

## 4.0 Appendix D - Detailed Characteristics of Rail Routes Currently Carrying Ethanol in Iowa

## 4.1 BNSF

**Table D-1. Characteristics of BNSF Network Subdivisions Currently Carrying Bulk Ethanol in Iowa**

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
BNSF Marshall Subdivision	Iowa / Minnesota state line near Lester, Iowa-Sioux City, Iowa (75.7 miles)	One main track with passing sidings	Automatic Block Signal (ABS) / Track Warrant Control (TWC)	Class 4	49 mph	N/A	286,000 lbs.	BNSF designates as Trackside Warning Devices (TWD). TWDs exist at 15-25 mile intervals, and include Hot Box Detector (HBD) and Dragging Equipment Detector (DED) installations near Alvord, Perkins, and West Le Mars, Iowa	Unknown	0-3
BNSF Sioux City Subdivision	Sioux City, Iowa-Iowa / Nebraska state line near Sioux City, Iowa (2.6 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 4	30 mph	N/A	286,000 lbs.	BNSF designates as Trackside Warning Devices (TWD). Existing TWD includes a High/Wide/Shifted Load Detector (SLD) at Floyd (Sioux City), Iowa	Unknown	0-3
BNSF Creston Subdivision	Iowa / Nebraska state line near Pacific Junction, Iowa-Creston, Iowa	Segments of two main tracks and one main track	Centralized Traffic Control (CTC)	Class 4	60 mph	79 mph (Amtrak)	286,000 lbs.	BNSF designates as Trackside Warning Devices (TWD). TWDs exist at 5-7 mile intervals. All	Unknown	0-2

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
	(86.1 miles); note that the BNSF line segment between Red Oak, Iowa, and Shenandoah, Iowa, is designated a BNSF industrial lead of the Creston Subdivision (not included in the subdivision mileage above) and is approximately 21.2 miles long.							installations include a DED (every 5-7 miles) and some installations include a DED and a HBD (every 15-25 miles). TWDs exist near Pacific Junction (two installations), Glenwood, Malvern, Hastings, Emerson, McPherson, Red Oak, Stanton, Villisca (two installations), Nodaway, Brooks, Corning, Prescott, Cromwell, and Creston, Iowa		
BNSF Ottumwa Subdivision	Creston, Iowa-Iowa / Illinois state line at Burlington, Iowa (188.1 miles)	Two main tracks	Mixture of Centralized Traffic Control (CTC), Track Warrant Control (TWC), and Yard Limits (YL)	Class 4	60 mph	79 mph (Amtrak)	286,000 lbs.	BNSF designates as Trackside Warning Devices (TWD). TWDs exist at 5-30 mile intervals. All installations include a DED (every 5-30 miles) and some installations include a DED and a HBD (every 15-30 miles). TWDs exist near	Unknown	0-2

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
BNSF Hannibal Subdivision	Burlington, Iowa-Iowa / Missouri state line at Keokuk, Iowa (44.4 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	Thayer, Osceola, Russell, Melrose, Halpin, Albia, Maxon, Agency City, Fairfield, Mount Pleasant, and Dayman, Iowa. BNSF designates as Trackside Warning Devices (TWD). TWDs exist at 25-30 mile intervals. All installations include a DED and HBD. A TWD exists near Montrose, Iowa.	Unknown	0-2
BNSF Chillicothe Subdivision	Iowa / Illinois state line at Fort Madison, Iowa-Fort Madison, Iowa (2.5 miles)	Two main tracks	Centralized Traffic Control (CTC)	Class 5	55 mph	79 mph (Amtrak)	286,000 lbs.	No Trackside Warning Devices (TWD) on the segment of this subdivision in Iowa	Unknown	0-2
BNSF Marceline Subdivision	Fort Madison, Iowa-Iowa / Missouri state line near Argyle, Iowa (17.7 miles)	Two main tracks	Centralized Traffic Control (CTC) and Automatic Train Stop (ATS)	Class 5	70 mph	90 mph (Amtrak)	286,000 lbs.	BNSF designates as Trackside Warning Devices (TWD). TWDs exist at 5-7 mile intervals. All installations include a DED and HBD. TWD installations exist near Bricker	Unknown	0-2

