12800 Tuckahoe Creek Parkway • Richmond, VA 23238

July 13, 2016

Idaho Department of Environmental Quality
Attn : Fiscal Office – Air Quality Program
1410 N. Hilton
Boise, ID 83706

RECEIVED
JUL 18 2016
DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

Re: Automotive Coating General Permit
CarMax #6039
Boise, Idaho

Dear Sir or Madam:

Enclosed is the completed permit application for one paint booth and one CTOF to be installed at CarMax #6039 currently under construction in Boise, ID. CarMax have been in communication with Darrin Pampaian who indicated that IDEQ would be willing to exempt the water content of our paint products. The average water content for the Cromax Pro line of paints is 67%. Exempting the water would bring us under the 4 gallons/day threshold required for the general permit.

Feel free to contact me at 804-747-0422 x3192 or Sam_L_Cohen@carmax.com if you have any questions.

Sincerely,

Sam Cohen
EH&S Coordinator

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

General Information - **Form GI**
4/7/16

Please see instructions on second page before filling out the form.

FACILITY AND PERMIT INFORMATION

1. Facility Name:	2. Facility ID Number:
CarMax # 6039	
3. Brief Project Description:	Installation of
4. Facility Contact Name:	5. Facility Contact Title:
Johanna Griscik	Environmental Manager
6. Facility Contact Telephone Number:	7. Facility Contact Email:
804-747-0422 x 6115	Environmental@carmax.com
8. Mailing address where permit will be sent (street/city/state/zip code):	9. Physical address of facility (if different than mailing address) (street/city/state/zip code):
12800 Tuckahoe Creek Parkway RIchmond, VA 23238	4043 E. Elden Gray St. Meridian, ID 83642
10. County Facility is located	Ada
11. Is the equipment portable?	☒ No ☐ Yes
12. NAICS codes	Primary NAICS: 441110 / Secondary NAICS (if applicable):
13. Brief business description and principal product produced:	CarMax Auto Superstores is a used car dealer that reconditions used vehicles and sells them to the general public. Principal product is used vehicles
14. Describe any contiguous or adjacent facility this company owns or operates:	N/A
15. Permit Application Type. Provide Permit Number for existing permit. For a PTC, an application fee is required.	☒ Initial Permit to Construct (PTC) ☐ PTC Modification — PTC No. _____ Issued Date _____
	☐ Initial Tier II ☐ Tier II Modification ☐ Tier II Renewal — Tier II No. _____ Issued Date _____
	☐ Initial Tier I ☐ Tier I Administrative Amendment ☐ Tier I Minor Modification ☐ Tier I Significant Modification ☐ Tier I Renewal — Tier I No. _____ Issued Date _____
16. **For Tier I permitted facilities only:** If you are applying for a PTC then you must specify how the PTC will be incorporated into the Tier I permit.	☐ Incorporate PTC at the time of Tier I renewal (IDAPA 58.01.01.209.05.a) ☐ Co-process PTC with Tier I Modification (IDAPA 58.01.01.209.05.b) ☐ Administrative amend the Tier I to incorporate PTC upon applicant's request (IDAPA 58.01.01.209.05.c)
17. ☒ Check here to request facility draft permit before final issuance.	

:ertification of Truth, Accuracy, and Completeness (by Responsible Official)
hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or eferenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123 124.

Johanna Griscik
Responsible Official Signature

Environmental Manager
Responsible Official Title

7/13/16
Date

Johanna Griscik
Print or Type Responsible Official Name

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
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Air Permit Hotline – 1-877-5PERMIT

Emissions Units – Automotive Coating Information **Form EU6**
Revision 5
2/22/11

Complete this form for each paint booth. Please see instructions on page 2 before filling out the form.

IDENTIFICATION

1. Company Name	2. Facility Name:
CarMax Auto Superstores Inc.	CarMax # 6039

3. Brief Project Description: Installation of 2 Paint Booths

PAINT BOOTH INFORMATION

4. Booth Data:
☒ New Booth ☐ Unpermitted Existing Booth If an existing booth, when was it installed? _____
☐ Modification to a Permitted Booth, Permit #: _____ Date Permit Issued: _____
☐ Dry Filters? ☐ Dry Filters w/ a Wet Wall? ☐ Wet Wall only? ☐ Other, provide details: _____
Booth Airflow Type: ☒ Down draft ☐ Semi-Downdraft ☐ Side draft ☐ Other, provide details: _____

5. Booth Information: Manufacturer: Global Finishing Solutions Model: ULTPS-27 / SUP 211409 Date Manufactured: 6/2016

6. Planned Construction Date (if applicable): 7/30/2016

7. Is the booth equipped with a heater? No ☐ Go to the next section Yes ☒ If "yes", answer the following questions.
Heating method: ☐ Electricity, Go to the next section ☒ Combustion
Who is the manufacturer of the booth heater? Titan MMBtu/hr What is the model number of the booth heater? Select
What is the heat input rating of the booth heater? 1.386 MMBtu/hr What fuel is used in the booth heater (i.e., natural gas or LPG)? natural gas
Is the worst-case operation of the booth heater **greater than 2,080** hours per year? No ☒ Go to the next section Yes ☐
If "Yes", what is the worse-case annual operation of the burner? _____ hrs/yr

8. Are bed lining spray operations performed at this facility? No ☒ Go to the next section ☐ Yes, I am requesting an additional 4.0 gal/day limit for component "A" of a two stage "A + B" bed lining material.

SPRAY GUN DESCRIPTION AND SPECIFICATIONS

Gun No.	9. Manufacturer	10. Model	11. Type (e.g. HVLP, airless, conventional)	12. Gun Transfer Efficiency % per the manufacturer
1	See Attached	See Attached	See Attached	See Attached
2				
3				
4				

REQUEST FOR PERMIT LIMITATIONS

13. Are you requesting a daily coating materials use permit limit (e.g. gallons per day)?
☒ Yes, I am requesting a limit of 4.0 gal/day for all coating materials used at the facility. Note: In order to receive an Automotive Coating general permit a daily materials use limit of **4.0 gal/day** is required.
☐ No, Note: You will need to apply for a permit tailored to the situation at your facility, not an Automotive Coating general permit (see previous question).

EMISSIONS CONTROL DEVICE (FILTER) DESCRIPTION AND SPECIFICATIONS

Stack Served	14. Filter Manufacturer	15. Model	16. PM_{10} Control Efficiency(%)[a]
1	Global FInishing Solutions	GFS Wave	99.94
2			
3			
4			

Note: a. Provide the filter manufacturer's documentation to support the control efficiency specified above.

PAINT STRIPPING ACTIVITIES

17. Is Methylene Chloride (MeCl) (CAS #75-09-2) used for paint stripping activities at this facility?
☒ No, Note: In order to receive an Automotive Coating general permit **no MeCl** paint stripping activities can be performed at the facility.
☐ Yes, Note: In order to receive an Automotive Coating general permit no MeCl paint stripping activities can be performed at the facility (see previous question). You will need to apply for a permit tailored to the situation at your facility, not an Automotive Coating general permit.

