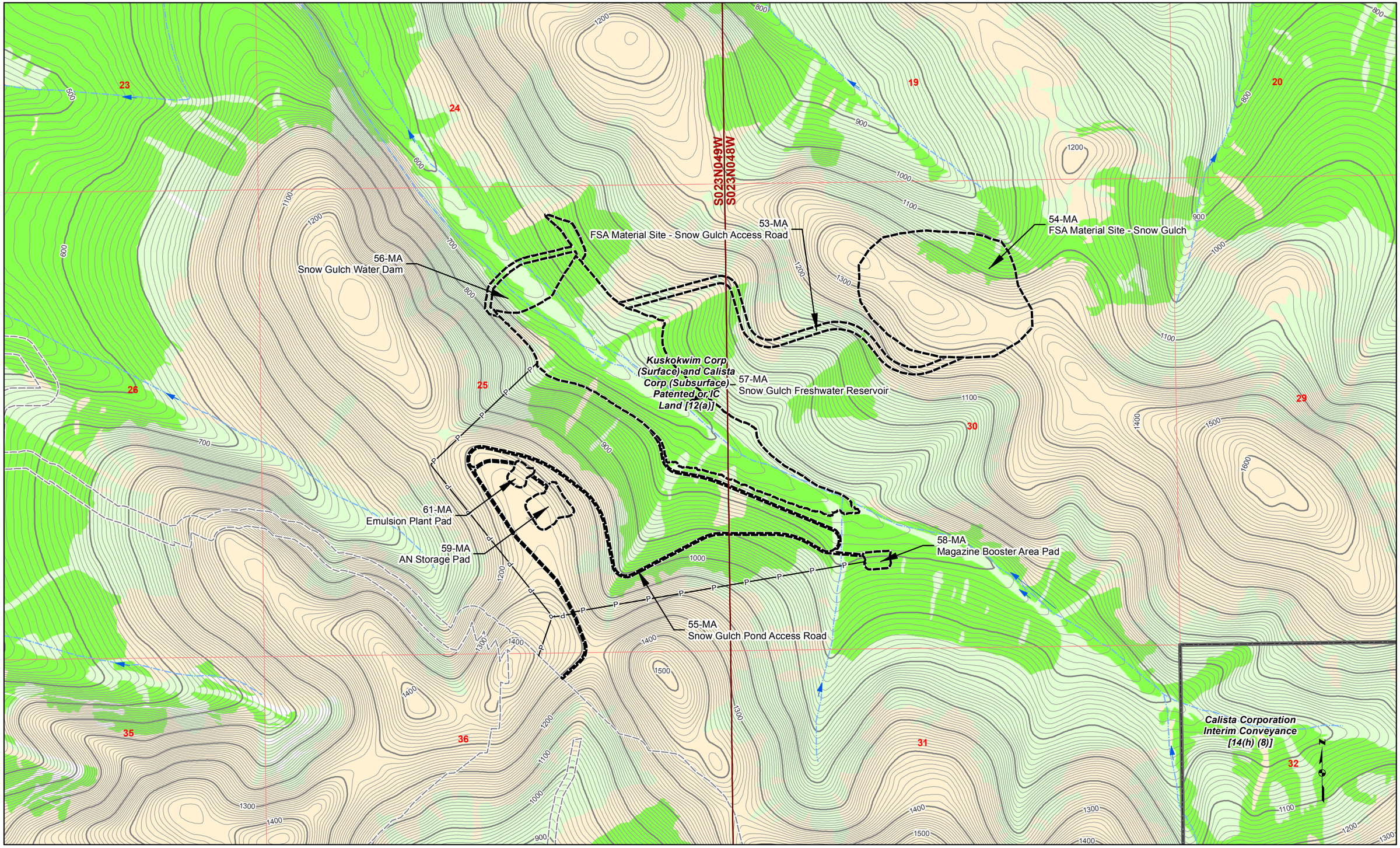


A-A' 202D3 **ULTIMATE PIT - SAFETY BERM TYPICAL SECTION**
N.T.S.

NOTES:
1. ALL EXISTING ELEVATIONS ARE IN FEET UNLESS NOTED OTHERWISE.
2. ALL PROPOSED ELEVATIONS AND DIMENSIONS ARE IN FEET UNLESS NOTED OTHERWISE.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **ULTIMATE PIT - SAFETY BERM DETAIL**	
M01C-SC-BE_01.dwg (BAKER) OCT 2014	SCALE: AS SHOWN / DATE: 9/30/2015	FIGURE NO. **MA-202D3**	FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Safety_Berm_Ultimate_Pit.dwg



Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

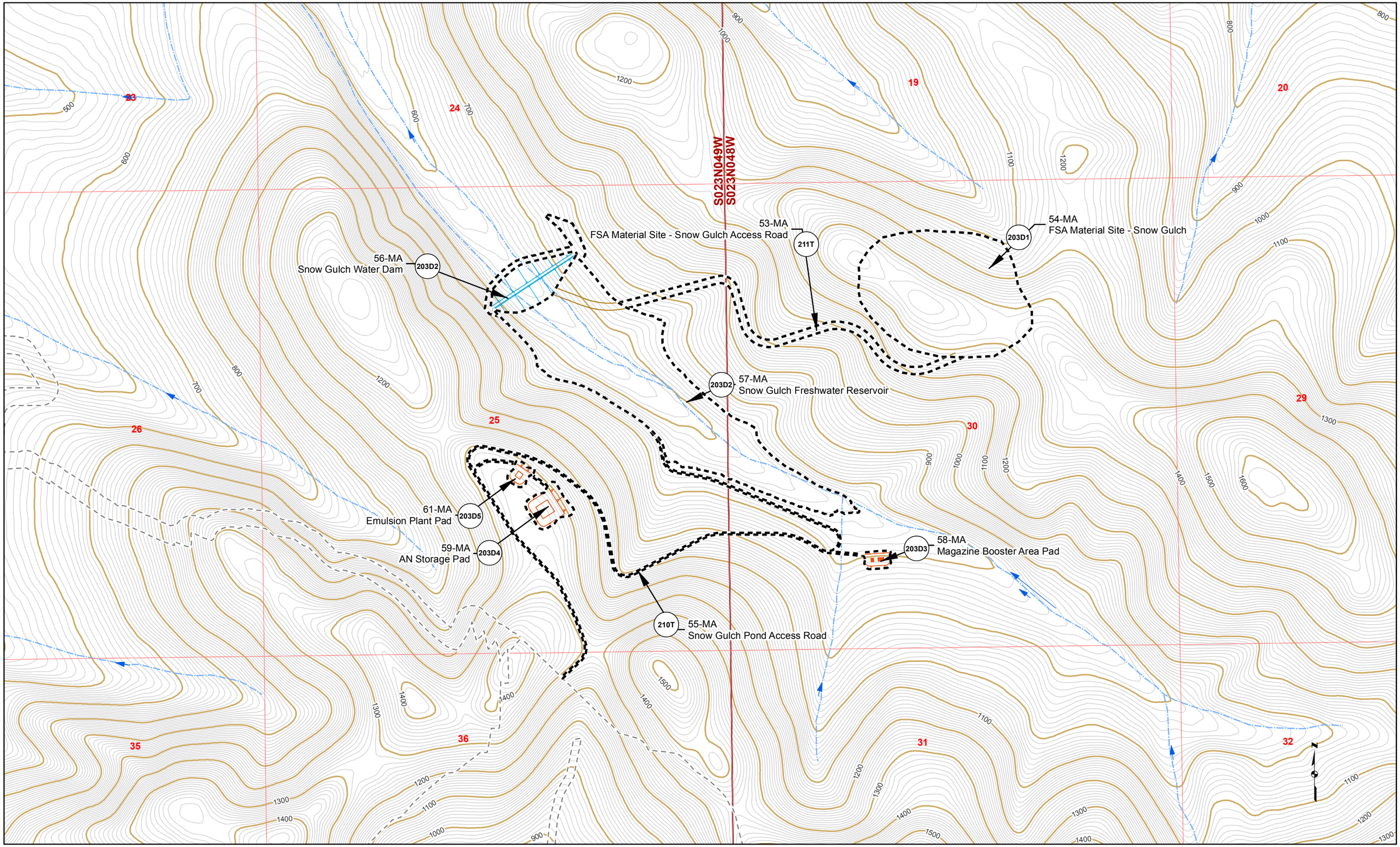
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-203A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

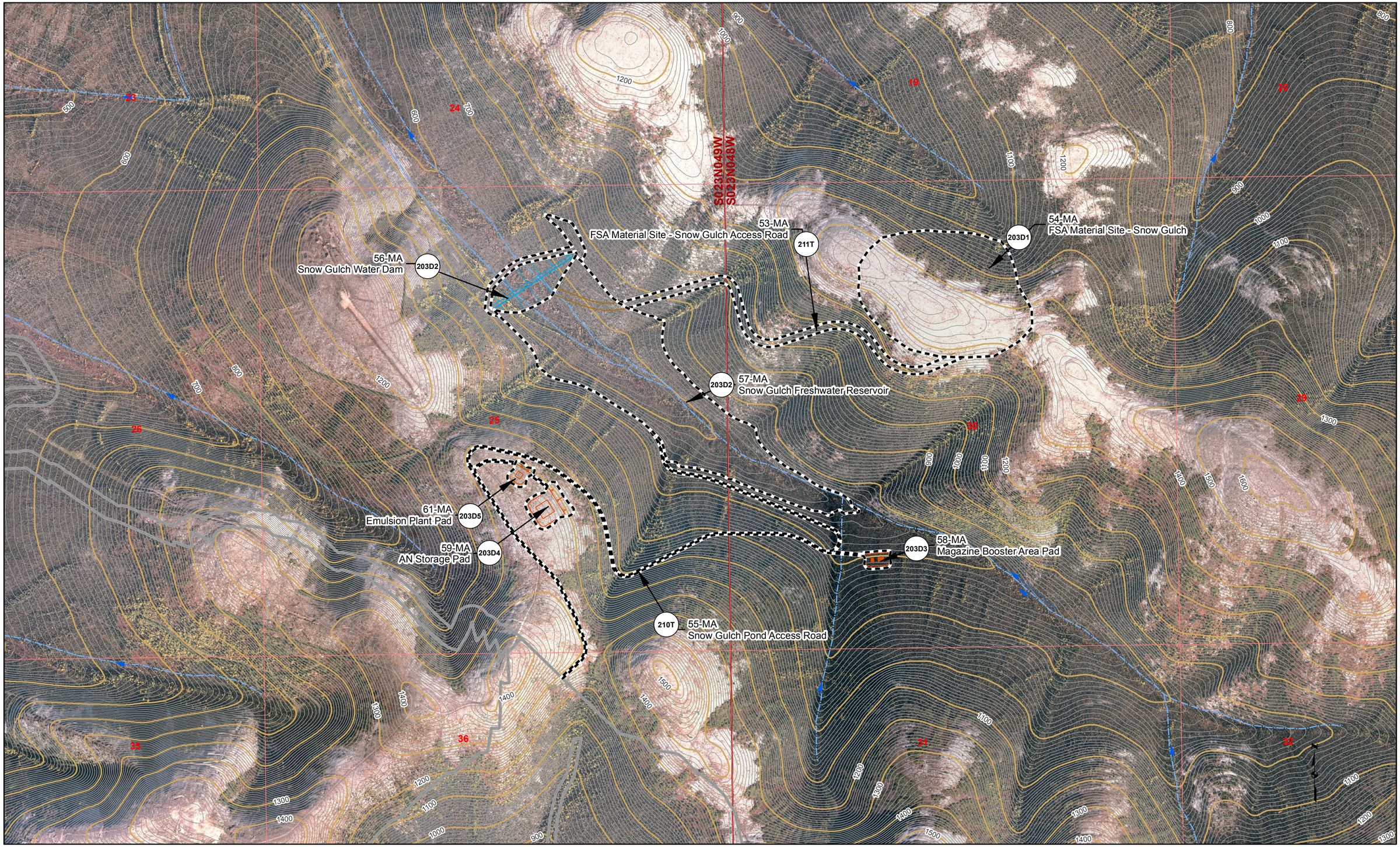
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-203B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

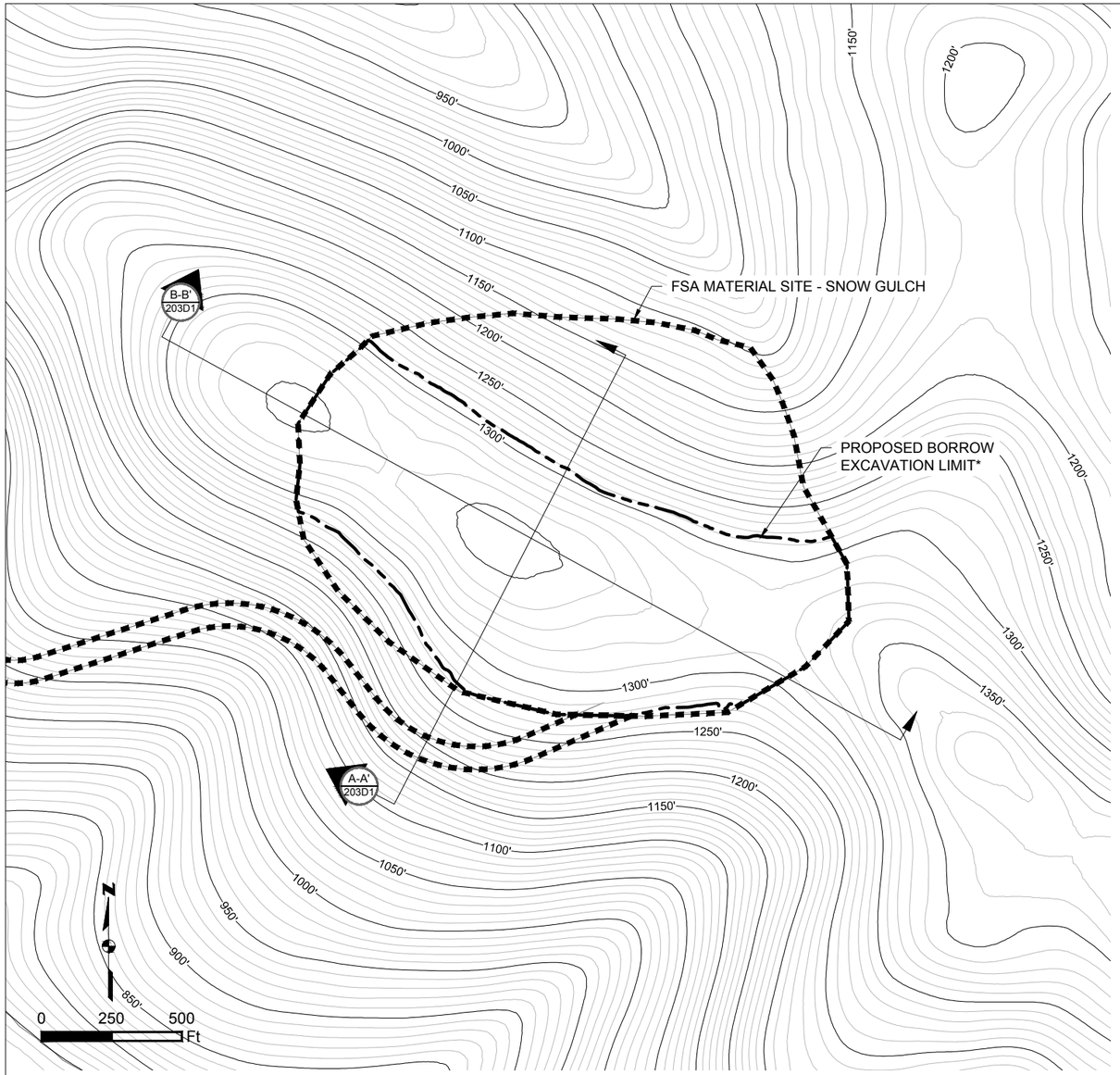
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

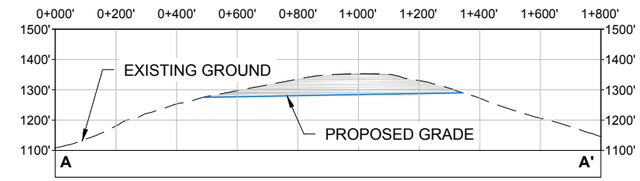
FIGURE NO. **MA-203C**

FILE NO. **POA-1995-120**

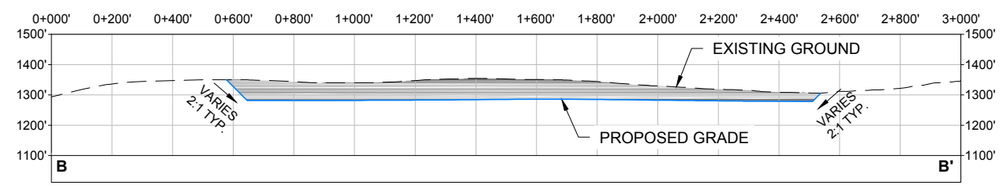
PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd



FSA MATERIAL SITE - SNOW GULCH PLAN
SCALE 1" = 500'



A-A' 203D1 **FSA MATERIAL SITE - SNOW GULCH SECTION A-A'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'



B-B' 203D1 **FSA MATERIAL SITE - SNOW GULCH SECTION B-B'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Borrow Excavation Limit*

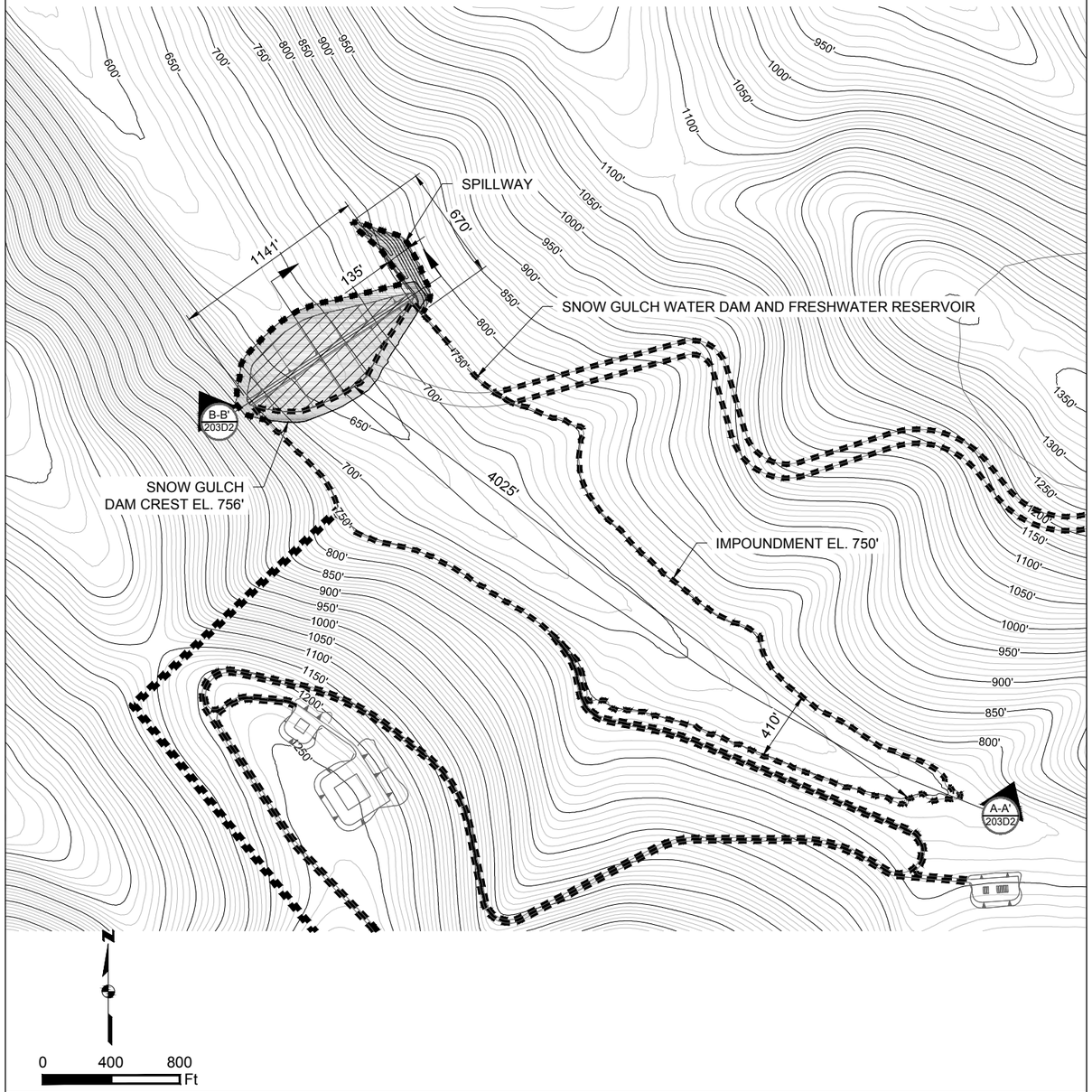
NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
SNOW_GULCH_FRESHWATER_DAM_QUARRY.dwg
(BGC) JUN 2012

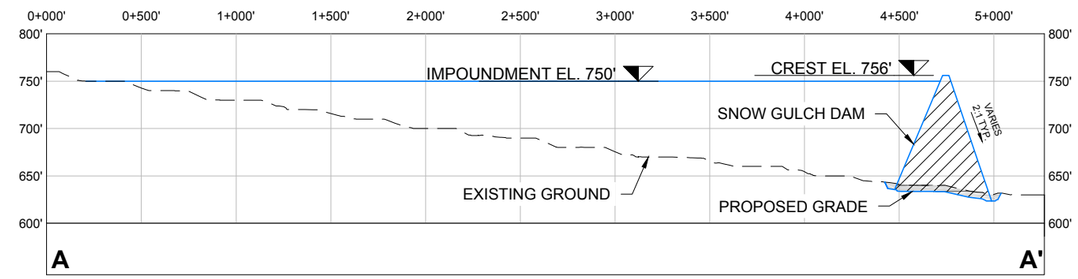
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

DRAWING TITLE:
FSA MATERIAL SITE - SNOW GULCH DETAIL
FIGURE NO. **MA-203D1**
FILE NO. **POA-1995-120**

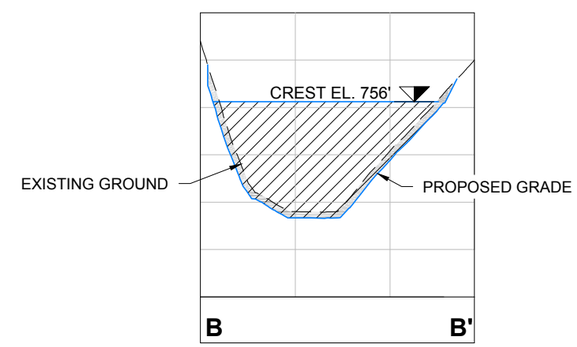
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Snow_Gulch_Freshwater_Dam_Quarry.dwg



SNOW GULCH WATER DAM AND FRESHWATER RESERVOIR PLAN
SCALE 1" = 800'



A-A' 203D2 **SNOW GULCH WATER DAM AND FRESHWATER RESERVOIR SECTION A-A'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'



B-B 203D2 **SNOW GULCH WATER DAM AND FRESHWATER RESERVOIR SECTION B-B'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'

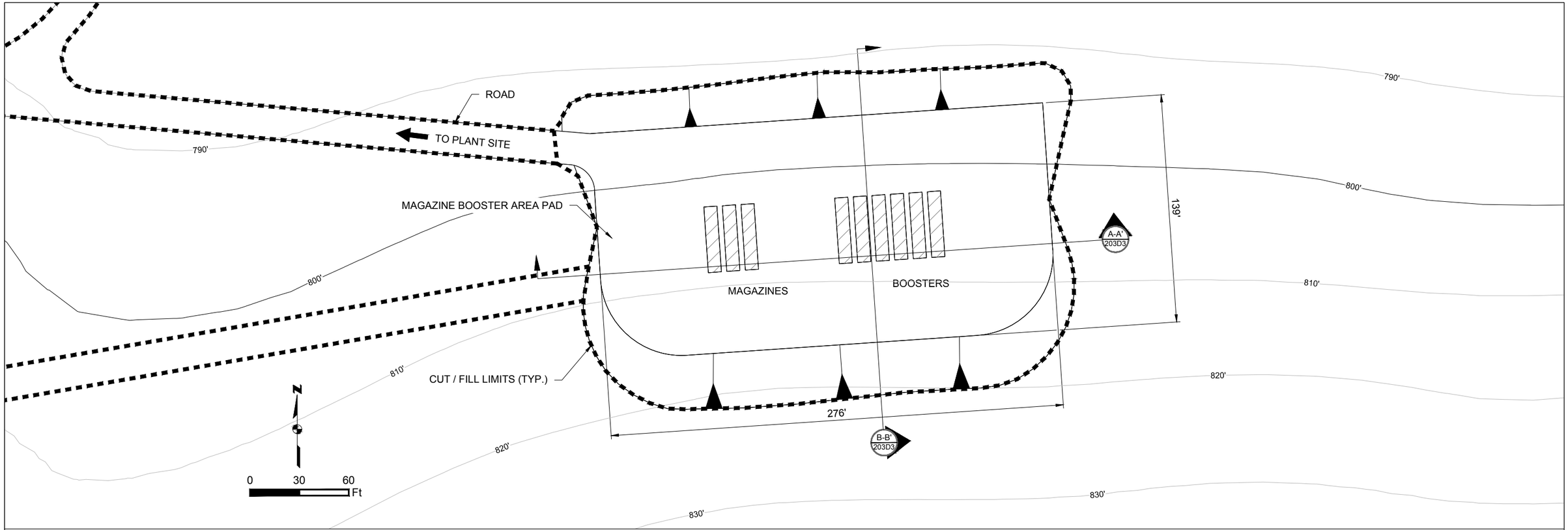
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
SNOW_GULCH_DAM.dwg (BGC) JUNE 2012

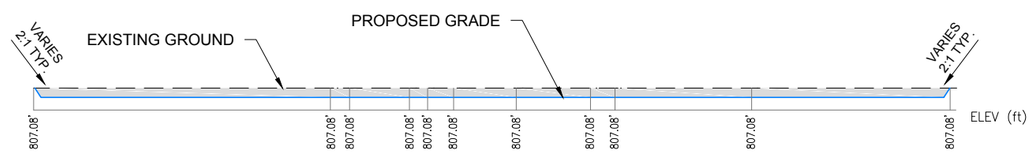
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

DRAWING TITLE:
SNOW GULCH WATER DAM AND FRESHWATER RESERVOIR DETAIL
FIGURE NO. **MA-203D2**
FILE NO. **POA-1995-120**

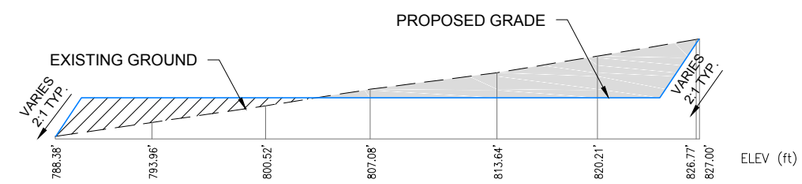
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Snow_Gulch_Dam.dwg



MAGAZINE BOOSTER AREA PAD PLAN
SCALE 1" = 60'



A-A' 203D3 MAGAZINE BOOSTER AREA PAD SECTION A-A'
N.T.S.



B-B' 203D3 MAGAZINE BOOSTER AREA PAD SECTION B-B'
N.T.S.

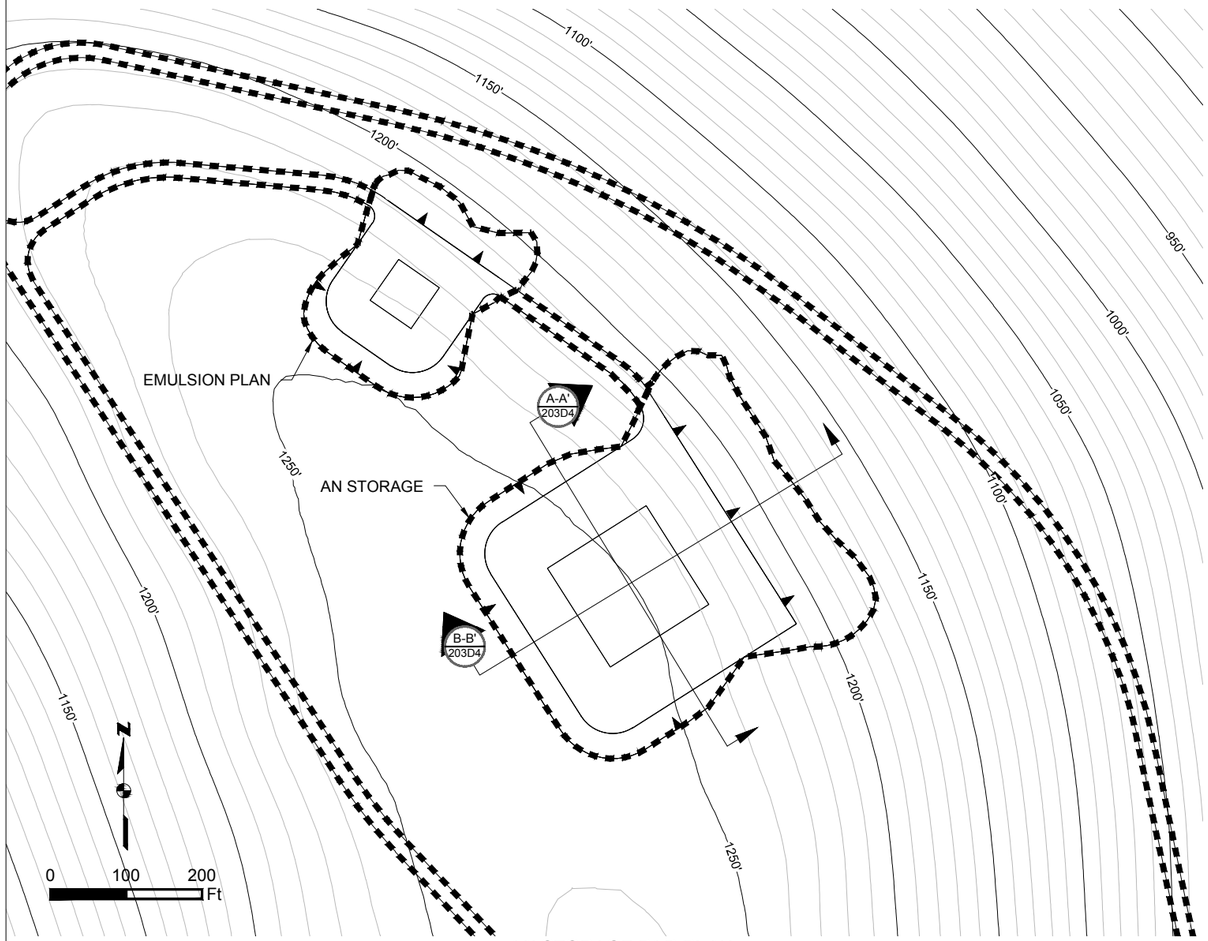
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
M12C-SP-BS_01.dwg (BAKER) SEP 2014

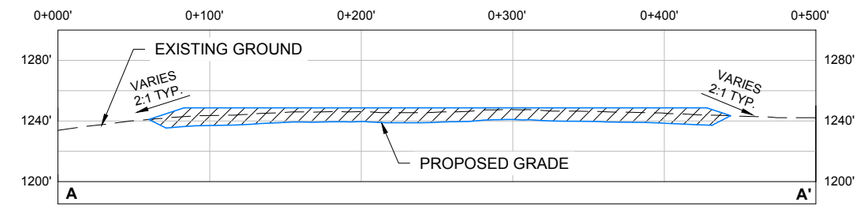
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
MAGAZINE BOOSTER AREA PAD DETAIL
FIGURE NO. **MA-203D3**
FILE NO. **POA-1995-120**

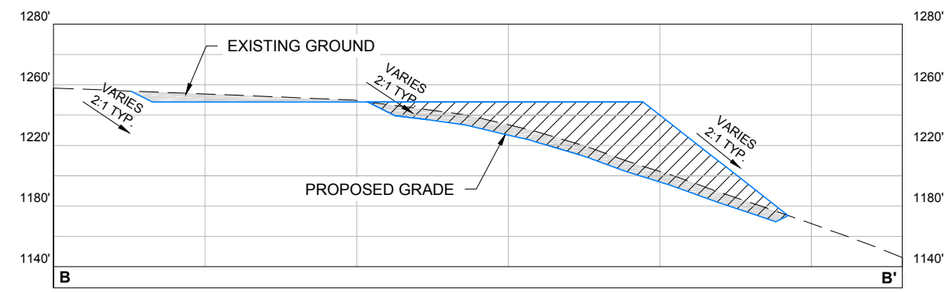
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Magazine_Booster_Area_Pad.dwg



AN STORAGE PAD PLAN
SCALE 1" = 200'



A-A' 203D4 **AN STORAGE PAD SECTION A-A'**
HORIZONTAL SCALE 1" = 100'
VERTICAL SCALE 1" = 20'



B-B' 203D4 **AN STORAGE PAD SECTION B-B'**
HORIZONTAL SCALE 1" = 100'
VERTICAL SCALE 1" = 20'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
AN_STORAGE.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

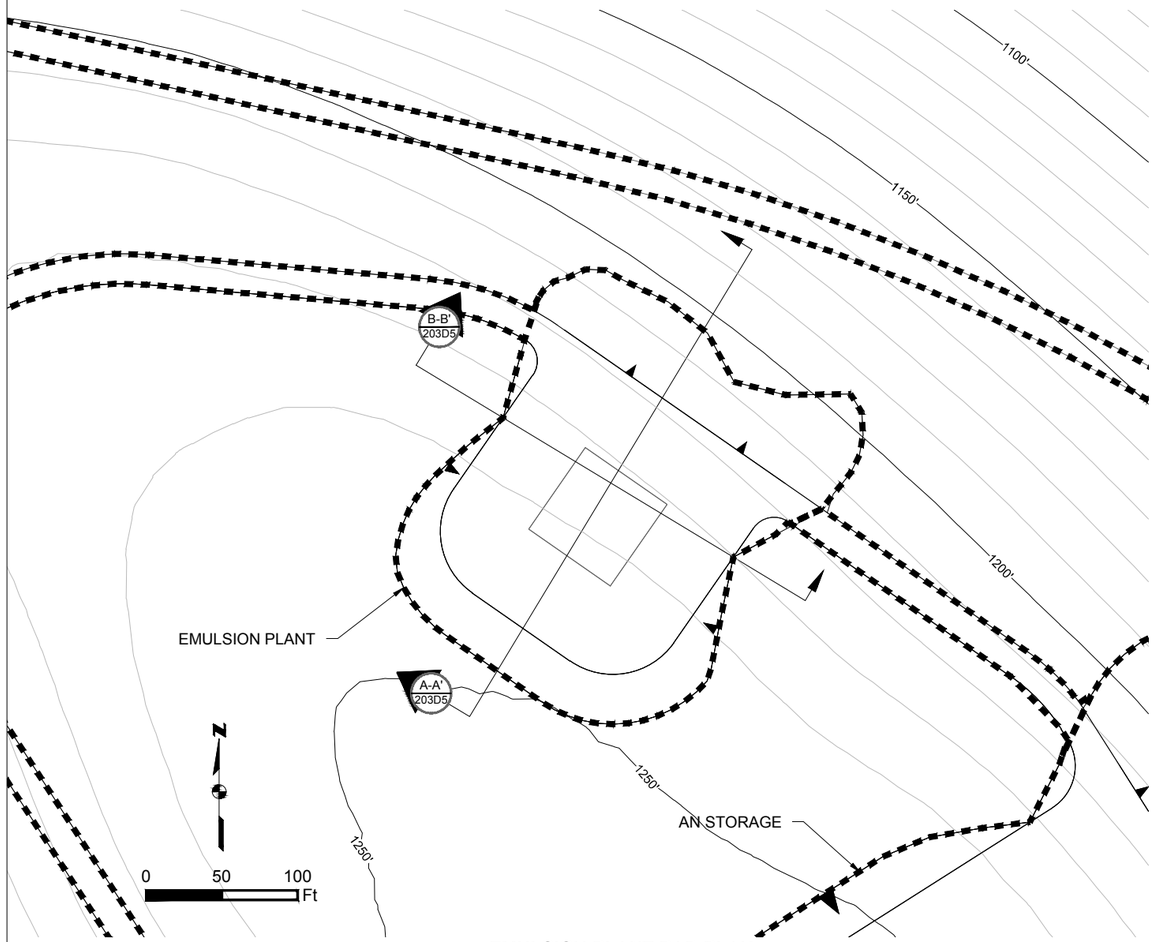
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 9/30/2015

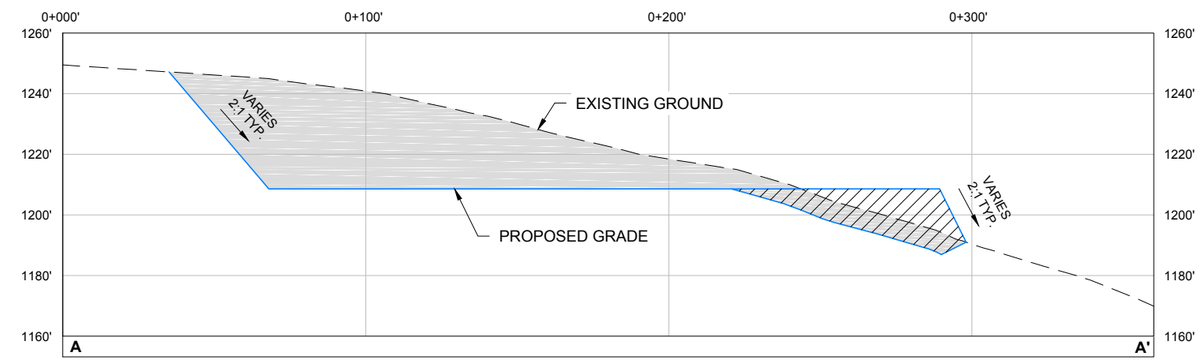
DRAWING TITLE:
AN STORAGE PAD DETAIL

FIGURE NO. **MA-203D4**
FILE NO. **POA-1995-120**

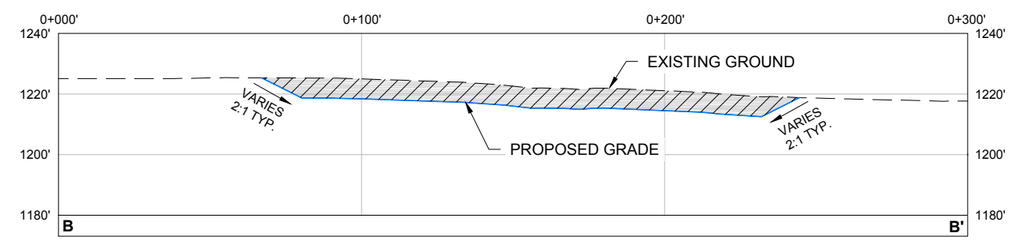
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_AN_Storage.dwg



EMULSION PLANT PAD PLAN
SCALE 1" = 100'



A-A' 203D5 **EMULSION PLANT PAD SECTION A-A'**
HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 10'



B-B' 203D5 **EMULSION PLANT PAD SECTION B-B'**
HORIZONTAL SCALE 1" = 50'
VERTICAL SCALE 1" = 10'

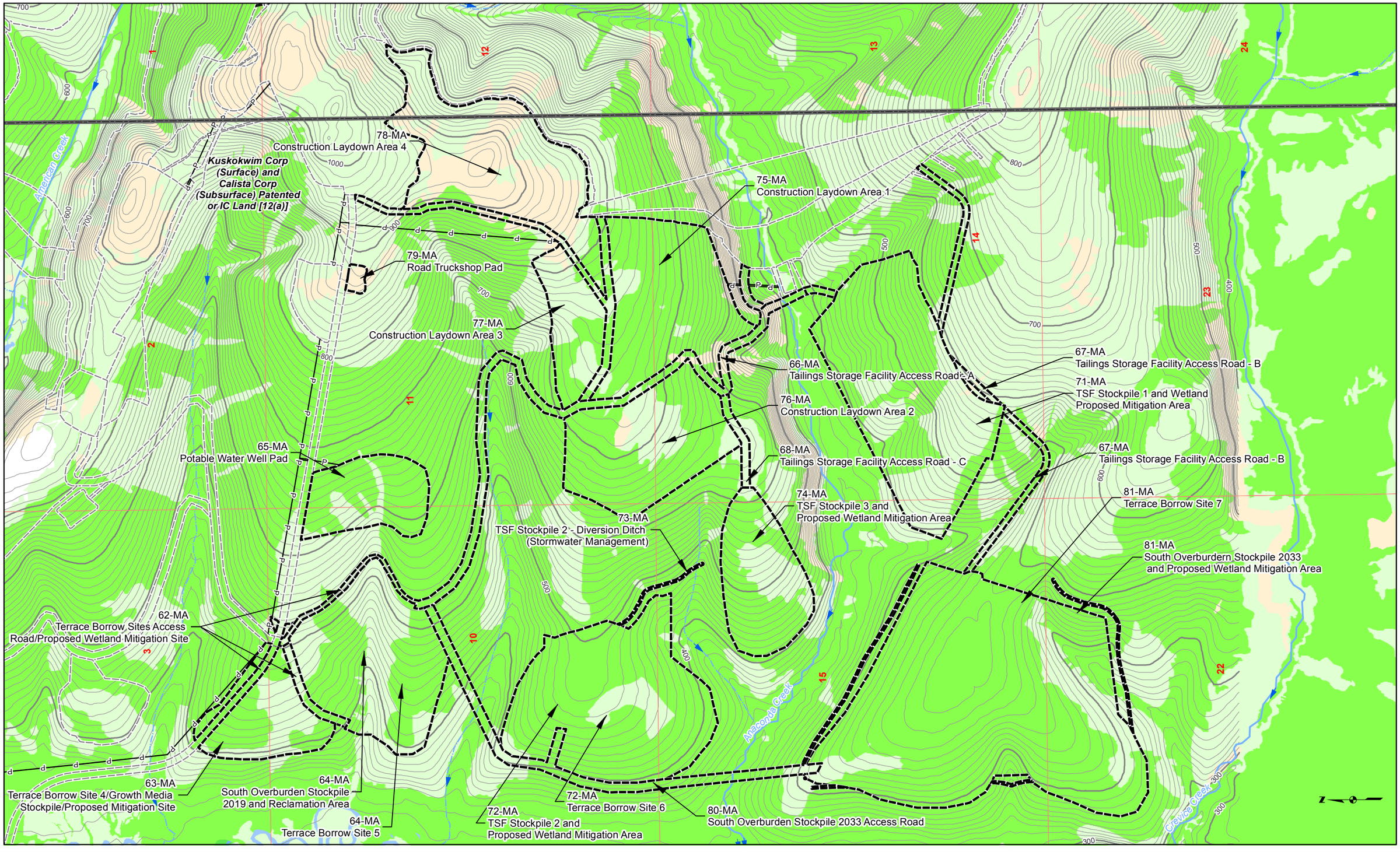
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
EMULSION_PLANT.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/30/2015

DRAWING TITLE:
EMULSION PLANT PAD DETAIL
FIGURE NO. **MA-203D5**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Emulsion_Plant.dwg



Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 600 1,200 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

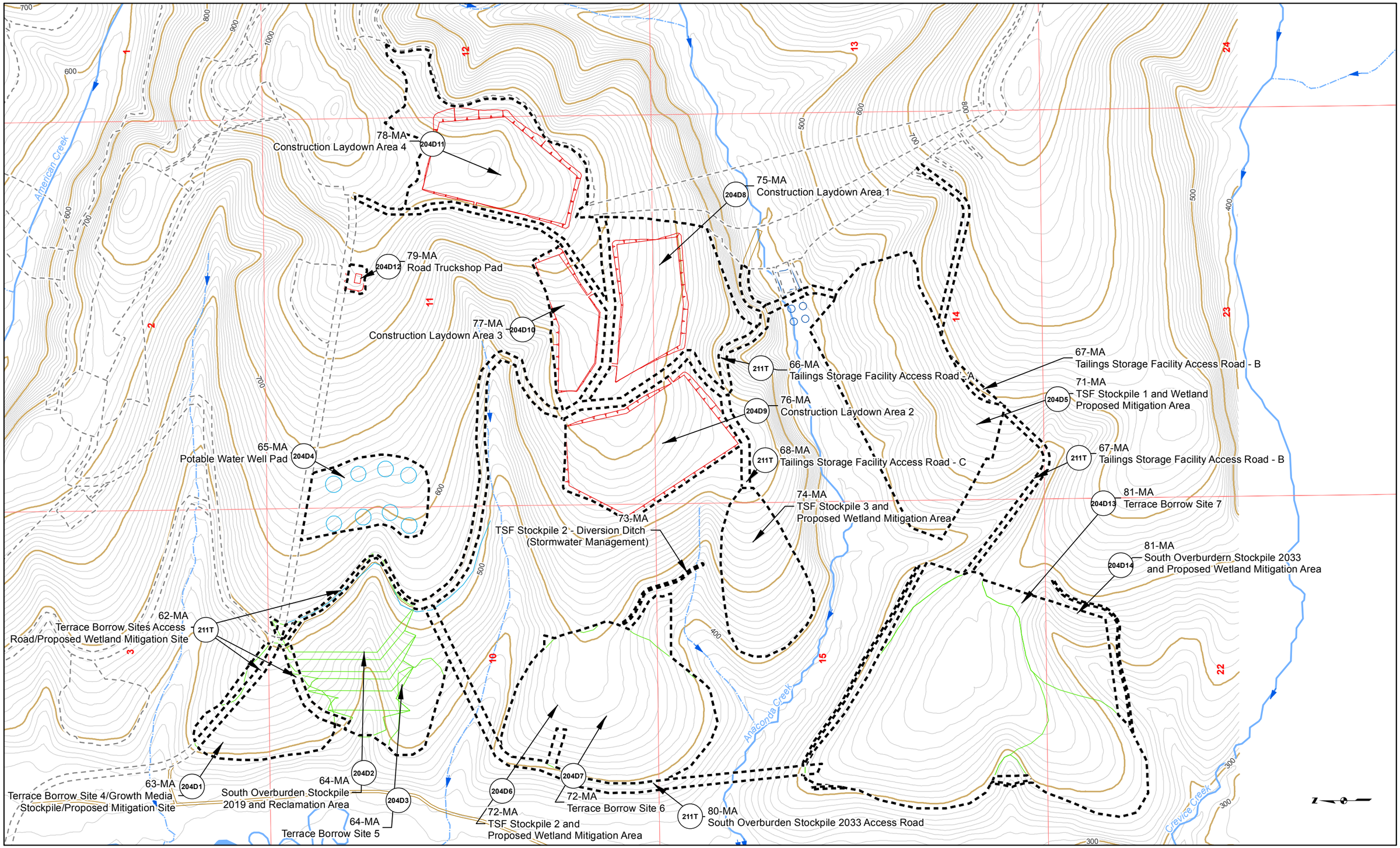
SCALE: 1 inch = 1,200 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-204A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 600 1,200 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,200 feet

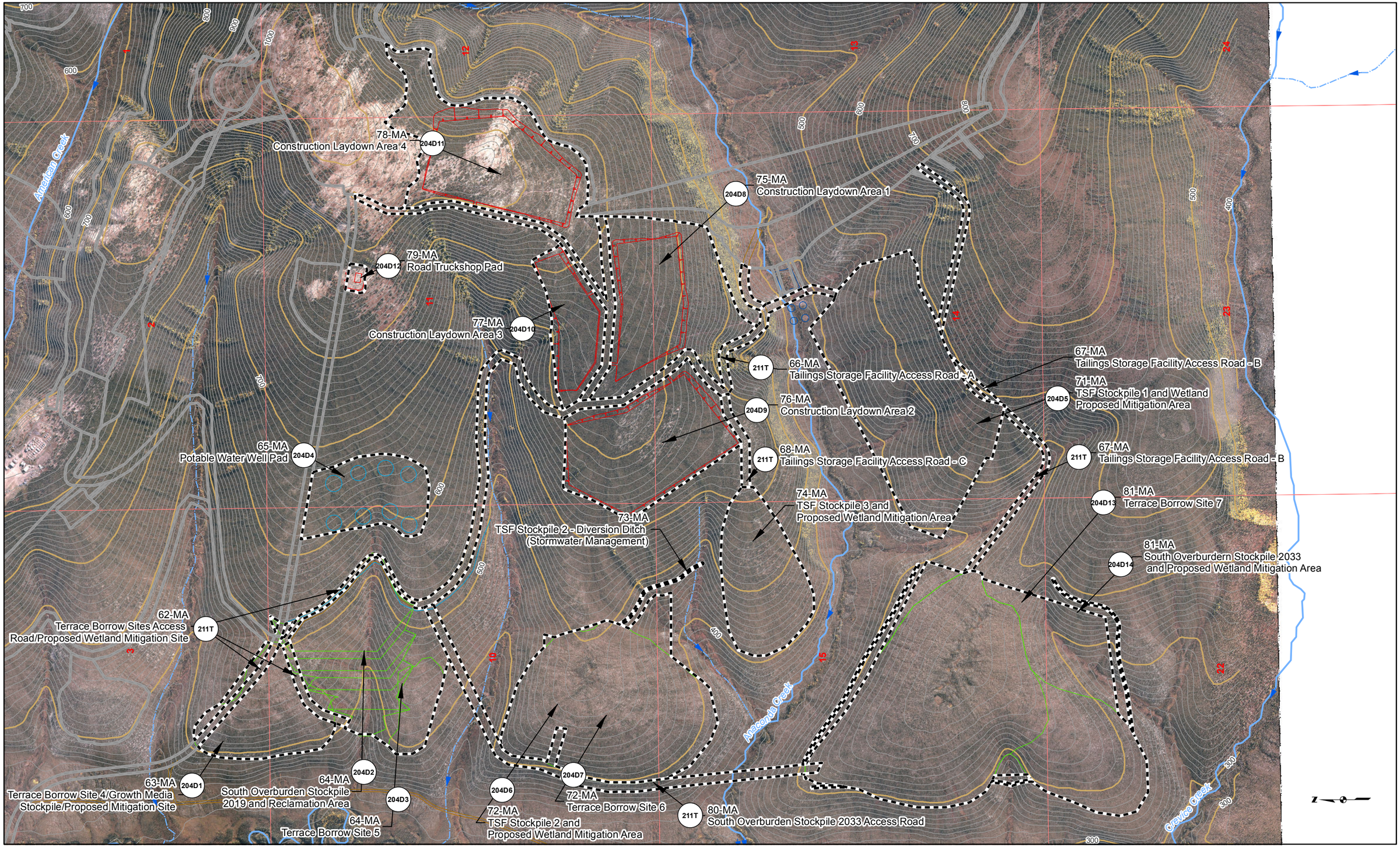
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-204B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 600 1,200 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,200 feet

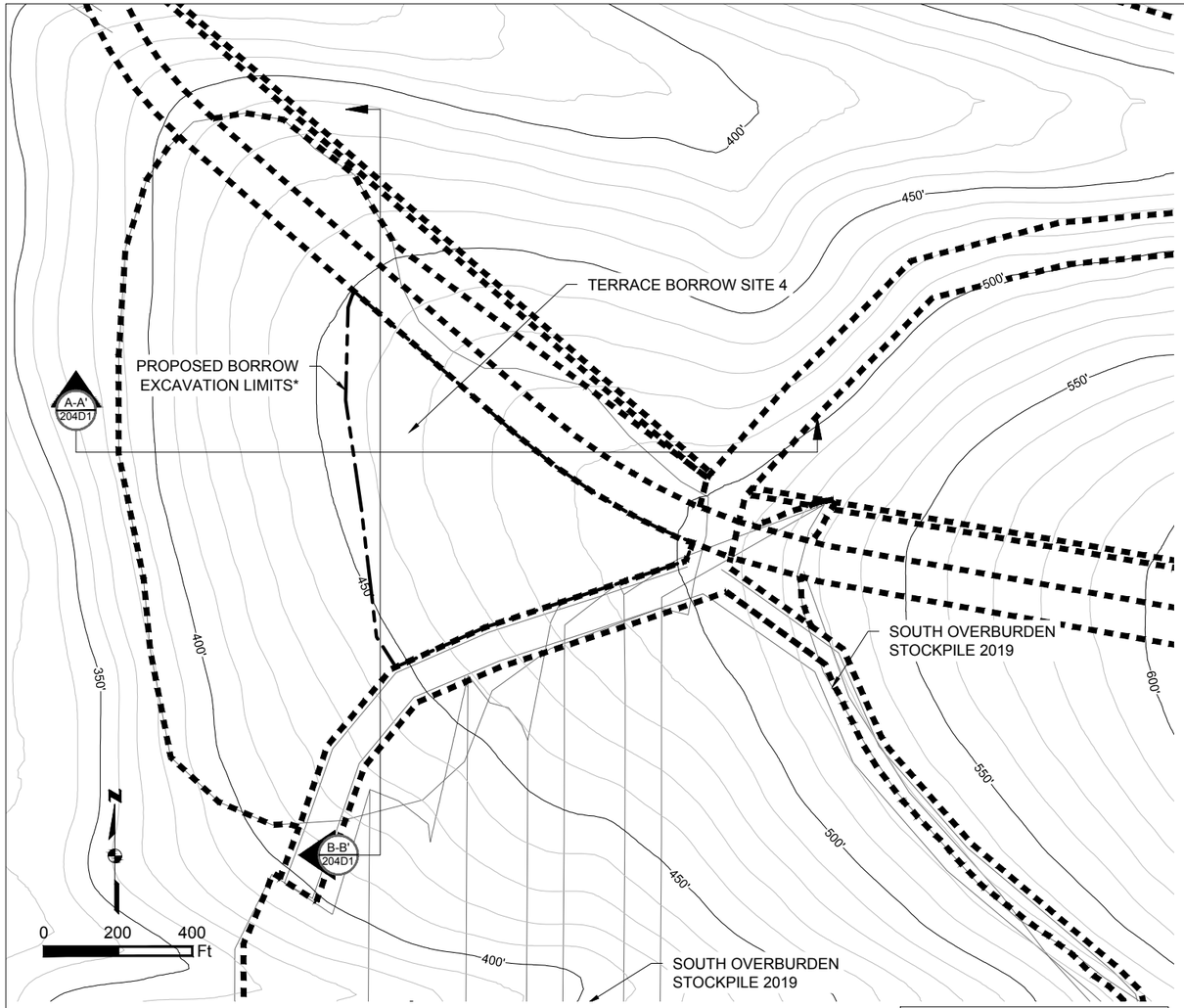
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-204C**

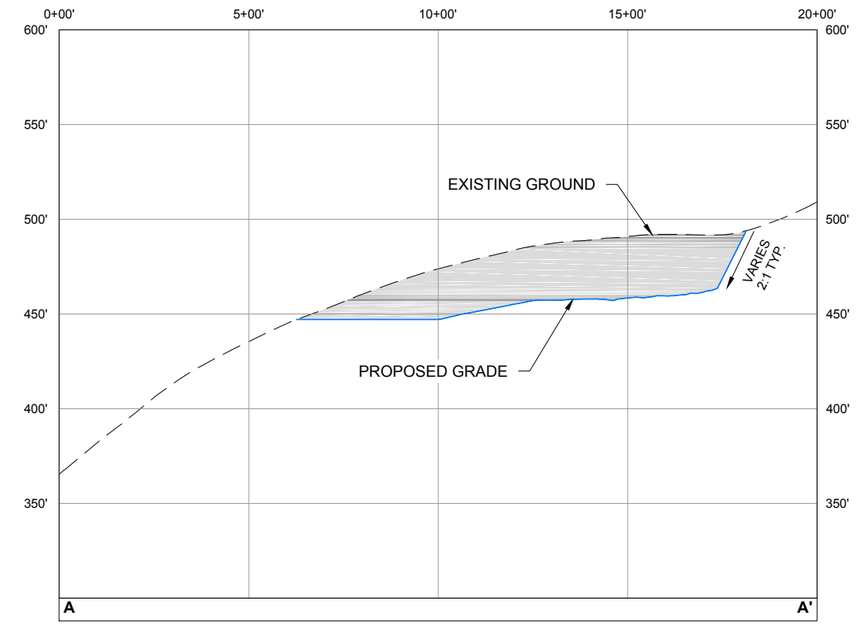
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd

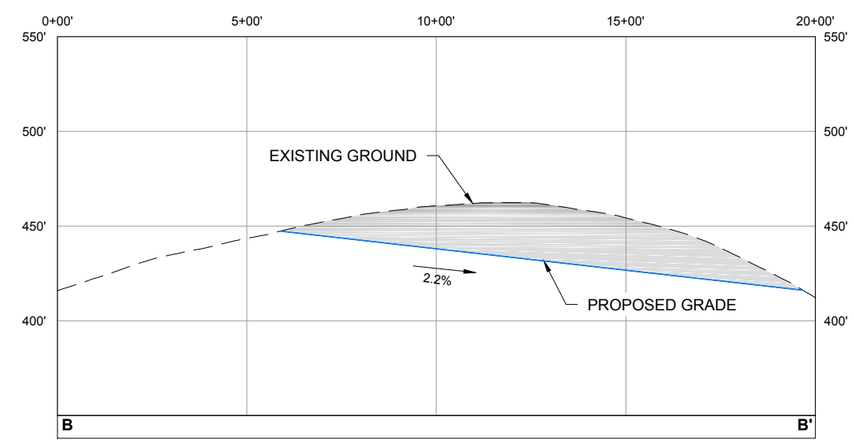


TERRACE BORROW SITE 4 PLAN
SCALE 1" = 400'

NOTE:
AREA TO BE USED AS A BORROW SITE AND LATER PARTIALLY USED AS AN OVERBURDEN STOCKPILE.



A-A' 204D1 TERRACE BORROW SITE 4 SECTION A-A'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



B-B' 204D1 TERRACE BORROW SITE 4 SECTION B-B'
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Borrow Excavation Limit*

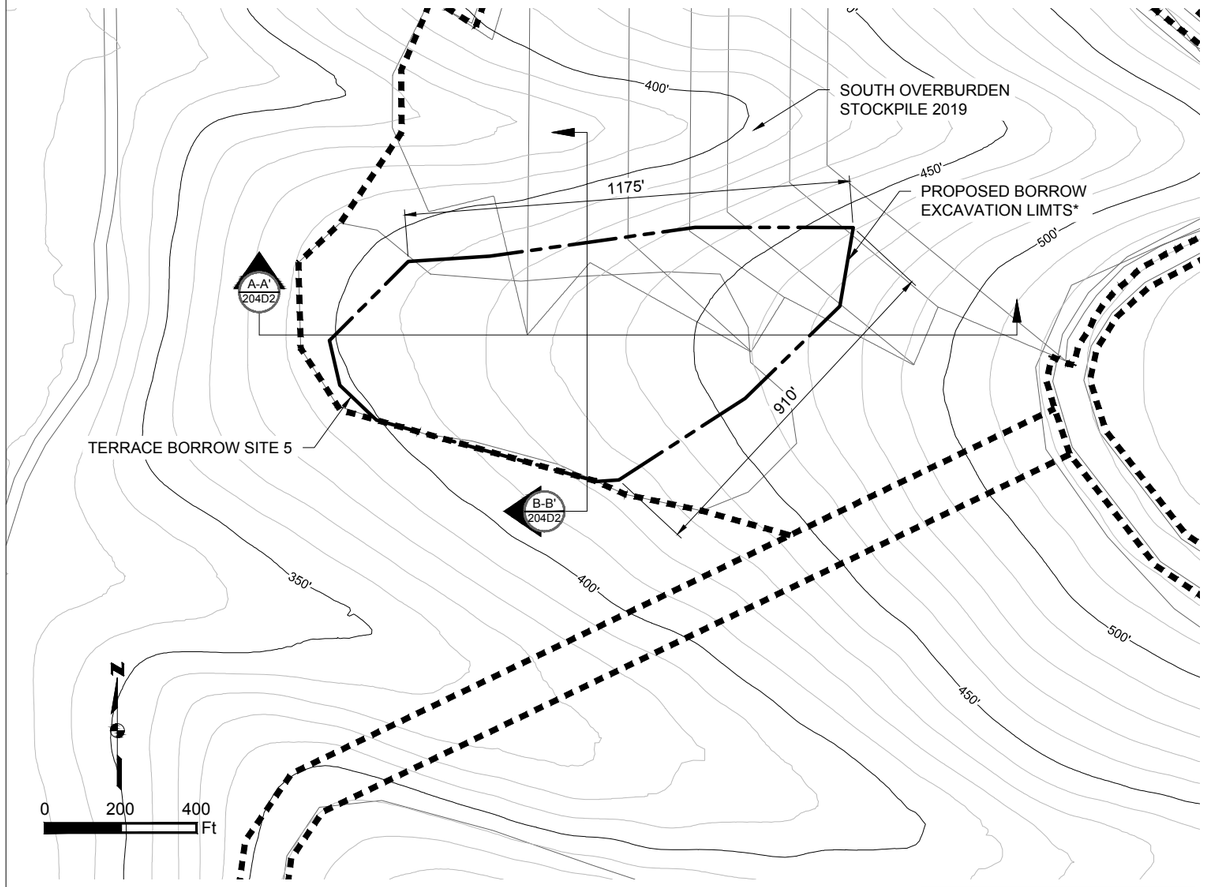
NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
TERRACE_3-5.dwg (BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

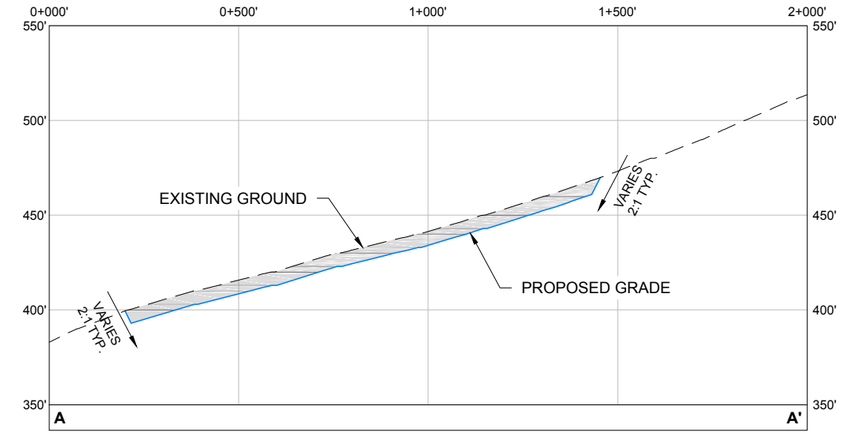
DRAWING TITLE:
TERRACE BORROW SITE 4 DETAIL
FIGURE NO. **MA-204D1**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Material_Site_Terrace_Borrow_3_4_5.dwg

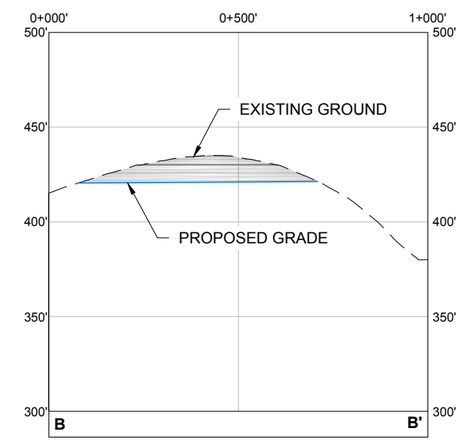


TERRACE BORROW SITE 5 PLAN
SCALE 1" = 400'

NOTE:
AREA TO BE USED AS A BORROW SITE AND LATER PARTIALLY USED AS AN OVERBURDEN STOCKPILE.



A-A' 204D2 **TERRACE BORROW SITE 5 SECTION A-A'**
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'



B-B' 204D2 **TERRACE BORROW SITE 5 SECTION B-B'**
HORIZONTAL SCALE 1" = 400'
VERTICAL SCALE 1" = 80'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Borrow Excavation Limit*

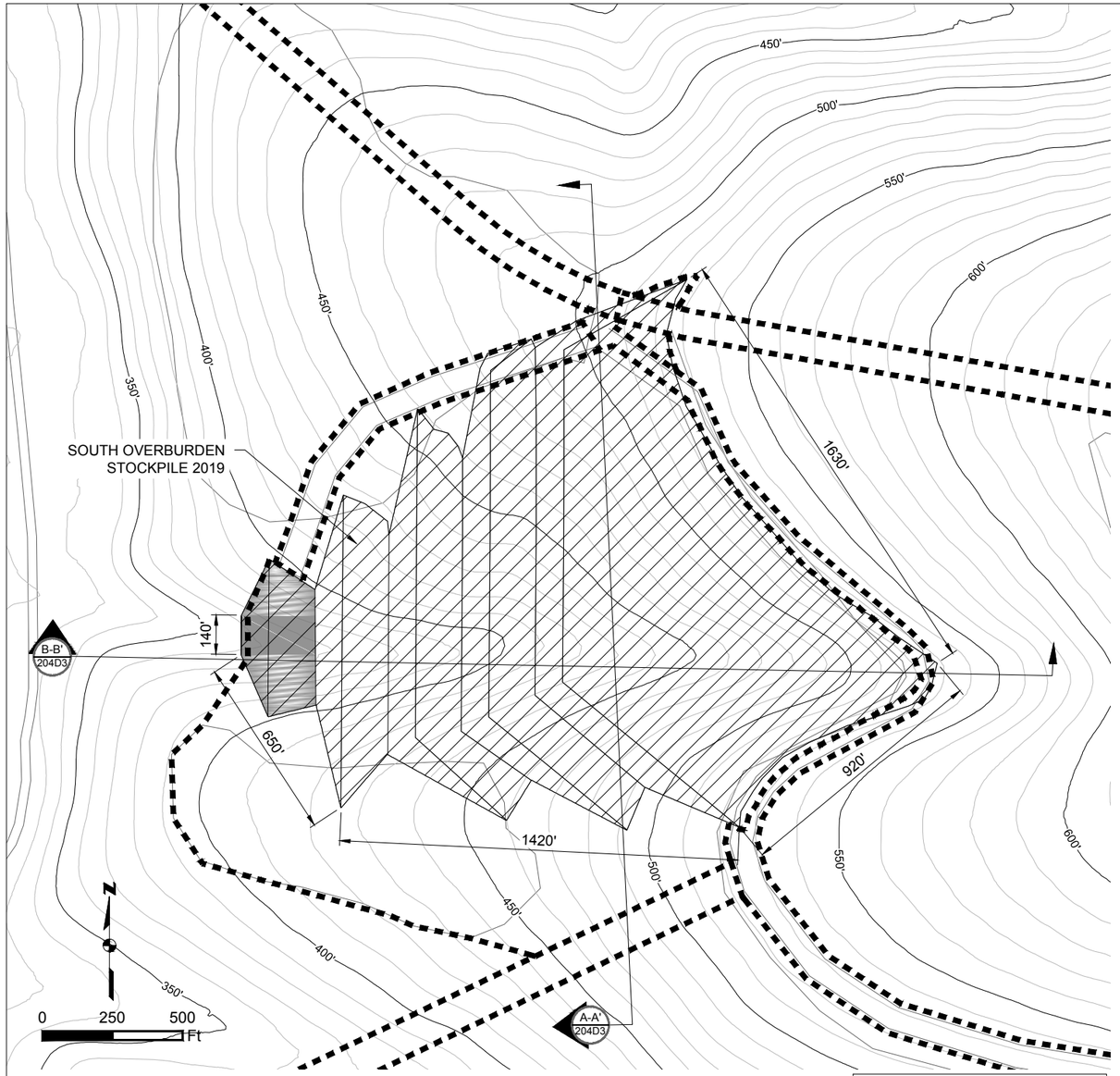
NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
TERRACE_3-5.dwg (BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

DRAWING TITLE:
TERRACE BORROW SITE 5 DETAIL
FIGURE NO. **MA-204D2**
FILE NO. **POA-1995-120**

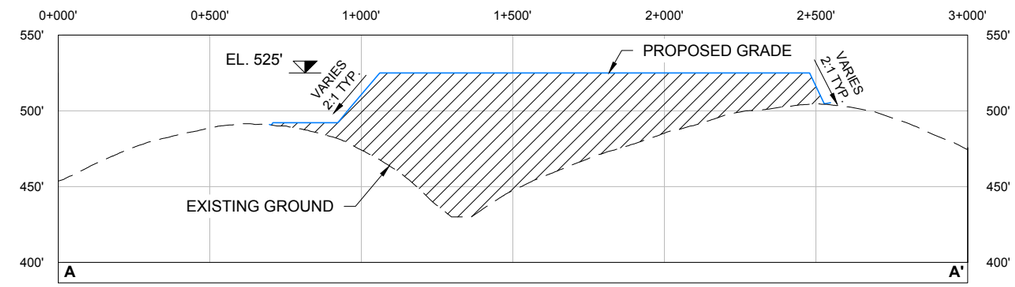
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Material_Site_Terrace_Borrow_3_4_5.dwg



SOUTH OVERBURDEN STOCKPILE 2019 PLAN

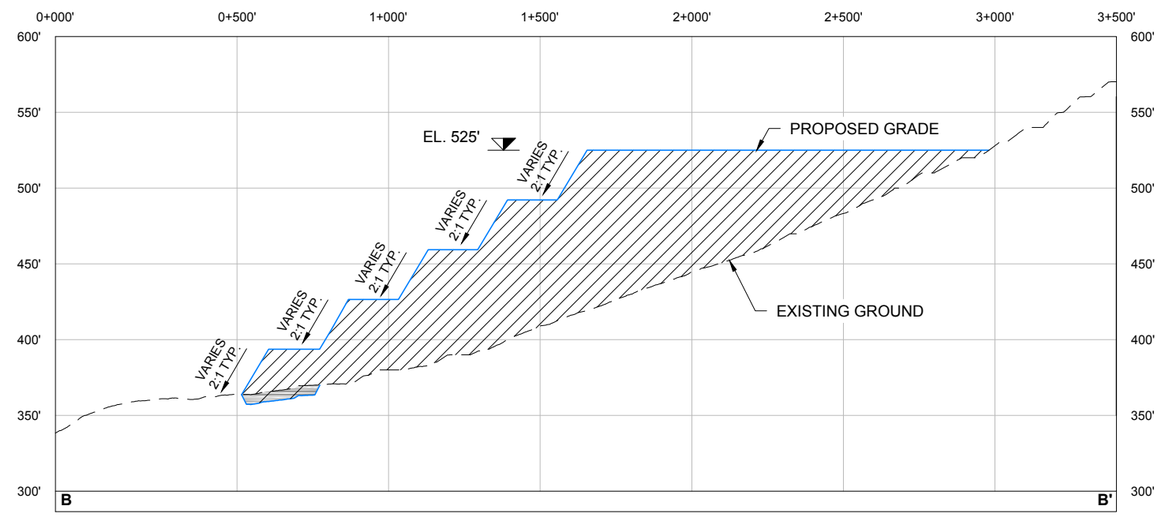
SCALE 1" = 500'

NOTE:
DRAINAGE AND EROSION CONTROLS WILL BE DEVELOPED WITHIN THE DISTURBANCE FOOTPRINT.



A-A' 204D3 SOUTH OVERBURDEN STOCKPILE 2019 SECTION A-A'

HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'



B-B' 204D3 SOUTH OVERBURDEN STOCKPILE 2019 SECTION B-B'

HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
11_SOUTH_OVERBURDEN_STOCKPILE_2019.dwg (BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

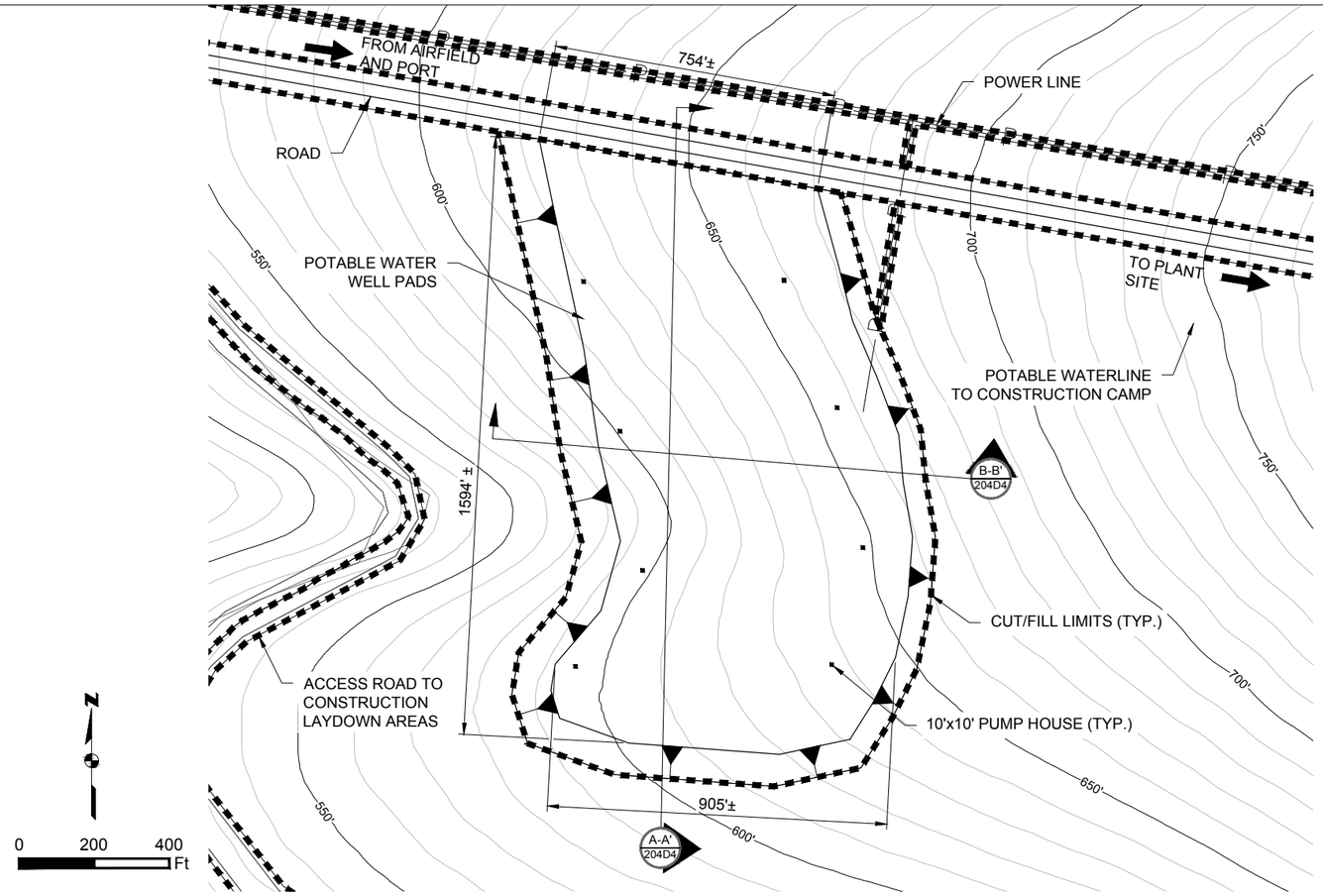
SCALE: AS SHOWN DATE: 9/5/2015

DRAWING TITLE: **SOUTH OVERBURDEN STOCKPILE 2019 DETAIL**

FIGURE NO. **MA-204D3**

FILE NO. **POA-1995-120**

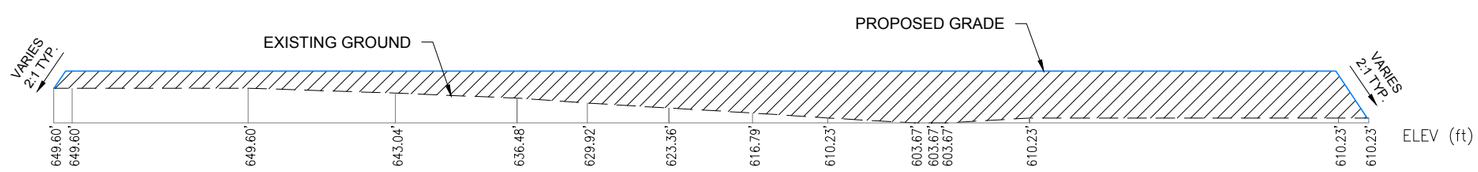
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_South_Overburden_Stockpile_2019.dwg



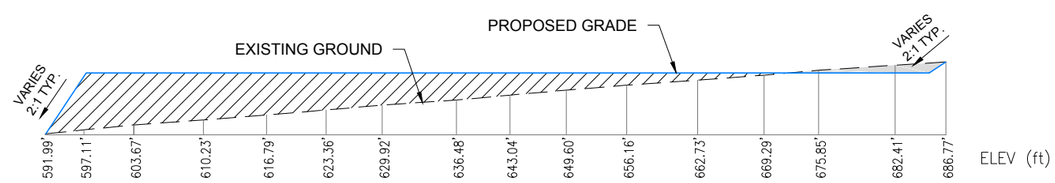
POTABLE WATER WELL PADS PLAN
SCALE 1" = 400'

NOTES:

1. ALL EXISTING CONTOUR ELEVATIONS ARE IN FEET UNLESS NOTED OTHERWISE.
2. ALL PROPOSED ELEVATIONS AND DIMENSIONS ARE IN FEET UNLESS NOTED OTHERWISE.



A-A' 204D4 POTABLE WATER WELL PADS SECTION A-A'
N.T.S.



B-B' 204D4 POTABLE WATER WELL PADS SECTION B-B'
N.T.S.

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
M12C-SP-WS_01.dwg (BAKER) SEP 2014

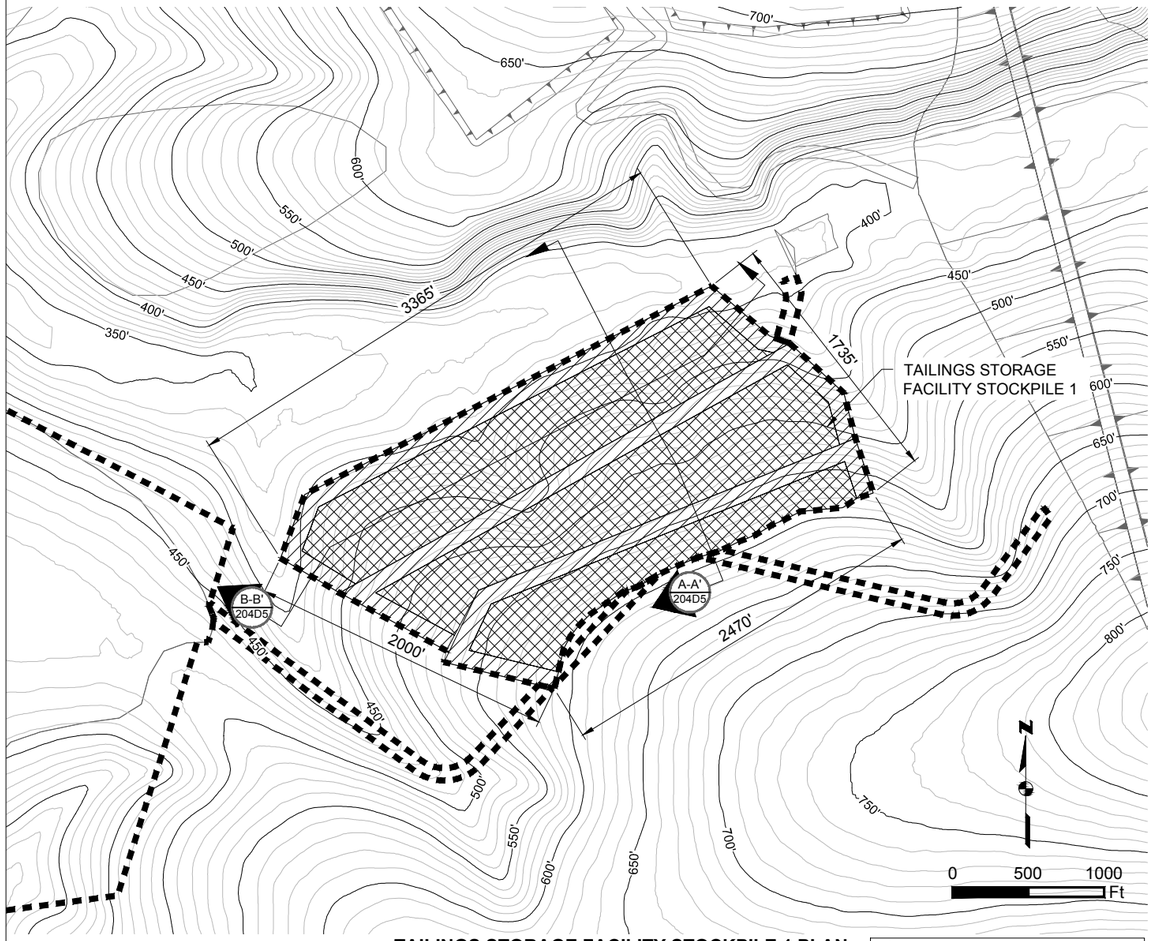
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
POTABLE WATER WELL PADS DETAIL

FIGURE NO. **MA-204D4**
FILE NO. **POA-1995-120**

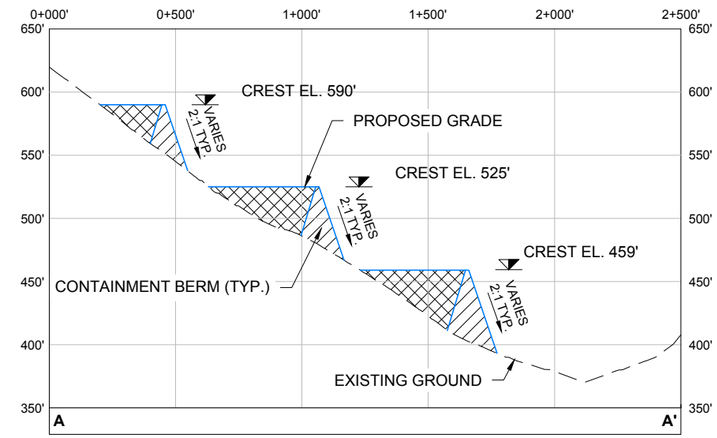
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Potable_Water_Well_Pads.dwg



TAILINGS STORAGE FACILITY STOCKPILE 1 PLAN

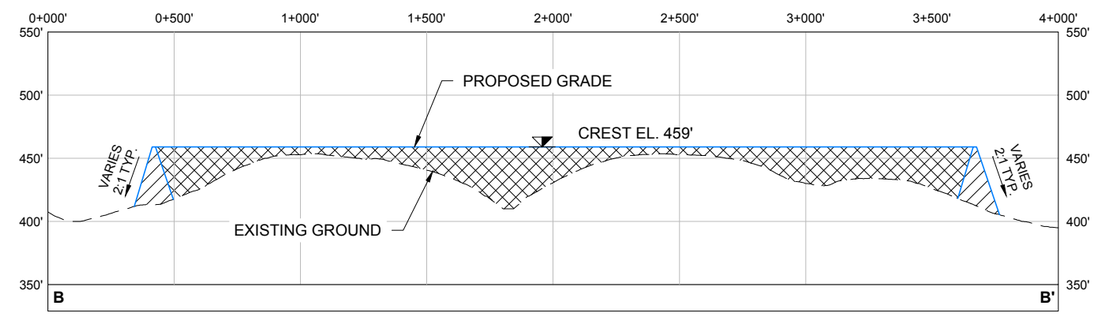
SCALE 1" = 1000'

NOTE:
DRAINAGE AND EROSION CONTROLS WILL BE DEVELOPED WITHIN THE DISTURBANCE FOOTPRINT.



