METRO
600 NE Grand Ave.
Portland, OR 97232-2736
(503) 797-1700

ADDENDUM NUMBER ONE
RFP 11-1853

DIGITAL SIGNAGE UPGRADES AT OREGON CONVENTION CENTER

This solicitation is hereby amended/clarified as follows:

1. System hardware specifications are revised to include:
   a. Web DT Model SA-3000 with 2.26 Ghz Core2 Duo Intel processor and Window 7 embedded operating system. This hardware is intended to replace the SA-2000 that was originally specified.
   b. This model is based upon its compatibility with video compression standard H.264.

2. A voluntary pre-proposal meeting was held on March 3, 2011. A list of attendees is attached as well as a series of questions and answers that were addressed at the meeting.

3. The following documents are being provided to all interested proposers. These items provide additional information that may be helpful in preparing a proposal.
   a. Kiosk shop drawings
   b. Signage locations
   c. Overhead signage details
   d. Web-DT SA general guidelines

4. All other terms and conditions of the original RFP remain unchanged.

Issued March 8, 2011

Darin Matthews, CPPO, C.P.M.
Metro Procurement Officer

Pre Proposal Meeting
Project: Digital Signage Upgrade, Oregon Convention Center
Thursday, March 3, 2011
10:00am – 11:30am
Operations Admin Conference Room

OCC Representatives:
Ryan Thorpe, Director of Operations
Alexis Berggren, Director of Events
Matt Uchtman, Ops Manager of Technical Services

Attendees:

Name	Company	Prime or Sub	Address	Phone	Email	Service Area(s)
Ken Mahoney	Yesco	Prime	201005 W. 112th Avenue, Tualatin, OR 97062	503.612.6672	kmahoney@yesco.com	Portland
Bob Foster	Muzak	Prime	12449 N.E. Marx, Portland, OR 97230	803.242.6676	bobf@muzak.com	National
Jim Mead	Delta AV	Prime	2450 N.W. Eleven Mile Avenue, Gresham, OR 97030	503.907.0137	jmead@deltaav.com	National
Dan Muckle	Muckle Sales	N/A	10220 S.W. Nimbus Ave. Ste. K1a, Portland, OR 97229	503.620.0444	dan@mucklesales.com	N/A
Seth Ford	CRI	Sub	Tigard, OR 97224	503.593.7379 503.670.0806	sethtarb@yahoo.com	N/A
Danny Riordan	Tube Art Group	Prime	4243A S.E. International Way, Milwaukie, OR	503.653.1133 503.757.5046	driordan@tubeart.com	Signage
Jason Parson	The Whitlock Group	Prime	15341 N.E. 90th St, Redmond, WA 98052	310.849.5996	parson@whitlock.com	Signage/AV Integrate
Bethany Blumenschein	XRiver Technologic	Prime	5175 Parkstone Dr, Suite 130, Chantilly, VA 20151	703.647.4863	bdropp@xrivertech.com	All
Dan Schwass	LG Electronics	Sub	2000 Millbrook, Lincolnshire, IL	503.314.7208	dan.schwass@lge.com	Displays

Name	Company	Prime or Sub	Address	Phone	Email	Service Area(s)
Rich Egger	Black Box	Prime	5755 S.W. Jean Road, Suite 105, Lake Oswego, OR 97035	503.675.2563	richard.egger@blackbox.com	Digital Signage

- This is a prevailing wage project. You are not required to use union labor but the successful bidder will be required to pay BOLI wage rates.
- Retrofit the digital signage in place—LED reader boards and Clarity monitors
- The Request for Proposal means that we spec'd the project but are open to other ideas
- Provide the best solution/way to integrate the software
- Provide the most efficient way to direct attendees

Meeting Questions and Answers:

Q: Will this cover infrastructure?
A: No. Power and network connections are already installed in the existing locations. OCC is responsible for all networking and infrastructure.

Q: Use existing servers?
A: It is up to the bidder to propose a turnkey solution.

Q: Is your event management system still Ungerboeck?
A: Yes.

Q: Do you have cat5 drops at each overhead location?
A: Yes. OCC is responsible for the data infrastructure.

Q: Do you have coax drops at each location?
A: No.

Q: Do you have Ethernet drops at each location?
A: Yes. OCC is responsible for the data infrastructure.

Q: What kind of data switches are currently in place?
A: The MERC network utilizes Allied Telesis 1 Gigabyte switches.

Q: Is the AV network on its own subnet?
A: OCC is responsible for the data infrastructure.

Q: Could you dedicate bandwidth?
A: Yes, but other data will likely still exist on the network.

Q: Live streaming?
A: Live streaming is not necessary at this time, but we may desire it in the future.

Q: Is there power at each location?
A: Yes. There should be plenty of power in each location.

Q: Are there specific Energy Star solutions required?
A: Energy Star solutions are preferred, but not required.

Q: Are you pulling out the Clarity monitors and replacing them?
A: The contractor will be responsible for removing existing equipment. Please coordinate recycling with OCC as we are able to divert most materials from the landfill.

Q: Are you looking to replace the Clarity monitors with one display or two?
A: It is up to the proposer whether to provide one display or two in the various locations.

Q: What is the content you expect to display on the equipment?
A: Meeting listings, facility map, weather, news, sponsorship logos, advertising. We will also likely do some Flash programming and short videos.

Q: Are you looking for post-sale maintenance on a yearly basis or for someone to "train and walk away"?
A: Our A/V and Technical Services staff will maintain the system in-house.

Q: Will we be able to have remote access for set up?
A: That can probably be arranged.

Q: Can we work directly with the sign shop?
A: ES & A built the original enclosures.

Q: Are you keeping the existing enclosures?
A: Yes.

Q: Can we take site photos?
A: Yes—we will be walking the project after the meeting.

Q: Are there drawings for current overhead signs to help us maximize the space?
A: We will look for the drawings and forward what we find.

Q: (A) metal company may want to do a mock-up. Are you amenable to that?
A: Yes.

Walk-through Questions and Answers:
(It was noted that the monitors above the restaurants are not included in the RFP)

Q: Mounting question. Right now the monitors conform to the curve of the sign. Does the new equipment need to do the same?
A: No—it can be adjusted for the best viewing angle.

Q: Touch screens?
A: Possibly at a later point in time. We want the ability, but it is not part of this project.

Q: Is there an issue with ambient lighting and the wayfinders?
A: Only one unit on the South end of the building and only briefly in the morning.

Q: Do we need to make a separate appointment to do a walk-through?
A: Most of the monitors are in the public spaces; however an event may be occupying that space so check in first.

Q: RFP Due?
A: End of day on March 17, 2011.

Q: Do the Clarity screens go off at night?
A: Between the hours of 12 midnight and 6:00am.

