DEPARTMENT OF TRANSPORTATION

Planning & Engineering
Office of Project Development
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January 11, 2022

ADDENDUM NO. 1

RE: Item #9, January 19, 2022 Letting - NH 0037(159)105, PCN 06PD, Sanborn County - Cold Milling, Rubilize existing PCC, Edge Drains, Asphalt Concrete Surfacing, Pipe Work

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: NO CHANGE

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:
Bid Item 110E1100 "Remove Concrete Pavement"
Bid Item 632E1340 "2.5"x2.5" Perforated Tube Post"

Quantities for Bid Items were changed:
Bid Item 120E6200 "Water for Granular Material" changed from 93.0 to 95.0 MGal
Bid Item 260E1030 "Base Course, Salvaged" changed from 9,423.0 to 9,612.0 Ton
Bid Item 260E6000 "Granular Material, Furnish" changed from 45,083 to 45,082 Ton
Bid Item 270E0200 "Blend, Haul and Stockpile Granular Material" changed from 80,742 to 80,552.0 Ton
Bid Item 270E0220 "Blend and Stockpile Granular Material" changed from 9,423.0 to 9,612.0 Ton
Bid Item 320E1200 "Asphalt Concrete Composite" changed from 409.0 to 702.0 Ton
Bid Item 634E0010 "Flagging" changed from 1700 to 40 hours

Bid Items were removed:
Bid Item 632E1330 "2.25"x2.25" Perforated Tube Post"
Bid Item 634E0020 "Pilot Car"

PLANS: Please destroy sheets 2, 11, 12, 13, 19, and 67 through 70 and replace with the enclosed sheets, dated 1/10/22.

Sheet 2: **Bid Items were added:**
Bid Item 110E1100 "Remove Concrete Pavement"
Bid Item 632E1340 "2.5"x2.5" Perforated Tube Post"

Quantities for Bid Items were changed:

Bid Item 120E6200 "Water for Granular Material" changed from 93.0 to 95.0 MGal
Bid Item 260E1030 "Base Course, Salvaged" changed from 9,423.0 to 9,612.0 Ton
Bid Item *260E6000 "Granular Material, Furnish" changed from 40,371.0 to 40,276.0 Ton
Bid Item 260E6000 "Granular Material, Furnish" changed from 4,712.0 to 4,806.0 Ton
Bid Item 270E0200 "Blend, Haul and Stockpile Granular Material" changed from 80,742 to 80,552.0 Ton
Bid Item 270E0220 "Blend and Stockpile Granular Material" changed from 9,423.0 to 9,612.0 Ton
Bid Item 320E1200 "Asphalt Concrete Composite" changed from 409.0 to 702.0 Ton
Bid Item 634E0010 "Flagging" changed from 1700 to 40 hours

Bid Items were removed:

Bid Item 632E1330 "2.25"x2.25" Perforated Tube Post"
Bid Item 634E0020 "Pilot Car"

Sheet 11: TABLE OF MATERIALS QUANTITIES was.

Sheet 12: Quantities were added for Bridge End work (Base Course, Salvaged; Water for Granular Material; Asphalt Concrete Composite).

Sheet 13: SUMMARY OF ASPHALT CONCRETE was revised to include the additional quantity of Asphalt Concrete Composite for the work at Bridge Ends.

Sheet 19: COLD MILLING ASPHALT CONCRETE, FULL DEPTH RECLAMATION SHOULDER, and BLEND AND STOCKPILE GRANULAR MATERIAL notes were revised.

Sheets 67 - 70: DETAIL FOR COLD MILLING TAPER and DETAIL FOR RESURFACING TAPER were revised to include work for Remove Concrete Pavement, placing Base Course, Salvaged and Asphalt Concrete Composite.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/cj