A-A' 204D5 TAILINGS STORAGE FACILITY STOCKPILE 1 SECTION A-A'

HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 204D5 TAILINGS STORAGE FACILITY STOCKPILE 1 SECTION B-B'

HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Overburden Storage
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings

TAILINGS_STORAGE_FACILITY_STOCKPILE_1.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

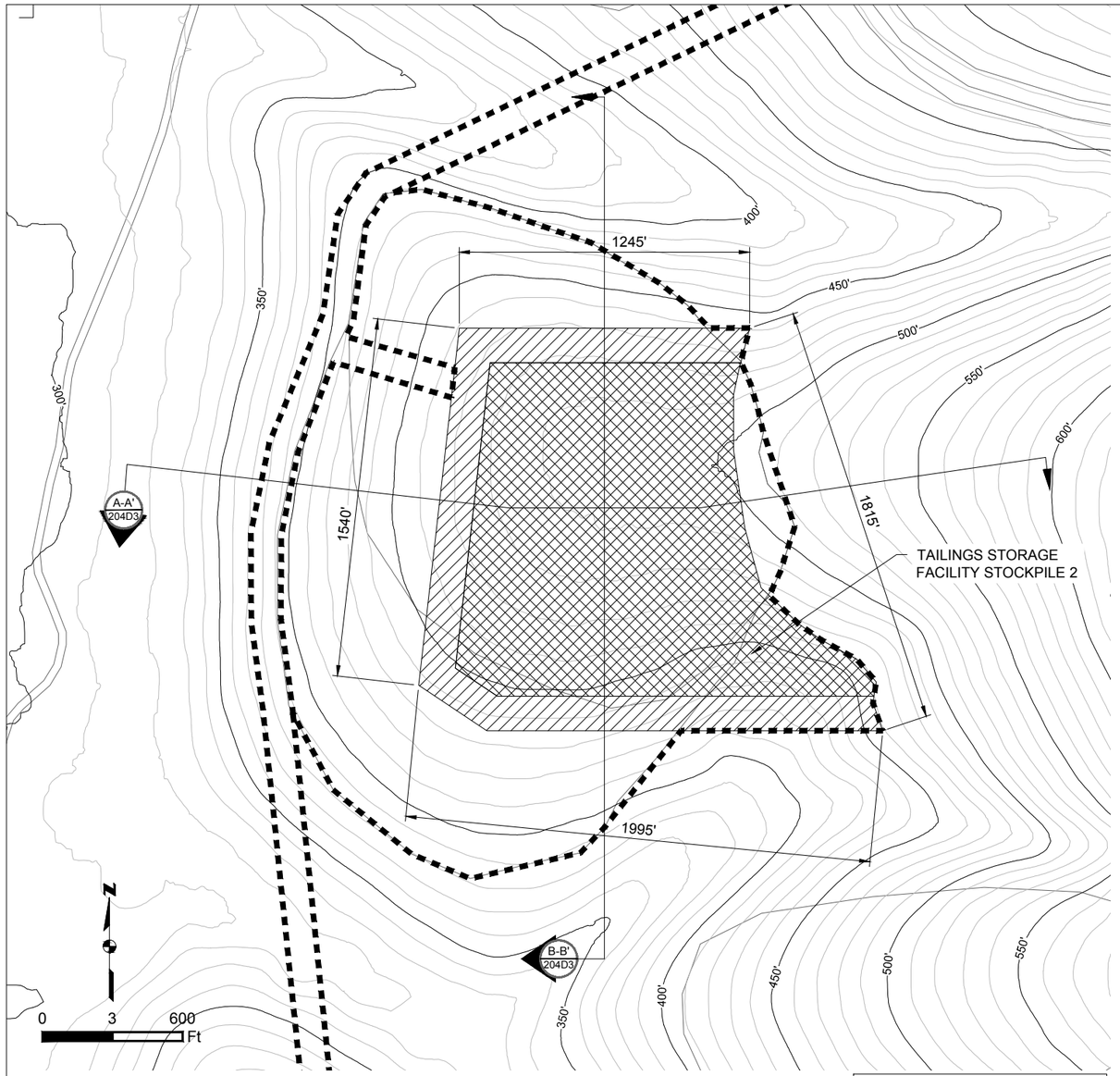
SCALE: AS SHOWN | DATE: 9/5/2015

DRAWING TITLE:
TAILINGS STORAGE FACILITY STOCKPILE 1 DETAIL

FIGURE NO. **MA-204D5**

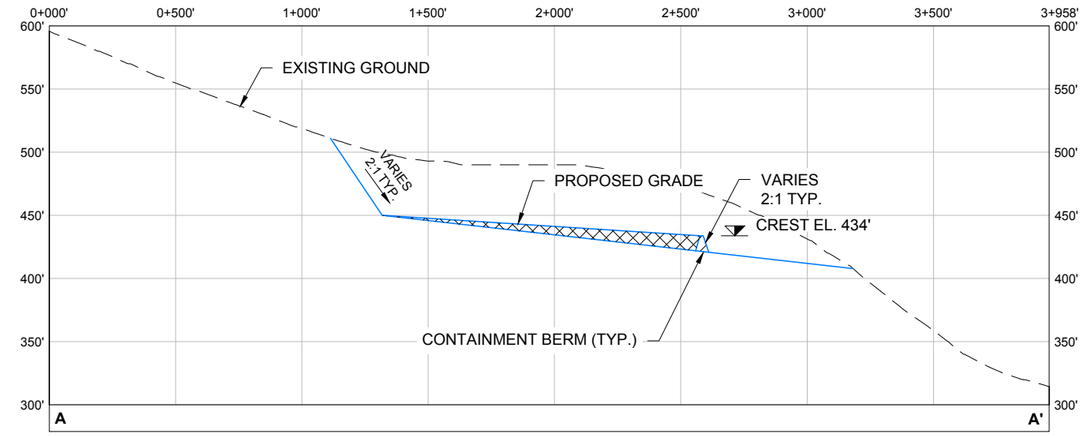
FILE NO. **POA-1995-120**

PATH: C:\Users\mengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_TSF_Stockpiles.dwg

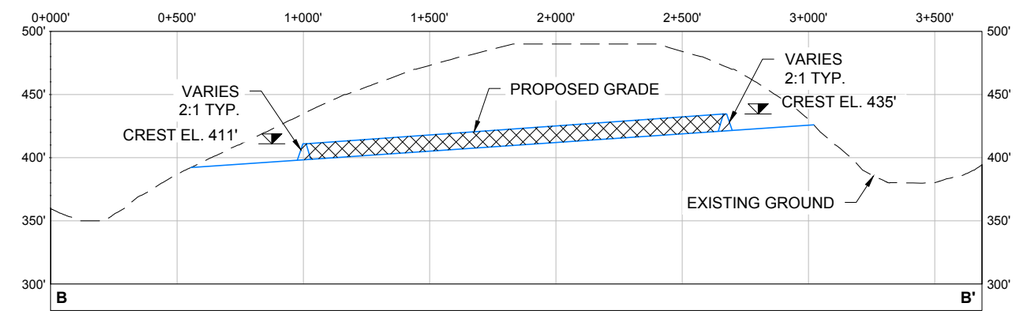


TAILINGS STORAGE FACILITY STOCKPILE 2 PLAN
SCALE 1" = 600'

NOTE:
DRAINAGE AND EROSION CONTROLS WILL BE DEVELOPED WITHIN THE DISTURBANCE FOOTPRINT.



A-A' 204D6 TAILINGS STORAGE FACILITY STOCKPILE 2 SECTION A-A'
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 204D6 TAILINGS STORAGE FACILITY STOCKPILE 2 SECTION B-B'
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

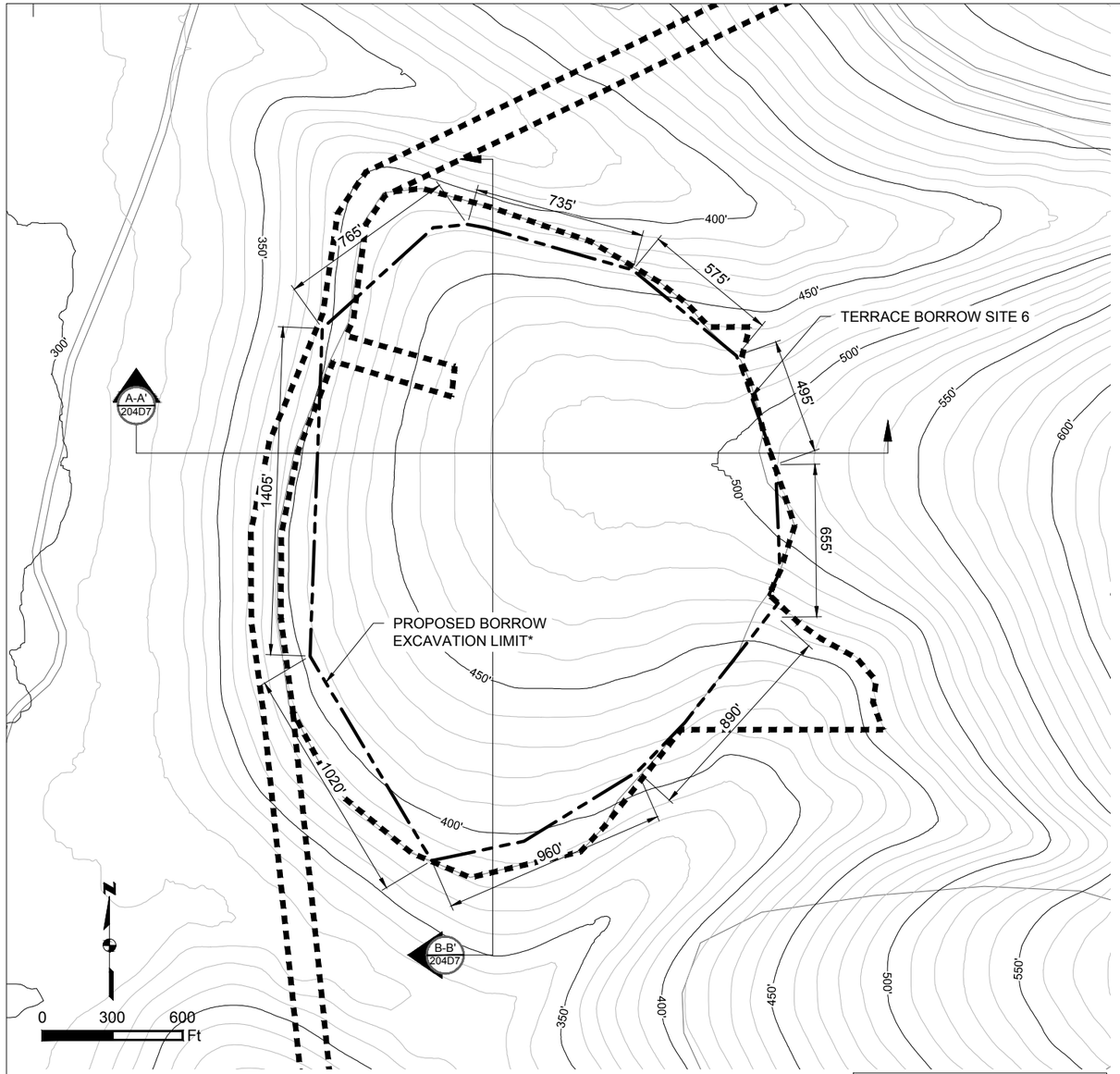
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Overburden Storage
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
10_TAILINGS_STORAGE_FACILITY_STOCKPILE_2.dwg
(BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

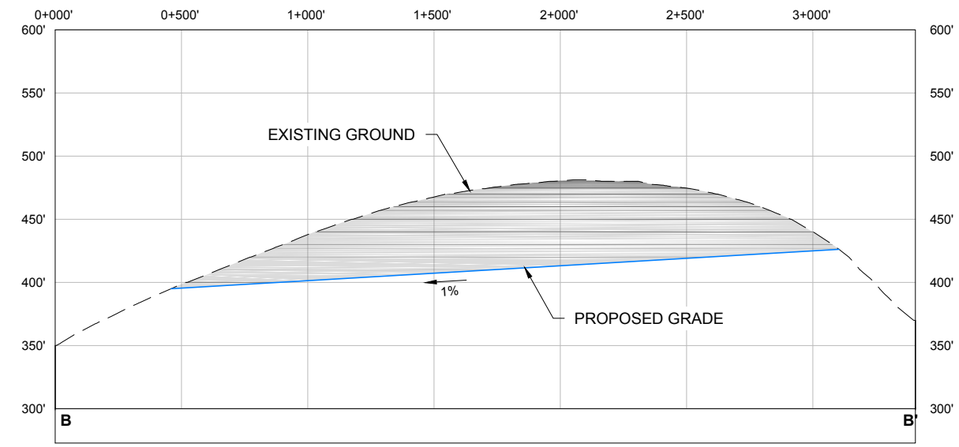
DRAWING TITLE:
TAILINGS STORAGE FACILITY STOCKPILE 2 DETAIL
FIGURE NO. **MA-204D6**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Tailings_Storage_Facility_Stockpile_2.dwg

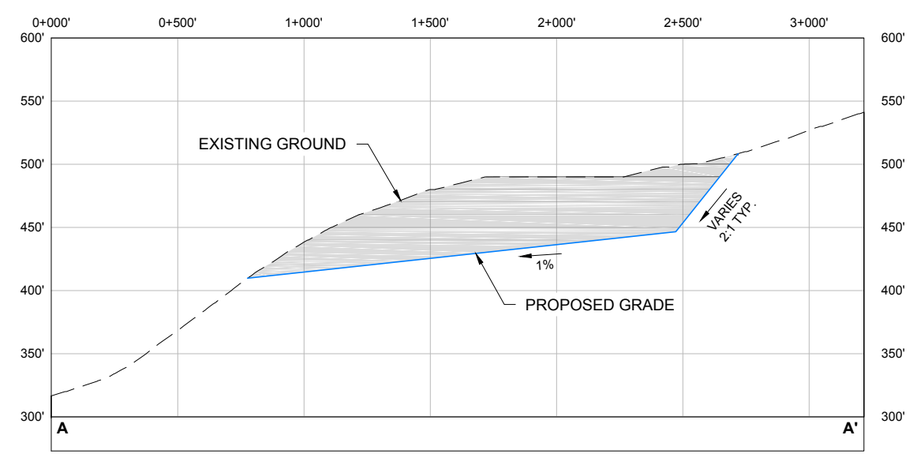


TERRACE BORROW SITE 6 PLAN
SCALE 1" = 600'

NOTE:
AREA TO BE USED AS A BORROW SITE AND LATER PARTIALLY USED AS AN OVERBURDEN STOCKPILE.



A-A' 204D7 TERRACE BORROW SITE 6 SECTION A-A'
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 204D7 TERRACE BORROW SITE 6 SECTION B-B'
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Borrow Excavation Limit*

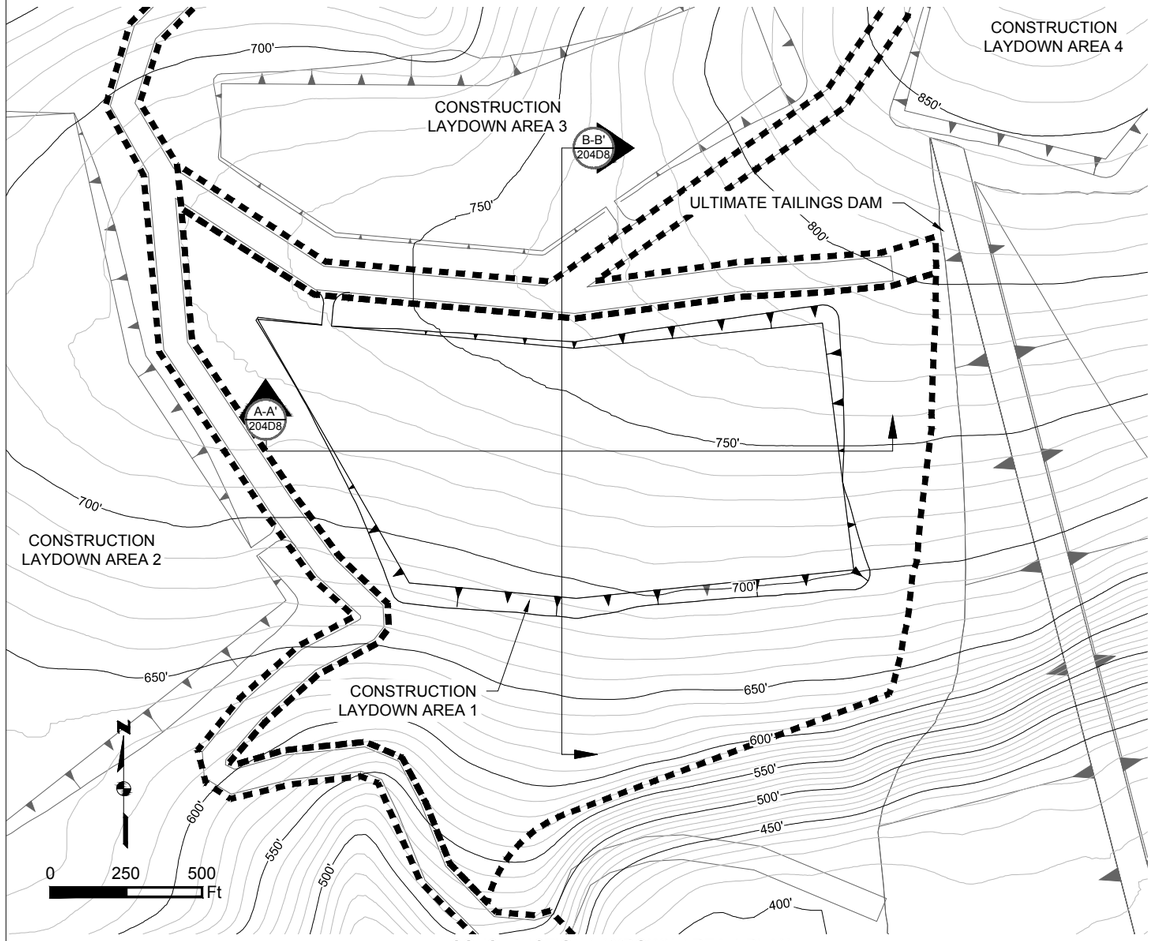
NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
13_SOUTH_OVERBURDEN_TERRACE_BORROW_6.dwg
(BGC) JUN 2012

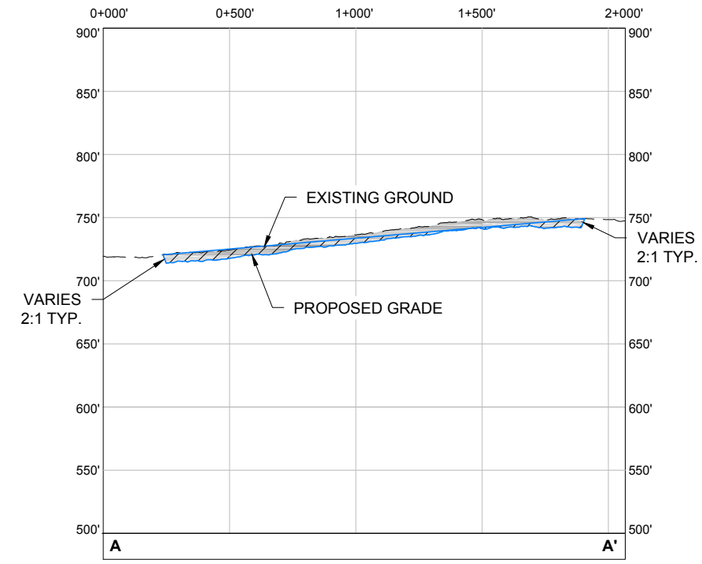
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

DRAWING TITLE:
TERRACE BORROW SITE 6 DETAIL
FIGURE NO. **MA-204D7**
FILE NO. **POA-1995-120**

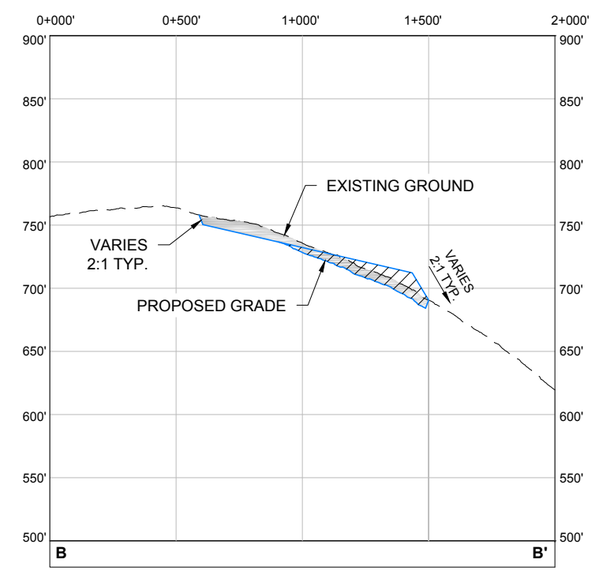
PATH: C:\Users\mtengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_South_Overburden_Terrace_Borrow_6.dwg



CONSTRUCTION LAYDOWN AREA 1 PLAN
SCALE 1" = 500'



CONSTRUCTION LAYDOWN AREA 1 SECTION A-A'
A-A' 204D8
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



CONSTRUCTION LAYDOWN AREA 1 SECTION B-B'
B-B' 204D8
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
CONSTRUCTION_AREA_LAYDOWN_NO_1.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

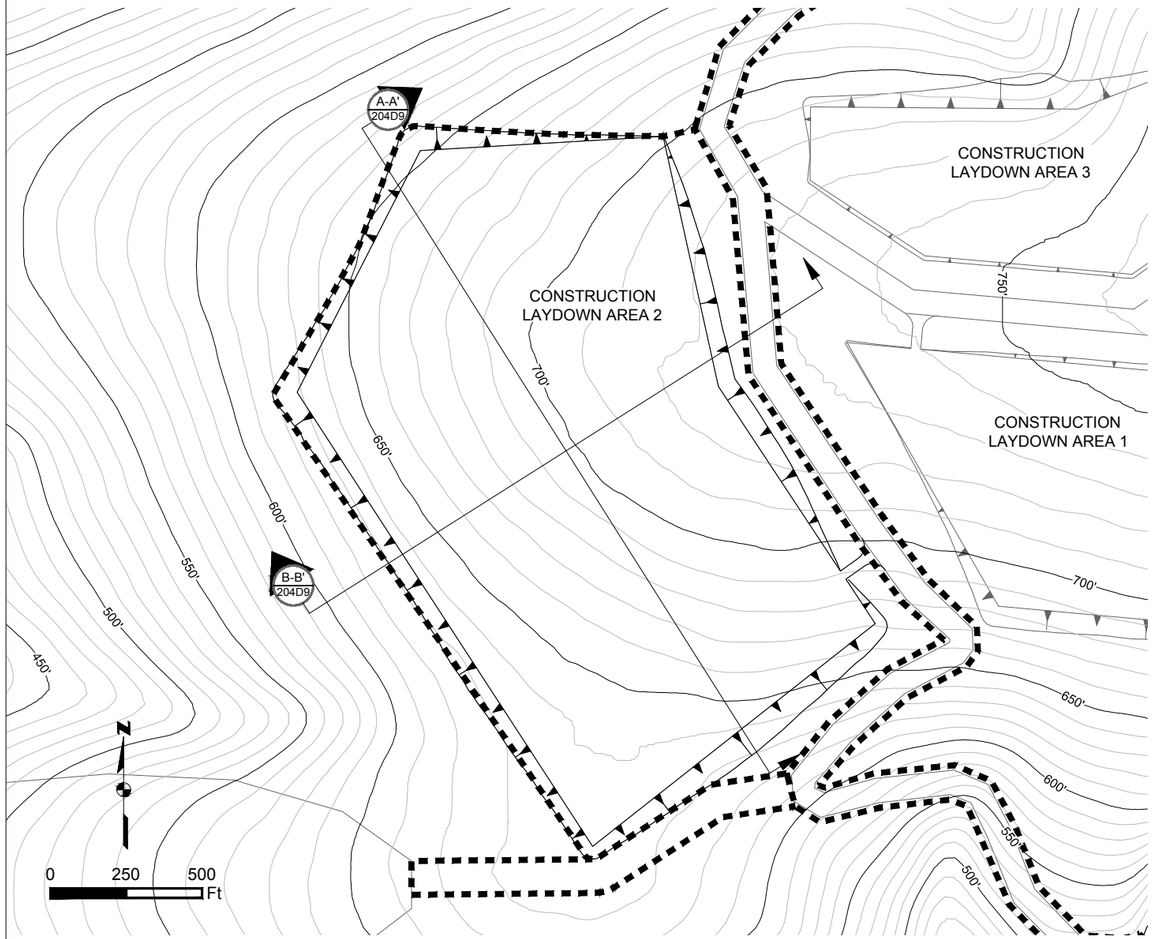
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 9/11/2015

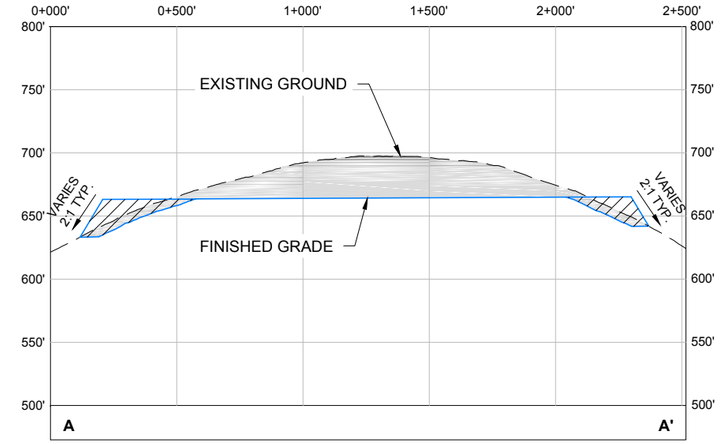
DRAWING TITLE:
CONSTRUCTION LAYDOWN AREA 1 DETAIL

FIGURE NO. **MA-204D8**
FILE NO. **POA-1995-120**

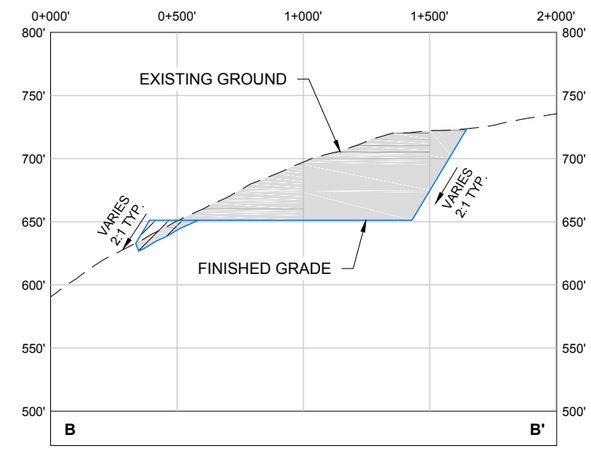
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Laydown_Area_1.dwg



CONSTRUCTION LAYDOWN AREA 2 PLAN
SCALE 1" = 500'



A-A' 204D9 **CONSTRUCTION LAYDOWN AREA 2 SECTION A-A'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 204D9 **CONSTRUCTION LAYDOWN AREA 2 SECTION B-B'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

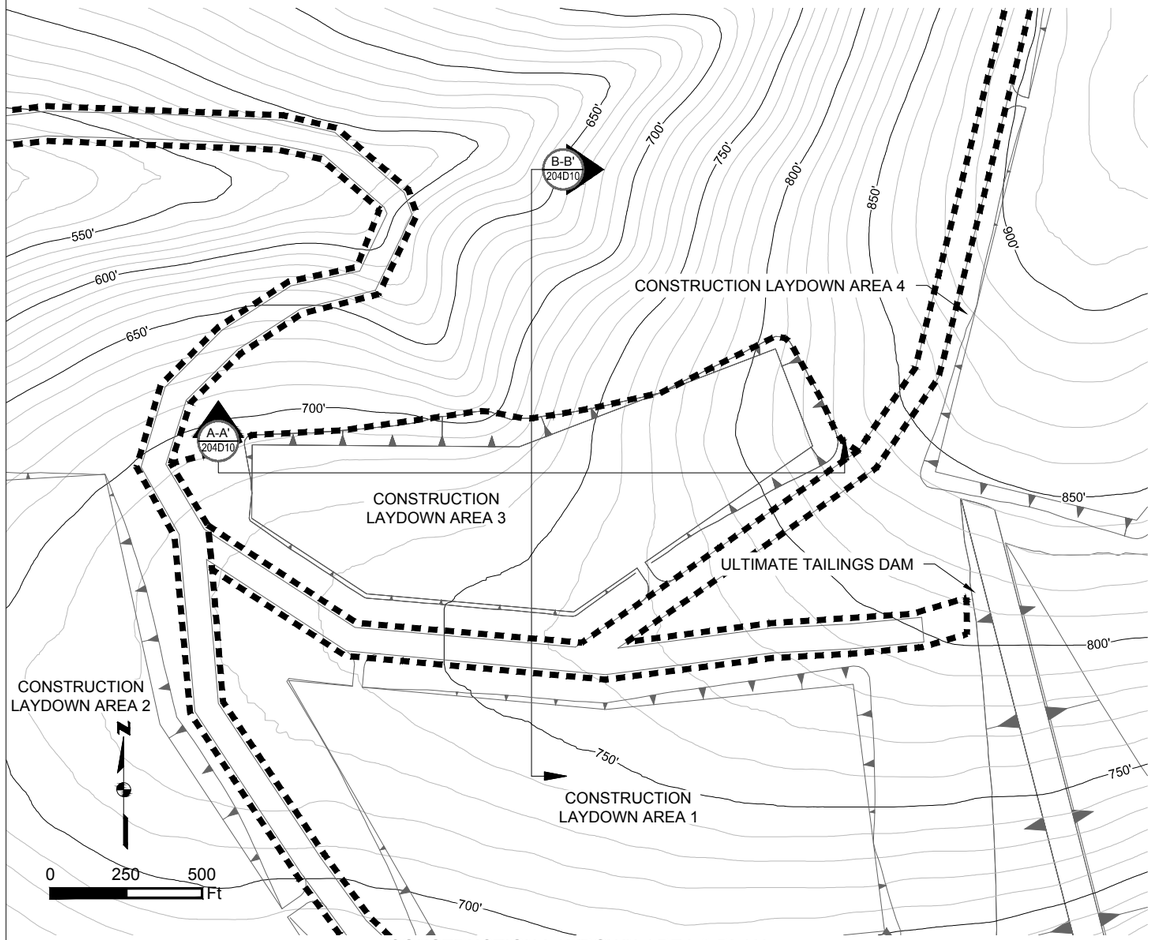
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
CONSTRUCTION_AREA_LAYDOWN_NO_2.dwg (BGC) JUNE 2012

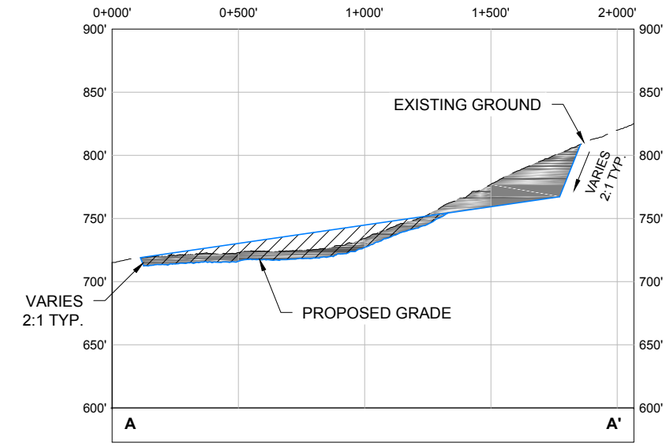
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 9/11/2015

DRAWING TITLE:
CONSTRUCTION LAYDOWN AREA 2 DETAIL
FIGURE NO. **MA-204D9**
FILE NO. **POA-1995-120**

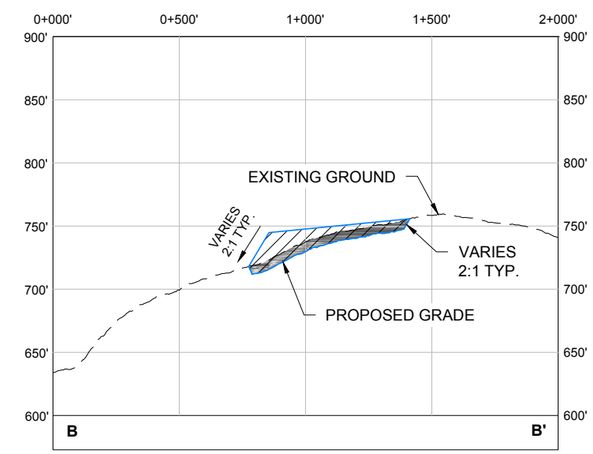
PATH: C:\Users\mtlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Laydown_Area_2.dwg



CONSTRUCTION LAYDOWN AREA 3 PLAN
SCALE 1" = 500'



A-A' 204D10 **CONSTRUCTION LAYDOWN AREA 3 SECTION A-A'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 204D10 **CONSTRUCTION LAYDOWN AREA 3 SECTION B-B'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

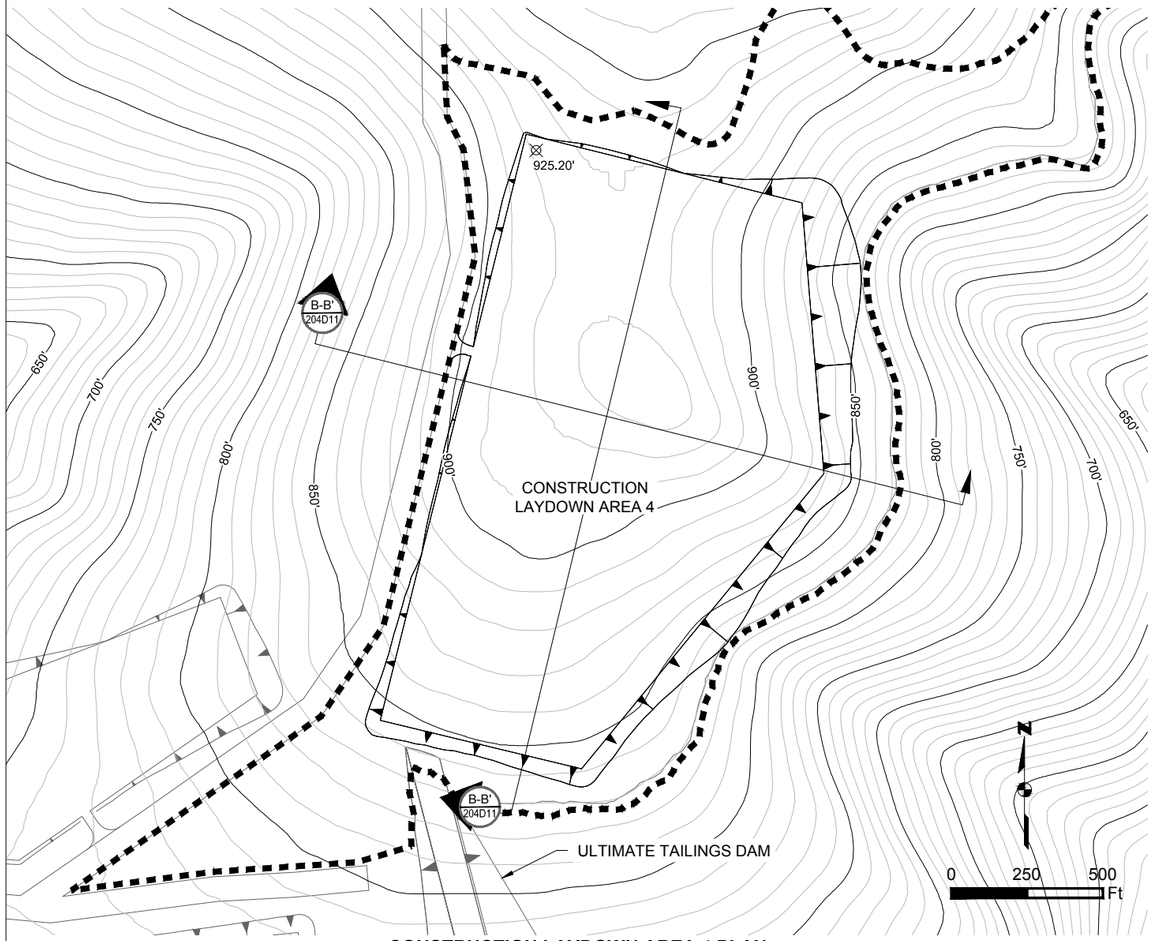
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
CONSTRUCTION_AREA_LAYDOWN_NO_3.dwg (BGC) JUNE 2012

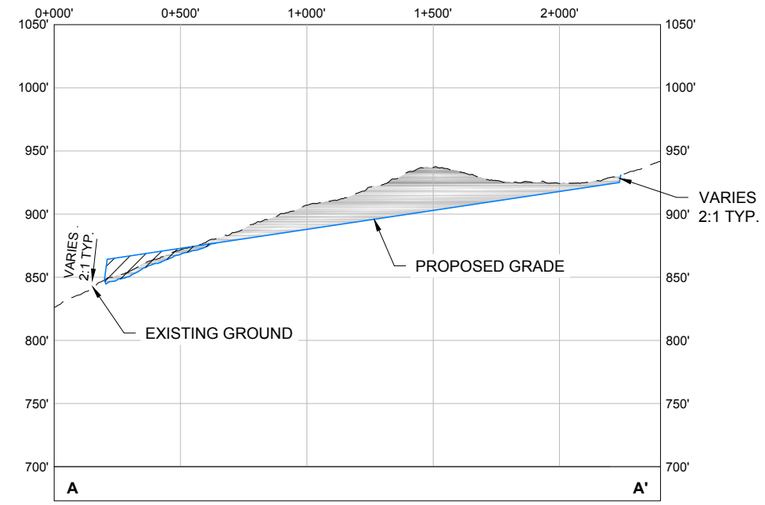
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
CONSTRUCTION LAYDOWN AREA 3 DETAIL
FIGURE NO. **MA-204D10**
FILE NO. **POA-1995-120**

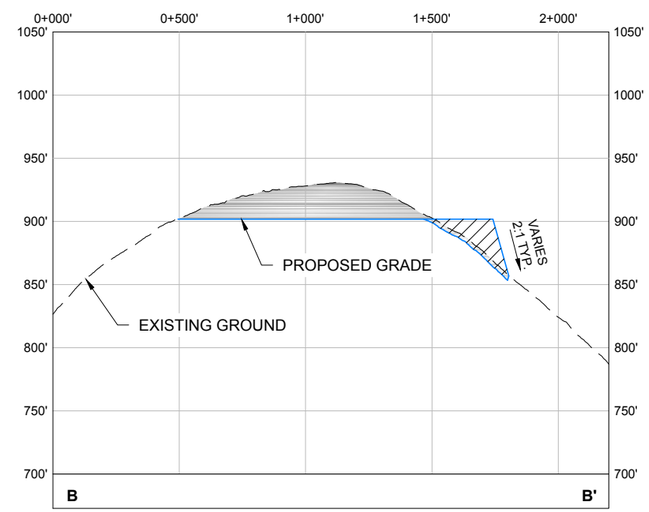
PATH: C:\Users\mengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Laydown_Area_3.dwg



CONSTRUCTION LAYDOWN AREA 4 PLAN
SCALE 1" = 500'



A-A' 204D11 CONSTRUCTION LAYDOWN AREA 4 SECTION A-A'
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 204D11 CONSTRUCTION LAYDOWN AREA 4 SECTION B-B'
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

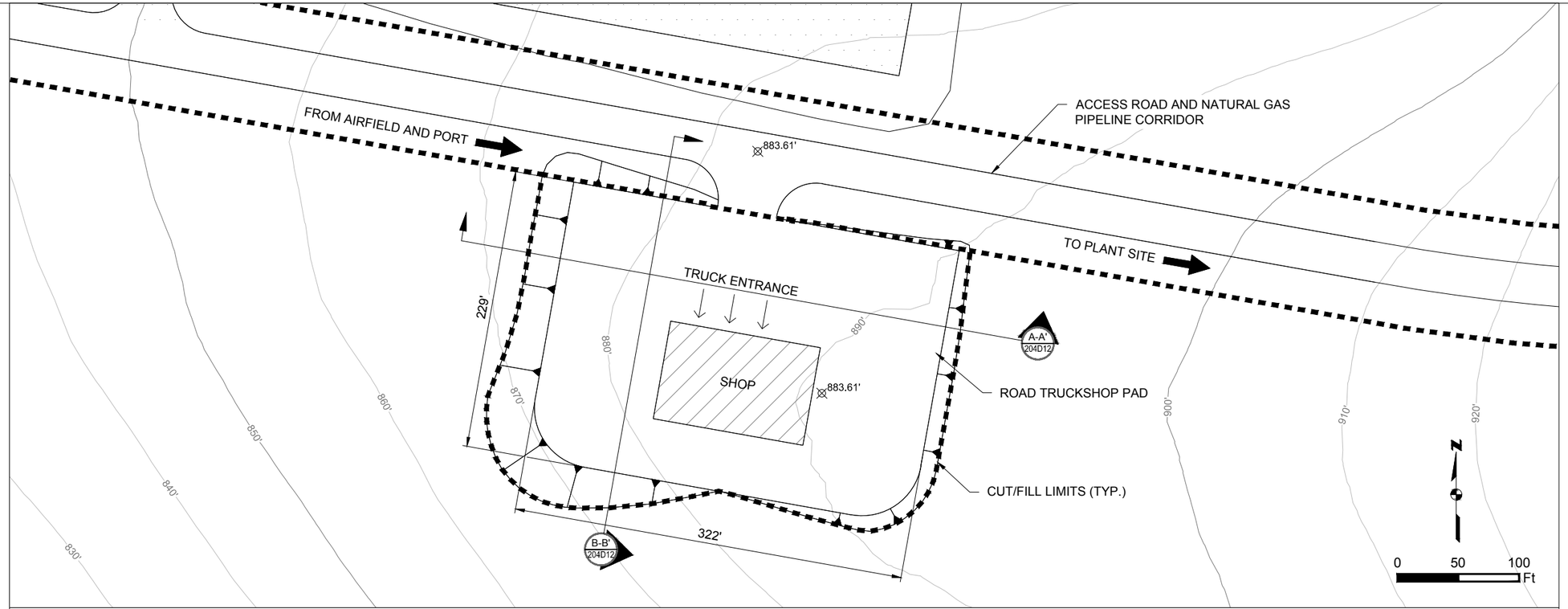
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
CONSTRUCTION_AREA_LAYDOWN_NO_4.dwg (BGC) JUNE 2012

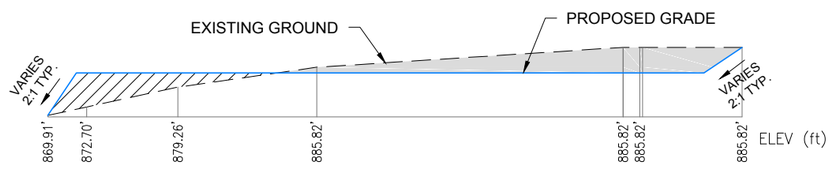
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
CONSTRUCTION LAYDOWN AREA 4 DETAIL
FIGURE NO. **MA-204D11**
FILE NO. **POA-1995-120**

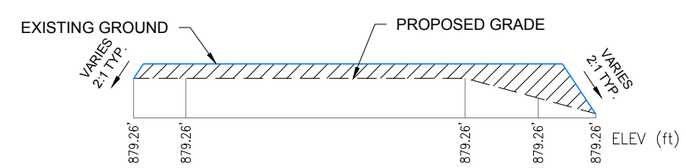
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Laydown_Area_4.dwg



ROAD TRUCKSHOP PAD PLAN
SCALE 1" = 100'



A-A' 204D12 **ROAD TRUCKSHOP PAD SECTION A-A'**
N.T.S.



B-B' 204D12 **ROAD TRUCKSHOP PAD SECTION B-B'**
N.T.S.

NOTES:

1. ALL EXISTING CONTOUR ELEVATIONS ARE IN FEET UNLESS NOTED OTHERWISE.
2. ALL PROPOSED ELEVATIONS AND DIMENSIONS ARE IN FEET UNLESS NOTED OTHERWISE.

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
M12C-SP-SH_01.dwg (BAKER) SEP 2014

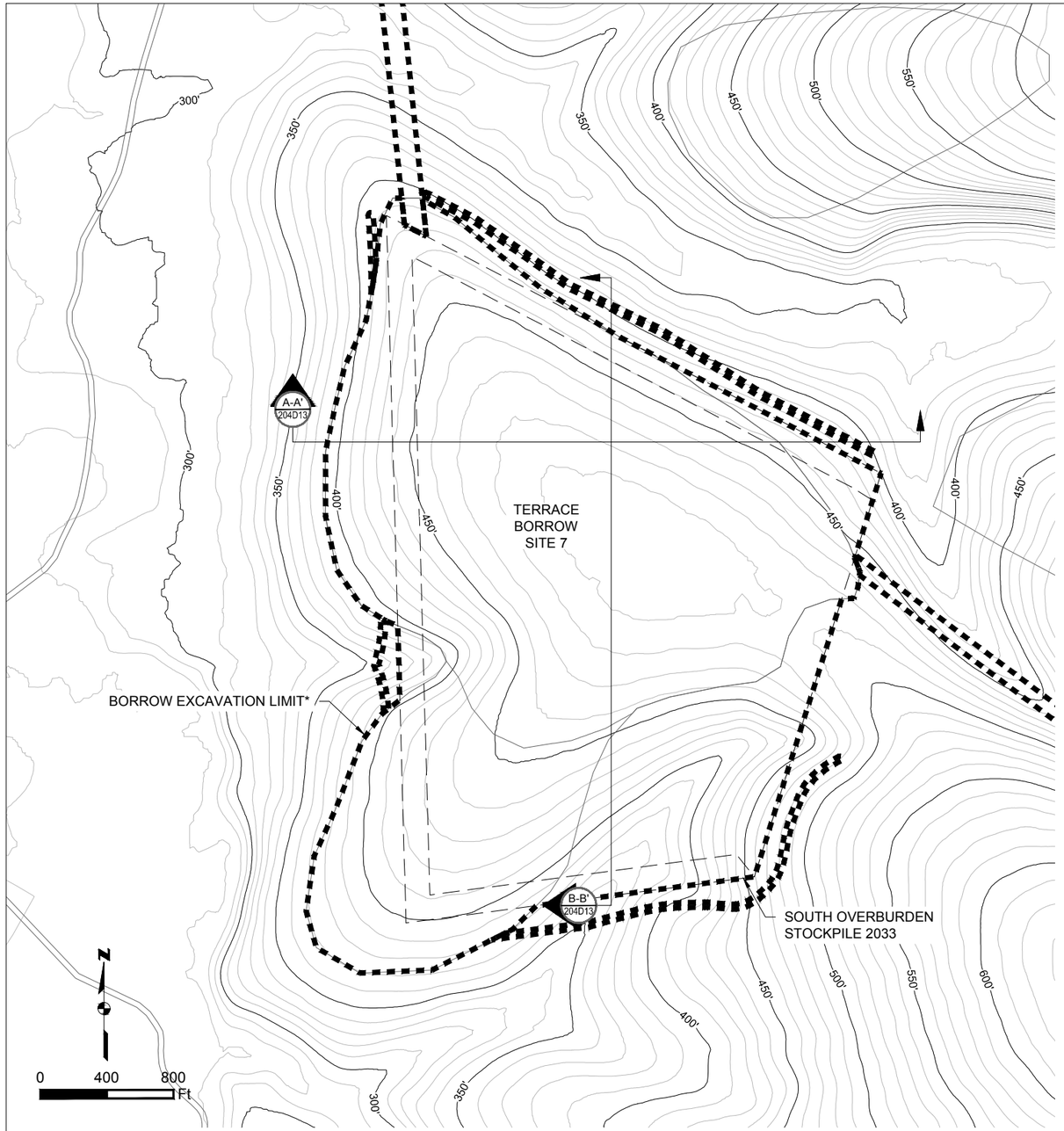
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
ROAD TRUCKSHOP PAD DETAIL

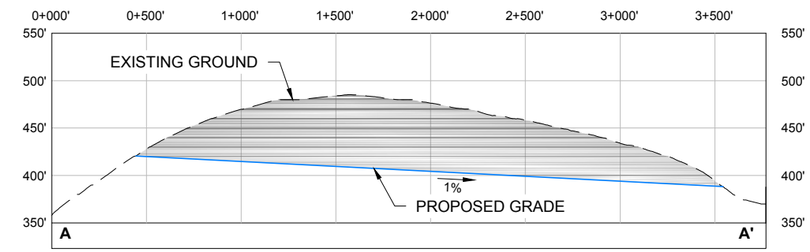
FIGURE NO. **MA-204D12**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Road_Truckshop_Area_Pad.dwg

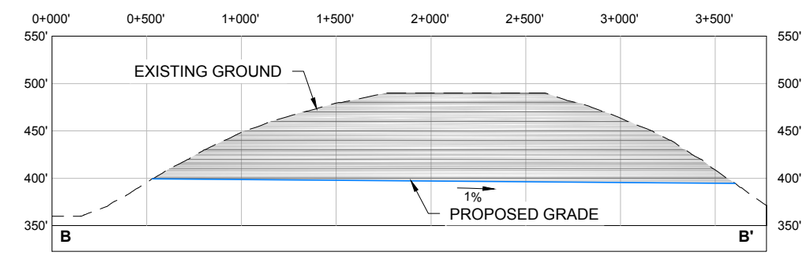


TERRACE BORROW SITE 7 PLAN
SCALE 1" = 800'

NOTE:
AREA TO BE USED AS A BORROW SITE AND LATER PARTIALLY USED AS AN OVERBURDEN STOCKPILE.



A-A' 204D13 **TERRACE BORROW SITE 7 SECTION A-A'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'



B-B' 204D13 **TERRACE BORROW SITE 7 SECTION B-B'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
TERRACE_7.dwg (BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

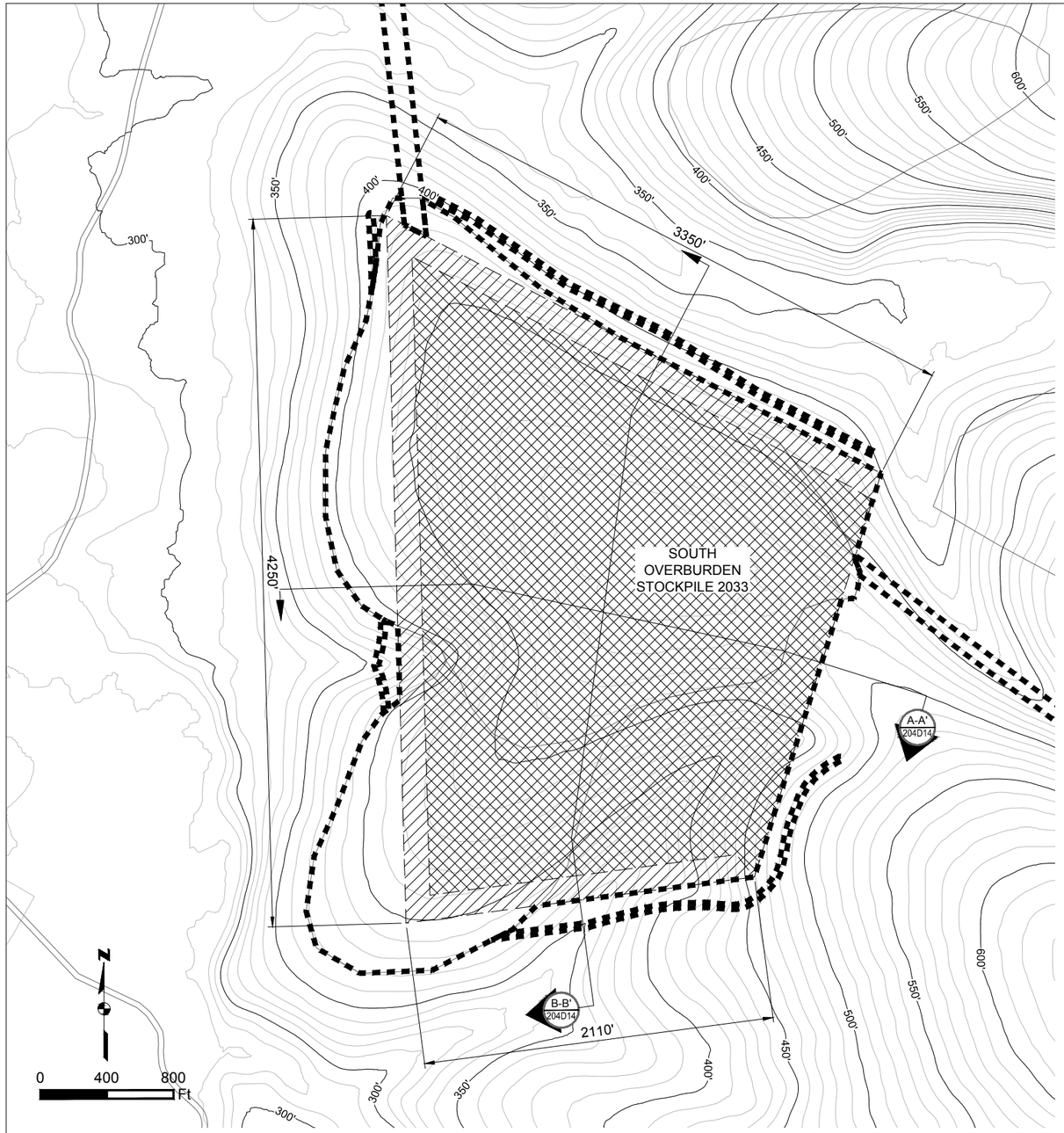
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
TERRACE BORROW SITE 7 DETAIL

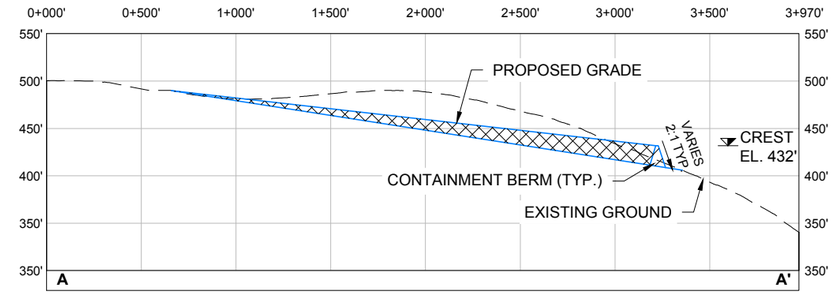
FIGURE NO. **MA-204D13**
FILE NO. **POA-1995-120**

PATH: C:\Users\mengewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Material_Site_Terrace_Borrow_7.dwg

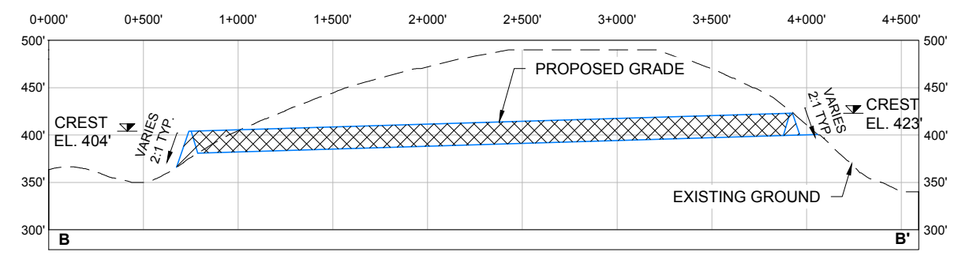


SOUTH OVERBURDEN STOCKPILE 2033 PLAN
SCALE 1" = 800'

NOTE:
DRAINAGE AND EROSION CONTROLS WILL BE DEVELOPED WITHIN THE DISTURBANCE FOOTPRINT.



A-A' 204D14 **SOUTH OVERBURDEN STOCKPILE 2033 SECTION A-A'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'



B-B' 204D14 **SOUTH OVERBURDEN STOCKPILE 2033 SECTION B-B'**
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Overburden Storage
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
09_SOUTH_OVERBURDEN_STOCKPILE_2033.dwg (BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: AS SHOWN DATE: 9/11/2015

DRAWING TITLE:
SOUTH OVERBURDEN STOCKPILE 2033 DETAIL

FIGURE NO. **MA-204D14**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_South_Overburden_Stockpile_2033.dwg

Kuskokwim Corp (Surface) and Calista Corp (Subsurface) Patented or IC Land [12(a)]

70-MA
Upper TSF Access Road - B

110-MA
TSF Drainage/Stormwater Diversion

69-MA
Upper TSF Access Road - A

108-MA
TSF Buffer

MA-106
TSF Year 25 Boundary

Anaconda Creek

Calista Corporation Interim Conveyance [14(h) (8)]

S022N049W
S022N048W

MA-113
TSF Seepage Recovery System - Pond

99-MA
TSF Dam - Year 27.5

98-MA
TSF Dam Year 25 Boundary

Federal Closed [ANCSA Sec. 17(d)(1) withdrawal for classification and study]

109-MA
TSF Closure Spillway

Crevice Creek

Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,500 feet

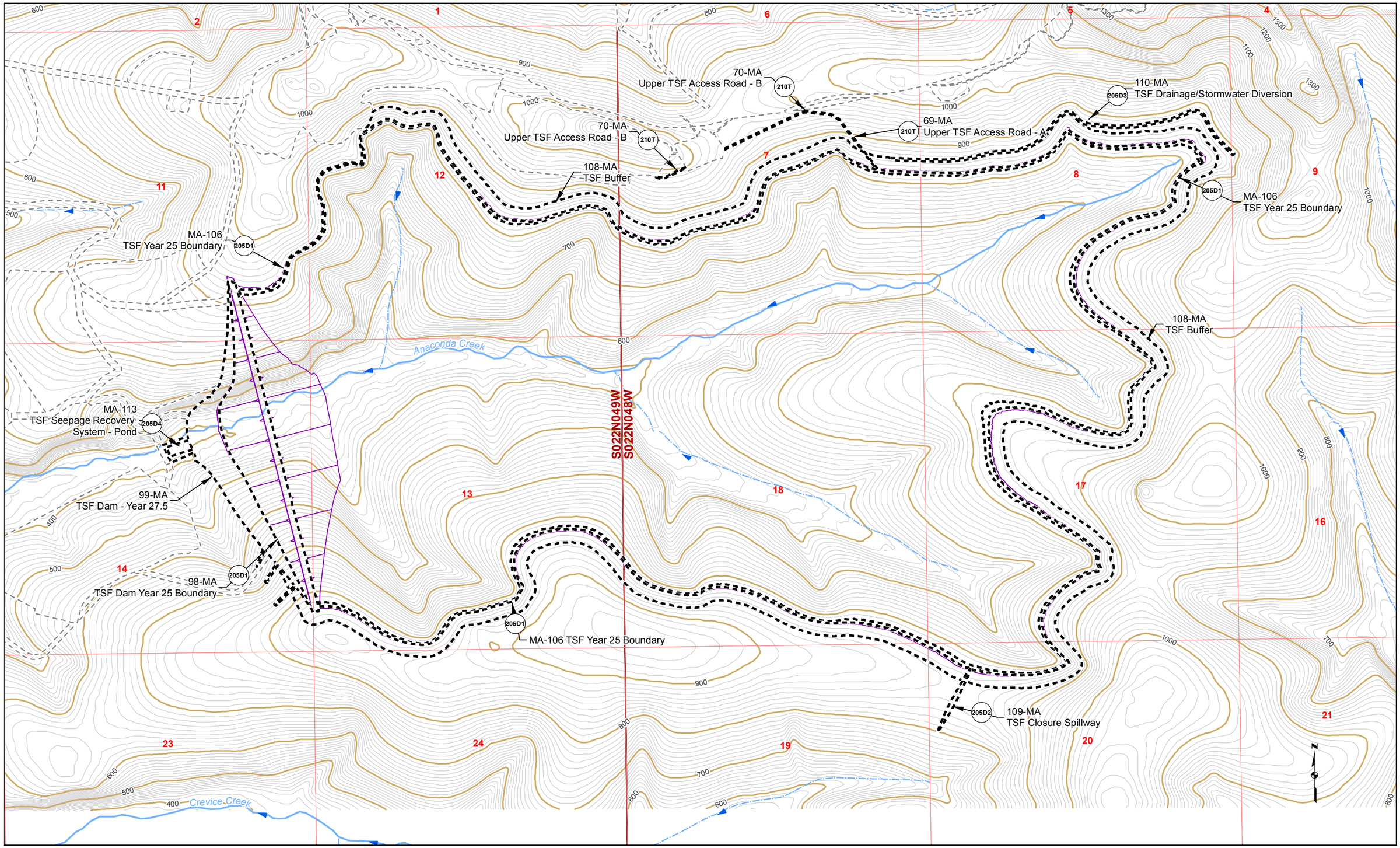
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-205A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

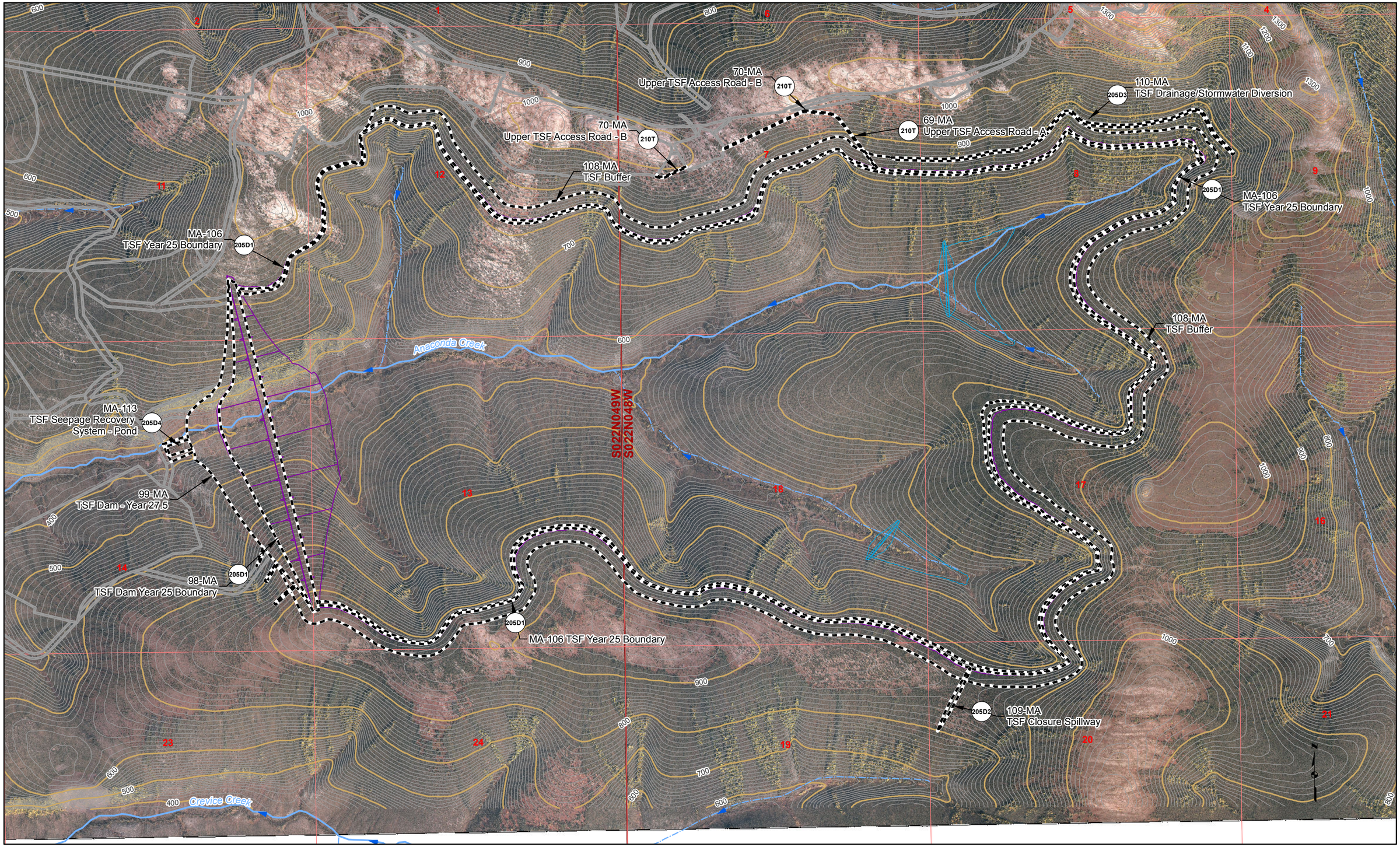
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-205B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

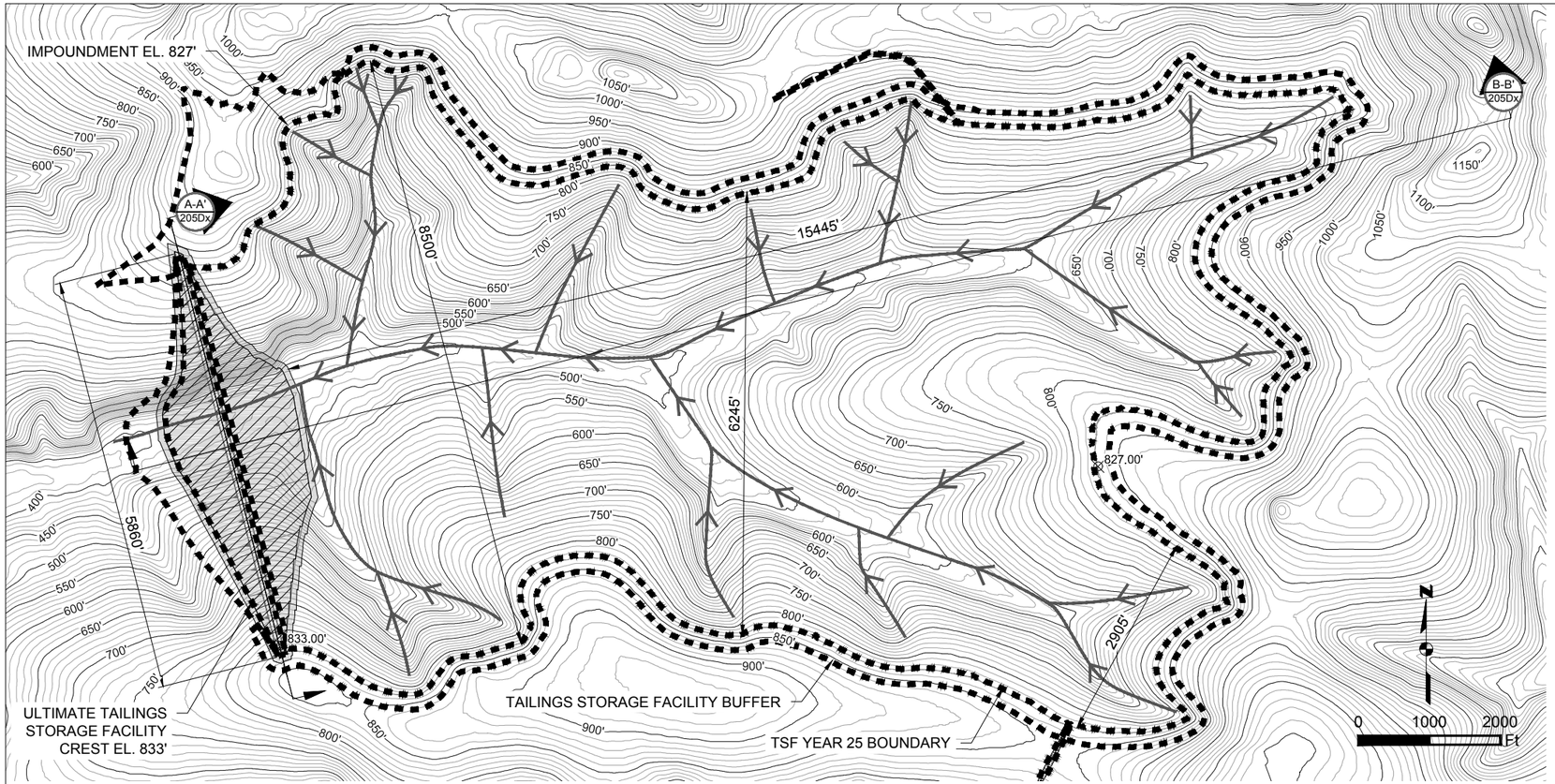
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

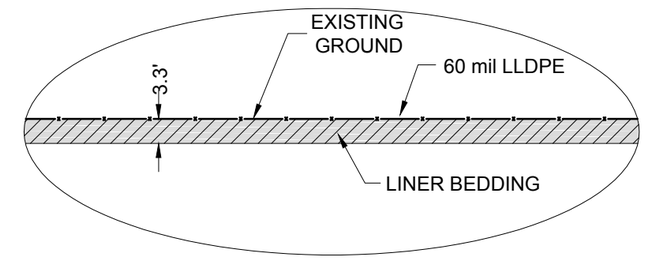
FIGURE NO. **MA-205C**

FILE NO. **POA-1995-120**

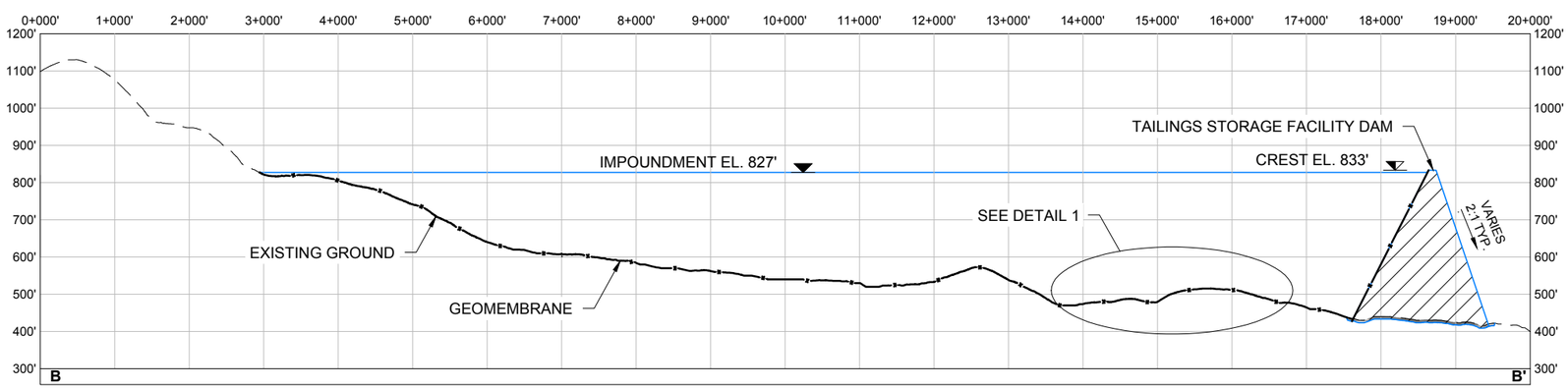
PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd



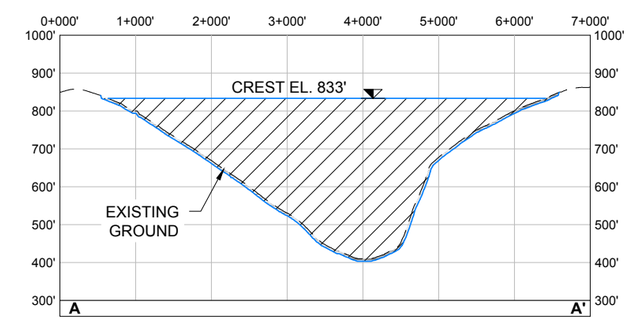
TSF YEAR 25 BOUNDARY PLAN
SCALE 1" = 2000'



TYPICAL DETAIL
N.T.S.



A-A' 205D1 TSF YEAR 25 BOUNDARY SECTION A-A'
HORIZONTAL SCALE 1" = 2000'
VERTICAL SCALE 1" = 400'



B-B' 205D1 TSF YEAR 25 BOUNDARY SECTION B-B'
HORIZONTAL SCALE 1" = 2000'
VERTICAL SCALE 1" = 400'

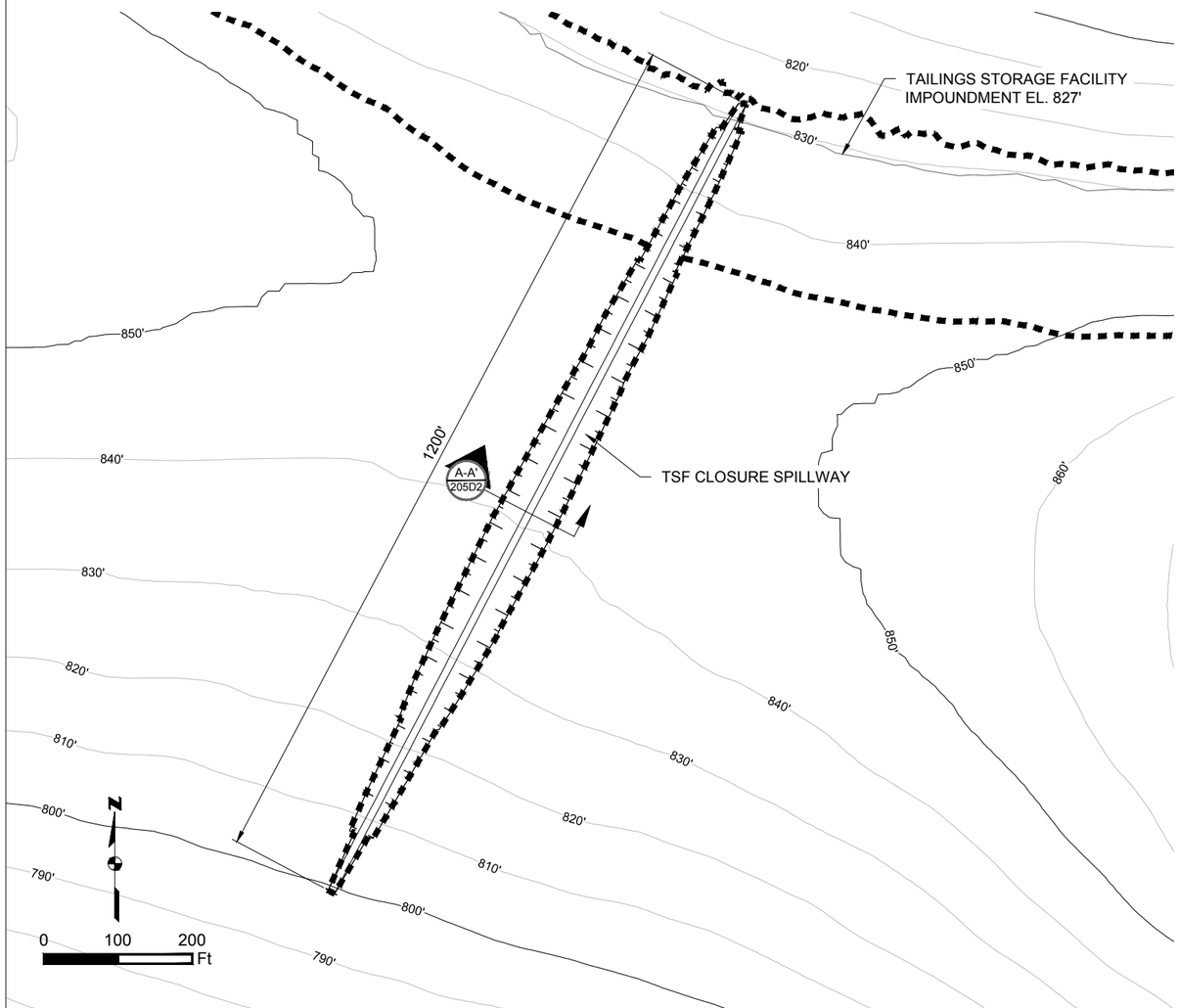
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Geomembrane
Diversion Channel

Associated Engineering Drawings
ULTIMATE_TAILINGS_STORAGE_FACILITY.dwg (BGC) JUN 2012

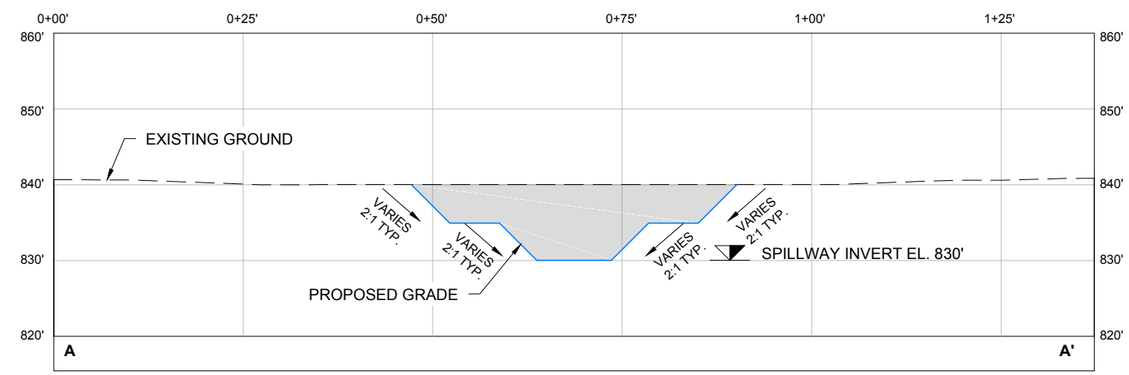
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 9/11/2015

DRAWING TITLE:
TSF YEAR 25 BOUNDARY DETAIL
FIGURE NO. **MA-205D1**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_TSF_Ultimate_2050.dwg



TSF CLOSURE SPILLWAY PLAN
SCALE 1" = 200'



TSF CLOSURE SPILLWAY SECTION A-A'
A-A' 205D2
HORIZONTAL SCALE 1" = 20'
VERTICAL SCALE 1" = 20'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
CLOSURE_SPILLWAY.dwg (BGC) JUN 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

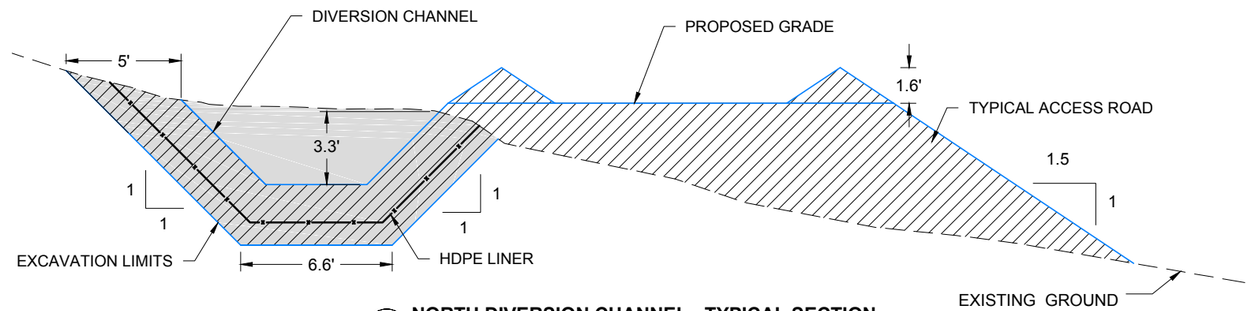
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 9/11/2015

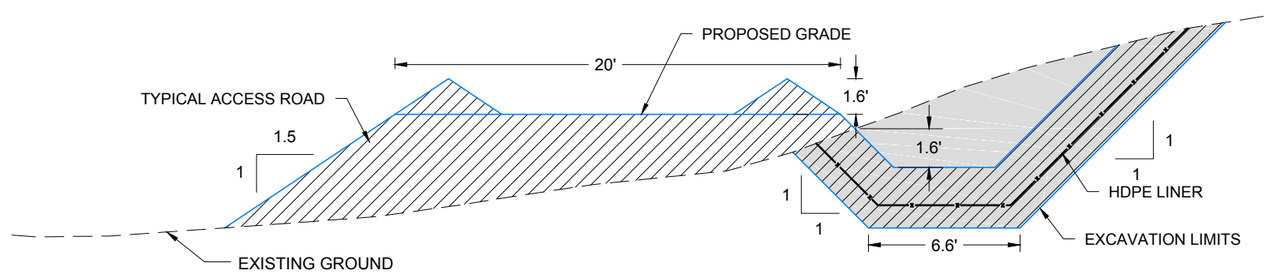
DRAWING TITLE:
TSF CLOSURE SPILLWAY DETAIL

FIGURE NO. **MA-205D2**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_TSF_Closure_Spillway.dwg



A 205D3 **NORTH DIVERSION CHANNEL - TYPICAL SECTION**
N.T.S.



B 205D3 **SOUTH DIVERSION CHANNEL - TYPICAL SECTION**
N.T.S.

