

ALASKA LNG PROJECT	DOCKET No. CP17-__-000 RESOURCE REPORT No. 1 APPENDIX H – SPECIFIC DESIGNS FOR MAJOR HIGHWAY, RAILROAD, AND TAPS CROSSINGS	Doc No: USAI-PE-SRREG-00- 000001-000 DATE: APRIL 14, 2017 REVISION: 0
	PUBLIC	

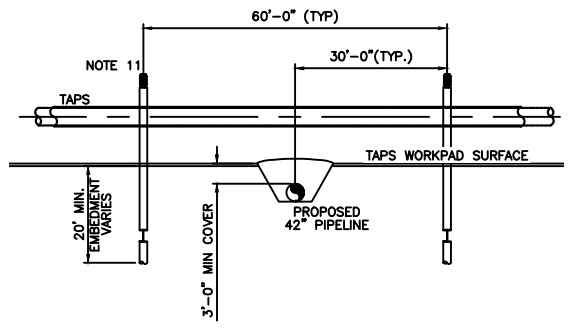
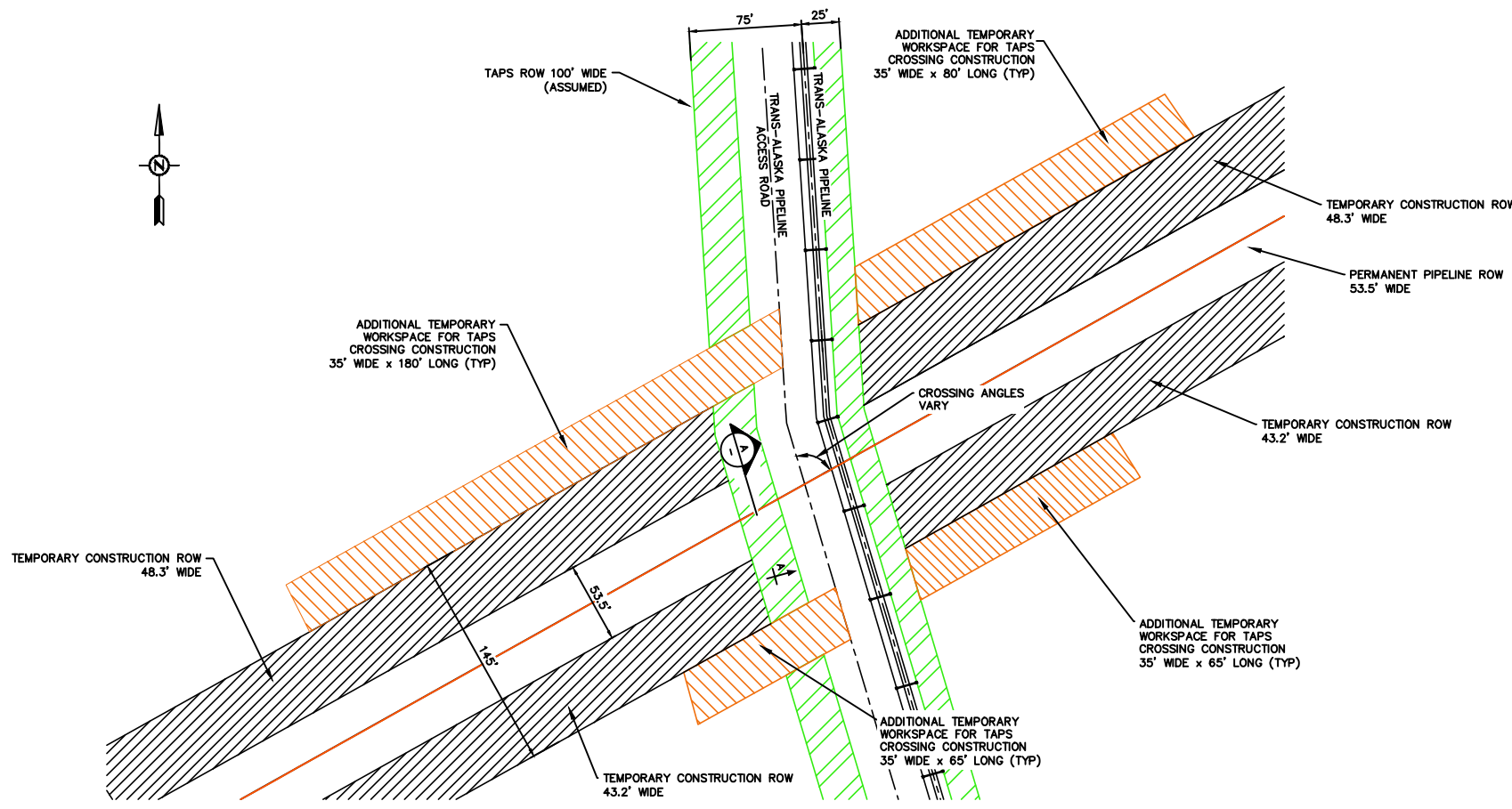
**APPENDIX H SPECIFIC DESIGNS FOR MAJOR HIGHWAY,
RAILROAD, AND TAPS CROSSINGS**

