

## MGC Pure Chemicals America, Inc. Concepts Rail Expansion – Killeen, TX

RailPros is pleased to present MGC Pure Chemicals America, Inc. with conceptual engineering in support of the proposed rail expansion at the MGC property in Killeen, TX. Our understanding of the project request was to present conceptual track design(s) to facilitate rail access to the industry site from the BNSF mainline via the Lampasas Subdivision.

Rail option one is a spur track with one mainline connection. Rail option two is a double ended track with two mainline connections. Rail option three is double ended with two mainline connections, a clear track and two storage tracks. All options serve the product filling area in the southwest corner of the industry site. Engineering estimates for the track work for all options have been included as well.



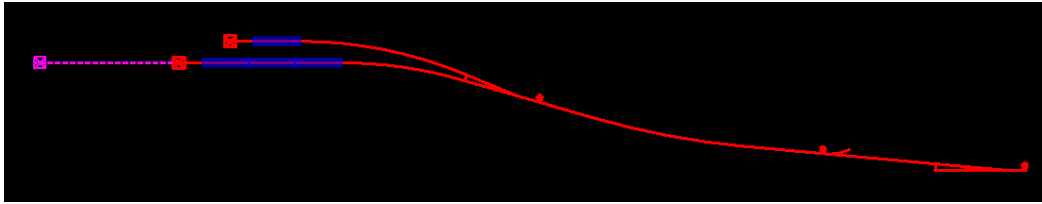
*Site Overview*

Design concept operational summarizations are as follows:

### Rail Option 1

- BNSF would approach the site in the easterly direction and split the train consist before the mainline turnout.
- The locomotive would then shove the inbound cars into the facility on an empty track.
- The no. 9 turnout would be positioned to allow the locomotive to couple with the outbound cars and exit the site.
- The operation would require the industry to switch the outbound cars to one track in preparation for BNSF's arrival.
- This option requires the mainline to be blocked for the duration of the operation.

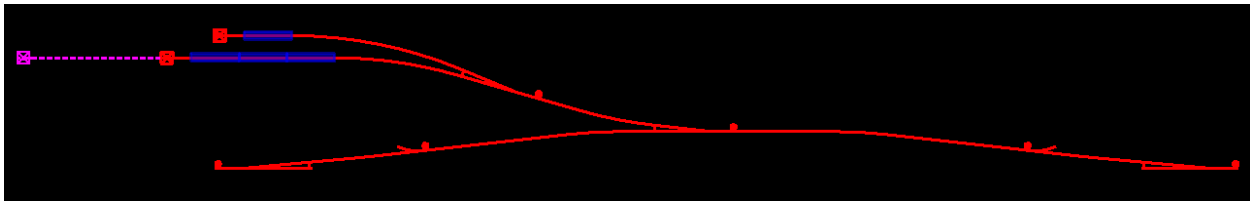
360 S. Fort Ln, Ste. 3A  
Layton, UT 84040



*Option 1: Spur Track*

### Rail Option 2

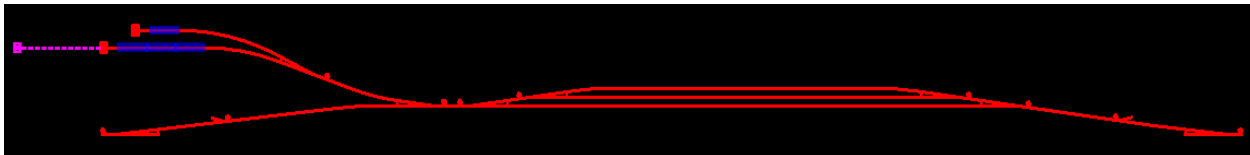
- BNSF could approach the site in the easterly direction and split the train consist as needed before either mainline turnout.
- The locomotive would then have the ability to use the double ended track configuration to position cars as needed, shoving cars into the facility on an empty track.
- The no. 9 turnout would be positioned to allow the locomotive to couple with the outbound cars and exit the site.
- The operation would require the industry to switch the outbound cars to one track in preparation for BNSF's arrival.
- This option requires the mainline to be blocked for the duration of the operation.