Paint Gun Information

Make	Model	Tip Size (mm)	Flow Rate	Units
SataJet	HVLP 4000B	1.2	140-150	gal/min
		WSB	156-165	gal/min
		1.3	162-172	gal/min
		1.4	175-185	gal/min
Iwata	LPH 400	1.3	110	mL/min
		1.4	130	mL/min
DeVilbiss	DEVFLG-678	1.8	1.8-6.5	oz/min
		2.2	2.2-8.5	oz/min

CarMax # 6039 Estimated Annual Usage

Description	Category	Item Number	MSDS #	UOM	VOC AP (lb/gal)	Gallon weight (lb)	Weight Percent Solids	Solids content (lb/gal)	Calculations: Total Product (gal)	Calculations: Total VOC AP (lbs)
Waterborne - CroMax Pro - Basecoat Binder I	Basecoat	WB2010	26	.5 L	0.5	8.47	23.09	1.96	85.063	42.532
Waterborne - CroMax Pro - Basecoat Binder II	Basecoat	WB2020	26	.5 L	0.3	8.42	14.33	1.21	3.698	1.110
Waterborne - CroMax Pro - Basecoat Viscosity Binder	Basecoat	WB2030	26	.5 L	0.6	8.47	23.30	1.97	44.381	26.629
Waterborne - CroMax Pro - Basecoat Controller-Standard Edition	Basecoat	WB2040	26	.5 L	0.5	8.41	17.30	1.45	42.532	21.266
Waterborne - CroMax Pro - Controller Low Humidity	Basecoat	WB2045	SDS	.5 L	0.6	8.49	17.32	1.47	20.341	12.205
Waterborne - CroMax Pro - Blender	Basecoat	WB2091	SDS	.5 L	0.4	8.41	17.13	1.44	44.381	17.752
DuPont Thinner & Gun Cleaner, Low VOC, 5 Gallon	Cleaner	107C	3	5 gallon	0.2	6.60	0.00	0.00	530.000	106.000
Acetone from DuPont, prev. 441-61, LAR, CIP, Gallon	Cleaner	130	3	Gallon	0.0	6.61	0.00	0.00	97.000	0.000
Cromax Surface Cleaner	Cleaner	V-3921S	24	Gallon	0.2	8.01	0.01	0.00	44.000	8.800
ChromaClear - Blender/Premier, Gallon	Clearcoat	19301S	27	Gallon	6.8	7.32	6.01	0.44	1.000	6.800
LE1075S, Gallon, Productive Clear Reducer, Low VOC	Clearcoat	LE1075S	24	Gallon	0.1	11.11	0.50	0.06	4.000	0.400
LE1160S, Quart, Snap Dry Activator, 60-70F, Low VOC	Clearcoat	LE1160S	24	Quart	1.0	9.55	45.80	4.37	15.000	15.000
LE1175S, Quart, 70-80F Activator for LE5100S - CA ONLY	Clearcoat	LE1175S	24	Quart	0.9	10.02	40.08	4.02	70.250	63.225
LE1180S, Quart, Snap Dry Activator, 80-90F, Low VOC	Clearcoat	LE1180S	24	Quart	1.0	9.99	43.59	4.35	4.000	4.000
LE1185S, Quart, 80-90F Activator for LE5100S - CA ONLY	Clearcoat	LE1185S	24	Quart	0.9	10.01	40.13	4.02	60.500	54.450
LE1195S, Quart, 90-100F Activator for LE5100S - CA ONLY	Clearcoat	LE1195S	24	Quart	0.9	10.04	40.61	4.08	2.500	2.250
LE5100S, Gallon, Low VOC Multi-Panel Clear Coat - CA ONLY	Clearcoat	LE5100S	24	Gallon	1.3	8.41	42.54	3.58	369.000	479.700
LE5400S, Gallon, Snap Dry Clear, Low VOC	Clearcoat	LE5400S	24	Gallon	1.0	8.78	33.10	2.91	80.000	80.000
LE8300S, Gallon, Productive Clear, Low VOC	Clearcoat	LE8300S	24	Gallon	1.6	8.62	48.72	4.20	4.000	6.400
LE3004S 01, Gallon, Low VOC 2K Primer	Primer	LE3004S	24	Gallon	0.6	9.88	30.44	3.01	81.000	48.600
LE3040S, Gallon, Gray, Low VOC 2K Sealer	Primer	LE3040S	24	Gallon	0.7	11.77	53.98	6.35	1.000	0.700
LE3075S, Qt, Activator for LE Sealers & LE Primers, CA ONLY	Primer	LE3075S	24	Quart	0.6	9.67	23.63	2.29	25.000	15.000
Waterborne - CroMax Pro - White LS, 1 Liter	WB Color	WB02	26	Liter	0.5	8.92	21.84	1.95	2.113	1.057
Waterborne - CroMax Pro - Crystalline Frost, 0.5 Liter	WB Color	WB03	26	.5 L	0.8	9.67	25.13	2.43	0.660	0.528
WB05 - Waterborne, Jet Black, Liter [Replaces WB9900]	WB Color	WB05	26	Liter	0.0	8.54	16.14	1.38	1.849	0.000
Waterborne - CroMax Pro - Black HS, 1 Liter	WB Color	WB06	26	Liter	0.1	8.44	5.81	0.49	43.588	4.359
Waterborne - CroMax Pro - Black LS, 0.5 Liter	WB Color	WB07	26	.5 L	0.3	8.40	11.87	1.00	1.057	0.317
Waterborne - CroMax Pro - White Pearl, 0.5 Liter	WB Color	WB1001	26	.5 L	1.1	8.77	26.18	2.30	3.302	3.632
Waterborne - CroMax Pro - Sat White Pearl, 0.5 Liter	WB Color	WB1002	26	.5 L	1.2	8.81	27.25	2.40	0.660	0.793
Waterborne - CroMax Pro - Blue Pearl, 0.5 Liter	WB Color	WB1003	26	.5 L	1.2	8.80	26.58	2.34	3.830	4.597
Waterborne - CroMax Pro - Sat Blue Pearl, 0.5 Liter	WB Color	WB1004	26	.5 L	1.2	8.84	27.61	2.44	0.925	1.110
Waterborne - CroMax Pro - Lilac Pearl, 0.5 Liter	WB Color	WB1005	26	.5 L	1.1	8.79	25.75	2.26	1.189	1.308
Waterborne - CroMax Pro - Bluegreen Pearl, 0.5 Liter	WB Color	WB1006	26	.5 L	1.2	8.81	26.91	2.37	0.396	0.476
Waterborne - CroMax Pro - Green Pearl, 0.5 Liter	WB Color	WB1007	26	.5 L	1.2	8.83	27.40	2.42	0.396	0.476
Waterborne - CroMax Pro - Sat Green Pearl, 0.5 Liter	WB Color	WB1008	26	.5 L	1.2	8.86	28.21	2.50	0.132	0.159
Waterborne - CroMax Pro - Gold Pearl, 0.5 Liter	WB Color	WB1009	26	.5 L	1.2	8.82	27.83	2.45	2.245	2.695
Waterborne - CroMax Pro - Copper Pearl, 0.5 Liter	WB Color	WB1011	26	.5 L	1.2	8.83	27.61	2.44	0.660	0.793
Waterborne - CroMax Pro - Red Pearl, 0.5 Liter	WB Color	WB1012	26	.5 L	1.2	8.83	27.65	2.44	2.774	3.329
Waterborne - CroMax Pro - Sat Red Pearl, 0.5 Liter	WB Color	WB1013	26	.5 L	1.2	8.90	28.22	2.51	1.057	1.268
Waterborne - CroMax Pro - Rut Red Pearl, 0.5 Liter	WB Color	WB1014	26	.5 L	1.2	8.83	27.51	2.43	0.528	0.634
Waterborne - CroMax Pro - Crys Silver Efx, 0.5 Liter	WB Color	WB1020	26	.5 L	1.2	8.87	27.31	2.42	2.510	3.012
Waterborne - CroMax Pro - Galaxy Blue Efx, 0.5 Liter	WB Color	WB1021	26	.5 L	1.3	8.89	29.05	2.58	1.189	1.545
Waterborne - CroMax Pro - Stell Green Efx, 0.5 Liter	WB Color	WB1022	26	.5 L	1.2	8.88	27.99	2.49	0.000	0.000
Waterborne - CroMax Pro - Sunb Gold Efx, 0.5 Liter	WB Color	WB1023	26	.5 L	1.2	8.85	26.77	2.37	0.264	0.317
Waterborne - CroMax Pro - Radiant Red Efx, 0.5 Liter	WB Color	WB1024	26	.5 L	1.2	8.89	27.67	2.46	1.981	2.378
Waterborne - CroMax Pro - Fire Copper Efx, 0.5 Liter	WB Color	WB1025	26	.5 L	1.2	8.90	28.17	2.51	0.132	0.159
Waterborne - CroMax Pro - Super Fine Alum, 0.5 Liter	WB Color	WB1030	26	.5 L	0.8	8.52	14.15	1.21	1.453	1.162
Waterborne - CroMax Pro - Med Fine Alum, 1 Liter	WB Color	WB1031	26	Liter	1.6	8.50	20.16	1.71	2.113	3.381
Waterborne - CroMax Pro - Fine Bright Alu, 1 Liter	WB Color	WB1032	26	Liter	1.6	8.53	19.99	1.71	10.831	17.330
Waterborne - CroMax Pro - Fine Aluminum, 1 Liter	WB Color	WB1033	26	liter	1.6	8.59	19.35	1.66	0.528	0.845
Waterborne - CroMax Pro - Coarse Bright Alu, 1 Liter	WB Color	WB1035	26	Liter	1.4	8.55	22.24	1.90	18.228	25.519
Waterborne - CroMax Pro - Med Coarse Alu, 1 Liter	WB Color	WB1037	26	Liter	1.4	8.54	21.41	1.83	1.057	1.479
Waterborne - CroMax Pro - Coarse Aluminum, 1 Liter	WB Color	WB1039	26	Liter	1.3	8.61	21.70	1.87	3.963	5.151
Waterborne - CroMax Pro - Very Coarse Alu, 1 Liter	WB Color	WB1041	26	Liter	1.2	8.57	21.91	1.88	2.642	3.170
Waterborne - CroMax Pro - Mixing Color (effect)	WB Color	WB1050	26	Liter	0.1	8.73	17.05	1.49	10.303	1.030
Waterborne - CroMax Pro - Aluminum Gold, 0.5 Liter	WB Color	WB1078	26	.5 L	1.6	8.44	15.58	1.31	0.660	1.057
Waterborne - CroMax Pro - Alu Orange, 0.5 Liter	WB Color	WB1779	26	.5 L	1.6	8.45	18.45	1.56	0.660	1.057
Waterborne - CroMax Pro - Extra Fine Bright Aluminum	WB Color	WB1097	SDS	.5 L	1.7	8.62	19.75	1.70	0.793	1.347
Waterborne - CroMax Pro - Medium Fine Bright Aluminum	WB Color	WB1098	SDS	.5 L	1.7	8.49	19.74	1.68	2.510	4.266
Waterborne - CroMax Pro - Violet, 1 Liter	WB Color	WB20	26	Liter	0.3	8.52	11.28	0.96	1.321	0.396
Waterborne - CroMax Pro - Violet Blue, 0.5 Liter	WB Color	WB21	26	.5 Liter	0.2	8.77	19.96	1.75	0.660	0.132
Waterborne - CroMax Pro - Organic Blue, 0.5 Liter	WB Color	WB24	26	.5 Liter	0.3	8.91	22.80	2.03	0.264	0.079
Waterborne - CroMax Pro - Blue HS, 1 Liter	WB Color	WB25	26	Liter	0.2	8.66	13.26	1.15	0.528	0.106
Waterborne - CroMax Pro - Blue LS, 0.5 Liter	WB Color	WB26	26	.5 Liter	0.4	8.42	13.85	1.17	0.793	0.317
Waterborne - CroMax Pro - Green Shade Blue, 1 Liter	WB Color	WB27	26	Liter	0.5	8.73	16.96	1.48	2.378	1.189
Waterborne - CroMax Pro - Fast Blue, 1 Liter	WB Color	WB28	26	Liter	0.4	8.88	23.54	2.09	0.528	0.211
Waterborne - CroMax Pro - Blue Shade Green HS, 1 Liter	WB Color	WB30	26	Liter	0.2	8.88	17.28	1.53	0.264	0.053
Waterborne - CroMax Pro - Blue Shade Green, 0.5 Liter	WB Color	WB31	26	.5 Liter	0.4	8.43	13.44	1.13	0.132	0.053
Waterborne - CroMax Pro - Yellow Shade Green, 0.5 Liter	WB Color	WB32	26	.5 Liter	0.4	9.35	23.95	2.24	0.264	0.106
Waterborne - CroMax Pro - Green Shade Yellow Toner,0.5 Liter	WB Color	WB40	26	.5 Liter	0.2	8.61	14.05	1.21	0.264	0.053

