

CALCULATION OF QUANTITIES

PROJECT TIP NUMBER: R-5901

CONSTRUCTION WBS NUMBER: 48416.3.1

COUNTY: Surry

FEDERAL AID NUMBER: 4841601

TOTAL LENGTH [USE EXACT THREE (3) FIGURES BEYOND DECIMAL]

STA.	<u>12+00.000</u>	TO STA.	<u>18+78.140</u>	=	<u>678.140</u>	LIN. FT.
STA.	<u>10+00.000</u>	TO STA.	<u>20+10.000</u>	=	<u>1010.000</u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.

TOTAL LENGTH * = 1,688.140 LIN. FT. / 5,280 = 0.320 MILES

STRUCTURE LENGTHS

STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.
STA.	<u> </u>	TO STA.	<u> </u>	=	<u> </u>	LIN. FT.

LENGTH OF STRUCTURES * = LIN. FT. / 5,280 = MILES

ROADWAY LENGTH (LESS STRUCTURES) = 0.320 MILES

NOTE: USED L1, L2 LANE FOR LENGTH

* LENGTH SHOWN TO THREE (3) DECIMAL PLACES USING NORMAL ROUNDING.

Computed by: G. Park Sykes
(Please Print Name)

Checked by: Andrea B. Gordon
(Please Print Name)

PROJECT NO.:R-5901

COMPUTED BY:GPS 12/2024

CHECKED BY:ABG 12/2024

SHEET OF

SECTION: 800

MOBILIZATION

MOBILIZATION	LS
TOTAL	1

PROJECT NO.:
COMPUTED BY:
CHECKED BY:

R-5901
GPS 12/04/2024
ABG 12/12/2024

SHEET OF

SECTION: 801

CONSTRUCTION SURVEYING

CONSTRUCTION SURVEYING	LS
TOTAL	1

PROJECT NO.: R-5901
COMPUTED BY: GEOTECHNICAL UNIT
CHECKED BY: ABG

SHEET OF
SECTION: SP

PRE-CONDITION SURVEYS

For the home located on Parcel 6 and the water well on Parcel 9

Per Geotechnical Unit's Letter

Dated: December 19, 2024

SAY 1 LS

PROJECT NO.: R-5901
COMPUTED BY: GEOTECHNICAL UNIT
CHECKED BY: GPS

SHEET OF
SECTION: 225

UNDERCUT

Per Geotechnical Unit's Letter

Dated: December 19, 2024

SAY 450 CY

LINE	STATION	STATION	LOCATION	AREA FROM CADD OR LENGTH	WIDTH	SQUARE FEET
-L1-	10+17	17+21	RT	42,538.93		42,538.93
-L2-	15+02	19+86	RT	9,833.86		9,833.86
-L2-	19+75	20+10	LT	339.61		339.61
-L2-	20+52	20+89	LT	344.68		344.68
-Y1-	13+73	14+76	LT	2,591.78		2,591.78
-Y2-	11+70	14+11	RT	1,626.74		1,626.74
-Y2-	18+20	19+25	RT	1,166.77		1,166.77
-DRW1-	11+39	11+67	RT	272.92		272.92
<u>Total Sq. Feet</u> = 43560 Sq. Feet/ACRE					Total Sq. Feet	58,715.29
					Acres*	1.35
					SAY	1.40

PROJECT NO.: R-5901
COMPUTED BY: GPS 12/2024
CHECKED BY: 12/2024

SHEET OF

SECTION: 200 OR 226

SUPPLEMENTARY CLEARING AND GRUBBING

CLEARING AND GRUBBING	=	SUPPLEMENTARY CLEARING AND GRUBBING
0 THRU 10 ACRES	=	1 ACRES
11 THRU 25 ACRES	=	2 ACRES
26 THRU 50 ACRES	=	3 ACRES
51 THRU 80 ACRES	=	4 ACRES
80 ACRES OR MORE	=	5 ACRES

ACRES SUPPLEMENTARY CLEARING AND GRUBBING

1 ACRES

PROJECT NO.: R-5901
 COMPUTED BY: REO 06/2025
 CHECKED BY: ABG 06/2025

SHEET OF
 SECTION: SP

GRADING (LUMP SUM)

(THIS COMPUTATION SHEET APPLIES ONLY TO PROJECTS WHICH HAVE BEEN PREDETERMINED TO USE THIS PAY ITEM. SEE ROADWAY DESIGN MANUAL, PART I, 11-6)