*Option 2: Double Ended Single Track*

### Rail Option 3

- BNSF could approach the site in either the easterly or westerly direction and use Track A to clear the mainline track, leaving it open for passing traffic.
- The locomotive would then have the ability to use the series of switches to drop the incoming cars on the storage track and couple with the outgoing from the additional storage track.
- The operation would require the industry to switch the outbound cars to a storage track in preparation for BNSF's arrival.



*Option 3: Double Ended Multi Track*

**Engineering Estimates for Each Option:**

Rail Option 1 Estimate

<b>MGC PURE AT KILLEEN, TX INDUSTRIAL FACILITY EXPANSION - CONCEPTUAL DESIGN OPTION 1</b>					
<b>INDUSTRY</b>					
<b>Item</b>	<b>Description</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Amount</b>
1.01	Mobilization	LS	1	\$ 100,000.00	\$ 100,000.00
1.02	Furnish & Install - Track 112# Min. Rail (Rail, Ties, Ballast, OTM)	TF	1,240	\$ 250.00	\$ 310,000.00
1.03	Furnish & Install Turnout No. 9 HTO	EA	1	\$ 225,000.00	\$ 225,000.00
1.04	Furnish & Install Type 2 HT DSP Derail	EA	1	\$ 75,000.00	\$ 75,000.00
1.05	Earthen Bumper	EA	2	\$ 5,000.00	\$ 10,000.00
1.06	Subballast	CY	1,215	\$ 42.00	\$ 51,030.00
1.07	Embankment	CY		\$ 35.00	\$ -
1.08	Excavation	CY	14,170	\$ 30.00	\$ 425,100.00
1.09	Drainage Allowance	LS	1	\$ 100,000.00	\$ 100,000.00
1.10	Utility Protection and/or Relocation	LS	1	\$ 100,000.00	\$ 100,000.00
				Industry Subtotal	\$ 1,396,130.00
			30%	Contingency	\$ 418,839.00
<b>BNSF</b>					
<b>Item</b>	<b>Description</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Amount</b>
2.01	Furnish & Install - Track 112# Min. Rail (Rail, Ties, Ballast, OTM)	TF	60	\$ 350.00	\$ 21,000.00
2.02	Remove Track	TF	125	\$ 14.00	\$ 1,750.00
2.03	Furnish & Install Turnout No. 11 HTO	EA	1	\$ 225,000.00	\$ 225,000.00
2.04	Signal	LS	1	\$1,000,000.00	\$ 1,000,000.00
				Railroad Subtotal	\$ 1,247,750.00
			30%	Contingency	\$ 374,325.00
				<b>Railroad Total</b>	<b>\$ 1,622,075.00</b>
				<b>Industry Total</b>	<b>\$ 1,814,969.00</b>
				<b>5% Engineering &amp; CM</b>	<b>\$ 171,852.20</b>
				<b>Grand Total</b>	<b>\$ 3,608,896.20</b>

Note:

Costs provided are for track work items only. Wetland mitigation, permitting, structures, and site improvements are not included. This estimate excludes cost of warning devices (if required by State or railroad). Also excludes any inspection roads or access roads.

Cost figures stated above are the engineer's opinion of probable costs this year. Costs stated above are not guaranteed. They are an opinion and not a warranty. It is recommended that the Owner have a contingency fund for unexpected costs. All quantities shown are preliminary and subject to change pending final design and approval by the railroad.

