

Document Summary

Detail Type	Detail
Contract	1-21-81-05B
Commodity	Bags, Plastic Trash
Attachment (Exhibit)	2
Addendum	N/A
Group-Class	81-05
Bid Specification	8105-5584
Revision Level	N/A
Revision Date	August 02, 2021
Agency Name	Statewide and Department of Transportation (Caltrans)

Revision History

Bid Specification	Revision Level	Revision Date	Author	Summary of Changes
8105-5584	N/A	Aug 02, 2021	So, R	New release

Table of Contents

Document Summary1
Revision History1
Table of Contents2
1. SCOPE3
2. APPLICABLE SPECIFICATIONS AND STANDARDS.....3
3. REQUIREMENTS3
3.1 Material3
3.2 Workmanship3
3.3 Performance4
3.4 Post-Consumer Recycled Content.....5
3.5 Environmentally preferably Purchasing (EPP) Requirements5
3.6 Markings – Type III Caltrans bags only5
4. QUALITY ASSURANCE6
4.1 PERFORMANCE COMPLIANCE-CERTIFICATION6
5. DRAWINGS OF TYPE III Caltrans BAGS (Not to Scale)6
Exhibit A: 33” x 40” Don’t Trash CA bag without handles7
Exhibit B: 33” x 48” Don’t Trash CA bag with handles8
Exhibit C: 33” x 40” Adopt-A-Highway (AAH) bag without handles.....9
Exhibit D: 33” x 48” Adopt-A-Highway (AAH) bag with handles..... 10
Exhibit E: 33” x 40” Clean California (CC) bag without handles..... 11
Exhibit F: 33” x 48” Clean California (CC) bag with handles..... 12

1. SCOPE

This specification document sets forth the minimum requirements for statewide contract of plastic trash bags intended for general use, as can liner inserts in waste receptacles for office/building/hospital trash, cafeteria waste, roadside and highway rest-stop trash, park debris and waste.

2. APPLICABLE SPECIFICATIONS AND STANDARDS

Specifications, standards and regulations referenced in this document in effect on the opening of the invitation for bid (IFB), form a part of this specification.

- 2.1 Federal Standard L-P-378D, Plastic Sheet and Strip, Thin Gauge, Polyolefin
- 2.2 NIST Handbook 130 Uniform Laws and Regulations, 2013
- 2.3 ASTM-D1709 Impact Resistance of Polyethylene Film By The Free-Falling Dart Method
- 2.4 ASTM D792 Standard Test Methods for Density and Specific Gravity of Plastics by Displacement
- 2.5 ANSI/ASQC Z1.4, Sampling Procedures & Tables for Inspection by Attributes
- 2.6 Public Resources Code Sections 42290 – 42297 and Title 14, Section 17975 – 17985 of the California Code of Regulations (collectively referred to as the “Recycled Content Plastic Trash Bag Law”)

3. REQUIREMENTS

3.1 Material

- 3.1.1 Type I bag shall be made from low or linear low density Polyethylene (LDPE or LLDPE) characterized with density 0.92 gram/cc per Test Method ASTM D792.
- 3.1.2 Type II bag shall be made from high density Polyethylene (HDPE) with density at least 0.94 gram/cc.
- 3.1.3 Type III bag for Department of Transportation (Caltrans) shall be made from polyethylene or ethylene copolymer.

3.2 Workmanship

- 3.2.1 Bags or liners shall be constructed uniformly in color, texture and finish, free from sharp creases, wrinkles, pinholes, tears, cuts and other defects that will impair their serviceability.
- 3.2.2 The seam shall be uniform, straight, continuous and free from gaps and creases.
- 3.2.3 Perforation at open end shall be clean so that liner can be readily opened by hand without crimping or sticking.
- 3.2.4 Type I and Type II bags shall be one of the three (3) kinds: two-sided gusset type, star sealed or flat sealed. The configurations are specified by capacity, size, thickness, color, line item descriptions and maximum weight rating in the tables of Attachment 2A.
- 3.2.5 Type III (Caltrans) bags shall meet the following criteria:

- 3.2.5.1 The bags shall be opaque in four (4) color types – white, orange, safety yellow or blue as specified by the line item description in Table III of Attachment 2A.
- 3.2.5.2 The color shall be stable after two weeks exposure to ambient outdoor conditions.
- 3.2.5.3 “Don’t Trash California” bags shall be in OSHA orange or safety yellow,
 - “OSHA” or “Omaha Orange” matching in Pantone Matching System (PMS) 021, or 165, RGB color codes (246, 132, 40),
 - “Safety Yellow” matching in Pantone 13-0630 TN or RGB color codes (237, 255, 0).
- 3.2.5.4 “Clean California” bags shall be in blue matching in Pantone (PMS) color code between 2144C and 2145C.
- 3.2.5.5 Width shall be 33” with tolerance of -0.5” to +1.0”.
- 3.2.5.6 Bag without handles shall have length 40” with tolerance of -0.25” to +2.0”, flat bottomed.
- 3.2.5.7 Bag with handles shall have length 48” with tolerance -0.25” to +2.0”, star bottomed.
- 3.2.5.8 Handles shall be 3” wide, 10” long with tolerance of ± 0.25 ”
- 3.2.5.9 Material thickness shall be ≥ 3.0 mils and ≤ 4.0 mils with tolerance of ± 0.1 mil.
- 3.2.5.10 Side gusset shall be ≤ 16.5 ”, tolerance ± 0.25 ”.
- 3.2.5.11 Sealing shall be achieved of no more than eight (8) thickness for one-piece star bottomed bags.
- 3.2.5.12 All sealed seams shall be as strong as the bag material passing the Load Performance tests in Section 3.3.1.

3.3 Performance

Bags or liners shall be constructed in a manner that will not allow odors or contents to escape when properly closed. All bags shall perform as required throughout the temperature range of 0°F to 115°F (-17.8°C to 46.1°C) minimum. All Type III Caltrans bags shall be able to pass the Load Performance tests and Dart Impact Test.

3.3.1 Load Performance Tests

One bag shall be used for one test only, it should not be used for both tests. Any loss of contents during the two-minute suspension shall be considered a failure.

❖ Procedures

(i) The bag shall be filled with the contents as indicated below; (ii) The opening end shall be closed and secured with a suitable holding device; (iii) The bag shall be lifted upwards a minimum of six feet and suspended for a minimum of two (2) minutes.

- Dry Weight Test-

The dry contents for the dry weight test shall be wooden blocks or similar for bulk and lead weights for mass. Test weights shall be within $\pm 5\%$. The wooden blocks shall be randomly cut lengths (ranging from 4" to 12") of light framing 2"x4" utility grade or better grade lumber surfaced 4 sides. The blocks shall not be sanded smooth on any surface or edge.

o Wet Weight Test-

The contents for the wet weight test shall be tap water at a temperature of $68^{\circ}\text{F} \pm 5^{\circ}\text{F}$ ($20^{\circ}\text{C} \pm 2.8^{\circ}\text{C}$). Test weights shall be within $\pm 5\%$ of the measured values.

3.3.2 Dart Impact Test

There shall be no (zero) penetrations when performing dart impact testing at minimum gram dart weights with twenty (20) drops. Four (4) bags shall be tested with five (5) drops on each bag. Test apparatus setup shall be as described in ASTM D 1709 Method A, Impact Resistance of Polyethylene Film by the Free Falling Dart Method.

3.4 Post-Consumer Recycled Content

All manufacturers shall comply with "Recycled Content Plastic Trash Bag Law." All bags shall contain a minimum 10% recycled plastic post consumer material (RPPCM) or 30% postconsumer recycled plastic by weight of the material used in all of the manufacturer's plastic products.

3.5 Environmentally preferably Purchasing (EPP) Requirements

3.5.1 MANUFACTURER'S ANNUAL RECYCLED CONTENT COMPLIANCE CERTIFICATION

Manufacturers selling regulated trash bags in California of 0.70 mil or greater thickness must comply with CA Public Resources Code (PRC) Sections 42290 through 42297, which stipulates that they must meet either one of the following:

3.5.1.1 Plastic trash bags contain a minimum of 10% post-consumer recycled plastic of the weight of the regulated bags, or

3.5.1.2 At least 30% of the weight of material used in all the manufacturer's plastic products intended for sale in California is post-consumer recycled plastic.

Manufacturers must be listed on the California Department of Resources Recycling and Recovery (CalRecycle), by the bid due date

[Summary of Compliance with Plastic Trash Bag Certification Requirements](#)

3.6 Markings – Type III Caltrans bags only

- Individual bag shall bear the logo on one side only.
- Logos shall be placed at locations as indicated in the exhibits.
- The placement tolerance shall be ± 0.25 " from the edge of bags.
- "Don't Trash California" logos shall be printed in black on orange or safety yellow bags as shown in Exhibit A and B.