ITEM	QUANTITIES	UNIT	UNIT PRICE	PRICE
CLEARING AND GRUBBING	<u>1.40</u>	ACRES	\$ 10,000.00	<u>\$ 14,000.00</u>
UNCLASSIFIED EXCAVATION**	<u>23,000</u>	YD ³	\$ 6.00	<u>\$ 138,000.00</u>
BORROW EXCAVATION	<u></u>	YD ³	\$ 6.25	<u>\$ -</u>
SHOULDER BORROW	<u>280</u>	YD ³	\$ 6.25	<u>\$ 1,750.00</u>
FINE GRADING	<u>18,070</u>	YD ²	\$ 2.50	<u>\$ 45,175.00</u>
REMOVAL OF EXISTING ASPHALT PAVEMENT	<u>13,440</u>	YD ²	\$ 2.50	<u>\$ 33,600.00</u>
REMOVAL OF EXISTING CONCRETE PAVEMENT	<u></u>	YD ²	\$ 10.00	<u>\$ -</u>
BREAKING OF EXISTING ASPHALT PAVEMENT	<u></u>	YD ²	\$ 2.00	<u>\$ -</u>
BREAKING OF EXISTING CONCRETE PAVEMENT	<u></u>	YD ²	\$ 5.00	<u>\$ -</u>
			TOTAL	<u>\$ 232,525.00</u>

IF THE SUMMATION OF THE ITEM AMOUNTS IS \$1,000,000.00 OR LESS, THEN THE GRADING MAY BE LET ON A "LUMP SUM" BASIS WITH CONCURRENCE OF THE DIVISION ENGINEER. IF THE COST OF ANY ONE OF THE ITEMS, EXCLUDING CLEARING AND GRUBBING AND FINE GRADING, IS 50% OR MORE OF THE TOTAL COST CALCULATED, THEN THAT ITEM SHALL BE INCLUDED AS AN INDIVIDUAL ITEM WITH THE OTHER ITEMS BEING DONE ON A "LUMP SUM GRADING" BASIS. A SPECIAL PROVISION WILL BE NEEDED IN THIS CASE AND THE PAY ITEM "GRADING" SHOULD BE INDICATED AS A "SP" IN THE ESTIMATE. IF THE SUM OF THE LUMP SUM ITEMS AMOUNTS EXCEEDS \$1,000,000.00 OR IS 25% MORE OF THE TOTAL COST OF THE PROJECT, THE PROJECT SHALL CONTAIN THE INDIVIDUAL ITEMS, IT WILL BE NECESSARY TO CALCULATE AND SHOW THE PAVEMENT STRUCTURE VOLUME ON THE SUMMARY OF EARTHWORK.

OTHER CONSIDERATIONS FOR LUMP SUM GRADING MAY UTILIZE A DOLLAR LIMIT. FOR EXAMPLE 3R PROJECTS WITH "TRENCHING & WIDENING" AND MINOR GRADING SHOULD BE CONSIDERED WHEN USE OF CROSS-SECTIONS FOR EARTHWORK BY THE RESIDENT ENGINEER IS NOT PRACTICAL. WHEN APPLYING LUMP SUM GRADING TO THESE SPECIAL APPLICATIONS, APPROVAL BY THE ASSISTANT STATE ROADWAY DESIGN ENGINEER AND PROPOSALS AND CONTRACTS SECTION ENGINEER IS REQUIRED ON A PROJECT-BY-PROJECT BASIS.

* LIST ALL QUANTITIES ON THE CALCULATION SHEET EVEN IF THE PAY ITEM PRICE EXCEEDS 50% OR MORE OF THE TOTAL COST.

** UNCLASSIFIED EXCAVATION TO BE PAID FOR SEPARATELY, AS AN INDIVIDUAL PAY ITEM.

LINE	SIDE	STATION	STATION	VOLUME CY ³
-Y1-	RT	15+75	16+10	4
-Y2-	LT	11+06	11+40	4
-Y2-	RT	13+02	13+61	22
-Y1-	RT	16+10	16+90	42
-L1-	RT	17+18	See Detail I	-
-Y2-	RT	11+24		-
-Y2-	RT	11+52		152
-L1-	LT	16+92	See Detail K	-
-L1-	LT	17+24		-
-L1-	LT	17+31		17
-Y2-	LT	11+40	See Detail H	
-L2-	RT	10+84		62
			TOTAL	303
			SAY	310

PROJECT NO.: R-5901
COMPUTED BY: GEOTECHNICAL UNIT
CHECKED BY: GPS

SHEET OF
SECTION: 265

SELECT GRANULAR MATERIAL

Per Geotechnical Unit's Letter

Dated: December 19, 2024

SAY 400 CY

PROJECT NO.: R-5901
COMPUTED BY: JRM 06/2025
CHECKED BY: ABG 06/2025

SHEET OF

SECTION: 270

GEOTEXTILE FOR SOIL STABILIZATION

Per Geotechnical Unit's Letter	Dated: 12/19/2024
	SUBTOTAL 400 SY
Per Erosion Control Calculations	SUBTOTAL 300 SY
	SAY 700 SY

PROJECT NO.: R-5901
COMPUTED BY: GEOTECHNICAL UNIT
CHECKED BY: GPS

SHEET OF
SECTION: 505

GEOTEXTILE FOR SUBGRADE STABILIZATION

Per Geotechnical Unit's Letter

Dated: 12/19/2024

SAY 600 SY

PROJECT NO. : R-5901
COMPUTED BY: JRM, P.E.
CHECKED BY: EPA, P.E.