Waterborne - CroMax Pro - Yellow	WB Color	WB42	SDS	.5 Liter	0.2	9.19	28.11	2.58	0.132	0.026
Waterborne - CroMax Pro - Transparent Yellow, 0.5 Liter	WB Color	WB45	26	.5 Liter	0.1	8.77	15.88	1.39	0.396	0.040
Waterborne - CroMax Pro - Orange Yellow, 0.5 Liter	WB Color	WB46	26	.5 Liter	0.5	9.18	29.15	2.68	0.132	0.066
Waterborne - CroMax Pro - Orange, 0.5 Liter	WB Color	WB53	26	.5 Liter	0.3	9.52	35.95	3.42	0.132	0.040
Waterborne - CroMax Pro - Bright Red, 0.5 Liter	WB Color	WB60	26	.5 Liter	0.5	9.58	39.59	3.79	0.660	0.330
Waterborne - CroMax Pro - Scarlet, 0.5 Liter	WB Color	WB61	26	.5 Liter	0.1	8.55	12.40	1.06	0.660	0.066
Waterborne - CroMax Pro - Blue Shade Red, 0.5 Liter	WB Color	WB62	26	.5 Liter	0.3	8.71	17.93	1.56	0.660	0.198
Waterborne - CroMax Pro - Maroon, 1 Liter	WB Color	WB63	26	Liter	0.2	8.71	14.09	1.23	2.642	0.528
Waterborne - CroMax Pro - Magenta HS, 1 Liter	WB Color	WB64	26	Liter	0.2	8.62	12.72	1.10	2.113	0.423
Waterborne - CroMax Pro - Magenta LS, 0.5 Liter	WB Color	WB65	26	.5 Liter	0.3	8.42	12.64	1.06	0.264	0.079
Waterborne - CroMax Pro - Red, 0.5 Liter	WB Color	WB67	26	.5 Liter	0.2	9.15	27.99	2.56	0.264	0.053
Waterborne - CroMax Pro - Dark Violet, 0.5 Liter	WB Color	WB68	26	.5 Liter	0.2	8.70	17.37	1.51	1.189	0.238
Waterborne - CroMax Pro - Yellow Oxide, 0.5 Liter	WB Color	WB82	26	.5 Liter	0.2	9.31	21.87	2.04	0.528	0.106
Waterborne - CroMax Pro - Red Oxide, 0.5 Liter	WB Color	WB84	26	.5 Liter	0.2	9.26	16.30	1.51	0.132	0.026
Waterborne - CroMax Pro - Transoxide Yellow, 0.5 Liter	WB Color	WB90	26	.5 Liter	0.6	8.99	18.31	1.65	0.793	0.476
Waterborne - CroMax Pro - Transoxide Red, 0.5 Liter	WB Color	WB91	26	.5 Liter	0.2	9.01	19.16	1.73	0.396	0.079
Waterborne - CroMax Pro - Transparent Brown, 0.5 Liter	WB Color	WB93	26	.5 Liter	0.2	8.83	21.46	1.89	0.264	0.053
Waterborne - CroMax Pro - White HS, 1 Liter	WB Color	WB01	26	Liter	0.6	13.73	58.47	8.03	11.359	6.816
Fish Eye Eliminator, Pint		V-459S	13.2	Pint	0.0	10.92	7.00	0.76	0.500	0.000
Waterborne - CroMax Pro TU Binder, 3.5L, HT800, WBTU	Touchup	HT800	26	3.5L	0.7	8.68	44.00	3.82	11.095	7.767
Waterborne - CroMax Pro TU Activator, 0.5L, WB2075, WBTU	Touchup	WB2075	26	.5 Liter	2.7	9.12	70.00	6.38	3.830	10.342
									1803.368	1144.996

