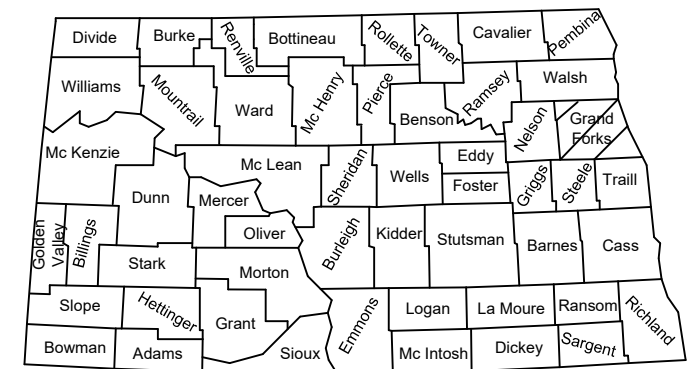
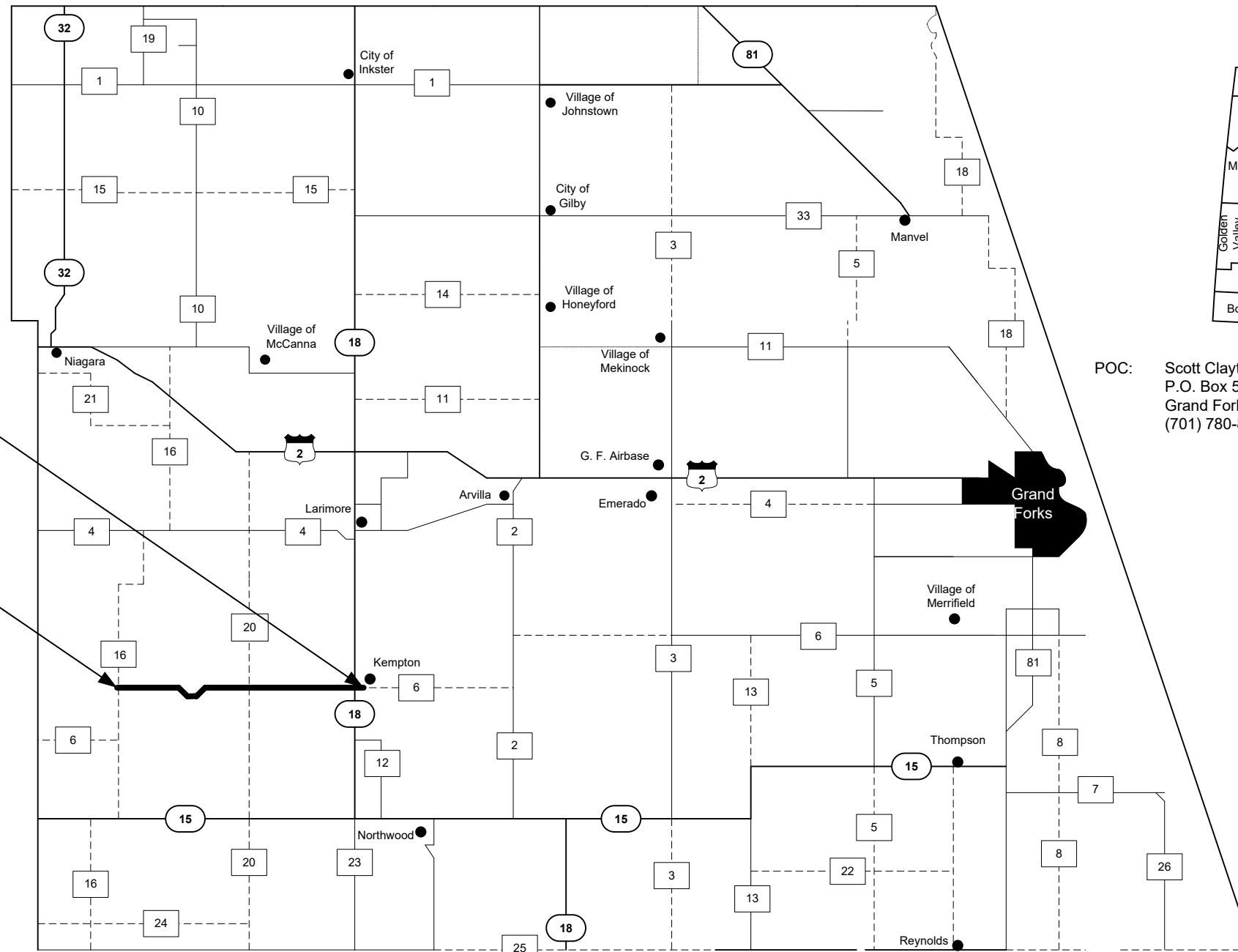


| LENGTH OF PROJECT | | |
|-------------------|--------------|--------------|
| PROJECTS | MILES-GROSS | MILES-NET |
| CP-06(022) | 9.735 | 9.735 |
| | | |
| | | |
| | | |
| | | |
| TOTAL | 9.735 | 9.735 |

**GRAND FORKS COUNTY, NORTH DAKOTA
PLANS FOR RECYCLED HBP OVERLAY, MILLING SURFACE
COUNTY PROJECT CP-06(022)**

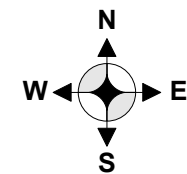
| PCN | State | Project No. | Sheet No. |
|-----|-------|-------------|-----------|
| | ND | CP-06(022) | 1 |

| GOVERNING SPECIFICATIONS | Date Published and Adopted By the North Dakota Department of Transportation |
|-----------------------------|---|
| Standard Specifications | 10/1/2020 |
| Supplemental Specifications | NONE |



State County Map

POC: Scott Clayton
P.O. Box 5682
Grand Forks, ND 58206
(701) 780-8248



End Project CP-06(022)
Sta. 514+00 = A point 2,557' East of the
NW Corner of Sec. 18, T150N, R54W

Begin Project CP-06(022)
Sta. 0+00 = The NW Corner of Sec. 15,
T150N, R56W

Design Data

Sta. 0+00 to Sta. 514+00
Pass: 105 ADT Truck: 15 ADT Total: 120
Design Speed: 55 MPH

Clear Zone Distance: 55 MPH - 18'
Minimum Sight Distance Stopping: 55 MPH - 495'
Minimum Sight Distance (Passing): 55 MPH - 900'

Pavement Design Life = 20 Years

- U.S. Highway
- State Highway
- County Highway
- County Gravel
- Hot Bituminous Overlay

Surveyed & Designed 01/05/2022
PS & E Corrections 03/15/2022

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| <u>Sheet No.</u> | <u>Description</u> |
|------------------|---------------------------------|
| 1 | Title Page |
| 2 | Table of Contents |
| 3 | Scope of Work |
| 4 | Notes |
| 5 | Notes |
| 6 | Basis of Estimate |
| 7 | Summary of Quantities |
| 8 | Typical Milling Section Tangent |
| 9 | Typical Milling Section Curves |
| 10 | Typical Section Tangent |
| 11 | Typical Section Curve |
| 12 | Typical Section Tangent |
| 13 | Approach Detail Paving |
| 14 | Construction Sign Detail |
| 15 | Traffic Control Devices |
| 16 | Pavement Marking Installation |
| 17 | Saw Slot Rumble Strip Detail |
| 18 | Swing Away Mailbox Support |