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
								and Argyle, Iowa.		
BNSF Council Bluffs Subdivision	Pacific Junction, Iowa-Council Bluffs, Iowa (18.4 miles)	One main track with passing sidings	Track Warrant Control (TWC) Pacific Junction, Iowa-Council Bluffs, Iowa; Yard Limits (YL) at Council Bluffs, Iowa	Class 2	25 mph	N/A	286,000 lbs.	No Trackside Warning Devices (TWD).	Unknown	0-1
BNSF Napier Subdivision	Pacific Junction, Iowa-Iowa / Missouri state line near Hamburg, Iowa (33.0 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 4	49 mph	N/A	286,000 lbs.	BNSF designates as Trackside Warning Devices (TWD). One TWD exists on this segment and includes a DED and HBD installation near Pacific Junction, Iowa.	Unknown	0-1
BNSF Bayard Subdivision	Council Bluffs, Iowa-Bayard, Iowa (100.0 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 2	25 mph	N/A	286,000 lbs.	No Trackside Warning Devices (TWD).	Unknown	0-1
BNSF Aberdeen Subdivision	Sioux City, Iowa-Iowa / South Dakota	One main track with passing sidings	Restricted Limits (RL)	Class 2	10-25 mph	N/A	286,000 lbs.	No Trackside Warning Devices (TWD).	Unknown	0-1 (DAIR trackage)

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
	state line near North Sioux City, South Dakota (7.1 miles)									rights trains over BNSF)

## 4.2 CN

**Table D-2. Characteristics of CN Network Currently Carrying Bulk Ethanol in Iowa**

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
CN Dubuque Subdivision	Iowa / Illinois state line near Dubuque, Iowa-Hilltop (Waterloo), Iowa (90.0 miles)	One main track with passing sidings	Centralized Traffic Control (CTC)	Class 4	50 mph	N/A	286,000 lbs.	CN designates as Defect Detectors (DD). DDs exist at 20 to 35 mile intervals, and include Hot Box Detector (HBD). It is not known if the DDs also have a Dragging Equipment Detector (DED). DD installations exist near Epworth and Masonville, Iowa. CN has a Wheel Impact Load Detector (WILD) installation near Farley, Iowa.	Unknown	0-2
CN Waterloo Subdivision	Hilltop (Waterloo), Iowa-Tara, Iowa (109.2 miles)	One main track with passing sidings	Centralized Traffic Control (CTC) Hilltop, Iowa-Waterloo, Iowa; Automatic	Class 3	50 mph	N/A	286,000 lbs.	CN designates as Defect Detectors (DD). CN has one DD on the subdivision near Iowa Falls, Iowa.	Unknown	0-1

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
			Block Signals (TWC) / Yard Limits (YL) at Waterloo, Iowa; Centralized Traffic Control (CTC) Waterloo, Iowa-Tara, Iowa							
CN Cherokee Subdivision	Tara, Iowa-Sioux City, Iowa (127.6 miles)	One main track with passing sidings	Track Authority (TA) Tara, Iowa-Le Mars, Iowa; Automatic Block Signals (ABS) / Track Warrant Control (TWC) Le Mars, Iowa-Sioux City, Iowa	Class 3	40 mph	N/A	286,000 lbs.	CN designates as Defect Detectors (DD). CN has one DD on the subdivision near Pomeroy, Iowa.	Unknown	0-1
CN Omaha Subdivision	Tara, Iowa-Council Bluffs, Iowa (130.2 miles)	One main track with passing sidings	Track Authority (TA);	Class 3	40 mph	N/A	286,000 lbs.	CN designates as Defect Detectors (DD). CN has one	Unknown	0-1

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
	miles)		Centralized Traffic Control (CTC) at Ida, Iowa					DD on the subdivision near Dunlap, Iowa.		
CN Ida Grove Subdivision	Ida, Iowa-Ida Grove, Iowa (24.5 miles)	One main track	Track Authority (TA)	Class 2	25 mph	N/A	286,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1
CN Osage Subdivision	Mona Junction (Waterloo), Iowa-Iowa / Minnesota state line at Lyle, Minnesota (75.6 miles)	One main track with passing sidings	Track Authority (TA)	Class 3	40 mph	N/A	268,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1
CN Cedar Rapids Subdivision	Manchester-Iowa-Cedar Rapids, Iowa (41.6 miles)	One main track with passing sidings	Track Authority (TA)	Class 3; Class 2 (varies by segment)	40 mph; 25 mph (varies by segment)	N/A	286,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1