CC: Travis Dressen, Mitchell Region Engineer
Jay Peppel, Mitchell Area Engineer

ESTIMATE OF QUANTITIES

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0037(159)105	2	97

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BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E0130	Remove Traffic Sign	81	Each
110E0135	Remove Delineator	259	Each
110E0500	Remove Pipe Culvert	6	Ft
110E0510	Remove Pipe End Section	2	Each
110E0730	Remove Beam Guardrail	775.0	Ft
110E0800	Remove W Beam Guardrail End Terminal	8	Each
110E1010	Remove Asphalt Concrete Pavement	1,321.0	SqYd
110E1100	Remove Concrete Pavement	854.0	SqYd
110E7150	Remove Sign for Reset	7	Each
110E7152	Remove Delineator for Reset	13	Each
110E7500	Remove Pipe for Reset	6	Ft
110E7510	Remove Pipe End Section for Reset	11	Each
120E0010	Unclassified Excavation	5,530	CuYd
120E0100	Unclassified Excavation, Digouts	820	CuYd
120E0600	Contractor Furnished Borrow Excavation	2,405	CuYd
120E6100	Water for Embankment	24.0	MGal
120E6200	Water for Granular Material	95.0	MGal
210E0100	Shoulder Clearing	16.9	Mile
230E0100	Remove and Replace Topsoil	Lump Sum	LS
260E1010	Base Course	225.0	Ton
260E1030	Base Course, Salvaged	9,612.0	Ton
260E6000	Granular Material, Furnish	4,806.0	Ton
* 260E6000	Granular Material, Furnish	40,276.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	80,552.0	Ton
270E0220	Blend and Stockpile Granular Material	9,612.0	Ton
280E0020	Full Depth Reclamation, Shoulder	93,222	SqYd
320E0005	PG 58-34 Asphalt Binder	3,905.2	Ton
320E1200	Asphalt Concrete Composite	702.0	Ton
320E1203	Class Q3R Hot Mixed Asphalt Concrete	83,920.0	Ton
320E4000	Hydrated Lime	830.9	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	32.2	Mile
320E7040	Grind 6" Transverse Rumble Strip in Asphalt Concrete	357.0	Ft
330E0010	MC-70 Asphalt for Prime	136.0	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	210.3	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	82.4	Ton
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	961.1	Ton
332E0010	Cold Milling Asphalt Concrete	362,577	SqYd
394E0100	Rubblize PCC Pavement	232,514.0	SqYd
430E0700	Precast Concrete Headwall for Drain	338	Each
450E0142	24" RCP Class 2, Furnish	4	Ft
450E0150	24" RCP, Install	4	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
450E0182	36" RCP Class 2, Furnish	24	Ft
450E0190	36" RCP, Install	24	Ft
450E3032	36" RCP Arch Class 2, Furnish	12	Ft
450E3040	36" RCP Arch, Install	12	Ft
450E3092	84" RCP Arch Class 2, Furnish	24	Ft
450E3100	84" RCP Arch, Install	24	Ft
450E4512	36" RCP Arch Flared End, Furnish	1	Each
450E4513	36" RCP Arch Flared End, Install	1	Each
450E4536	84" RCP Arch Flared End, Furnish	1	Each
450E4537	84" RCP Arch Flared End, Install	1	Each
450E9000	Reset Pipe	6	Ft
450E9001	Reset Pipe End Section	11	Each
600E0300	Type III Field Laboratory	1	Each
630E0500	Type 1 MGS	750.0	Ft
630E1501	Type 1 Retrofit Guardrail Transition	8	Each
630E2019	MGS Tangent End Terminal	8	Each
632E0010	1.25' Diameter Breakaway Support Concrete Footing	28.0	Ft
632E1320	2.0"x2.0" Perforated Tube Post	621.1	Ft
632E1340	2.5"x2.5" Perforated Tube Post	188.7	Ft
632E2000	4"x4" Amber Delineator with 1.12 Lb/Ft Post	18	Each
632E2002	4"x4" Amber Delineator Back to Back with 1.12 Lb/Ft Post	23	Each
632E2004	4"x8" Amber Delineator with 1.12 Lb/Ft Post	8	Each
632E2020	4"x4" White Delineator with 1.12 Lb/Ft Post	211	Each
632E2024	4"x8" White Delineator with 1.12 Lb/Ft Post	8	Each
632E2100	Reset Delineator	13	Each
632E2220	Guardrail Delineator	38	Each
632E2510	Type 2 Object Marker Back to Back	15	Each
632E2520	Type 2 Object Marker	2	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	305.2	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	515.2	SqFt
632E3500	Reset Sign	7	Each
633E0030	Cold Applied Plastic Pavement Marking, 24"	20	Ft
633E0040	Cold Applied Plastic Pavement Marking, Arrow	2	Each
633E0050	Cold Applied Plastic Pavement Marking, Message	3	Word
633E1200	High Build Waterborne Pavement Marking Paint, White	490	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	410	Gal
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	20	Ft
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	2	Each
633E5035	Grooving for Cold Applied Plastic Pavement Marking, Message	3	Word
633E5100	Grooving for Durable Pavement Marking, 4"	192,694	Ft
633E5105	Grooving for Durable Pavement Marking, 8"	1,500	Ft
633E5110	Grooving for Durable Pavement Marking, 12"	1,350	Ft
633E5115	Grooving for Durable Pavement Marking, 24"	260	Ft

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E5120	Grooving for Durable Pavement Marking, Area	75	SqFt
634E0010	Flagging	40.0	Hour
634E0110	Traffic Control Signs	1,867.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	42	Each
634E0340	Temporary Raised Pavement Markers	18.0	Mile
634E0420	Type C Advance Warning Arrow Board	2	Each
634E0600	4" Temporary Pavement Marking Tape Type I	288	Ft
634E1002	Detour and Restriction Signing	234.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	1	Each
680E0010	Edge Drain	169,083	Ft
680E0015	Edge Drain Outlet	338	Each
730E0202	Type B Permanent Seed Mixture	259	Lb
732E0100	Mulching	28.8	Ton
900E0010	Refurbish Single Mailbox	8	Each
900E1980	Storage Unit	1	Each

*** - Denotes Non-Participating**

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

TABLE OF PROJECT STATIONING

SECTION	STATION	TO	STATION	DESCRIPTION	LENGTH	GROSS SECTION LENGTHS		EXCEPTION LENGTHS		BRIDGE LENGTHS		NET SECTION LENGTHS	
1	89+10.00 SBL	to	335+69.20 SBL	4 Lane Divided	24659.20'	84358.40'		22.00'		173.00'		83899.40'	15.890 mi.
	336+00.00 SBL	to	512+20.00 SBL		17620.00'			22.00'		173.00'			
	91+10.00 NBL	to	335+69.20 NBL		24459.20'			34.50'					
	336+00.00 NBL	to	512+20.00 NBL		17620.00'			34.50'					
2	512+20.00	to	518+62.00	2 Lane Divided w/Asphalt Island	642.00'	642.00'						642.00'	0.122 mi.
3	5+87.00 Ramp A	to	15+70.00 Ramp A	Ramps	983.00'	1969.00'						1969.00'	0.373 mi.
	1+70.00 Ramp B	to	11+56.00 Ramp B		986.00'								
				Grand Totals		86969.40'	16.471 mi.	113.00'	0.021 mi.	346.00'	0.066 mi.	86510.40'	16.385 mi.