PAINT ARRESTANCE FILTER TEST REPORT

Spray Removal Efficiency & Paint Holding Capacity

BASED ON 40 CFR PART 63 NATIONAL EMMISSION STANDARD

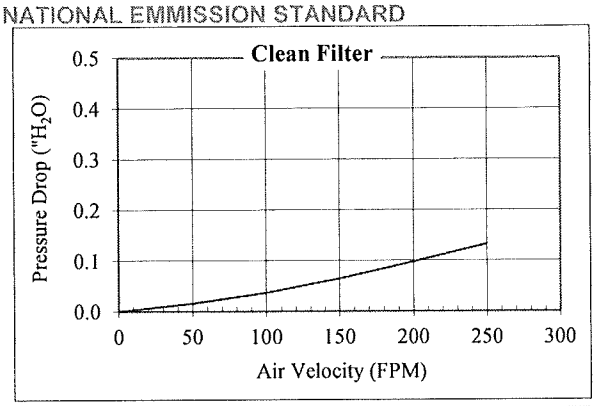
Tested for: **Global Finishing Solutions**

Filter Mfr.: **Global Finishing Solutions**

Filter Name: **PA 5 Cardline 1.5 oz (Bottom)**

Report#./Test# **R 709 T 809**

Report Date: **February 5, 2015**



Test Information

FILTER DESCRIPTION: (20"x20")

3/4" poly. Waves front on 1 1/4" poly. Backing , white

PAINT DESCRIPTION:

High-Solids Permaclad (Sherwin Williams Permaclad 2400

PAINT SPRAY METHOD:

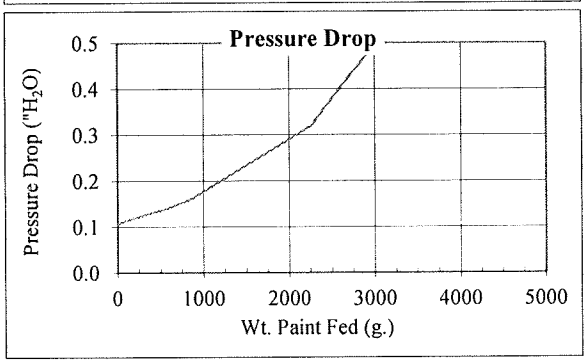
Conventional Air Gun at 40 PSI

SPRAY FEED RATE:

141 gr./min. **135** cc./min.

AIR VELOCITY:

150 FPM



Test Results

INITIAL PRESSURE DROP of Clean Test Filter

0.11 in. water

FINAL PRESSURE DROP of Loaded Test Filter

0.50 in. water

WEIGHT GAON on TEST FILTER & TEST FRAME TROUGH

2012 grams

PAINT HOLDING CAPACITY of TEST FILTER

1881 grams = **4.1** lbs.

PAINT RUN-OFF

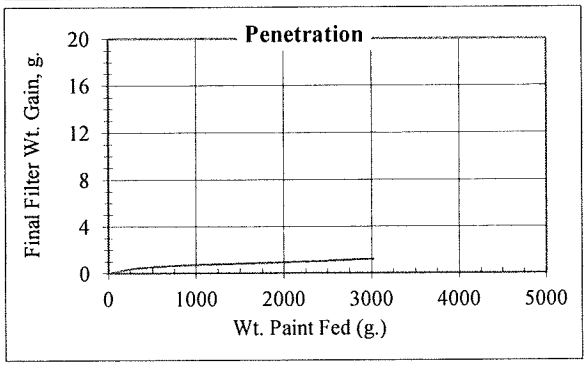
131 grams

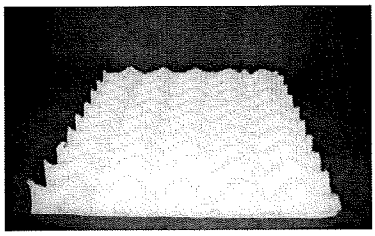
WEIGHT GAIN on FINAL FILTER

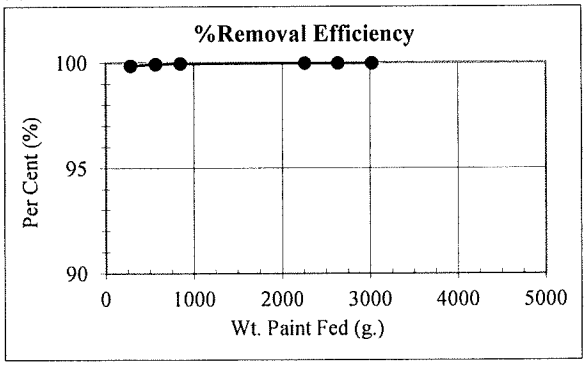
1.2 grams = **PENETRATION**

AVERAGE REMOVAL EFFICIENCY of TEST FILTER

99.94 %







Test Engineer: Jose Tizcareno

Supervising Engineer: K. C. Kwok, Ph.D.

LMS Technologies, Inc.