Fill Area
Cut Area
Exisitng Ground
Proposed Grade
HDPE Liner (40mil)

Associated Engineering Drawings
TAILINGS_STORAGE_FACILITY_DIVERSION_CHANNELS.dwg
(BGC) JUN 2012

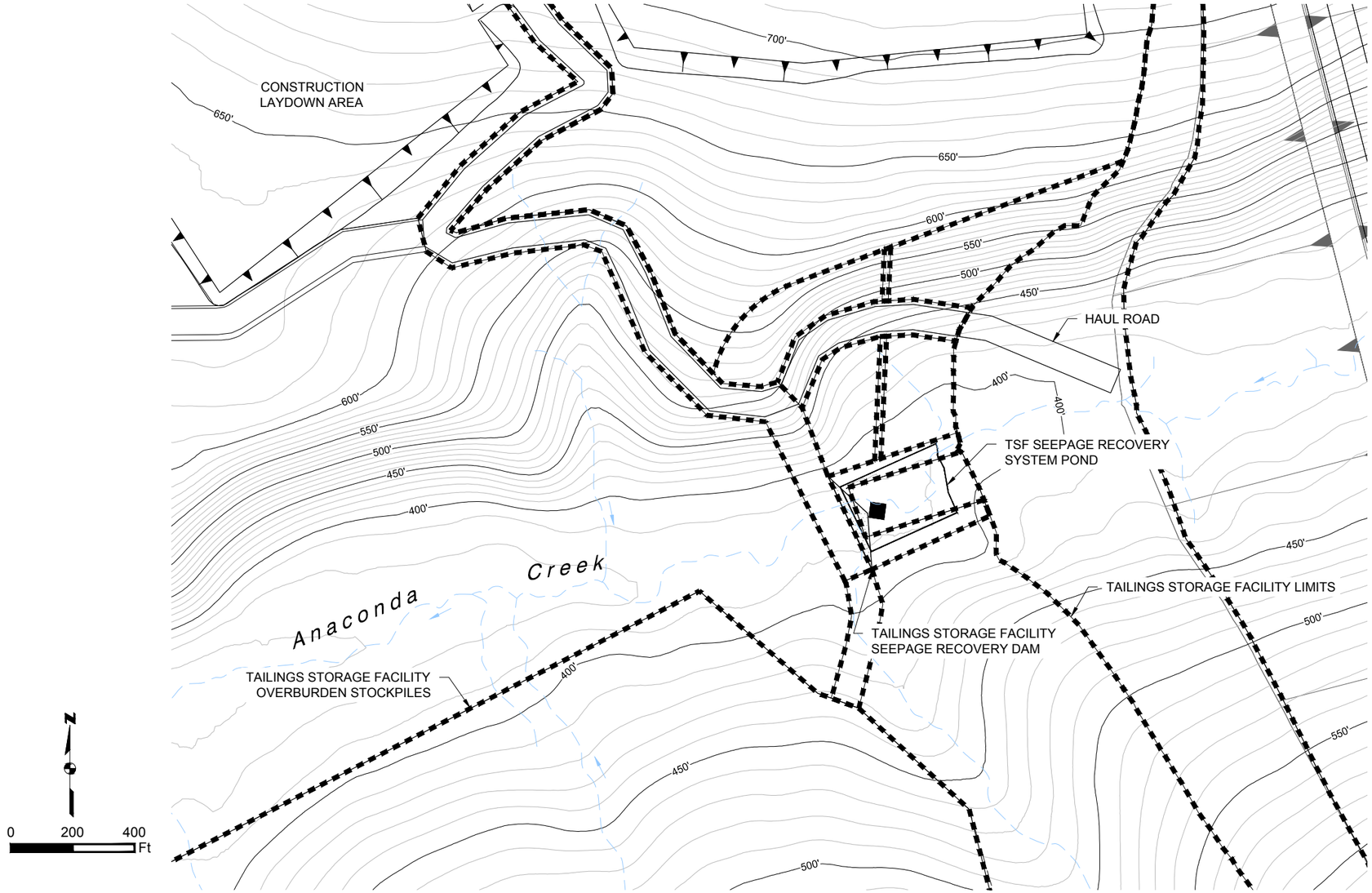
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
TSF DRAINAGE - STORMWATER DIVERSION DETAIL

FIGURE NO. **TA-205D3**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_TSF_Diversion_Channel.dwg



TSF SEEPAGE RECOVERY SYSTEM POND PLAN

SCALE 1" = 400'

Existing 10' Contours

700' Existing 50' Contours

Project Disturbance

Associated Engineering Drawings
M19C-SP-SE_01.dwg (BAKER) SEP 2014

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

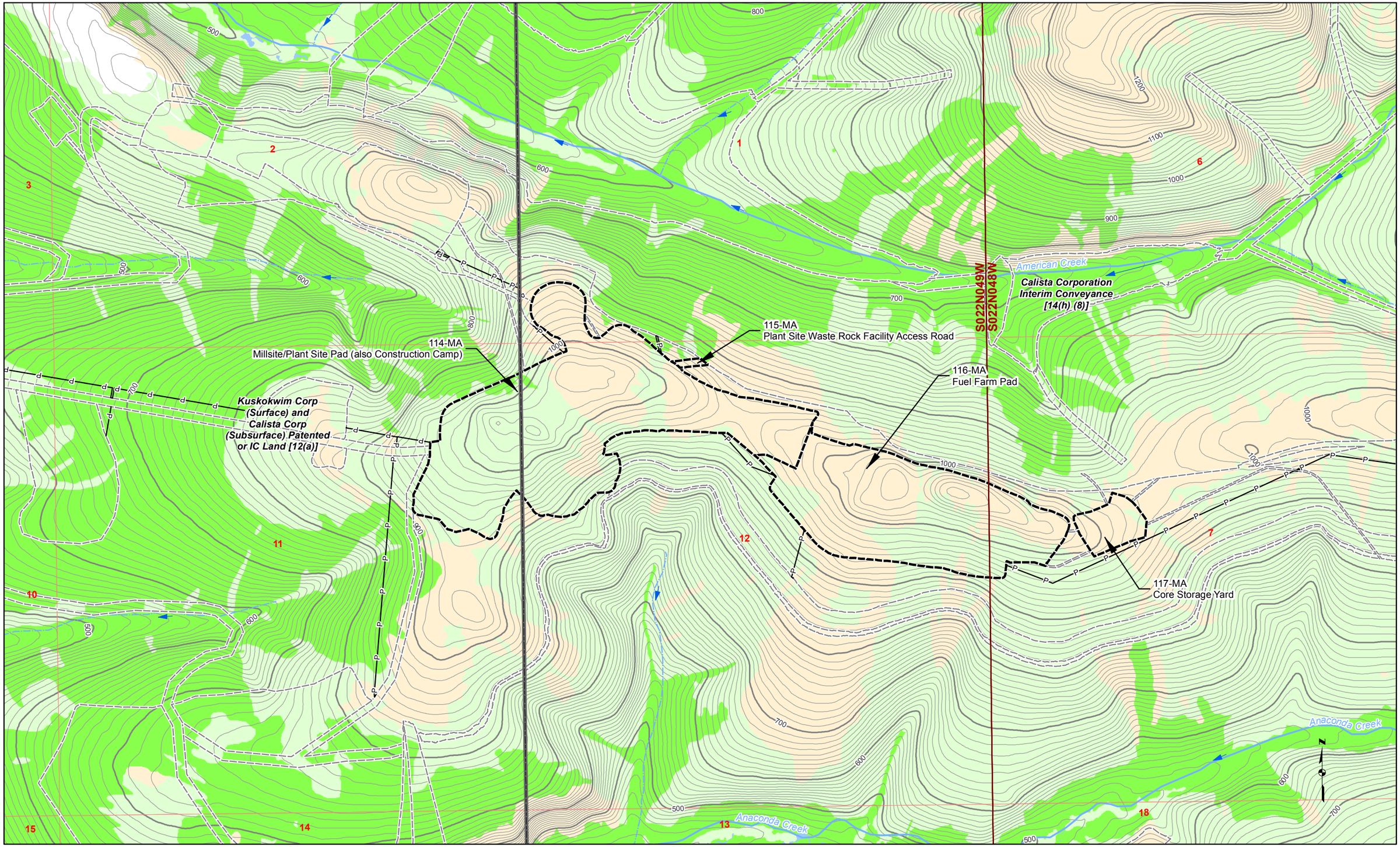
SCALE: AS SHOWN | DATE: 9/28/2015

DRAWING TITLE:
TSF SEEPAGE RECOVERY SYSTEM POND DETAIL

FIGURE NO. **MA-205D4**

FILE NO. **POA-1995-120**

PATH: C:\Users\mengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_TSF_Seepage_Recovery_System.dwg



Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

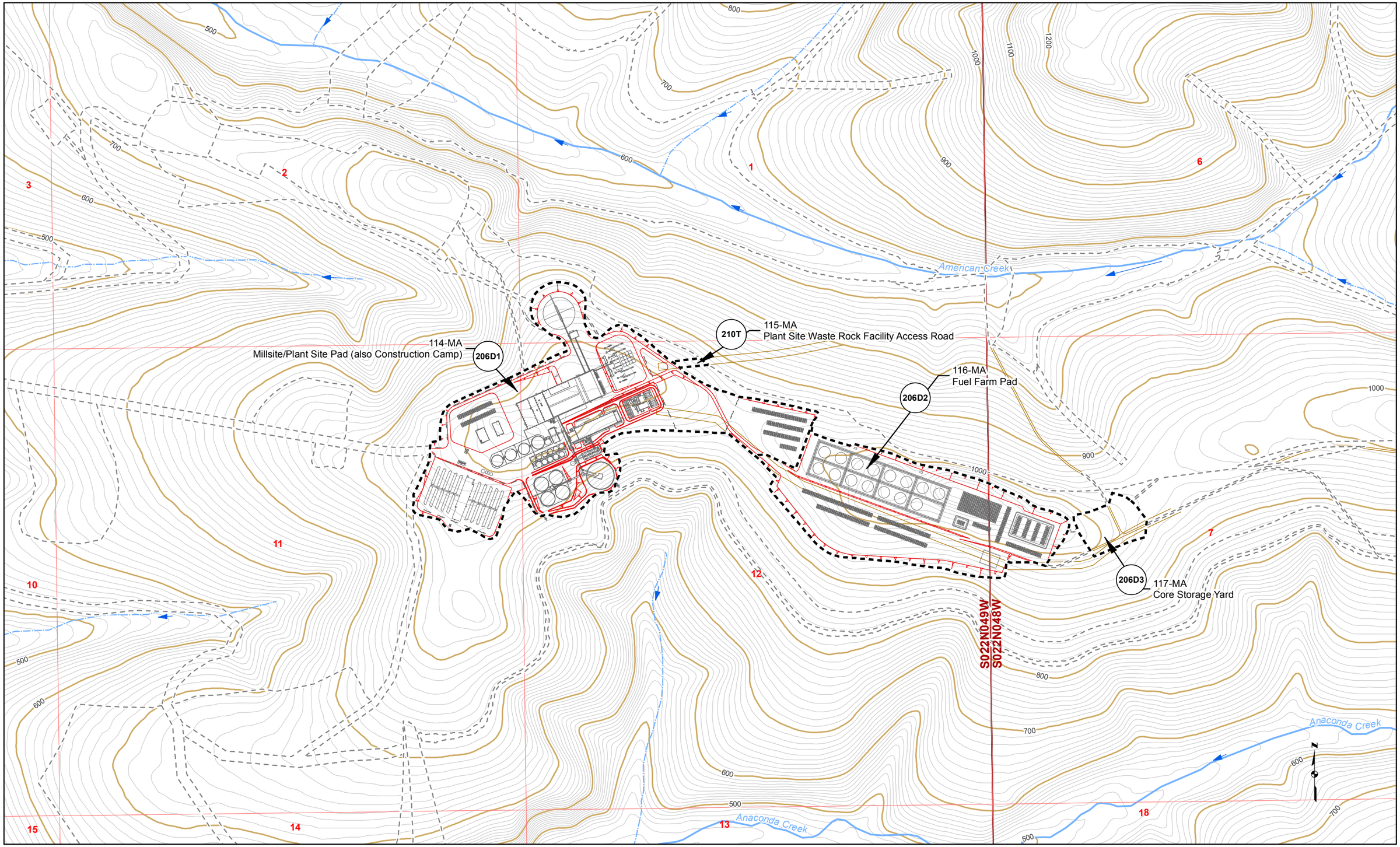
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-206A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

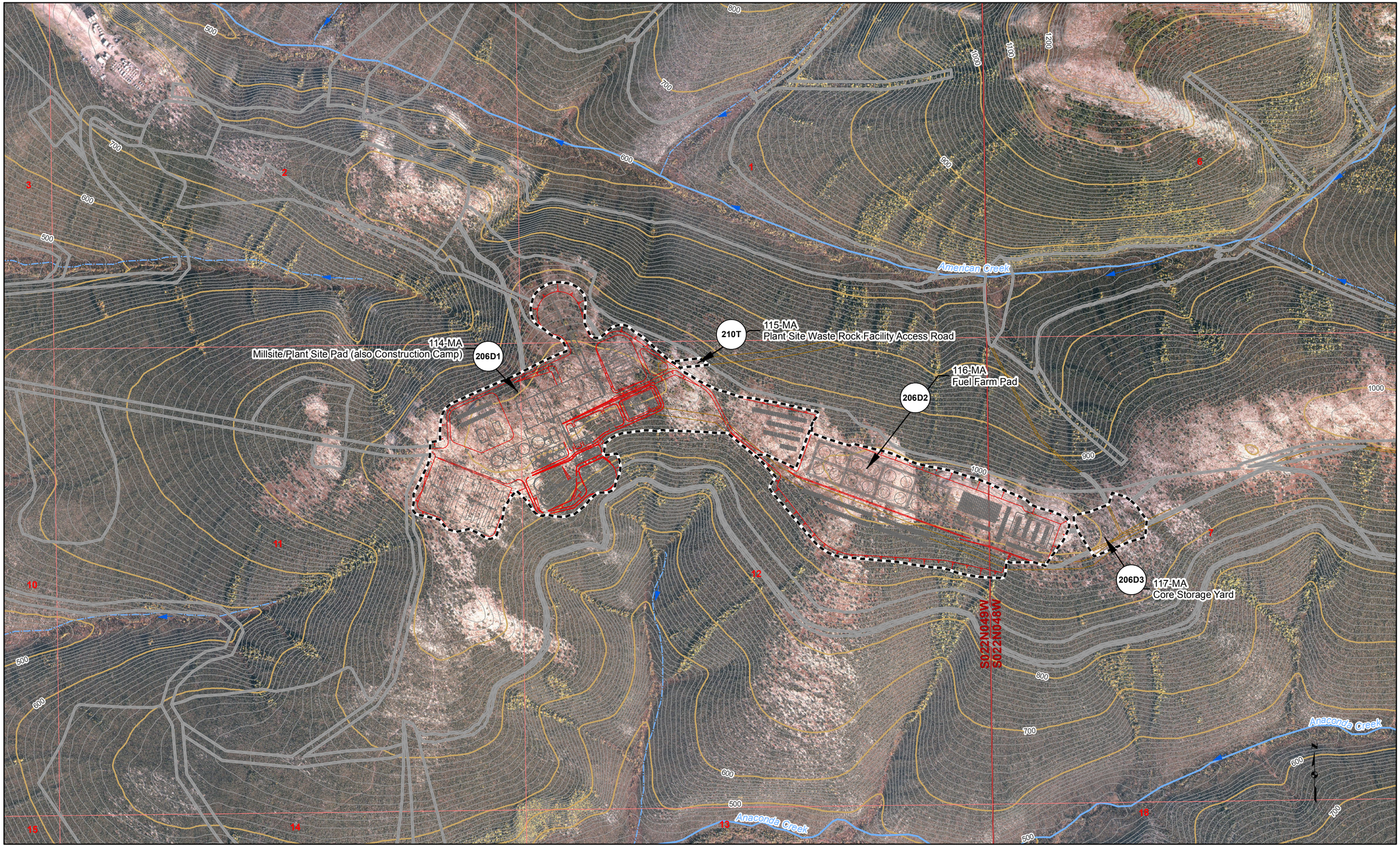
SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-206B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 500 1,000 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

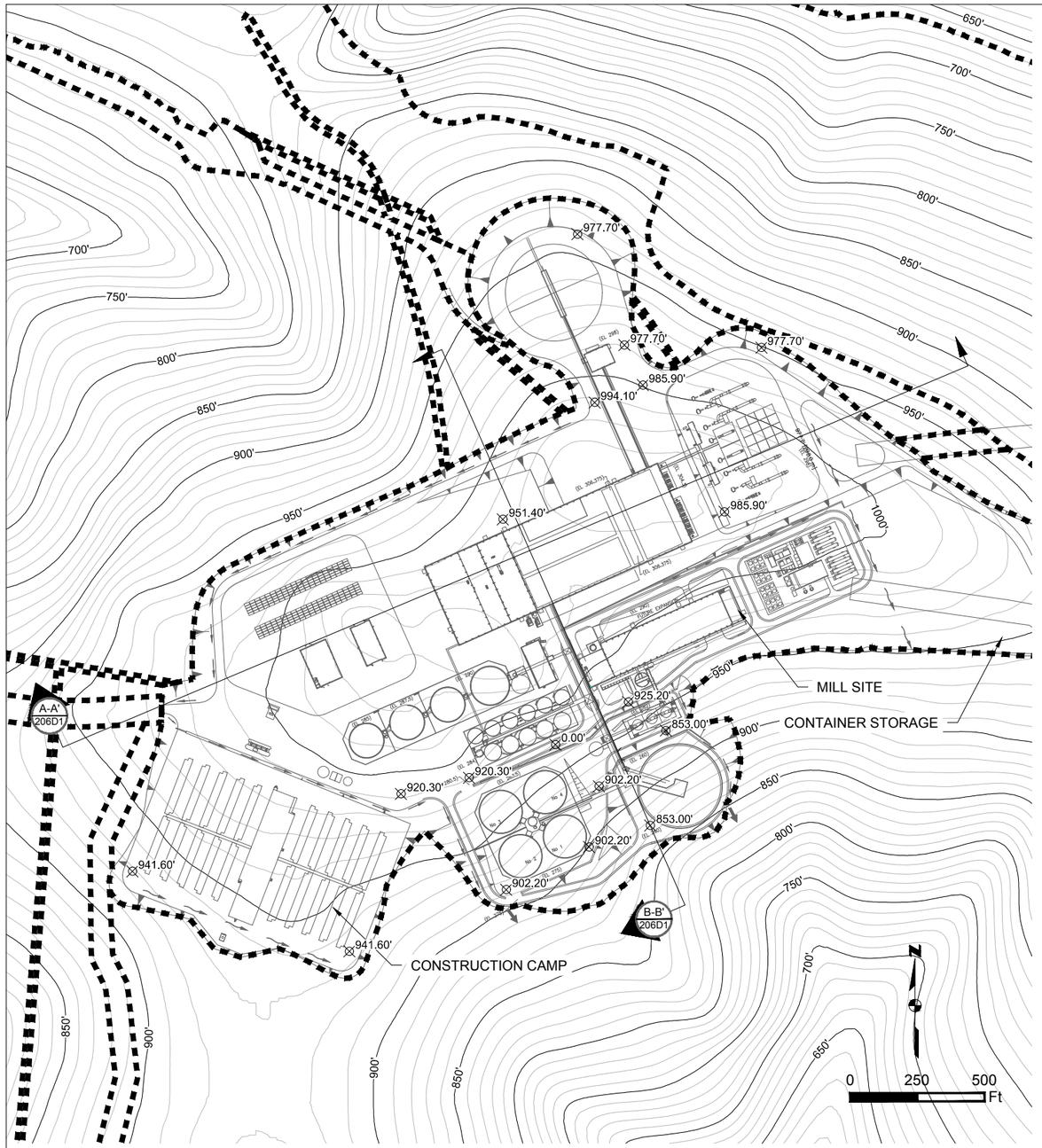
NAD 1983 UTM Zone 4N

SCALE: 1 inch = 1,000 feet
DATE: 10/5/2015

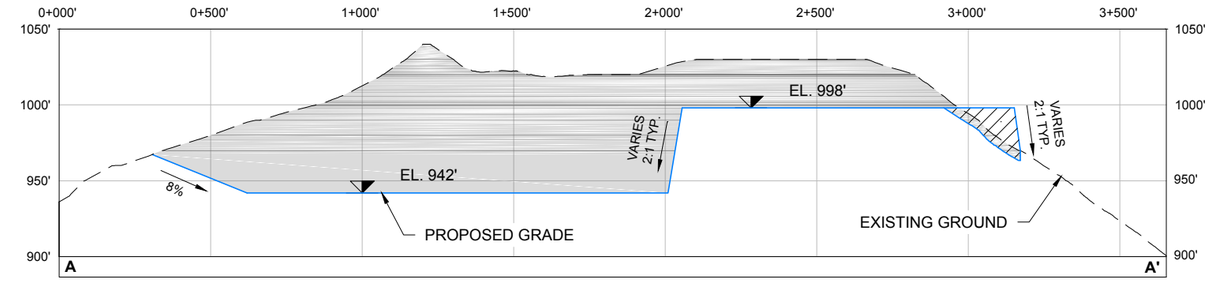
DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-206C**
FILE NO. **POA-1995-120**

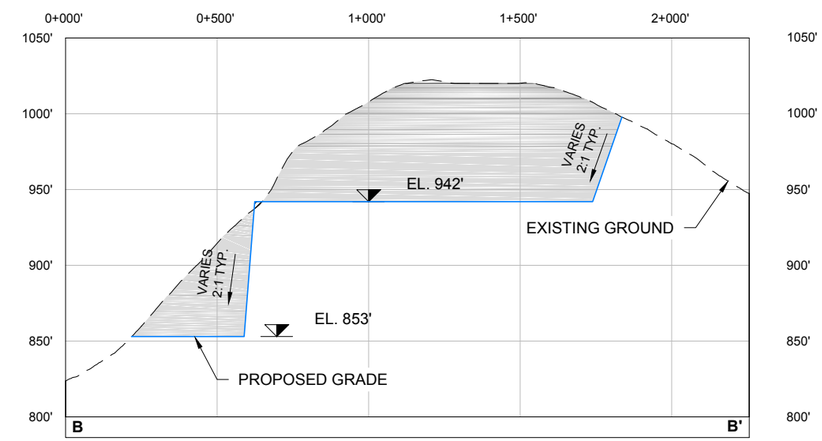
PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd



MILLSITE/PLANT SITE PAD AND CONSTRUCTION CAMP PLAN
SCALE 1" = 500'



A-A' 206D1 **MILLSITE/PLANT SITE PAD AND CONSTRUCTION CAMP SECTION A-A'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'



B-B' 206D1 **MILLSITE/PLANT SITE PAD AND CONSTRUCTION CAMP SECTION B-B'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

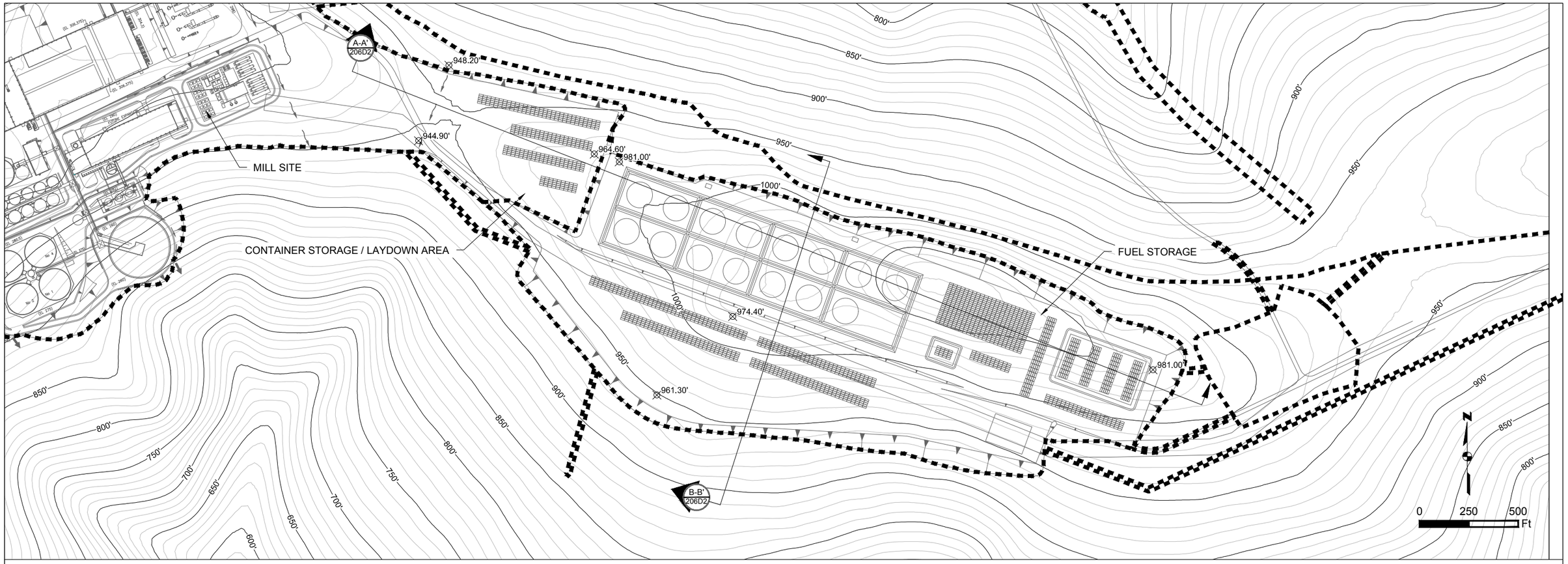
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings
MILL_SITE_AND_CONSTRUCTION_CAMP.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN DATE: 9/11/2015

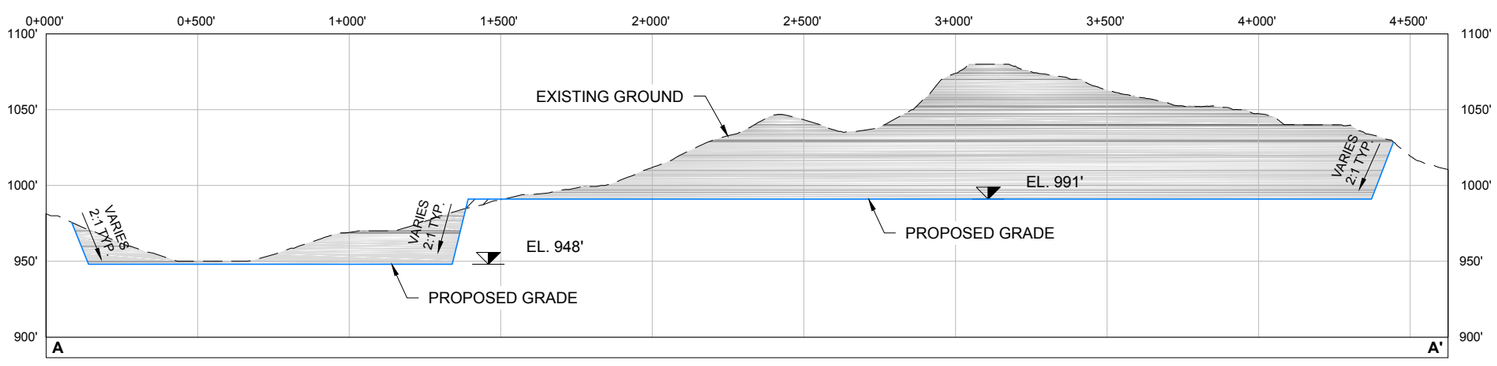
DRAWING TITLE:
MILLSITE/PLANT SITE PAD AND CONSTRUCTION CAMP DETAIL
FIGURE NO. **MA-206D1**
FILE NO. **POA-1995-120**

PATH: C:\Users\mfengewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Mill_Site_Construction_Camp.dwg



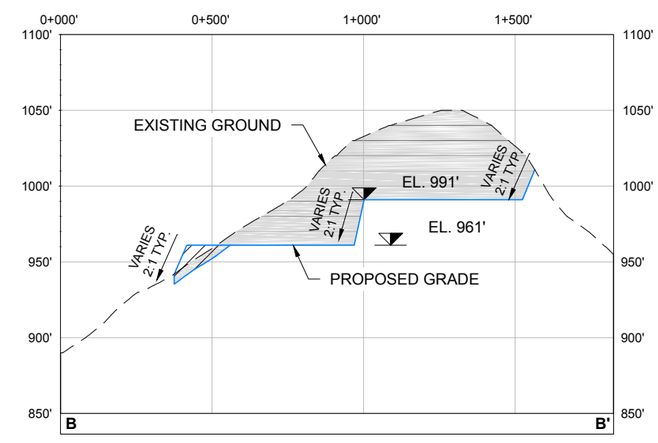
FUEL FARM PAD PLAN

SCALE 1" = 500'



A-A' 206D2 FUEL FARM PAD SECTION A-A'

HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'



B-B' 206D2 FUEL FARM PAD SECTION B-B'

HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings

FUEL_STORAGE.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

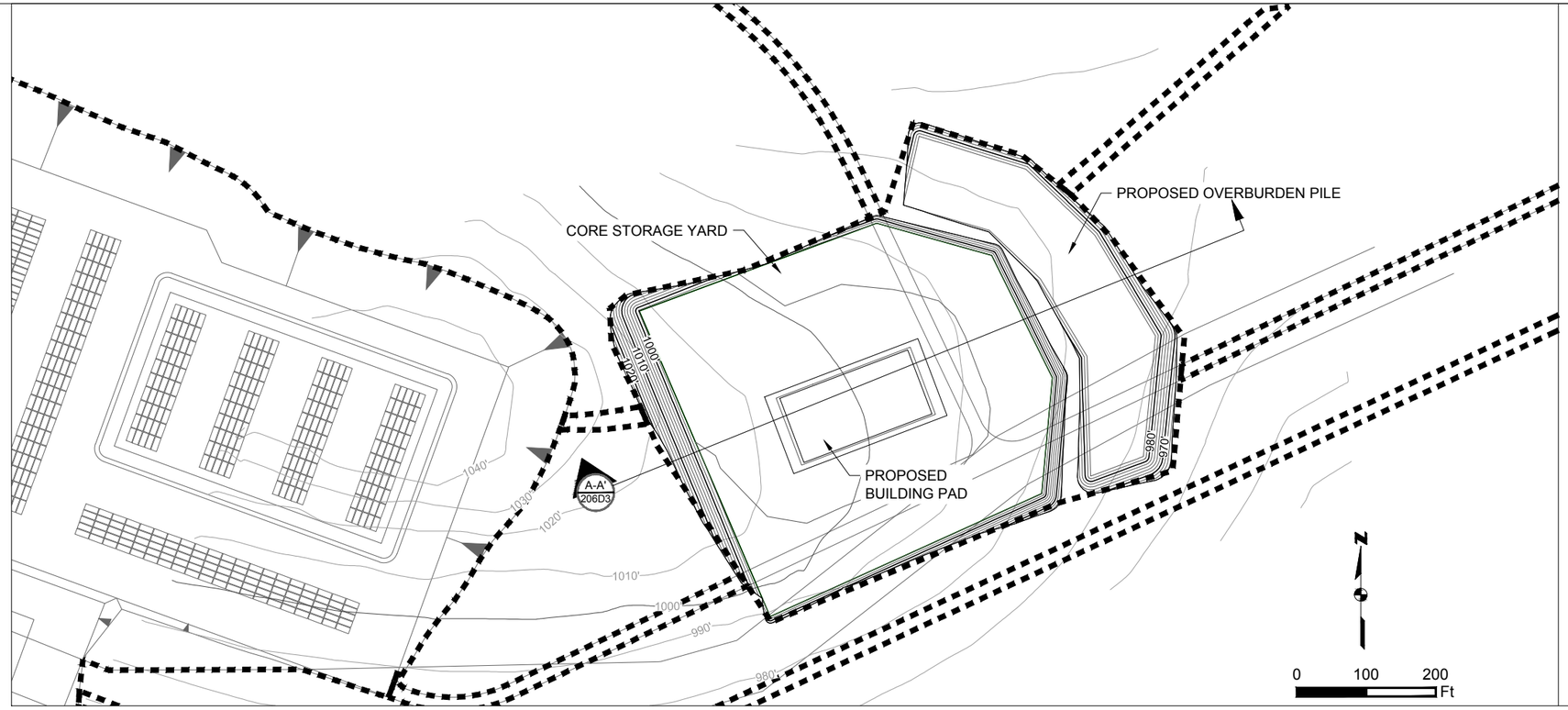
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 9/11/2015

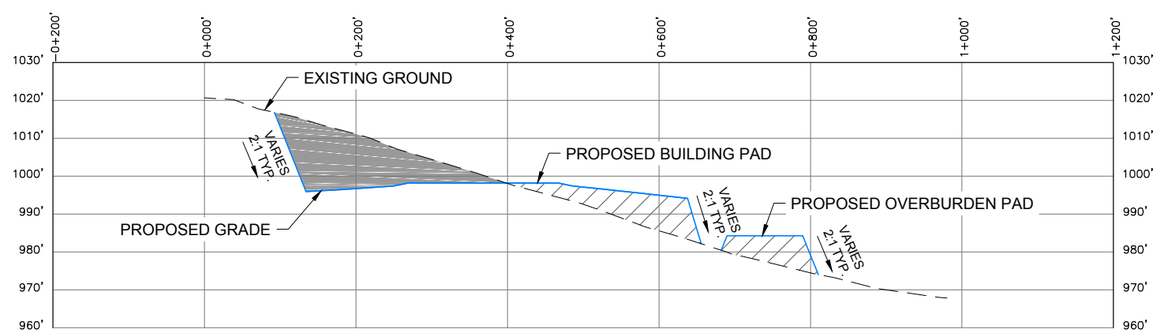
DRAWING TITLE:
FUEL FARM PAD DETAIL

FIGURE NO. **MA-206D2**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Fuel_Storage.dwg



CORE STORAGE YARD PLAN VIEW
SCALE 1" = 200'



A-A' 206D3 **CORE STORAGE YARD SECTION A-A'**
HORIZONTAL SCALE 1" = 200'
VERTICAL SCALE 1" = 40'

Existing 10' Contours	Fill Area	Project Disturbance
550' Existing 50' Contours	Cut Area	
Proposed 2' Contours	Exisitng Ground	
550' Proposed 10' Contours	Proposed Grade	

Associated Engineering Drawings
Core_Storage_Pad_DRAFT_design_5.dwg (RECON) NOV 2011

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

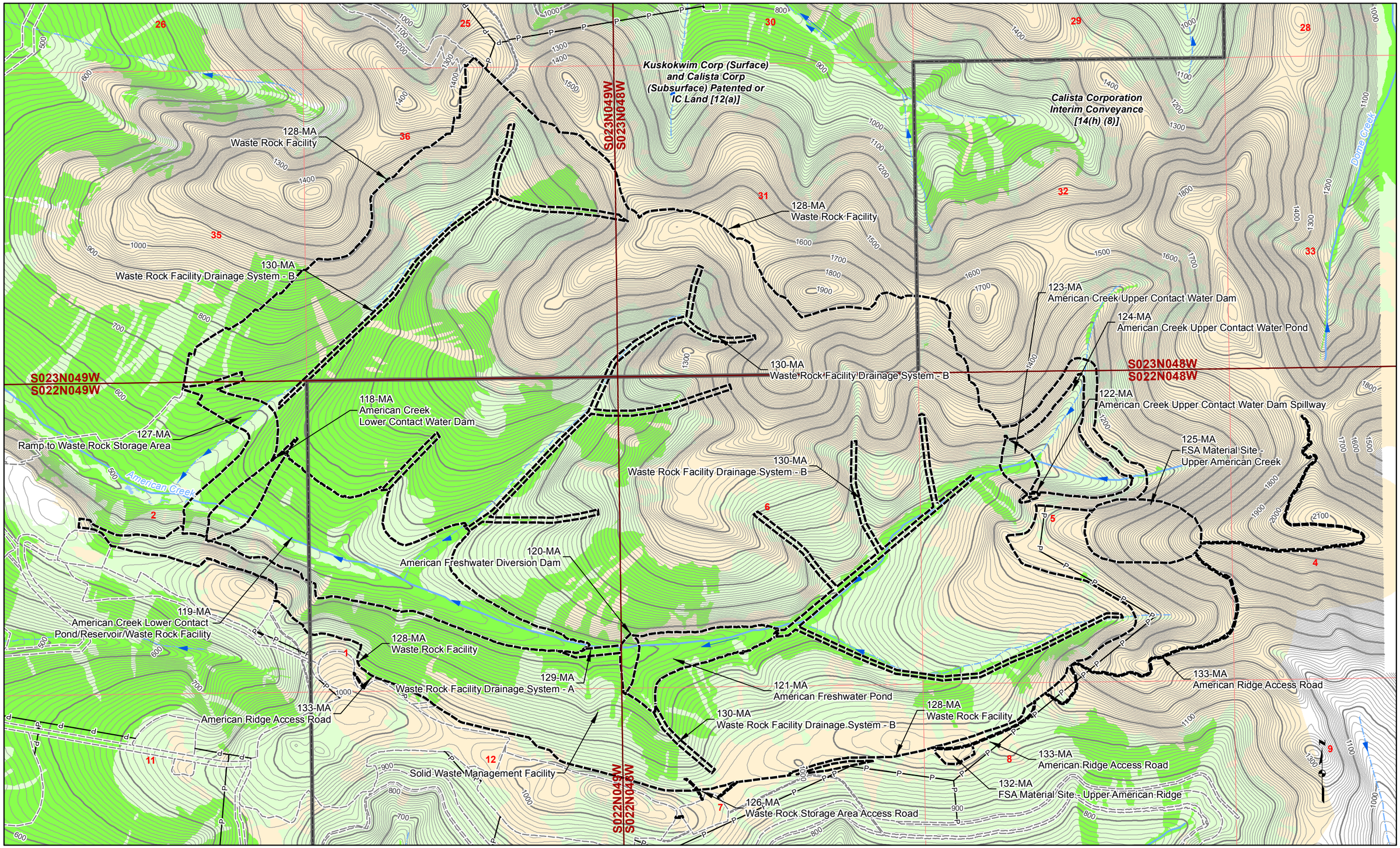
SCALE: AS SHOWN | DATE: 9/11/2015

DRAWING TITLE: **CORE STORAGE YARD DETAIL**

FIGURE NO. **MA-206D3**

FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Core_Storage_Pad.dwg



Land Status
Road Milepost
Project Disturbance Limit
Mosaic
Upland
Waters
Wetlands
100' Contour
10' Contour
Powerline
Stream Flow Direction
Proposed Jungjuk Road
Unnamed River/Stream
Named River/Stream

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

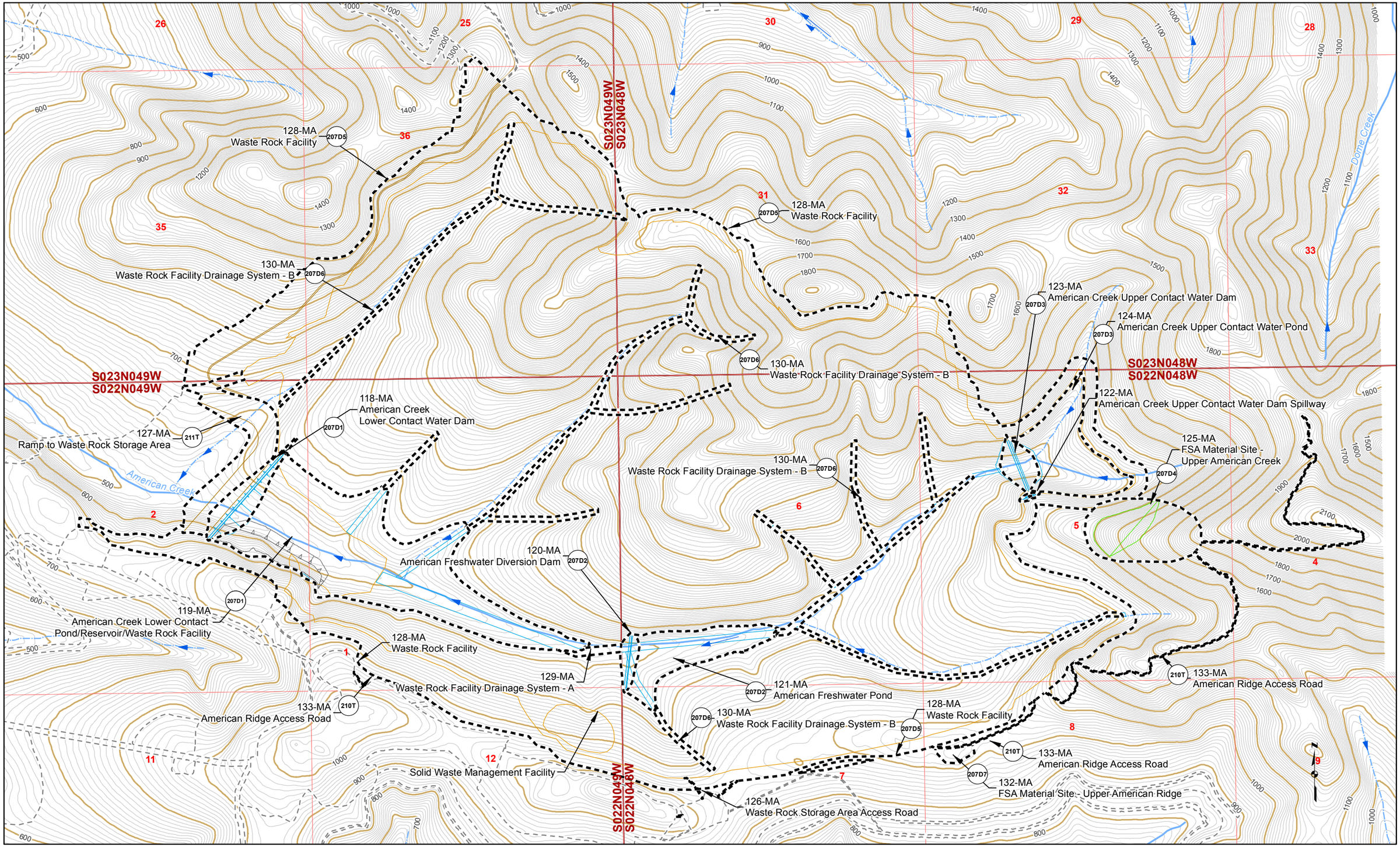
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA WETLANDS MAP**

FIGURE NO. **MA-207A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXA_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

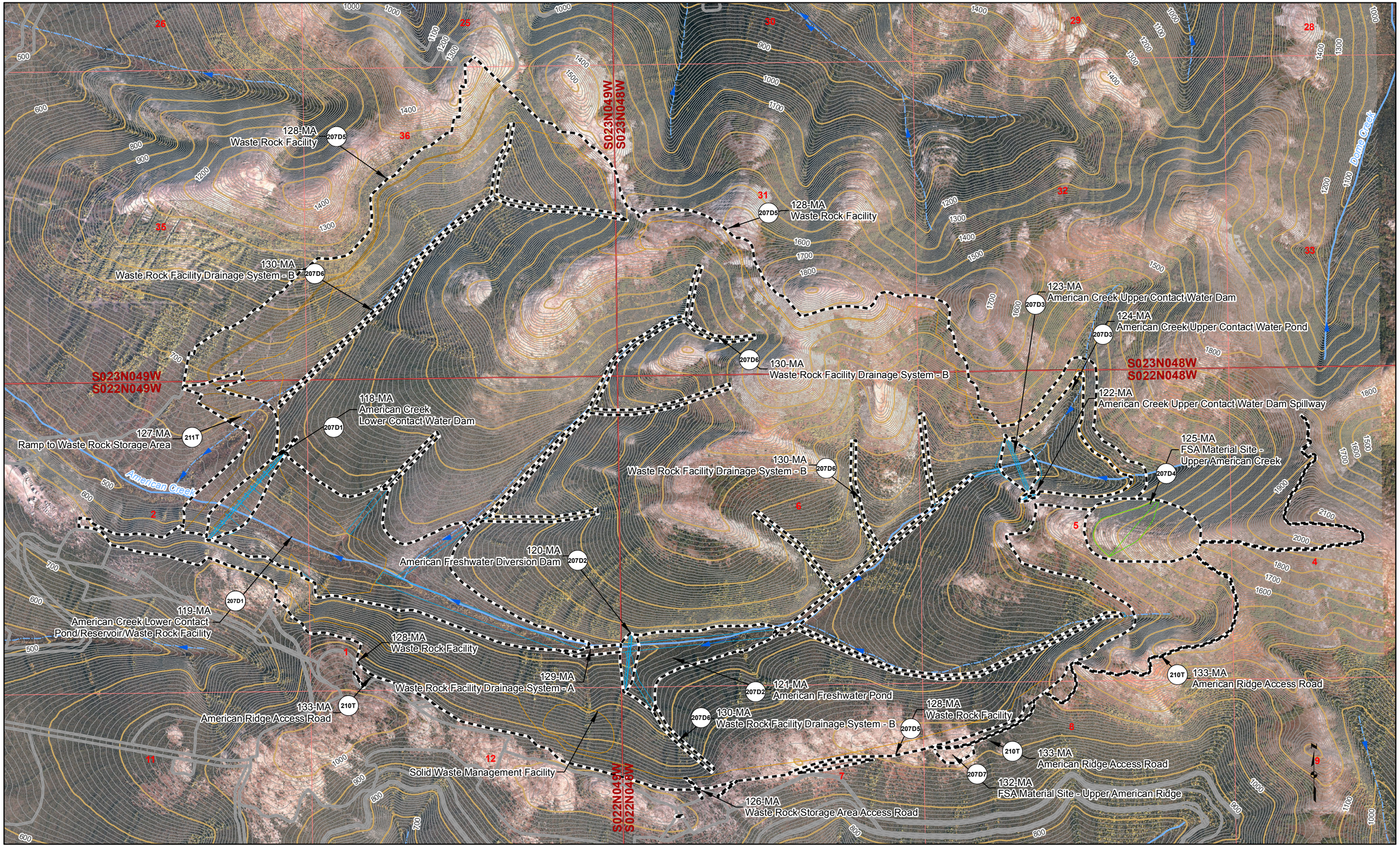
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

FIGURE NO. **MA-207B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXB_Mine_MB_ABR_20151005.mxd



Proposed Jungjuk Road
Road Milepost
10' Contour
100' Contour
Stream Flow Direction
Cross Section
Project Disturbance This Sheet
Proposed Disturbance (Other Sheets)
Unnamed River/Stream
Named River/Stream
Figure Detail Reference

Associated Engineering Drawings

0 750 1,500 Feet

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

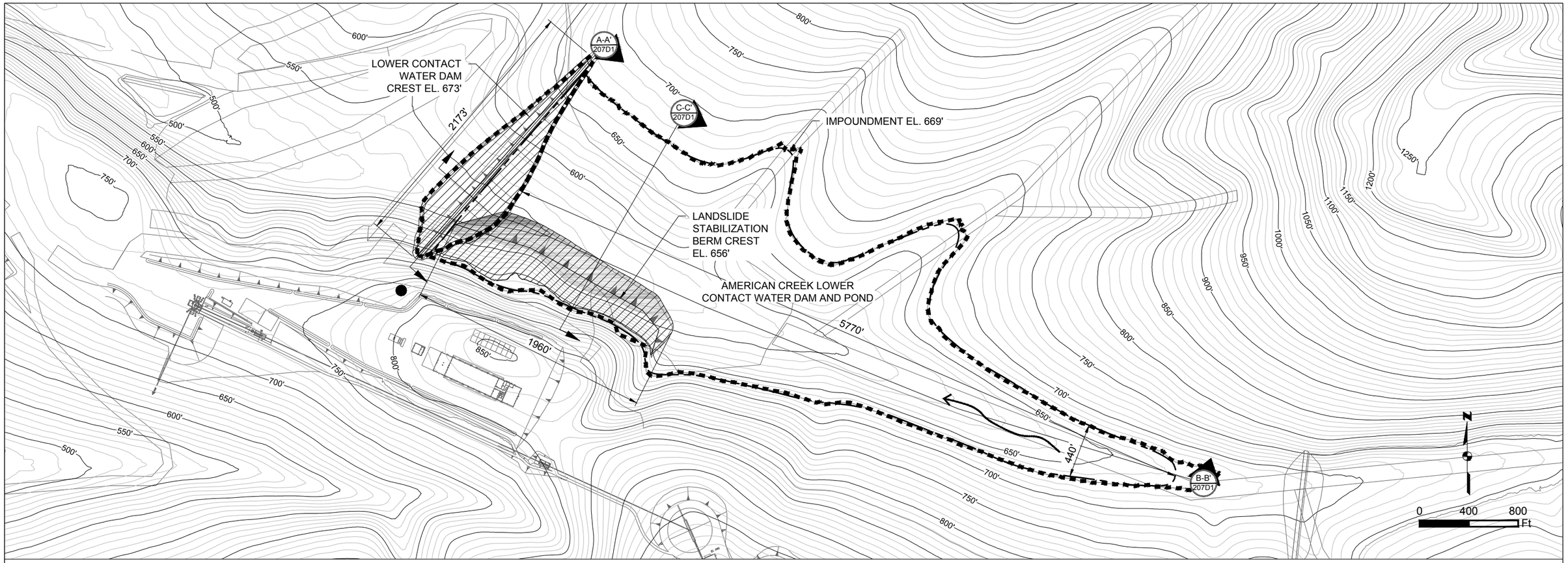
SCALE: 1 inch = 1,500 feet
DATE: 10/5/2015

DRAWING TITLE: **PLAN VIEW MINE AREA ENGINEERING MAP**

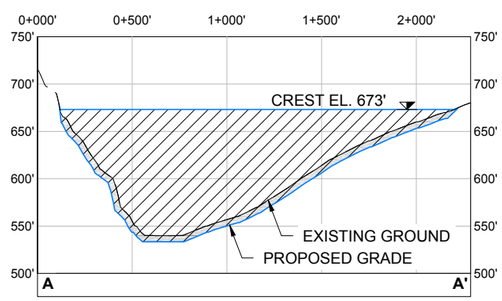
FIGURE NO. **MA-207C**

FILE NO. **POA-1995-120**

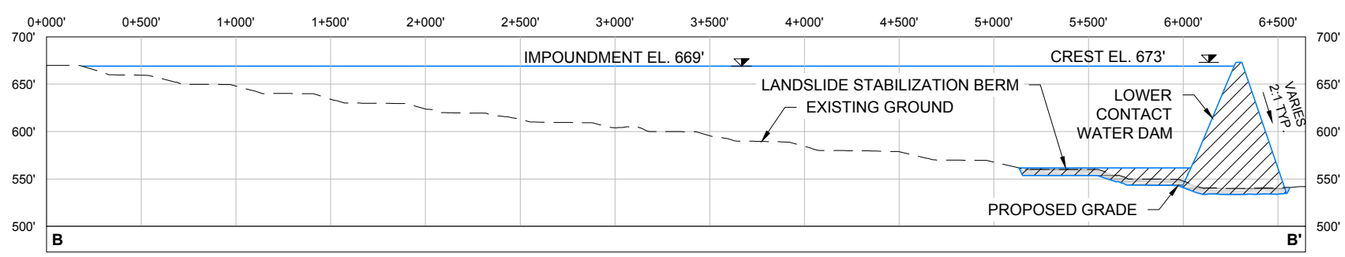
PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\MA_2XXC_Mine_MB_ABR_20151005.mxd



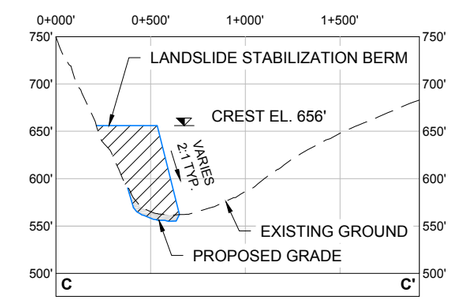
AMERICAN CREEK LOWER CONTACT WATER DAM AND POND PLAN
SCALE 1" = 800'



AMERICAN CREEK LOWER CONTACT WATER DAM AND POND SECTION A-A'
A-A' 207D1
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'



AMERICAN CREEK LOWER CONTACT WATER DAM AND POND SECTION B-B'
B-B' 207D1
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'



AMERICAN CREEK LOWER CONTACT WATER DAM AND POND SECTION C-C'
C-C' 207D1
HORIZONTAL SCALE 1" = 800'
VERTICAL SCALE 1" = 160'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
American Creek Drainage

Associated Engineering Drawings
LOWER_CONTACT_WATER_DAM_AND_IMPOUNDMENT.dwg
(BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

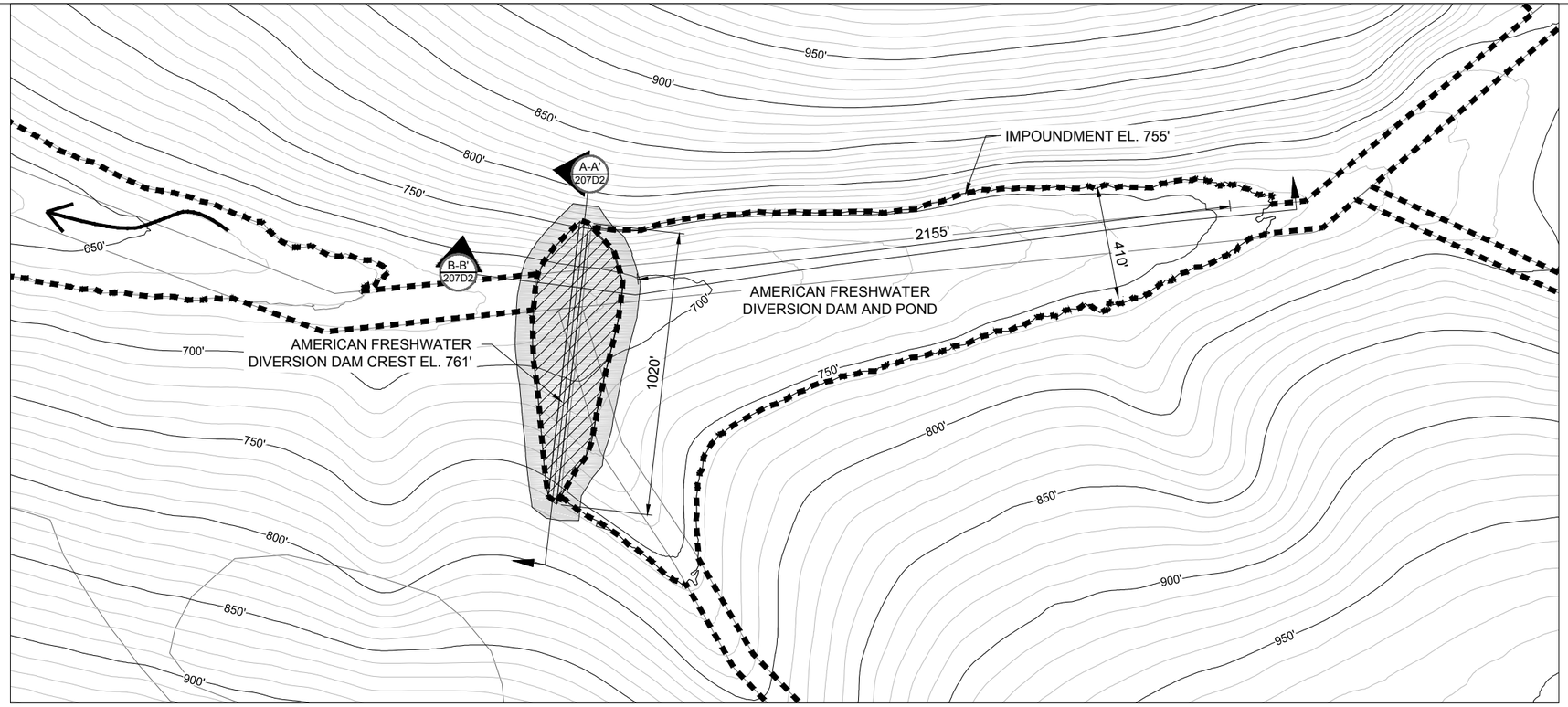
NAD 1983 UTM Zone 4N

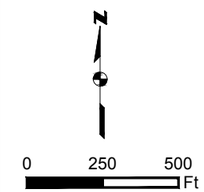
SCALE: AS SHOWN
DATE: 9/7/2015

DRAWING TITLE:
AMERICAN CREEK LOWER CONTACT WATER DAM AND POND DETAIL

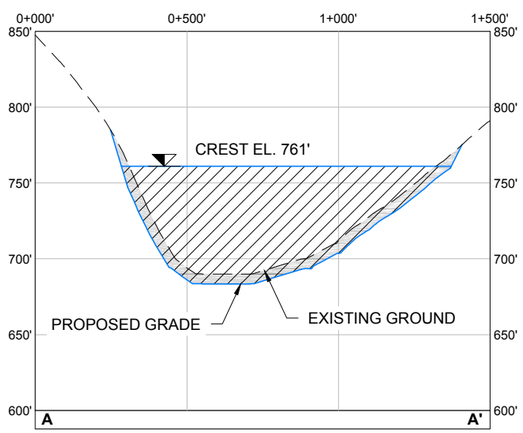
FIGURE NO. **MA-207D1**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Lower_Contact_Water_Dam.dwg

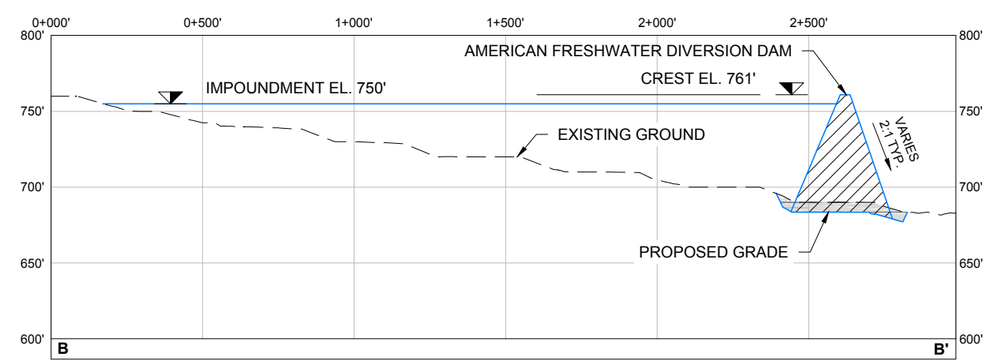




AMERICAN FRESHWATER DIVERSION DAM AND POND PLAN
SCALE 1" = 500'



A-A' 207D2 **AMERICAN FRESHWATER DIVERSION DAM AND POND SECTION A-A'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'



B-B' 207D2 **AMERICAN FRESHWATER DIVERSION DAM AND POND SECTION B-B'**
HORIZONTAL SCALE 1" = 500'
VERTICAL SCALE 1" = 100'

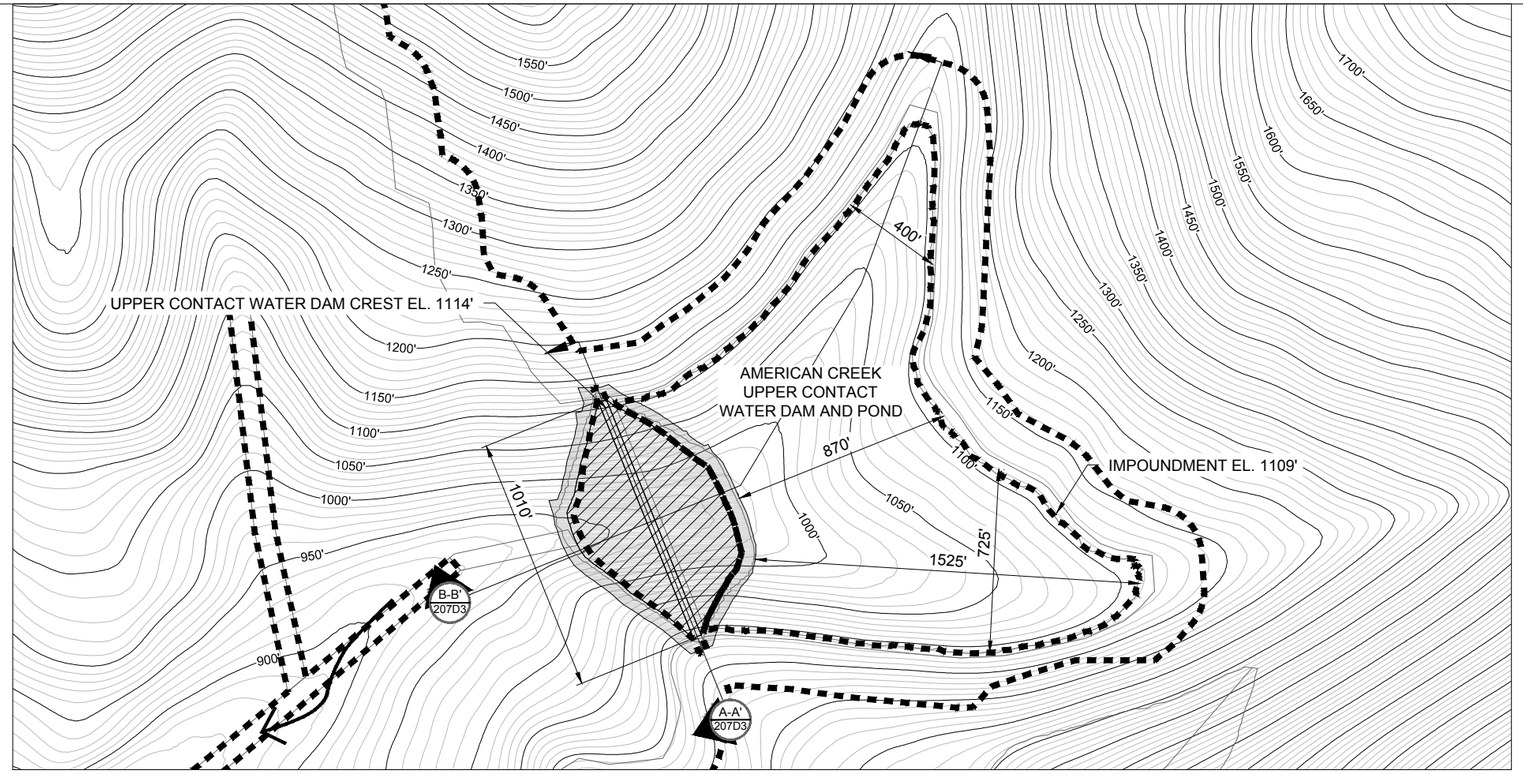
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
American Creek Drainage

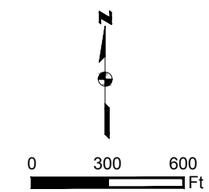
Associated Engineering Drawings
AMERICAN FRESHWATER DIVERSION DAM AND IMPOUNDMENT.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

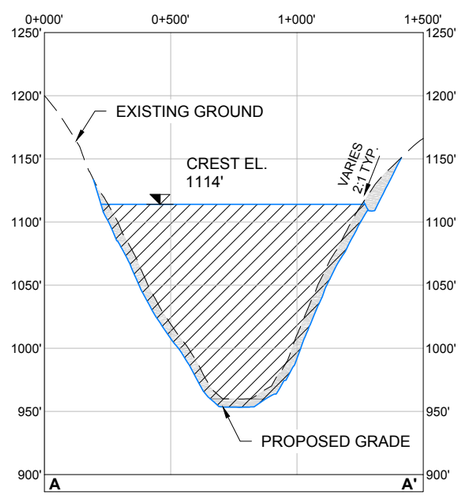
DRAWING TITLE:
AMERICAN FRESHWATER DIVERSION DAM AND POND DETAIL
FIGURE NO. **MA-207D2**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_American_Freshwater_Diversion_Dam.dwg

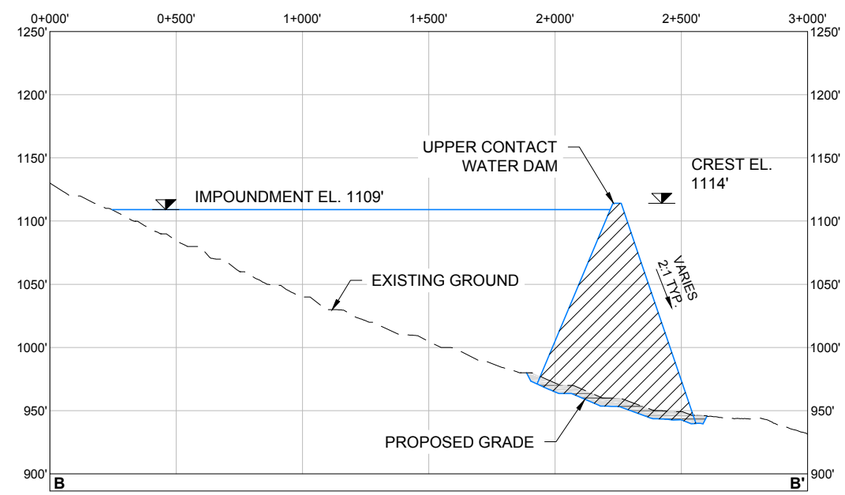




AMERICAN CREEK UPPER CONTACT WATER DAM AND POND PLAN
SCALE 1" = 600'



A-A' 207D3 **AMERICAN CREEK UPPER CONTACT WATER DAM AND POND SECTION A-A'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'



B-B' 207D3 **AMERICAN CREEK UPPER CONTACT WATER DAM AND POND SECTION B-B'**
HORIZONTAL SCALE 1" = 600'
VERTICAL SCALE 1" = 120'

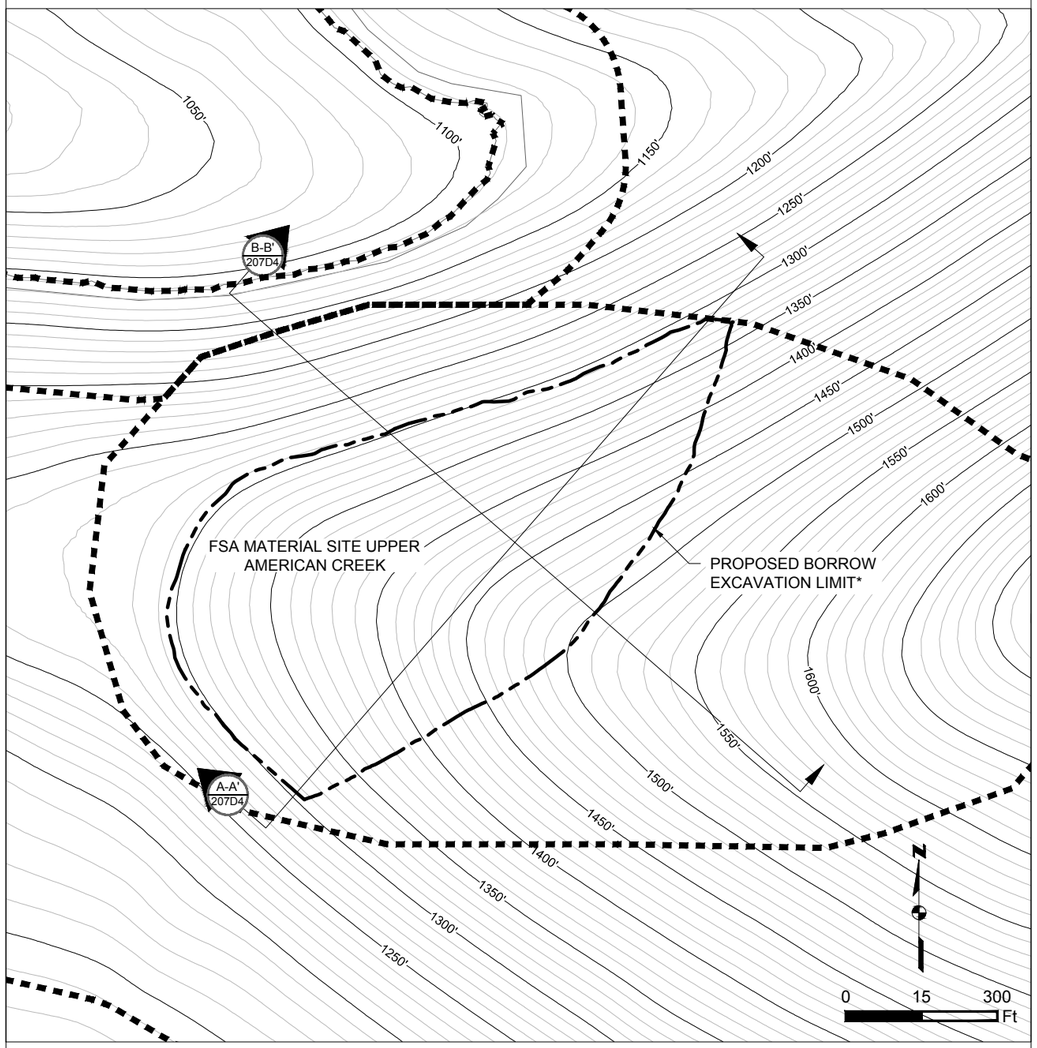
Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
American Creek Drainage

Associated Engineering Drawings
UPPER_CONTACT_WATER_DAM_AND_IMPOUNDMENT.dwg (BGC)
JUNE 2012

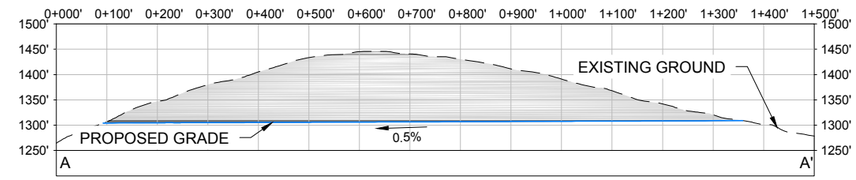
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
AMERICAN CREEK UPPER CONTACT WATER DAM AND POND DETAIL
FIGURE NO. **MA-207D3**
FILE NO. **POA-1995-120**

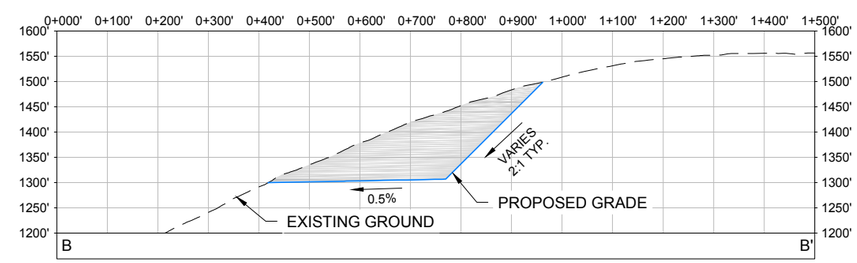
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Upper_Contact_Water_Dam.dwg



FSA MATERIAL SITE UPPER AMERICAN CREEK PLAN
SCALE 1" = 300'



A-A' 207D4 **FSA MATERIAL SITE UPPER AMERICAN CREEK SECTION A-A'**
HORIZONTAL SCALE 1" = 300'
VERTICAL SCALE 1" = 60'



B-B' 207D4 **FSA MATERIAL SITE UPPER AMERICAN CREEK SECTION B-B'**
HORIZONTAL SCALE 1" = 300'
VERTICAL SCALE 1" = 60'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Borrow Excavation Limit*

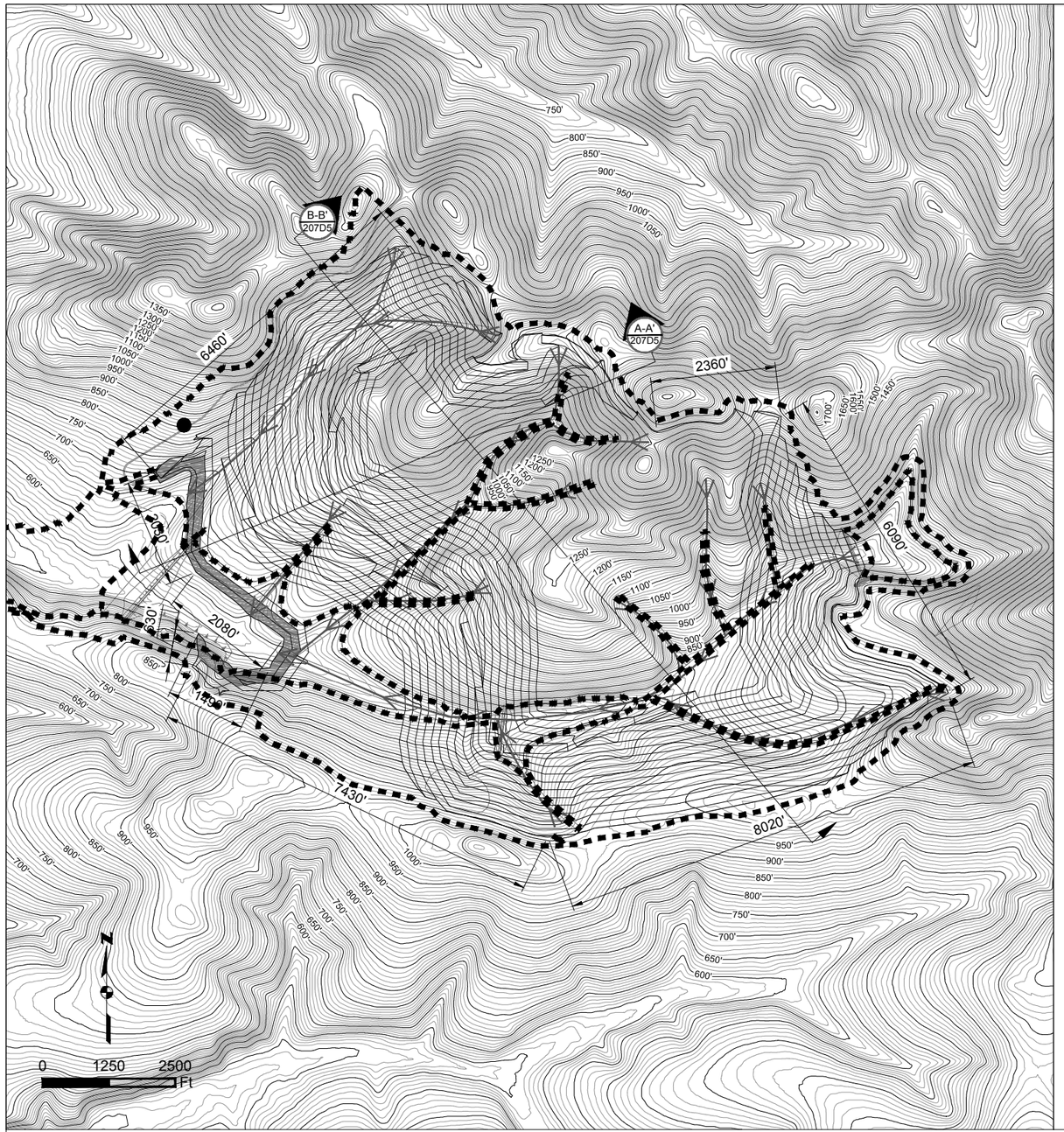
NOTE:
* BORROW LIMIT SUBJECT TO CHANGE PENDING FURTHER GEOTECHNICAL INVESTIGATION

Associated Engineering Drawings
UPPER_CONTACT_WATER_DAM_QUARRY.dwg (BGC) JUNE 2012

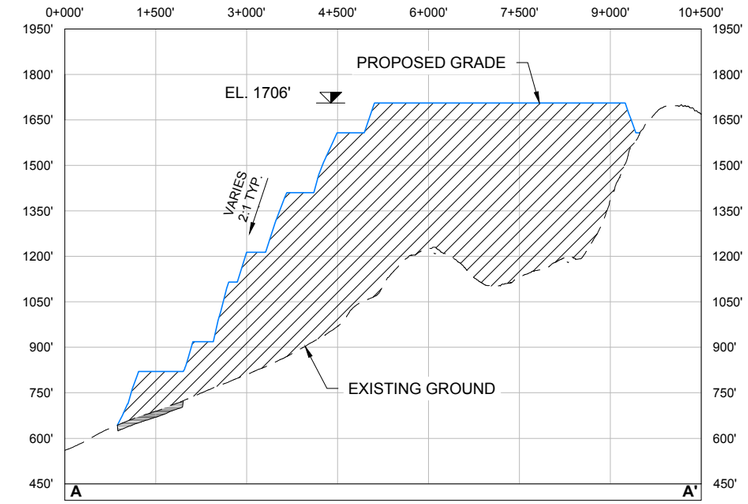
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503
NAD 1983 UTM Zone 4N
SCALE: AS SHOWN
DATE: 9/28/2015

DRAWING TITLE:
FSA MATERIAL SITE UPPER AMERICAN CREEK DETAIL
FIGURE NO. **MA-207D4**
FILE NO. **POA-1995-120**

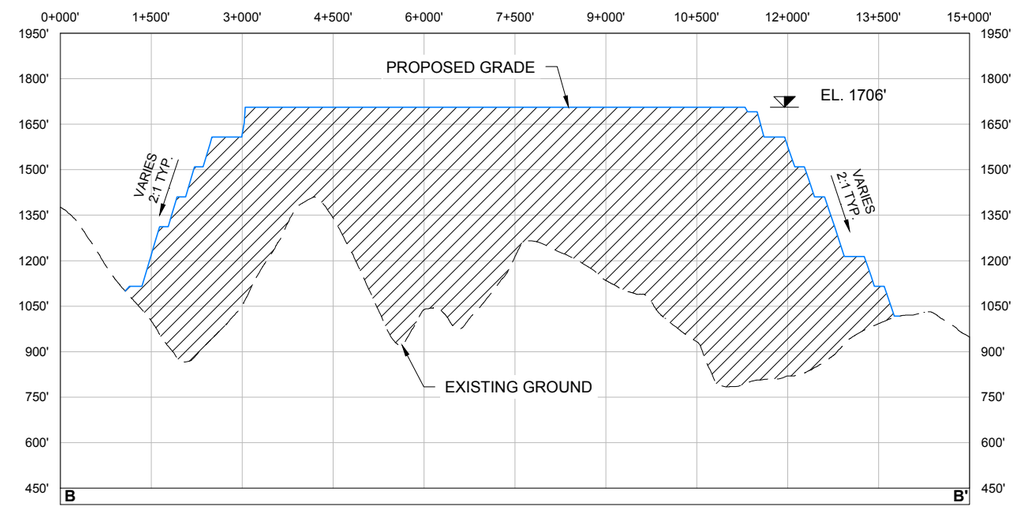
PATH: C:\Users\mtengrewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Upper_Contact_Water_Dam_Quarry.dwg



WASTE ROCK FACILITY PLAN
SCALE 1" = 2500'



A-A' 207D5 **WASTE ROCK FACILITY SECTION A-A'**
HORIZONTAL SCALE 1" = 2500'
VERTICAL SCALE 1" = 500'



B-B' 207D5 **WASTE ROCK FACILITY SECTION B-B'**
HORIZONTAL SCALE 1" = 2500'
VERTICAL SCALE 1" = 500'

Existing 10' Contours
700' Existing 50' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance
Underdrain, Arrow Indicates Direction of Flow

Associated Engineering Drawings
WASTE_ROCK_FACILITY.dwg (BGC) JUNE 2012

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

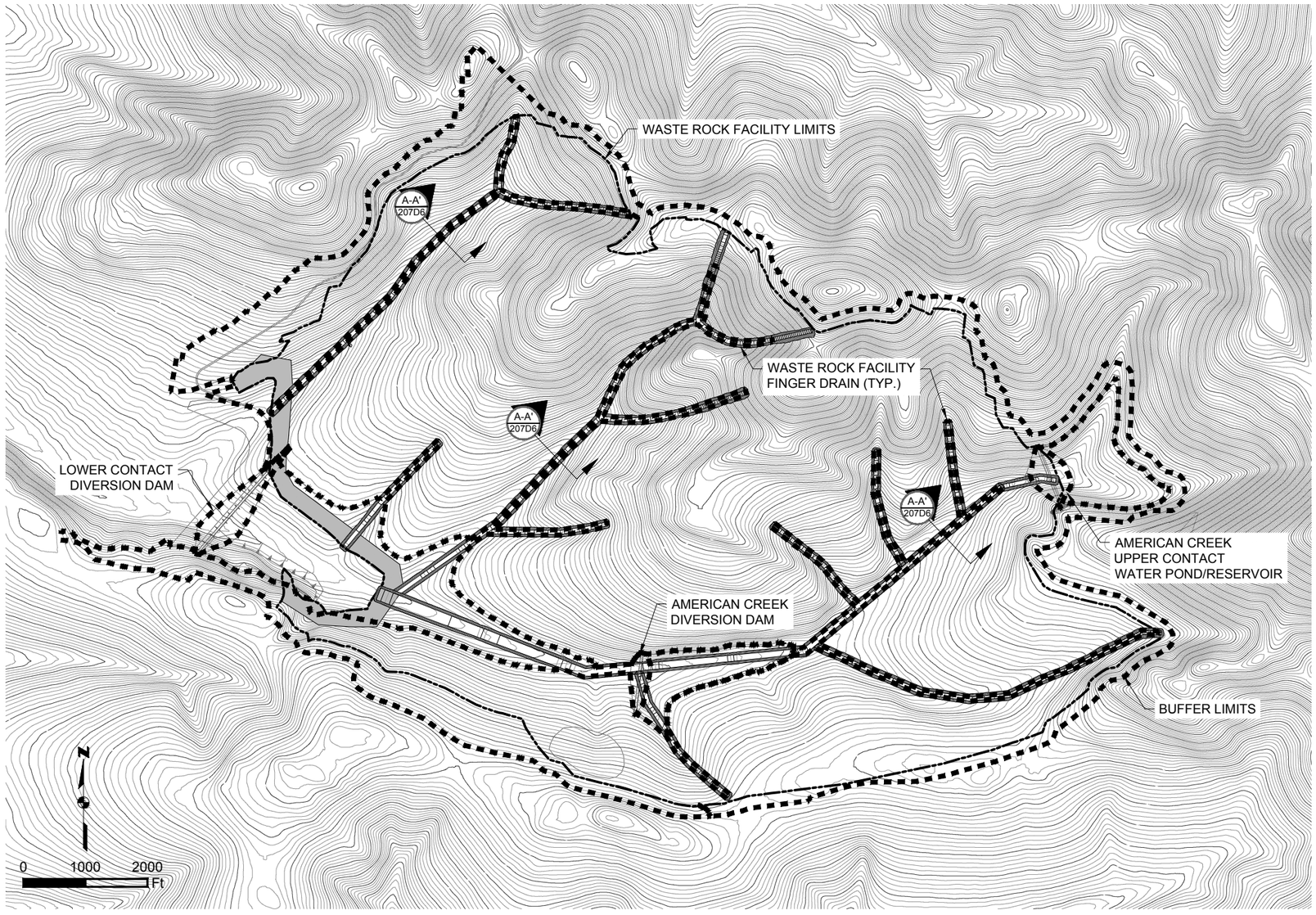
NAD 1983 UTM Zone 4N

SCALE: AS SHOWN
DATE: 9/11/2015

DRAWING TITLE:
WASTE ROCK FACILITY DETAIL

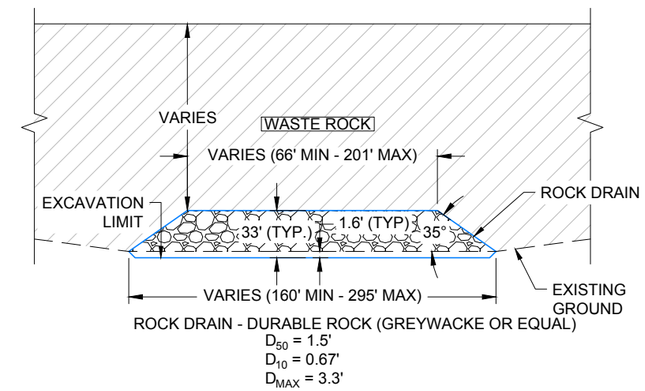
FIGURE NO. **MA-207D5**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Waste_Rock_Facility.dwg



WASTE ROCK FACILITY DRAINAGE SYSTEM PLAN

SCALE 1" = 2000'



A-A' 207D6 **WASTE ROCK FACILITY FINGER DRAIN TYPICAL SECTION A-A'**

N.T.S.

Existing 10' Contours
550' Existing 50' Contours
Proposed 2' Contours
550' Proposed 10' Contours
Fill Area
Cut Area
Exisitng Ground
Proposed Grade
Project Disturbance

Associated Engineering Drawings

M19C-SP-SE_01.dwg (BAKER) SEP 2014

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

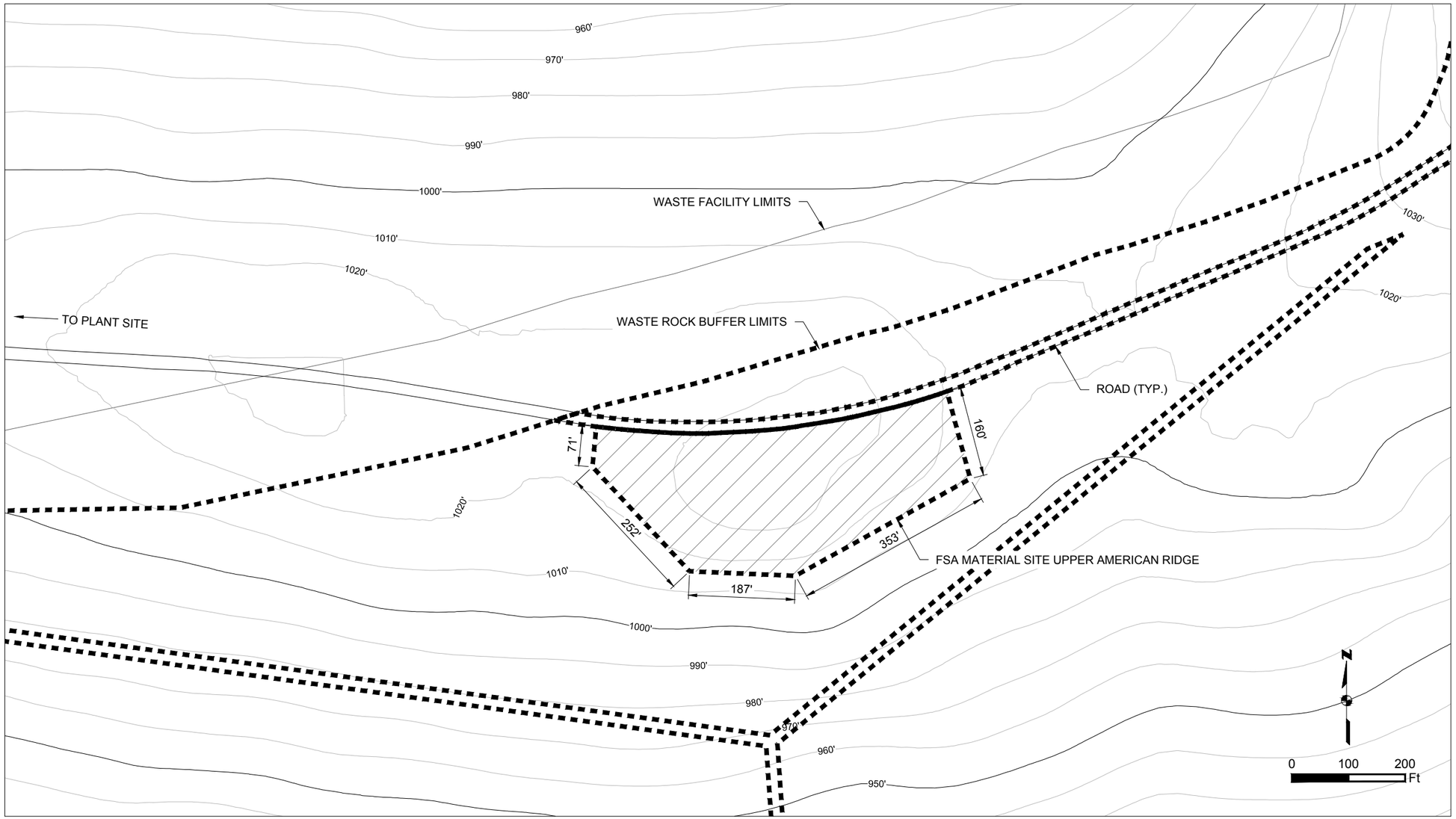
SCALE: AS SHOWN DATE: 9/7/2015

DRAWING TITLE:
WASTE ROCK FACILITY DRAINAGE SYSTEM DETAIL

FIGURE NO. **MA-207D6**

FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_WRF_Drainage_System.dwg



FSA MATERIAL SITE UPPER AMERICAN RIDGE PLAN

SCALE 1" = 200'

Existing 10' Contours

700' Existing 50' Contours

Project Disturbance

Associated Engineering Drawings

M02C-SP-AR_01.dwg (BAKER) SEP 2014

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

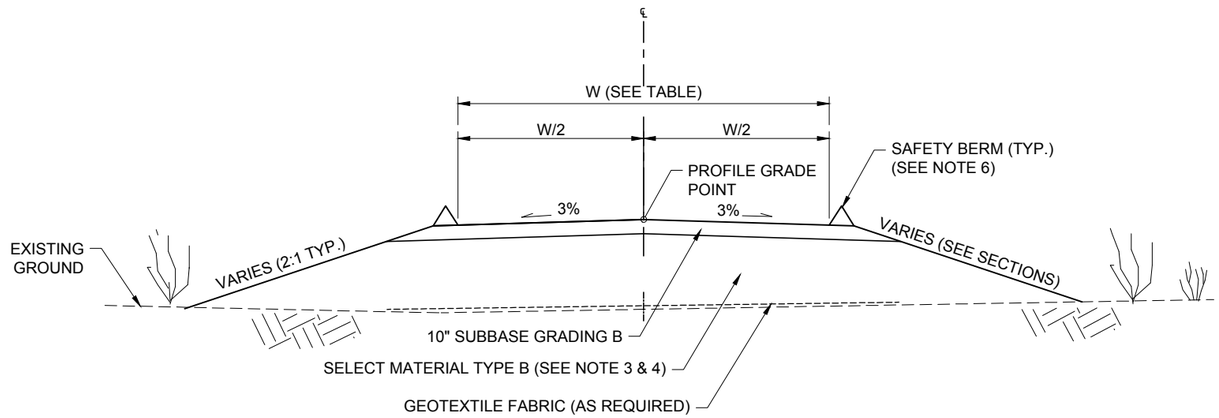
SCALE: AS SHOWN | DATE: 9/28/2015

DRAWING TITLE:
FSA MATERIAL SITE UPPER AMERICAN RIDGE DETAIL

FIGURE NO. **MA-207D7**

FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_FSA_Material_Site_Upper_American_Ridge.dwg



SECTION TYPICAL FOR WETLAND AND PERMAFROST INTERVALS IN MOSTLY LEVEL TERRAIN.

