

PRELIMINARY

MP 219EB & WB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4699 NAUTICALS COURT SOUTH STE. 102
BOULDER, CO 80501
303-530-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

Index of Revisions	

DOT
DEPARTMENT OF TRANSPORTATION

Region 1
18500 East Colfax
Aurora, CO 80011
Phone: (303) 365-7340
FAX: (303) 365-7343

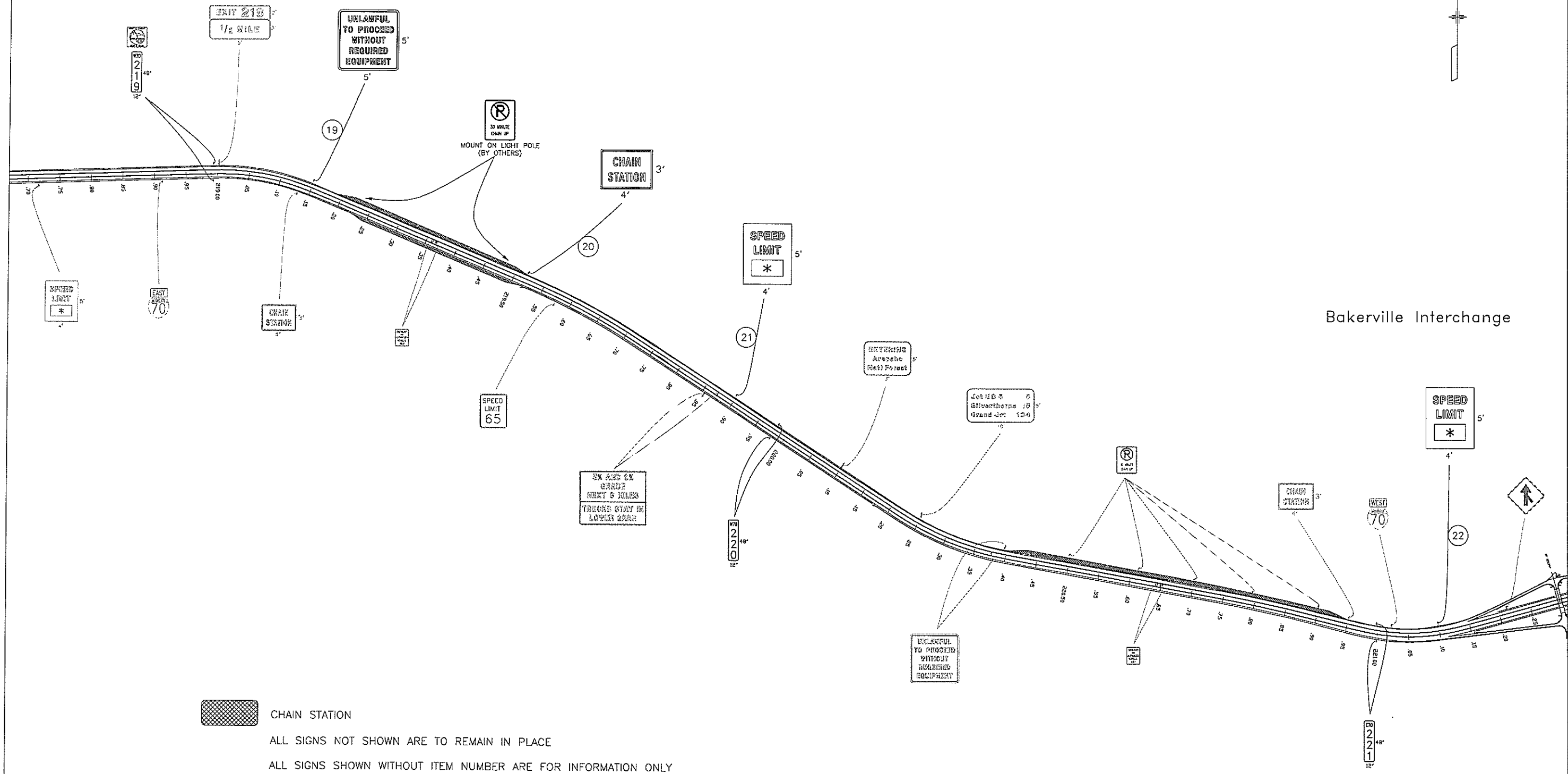
PBSJ
4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

REGION I DW

As Constructed	
No. Revisions:	
Revised:	
Void:	

LIGHTING PLAN & SWMP SITE MAP			
Designer:	GF	Structure	
Detailer:	JE	Numbers	
Sheet Subset:	LE	Subset Sheets:	12 OF 35


Project No./Code	
IM 070A-003	
16701	
Sheet Number:	39



CHAIN STATION
 ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE
 ALL SIGNS SHOWN WITHOUT ITEM NUMBER ARE FOR INFORMATION ONLY

Computer File Information	
Creation Date: 2/22/07	Initials: WCD
Last Modification Date: 3/18/08	Initials: WCD
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Drawing File Name: 05-09_I-70Plan180-248_ChainUp.dwg	
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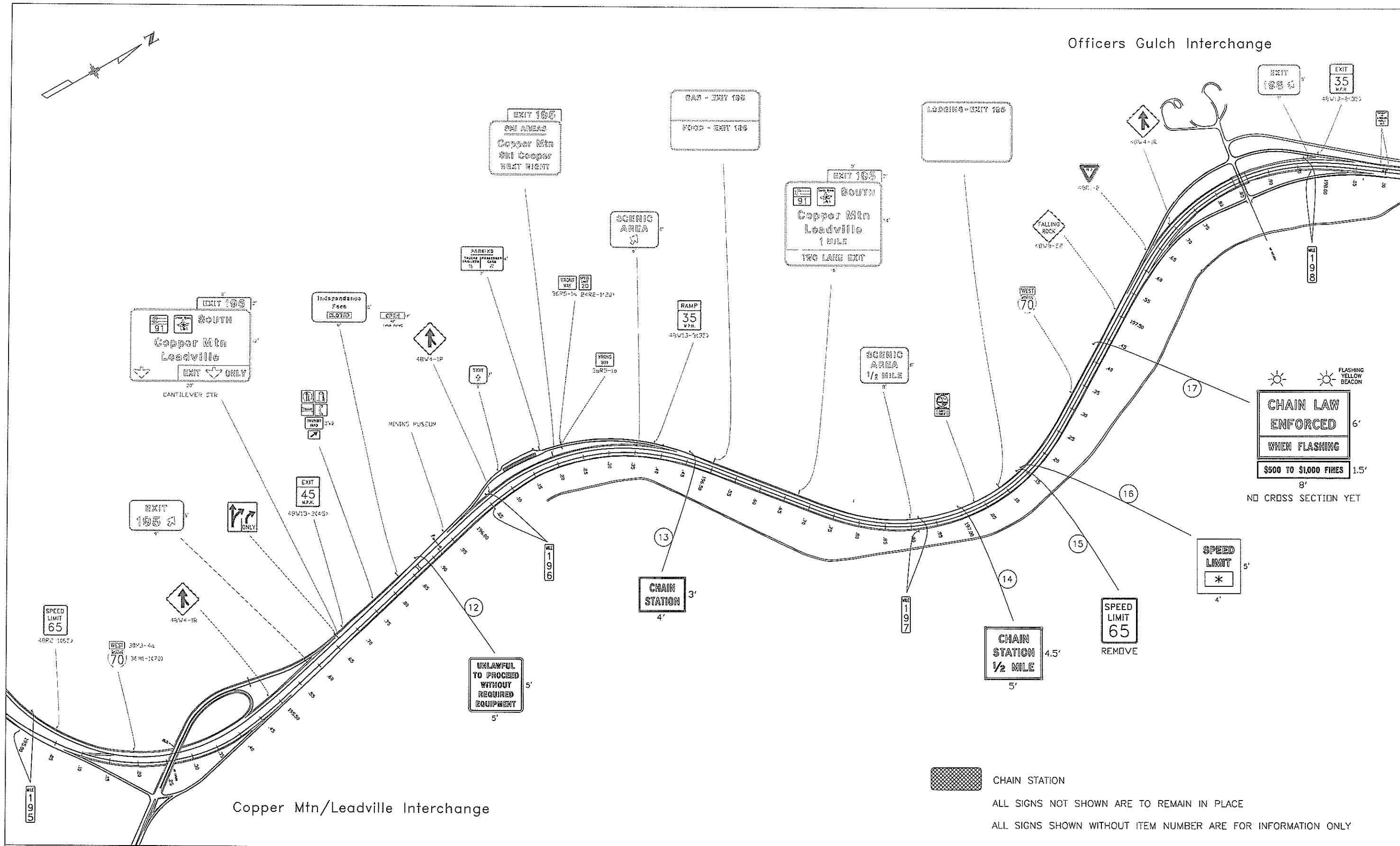
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Colorado Department of Transportation

 18500 E. Colfax Avenue
 Aurora, CO 80011
 Phone: (303) 365-7330 FAX: (303) 365-7350
 Region 1 - Traffic CBR

As Constructed
No Revisions:
Revised:
Void:

MP 219 & 221 WB Chain Stations	
Designer: WCD	Structure Numbers
Detailer: WCD	
Sheet Subset: Traffic	Subset Sheet Number: 7 of 11

Project No./Code
IM 070A-003
16701
Sheet Number : 72



FLASHING YELLOW BEACON

CHAIN LAW ENFORCED WHEN FLASHING \$500 TO \$1,000 FINES

NO CROSS SECTION YET


CHAIN STATION

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Computer File Information	
Creation Date:	2/22/07 Initials: WCD
Last Modification Date:	3/18/08 Initials: WCD
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Acad Ver:	2004 Scale: 1 IN = 100 FT Units: English

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Colorado Department of Transportation



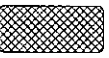
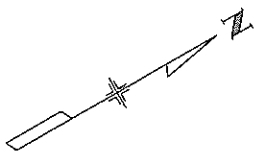
18500 E. Colfax Avenue
Aurora, CO 80011
Phone: (303) 365-7330 FAX: (303) 365-7350

Region 1 - Traffic CBR

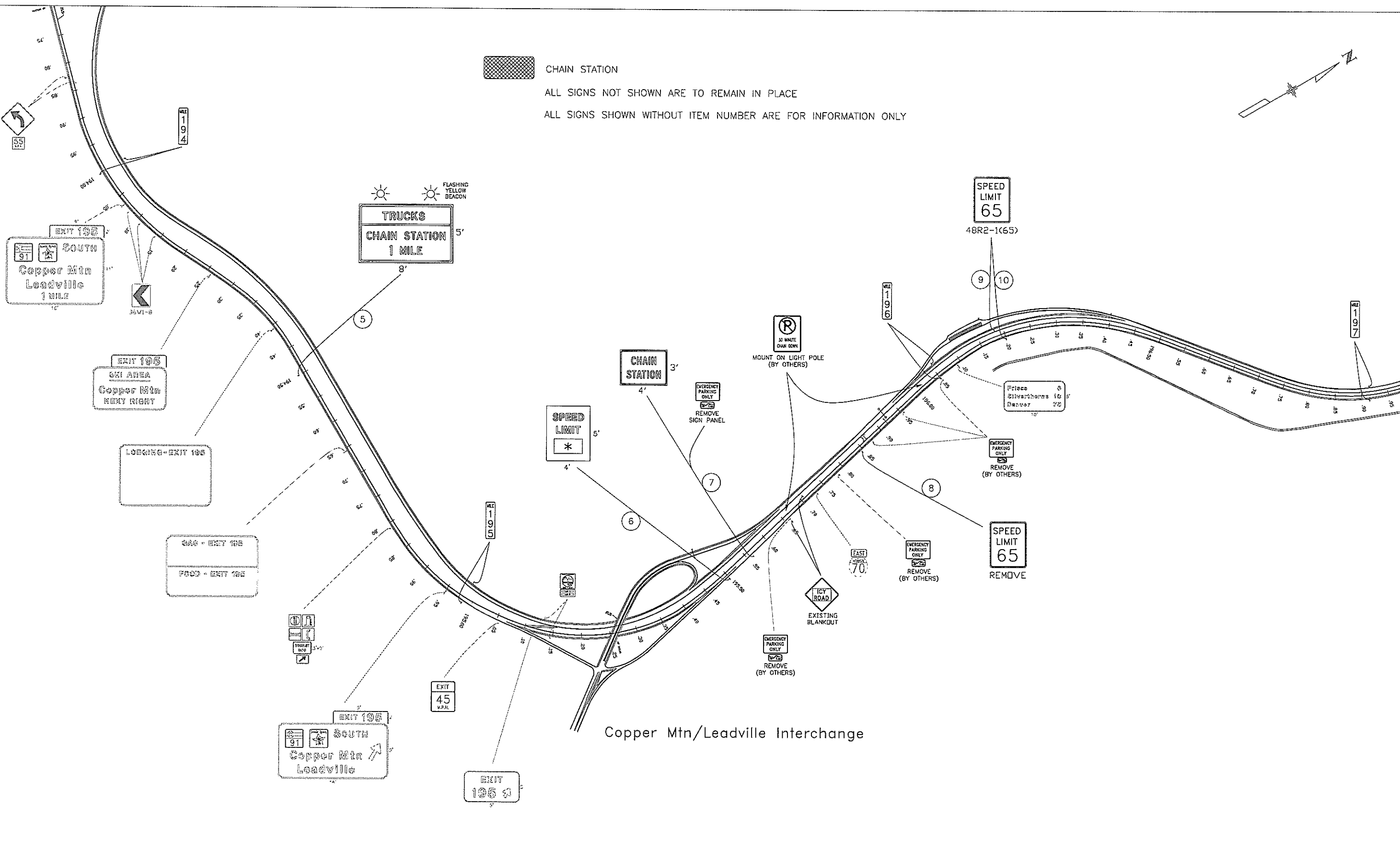
As Constructed
No Revisions:
Revised:
Void:

MP 197 WB Chain Station	
Designer:	WCD
Detailer:	WCD
Sheet Subset:	Traffic
Structure Numbers:	
Subset Sheet Number:	6 of 11


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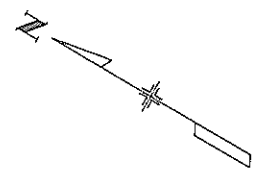


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Copper Mtn/Leadville Interchange

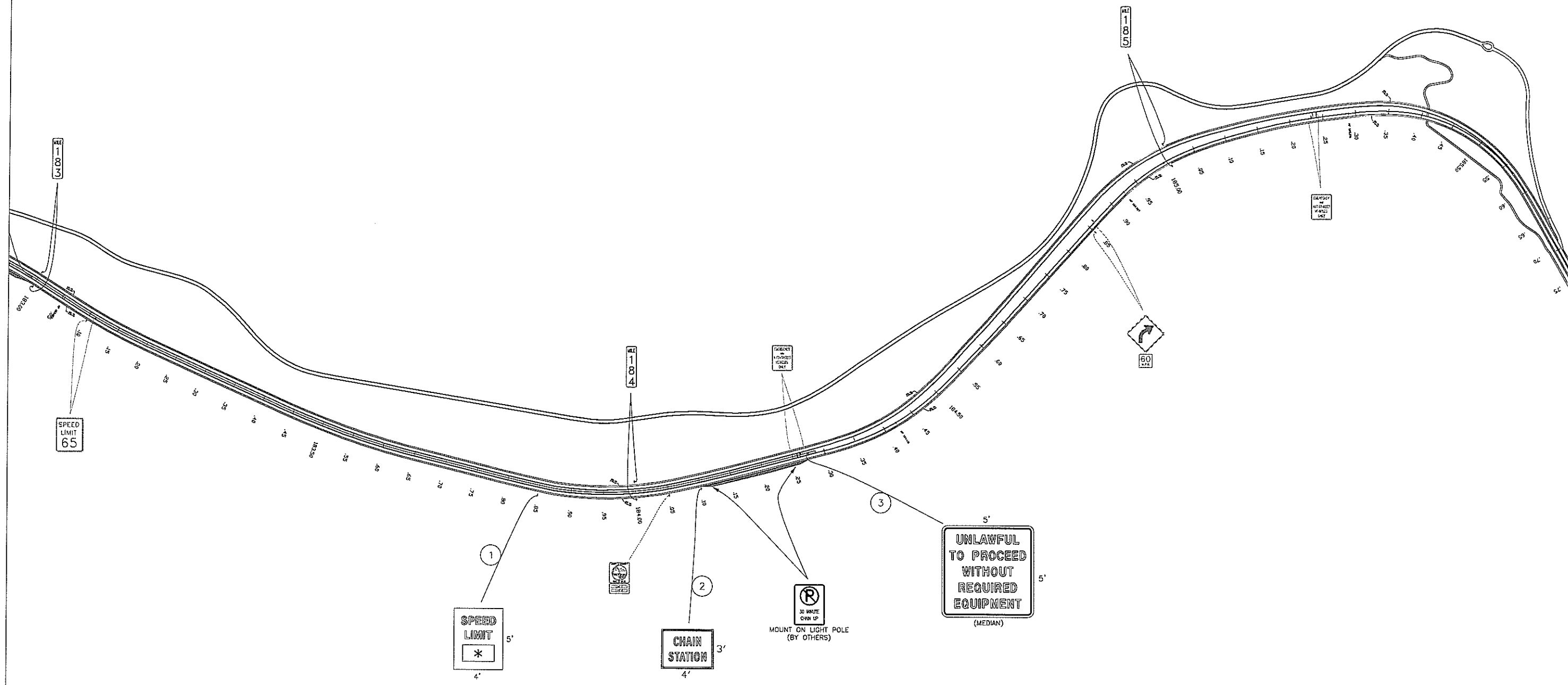
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Creation Date:	2/22/07	Initials:	WCD								IM 070A-003
Last Modification Date:	3/18/08	Initials:	WCD								16701
Full Path:	\PROJECTS\I-70 ChainUp_Phase 2										Sheet Number : 70
Drawing File Name:	05-09_I-70Plan180-248_ChainUp.dwg										
Acad Ver:	2004	Scale:	1 IN = 100 FT Units: English								
				 18500 E. Colfax Avenue Aurora, CO 80011 Phone: (303) 365-7330 FAX: (303) 365-7350		Region 1 - Traffic CBR		No Revisions: Revised: Void:		Designer: WCD Detailer: WCD Sheet Subset: Traffic Structure Numbers: Subset Sheet Number: 5 of 11	



CHAIN STATION

ALL SIGNS NOT SHOWN ARE TO REMAIN IN PLACE


ALL SIGNS SHOWN WITHOUT ITEM NUMBER ARE FOR INFORMATION ONLY



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Creation Date:	2/22/07 Initials: WCD
Last Modification Date:	3/18/08 Initials: WCD
Full Path:	PROJECTS\I-70 ChainUp_Phase 2
Drawing File Name:	05-09_I-70Plan180-248_ChainUp.dwg
Acad Ver:	2004 Scale: 1 IN = 100 FT Units: English

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Colorado Department of Transportation



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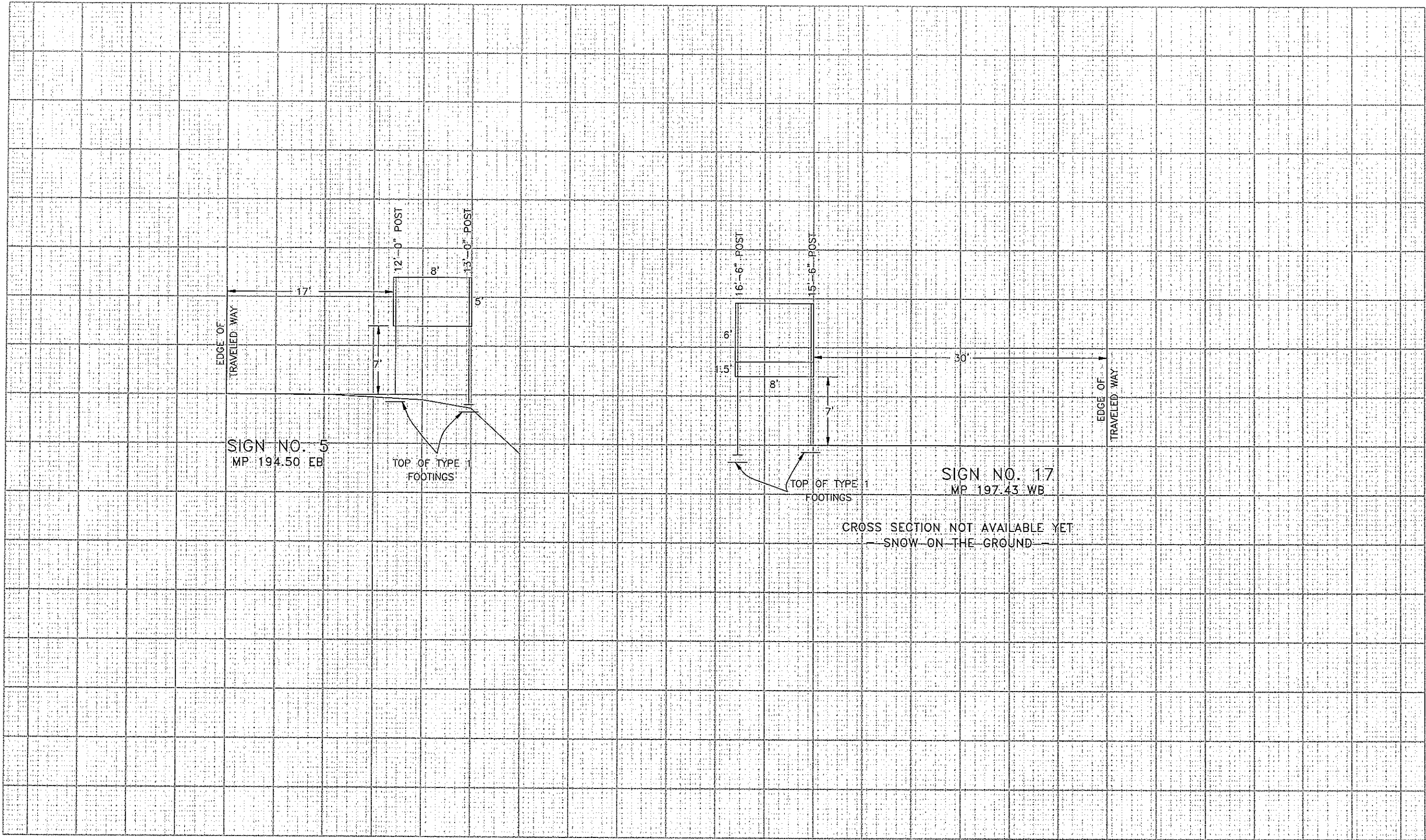
Region 1 - Traffic CBR

As Constructed
No Revisions:
Revised:
Void:

MP 184 EB Chain Station		
Designer:	WCD	Structure Numbers
Detailer:	WCD	
Sheet Subset:	Traffic	Subset Sheet Number: 4 of 11


Project No./Code
IM 070A-003
16701
Sheet Number : 69

C:\Users\jgibson\Documents\Projects\16701\Cross Sections at Class III Sign Locations.dwg



Print Date: 3/18/2008
 File Name: 04_16701_Cross Sections at Class III Signs.dgn
 Horiz. Scale: 1:120 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 18500 East Colfax Avenue
 Aurora, CO 80011
 Phone: 303-365-7330 FAX: 303-365-7350
Region 1 **CBR**


As Constructed
 No Revisions:
 Revised:
 Void:

Cross Sections at Class III Sign Locations			
Designer:	WCD	Structure	-
Detailer:	WCD	Numbers	-
Sheet Subset:	Traffic	Subset Sheets:	3 of 11