6423 Cecilia Circle

Bloomington, MN 55439

Tel.: (952) 918-9060

Fax: (952) 918-9061

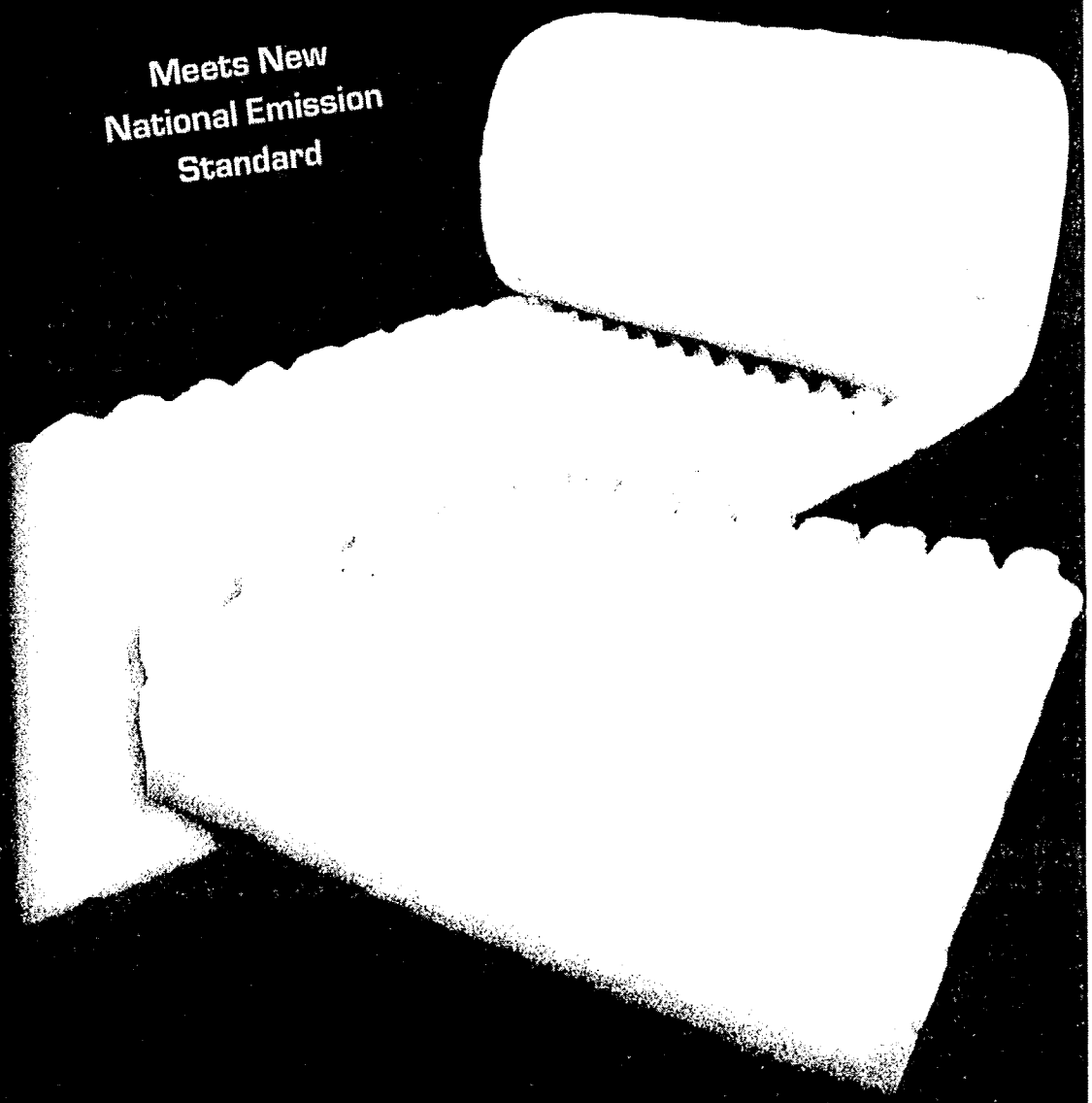
GLOBAL FINISHING SOLUTIONS

GFS®

GFS Wave™

FILTER MAT

Meets New National Emission Standard



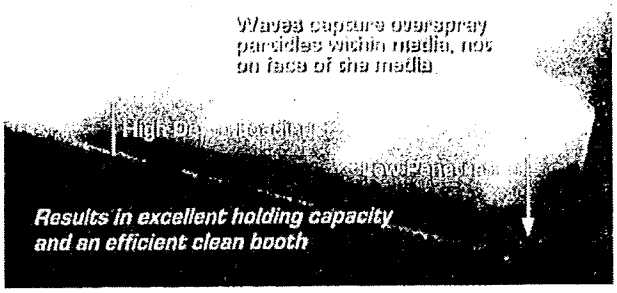
- Exceptional Paint Holding Capabilities
- Designed to Depth Load
- Longer Filter Service Life
- Minimize Particulate Emissions
- Available in Rolls and Pads

www.globalfinishing.com

GFS Wave™ Filter Media

media (patent pending) is the most versatile single-stage filtration media made for paint spray booths. Lab testing indicates 99.83% particulate removal efficiency and field testing boasts excellent performance and reliability!

media has a convoluted surface designed to create a maximum surface area of filtration with exceptional depth loading ability. This filtration media not only removes overspray from the spray booth's exhaust air flow, the "Waves" capture and retain overspray within the media, reducing run-off. Reduced run-off means less booth floor clean-up and quicker, more efficient filter changes.



Average Performance Data

Characteristics	GFS Wave Media
Removal Efficiency	99.83%
Holding Capacity	4.4 lbs
Run Off	186 grams
Penetration	4 grams
Pressure Drop (initial/final)	0.12"/0.50" W.C.
Flammability Rating	UL Class II*

* United States and Canada Certified

Complete test reports available upon request

Test Conditions

Filter Size: 20" x 20" Wave pad
Paint Tested: High-Solids Baking Enamel
Spray Rate: 136 gr./min.
Air Velocity: 150 FPM
Test Lab: LMS Technologies
Test: **Based on 40 CFR Part 63 Subpart HHHHHH consistent with ASHRAE 52.1**

Improve Your Profitability

A properly installed, operated and maintained paint spray booth can improve your bottom line profitability. Reduce your operating cost, while improving your performance.

Call [illegible] and let your GFS representative show you how!

- Excellent paint removal efficiency to minimize particulate emissions.
- Accommodates all paints and a wide array of spray applications from clear coats to high solids and beyond.
- Clean exhaust air stream. Exhaust chamber, ductwork and fan are protected from a wide range of coating materials (low penetration).
- Material complies with the requirements of UL 900, NFPA-33, OSHA, and New York rule.
- Standard and custom cut sizes are available:

Standard Pads:	Standard Rolls:	
20" x 20"	80" x 20'	45" x 30'
20" x 25"	30" x 24'	48" x 30'
	20" x 30'	54" x 30'
	24" x 30'	60" x 30'
	36" x 30'	30" x 50'
	40" x 30'	

Global Finishing Solutions • 800-848-8738 • info@globalfinishing.com

WWW.GLOBALFINISHING.COM

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GAS TRAIN

FUEL TYPE	ENERGY PRODUCTION (BTUH)	Maximum GAS REQUIRED (CFH)	GAS PRESSURE (inWC)	TEMP. RISE (°F)	INLET PIPE SIZE
NATURAL GAS	1,386,000	1,386	7 - 14	100	1" NPT

Gas supply required (by others) to gas connection point G . Minimum gas pressure is required at maximum volume consumed.

FANS & MOTORS

	FULL LOAD AMP DRAW				
	230 V 1 ph, 60 Hz	208 V 3 ph, 60 Hz	230 V 3 ph, 60 Hz	480 V 3 ph, 60 Hz	575 V 3 ph, 60 Hz
INTAKE MOTOR - 10 hp	38.0	30.8	28.0	14.0	11.0
EXHAUST MOTOR - 7.5 hp	30.0	24.2	22.0	11.0	9.0
MINIMUM CIRCUIT CAPACITY	89.0	73.0	67.0	34.0	28.0

Intake uses 10 hp TEFC motor with direct drive, centrifugal fan and produces 12,600 cfm. Exhaust uses 7.5 hp motor with belt-driven tube axial fan. Minimum circuit capacity is required (by others) to connection point E . Motors UL recognized PRGYZ.

LIGHTING

Each sbx tube light fixture requires 1.42 FLA at 120 V and 0.62 FLA at 277 V.
(8 lights at 120 V = 11.4 FLA. 8 lights at 277 V = 5.0 FLA.)