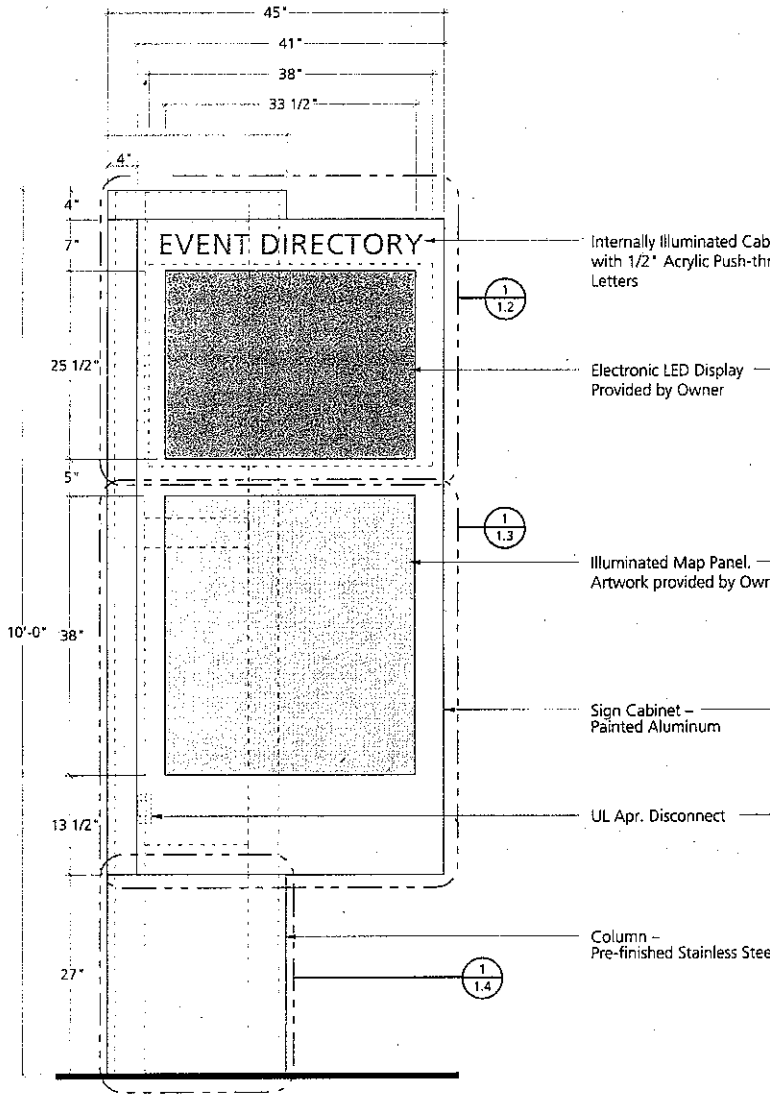
Q: Aesthetically do you expect the retrofits to conform to the same powder coats?
A: Yes.

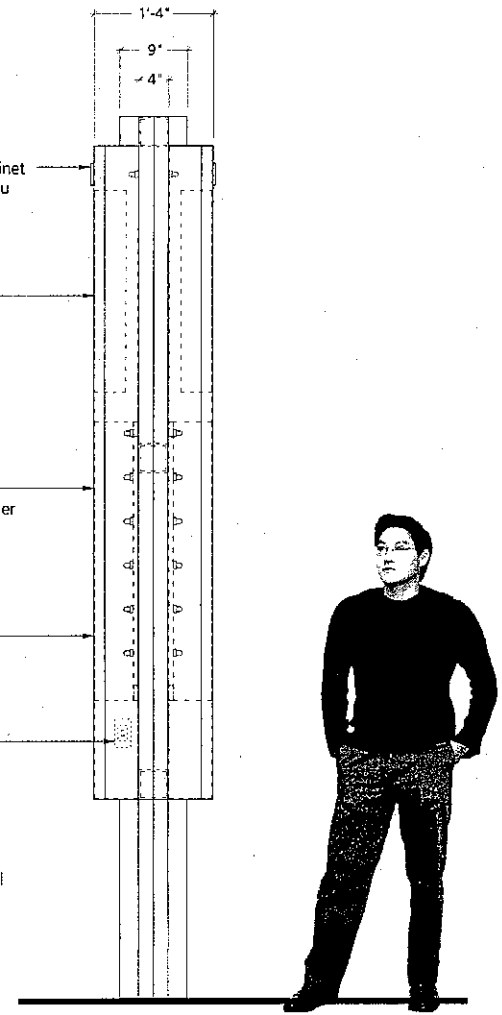
Q: (P1 Elevator Lobby) Include Security overlays?
A: No. We do not need to provide screen protection at this time.

Q: Do the elevator lobbies already have cat5 and power, too?
A: Yes.

Q: Will you upgrade spec to include H264?
A: Yes. See Addendum #1.

-End of tour 10:56am-





1 / 1.1 **Elevation - Front View**
Scale: 3/4" = 1'- 0"

2 / 1.1 **Elevation - Side View**
Scale: 3/4" = 1'- 0"

Mayer/Reed

Visual Communications
319 SW Washington St.
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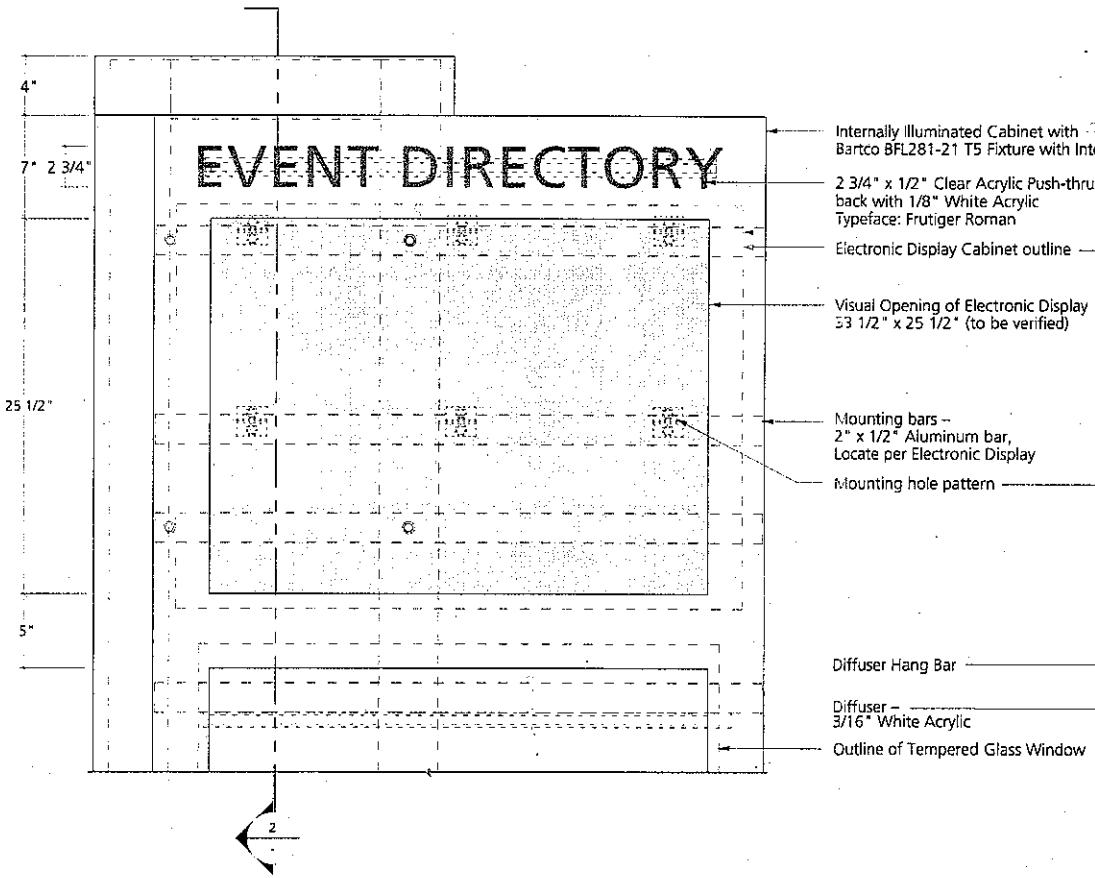
Revisions