Project No./Code
 IM 070A-003
 16701
 Sheet Number **68**

SIGN NO.	SIGN CODE	LOCATION	SIGN PANEL SIZE	BACK-GROUND COLOR	REMOVE SIGN PANEL (EACH)	REMOVE GROUND SIGN (EACH)	RESET GROUND SIGN (EACH)	NO. OF POSTS	LENGTH OF POST	STEEL POST (P2) (2.5 IN RD SCH 80)		STEEL POST (W SHAPE) (LIN FT)				CONC FOOTING TYPE (EACH)				SIGN PANEL (SQ FT)			VAR. SP. LIMIT SIGN (EACH)	FLASHING BEACON (EACH)	COMMENTS	
										POST (LIN FT)	SLIPBASE (EACH)	W6x12	W6x15	W8x18	W8x21	1	2	3	4	CLASS I	CLASS II	CLASS III				
MP 184 EB CHAIN STATION																										
1	SPECIAL	MP 183.85 EB	4'x5'	WHITE				1	13'																SEE NOTE 1	
2	SPECIAL	MP 184.10 EB	4'x3'	YELLOW				2	11'	22.0	2															
3	SPECIAL	MP 184.28 MED	5'x5'	WHITE				2	13'	26.0	2															
MP 195 EB CHAIN STATION																										
4	INTENTIONALLY LEFT BLANK																									
5	SPECIAL	MP 194.50 EB	8'x5'	YELLOW				2	12'/13'			25.0					2									
6	SPECIAL	MP 195.50 EB	4'x5'	WHITE				1	13'																	
7	SPECIAL	MP 195.56 EB	4'x3'	YELLOW	1			2	11'	11.0	1														SEE NOTE 1	
8		MP 195.85 EB				1																			ADD (1) NEW POST & FTG	
9	48R2-1(65)	MP 196.18 MED	4'x5'	WHITE				2	13'	26.0	2															
10	48R2-1(65)	MP 196.20 EB	4'x5'	WHITE				2	13'	26.0	2															
MP 197 WB CHAIN STATION																										
11	INTENTIONALLY LEFT BLANK																									
12	SPECIAL	MP 195.88 WB	5'x5'	WHITE				2	13'	26.0	2															
13	SPECIAL	MP 196.45 WB	4'x3'	YELLOW				2	11'	22.0	2															
14	SPECIAL	MP 197.00 WB	5'x4.5'	YELLOW				2	13'	26.0	2															
15		MP 197.14 WB				1																				
16	SPECIAL	MP 197.15 WB	4'x5'	WHITE				1	13'																SEE NOTE 1	
17a	SPECIAL	MP 197.43 WB	8'x6'	WHITE/YEL				2	16'-6"/15'-6"	32.0		2													ESTIMATE ONLY (FTGS & POSTS)	
17b	SPECIAL		8'x1.5'	WHITE																						
MP 219 & 221 WB CHAIN STATIONS																										
18	INTENTIONALLY LEFT BLANK																									
19	SPECIAL	MP 219.15 WB	5'x5'	WHITE				2	13'	26.0	2															
20	SPECIAL	MP 219.52 WB	4'x3'	YELLOW				2	11'	22.0	2															
21	SPECIAL	MP 219.90 WB	4'x5'	WHITE				1	13'																SEE NOTE 1	
22	SPECIAL	MP 221.10 WB	4'x5'	WHITE				1	13'																SEE NOTE 1	
PROJECT TOTAL:										233	19	57														

NOTE:
1. ALL BLANKOUT SIGN (FIBER OPTIC) ARE TO BE INSTALLED WITH A MULTI-DIRECTIONAL ASSEMBLY.
SEE PROJECT PLAN SHEETS FOR DETAIL.

Computer File Information		Index of Revisions		Colorado Department of Transportation		As Constructed		Tabulation of Signs		Project No./Code	
Creation Date: 3/30/07	Initials: WCD			 18500 E. Colfax Avenue Aurora, CO 80011 Phone: (303) 365-7333 FAX: (303) 365-7350		No Revisions:		Designer: WCD Detailer: WCD Sheet Subset: Traffic		IM 070A-003	
Last Modification Date: 4/12/07	Initials: WCD					Revised:				Structure Numbers	
Full Path: \PROJECTS\I-70 Chain Up				Region 1 - Traffic		Void:		Subset Sheet Number: 2 of 11		Sheet Number 69	
Drawing File Name: ChainUp_Tabulation of Signs.dwg				CBR							
Acad Ver: 2004	Scale: 1 IN = 100 FT Units: English										

TABULATION OF TRAFFIC ENGINEERING ITEMS

SCHEDULE OF CONSTRUCTION TRAFFIC CONTROL DEVICES


ITEM NO.	ITEM	UNIT	PROJECT TOTALS
202	REMOVAL OF GROUND SIGN	EACH	2
202	REMOVAL OF SIGN PANEL	EACH	1
614	SIGN PANEL (CLASS II)	SQ FT	225.5
614	SIGN PANEL (CLASS III)	SQ FT	60
614	STEEL SIGN POST (W6x12)	LIN FT	57
614	STEEL SIGN POST (W8x21)	LIN FT	65
614	STEEL SIGN SUPPORT (2-1/2 INCH ROUND SCH 80)(POST)	LIN FT	233
614	STEEL SIGN SUPPORT (2-1/2 INCH ROUND SCH 80)(SLIPBASE)	EACD	19
614	CONCRETE FOOTING (TY 1)	EACH	4
614	CONCRETE FOOTING (TY 4)	EACH	5
614	FLASHING BEACON	EACH	5
614	FLASHING BEACON	EACH	4
630	FLAGGING	HOUR	756
630	TRAFFIC CONTROL INSPECTION	DAY	42
630	TRAFFIC CONTROL MANAGEMENT	DAY	105
630	CONST TRAF SIGN (A)	EACH	6
630	CONST TRAF SIGN (B)	EACH	33
630	CONST TRAF SIGN (C)	EACH	26
630	CONST TRAF SIGN (SPECIAL)	SQ FT	94
630	FLASH ARROW PANEL (C TY)	EACH	1
630	PORTABLE MESSAGE SIGN PANEL	EACH	1
630	DRUM CHANNELIZING DEVICE	EACH	50
630	TRAFFIC CONE	EACH	400
630	IMPACT ATTENUATOR (T-M-A)(TEMP)	EACH	1

SIGNS						
SIGN CODE	LEGEND	DIMENSIONS	PANEL SIZE			
			A	B	C	
48W20-1	ROAD/WORK/(DIST)	48"x48"		6		
48W20-7a	FLAGGER SYMBOL	48"x48"		6		
48W20-5()	(_) LANE/CLOSED/(DIST)	48"x48"		2		
48W4-2()	(_)LANE TRANSITION SYMBOL	48"x48"		2		
48W21-5	SHOULDER/WORK	48"x48"		4		
48W21-5b	___/SHOULDER/CLOSED/(DIST)	48"x48"		4		
48R4-1	DO/NOT/PASS	48"x60"			2	
48R4-2	PASS/WITH/CARE	48"x60"			2	
48R2-1(45)	SPEED/LIMIT/45	48"x60"			4	
48R2-1(55)	SPEED/LIMIT/55	48"x60"			4	
48R2-1(65)	SPEED/LIMIT/65	48"x60"			2	
48R52-6a	BEGIN/FINES/DOUBLE/IN WORK/ZONE	48"x60"			6	
48R52-6b	END/FINES/DOUBLE/IN WORK/ZONE	48"x60"			6	
48G20-10	(Company Name)/THANKS YOU/(Tel #)	48"x48"		3		
48G20-5	WORK ZONE	48"x12"	6			
48R2-6	FINES/DOUBLE	48"x48"		6		
SIGN TOTALS			6	33	26	
OTHER DEVICES						
ITEM / UNIT					QUANTITY	
DRUM CHANNELIZING DEVICE / EA					50	
TRAFFIC CONE 36" / EA					400	
FLASHING ARROW PANEL (C TY) / EA					1	
PORTABLE MESSAGE SIGN PANEL / EA					1	
IMPACT ATTENUATOR (T-M-A)(TEMP) / EA					1	

CONSTRUCTION TRAFFIC SIGN (SPECIAL)		
LEGEND	DIMENSIONS	SQ. FT.
USE BOTH/LANES DURING/CONGESTIONS	1 - 7'x4'	28.00
USE BOTH/LANES TO/MERGE POINT	4 - 3'x3.5'	42.00
TAKE/TURNS/MERGE/HERE	2 - 3'x4'	24.00
SIGN TOTALS		94.00

NOTES:

- SEE S-630-1 OF THE COLORADO STANDARD PLANS FOR BASIC PLACEMENT DETAILS OF CONSTRUCTION TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR WILL BE REQUIRED TO COVER EXISTING SIGNS WHICH CONFLICT WITH CONSTRUCTION SIGNS AS REQUIRED IN SECTION 630.11 OF THE STANDARD SPECIFICATIONS.
- QUANTITIES SHOWN ON THE SCHEDULE OF CONSTRUCTION TRAFFIC CONTROL DEVICES WERE BASED ON (1) SET-UP OF LANE CLOSURE ON A FOUR LANE DIVIDED HIGHWAY & (2) SET-UP OF SHOULDER CLOSURE.

Print Date: 3/20/2008	Sheet Revisions	Colorado Department of Transportation	As Constructed	Tabulation of Traffic Engineering Items	Project No./Code
File Name: 01_16701_Tab of Engineering Items.dgn	Date: _____	 18500 East Colfax Avenue Aurora, CO 80011 Phone: 303-365-7330 FAX: 303-365-7350 Region 1 CBR	No Revisions:	Designer: WCD	IM 070A-003
Horiz. Scale: 1:200 Vert. Scale: As Noted	Comments: _____		Revised:	Detailer: WCD	16701
Unit Information Unit Leader Initials	Init.: _____		Void:	Structure: -	Sheet Number 66 -
				Numbers: -	Subset Sheets: 1 of 11

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Culvert Size, Location, and Type

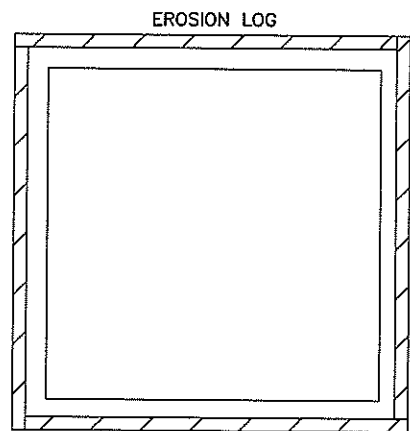
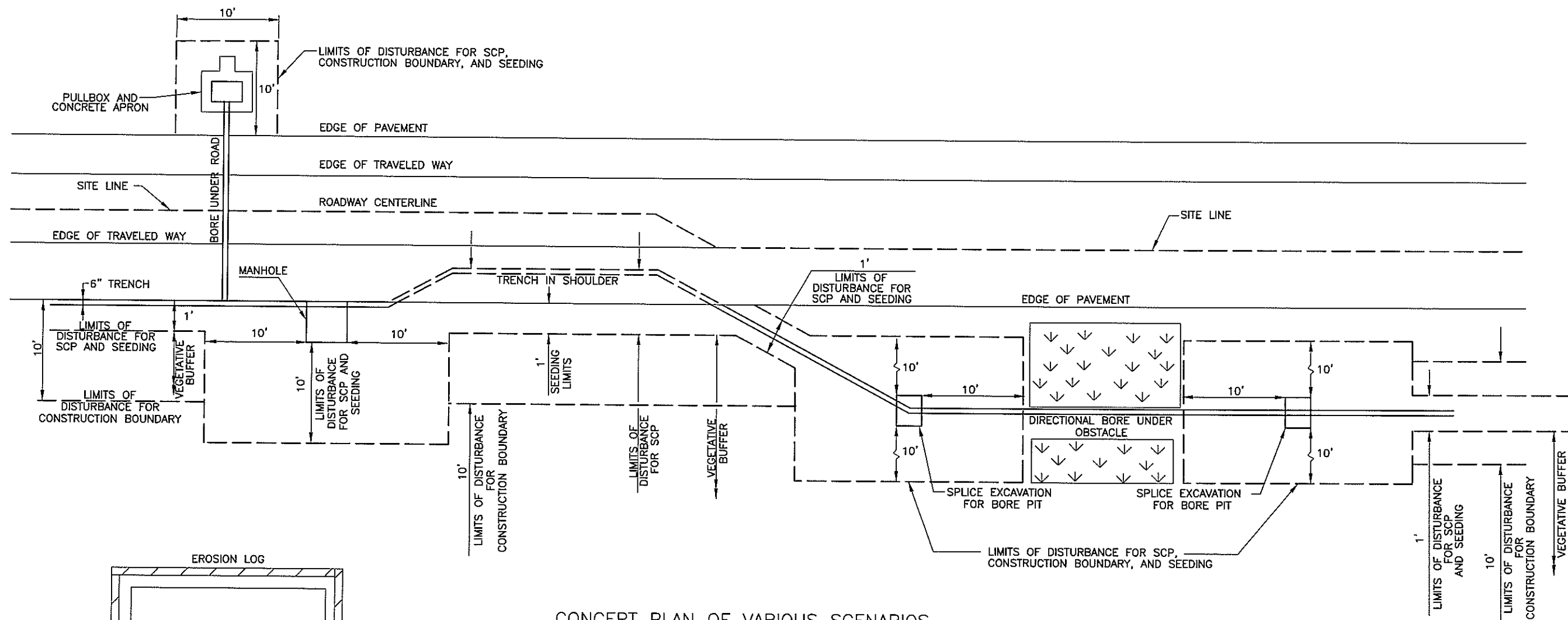
Culvert Size	Culvert Type	M.P. Reference	Sheet Number	Water of the U.S.
10'	Box Culvert	200		North Tenmile Creek
24"	CMP	200		
18"	CMP	199		Tenmile Creek
18"	CMP	199		Tenmile Creek
18"	CMP	199		Tenmile Creek
24"	Concrete	199		Tenmile Creek
(2) 18"	Plastic	199		
36"	CMP	196		
24"	Concrete	196		
24"	CMP	195		
18"	CMP	194		
18"	CMP	194		
18"	CMP	194		
12"	CMP	193		West Tenmile Creek
12"	CMP	193		West Tenmile Creek
18"	CMP	193		West Tenmile Creek / Guller Gulch
24"	CMP	193		West Tenmile Creek / Guller Gulch
12"	Concrete	193		West Tenmile Creek / Guller Gulch
12"	CMP	193		West Tenmile Creek
36"	CMP	193		West Tenmile Creek
36"	CMP	192		West Tenmile Creek
24"	CMP	192		West Tenmile Creek
24"	CMP	192		
24"	CMP	192		
12"	CMP	192		West Tenmile Creek / Stafford Creek
12"	Concrete	192		West Tenmile Creek
36"	Concrete	192		
36"	CMP	191		West Tenmile Creek
36"	CMP	191		West Tenmile Creek
36"	Concrete	191		West Tenmile Creek
18"	Concrete	191		
12"	Concrete	191		West Tenmile Creek / Wilder Gulch
12"	Concrete	190		West Tenmile Creek / Wilder Gulch
12"	CMP	190		West Tenmile Creek
12"	Concrete	190		
12"	Concrete	190		
24"	CMP	190		
36"	Plastic	188		
12"	Concrete	188		
12"	Concrete	188		