A 40 Amp 120 V or 277 V circuit is required (by others) to connection point L .

GLOBAL FINISHING SOLUTIONS L.L.C. offers a complete line of automotive spray equipment that conform to the requirements of:

* NFPA-33 Standard for spray application using flammable or combustible materials
* NFPA-86 Standard for ovens and furnaces
* NFPA-91 Standard for exhaust systems for air conveying of materials
* NFPA-101 Life Safety Code
* NFPA-70 National Electric Code
* OSHA Safety and Health Standards (29CFR 1910, 1910.107)
* 2012 IBC International Building Code
* 2012 IFC International Fire Code Chapter 24

This booth has been approved by:
*ETL Equipment Testing Laboratory reports
101579520CRT-001 Ultra CTOF booth
J99018189-002 Direct Fired Industrial Air Heater

C ETL US
Intertek
3088468

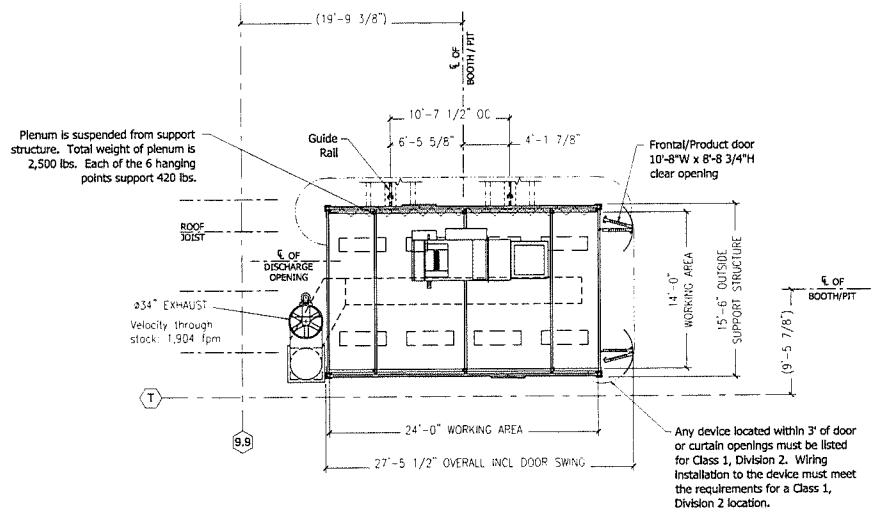
Conformance to all these requirements is dependent upon the manner in which the equipment is installed. The contractor will make certain that all of the electrical wiring and conduit, piping, gas supply, roof penetrations, automatic fire protection systems, and the location of the equipment within the building also conforms to the cited codes and other references.

All light fixtures are ETL approved for hazardous locations. Light fixtures are accessible from the interior of the booth and conform to the provisions of NFPA 33. Glass used in the booth meets and exceeds ANSI Z-97.1 standard. Electrical components, such as motors, motor starters, disconnect switches and push buttons, are listed or approved for the Class and Division in which they are located.

Fire suppression system is NOT included with the standard booth but is required by NFPA-33.

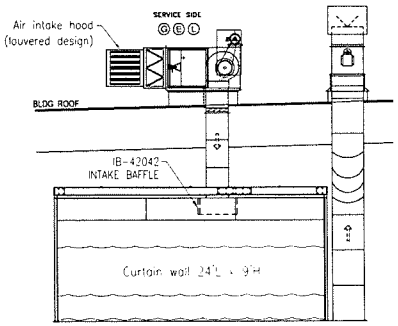
Note:
Booth is fabricated from 20 gage white precoat sheet steel. Ductwork is fabricated from 18 gage galvanized steel.

Ø34" EXHAUST STACK includes:
(1) SLP-40040-34 [PIT PLATE]
(6) DU-PLP-34-3 [STRAIGHT DUCT]
(1) DU-PLP-34-3-CO [STRAIGHT DUCT w/ CLEAN-OUT DOOR]
(1) FAN w/ 7.5 hp MOTOR
(1) XH-RFA-4545-34 [ROOF FLANGE w/ UMBRELLA]
(1) DU-ARV-34 [ROOF VENTILATOR]
(4) ELB34225 [22.5° OFFSET ELBOW]
(1) FAN STAND
(1) MOTOR COVER

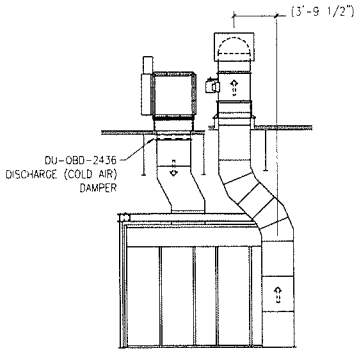


PLAN VIEW

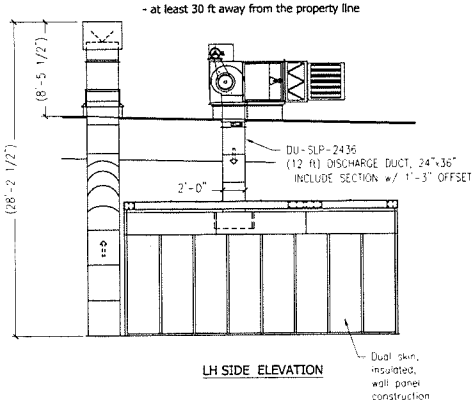
NOTE:
Air exhaust point must be:
- at least 6 ft from any exterior wall or roof
- at least 10 ft away from the intake
- not lower than the air intake
- at least 30 ft away from the property line



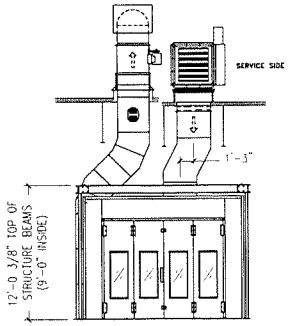
RH SIDE ELEVATION



REAR ELEVATION



LH SIDE ELEVATION



FRONT ELEVATION

GFS®

100% DISTRIBUTION

RELEASED FOR CONSTRUCTION

APPROVAL

CARMAX # M2/A- DA15-042

REVISIONS

REV. NO	DATE	DESCRIPTION	BY
	04/09/15	90% COORDINATION	
	04/16/15	99% DISTRIBUTION	
	07/07/15	100% DISTRIBUTION / PERMIT	

CARmax
THE AUTO SUPERSTORE

STORE NUMBER 6039
4043 E. ELDEN GRAY ST
MERIDIAN, ID 83642

PROJECT NO. 20-10056.02

DATE 07 JUL 2015

SHEET TITLE
GENERAL ARRANGEMENT - CTOF BOOTH

SHEET NO. Q2.3

MOTORS

Description	FULL LOAD AMP DRAW [60 Hz] 1 Ph 230 V	3 Ph 208 V	3 Ph 230 V	3 Ph 480 V	3 Ph 575 V
Intake Motor 10 Hp	38.0	30.8	28.0	14.0	11.0
Exhaust Motor 7.5 Hp	30.0	24.2	22.0	11.0	9.0
Min. circuit capacity	89.0	73.0	67.0	34.0	28.0

Minimum circuit capacity is required (by others) to connection point E.

LIGHTS

Each six tube light fixture requires 1.42 FLA (Full Load Amps) at 120 V and 0.62 FLA at 277 V.
(15 lights at 120 V = 21.3 FLA. 15 lights at 277 V = 9.3 FLA.)

A 40 Amp 120 V or 277 V circuit is required (by others) to connection point L.