CROSSINGS LIST	
ROUTE REV C2 TRANS ALASKA PIPELINE MAINLINE MILEPOSTS	TRANS ALASKA PIPELINE MODE
115.3	ABOVE GROUND
136.3	ABOVE GROUND
145.5	ABOVE GROUND
169.1	BELOW GROUND (NOTE 8)
182.0	ABOVE GROUND
252.2	ABOVE GROUND
257.8	ABOVE GROUND
310.8	ABOVE GROUND
342.7	ABOVE GROUND
351.9	ABOVE GROUND
357.9	ABOVE GROUND
370.5	ABOVE GROUND
384.8	ABOVE GROUND
388.9	ABOVE GROUND

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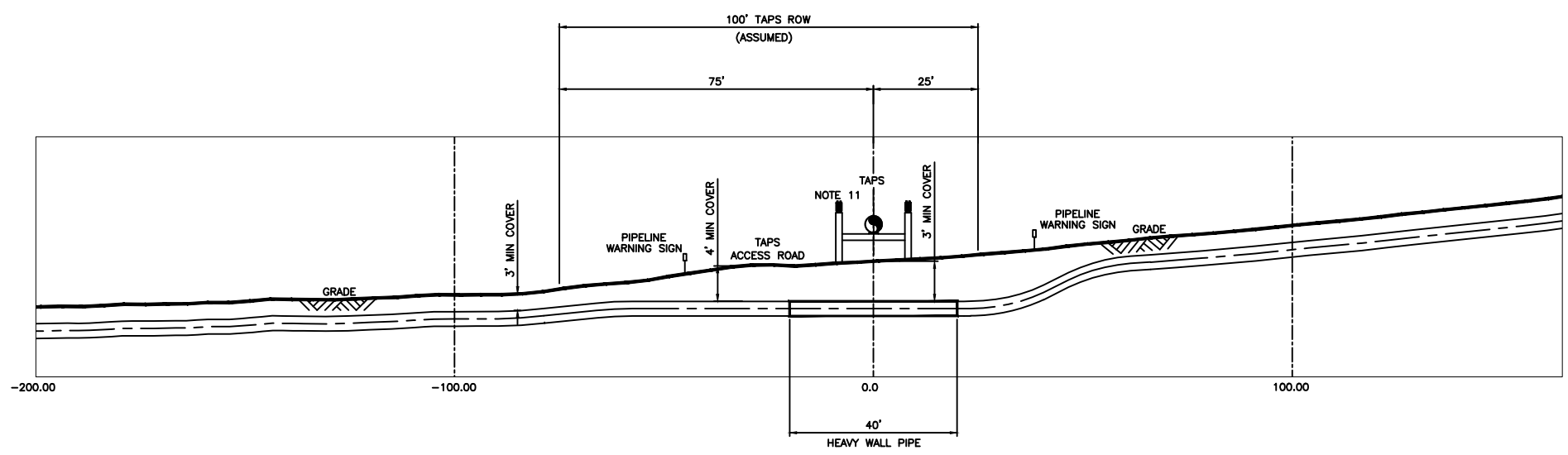
REFERENCE DRAWINGS	