SHEET OF
SECTION: 300

FOUNDATION CONDITIONING MATERIAL MINOR STRUCTURES

$$\begin{array}{rclclcl} \underline{2382} & \text{LIN. FT} & \times & 0.106 & = & \underline{252.49} \text{ TONS} \\ & & & & \text{SAY} & \underline{260} \text{ TONS} \end{array}$$

FOUNDATION CONDITIONING GEOTEXTILE

$$\begin{array}{rclclcl} \underline{2382} & \text{LIN. FT} & \times & 6 \text{ FT / 18} & = & \underline{794.00} \text{ SY} \\ & & & & \text{SAY} & \underline{800} \text{ SY} \end{array}$$

PROJECT NO.: R-5901
COMPUTED BY: GEOTECHNICAL UNIT
CHECKED BY: GPS

SHEET OF
SECTION: 505

SHALLOW UNDERCUT

Per Geotechnical Unit's Letter

Dated: December 19, 2024

SAY 200 CY

PROJECT NO.: R-5901
COMPUTED BY: GEOTECHNICAL UNIT
CHECKED BY: GPS

SHEET OF
SECTION: 505

CLASS IV SUBGRADE STABILIZATION

Per Geotechnical Unit's Letter

Dated: December 19, 2024

SAY 400 TONS

PROJECT NO.: R-5901
COMPUTED BY: JRM, P.E.
CHECKED BY: EPA, P.E.

SHEET OF
SECTION: 876

GEOTEXTILE FOR DRAINAGE

LINE	BEG. STA.	END STA.	LOCATION	LENGTH	AVERAGE WIDTH	SQUARE YARDS
-L2-	16+92	17+32	LT	0+40	20.5	91
-L2-	19+93	19+93	LT	0+18	22	44
-L2-	20+57	20+77	LT	0+20	17	38
-L2-	14+66	20+00	RT	5+34	14	834
-L1-	15+45	17+30	RT	2+60	37	342
					TOTAL	1349
					SAY	1349

PROJECT NO.: R-5901
COMPUTED BY: JRM, P.E.
CHECKED BY: EPA, P.E.

SHEET OF

SECTION: 876

GEOTEXTILE FOR DRAINAGE

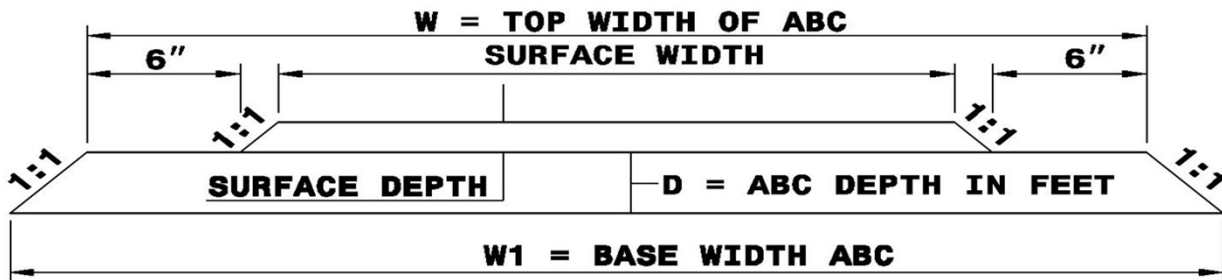
(AT PIPE OUTLETS - CLASS B RIP RAP)

LINE	STATION	PIPE SIZE (in)	PIPE WITH DITCH (Y OR N)	SQUARE YARDS
-L1-	13+04 RT	24	N	11
-L1-	15+45 RT	24	Y	14
-RAB-	10+56 RT	15	Y	7
-Y1-	13+69 RT	18	N	7
-L2-	11+54 LT	15	Y	7
-L2-	11+27 RT	15	Y	7
-L2-	13+15 RT	15	Y	7
-L2-	14+59 LT	15	N	5
			TOTAL	65
			SAY	65

PROJECT NO.: R-5901
 COMPUTED BY: ABG 12/2024
 CHECKED BY: GPS 12/2024

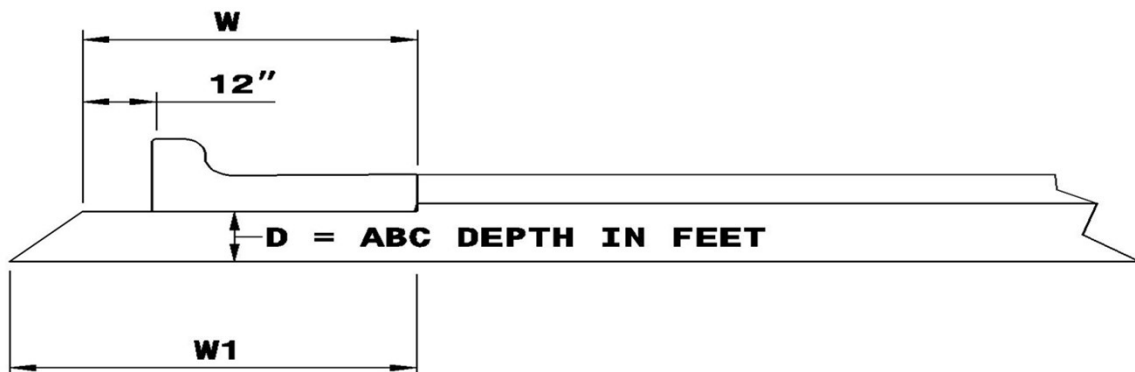
SHEET OF
 SECTION: 520

AGGREGATE BASE COURSE



CALCULATE ABC:

$$\text{ABC} = \frac{\text{LENGTH} \times ((W+W1)/2) \times 1.5(D) \times 2700\# / \text{YD}^3}{27 \text{ FT}^3 / \text{YD}^3 \times 2000\# / \text{TON}} = \underline{\hspace{2cm}} \text{ TONS}$$