Culvert Size	Culvert Type	M.P. Reference	Sheet Number	Water of the U.S.
24"	CMP	188		
24"	Concrete	188		
24"	CMP	187		
24"	CMP	187		
24"	Concrete	186		
12"	Concrete	186		
12"	Plastic	185		
24"	CMP	185		
12"	Concrete	182		Gore Creek
12"	Concrete	181		
24"	Concrete	181		
24"	Concrete	181		
12"	Concrete	181		
12"	Concrete	181		
10'	Box Culvert	180		Bighorn Creek
24"	Concrete	180		Pitkin Creek
24"	Concrete	179		
24"	Concrete	179		
18"	Concrete	179		Unnamed (M.P. 183)
36"	Concrete	178		
24"	Concrete	178		
24"	Concrete	177		
18"	Concrete	177		
18"	CMP	177		
24"	Concrete	177		
24"	Concrete	177		

NOTE:

THIS TABLE SHOWS CULVERT SIZE, TYPE, SHEET REFERENCE AND MILEPOST LOCATIONS. INFORMATION SHOWN IN THE TABLE ABOVE IS APPROXIMATE ONLY.



Computer File Information		Index of Revisions		 Region 1 18500 East Colfax Aurora, CO 80011 Phone: (303) 365-7340 FAX: (303) 365-7343	 4601 DTC Blvd. Suite 700 Denver, CO 80237 Phone: (303) 221-7275 Fax: (303) 221-7276	As Constructed		STORMWATER MANAGEMENT PLAN		Project No./Code			
Creation Date: 02/18/08 Initials: SRB						No. Revisions:		CULVERT TABLE		IM 070A-003			
Last Modification Date: 03/25/08 Initials: SRB						Revised:		Designer: SRB		Structure Numbers		16701	
Full Path: S:\Tranproj\100000508\16701\Consultants\Plot_Sets\FOR						Void:		Detailer: SRB		Sheet Subset: swmp04		Subset Sheets: 5 of 5	
Drawing File Name: swmp05.dgn				REGION I DW		Sheet Subset: swmp04		Subset Sheets: 5 of 5		Sheet Number: 65			
Scale: Units: ENGLISH													

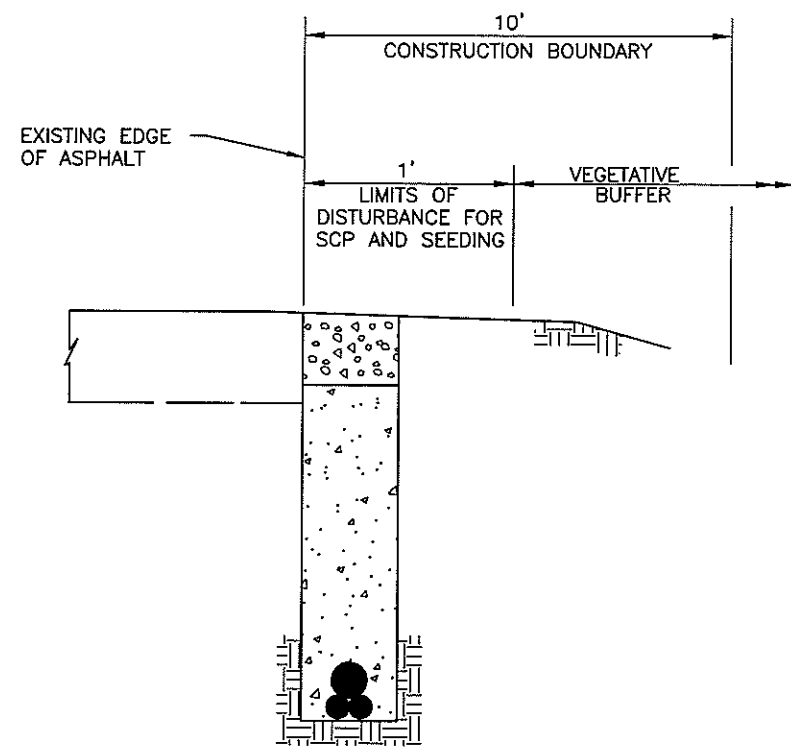


BORE PIT CONTAINMENT POND

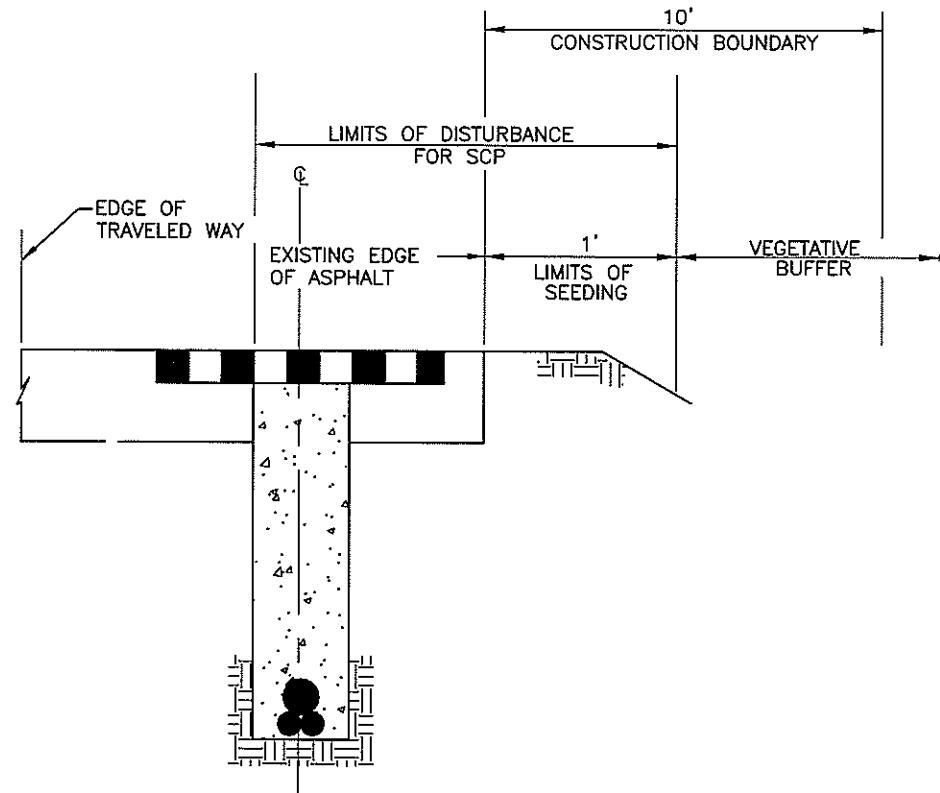
CONCEPT PLAN OF VARIOUS SCENARIOS

NOTE:
SCP = STORMWATER CONSTRUCTION PERMIT

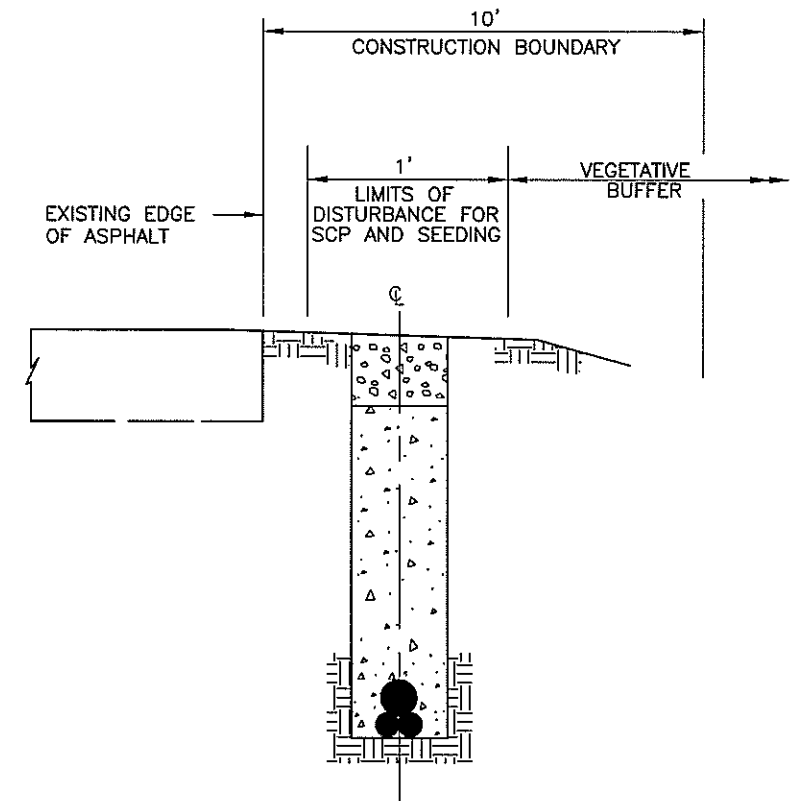
Computer File Information Creation Date: 02/18/08 Initials: SRB Last Modification Date: 03/25/08 Initials: SRB Full Path: S:\Tranproj\100000508\16701\Consultants\Plot_Sets\FOR Drawing File Name: swmp04.dgn Scale: Units: ENGLISH		Index of Revisions <table border="1"> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>																		 Region 1 18500 East Colfax Aurora, CO 80011 Phone: (303) 365-7340 FAX: (303) 365-7343 REGION I DW		 4601 DTC Blvd. Suite 700 Denver, CO 80237 Phone: (303) 221-7275 Fax: (303) 221-7276		As Constructed No. Revisions: Revised: Void:		STORMWATER MANAGEMENT PLAN DISTURBANCE AREA Designer: SRB Structure Numbers Detailer: SRB Sheet Subset: swmp03 Subset Sheets: 4 of 5			Project No./Code IM 070A-003 16701 Sheet Number: 64	



TRENCH ADJACENT TO SHOULDER





TRENCH INSIDE SHOULDER



TRENCH OUTSIDE SHOULDER

TYPICAL SECTIONS

NOTE:
SCP = STORMWATER CONSTRUCTION PERMIT

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1. STORMWATER MANAGEMENT CONTROLS FIRST CONSTRUCTION ACTIVITIES:

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. POTENTIAL POLLUTANT SOURCES

Evaluate, identify and describe all potential sources of pollutants at the site in accordance with subsection 107.25 and place any BMP's required to contain potential pollutants.

B. BEST MANAGEMENT PRACTICES (BMPs) FOR STORMWATER POLLUTION PREVENTION

EROSION LOGS

Erosion logs are used to capture and filter sediment laden run-off from disturbed areas during construction. Place in areas directed by the engineer.

Place logs at existing inlets adjacent to where trenching or boring operations may be occurring.

Place in ditches to prevent excavated materials from entering culverts or wetlands. Also place to prevent bore water running down slopes or ditches and causing erosion.

C. OFFSITE DRAINAGE (RUN ON WATER)

1. Place BMP's to address run-on water in accordance with subsection 208.03

D. PERIMETER CONTROL

1. Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters.
2. Perimeter control may consist of vegetative buffers, berms, silt fence, erosion logs, existing landforms, or other BMPs as approved.
3. Perimeter control shall be in accordance with subsection 208.04.

2. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR/EROSION CONTROL SUPERVISOR DURING CONSTRUCTION

The SWMP should be considered a "living document" that is continuously reviewed and modified. During construction, the following items should be added, updated, or amended as needed by the Contractor in accordance with Section 208.