### 4.3 CP

**Table D-3. Characteristics of CP Network Currently Carrying Bulk Ethanol in Iowa**

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
CP Marquette Subdivision	Iowa / Minnesota state line at New Albin, Iowa-Sabula Junction, Iowa (136.5 miles)  Note: CP has approximately 1.9 miles of trackage rights over the CN Dubuque Subdivision at Dubuque, Iowa, that are not included in the mileage listed above.	One main track with passing sidings	Centralized Traffic Control (CTC) Sabula Junction-Lake, Iowa; Track Warrant Control (TWC) Lake, Iowa-Iowa / Minnesota state line at New Albin, Iowa	Class 3	40 mph	N/A	286,000 lbs.	CP designates as Trackside Warning Detectors (TWD). TWDs exist at 25-35 mile intervals. All installations include a DED and HBD. TWDs exist near New Albin, Harpers Ferry, Guttenberg, Spechts Ferry, and Green Island, Iowa. TWDs near New Albin, Spechts Ferry, and Green Island also have a Hot Wheel Detector (HWD).	CP anticipates future installation of a Wheel Impact Load Detector (WILD) on the Marquette Subdivision.	0-3
CP Davenport Subdivision	Sabula Junction, Iowa-Nahant (Davenport), Iowa (54.2 miles)	One main track with passing sidings	Centralized Traffic Control (CTC) Sabula Junction-Deer Creek, Iowa;	Class 3	40 mph	N/A	286,000 lbs.	CP designates as Trackside Warning Detectors (TWD). TWDs exist at 25-30 mile intervals. All installations include a DED and HBD. TWDs exist near Le	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
			Automatic Block Signals (ABS) / Track Warrant Control (TWC) Deer Creek-Davenport, Iowa; Yard Limits (YL) Davenport-Nahant, Iowa					Claire and Deer Creek, Iowa.		
CP Ottumwa Subdivision	Nahant (Davenport), Iowa-Ottumwa, Iowa (107.1 miles)	One main track with passing sidings	Mixture of Centralized Traffic Control (CTC); Automatic Block Signals (ABS) / Track Warrant Control (TWC); and Yard Limits (YL)	Class 4 / Class 3	49 mph (Nahant-Muscatine); 40 mph (Muscatine-Ottumwa)	N/A	286,000 lbs.	CP designates as Trackside Warning Detectors (TWD). TWDs exist at 20-30 mile intervals. All installations include a DED and HBD. TWDs exist near Rutledge, Rubio, Ainsworth, Letts, and Montpelier, Iowa.	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
CP Laredo Subdivision	Ottumwa, Iowa-Iowa / Missouri state line near Sewal, Iowa (61.2 miles)	One main track with passing sidings	Yard Limits (YL) at Ottumwa, Iowa; Track Warrant Control (TWC) Ottumwa, Iowa-Iowa / Missouri state line near Sewal, Iowa	Class 3	40 mph	N/A	286,000 lbs.	CP designates as Trackside Warning Detectors (TWD). TWDs exist at 25-30 mile intervals. All installations include a DED and HBD. TWDs exist near Seymour and Blakesburg, Iowa.	Unknown	0-3
CP Chicago Subdivision	Iowa / Illinois state line at Sabula, Iowa-Sabula Junction, Iowa (1.0 mile)	One main track	Centralized Traffic Control (CTC)	Class 3	25 mph	N/A	286,000 lbs.	No TWDs exist on this segment in Iowa.	Unknown	0-3
CP Bay Subdivision	Island, Iowa-Lake, Iowa (at Sabula Junction, Iowa) (0.3 mile)	One main track	Centralized Traffic Control (CTC)	Unkn-own	10 mph	N/A	286,000 lbs.	No TWDs exist on this segment in Iowa.	Unknown	0-3
CP Mason City Subdivision	Marquette, Iowa-Mason City, Iowa (116.7 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	CP designates as Trackside Warning Detectors (TWD). TWDs exist at 25 to 40 mile intervals. All installations include a DED and	Unknown	0-2