CALCULATE ABC:

$$\text{ABC} = \frac{\text{LENGTH} \times ((W+W1))/2 \times 1.5(D) \times 2700\# / \text{YD}^3}{27 \text{ FT}^3 / \text{YD}^3 \times 2000\# / \text{TON}} = \underline{\hspace{2cm}} \text{ TONS}$$

NOTE: WHEN ALL CALCULATIONS ARE COMPLETE AND TOTALED SEE THE ROADWAY DESIGN MANUAL, PART I, 11-B".

PROJECT NO.: R-5901
COMPUTED BY: ABG 12/2024
CHECKED BY: GPS 12/2024

SHEET OF
SECTION: 520

AGGREGATE BASE COURSE

NOTE: PAVEMENT VOLUMES WERE GENERATED USING COMPONENT QUANTITY REPORTS IN ORD.
SEE RATE CONVERSION TABLE FOR THE FACTOR USED TO CALCULATE TONNAGE.

LINE	BEG STA.	END STA.	LENGTH	VOLUME (CY)	RATE FACTOR	TONS
-DRW1-	10+12	11+60	148.00	48.57	2.025	98.35
-DRW2-	10+42	11+32	89.50	89.94	2.025	182.13
-DRW3-	10+18	10+75	57.13	24.41	2.025	49.43
-DRW5-	10+13	10+75	61.72	31.72	2.025	64.23
-DRW6-	10+00	10+43	43.34	19.59	2.025	39.67
Temporary Pavement (CMDs)						
-L- (Temp)	-L1- 10+00	-L2- 13+31		430.50	2.025	871.76
-Y2-DET1-	10+67.16	19+69.82	902.66	373.99	2.025	757.33
-Y2-DET2-	10+21.49	14+93.42	471.93	213.50	2.025	432.34
					SUBTOTAL 1	2,495.25

PROJECT NO.: R-5901
COMPUTED BY: ABG 12/2024
CHECKED BY: GPS 12/2024

SHEET OF

SECTION: 520

AGGREGATE BASE COURSE

LINE	STATION	STATION	LENGTH OR AREA	W (FT)	W1 (FT)	D (FT)	TONS
Other/Miscellaneous Temporary Pavement							
-L1- (TEMP)	10+00	12+42	776.01		1.00	0.50	29.10
-L1- (TEMP)	15+27	16+17	402.61		1.00	0.50	15.10
-L2- (TEMP)	10+72	13+18	2,997.20		1.00	0.50	112.40
-L2- (TEMP)	12+04	13+20	984.87		1.00	0.50	36.93
-L2- (TEMP)	13+31	14+85	3,001.71		1.00	0.50	112.56
-L2- (TEMP)	14+22	16+03	1,171.91		1.00	0.50	43.95
-RAB- (TEMP)	13+03	11+13	5,850.55		1.00	0.50	219.40
Temp Driveways			4,501.52		1.00	0.50	168.81
						SUBTOTAL 2	738.24
						TOTAL	3,233.48
						SAY	3,395

PROJECT NO.: R-5901
COMPUTED BY: DIVISION
CHECKED BY: ABG

SHEET OF
SECTION: 545

INCIDENTAL STONE BASE

(FURNISHED BY DIVISION)