A. MATERIALS HANDLING AND SPILL PREVENTION

B. STOCKPILE MANAGEMENT

C. GRADING AND SLOPE STABILIZATION

D. SURFACE ROUGHENING

E. VEHICLE TRACKING

F. TEMPORARY STABILIZATION

G. CONCRETE WASHOUT

1. Concrete wash out shall not be allowed in the project site.

H. SAW CUTTING

1. Shall be in accordance with subsection 208.04 (g), particles shall be picked up with broom or vacuum as soon as possible, immediately in most cases, after operations.

I. STREET CLEANING

1. Shall be in accordance with subsection 208.04(f)

3. INTERIM AND FINAL STABILIZATION

A. SEEDING PLAN

Soil preparation, soil conditioning or topsoil, seeding (native), mulching (weed free) and mulch tackifier will be required for an estimated 1 acre(s) of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

COMMON NAME	BOTANICAL NAME	POUNDS PLS/ACRE
Western Wheatgrass	Pascopyrum smithii "Rosanna"	8.0
Slender Wheatgrass	Elymus trachycaulus ssp. Trachycaulus "Pryor"	8.0
Mountain brome	Bromus marginatus "Bromar"	5.0
Idaho fescue	Festuca idahoensis	2.0
Prairie junegrass	Koeleria macrantha	0.2
Sandberg bluegrass	Poa sandbergii	2.0
Blue grama	Bouteloua gracilis "Hachita"	1.0
Sheep fescue	Festuca ovina "Covar"	2.0
Blue flax	Linum lewisii	0.5
Sulfur flower	Eriogonum umbellatum	0.3
Rocky Mtn Penstemon	Penstemon Strictus	1.0
Golden banner	Thermopsis montanus	0.3
TOTAL		30.3

B. SEEDING APPLICATION:

Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25 inch to 0.5 inch into the soil.

C. MULCHING APPLICATION:

Apply 1 #tons of certified weed free hay per acre mechanically crimped into the soil in combination with an organic mulch tackifier.

D. SPECIAL REQUIREMENTS:

Due to high failure rates, hydromulching and/or hydroseeding will not be allowed.

E. SOIL CONDITIONING AND FERTILIZER REQUIREMENTS:

1. Fertilizer will not be required on the project.

4. PRIOR TO FINAL ACCEPTANCE

A. Final Acceptance shall be in accordance with subsection 208.061.

5. TABULATION OF STORMWATER QUANTITIES

Pay Item	Description	Unit	Quantity
208	Erosion Log (12 Inch)	LF	3320
208	Concrete Washout Structure	EA	3
212	Seeding (Native)	Acre	1.65
212	Soil Conditioning	Acre	1.65
213	Mulching (Weed Free Hay)	Acre	1.65
213	Mulch Tackifier	LB	330
700	Erosion Control	FA	1

1. All other items described as part of the SWMP and special provision 101, 107.25, 208 shall be paid for by force account.

2. It is estimated the 1 "urban" concrete washout structures will be required on the project. Concrete washout shall not be paid for separately.

Computer File Information		Index of Revisions		As Constructed		STORMWATER MANAGEMENT PLAN		Project No./Code	
Creation Date: 02/18/08	Initials: SRB			No. Revisions:		IM 070A-003		16701	
Last Modification Date: 03/25/08	Initials: SRB			Revised:		Designer:	SRB	Structure Numbers	
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Drawing File Name: swmp-01.dgn						Sheet Subset:		Subset Sheets:	1 of 5
Scale:	Units: ENGLISH								Sheet Number: 61



REGION I DW

4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

MOUNTING: SURFACE PANEL "LCC13" 120/240V-1PH-3W														
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP228.57WB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY														
BRANCH BREAKER														
LEFT PHASE LOAD					RIGHT PHASE LOAD									
CD	DESCRIPTION	P	Size	Clas	L1	L2	Clas	Size	P	DESCRIPTION	CD			
L	Chain Station MP228WB	1	30	1	540			900	2	30	1	Chain Station MP228WB	L	
L	Chain Station MP228WB	1	30	3		540		900	4	30	1	Chain Station MP228WB	L	
L	Chain Station MP228WB	1	30	5	900			180	6	30	1	Chain Station MP228WB	L	
L	Chain Station MP228WB	1	30	7		1080		180	8	30	1	Chain Station MP228WB	L	
	SPARE	1	30	9					10			Space Only		
	Space Only	1	30	11					12			Space Only		
	Space Only			13				200	14	15	1	LCC13 Ltg. Control Circuit	M	
	Space Only			15				180	16	15	1	LCC13 Maint. Rec.	R	
					1440	1620		1280	1260					
					2720	2880	Total Connected VA			4340				
					5600 Total Connected VA all (3) Phases									
LOAD		CD	CONNECTED	D.FACT.	Est. KVA		AMPS							
LIGHTING	L	5220 VA	1.25	6.53										
RECEPTACLES (1ST 10000)	R	180 VA	1.00	0.18	180 VA=Total Receptacle Load									
RECEPTACLES (REMAINING)	R	VA	0.50	0.00										
MOTOR (LARGEST)	ML	0 VA	1.25	0.00										
MOTORS (REMAINING)	MR	0 VA	1.00	0.00										
ELECTRIC HEAT	H	0 VA	1.25	0.00										
ELECTRICAL MSC.	M	200 VA	1.00	0.20										
TOTAL ESTIMATED LOAD		5600 VA		6.91	29									

MOUNTING: SURFACE PANEL "LCC14" 120/240V-1PH-3W														
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP228.85WB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY														
BRANCH BREAKER														
LEFT PHASE LOAD					RIGHT PHASE LOAD									
CD	DESCRIPTION	P	Size	Clas	L1	L2	Clas	Size	P	DESCRIPTION	CD			
L	Chain Station MP228WB	1	30	1	900			540	2	30	1	Chain Station MP228WB	L	
L	Chain Station MP228WB	1	30	3		900		540	4	30	1	Chain Station MP228WB	L	
L	Chain Station MP228WB	1	30	5	900			540	6	30	1	Chain Station MP228WB	L	
L	Chain Station MP228WB	1	30	7		1080		540	8	30	1	Chain Station MP228WB	L	
	SPARE	1	30	9					10			Space Only		
	Space Only	1	30	11					12			Space Only		
	Space Only			13				200	14	15	1	LCC14 Ltg. Control Circuit	M	
	Space Only			15				180	16	15	1	LCC14 Maint. Rec.	R	
					900	900		1280	1260					
					2160	2160	Total Connected VA			4340				
					5600 Total Connected VA all (3) Phases									
LOAD		CD	CONNECTED	D.FACT.	Est. KVA		AMPS							
LIGHTING	L	3960 VA	1.25	4.95										
RECEPTACLES (1ST 10000)	R	180 VA	1.00	0.18	180 VA=Total Receptacle Load									
RECEPTACLES (REMAINING)	R	VA	0.50	0.00										
MOTOR (LARGEST)	ML	0 VA	1.25	0.00										
MOTORS (REMAINING)	MR	0 VA	1.00	0.00										
ELECTRIC HEAT	H	0 VA	1.25	0.00										
ELECTRICAL MSC.	M	200 VA	1.00	0.20										
TOTAL ESTIMATED LOAD		4340 VA		5.33	22									

MOUNTING: FLUSH Disconnect "LCC15" 120/240V-1PH-3W												
FEEDER: TOP NEMA 3R DISCONNECT ON BACK OF NEMA 4 ENCLOSURE @ MP241.77EB Minimum A.I.C. = 14,000 AMPS 30 AMP MAIN BREAKER												
BRANCH FUSES												
Main PHASE LOAD				Additional PHASE LOAD								
CD	DESCRIPTION	P	Size	Clas	A-PH	B-PH	C-PH	A-PH	B-PH	C-PH	DESCRIPTION	CD
L	Chain Station MP241EB	1	FRS15	1	1080							
L	Chain Station MP241EB	1	FRS15	3	1080							
L	Chain Station MP241EB	1	FRS15	5	1080			280			277V-120V Control Transformer	M/R
					1080	1080	1080	0	0	280		
					1080	1080	1350	Total Connected VA			3520	
					3520 Total Connected VA all (3) Phases							
LOAD		CD	CONNECTED	D.FACT.	Est. KVA		AMPS					
LIGHTING	L	3240 VA	1.25	4.05								
RECEPTACLES (1ST 10000)	R	180 VA	1.00	0.18	180 VA=Total Receptacle Load							
RECEPTACLES (REMAINING)	R	VA	0.50	0.00								
MOTOR (LARGEST)	ML	0 VA	1.25	0.00								
MOTORS (REMAINING)	MR	0 VA	1.00	0.00								
ELECTRIC HEAT	H	0 VA	1.25	0.00								
ELECTRICAL MSC.	M	100 VA	1.00	0.10								
TOTAL ESTIMATED LOAD		3520 VA		4.33	5							

MOUNTING: SURFACE PANEL "LCC16" 120/240V-1PH-3W												
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP250.28EB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY												
BRANCH BREAKER												
LEFT PHASE LOAD					RIGHT PHASE LOAD							
CD	DESCRIPTION	P	Size	Clas	L1	L2	Clas	Size	P	DESCRIPTION	CD	
L	Chain Station MP251EB	1	30	1	900				2	30	1	SPARE
L	Chain Station MP251EB	1	30	3		900			4	30	1	SPARE
	Space Only			5				200	6	15	1	LCC16 Ltg. Control Circuit
M	Fiber Optic Transceiver	1	15	7	100			100	8	15	1	LCC16 Maint. Rec.
					900	1000		200	180			
					1100	1180	Total Connected VA			2280		
					2280 Total Connected VA all (3) Phases							
LOAD		CD	CONNECTED	D.FACT.	Est. KVA		AMPS					
LIGHTING	L	1800 VA	1.25	2.25								
RECEPTACLES (1ST 10000)	R	180 VA	1.00	0.18	180 VA=Total Receptacle Load							
RECEPTACLES (REMAINING)	R	VA	0.50	0.00								
MOTOR (LARGEST)	ML	0 VA	1.25	0.00								
MOTORS (REMAINING)	MR	0 VA	1.00	0.00								
ELECTRIC HEAT	H	0 VA	1.25	0.00								
ELECTRICAL MSC.	M	300 VA	1.00	0.30								
TOTAL ESTIMATED LOAD		2280 VA		2.73	11							

MOUNTING: SURFACE PANEL "LCC17" 120/240V-1PH-3W												
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP253.3WB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY												
BRANCH BREAKER												
LEFT PHASE LOAD					RIGHT PHASE LOAD							
CD	DESCRIPTION	P	Size	Clas	L1	L2	Clas	Size	P	DESCRIPTION	CD	
L	Chain Station MP254WB	1	30	1	900			1080	2	30	1	Chain Station MP254WB
L	Chain Station MP254WB	1	30	3		900		1080	4	30	1	Chain Station MP254WB
	SPARE	1	30	5					6			Space Only
	Space Only	1	30	7					8			Space Only
	Space Only			9				200	10	15	1	LCC17 Ltg. Control Circuit
	Space Only			11				180	12	15	1	LCC17 Maint. Rec.
					900	900		1280	1280			
					2160	2160	Total Connected VA			4340		
					4340 Total Connected VA all (3) Phases							
LOAD		CD	CONNECTED	D.FACT.	Est. KVA		AMPS					
LIGHTING	L	3960 VA	1.25	4.95								
RECEPTACLES (1ST 10000)	R	180 VA	1.00	0.18	180 VA=Total Receptacle Load							
RECEPTACLES (REMAINING)	R	VA	0.50	0.00								
MOTOR (LARGEST)	ML	0 VA	1.25	0.00								
MOTORS (REMAINING)	MR	0 VA	1.00	0.00								
ELECTRIC HEAT	H	0 VA	1.25	0.00								
ELECTRICAL MSC.	M	200 VA	1.00	0.20								
TOTAL ESTIMATED LOAD		4340 VA		5.33	22							

PRELIMINARY



LIGHTING DESIGN AND ENGINEERING
4599 MAULT & WATSON COURT SOUTH STE. 102
BOULDER, CO 80501
303-555-1229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRENET\	
Drawing File Name: _LTDT-Detail_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

Index of Revisions	



Region 1
18500 East Colfax
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REGION I DW



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As Constructed	
No. Revisions:	
Revised:	
Void:	

LIGHTING PLAN PANEL SCHEDULES (3 of 3)			
Designer:	GF	Structure	
Detailer:	JE	Numbers	
Sheet Subset:	LE	Subset Sheets:	35 OF 35