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
CP Sheldon Subdivision	Mason City, Iowa-Sheldon, Iowa (136.7 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 2	25 mph	N/A	286,000 lbs.	HBD. TWDs exist near Luana, Calmar, Lawler, and Rudd, Iowa. CP designates as Trackside Warning Detectors (TWD). TWDs exist at 25 to 40 mile intervals. All installations include a DED and HBD. TWDs exist near Clear Lake, Hutchins, and Cylinder, Iowa.	Unknown	0-1
CP Owatonna Subdivision	Mason City, Iowa-Iowa / Minnesota state line at Lyle, Minnesota (28.2 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	CP designates as Trackside Warning Detectors (TWD). One TWD installation, including a DED and HBD, exists near Plymouth, Iowa.	Unknown	0-1

#### 4.4 UP

**Table D-4. Characteristics of UP Network Currently Carrying Bulk Ethanol in Iowa**

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
UP Geneva Subdivision	Iowa / Illinois state line near Clinton, Iowa-Clinton, Iowa (2.1 miles)	Two main tracks	Centralized Traffic Control (CTC) / Automatic Train Control (ATC)	Class 5	70 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDD installations on this subdivision in Illinois include a DED and a HBD. No TDDs exist on this subdivision in Iowa.	Unknown	0-3
UP Clinton Subdivision	Clinton, Iowa-Boone, Iowa (196.6 miles)	Two main tracks	Centralized Traffic Control (CTC) / Automatic Train Control (ATC)	Class 5	70 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). This subdivision includes over 60 TDD installations, most of which are DEDs spaced at short intervals of under 5 miles. TDDs with a combined DED / HBD installation exist at 15-20 mile intervals.	Unknown	0-3
UP Boone Subdivision	Boone, Iowa-East Missouri Valley, Iowa	Two main tracks	Centralized Traffic Control	Class 5	70 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD).	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
	(121.0 miles)		(CTC) / Automatic Train Control (ATC)					TDDs exist at varying intervals. TDDs with a DED installation only are spaced at short intervals and exist near Boone (three installations) and Ogden, Iowa. TDDs with a combined DED / HBD installation are spaced at 15-25 mile intervals, and exist near Beaver, Scranton, Carroll, Vail, Haley, and Woodbine, Iowa.		
UP Mason City Subdivision	Des Moines, Iowa-Mason City, Iowa (119.5 miles)	One main track with passing sidings	Centralized Traffic Control (CTC) Des Moines, Iowa-Nevada, Iowa; Automatic Block Signals (ABS) / Track	Class 4	60 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDDs exist at 5-20 mile intervals. All installations include a DED (every 5-20 miles) and some installations include a DED and a HBD (every 15-30 miles). TDDs exist near Elkhart, South	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
			Warrant Control (TWC) Nevada, Iowa-Flint, Iowa; Automatic Block Signals (ABS) / Yard Limits (YL) Flint, Iowa-Mason City, Iowa					Chicago Junction (Nevada), Garden City, Buckeye, Iowa Falls (two installations), Argon, Chapin, and Flint, Iowa.		
UP Oskaloosa Subdivision	Marshalltown, Iowa-Bridgeport, Iowa (68.7 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 2	25 mph	N/A	286,000 lbs.	No Train Defect Detectors (TDD).	Unknown	0-1
UP Jewell Subdivision	West Ames, Iowa-Goldfield, Iowa (55.5 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph (West Ames, Iowa-Eagle Grove, Iowa); 30 mph (Eagle Grove, Iowa-Goldfield, Iowa)	N/A	286,000 lbs.	No Train Defect Detectors (TDD).	Unknown	0-1
UP Fort Dodge Subdivision	Eagle Grove, Iowa-Moorland, Iowa (25.5 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 4	49 mph	N/A	286,000 lbs. Moorland, Iowa-South Fort Dodge,	No Train Defect Detectors (TDD).	Unknown	0-1