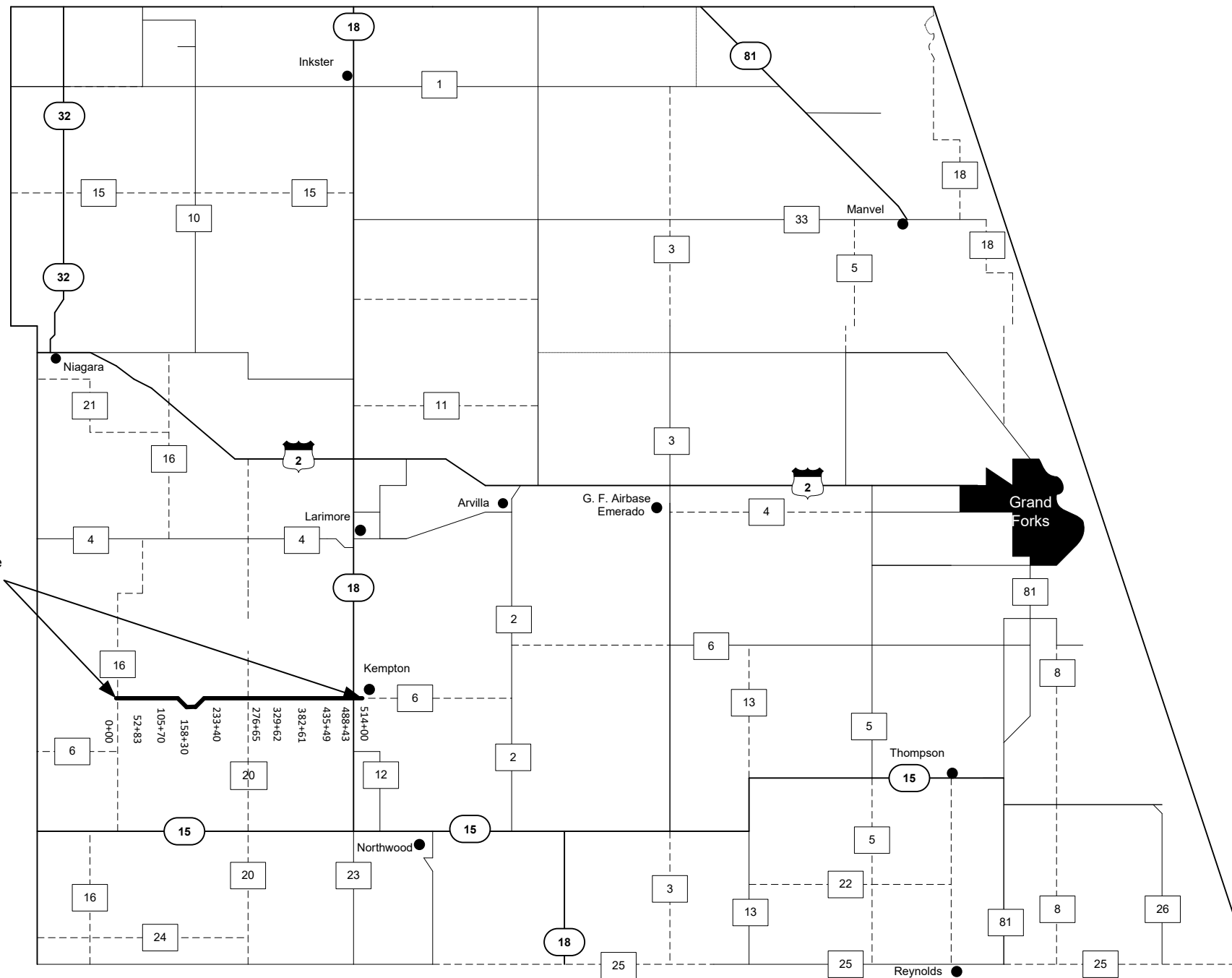
| <u>No.</u> | <u>List of Standard Drawings</u> |
|------------|---|
| D-704-2 | Traffic Control for Coring of Hot Bituminous Pavement |
| D-704-7 | Breakaway Systems for Construction Zone Signs |
| D-704-8 | Breakaway Systems for Construction Zone Signs |
| D-704-9 | Construction Sign Details Terminal and Guide Signs |
| D-704-10 | Construction Sign Details Regulatory Signs |
| D-704-11 | Construction Sign Details Warning Signs |
| D-704-13 | Barricade and Channelizing Device Details |
| D-704-14 | Construction Sign Punching and Mounting Details |
| D-704-20 | Terminal and Seal Coat Sign Layouts |
| D-704-22 | Construction Truck and Temporary Detour Layouts |
| D-704-26 | Miscellaneous Sign Layouts |
| D-706-1 | Bituminous Laboratory |
| D-762-1 | Pavement Marking Message Detail |
| D-762-4 | Pavement Marking |
| D-762-11 | Short Term Pavement Marking |
| D-766-1 | Mailbox Location Details |

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Contents

SCOPE OF WORK

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|-------|-------------|-----------|
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Project CP-06(022) County Road #6
 Sta. 0+00 to Sta. 512+80 – 2.00" Overlay & 0.5" Milling Surface
 to Plant

- U.S. Highway
- State Highway
- County Highway
- County Gravel
- Hot Bituminous Overlay

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| | | |
|-------|-------------|-----------|
| STATE | PROJECT NO. | SHEET NO. |
| ND | CP-06(022) | 4 |

NOTES

DIMENSIONS: Thicknesses shown on the typical sections for surfacing are approximate. It is intended that the plan tonnage provided by the basis of estimate will be used uniformly throughout the project unless otherwise authorized by the engineer.

107 CULTURAL RESOURCE CLEARANCE OF GRAVEL/BORROW PITS: The contractor is required to ensure that applicable cultural resource laws and regulation have been followed for all material sources. All material source locations, even those opened prior to the current project, must have been subjected to Class III cultural resource inventory prior to use. Inventory results will determine recommendations regarding use of a particular source.

107 HAUL ROADS: Before submitting a proposal, contact the appropriate State, County, Township, or City officials to determine if there are any roadways that will be designated an "no haul routes".

107 RAILROAD PROTECTIVE LIABILITY INSURANCE: The project crosses the BNSF Railway Company at 10th Ave. NE. The type of work that will be performed within the railroad right of way is milling, base work, paving and striping. Direct inquires Regarding protective liability insurance to:

Rosa Martinez
 March USA Inc.
 4400 Comerica Bank Tower
 1717 Main Street
 Dallas, TX 75201-7357, USA
 214-303-8519
 Rosa.M.Martinez@marsh.com

Obtain information regarding crossing number 086696H from the Federal Railroad Administration website:
<http://safetydata.fra.dot.gov/Officeofsafety/>

230 SHOULDER PREPARATION: All vegetation that is within the shoulder paving and approach paving areas shall be chemically killed with a non-selective herbicide a minimum of two weeks before the paving operation. Before depositing the RAP-Superpave FAA 43 on the shoulders and approaches, all weeds, grass, dirt, and other objectionable material shall be removed from the existing shoulders and approaches. The Engineer shall approve the condition of the shoulders before placement of HBP.

After the bituminous pavement has been placed on the shoulders, the contractor shall provide a smooth transition between the pavement slough and existing inslope. All lumps of sod or dirt shall be removed or reworked to allow for a smooth transition.

All costs for this work shall be included in the price bid for RAP-Superpave FAA 43.

411 MILLING PAVEMENT SURFACE: This bid items is for the milling of main line, section line approaches, and project ending and beginning milling transitions.

411 MILLING MATERIAL: All remaining milled material from projects not used for the production of recycled hot bituminous pavement on these projects shall become the property of the Contractor. All costs for labor and equipment to mill, haul, and stockpile the material shall be included in the unit price for "MILLING PAVEMENT SURFACE".