TABLE OF MATERIALS QUANTITIES

N.A.B.I. = Not A Bid Item

SECTION	UNCL. EXC.	UNCL. EXC. DIG-OUTS	CONTRACTOR FURNISHED BORROW EXCAVATION	WATER FOR EMB.	BASE COURSE	BASE COURSE SALVAGED	WATER FOR GRAN. MATER.	COLD MILLING ASPHALT CONCRETE	GRANULAR MATERIAL, FURNISH	BLEND AND STOCKPILE GRANULAR MATERIAL	GRANULAR MATERIAL, FURNISH	BLEND HAUL AND STOCKPILE GRANULAR MATERIAL	RUBBLIZING PCC PAVEMENT	FULL DEPTH RECLA-MATION, SHOULDER	CLASS Q3R HOT MIXED ASPHALT CONCRETE	PG 58-34 ASPHALT BINDER	HYDRATED LIME	SALV. MAT'L. N.A.B.I.	ASPHALT CONCRETE COMPOSITE	MC-70 ASPH. FOR PRIME	BLOTTING SAND FOR PRIME	SS-1h/ CSS-1h ASPH. FOR TACK	SS-1h/ CSS-1h ASPH. FOR FLUSH SEAL	SAND FOR FLUSH SEAL
	CuYd	CuYd	CuYd	MGal	Ton	Ton	MGal	SqYd	Ton	Ton	Ton	Ton	SqYd	SqYd	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton
1	-	795	1545	15	-	1589	16	349581	4806	9612	39172	78344	223732	93222	78671	3661.0	778.9	14847	397	116.0	-	197.2	77.9	890
2	-	6	-	-	-	12	-	3424	-	-	311	622	3424	-	720	33.6	7.2	136	3	-	-	1.9	0.7	7
3	-	19	-	-	-	37	-	5907	-	-	793	1586	5251	-	1224	56.9	12.1	231	9	-	-	3.4	1.2	16
Subtotals:	**-**	**820**	**1545**	**15**	**-**	**1638**	**16**	**358912**	**4806**	**9612**	**40276**	**80552**	**232407**	**93222**	**80615**	**3751.5**	**798.2**	**15214**	**409**	**116.0**	**-**	**202.5**	**79.8**	**913**
Add Quans for spot leveling in Section 1															1589	73.9	15.7	300	-	-	10	4.1	-	-
Add Quans for spot leveling in Section 2															12	0.6	0.1	2	-	-	-	-	-	-
Add Quans for spot leveling in Section 3															37	1.7	0.4	7	-	-	-	0.1	-	-
Add Quans for spot leveling:	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1638**	**76.2**	**16.2**	**309**	**-**	**-**	**10**	**4.2**	**-**	**-**
Table of Additional Quantities:	**5530**	**-**	**860**	**9**	**225**	**7974**	**79**	**3665**	**-**	**-**	**-**	**-**	**107**	**-**	**1667**	**77.5**	**16.5**	**313**	**293**	**20.0**	**-**	**3.6**	**2.6**	**48**
Totals:	**5530**	**820**	**2405**	**24**	**225**	**9612**	**95**	**362577**	**4806**	**9612**	**40276**	**80552**	**232514**	**93222**	**83920**	**3905.2**	**830.9**	**15836**	**702**	**136.0**	**10**	**210.3**	**82.4**	**961**

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TABLE OF ADDITIONAL QUANTITIES

N.A.B.I. = Not A Bid Item	UNCL. EXC.	CONTRACTOR FURNISHED BORROW EXCAVATION	WATER FOR EMB.	BASE COURSE	BASE COURSE SALVAGED	WATER FOR GRAN. MATER.	COLD MILLING ASPHALT CONCRETE	RUBBLIZING PCC PAVEMENT	CLASS Q3R HOT MIXED ASPHALT CONCRETE 1ST LIFT	PG 58-34 ASPHALT BINDER	HYDRATED LIME	SALV. MAT'L. N.A.B.I.	CLASS Q3R HOT MIXED ASPHALT CONCRETE 2ND LIFT	PG 58-34 ASPHALT BINDER	HYDRATED LIME	SALV. MAT'L. N.A.B.I.	ASPHALT CONCRETE COMPOSITE	MC-70 ASPH. FOR PRIME	SS-1h/ CSS-1h ASPH. FOR FLUSH SEAL	SAND FOR FLUSH SEAL
									<---- 1ST LIFT ---->				<---- 2ND LIFT ---->							
LOCATION	**CuYd**	**CuYd**	**MGal**	**Ton**	**Ton**	**MGal**	**SqYd**	**SqYd**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**
Bridge Ends	-	-	-	-	189	2	-	-	-	-	-	-	-	-	-	-	293	-	-	-
Other Locations (Density)																				
Ramp A (0+00 to 5+87)	-	-	-	-	-	-	350	-	39	1.8	0.4	7	39	1.8	0.4	7	-	-	0.07	-
Shoulder Transitions - Median																				
Sec. 2 512+20 to 518+62	-	-	-	-	-	-	963	107	108	5.0	1.1	20	108	5.0	1.1	20	-	-	0.20	3.9
Radii at intersection of SD37 & SD34	-	-	-	-	-	-	50	-	5	0.2	-	1	5	0.2	-	1	-	-	0.01	0.2
Guardrail Locations																				
See Guardrail Table	450	860	9	225	-	3	-	-	-	-	-	-	130	6.1	1.3	24	-	-	-	-
Other Shoulder Locations (Nondensity)																				
Median Shoulder (Section 1)	5080	-	-	-	6680	64	-	-	-	-	-	-	-	-	-	-	-	20.00	-	-
Resurface to ROW																				
2 Home Entrances	-	-	-	-	-	-	212	-	-	-	-	-	65	3.0	0.6	12	-	-	0.12	2.3
23 Median Crossovers (Asphalt)	-	-	-	-	-	-	920	-	-	-	-	-	926	43.1	9.2	175	-	-	1.76	33.0
Resurface to End of Radius																				
15 Intersecting Roads	-	-	-	-	225	2	970	-	-	-	-	-	242	11.3	2.4	46	-	-	0.46	8.7
1 Home Entrance	-	-	-	-	10	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-
11 Median Crossovers (Gravel)	-	-	-	-	330	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pads																				
14 Approaches	-	-	-	-	210	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22 Field Entrances	-	-	-	-	330	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS:	**5530**	**860**	**9**	**225**	**7974**	**79**	**3665**	**107**	**152**	**7.0**	**1.5**	**28**	**1515**	**70.5**	**15.0**	**285**	**293**	**20.00**	**2.62**	**48.1**

NOTES: 3.6 tons of SS-1h or CSS-1h Asphalt for Tack are included in the Estimate of Quantities and will be applied at the rate shown on the plans as directed by the Engineer.