Project No./Code	
IM 070A-003	
16701	
Sheet Number:	60

MOUNTING: SURFACE PANEL "LCC7" 120/240V-1PH-3W
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP205EB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY

CD	DESCRIPTION	P	Size	Ckt#	LEFT PHASE LOAD		RIGHT PHASE LOAD		Ckt#	Size	P	DESCRIPTION	CD
					L1	L2	L1	L2					
L	Chain Station MP205EB	1	30	1	720			720	2	30	1	Chain Station MP205EB	L
L	Chain Station MP205EB	1	30	3		720		720	4	30	1	Chain Station MP205EB	L
L	Chain Station MP205EB	1	30	5	720			720	6	30	1	Chain Station MP205EB	L
L	Chain Station MP205EB	1	30	7		720		720	8	30	1	Chain Station MP205EB	L
L	Chain Station MP205EB	1	30	9	720			720	10	30	1	Chain Station MP205EB	L
L	Chain Station MP205EB	1	30	11		720		720	12	30	1	Chain Station MP205EB	L
	Space Only			13				180	14	15	1	LCC7 Maint. Rec.	R
	Space Only			15				200	16	15	1	LCC7 Lig. Control Circuit	M
					2160	2160			2340	2360			
					4500	4520	Total Connected VA						
					9020		=Total Connected VA all (3) Phases						
LOAD													
CD	CONNECTED	D.FACT.	Est. KVA	AMPS									
L	8840 VA	1.25	10.80										
L	180 VA	1.00	0.18		180 VA=Total Receptacle Load								
R		0.50	0.00										
M	0 VA	1.25	0.00										
MR	0 VA	1.00	0.00										
H	0 VA	1.25	0.00										
M	200 VA	1.00	0.20										
TOTAL ESTIMATED LOAD				9020 VA	11.18	47							

MOUNTING: SURFACE PANEL "LCC8" 120/240V-1PH-3W
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP219.35EB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY

CD	DESCRIPTION	P	Size	Ckt#	LEFT PHASE LOAD		RIGHT PHASE LOAD		Ckt#	Size	P	DESCRIPTION	CD
					L1	L2	L1	L2					
L	Chain Station MP219EB	1	30	1	720			720	2	30	1	Chain Station MP219EB	L
L	Chain Station MP219EB	1	30	3		720		720	4	30	1	Chain Station MP219EB	L
	SPARE	1	30	5				540	6	30	1	Chain Station MP219EB	L
	Space Only			9				540	8	30	1	Chain Station MP219EB	L
	Space Only			11					10			Space Only	
	Space Only			13					12			Space Only	
	Space Only			15				180	14	15	1	LCC8 Maint. Rec.	R
	Space Only							200	16	15	1	LCC8 Lig. Control Circuit	M
					720	720			1440	1460			
					2160	2160	Total Connected VA						
					4340		=Total Connected VA all (3) Phases						
LOAD													
CD	CONNECTED	D.FACT.	Est. KVA	AMPS									
L	3960 VA	1.25	4.95										
R	180 VA	1.00	0.18		180 VA=Total Receptacle Load								
M	0 VA	1.25	0.00										
MR	0 VA	1.00	0.00										
H	0 VA	1.25	0.00										
M	200 VA	1.00	0.20										
TOTAL ESTIMATED LOAD				4340 VA	5.33	22							

MOUNTING: SURFACE PANEL "LCC9" 120/240V-1PH-3W
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP219.35WB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY

CD	DESCRIPTION	P	Size	Ckt#	LEFT PHASE LOAD		RIGHT PHASE LOAD		Ckt#	Size	P	DESCRIPTION	CD
					L1	L2	L1	L2					
L	Chain Station MP219WB	1	30	1	540			720	2	30	1	Chain Station MP219WB	L
L	Chain Station MP219WB	1	30	3		540		720	4	30	1	Chain Station MP219WB	L
L	Chain Station MP219WB	1	30	5	720			540	6	30	1	Chain Station MP219WB	L
L	Chain Station MP219WB	1	30	7		720		540	8	30	1	Chain Station MP219WB	L
	SPARE	1	30	9				500	10	15	2	240VPri-480VSec T Transformer	M
	Space Only			11				500	12	2	2 to VLS @ MP219.35WB	M	
	Space Only			13				180	14	15	1	LCC9 Maint. Rec.	R
	Space Only			15				200	16	15	1	LCC9 Lig. Control Circuit	M
					1290	1290			1940	1960			
					3200	3220	Total Connected VA						
					6420		=Total Connected VA all (3) Phases						
LOAD													
CD	CONNECTED	D.FACT.	Est. KVA	AMPS									
L	5040 VA	1.25	6.30										
R	180 VA	1.00	0.18		180 VA=Total Receptacle Load								
M	0 VA	1.25	0.00										
MR	0 VA	1.00	0.00										
H	0 VA	1.25	0.00										
M	1200 VA	1.00	1.20										
TOTAL ESTIMATED LOAD				6420 VA	7.68	32							

MOUNTING: SURFACE PANEL "LCC10" 120/240V-1PH-3W
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP220.67WB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY

CD	DESCRIPTION	P	Size	Ckt#	LEFT PHASE LOAD		RIGHT PHASE LOAD		Ckt#	Size	P	DESCRIPTION	CD
					L1	L2	L1	L2					
L	Chain Station MP221WB	1	30	1	720			1080	2	30	1	Chain Station MP221WB	L
L	Chain Station MP221WB	1	30	3		720		1080	4	30	1	Chain Station MP221WB	L
L	Chain Station MP221WB	1	30	5	1240			720	6	30	1	Chain Station MP221WB	L
L	Chain Station MP221WB	1	30	7		1240		720	8	30	1	Chain Station MP221WB	L
	SPARE	1	30	9				500	10	15	2	240VPri-480VSec T Transformer	M
	Space Only			11				500	12	2	2 to VLS @ MP221.1WB	M	
	Space Only			13				180	14	15	1	LCC10 Maint. Rec.	R
	Space Only			15				200	16	15	1	LCC10 Lig. Control Circuit	M
					1960	1960			2480	2500			
					4440	4460	Total Connected VA						
					8900		=Total Connected VA all (3) Phases						
LOAD													
CD	CONNECTED	D.FACT.	Est. KVA	AMPS									
L	7620 VA	1.25	9.40										
R	180 VA	1.00	0.18		180 VA=Total Receptacle Load								
M	0 VA	1.25	0.00										
MR	0 VA	1.00	0.00										
H	0 VA	1.25	0.00										
M	1200 VA	1.00	1.20										
TOTAL ESTIMATED LOAD				8900 VA	10.78	45							

MOUNTING: SURFACE PANEL "LCC11" 120/240V-1PH-3W
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP223.27WB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY

CD	DESCRIPTION	P	Size	Ckt#	LEFT PHASE LOAD		RIGHT PHASE LOAD		Ckt#	Size	P	DESCRIPTION	CD
					L1	L2	L1	L2					
L	Chain Station MP223WB	1	30	1	900				2	30	1	SPARE	L
L	Chain Station MP223WB	1	30	3		900			4	30	1	SPARE	L
	Space Only			5					6	15	1	LCC11 Maint. Rec.	R
	Space Only			7					8	15	1	LCC11 Lig. Control Circuit	M
					900	900			0	0			
					900	900	Total Connected VA						
					1800		=Total Connected VA all (3) Phases						
LOAD													
CD	CONNECTED	D.FACT.	Est. KVA	AMPS									
L	1800 VA	1.25	2.25										
R	0 VA	1.00	0.00		0 VA=Total Receptacle Load								
M	0 VA	1.25	0.00										
MR	0 VA	1.00	0.00										
H	0 VA	1.25	0.00										
M	0 VA	1.00	0.00										
TOTAL ESTIMATED LOAD				1800 VA	2.25	9							

MOUNTING: SURFACE PANEL "LCC12" 120/240V-1PH-3W
FEEDER: TOP NEMA 1 PANEL INSIDE NEMA 4 ENCLOSURE @ MP228.43EB Minimum A.I.C. = 10,000 AMPS 100 AMP MAIN LUGS ONLY


CD	DESCRIPTION	P	Size	Ckt#	LEFT PHASE LOAD		RIGHT PHASE LOAD		Ckt#	Size	P	DESCRIPTION	CD
					L1	L2	L1	L2					
L	Chain Station MP228EB	1	30	1	540			900	2	30	1	Chain Station MP228EB	L
L	Chain Station MP228EB	1	30	3		540		900	4	30	1	Chain Station MP228EB	L
L	Chain Station MP228EB	1	30	5	1080			720	6	30	1	Chain Station MP228EB	L
L	Chain Station MP228EB	1	30	7		1080		720	8	30	1	Chain Station MP228EB	L
	SPARE	1	30	9					10			Space Only	
	Space Only			11					12			Space Only	
	Space Only			13				180	14	15	1	LCC12 Maint. Rec.	R
	Space Only			15				200	16	15	1	LCC12 Lig. Control Circuit	M
					1620	1620			1800	1820			
					3420	3440	Total Connected VA						
					6860		=Total Connected VA all (3) Phases						
LOAD													
CD	CONNECTED	D.FACT.	Est. KVA	AMPS									
L	6480 VA	1.25	8.10										
R	180 VA	1.00	0.18		180 VA=Total Receptacle Load								
M	0 VA	1.25	0.00										
MR	0 VA	1.00	0.00										
H	0 VA	1.25	0.00										
M	200 VA	1.00	0.20										
TOTAL ESTIMATED LOAD				6860 VA	8.48	35							


PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4609 NORTON COURT SOUTH STE. 102
BOULDER, CO 80501
303-436-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
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Drawing File Name: _LTD-Details-Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

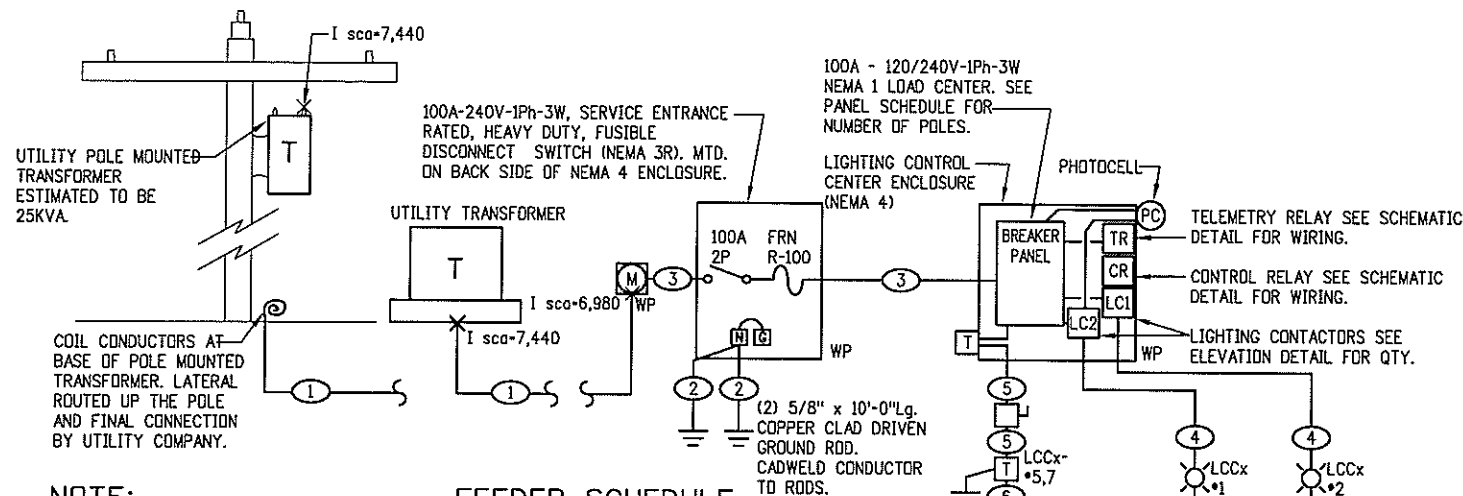
Index of Revisions	

	Region 1 18500 East Colfax Aurora, CO 80011 Phone: (303) 365-7340 FAX: (303) 365-7343
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As Constructed	LIGHTING PLAN			Project No./Code
No. Revisions:	PANEL SCHEDULES (2 of 3)			IM 070A-003
Revised:	Designer:	GF	Structure:	16701
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				Sheet Number: 59

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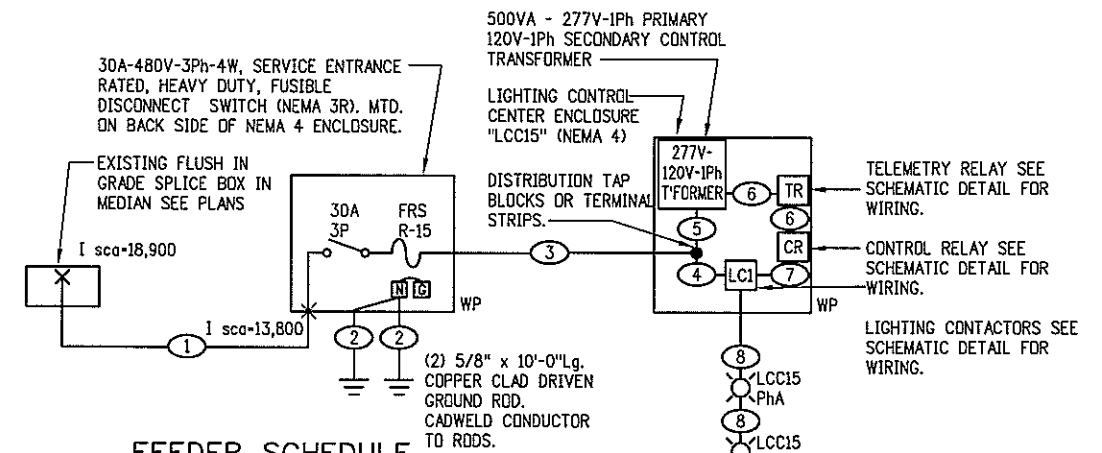
NOTE:

NOT EVERY COMPONENT SHOWN ON THIS ONE-LINE IS USED IN EVERY LCC. SEE ELEVATION DETAIL AND PLANS FOR ALL REQUIRED COMPONENTS.