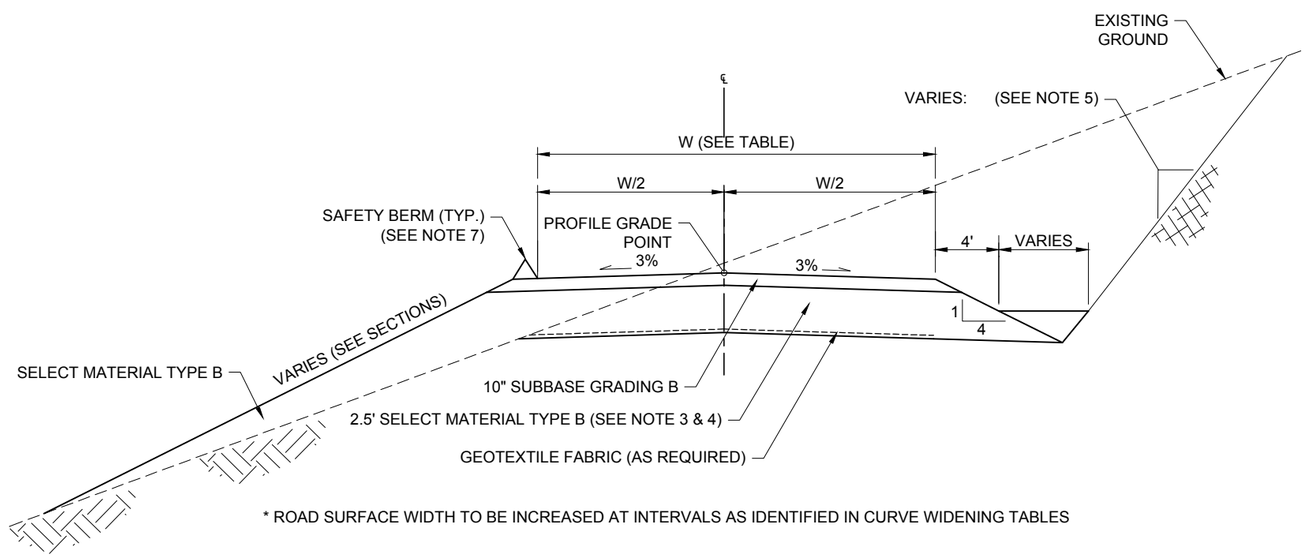
A-A' 210T **ROAD TYPICAL SECTION FOR WETLAND OR PERMAFROST AREAS**

SCALE 1" = 10'

0 5 10 Ft

NOTES:

1. CLEARING LIMITS MIN. 10' BEYOND TOP OF CUT OR TOE OF FILL.
2. SUBASE GRADING B; TO CONSIST OF 3" MINUS, WELL GRADED, GRANULAR MATERIAL WITH 6 TO 10% PASSING THE 200 SIEVE. MATERIAL TO BE DURABLE
3. SELECT MATERIAL TYPE B; TO CONSIST OF COARSE ROCK OR GRAVEL. NON-FROST-SUSCEPTIBLE.
4. DEPTH OF FILL WILL VARY DEPENDING ON SOIL TYPE AND CONDITION.
5. TO THE EXTENT POSSIBLE, NATIVE VEGETATION AND GROUND SURFACE TO BE LEFT INPLACE.
6. SAFETY BERM TO BE CONSTRUCTED TO A HEIGHT EQUAL TO ONE HALF THE TIRE DIAMETER OF THE LARGEST VEHICLE TO TRAVEL ROADWAY.



* ROAD SURFACE WIDTH TO BE INCREASED AT INTERVALS AS IDENTIFIED IN CURVE WIDENING TABLES

B-B' 210T **ROAD TYPICAL SECTION FOR AREAS WITH GOOD SOILS OR ROCK**

SCALE 1" = 10'

0 5 10 Ft

NOTES:

1. CLEARING LIMITS MIN. 10' BEYOND TOP OF CUT OR TOE OF FILL.
2. SUBASE GRADING B; TO CONSIST OF 3" MINUS, WELL GRADED, GRANULAR MATERIAL WITH 6 TO 10% PASSING THE 200 SIEVE. MATERIAL TO BE DURABLE
3. SELECT MATERIAL TYPE B; TO CONSIST OF COARSE ROCK OR GRAVEL. NON-FROST-SUSCEPTIBLE.
4. DEPTH OF FILL WILL VARY DEPENDING ON SOIL TYPE AND CONDITION.
5. BACKSLOPES WILL VARY DEPENDENT UPON SOIL TYPES OR ROCK CHARACTERISTICS.
   TYPICAL:
   3.0 : 1 FOR WET SILTY COLLUVIAL SOIL
   2.0 : 1 FOR WELL DRAINED SILT AND SILTY GRAVEL
   1.5 : 1 FOR WELL DRAINED SILT AND SILTY GRAVEL UP TO 1.0 : 1 FOR ROCK
6. ACCOMODATE EXCESS EXCAVATION AND WASTE DISPOSAL BY FLATTENING AND/OR EXTENDING INSLOPE. EXTENT TO BE DETERMINED BY FIELD ENGINEER.
7. SAFETY BERM TO BE CONSTRUCTED TO A HEIGHT EQUAL TO ONE HALF THE TIRE DIAMETER OF THE LARGEST VEHICLE TO TRAVEL ROADWAY.

FAC_ID	Facility Name	W (ft)
35	Jungjuk-Donlin Road Crooked Creek Bridge to Pit Access Road	28
38	Jungjuk-Donlin Road Pit Access Road to Mill+Plant Site	28
39	Plant Site Crusher Facility Access Road & Parking	20
40	Fleet Service Access Road	33
55	Snow Gulch Pond Access Road	16

FAC_ID	Facility Name	W (ft)
60	A1 Storage Access Road	16
69	Upper TSF Access Road - A	16
70	Upper TSF Access Road - B	16
115	Plant Site Waste Rock Facility Access Road	60
126	Waste Rock Storage Area Access Road	16
133	American Ridge Access Road	16

Associated Engineering Drawings

A1-166549-4100-C-0097 (RECON/AMEC) MAR 2012;
A1-166549-4100-S-101 (RECON/AMEC) MAR 2012

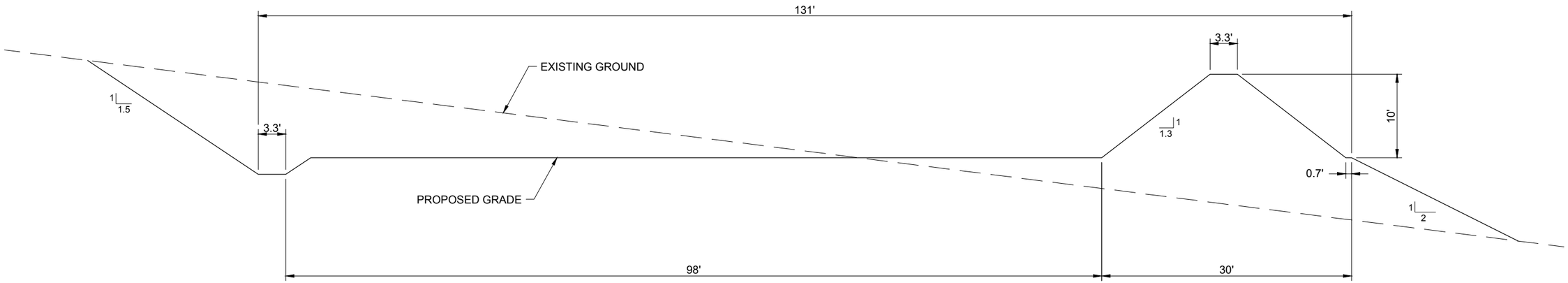
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

DRAWING TITLE: **ROAD TYPICAL DETAIL**

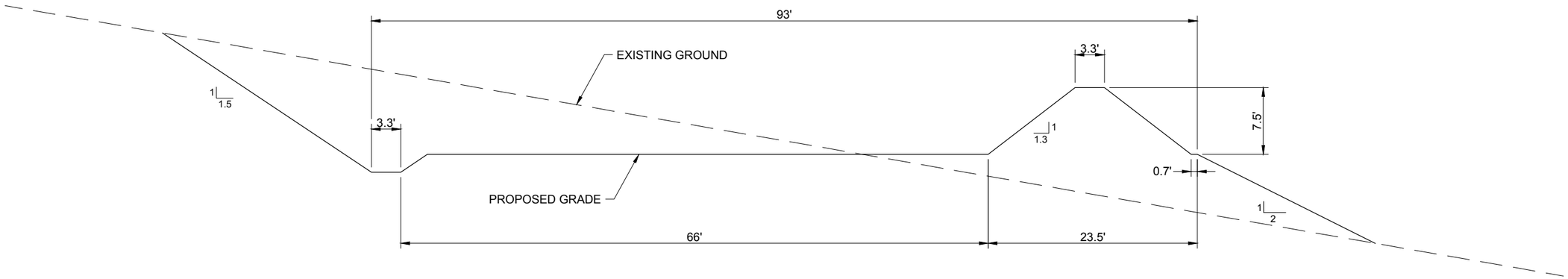
SCALE: AS SHOWN DATE: 9/11/2015

FIGURE NO. **MA-210T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Access_Road_Typicals.dwg



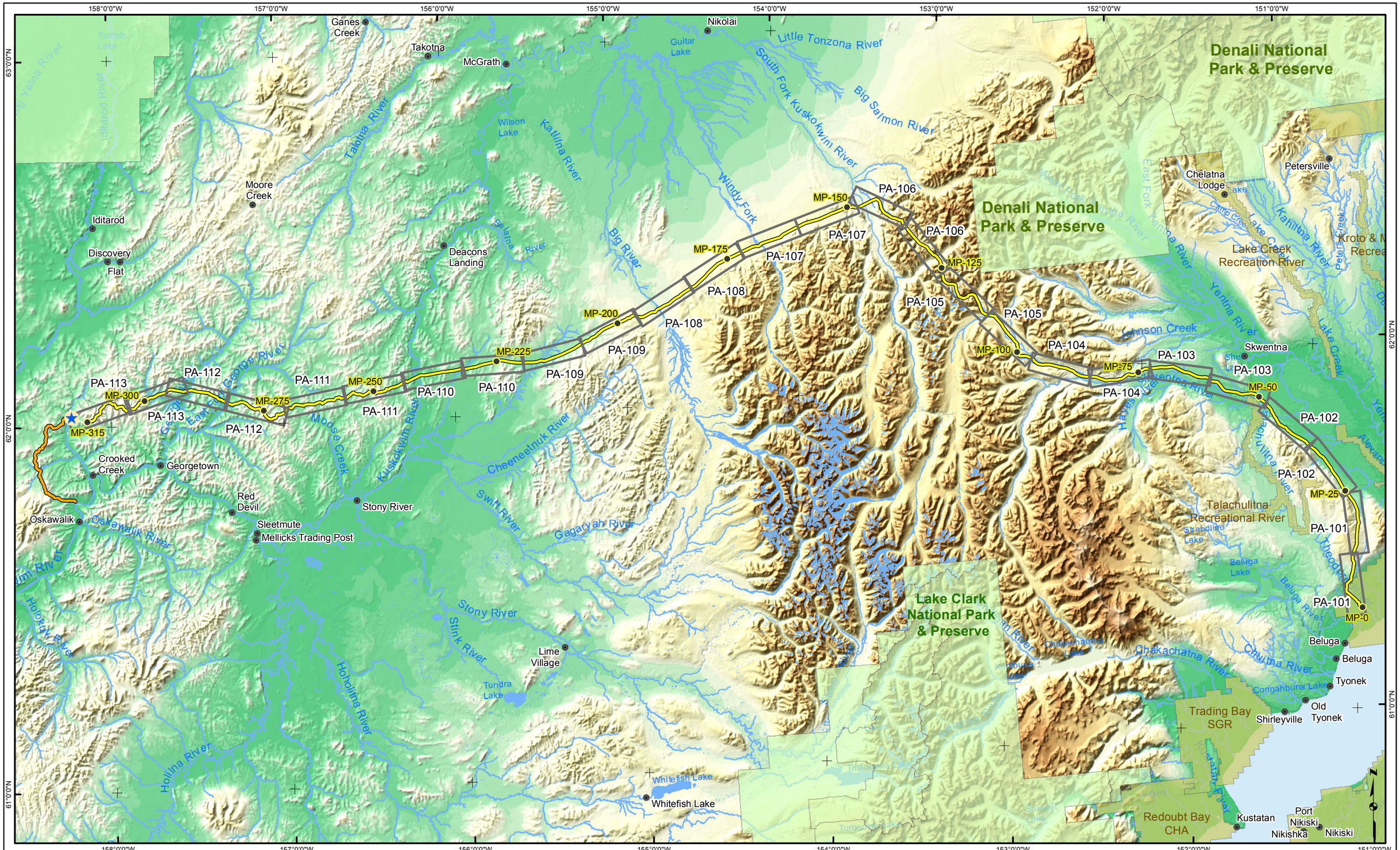
A-A' 211T **TYPICAL CROSS SECTION FOR GENERAL PURPOSE MINE HAUL ROADS**
N.T.S.



B-B' 211T **TYPICAL CROSS SECTION FOR CONSTRUCTION HAUL ROADS**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
HAUL_ROAD_AND_CONSTRUCTION_ROAD_CROSS-SECTION_PROFILE.dwg (BGC / RAY HODSON) MAY 2011	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**HAUL AND CONSTRUCTION ROAD TYPICAL DETAIL**
	SCALE: AS SHOWN / DATE: 9/11/2015	FIGURE NO. **MA-211T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\MA_Plant_Site_Access_Roads.dwg



USA Populated Places
Proposed Mine Area (MA)
Pipeline Milepost (MP)
Proposed Natural Gas Pipeline
Proposed Jungjuk Road
Federal Administrative Boundary
State Administrative Boundary
River/Stream

Associated Engineering Drawings

0 8 16 Miles

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 16 miles

DATE: 10/20/2015

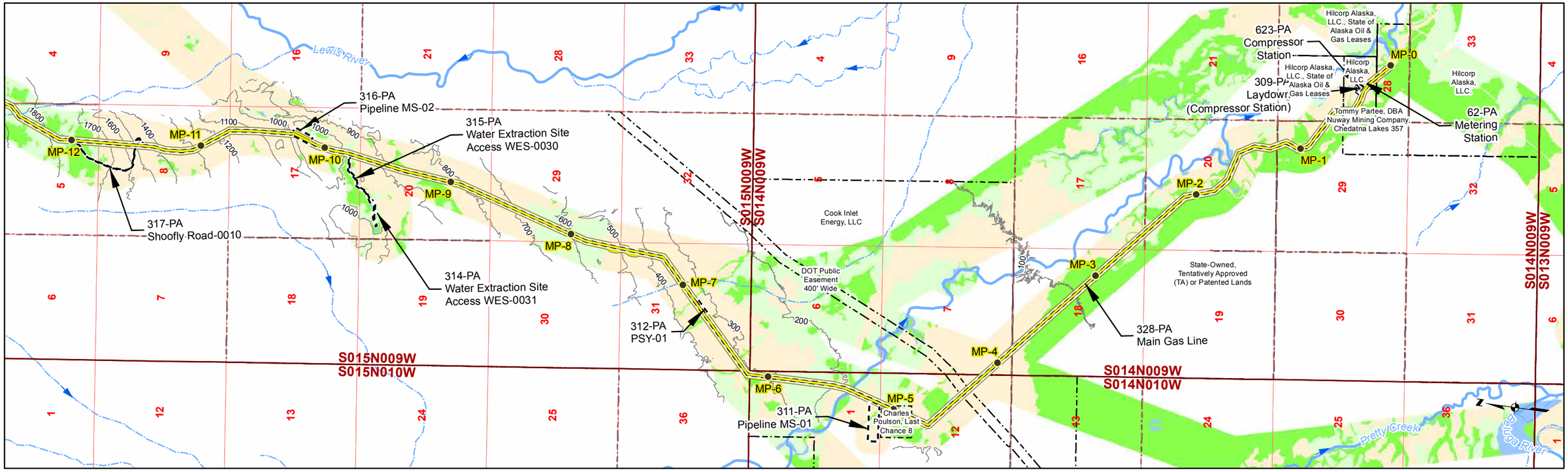
DRAWING TITLE: **PLAN VIEW PIPELINE INDEX MAP**

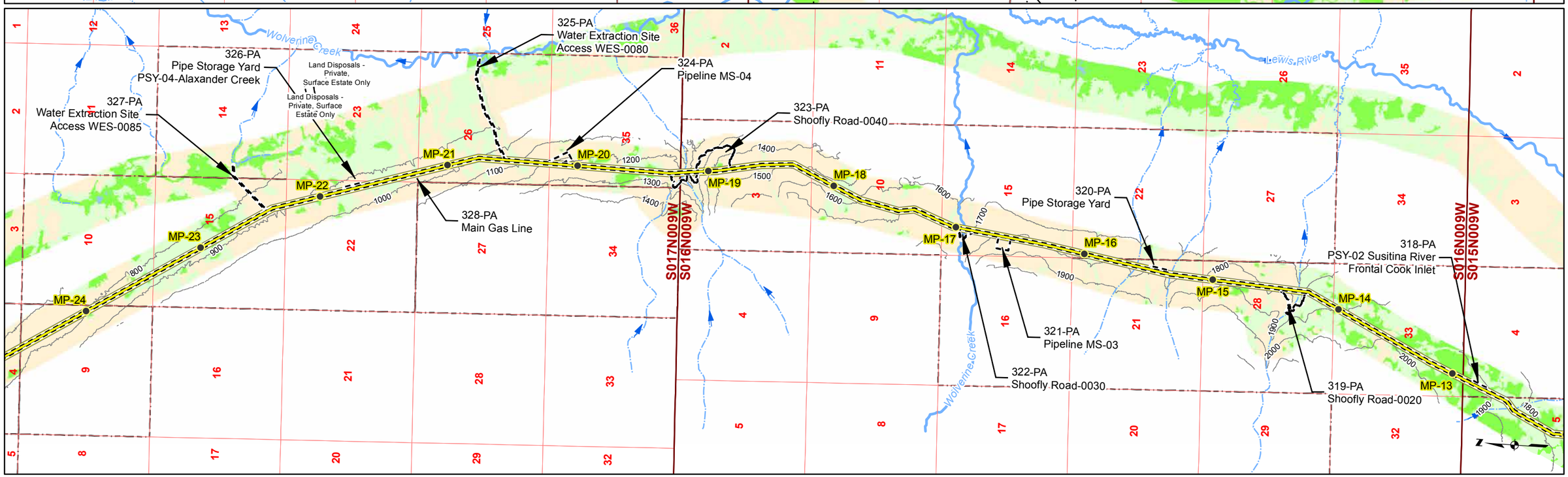
FIGURE NO. **PA-100G**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_100G_Index_ABR_20150819.mxd

Basemap Source: USGS, NGA, NASA, CGIAR,N Robinson,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA and the GIS User Community; Sources: Esri, USGS, NOAA





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

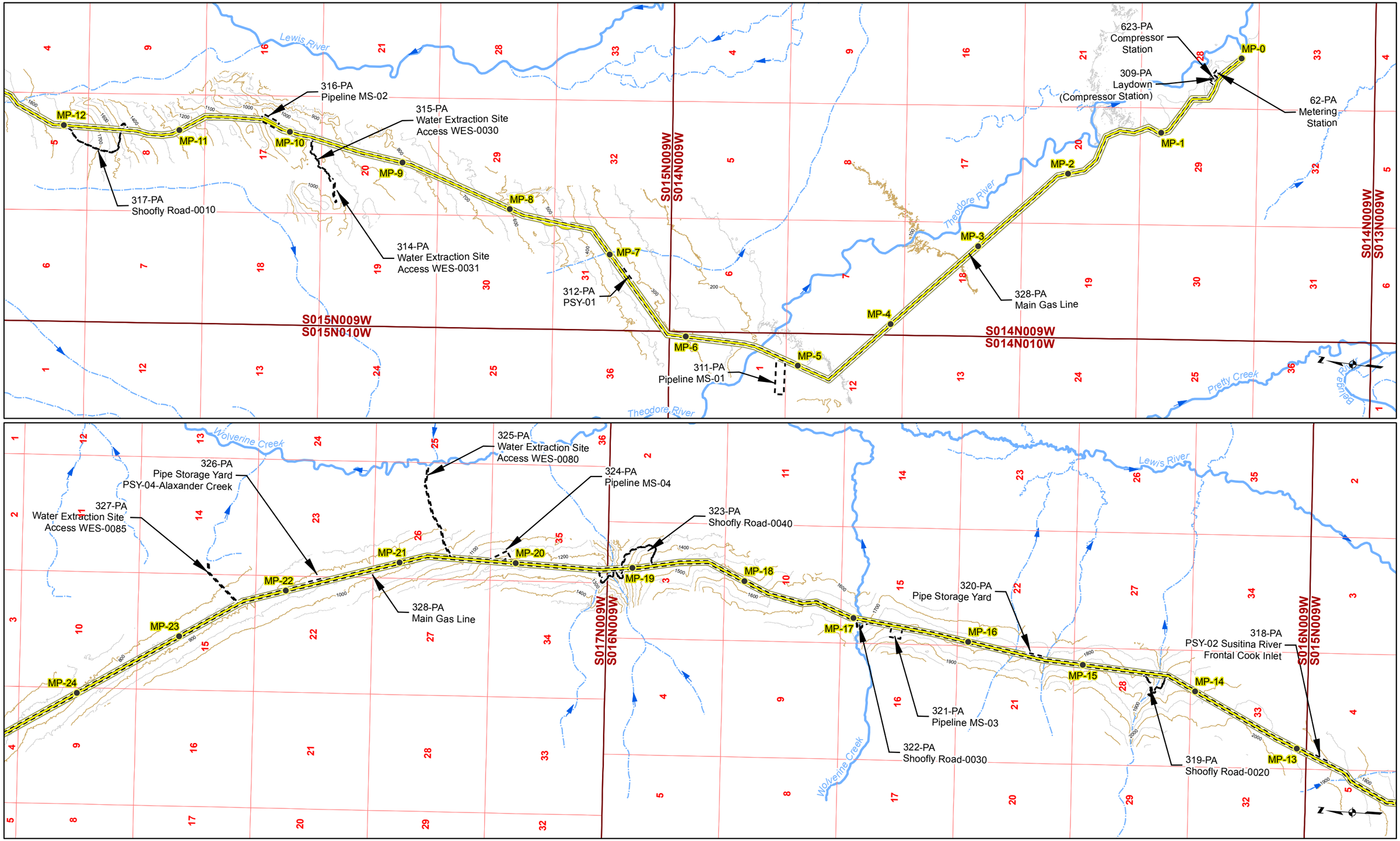
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-101A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

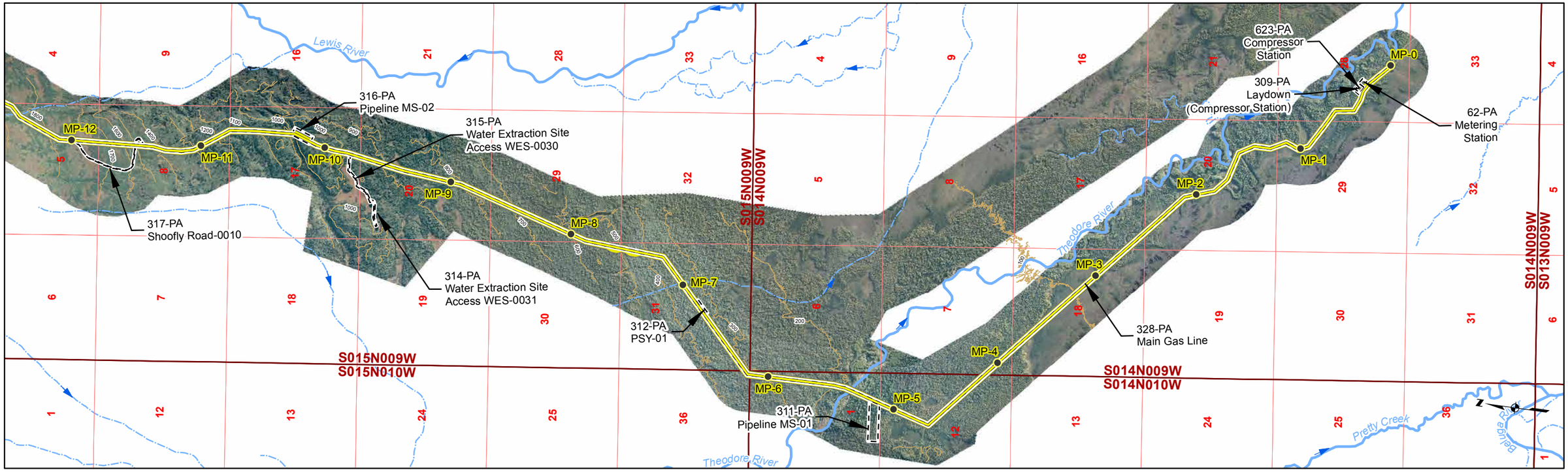
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

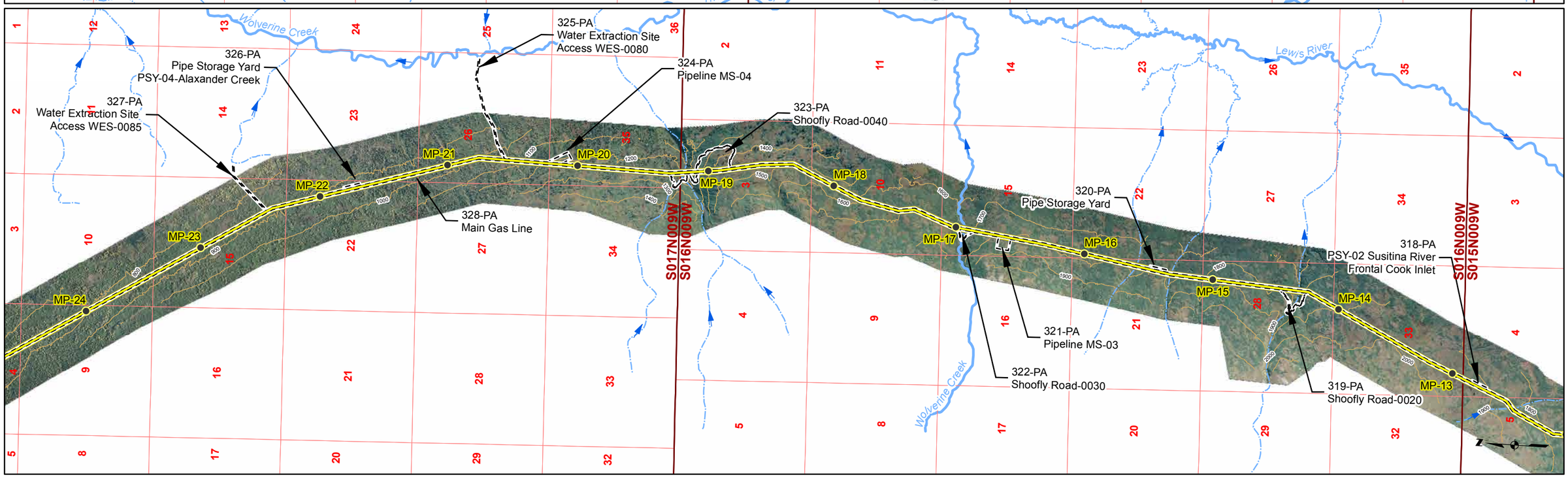
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-101B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

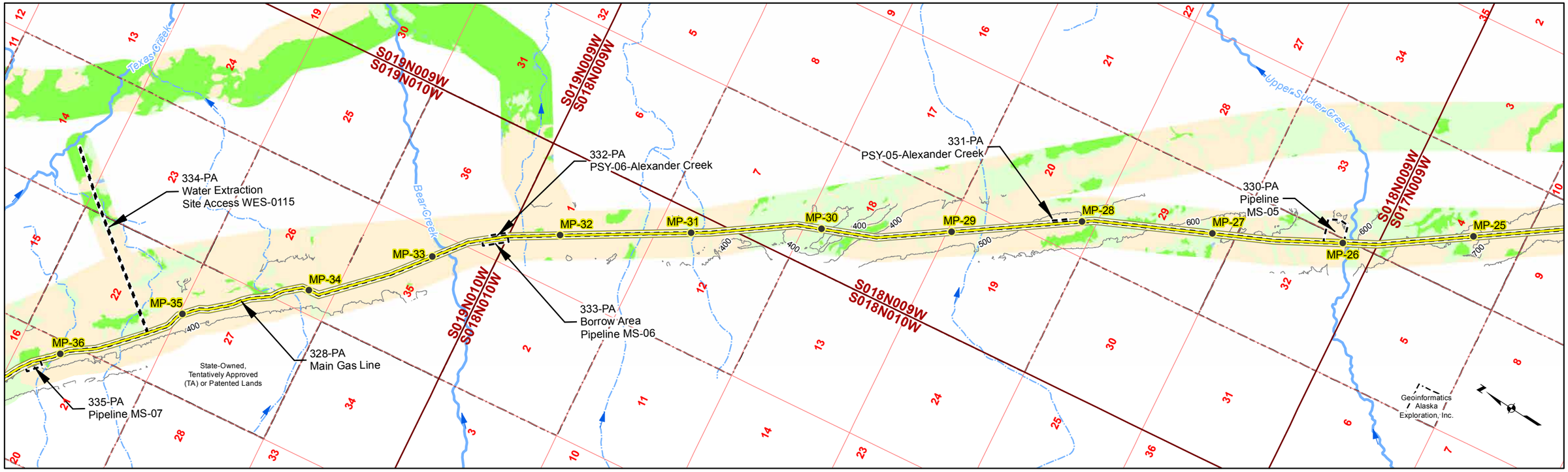
NAD 1983 UTM Zone 4N

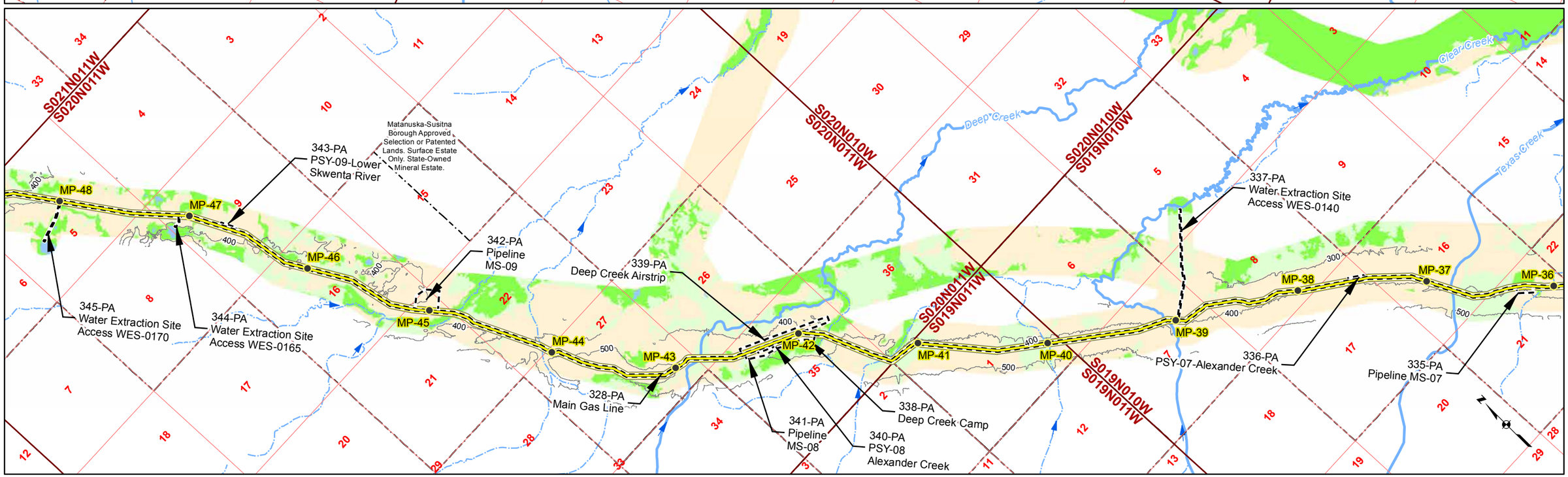
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-101C**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

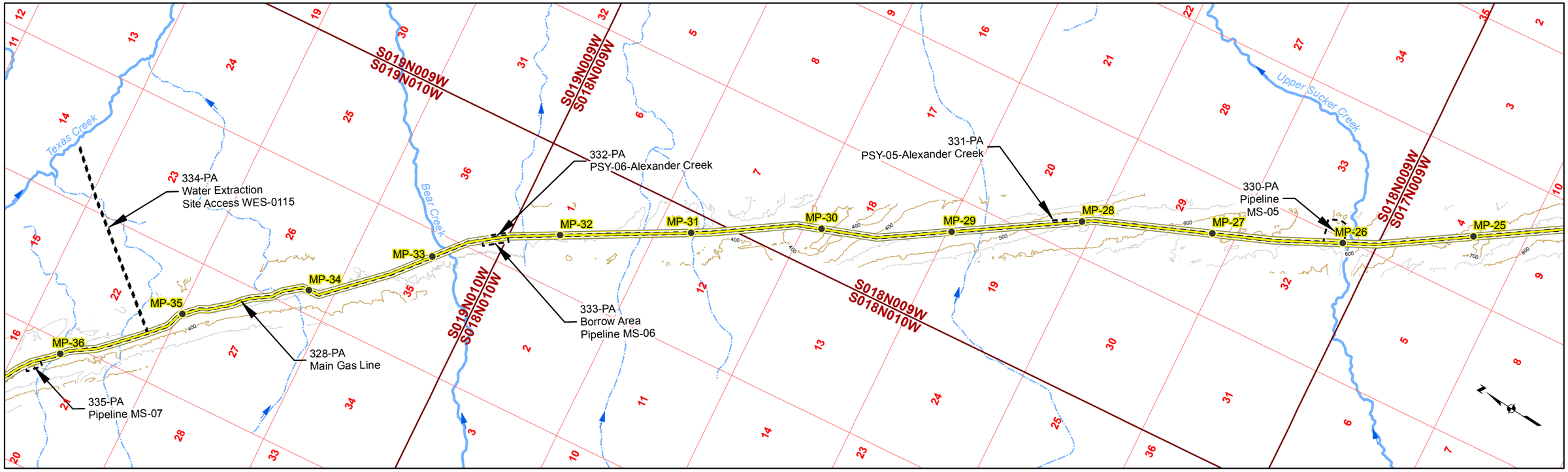
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

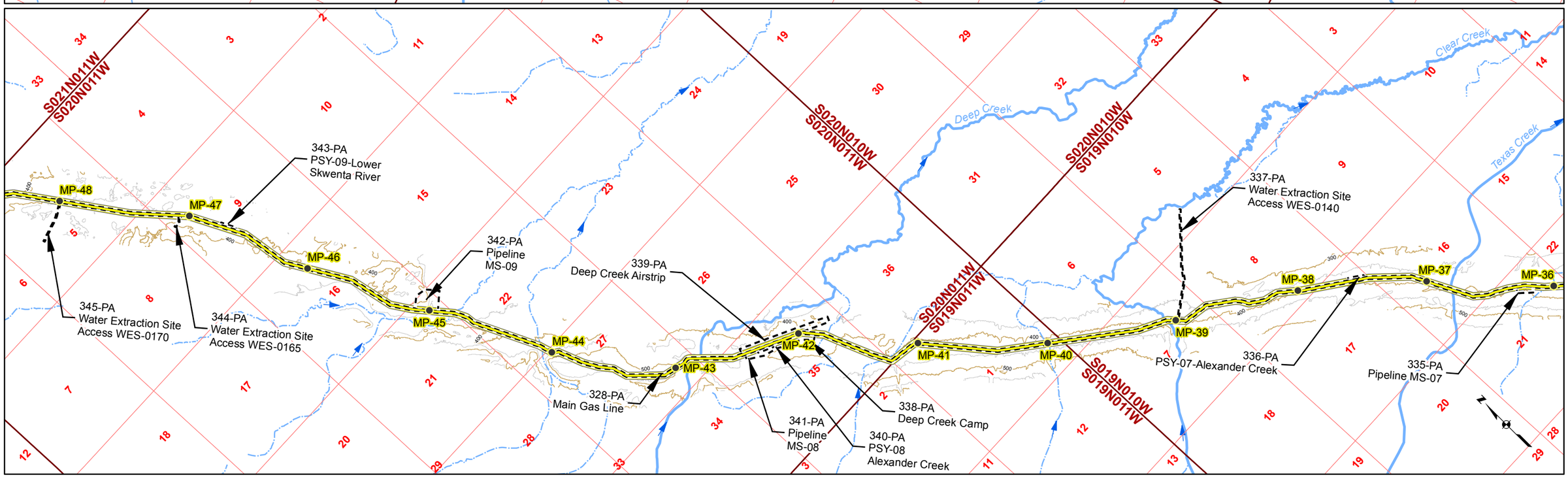
DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-102A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

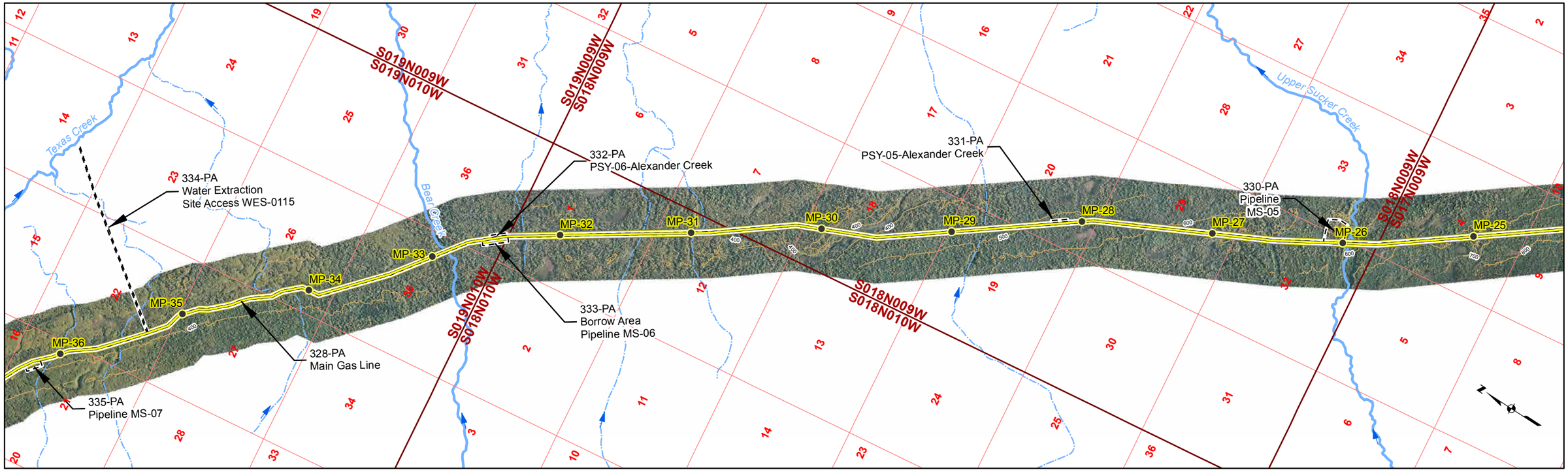
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

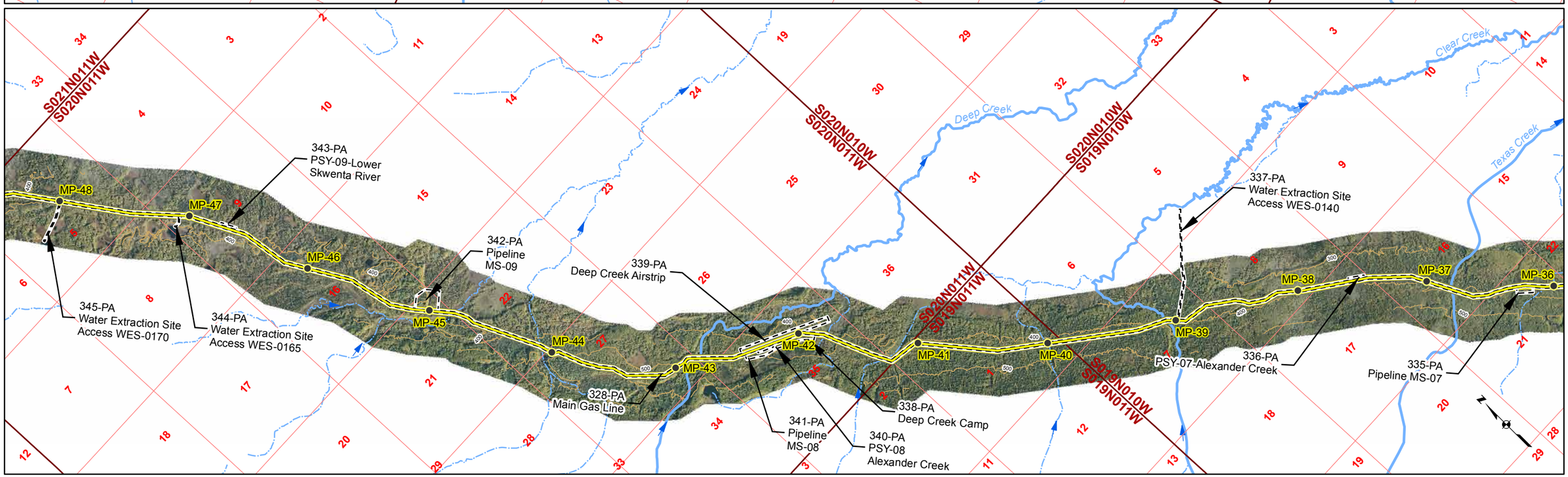
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-102B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

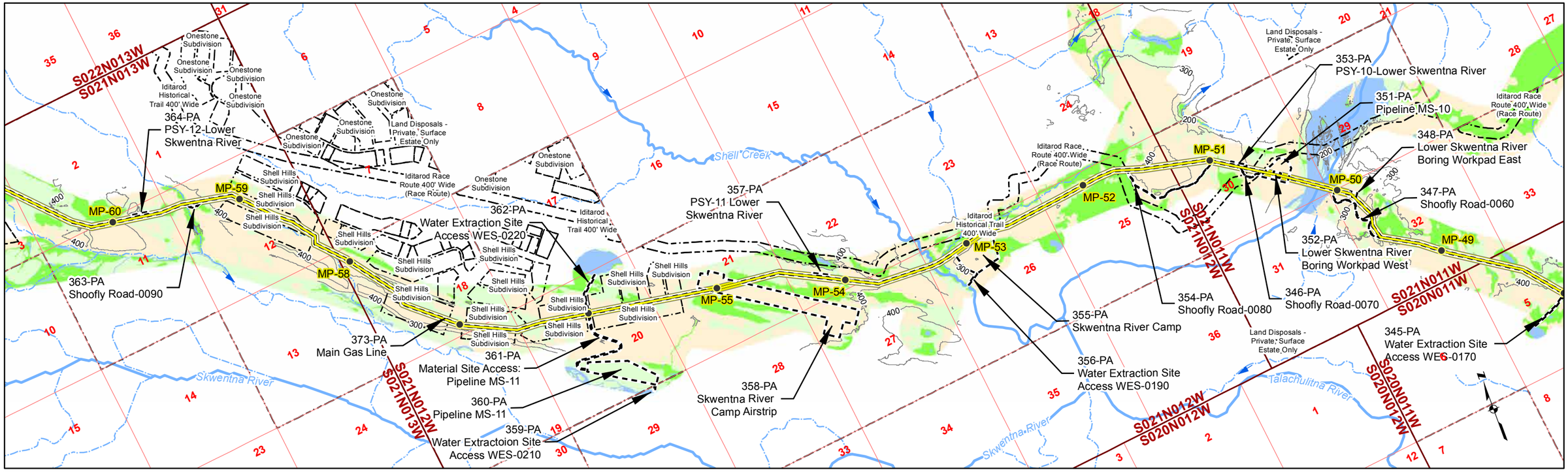
NAD 1983 UTM Zone 4N

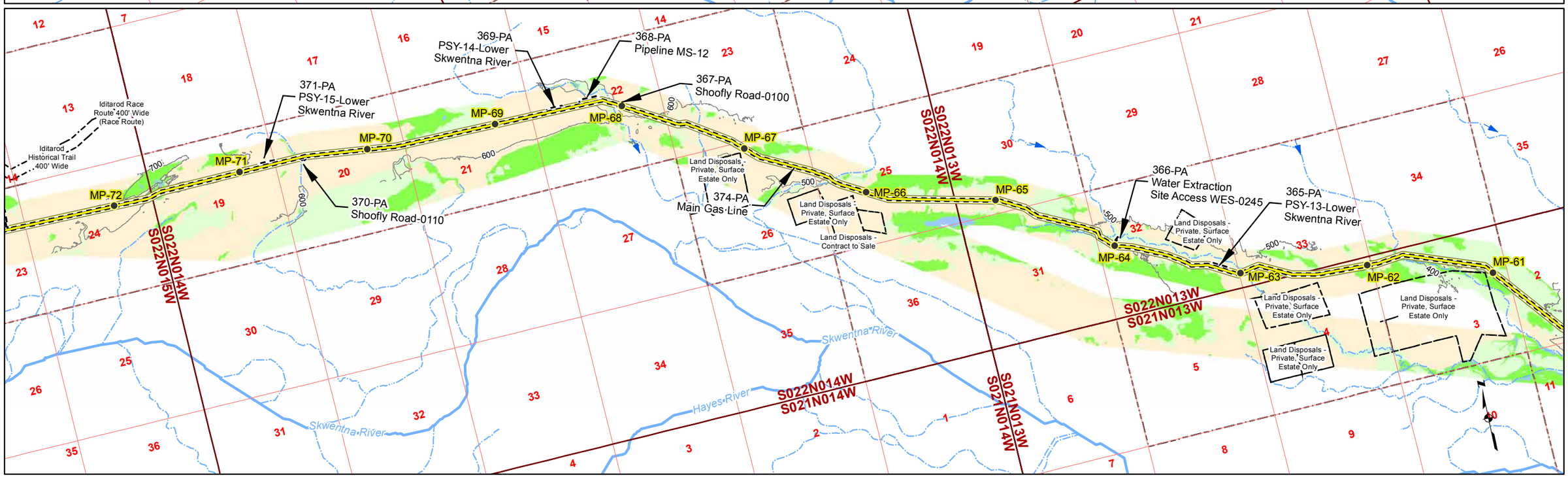
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-102C**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

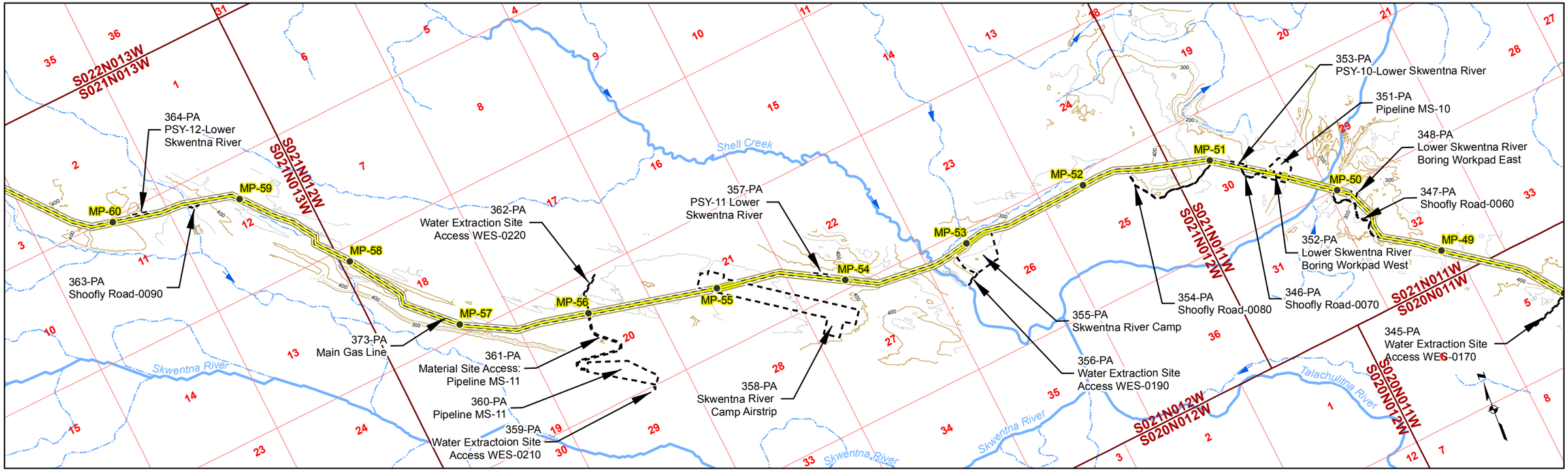
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

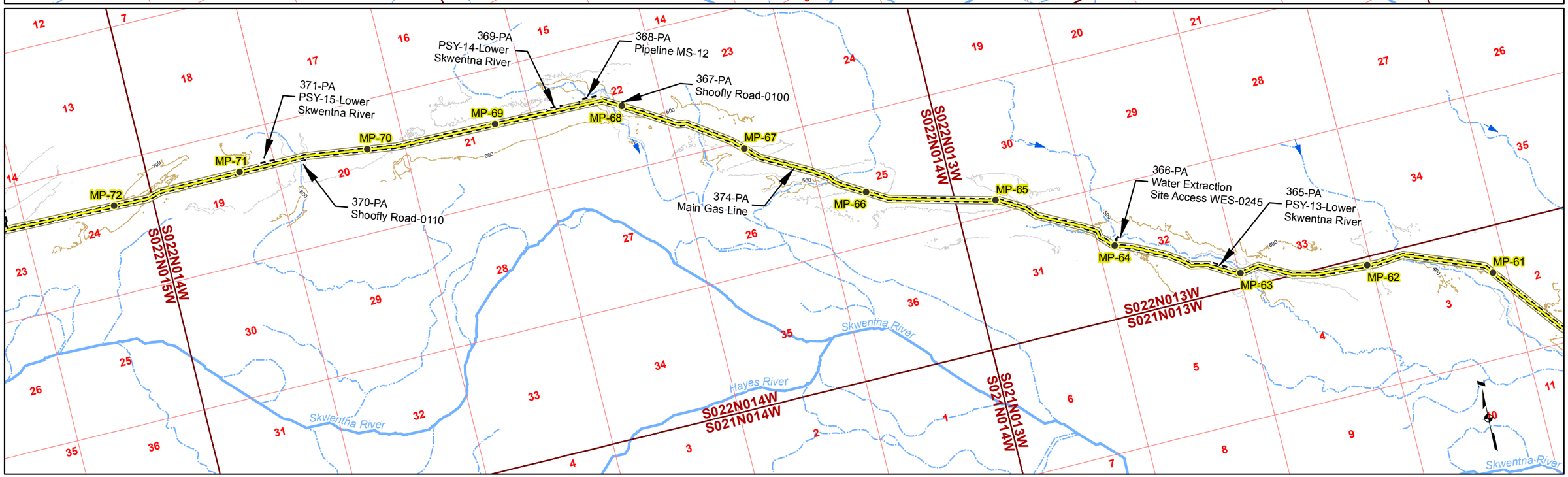
DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-103A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

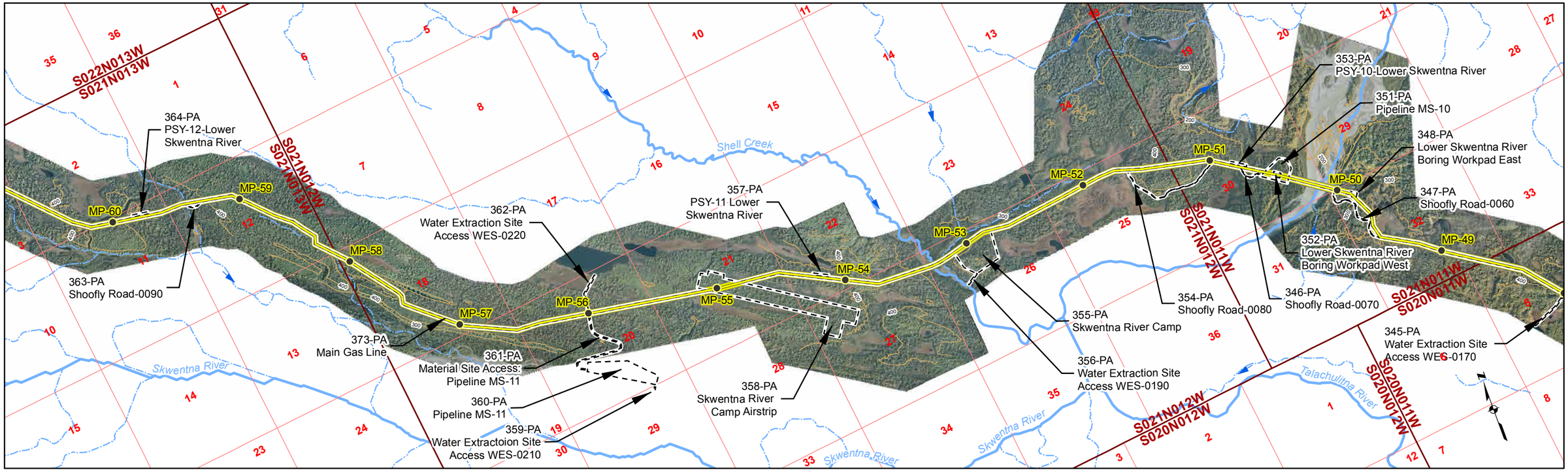
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

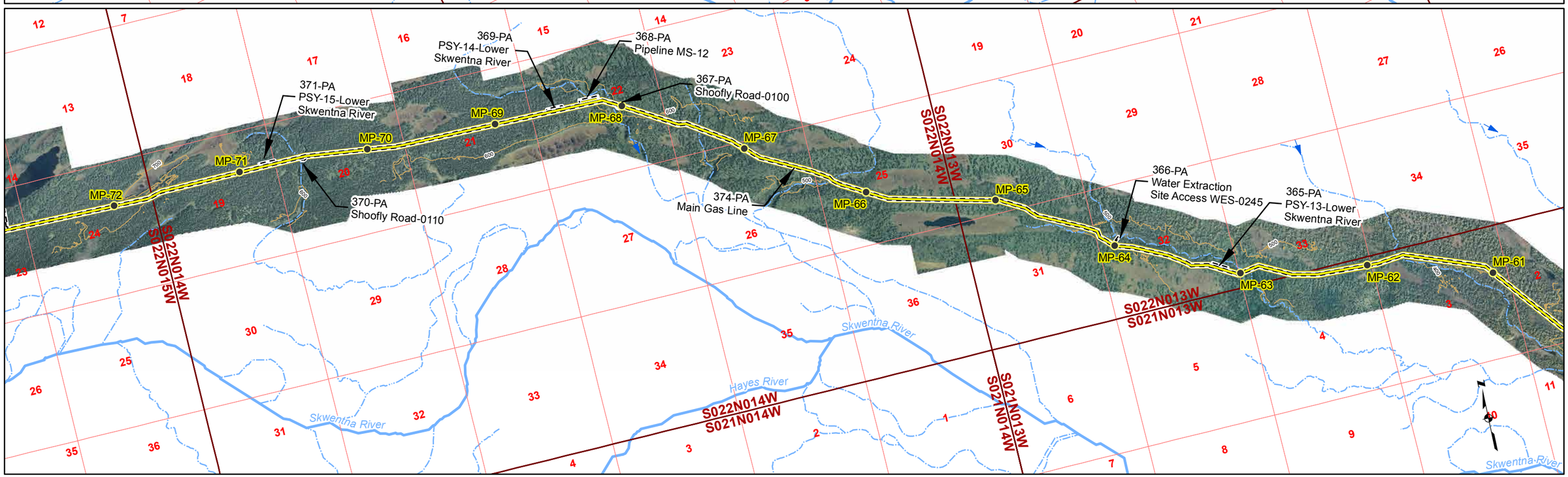
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-103B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

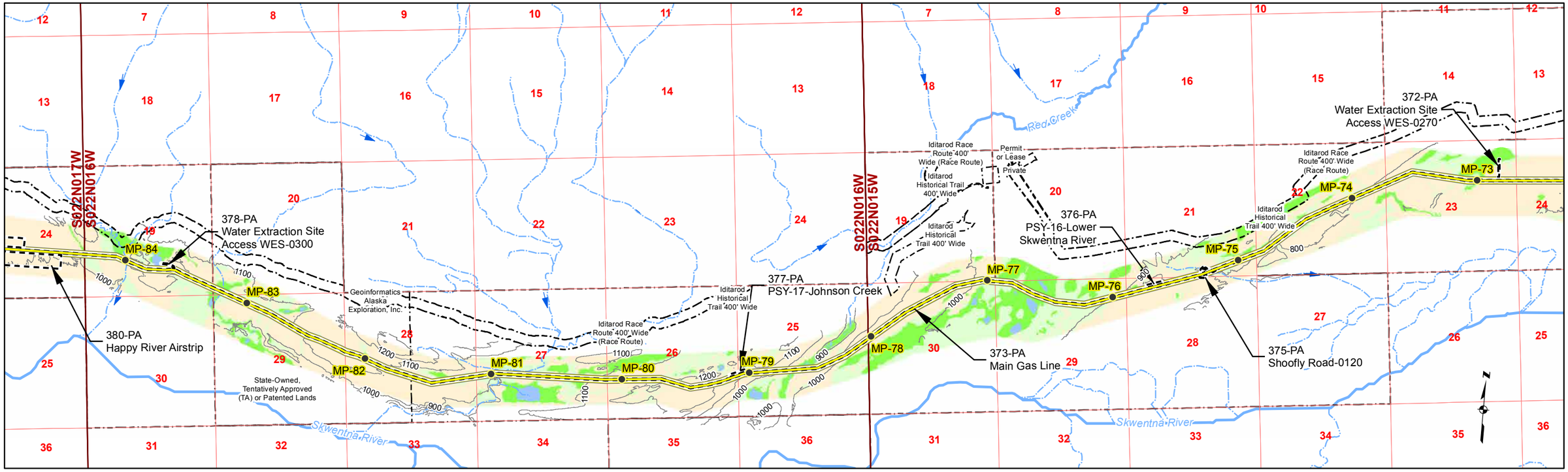
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

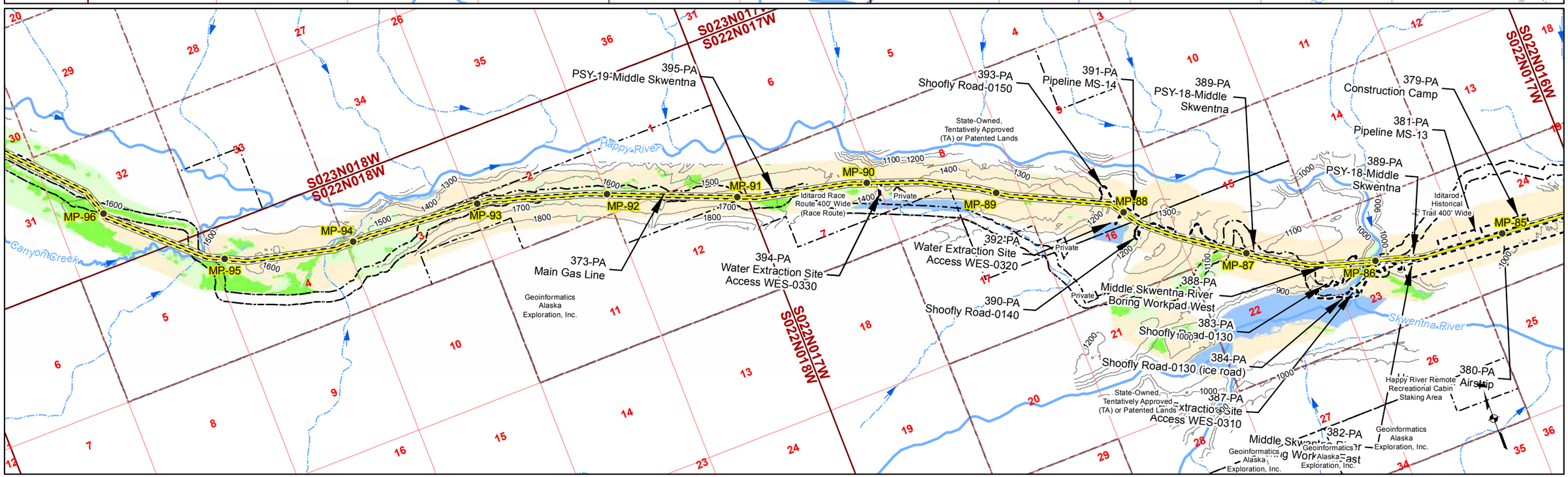
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-103C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

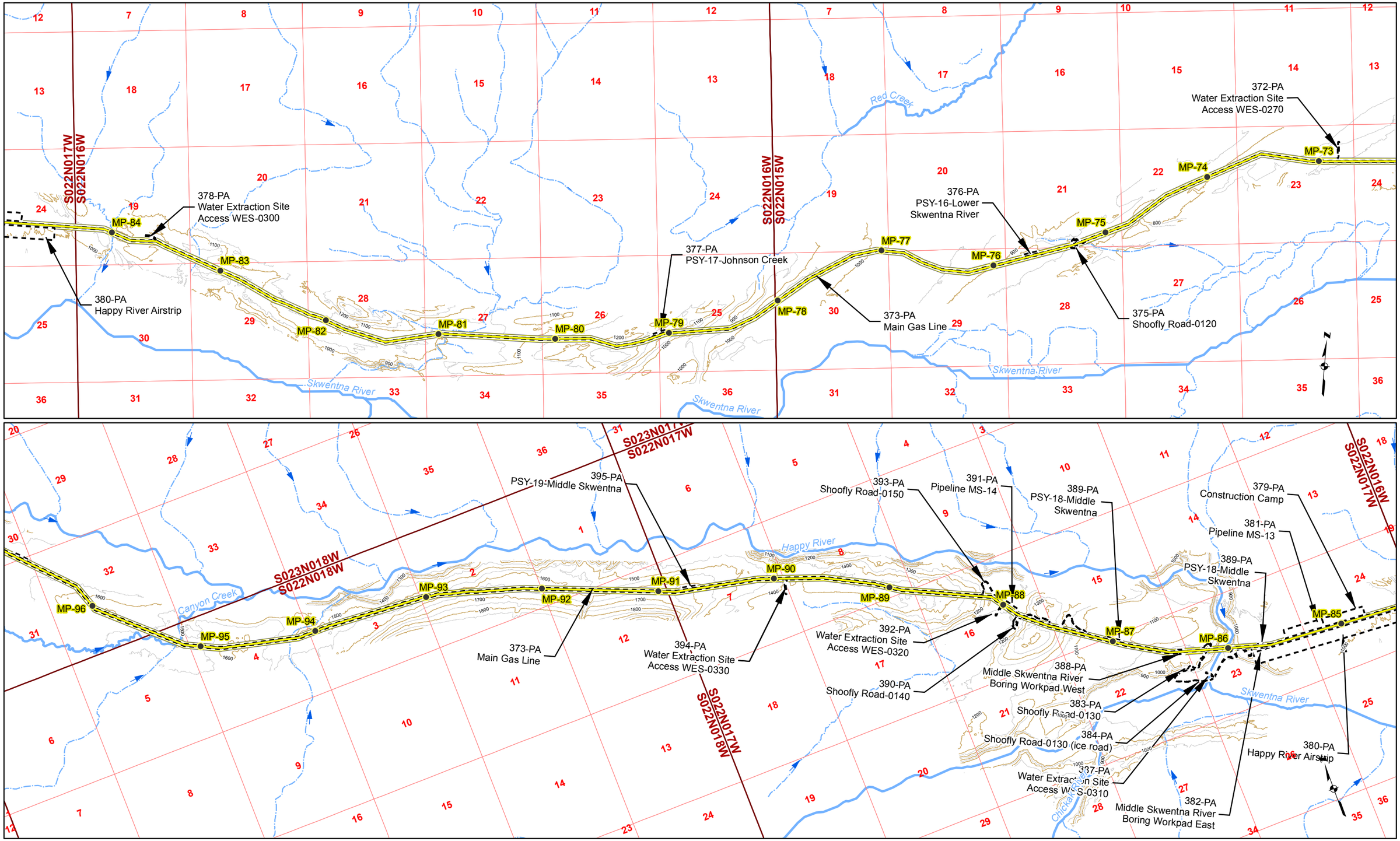
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-104A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

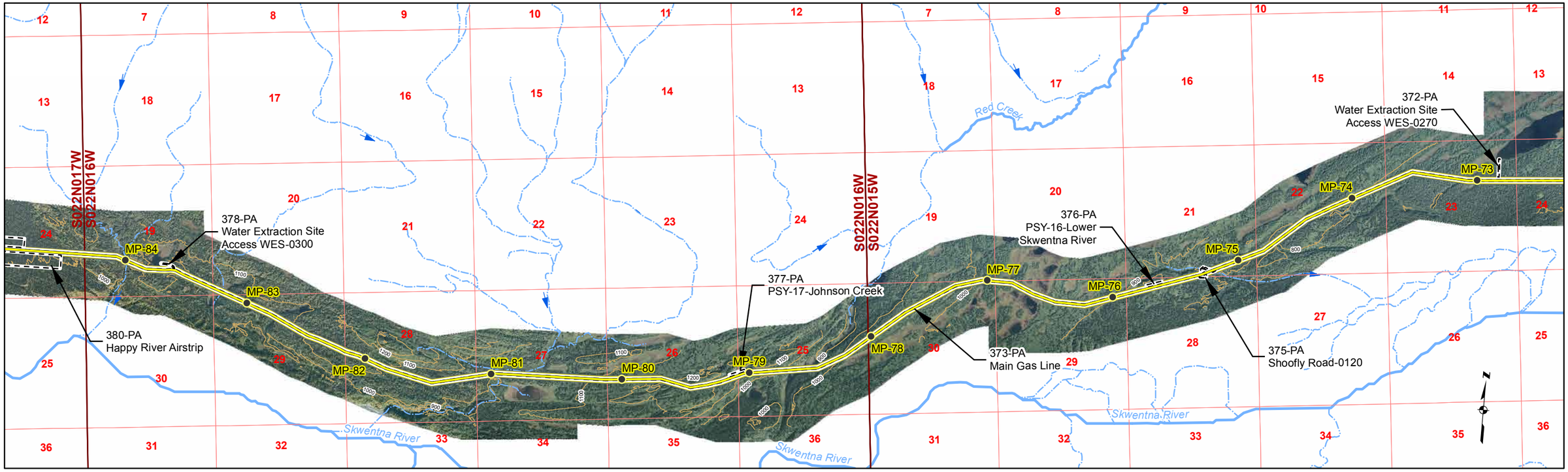
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

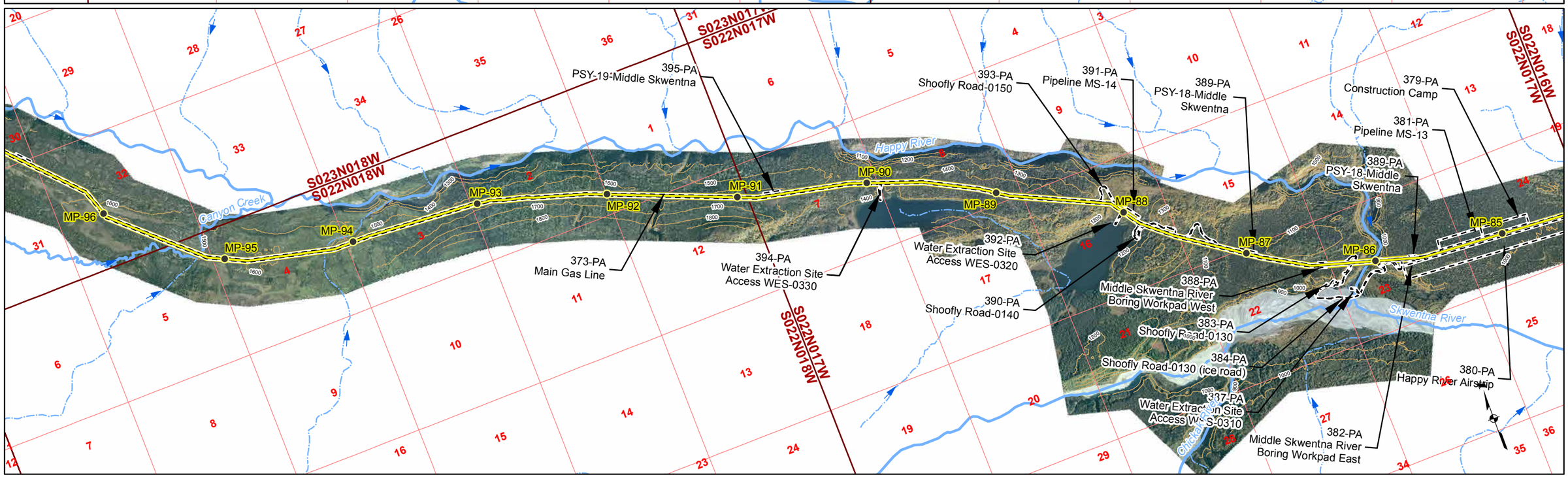
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-104B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

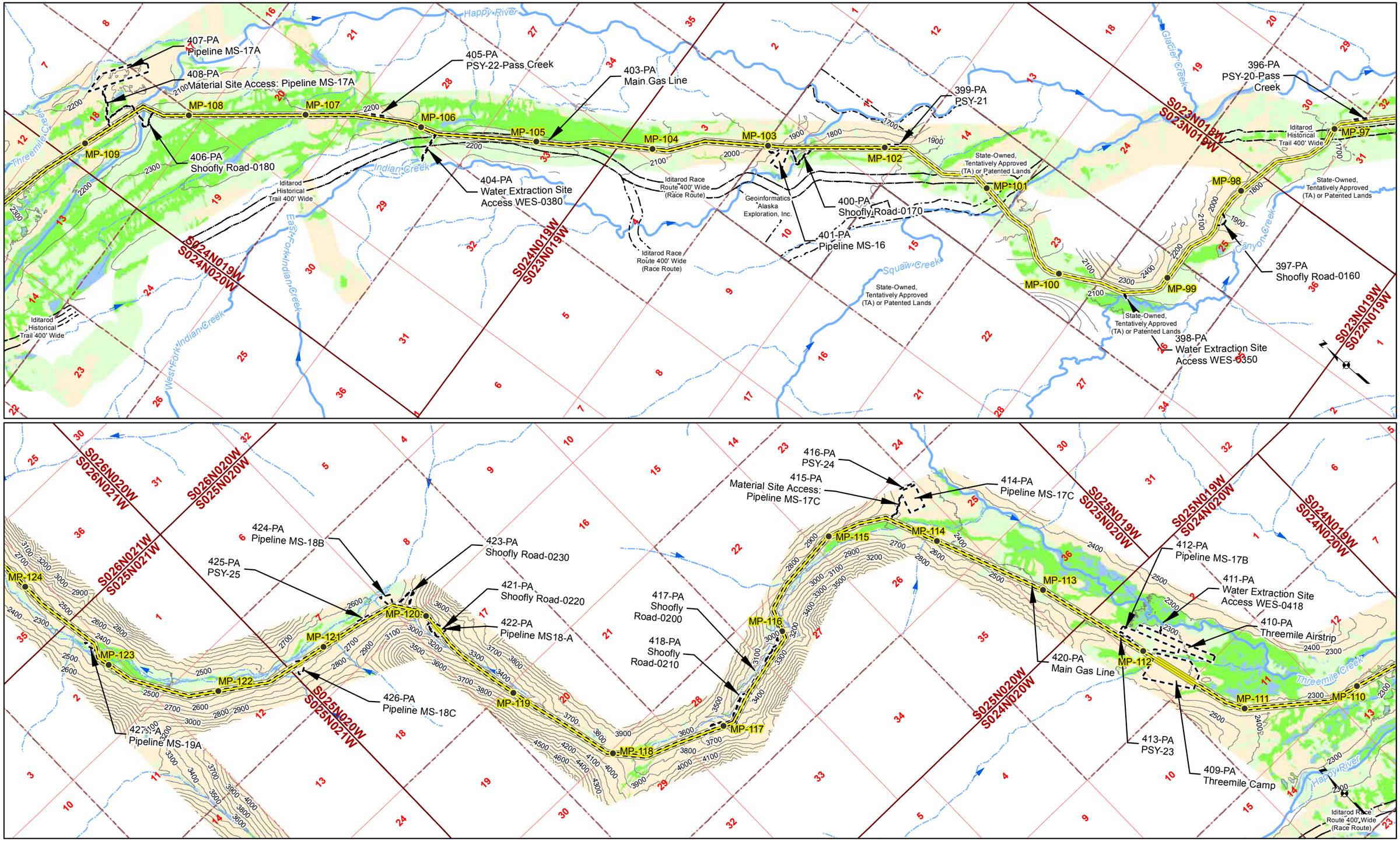
NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-104C**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

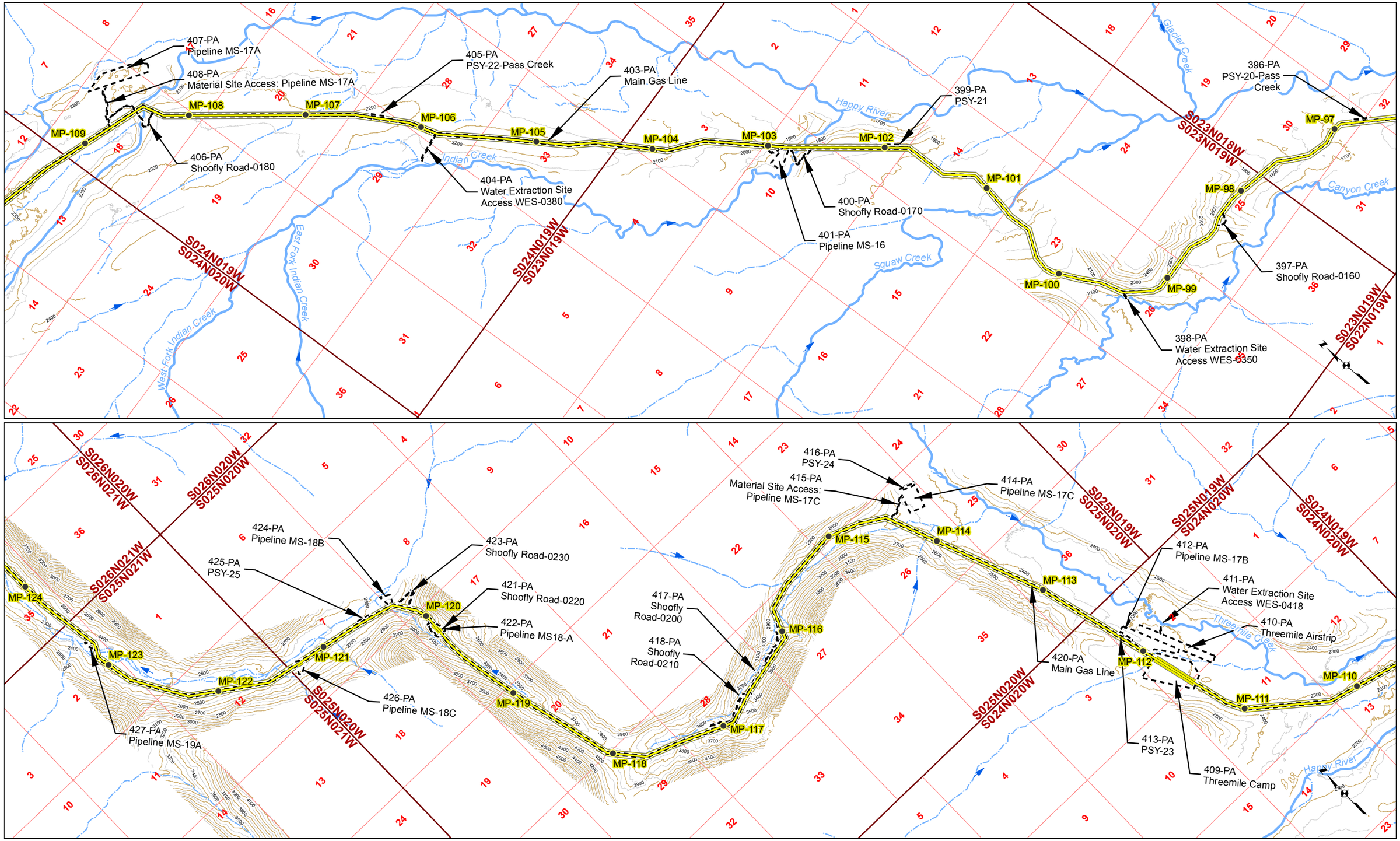
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-105A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

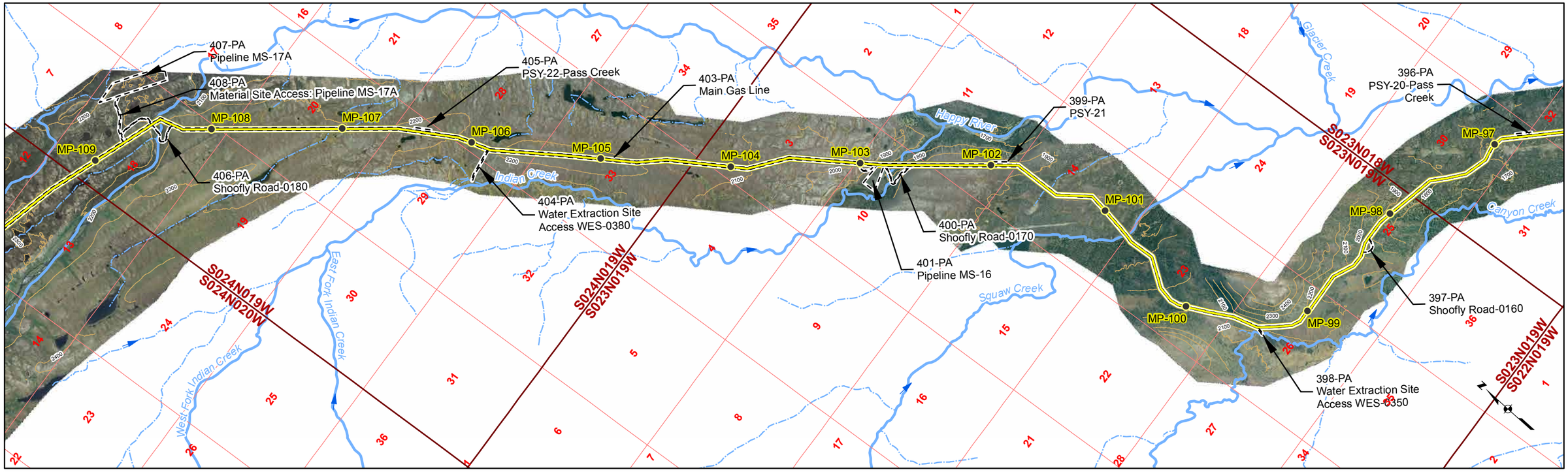
NAD 1983 UTM Zone 4N

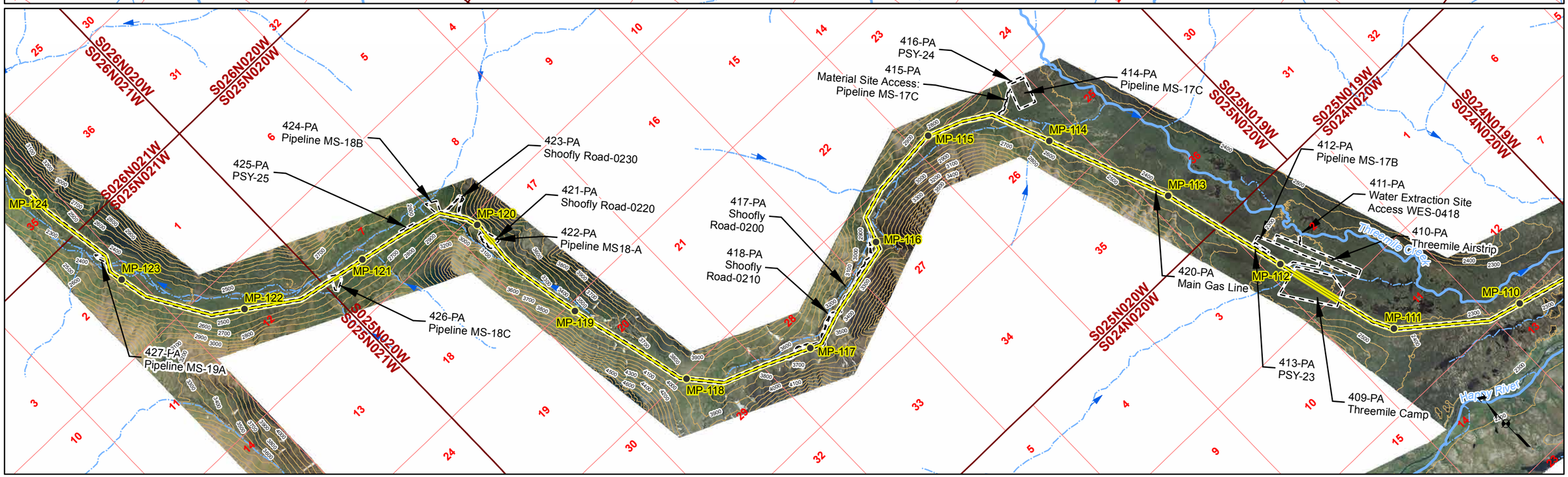
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-105B**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

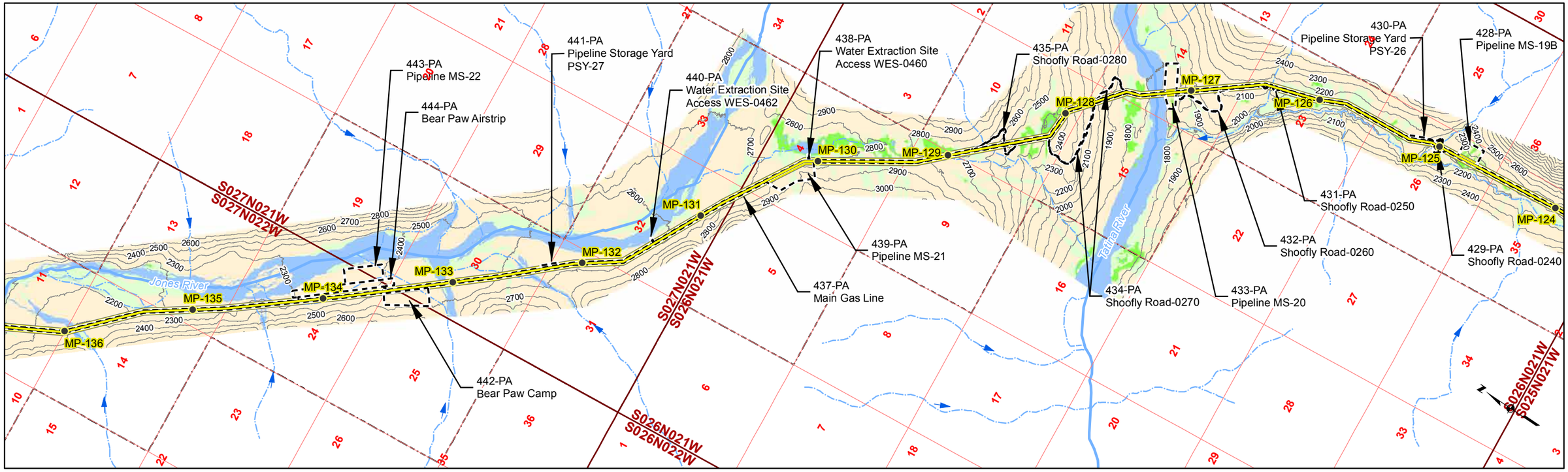
NAD 1983 UTM Zone 4N

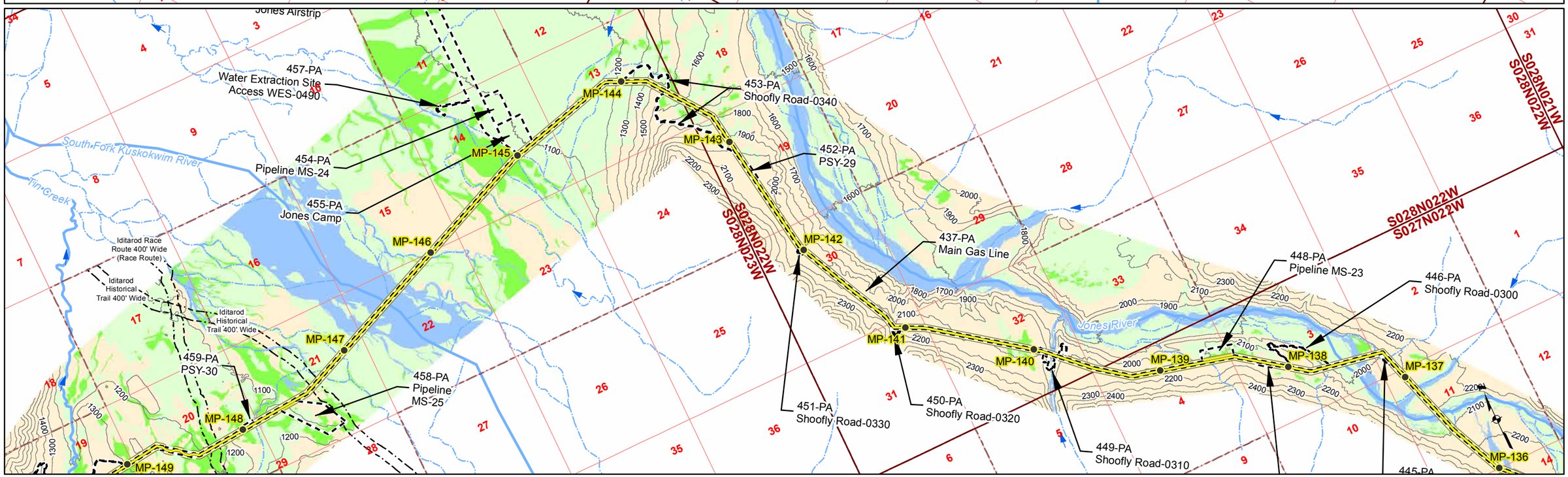
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-105C**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