The tonnage shown above for Base Course is based on a compacted depth shown on the sheets Installation of Guardrail and Traffic Control Bridge End Protection.
The tonnage shown above for Base Course, Salvaged is based on a compacted depth of 2 inches.

The tonnage shown above for Class Q3R Hot Mixed Asphalt Concrete - 1st Lift is based on a compacted depth of 2 inches.
The tonnage shown above for Class Q3R Hot Mixed Asphalt Concrete - 2nd Lift is based on a compacted depth of 2 inches.

The above quantities are included in the Estimate of Quantities.

SUMMARY OF ASPHALT CONCRETE

	CLASS Q3R HOT MIXED ASPHALT CONCRETE 1ST LIFT COMPACTION WITH SPECIFIED DENSITY TONS	CLASS Q3R HOT MIXED ASPHALT CONCRETE 1ST LIFT COMPACTION WITHOUT SPECIFIED DENSITY TONS	CLASS Q3R HOT MIXED ASPHALT CONCRETE 2ND LIFT COMPACTION WITH SPECIFIED DENSITY TONS	CLASS Q3R HOT MIXED ASPHALT CONCRETE 2ND LIFT COMPACTION WITHOUT SPECIFIED DENSITY TONS	ASPHALT CONCRETE COMPOSITE COMPACTION WITHOUT SPECIFIED DENSITY TONS
Section 1					
24' Finished Roadway Surface	25082	-	25082	-	-
Shoulders	11908	3005	9413	4181	-
Backfilling Digouts	-	-	-	-	397
Add Quans for spot leveling	-	1589	-	-	-
Section 2					
24' Finished Roadway Surface	192	-	192	-	-
10' Shoulders	-	168	-	168	-
Backfilling Digouts	-	-	-	-	3
Add Quans for spot leveling	-	12	-	-	-
Section 3					
18' Finished Roadway Surface	442	-	442	-	-
Shoulders	-	147	-	193	-
Backfilling Digouts	-	-	-	-	9
Add Quans for spot leveling	-	37	-	-	-
Table of Additional Quantities					
Bridge Ends	-	-	-	-	293
Other Locations (Density)	39	-	39	-	-
Shoulder Transitions - Median	-	108	-	108	-
Miscellaneous Nondensity Locations	-	5	-	135	-
Turnouts, Int Roads, Ents & Pads	-	-	-	1233	-
Additional Totals:	**39**	**113**	**39**	**1476**	**293**
Totals:	**35160**	**7574**	**35163**	**6023**	**702**

70323	**TONS ASPHALT CONCRETE COMPACTION WITH SPECIFIED DENSITY**
14299	**TONS ASPHALT CONCRETE COMPACTION WITHOUT SPECIFIED DENSITY**
84622	**TONS TOTAL**

UNCLASSIFIED EXCAVATION, DIGOUTS

The locations and extent of digout areas will be determined in the field by the Engineer. The backfilling material for the digouts will be Asphalt Concrete Composite and Base Course, Salvaged. The depth of asphalt will match the in-place thickness.

Included in the Estimate of Quantities are 50 cubic yards of Unclassified Excavation, Digouts per mile for the removal of rubblized concrete, asphalt concrete and unstable material throughout the project.

Included in the Estimate of Quantities are 100 tons of Base Course, Salvaged, 1 MGals of Water for Granular Material and 25 tons of Asphalt Concrete Composite per mile for backfill of Unclassified Excavation, Digouts.

The digouts will be extended to the shoulder and backfilled with granular material that will daylight to the inslope to allow water to escape the subsurface.

BASE COURSE, SALVAGED

Base Course, Salvaged will be obtained from a blended material stockpile provided by the Contractor and may be used without further gradation testing.

The Contractor will ensure the Base Course, Salvaged material contains no more than 50% salvaged asphalt mix material and at least 50% virgin granular material. Blended material will be to the satisfaction of the Engineer.

If necessary, water will be added to the Base Course, Salvaged to bring the material to ±2% of optimum moisture at the time of compaction.

All other requirements for Base Course, Salvaged will apply.

WATER FOR COMPACTION

The moisture content for compaction of the Base Course will be approximately optimum moisture of the material. The quantity for Water for Granular Material is based on 5% of the quantity of Base Course.

The moisture content for compaction of the Base Course, Salvaged will be approximately optimum moisture of the material. The quantity for Water for Granular Material is based on 4% of the quantity of Base Course, Salvaged.

COLD MILLING ASPHALT CONCRETE

The Los Angeles Abrasion Loss value of the aggregate used for the in place asphalt concrete is unknown.

Cold milling is estimated to produce 60918 tons of cold milled asphalt concrete material. An estimated 15836 tons of cold milled asphalt concrete material will be used on this project as Reclaimed Asphalt Pavement (RAP) in the Class Q3R Hot Mixed Asphalt Concrete mixture. An estimated 4806 tons of cold milled asphalt concrete material will be blended with Granular Material, Furnish and be placed on this project as Base Course, Salvaged. The Contractor is responsible to assure that enough cold milled asphalt concrete material is available for use as RAP in the Class Q3R Hot Mixed Asphalt Concrete.

The remainder of the cold milled asphalt concrete material (estimated at 40276 tons) will be blended, hauled and stockpiled.

Estimated quantities are for information purposes only and the exact quantity will be determined upon construction. No allowance will be made for loss of expected reimbursement or loss of anticipated profit.

Cold Milling Asphalt Concrete operations ahead of asphalt concrete laydown will be limited by particular job conditions and be subject to approval of the Engineer.

RAP achieved for project use and/or other uses is based on the dimensions given in the typical section. Field conditions will vary from that given in the typical section.

COLD MILLING ASPHALT CONCRETE (CONTINUED)

The requirement for a traveling stringline will be waived.

If resurfacing as per the typical section cannot be placed immediately after cold milling at project ends, bridge approaches, etc., then temporary asphalt mix ramps will be placed as directed by the Engineer. Cost for placing and removing the temporary ramps will be incidental to the contract unit prices for the various items.