Per Combined Field Inspection Questions dated: July 2, 2024

SAY = 100 TONS

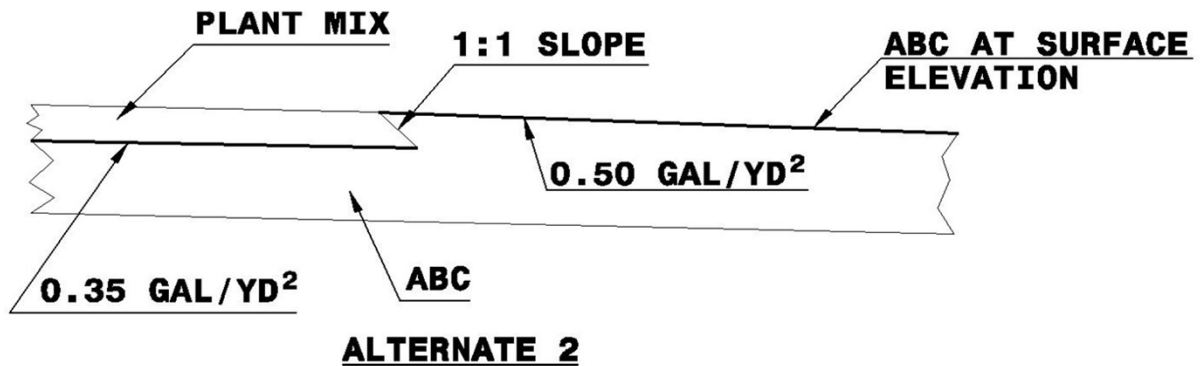
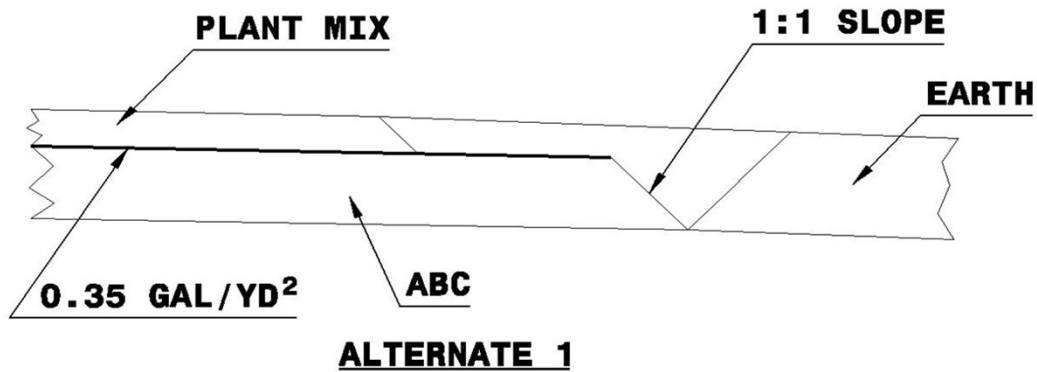
PROJECT NO.: R-5901
 COMPUTED BY: GPS 1/2025
 CHECKED BY: GPS 1/2025

SHEET OF

SECTION: 600

PRIME COAT

SOIL TYPE BASE COURSE		YD ²	X	0.30		GAL
ABC	<u>9138</u>	YD ²	X	0.35	<u>3198.3</u>	GAL
ABC AT SURFACE		YD ²	X	0.50		GAL



**METHODS SHOWING PLACEMENT
 OF PRIME COAT OVER ABC**

PROJECT NO.: R-5901
COMPUTED BY: DIVISION
CHECKED BY: ABG

SHEET OF
SECTION: 607

INCIDENTAL MILLING

(FURNISHED BY DIVISION)

Per Combined Field Inspection Questions dated: July 2, 2024

SUBTOTAL = 900 SY

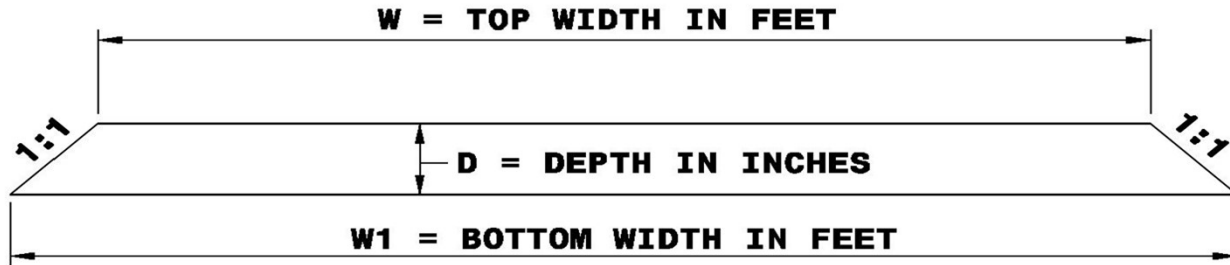
LINE	STATION	STATION	LT/RT	LENGTH	AREA FROM CADD OR WIDTH	SQUARE YARDS
-L1-	12+00.00	12+50.00	LT/RT		1,081.62	120.18
-L2-	19+60.00	20+10.00	LT/RT		3,041.29	337.92
-Y1-	12+30.00	12+80.00	LT/RT		2,396.80	266.31
-Y2-	17+65.00	18+15.00	LT/RT		1,100.00	122.22
					SUBTOTAL	846.63
					TOTAL	1,746.63
					SAY	1,800.00

PROJECT NO.: R-5901
 COMPUTED BY: ABG 12/2024
 CHECKED BY: GPS 12/2024

SHEET OF

SECTION: 610

ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C



CALCULATE:

$$\text{LENGTH} \times ((W+W1)/2) \times D \times 114\# / \text{YD}^2 / \text{IN} = \text{TONS}$$

$$9 \text{ FT}^2 / \text{YD}^2 \times 2000\# / \text{TON}$$

NOTE: PAVEMENT VOLUMES WERE GENERATED USING COMPONENT QUANTITY REPORTS IN ORD.
 SEE RATE CONVERSION TABLE FOR THE FACTOR USED TO CALCULATE TONNAGE.

