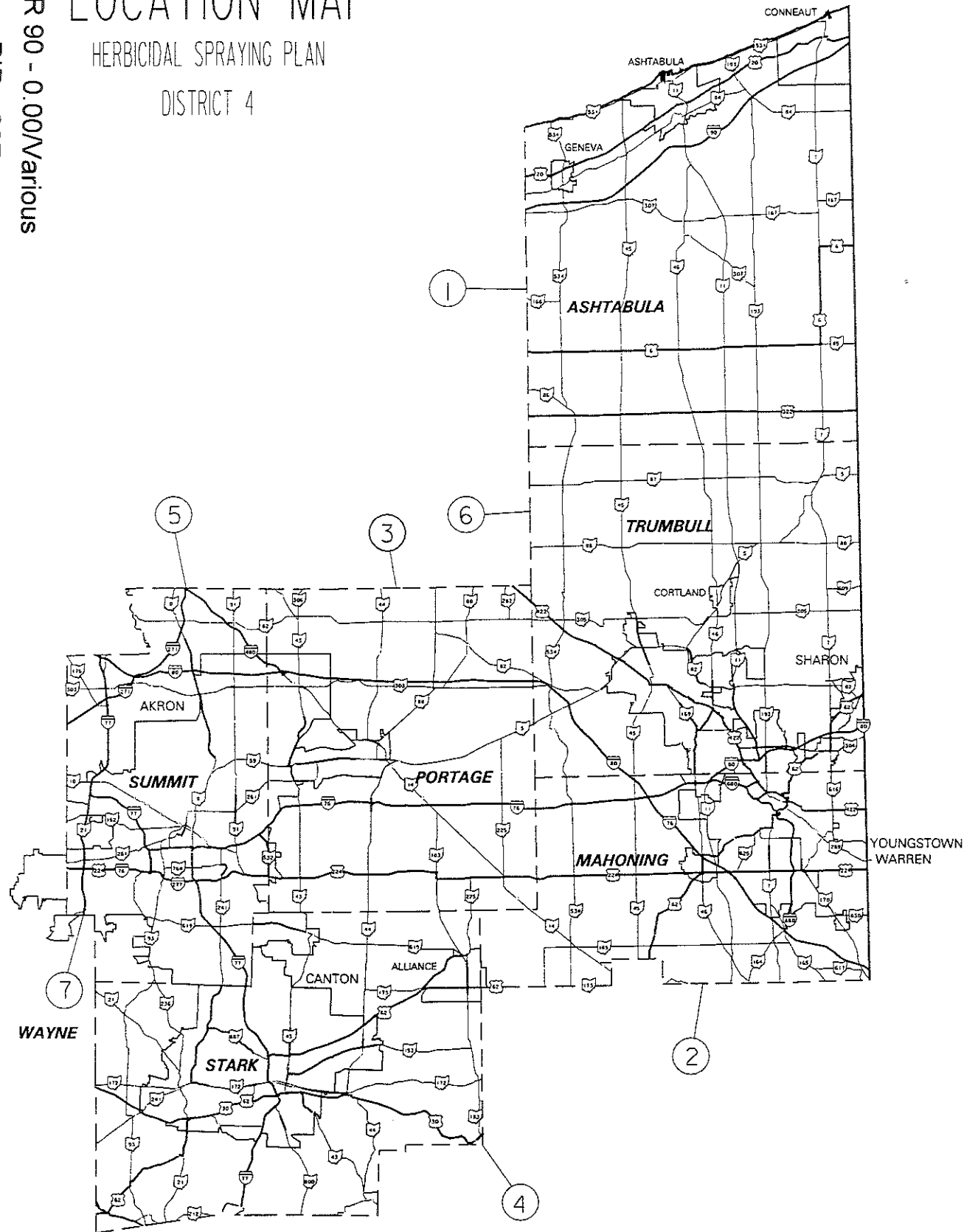


ATB - IR 90 - 0.00/Variou
020463 PID - 2377
Dist 4 10/9/2002

LOCATION MAP

HERBICIDAL SPRAYING PLAN
DISTRICT 4



STATE OF OHIO DEPARTMENT OF TRANSPORTATION

PROJECT DESCRIPTION

THIS PROJECT WILL CONSTIST OF HERBICIDAL SPRAYING OF VARIOUS ROUTES IN ASHTABULA, MAHONING, PORTAGE, STARK, SUMMIT, AND TRUMBULL COUNTIES AND ALSO WAY-21.

2002 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED *Michael J. Duran*
DATE 7-11-02 DISTRICT DEPUTY DIRECTOR

APPROVED *James Proctor*
DATE 7-26-02 DIRECTOR, DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS:

TITLE SHEET	1
GENERAL NOTES	2-16
MAINTANCE OF TRAFFIC	17
GENERAL SUMMARY	18
INFORMATION ONLY SHEETS	19-21

ATB - 90 - 0.00/VARIOUS

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINII		NET LENGTH MILES
				BEGIN	END	
1	ATB	I-90/VAR	(0.000-36.258) & SEE PAGE 5, 15	0.000/VAR	46.171/VAR	3.78/27.17
2	MAH	VAR.	SEE PAGE 6, 15			46.45
3	POR	VAR.	SEE PAGE 7, 15			33.33
4	STA	VAR.	SEE PAGES 8, 9 & 15			57.50
5	SUM	VAR.	SEE PAGE 10, 16			87.35
6	TRU	VAR.	SEE PAGE 11, 16			47.40
7	WAY	SR 21	(0.00) & SEE PAGE 12, 16	0.000	9.495	5.34

STANDARD DRAWINGS	SUPPLEMENTAL SPECIFICATIONS
GR-6.2M 1-3-96	
TC-52.10 4-20-01	
TC-52.20 4-20-01	
MT-35.10 4-20-01	
MT-105.10M 4-25-94	
MT-105.11 M 4-25-94	

ENGINEERS SEAL:

STATE OF OHIO
DOUGLAS A. YARD
E-58044
REGISTERED PROFESSIONAL ENGINEER

SIGNED: *[Signature]*
DATE: 7/11/02

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:

District
Four
Production

HERBICIDAL SPRAYING
NONSELECTIVE VEGETATION CONTROL

DESCRIPTION OF WORK:

THE WORK WILL CONSIST OF SPRAYING A SWATH OF 3' MINIMUM WIDTH IN FRONT OF, UNDER, AND BEHIND THE GUARDRAIL (SEE SPRAY DETAILS). BARRIER TYPE GUARDRAIL IS TO BE SPRAYED FROM BOTH SIDES TO GET SUFFICIENT WIDTH DESIRED. SPRAYING WILL BE PREFORMED AROUND ALL DELINEATORS, SIGNPOSTS, LIGHTPOLES AND/OR THIER FOUNDATIONS TO KILL ALL VEGETATION WITHIN 1.5'. A 3' WIDE SWATH WILL ALSO BE SPRAYED BETWEEN POSTS (FROM POST TO POST) ON SIGNS WITH DOUBLE SUPPORTS. SEE SHEET NO. 3 FOR NON-SPRAY AREAS LISTINGS.

SPRAYING WILL BEGIN ON OR ABOUT MAY 1, 2003 AND BE COMPLETED WITHIN 40 CALENDER DAYS AFTER THE STARTING DATE IS ESTABLISHED. THE ACTUAL STARTING DATE WILL BE DETERMINED BY THE ENGINEER AFTER AN EVALUATION OF EXISTING VEGETATION CONDITIONS. FAILURE TO START WITHIN TWO WEEKS OF THE NOTIFICATION TO START MAY RESULT IN THE CONTRACT BEING DEFAULTED AS PER 108.08.

SPRAYING WILL NOT BEGIN UNTIL APPROVAL OF THE ENGINEER HAS BEEN OBTAINED. NO SPRAYING WILL BE PREFORMED ON SUNDAYS, LEGAL HOLIDAYS, OR IN AREAS WHERE TURF IS MAINTAINED AS A LAWN AREA.