Intersecting roads and entrances will be milled back for approximately ten feet from the shoulder edge so that additional surfacing may be placed at these locations.

Asphalt concrete entrances will be milled in for approximately ten feet at the ROW line so that additional surfacing may be placed at these locations.

The gravel entrance at 268+50 Rt. will be milled to the end of the asphalt so that Base Course, Salvaged surfacing may be placed at this location.

Asphalt concrete median crossovers will be milled in for approximately ten feet at each end so that additional surfacing may be placed at these locations.

COLD MILLING TAPERS

In order to construct the new surfacing flush with the asphalt concrete, it will be necessary to taper the depth of milling according to the details for Cold Milling Tapers.

The surface will be milled full roadway width.

Cost for this work will be incidental to the contract unit price per square yard for Cold Milling Asphalt Concrete.

Taper depth of Cold Milling at locations shown below:

STA	LOCATION	SIZE
89+10 SBL	Begin Project	(Adjust Surfacing Depth Only)
91+10 NBL	Begin Project	(Adjust Surfacing Depth Only)
213+94 NBL	Bridge Approach	195’ long X 37.5’ wide
214+06.5 SBL	Bridge Approach	172.6’ long X 37.5’ wide
216+23.5 SBL	Bridge Approach	172.6’ long X 37.5’ wide
216+36 NBL	Bridge Approach	250’ long X 37.5’ wide
518+62	End Project	(Adjust Surfacing Depth Only)
15+70 Ramp A	End Ramp	(Adjust Surfacing Depth Only)
11+56 Ramp B	End Ramp	(Adjust Surfacing Depth Only)

FULL DEPTH RECLAMATION, SHOULDER

Asphalt concrete mix and granular base material will be processed in place so that a uniform blend is obtained. The material will be handled to ensure that salvaged material is not lost down the inslope. The final rolling of the top surface of the materials will embed as many loose stones as possible. The finished surface will be smooth and free from waves and the Contractor will finish the surfacing materials to within 0.5% of the typical section cross slope.

The requirements of specifications 280.3.B will not apply. All other requirements of Section 280, Full Depth Reclamation (FDR) will apply.

Included in the Estimate of Quantities are 13 MGal of Water for Granular Material per mile for compaction.

After the shaping and compaction of the granular material on the shoulder is complete, Edge Drains and Outlets will be installed as specified prior to the rubblizing of the PCC pavement and the placement of asphalt concrete on the shoulder.

Care will be taken not to damage edge drains or edge drain outlets during the shoulder asphalt surfacing operations. Damage to the edge drains or edge drain outlets will be repaired or replaced at the Contractor’s expense, to the satisfaction of the Engineer.

BLOTTING SAND FOR PRIME

Included in the Estimate of Quantities are 10 tons of Blotting Sand for Prime to be used where necessary for maintenance of traffic as directed by the Engineer. (Rate = 10 pounds per square yard)

GRANULAR MATERIAL, FURNISH

Granular Material for blending stockpile material will be Base Course meeting the requirements of Section 882 of the specifications except that if ledge rock is used, the Plastic Index will be between 2 and 6.

BLEND AND STOCKPILE GRANULAR MATERIAL

4806 tons of salvaged asphalt mix will be blended with 4806 tons of Granular Material, Furnish and stockpiled at the Contractor’s furnished stockpile site to be used as Base Course, Salvaged.

The Contractor will use a portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale to control the blending and weighing of the salvaged material with Contractor furnished granular material.

The salvaged asphalt mix will be crushed to meet the requirements of Section 884.2 D.2 prior to blending into the stockpile.

Salvaged asphalt mix will be blended with Granular Material, Furnish at a rate of 50% salvaged asphalt mix and 50% Granular Material, Furnish to obtain stockpile material.

No further gradation testing of the blended material will be required.

All costs for crushing the salvaged asphalt mix, stockpiling, and blending the materials will be included in the contract unit price per ton for Blend and Stockpile Granular Material.

BLEND, HAUL AND STOCKPILE GRANULAR MATERIAL

Cold milled asphalt concrete material not reused on the project will be hauled to the East Maintenance Yard located at Huron in the SE 1/4 of Section 36, T 111 N, R 62 W.

A computerized scale, portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale along with a scale operator will be provided by the Contractor at the stockpile site to weigh the milled material prior to blending.

Cold milled asphalt concrete material will be blended and stockpiled at the State stockpile site with Granular Material, Furnish at a rate of 50% milled material and 50% Granular Material, Furnish to obtain stockpile material.

Prior to incorporation into the stockpile, cold milled asphalt concrete material will be run over a 1½” screen to remove large chunks. Large chunks will become the property of the Contractor and will be subtracted from the overall quantity. No further gradation testing of the material will be required. The use of a pugmill to blend the material will be accepted.

Calibrated conveyor(s) will be used to provide a uniform blending of the material. Material will be blended prior to incorporation into the pile.

Cost for hauling, weighing, stockpiling, and blending RAP with Granular Material, Furnish will be included in the contract unit price per ton for Blend, Haul and Stockpile Granular Material.