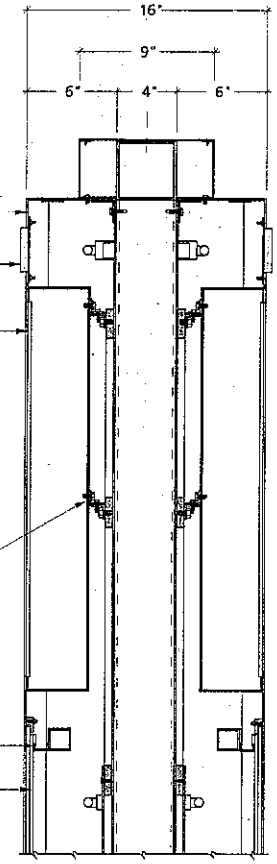
Submittal / Date
CONSTRUCTION DOCUMENTS
07.07.05

Project
OREGON CONVENTION CENTER
EVENT DIRECTORY

Sheet Title

Sheet 2.1





1 / 1.2 **Partial Front View at Electronic Display**
Scale: 1 1/2" = 1'- 0"

2 / 1.2 **Section**
Scale: 1 1/2" = 1'- 0"

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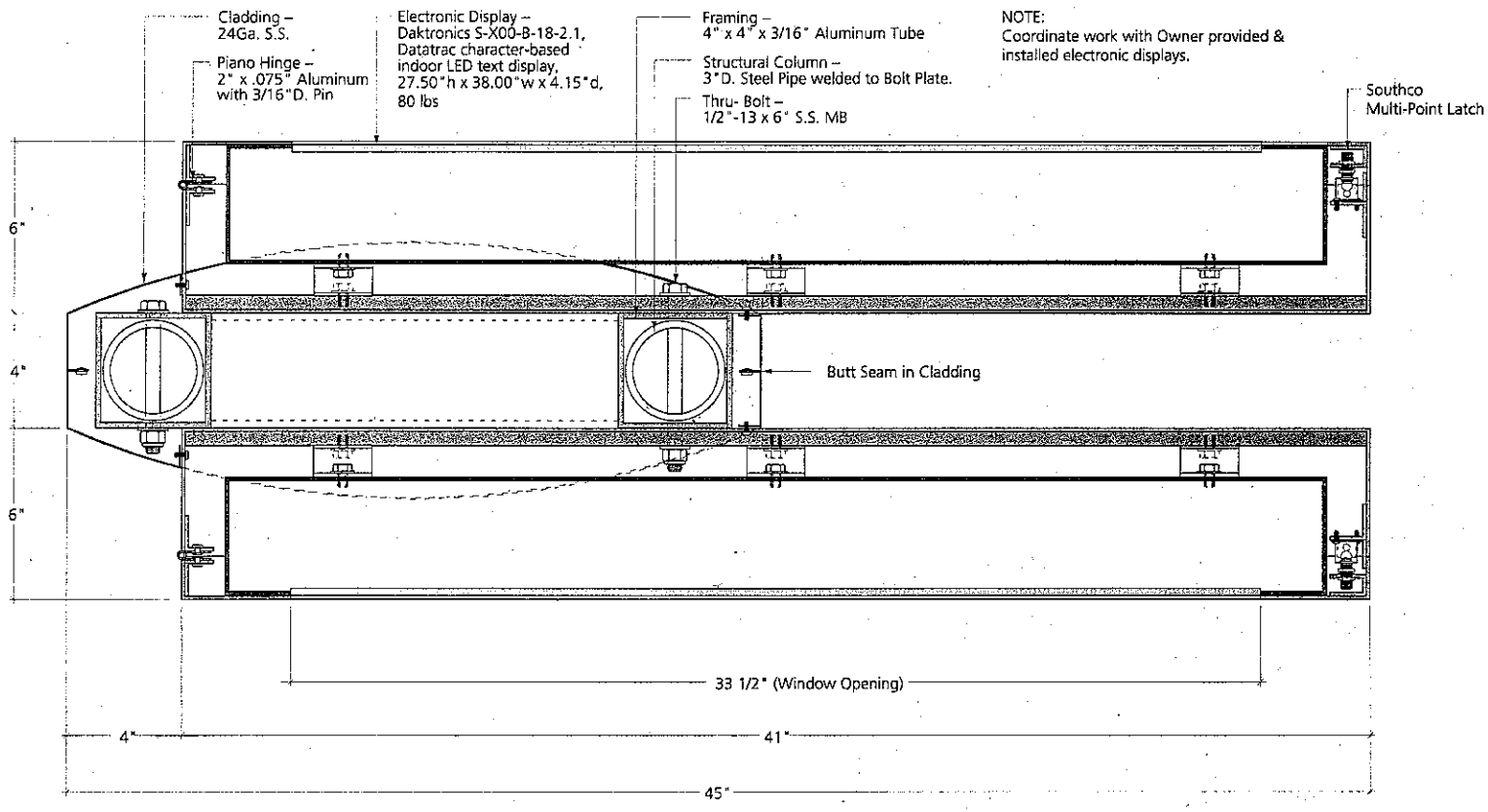
Sheet 2.2



1 / 1.3 **Section at Electronic Display**
Scale: 3" = 1'- 0"

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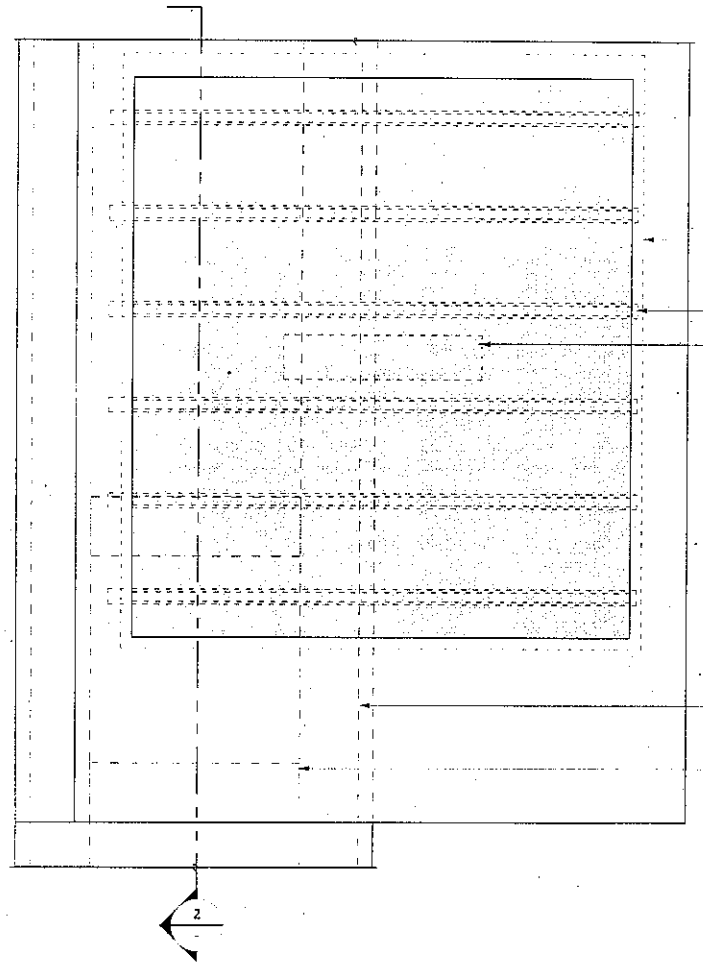
Sheet 2.3



Glass Window Clip

Diffuser Hang Bar

Diffuser –
3/16" White Acrylic

Outline of Tempered Glass Window

Internally Illuminated Cabinet with
Bartco BFL270-21 T5 Fixtures with
6 Lamp Electronic Ballast, voltage to be determined

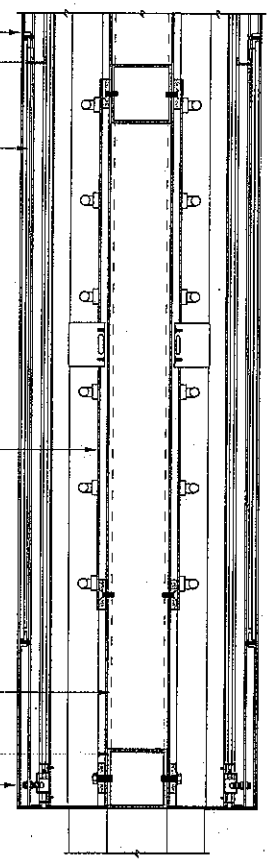
Note: Duratran map provided by Owner

Fixture Panel –
1/8" Aluminum Sheet hinge and latch to Frame
for access to Lamp and Ballast wiring

Column Framing –
4" x 4" x 3/16" Aluminum Tube

Horizontal Spreader weld to 4" x 4" Tube

Multi-Point Latch.