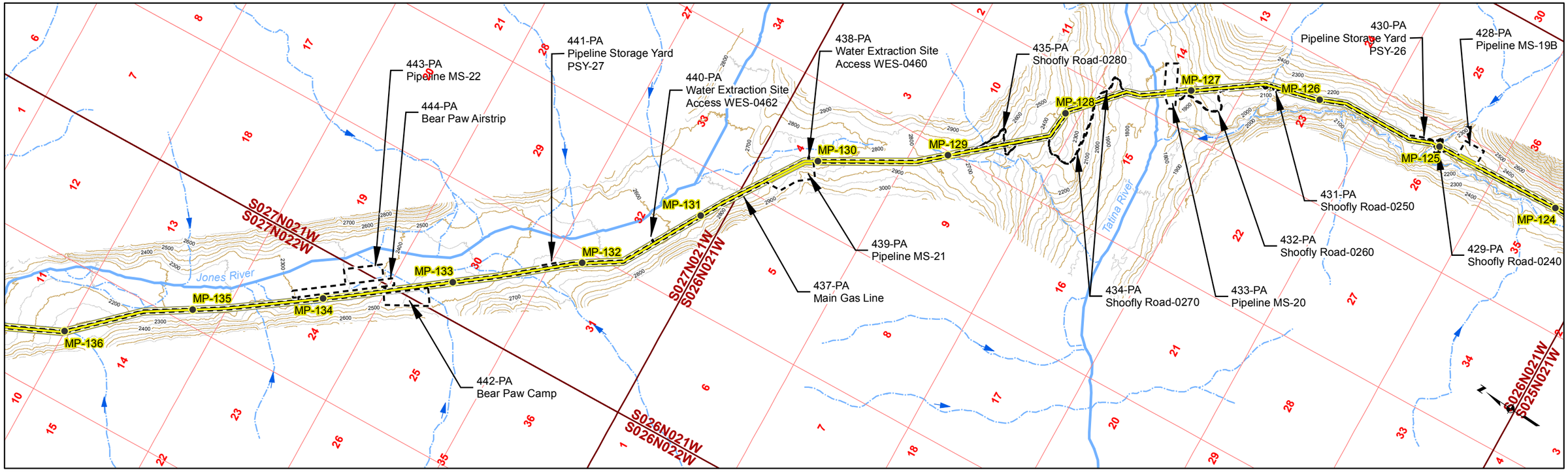
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

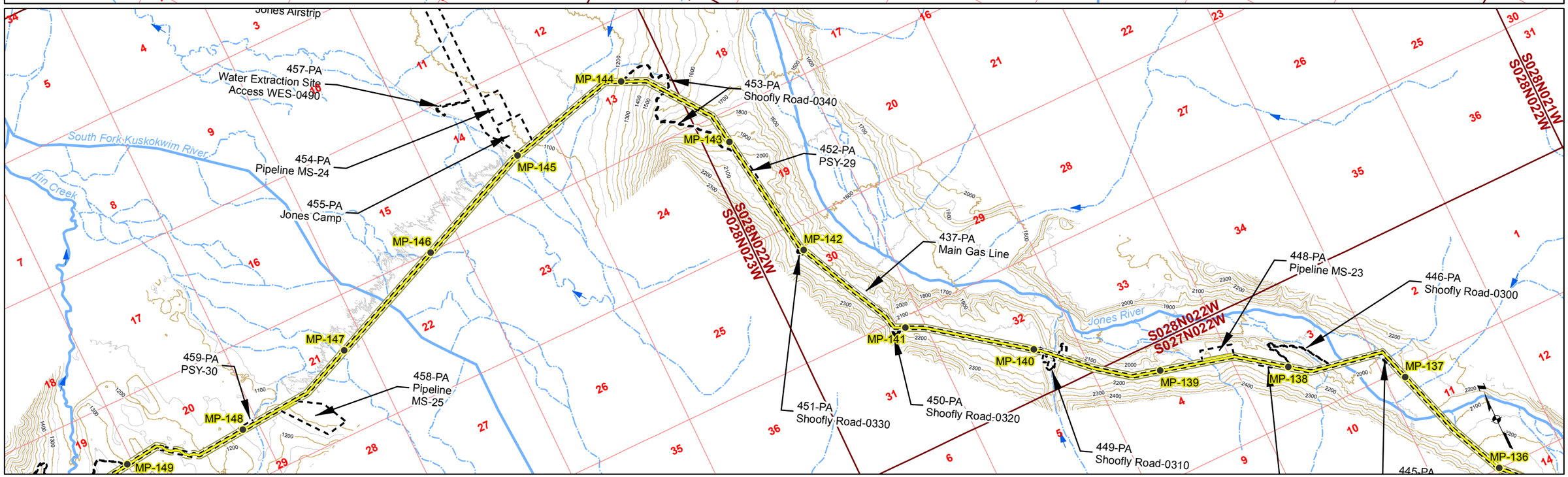
DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-106A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

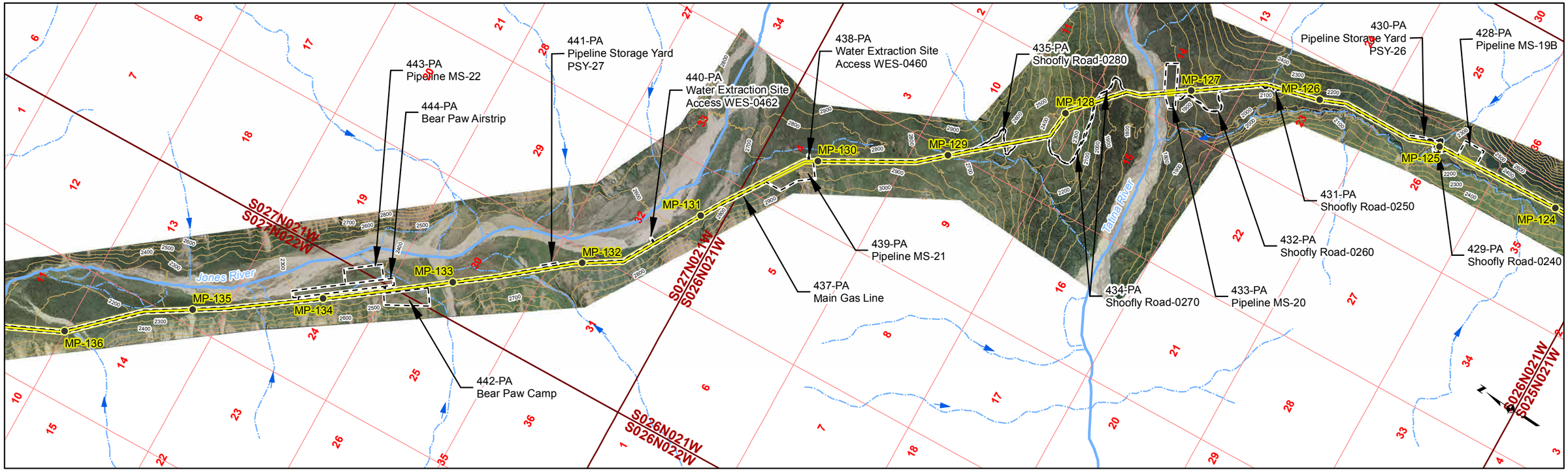
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

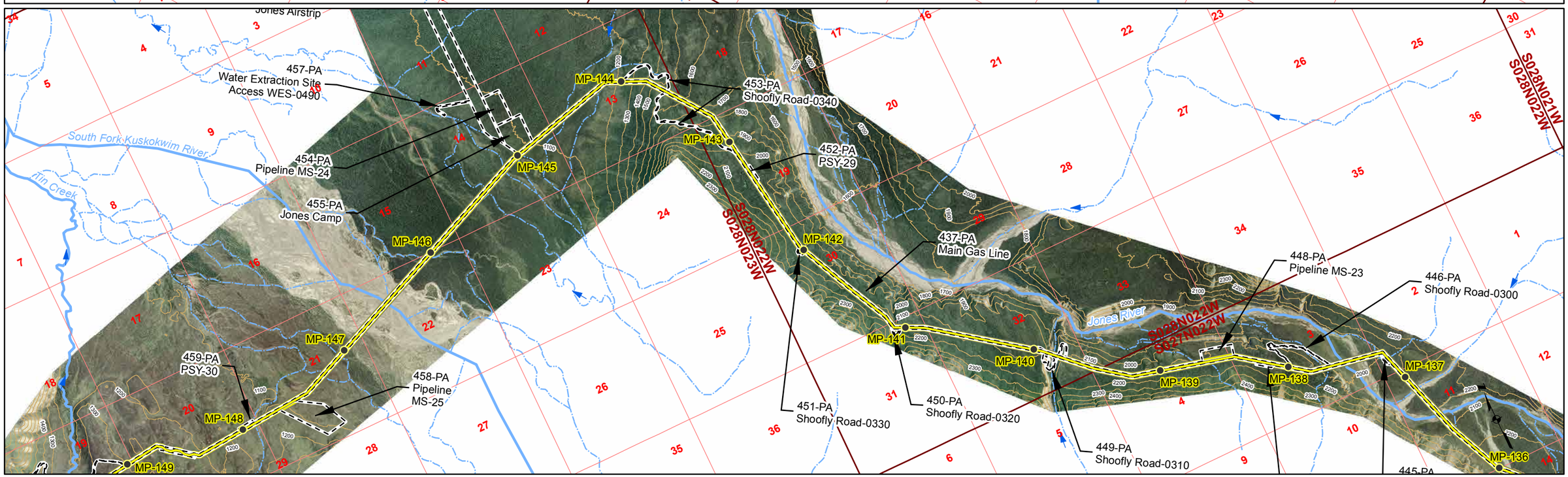
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-106B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

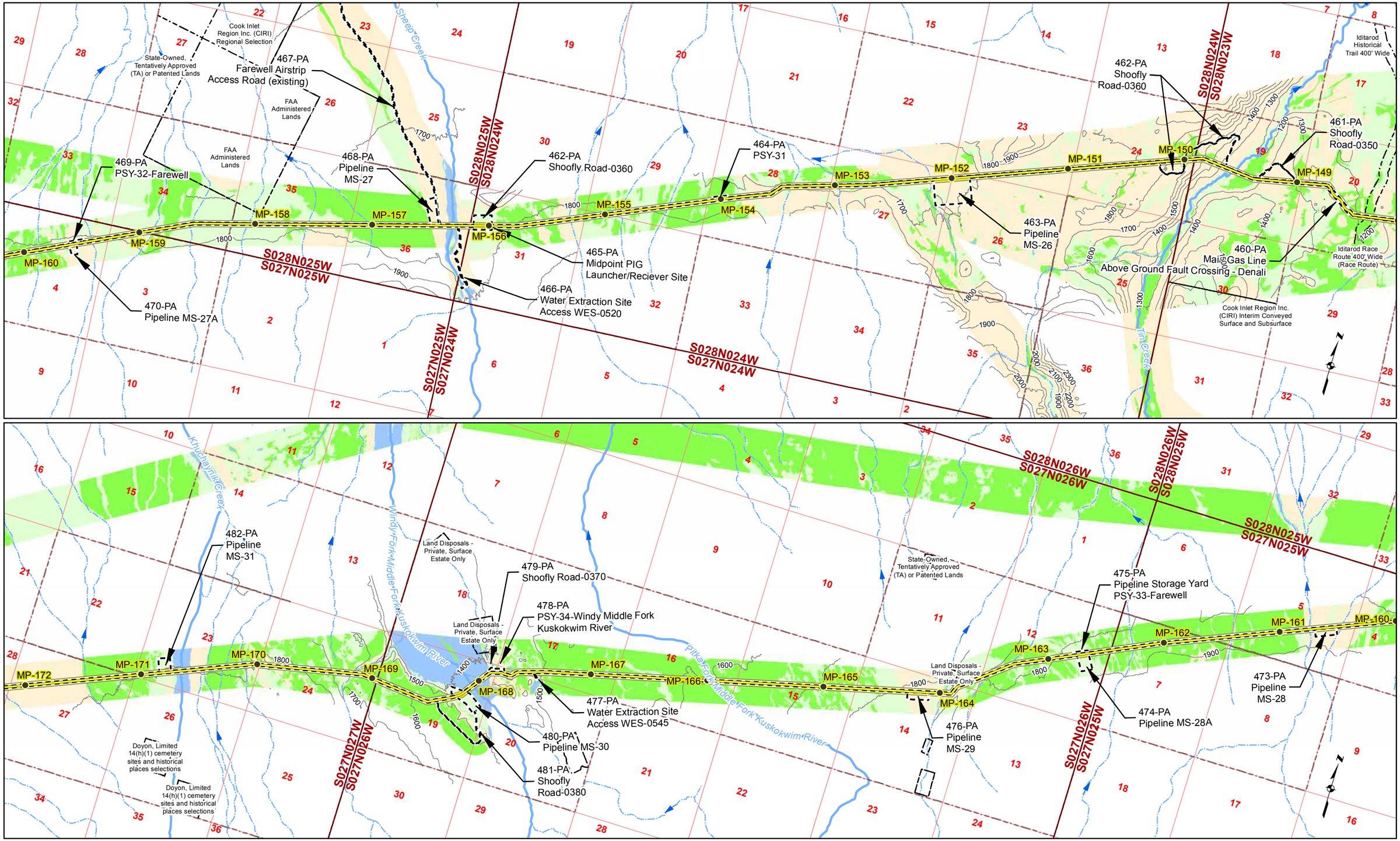
NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-106C**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

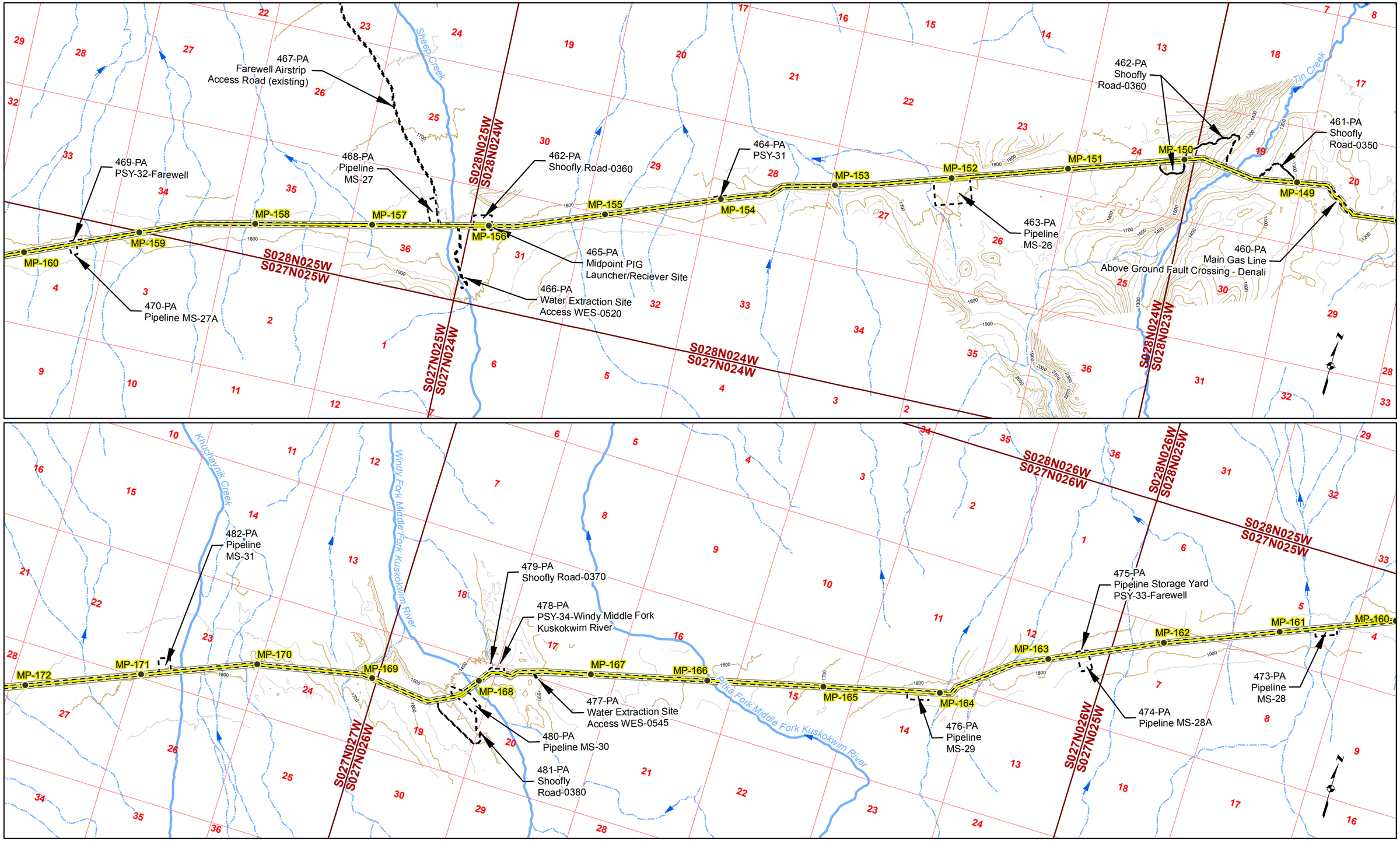
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-107A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

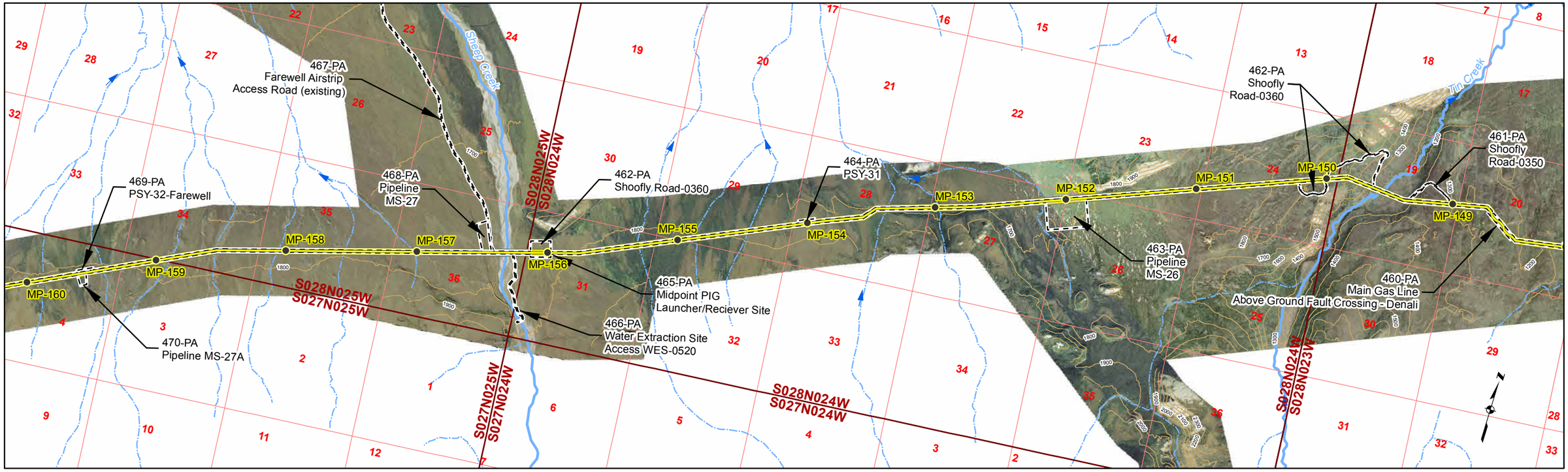
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

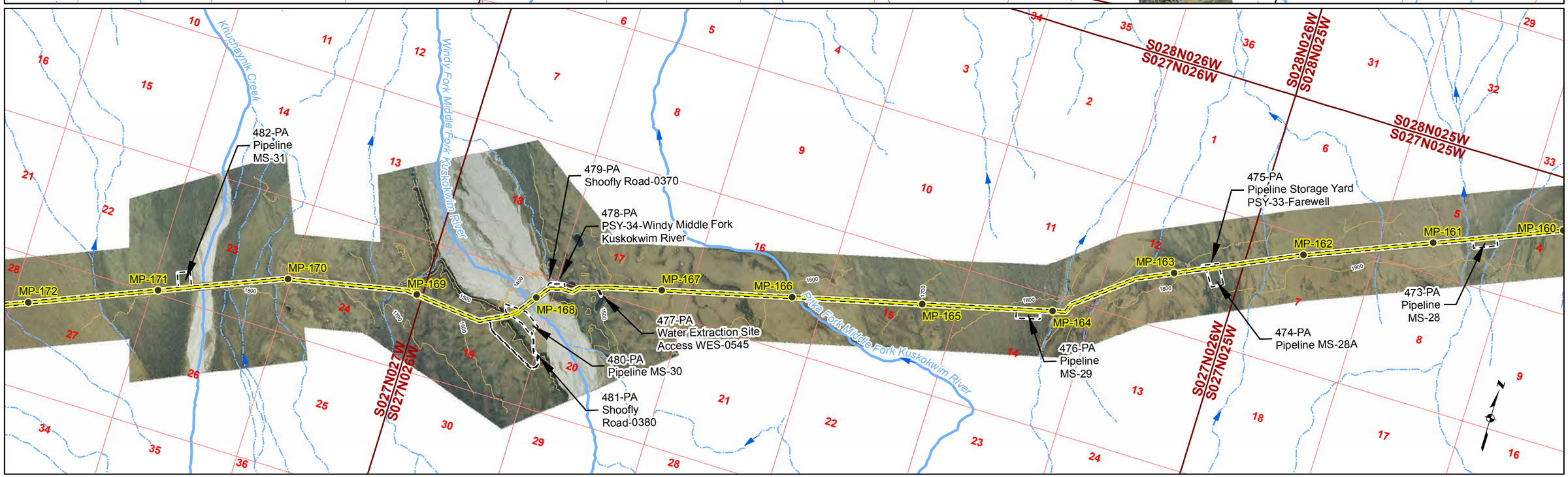
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-107B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

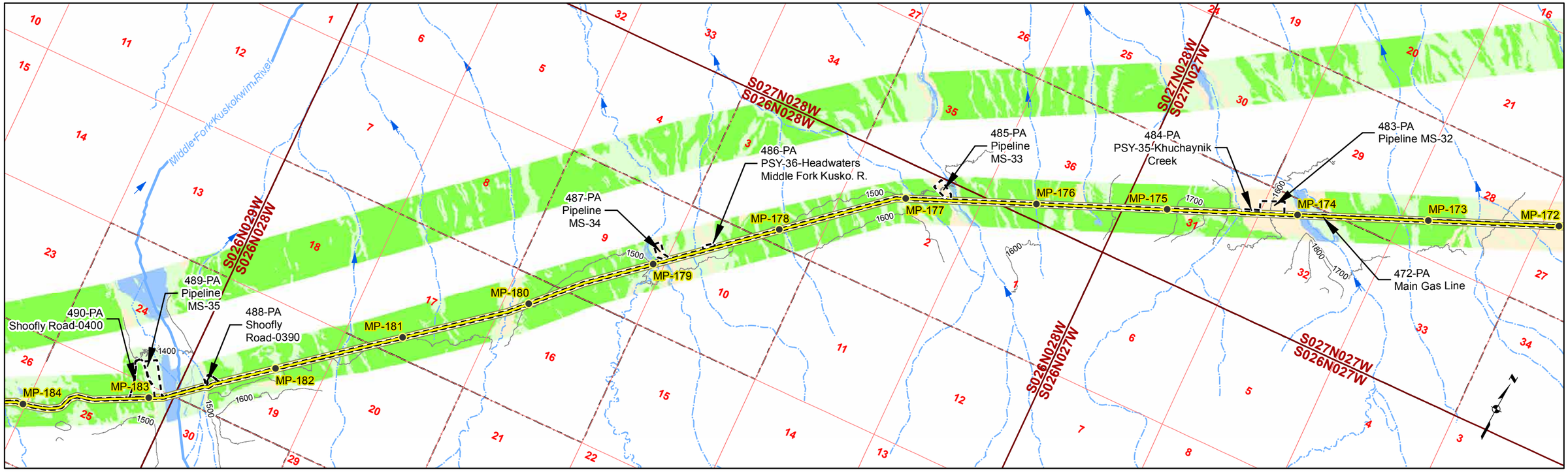
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

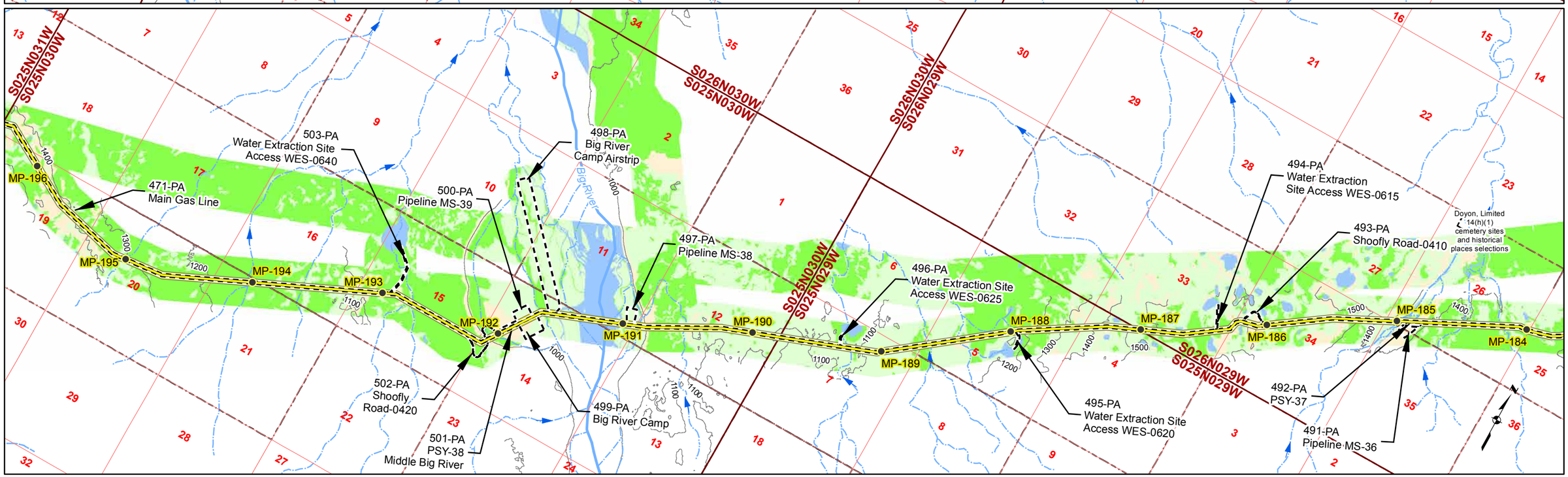
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-107C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

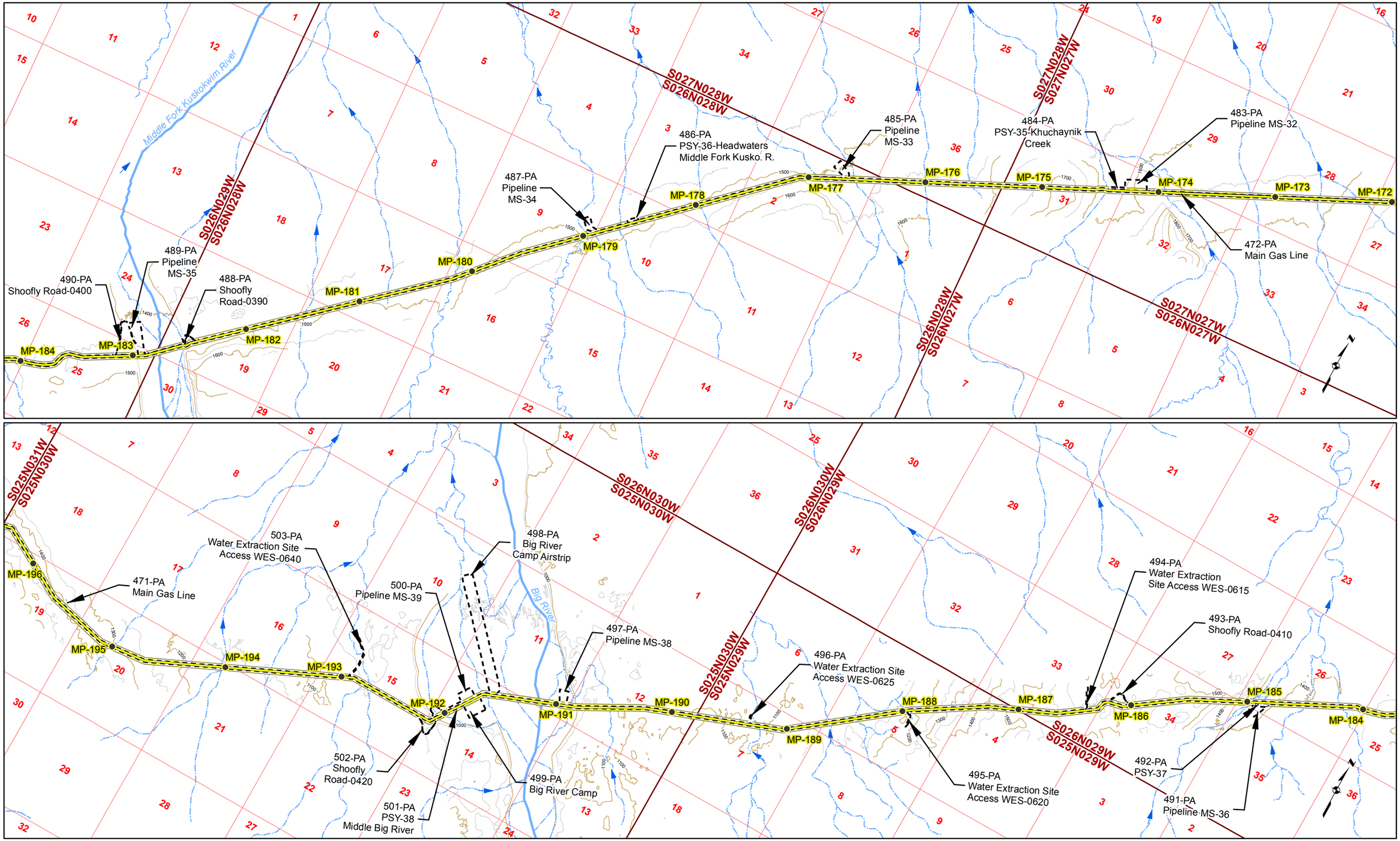
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-108A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

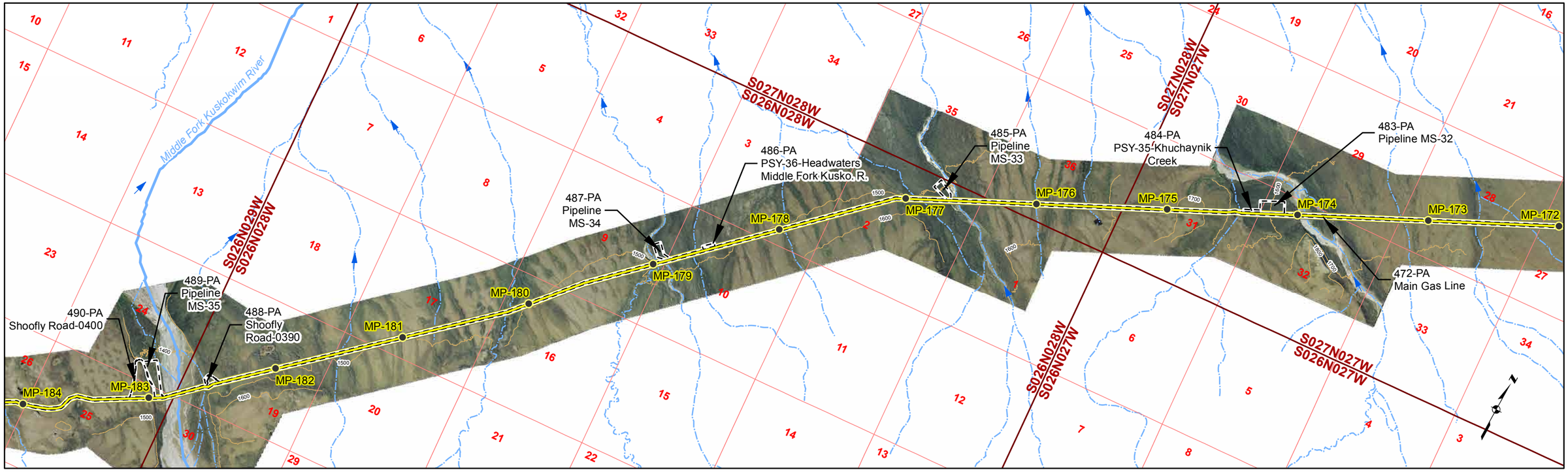
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

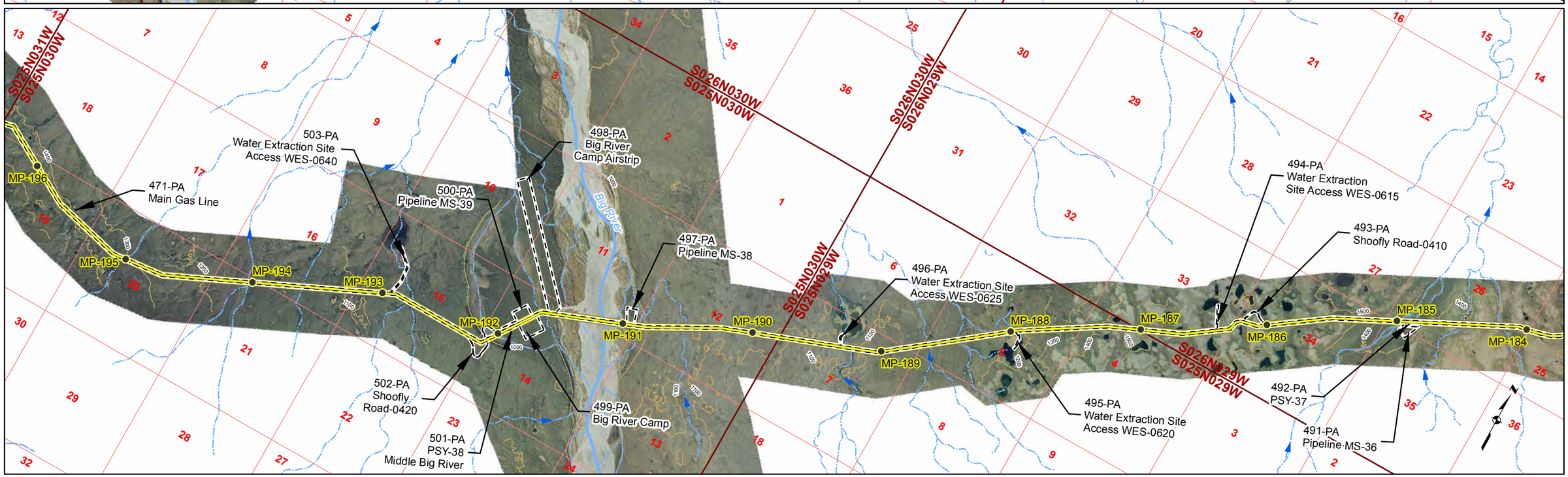
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-108B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

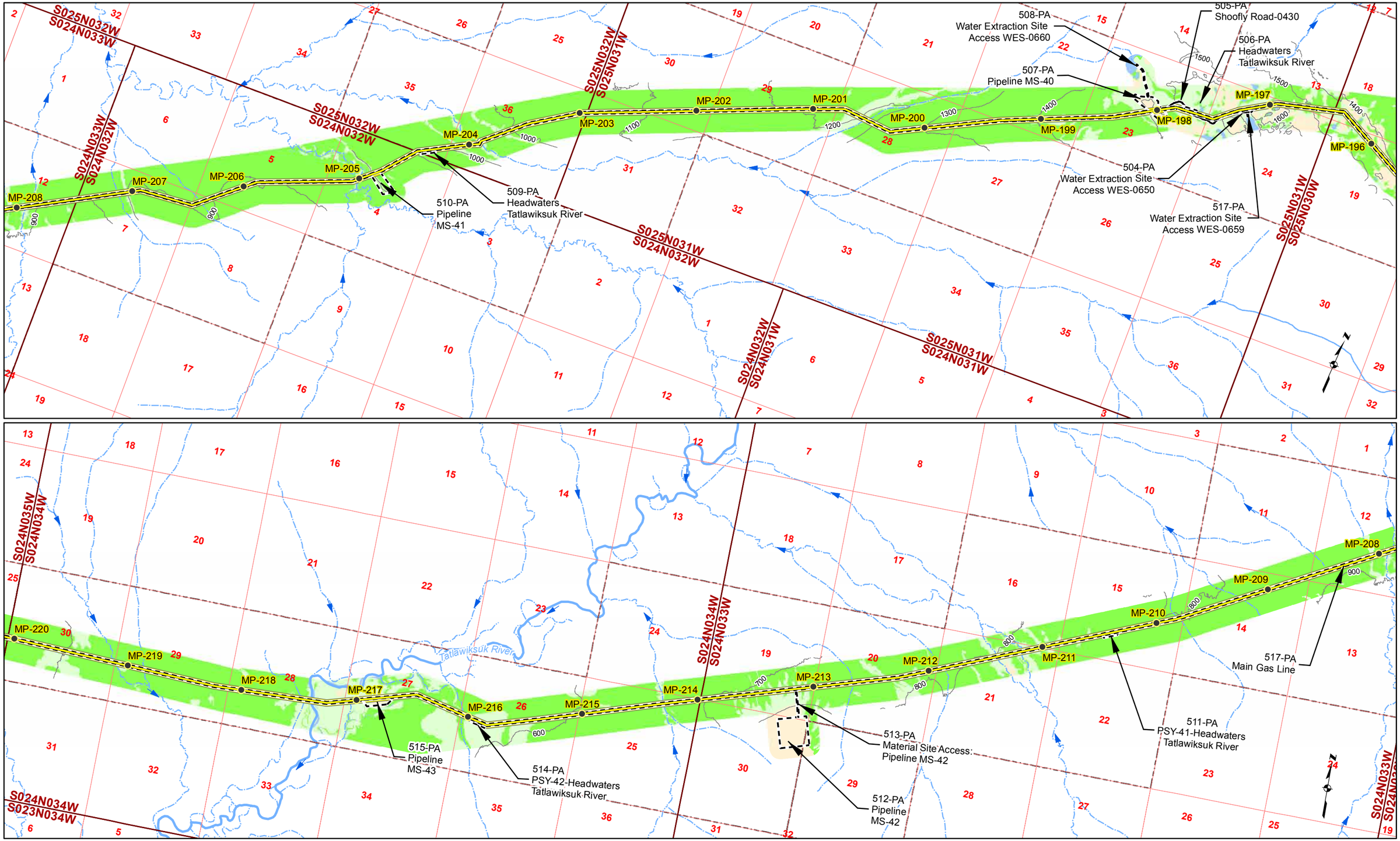
NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-108C**
FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

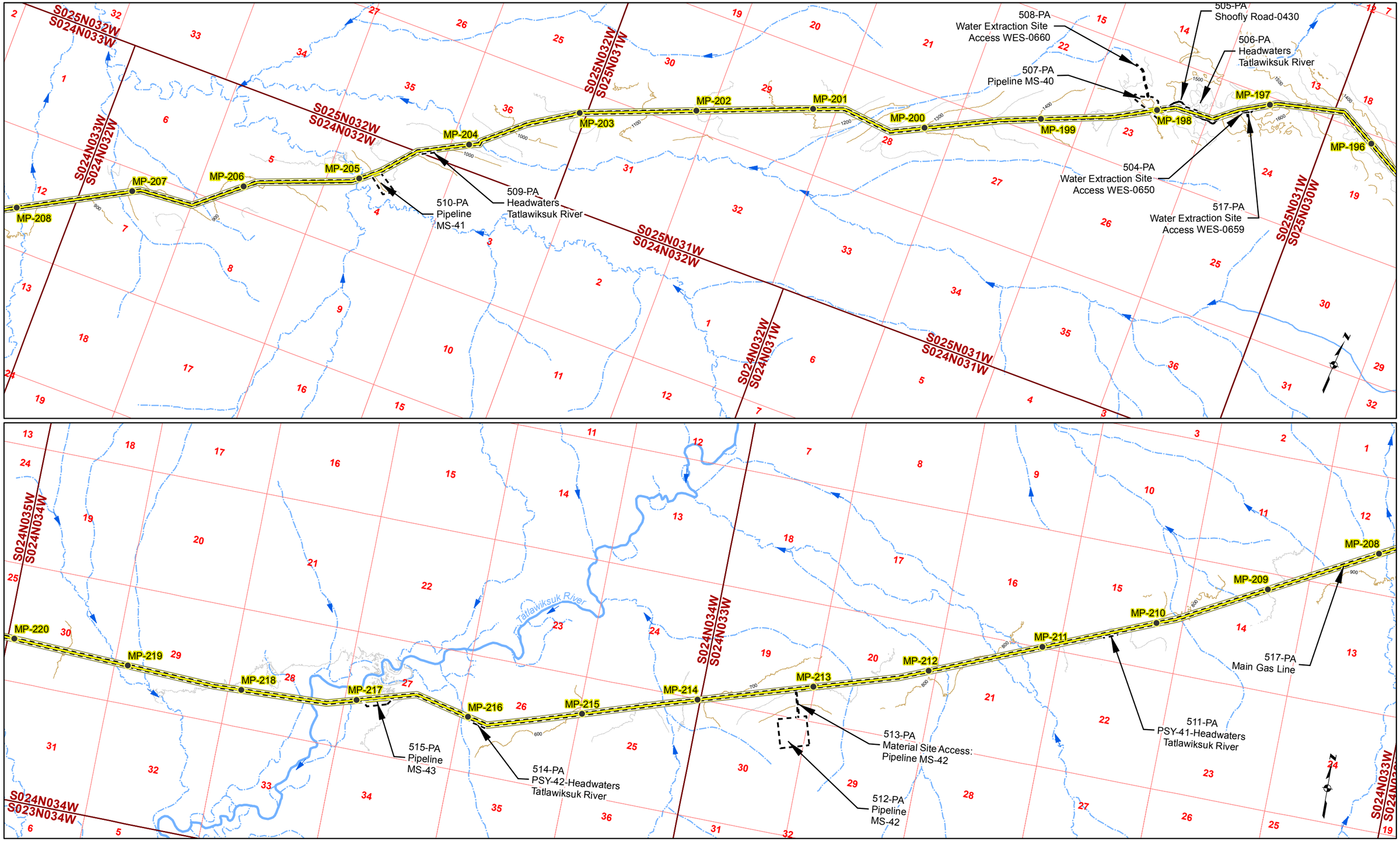
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-109A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

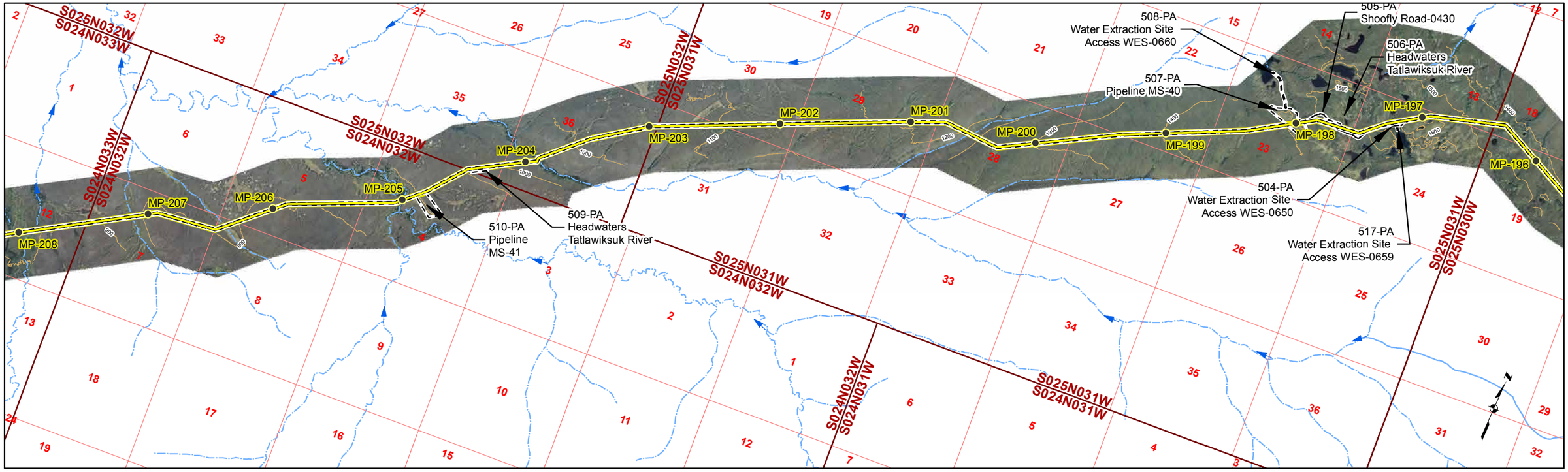
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

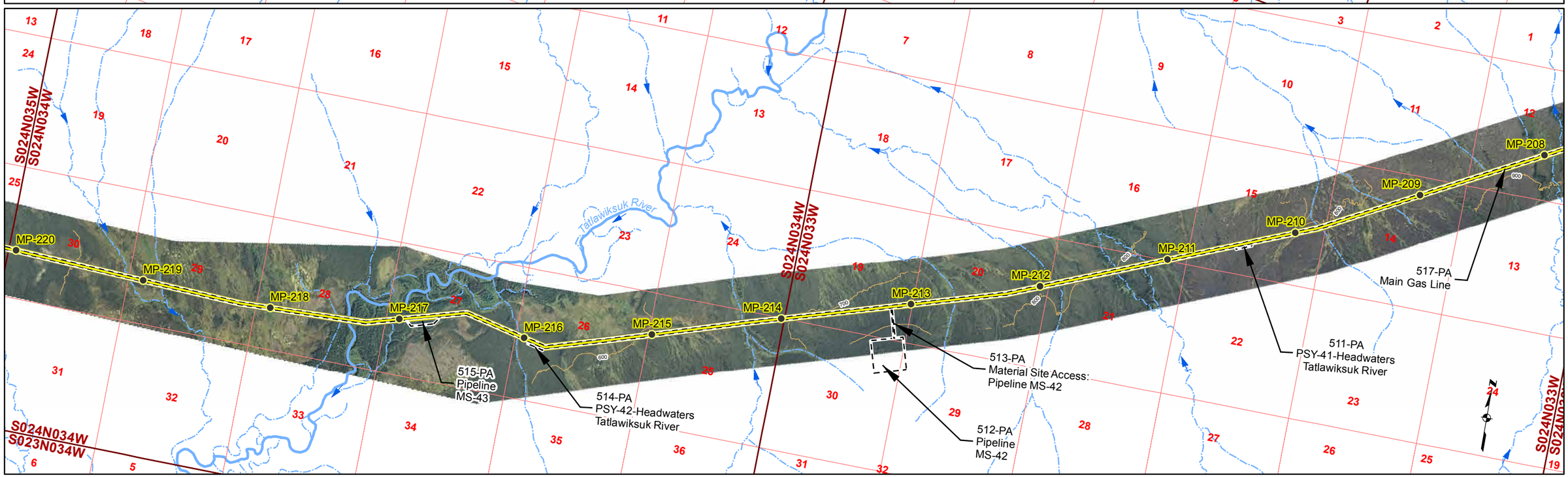
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-109B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet

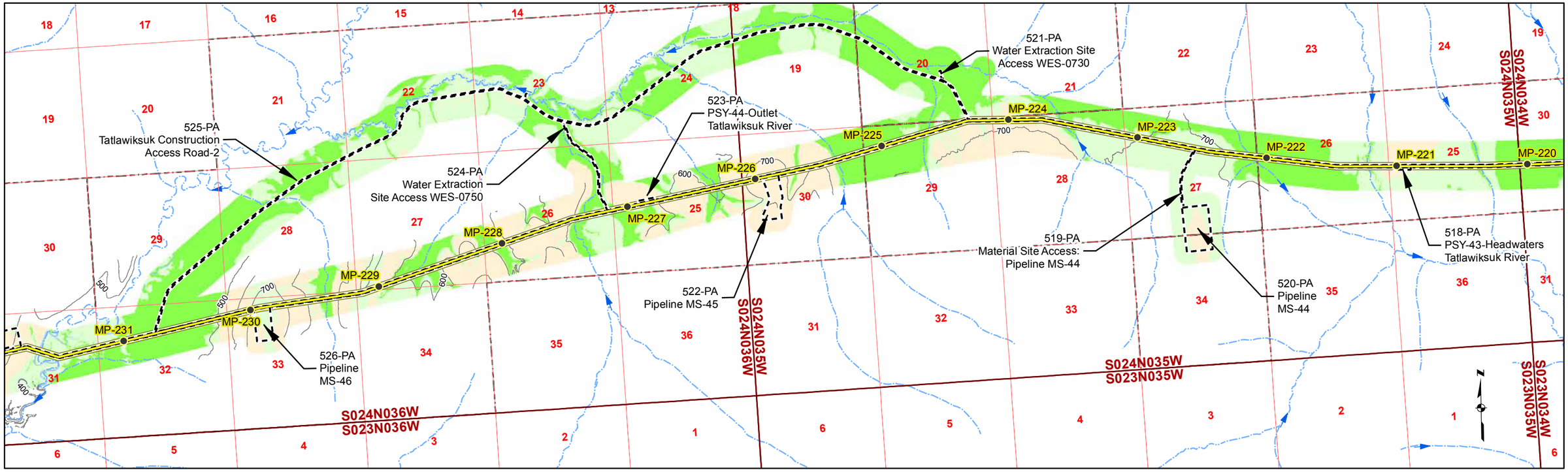
DATE: 10/20/2015

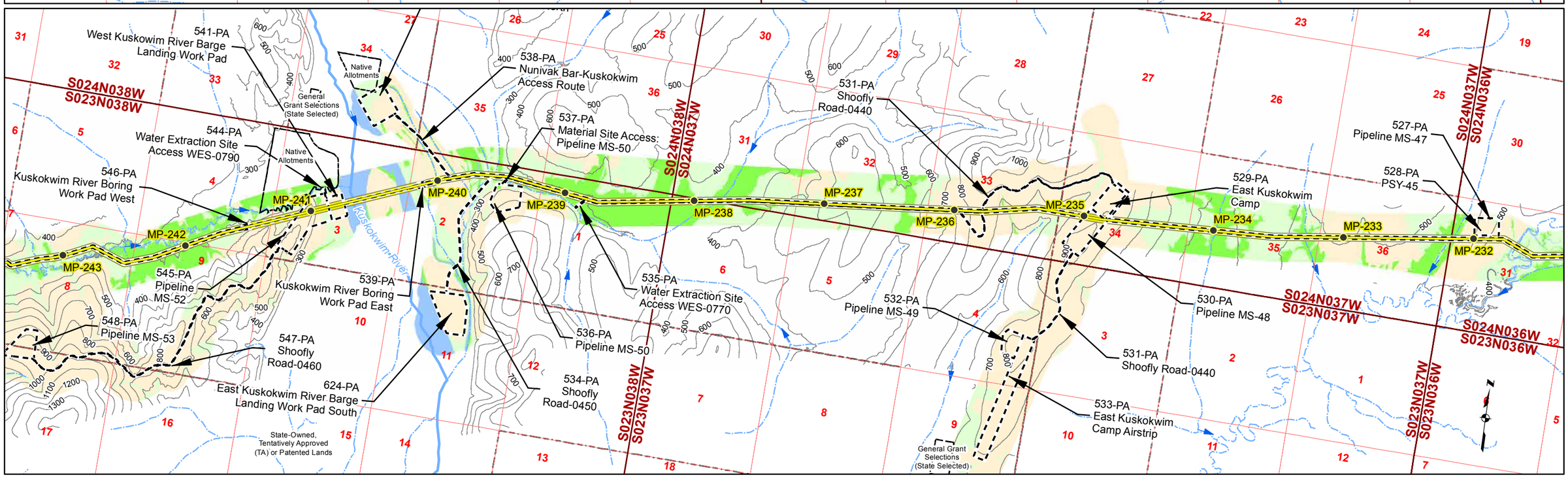
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-109C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

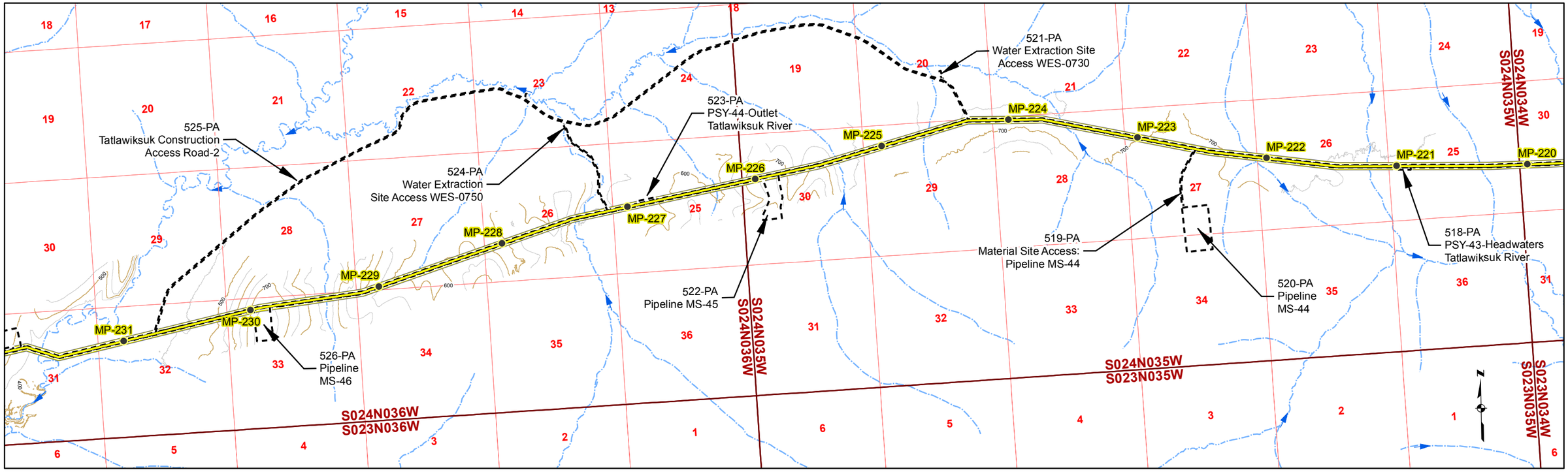
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

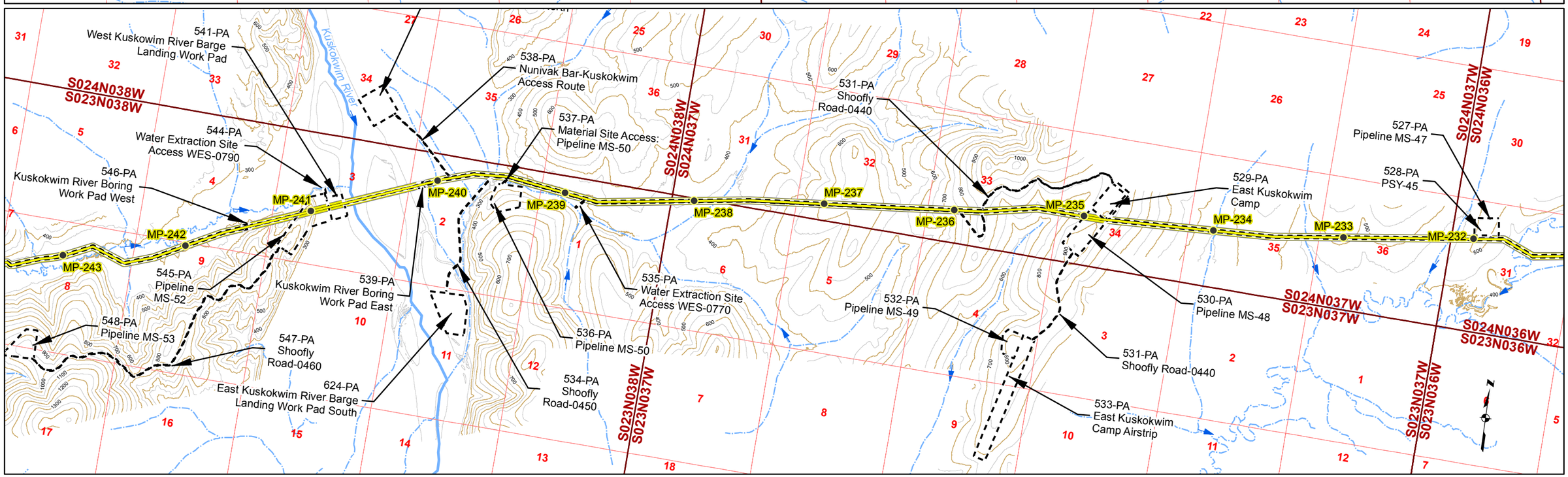
DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-110A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

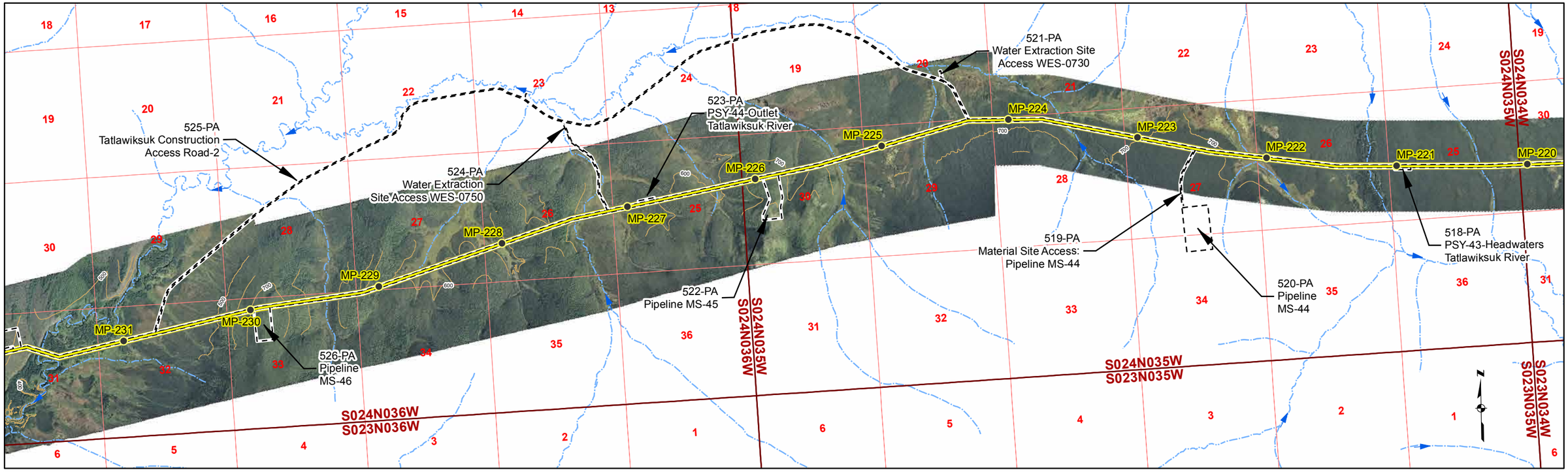
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

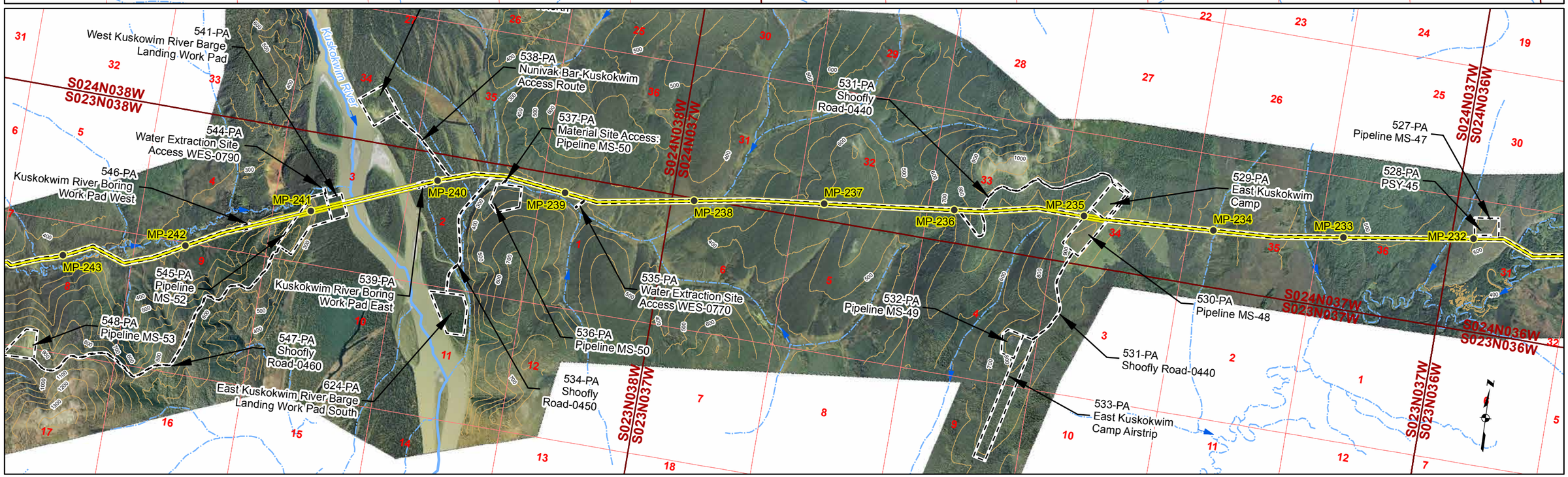
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-110B**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxB_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

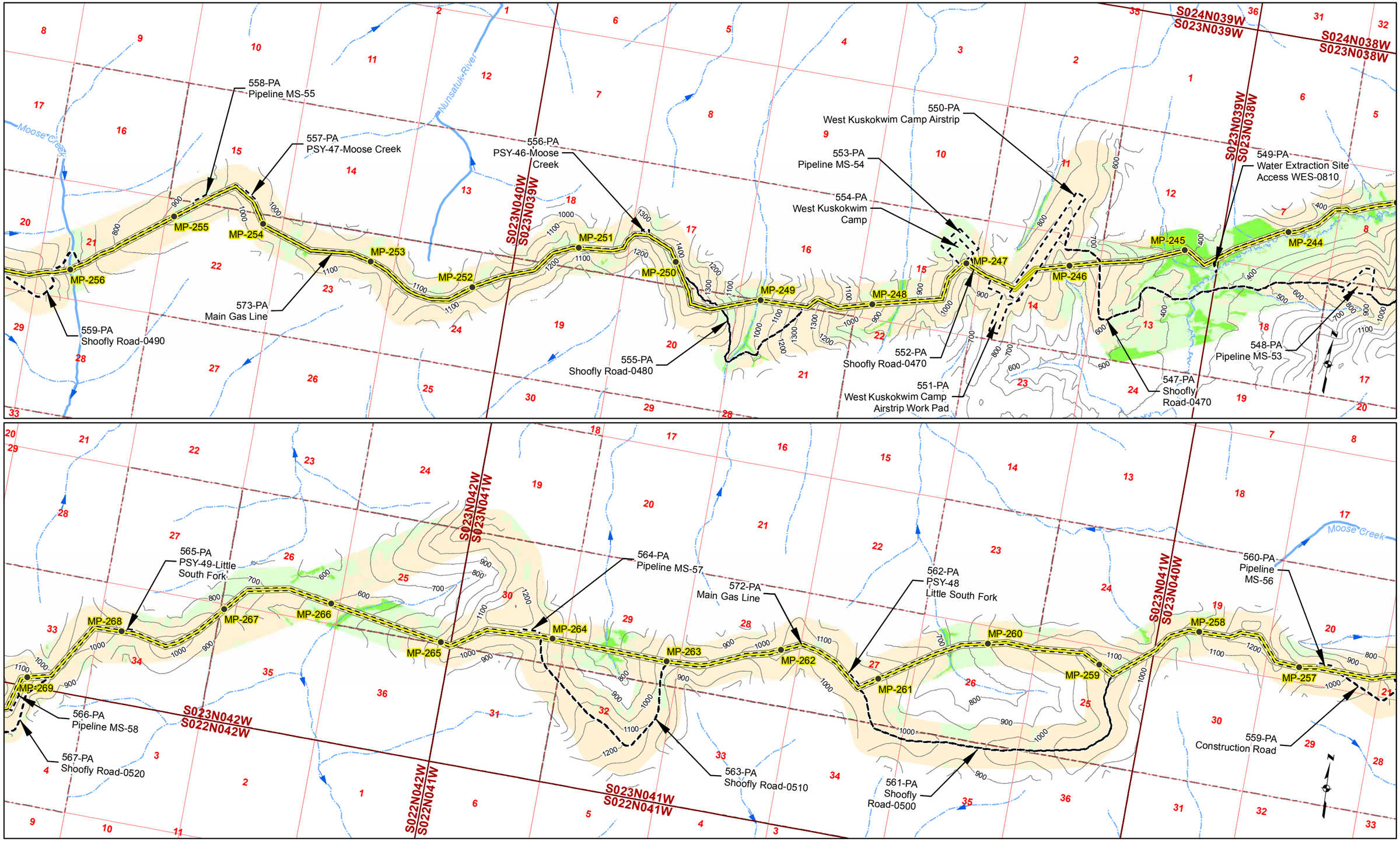
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-110C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

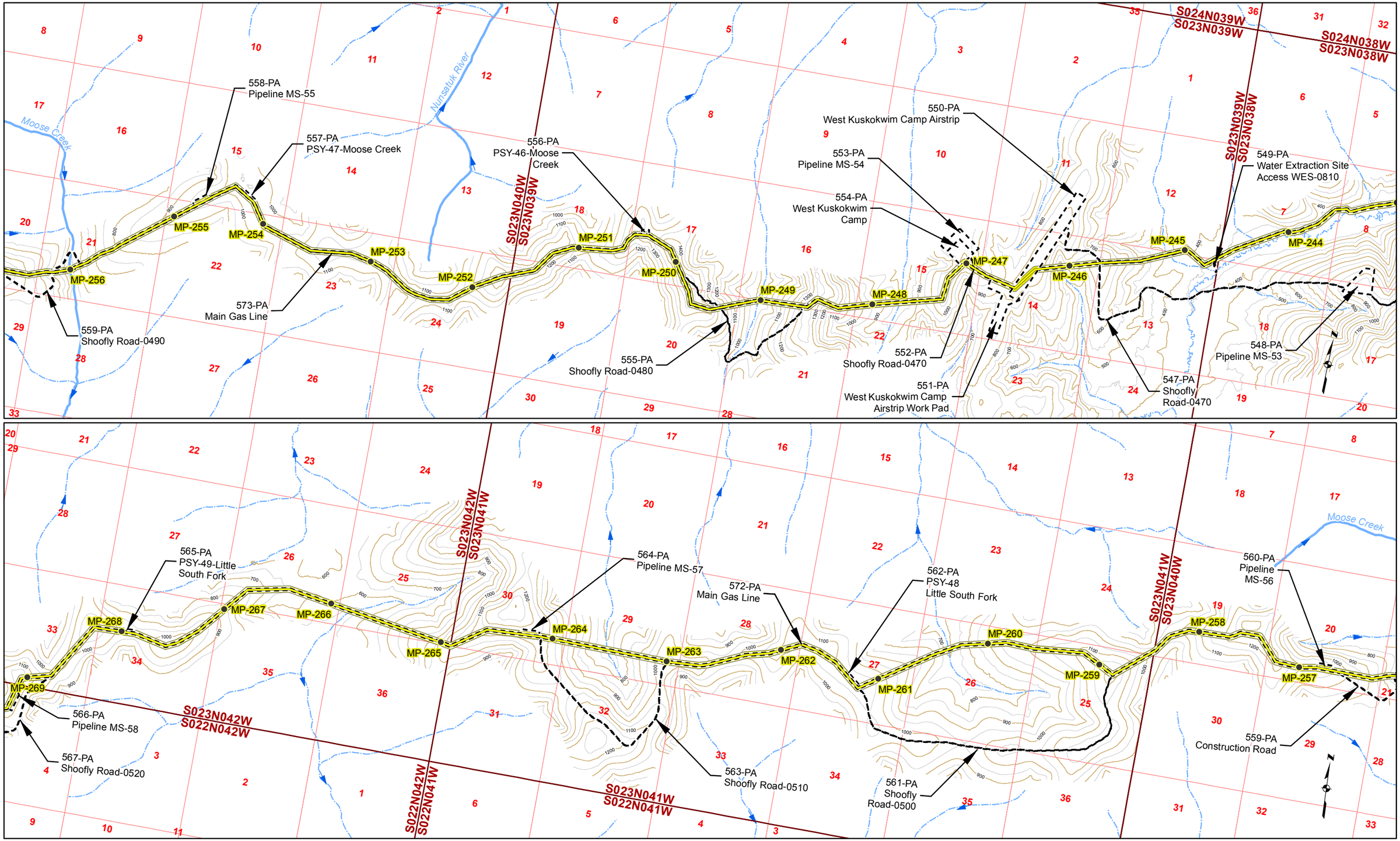
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-111A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-111B**

FILE NO. **POA-1995-120**

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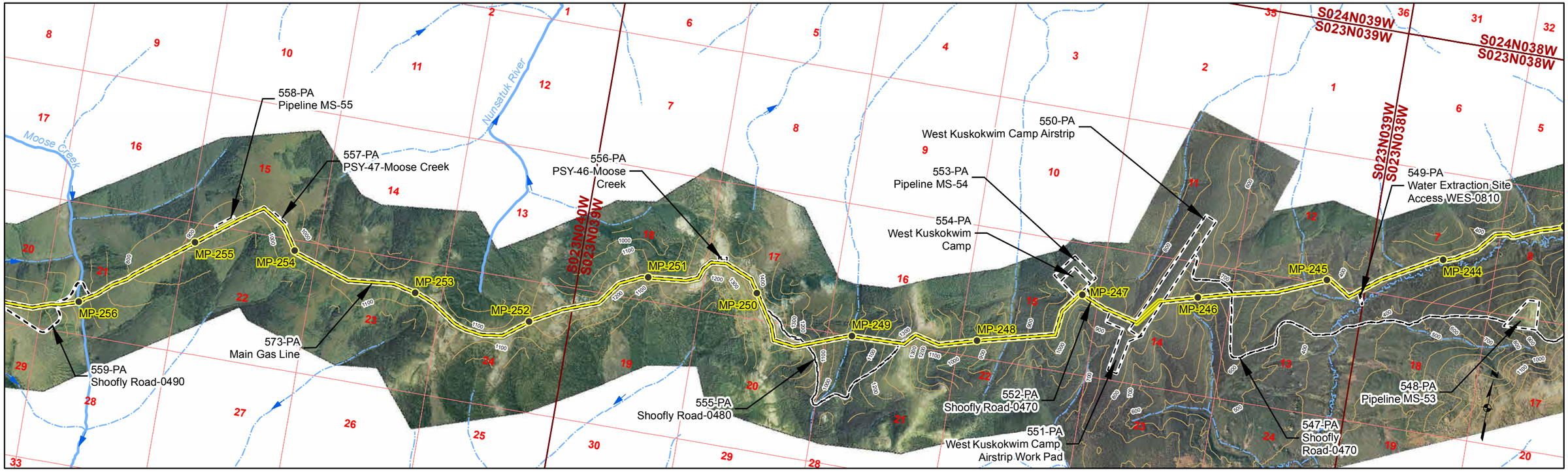
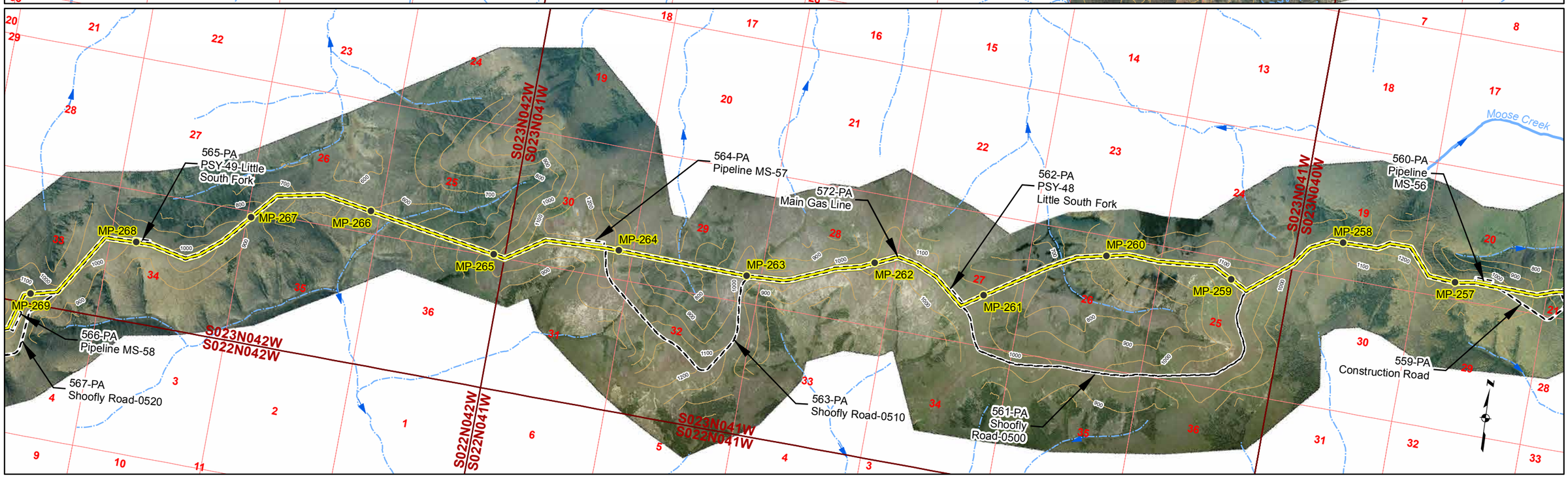




Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

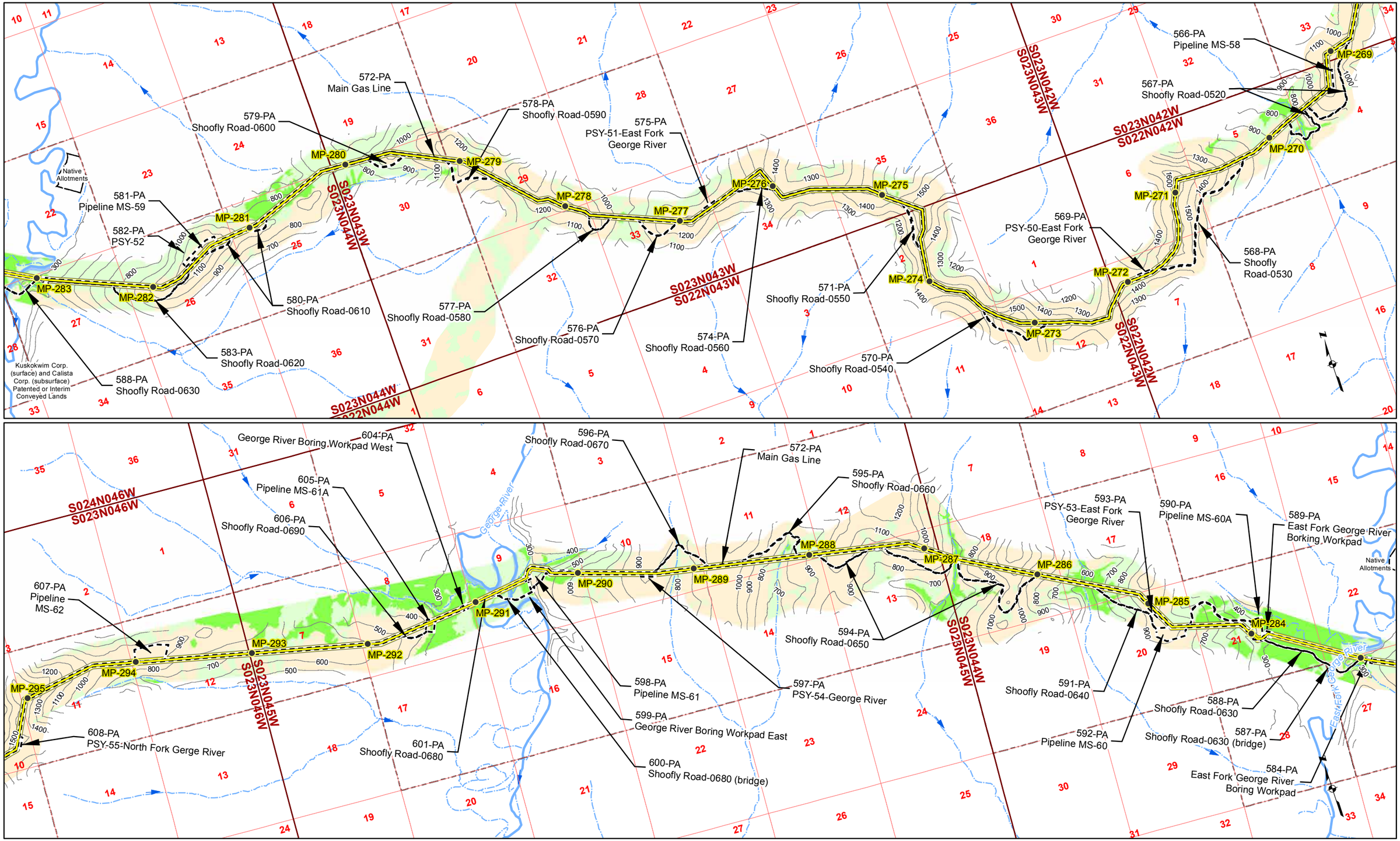
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-111C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
100' Contour
Pipeline Study Corridor
Parcel
Stream Flow Direction
River/Stream
Unnamed River/Stream
Mosaic
Upland
Waters
Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

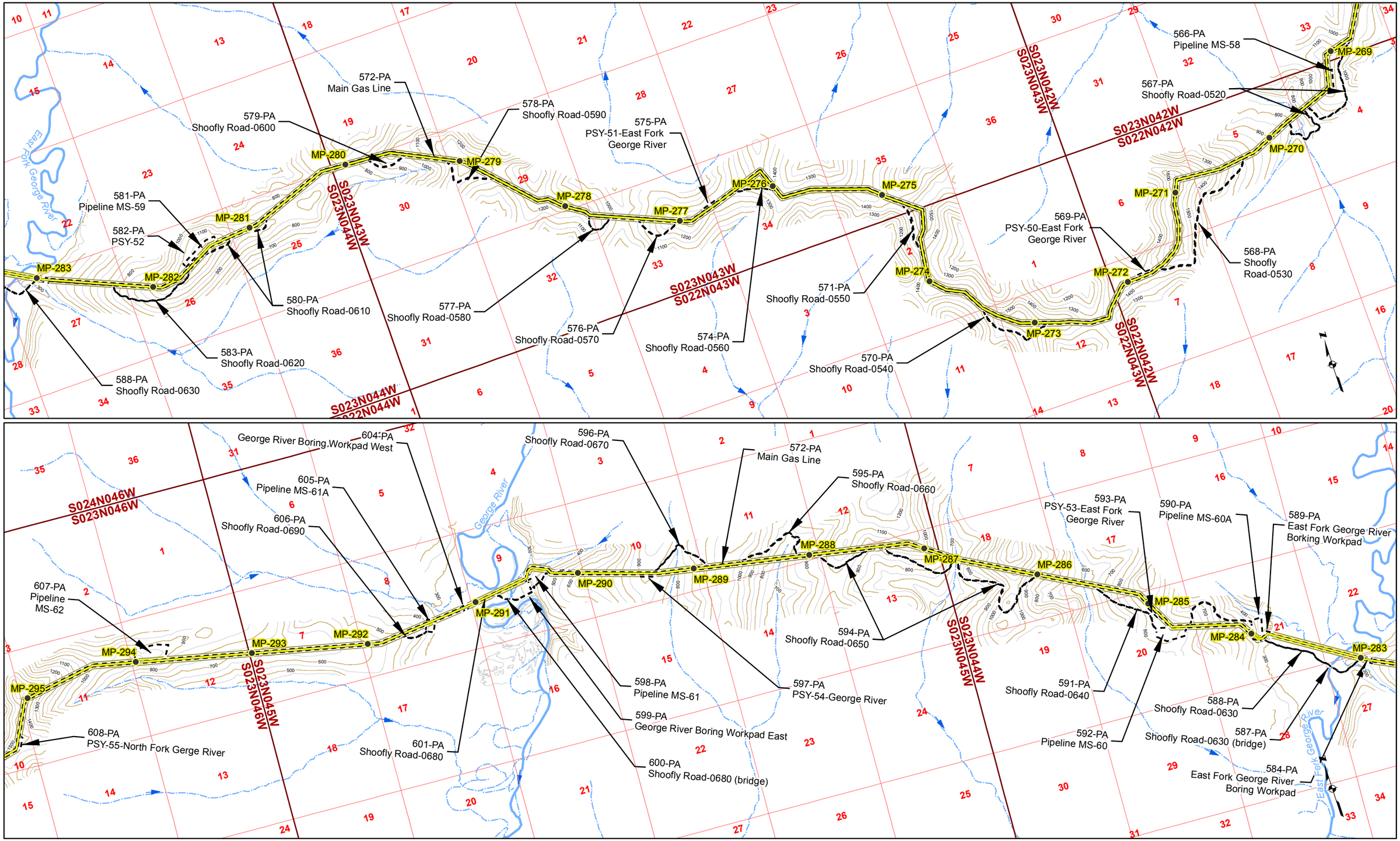
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-112A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd



Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-112B**

FILE NO. **POA-1995-120**

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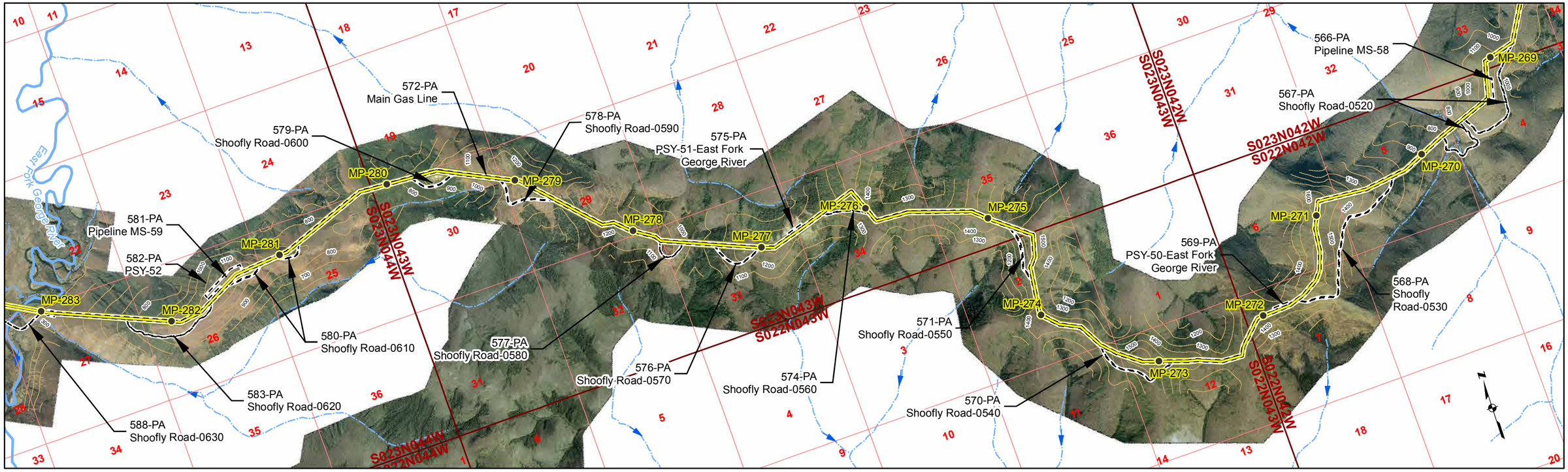
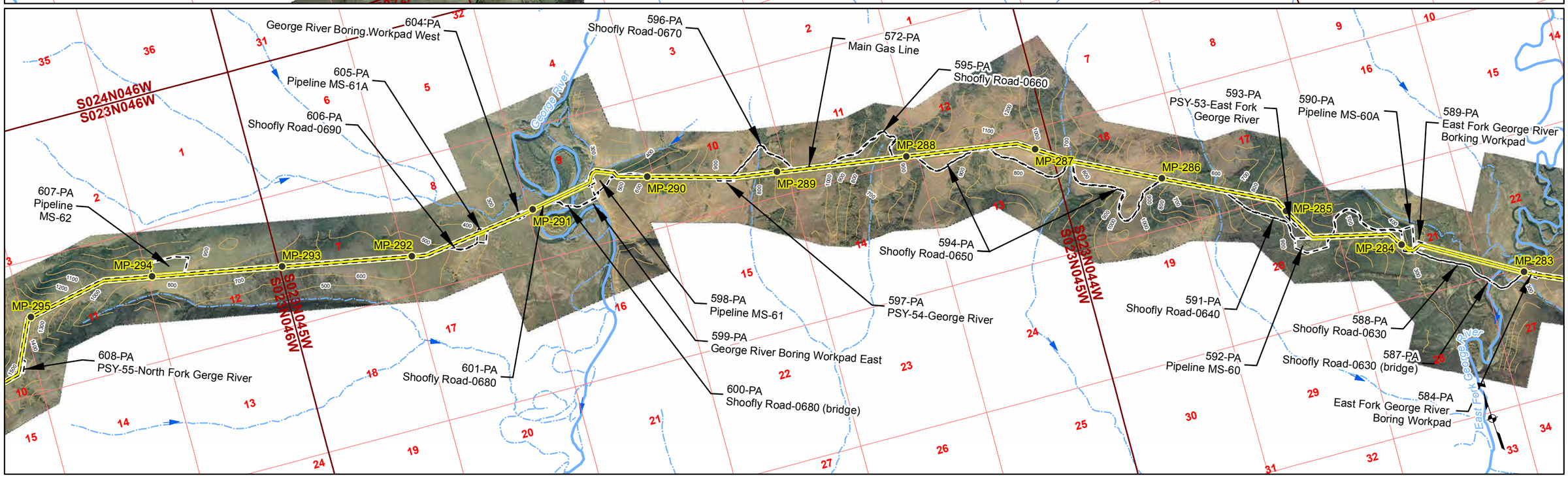




Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

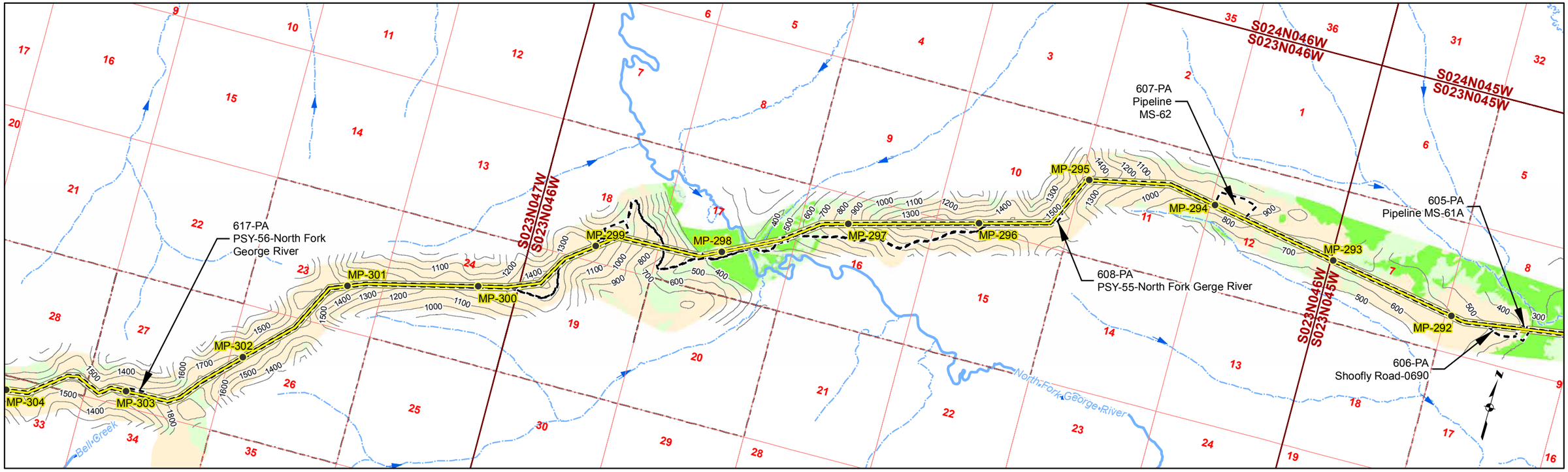
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

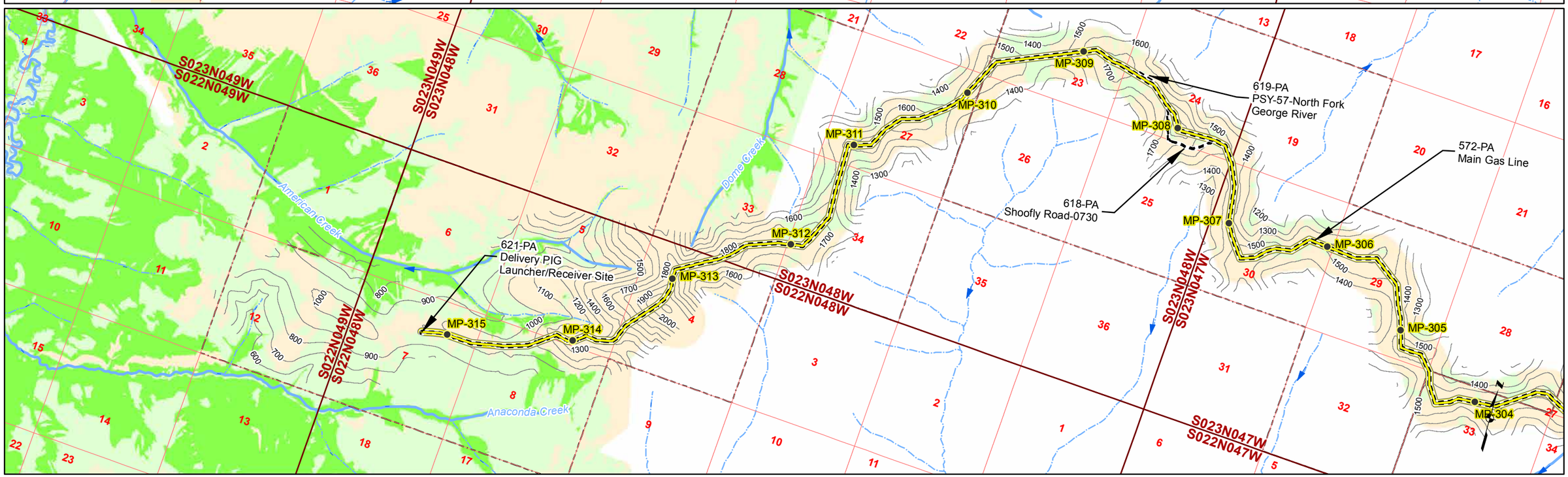
DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-112C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd





- Gas Pipeline Milepost
- Proposed Natural Gas Pipeline
- Project Disturbance Limit
- 100' Contour
- Pipeline Study Corridor
- Parcel
- Stream Flow Direction
- River/Stream
- Unnamed River/Stream
- Mosaic
- Upland
- Waters
- Wetlands

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet

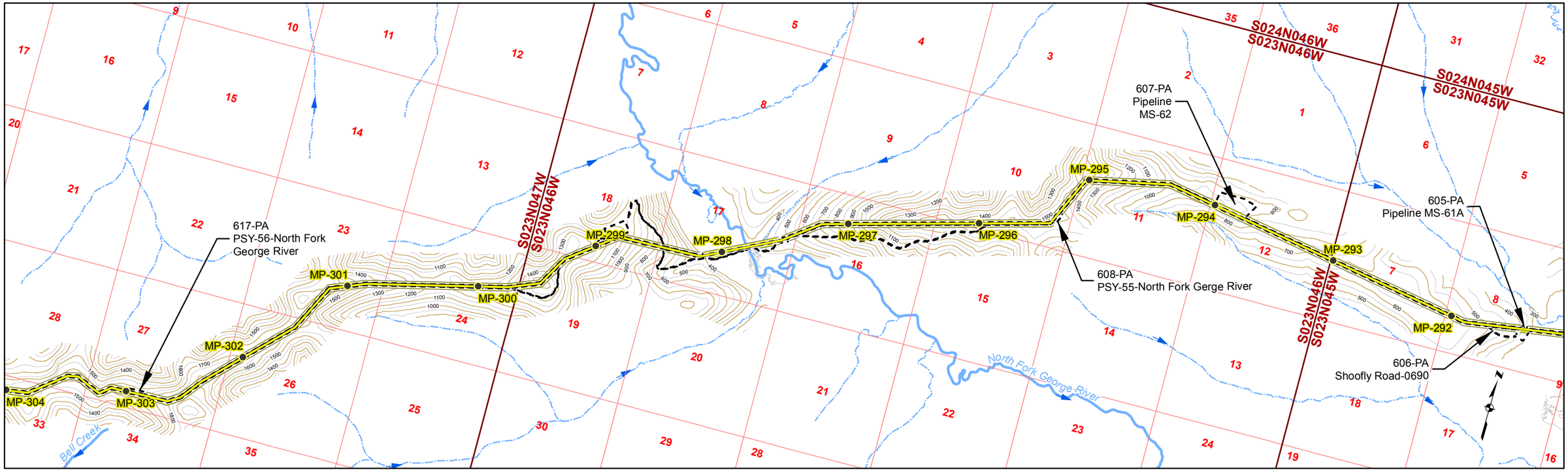
DATE: 10/20/2015

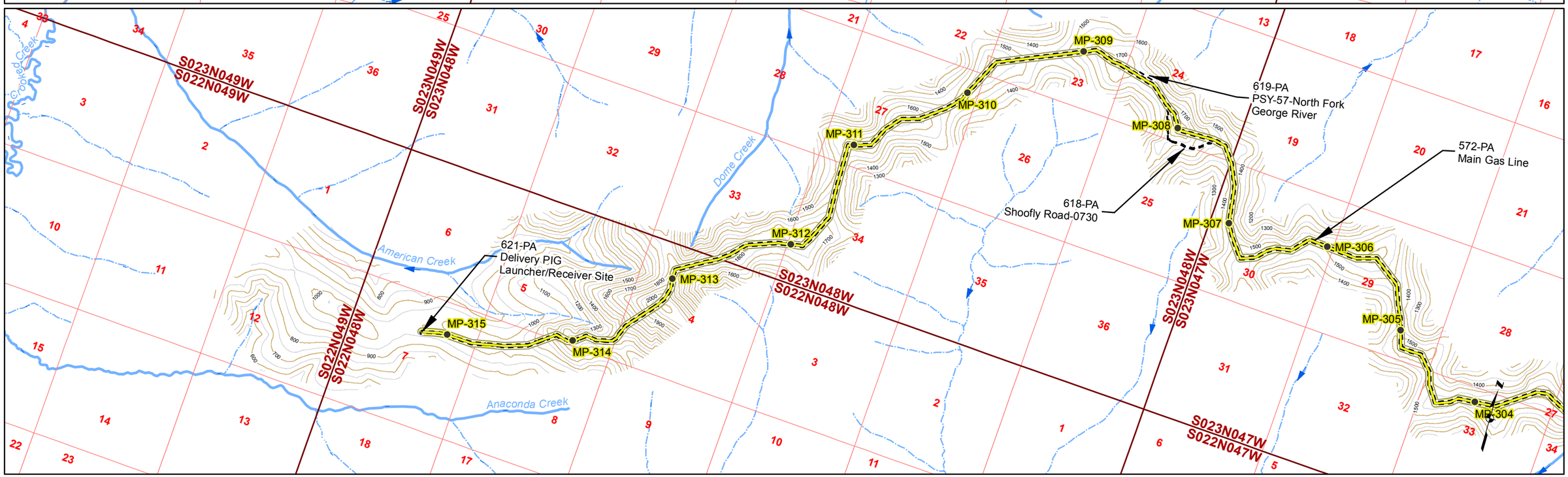
DRAWING TITLE: **PLAN VIEW PIPELINE AREA**

FIGURE NO. **PA-113A**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxA_Pipe_ABR_20150819.mxd





Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
50' Contour
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-113B**

FILE NO. **POA-1995-120**

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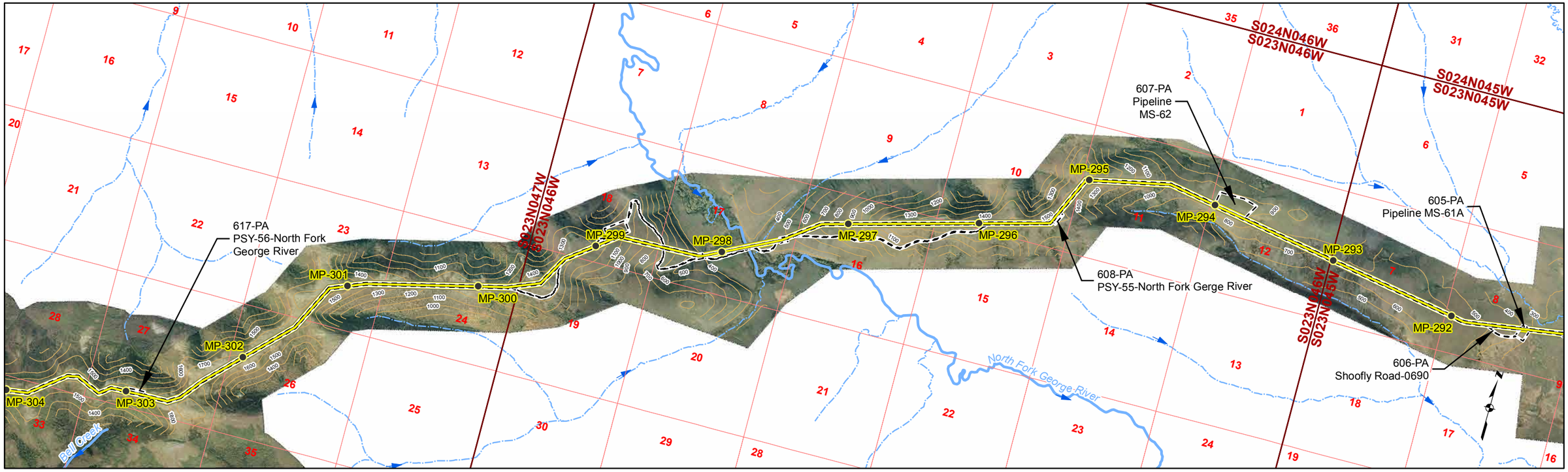
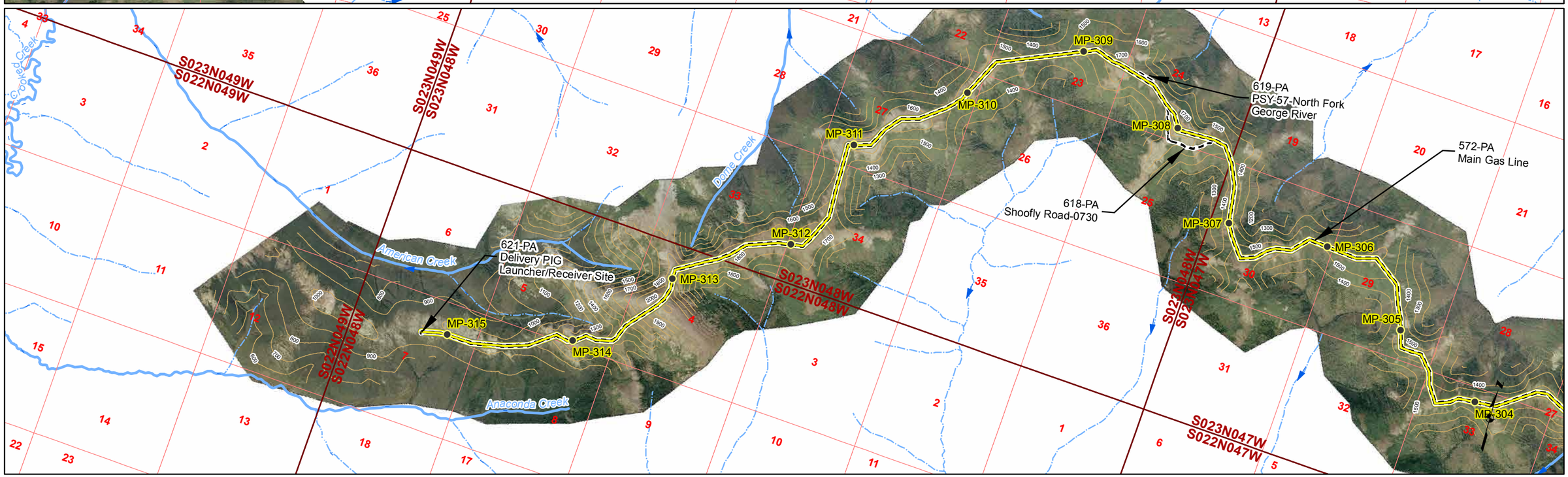




Gas Pipeline Milepost
Proposed Natural Gas Pipeline
Project Disturbance Limit
Pipeline Study Corridor
Stream Flow Direction
River/Stream
Unnamed River/Stream
100' Contour

Acronyms
MS-Material Site
PSY- Pipe Storage Yard

Associated Engineering Figures

0 2,000 4,000 Ft

DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4710 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

NAD 1983 UTM Zone 4N

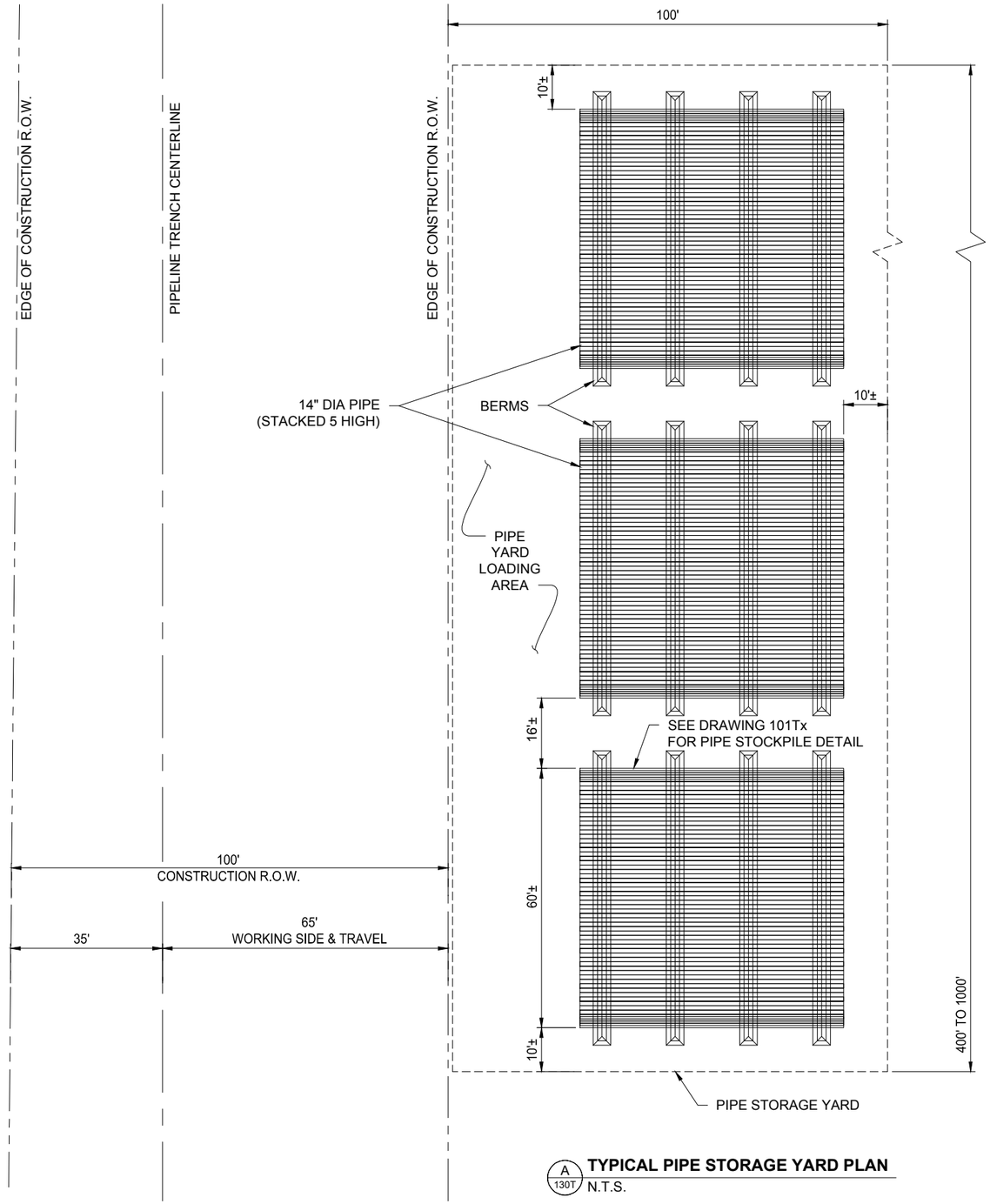
SCALE: 1 inch = 4,000 feet
DATE: 10/20/2015

DRAWING TITLE: **PLAN VIEW PIPELINE AREA ENGINEERING MAP**

FIGURE NO. **PA-113C**

FILE NO. **POA-1995-120**

PATH: D:\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_1xxC_Pipe_ABR_20150819.mxd



A 130T **TYPICAL PIPE STORAGE YARD PLAN**
N.T.S.

Associated Engineering Drawings
P04W-TYPT-01.DWG (BAKER) OCT 2013

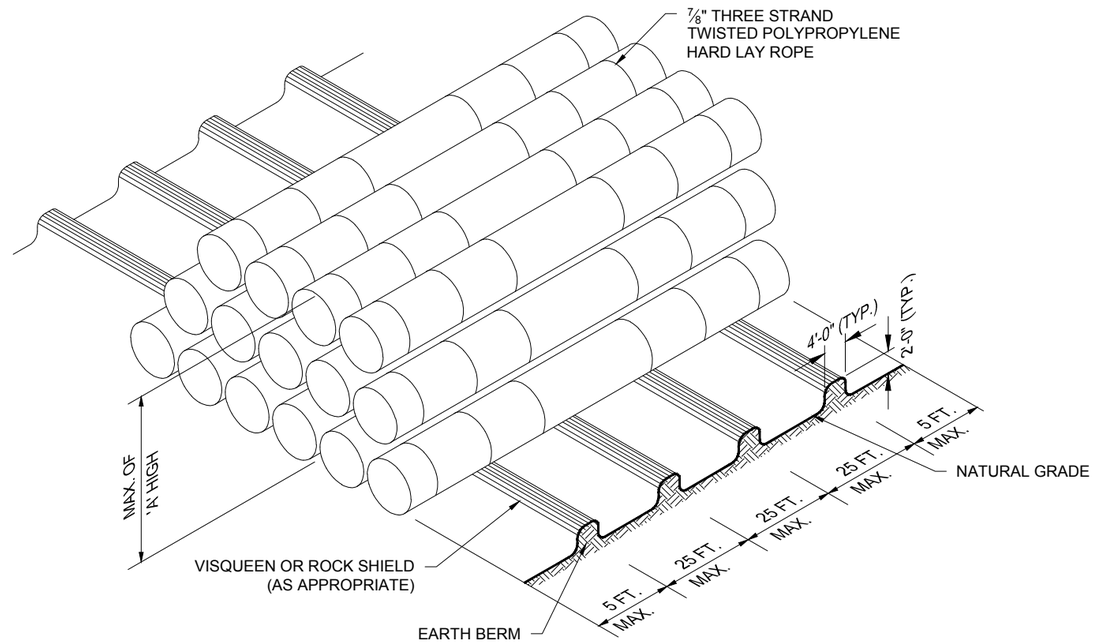
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN
DATE: 8/31/2015

DRAWING TITLE: **TYPICAL PIPE STORAGE YARD**

FIGURE NO. **PA-130T**
FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Pipe_Storage_Yard.dwg



ROPE INSTALLATION

1. ROPE SPACING SHOULD BE A MAXIMUM OF 6.0 FEET FROM THE PIPE ENDS.
2. THE INTERVALS BETWEEN RINGS SHOULD BE BETWEEN 10.0 FEET AND 20.0 FEET WITH A MINIMUM OF SIX LOOPS SPACED OVER A STANDARD TRIPLE RANDOM LENGTH (60 FEET).
3. THE INTERVALS MUST BE ADJUSTED TO INSURE THERE IS NO PIPE TO PIPE CONTACT. ROPE ENDS SHALL BE FUSED WITH A BLOW TORCH PRIOR TO SLIPPING THE LOOP OVER THE PIPE.

PIPE SIZE	'A' (NO. OF ROWS)
4"	10
6"	8
8"	6
10"	6
12"	5
16"	4

NOTES:

1. THE USE OF ALTERNATE METHODS FOR STOCKPILING PIPE AND/OR THE USE OF ALTERNATE MATERIALS FOR PREVENTING PIPE TO PIPE CONTACT SHALL REQUIRE WRITTEN APPROVAL OF THE COMPANY.
2. PIPE SHALL BE STOCKPILED AND SECURED (AS NECESSARY) TO PRECLUDE MOVEMENT OF PIPE.
3. ALL MATERIALS SHALL BE FURNISHED BY THE CONTRACTOR.

A 131T **TYPICAL TEMPORARY PIPE STOCK PILES**
N.T.S.

Associated Engineering Drawings
P04W-TYPT-02.DWG (BAKER) OCT 2013

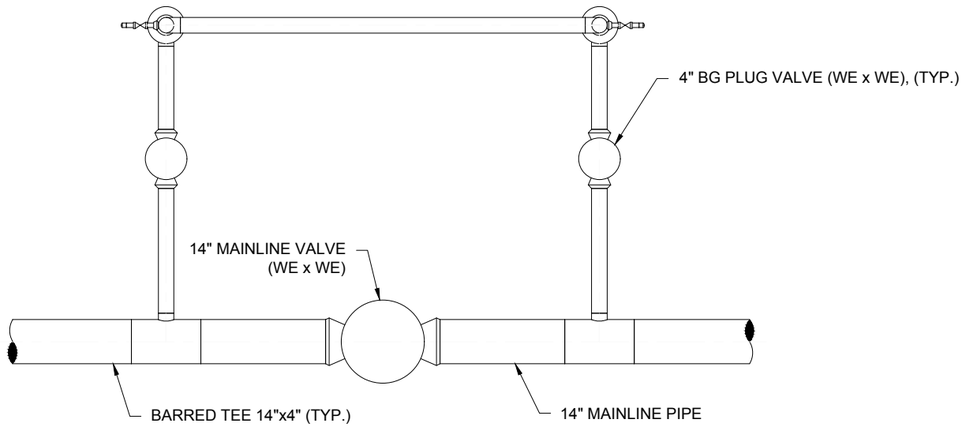
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

DRAWING TITLE: **TYPICAL PIPE STOCK PILE**

SCALE: AS SHOWN DATE: 8/31/2015

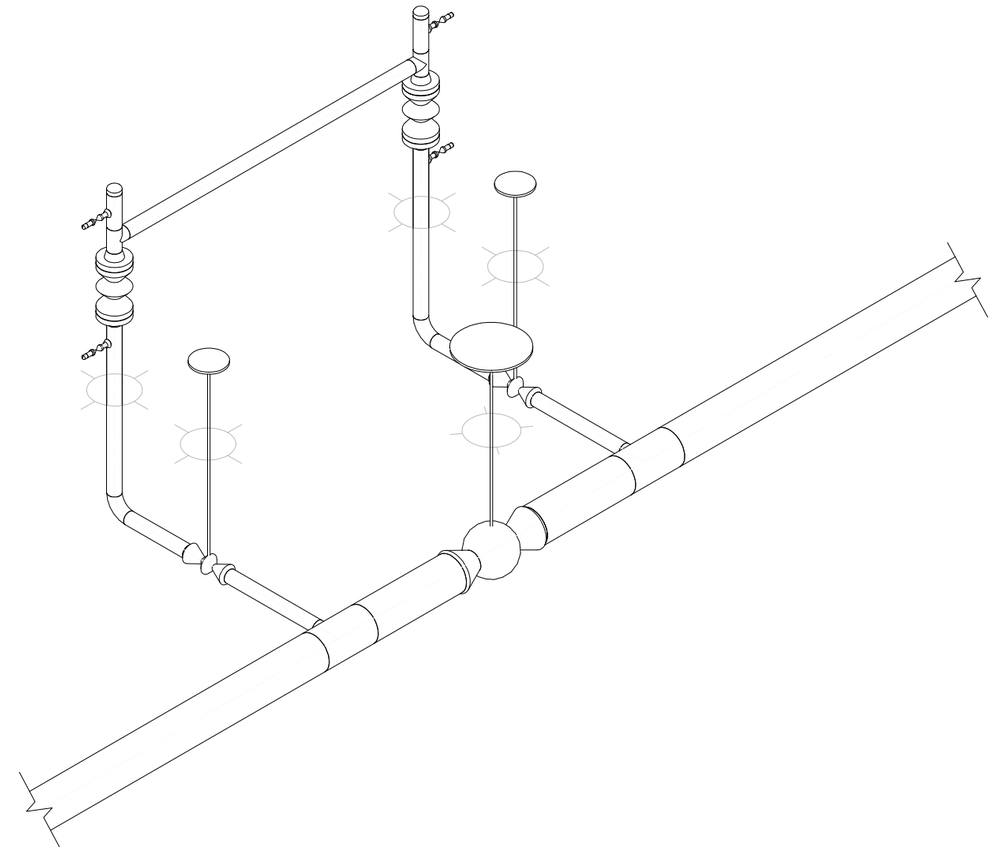
FIGURE NO. **PA-131T** FILE NO. **POA-1995-120**

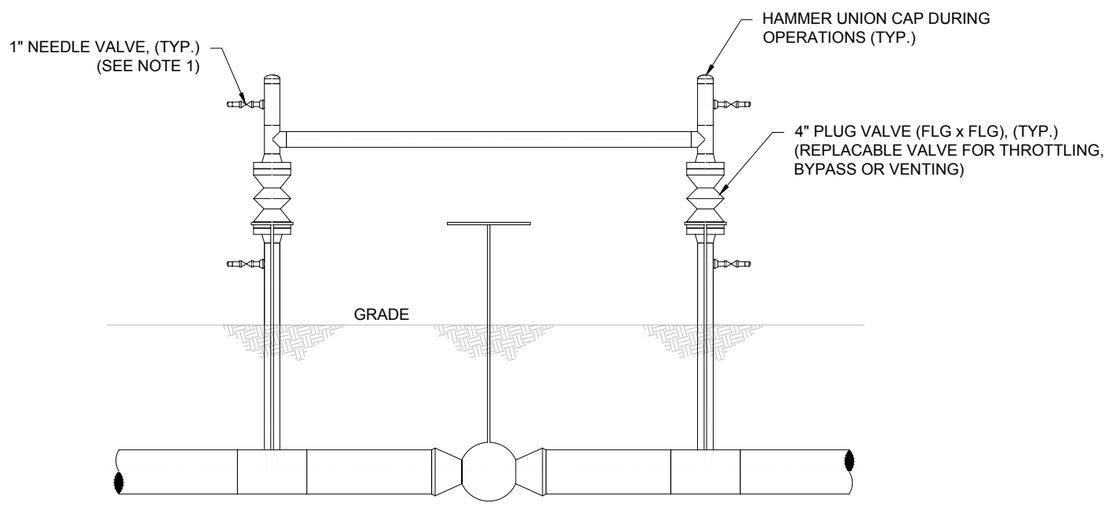
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Pipe_Stock_Pile.dwg



(HANDWHEELS NOT SHOWN FOR CLARITY)

A 132T **MAINLINE BLOCK VALVE ASSEMBLY - PLAN**
SCALE 1/4" = 1'-0"

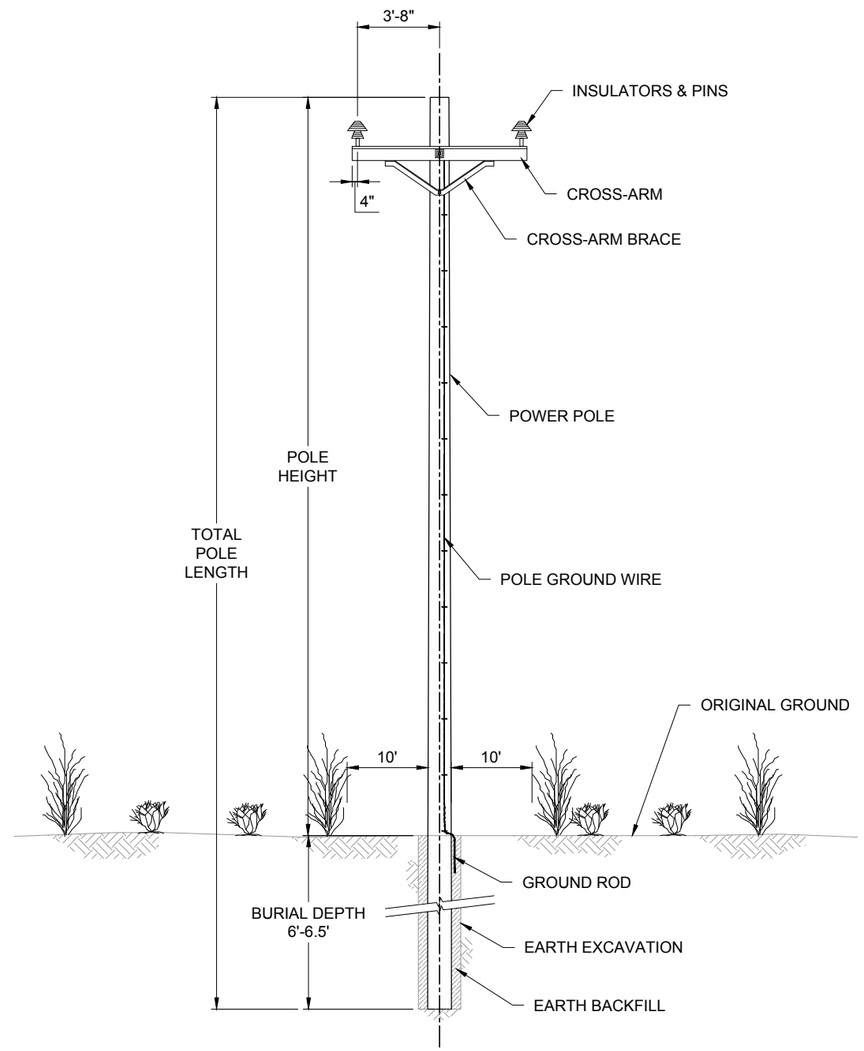




B 132T **MAINLINE BLOCK VALVE ASSEMBLY - ELEVATION**
SCALE 1/4" = 1'-0"

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **MAINLINE BLOCK VALVE ASSEMBLY**	
P01M-DTVA-02.DWG (BAKER) OCT 2013	SCALE: AS SHOWN DATE: 8/31/2015	FIGURE NO. **PA-132T**	FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Mainline_Block_Valve_Assembly.dwg



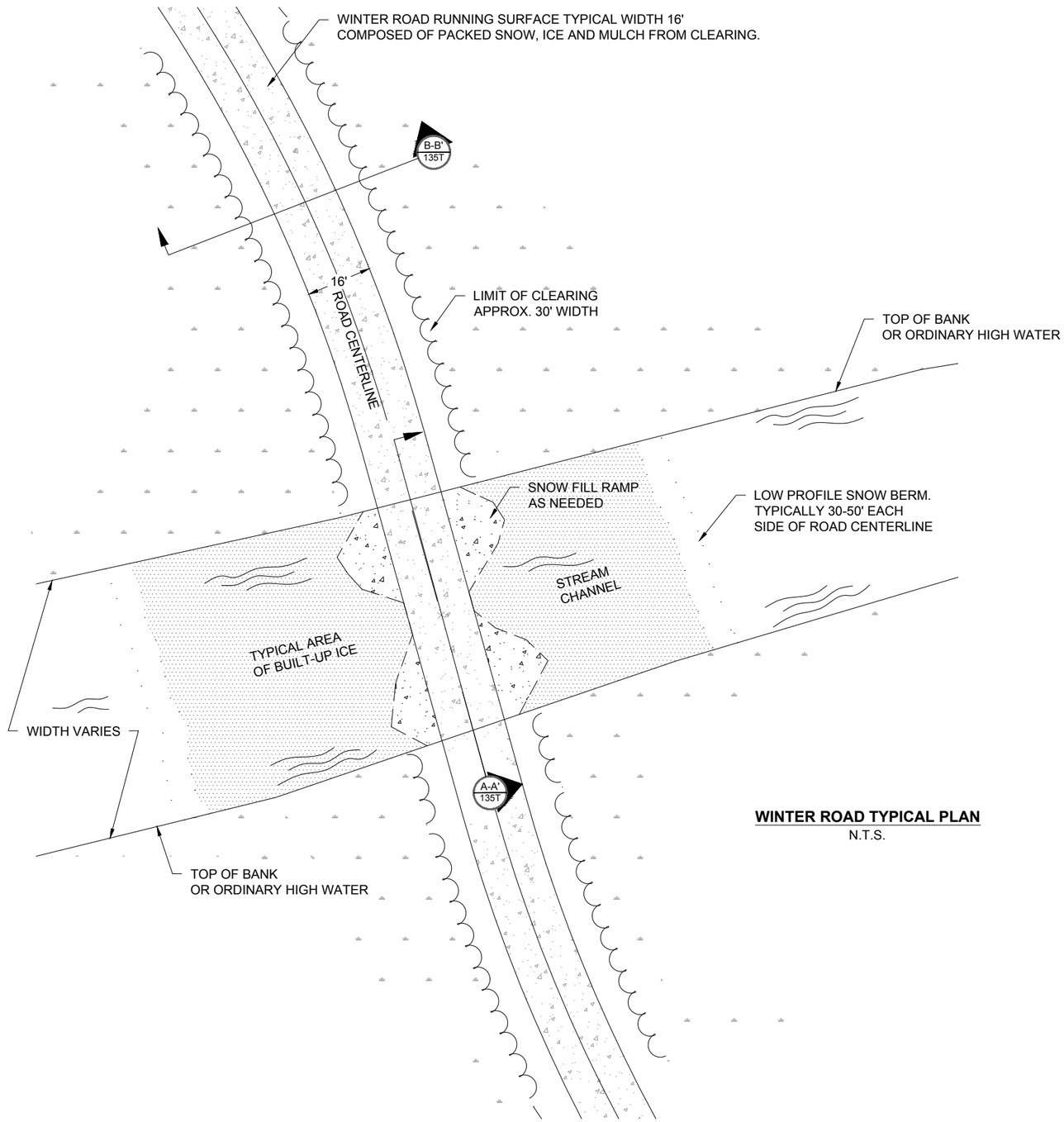
NOTES:

1. CLEARING LIMITS TO BE MIN. 10' EACH SIDE OF POWER POLE.
2. MULCH AND ORGANIC DEBRIS FROM CLEARING TO REMAIN ON GROUND SURFACE.
3. SOIL NOT TO BE DISTURBED EXCEPT AT SPECIFIC LOCATIONS AS PERMITTED.
4. DIMENSIONS ARE APPROXIMATE.

A / 133T **POWERPOLE SECTION**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P09E-DT-EE_01.dwg (BAKER) SEP 2014	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**POWERLINE TYPICAL POLE CLEARING LIMITS DETAIL**
	SCALE: AS SHOWN DATE: 10/23/2015	FIGURE NO. **PA-133T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Transmission_Line.dwg



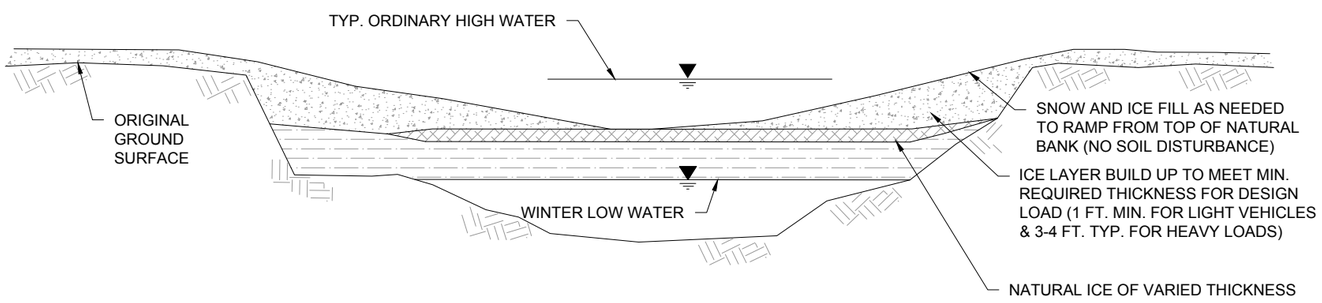
WINTER ROAD TYPICAL PLAN
N.T.S.

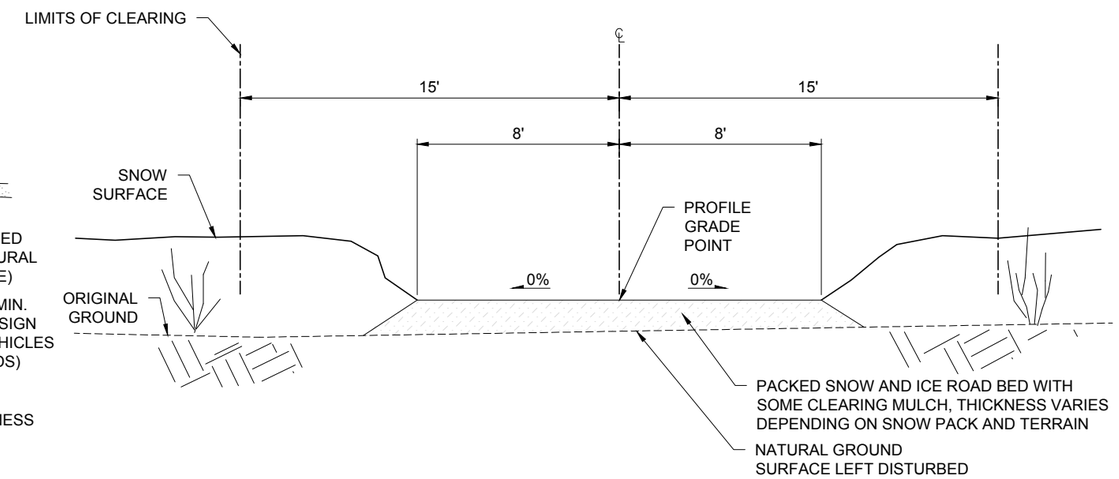
NOTES:

1. REFER TO CROSS SECTION DETAILS (A) & (B).
2. ICE SURFACE TO BE CLEARED OF SNOW 30-50' EACH SIDE OF ROAD CENTERLINE TO AUGMENT ICE THICKENING.
3. CLEAN SNOW FOR FILL MAY BE ACCUMULATED FROM NATURAL OPEN AREAS NEAR CROSSING SITE AND ICE SURFACE.
4. TO THE EXTENT POSSIBLE, CROSSING TO BE ORIENTED PERPENDICULAR TO ACTIVE CHANNEL.
5. WATER FOR BUILDING ICE TO BE TAKEN FROM STREAM AT CROSSING LOCATION.
6. SNOW BERMS TO BE SHAPED FOR PASSAGE OF SNOWMACHINES AND SIGNAGE PLACED WARNING OF CROSSING.
7. SNOW BERMS TO DEFINE CROSSING SITE AND AID IN CONTAINING WATER DURING FLOODING TO BUILD ICE.
8. CROSSINGS SHALL BE DEVELOPED IN ACCORDANCE WITH STATE OF ALASKA FOREST RESOURCES AND PRACTICES REGULATIONS AS THEY ADDRESS WINTER ROADS/TRAILS AND STREAM CROSSINGS.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: WINTER ROAD TYPICAL DETAIL	
P07C-TYSCW-01.dwg (BAKER) OCT 2013	SCALE: AS SHOWN DATE: 9/9/2015	FIGURE NO. PA-134T	FILE NO. POA-1995-120

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Winter_Roads.dwg





A-A' 134T WINTER ROAD TYPICAL STREAM CROSSING SECTION A-A'

N.T.S.

NOTES:

BEFORE DEVELOPMENT, ALL CROSSING LOCATIONS SHALL BE TESTED FOR ICE THICKNESS, WATER DEPTH AND EXTENT OF GROUNDED ICE. CLEAN SNOW FOR RAMP CONSTRUCTION MAY BE GATHERED FROM OPEN AREAS ADJACENT TO THE CROSSING SITE AND TRAIL. CROSSINGS SHALL BE DEVELOPED IN ACCORDANCE WITH STATE OF ALASKA FOREST RESOURCES AND PRACTICES REGULATIONS AS THEY ADDRESS WINTER ROADS/TRAILS AND STREAM CROSSINGS. ALL CROSSINGS SHALL BE ASSESSED BY A QUALIFIED ENGINEER AND APPROVED FOR USE.

A-A' 134T WINTER ROAD TYPICAL SECTION B-B'

N.T.S.

NOTES:

1. CLEARING LIMITS TO BE MIN. 15' EACH SIDE OF CENTERLINE OR MAX. 30' TOTAL WIDTH.
2. MULCH AND ORGANIC DEBRIS FROM CLEARING TO REMAIN ON GROUND SURFACE.
3. DEPTH OF PACKED SNOW AND ICE FOR RUNNING SURFACE WILL VARY.
4. SOIL NOT TO BE DISTURBED EXCEPT AT SPECIFIC LOCATIONS AS PERMITTED.
5. ADD TURNOUT LANE AT LOCATIONS DETERMINED BY ENGINEER. SURFACE WIDTH INCREASED TO 28' FOR TURNOUT. (APPROX. ONE PER 1/4 MILE).

Associated Engineering Drawings

P07C-TYSCW-02.dwg (BAKER) OCT 2013; P07C-TYSCW-03.dwg (BAKER) OCT 2013

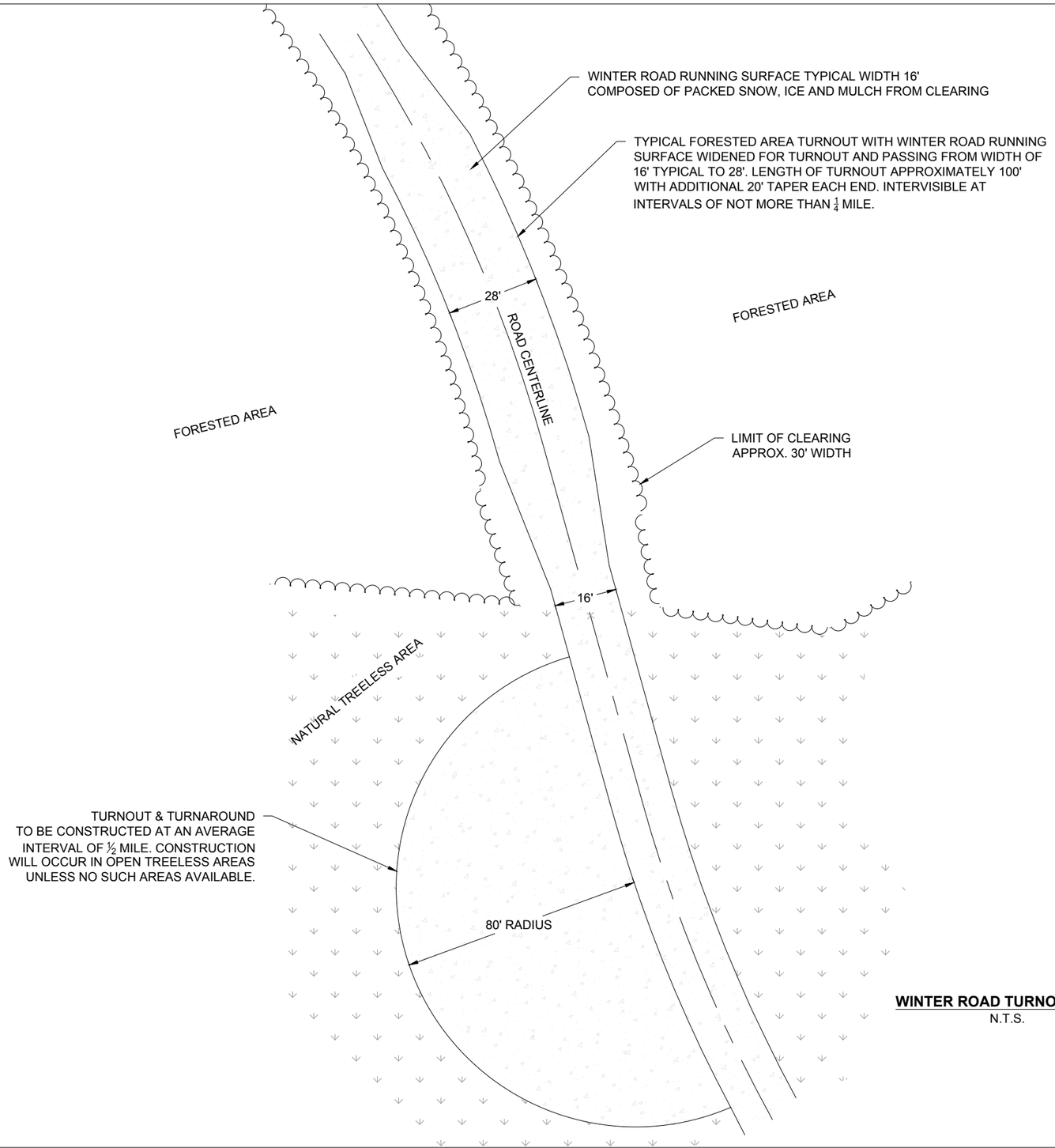
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN | DATE: 9/9/2015

DRAWING TITLE: **WINTER ROAD TYPICAL DETAIL**

FIGURE NO. **PA-135T** | FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Winter_Roads.dwg



WINTER ROAD TURNOUT PLAN

N.T.S.

NOTES:

1. TURNOUTS TO BE FIELD LOCATED BY ENGINEER TO BEST FIT TERRAIN CONDITIONS AND MAXIMIZE OPERATIONAL SAFETY.
2. TURNOUTS TO BE CONSTRUCTED SIMILAR TO ROAD RUNNING SURFACE.
3. OPEN AREA TURNOUTS MAY BE SHAPED AND SIZED TO BEST FIT TERRAIN AND NATURAL CLEARINGS. RADIUS IS REPRESENTATIVE ONLY.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **WINTER ROAD TURNOUT DETAIL**	
P07C-TYTOW-01.dwg (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 10/19/2015	FIGURE NO. **PA-136T**	FILE NO. **POA-1995-120**

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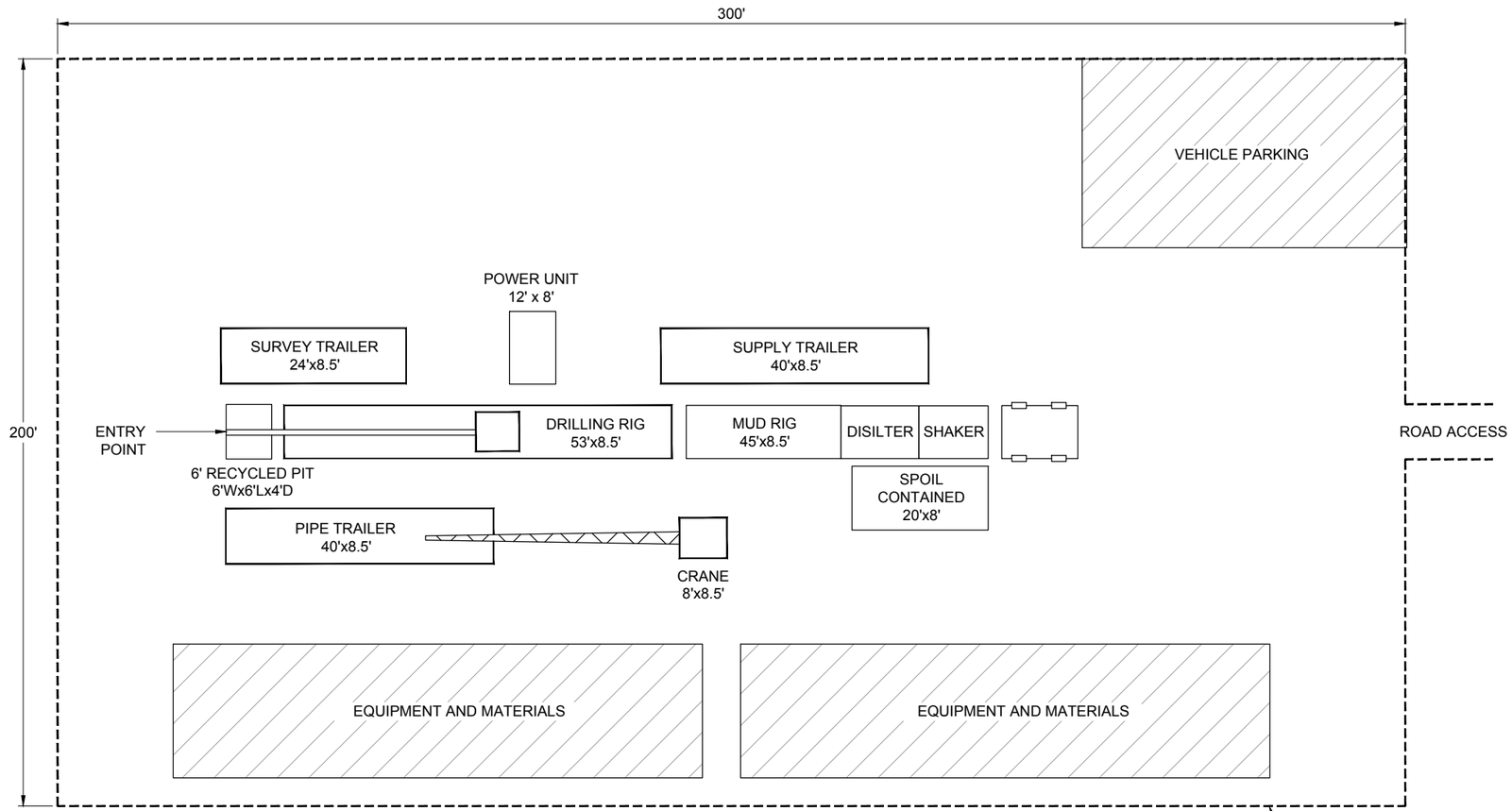


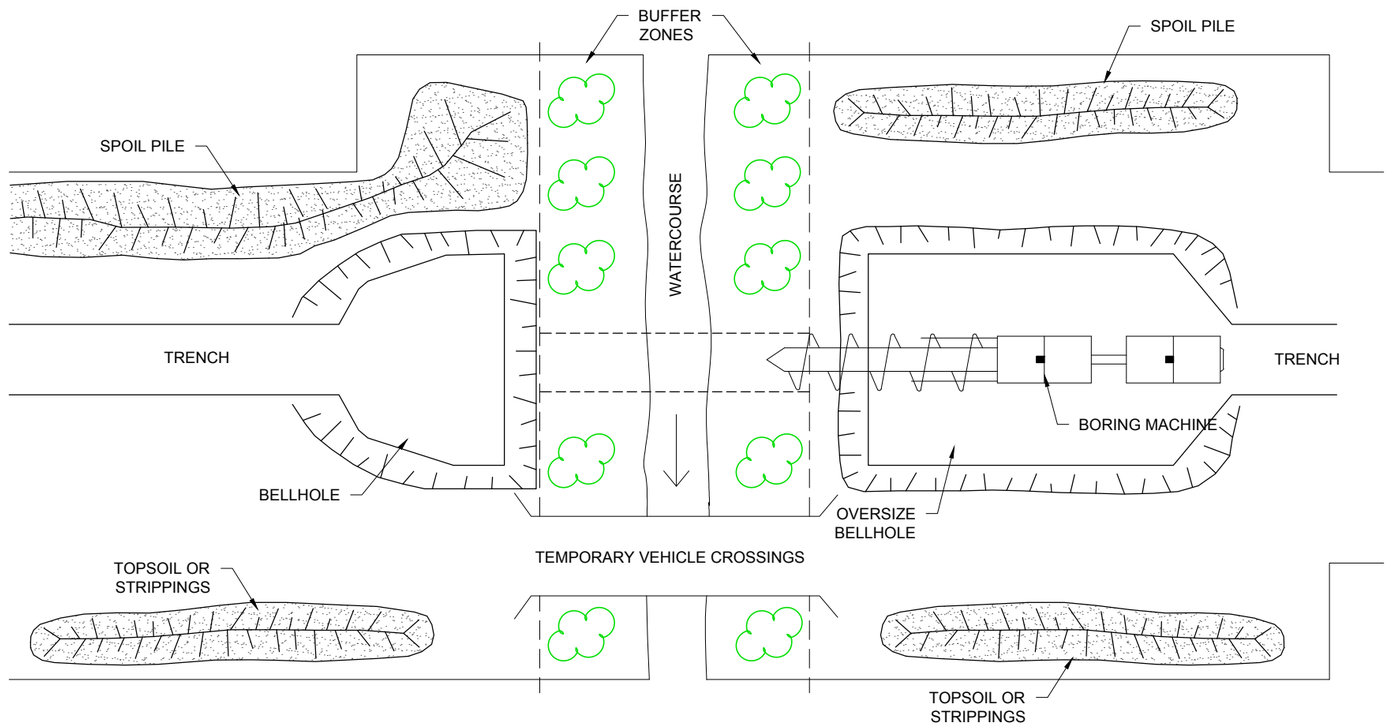
NOTE:
- THIS IS A TYPICAL SITE SET-UP. THERE ARE VARIOUS CONFIGURATIONS USED DEPENDING UPON SITE RESTRICTIONS. FIELD MODIFICATIONS TO SUIT SITE.
- CUT/FILL SLOPES ARE 2:1 (HORIZ:VERT), TYPICAL.

TYPICAL HDD ENTRY SITE EQUIPMENT LAYOUT

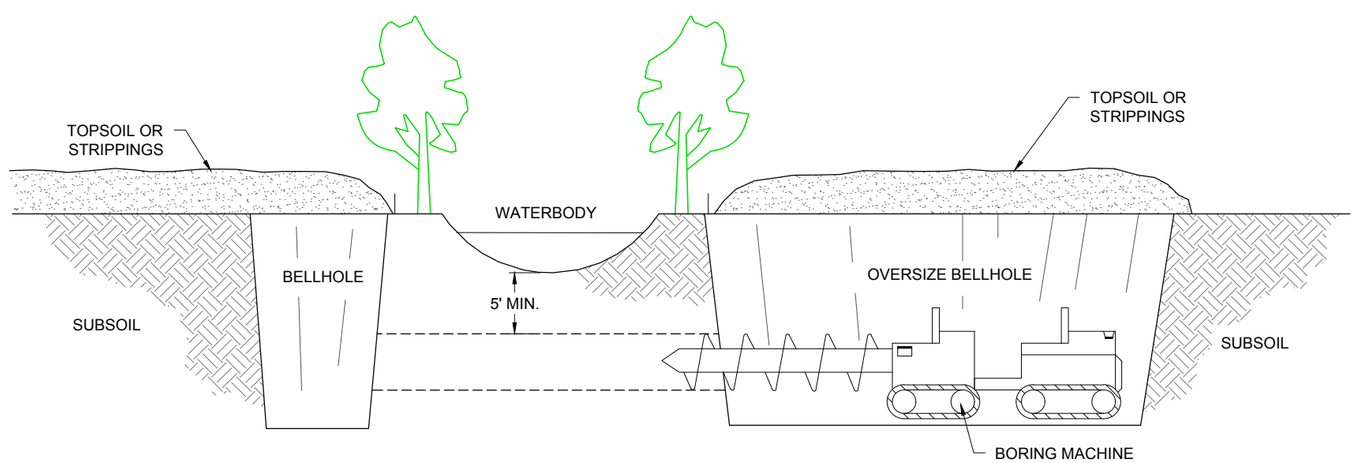
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P04Q-SPHD-01.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL HDD ENTRY SITE EQUIPMENT LAYOUT**
	SCALE: AS SHOWN DATE: 10/19/2015	FIGURE NO. **PA-137T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_HDD_Entry_Site.dwg



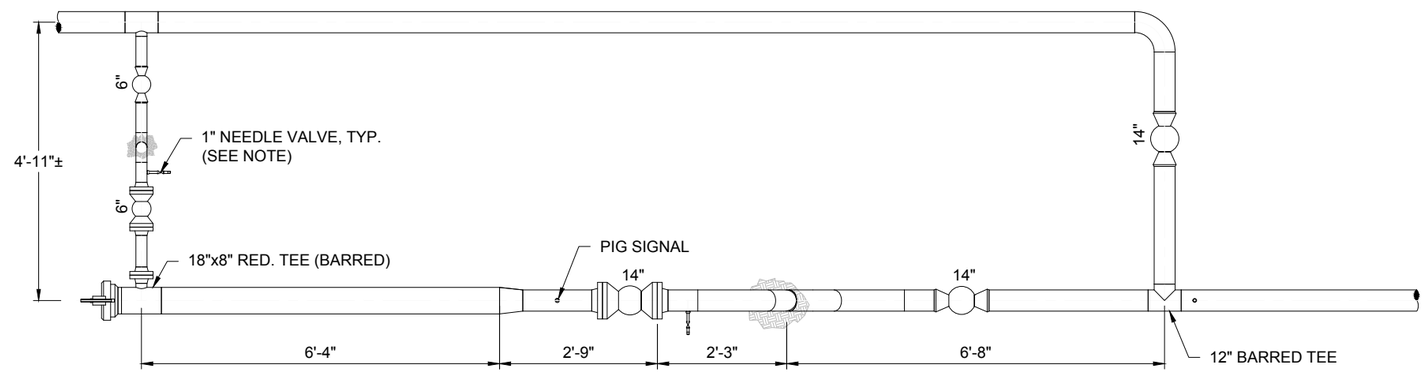
TYPICAL WATERBODY CROSSING HORIZONTAL BORE PLAN
N.T.S.



TYPICAL WATERBODY CROSSING HORIZONTAL BORE PROFILE
N.T.S.

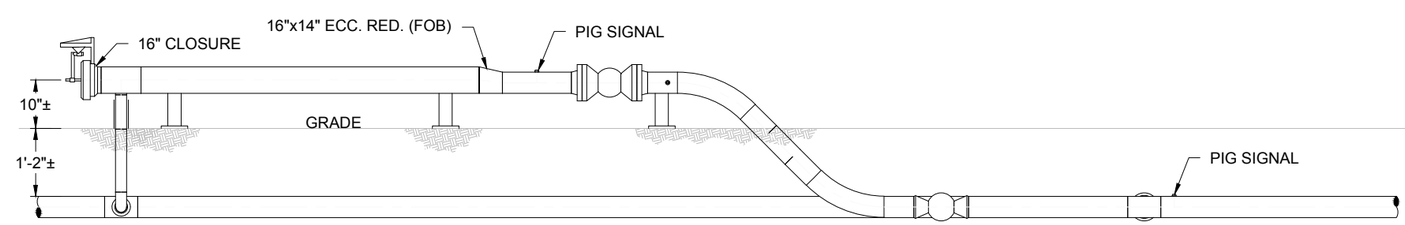
Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYWC-06.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL WATERBODY CROSSING HORIZONTAL BORE**
	SCALE: AS SHOWN / DATE: 10/23/2015	FIGURE NO. **PA-138T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mtengrewicz\Dropbox\Donlin\181202_010_mapping_404_supportrevision_a\PA_Waterbody_Horiz_Bore.dwg



TYPICAL 16"x14" PIG LAUNCHER PLAN

SCALE: 3/8" = 1'-0"

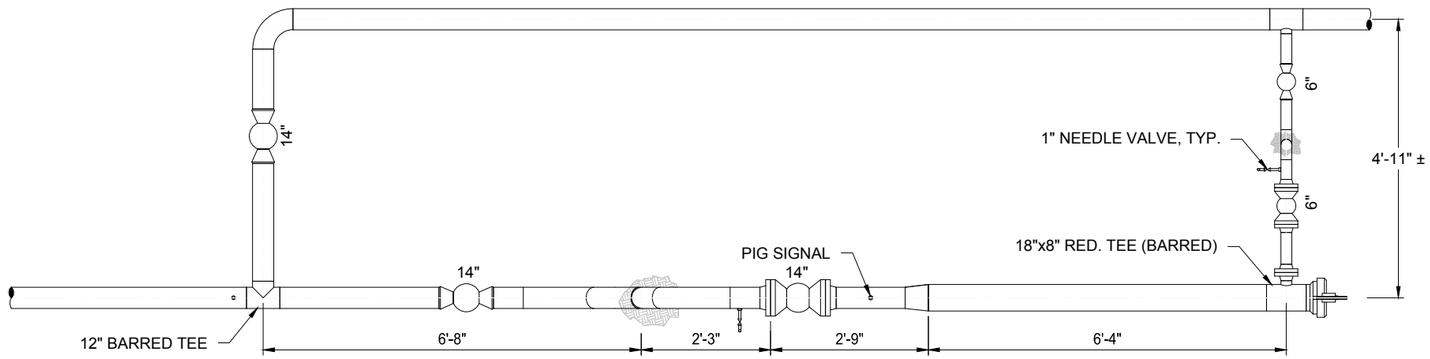


TYPICAL 16"x14" PIG LAUNCHER ELEVATION

SCALE: 3/8" = 1'-0"

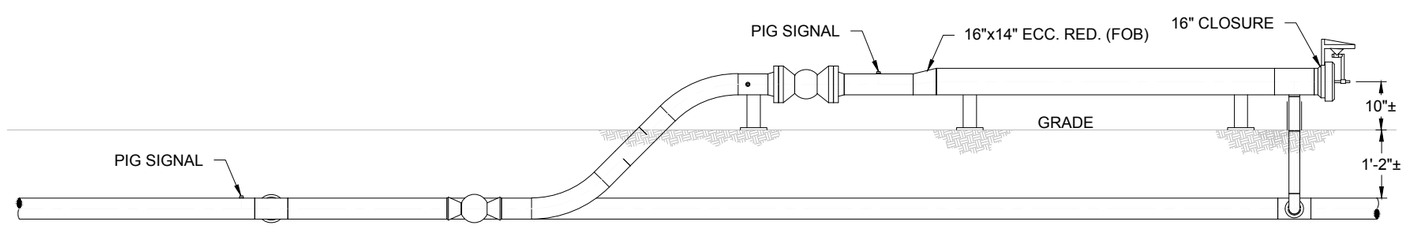
Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01M-TYPL-01.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL 16x14 PIG LAUNCHER**
	SCALE: AS SHOWN DATE: 10/23/2015	FIGURE NO. **PA-139T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Pig_Launcher.dwg



TYPICAL 16"x14" PIG LAUNCHER PLAN

SCALE: 3/8" = 1'-0"

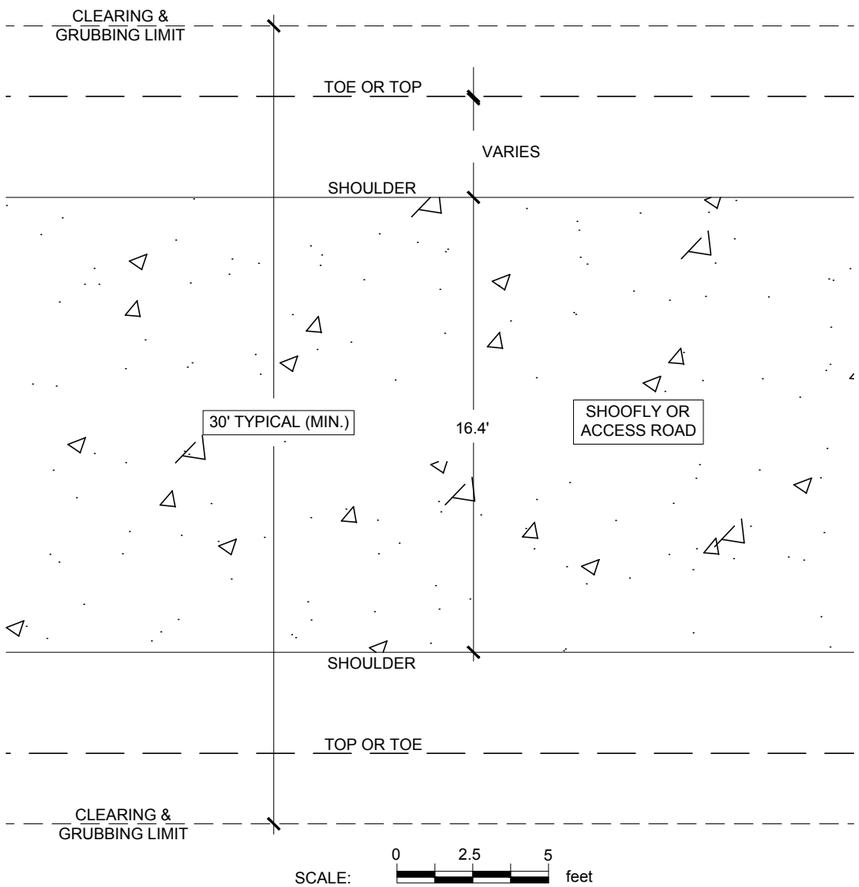


TYPICAL 16"x14" PIG LAUNCHER ELEVATION

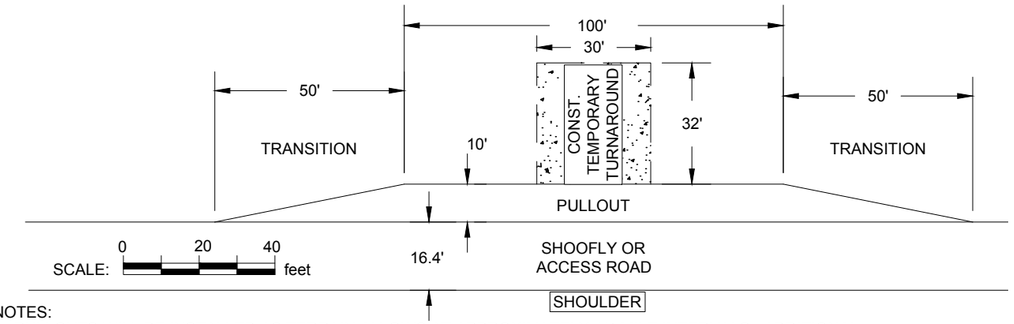
SCALE: 3/8" = 1'-0"

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01M-TYPL-02.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL 16x14 PIG LAUNCHER**
	SCALE: AS SHOWN DATE: 10/23/2015	FIGURE NO. **PA-140T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Pig_Launcher.dwg

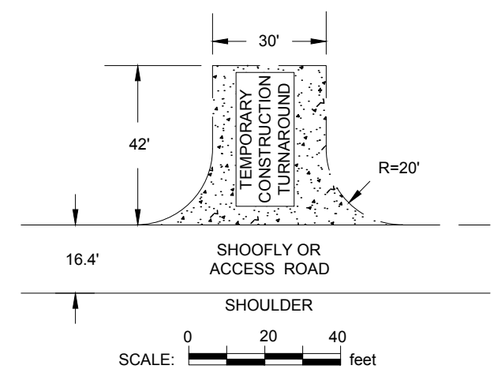


A 141T SHOOFLY OR ACCESS ROAD PLAN VIEW
SCALE: 1" = 5'



NOTES:
1. PULLOUTS WILL BE INSTALLED AS TERRAIN ALLOWS AT APPROXIMATELY 1/4 MILE INTERVALS ADDITIONAL PULLOUTS WILL BE CONSTRUCTED WHERE HILLY TERRAIN AND LIMITED SITE DISTANCE ARE PREVALENT.
2. TEMPORARY CONSTRUCTION TURNAROUNDS WILL BE BUILT AT EACH PULLOUT AND FIELD FIT TO MINIMIZE CLEARING.
3. ROCK FILL SHALL BE PLACED IN NO GREATER THAN 12" LIFTS AND COMPACTED.
4. ROCK FILL SHALL BE UNDERLAIN WITH GEOTEXTILE WHEN DIRECTED BY PROJECT ENGINEER.
5. PULLOUTS TO MAY BE WIDENED OR LENGTHENED WHERE NATURAL CONDITION PERMIT AND AS DIRECTED BY PROJECT ENGINEER.
6. TEMP TURNAROUND GRUB ONLY LARGE STUMPS AND PLACE FILL SUFFICIENT TO SUPPORT VEHICLES, CLEAR TO TOE OF FILL OR TOP OF CUT

B 141T PULLOUT PLAN VIEW
SCALE: 1" = 40'

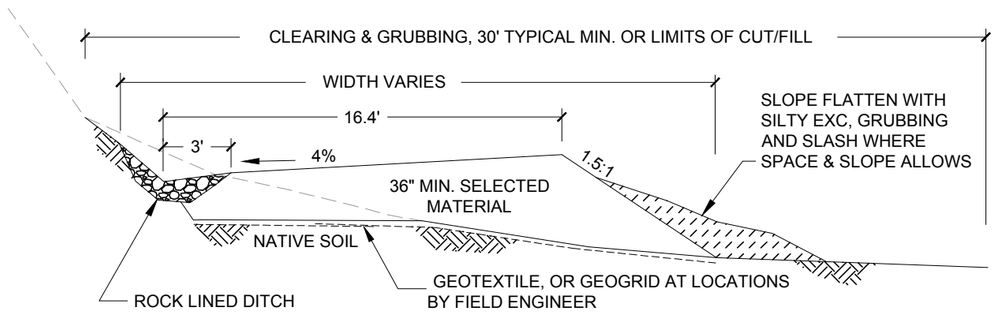


NOTES:
1. FIELD FIT AT 400-500' INTERVALS TO MINIMIZE CLEARING AND EXCAVATION.
2. PLACE FILL SUFFICIENT TO SUPPORT VEHICLES. CLEAR TO TOE OF FILL OR TOP OF CUT
3. TEMPORARY CONSTRUCTION TURNAROUNDS WILL BE BUILT AT EACH PULLOUT AND FIELD FIT TO MINIMIZE CLEARING.
4. ROCK FILL SHALL BE PLACED IN NO GREATER THAN 12" LIFTS AND COMPACTED.
5. ROCK FILL SHALL BE UNDERLAIN WITH GEOTEXTILE WHEN DIRECTED BY PROJECT ENGINEER.
6. TEMP TURNAROUND GRUB ONLY LARGE STUMPS AND PLACE FILL SUFFICIENT TO SUPPORT VEHICLES, CLEAR TO TOE OF FILL OR TOP OF CUT

C 141T TEMPORARY CONSTRUCTION TURNAROUND
SCALE 1" = 40'

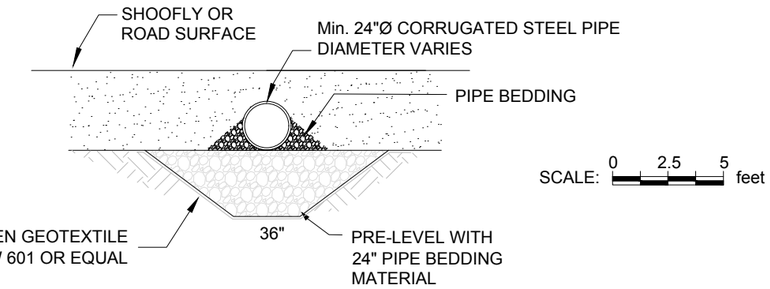
Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **SHOOFLY OR ACCESS ROAD DETAIL**	
ShooflyTypicals_SheetLayout_toDG.dwg (RECONN) OCT 2014	SCALE: AS SHOWN / DATE: 9/11/2015	FIGURE NO. **PA-141T**	FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Shoofly.dwg

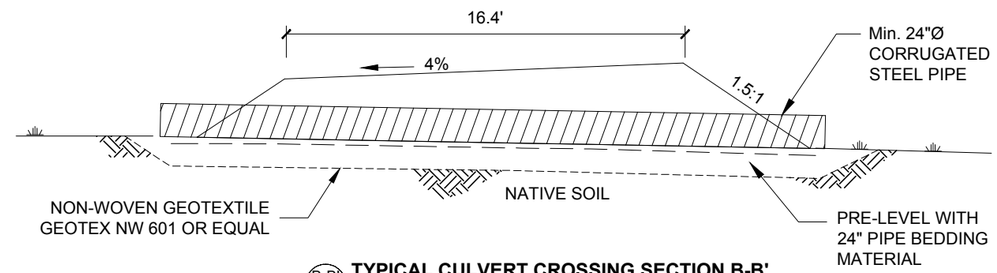


NOTES:
1. MAX ROAD CLEARING WIDTH IS TOP OF CUT OR TOE OF FILL. IN NEARLY LEVEL TERRAIN, REDUCE CLEARING WIDTH TO 30 FT.
2. CUT SLOPES WILL VARY DEPENDING ON SOIL OR ROCK TYPE AND CHARACTER. MIN 0.25:1.
3. FILL SHALL BE UNDERLAIN WITH GEOTEXTILE WHERE SOFT UNDERLYING SOILS ARE ENCOUNTERED.
4. RESERVE TOPSOIL AND ORGANIC MATERIAL FOR STABILIZATION AND SEEDING ON CUT SLOPES.
5. CROSS DRAINS SHALL BE ARMORED WATER BARS OR CULVERTS INSTALLED AT LOCATIONS DETERMINED BY FIELD ENGINEER.

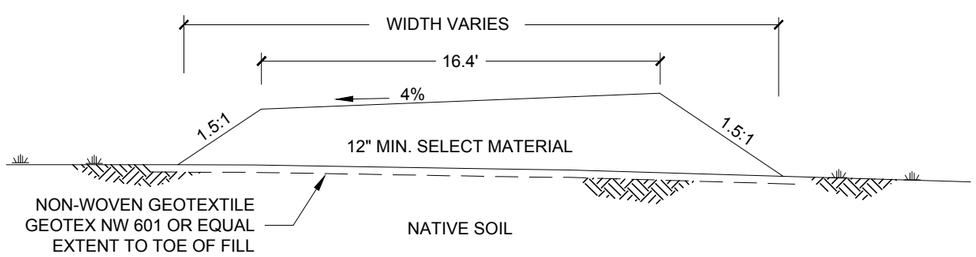
SHOOFLY OR ACCESS ROAD TYPICAL SECTION VARIABLE TERRAIN (CUT/FILL)
A 142T N.T.S.



TYPICAL CULVERT CROSSING SECTION A-A'
A-A' 142T N.T.S.

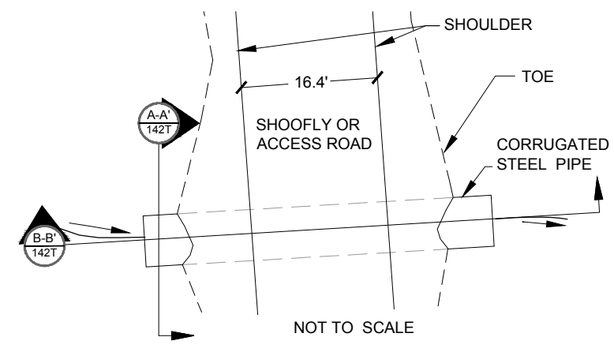


TYPICAL CULVERT CROSSING SECTION B-B'
B-B' 142T N.T.S.



NOTES:
1. "SELECT MATERIAL" TO BE APPROVED GRANULAR SOIL
2. QUARRY ROCK FILL SHALL BE UNDERLAIN WITH NON-WOVEN GEOTEXTILE, GEOTEX NW 601 OR EQUAL.
3. IN WETLAND AREAS GEOGRID, BX 1100 OR EQUAL, MAY BE USED TO STABILIZE FILL AS DETERMINED BY THE ENGINEER.
4. IN WETLAND AREAS, CONTRACTOR MAY NOT PLACE FILL, REMOVE NATIVE MATERIAL, OR RUN EQUIPMENT OUTSIDE DESIGNATED CONSTRUCTION ZONE AS MARKED IN FIELD BY THE ENGINEER.
5. CLEARING LIMITS ARE TOP OF CUT AND TOE OF FILL.
6. DEPTH OF FILL TO VARY DEPENDIG ON SUBGRADE CONDITIONS AND SOIL CHARACTERISTICS. ENGINEER TO FIELD SPECIFY.

SHOOFLY OR ACCESS ROAD TYPICAL SECTION LEVEL TERRAIN (FILL)
B 142T N.T.S.



1. ALL CULVERTS SHALL BE CORRUGATED STEEL AS APPROVED BY PROJECT ENGINEER.
2. PRE-LEVEL WITH 24" OF COARSE ROCK PIPE BEDDING MATERIAL AND ENSURE MIN. 12" OF COVER
3. CROSS CULVERTS IN UPLANDS SHALL BE INSTALLED WITH AN ENLARGED (BELL HOLE) DITCH SECTION ON THE INLET END. FILL TO 6" DEPTH WITH DITCH LINER MATERIAL.
4. CULVERT GRADIENT TO MATCHED NATURAL DRAINAGE GRADIENT OR AS SPECIFIED BY PROJECT ENGINEER (MIN. 2%)
5. CROSS CULVERTS IN UPLANDS SHALL BE INSTALLED WITH AN ENLARGED (BELL HOLE) DITCH SECTION ON THE INLET END. FILL TO 6" DEPTH WITH DITCH LINER MATERIAL.
6. CULVERT DIA. AND LOCATION PER SUMMARY PROVIDED BY PROJECT ENGINEER

TYPICAL CULVERT CROSSING PLAN
C 142T N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **SHOOFLY TYPICAL SECTIONS**	
ShooflyTypicals_SheetLayout_toDG.dwg (RECONN) OCT 2014	SCALE: AS SHOWN DATE: 9/11/2015	FIGURE NO. **PA-142T**	FILE NO. **POA-1995-120**

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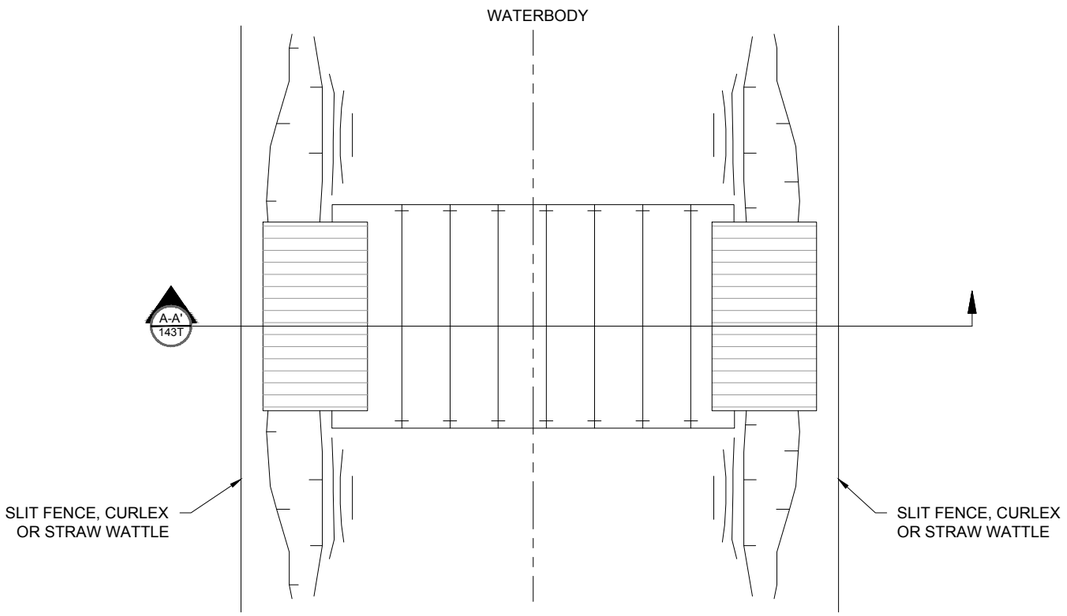
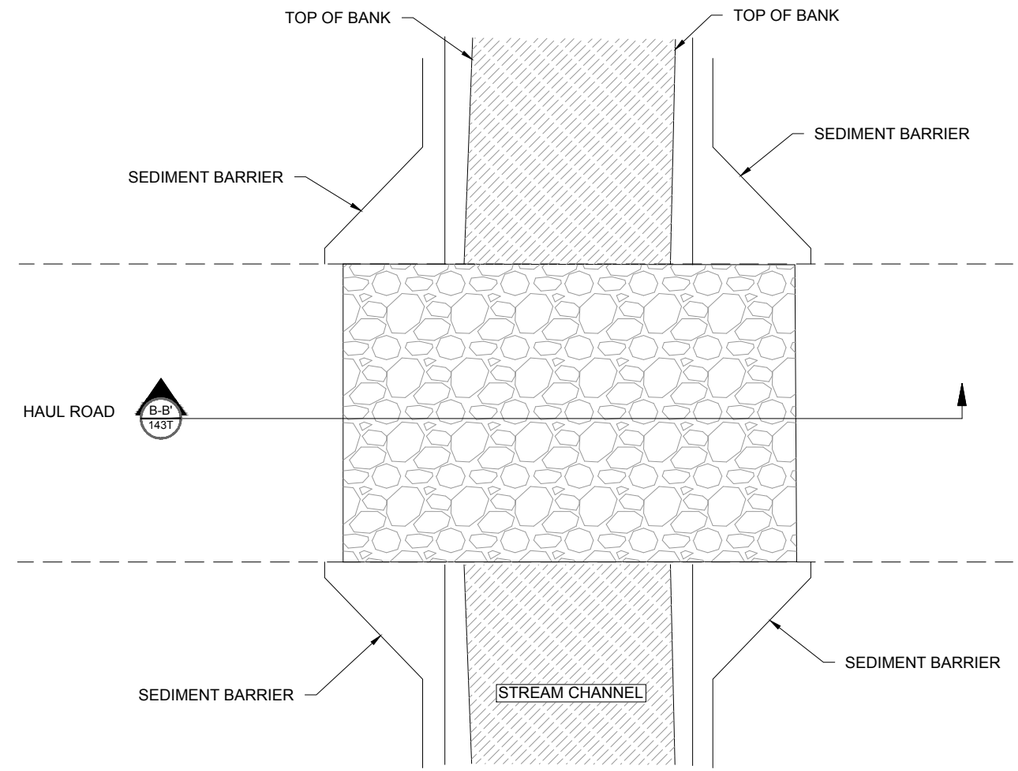
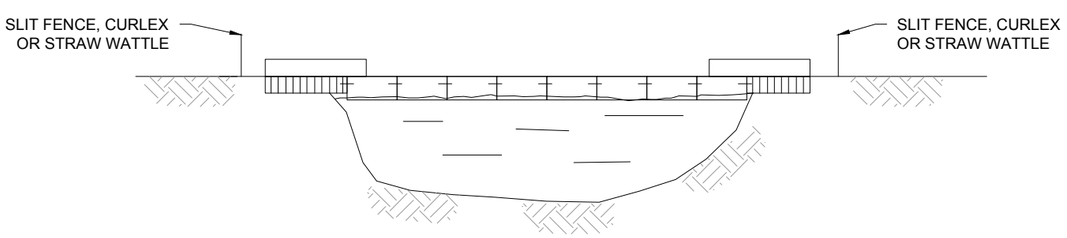


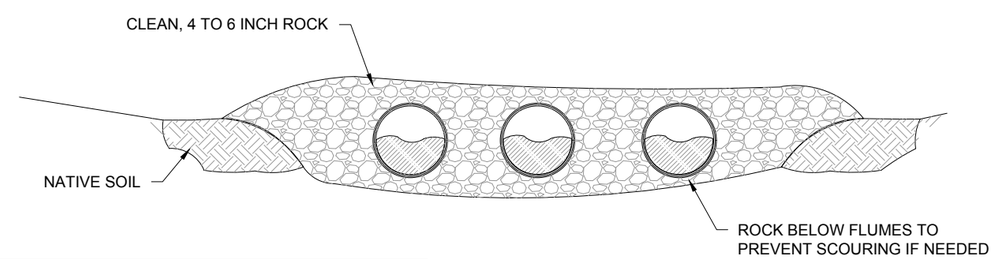
TYPICAL FLEX-FLOAT BRIDGE PLAN
N.T.S.