Rail Option 2 Estimate

<b>MGC PURE AT KILLEEN, TX INDUSTRIAL FACILITY EXPANSION - CONCEPTUAL DESIGN OPTION 2</b>					
<b>INDUSTRY</b>					
<b>Item</b>	<b>Description</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Amount</b>
1.01	Mobilization	LS	1	\$ 100,000.00	\$ 100,000.00
1.02	Furnish & Install - Track 112# Min. Rail (Rail, Ties, Ballast, OTM)	TF	1,835	\$ 250.00	\$ 458,750.00
1.03	Furnish & Install Turnout No. 9 HTTO	EA	2	\$ 225,000.00	\$ 450,000.00
1.04	Furnish & Install Type 2 HT DSP Derail	EA	2	\$ 75,000.00	\$ 150,000.00
1.05	Earthen Bumper	EA	2	\$ 5,000.00	\$ 10,000.00
1.06	Subballast	CY	3,865	\$ 42.00	\$ 162,330.00
1.07	Embankment	CY		\$ 35.00	\$ -
1.08	Excavation	CY	32,250	\$ 30.00	\$ 967,500.00
1.09	Drainage Allowance	LS	1	\$ 100,000.00	\$ 100,000.00
1.10	Utility Protection and/or Relocation	LS	1	\$ 100,000.00	\$ 100,000.00
				Industry Subtotal	\$ 2,498,580.00
				30% Contingency	\$ 749,574.00
<b>BNSF</b>					
<b>Item</b>	<b>Description</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Amount</b>
2.01	Furnish & Install - Track 112# Min. Rail (Rail, Ties, Ballast, OTM)	TF	60	\$ 350.00	\$ 21,000.00
2.02	Remove Track	TF	250	\$ 14.00	\$ 3,500.00
2.03	Furnish & Install Turnout No. 11 HTTO	EA	2	\$ 225,000.00	\$ 450,000.00
2.04	Signal	LS	1	\$1,000,000.00	\$ 1,000,000.00
				Railroad Subtotal	\$ 1,474,500.00
				30% Contingency	\$ 442,350.00
				<b>Railroad Total</b>	<b>\$ 1,916,850.00</b>
				<b>Industry Total</b>	<b>\$ 3,248,154.00</b>
				<b>5% Engineering &amp; CM</b>	<b>\$ 258,250.20</b>
				<b>Grand Total</b>	<b>\$ 5,423,254.20</b>

Note:

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Rail Option 3 Estimate

<b>MGC PURE AT KILLEEN, TX INDUSTRIAL FACILITY EXPANSION - CONCEPTUAL DESIGN OPTION 3</b>					
<b>INDUSTRY</b>					
<b>Item</b>	<b>Description</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Amount</b>
1.01	Mobilization	LS	1	\$ 100,000.00	\$ 100,000.00
1.02	Furnish & Install - Track 112# Min. Rail (Rail, Ties, Ballast, OTM)	TF	4,530	\$ 250.00	\$ 1,132,500.00
1.03	Furnish & Install Turnout No. 9 HTO	EA	6	\$ 225,000.00	\$ 1,350,000.00
1.04	Furnish & Install Type 2 HT DSP Derail	EA	2	\$ 75,000.00	\$ 150,000.00
1.05	Earthen Bumper	EA	2	\$ 5,000.00	\$ 10,000.00
1.06	Subballast	CY	6,006	\$ 42.00	\$ 252,252.00
1.07	Embankment	CY	11,182	\$ 35.00	\$ 391,370.00
1.08	Excavation	CY	39,007	\$ 30.00	\$ 1,170,210.00
1.09	Drainage Allowance	LS	1	\$ 100,000.00	\$ 100,000.00
1.10	Utility Protection and/or Relocation	LS	1	\$ 100,000.00	\$ 100,000.00
				Industry Subtotal	\$ 4,756,332.00
				30% Contingency	\$ 1,426,899.60
<b>BNSF</b>					
<b>Item</b>	<b>Description</b>	<b>Units</b>	<b>Qty</b>	<b>Unit Price</b>	<b>Amount</b>
2.01	Furnish & Install - Track 112# Min. Rail (Rail, Ties, Ballast, OTM)	TF	120	\$ 350.00	\$ 42,000.00
2.02	Remove Track	TF	250	\$ 14.00	\$ 3,500.00
2.03	Furnish & Install Turnout No. 11 HTO	EA	2	\$ 225,000.00	\$ 450,000.00
2.04	Signal	LS	1	\$1,000,000.00	\$ 1,000,000.00
				Railroad Subtotal	\$ 1,495,500.00
				30% Contingency	\$ 448,650.00
				<b>Railroad Total</b>	<b>\$ 1,944,150.00</b>
				<b>Industry Total</b>	<b>\$ 6,183,231.60</b>
				<b>5% Engineering &amp; CM</b>	<b>\$ 406,369.08</b>
				<b>Grand Total</b>	<b>\$ 8,533,750.68</b>

