

REFERENCE COPY

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**Federal Communications Commission
Wireless Telecommunications Bureau**

RADIO STATION AUTHORIZATION

LICENSEE: BNSF RAILWAY CO

ATTN: BNSF TELECOM FCC
BNSF RAILWAY CO
4515 KANSAS AVENUE
KANSAS CITY, KS 66106

| | |
|---|--------------------|
| Call Sign WQPV693 | File Number |
| Radio Service LN - 902-928 MHz Location Narrowband (Non-multilateration) | |
| Regulatory Status PMRS | |
| Frequency Coordination Number | |

FCC Registration Number (FRN): 0004772877

| | | | |
|---------------------------------|-------------------------------------|--------------------------------------|-------------------|
| Grant Date 08-24-2012 | Effective Date 01-06-2020 | Expiration Date 08-24-2022 | Print Date |
|---------------------------------|-------------------------------------|--------------------------------------|-------------------|

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

- Loc. 1 Address:** BNSF LS7200 MP 743.3 - EAST BARSTOW M1 &M2 - AEI
City: Barstow **County:** SAN BERNARDINO **State:** CA
Lat (NAD83): 34-53-00.9 N **Long (NAD83):** 116-58-45.8 W **ASR No.:** **Ground Elev:** 632.7
- Loc. 2 Address:** BNSF LS7200 MP 743.3 - EAST BARSTOW M3 - AEI
City: Barstow **County:** SAN BERNARDINO **State:** CA
Lat (NAD83): 34-53-00.9 N **Long (NAD83):** 116-58-45.8 W **ASR No.:** **Ground Elev:** 632.7
- Loc. 3 Address:** BNSF LS7200 MP 693.67 LUDLOW AEI
City: LUDLOW **County:** SAN BERNARDINO **State:** CA
Lat (NAD83): 34-43-06.3 N **Long (NAD83):** 116-09-55.0 W **ASR No.:** **Ground Elev:** 693.6

Antennas

| Loc No. | Ant No. | Frequencies (MHz) | Sta. Cls. | No. Units | No. Pagers | Emission Designator | Output Power (watts) | ERP (watts) | Ant. Ht./Tp (meters) | Ant. AAT (meter) | Construct Deadline Date |
|---------|---------|-------------------|-----------|-----------|------------|---------------------|----------------------|-------------|----------------------|------------------|-------------------------|
| 1 | 1 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | s-137.0 | 08-24-2013 |
| 1 | 1 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 1 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

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Antennas

| Loc No. | Ant No. | Frequencies (MHz) | Sta. Cls. | No. Units | No. Pagers | Emission Designator | Output Power (watts) | ERP (watts) | Ant. Ht./Tp meters | Ant. AAT meter | Construct Deadline Date |
|---------|---------|-------------------|-----------|-----------|------------|---------------------|----------------------|-------------|--------------------|----------------|-------------------------|
| 1 | 1 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | s-137.0 | 08-24-2013 |
| 1 | 1 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 1 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 1 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 1 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 1 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 1 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 1 | 2 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 2 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |

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Antennas

| Loc No. | Ant No. | Frequencies (MHz) | Sta. Cls. | No. Units | No. Pagers | Emission Designator | Output Power (watts) | ERP (watts) | Ant. Ht./Tp meters | Ant. AAT meter | Construct Deadline Date |
|---------|---------|-------------------|-----------|-----------|------------|---------------------|----------------------|-------------|--------------------|----------------|-------------------------|
| 1 | 3 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | s-137.0 | 06-06-2020 |
| 1 | 3 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 3 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -137.0 | 06-06-2020 |
| 1 | 4 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 1 | 4 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 1 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |

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|---------|---------|-------------------|-----------|-----------|------------|---------------------|----------------------|-------------|--------------------|----------------|-------------------------|
| 2 | 1 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | s-137.0 | 08-24-2013 |
| 2 | 1 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 1 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 08-24-2013 |
| 2 | 2 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 2 | 2 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 1.5 | -137.0 | 06-06-2020 |
| 3 | 1 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |

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|---------|---------|-------------------|-----------|-----------|------------|---------------------|----------------------|-------------|--------------------|----------------|-------------------------|
| 3 | 1 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | s-77.0 | 01-06-2021 |
| 3 | 1 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 1 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 2 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 2 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |

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|---------|---------|-------------------|-----------|-----------|------------|---------------------|----------------------|-------------|--------------------|----------------|-------------------------|
| 3 | 3 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | s-78.0 | 01-06-2021 |
| 3 | 3 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 3 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 10.000 | 1.0 | -78.0 | 01-06-2021 |
| 3 | 4 | 000902.25000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000903.75000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000910.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000911.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000913.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000915.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000917.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000918.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000920.00000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |
| 3 | 4 | 000921.50000000 | LR | 1 | | 20K0N0N | 2.000 | 16.000 | 2.0 | -77.0 | 01-06-2021 |

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Control Points

Control Pt. No. 1

Address: 4515 Kansas Ave

City: Kansas City **County:** WYANDOTTE **State:** KS **Telephone Number:** (913)551-4639

Associated Call Signs

WNVG805

Waivers/Conditions:

NONE