REPORTING PROGRESS:

THE CONTRACTOR WILL SUBMIT A WRITTEN REPORT EACH DAY TO THE ENGINEER OF THE WORK PERFORMED THE PREVIOUS DAY. THE STATE WILL MAKE AVAILABLE AN AGENT DURING NORMAL WORKING HOURS TO DEFINE THE AREAS TO BE SPRAYED.

METHOD OF PAYMENT:

THE METHOD OF PAYMENT WILL BE THE NUMBER OF MILES OF GUARDRAIL SPRAYED TIMES THE PERCENT KILL ACHIEVED. THE PERCENT KILL ACHIEVED WILL BE DETERMINED BY INVENTORING THE SAMPLE SECTIONS IN EACH COUNTY. THERE WILL BE A MINIMUM OF TWO SAMPLE SECTIONS ON EACH ROUTE SPRAYED IN EACH COUNTY. EACH SAMPLE SECTION WILL HAVE A MINIMUM LENGTH OF ONE MILE OF HIGHWAY. HOWEVER, AT LEAST 10% OF THE TOTAL MILES OF GUARDRAIL ON EACH ROUTE SPRAYED SHALL BE INSPECTED. THE SAMPLE SECTIONS WILL BE SELECTED BY ODOT. THE INSPECTION WILL BE PERFORMED AFTER SEPTEMBER 1ST. A 90 PERCENT KILL WILL BE CONSIDERED AS 100 PERCENT ACHIEVEMENT. 70-90 PERCENT KILL WILL BE CONSIDERED 75 PERCENT ACHIEVEMENT AND LESS THAN 70 PERCENT KILL WILL BE JUSTIFICATION FOR NONPAYMENT FOR THAT COUNTY. ALL ROUTE ACHIEVEMENTS WILL BE AVERAGED IN EACH COUNTY AND USED AS THAT COUNTY'S PERCENT ACHIEVEMENT. ANY SIGNPOSTS, DELINEATORS, LIGHT POLES, AND/OR THEIR FOUNDATIONS WITHIN THE GUARDRAIL AREA TO BE SPRAYED WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL-HERBICIDAL SPRAYING, GUARDRAIL.

EQUIPMENT:

PRIOR TO STARTING WORK, ALL EQUIPMENT NECESSARY TO PERFORM THE CONTRACT WILL BE INSPECTED AND APPROVED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO DEMONSTRATE THAT HIS EQUIPMENT AND OPERATORS ARE CAPABLE OF APPLYING AN EVEN AND CONTROLLED APPLICATION OF MATERIALS TO ALL AREAS OF THE RIGHT-OF-WAY. ALL SPRAY PATTERNS OR OUTLETS WILL HAVE INSTANTANEOUS SHUT OFF VALVES IMMEDIATELY ACCESSIBLE TO THE SPRAY OPERATOR FROM HIS OPERATING POSITION. THE SPRAY VEHICLE WILL, UNDER NO CIRCUMSTANCES, EXCEED 10 MILES PER HOUR WHILE SPRAYING HERBICIDE. ALL TRUCKS WILL BE EQUIPPED WITH ANTI-SYPHON DEVICES OR THE FILLER HOSE WILL NOT COME INTO CONTACT WITH THE WATER IN THE TANK.

LICENSES REQUIRED:

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING WILL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATAGORY. APPROPRIATE LICENSES WILL BE SUBMITTED TO THE PROJECT SUPERVISOR, PRIOR TO COMMENCING WORK, FOR VERIFICATION.

OHIO DEPARTMENT OF AGRICULTURE REGULATION 901:5-II-02-M AND ODOT CONTRACT SPECIFICATIONS REQUIRE ALL ROADWAY HERBICIDE OPERATIONS BE ACCOMPLISHED BY A MINIMUM OF TWO PERSONNEL IN EACH SPRAY VEHICLE. A CDL LICENSED VEHICLE OPERATOR WILL BE REQUIRED WHERE APPLICABLE.

MIXTURE/APPLICATION RATES:

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT A HERBICIDE FORMULATION AND APPLICATION RATE CAPABLE OF ACHIEVING A MINIMUM 90 PERCENT KILL OF ALL VEGETATION IN THE TREATMENT AREA FOR A PERIOD OF ONE GROWING SEASON. THE SELECTED HERBICIDE FORMULATION WILL CONSIST OF CHEMICALS APPROVED FOR USE BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY (E.P.A.). FIELD SAMPLES OF THE FORMULATION WILL BE TAKEN AT THE DISCRETION OF THE ENGINEER.

NO HERBICIDE WILL BE USED WHICH IS UNDER INVESTIGATION BY THE E.P.A.

TRAFFIC:

THE CONTRACTOR SHALL CARRY ON THE WORK SO THAT IT DOES NOT INTERFERE WITH THE SAFE FLOW OF TRAFFIC. SEE TRAFFIC CONTROL SHEET.

RESPONSIBILITY FOR DAMAGE CLAIMS-SEC.107.12 & 107.13:

THE CONTRACTOR WILL TAKE EVERY PRECAUTION IN HIS OPERATIONS TO AVOID PROPERTY DAMAGE AND ASSUME ALL LIABILITY FOR ANY DAMAGE RESULTING, AND WILL HOLD THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION HARMLESS.

NOTE:

LATERAL LEACHING OF THE SPRAY MIXTURE WILL NOT EXCEED 1.5'. IF EXCESS LEACHING TAKES PLACE, IT WILL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE OF OHIO.

NOTE:

THE CONTRACTOR, AT HIS DISCRETION UPON NOTIFICATION OF THE DISTRICT CONSTRUCTION ENGINEER, MAY TOUCH-UP THE WORK AREA DURING THE LIFE OF THIS PROJECT PRIOR TO THE FINAL COMPLETION DATE. THE TOUCH-UP HERBICIDE WILL BE THE SAME FORMLLATION AS ORIGINALLY APPROVED.

ALL PAVED GUARDRAIL:

SPRAY IN THESE SECTIONS WILL BE CONFINED TO VEGETATION GROWING IN THE CRACKS OF THE ASPHALT UNDER THE GUARDRAIL. ANY DELINEATORS, SIGNPOSTS, LIGHT POLES, AND/OR THEIR FOUNDATIONS IN THE AREA OF GUARDRAIL TO BE SPRAYED WILL BE INCLUDED IN THE ITEM COST.

NOTE:

ALL DELINEATORS, SIGNPOSTS, LIGHT POLES AND/OR THEIR FOUNDATIONS NOT WITHIN THE GUARDRAIL AREAS WILL BE SPRAYED AS SHOWN ON SHEET 4 AND BE PAID FOR UNDER ITEM SPECIAL HERBICIDAL SPRAYING, DELINEATORS, SIGNPOSTS, LIGHT POLES AND/OR THEIR FOUNDATIONS.

CALCULATED

CHECKED

PLAN No.

GENERAL NOTES

ATB-90-0.00

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21

HERBICIDAL SPRAYING

NON-SPRAY AREAS:
THE CONTRACTOR WILL NOT SPRAY ANY VEGETATION OR USE ANY HERBICIDE WITHIN 0.25 MILES OF THE LOCATIONS LISTED BELOW.

- (1) ADDRESS - 8819 SR 7 (APPROX SLM = 25.5)
KINSMAN, OH.
- (2) ADDRESS - 932 SR 88 (APPROX SLM = 8.90)
BRISTOL, OH.
- (3) ADDRESS - 7471 US 322
WILLIAMSFIELD TOWNSHIP
- (4) ROUTE 700
BETWEEN STREETER AND THE HIKE AND BIKE TRAIL
- (5) ADDRESS - 5412 US 422
SOUTHINGTON, OH.
- (6) ROUTES 193 & 304
LIBERTY TOWNSHIP CEMETARY - S.W. CORNER SR 193 & SR 304
INTERSECTION

IN ADDITION TO THE ABOVE MENTIONED AREAS. THERE WILL BE NO SPRAYING UNDER DOUBLE SIGN SUPPORTS. (EXCEPT AS SHOWN ON SHEET 4).