TYPICAL ROCK FLUME BRIDGE PLAN
N.T.S.



A-A' 143T **TYPICAL FLEX-FLOAT BRIDGE SECTION A-A'**
N.T.S.



B-B' 143T **TYPICAL ROCK FLUME BRIDGE SECTION B-B'**
N.T.S.

BRIDGE DETAIL NOTES:

1. DESIGN AND MAINTAIN BRIDGE TO WITHSTAND AND PASS THE HIGHEST ANTICIPATED FLOW THAT MAY OCCUR WHILE THE BRIDGE IS IN PLACE. CULVERTS MUST BE ALIGNED TO PREVENT BANK EROSION OR STREAM BED SCOUR.
2. INSPECT BRIDGE ELEVATION SO BRIDGE REMAINS SUPPORTED ABOVE HIGH BANK, AND DOES NOT SINK INTO BANK. ADDITIONAL SUPPORT MUST BE ADDED ON TOP OF BANK AND UNDER SPAN IF INITIAL SUPPORT STARTS TO SETTLE. ALL BRIDGES MUST BE ANCHORED FOR STABILITY.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED. CONSTRUCT SEDIMENT BARRIERS ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY. SILT FENCE OR SANDBAGS MAY BE USED INTERCHANGEABLY.
4. BRIDGE DECKS WILL BE KEPT FREE OF SOIL.
5. EQUIPMENT BRIDGES WILL CONSIST OF ONE OF THE FOLLOWING: CLEAN ROCK PLACED OVER FLUME PIPES; PREFABRICATED CONSTRUCTION MATS; OR FLEX-FLOAT OR OTHER TEMPORARY BRIDGING, SUCH AS BAILEY BRIDGES.
6. REMOVE EQUIPMENT BRIDGES AND ASSOCIATED MATERIAL AS SOON AS POSSIBLE. RESTORE AND STABILIZE BED AND BANKS TO APPROXIMATE PRE-CONSTRUCTION CONDITIONS.
7. DISPOSE OF ANY ROCK AS DIRECTED.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL FLEX-FLOAT AND ROCK FLUME BRIDGE DETAIL**	
P01C-TYBD-01.DWG, P01C-TYBD-02.DWG, P01C-TYBD-03.DWG (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 9/30/2015	FIGURE NO. **PA-143T**	FILE NO. **POA-1995-120**

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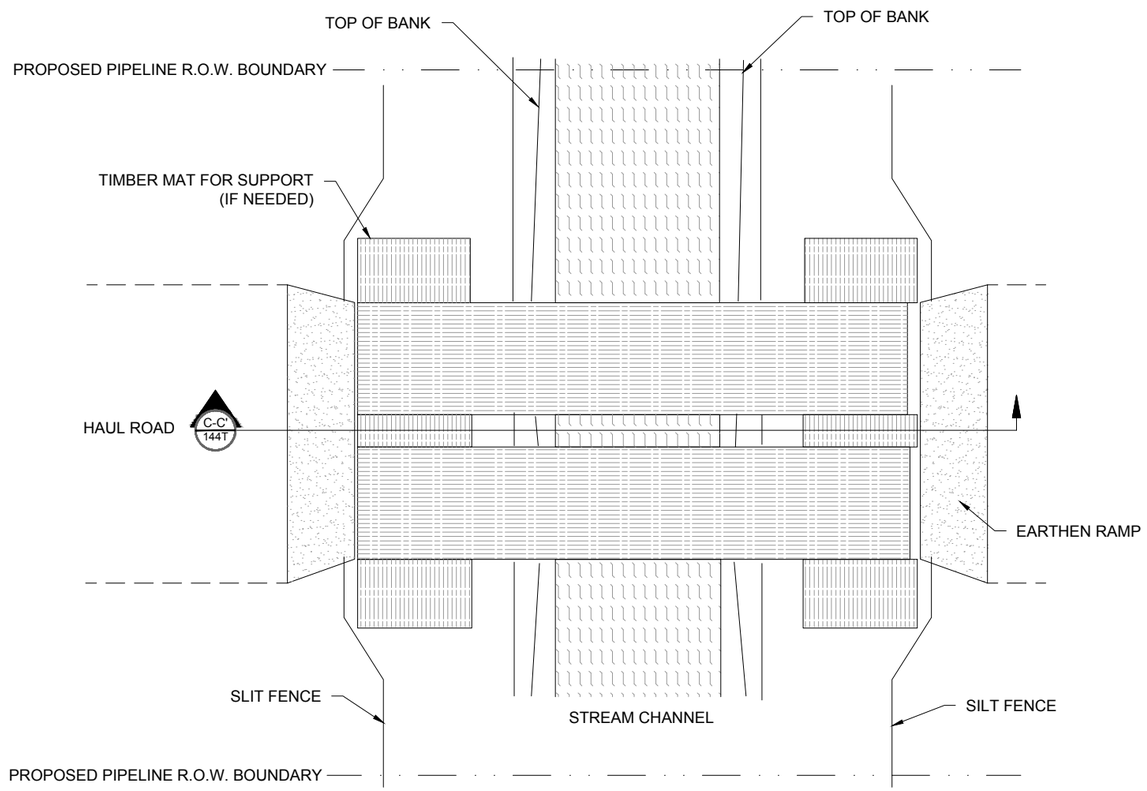
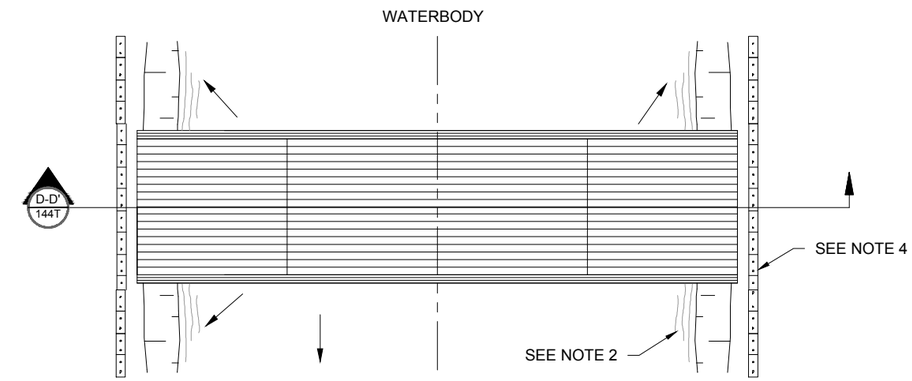
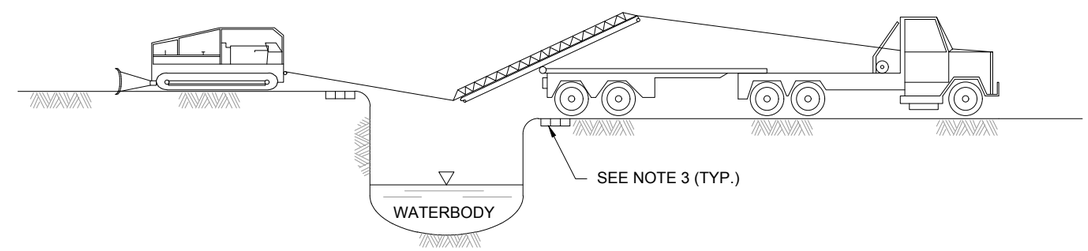


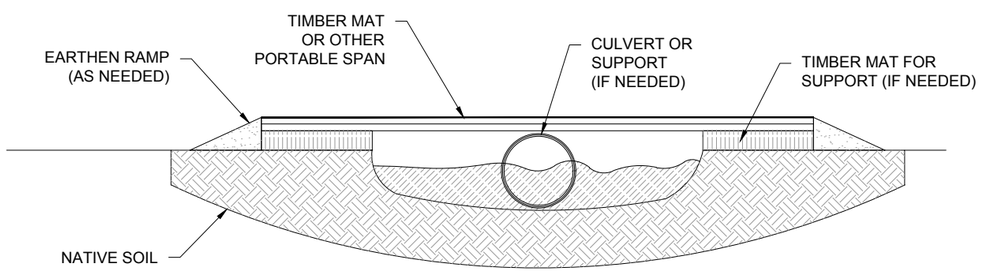
TYPICAL TIMBER MAT BRIDGE PLAN
N.T.S.



TYPICAL PORTABLE WATERBODY BRIDGE PLAN
N.T.S.



D-D' 144T TYPICAL PORTABLE WATERBODY BRIDGE SECTION D-D'
N.T.S.



C-C' 144T TYPICAL TIMBER MAT BRIDGE SECTION C-C'
N.T.S.

BRIDGE DETAIL NOTES:

1. DESIGN AND MAINTAIN BRIDGE TO WITHSTAND AND PASS THE HIGHEST ANTICIPATED FLOW THAT MAY OCCUR WHILE THE BRIDGE IS IN PLACE. CULVERTS MUST BE ALIGNED TO PREVENT BANK EROSION OR STREAM BED SCOUR.
2. INSPECT BRIDGE ELEVATION SO BRIDGE REMAINS SUPPORTED ABOVE HIGH BANK, AND DOES NOT SINK INTO BANK. ADDITIONAL SUPPORT MUST BE ADDED ON TOP OF BANK AND UNDER SPAN IF INITIAL SUPPORT STARTS TO SETTLE. ALL BRIDGES MUST BE ANCHORED FOR STABILITY.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED. CONSTRUCT SEDIMENT BARRIERS ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY. SILT FENCE OR SANDBAGS MAY BE USED INTERCHANGEABLY.
4. BRIDGE DECKS WILL BE KEPT FREE OF SOIL.
5. EQUIPMENT BRIDGES WILL CONSIST OF ONE OF THE FOLLOWING: CLEAN ROCK PLACED OVER FLUME PIPES; PREFABRICATED CONSTRUCTION MATS; OR FLEX-FLOAT OR OTHER TEMPORARY BRIDGING, SUCH AS BAILEY BRIDGES.
6. REMOVE EQUIPMENT BRIDGES AND ASSOCIATED MATERIAL AS SOON AS POSSIBLE. RESTORE AND STABILIZE BED AND BANKS TO APPROXIMATE PRE-CONSTRUCTION CONDITIONS.
7. DISPOSE OF ANY ROCK AS DIRECTED.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYBD-01.DWG, P01C-TYBD-04.DWG, P01C-TYBD-05.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL TIMBER MAT AND PORTABLE WATERBODY BRIDGE DETAIL**
	SCALE: AS SHOWN / DATE: 10/19/2015	FIGURE NO. **PA-144T** / FILE NO. **POA-1995-120**

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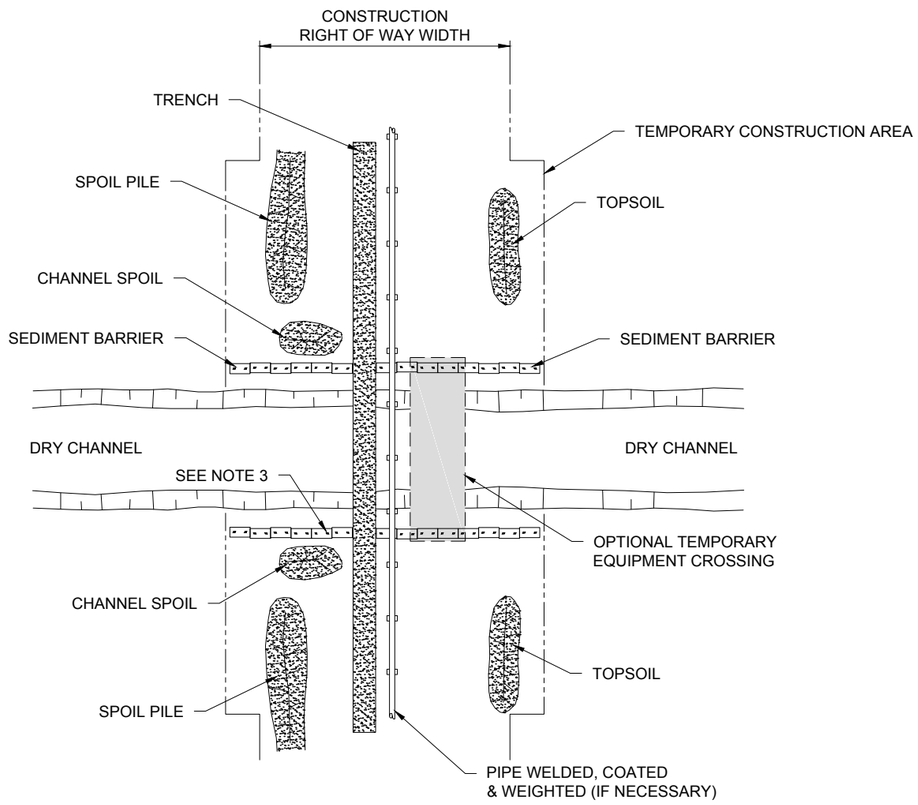
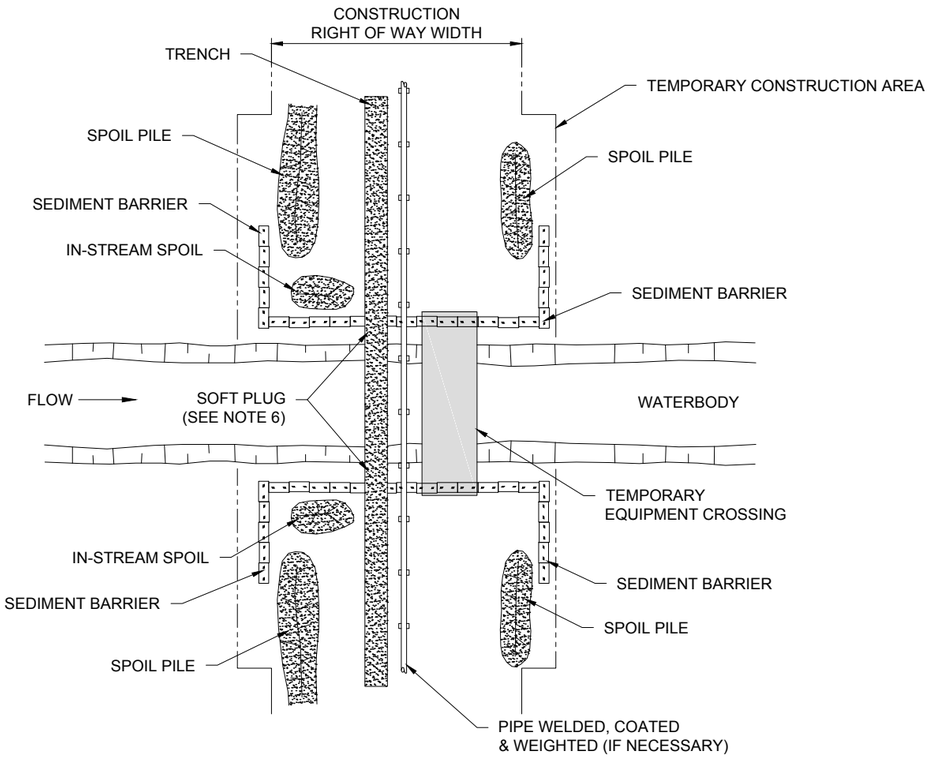


A / 145T **TYPICAL NON-FLOWING WATERBODY CROSSING OPEN-CUT**
N.T.S.



B / 145T **TYPICAL FLOWING WATERBODY CROSSING OPEN-CUT**
N.T.S.

NOTES:

1. METHOD APPLIES TO CROSSING WHERE NO FLOWING WATER IS PRESENT AT THE TIME OF CROSSING.
2. CONTRACTOR MAY "MAINLINE THROUGH" THE CROSSING OR UP TO BOTH SIDES OF THE CROSSING; STRING, WELD, COAT, AND WEIGHT (IF NECESSARY), USING THE MAINLINE CREW WITH THE PIPE SKIDDED OVER THE CROSSING.
3. CONSTRUCT SEDIMENT BARRIERS ACROSS THE ENTIRE CONSTRUCTION R.O.W. FOLLOWING CLEARING AND GRADING AND MAINTAIN UNTIL CONSTRUCTION OF THE CROSSING. EROSION CONTROL MEASURES SHALL BE REINSTALLED IMMEDIATELY FOLLOWING BACKFILLING OF TRENCH AND STABILIZATION OF BANKS.
4. TOPSOIL AND SPOIL WILL NOT BE STOCKPILED IN THE CROSSING CHANNEL.
5. MAINTAIN STREAM FLOW THROUGHOUT CROSSING CONSTRUCTION.
6. BACKFILL WITH NATIVE MATERIAL.
7. RESTORE CROSSING CHANNEL TO APPROXIMATE PRE-CONSTRUCTION PROFILE AND SUBSTRATE.
8. RESTORE CROSSING BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.

NOTES:

1. SCHEDULE CROSSING DURING LOW FLOW PERIOD IF POSSIBLE.
2. COMPLETE ALL IN-STREAM ACTIVITIES WITHIN 24 HOURS IF FEASIBLE.
3. NO REFUELING OF MOBILE EQUIPMENT WITHIN 200 FEET OF WATERBODY. REFUEL STATIONARY EQUIPMENT AS PER THE HAZARDOUS MATERIALS MANAGEMENT AND SPCCC PLAN.
4. CONSTRUCT SEDIMENT BARRIERS ALONG THE SIDES OF STOCKPILES AND ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY.
5. IN-STREAM SPOIL TO BE STORED OUT OF THE STREAM CHANNEL AND WITHIN THE CONSTRUCTION R.O.W.
6. INSTALL SOFT PLUGS AT THE EDGE OF STREAM BANKS UNTIL JUST PRIOR TO PIPE INSTALLATION TO CONTROL WATER FLOW & TRENCH SLOUGHING, IF NEEDED.
7. MAINTAIN STREAM FLOW THROUGHOUT CROSSING CONSTRUCTION.
8. BACKFILL WITH NATIVE MATERIAL.
9. RESTORE WATERBODY CHANNEL TO APPROXIMATE PRE-CONSTRUCTION PROFILE AND SUBSTRATE.
10. RESTORE STREAM BANKS TO APPROXIMATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.
11. ALL DIMENSIONS INDICATED SHALL BE DETERMINED BY ACTUAL CONSTRUCTION CONDITIONS.
12. FOLLOW REQUIREMENTS FROM THE ARMY CORPS OF ENGINEERS.
13. DRAWING DEPICTED IS SUPERSEDED BY WRITTEN STANDARD, SCOPE OF WORK OR LINE LIST.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL WATERBODY CROSSING DETAIL**	
P01C-TYWC-01.DWG, P01C-TYWC-02.DWG (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 10/19/2015	FIGURE NO. **PA-145T**	FILE NO. **POA-1995-120**

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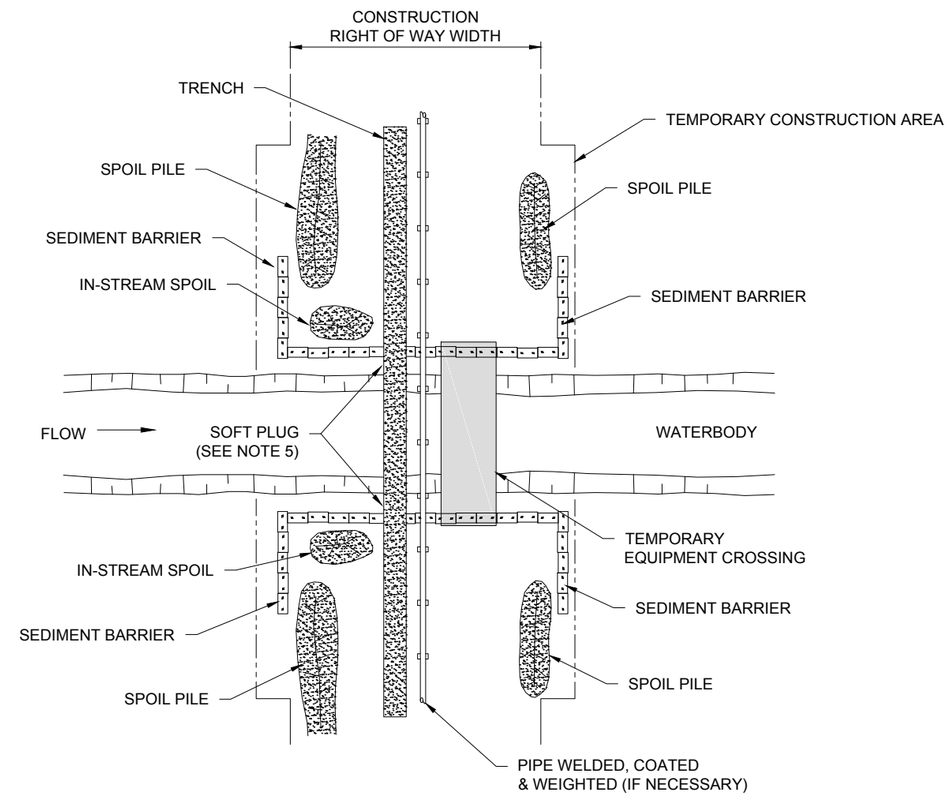

A 146T TYPICAL FLOWING WATERBODY CROSSING OPEN-CUT

N.T.S.

NOTES:

1. METHOD APPLIES TO WATERBODIES THAT ARE NOT STATE DESIGNATED FISHERIES WHERE FLUME CROSSINGS ARE NOT REQUIRED. IF TOPOGRAPHY PERMITS TEMPORARY EQUIPMENT BRIDGE INSTALLATION, THE CONTRACTOR SHALL TRENCH, STRING, WELD, COAT, WEIGHT (IF NECESSARY). LOWER IN AND BACKFILL UTILIZING THE MAIN LINE CREW TRAVELING OVER THE BRIDGE. IF TOPOGRAPHY PROHIBITS INSTALLATION OF A TEMPORARY EQUIPMENT BRIDGE, CONTRACTOR SHALL TRENCH UP TO BOTH SIDES OF CROSSING; STRING, WELD, COAT AND WEIGHT (IF NECESSARY) USING THE MAINLINE CREW. IN STREAM EXCAVATION, LOWER IN, AND BACKFILL WILL UTILIZE A CLAM OR HOES WORKING FROM THE BANKS.
2. SCHEDULE CROSSING DURING LOW FLOW PERIOD IF POSSIBLE.
3. CONSTRUCT SEDIMENT BARRIERS ALONG THE SIDES OF STOCKPILES AND ACROSS THE ENTIRE CONSTRUCTION R.O.W. TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING BACK INTO WATERBODY.
4. IN-STREAM SPOIL TO BE STORED OUT OF THE STREAM CHANNEL.
5. INSTALL TEMPORARY (SOFT) PLUGS AT THE EDGE OF STREAM BANKS UNTIL JUST PRIOR TO PIPE INSTALLATION TO CONTROL WATER FLOW & TRENCH SLOUGHING.
6. TRENCH THROUGH WATERBODY USING MAINLINE EXCAVATION EQUIPMENT WHERE PRACTICAL.
7. MAINTAIN STREAM FLOW THROUGHOUT CROSSING CONSTRUCTION.
8. RESTORE WATERBODY CHANNEL TO APPROXIMATE PRE-CONSTRUCTION PROFILE AND SUBSTRATE.
9. RESTORE STREAM BANKS TO APPROPRIATE ORIGINAL CONDITION AND STABILIZE, AS REQUIRED.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYWC-03.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL FLOWING WATERBODY CROSSING OPEN-CUT DETAIL**
	SCALE: AS SHOWN / DATE: 10/23/2015	FIGURE NO. **PA-146T** / FILE NO. **POA-1995-120**

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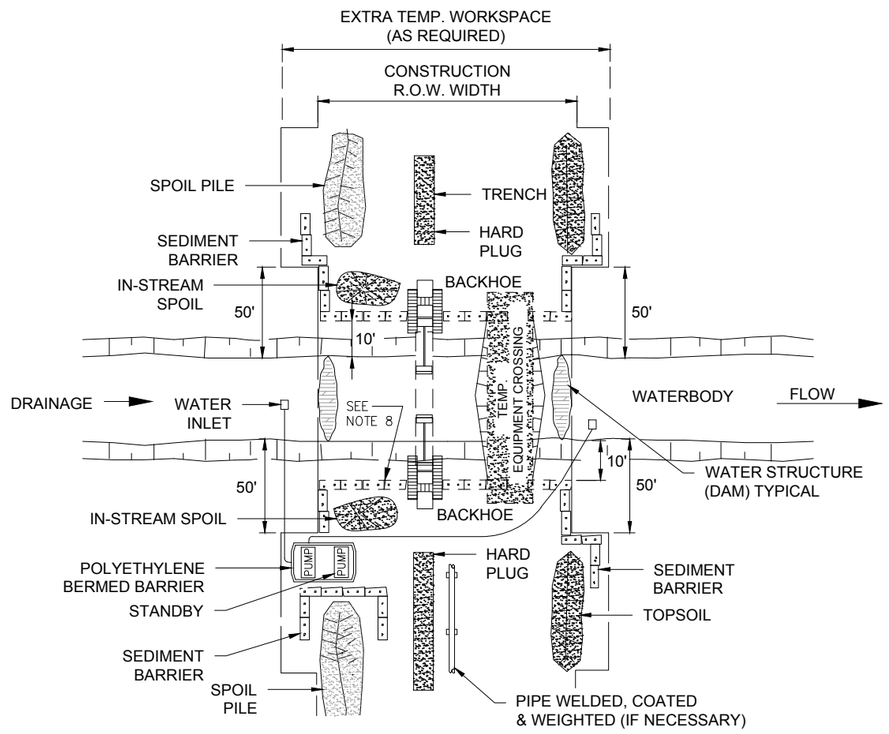
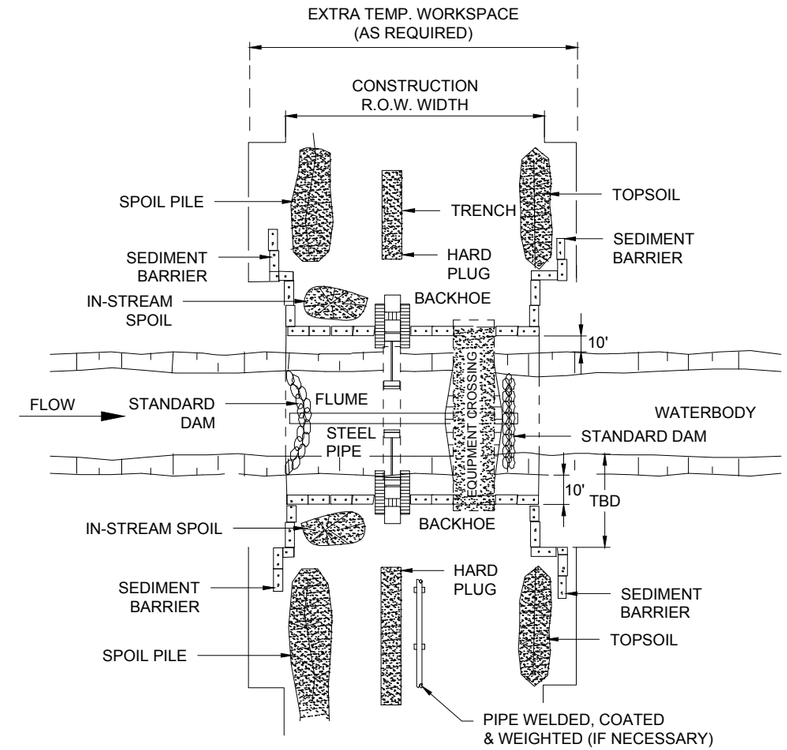


A 147T **TYPICAL FLOWING WATERBODY CROSSING OPEN-CUT DAM & PUMP**
N.T.S.



B 147T **TYPICAL WATERBODY CROSSING OPEN-CUT DRY FLUME**
N.T.S.

NOTES:

1. THIS METHOD APPLIES TO SWALES, DRAINS, SMALL STREAMS OR CREEKS WITH LIMITED FLOW AT TIME OF CONSTRUCTION WHERE DOWNSTREAM SILTATION MUST BE AVOIDED AND THE CROSSING WIDTH IS NOT PROHIBITIVE.
2. SCHEDULE CROSSING DURING LOW FLOW PERIOD IF POSSIBLE.
3. COMPLETE ALL IN-STREAM ACTIVITIES AS EXPEDIENTLY AS POSSIBLE.
4. INSTALL TEMPORARY VEHICLE CROSSING, IF REQUIRED.
5. IN-STREAM SPOIL TO BE STORED OUT OF THE STREAM CHANNEL AND WITHIN THE CONSTRUCTION R.O.W. UNLESS DEPICTED OTHERWISE IN THE SITE SPECIFIC CROSSING PLANS.
6. CONSTRUCT SEDIMENT BARRIERS TO PREVENT SILT LADEN WATER AND SPOIL FROM FLOWING INTO WATERBODY. CONSTRUCTED SEDIMENT BARRIERS SHALL EXTEND ALONG THE SIDES OF THE SPOIL AND TOPSOIL STOCKPILES AND ACROSS THE ENTIRE CONSTRUCTION R.O.W. BARRIERS MAY BE TEMPORARILY REMOVED TO ALLOW CONSTRUCTION ACTIVITIES BUT MUST BE REPLACED BY THE END OF EACH WORK DAY.
7. CONSTRUCT UPSTREAM STRUCTURE (DAM) FOLLOWED BY DOWNSTREAM STRUCTURE (DAM). WATER STRUCTURES' (AQUA DAM, JERSEY BARRIERS, SAND BAGS, STEEL PLATE, POLYETHYLENE LINER, ETC.) FINAL LOCATION WILL BE APPROVED BY THE COMPANY INSPECTOR.
8. SIZE PUMPS FOR DIVERSION OF ENTIRE STREAM FLOW. CONTRACTOR SHALL MAINTAIN 100% SPARE PUMPING CAPACITY ON SITE. PUMPS SHALL BE INSTALLED ON POLYETHYLENE BARRIERS FOR FUEL/OIL SPILL CONTAINMENT. PUMP INTAKES WILL BE SCREENED TO PREVENT ENTRAPMENT OF FISH. CONTRACTOR SHALL MONITOR PUMPS AND WATER STRUCTURES ON A 24 HOUR BASIS UNTIL THE CROSSING INSTALLATION IS COMPLETE. SHOULD LEAKAGE AT THE DAM STRUCTURES OCCUR, CONTRACTOR SHALL DEWATER BETWEEN THE STRUCTURES THROUGH AN APPROPRIATE FILTER AND ONTO A WELL VEGETATED UPLAND AREA.
9. LEAVE HARD PLUGS AT STREAM BANK EDGE UNTIL JUST PRIOR TO PIPE INSTALLATION.
10. COMPLETE CONSTRUCTION OF IN-STREAM PIPE SECTION. WEIGHT PIPE AS NECESSARY PRIOR TO COMMENCEMENT OF IN-STREAM ACTIVITY.
11. TRENCH THROUGH WATERBODY AS EXPEDIENTLY AS PRACTICAL. INSTALL TEMPORARY (SOFT) PLUGS, IF NECESSARY, TO CONTROL WATER FLOW AND TRENCH SLOUGHING.
12. MAINTAIN STREAM FLOW THROUGHOUT CROSSING CONSTRUCTION.
13. LOWER-IN PIPE, INSTALL TRENCH PLUG AND BACKFILL IMMEDIATELY.
14. RESTORE WATERBODY CHANNEL TO APPROXIMATE PRE-CONSTRUCTION PROFILE AND SUBSTRATE.
15. DISMANTLE DOWNSTREAM WATER STRUCTURE (DAM) AND UPSTREAM WATER STRUCTURE (DAM) AFTER TRENCH BACKFILL.
16. RESTORE STREAM BANKS TO APPROXIMATE ORIGINAL CONDITION. STABILIZE WATERBODY BANKS AND INSTALL TEMPORARY BARRIERS.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYWC-04.DWG, P01C-TYWC-05.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL WATERBODY CROSSING OPEN-CUT DETAIL**
	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. **PA-147T** / FILE NO. **POA-1995-120**

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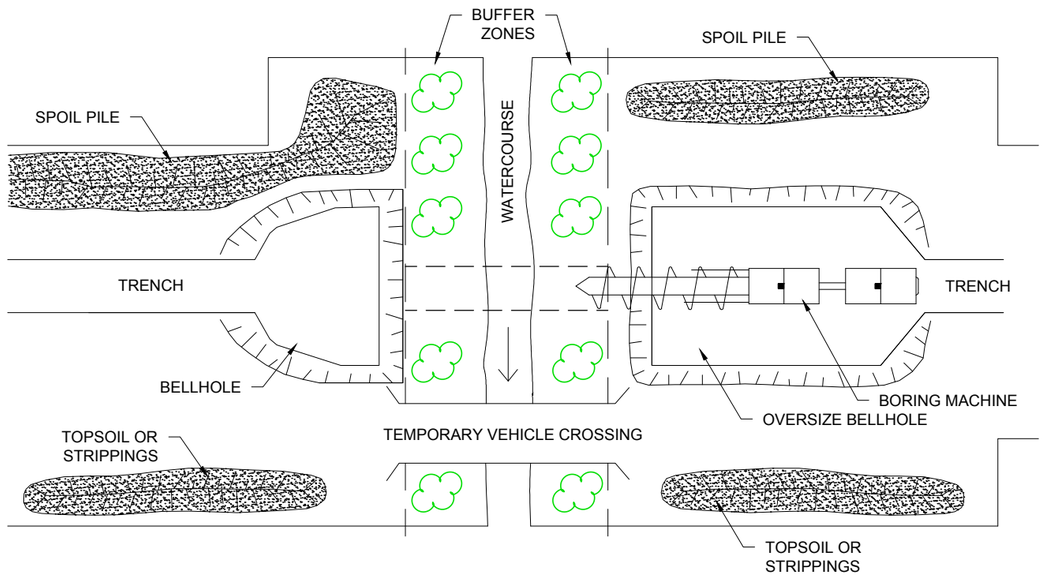
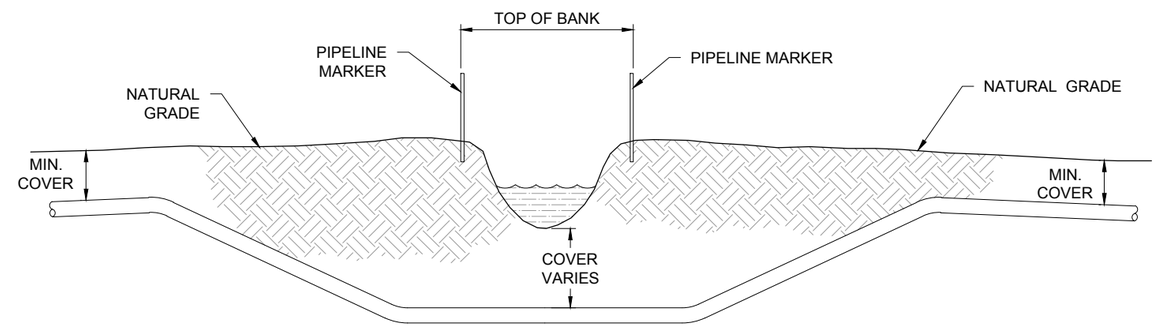
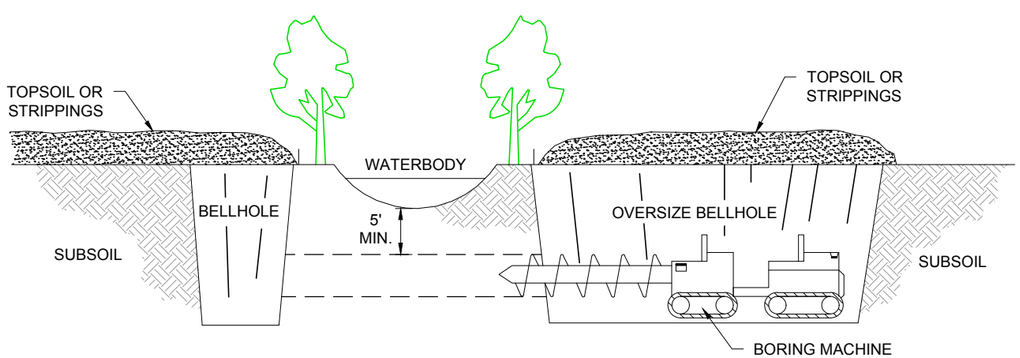




B 148T **TYPICAL SMALL CREEK CROSSING SECTION**
N.T.S.

NOTES:

1. NORMAL FLOW OF DRAINAGE NOT TO BE CHANGED FOLLOWING PIPELINE CONSTRUCTION OPERATIONS.
2. CONSTRUCT ALL CROSSINGS IN ACCORDANCE WITH ENVIRONMENTAL PERMIT REQUIREMENTS AND CONDITIONS.
3. PIPELINE TO BE INSTALLED BY OPEN-CUT METHOD.



A 148T **TYPICAL WATERBODY CROSSING HORIZONTAL BORE PLAN AND SECTION**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL WATERBODY CROSSING DETAIL**	
P01C-TYWC-06.DWG, P01C-TYWC-07.DWG (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. **PA-148T**	FILE NO. **POA-1995-120**

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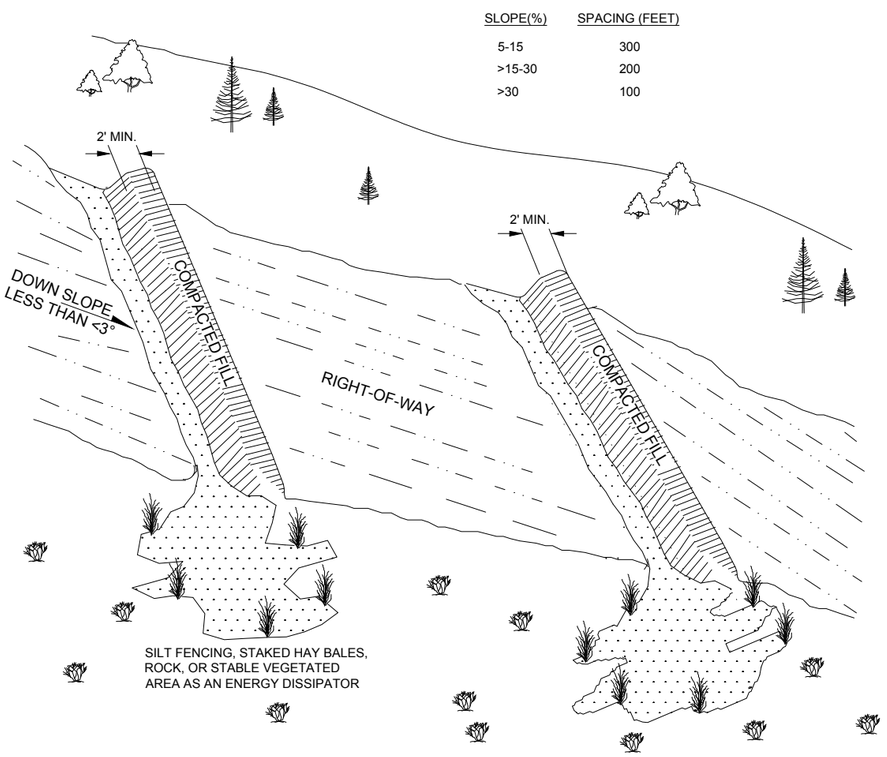
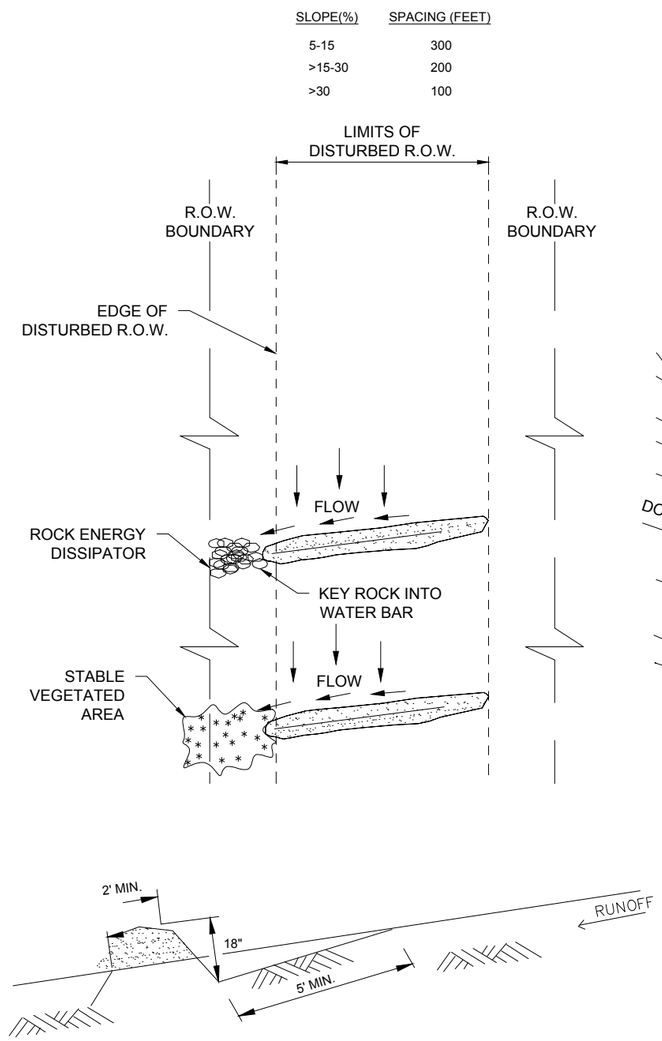


A 149T **TYPICAL SLOPE BREAKER WITH LONGITUDINAL CROSS SLOPES**
N.T.S.

SLOPE BREAKER NOTES:

1. SLOPE BREAKERS SHALL BE CONSTRUCTED OF NATIVE SOIL AND INSTALLED AT LOCATIONS AS SHOWN ON THE CONSTRUCTION DRAWINGS, OR AS REQUIRED.
2. SLOPE BREAKER SHALL BE ORIENTED AS SHOWN OR OTHER PATTERN AS REQUIRED.
3. SLOPE BREAKERS SHALL BE CONSTRUCTED AT A 2-8% GRADIENT ACROSS THE SLOPE.
4. THE SLOPE BREAKERS SHALL BE 18" DEEP (AS MEASURED FROM THE TROUGH TO THE TOP OF THE SLOPE BREAKER). THE TROUGH WILL BE A MINIMUM OF 5' WIDE ACROSS THE WIDTH OF THE RIGHT-OF-WAY.
5. THE OUTLET OF THE SLOPE BREAKER MUST FREELY DISCHARGE ALL RUNOFF OFF THE DISTURBED R.O.W. INTO A STABLE, WELL VEGETATED AREA OR INTO AN ENERGY DISSIPATOR.
6. WHERE SLOPE BREAKERS EXTEND BEYOND THE EDGE OF THE CONSTRUCTION R.O.W. TO DIRECT RUNOFF INTO STABLE, WELL VEGETATED AREAS, THESE LOCATIONS MUST BE APPROVED.

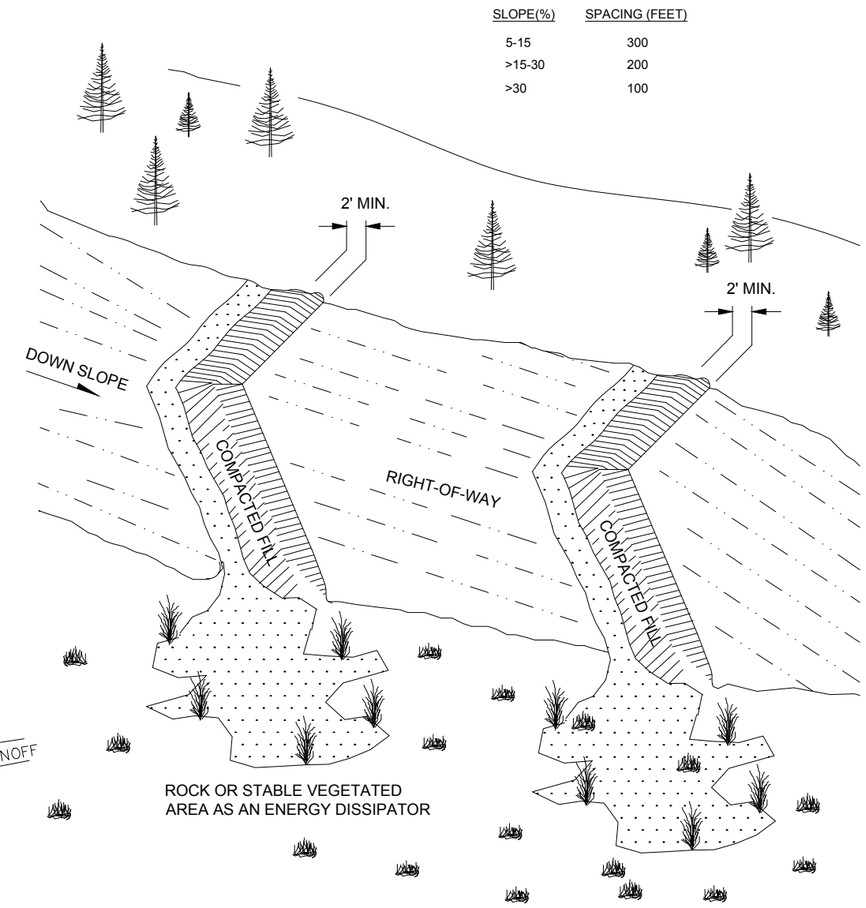


B 149T **TYPICAL SLOPE BREAKER WITH LONGITUDINAL CROSS SLOPES**
N.T.S.

FLOW ENERGY DISSIPATOR NOTES:

1. THE OUTLET SHALL CONTAIN AN ENERGY DISSIPATOR IF THE COMPANY DETERMINES EXISTING VEGETATION IS NOT SUFFICIENTLY STABLE TO PREVENT EROSION. THE ENERGY DISSIPATOR SHALL BE CONSTRUCTED AS FOLLOWS:

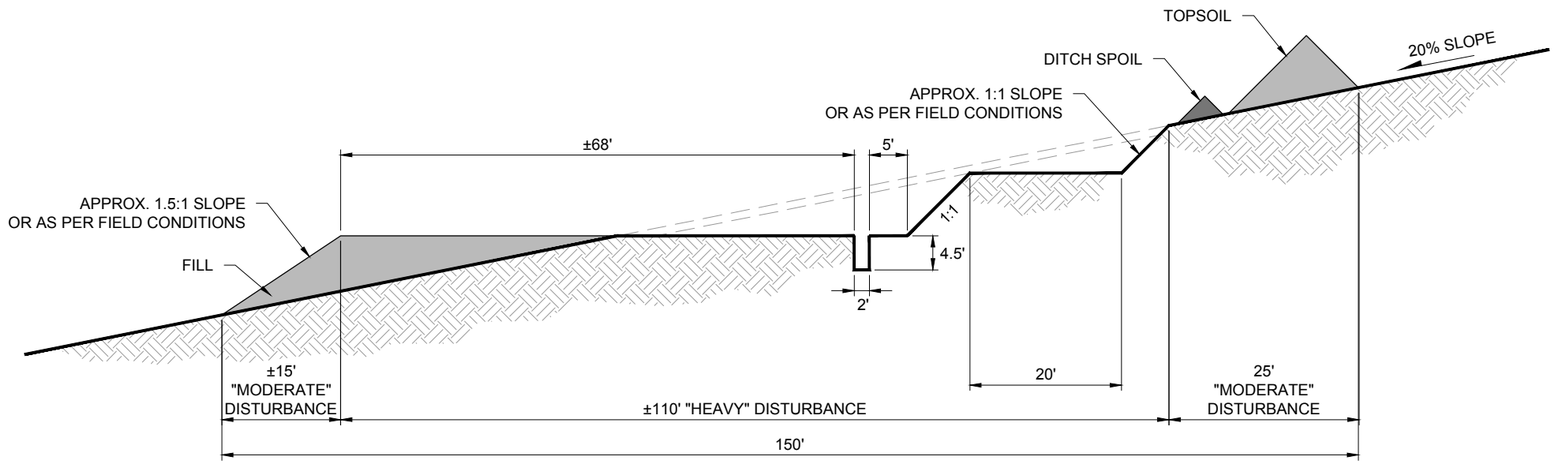
- OUTFALL END OF DISSIPATOR SHOULD BE LOWER THAN SLOPE BREAKER END.
- SILT FENCE, STRAW BALE OR ROCK DISSIPATORS SHOULD BE KEYED INTO THE END OF THE SLOPE
- BREAKER. PROVIDE ENOUGH AREA INSIDE "L" TO CAPTURE AND HOLD SEDIMENT.



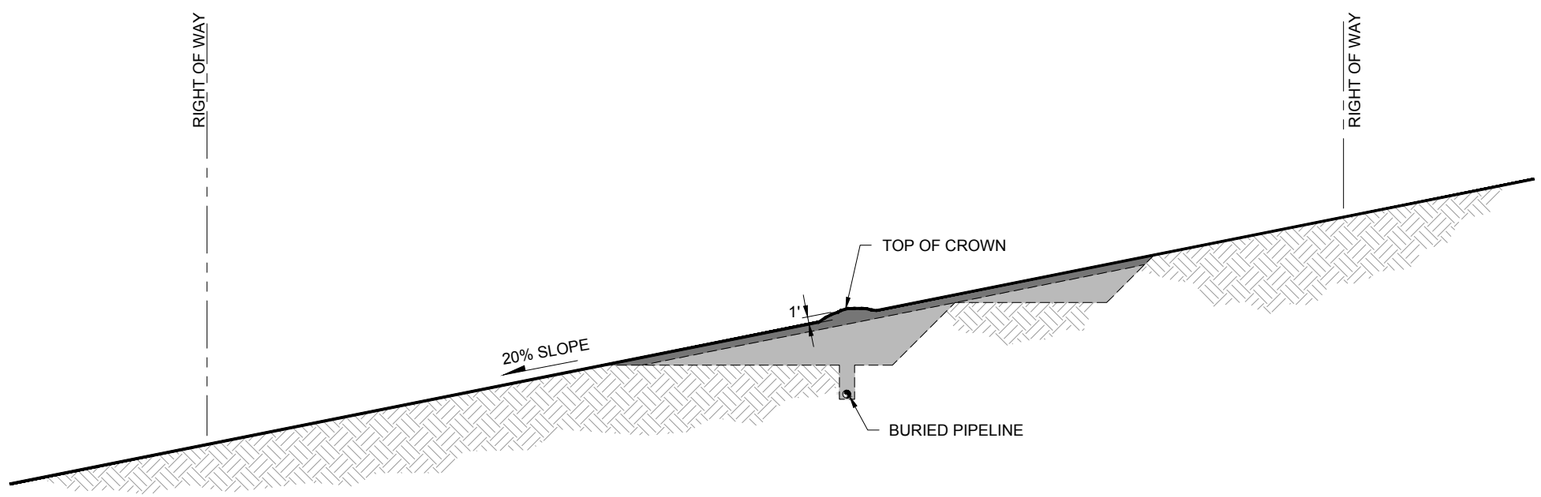
C 149T **TYPICAL SLOPE BREAKER WITH LONGITUDINAL CROSS SLOPES**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01W-TYEC-10.DWG, P01W-TYEC-11.DWG, P01W-TYEC-12.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL SLOPE BREAKER WITH LONGITUDINAL CROSS SLOPES DETAIL**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-149T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Slope_Breaker.dwg



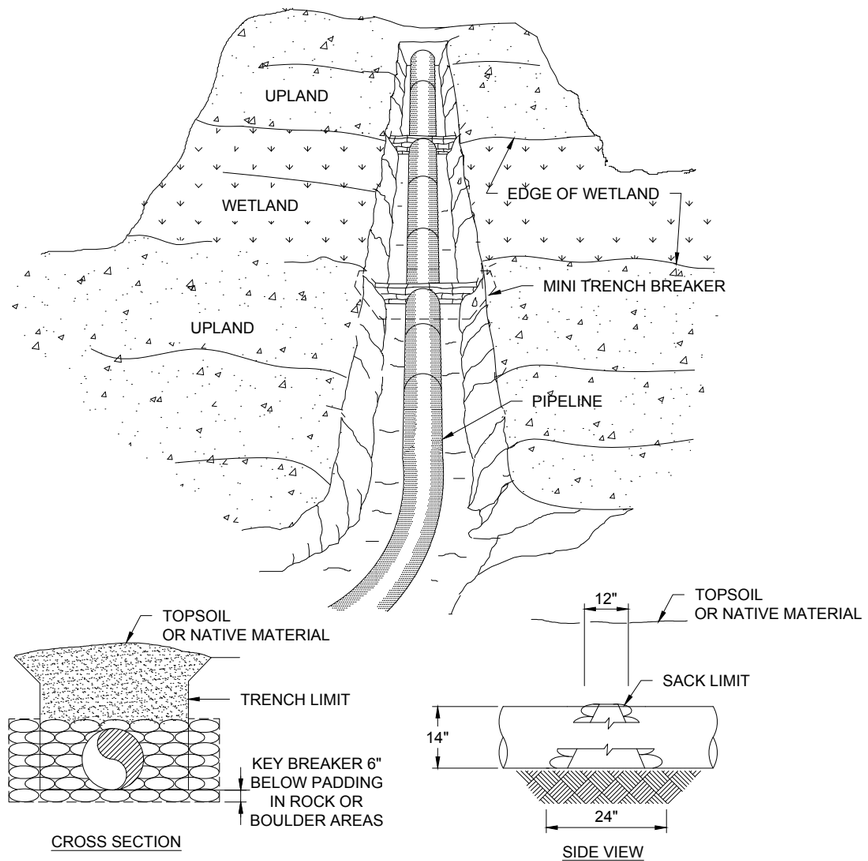
A 150T **ACTIVE CONSTRUCTION RIGHT OF WAY**
N.T.S.



B 150T **RECLAIMED RIGHT OF WAY**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01W-TYRW-01.DWG, P01W-TYRW-02.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL SIDE SLOPE SECTION - TWO TONED DETAIL**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-150T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Side_Slope_Section.dwg

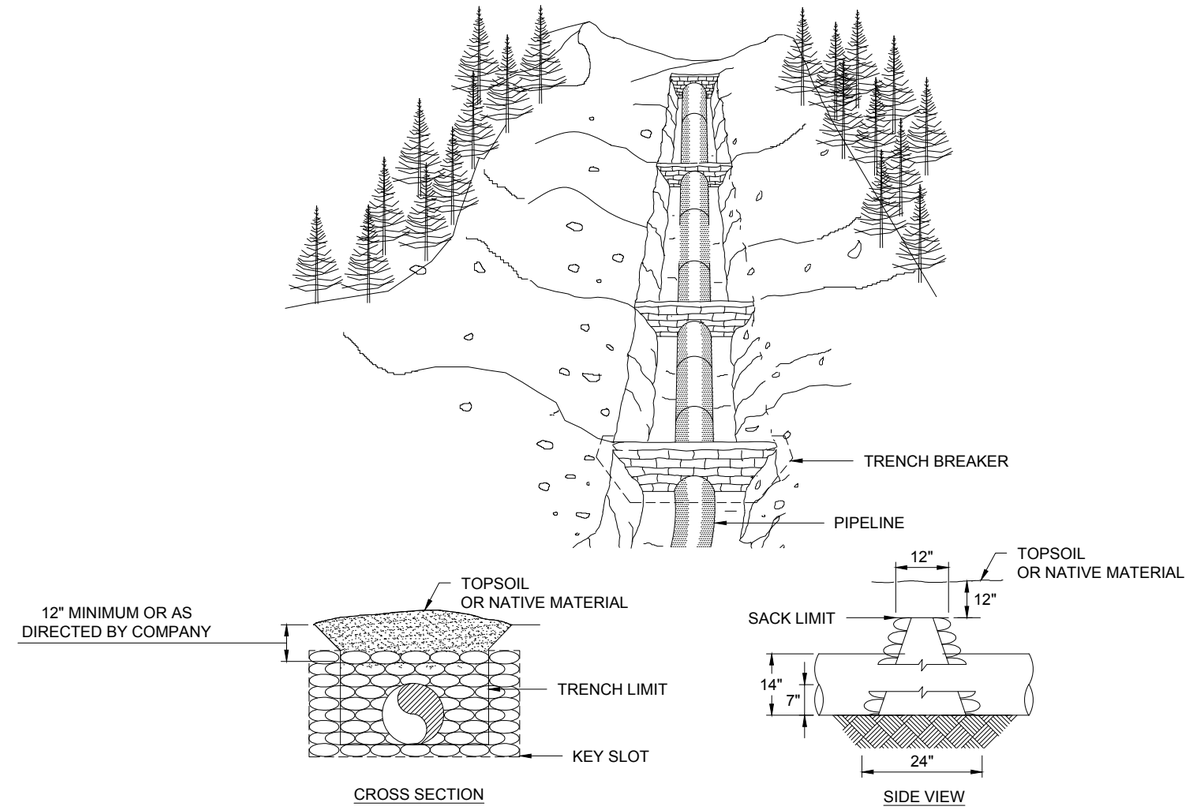


A 151T ACTIVE CONSTRUCTION RIGHT OF WAY

N.T.S.

NOTES:

1. MINI-TRENCH BREAKERS SHALL BE INSTALLED AT EDGE OF EACH WETLAND.
2. OPEN WEAVE HEMP OR JUTE SACKS SHALL BE FILLED WITH A MINIMUM OF 55lbs. OF SAND OR SUBSOIL.
3. BREAKER CONFIGURATION MAY BE CHANGED TO INCLUDE KEYING AS DETERMINED BY COMPANY ENGINEER.



B 151T TYPICAL TRENCH BREAKER REQUIREMENTS

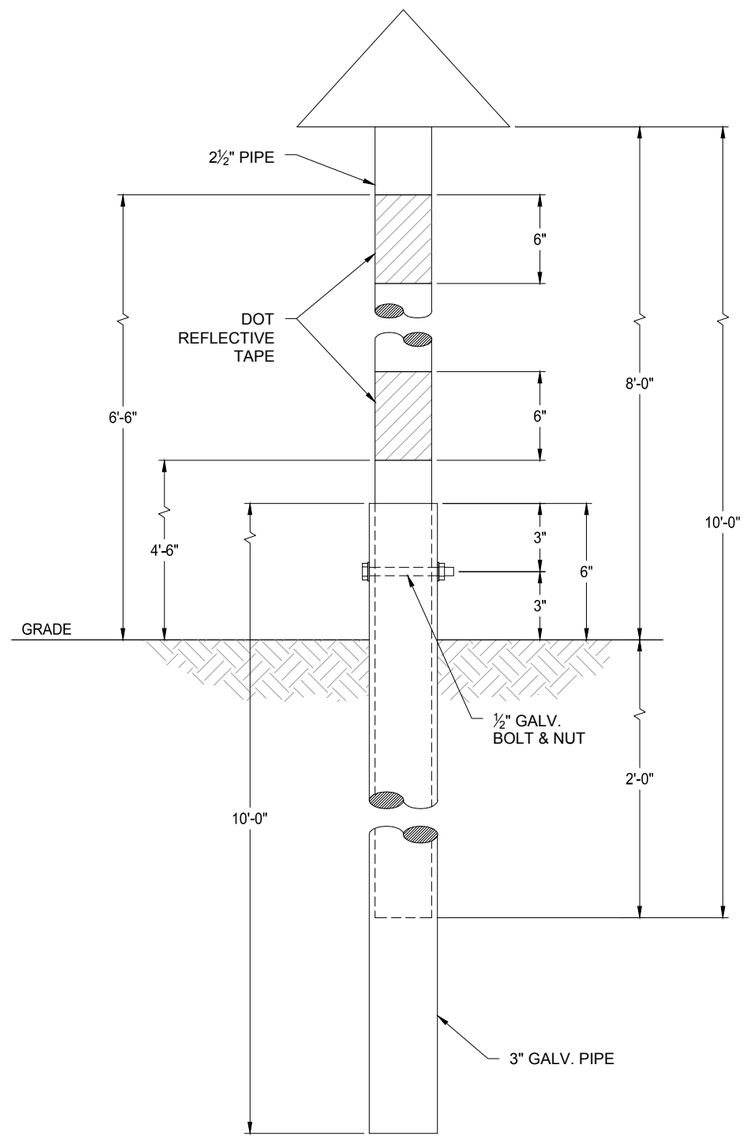
N.T.S.

NOTES:

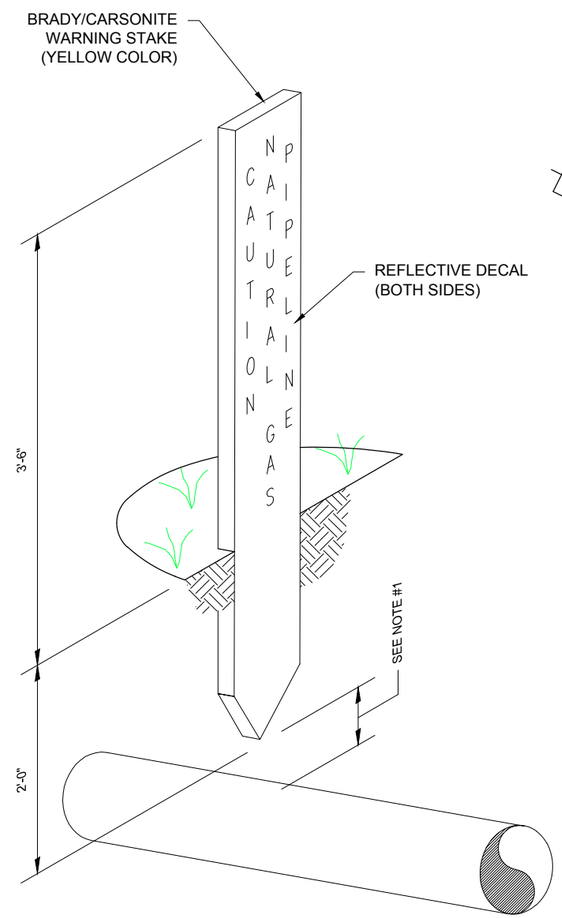
1. TRENCH BREAKERS SHALL BE INSTALLED:
   - ON SLOPES ALONG THE TRENCH LINE WHERE THE NATURAL DRAINAGE PATTERN, PROFILE, AND TYPE OF BACKFILL MATERIAL MAY RESULT IN LOSS OF BACKFILL MATERIAL OR ALTERATION OF THE NATURAL PATTERN
   - AT THE BASE OF SLOPES ADJACENT TO WATERBODIES AND WETLANDS
   - WHERE NEEDED TO AVOID DRAINING A WETLAND
2. OPEN WEAVE HEMP OR JUTE SACKS SHALL BE FILLED WITH A MINIMUM OF 55lbs IN A MIXTURE OF SAND & SUBSOIL.
3. BREAKER SPACING AND CONFIGURATION, INCLUDING THE NEED TO KEY THE BREAKER INTO THE UNDISTURBED SOIL AT THE SIDES AND BOTTOM OF THE TRENCH, MAY CHANGE AS DETERMINED BY COMPANY ENGINEER.

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01W-TYTR-01.DWG, P01W-TYTR-02.DWG, P01W-TYTR-03.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**TYPICAL TRENCH BREAKER DETAIL**
	SCALE: AS SHOWN — DATE: 10/23/2015	FIGURE NO. **PA-151T** — FILE NO. **POA-1995-120**

PATH: C:\Users\mengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Trench_Breaker.dwg



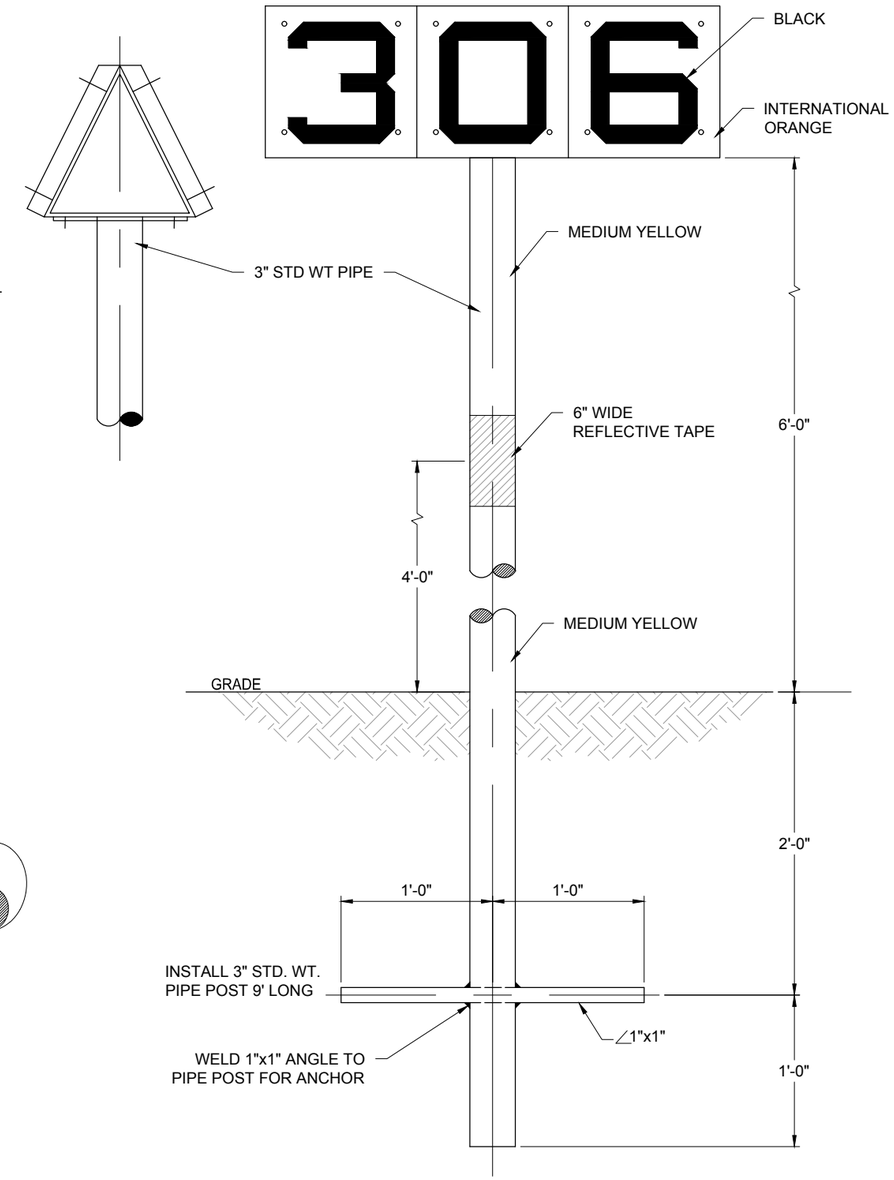
A 152T **TYPICAL PIPELINE MARKER**
N.T.S.



B 152T **TYPICAL PIPELINE WARNING MARKER**
N.T.S.

NOTES:

1. MARKERS SHALL BE PLACED DIRECTLY OVER THE PIPELINE WHEN THERE IS AT LEAST 1'-0" OF CLEARANCE BETWEEN THE TOP OF THE PIPE.
2. PIPE AND THE BOTTOM OF THE MARKER. MARKERS SHALL BE SLIGHTLY OFFSET IF THE CLEARANCE IS LESS THAN 1'-0". MARKERS WILL BE OFFSET IF THE PIPELINE IS IN A ROADWAY.



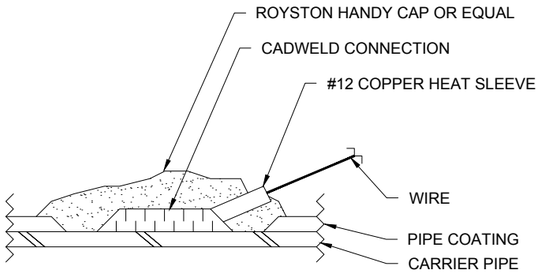
C 152T **TYPICAL PIPELINE AERIAL MARKER**
N.T.S.

NOTES:

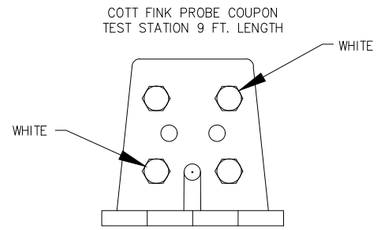
1. CONTRACTOR TO ASSEMBLE SIGN AND MOUNT ON POST.
2. REFLECTIVE STRIPING SHOULD BE ADDED ON ALL SIDES OF POST.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL PIPELINE MARKER DETAIL**	
P01C-TYMK-01.DWG, P01C-TYMK-02.DWG, P01C-TYMK-03.DWG (BAKER) OCT 2013	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-152T**	FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Pipeline_Marker.dwg

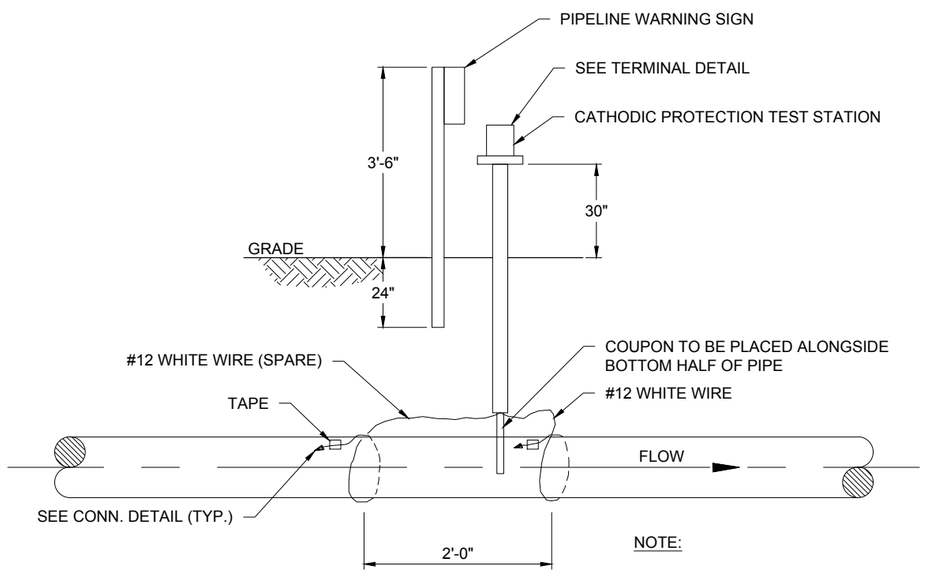


PIPE CONNECTION DETAIL
(SEE NOTES 3,4, & 5)



TERMINAL DETAIL

NOTE:
WIRES TO BE TERMINATED WITH RING TERMINALS.



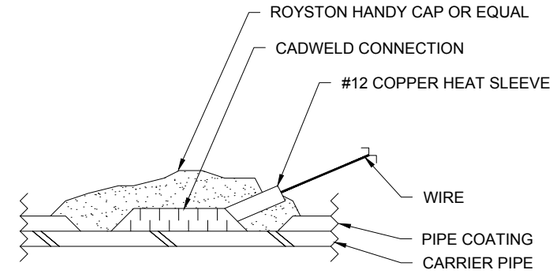
NOTE:

ALL WIRES TO MAKE A COMPLETE LOOP AROUND PIPE.

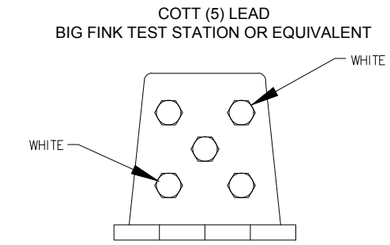
(A 153T) TYPICAL CATHODIC PROTECTION COUPON TEST STATION
N.T.S.

NOTES:

1. ALL WIRE SHALL BE INSULATED STRANDED COPPER #12 THHN AS SHOWN ABOVE.
2. TERMINAL BLOCK SHALL BE WIRED BY CONTRACTOR AS SHOWN IN TERMINAL DETAIL ABOVE.
3. ALL WIRE CONNECTIONS TO CARRIER PIPE SHALL BE MADE AS SHOWN IN DETAIL ABOVE. WIRE SHALL BE CONNECTED TO PIPE BY CADWELD PROCESS WITH COPPER HEAT SLEEVE.
4. CADWELD WIRE CONNECTIONS SHALL BE PRIMED WITH ROYSTON SPRAY PRIMER OR EQUAL AND ALLOWED TO DRY 3 TO 4 MINUTES OR UNTIL TACKY, AND COVERED WITH ROYSTON HANDY CAP OR EQUAL.
5. WIRE INSULATION SHALL BE PROTECTED FROM DAMAGE.
6. LAY WIRES ALONGSIDE PIPE. NOT OVER OR UNDER PIPE.
7. CATHODIC PROTECTION TEST STATION AND ALL OTHER MATERIALS SHALL BE FURNISHED BY CONTRACTOR.
8. INSTALL AT ALL LOCATIONS INDICATED ON ALIGNMENT SHEETS.

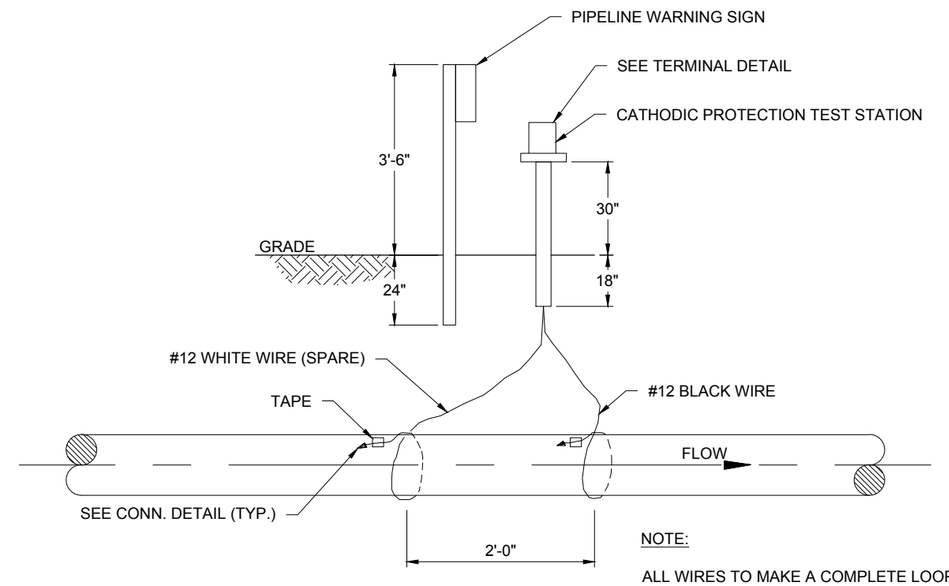


PIPE CONNECTION DETAIL
(SEE NOTES 3,4, & 5)



TERMINAL DETAIL

NOTE:
WIRES TO BE TERMINATED WITH RING TERMINALS.



NOTE:

ALL WIRES TO MAKE A COMPLETE LOOP AROUND PIPE.

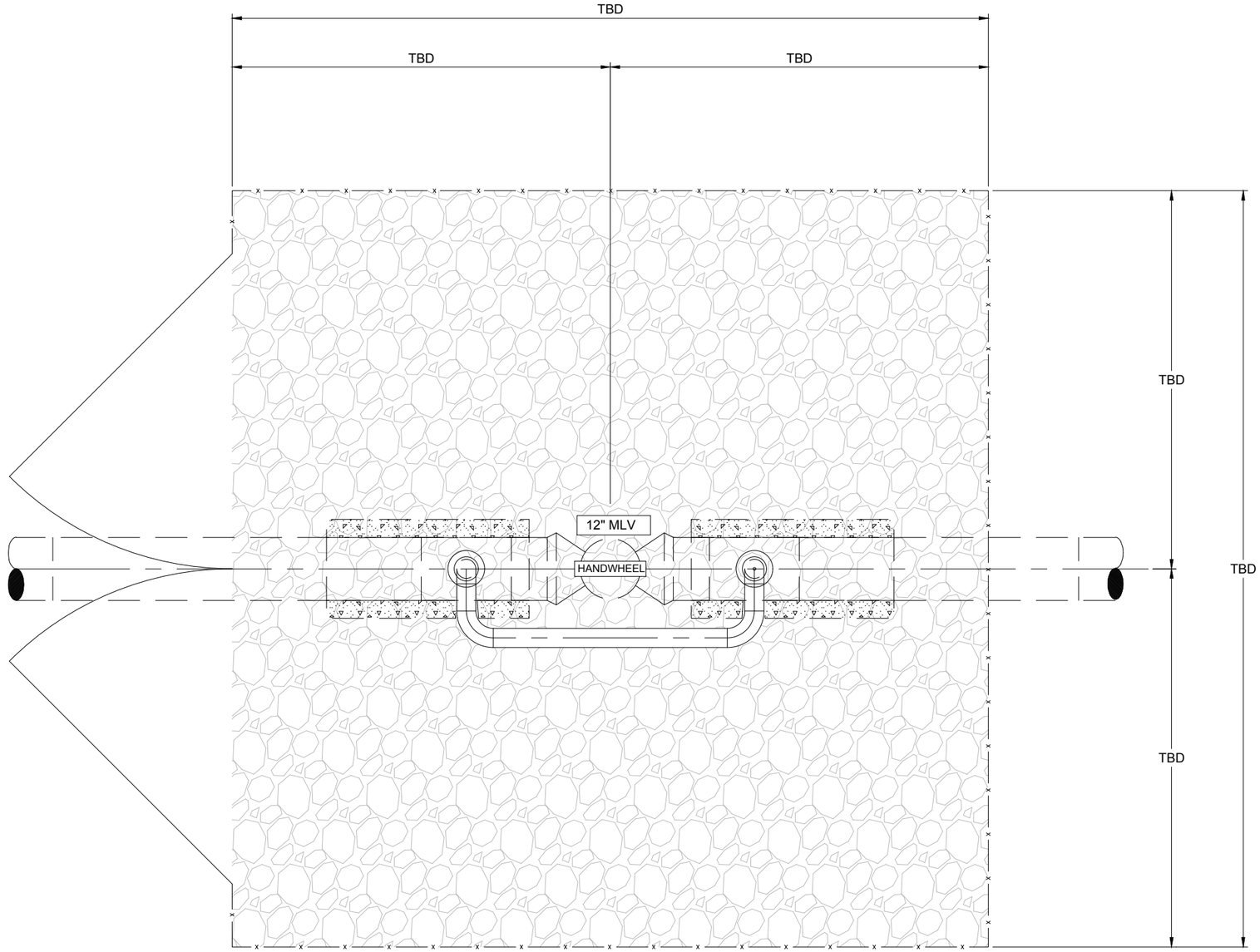
(B 153T) TYPICAL PIPELINE WARNING MARKER
N.T.S.

NOTES:

1. ALL WIRE SHALL BE INSULATED STRANDED COPPER #12 THHN AS SHOWN ABOVE.
2. TERMINAL BLOCK SHALL BE WIRED BY CONTRACTOR AS SHOWN IN TERMINAL DETAIL ABOVE.
3. ALL WIRE CONNECTIONS TO CARRIER PIPE SHALL BE MADE AS SHOWN IN DETAIL ABOVE. WIRE SHALL BE CONNECTED TO PIPE BY CADWELD PROCESS WITH COPPER HEAT SLEEVE.
4. CADWELD WIRE CONNECTIONS SHALL BE PRIMED WITH ROYSTON SPRAY PRIMER OR EQUAL AND ALLOWED TO DRY 3 TO 4 MINUTES OR UNTIL TACKY, AND COVERED WITH ROYSTON HANDY CAP OR EQUAL.
5. WIRE INSULATION SHALL BE PROTECTED FROM DAMAGE.
6. LAY WIRES ALONGSIDE PIPE. NOT OVER OR UNDER PIPE.
7. CATHODIC PROTECTION TEST STATION AND ALL OTHER MATERIALS SHALL BE FURNISHED BY CONTRACTOR.
8. INSTALL AT ALL LOCATIONS INDICATED ON ALIGNMENT SHEETS.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: TYPICAL CATHODIC PROTECTION DETAIL	
P01C-TYTS-01.DWG, P01C-TYTS-02.DWG (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. PA-153T	FILE NO. POA-1995-120

PATH: C:\Users\mengewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_A\PA_Cathodic_Protection.dwg



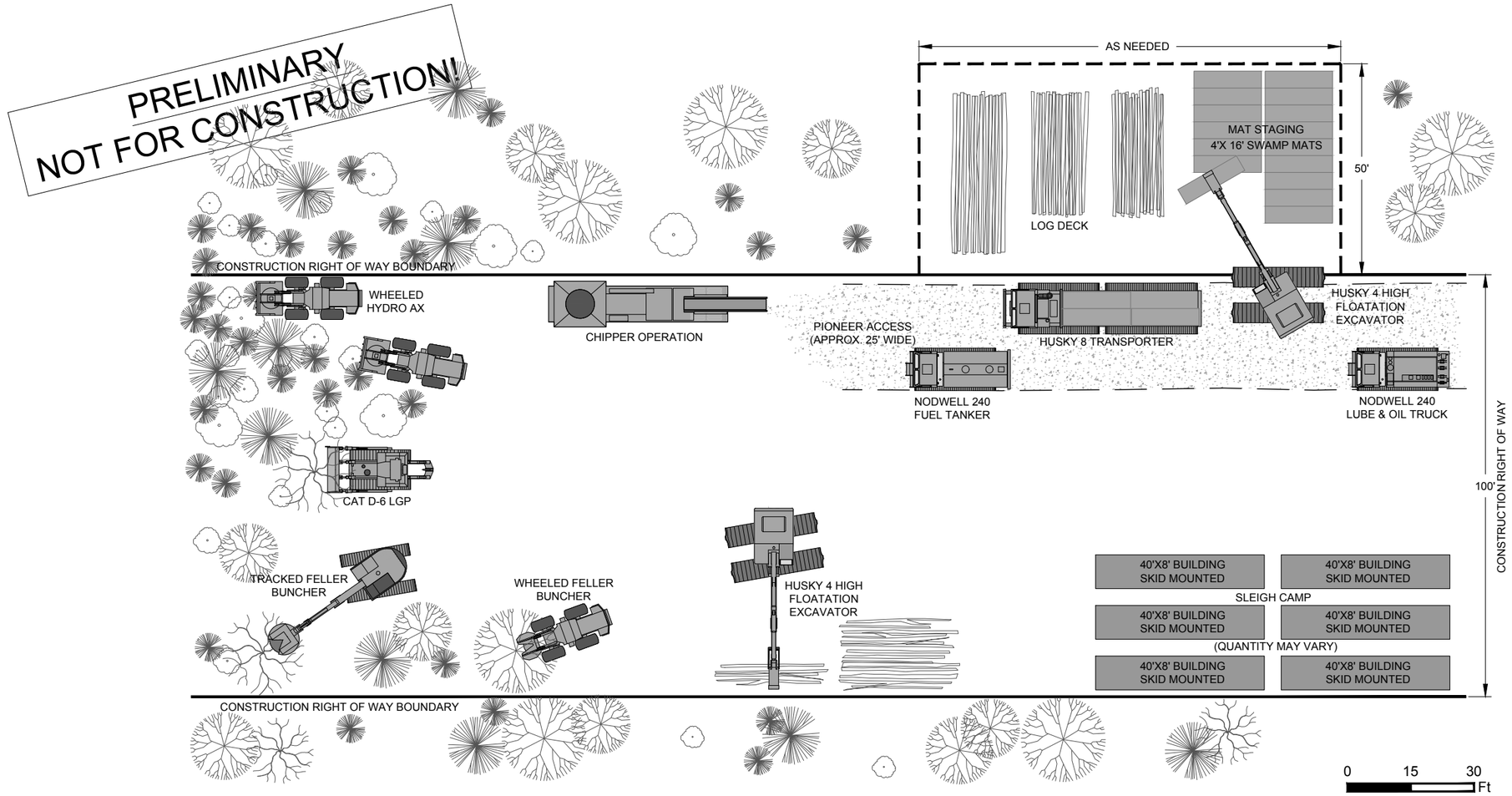
A 154T **TYPICAL MLV FENCING**
N.T.S.

NOTES:

1. REFERENCE DRAWING (DONLIN PIPELINE MLV DWG) AND CONSTRUCTION SPECIFICATIONS FOR DETAILED CONSTRUCTION GUIDELINES.
2. LOCATION OF GATE TO BE FIELD DETERMINED.