FEEDER SCHEDULE

- 1 (SERVICE LATERAL AS LISTED ON PLANS) IN 3" PVC
- 2 (1 #6 S.D.B.C.) 1/2"C
- 3 (3 #1/0 THWN & 1 #6 GND) 2" GRC
- 4 (3 #4 THWN & 1 #4 GND.) IN 2" PVC
- 5 (2 #10 THWN & 1#10GND) IN 2" PVC or GRC
- 6 (3 #10 THWN & 1#10GND) IN 3/4" GRC
- 7 (3 #12 THWN & 1#12GND) IN 3/4" GRC

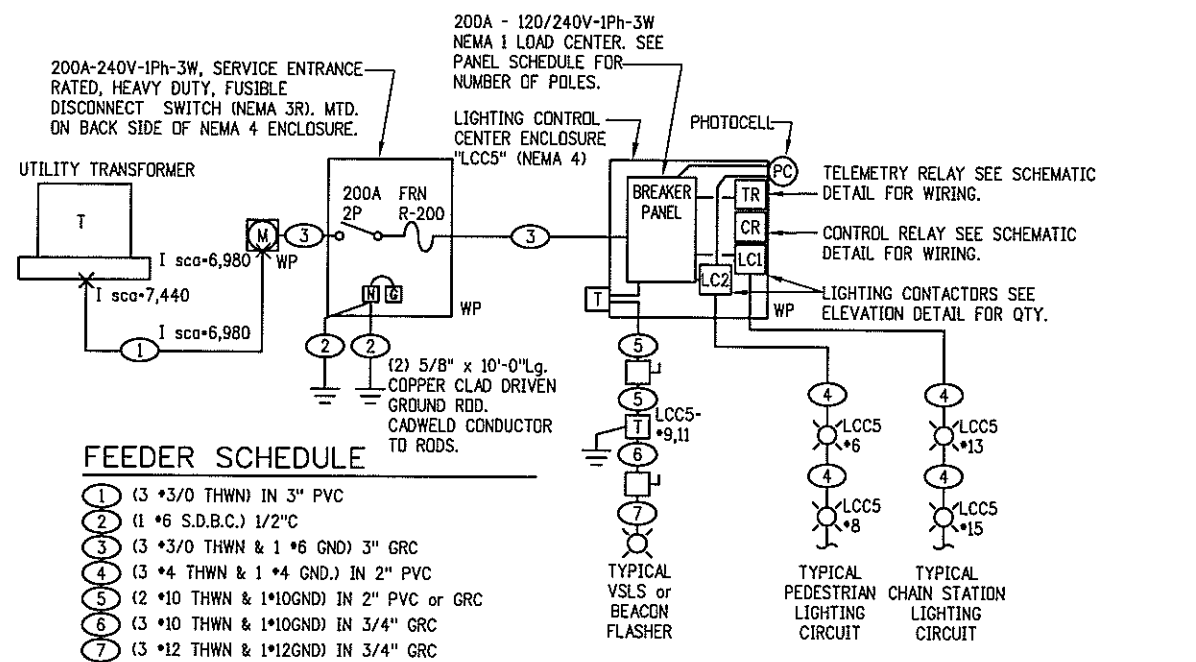
1 TYPICAL ONE-LINE DIAGRAM FOR - LCC1,2,4,6,7,8,9,10,11,12,13,14,16 & 17
LE32 SCALE: N.T.S.



FEEDER SCHEDULE

- 1 (4 #6 THWN & 1 #6GND) IN 2" PVC
- 2 (1 #6 S.D.B.C.) 1/2"C
- 3 (4 #8 THWN & 1 #8 GND) 1" GRC
- 4 (4 #8 THWN & 1 #8 GND.) IN WIREWAY
- 5 (2 #10 THWN & 1 #10GND) IN WIREWAY
- 6 (2 #14 THWN & 1 #14GND) IN WIREWAY
- 7 (3 #14 THWN & 1 #14 GND.) IN WIREWAY
- 8 (4 #8 THWN & 1 #8 GND.) IN 2" PVC

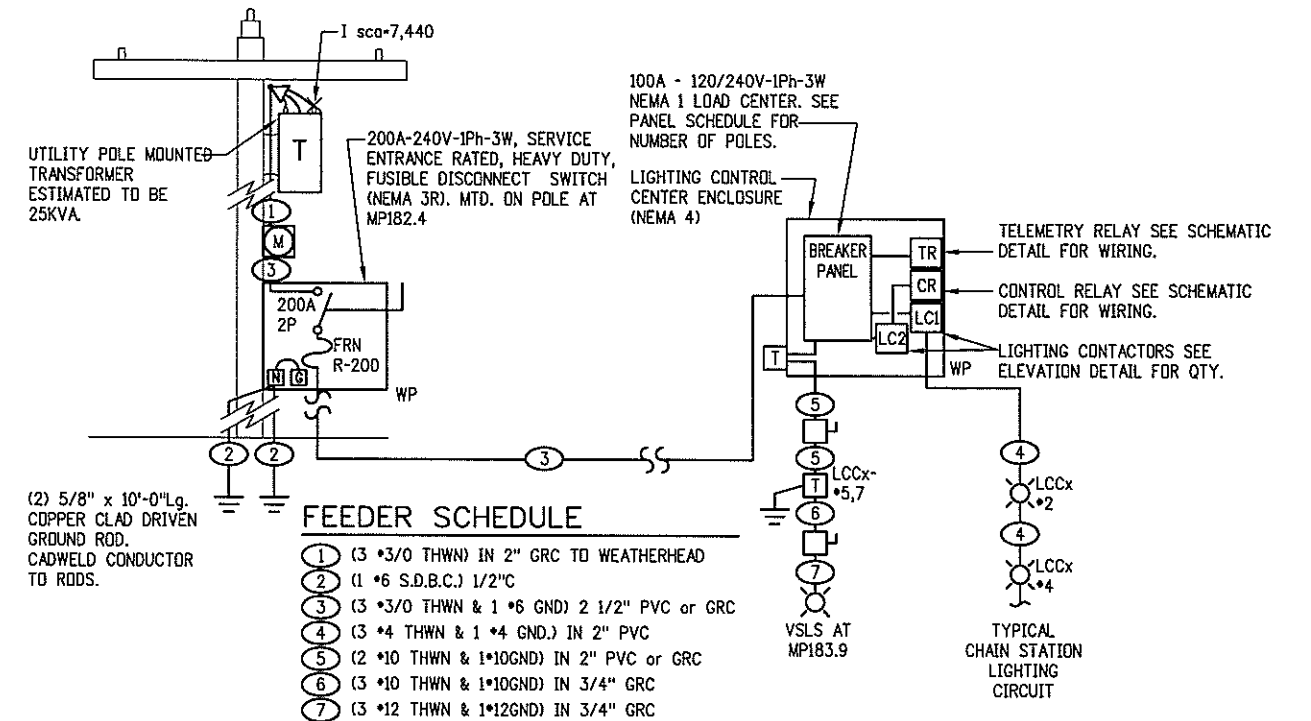
3 ONE-LINE DIAGRAM FOR - LCC15 (480V-3Ph)
LE32 SCALE: N.T.S.



FEEDER SCHEDULE

- 1 (3 #3/0 THWN) IN 3" PVC
- 2 (1 #6 S.D.B.C.) 1/2"C
- 3 (3 #3/0 THWN & 1 #6 GND) 3" GRC
- 4 (3 #4 THWN & 1 #4 GND.) IN 2" PVC
- 5 (2 #10 THWN & 1#10GND) IN 2" PVC or GRC
- 6 (3 #10 THWN & 1#10GND) IN 3/4" GRC
- 7 (3 #12 THWN & 1#12GND) IN 3/4" GRC

2 ONE-LINE DIAGRAM FOR - LCC5
LE32 SCALE: N.T.S.



FEEDER SCHEDULE

- 1 (3 #3/0 THWN) IN 2" GRC TO WEATHERHEAD
- 2 (1 #6 S.D.B.C.) 1/2"C
- 3 (3 #3/0 THWN & 1 #6 GND) 2 1/2" PVC or GRC
- 4 (3 #4 THWN & 1 #4 GND.) IN 2" PVC
- 5 (2 #10 THWN & 1#10GND) IN 2" PVC or GRC
- 6 (3 #10 THWN & 1#10GND) IN 3/4" GRC
- 7 (3 #12 THWN & 1#12GND) IN 3/4" GRC

4 ONE-LINE DIAGRAM FOR - LCC3
LE32 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
1699 NAUTICAL COURT SOUTH STE. 102
BOULDER, CO 80501
303-440-7229

Computer File Information	
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Scale: REFER TO BAR SCALE	Units: ENGLISH

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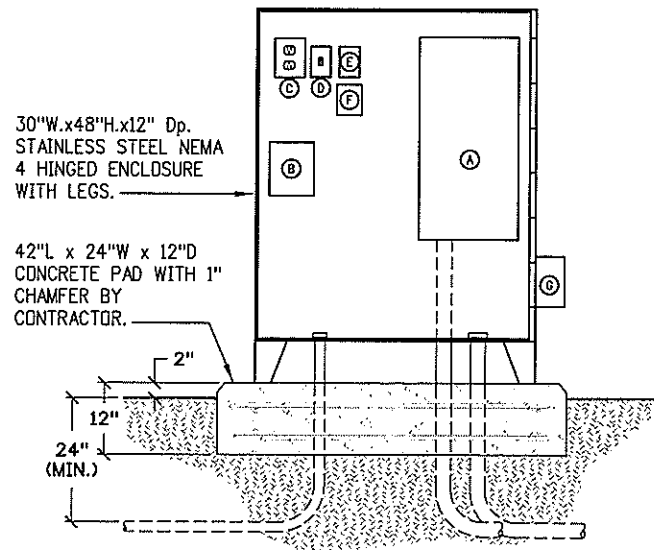
DOT DEPARTMENT OF TRANSPORTATION

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As Constructed		LIGHTING PLAN ONE-LINE DIAGRAMS		Project No./Code
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Void:		Detailer: JE	Sheet Subset: LE	Sheet Number: 57
			Subset Sheets: 32 OF 35	