THE CONTRACTOR SHALL NOTIFY THE DISTRICT MAINTENANCE OFFICE 2 DAYS PRIOR TO ANY SPRAYING ON THESE ROUTES TO VERIFY THESE RESTRICTIONS.

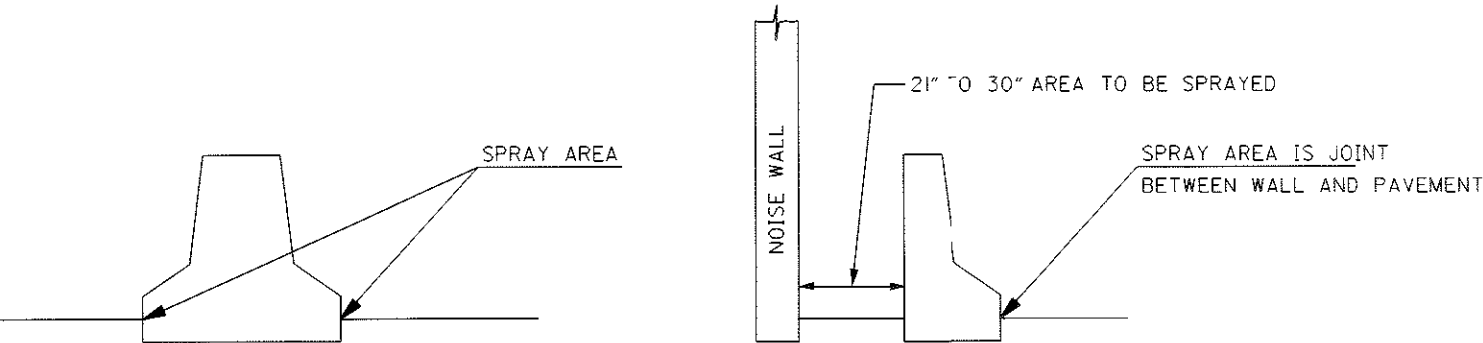
HERBICIDAL SPRAYING
NO HERBICIDAL SPRAYING SHALL BE PERFORMED IN ANY STREAMS, WETLANDS OR OTHER WATERS OF THE UNITED STATES. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ACCIDENTAL SPILLAGE OR MATERIAL USED FROM ENTERING ANY STREAMS, WETLANDS OR OTHER WAT

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN WILL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN TABLES 109.02-1 AND 109.02-2 OF THE 2002 CONSTRUCTION AND MATERIALS SPECIFICATIONS. IF TABLES 109.02-1 AND 109.02-2 DO NOT PROVIDE A REQUIRED FACTOR, THEN USE THE APPROPRIATE FACTOR PROVIDED IN THE IEEE/ASTM SI 10. CONVERSIONS WILL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

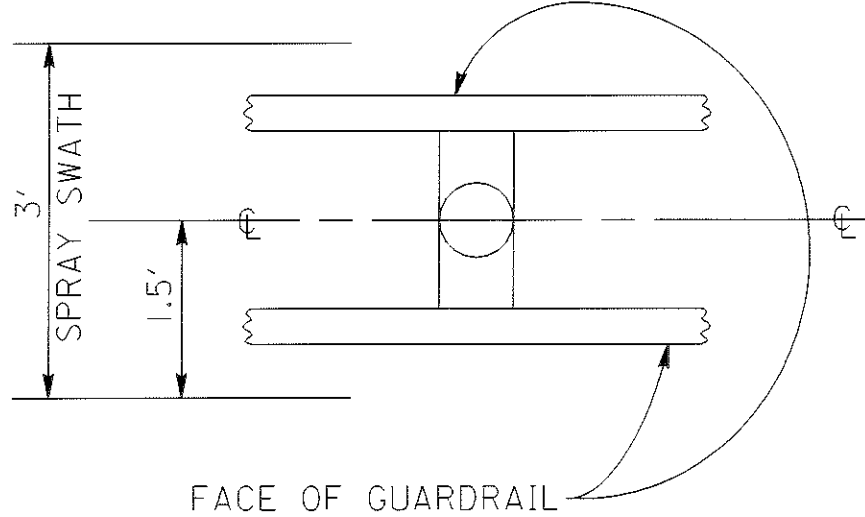
BARRIER SPRAYING
THE JOINT AT THE CONCRETE BARRIER AND PAVEMENT OR THE AREA BETWEEN THE BARRIER AND NOISE WALL WILL BE TREATED WITH NON-SELECTIVE VEGETATION CONTROL. THE INTENT OF THIS IS TO ELIMINATE GROWTH AT THE JOINT BETWEEN THE BARRIER AND ABUTING PAVEMENT AND BETWEEN BARRIER AND NOISE WALL. ONLY BARRIER THAT ABUTS PAVEMENT OR NOISE WALLS WILL BE TREATED. PAYMENT FOR LIN. MILE WILL BE INCLUDED IN THE TOTAL QUANTITIES FOR HERBICIDAL SPRAYING, GUARDRAIL. THE CONTRACTOR WILL NOT TREAT WHERE A LAWN IS MAINTAINED IN THE AREAS DETAILED BY THE SPRAY DETAILS.