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			Moorland, Iowa-Eagle Grove, Iowa; Yard Limits (YL) at Eagle Grove, Iowa				Iowa; 268,000 lbs. South Fort Dodge, Iowa-Vincent, Iowa; 286,000 lbs. Vincent, Iowa-Eagle Grove, Iowa			
UP Estherville Subdivision	Goldfield, Iowa-Superior, Iowa (79.3 miles)  Note: UP has approximately 41.6 miles of trackage rights over the CP Sheldon Subdivision between the UP Estherville Subdivision at Emmetsburg, Iowa, and Hartley, Iowa, that are not included in the	One main track with passing sidings	Track Warrant Control (TWC)	Class 4	49 mph	N/A	286,000 lbs.	No Train Defect Detectors (TDD).	Unknown	0-1

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
UP Rake Subdivision	mileage listed above. Iowa / Minnesota state line near Rake, Iowa-Estherville, Iowa (51.9 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs. Iowa / Minnesota state line near Rake, Iowa-Rake, Iowa; 268,000 lbs. Rake, Iowa-Estherville, Iowa	No Train Defect Detectors (TDD).	Unknown	0-1
UP Tara Subdivision	East Grand Junction, Iowa-Rolfe, Iowa (58.1 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph (East Grand Junction, Iowa-Tara, Iowa); 30 mph (Tara, Iowa-Rolfe, Iowa)	N/A	286,000 lbs. (East Grand Junction, Iowa-Tara, Iowa); 268,000 lbs. (Tara, Iowa-Rolfe, Iowa)	No Train Defect Detectors (TDD).	Unknown	0-1
UP Laurens Subdivision	Rolfe, Iowa-Albert City, Iowa (28.5 miles)	One main track	Track Warrant Control (TWC)	Class 3	30 mph	N/A	268,000 lbs.	No Train Defect Detectors (TDD).	Unknown	0-1
UP Blair Subdivision	East Missouri Valley, Iowa-Iowa / Nebraska state line near Blair, Nebraska (14.2 miles)	Two main tracks and one main track	Centralized Traffic Control (CTC) / Automatic Train	Class 4	60 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDDs exist at 20-25 mile intervals on this subdivision. All	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
			Control (ATC) East Missouri Valley, Iowa-Allen Creek, Iowa; Centralized Traffic Control (CTC) Allen Creek, Iowa-Iowa / Nebraska state line near Blair, Nebraska					installations include a DED and a HBD. One TDD exists on this subdivision in Iowa near Allen Creek.		
UP Omaha Subdivision	Missouri Valley, Iowa-Iowa / Nebraska state line at Council Bluffs, Iowa (23.1 miles)	Three main tracks, two main tracks, one main track	Centralized Traffic Control (CTC) / Automatic Train Control (ATC)	Class 4	60 mph	N/A	286,000 lbs. (Missouri Valley, Iowa-Council Bluffs, Iowa); 315,000 lbs. (Council Bluffs, Iowa-Iowa / Nebraska state line at Council Bluffs,	UP designates as Train Defect Detectors (TDD). TDDs exist at short intervals on this subdivision. All installations include a DED and one installation includes a DED and a HBD. TDDs exist on this subdivision in Iowa near South Missouri Valley, (three installations),	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
			Traffic Control (CTC) Council Bluffs, Iowa-Iowa / Nebraska state line at Council Bluffs, Iowa				Iowa)	Crescent, and North Council Bluffs (three installations), Iowa.		
UP Sioux City Subdivision	California Junction, Iowa-Sioux City, Iowa (70.4 miles)	One main track with passing sidings	Centralized Traffic Control (CTC) California Junction, Iowa-Modale, Iowa; Automatic Block Signals (ABS) / Track Warrant Control (TWC) Modale, Iowa-Sioux City, Iowa; Yard Limits	Class 4	49 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDDs exist at 15-25 mile intervals on this subdivision. All installations include a DED and a HBD. TDDs exist near Mondamin, Blencoe, and Salix, Iowa.	Unknown	0-2

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
UP Albert Lea Subdivision	Mason City, Iowa-Iowa / Minnesota state line near Northwood, Iowa (24.4 miles)	One main track with passing sidings	(YL) at Sioux City, Iowa Yard Limits (YL) at Mason City, Iowa; Centralized Traffic Control (CTC) Mason City, Iowa-Iowa / Minnesota state line near Northwood, Iowa	Class 4	50 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDDs exist at 15-25 mile intervals on this subdivision. All installations include a DED and a HBD. One TDD exists on this subdivision in Iowa near Manly.	Unknown	0-3
UP Worthington Subdivision	Le Mars, Iowa-Iowa / Minnesota state line near Bigelow, Minnesota (55.7 miles) Note: UP has approximately 22.5 miles of trackage rights over the CN Cherokee	One main track with passing sidings	Track Warrant Control (TWC)	Class 4	49 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDDs exist at 20-mile intervals. All installations include a DED and a HBD. TDDs exist near Carnes, Sheldon, and Sibley, Iowa.	Unknown	0-2