411 TEMPORARY ASPHALT WEDGES: The contractor shall place temporary asphalt wedges at the beginning and ends of the project, intersecting routes, and private drives to allow smooth passage of vehicles at these milled locations. Asphalt wedges shall be placed at these milled areas prior to the traffic being allowed back on the milled roadway section. All costs associated with labor, materials and equipment for the installation, maintenance and removal of the asphalt wedges shall be included in the price bid for "Milling Pavement Surfaces".

430 HOT BITUMINOUS PAVEMENT (WEARING COURSE): Pavement placed after September 15 shall receive a fog seal with a CSS-1H or SS-1H emulsified asphalt (diluted 50/50) at a rate of 0.10 Gal./S.Y. The fog seal shall be applied immediately after the final rolling while the pavement is still warm. The bitumen will be paid for at the invoice price (FOB refinery). If the contractor fails to have bitumen available to provide the fog seal, the engineer may require the contractor to cease paving operations and place the wearing course in the next construction season. The fog seal may be eliminated at the discretion of the field engineer.

430 HOT BITUMINOUS PAVEMENT DENSITY:
 1.) Density shall be obtained according to section 430.04 I.3, ordinary compaction.

430 RAP SUPERPAVE FAA 43: The millings on this project are estimated to generate 4,000 tons of RAP, for approximately twenty two percent of total mix needed. At a minimum, the RAP from this project shall be incorporated into the mix design. The Contractor has the option to use both recycle and non-recycle pavements and to incorporate Contractor owned milling into the mix design at a rate up to 20 percent. Contractor owned milling shall be approved by the Engineer prior to installation.

Job mix formula tolerances for RAP shall be + or - 5 percent from target value.

RAP shall be processed so that the maximum particle size in the cold feed does not exceed 1 - 1/2 inches.

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NOTES

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NOTES

No Passing Zones

| Sta. | Sta. | Rt/Lt | Length | Applications | Total Linear Feet | Overlap |
|--------|--------|-------|----------------|--------------|-------------------|---------------|
| 0+43 | 6+93 | Lt | 650' | 2 | 1,300' | |
| 39+90 | 49+10 | Rt | 920' | 2 | 1,840' | |
| 49+98 | 58+20 | Lt | 822' | 2 | 1,644' | |
| 77+75 | 86+52 | Rt | 877' | 2 | 1,754' | |
| 88+00 | 95+88 | Lt | 788' | 2 | 1,576' | |
| 106+54 | 113+17 | Rt | 663' | 2 | 1,326' | |
| 113+17 | 122+96 | Lt | 979' | 2 | 1,958' | |
| 137+67 | 144+47 | Lt | 680' | 2 | 1,360' | |
| 141+24 | 165+64 | Rt | 2,440' | 2 | 4,880' | 323' |
| 151+52 | 165+64 | Lt | 1,412' | 2 | 2,824' | 1,412' |
| 171+01 | 224+87 | Rt | 5,386' | 2 | 10,772' | 5,386' |
| 171+01 | 224+97 | Lt | 5,386' | 2 | 10,772' | |
| 225+19 | 230+27 | Lt | 508' | 2 | 1,016' | |
| 260+20 | 276+37 | Rt | 1,617' | 2 | 3,234' | |
| 268+54 | 276+37 | Lt | 783' | 2 | 1,566' | 783' |
| 276+88 | 283+38 | Lt | 650' | 2 | 1,300' | |
| 283+50 | 301+61 | Rt | 2,111' | 2 | 4,222' | |
| 294+38 | 312+46 | Lt | 1,808' | 2 | 3,616' | 1,023' |
| 314+96 | 321+53 | Rt | 657' | 2 | 1,314' | |
| 324+89 | 331+20 | Lt | 631' | 2 | 1,262' | |
| 348+20 | 354+38 | Rt | 618' | 2 | 1,236' | |
| 356+47 | 363+43 | Lt | 696' | 2 | 1,392' | |
| 481+15 | 487+65 | Rt | 650' | 2 | 1,300' | |
| 489+09 | 495+59 | Lt | 650' | 2 | 1,300' | |
| 505+89 | 512+75 | Rt | 686' | 2 | 1,372' | |
| 512+85 | 514+00 | Rt | 115' | 2 | 230' | 230' |
| 512+85 | 514+00 | Lt | 115' | 2 | 230' | |
| | | | <u>34,051'</u> | | | <u>9,042'</u> |

766 MAILBOX SUPPORTS: All mailbox supports shall be replaced with an approved support. The current mailbox or a replacement supplied by the owner of the box will be mounted on the support. The bid item for "Mailbox – All Types" shall include mounting hardware as specified in MNDOT Standard Plate 9350B. The old mailbox supports shall be removed and delivered to the owner by the contractor.

- 1.) Sta. 384+93 Lt Single 6½" x 19"
- 2.) Sta. 324+63 Lt Single 6½" x 19"
- 3.) Sta. 435+91 Lt Single 6½" x 19"

762 PAVEMENT MARKING 4 IN. LINE: Pavement marking paint for permanent striping shall be pre-approved as per Standard specification 880.01 D. Glass beads for permanent striping shall meet the requirements of Standard Specification 880.02 and be tested and approved prior to use on this project.

762 PAVEMENT MARKING EDGE LINES: A 4 inch white edge line has been added to the quantity to be used throughout the length of the projects. Edge lines shall continue through private and field drives, and break for intersections.

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NOTES

| | | |
|-------|-------------|-----------|
| STATE | PROJECT NO. | SHEET NO. |
| ND | CP-06(022) | 6 |

BASIS OF ESTIMATE STA. 0+00 TO STA. 512+80 CP-06(022) County Road #6

| Roadway Quantity Per Mile | Roadway Width | Unit | Description | Field App. & Priv. Dr. (46) | Section Line (26) |
|---------------------------|---------------|-------|---|-----------------------------|-------------------|
| 20.00 | | M Gal | Water for Dust Palliative | | |
| | | CY | Aggregate Base Course Class 5 | 3.82 | 9.03 |
| 1,314.13 & 1,408.00 | 28' & 30' | Gal | CSS-1H or SS-1H or MS-1 Emulsion Asphalt for Tack Coat (0.08 Gal/S.Y.) Surface Course | 2.94 | 8.42 |
| 1,694.80 & 1,825.20 | 24' & 26' | Ton | RAP Superpave FAA 43 (2.00 Ton/C.Y.) 2.00" @ 4.3333 S.F. & 4.6667 S.F. Surface Course | 6.60 | 18.71 |
| 84.74 & 91.62 | 24' & 26' | Ton | PG 58-28 Asph. Cement for Hot Bituminous Pavement (5.0% of Hot Bit. Pvmt.) | 0.33 | 0.94 |
| 20.00 | | M Hr | Flagging | | |
| 10.00 | | HR | Pilot Car | | |
| 10,560.00 | | L F | Edge Line Striping | | |

| | |
|---|--------------------------|
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|---|--------------------------|