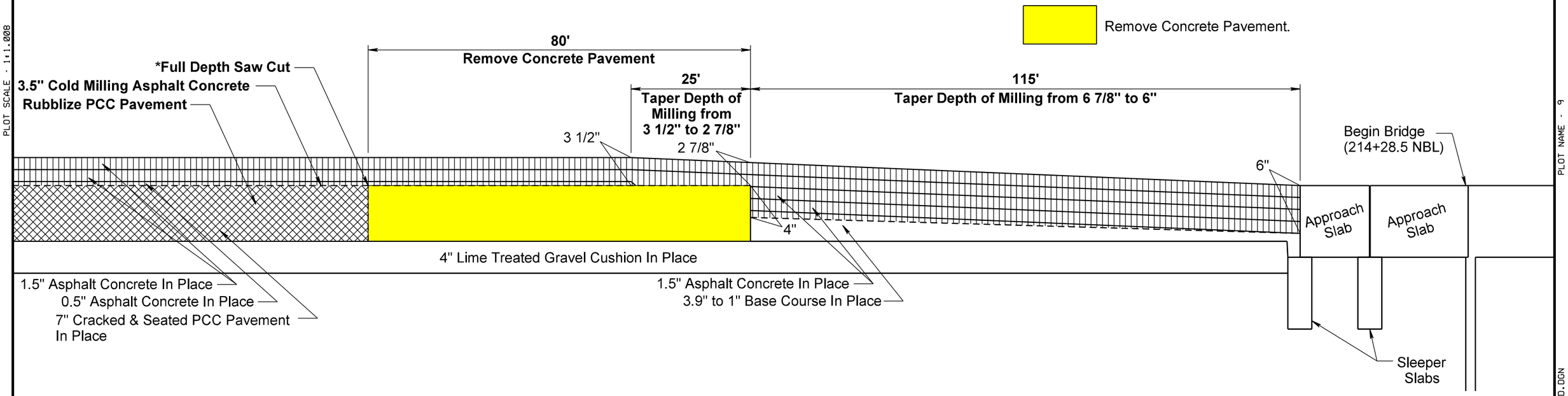
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0037(159)105	67	97

Plotting Date: 01/07/2022

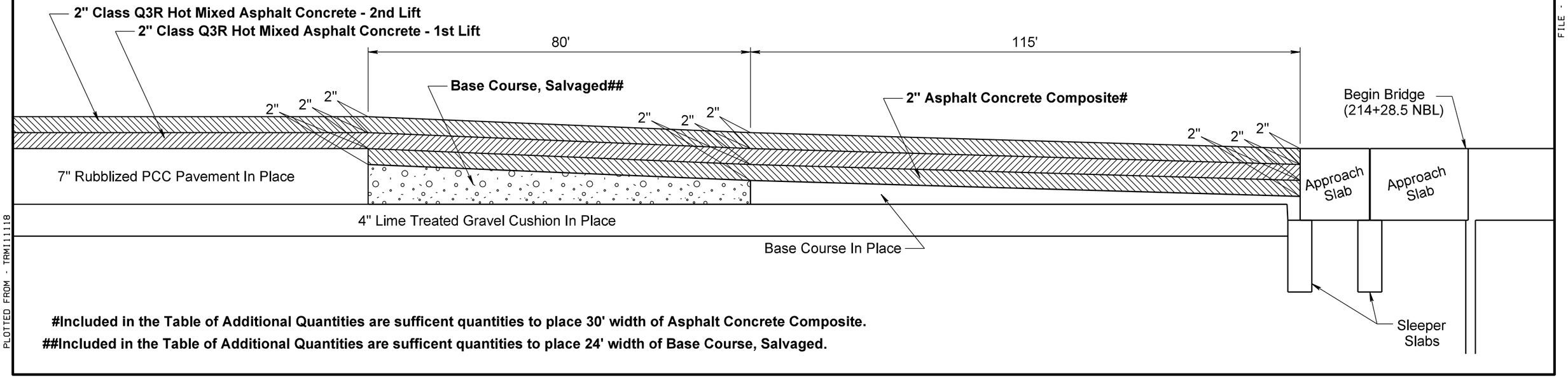
Rev. 01/07/22 GAW

*Cost for sawing will be incidental to the contract unit price per square yard for Remove Concrete Pavement.

DETAIL FOR COLD MILLING TAPER
AT BEGIN BRIDGE STR. 56-062-043



DETAIL FOR RESURFACING TAPER
AT BEGIN BRIDGE STR. 56-062-043



#Included in the Table of Additional Quantities are sufficent quantities to place 30' width of Asphalt Concrete Composite.

##Included in the Table of Additional Quantities are sufficent quantities to place 24' width of Base Course, Salvaged.

PLOT SCALE - 1:1.008

PLOT NAME - 9

FILE - ...\PRJ2022\SANB06PD\M1LL06PD.DGN

PLOTTED FROM - TRM111118

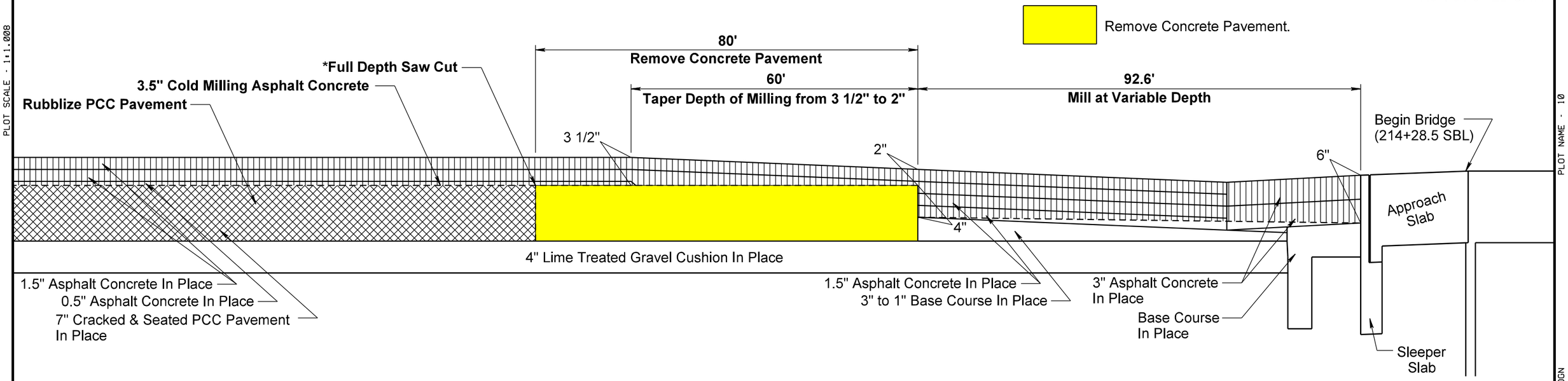
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0037(159)105	68	97