BARRIER SPRAYING

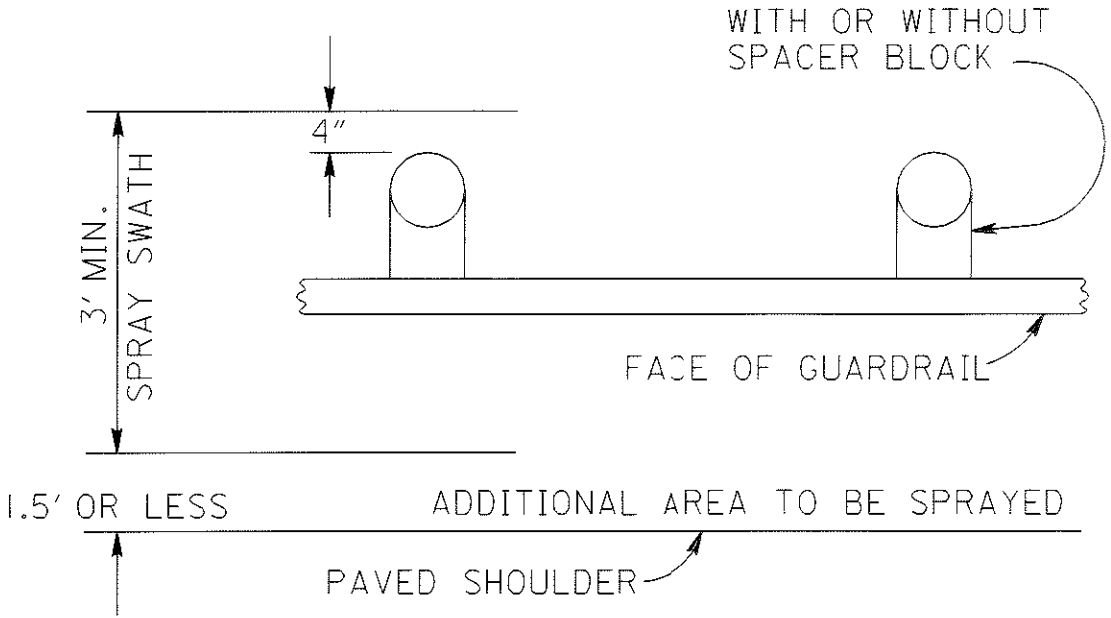


SPRAY DETAILS

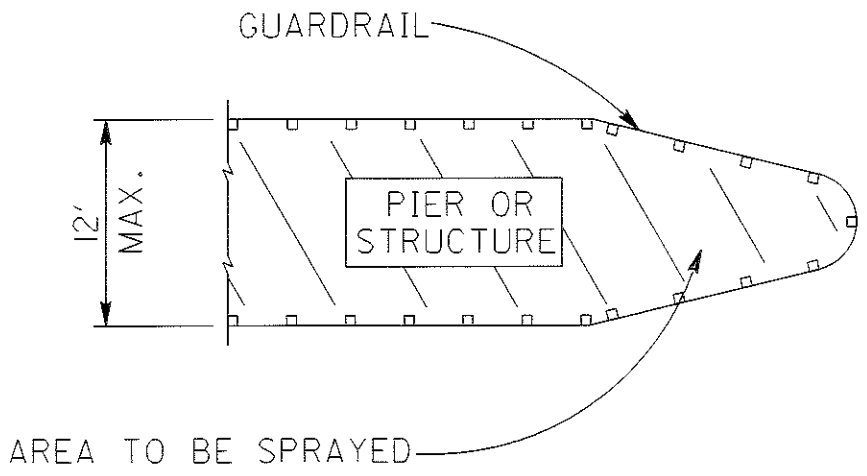
EXTRA AREAS: AN ADDITIONAL 20% OF AREA HAS BEEN ESTIMATED AND ADDED TO THE QUANTITIES GIVEN IN THE PLAN TO TREAT THE AREA BETWEEN THE EDGE OF THE PAVED SHOULDER AND THE REQUIRED 3' SPRAY SWATH. SEE SKETCH BELOW. THESE ADDITIONAL AREAS WILL BE DOCUMENTED ON THE CONTRACTOR'S DAILY REPORT. PAYMENT FOR THESE AREAS WILL BE INCLUDED WITH ITEM SPECIAL, HERBICIDAL SPRAYING, GUARDRAIL.



BARRIER TYPE GUARDRAIL



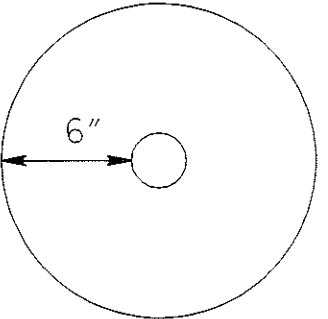
GUARDRAIL



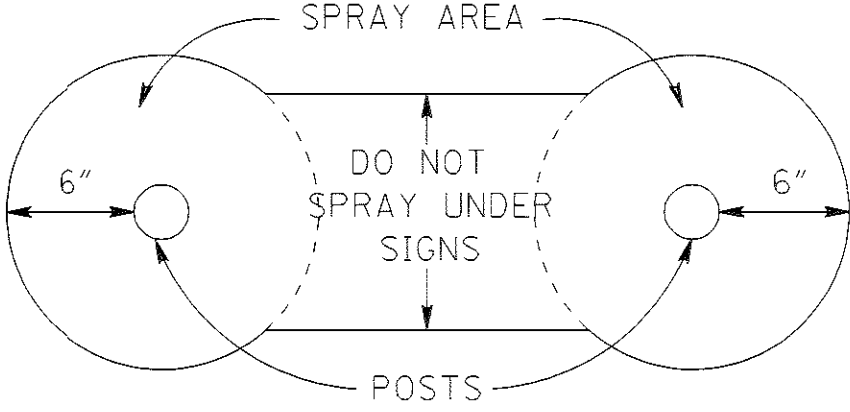
GUARDRAIL AT PIERS

DESIGN A OR B SEE STANDARD DRAWING, GR-6.2M

SPRAY AREA



SINGLE DELINEATOR, POST, OR POLE



DOUBLE SIGN SUPPORTS

DELINEATORS, SIGNPOSTS AND LIGHT POLES

** SIGN POSTS AND DELINEATORS ONLY

CHECKED

PLAN NO.

GENERAL NOTES

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** SIGN POSTS AND DELINEATORS ONLY



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GENERAL NOTES

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** SIGN POSTS AND DELINEATORS ONLY

7 21	ATB-90-0.00	GENERAL NOTES	PLAN No.	CALCULATED
				CHECKED

** SIGN POSTS AND DELINEATORS ONLY

21 8 ATB-90-0.00	GENERAL NOTES	<u>PLAN NO.</u>	CALCULATED
			CHECKED

** SIGN POSTS AND DELINEATORS ONLY

21 9 ATB-90-0.00	GENERAL NOTES	PLAN No.	CALCULATED
			CHECKED

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HERBICIDAL SPRAYING
NONSELECTIVE VEGETATION CONTROL
DATA

** SIGN POSTS AND DELINEATORS ONLY

PART	CO	RTE	FROM LOG POINT	TO LOG POINT	GUARDRAIL SPRAYED	SIGNPOSTS, DELINEATORS, LIGHT POLES SPRAYED	FOR INFO. ONLY	REMARKS
					LINEAL MILES	EACH	TOTAL ACRES SPRAYED	
5	SUM	I-76	0.00	17.98	8.27		5.350	MEDINA COUNTY TO PORTAGE COUNTY: OMIT AKRON
					1.72		1.109	RAMP GORE CURBS
					0.40		0.259	CONCRETE BARRIER
		I-77	0.00	33.62	37.54		24.270	STARK CO. TO CUYAHOGA CO.: OMIT AKRON
					4.38		2.829	RAMP GORE CURBS
					3.90		2.520	CONCRETE BARRIER
					0.67		0.180	AREA BETWEEN NOISE WALL AND TYPE D BARRIER (0.47 MI NB & 0.20 MI SB)
		I-271	0.00	15.24	3.18		2.061	MEDINA CO. TO CUYAHOGA CO.; MEDIAN GUARDRAIL *
		I-277	3.61	4.20	1.22		0.791	AKRON S. CORP TO I-77
					0.30		0.190	RAMP GORE CURBS
		I-480	0.00	8.67	4.43		2.839	CUYAHOGA CO. TO PORTAGE CO.
		US-224	13.69	17.02	2.97		1.401	AKRON E. CORP TO PORTAGE CO.
		SR-8		24.17	0.56		0.299	STOW N. CORP. TO NORTHFIELD S. CORP.: OMIT MACEDONIA
		SR-18	0.00	2.58	2.31		1.099	MEDINA CO. TO FAIRLAWN W. CORP.
		SR-21	5.14	9.76	6.89		3.301	NORTON N. CORP. TO I-77
					0.38		0.200	RAMP GORE CURBS
		SR-82	0.00	10.58	0.23		0.151	CUYAHOGA CO. TO PORTAGE CO.: OMIT MACEDONIA, TWINSBURG
		SR-91	0.00	17.98	0.26		0.170	US-224 TO TWINSBURG S. CORP.: OMIT AKRON, TALLMADGE, MUNROE
		SR-93	0.00	8.02	0.92		0.600	STARK CO. TO AKRON S. CORP. FALLS, STOW, HUDSON
		SR-162	0.00	5.62	0.57		0.371	MEDINA CO. TO AKRON W. CORP.
		SR-176	3.85	5.59	0.09		0.059	RICHFIELD N. CORP TO CUYAHOGA CO.
		SR-241	0.00	7.76	1.40		0.899	STARK CO. TO AKRON S. CORP.
		SR-303	0.00	15.75	1.72		1.109	MEDINA CO. TO PORTAGE CO.: OMIT RICHFIELD, PENNISULA, BOSTONS HTS., HUDSON
		SR-619	2.18	11.75	3.04		1.959	BARBERTON E. CORP. TO STARK CO.
		TOTAL PART 5			87.35	8700	54.016	

GENERAL NOTES

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PLAN No.