1 / 1.4 **Partial Front View at Illuminated Map**
Scale: 1 1/2"= 1'- 0"

2 / 1.4 **Section**
Scale: 1 1/2"= 1'- 0"

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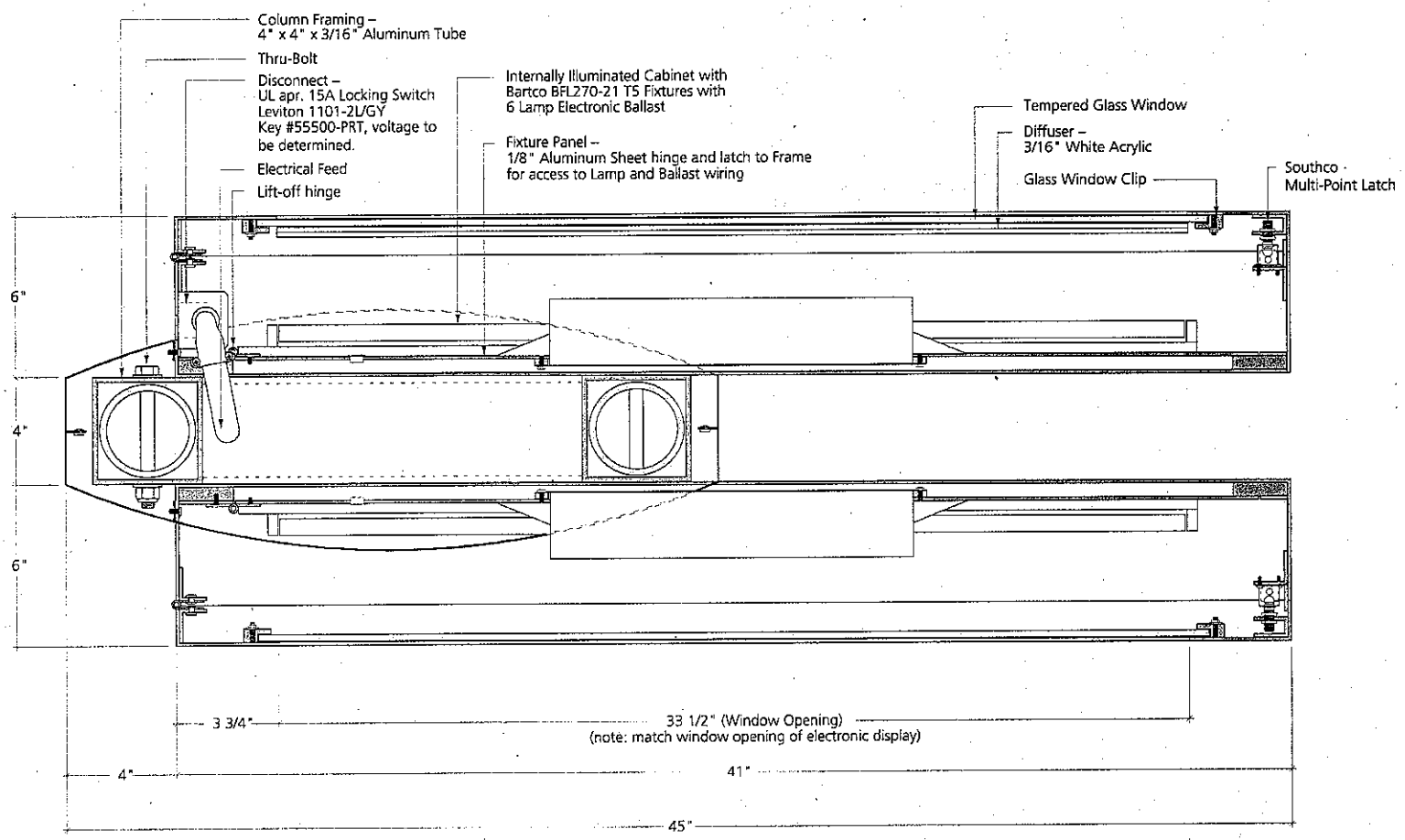
Sheet Title

Sheet 2.4



1 / 1.3 **Section at Illuminated Map**

Scale: 3" = 1'- 0"

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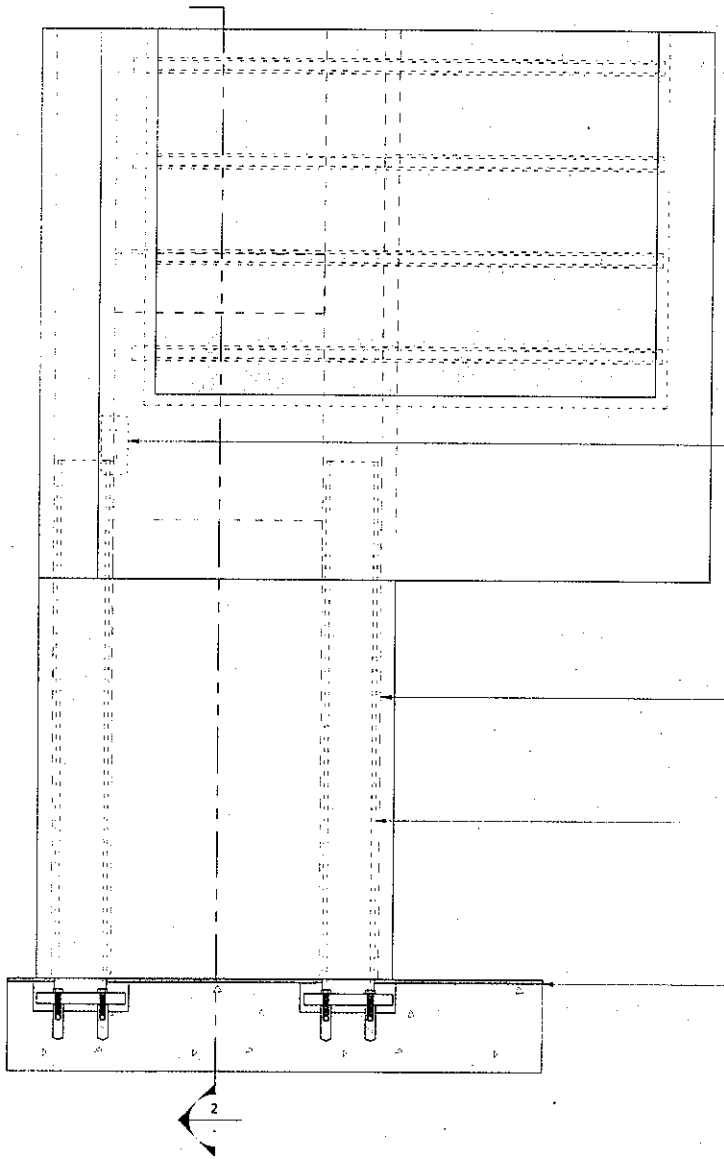
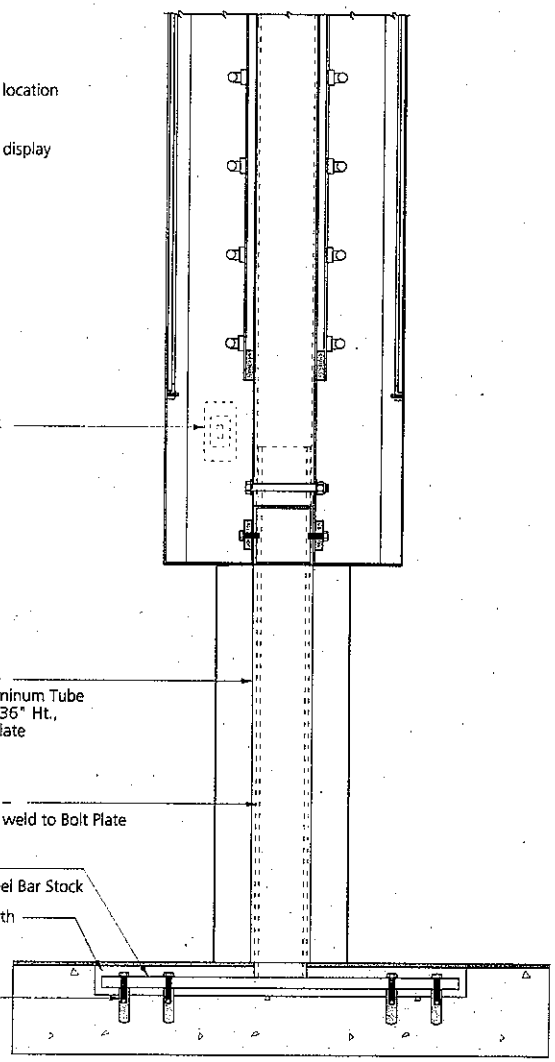
Sheet 2.5