- NOTES**
- ALL UNITS SHOWN ARE IMPERIAL (FEET AND INCHES) UNLESS OTHERWISE NOTED.
 - CHAINAGES SHOWN ARE REV. C2 AKLNG CALCULATED SLACK CHANGES.
 - THE PIPELINE WILL BE INSTALLED BY OPEN CUT METHOD.
 - AT THE TIME OF CONSTRUCTION THE PIPELINE WILL BE IN A CLASS 1 (49 CFR 192) LOCATION.
 - TYPICAL TAPS CROSSING BASED ON MP136.3 LOCATION AND PROFILE.
 - NO SIDE BENDS ARE PERMITTED WITHIN TAPS ROW.
 - NOT ALL VSM'S HAVE THERMOSYPHONS.
 - THE CROSSING AT THIS LOCATION REQUIRES A SPECIAL DESIGN (SEE RESOURCE REPORT NO. 11). TYPICAL CROSSINGS OF THE TRANS ALASKA PIPELINE ARE SHOWN IN APPENDIX E OF RESOURCE REPORT NO. 1.



SECTION A
SCALE 1:8

PLAN
SCALE 1/2"=1'



PROFILE ALONG CENTERLINE OF PIPELINE
SCALE 1:8

PIPE SPECIFICATION TABLE								
PIPE TYPE	PIPE SIZE	OD (IN)	WT (LBS)	PIPE SPECIFICATION	MOP (PSI)	DESIGN PRESSURE (PSI)	COATING	CATHODIC PROTECTION
LINE PIPE	NPS 42	42	0.677	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES
HEAVY WALL	NPS 42	42	0.903	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES

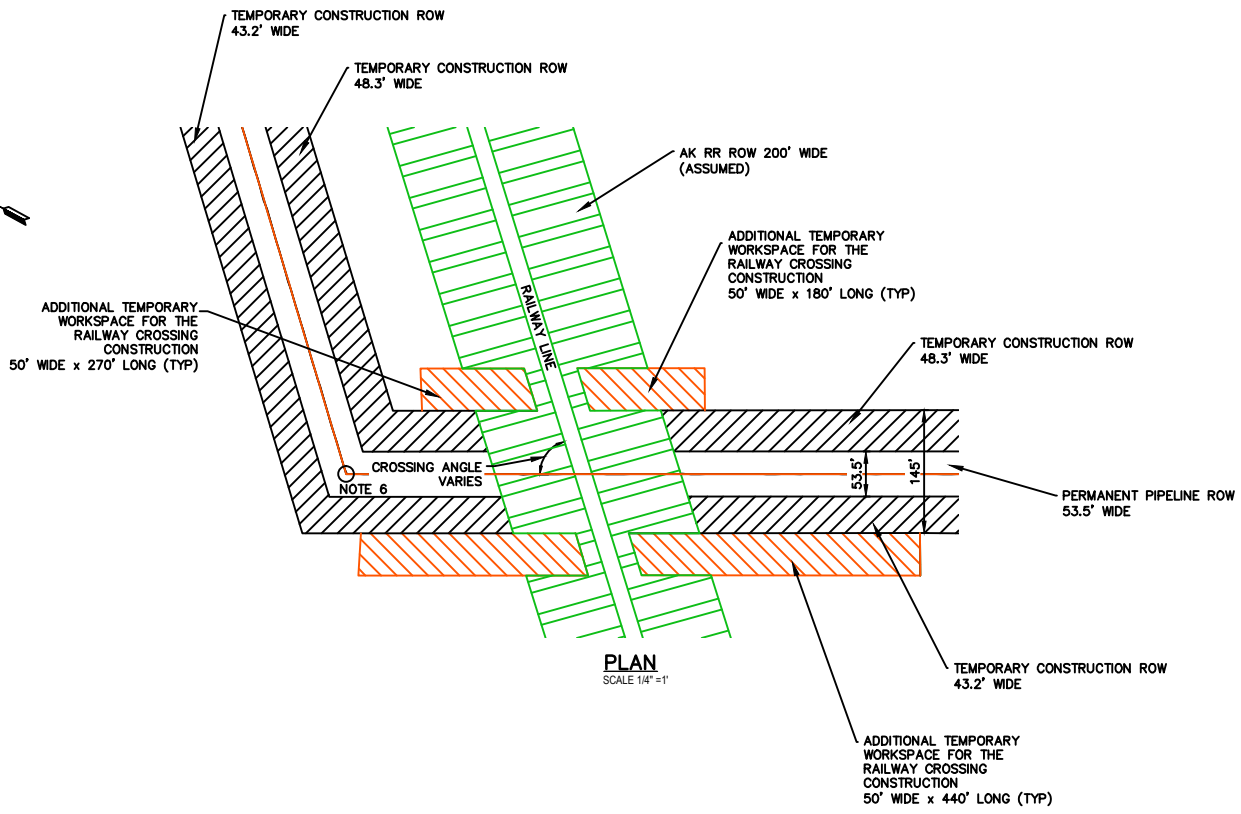
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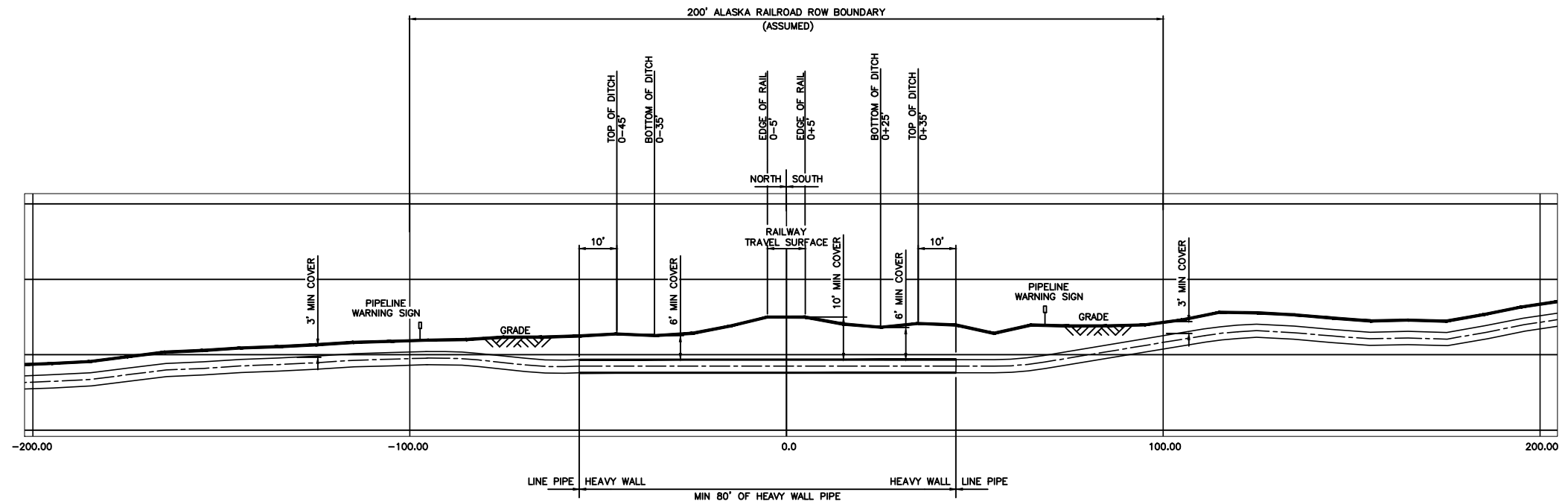
AK LNG PROJECT
MAINLINE
TYPICAL CROSSING OF TRANS-ALASKA PIPELINE

DRAWN BY S. WALKER	DATE 2016-04-18	SCALE AS SHOWN	CHD APPD
DRAWING NO.			ISSUE NO. A

CROSSINGS LIST	
ROUTE REV C2	
AKRR	
MAINLINE MILEPOSTS	
532.1	
572.8	
588.1	
609.0	



PLAN
SCALE 1/4" = 1'



RAILWAY PROFILE ALONG CENTERLINE OF PIPELINE
SCALE 1:8

PIPE TYPE	PIPE SIZE	OD inch	WT lb/ft	PIPE SPECIFICATION	MOP psig	DESIGN PRESSURE psig	COATING	CATHODIC PROTECTION
LINE PIPE	NPS 42	42	0.677	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES
HEAVY WALL	NPS 42	42	1.083	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES

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REFERENCE DRAWINGS	

- NOTES**
- ALL UNITS SHOWN ARE IMPERIAL (FEET AND INCHES) UNLESS OTHERWISE NOTED.
 - CHAINAGES SHOWN ARE REV. C2 AKLNG CALCULATED SLACK CHANGES.
 - THE PIPELINE WILL BE INSTALLED BY METHOD OF BORING. BORE DIAMETER SHALL BE AS CLOSE AS PRACTICAL TO THE OUTSIDE DIAMETER OF THE INSTALLED PIPE.
 - AT THE TIME OF CONSTRUCTION THE PIPELINE WILL BE IN A CLASS 1 (49 CFR 192) LOCATION.
 - TYPICAL RAILROAD CROSSING BASED ON MP588.3 LOCATION AND PROFILE.
 - NO SIDE BENDS ARE PERMITTED WITHIN AKRR ROW.
 - PIPE SHALL BE INSTALLED A MINIMUM OF 10' BELOW THE TRAVEL SURFACE AND 6' BELOW THE BOTTOM OF DITCH.

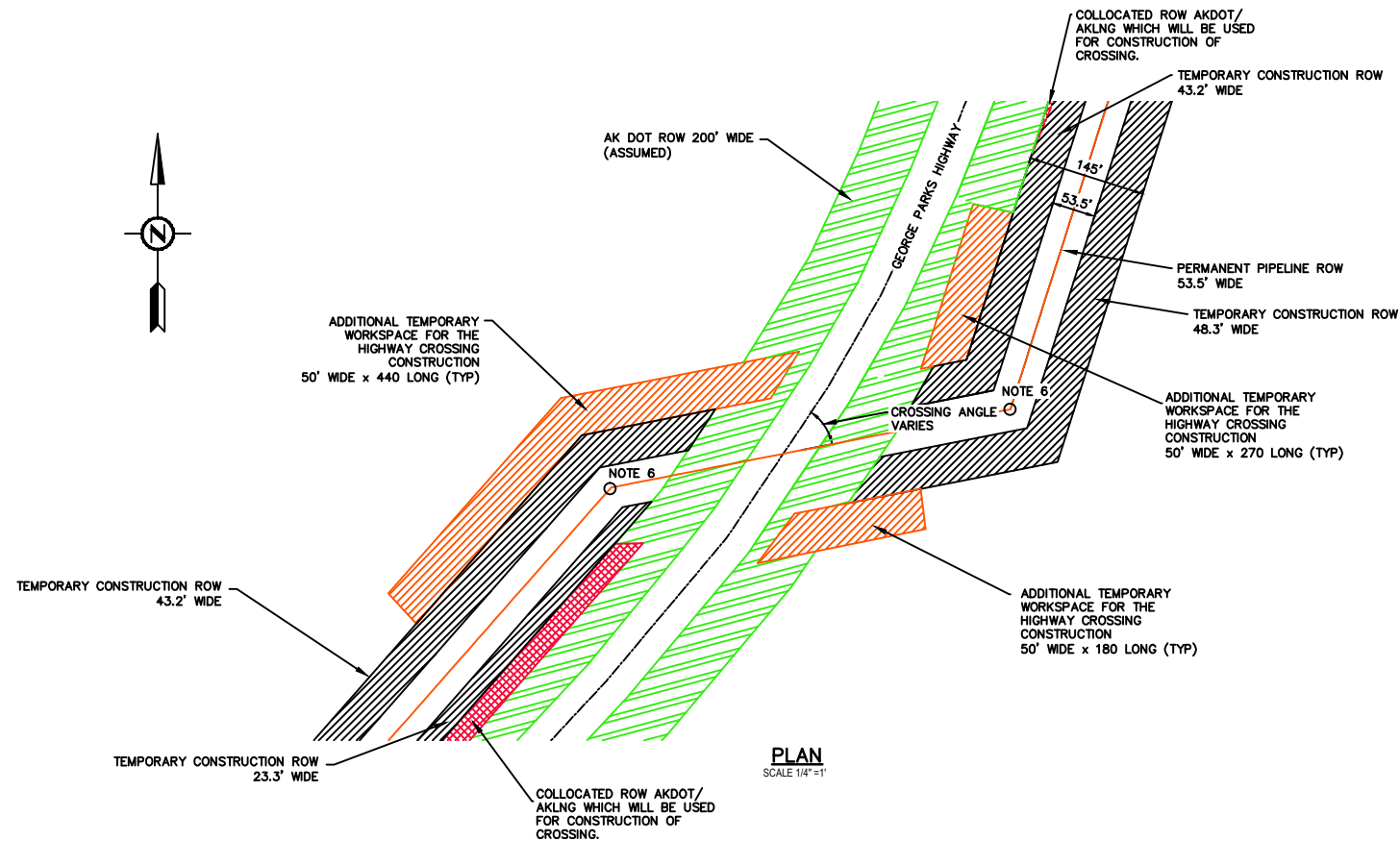
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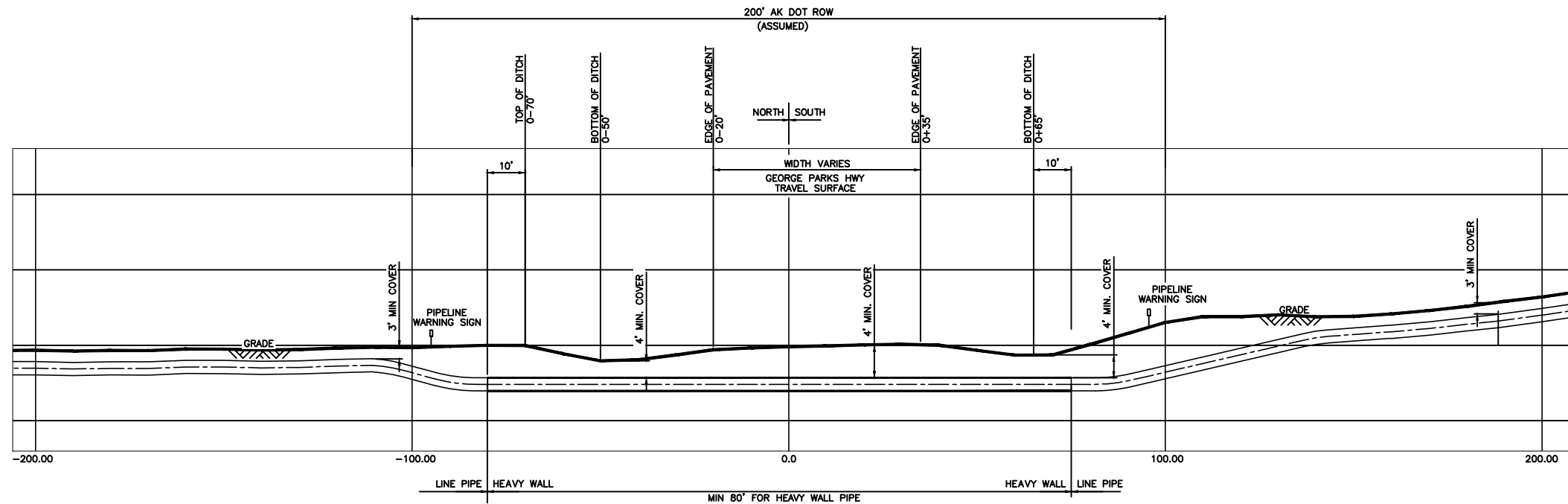
AK LNG PROJECT
MAINLINE
TYPICAL CROSSING OF ALASKA RAILROAD