| | | |
|-------|-------------|-----------|
| STATE | PROJECT NO. | SHEET NO. |
| ND | CP-06(022) | 7 |

SUMMARY OF QUANTITIES

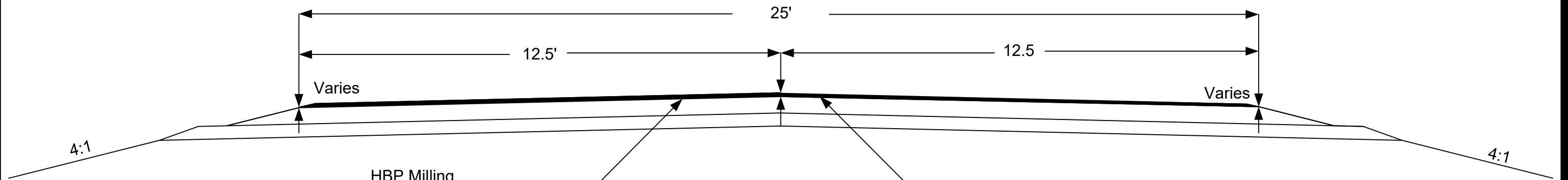
| Spec. No. | Code No. | Item Description | Unit | CR #6 CP-06(022) | Total Project |
|-----------|----------|------------------------------------|-------|------------------|---------------|
| 103 | 0100 | Contract Bond | L Sum | 1 | 1 |
| 107 | 0100 | Railway Protection Insurance | L Sum | 1 | 1 |
| 216 | 0100 | Water | M Gal | 195 | 195 |
| 302 | 0120 | Aggregate Base Course CL 5 | Ton | 411 | 411 |
| 401 | 0050 | Tack Coat | Gal | 13,046 | 13,046 |
| 411 | 0105 | Milling Pavement Surface | SY | 141,506 | 141,506 |
| 430 | 0143 | RAP – Superpave FAA 43 | Ton | 17,215 | 17,215 |
| 430 | 1000 | Cored Sample | Ea | 10 | 10 |
| 430 | 5803 | PG58S-28 Asphalt Cement | Ton | 861 | 861 |
| 702 | 0100 | Mobilization | L Sum | 1 | 1 |
| 704 | 0100 | Flagging | M Hr | 195 | 195 |
| 704 | 1000 | Traffic Control Signs | Unit | 1,944 | 1,944 |
| 704 | 1067 | Tubular Markers | Ea | 254 | 254 |
| 704 | 1185 | Pilot Car | Hr | 97 | 97 |
| 706 | 0550 | Bituminous Laboratory | Ea | 0 | 0 |
| 706 | 0600 | Contractor's Laboratory | Ea | 0 | 0 |
| 760 | 0010 | Rumble Strips - Intersection | Ea | 3 | 3 |
| 762 | 0103 | Pavement Marking Painted - Message | SF | 285 | 285 |
| 762 | 0430 | Short Term 4 In Line Type NR | LF | 88,848 | 88,848 |
| 762 | 1104 | Pavement Marking Painted 4 In Line | LF | 147,239 | 147,239 |
| 766 | 0100 | Mailbox – All Types | Ea | 3 | 3 |

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Summary of
Quantities

County Road #6 from County Road #16 to RR Tracks at Kempton

| | | |
|-------|-------------|-----------|
| State | Project No. | Sheet No. |
| ND | CP-06(022) | 8 |



HBP Milling
 Approx. Area = 1.04167 S.F. to 2.08333 S.F.

- Note: The intent is to approx. mill 0" to 1" on C/L @ 2.5% cross slope at full width
- Note: There should be on average 0.5" of millings throughout the 25' width.
- Note: Millings are to be taken to plant site.

Typical Milling Section
 Sta. 0+00 to Sta. 147+90
 Sta. 155+47 to Sta. 158+98
 Sta. 171+90 to Sta. 204+74
 Sta. 211+62 to Sta. 218+01
 Sta. 225+19 to Sta. 512+80
 Tangent

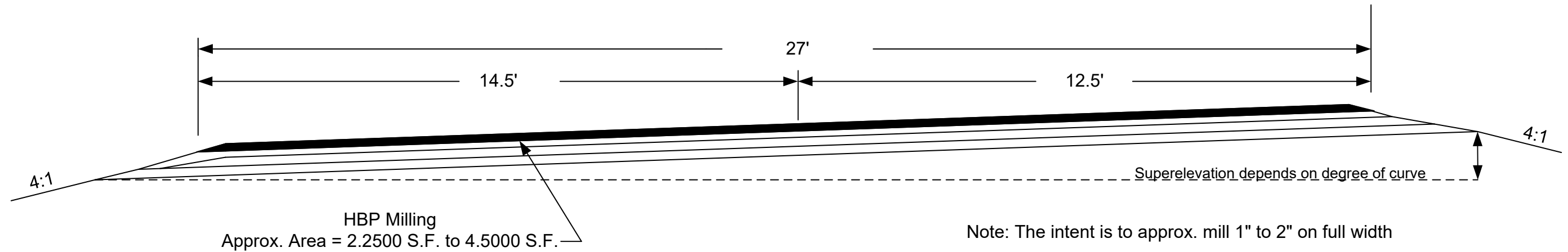
Total Milling = 132,847 S.Y.

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Typical
 Milling Section

County Road #6 from County Road #16 to RR Track at Kempton



Note: The intent is to approx. mill 1" to 2" on full width

Note: There should be on average 1.5" of millings throughout the 27' width.

Note: Millings are to be taken to plant site.

Typical Milling Section
 Sta. 147+90 to Sta. 155+47
 Sta. 158+90 to Sta. 166+53 BK = 171+90 AH
 Sta. 204+74 to Sta. 211+62
 Sta. 218+01 to Sta. 224+87 BK = 225+19 AH
 Curve

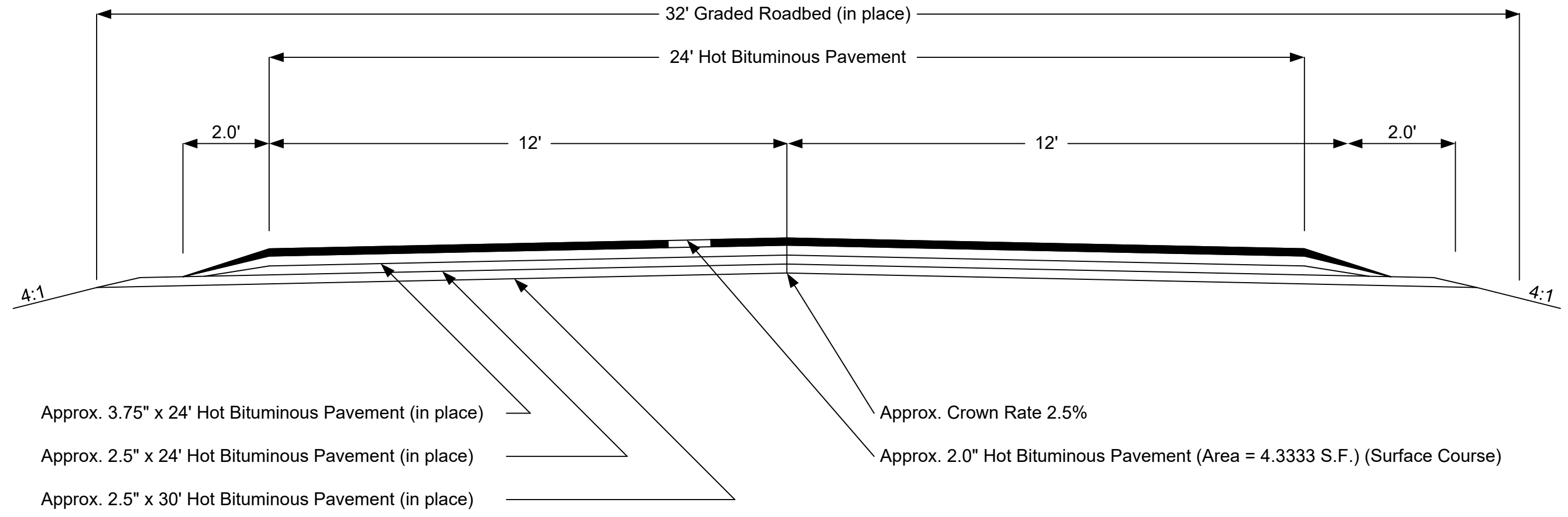
Total Milling = 8,659 S.Y.