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HERBICIDAL SPRAYING
NONSELECTIVE VEGETATION CONTROL
DATA

** SIGN POSTS AND DELINEATORS ONLY

PART	CO	RTE	FROM LOG POINT	TO LOG POINT	GUARDRAIL SPRAYED	SIGNPOSTS, DELINEATORS, LIGHT POLES SPRAYED EACH	FOR INFO. ONLY	REMARKS
					LINEAL MILES		TOTAL ACRES SPRAYED	
6	TRU	I-80	0.00	12.33	2.62		1.690	MAHONING COUNTY TO PENNSYLVANIA; MEDIAN GUARDRAIL
		US-62	0.00	9.26	2.83		1.831	MAHONING COUNTY TO PENNSYLVANIA; OMIT HUBBARD
					0.76		0.400	RAMP GORE CURBS
		US-422	0.00	19.29	**		**	PORTAGE COUNTY TO GIRARD N. CORP.; OMIT WARREN, NILES
		SR-5	0.00	35.43	4.33		2.800	PORTAGE COUNTY TO PENNSYLVANIA; OMIT CORTLAND
		SR-5BY	0.00	7.60	1.35		0.870	SR 5 TO SR 5 (W. MARKET STREET TO ELM RD.)
					1.89		0.899	RAMP GORE CURBS
		SR-7	5.71	27.87	2.08		1.339	US-62 TO ASHTABULA COUNTY; OMIT YANKEE LAKE
		SR-II	3.45	28.47	5.39		3.479	I-80 TO ASHTABULA COUNTY
					2.27		1.099	RAMP GORE CURBS
		SR-45	4.91	26.46	1.78		1.149	LORDSTOWN N. CORP. TO ASHTABULA COUNTY; OMIT WARREN
		SR-46	0.00	26.34	2.18		1.411	MAHONING COUNTY TO ASHTABULA COUNTY; OMIT NILES, CORTLAND
		SR-82	0.00	26.46	2.45		1.580	PORTAGE COUNTY TO US-62; OMIT WARREN
					1.14		0.600	RAMP GORE CURBS
					1.28		0.822	CONCRETE BARRIER
		SR-87	0.00	22.36	2.31		1.490	GEAUGA COUNTY TO SR-5
		SR-88	0.00	25.56	5.73		3.699	GEAUGA COUNTY TO PENNSYLVANIA; OMIT W. FARMINGTON
		SR-169	0.00	4.93	0.01		0.010	US-422 TO WARREN S. CORP.; OMIT NILES
		SR-193	0.00	25.44	1.36		0.880	MAHONING COUNTY TO ASHTABULA COUNTY
		SR-303	0.00	1.28	0.36		0.230	PORTAGE COUNTY TO SR-82
		SR-304	1.31	9.97	0.98		0.630	GIRARD E. CORP. TO PENNSYLVANIA; OMIT HUBBARD
		SR-305	0.00	26.61	1.35		0.870	PORTAGE COUNTY TO PENNSYLVANIA; OMIT MOSQUITO LAKE DAM
		SR-534	0.00	27.02	2.95		1.910	MAHONING COUNTY TO ASHTABULA COUNTY; OMIT NEWTON FALLS
		SR-609	0.00	1.77	**		**	SR-7 TO ORANGEVELLE W. CORP
	TOTAL PART 6				47.4	13000	29.688	

CALCULATED

PLAN No.

GENERAL NOTES

ATB-90-0.00

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** SIGN POSTS AND DELINEATORS ONLY

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GENERAL NOTES

ATB-90-0.00

HERBICIDAL SPRAYING
SELECTIVE VEGETATION CONTROL

DESCRIPTION OF WORK:

THE WORK WILL CONSIST OF SPRAYING A HERBICIDAL SOLUTION TO CONTROL THE DESIGNATED VEGETATION.

SPRAYING WILL BEGIN ON OR ABOUT MAY 1, 2002 AND BE COMPLETED WITHIN 40 CALENDER DAYS AFTER THE STARTING DATE IS ESTABLISHED. THE ACTUAL STARTING DATE WILL BE DETERMINED BY THE ENGINEER AFTER AN EVALUATION OF EXISTING VEGETATION CONDITIONS. FAILURE TO START WITHIN TWO WEEKS OF THE NOTIFICATION TO START MAY RESULT IN THE CONTRACT BEING DEFAULTED AS PER 108.8.

NO SPRAYING WILL BEGIN UNTIL APPROVAL FROM THE ENGINEER HAS BEEN OBTAINED. NO SPRAYING WILL BE PREFORMED ON SUNDAYS, LEGAL HOLIDAYS, UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER, OR IN AREAS WHERE TURF IS MAINTAINED AS PER 108.

REPORTING PROGRESS :

THE CONTRACTOR WILL SUBMIT A WRITTEN REPORT EACH DAY TO THE ENGINEER OF THE WORK PERFORMED THE PREVIOUS DAY. THE STATE WILL MAKE AVAILABLE AN AGENT DURING NORMAL WORKING HOURS TO DEFINE THE AREAS TO BE SPRAYED.

EQUIPMENT :

PRIOR TO STARTING WORK, ALL EQUIPMENT NECESSARY TO PERFORM THE CONTRACT SHALL BE INSPECTED AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL BE REQUIRED TO DEMONSTRATE THAT HIS EQUIPMENT AND OPERATORS ARE CAPABLE OF APPLYING AN EVEN AND CONTROLLED APPLICATION OF MATERIAL TO ALL AREAS OF THE RIGHT-OF-WAY. ALL SPRAY PATTERNS OR OUTLETS SHALL HAVE INSTANTANEOUS SHUT OFF VALVES IMMEDIATELY ACCESSIBLE TO THE SPRAY OPERATOR FROM HIS OPERATING POSITION. THE SPRAY VEHICLE, WILL UNDER NO CIRCUMSTANCES, EXCEED 10 MILES PER HOUR WHILE SPRAYING HERBICIDE. ALL TRUCKS WILL BE EQUIPPED WITH ANTISYPHON DEVICES OR THE FILLER HOSE WILL NOT COME INTO CONTACT WITH THE WATER IN THE TANK.

LICENSES REQUIRED :

EACH SUCCESSFUL BIDDER MUST BE LICENSED BY THE OHIO DEPARTMENT OF AGRICULTURE AS A COMMERCIAL APPLICATOR AND ALL PERSONS INVOLVED IN THE ACTUAL SPRAYING WILL BE LICENSED AS COMMERCIAL OPERATORS IN THE APPROPRIATE SPRAY CATEGORY. APPROPRIATE LICENSES WILL BE SUBMITTED TO THE PROJECT SUPERVISOR, PRIOR TO COMMENCING WORK, FOR VERIFICATION.

OHIO DEPARTMENT OF AGRICULTURE REGULATION 901:5-II-02-M AND ODOT CONTRACT SPECIFICATIONS REQUIRE ALL ROADWAY HERBICIDE OPERATIONS BE ACCOMPLISHED BY A MINIMUM OF TWO PERSONNEL IN EACH SPRAY VEHICLE. A CDL LICENSED VEHICLE OPERATOR WILL BE REQUIRED WHERE APPLICABLE.

TRAFFIC :

THE CONTRACTOR WILL CARRY ON THE WORK SO THAT IT DOES NOT INTERFERE WITH SAFE FLOW OF TRAFFIC. SEE TRAFFIC CONTROL SHEET.

RESPONSIBILITY FOR DAMAGE CLAIMS -- SEC. 107.12 & 107.13:

THE CONTRACTOR WILL TAKE EVERY PRECAUTION IN HIS OPERATIONS TO AVOID PROPERTY DAMAGE AND ASSUME ALL LIABILITY FOR ANY DAMAGE RESULTING, AND WILL HOLD THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION HARMLESS.