Note:

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**Project Timeline:**

Milestone 1 – NTP for Submitting concept to BNSF (3 months to get approvals from BNSF)

- 3 weeks from NTP – Submit concept to BNSF (customer will need to submit service feasibility questionnaire to BNSF to initiate the process with them)
- 60 days from submittal – receive comments from BNSF

Milestone 2 (NTP 2) – 30% Design (4 months to submit 30% plans and get comments back)

- 45 days from NTP 2, get ROE permits and perform survey on RR ROW
- Perform desktop enviro
- Develop 30% Track Plans
- 60 days from NTP 2 – Drainage Design and Geotech complete
- 60 days from NTP 2 – submit 30% track plans
- 60 days from submittal to BNSF – receive comments on 30% track plans
- 1 week from receipt of comments – resubmit 30% track plans addressing any initial comments

Milestone 3 – Final Design and Bid Support (2 months to submit final plan and get plans approved and ready for bid)

- 3 weeks from receipt of comments from BNSF – submit final track plans
- Upon submittal of final track plans to BNSF – send draft bid docs to Client for review
- 30 days for review by BNSF
- 2 weeks from receipt of comments – submit Exhibit A

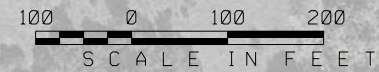
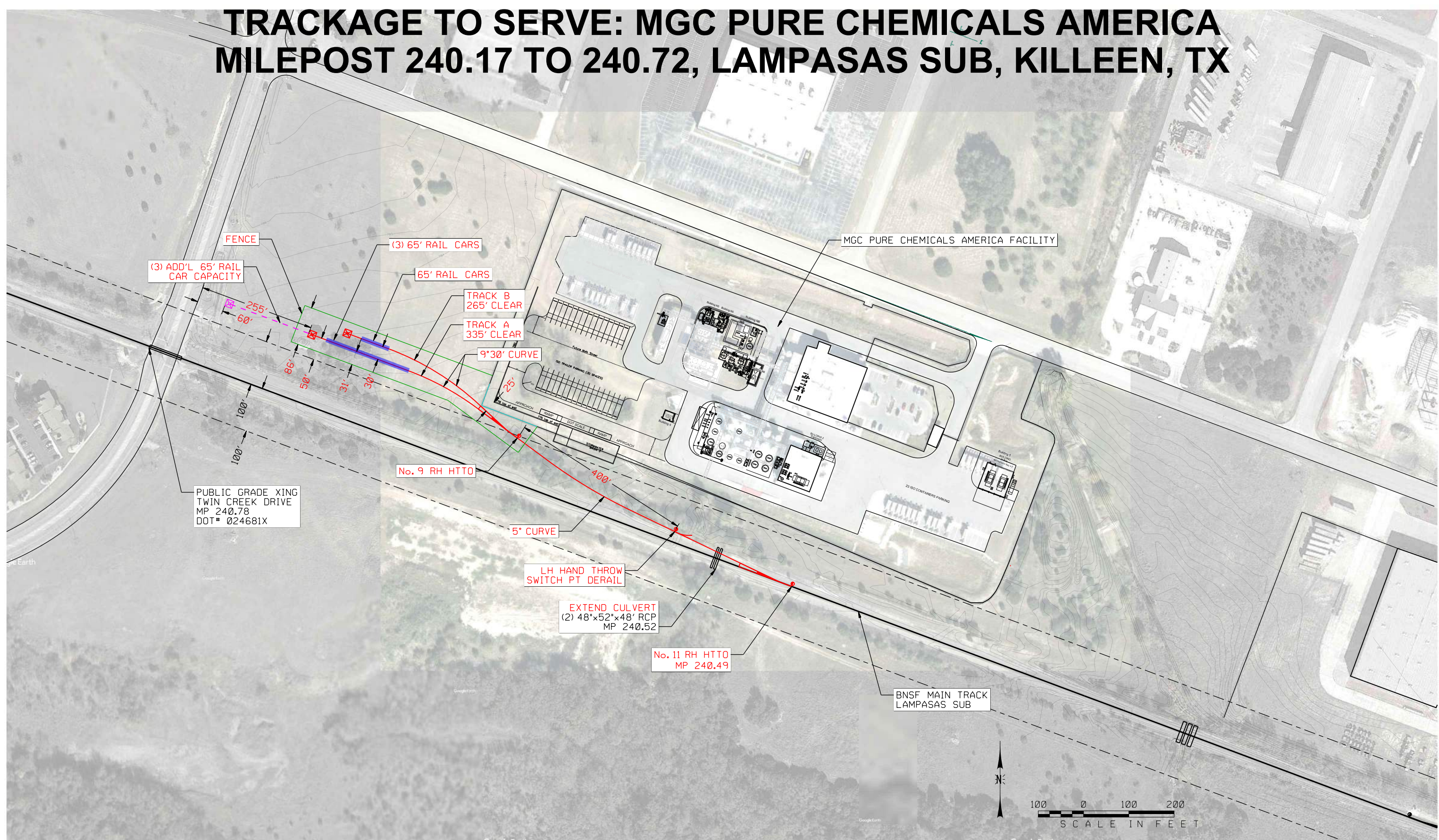
Construction – Summer 2024 (2 months to mobilize contractor)

- 3-6 months for construction activities, depending on complexity
- BNSF availability for construction support varies

Total Projected Duration: 14 – 17 months

Note: BNSF approval process, environmental permitting and NTP date may alter the above schedule