DRAWN BY S. WALKER	DATE 2016-04-18	SCALE AS SHOWN	CHD APPD
DRAWING NO.			ISSUE NO. A

CROSSINGS LIST	
ROUTE REV C2	
GEORGE PARKS HWY	
MAINLINE MILEPOSTS	
470.7	
472.7	
498.7	
521.8	
532.4	
572.6	
588.2	
612.6	
625.1	
630.2	
631.6	
640.5	
648.5	
657.6	



PLAN
SCALE 1/4" = 1'



PROFILE ALONG CENTERLINE OF PIPELINE
SCALE 1:8

PIPE SPECIFICATION TABLE								
PIPE TYPE	PIPE SIZE	OD	WT	PIPE SPECIFICATION	MOP	DESIGN PRESSURE	COATING	CATHODIC PROTECTION
		inch	lb/ft		psig	psig		
LINE PIPE	NPS 42	42	0.677	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES
HEAVY WALL	NPS 42	42	0.903	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES

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REFERENCE DRAWINGS

NOTES

1. ALL UNITS SHOWN ARE IMPERIAL (FEET AND INCHES) UNLESS OTHERWISE NOTED.
2. CHAINAGES SHOWN ARE REV. C2 AK LNG CALCULATED SLACK CHANGES.
3. THE PIPELINE WILL BE INSTALLED BY METHOD OF BORING. BORE DIAMETER SHALL BE AS CLOSE AS PRACTICAL TO THE OUTSIDE DIAMETER OF THE INSTALLED PIPE.
4. AT THE TIME OF CONSTRUCTION THE PIPELINE WILL BE IN A CLASS 1 (49 CFR 192) LOCATION.
5. TYPICAL GEORGE PARKS HIGHWAY CROSSING BASED ON MP612.7 LOCATION AND PROFILE.
6. NO SIDE BENDS ARE PERMITTED WITHIN AK DOT ROW.
7. PIPE SHALL BE INSTALLED A MINIMUM OF 4' BELOW THE LOWEST POINT IN THE ROAD ALLOWANCE.

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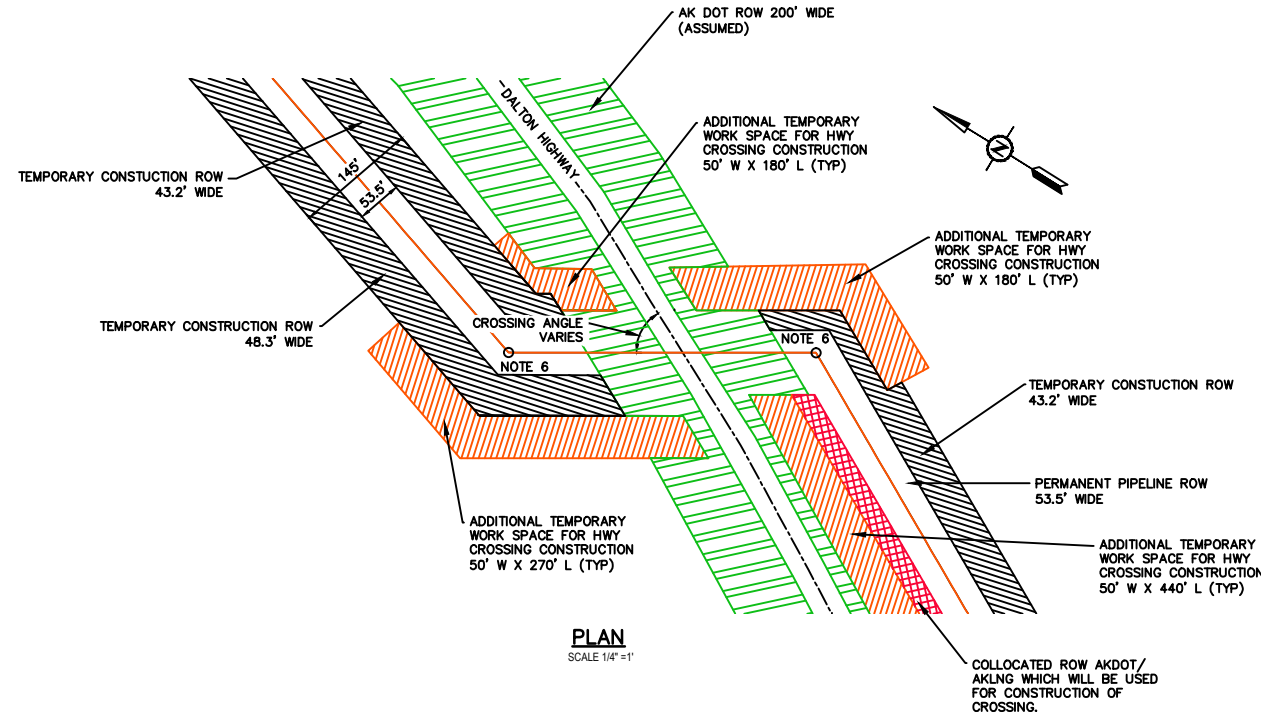