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Typical Milling Section

County Road #6 from County Road #16 to RR Tracks at Kempton



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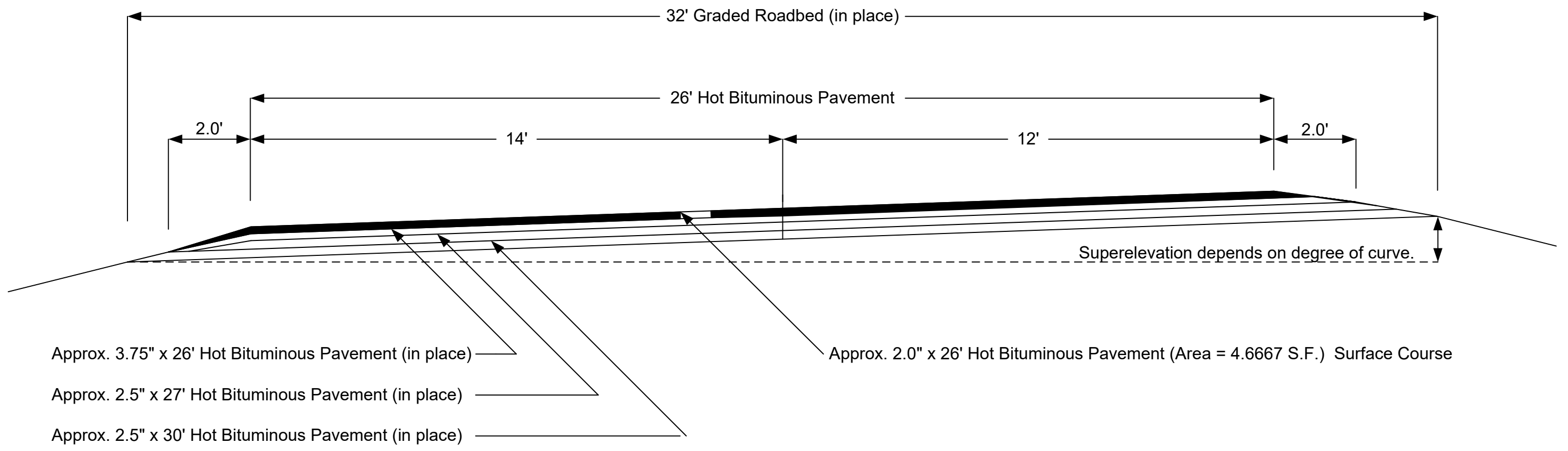
Typical Section
 Sta. 0+00 to Sta. 147+90
 Sta. 155+47 to Sta. 158+98
 Sta. 171+90 to Sta. 204+74
 Sta. 211+62 to Sta. 218+01
 Sta. 225+19 to Sta. 512+80
 Tangent

Total FAA 43 = 15,351.13 Tons

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Typical Section

County Road #6 from County Road #16 to RR Tracks at Kempton



Typical Section
 Sta. 147+90 to Sta. 155+47
 Sta. 158+98 to Sta. 166+53 BK = 171+90 AH
 Sta. 204+74 to Sta. 211+62
 Sta. 218+01 to Sta. 224+87 BK = 225+19 AH
 Curve

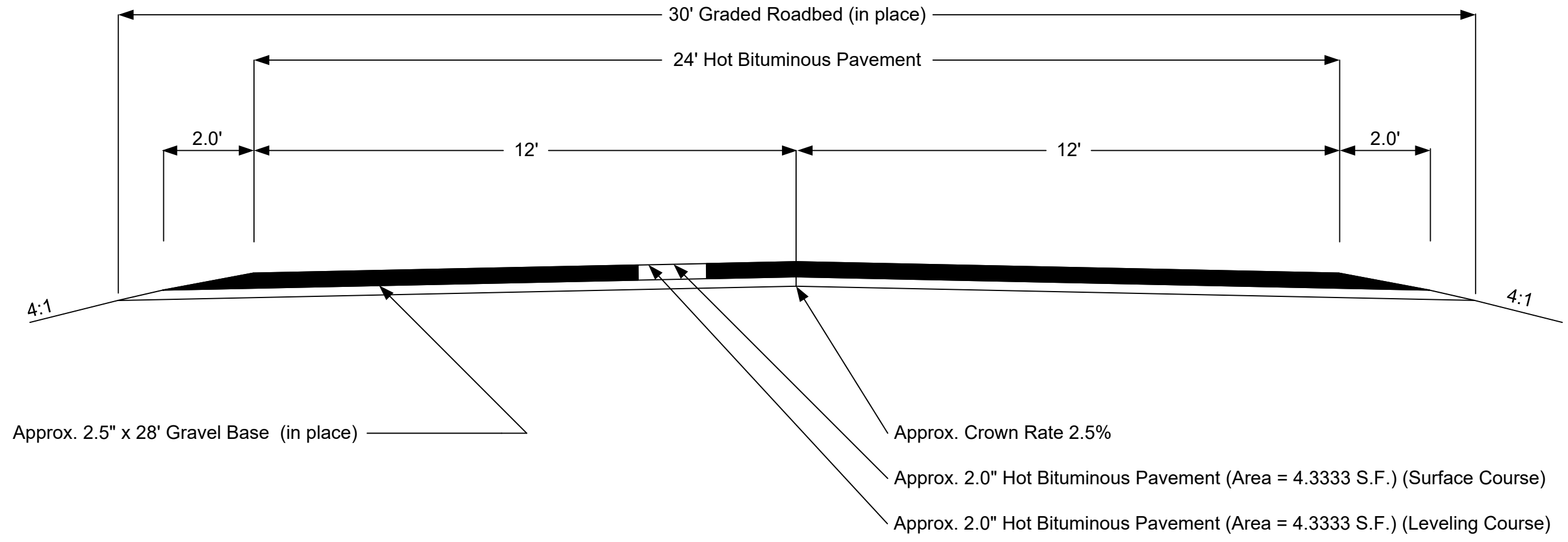
Total FAA 43 = 997.19 Tons

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Typical Section

County Road #6 from RR Tracks East 120'