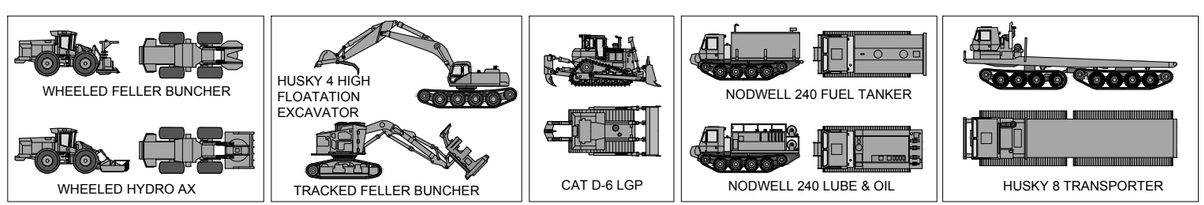
Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL MLV FENCING DETAIL**	
P01M-DTVA-01.DWG (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. **PA-154T**	FILE NO. **POA-1995-120**

PATH: C:\Users\mtengrewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_AIPA_MLV_Fencing.dwg



NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.

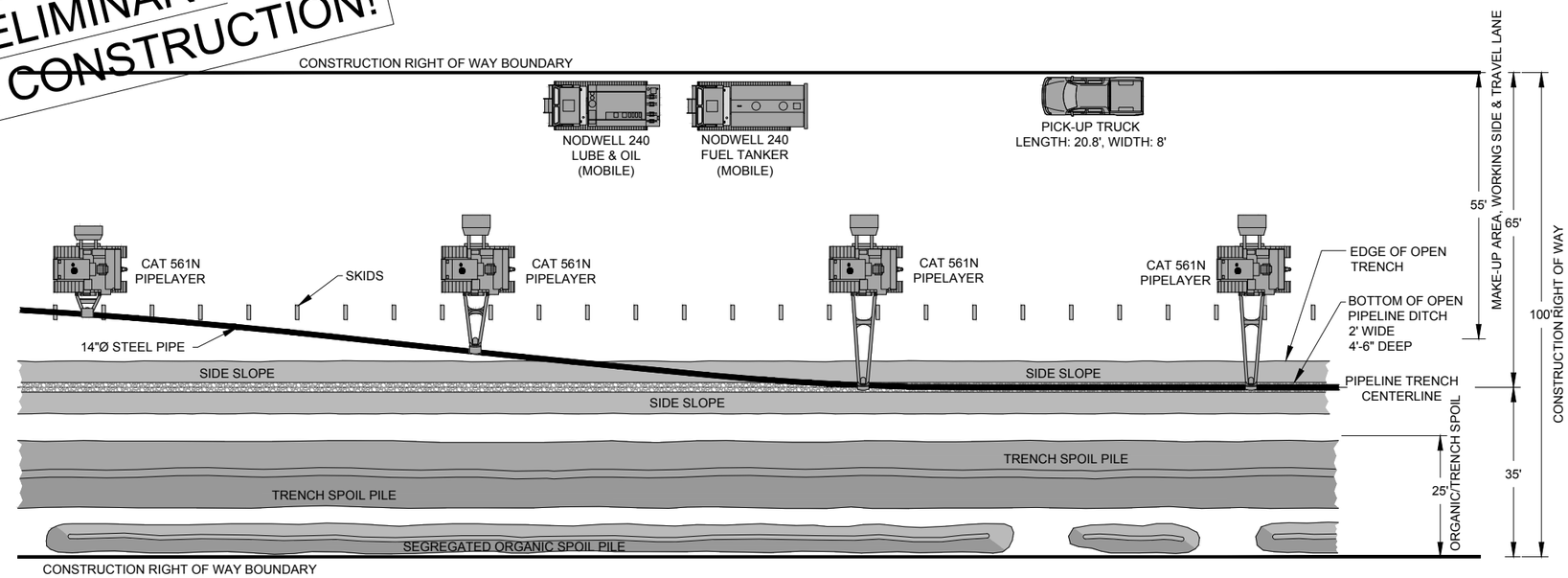
LEGEND
PERMANENT RIGHT OF WAY BOUNDARY
TEMPORARY USE AREA



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-01.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN SUMMER GRADED R.O.W.MODE**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-155T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

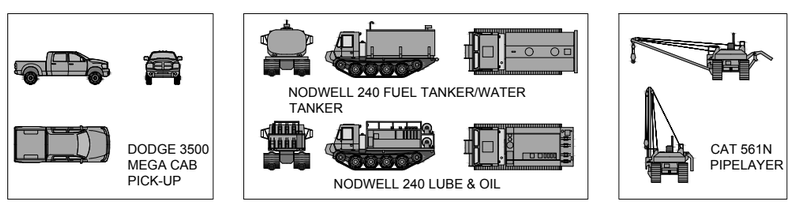
PRELIMINARY
NOT FOR CONSTRUCTION!



0 15 30 Ft

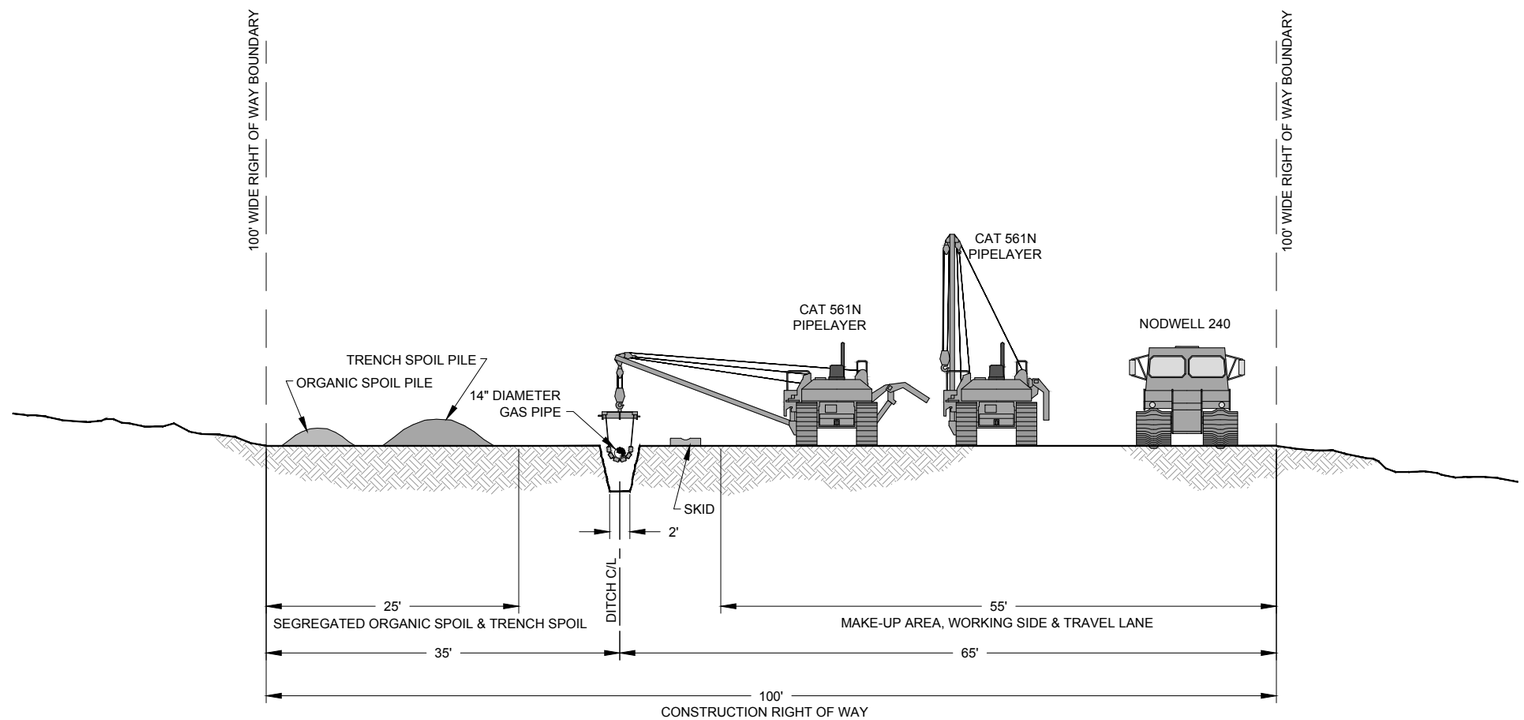
LEGEND
- PIPELINE/TRENCH CENTERLINE
- CONSTRUCTION R.O.W. BOUNDARY
- TRENCH SPOIL PILE
- ORGANIC SPOIL PILE
- BOTTOM OF OPEN PIPELINE TRENCH
- SIDESLOPES OF OPEN TRENCH

NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-05.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN SUMMER GRADED R.O.W. MODE**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-156T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

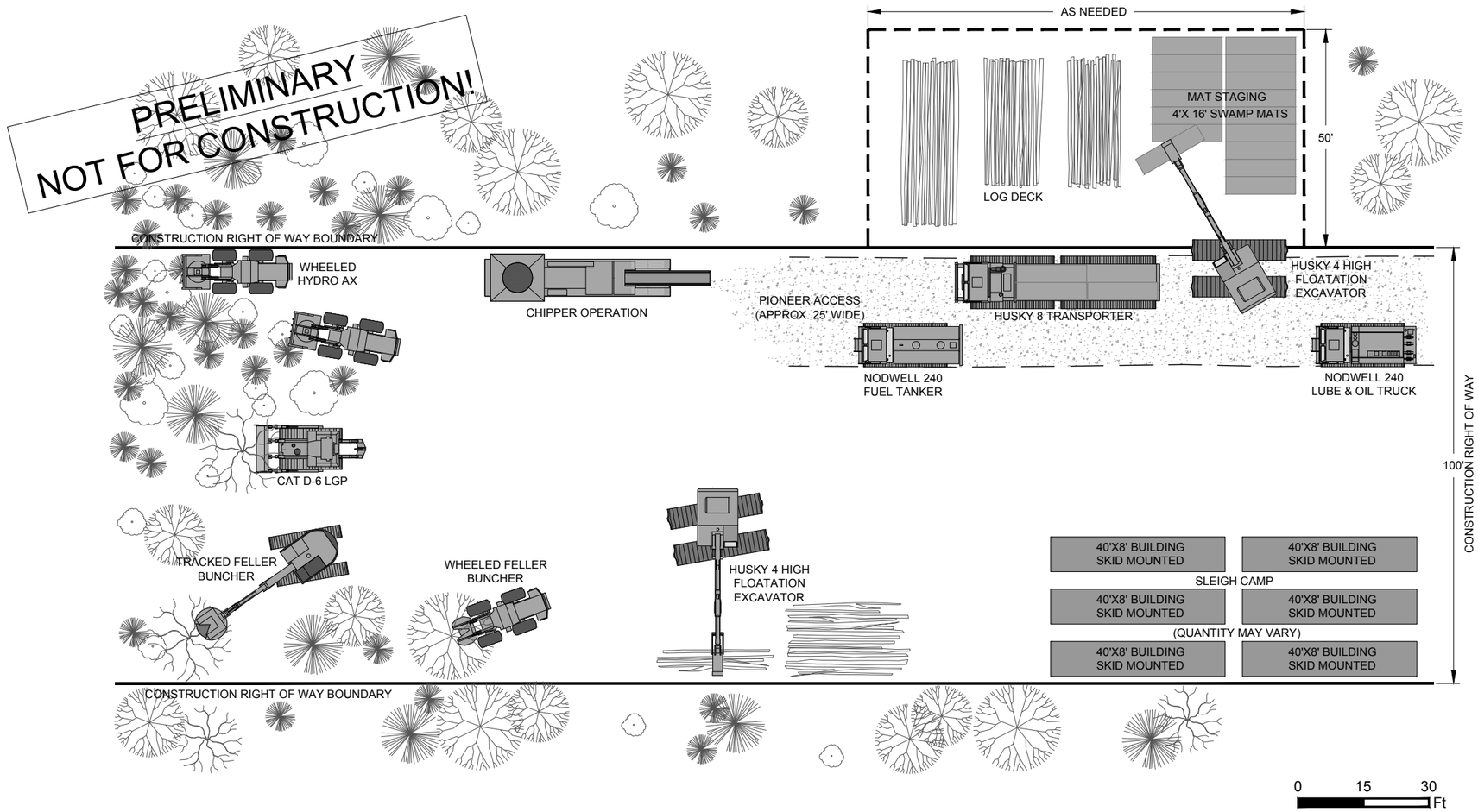


0 7.5 15 Ft

PRELIMINARY
NOT FOR CONSTRUCTION!

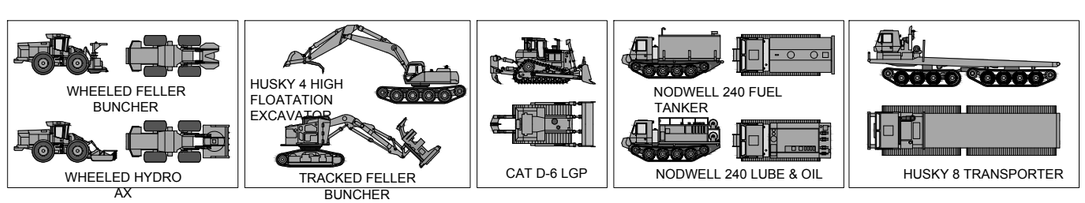
Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-07.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**CROSS SECTION SUMMER GRADED R.O.W. MODE**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-157T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.

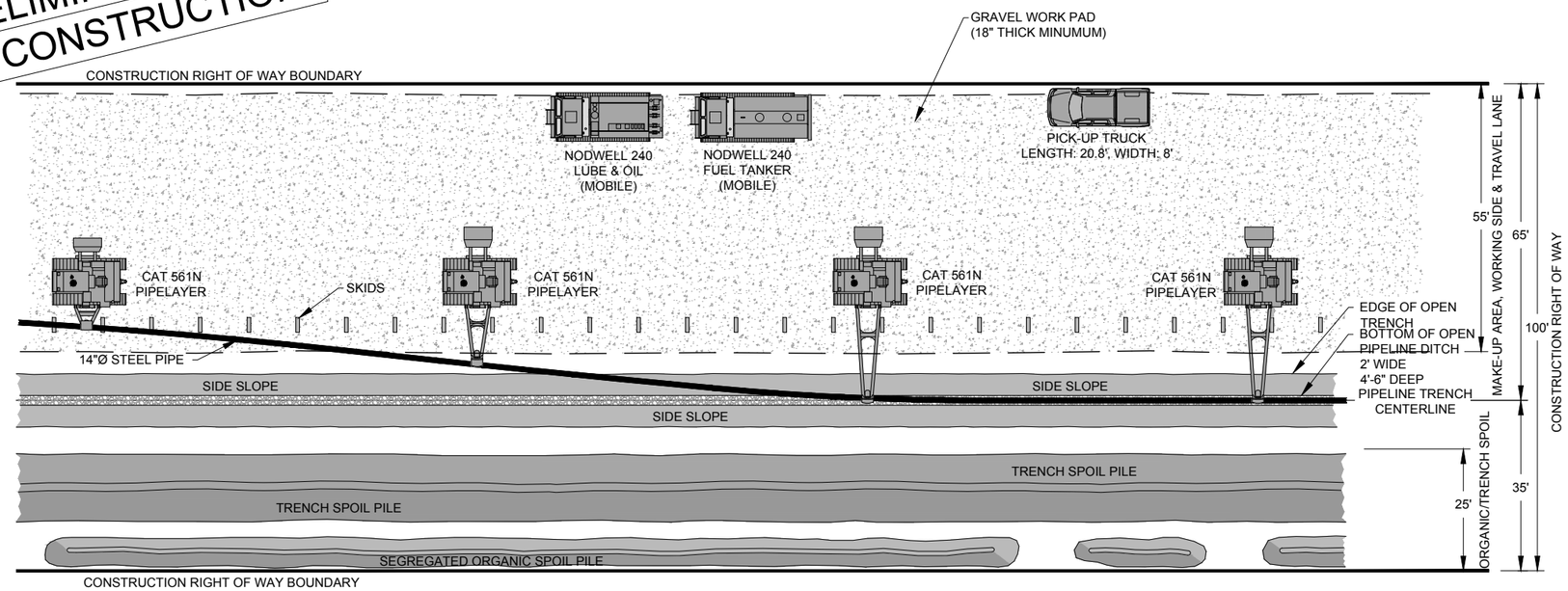
LEGEND
PERMANENT RIGHT OF WAY BOUNDARY
TEMPORARY USE AREA



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-08.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN SUMMER PERMAFROST R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. **PA-158T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mtengrewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

PRELIMINARY
NOT FOR CONSTRUCTION!

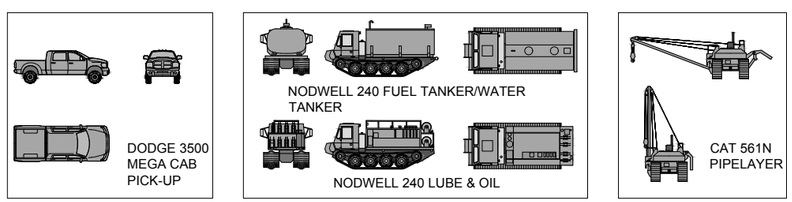


0 15 30 Ft

LEGEND

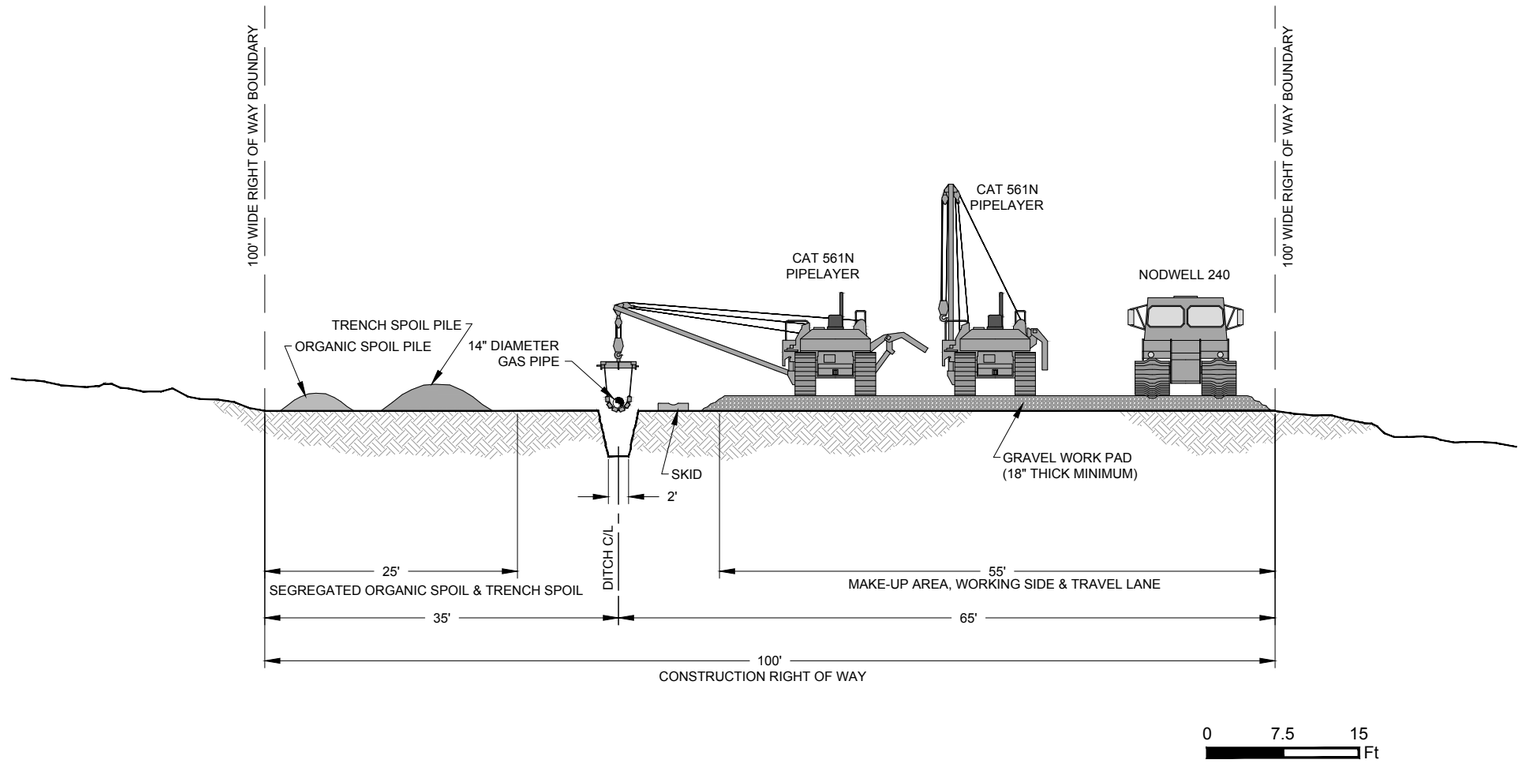
- PIPELINE/TRENCH CENTERLINE
- CONSTRUCTION R.O.W. BOUNDARY
- TRENCH SPOIL PILE
- ORGANIC SPOIL PILE
- BOTTOM OF OPEN PIPELINE TRENCH
- SIDESLOPES OF OPEN TRENCH

NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-12.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN SUMMER PERMAFROST R.O.W. MODE**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-159T** FILE NO. **POA-1995-120**

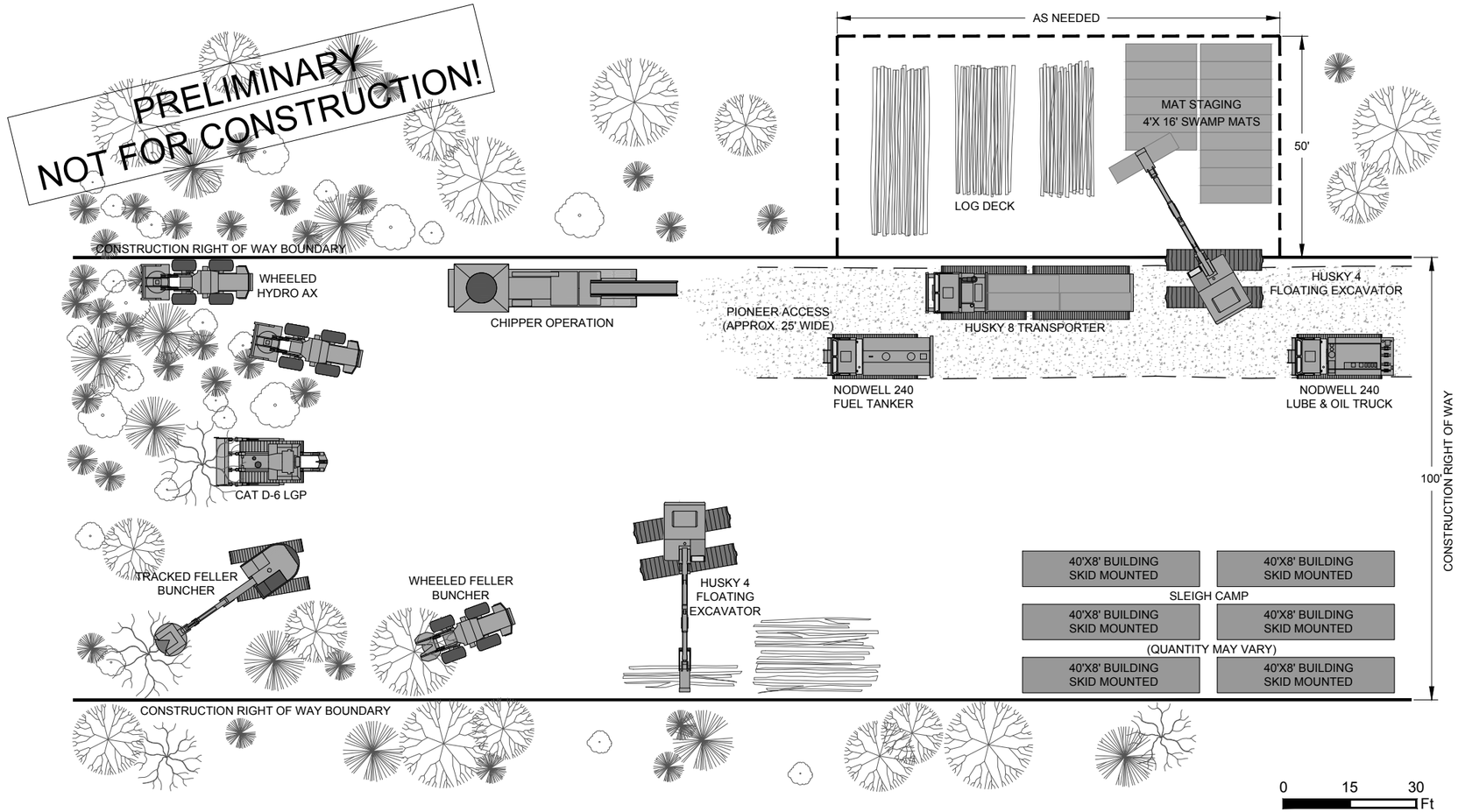
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



PRELIMINARY
NOT FOR CONSTRUCTION!

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-14.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**CROSS SECTION SUMMER PERMAFROST R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. **PA-160T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

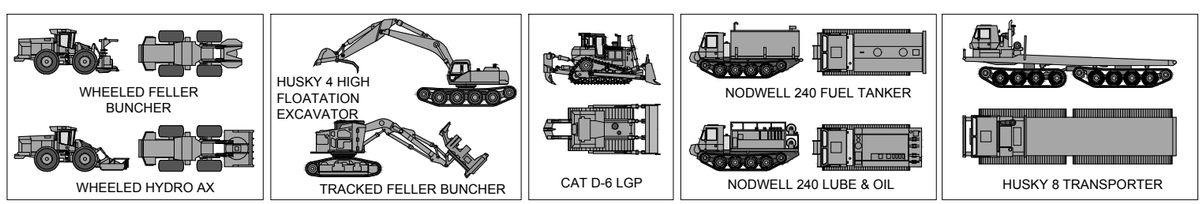


NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.

LEGEND

CONSTRUCTION RIGHT OF WAY BOUNDARY

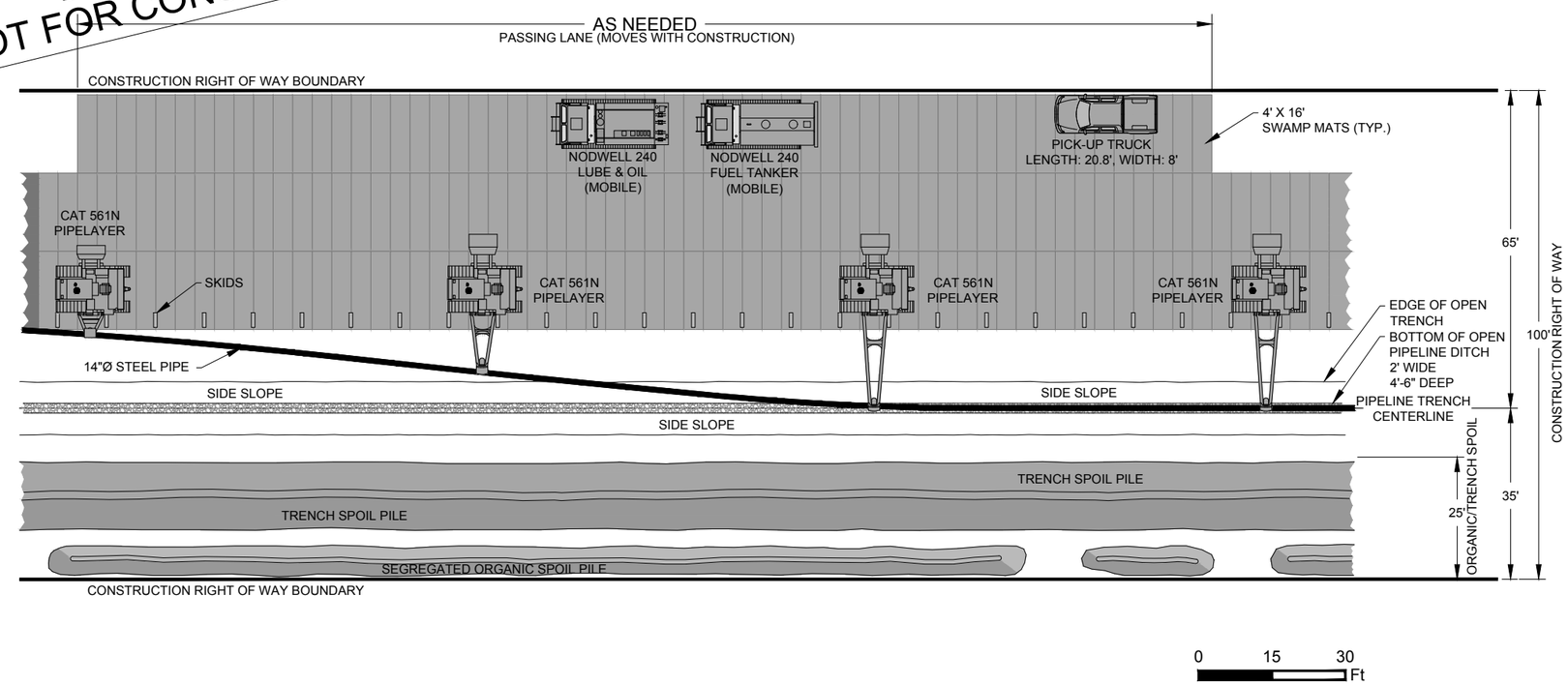
TEMPORARY USE AREA



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-15.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN SUMMER WETLANDS R.O.W. MODE**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-161T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

PRELIMINARY
NOT FOR CONSTRUCTION!



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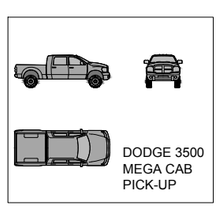
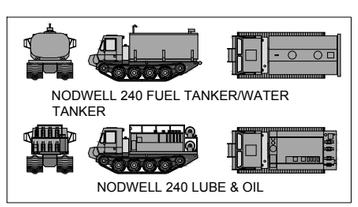
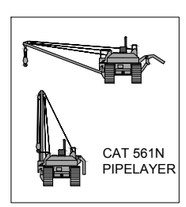
LEGEND
- PIPELINE/TRENCH CENTERLINE
- CONSTRUCTION R.O.W. BOUNDARY
- TRENCH SPOIL PILE
- ORGANIC SPOIL PILE
- BOTTOM OF OPEN PIPELINE TRENCH
- SIDESLOPES OF OPEN TRENCH

NOTES:
1. MATS OR CORDUROY TIMBER AS NEEDED.
2. EQUIPMENT QUANTITY AND TYPE MAY VARY.

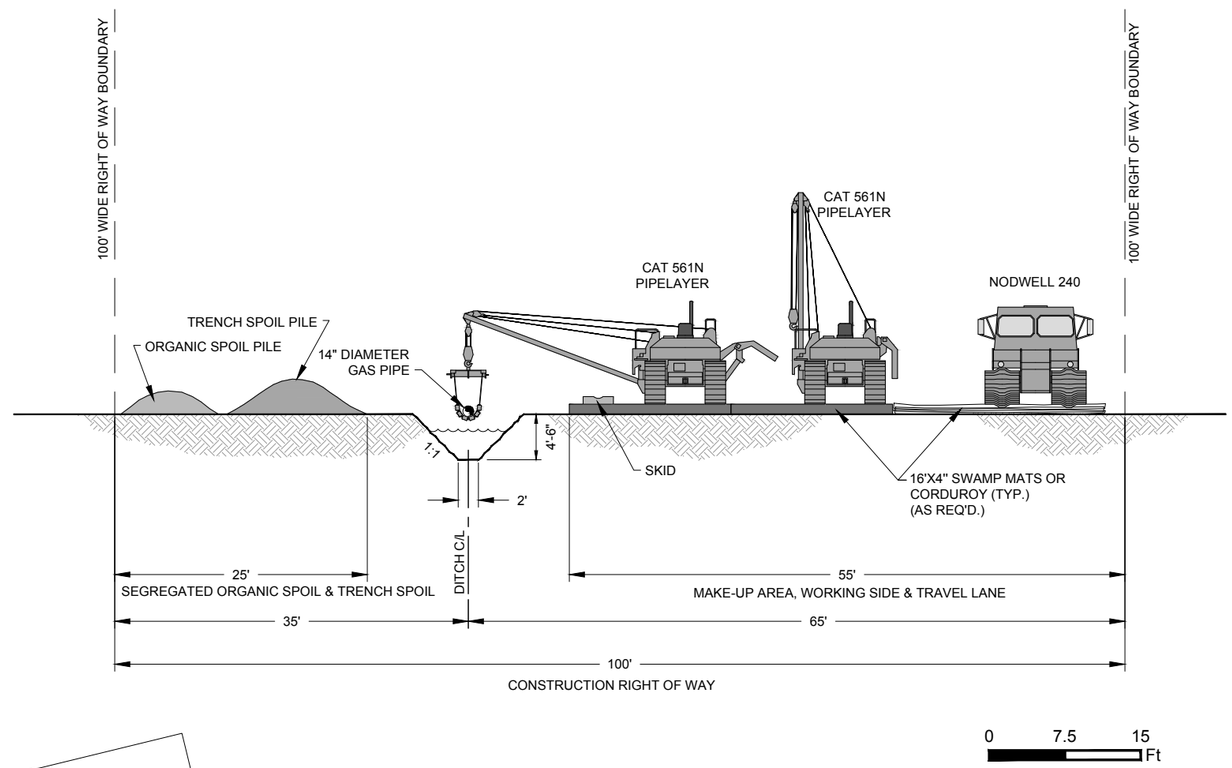






Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-19.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN SUMMER WETLANDS R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/21/2015	FIGURE NO. **PA-162T** / FILE NO. **POA-1995-120**

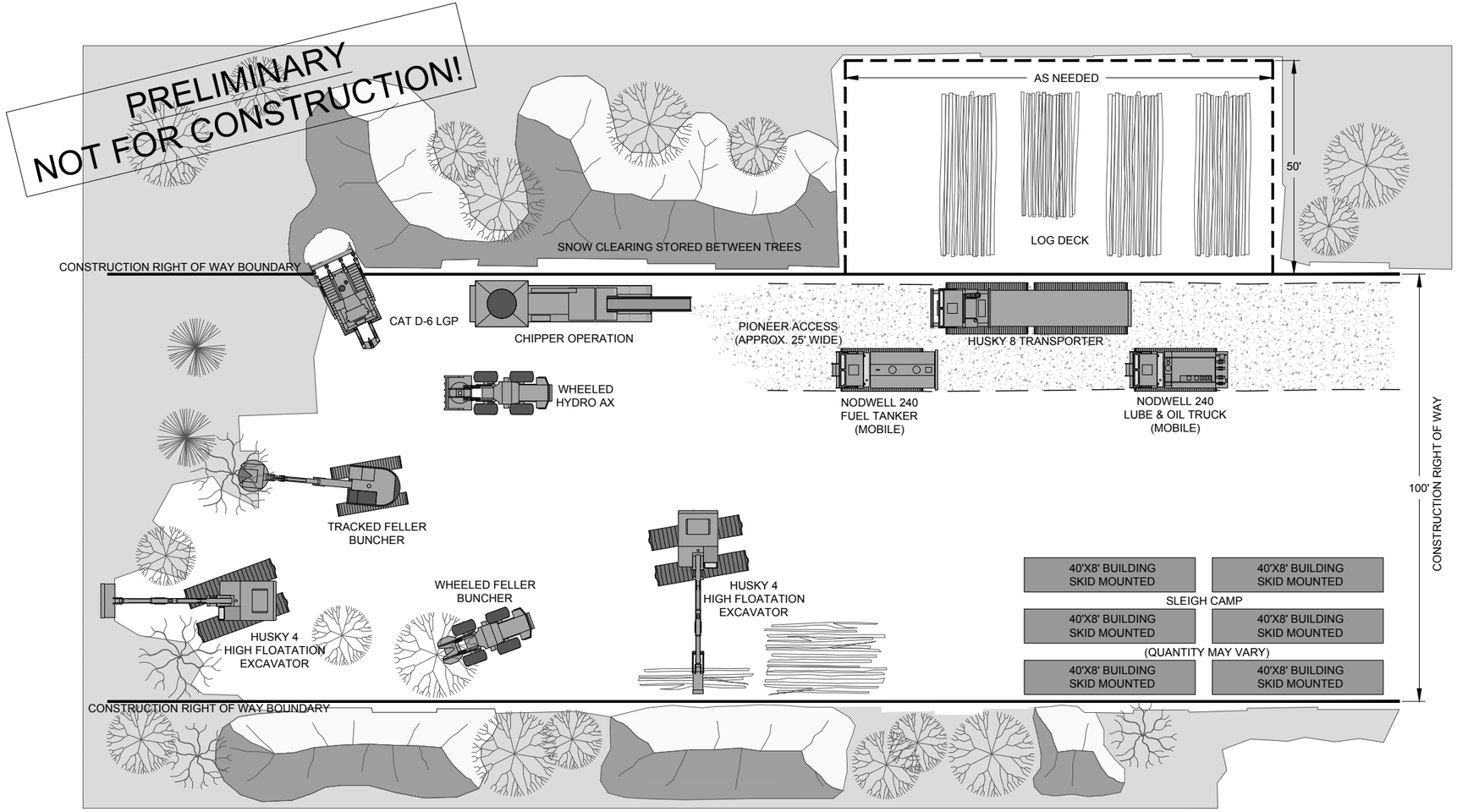
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



PRELIMINARY
NOT FOR CONSTRUCTION!

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWS-21.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**CROSS SECTION SUMMER WETLANDS R.O.W. MODE**
	SCALE: AS SHOWN DATE: 9/21/2015	FIGURE NO. **PA-163T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



LEGEND

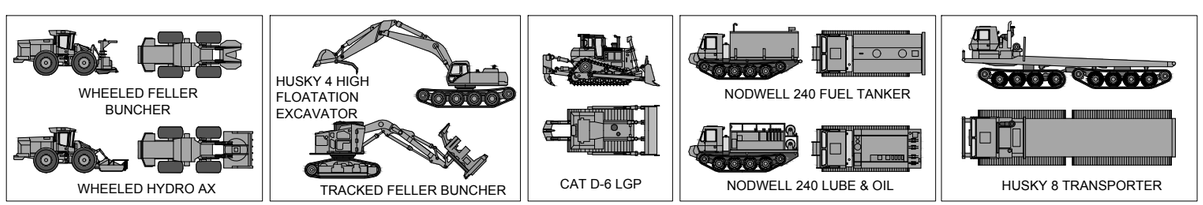
PERMANENT RIGHT OF WAY BOUNDARY

TEMPORARY USE AREA

NOTES:

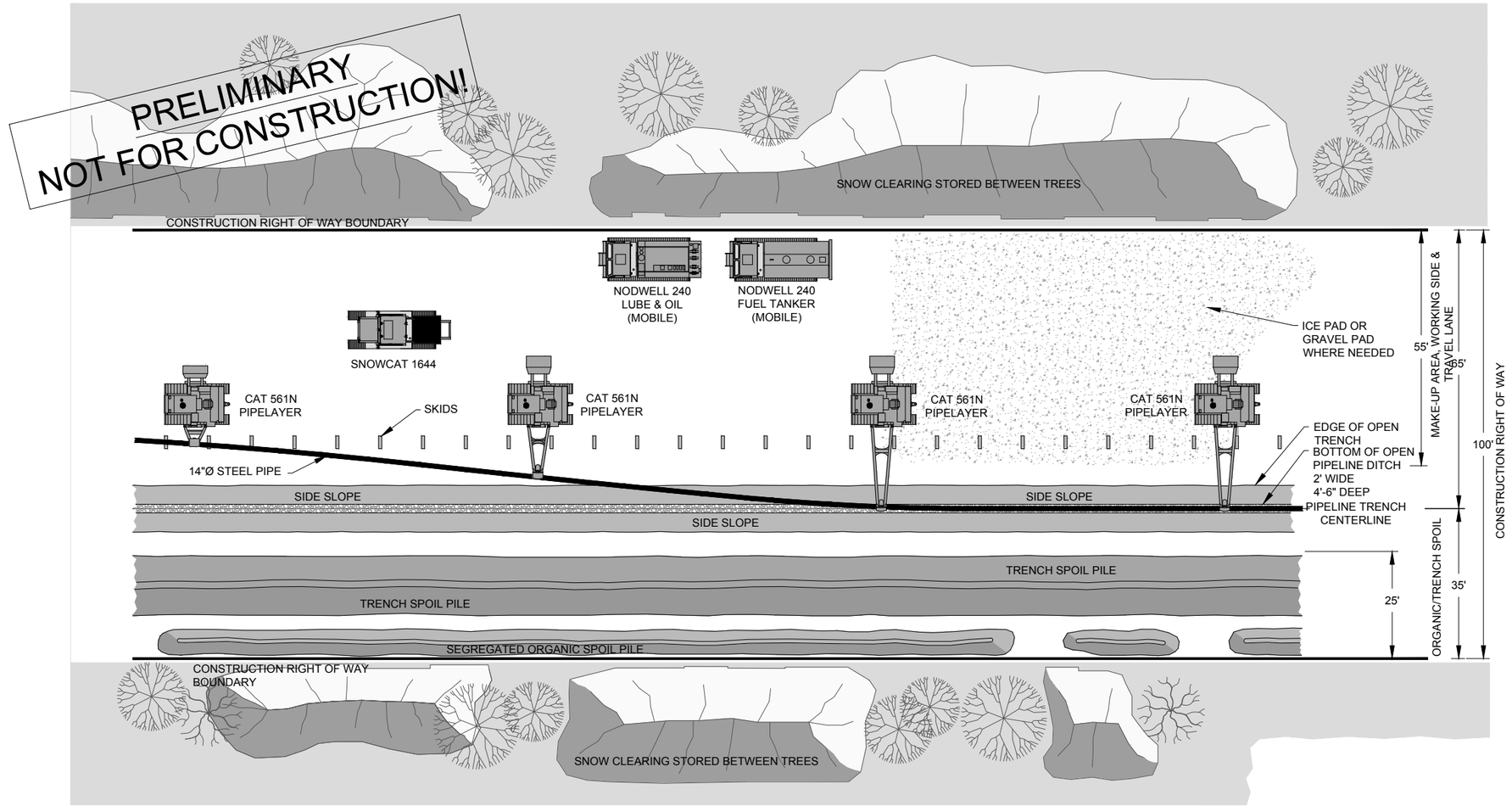
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.

0 15 30 Ft



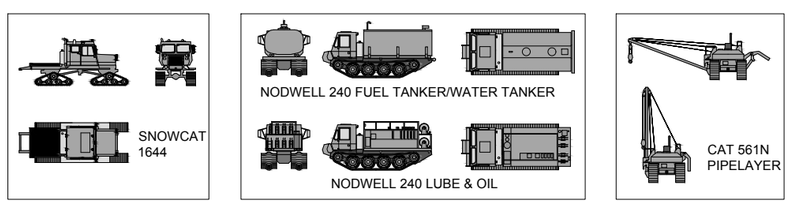
Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-01.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN WINTER GRADED R.O.W MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-164T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



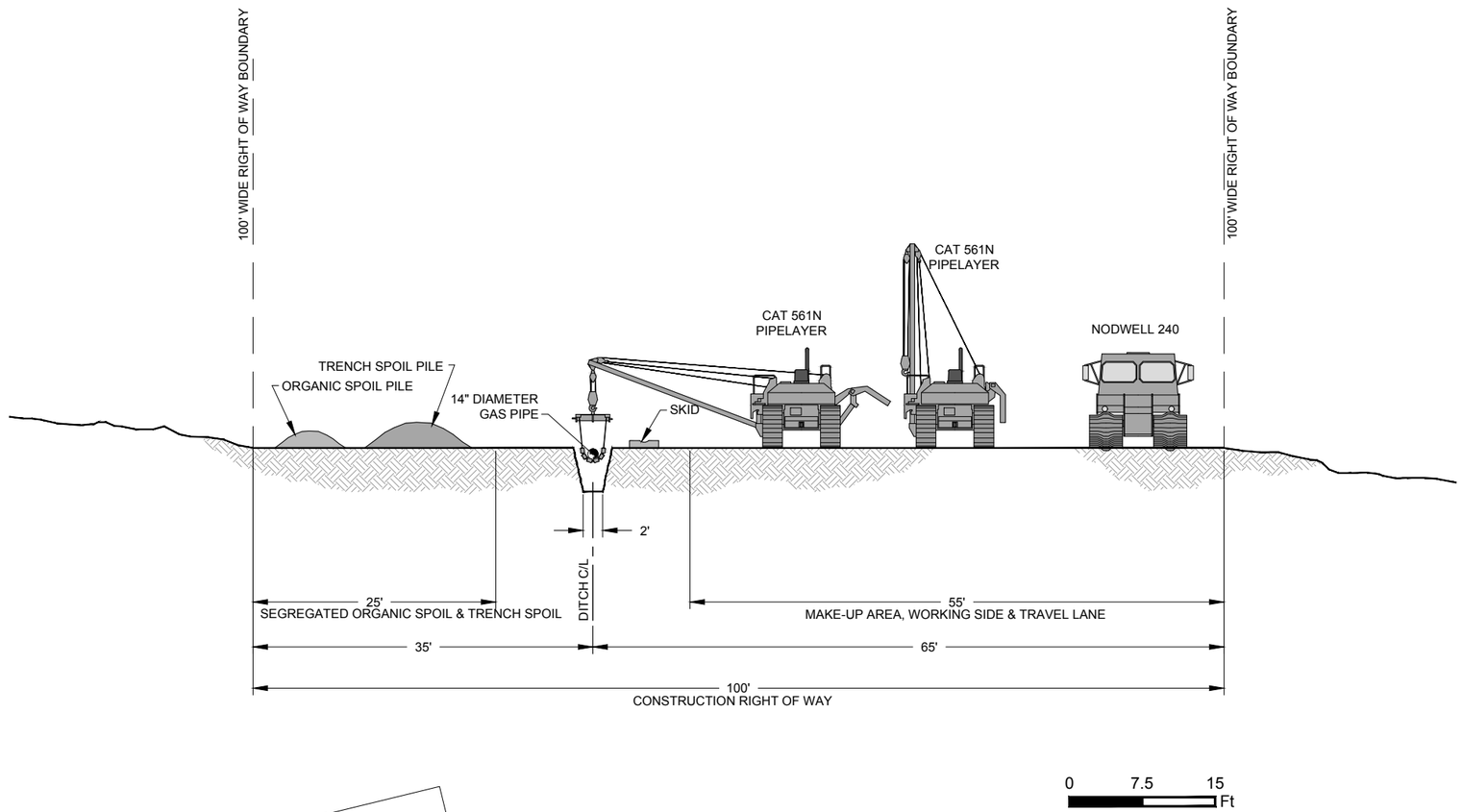
LEGEND
- PIPELINE/TRENCH CENTERLINE
- CONSTRUCTION R.O.W. BOUNDARY
- TRENCH SPOIL PILE
- ORGANIC SPOIL PILE
- BOTTOM OF OPEN PIPELINE TRENCH
- SIDESLOPES OF OPEN TRENCH

NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-06.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN WINTER GRADED R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-165T** / FILE NO. **POA-1995-120**

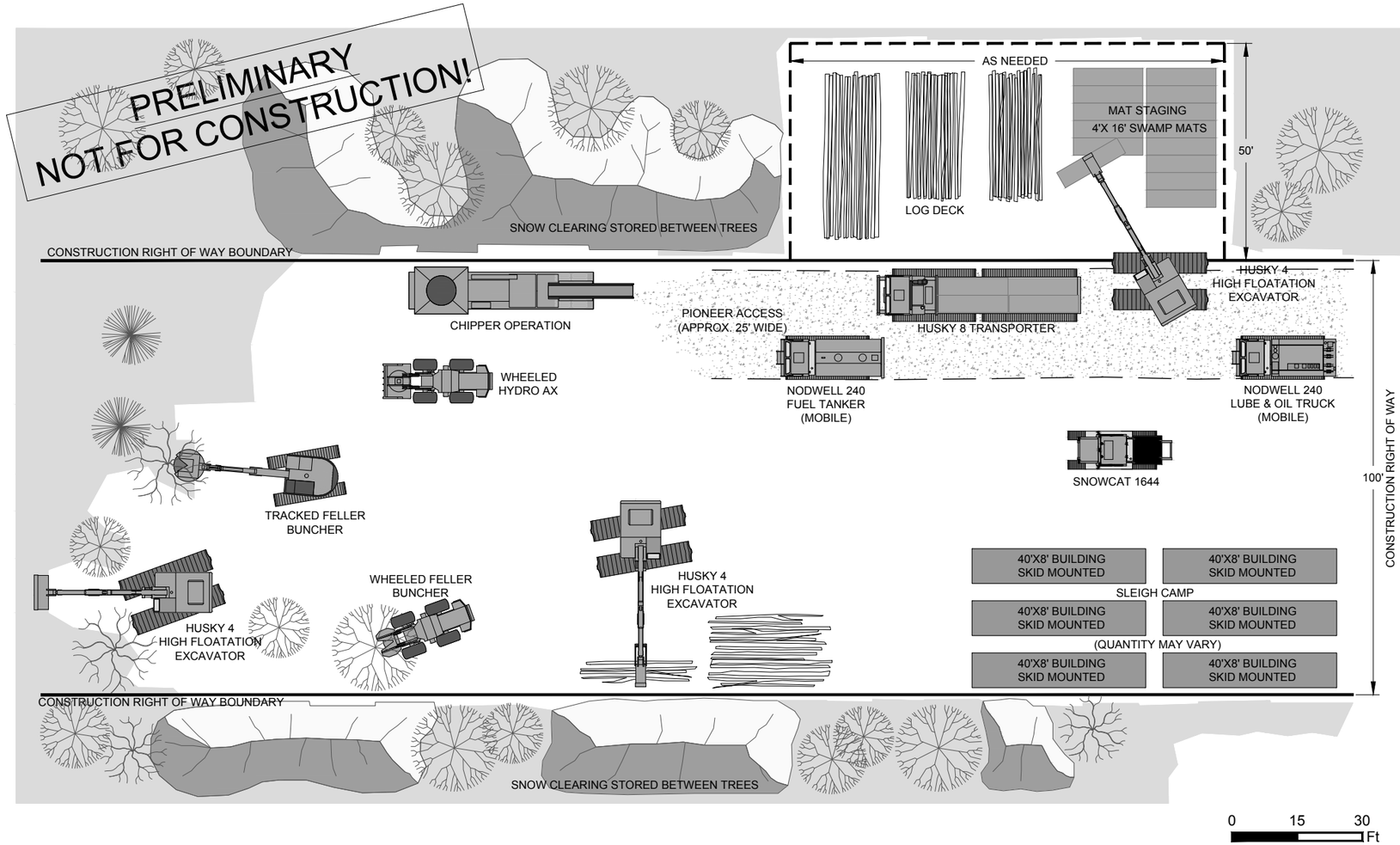
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



PRELIMINARY
NOT FOR CONSTRUCTION!

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-08.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**CROSS SECTION R.O.W MODE**
	SCALE: AS SHOWN DATE: 9/22/2015	FIGURE NO. **PA-166T** FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



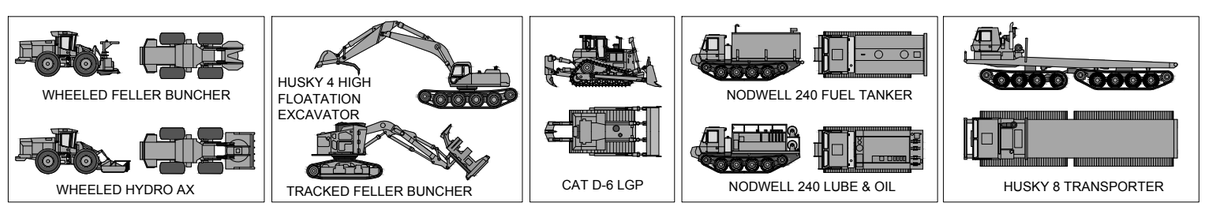
LEGEND

PERMANENT RIGHT OF WAY BOUNDARY

TEMPORARY USE AREA

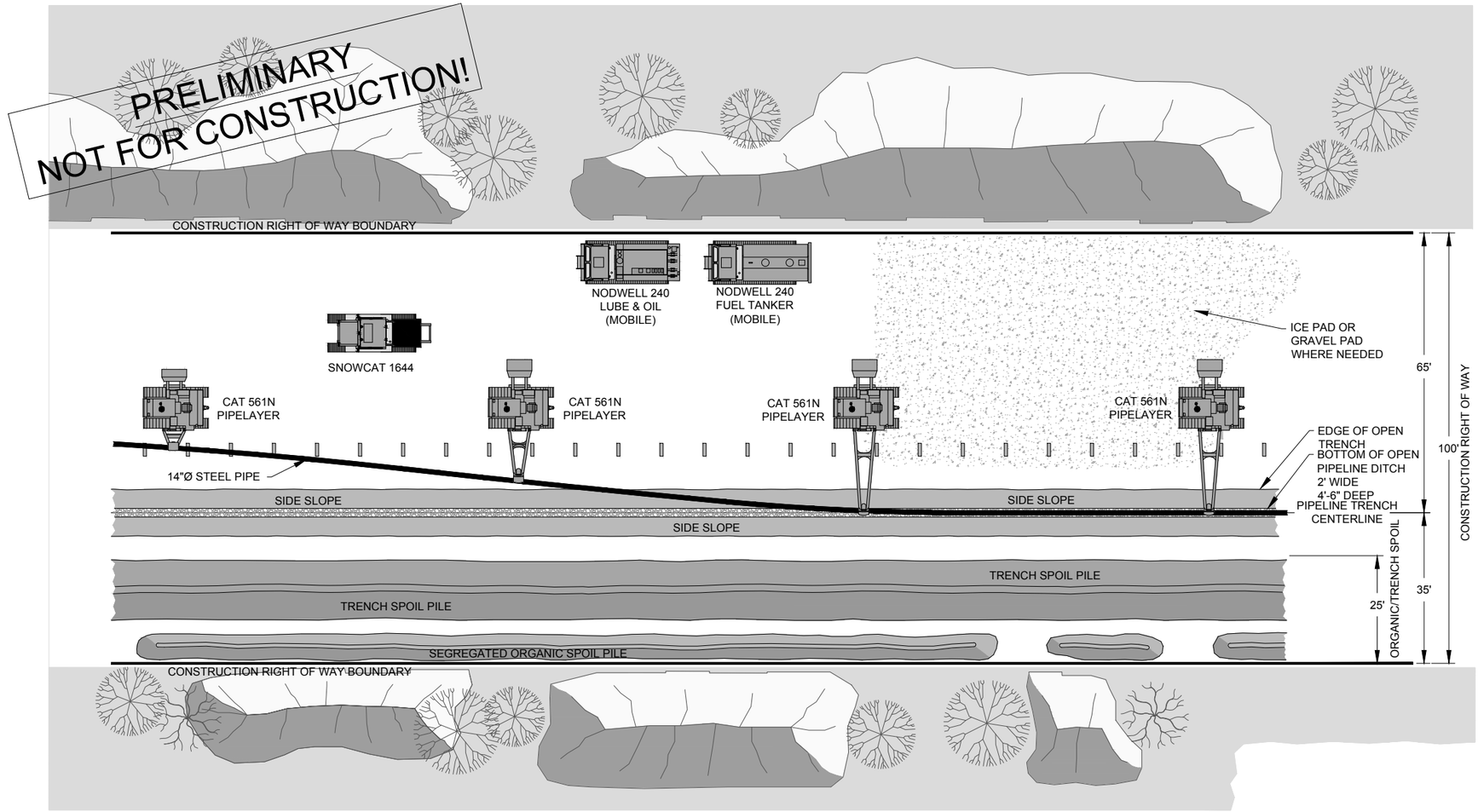
NOTES:

1. EQUIPMENT QUANTITY AND TYPE MAY VARY.



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-09.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN WINTER PERMAFROST R.O.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-167T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

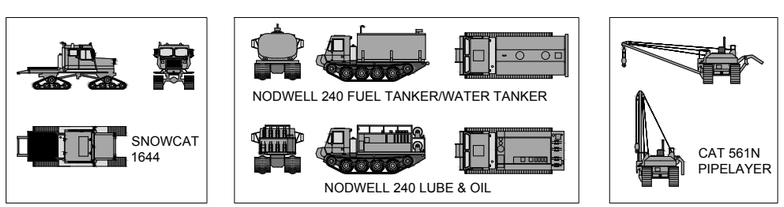


LEGEND

- PIPELINE/TRENCH CENTERLINE
- CONSTRUCTION R.O.W. BOUNDARY
- TRENCH SPOIL PILE
- ORGANIC SPOIL PILE
- BOTTOM OF OPEN PIPELINE TRENCH
- SIDESLOPES OF OPEN TRENCH

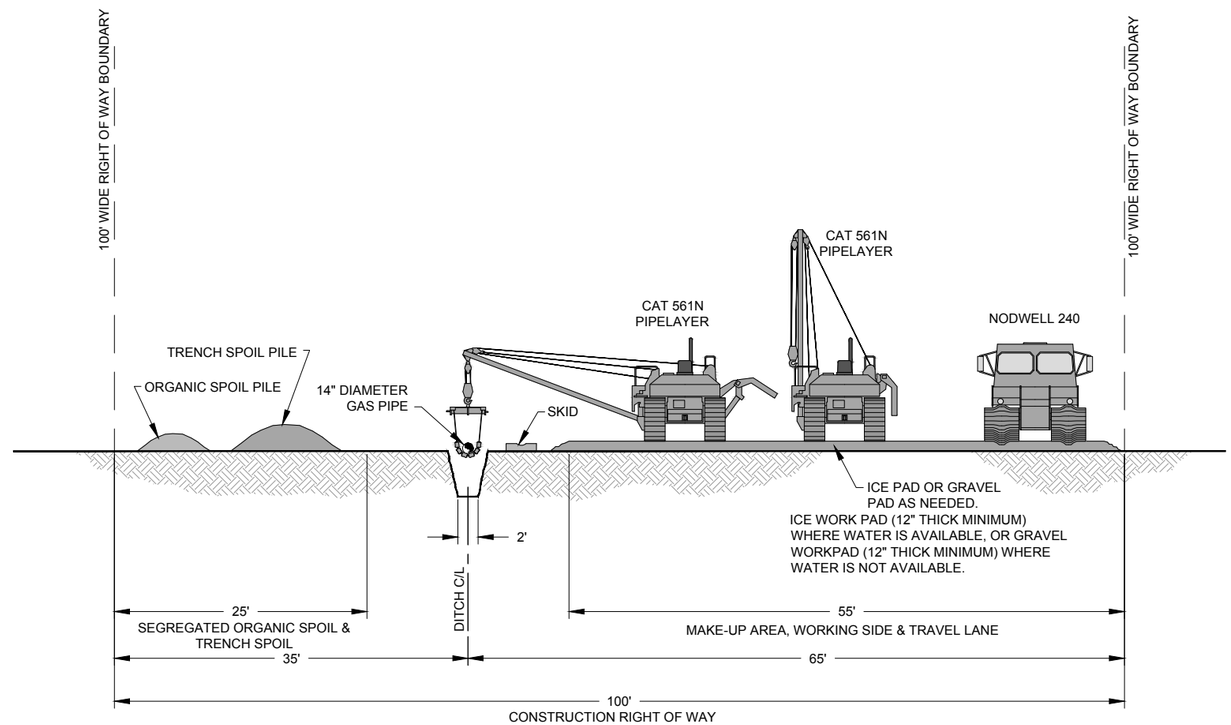
NOTES:
1. MATS OR CORDUROY TIMBER AS NEEDED.
2. EQUIPMENT QUANTITY AND TYPE MAY VARY.

0 15 30 Ft



Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-14.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN WINTER PERMAFROST R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-168T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



0 7.5 15 Ft

PRELIMINARY
NOT FOR CONSTRUCTION!

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-16.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**CROSS SECTION WINTER PERMAFROST R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-169T** / FILE NO. **POA-1995-120**

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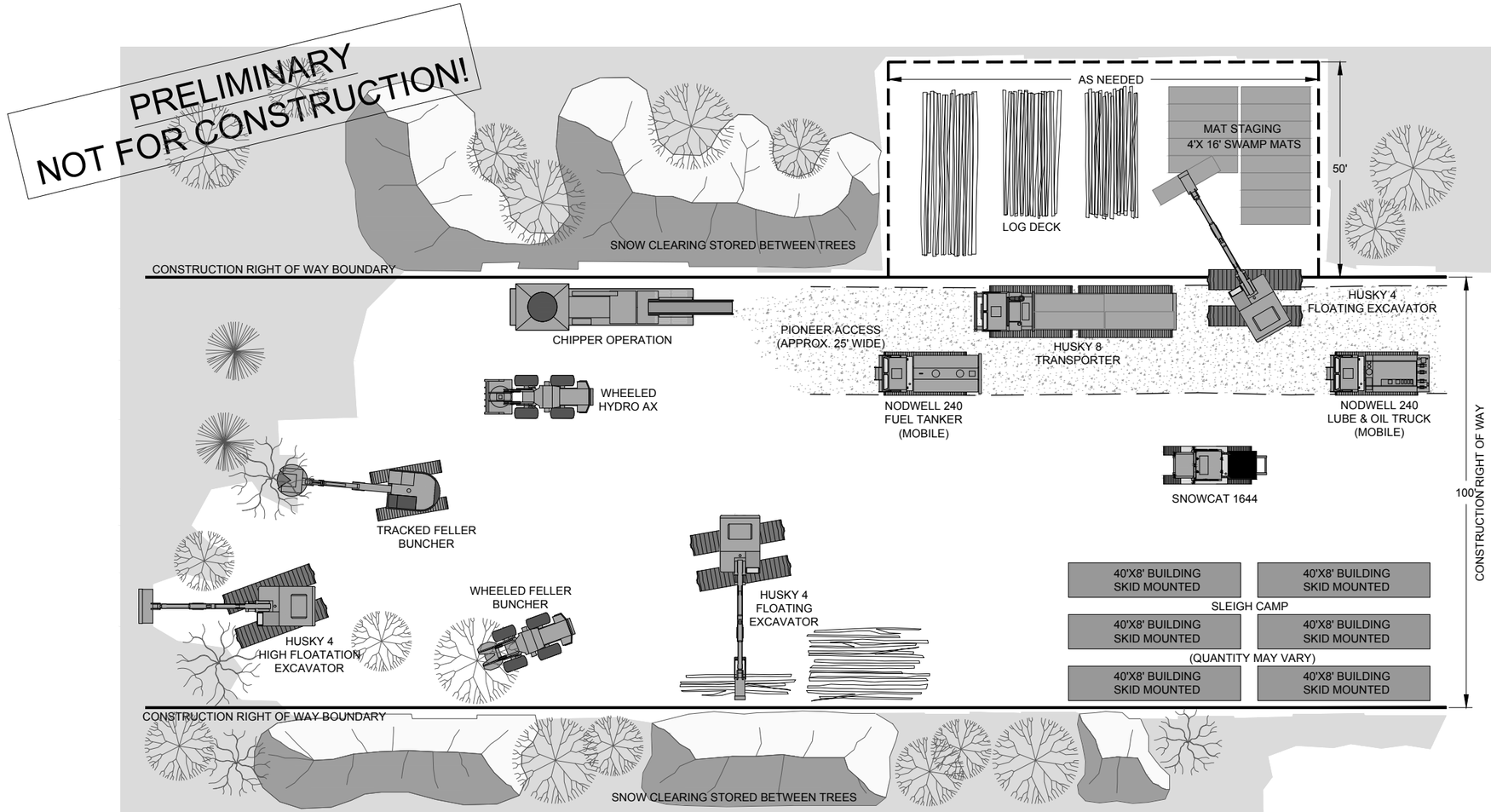
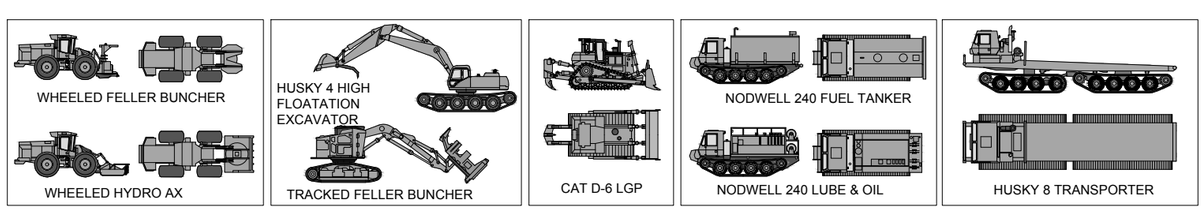


NOTES:
1. EQUIPMENT QUANTITY AND TYPE MAY VARY.

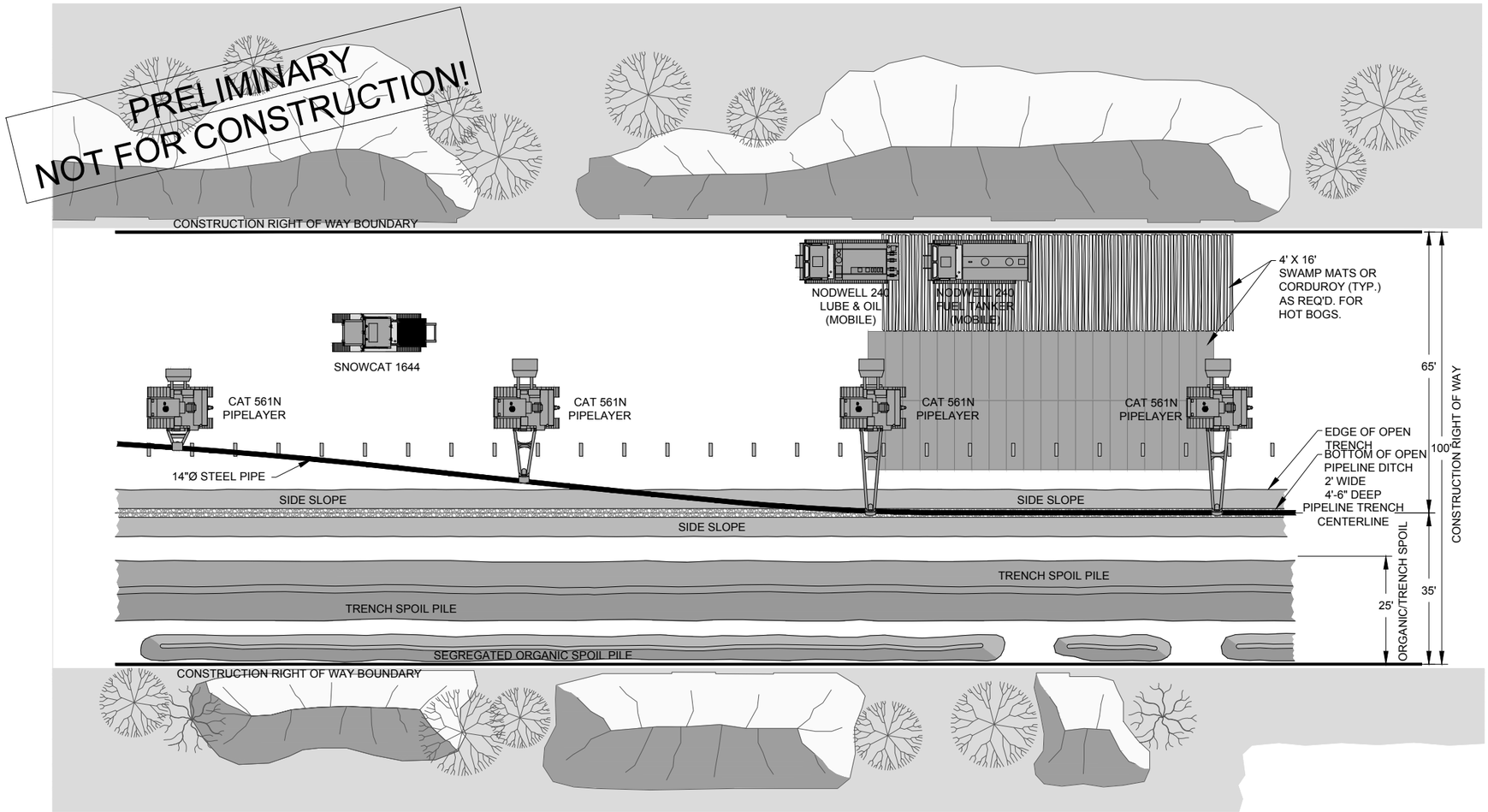
0 15 30 Ft

LEGEND
PERMANENT RIGHT OF WAY BOUNDARY
TEMPORARY USE AREA



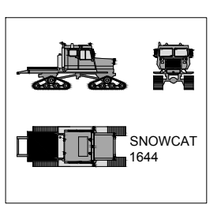
Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-17.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN WINTER WETLANDS R.O.W. MODE**
	SCALE: AS SHOWN DATE: 9/22/2015	FIGURE NO. **PA-170T** FILE NO. **POA-1995-120**

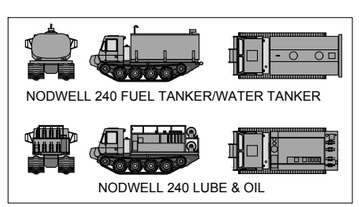
PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg

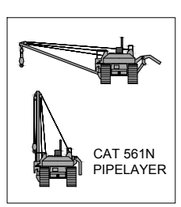


LEGEND
- PIPELINE/TRENCH CENTERLINE
- CONSTRUCTION R.O.W. BOUNDARY
- TRENCH SPOIL PILE
- ORGANIC SPOIL PILE
- BOTTOM OF OPEN PIPELINE TRENCH
- SIDESLOPES OF OPEN TRENCH

NOTES:
1. MATS OR CORDUROY TIMBER AS NEEDED.
2. EQUIPMENT QUANTITY AND TYPE MAY VARY.

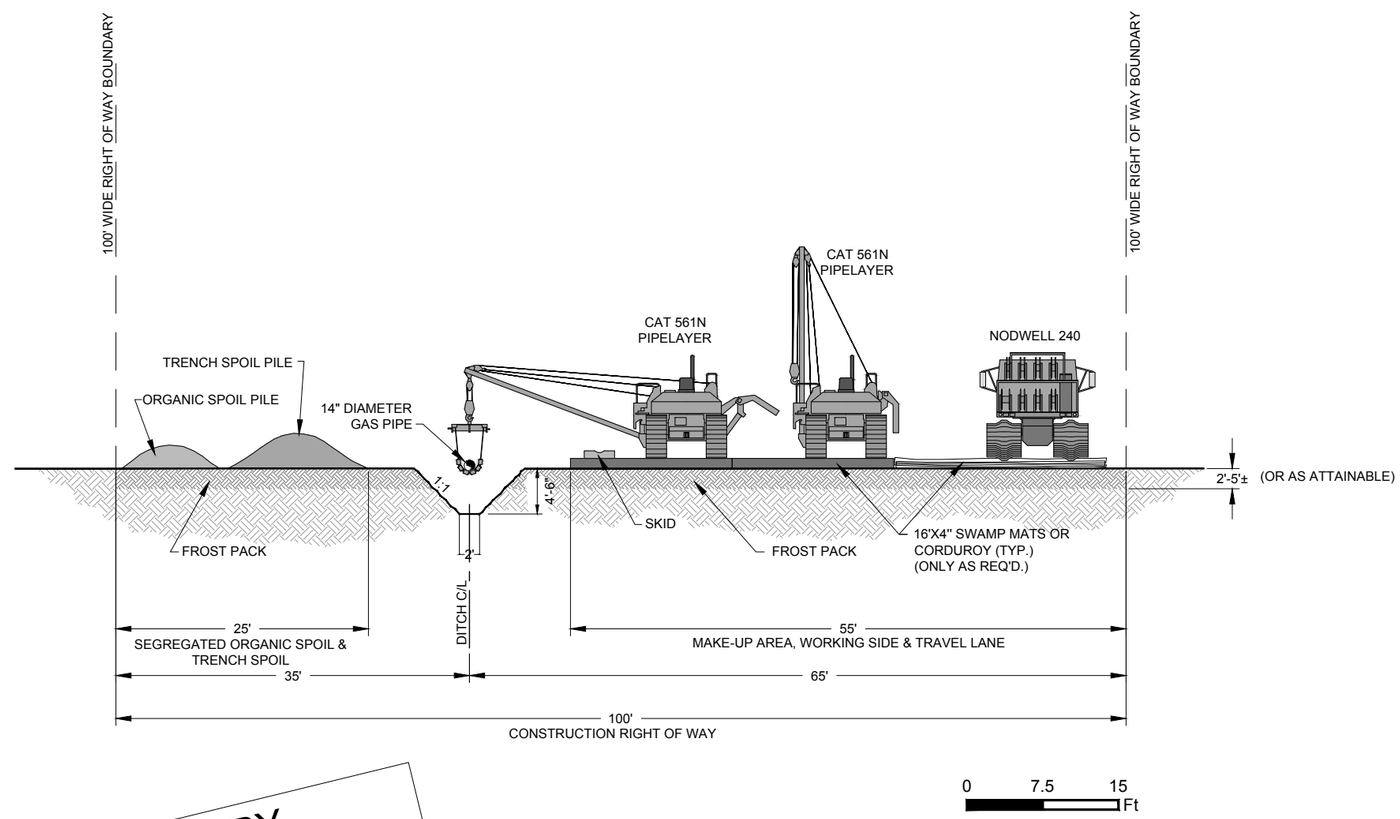






Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-22.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**RIGHT OF WAY PLAN WINTER WETLANDS R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-171T** / FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_ROW.dwg



PRELIMINARY
NOT FOR CONSTRUCTION!

Associated Engineering Drawings	DONLIN GOLD PROJECT	DRAWING TITLE:
P01C-TYRWW-24.DWG (BAKER) OCT 2013	APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	**CROSS SECTION WINTER WETLANDS R.O.W. MODE**
	SCALE: AS SHOWN / DATE: 9/22/2015	FIGURE NO. **PA-172T** / FILE NO. **POA-1995-120**

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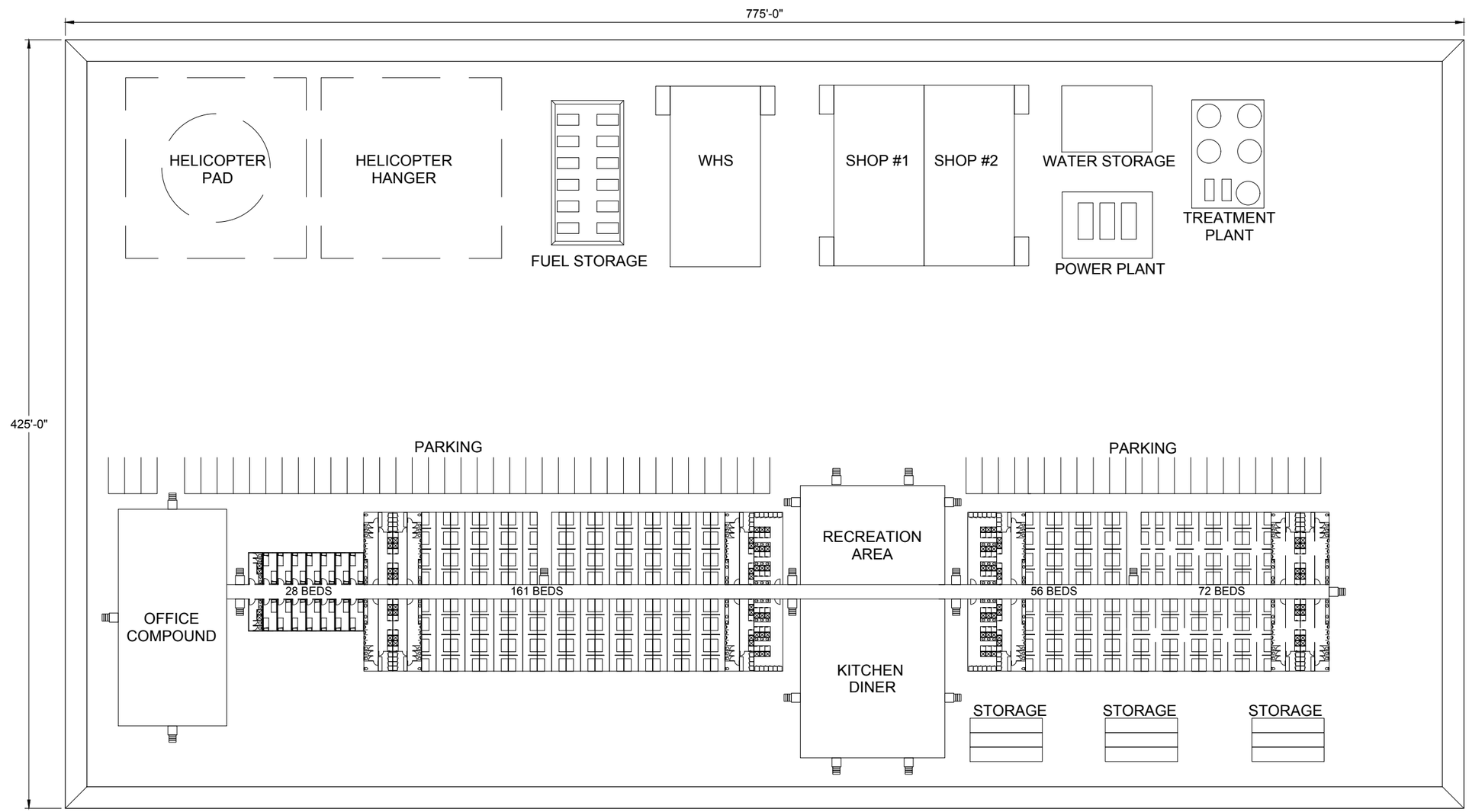


PAD AREA =+/- 8 ACRES

A 173T **TYPICAL CAMP PLOT PLAN 200 TO 300 MAN CAMP**
N.T.S.

Associated Engineering Drawings
Camp 1.dwg (?) MAR 2012

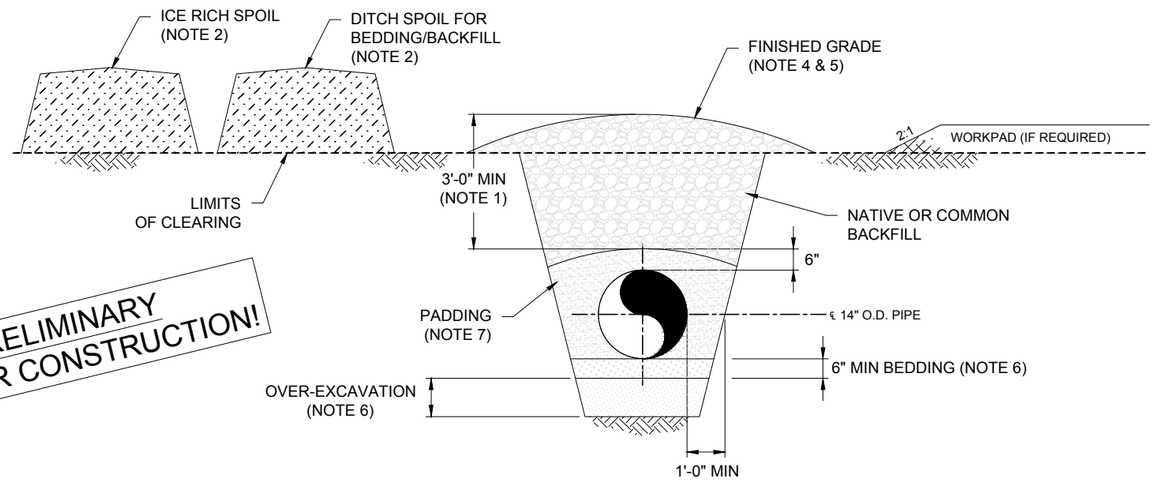
DONLIN GOLD PROJECT
APPLICANT: Donlin Gold, LLC
4720 Business Park Blvd., Suite G-25
Anchorage, Alaska 99503

SCALE: AS SHOWN | DATE: 9/23/2015

DRAWING TITLE:
TYPICAL CAMP PLOT PLAN 200 TO 300 MAN CAMP DETAIL

FIGURE NO. **PA-173T** | FILE NO. **POA-1995-120**

PATH: C:\Users\mtengrewicz\Dropbox\Donlin\181202_010_Mapping_404_Support\Revision_AIPA_Camp_Layout.dwg

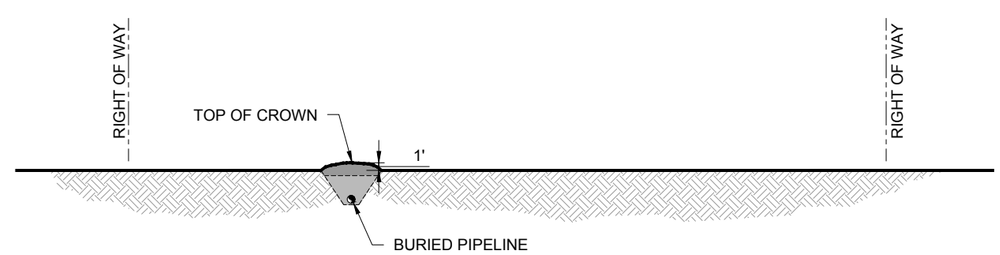


PRELIMINARY
NOT FOR CONSTRUCTION!

A 174T **TYPICAL PIPE TRENCH SECTION**
N.T.S.

NOTES:

1. MINIMUM DEPTH OF COVER: 36". ADDITIONAL COVER MAY BE REQUIRED FOR BUOYANCY CONTROL. RIVER AND STREAM SCOUR, AND BENDS.
2. EXCAVATION:
   LOG THE TRENCH MATERIAL AS IT IS DUG. SEGREGATE ICE RICH MATERIAL IN A SPOIL PILE SEPARATE FROM DITCH SPOIL WHICH IS ACCEPTABLE FOR BACKFILL. IN EXTREME CASES OF ICE CONTENT, IT MAY BE NECESSARY TO HAUL IN ADDITIONAL SELECT MATERIAL AND/OR TO HAUL THE ICE RICH SPOIL TO AN APPROVED DISPOSAL SITE, SUCH AS AN ABANDONED MATERIAL SITE, COULD BE CONSIDERED.
3. PRIOR TO FINAL DESIGN:
   GEOTECHNICAL LOGGING OF BORE HOLES TO DETERMINE ICE CONTENT IN THE DITCH PROFILE AND BELOW THE DITCH BOTTOM FOR AN ADDITIONAL 10' OR WHATEVER DEPTH WAS DETERMINED TO AFFECT PIPELINE SETTLEMENT IN THE EVENT OF THAWING BELOW THE PIPELINE.
4. PLACE AND ROACH THE REMAINING DITCH SPOIL. INCLUDING THE ICE RICH SPOIL, OVER TOP OF THE PADDING AND ALLOW IT TO THAW DURING SUMMER SEASON.
5. PLACE APPROPRIATE EROSION CONTROL DEVICES (ECDs) ALONG THE ROACH DITCH LINE WHERE ICE RICH SPOIL MIGHT FLOW INTO AN EXISTING DRAINAGE WHEN IT MELTS. SEED THE ROACHED SPOIL PILE AND ANY DISTURBED RIGHT OF WAY. INSPECT THE DITCH LINE IN THE SUMMER/FALL FOLLOWING WINTER CONSTRUCTION AND USE LOW GROUND PRESSURE EQUIPMENT TO DRESS UP OR RE-SHAPE THE ROACHED SPOIL OVER THE DITCH AS NEEDED. RE-SEED AND RE-PLACE ECDs IF NECESSARY. REPEAT INSPECTION ANNUALLY FOR THE FIRST THREE SEASONS OR AS NEEDED TO MAINTAIN SOIL STABILITY.
6. PLACEMENT OF SELECT, THAW STABLE FILL FOR PIPE BEDDING IN ANY OVER-EXCAVATED SECTIONS TO PROPERLY SUPPORT AND BED THE PIPE.
7. PLACEMENT OF SELECT, THAW STABLE PADDING AROUND THE PIPE TO 6" ABOVE THE PIPE. ACCEPTABLE DITCH SPOIL WOULD BE PREFERRED. IMPORTED MATERIAL MIGHT BE NEEDED IF DITCH SPOIL IS NOT ACCEPTABLE.
8. OVER-EXCAVATE 3 FEET BELOW TARGET DITCH DEPTH WHERE VISIBLE SEGREGATED ICE (FROZEN GROUND CLASSIFICATION Vx) IS DISCOVERED IN THE DITCH BOTTOM. BACKFILL OVER-EXCAVATION WITH THAW-STABLE BEDDING. PLACE GEOGRID, IF SO DIRECTED BY THE ENGINEER, TO SPAN AREAS OF OVER-EXCAVATION.



B 174T **TYPICAL RECLAIMED TRENCH SECTION**
N.T.S.

Associated Engineering Drawings	DONLIN GOLD PROJECT APPLICANT: Donlin Gold, LLC 4720 Business Park Blvd., Suite G-25 Anchorage, Alaska 99503	DRAWING TITLE: **TYPICAL PIPE TRENCH DETAIL**	
P01C-SCIS-01.dwg (BAKER) OCT 2013	SCALE: AS SHOWN / DATE: 9/30/2015	FIGURE NO. **PA-174T**	FILE NO. **POA-1995-120**

PATH: C:\Users\mlengiewicz\Dropbox\Donlin\181202_010_mapping_404_support\revision_a\PA_Pipe_Buried.dwg