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	Subdivision between the UP Worthington Subdivision at Le Mars, Iowa, and Sioux City, Iowa, that are not included in the mileage listed above.									
UP Fairmont Subdivision	Mason City, Iowa – Iowa / Minnesota state line near Scarville, Iowa (34.0 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). One TDD installation exists on the subdivision near Scarville, Iowa, and includes a DED and a HBD.	Unknown	0-1
UP Trenton Subdivision	Des Moines, Iowa-Iowa / Missouri state line near Lineville, Iowa (87.0 miles)	One main track with passing sidings	Centralized Traffic Control (CTC) Des Moines, Iowa-Beech, Iowa; Automatic Block Signals (ABS) / Track	Class 4	60 mph	N/A	286,000 lbs.	UP designates as Train Defect Detectors (TDD). TDDs exist at 15-25 mile intervals. Installations include a DED and a HBD. TDDs exist near Carlisle, Melcher, Chariton, and Corydon, Iowa, and on the Iowa /	Unknown	0-3

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
			warrant Control (TWC) Beech, Iowa-Williamson, Iowa; Centralized Traffic Control (CTC) Williamson, Iowa-Iowa / Missouri state line near Lineville, Iowa					Missouri state line near Lineville, Iowa.		

## 4.5 IAIS

**Table D-5. Characteristics of IAIS Network Currently Carrying Bulk Ethanol in Iowa**

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
IAIS Iowa City Subdivision	Iowa / Illinois state line near Davenport, Iowa-South Amana, Iowa (77.4 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	IAIS designates as Trackside Warning Detectors (TWD). TWDs exist at 25-mile intervals, and include Hot Box Detector (HBD), Dragging Equipment Detector (DED), and Hot Wheel Detector (HWD) installations near Stockton, Downey, and Oxford, Iowa.	Unknown	0-2
IAIS Newton Subdivision	South Amana, Iowa-East Des Moines, Iowa (93.2 miles)	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	IAIS designates as Trackside Warning Detectors (TWD). TWDs exist at 25 to 30 mile intervals, and include Hot Box Detector (HBD), Dragging Equipment Detector (DED), and Hot Wheel Detector (HWD) installations near Victor, Grinnell, and	Unknown	0-1

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
IAIS Council Bluffs Subdivision	Des Moines, Iowa-Council Bluffs, Iowa (127.8 miles) Note: IAIS has approximately 2.7 miles of trackage rights over the UP Perry Subdivision – Des Moines Industrial Lead in Des Moines and to the IAIS Council Bluffs Subdivision at West Des Moines, Iowa, that are not included in the mileage listed above.	One main track with passing sidings	Track Warrant Control (TWC)	Class 3	40 mph	N/A	286,000 lbs.	Colfax, Iowa. No Trackside Warning Devices (TWD)	Unknown	0-1
IAIS Cedar Rapids Subdivision (owned by CIC; controlled by IAIS)	Yocum Connection (South Amana), Iowa-Cedar Rapids, Iowa (17.8 miles)	One main track	Track Warrant Control (TWC)	Class 3	25 mph	N/A	286,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-2 (IAIS)