Typical Section
 Sta. 512+80 to Sta. 514+00
 Tangent

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Typical Section

Not to Scale

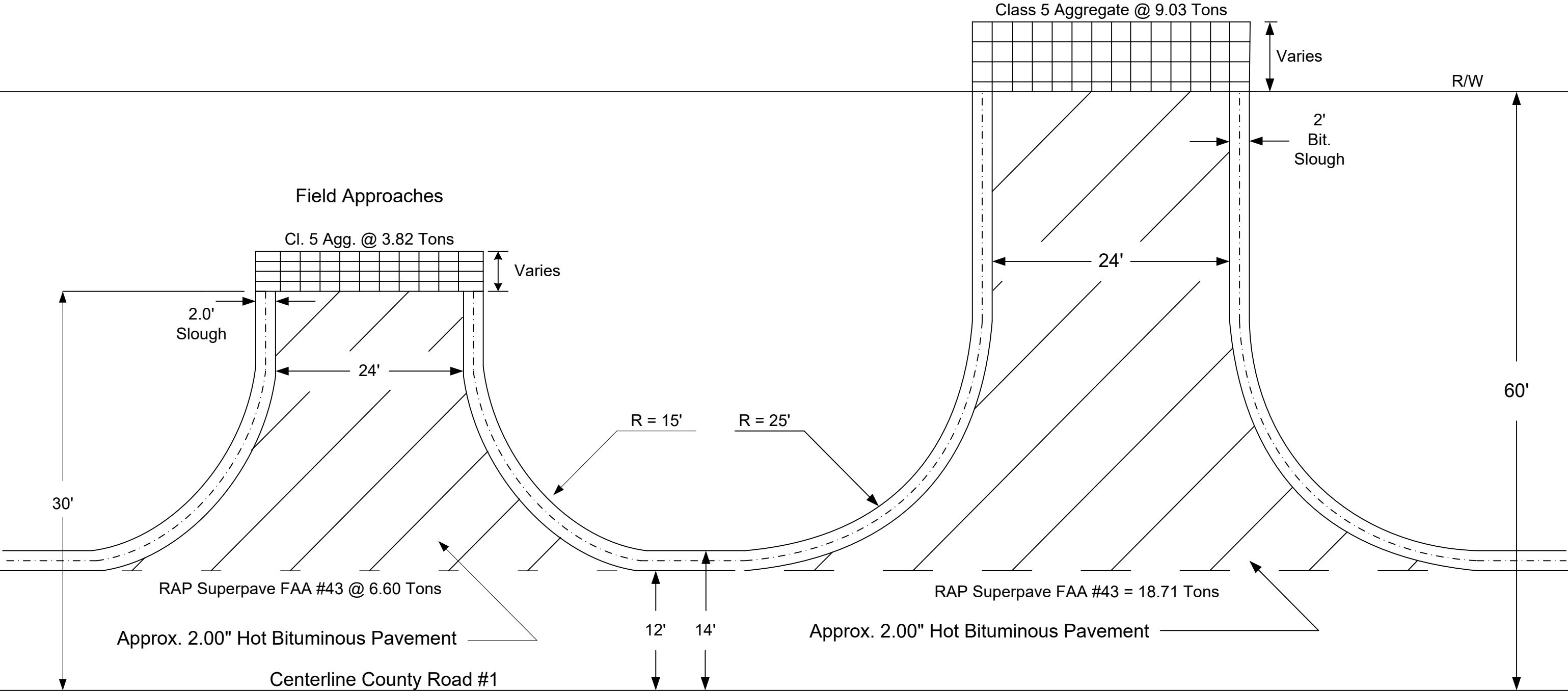
Total FAA 43 = 77.04 Tons

| | | |
|-------|-------------|-----------|
| State | Project No. | Sheet No. |
| ND | CP-06(022) | 13 |

Approach Details Paving

| | | |
|----------------|---------------------------|--------------------------------|
| | Field Approaches | Section Lines & Private Drives |
| County Road #6 | FAA #43 46 = 303.60 Tons | 26 = 486.46 Tons |
| County Road #6 | Cl.5 Agg. 46 = 175.72 Ton | 26 = 234.78 Tons |

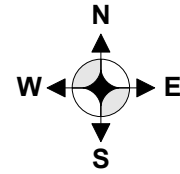
Section Line & Private Drives



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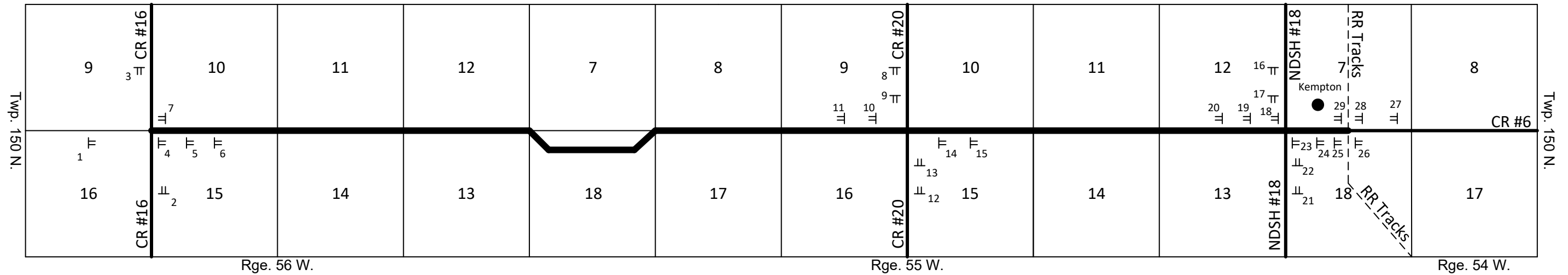
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Approach
 Details Paving



Construction Sign Detail
County Road #6 from County Road #16 to RR Tracks at Kempton

| | | |
|-------|-------------|-----------|
| State | Project No. | Sheet No. |
| ND | CP-06(022) | 14 |



- 1.) Road Work Ahead (W2-1-48)
- 2.) Road Work Next 9.7 Miles Rt Arrow (G20-52a-72)
- 3.) Road Work Next 9.7 Miles Lt Arrow (G20-52a-72)
- 4.) Road Work Next 9.7 Miles (G20-1-60)
- 5.) Do Not Pass (R4-1-48)
- 6.) Speed Limit 45 MPH (R2-1-48), Minimum Fee \$80 (R2-1aP-24)
- 7.) End Road Work (G20-2-48)
- 8.) Road Work Ahead (W2-1-48)
- 9.) Road Work Next 5.2 Mi. Rt Arrow, Next 4.5 Mi. Lt Arrow (G20-50a-72)
- 10.) Do Not Pass (R4-1-48)
- 11.) Speed Limit 45 MPH (R2-1-48), Minimum Fee \$80 (R2-1aP-24)
- 12.) Road Work Ahead (W2-1-48)
- 13.) Road Work Next 4.5 Mi. Rt Arrow, Next 5.2 Mi. Lt Arrow (G20-50a-72)
- 14.) Do Not Pass (R4-1-48)
- 15.) Speed Limit 45 MPH (R2-1-48), Minimum Fee \$80 (R2-1aP-24)
- 16.) Road Work Ahead (W2-1-48)
- 17.) Road Work Next 9.2 Mi. Rt Arrow, Next 0.5 Mi. Lt Arrow (G20-50a-72)
- 18.) Road Work Next 9.2 Mi. (G20-1-60)
- 19.) Do Not Pass (R4-1-48)
- 20.) Speed Limit 45 MPH (R2-1-48), Minimum Fee \$80 (R2-1aP-24)
- 21.) Road Work Ahead (W2-1-48)
- 22.) Road Work Next 0.5 Mi. Rt Arrow, Next 9.2 Mi. Lt Arrow (G20-50a-72)

- 23.) Road Work Next 0.5 Miles (G20-1-60)
- 24.) Do Not Pass (R4-1-48)
- 25.) Speed Limit 25 MPH (R2-1-48), Minimum Fee \$80 (R2-1aP-24)
- 26.) End Road Work (G20-2-48)
- 27.) Road Work Ahead (W21-48)
- 28.) Road Work Next 9.7 Miles (G20-1-60)
- 29.) Speed Limit 25 MPH (R2-1-48), Minimum Fee \$80 (R2-1aP-24)

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Construction
Sign Detail

| | | |
|-------|-------------|-----------|
| State | Project No. | Sheet No. |
| ND | CP-06(022) | 15 |