Notes:

1) Electrical service to sign location provided by Owner.

2) Data cable to electronic display provided by Owner.





1 / 1.6 **Partial Front View at Support Column Base**
Scale: 1 1/2" = 1'- 0"

2 / 1.6 **Section at Support Column Base**
Scale: 1 1/2" = 1'- 0"

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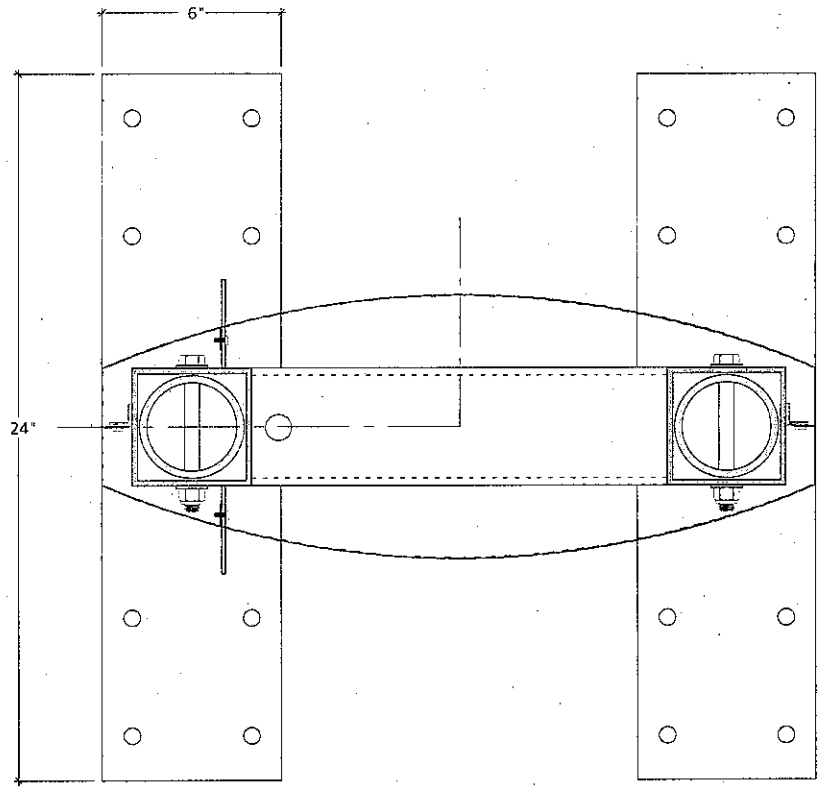
Sheet 2.6



1 / 1.7 **Plan View at Base Plate**

Scale: 3" = 1'- 0"

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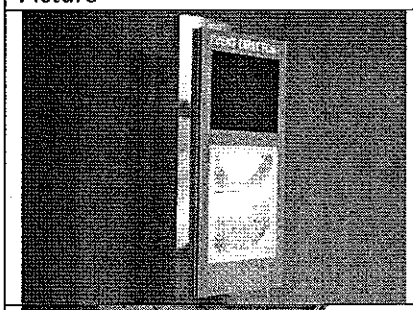
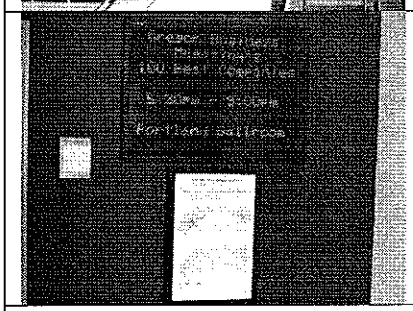
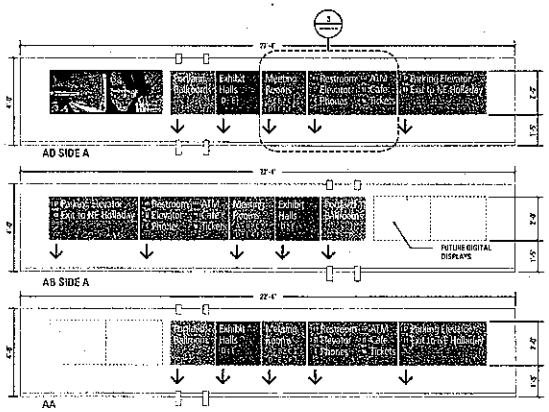
EVENT DIRECTORY

Sheet Title

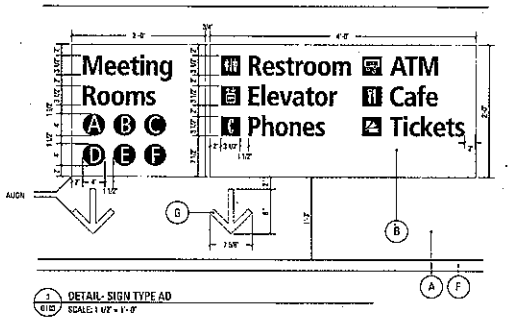
Sheet 2.7

Oregon Convention Center Digital Signage Upgrade – RFP 11-1853

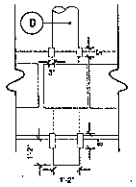
Picture	Description	# of Locations	Total Qty
	One-Sided Kiosk	2 locations	2
	Two-Sided Kiosk	3 locations	6
	One-Sided Overhead	4 locations	4
	Two-Sided Overhead	8 locations	16
	One-Sided, No enclosure	4 locations	4
Total			32



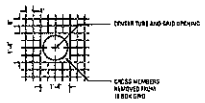
2 G103 DEVELOPMENT (TRUE LENGTH)- SIGN TYPES AA,AB AND AD
SCALE: 1/2" = 1'-0"



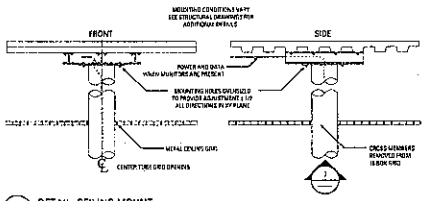
3 G103 DETAIL- SIGN TYPE AD
SCALE: 1 1/2" = 1'-0"