-
- “Adopt-A-Highway” and Caltrans with registered trademark ® logos shall be printed in black ink on white bags as shown in Exhibit C and D.
 - “Clean California” logo shall be printed in black on blue bags as shown in Exhibit E and F.

4. QUALITY ASSURANCE

4.1 PERFORMANCE COMPLIANCE-CERTIFICATION

The contractor shall provide as deemed necessary, a third-party certification from an independent accredited laboratory adequate to verify that all bags meet the standards for size, thickness and load ratings specified in this bid.

- 4.1.1 Thickness shall be determined in accordance with Federal Standard L-P-378D, Plastic Sheet and Strip, Thin Gauge, Polyolefin. Compliance of thickness shall be justified and required by listing the net case weight of the bags delivered in shipping document.
- 4.1.2 The net weight shall be determined according to the method given in NIST Handbook 130 Uniforms and Regulations, Chapter IV Sub-Chapter B Uniform Regulation for the Method of Sale of Commodities, Section 2.13 Polyethylene Products.
- 4.1.3 Load ratings shall be determined by Dry Weight and Wet Weight Tests described in Load Performance Tests In Performance Section above.

5. DRAWINGS OF TYPE III Caltrans BAGS (Not to Scale)

Exhibit A: 33" x 40" Don't Trash CA bag without handles



Exhibit B: 33" x 48" Don't Trash CA bag with handles