# TRACKAGE TO SERVE: MGC PURE CHEMICALS AMERICA MILEPOST 240.17 TO 240.72, LAMPASAS SUB, KILLEEN, TX



CONCEPTUAL DESIGN

MGC PURE CHEM. KILLEEN, TX - TRACK OPTION 1.dgn

REV. #	BY	DATE	DESCRIPTION
PRELIMINARY NOT FOR CONSTRUCTION			

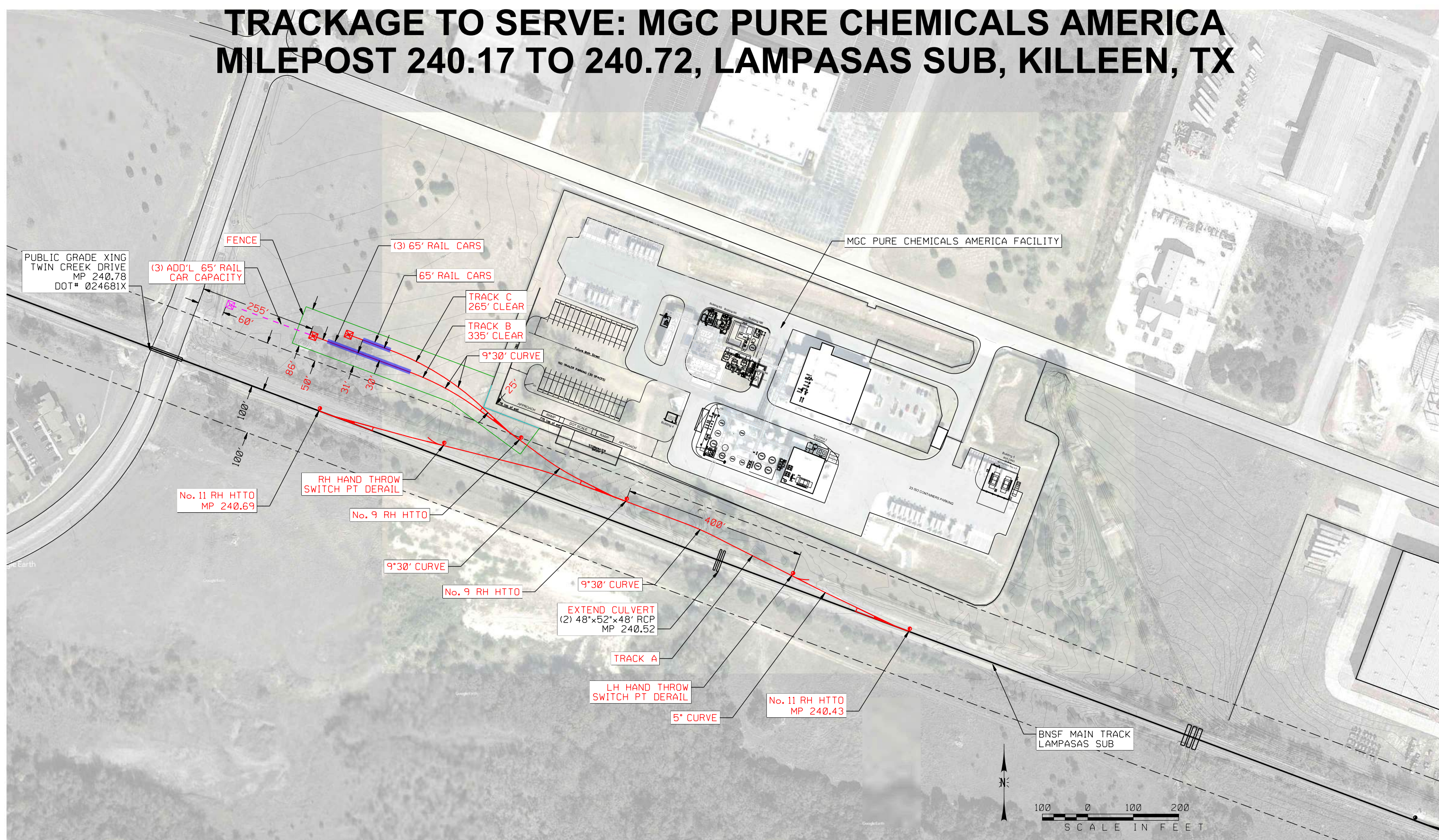
**RAILPROS**  
360 S. FORT LN, STE. # 3A - LAYTON, UTAH 84041  
www.railpros.com

**BNSF**  
RAILWAY

LEGEND:  
 EXISTING RAILROAD OWNED TRACKAGE  
 PROPOSED INDUSTRY OWNED TRACKAGE  
 FUTURE INDUSTRY OWNED TRACKAGE  
 EXISTING RAILROAD RIGHT-OF-WAY  
 PROPOSED FENCE  
 REMOVE

DRAWN BY: JS	FOR USE IN AGREEMENT WITH <b>BNSF</b> RAILWAY
CHECKED BY: SM	LOCATION & DESCRIPTION: TRACKAGE TO SERVE: MGC PURE CHEMICALS AMERICA MP 240.17 TO 240.72, LAMPASAS SUB KILLEEN, TX
DATE: 04/03/2023	SHEET TITLE: MGC PURE CHEM. KILLEEN, TX - TRACK OPTION 1
SHEET NUMBER: 1 of 1	