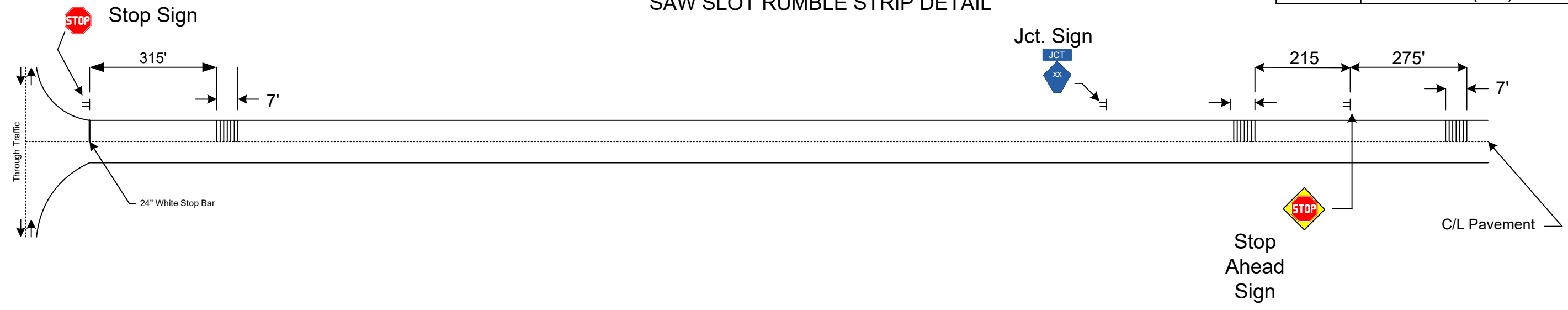
| PROJECT TRAFFIC CONTROL DEVICES LIST PROJECT CP-06(022) – COUNTY ROAD #6 | | | | | |
|--|------------------|---|-------------------|---------------|----------------|
| Sign Number | Sign Size | Description | Quantity Required | Unit Per Sign | Units SubTotal |
| G20-1-60 | 60" x 24" | Road Work __ Miles | 4 | 28 | 112 |
| G20-1b-60 | 60" x 24" | Work In Progress/No Work In Progress | | 18 | 0 |
| G20-2-48 | 48" x 24" | End Road Work | 2 | 26 | 52 |
| G20-4-36 | 36" x 18" | Pilot Car Follow Me (Mounted to back of pilot car) | 1 | 18 | 18 |
| G20-50a-72 | 72" x 36" | Road Work Next __ Miles Rt & Lt Arrows | 4 | 43 | 172 |
| G20-52a-72 | 72" x 24" | Road Work __ Miles Rt. or Lt. Arrow | 2 | 36 | 72 |
| G20-55-96 | 96" x 48" | Work Zone Speed Limit Enforced | | 59 | 0 |
| R1-1-30 | 30" x 30" | Stop | | 17 | 0 |
| R1-1-48 | 48" x 48" | Stop | | 39 | 0 |
| R2-1-48 | 48" x 60" | Speed Limit | 6 | 39 | 234 |
| R2-1aP-24 | 24" x 18" | Minimum Fee \$80 (mounted on speed limit post) | 6 | 10 | 60 |
| R4-1-48 | 48" x 60" | Do Not Pass | 6 | 39 | 234 |
| W3-4-48 | 48" x 48" | Be Prepared to Stop | 2 | 35 | 70 |
| W3-5-48 | 48" x 48" | Speed Reduction Ahead | | 35 | 0 |
| W8-1-48 | 48" x 48" | Bump | 6 | 35 | 210 |
| W8-3-48 | 48" x 48" | Pavement Ends Symbol | | 35 | 0 |
| W8-11-48 | 48" x 48" | Uneven Lanes | 6 | 35 | 210 |
| W8-12-48 | 48" x 48" | No Center Stripe | | 35 | 0 |
| W8-53-48 | 48" x 48" | Trucks Entering Highway | | 35 | 0 |
| W8-54-48 | 48" x 48" | Trucks Entering Ahead or __ Ft. or __ Mile | 6 | 35 | 210 |
| W8-55-48 | 48" x 48" | Trucks Crossing Ahead or __ Ft. or __ Mile | | 35 | 0 |
| W14-3-64 | 64" x 48" | No Passing Zone | | 28 | 0 |
| W20-1-48 | 48" x 48" | Road Work Ahead or __ Ft. or __ Mile | 6 | 35 | 210 |
| W20-7-48 | 48" x 48" | Flagger | 2 | 35 | 70 |
| W20-8-18 | 18" x 18" | Stop – Slow Paddle (Back to Back) | 2 | 5 | 10 |
| W20-51-48 | 48" x 48" | Equipment Working | | 35 | 0 |
| W20-52P-54 | 54" x 12" | Next __ Miles | | 12 | 0 |
| W21-1-48 | 48" x 48" | Workers | | 35 | 0 |
| W21-2-48 | 48" x 48" | Fresh Oil | | 34 | 0 |
| | | TOTAL UNITS | | | 1,944 |

| Pay Item Description | Unit | Spec & Code | Quantity |
|----------------------------------|-------------|-----------------|------------|
| Type I Barricades | Each | 704-1050 | |
| Type II Barricades | Each | 704-1051 | |
| Type III Barricades | Each | 704-1052 | |
| Delineator Drums | Each | 704-1060 | |
| Traffic Cones | Each | 704-1065 | |
| Tubular Marker | Each | 704-1067 | 254 |
| Flexible Delineator | Each | 704-1072 | |
| Obliteration of Pavement Marking | L.F. | 704-0104 | |
| Raised Pavement Markers | Each | 762-0200 | |

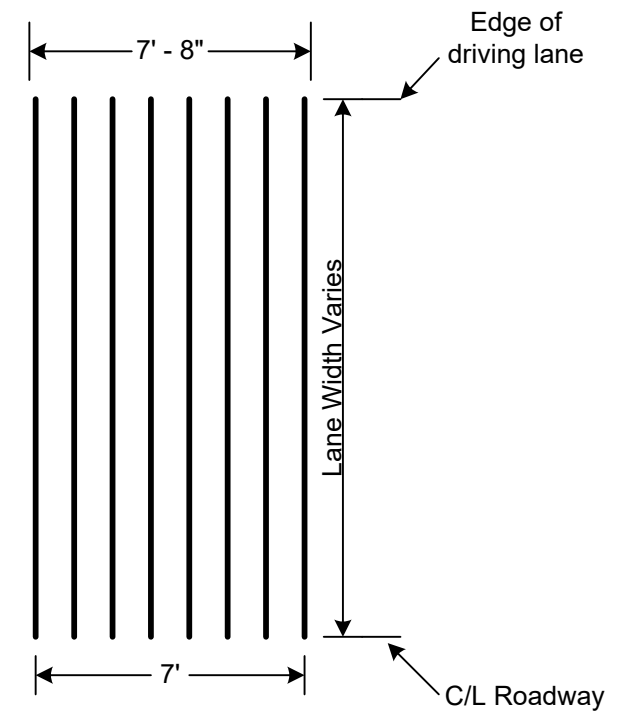
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Traffic Control Devices

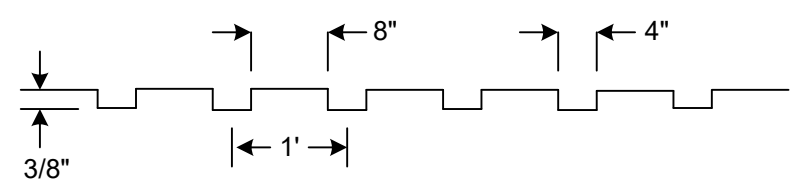
SAW SLOT RUMBLE STRIP DETAIL



Notes:
 Rumble strips shall be saw cut.
 All waste material shall be swept to edge of road.