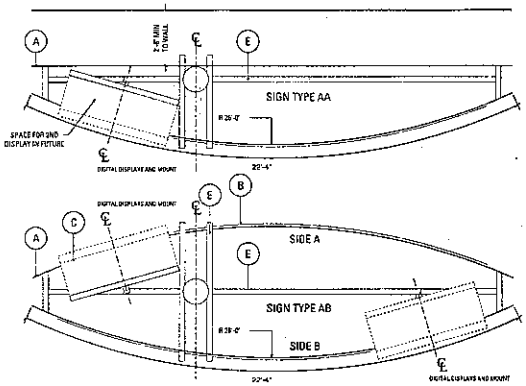
5 G103 DETAIL- SIGN TYPES AA ,AB, AD,AND BA
SCALE: 1/2" = 1'-0"

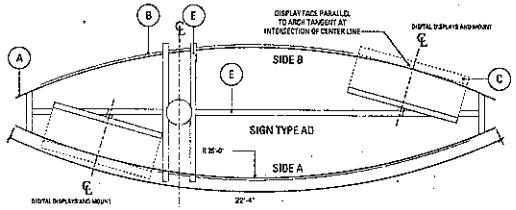


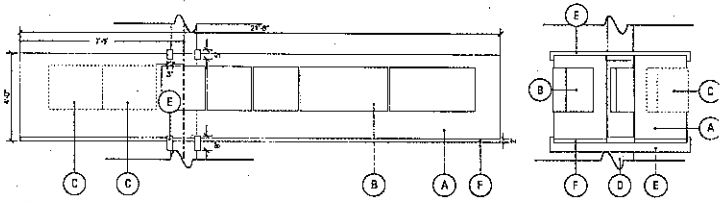
7 G103 PLAN- METAL CEILING GRID
SCALE: 1/2" = 1'-0"



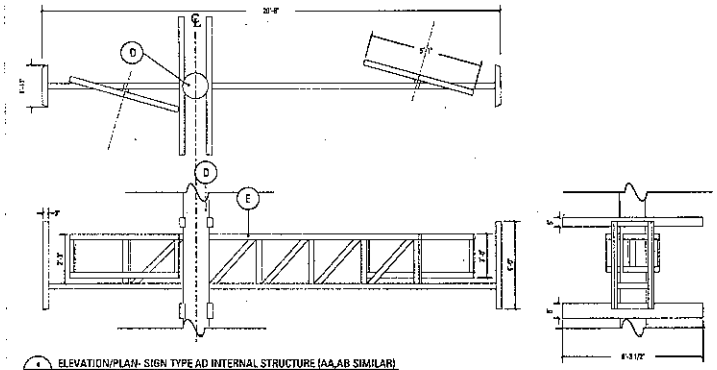
8 G103 DETAIL- CEILING MOUNT
SCALE: 1/2" = 1'-0"







1 G103 ELEVATION/PLAN- SIGN TYPES AA,AB & AD
SCALE: 1/2" = 1'-0"



4 G103 ELEVATION/PLAN- SIGN TYPE AD INTERNAL STRUCTURE (AA,AB SIMILAR)
SCALE: 1/2" = 1'-0"

THEY DO NOT NECESSARILY SHOW ALL EXISTING CONDITIONS AND MAY NOT BE ACCURATE IN ALL LOCATIONS. FIELD VERIFY EXISTING AND/OR HIDDEN CONDITIONS PRIOR TO COMMENCEMENT OF NEW WORK.

DOCUMENTS HAVE BEEN REVISED BASED SOLELY ON RECORD WORKING DRAWINGS SUPPLIED BY THE CONTRACTOR AND THE CONTRACT DOCUMENTS

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MECHANICAL ENGINEER
CBG Consulting Engineers
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Suite 355
Portland, Oregon 97224

ELECTRICAL ENGINEER
CBG Consulting Engineers
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CIVIL ENGINEER
David Evans & Associates, Inc.
2828 SW Corbett
Portland, Oregon 97214

LANDSCAPE ARCHITECT
Mayer/Reed
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Suite 820
Portland, Oregon 97204

ENVIRONMENTAL GRAPHICS
Debra Nichols Design
466 Jackson Street
San Francisco, CA 94111

BID PACKAGE 7B
100% CONSTRUCTION DOCUMENTS
ISSUED 06/21/02

Revisions

△ RECORD DRAWINGS JUNE 8, 2003

OREGON CONVENTION CENTER EXPANSION

Portland, Oregon

SIGNAGE DETAILS

Date:
Job No: P 60007.01
Drawn By:
Checked By:

Drawing No.

G103

General Guideline in choosing the correct WebDT SA Series Platform (updated 08/27/2010)

Important: This is only a general guideline provided as a courtesy. Please test actual content on the SA player to determine which solution gives the most optimal cost/performance ratio.

	SA1000 (1.5GHz)	SA1300 (1.6GHz Intel Atom)	SA2000 (1.6GHz no fan)	SA2000 (2.1GHz Turion Dual Core)	SA3000 (2.26GHz Intel Core2Duo)	SA3200 (1.9GHz Intel Celeron)	SA3200 (2.4GHz Intel Core2Duo)	SA3200 (2.26GHz Intel Core2Duo)
Analog Video Input	X	X	√	√	X	X	X	X
Fanless	√	√	√	X	√ *without HDD	X	X	X
Up to 2GB RAM	X	√	√	√	√	√	√	√
DVD Video (720x480 or below) (~= POPAI S6, S7, S9)	√	√	√	√	√	√	√	√
H.264/WMV (720x480 or below) (~= POPAI E7)	√	√	√	√	√	√	√	√
HD MPEG2/WMV (1280x720) (~= POPAI S8, S10, S11, E4, E7)	Not recommended	√	√	√	√	√	√	√
HD H.264 (1280x720) (~= POPAI S12, E8)	Not recommended	Not recommended	√	√	√	√	√	√
Full HD MPEG2 (1920x1080) (~= POPAI E6)	Not recommended	√	Not recommended	Not recommended	√	√	√	√
Full HD WMV/H.264 (1920x1080) (~= POPAI E5, E9)	Not recommended	Not recommended	Not recommended	Not recommended	√	√	√	√
Simple Flash	√	√	√	√	√	√	√	√
Complex Flash	Not recommended	Not recommended	√	√	√	√	√	√

Support email: signagesupport@dtri.com
Web: http://signage.dtri.com

Disclaimer: While DT Research tries in good faith to make sure that the information displayed is accurate, we are not responsible for typographical errors or technical inaccuracies. This disclaimer in no way affects the terms of the manufacturer's warranty.

WebDT Signage System
Powered by DT Research

DT Research

WebDT Signage Player 4.0 Media Support

1. Preface

This document outlines supported video formats on the WebDT Signage Appliance player Version 4.0.