MIXTURE / APPLICATION RATES:

IT SHALL BE THE CONTRACTOR'S RESPOSIBILITY TO SELECT A HERBICIDE FORMULATION AND APPLICATION RATE CAPABLE OF ACHIEVING A MINIMUM 80 PERCENT KILL OF CANADIAN THISTLE, MILKWEED, CHICKORY (BLUETOP), WILD CARROT AND SOME WOODY STEMMED BRUSH TYPE VEGETATION. THE SELECTED HERBICIDE FORMULATION WILL CONSIST OF CHEMICALS APPROVED FOR USE BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA). FIELD SAMPLES OF THE FORMULATION WILL BE TAKEN AT THE DISCRETION OF THE ENGINEER. NO HERBICIDE WILL BE USED WHICH WILL CAUSE DAMAGE TO DESIRABLE TURF AREAS OR WHICH ARE UNDER INVESTIGATION BY THE EPA.

METHOD OF PAYMENT:

MEASUREMENT WILL BE THE NUMBER OF ACRES SPRAYED TIMES THE PERCENT KILL ACHIEVED. THE PERCENT KILL ACHIEVED IN THE RANDOM SELECTED SAMPLE SECTIONS IS CALCULATED BY INVENTORING THE NUMBER OF TARGET SPECIES KILLED BY THE SPRAY, COMPARED TO THE TOTAL NUMBER IN THE SAMPLE SECTION. AN 80 PERCENT KILL OF THE ABOVE REFERENCED WEEDS WILL BE CONSIDERED AS 100 PERCENT ACHIEVEMENT; 50 TO 79 PERCENT KILL WILL CONSTITUTE A 75 PERCENT ACHIEVEMENT; LESS THAN 50 PERCENT WILL BE JUSTIFICATION TO HAVE THE CONTRACTOR COMPLETELY RESPRAY THAT COUNTY, AT THE DISCRETION OF THE ENGINEER. THE SAMPLE SECTIONS WILL BE SELECTED BY THE OHIO DEPARTMENT OF TRANSPORTATION AND INSPECTION WILL BEGIN WITHIN 12-14 DAYS FOLLOWING THE NOTIFICATION OF WORK COMPLETED. THERE WILL BE 10 SAMPLE SECTIONS CHOSEN IN EACH COUNTY SPRAYED. THE SAMPLE SECTION WILL BE 20 FT. IN LENGTH AND WIDTH OF THE TYPICAL SECTION. THE SECTIONS WILL BE AVERAGED IN EACH COUNTY TO DETERMINE THE COUNTY AVERAGE PERCENT KILL.

NOTE: IN ORDER TO CLASSIFY A PLANT AS KILLED, WEED SPRAY DAMAGE WILL BE IN EVIDENCE THROUGHOUT THE PLANT.

BASIS OF PAYMENT :

PAYMENT WILL BE MADE AT THE CONTRACT BID PRICE FOR HERBICIDAL SPRAYING, WEED AND BRUSH CONTROL FROM ROAD FOR THE NUMBER OF ACRES SPRAYED ADJUSTED AS DESCRIBED ABOVE.

CALCULATED
CHECKED

PLAN No.

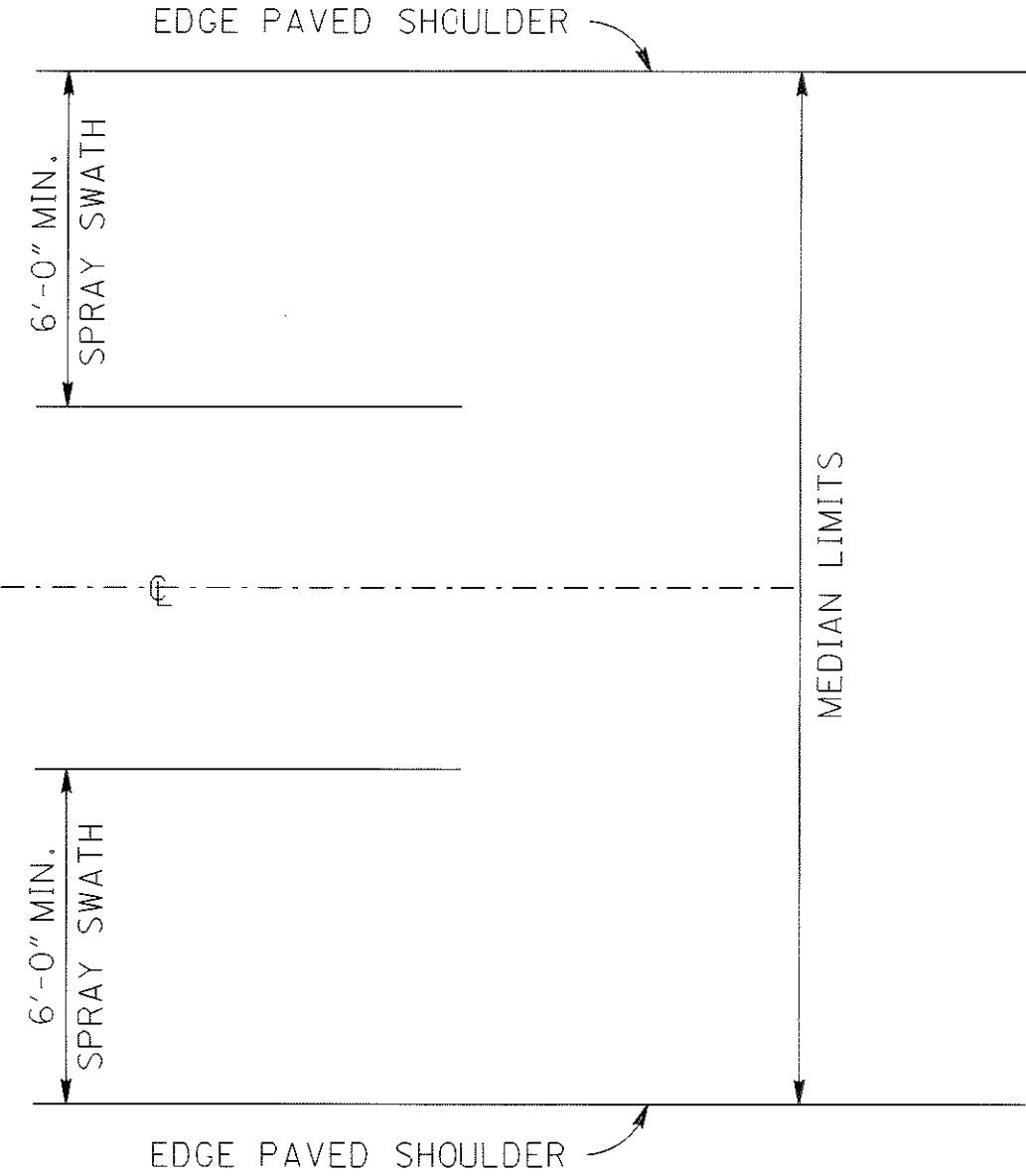
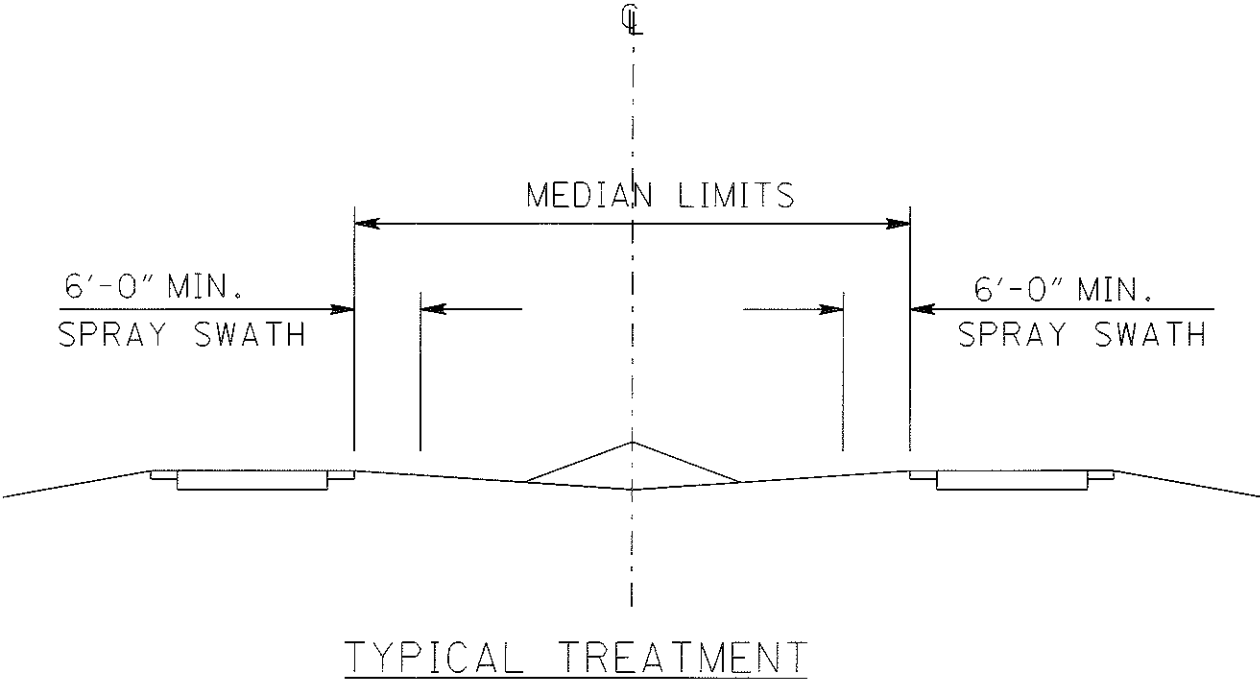
GENERAL NOTES