FILTERS

Intake Filter, pocket style :	95% average arrestance
Plenum Filter :	99.9% efficient at removing particles 10 microns and larger
Exhaust Filter, GFS WAVE® roll media:	99.67% average arrestance

All GLOBAL FINISHING SOLUTIONS filters meet class II of the UL-900 classification.

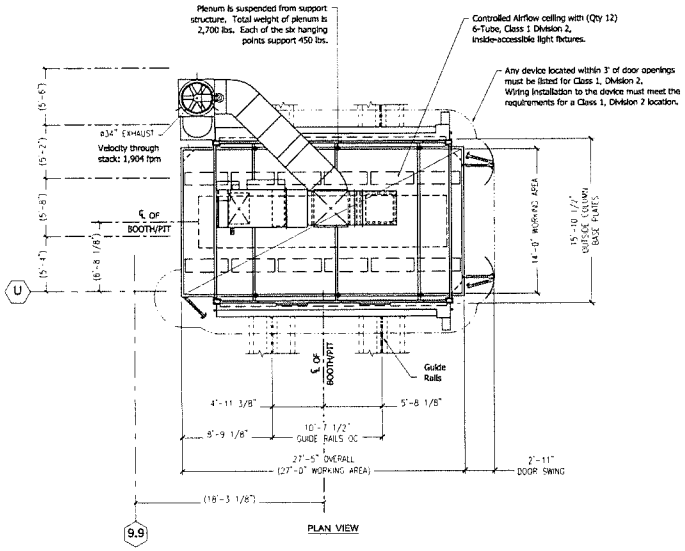
GAS TRAIN

Direct-fired Burner:	1,386,000 BTU/Hr
Maximum Natural Gas Req'd:	1,386 CFH
Maximum Propane Req'd:	590 CFH
Temperature Rise:	90° F
Gas Pressure (Natural):	7" in. WC
Gas Pressure (Propane):	14 in. WC
Gas Train Inlet Pipe Size:	1" NPT

Gas supply required (by others) to gas connection point G.
Minimum gas pressure is required at maximum volume consumed.

OHD

One LH & one RH Operator/Motors.
Requirements per door: 480 V, 3 ph, 5 FLA



PLAN VIEW

ø34" EXHAUST stack includes:
(1) SLP-PP-40040-34 [Pit plate]
(6) DU-PLP-34-3 [Straight duct]
(1) DU-PLP-34-3-CO [Straight duct w/ clean-out door]
(1) JJ-434 [Fan stand]
(1) Tube-axial Fan w/ 7.5 hp Motor
(1) XH-9072 [Motor cover]
(1) XH-RFA-4545-34 [Roof flange w/ umbrella]
(1) DU-ARV-34 [Roof ventilator]
(4) ELB34225 [ø34" Elbow, 22.5° offset]
(2) 409-134 [Connector ring]
(1) DU-GWK-34 [Guy wire kit]

ø34" INTAKE stack includes:
(1) DU-RCB [Recirculation box]
(17 ft) DU-SLP-2440 [Recirculation duct, 24"x40"]
(1) DU-SLE-90-2440 [90° Elbow for 24"x40" Duct]
(2) DU-SLE-45-4024 [45° Elbow for 24"x40" Duct]
(1) DU-SLT [Transition, 24"x40" to 40"x40"]
(4) DU-SLP-4040 [Recirculation duct, 40"x40"]

24"x36" DISCHARGE duct run includes:
(1) DU-OBD-2436 [Discharge (cold air) damper]
(12 ft) DU-SLP-2436 [Discharge duct, 24"x36". Include section w/ 15° offset]
(1) IB-42042 [Intake baffle assembly]

GLOBAL FINISHING SOLUTIONS L.L.C. offers a complete line of automotive spray equipment that conform to the requirements of:

* NFPA-33 Standard for spray application using flammable or combustible materials
* NFPA-86 Standard for ovens and furnaces
* NFPA-91 Standard for exhaust systems for air conveying of materials
* NFPA-101 Life Safety Code
* NFPA-70 National Electric Code
* OSHA Safety and Health Standards (29CFR 1910, 1910.107)
* 2012 IBC International Building Code
* 2012 IFC International Fire Code Chapter 24

This spray booth has been approved by ETL (Equipment Testing Laboratory)
Refer to the following reports:

101579500CRT-001 Ultra Spraybooth
3080616-H01 Light fixtures
J990181B9-002 Air heater

Intertek 3088468

Conformance to all these requirements is dependent upon the manner in which the equipment is installed. The contractor will make certain that all of the electrical wiring and conduit, piping, gas supply, roof penetrations, automatic fire protection systems, and the location of the equipment within the building also conforms to the cited codes and other references.

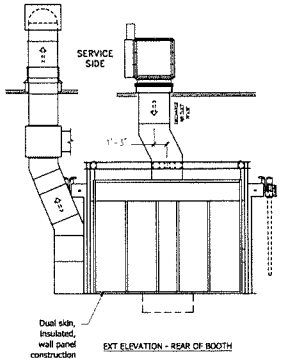
All light fixtures are ETL approved for hazardous locations. Light fixtures are accessible from the interior of the booth and conform to the provisions of NFPA 33. Glass used in the booth meets and exceeds ANSI Z-97.1 standard. Electrical components, such as motors, motor starters, disconnect switches and push buttons, are listed or approved for the Class and Division in which they are located.

Fire suppression system is NOT included with the standard booth but is required by NFPA-33.

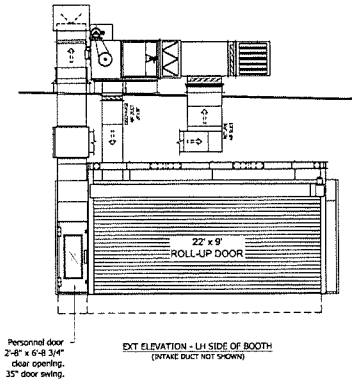
Note:
1. Booth is fabricated from 20 gage white precoat sheet steel.
2. Ductwork is fabricated from 18 gage galvanized steel.

GFS®

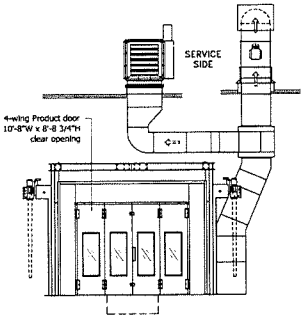
100% DISTRIBUTION



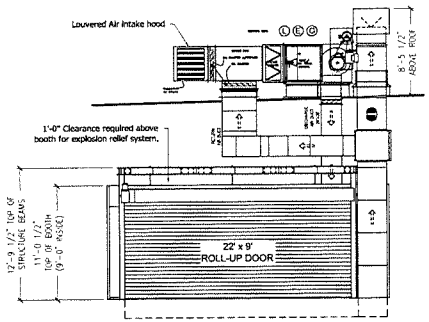
EXT ELEVATION - REAR OF BOOTH



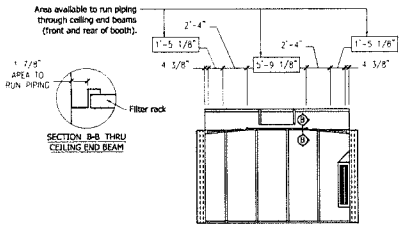
EXT ELEVATION - LH SIDE OF BOOTH
(INTAKE DUCT NOT SHOWN)