# TRACKAGE TO SERVE: MGC PURE CHEMICALS AMERICA MILEPOST 240.17 TO 240.72, LAMPASAS SUB, KILLEEN, TX



CONCEPTUAL DESIGN

MGC PURE CHEM. KILLEEN, TX - TRACK OPTION 2.dgn

REV. #	BY	DATE	DESCRIPTION
PRELIMINARY NOT FOR CONSTRUCTION			

**RAILPROS**  
360 S. FORT LN, STE. # 3A - LAYTON, UTAH 84041  
www.railpros.com

**BNSF**  
RAILWAY

LEGEND:  
 EXISTING RAILROAD OWNED TRACKAGE  
 PROPOSED INDUSTRY OWNED TRACKAGE  
 FUTURE INDUSTRY OWNED TRACKAGE  
 EXISTING RAILROAD RIGHT-OF-WAY  
 PROPOSED FENCE  
 REMOVE

DRAWN BY: JS
CHECKED BY: SM
DATE: 04/03/2023
SHEET NUMBER: 1 of 1

FOR USE IN AGREEMENT WITH <b>BNSF</b> RAILWAY
LOCATION & DESCRIPTION: TRACKAGE TO SERVE: MGC PURE CHEMICALS AMERICA MP 240.17 TO 240.72, LAMPASAS SUB KILLEEN, TX
SHEET TITLE: MGC PURE CHEM. KILLEEN, TX - TRACK OPTION 2



# TRACKAGE TO SERVE: MGC PURE CHEMICALS AMERICA MILEPOST 240.17 TO 240.72, LAMPASAS SUB, KILLEEN, TX

PUBLIC GRADE XING  
TWIN CREEK DRIVE  
MP 240.78  
DOT# 024681X

BNSF MAIN TRACK  
LAMPASAS SUB

FENCE

(3) ADD'L 65' RAIL  
CAR CAPACITY

(3) 65' RAIL CARS

65' RAIL CARS

TRACK E  
265' CLEAR

TRACK D  
335' CLEAR

9°30' CURVE

9°30' CURVE

No. 11 LH HTTO  
MP 240.72

RH HAND THROW  
SWITCH PT DERAIL

5° CURVE

No. 9 RH HTTO

No. 9 LH  
HTTO

No. 9 RH HTTO

7° CURVE

TRACK C  
705' STORAGE  
10 RAILCARS

TRACK B  
700' STORAGE  
10 RAIL CARS

TRACK A  
2,000' CLEAR

EXTEND CULVERT  
(2) 48"x52"x48' RCP  
MP 240.52

7° CURVE

No. 9 LH HTTO

LH HAND THROW  
SWITCH PT DERAIL

5° CURVE

EXTEND CULVERT  
(3) 102"x48' SSP  
MP 240.32

No. 11 RH HTTO  
MP 240.17

SCALE IN FEET  
100 0 100 200

CONCEPTUAL DESIGN

MGC PURE CHEM. KILLEEN, TX - TRACK OPTION 3.dgn

REV. #	BY	DATE	DESCRIPTION
PRELIMINARY NOT FOR CONSTRUCTION			



LEGEND:

EXISTING RAILROAD OWNED TRACKAGE	
PROPOSED INDUSTRY OWNED TRACKAGE	
FUTURE INDUSTRY OWNED TRACKAGE	
EXISTING RAILROAD RIGHT-OF-WAY	
PROPOSED FENCE	
REMOVE	

DRAWN BY: JS	FOR USE IN AGREEMENT WITH <b>BNSF RAILWAY</b>
CHECKED BY: SM	LOCATION & DESCRIPTION: TRACKAGE TO SERVE: MGC PURE CHEMICALS AMERICA MP 240.17 TO 240.72, LAMPASAS SUB KILLEEN, TX
DATE: 04/03/2023	SHEET TITLE: MGC PURE CHEM. KILLEEN, TX - TRACK OPTION 3
SHEET NUMBER: 1 of 1	