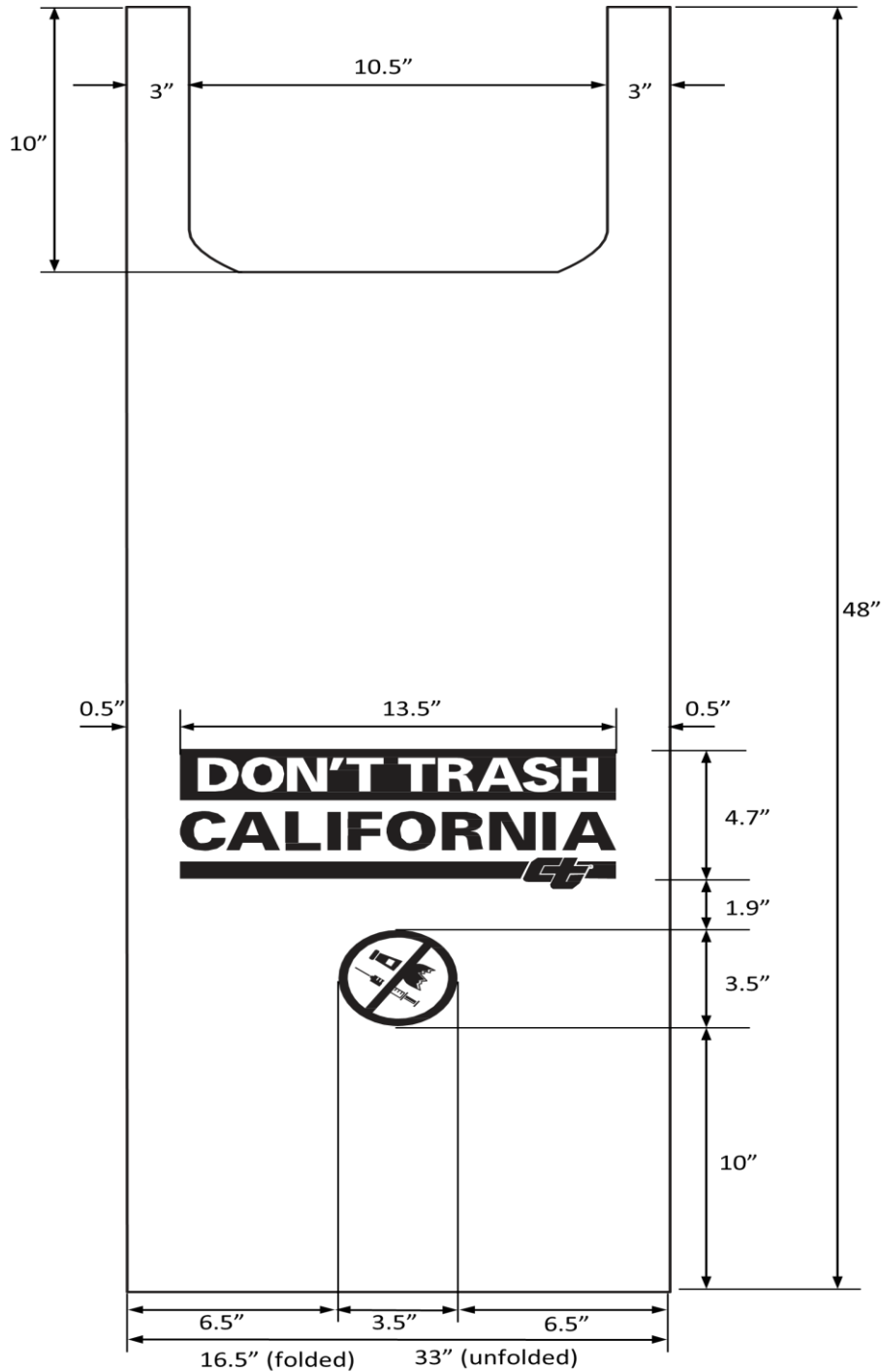


Exhibit C: 33" x 40" Adopt-A-Highway (AAH) bag without handles

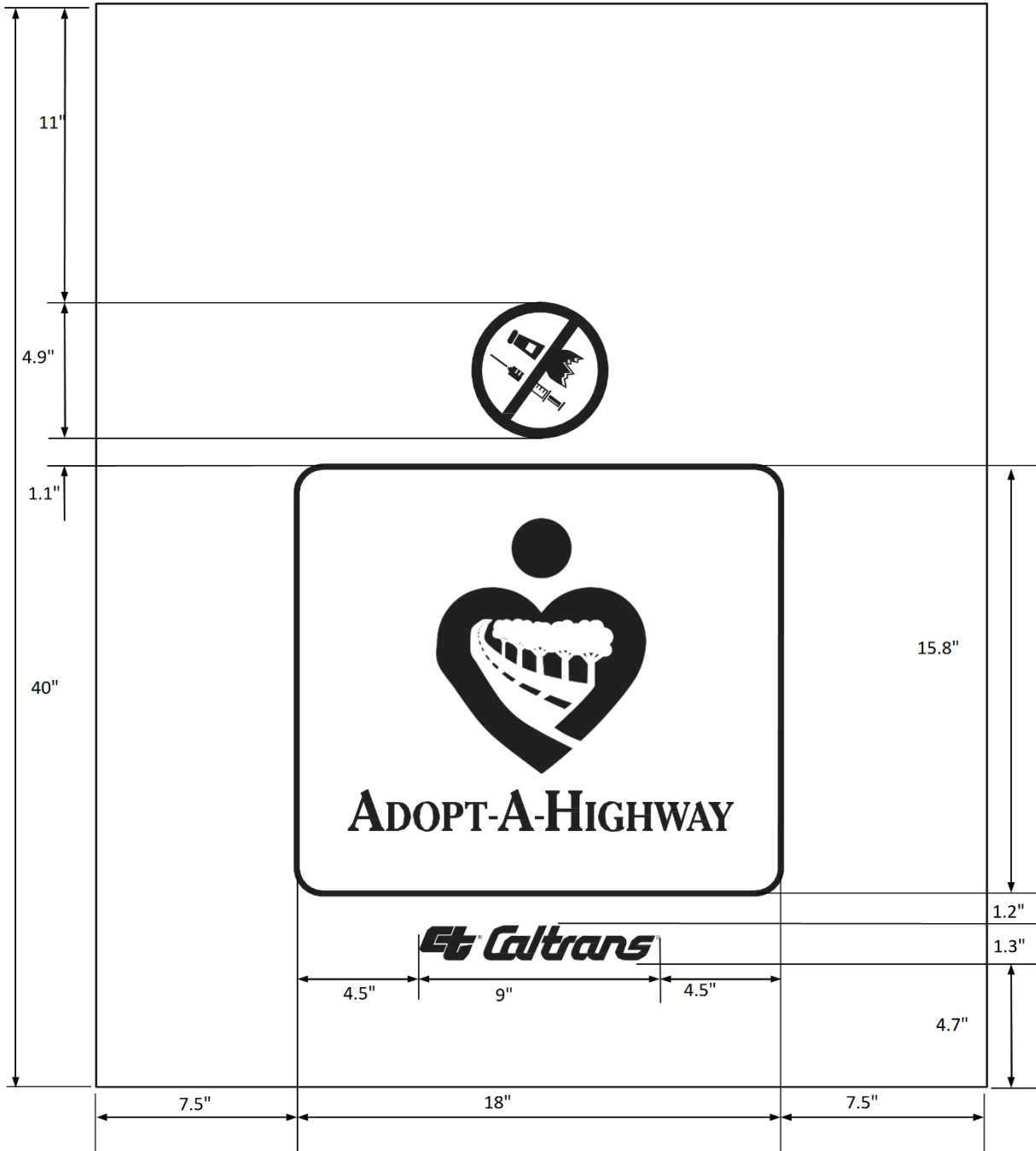


Exhibit D: 33" x 48" Adopt-A-Highway (AAH) bag with handles

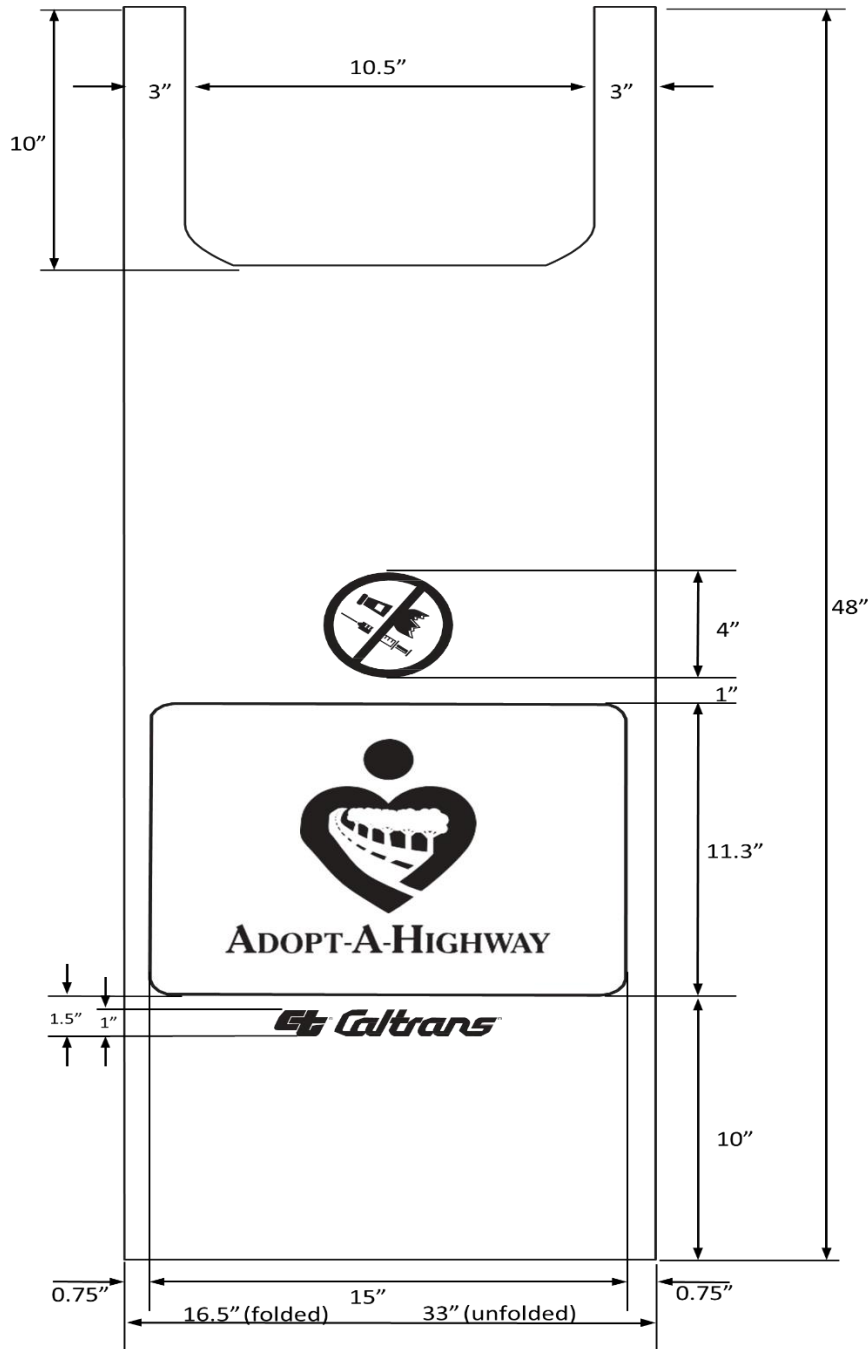


Exhibit E: 33" x 40" Clean California (CC) bag without handles

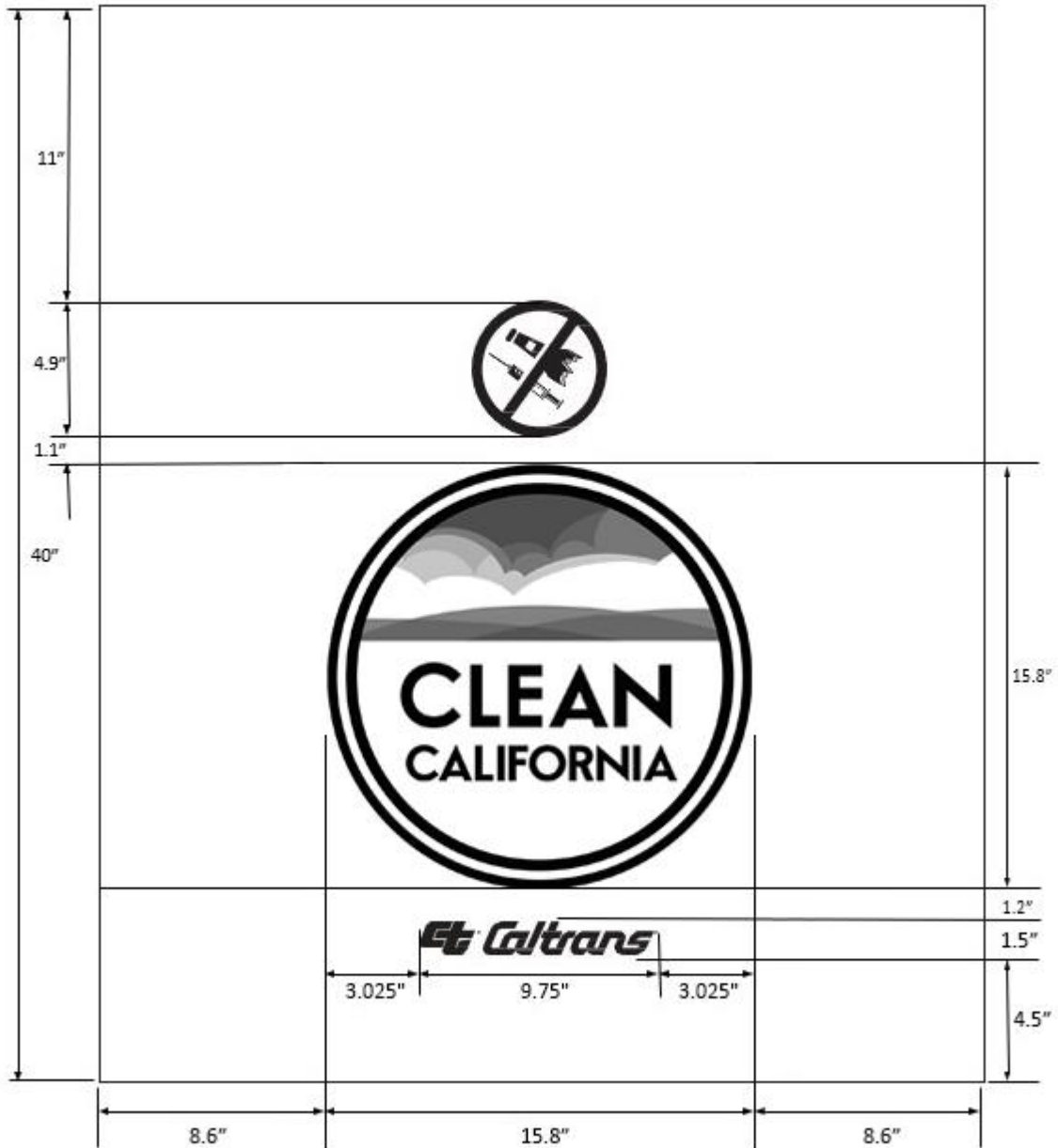


Exhibit F: 33" x 48" Clean California (CC) bag with handles