AK LNG PROJECT
MAINLINE
TYPICAL CROSSING OF GEORGE PARKS HIGHWAY

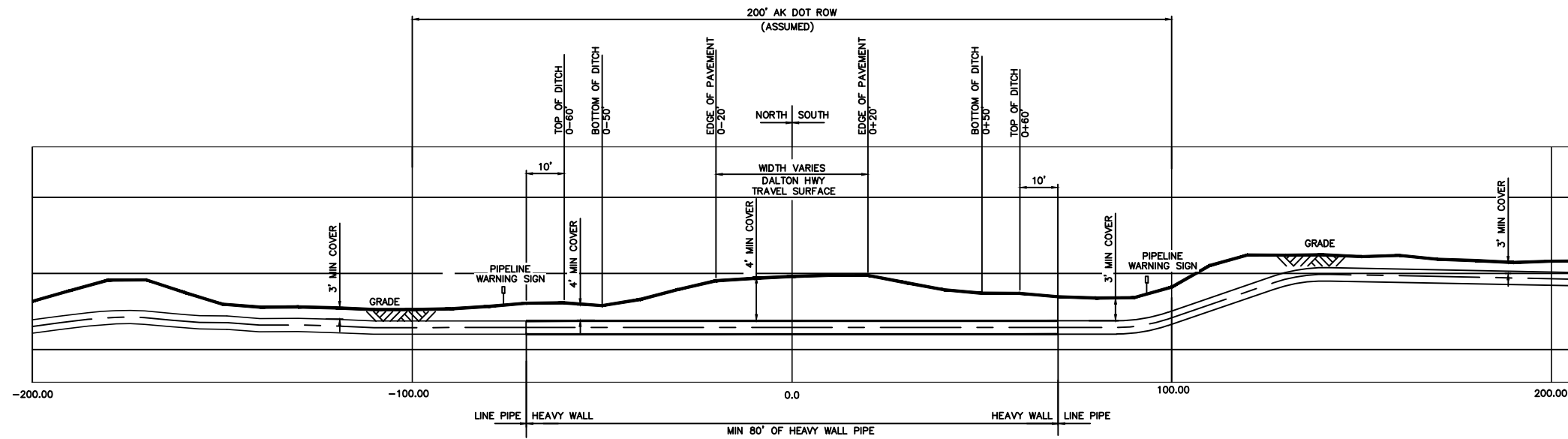
DRAWN BY S. WALKER	DATE 2016-04-18	SCALE AS SHOWN	CHD APPD
DRAWING NO.			ISSUE NO. A

CROSSINGS LIST
ROUTE REV C2
DALTON HIGHWAY
MAINLINE MILEPOSTS

63.3
68.1
122.9
136.5
143.9
148.2
149.3
168.7
169.0
171.8
182.0
193.3
196.5
206.6
210.2
228.1
231.0
252.3
259.8
310.7
341.6
347.8
370.2
398.2



PLAN
 SCALE 1/4"=1'



PROFILE ALONG CENTERLINE OF PIPELINE
 SCALE 1:5

PIPE SPECIFICATION TABLE

PIPE TYPE	PIPE SIZE	OD INCH	WT LBS	PIPE SPECIFICATION	MOP PSIG	DESIGN PRESSURE PSIG	COATING	CATHODIC PROTECTION
LINE PIPE	NPS 42	42	0.677	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES
HEAVY WALL	NPS 42	42	0.903	API 5L Grade X80M PSL2	2075	2075	3 LPE	YES

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NOTES

1. ALL UNITS SHOWN ARE IMPERIAL (FEET AND INCHES) UNLESS OTHERWISE NOTED.
2. CHAINAGES SHOWN ARE REV. C2 AKNG CALCULATED SLACK CHANGES.
3. THE PIPELINE WILL BE INSTALLED BY METHOD OF BORING. BORE DIAMETER SHALL BE AS CLOSE AS PRACTICAL TO THE OUTSIDE DIAMETER OF THE INSTALLED PIPE.
4. AT THE TIME OF CONSTRUCTION THE PIPELINE WILL BE IN A CLASS 1 (49 CFR 192) LOCATION.
5. TYPICAL DALTON HIGHWAY CROSSING BASED ON MP231 LOCATION AND PROFILE.
6. NO SIDE BENDS ARE PERMITTED WITHIN AK DOT ROW.
7. PIPE SHALL BE INSTALLED A MINIMUM OF 4' BELOW THE LOWEST POINT IN THE ROAD ALLOWANCE.

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AK LNG PROJECT
 MAINLINE
 TYPICAL CROSSING OF DALTON HIGHWAY

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