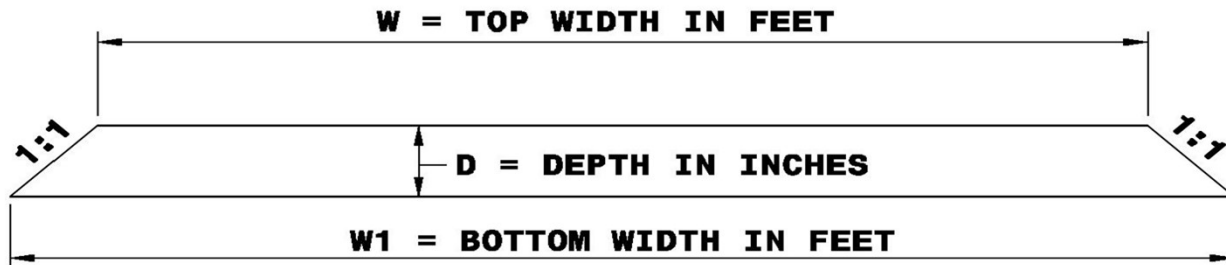
LINE	BEG STA.	END STA.	LENGTH	VOLUME (CY)	RATE FACTOR	TONS
-L1-	12+00	17+98	597.96	185.66	2.052	380.97
-L1- (wedge)				24.64	2.052	50.56
-L2-	10+80	20+10	929.82	126.39	2.052	259.35
-L2- (wedge)				312.23	2.052	640.70
-Y1-	12+30	16+82	451.56	135.75	2.052	278.56
-Y1- (wedge)				0.07	2.052	0.14
-Y2-	10+80	18+15	734.98	234.17	2.052	480.52
-Y2- (wedge)				0.08	2.052	0.16
-RAB-	10+00	13+90	389.56	127.89	2.052	262.43
-DRW2-	10+12	10+42	30.00	18.74	2.052	38.45
-DRW4-	10+14	10+95	81.27	38.05	2.052	78.08
TOTAL						2469.93
SAY						2470.00

PROJECT NO.: R-5901
 COMPUTED BY: ABG 12/2024
 CHECKED BY: GPS 12/2024

SHEET OF

SECTION: 610

ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C



CALCULATE:

$$\text{LENGTH} \times ((W+W1)/2) \times D \times 112\# / \text{YD}^2 / \text{IN} = \text{TONS}$$

$$9 \text{ FT}^2 / \text{YD}^2 \times 2000\# / \text{TON}$$

NOTE: PAVEMENT VOLUMES WERE GENERATED USING COMPONENT QUANTITY REPORTS IN ORD.
 SEE RATE CONVERSION TABLE FOR THE FACTOR USED TO CALCULATE TONNAGE.

LINE	BEG STA.	END STA.	LENGTH	VOLUME (CY)	RATE FACTOR	TONS
-L1-	12+00	17+98	598.0	186.49	2.016	375.96
-L1- (wedge)				19.93	2.016	40.18
-L2-	10+80	20+10	929.8	279.91	2.016	564.30
-L2- (wedge)				164.82	2.016	332.28
-Y1-	12+30	16+82	451.6	120.17	2.016	242.26
-Y1- (wedge)				3.58	2.016	7.22
-Y2-	10+80	18+15	735.0	206.63	2.016	416.57
-Y2- (wedge)				2.23	2.016	4.50
-RAB-	10+00	13+90	389.6	95.94	2.016	193.42
-DRW1-	10+12	11+60	148.0	10.65	2.016	21.47
-DRW2-	10+12	11+32	119.5	33.84	2.016	68.22
-DRW3-	10+18	10+75	57.1	5.68	2.016	11.45
-DRW4-	10+14	10+95	81.3	28.54	2.016	57.54
-DRW5-	10+13	10+75	61.7	7.91	2.016	15.95
-DRW6-	10+00	10+43	43.3	4.63	2.016	9.33
-L- Temp	-L1- 10+00	-L2- 13+31		184.94	2.016	372.84
-L- Temp (wedge)				36.25	2.016	73.08
-Y2_DET1-	10+67	19+70	902.7	161.45	2.016	325.48
-Y2_DET1- (wedge)				21.05	2.016	42.44
-Y2_DET2-	10+21	14+93	471.9	71.16	2.016	143.46
					SUBTOTAL 1	3317.93

LINE	BEG. STA.	END STA.	LENGTH	AREA / W	W1	DEPTH	TONS
Other/Miscellaneous Temporary Pavement							
-L1- (TEMP)	10+00	12+42	241.5	776.01		0.166667	0.80
-L1- (TEMP)	15+27	16+17	90.8	402.61		0.166667	0.42
-L2- (TEMP)	10+72	13+18	245.7	2,997.20		0.166667	3.11
-L2- (TEMP)	12+04	13+20	116.0	984.87		0.166667	1.02
-L2- (TEMP)	13+31	14+85	153.9	3,001.71		0.166667	3.11
-L2- (TEMP)	14+22	16+03	181.4	1,171.91		0.166667	1.22
-RAB- (TEMP)	13+03	11+13		5,850.55		0.166667	6.07
						SUBTOTAL 2	15.75
						TOTAL	3333.68
						SAY	3400.00