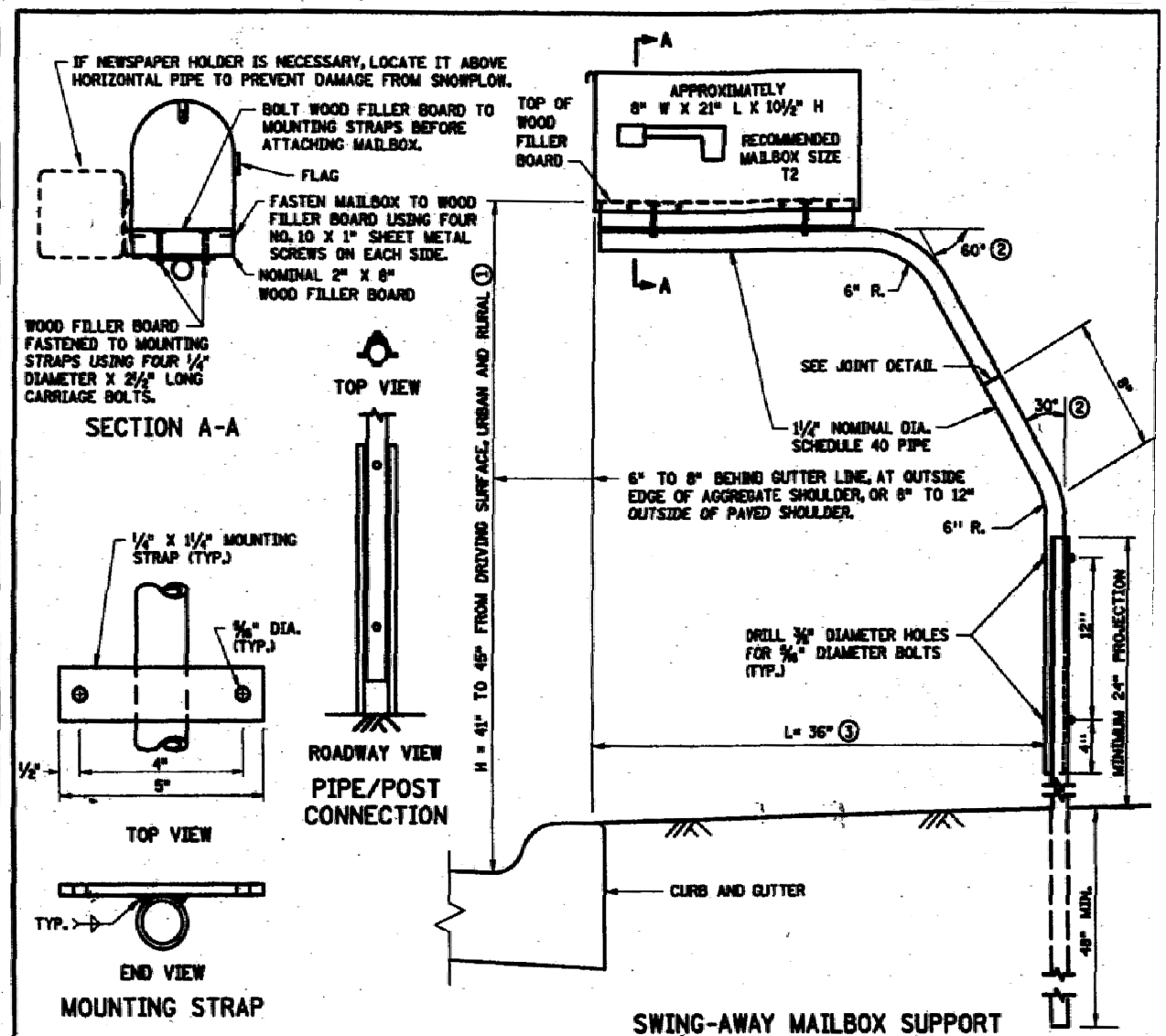


PLAN



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Rumble Strip Detail



Note:
 1. Security chain in not required.
 2. Cantilever shall be 48" (L).

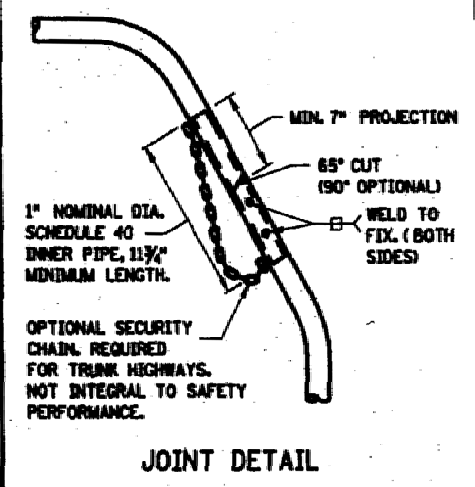
NOTES:
 STAKE MAILBOX LOCATIONS BEFORE INSTALLATION FOR PROPER HEIGHT AND DISTANCE FROM THE ROADWAY. ONCE STAKED, THE INSTALLER MUST NOTIFY THE ENGINEER AND THE POST OFFICE. THE ENGINEER AND THE POSTMASTER SHALL APPROVE THE STAKED LOCATIONS PRIOR TO FINAL INSTALLATION.

THE MINIMUM SPACING (CENTER TO CENTER) BETWEEN MULTIPLE MAILBOX SUPPORTS SHALL BE EQUAL TO THE HEIGHT OF THE MAILBOX SUPPORT.

OTHER MAILBOX SUPPORT DESIGNS MAY BE USED IF THEY SATISFY MCHRP REPORT 350 OR MASH CRITERIA IN ACCORDANCE WITH FHWA ACCEPTANCE LETTER, MEET MINNESOTA RULES 8018 AND U.S. POST OFFICE RECOMMENDATIONS AND ARE IN COMPLIANCE WITH MNDOT REQUIREMENTS WHICH MAY INCLUDE THE FOLLOWING (REQUIRED ON TRUNK HIGHWAYS):
 PIPE SHALL CONFORM TO SPEC. 3362, SCHEDULE 40 OF ASTM A53/A53M.
 ALL FASTENERS SHALL CONFORM TO SPEC. 3391.
 PIPES, POST, AND OTHER STEEL COMPONENTS SHALL BE GALVANIZED PER SPEC. 3392.

THE CONTRACTOR SHALL SEND THE SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL. FOR QUESTIONS REGARDING DESIGN ELEMENTS AND BREAKAWAY FEATURES, CONTACT THE DESIGN STANDARDS UNIT.

① HEIGHT OUTSIDE THIS RANGE 00 MUST BE APPROVED BY LOCAL POSTMASTER.
 ② 45-DEGREE BENDS MAY BE USED AS AN OPTION.
 ③ A 48" OR 53" CANTILEVER LENGTH (L) MAY BE USED AS AN OPTION FOR NON-TRUNK HIGHWAY USE.



APPROVED 07-16-2021
Ron S...
 STATE DESIGN ENGINEER

STATE OF MINNESOTA
 DEPARTMENT OF TRANSPORTATION
MAILBOX SUPPORT
 SWING-AWAY TYPE

SPECIFICATION
 REFERENCE
 3362 3391
 3392 3401
 STANDARD
 PLATE
 NO.
9350B

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Swing-Away Mailbox Support