ATB-90-0.00

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21

SPRAY DETAILS

NOTE: THE DETAILS ON THIS SHEET APPLY ONLY TO THE SELECTIVE
HERBICIDAL SPRAYING.



PLAN VIEW

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HERBICIDAL SPRAYING
SELECTIVE VEGETATION CONTROL
DATA

PART	CO	RTE	FROM LOG POINT	TO LOG POINT	FOR INFO. ONLY	MEDIAN EDGE SPRAYED	REMARKS
					LINEAL MILES	TOTAL ACRES SPRAYED	
I	ATB	IR-90	0.00	28.69	57.38	41.7	LAKE CO. TO PENNSYLVANIA LINE
I	ATB	SR-II	0.00	27.87	55.74	40.5	TRUMBULL CO. LINE TO ASHTABULA SOUTH CORP.
	TOTAL PART 1				113.12	82.2	
2	MAH	IR-76	0.00	8.65	17.30	12.6	PORTAGE CO. LINE TO OHIO TURNPIKE
2	MAH	IR-80	0.00	5.75	10.52	7.7	OHIO TURNPIKE TO TRUMBULL CO. LINE
2	MAH	IR-680	0.00	16.43	21.88	15.9	IR-80 TO OHIO TURNPIKE
2	MAH	SR-11	0.00	16.89	32.02	23.3	COLUMBIANA CO. TO IR-80
	TOTAL PART 2				81.72	59.5	
3	POR	IR-76	0.00	21.19	42.38	30.8	SUMMIT CO. LINE TO MAHONING CO. LINE
3	POR	IR-480	0.00	1.45	2.60	1.9	SUMMIT CO. LINE TO OHIO TURNPIKE
3	POR	US-422	0.00	1.94	3.88	2.8	GEAUGA CO. LINE TO TRUMBULL CO. LINE
3	POR	SR-261	2.65	3.18	1.06	0.8	EAST KENT CORP. TO SUMMIT ROAD
	TOTAL PART 3				49.92	36.3	
4	STA	IR-77	0.00	18.54	23.62	17.2	TUSCARAWAS CO. LINE TO SUMMIT CO LINE :OMIT CANTON
4	STA	US-30	0.00	13.10	26.20	19.1	HOLMES CO. LINE TO CANTON W. CORP.
4	STA	US-62	26.36	34.38	16.04	11.7	CANTON EAST CORP. TO SR 225
4	STA	SR-21	12.35	21.44	18.18	13.2	MASSILLON N. CORP TO WAYNE CO. LINE
	TOTAL PART 4				84.04	61.2	

HERBICIDAL SPRAYING
SELECTIVE VEGETATION CONTROL
DATA

PART	CO	RTE	FROM LOG POINT	TO LOG POINT	FOR INFO. ONLY	MEDIAN EDGE SPRAYED	REMARKS
					LINEAL MILES	TOTAL ACRES SPRAYED	
5	SUM	IR-76	0.00	17.98	16.44	12.0	MEDINA CO. LINE TO PORTAGE CO. LINE : OMIT AKRON
5	SUM	IR-77	0.00	33.62	41.68	30.3	STARK CO. LINE TO CUYAHOGA CO. LINE: OMIT AKRON
5	SUM	IR-271	0.00	15.24	28.48	20.7	MEDINA CO. LINE TO CUYAHOGA CO. LINE
5	SUM	IR-480	0.00	8.67	17.34	12.6	CUYAHOGA CO. LINE TO PORTAGE CO. LINE
5	SUM	SR-8	12.54	21.32	13.90	10.1	BOSTON HEIGHTS SOUTH CORP. TO CUYAHOGA CO. LINE
5	SUM	SR-21	0.00	9.76	19.52	14.1	NORTON N. CORP TO I-77
	TOTAL PART 5				137.36	99.8	
6	TRU	I-80	0.00	12.33	23.43	17.0	MAHONING CO. LINE TO PENNSYLVANIA LINE
6	TRU	US-62	4.53	9.26	8.60	6.3	HUBBARD EAST CORP. TO PENNSYLVANIA LINE
6	TRU	SR-5	5.40	14.11	15.04	10.9	SR-82(CENTER OF THE WORLD) TO SR-82 (ELM ROAD)
6	TRU	SR-11	3.45	28.47	50.04	36.4	IR-80 TO ASHTABULA CO. LINE
6	TRU	SR-82	14.08	26.46	22.54	16.4	SR-5 BYPASS TO US-62
	TOTAL PART 6				119.65	87.0	
7	WAY	SR-21	0.00	5.90	11.80	8.6	STARK CO LINE TO SUMMIT CO. LINE
	TOTAL PART 7				11.80	8.6	

2-LANE HIGHWAY, 2-WAY TRAFFIC

2 OR MORE LANE HIGHWAY DIVIDED OR UNDIVIDED

GENERAL NOTES

WHENEVER HERBICIDAL SPRAYING OPERATIONS ARE BEING CONDUCTED FROM THE EXTREME LEFT OR RIGHT TRAVELED LANE OR EITHER SHOULDER, THE TRAFFIC CONTROL SHOWN ON THIS DETAIL IS REQUIRED.

ALL VEHICLES WILL BE EQUIPPED WITH:

- 360 DEGREE ROTATING OR STROBE YELLOW FLASHERS MOUNTED 8' FT MINIMUM ABOVE THE PAVEMENT ON THE RIGHT AND LEFT REAR OF THE VEHICLE AND ON THE TOP OF THE CAB.
- FLAGS, AS INDICATED.