2. Video Formats Supported

File Format	Supported File Extension	Video Encoding	Audio Encoding	Remark
MP4	.mp4	MPEG4	AAC, MP3	
		H.264	AAC, MP3	
MOV	.mov	MP4	AAC, AMR Narrowband, IMA 4:1, PCM, QDesign Music2, u-law 2:1	
		H.264	AAC, AMR Narrowband, IMA 4:1, PCM, QDesign Music2, u-law 2:1	
		Sorensom Video	AAC, AMR Narrowband, IMA 4:1, QDesign Music 2	
		Sorensom Video 3	AAC, AMR Narrowband, IMA 4:1, PCM, QDesign Music 2, u-law 2:1	
		Cinepak	AAC, AMR Narrowband, IMA 4:1, QDesign Music2, u-law 2:1	
		Photo_JPEG	IMA 4:1	**Note: if the OS is Vista or Win7, player can't support Photo_JPEG + IMA 4:1**
MPEG1(mpeg-1 system stream)	.mpg, .mpeg	MPEG1	MP2, MP3	

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File Format	Supported File Extension	Video Encoding	Audio Encoding	Remark
MPEG2(mpeg-2 program stream)	.mpg, .mpeg	MPEG2	AC3, MP2, MP3	
TS(mpeg-2 Transport stream)	.mpg, .mpeg	MPEG2	AC3, MP2, MP3	
VOB	.vob, .mpg	MPEG2	AC3, MP2	
M2TS	.m2ts	MPEG2	MP3	
WMV	.wmv	Windows Media Video 7 (WMV1)	WMA v2(Windows Media Audio 9.2) WMA lossless(Windows Media Audio 9.2 Lossless) WMA pro(Windows Media Audio 10 Professional)	
		Windows Media Video 8 (WMV2)	WMA v2(Windows Media Audio 9.2) WMA lossless(Windows Media Audio 9.2 Lossless) WMA pro(Windows Media Audio 10 Professional)	
		Windows Media Video 9 (WMV3, simple and main profiles)	WMA v2(Windows Media Audio 9.2) WMA lossless(Windows Media Audio 9.2 Lossless) WMA pro(Windows Media Audio 10 Professional)	
		VC-1 (Windows Media Video 9 advanced profile)	WMA v2(Windows Media Audio 9.2) WMA lossless(Windows Media Audio 9.2 Lossless) WMA pro(Windows Media Audio 10 Professional)	**Note: in old image, the Windows Media Player's version may be 9 or 10, if so the VC-1 WMV can't be supported.** ***Windows Media Player 11 or above version supports VC-1.**
FLV	.flv	FLV4/VP62,	MP3	
		FLV1	MP3	

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File Format	Supported File Extension	Video Encoding	Audio Encoding	Remark
MKV	.mkv	MP4,	AAC, MP3, AC3	
		H.264	AAC, MP3, AC3	
MTS	.mts	H.264	AC3	
AVI	.avi	XVID	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		DivX5	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		H.264	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		MP4	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		MS MPEG4 V2	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		MPEG1	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		FLV1	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA	
		MPEG2	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA,	
		MJPEG	MP3, PCM(Little/Unsigned 16 bits), ADPCM IMA,	
ASF	.asf	Windows Media Video 7 (WMV1)	WMA v1, WMA v2(Windows Media Audio V8)	
		Windows Media Video 8 (WMV2)	WMA v1, WMA v2(Windows Media Audio V8)	
MMS		WMV and ASF supported above		For streaming URL starts with mms://.
RTSP		WMV and ASF supported above		For streaming URL starts with rtsp://.

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3. Video Performance

3.1. Video Source Property

All videos are progressive

- Mpeg2
  - 1080P: profile: high; level: high
  - 720P: profile: main; level: high
  - DVD size 30fps: profile: high; level: high
- WMV
  - The video encode format is "Windows Media Video 9 (WMV3, simple and main profiles)"
- H264
  - 1080P 30fps: profile: high; level: 4.0
  - 1080P 24fps: profile: main; level: 5.0
  - 720P 30fps: profile: main; level: 4.2
  - 720P 24fps: profile: main; level: 4.0
  - DVD size 25fps: profile: main; level: 3.2

3.2. SA1000 (DS1500, DS1700)

✧ Max Supported Video

Format	Landscape	Portrait	Remark
MPEG2	1280x720_24fps_9Mbps	720x576_30fps_6-9M_MPEG2.mpg	*Can't use continuous overlay, so please insert one image or other media with duration longer than 10 seconds between 2 video files *If playing video continuously, it can't support DVD quality video
WMV			Can't support it; display driver issue may lead to blue screen
H.264			Can't support DVD quality video

✧ Recommended Format: MPEG2

✧ **Note:**

In portrait mode, the zone size is 1080x864 (for DVD size); the video plays according to its original scale.

✧ Render Type

VMR7 + overlay (two continuous video files will not have the same performance. Need to insert a non-video media between two videos)

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3.3. SA2000

- Max Supported Video
- Render Type: VMR7 + Overlay (two continuous video files will not have the same performance; Need to insert a non-video media between two videos)

Format	Landscape	Portrait	Remark
MPEG2	1280x720_24fps_40-70M	1920x1080_30fps_40-60M	
WMV	1280x720_30fps_20-42M	1920x1080_24fps_5-10M	
H.264	1280x720_24fps_20-40M	1920x1080_24fps_5-10M	

- Recommended Format: WMV
- Note:

  In portrait mode, the zone size is 1080x608 (for 1080p or 720p); the video plays according to its original scale.

- How to change the render type:
  1. Open the file: %appdata%\DTRI\WebDT Signage Player\config\DTMP.conf
  2. Modify the item <VMR>VMR7</VMR> to <VMR>VMR9</VMR>

3.4. SA3000

- Max Supported Video (can play multiple videos continuously with the same performance)

Format	Landscape	Portrait	Remark
MPEG2	1920x1080_30fps_40-60M	1920x1080_30fps_40-60M	Tearing in portrait mode
WMV	1920x1080_30fps_10-11M	1920x1080_30fps_10-11M	Tearing in portrait mode
H.264	1920x1080_30fps_20-40M	1920x1080_30fps_20-40M	Tearing in portrait mode

- Recommended Format: H.264, WMV and MPEG2

- Render Type: Continuous overlay
- **Note:**
  - **In portrait mode, the zone size is 1080x608 (for 1080p or 720p); the video plays according to its original scale.**
  - **The driver version is IEGD 10.2.0.1447, not GMA; the disk is SATA.**
  - **Landscape mode: can use continuous overlay, so generally no tearing issue.**
  - **Portrait mode: the driver can't support overlay, so may have the tearing issue.**
  - **When playing video, using Ctrl+Shift+Space to stop a player may lead to blue screen.**

3.5. SA1200

- Max Supported Video (can play multiple videos continuously with the same performance)

Format	Landscape	Portrait	Remark
MPEG2	1920x1080_30fps_10-18M	1920x1080_30fps_10-18M	
WMV	1280x720_24fps_8-16M	1280x720_24fps_8-16M	
H.264	Can't reach DVD quality video.	Can't reach DVD quality video.	

- Recommended Format: WMV (since WMV in HD resolution has better quality than MPEG2 in Full HD resolution)
- Render Type: Continuous overlay
- **Note:**

  In portrait mode, the zone size is 1080x608 (for 1080p or 720p); the video plays according to its original scale.

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3.6. SA1300

- Max Supported Video (can play multiple videos continuously with the same performance)

Format	Landscape	Portrait	Remark
MPEG2	1920x1080_30fps_10-18M	1920x1080_30fps_10-18M	
WMV	1280x720_30fps_8-16M	1280x720_30fps_8-16M	
H.264	720x576_25fps_6-9M	720x576_25fps_6-9M	

- Recommended Format: WMV (since WMV in HD resolution has better quality than MPEG2 in Full HD resolution)
- Render Type: Continuous overlay
- **Note:**

  In portrait mode, the zone size is 1080x608 (for 1080p or 720p); the video plays according to its original scale.