Plotting Date: 01/07/2022

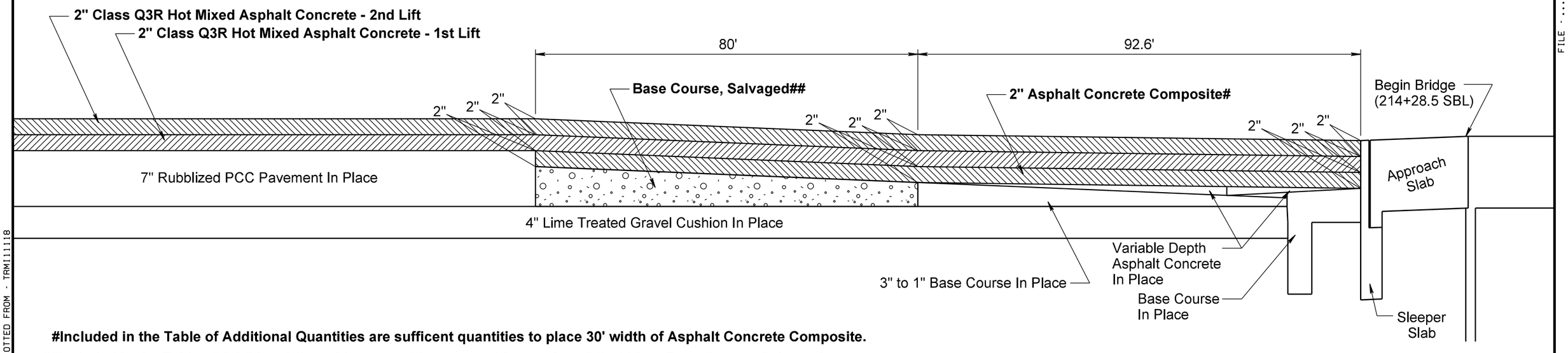
Rev. 01/07/22 GAW

*Cost for sawing will be incidental to the contract unit price per square yard for Remove Concrete Pavement.

DETAIL FOR COLD MILLING TAPER
AT BEGIN BRIDGE STR. 56-061-043



DETAIL FOR RESURFACING TAPER
AT BEGIN BRIDGE STR. 56-061-043



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##Included in the Table of Additional Quantities are sufficent quantities to place 24' width of Base Course, Salvaged.

PLOT SCALE - 1:1.008

PLOT NAME - 10

FILE - ...\PRJ2022\SANB06PD\M1LL06PD.DGN

PLOTTED FROM - TRM111118

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0037(159)105	69	97

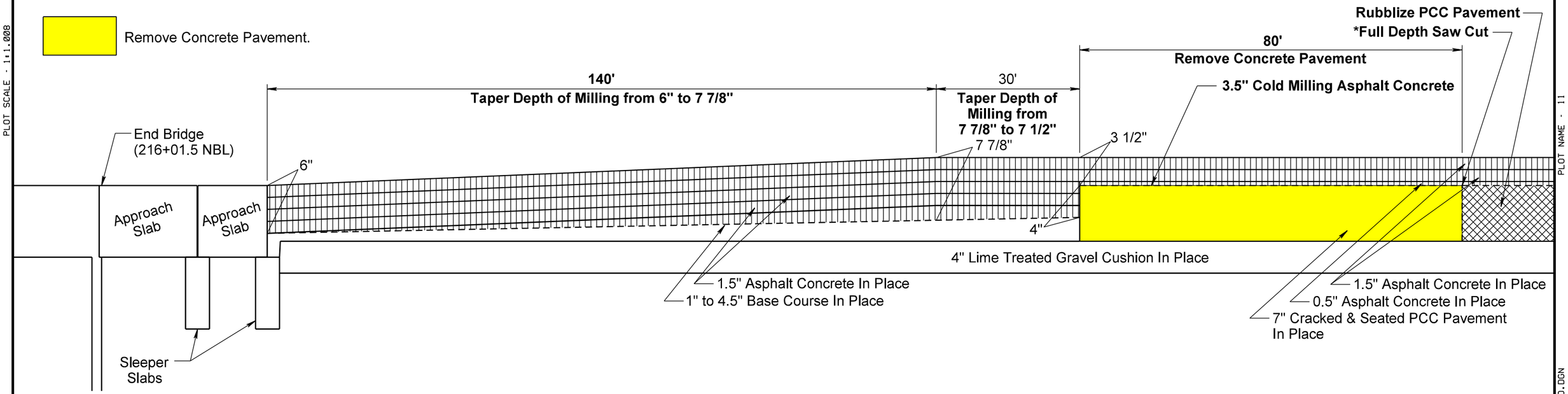
Plotting Date: 01/07/2022

Rev. 01/07/22 GAW

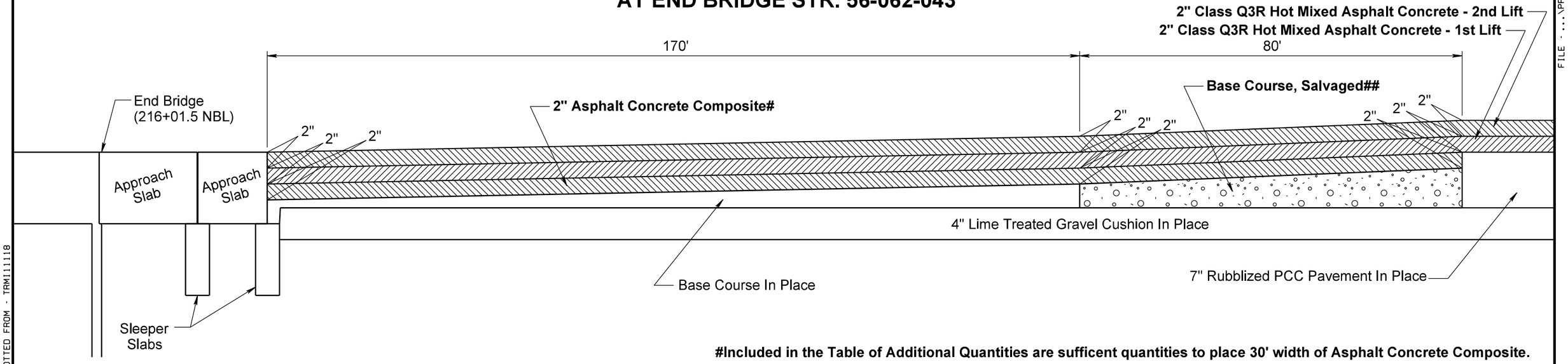
DETAIL FOR COLD MILLING TAPER
AT END BRIDGE STR. 56-062-043

***Cost for sawing will be incidental to the contract unit price per square yard for Remove Concrete Pavement.**

Remove Concrete Pavement.