ON 2 LANE HIGHWAYS WITH 2 WAY TRAFFIC, THE BACK-UP VEHICLE WILL BE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS BEHIND BOTH VEHICLES, THE BACK-UP VEHICLE WILL MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT APPROXIMATELY THE SAME SPEED AS THE HERBICIDAL SPRAYING VEHICLE. THE BACK-UP VEHICLE WILL SLOW DOWN OR STOP IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES WHICH RESTRICT SIGHT DISTANCE. 2-WAY RADIO OR OTHER MEANS OF COMMUNICATION SHOULD BE USED WHEN OPERATING ON 2 LANE HIGHWAYS WITH 2 WAY TRAFFIC TO EFFECTIVELY CONTROL VEHICLE SPACING. WHEN THE HERBICIDAL SPRAYING VEHICLE IS OUT OF THE BACK-UP VEHICLE'S SIGHT, THE BACK-UP VEHICLE CAN STOP OR SLOW DOWN AS NEEDED. IN ADDITION TO REQUIREMENTS LISTED ABOVE, THE BACK-UP VEHICLE WILL BE EQUIPPED WITH AN OC-35 "SLOW TRUCK AHEAD" SIGN WITH THE BOTTOM OF THE SIGN MOUNTED 4' FT. MINIMUM ABOVE PAVEMENT. THE SIGN LEGEND ON THE BACK-UP VEHICLE WILL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS. A BACK-UP VEHICLE SHOULD ALSO BE USED ON 2 OR MORE LANE HIGHWAYS, DIVIDED OR UNDIVIDED.

ON 2 OR MORE LANE DIVIDED ON THE BACK UP VEHICLE, THE FLASHING OR SEQUENCING ARROW PANEL WILL BE USED TO DIRECT TRAFFIC TO THE LEFT OR RIGHT (ARROW) OR TO WARN TRAFFIC (CAUTION BAR). FLASHING OR SEQUENCING ARROW PANEL USE WILL BE IN ACCORDANCE WITH SECTION 7G-8 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN SPRAYING THE MEDIAN (LEFT HAND SIDE) OF A 2 OR MORE LANE DIVIDED HIGHWAY WITH THE HERBICIDAL SPRAYING VEHICLE MAY ENCROACH ON THE TRAVELED ROADWAY. UNDER THESE CONDITIONS, THE RIGHT DIRECTIONAL ARROW SHOULD APPEAR ON THE FLASHING OR SEQUENCING ARROW PANEL.

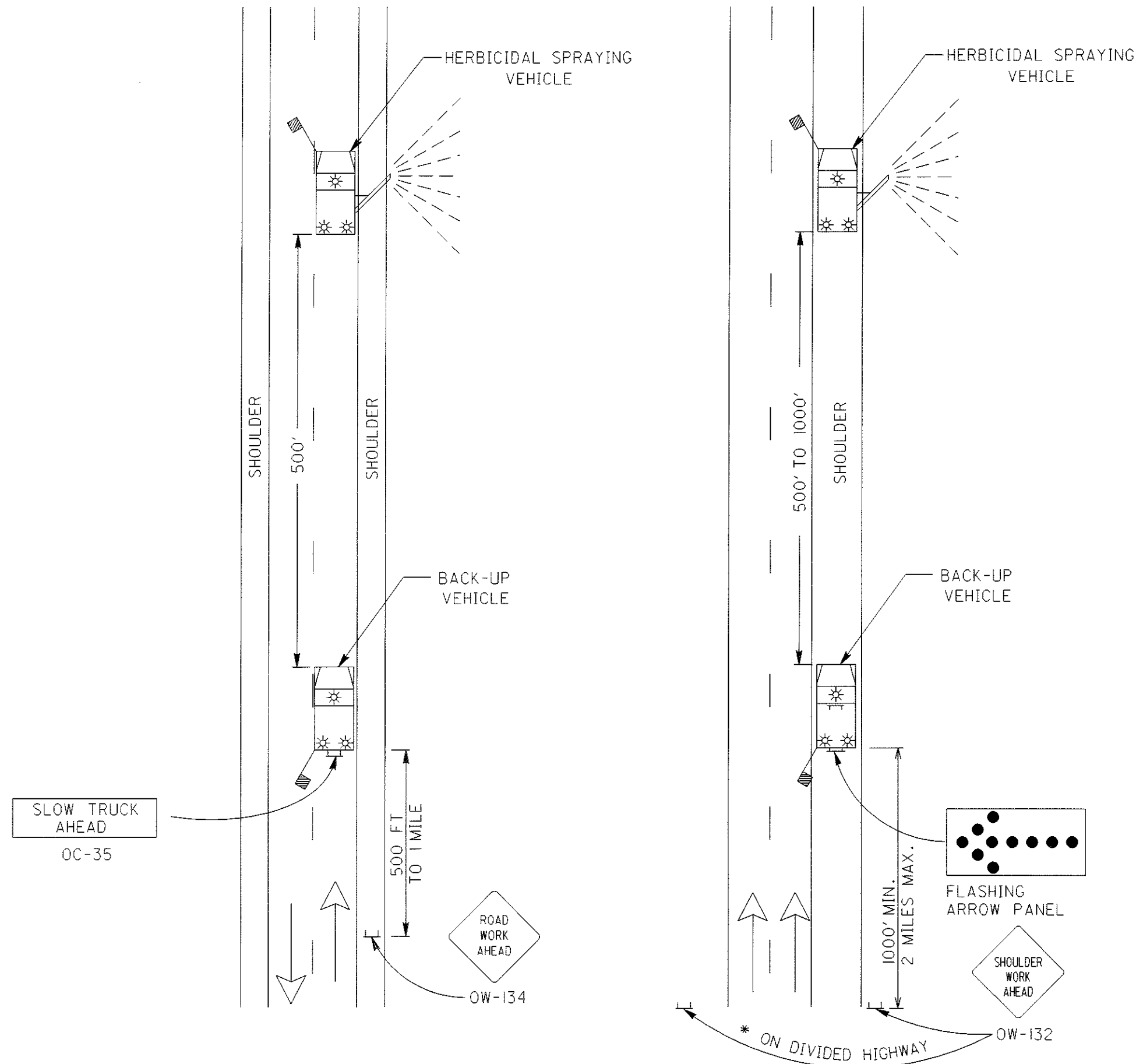
THE TRAFFIC CONTROL FOR HERBICIDAL SPRAYING OF THE RIGHT HAND SIDE OF MULTI-LANE UNDIVIDED HIGHWAYS WILL BE THE SAME AS THE TRAFFIC CONTROL FOR HERBICIDAL SPRAYING OF THE RIGHT HAND SIDE OF 2 OR MORE LANE DIVIDED HIGHWAYS.

WHENEVER THE HERBICIDAL SPRAYING VEHICLE MUST STOP ALONG THE HIGHWAY TO HAVE ITS TANK LOADED, IT SHOULD DO SO EITHER BEYOND THE RIGHT SHOULDER OR ON THE RIGHT SHOULDER. FOR THESE SITUATIONS, THE TRAFFIC CONTROL SHOWN ON FIGURES C-11 OR C-12 RESPECTIVELY OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES WILL BE USED.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

* = FLASHER

FLAG



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HERBICIDAL SPRAYING

PART 1	PART 2	PART 3	PART 4	PART 5	PART 6	PART 7			ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
82.2	59.5	36.3	61.2	99.8	87.0	8.6			691	10000	434.6	ACRE	SPECIAL - HERBICIDAL SPRAYING, WEED AND BRUSH CONTROL FROM ROAD
30.95	46.45	33.33	57.50	87.35	47.40	5.34			691	41900	308.32	LI MI	SPECIAL - HERBICIDAL SPRAYING, GUARDRAIL
13000	8700	13000	8700	8700	13000	2200			691	42500	67300	EACH	SPECIAL - HERBICIDAL SPRAYING, DELINEATORS, SIGNPOSTS, LIGHT POLES AND/OR THEIR FOUNDATIONS
									614	11000	LUMP		MAINTAINING TRAFFIC
									624	10000	LUMP		MOBILIZATION