## 4.6 IANR

**Table D-6. Characteristics of IANR Network Currently Carrying Bulk Ethanol in Iowa**

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
IANR Manly Subdivision	Manly, Iowa-Cedar Falls Junction, Iowa (67.3 miles)  Note: IANR has approximately 8.7 miles of trackage rights over the CN Waterloo Subdivision and North Waterloo Industrial Lead between the IANR Manly Subdivision at Cedar Falls Junction, Iowa, and Waterloo, Iowa, that are not included in the mileage listed above.	One main track with passing sidings	Yard Limits (YL) at Manly, Iowa; Track Warrant Control (TWC) Manly, Iowa-Cedar Falls Junction, Iowa	Class 2	25 mph  Note: IANR limits any train carrying hazardous materials to 10 mph over sections of main track with jointed rail. At the grain elevator in Shell Rock, Iowa, IANR trains operate with a 10 mph head-end restriction through all grade crossings owing to restricted visibility around standing cars on adjacent	N/A	286,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
IANR Cedar Rapids Subdivision	Waterloo, Iowa-Cedar Rapids, Iowa (50.2 miles)  Note: IANR has approximately 7.2 miles of trackage rights over the UP Clinton Subdivision – Waterloo Industrial Lead between the IANR Cedar Rapids Subdivision at Waterloo, Iowa, and the IANR Oelwein Subdivision at Dewar, Iowa; and approximately 4.0 miles of trackage rights over the UP Cedar Rapids Industrial Lead in Cedar	One main track with passing sidings	Yard Limits (YL) at Waterloo, Iowa; Track Warrant Control (TWC) Waterloo, Iowa-Cedar Rapids, Iowa	Class 2	elevator tracks. 25 mph  Note: IANR limits any train carrying hazardous materials to 10 mph over sections of main track with jointed rail. At the grain elevators in La Porte City and Vinton, Iowa, IANR trains operate with a 10 mph head-end restriction through all grade crossings owing to restricted visibility around standing cars on adjacent	N/A	286,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1

Railroad and Operating Subdivision Within Iowa	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
	Rapids, Iowa, that are not included in the mileage listed above.				elevator tracks.					
IANR Oelwein Subdivision	Dewar, Iowa-Oelwein, Iowa (approximately 19.0 miles)	One main track	Track Warrant Control (TWC) Dewar, Iowa-Oelwein, Iowa; Yard Limits (YL) at Oelwein, Iowa	Class 1	10 mph	N/A	268,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1

## 4.7 Other Short Lines

**Table D-7. Characteristics of Other Short Line Rail Networks Currently Carrying Ethanol in Iowa**

Railroad	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
CIC	CIC network consists of trackage in the Cedar Rapids and Iowa City, Iowa, areas (approximately 57 miles). Ethanol trains use several segments of the network in Cedar Rapids only. The CIC-owned 17.8-mile segment between Cedar Rapids, Iowa, and Yocum Connection (South Amana), Iowa, is controlled by IAIS and its likely ethanol train volumes are described in Table D-7 above.	One main track with passing sidings	Yard Limits (YL); Restricted Speed (RS); Track Warrant Control (TWC)	Class 1, Class 2, Class 3 (varies by segment)	10-25 mph (varies by segment)	N/A	286,000 lbs.	No Trackside Warning Detectors (TWD)	Unknown	0-1 on CIC network in Cedar Rapids

Railroad	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
DAIR	Segments of trackage rights over State of South Dakota-owned trackage between Hudson and Elk Point, South Dakota (designated as the DAIR Hawarden Subdivision), and the BNSF Aberdeen Subdivision between Elk Point, South Dakota, and Sioux City, Iowa (approximately 34.0 miles of the DAIR Hawarden Subdivision and 7.0 miles of the BNSF Aberdeen Subdivision is located in Iowa); for characteristics	One main track with passing sidings (DAIR only)	Restricted Speed (RS) – DAIR only	Class 2 (DAIR only)	20 mph (DAIR only)	N/A	286,000 lbs. (DAIR only)	No Trackside Warning Detectors (TWD) – DAIR only	Unknown	0-1

Railroad	Segment in Iowa and Approximate Mileage	Track Configuration	Method of Operation	FRA Track Class	Maximum Authorized Speed for Freight Trains	Maximum Authorized Speed for Passenger Trains	Maximum Allowable Gross Weight per Car	Existing Wayside Asset Protection Devices and Spacing	Proposed Wayside Asset Protection Devices	Likely Average Number of Ethanol Trains Daily by Segment
IARR	of the BNSF Aberdeen Subdivision between Elk Point, South Dakota, and Sioux City, Iowa, see Table D-7 above. Steamboat Rock, Iowa-Ackley, Iowa (8.5 miles)	One main track	Unknown	Class 1	10 mph	N/A	265,000 lbs.	No Trackside Warning Devices (TWD)	Unknown	0-1