PROJECT NO.: R-5901
COMPUTED BY: ABG 12/2024
CHECKED BY: GPS 12/2024

SHEET OF

SECTION: 620

ASPHALT BINDER FOR PLANT MIX

GRADE PG 64-22

SA-1		TONS	X	0.068	=		TONS
S4.75A		TONS	X	0.070	=		TONS
S9.5B		TONS	X	0.065	=		TONS
S9.5C	3,400	TONS	X	0.059	=	200.60	TONS
I19.0C	2,470	TONS	X	0.048	=	118.56	TONS
B25.0C	2,700	TONS	X	0.045	=	121.50	TONS
PADC, TYPE P-57		TONS	X	0.030	=		TONS
PADC, TYPE P-78M		TONS	X	0.030	=		TONS
PATCHING EXISTING PAVEMENT		TONS	X	0.048	=		TONS

SUBTOTAL TONS ASPHALT BINDER			
FOR PLANT MIX, GRADE PG 64-22	=	<u>440.66</u>	TONS

TOTAL TONS ASPHALT BINDER			
FOR PLANT MIX	=	<u>440.66</u>	TONS
	SAY	<u>445</u>	TONS

PROJECT NO.: R-5901SHEET OF
SECTION: 815**SUBSURFACE DRAINS**

SUBDRAIN EXCAVATION (USE 6' DEPTH FOR PROOF ROLLING AND 4' DEPTH ELSEWHERE)	<u>103.0</u>	YD ³
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GEOTEXTILE FOR SUBSURFACE DRAINS	<u>460</u>	YD ²
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SUBDRAIN COARSE AGGREGATE (USE 3' DEPTH)	<u>77.3</u>	YD ³
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6" PERFORATED SUBDRAIN PIPE	<u>460</u>	LIN. FT.
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6" OUTLET PIPE (6 LINEAR FT. PER PIPE OUTLET)	<u>6</u>	LIN. FT.
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SUBDRAIN PIPE OUTLET (USE 1 PER 500' OF PIPE)	<u>1</u>	EACH
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EXCAVATION	<u>460</u>	LIN. FT. x	<u>4</u>	DEPTH x 0.056 =	<u>103.0</u>	YD ³
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AGGREGATE	<u>460</u>	LIN. FT. x	<u>3'</u>	DEPTH x 0.056 =	<u>77.3</u>	YD ³
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*Length includes 200 LF from Geotech Contingency, 260 LF for roundabout grass island

**NOTE: USE 6" SUBDRAIN PIPE UNLESS ANOTHER SIZE IS SPECIFICALLY
RECOMMENDED BY THE GEOTECHNICAL UNIT.**

Calculated by : ABG 06/2025

Checked by : JRM 06/2025

SHEET OF
SECT. 846

LINE	STATION	STATION	SIDE	LENGTH
-RAB-	10+00.000	13+89.560	LT	270.2
			TOTAL	270.2
			SAY	280

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

PROJECT NO.: R-5901
COMPUTED BY: GPS 12/2024
CHECKED BY: ABG 12/2024

SHEET OF
SECTION: SP

12" CONCRETE PAVEMENT (CLASS AA) (TRUCK MOUNTABLE APRON)

LINE	STATION TO STATION	SQUARE FEET	LINE	STATION TO STATION	SQUARE FEET
-RAB-	10+00.00 TO 13+89.56	4759.51			
				Column Total	
				TOTAL IN SQUARE YARDS	528.83
	Column Total	4759.51		SAY	530

[illegible]

6/9/2025

PROJECT NO.: R-5901
COMPUTED BY: GPS 12/2024
CHECKED BY: ABG 12/2024

SHEET OF
SECTION: SP

**TEMP 48" WOVEN WIRE FENCE,
COMPLETE W/ POSTS**

LINE	STATION	STATION	LENGTH
-L1- (RT)	10+12.34	16+20.00	635.5
-Y2- (RT)	12+00.15	16+96.00	508
		TOTAL	1143.5
		SAY	1145

6/6/2025

PROJECT NO.: R-5901
COMPUTED BY: JRM, P.E.
CHECKED BY: EPA, P.E.

SHEET OF
SECTION: 876

PLAIN RIP RAP, CLASS B

LINE	STATION TO STATION	LOCATION	LENGTH	TONS PER LIN. FT.	TONS
-L2-	14+66 / 17+18	RT	534	0.60	321
-L1-	15+38 / 16+73	RT	168	0.76	127
				TOTAL	448
				SAY	448

PROJECT NO.: R-5901
COMPUTED BY: JRM, P.E.
CHECKED BY: EPA, P.E.

SHEET OF
SECTION: 876

PLAIN RIP RAP, CLASS B

(WITH OR WITHOUT FILTER FABRIC)

LINE	STATION	LOCATION	DITCH (Y/N)	PIPE DIAMETER	TONS
-L1-	13+04	RT	N	24	3
-L1-	15+45	RT	Y	24	5
-RAB-	10+56	RT	Y	15	2
-Y1-	13+69	LT	N	18	2
-L2-	11+54	LT	Y	15	2
-L2-	11+27	RT	Y	15	2
-L2-	13+15	RT	Y	15	2
-L2-	14+59	LT	N	15	1
				TOTAL	19
				SAY	19

6/4/2025

PROJECT NO.: R-5901
COMPUTED BY: JRM, P.E.
CHECKED BY: EPA, P.E.