DETAIL FOR RESURFACING TAPER
AT END BRIDGE STR. 56-062-043



#Included in the Table of Additional Quantities are sufficent quantities to place 30' width of Asphalt Concrete Composite.

##Included in the Table of Additional Quantities are sufficent quantities to place 24' width of Base Course, Salvaged.

PLOT SCALE - 1:1.008

PLOTTED FROM - TRMI11118

PLOT NAME - 11

FILE - ...\PRJ2022\SANB06PD\M1LL06PD.DGN

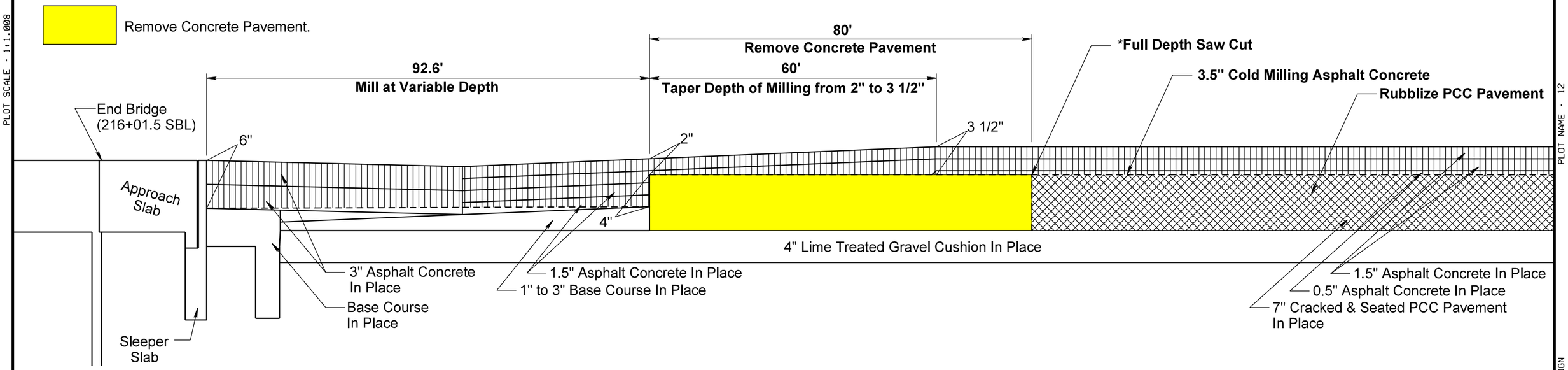
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0037(159)105	70	97

Plotting Date: 01/07/2022

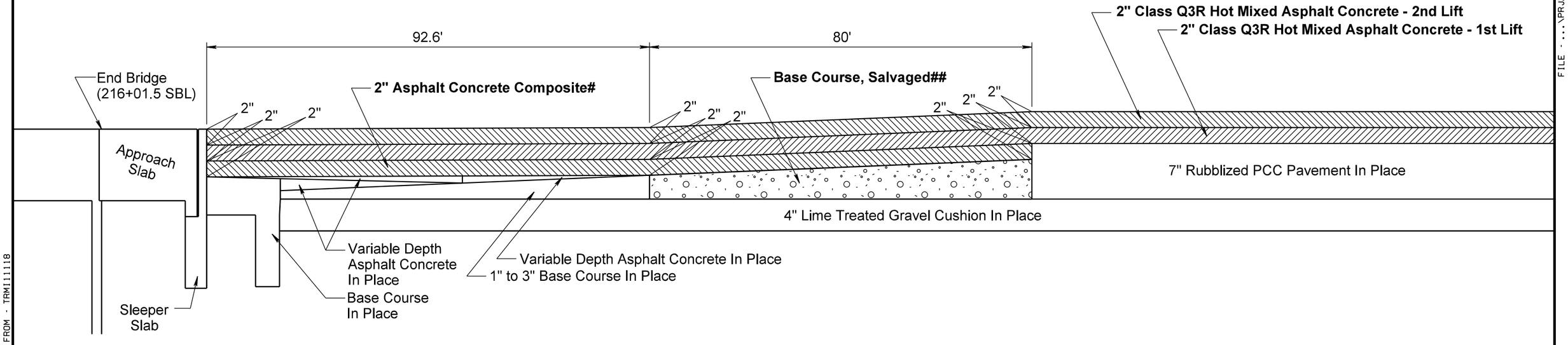
Rev. 01/07/22 GAW

DETAIL FOR COLD MILLING TAPER
AT END BRIDGE STR. 56-061-043

***Cost for sawing will be incidental to the contract unit price per square yard for Remove Concrete Pavement.**



DETAIL FOR RESURFACING TAPER
AT END BRIDGE STR. 56-061-043



#Included in the Table of Additional Quantities are sufficent quantities to place 30' width of Asphalt Concrete Composite.

##Included in the Table of Additional Quantities are sufficent quantities to place 24' width of Base Course, Salvaged.

PLOT SCALE - 1:1.008

PLOT NAME - 12

FILE - ...\PRJ2022\SANB06PD\M1LL06PD.DGN

PLOTTED FROM - TRM111118