EXT ELEVATION - FRONT OF BOOTH

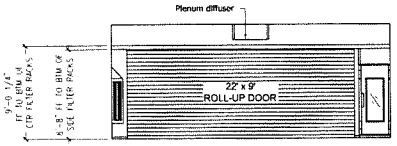


EXT ELEVATION -RH SIDE OF BOOTH
(INTAKE/EXHAUST DUCT NOT SHOWN)

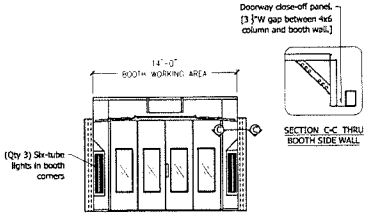


SECTION B-B THRU CEILING END BEAM

INT ELEVATION - REAR OF BOOTH

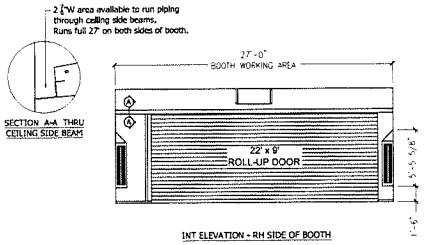


INT ELEVATION - LH SIDE OF BOOTH



INT ELEVATION - FRONT OF BOOTH

SECTION C-C THRU BOOTH SIDE WALL



SECTION A-A THRU CEILING SIDE BEAM

INT ELEVATION - RH SIDE OF BOOTH

RELEASED FOR CONSTRUCTION

APPROVAL

CARMAX VP: M2/A- DA15-042

REVISIONS

REV. #	DATE	DESCRIPTION	BY
	06/09/15	90% COORDINATION	
	06/18/15	99% DISTRIBUTION	
	07/07/15	100% DISTRIBUTION / PERMIT	

CARMAX
THE AUTO SUPERSTORE

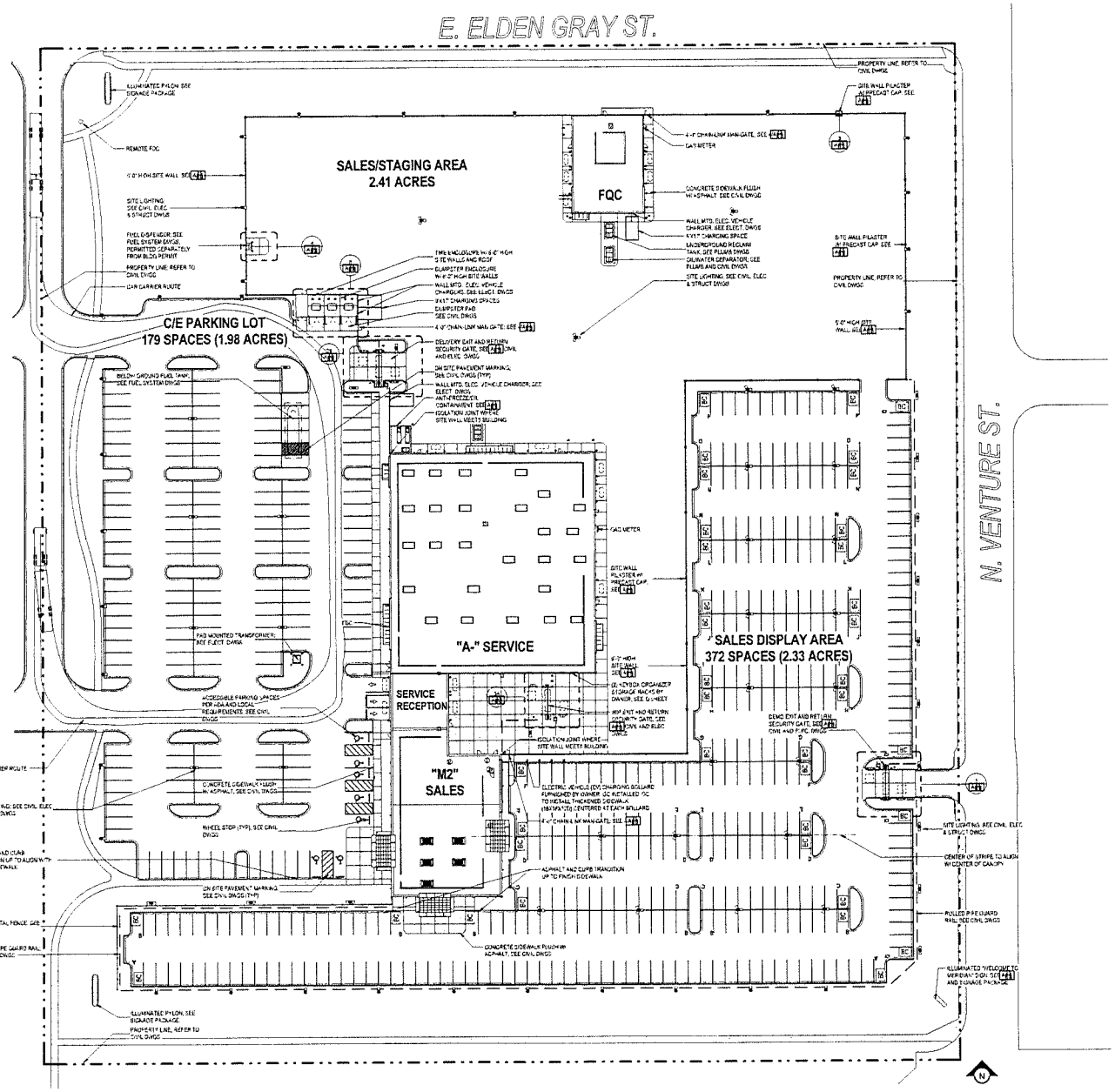
STORE NUMBER 6039
4043 E. ELDEN GRAY ST
MERIDIAN, ID 83642

PROJECT NO. 20-10056.02

DATE 07 JUL 2015

SHEET TITLE
GENERAL ARRANGEMENT - ULTRA BOOTH

SHEET NO. Q2.0



29 SITE PLAN
A1.0 1" = 30'-0"

GENERAL NOTES

1. ARCHITECTURAL SITE PLAN FOR REFERENCE ONLY - SEE CIVIL DRAWINGS FOR DIMENSIONS AND DETAILS
2. REFER TO CIVIL PLANS FOR EXTENTS OF HEAVY DUTY PAVING
3. LETTERS SHALL BE LOCATED AT SALES PARKING STALLS AT EACH END OF A ROW AND AT EACH SIDE OF AN ISLAND
4. BAR CODES SHALL BE LOCATED AT SALES PARKING STALLS AT EACH END OF A ROW

EV	ELECTRIC VEHICLE CHARGING BOLLARD
BC	BAR CODES
	ROLLED PIPE GUARD RAIL
	ORNAMENTAL FENCE
	CONCRETE PAVING
	HEAVY DUTY PAVING

JOHNNY C HEMBREE ARCHITECT

PIEPER O'BRIEN HERR ARCHITECTS

RELEASED FOR CONSTRUCTION

APPROVAL

CARMAX PE M2/A- D#15-045

REVISIONS

REV#	DATE	DESCRIPTION	BY
	07/09/2015	100% DIST/PERMIT	

CARmax THE AUTO SUPERSTORE

STORE NUMBER 6039
4043 E. ELDEN GRAY ST
MERIDIAN, ID 83642

PROJECT NO. 20-10056.02

DATE 07 JUL 2015

SHEET TITLE

ARCHITECTURAL SITE PLAN

SHEET NO. A1.0

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