SHEET OF
SECTION: 876

PLAIN RIP RAP, CLASS II

LINE	STATION TO STATION	LOCATION	LENGTH	TONS PER LIN. FT.	TONS
-L2-	16+92 / 17+31	LT	40	1.33	53
-L2-	19+93	LT	18	1.33	24
-L2-	20+57 / 20+77	LT	20	1.00	20
				TOTAL	97
				SAY	97

LINE	STATION	STATION	LOCATION	LENGTH	AREA FROM CADD OR WIDTH	SQUARE FEET
-L1-	12+00.00	17+97.96	LT/RT		18,917.97	18,917.97
-L2-	10+80.18	20+10.00	LT/RT		16,517.79	16,517.79
-Y1-	12+30.00	16+81.56	LT/RT		13,394.99	13,394.99
-Y2-	10+80.02	18+15.00	LT/RT		23,536.01	23,536.01
-RAB-	10+00.00	13+89.56	LT		8,026.15	8,026.15
-DRW1-	10+12.00	11+60.00	LT/RT		2,075.21	2,075.21
-DRW2-	10+12.00	11+31.50	LT/RT		3,426.60	3,426.60
-DRW3-	10+17.72	10+74.85	LT/RT		1,006.06	1,006.06
-DRW4-	10+13.73	10+95.00	LT/RT		3,000.25	3,000.25
-DRW5-	10+13.28	10+75.00	LT/RT		865.58	865.58
-DRW6-	10+00.00	10+43.34	LT/RT		811.09	811.09
Temporary Pavement						
-L- Temp	-L1- 10+00	-L2- 13+31	RT		23,582.09	23,582.09
-Y2_DET1-	10+67.16	19+69.82	LT/RT		20,542.36	20,542.36
-Y2_DET2-	10+21.49	14+93.42	LT/RT		11,671.77	11,671.77
-L1-	10+00.00	12+41.50	LT		776.01	776.01
-L1-	15+26.65	16+17.40	LT		402.61	402.61
-L2-	10+72.30	13+17.98	LT		2,997.20	2,997.20
-L2-	12+04.24	13+20.26	LT		984.87	984.87
-L2-	13+31.28	14+85.15	RT		3,001.71	3,001.71
-L2-	14+21.56	16+02.93	RT		1,171.91	1,171.91
-RAB-	13+02.86	11+13.15	LT		5,850.55	5,850.55
					TOTAL IN FT ²	162,558.78
					TOTAL IN YD ²	18,062.09
					SAY	18,070.00

SHEET OF
SECTION: 560

SHOULDR BORROW

LINE	STATION	SIDE	DISTANCE	AREA	AVERAGE AREA	CUBIC YARDS
-L2-	11+50	LT				
-L2-	12+00	LT	50	4.3	2.15	3.98
-L2-	16+00	LT	400	4.3	4.3	63.70
-L2-	16+50	LT	50	5.4	4.85	8.98
-L2-	17+00	LT	50	5.2	5.3	9.81
-L2-	20+10	LT	310	5.2	5.2	59.70
-L2-	14+00	RT				
-L2-	14+50	RT	50	4.7	2.35	4.35
-L2-	19+50	RT	500	4.7	4.7	87.04
-L2-	20+10	RT	60		2.35	5.22
-Y1-	14+00	LT				
-Y1-	14+50	LT	50	4.7	2.35	4.35
-Y1-	15+00	LT	50		2.35	4.35
-Y2-	13+50	RT				
-Y2-	14+00	RT	50	4.0	2	3.70
-Y2-	14+50	RT	50	4.0	4	7.41
-Y2-	15+00	RT	50		2	3.70
					TOTAL	266.31
					SAY	280

LINE	STATION	STATION	LOCATION	LENGTH OR AREA	WIDTH	SQUARE YARDS
-L1-	15+40	18+78	LT/RT	18961.78		2106.86
-L2-	10+00	10+80	LT/RT	3903.04		433.67
-Y1-	13+50	15+56	LT/RT	4046.00		449.56
-Y1-	15+56	14+14	RT	4772.06		530.23
-Y2-	10+73	13+06	RT	8641.37		960.15
-Y2-	13+06	17+00	LT/RT	8956.76		995.20
Removal of Temporary Pavement						
-L1-	10+00	12+42	LT	776.01		86.22
-L1-	10+38	16+75	RT	14503.52		1611.50
-L1-	15+27	16+17	LT	402.61		44.73
-L2-	10+00	13+31	RT	4792.67		532.52
-L2-	10+72	13+18	LT	2997.20		333.02
-L2-	12+04	13+20	LT	984.87		109.43
-L2-	13+31	14+85	RT	3001.71		333.52
-L2-	14+22	16+03	RT	1171.91		130.21
-Y2_DET1-	10+28	19+02	LT/RT	24011.25		2667.92
-Y2_DET2-	10+22	14+93	LT/RT	13182.37		1464.71
-RAB-	13+03	11+13	LT	5850.55		650.06
					TOTAL	13,439.52
					SAY	13,440