3.7. SA3200

- Max Supported Video (can play multiple videos continuously with the same performance)

Format	Landscape	Portrait	Remark
MPEG2	1920x1080_30fps_40-60M	1920x1080_30fps_40-60M	
WMV	1920x1080_30fps_10-11M	1920x1080_30fps_10-11M	
H.264	1920x1080_30fps_7.5-15M	1920x1080_30fps_7.5-15M	

- Recommended Format: H.264 and WMV
- Render Type: Continuous overlay
- **Note:**

- **In portrait mode, the zone size is 1080x608 (for 1080p or 720p); the video plays according to its original scale.**
- **When using MPEG2 format and resolution of 1920x1080, the player is not always stable when playing video.**

4. Other media support

4.1. PPT

Player Model	PPT Viewer 97	PPT Viewer 2007	Remark
SA1000, DS1500, DS1700	Portrait mode	Landscape mode	Can't support PPSX, PPTX in portrait mode
SA2000, SA3000, DS1300, DS3200		Landscape and portrait mode	

✧ **Note:**

- **If the mouse cursor's position is in PowerPoint window, the cursor will always be visible.**
- **If the PowerPoint includes embedded video, only WMV video is supported.**

4.2. Transition effects

✧ **Supported media**

- Only image, video and Flash can apply transition effects (TE).
- Video, flash and gif can only support Basic TE except for **Fade in**.

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✧ Transition Effects Categories

Transition effects are divided into 2 categories:

Basic TE	Enhanced TE
Fade in	Wipe Down(Vague)
Wipe down	Wipe Up(Vague)
Wipe up	Wipe Left(Vague)
Wipe left	Wipe Right(Vague)
Wipe right	Wipe Left-Up(Vague)
Wipe left-down	Wipe Right-Down(Vague)
Wipe left-up	Wheel clockwise 1 spoke(Vague)
Wipe right-down	Wheel clockwise 5 spoke(Vague)
Wipe right-up	Newsflash
Wheel clockwise 1 spoke	Shape Circle Center(Vague)
Wheel clockwise 2 spoke	Shape Diamonds(Vague)
Wheel clockwise 4 spoke	Triangle(Vague)
Strips Left up	Waterfall
Strips Left down	Random Bars horizontal
Strips Right Up	Random Bars Vertical
Strips Right down	Random Lines(Vague)
Block Out	Point Dissolve
Block In	Point Dissolve(Vague)
Box in	Comb Horizontal(Vague)
Split Vertical Out	Blinds Horizontal(Vague)
Split Horizontal Out	
Split Vertical In	
Split Horizontal In	

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Basic TE	Enhanced TE
BASIC TE	
Shape Plus Out	
Shape Plus In	
Shape Circle Out	
Shape Circle In	
Shape Diamond Out	
Shape Diamond In	
Dissolve	
Comb Horizontal	
Comb Vertical	
Blinds Horizontal	
Blinds Vertical	
Checkerboard Across	
Checkerboard Down	

✧ **Player Model support**

Player Model	Supported Transition Effects Category
SA1000, DS1500, DS1700	Can only support basic TE
SA1200, SA2000, SA3000, SA1300, SA3200	Can support all TE

✧ **Note:**

TE for video will have following issues:

1) Can only support basic TE and fade in
2) Video performance will drop when using TE

3) When incorporating TE, video duration is better when set to 3 seconds (default TE duration) less than its real duration.

   a) Otherwise, the previous video will pause at the last frame or play from the beginning when adding TE according to the playback mode setting of playlist.

4.3. Flash

If Flash display size is beyond certain value, player will adjust its quality automatically. Below is the adjustment method:

Height/Width	Quality
<=4096	High
>4096 && <=8192	Medium
>8192	Low

4.4. Ticker

Ticker has different width limitations on each player model:

Player Model	Ticker Zone Width (pixel)
SA1000, DS1500, DS1700	2047
SA2000	2880
SA3000	8192
SA1300, SA3200	100,000,000
MS400, MS800, MS1600	8192

Note: If the ticker zone size is beyond the setting above, ticker may not show normally.

4.5. Application

Application media played on the WebDT Signage Appliances must have the following requirements and limits:

1) Must have main window and better to have WS_CLIPSIBLINGS and WS_CLIPCHILDREN attributes

   a) Main window should satisfy the following conditions:

      i. Window is visible

      ii. Non-child (meaning the window is overlapped or a popup) and its client region size is not zero

   b) If the application has more than one "main window", the WebDT SA player can't verify which will be shown at the top.

   c) The main window is best with WS_CLIPSIBLINGS and WS_CLIPCHILDREN attributes, otherwise the player can't correctly refresh the content

2) If a single instance, it can't play continuously or more than in one zone at the same time

3) Can't have multiple processes in the application

   Note: if the main process creates a child process, and the child process creates the main window, the signage player will not support it.

4) Main window can't be changed after starting by itself

   a)If not, player can't verify its final display effect

5) Can't hide splash window

6) If application start time is too long, player will show black before its creation

7) Can support applications made with Borland C++ or Delphi

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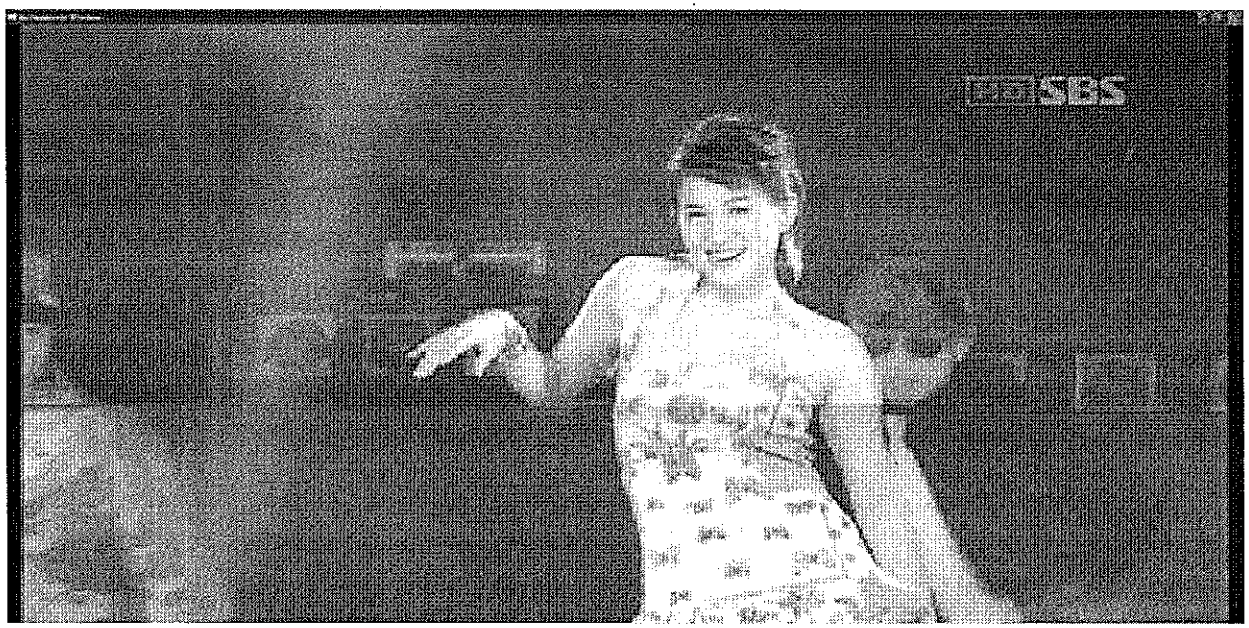
5. Glossary

5.1. Tearing

Tearing is a visual effect in video where information from two or more different frames is shown on a display in a single screen draw. The display cards use a video memory buffer to store the data to be shown on a monitor. If the video memory buffer is updated while the monitor is in the middle of being updated, then the result is the video memory buffer has half of an old frame and half of a new one, which can be seen on the monitor. If the difference between the scene of an old frame and a new frame is obvious, then a horizontal line which splits the old and new video frame might be seen on the monitor.

The screen snapshot list below is an example of tearing.