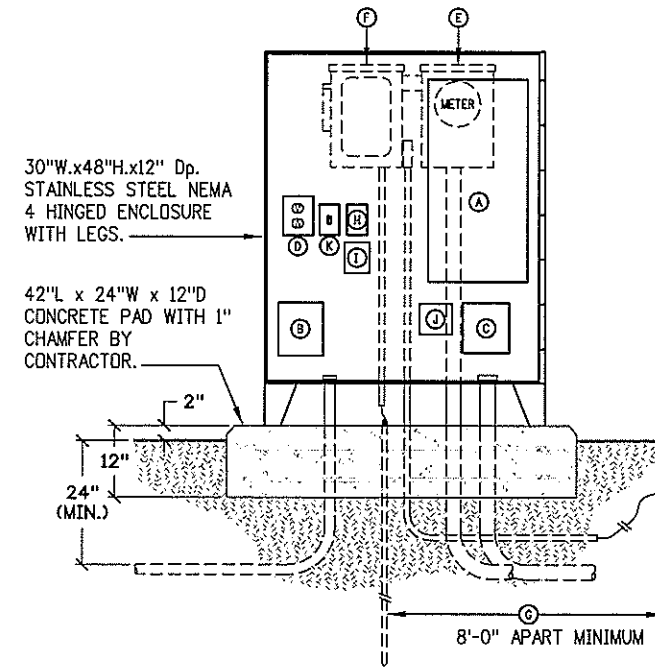


1 TYPICAL LIGHTING CONTROL CENTER - LCC3
LE31 SCALE: N.T.S.

COMPONENT LIST

- Ⓐ NEMA 1, MLO, 120/240V-1Ph-3W LOAD CENTER (SEE PANEL SCHEDULE FOR BUS AMPERAGE, NUMBER OF POLES AND BREAKERS REQUIRED). FURNISH WITH COPPER BUS, FULL-SIZE NEUTRAL & GROUND BARS AND COVER.
- Ⓑ 30-AMP 4-POLE MECHANICALLY HELD LIGHTING CONTACTOR. FURNISH WITH 120-VOLT COIL.
- Ⓒ GFCI MAINT. RECEPTACLE IN A 1-GANG BACK BOX WITH COVER.
- Ⓓ BY-PASS SWITCH - 120/277V RATED, SPDT, 20-AMP, TOGGLE SWITCH WITH BACK BOX AND COVER PLATE.
- Ⓔ TELEMETRY RELAY - INDICATING 120VAC SOLID STATE RELAY WITH 3-32 VDC INPUT, SPDT RELAY W/SCREW TERMINAL BASE.
- Ⓕ CONTROL RELAY - 120V COIL, 15-AMP CONTACTS, DPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 30.5VA, MAX. SEALED 6.5VA.
- Ⓖ 1KVA, TRANSFORMER - NEMA 3R, 240V-1Ph (PRI), 480V-1Ph (SEC) W/FUSING INSIDE NEMA 4 ENCLOSURE. MOUNT TRANSFORMER TO SIDE OF NEMA 4.

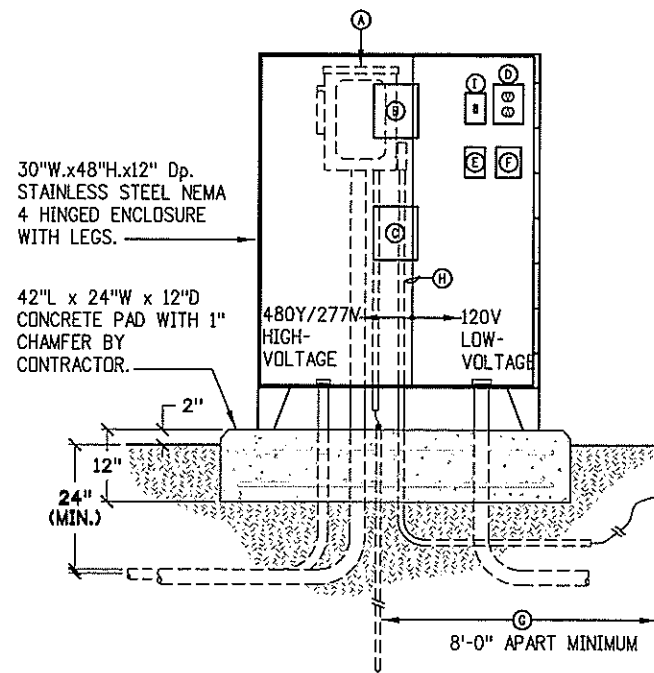
NOTE: ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE LIGHTING CONTROL CENTER PAY ITEM.



3 TYPICAL LIGHTING CONTROL CENTER - LCC16
LE31 SCALE: N.T.S.

COMPONENT LIST

- Ⓐ NEMA 1, MLO, 120/240V-1Ph-3W LOAD CENTER (SEE PANEL SCHEDULE FOR BUS AMPERAGE, NUMBER OF POLES AND BREAKERS REQUIRED). FURNISH WITH COPPER BUS, FULL-SIZE NEUTRAL & GROUND BARS AND COVER.
 - Ⓑ 30-AMP 4-POLE MECHANICALLY HELD LIGHTING CONTACTOR. FURNISH WITH 120-VOLT COIL.
 - Ⓒ FIBER OPTIC TRANSCEIVER - 12VDC, (2) FIBER TRANSCEIVER WITH MATCHING FIBER OPTIC TRANSMITTER IN THE EXISTING COMMUNICATIONS CABINET (CC).
 - Ⓓ GFCI MAINT. RECEPTACLE IN A 1-GANG BACK BOX WITH COVER.
 - Ⓔ NEMA 3R, 100A, 1Ph METER HOUSING TO UTILITY COMPANY SPECIFICATIONS. MOUNTED ON BACK SIDE OF ENCLOSURE.
 - Ⓕ NEMA 3R, 100A, 2-POLE, HEAVY DUTY, FUSED DISCONNECT, UL LISTED FOR SERVICE EQUIPMENT AND FRN-R FUSES AS SHOWN ON ONE-LINE DIAGRAM W/NEUTRAL & GROUND BARS. MOUNTED ON BACK SIDE OF ENCLOSURE.
 - Ⓖ 5/8"x 10'-0" Lg, COPPER-CLAD DRIVEN GROUND ROD WITH GROUND CONDUCTOR CADWELDED TO ROD. (2 REQUIRED)
 - Ⓒ TELEMETRY RELAY - INDICATING 120VAC SOLID STATE RELAY WITH 3-32 VDC INPUT, SPDT RELAY W/SCREW TERMINAL BASE.
 - Ⓓ CONTROL RELAY - 120V COIL, 15-AMP CONTACTS, DPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 30.5VA, MAX. SEALED 6.5VA.
 - Ⓔ DC POWER SUPPLY - 120VAC/12VDC POWER SUPPLY FOR THE FIBER OPTIC TRANSCEIVER ITEM "C" ABOVE.
 - Ⓕ BY-PASS SWITCH - 120/277V RATED, SPDT, 20-AMP, TOGGLE SWITCH WITH BACK BOX AND COVER PLATE.
- NOTE: ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE LIGHTING CONTROL CENTER PAY ITEM.



2 TYPICAL LIGHTING CONTROL CENTER - LCC15 (480V-3Ph)
LE31 SCALE: N.T.S.

COMPONENT LIST

- Ⓐ FUSED DISCONNECT SWITCH - NEMA 3R, 30A, 3-POLE, 600-VOLT, HEAVY DUTY, UL LISTED FOR SERVICE EQUIPMENT AND FRN-R FUSES AS SHOWN ON ONE-LINE DIAGRAM W/NEUTRAL & GROUND BARS. MOUNTED ON BACK SIDE OF ENCLOSURE.
- Ⓑ 500 VA, CONTROL TRANSFORMER - 277V-1Ph (PRI), 120V-1Ph (SEC) W/SECONDARY FUSING AS SHOWN ON THE SCHEMATIC DETAIL. MOUNT TRANSFORMER INSIDE THE NEMA 4 ENCLOSURE SO THAT THE 120V SIDE IS IN THE LOW-VOLTAGE SECTION ON THE PANEL AND THE 277V SIDE IS IN THE HIGH-VOLTAGE SECTION.
- Ⓒ 30-AMP, 4-POLE, 600-VOLT CONTACTS, MECHANICALLY HELD LIGHTING CONTACTOR. FURNISH WITH 120-VOLT COIL.
- Ⓓ GFCI MAINT. RECEPTACLE IN A 1-GANG BACK BOX WITH COVER.
- Ⓔ TELEMETRY RELAY - 120V COIL, 3-AMP CONTACTS, SPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 6.5VA, MAX. SEALED 1.5VA.
- Ⓕ CONTROL RELAY - 120V COIL, 15-AMP CONTACTS, DPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 20.5VA, MAX. SEALED 4.5VA.
- Ⓖ 5/8"x 10'-0" Lg, COPPER-CLAD DRIVEN GROUND ROD WITH GROUND CONDUCTOR CADWELDED TO ROD. (2 REQUIRED)
- Ⓒ PROVIDE METAL PARTITION DIVIDER INSIDE NEMA 4 ENCLOSURE WITH LOW-VOLTAGE (120V) ON ONE SIDE AND HIGH VOLTAGE (480V) ON THE OTHER.
- Ⓓ BY-PASS SWITCH - 120/277V RATED, SPDT, 20-AMP, TOGGLE SWITCH WITH BACK BOX AND COVER PLATE.

NOTE: ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE LIGHTING CONTROL CENTER PAY ITEM.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4609 HAWTHORNE COURT SOUTH STE. 102
BOULDER, CO 80509
303-440-7229

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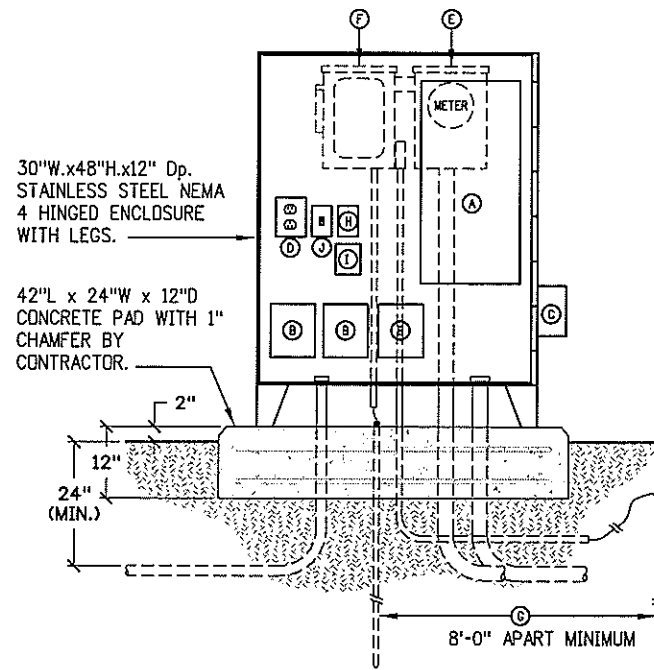
PBSJ

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Fax: (303) 221-7276

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No. Revisions:
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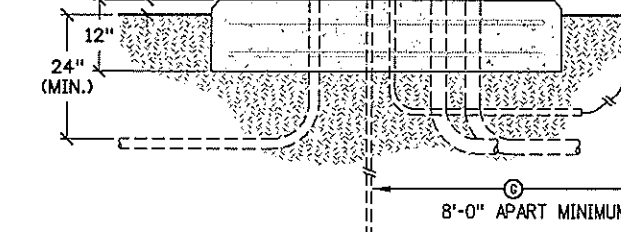
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16701
Sheet Number: 56



30"W.x48"H.x12" Dp. STAINLESS STEEL NEMA 4 HINGED ENCLOSURE WITH LEGS.

42"L x 24"W x 12"D CONCRETE PAD WITH 1" CHAMFER BY CONTRACTOR.

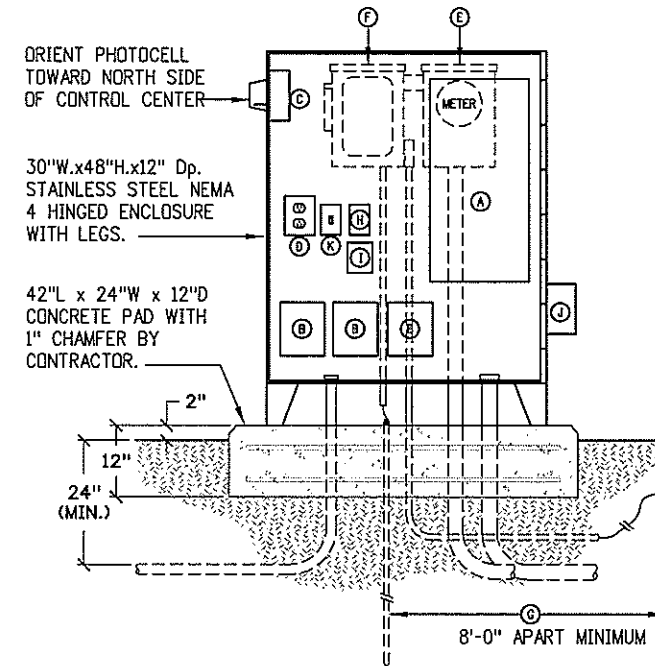


NOTE: ITEM "C" IS ONLY REQUIRED IN LCC4, LCC9 & LCC10 FOR SIGNAGE. (2) ARE REQUIRED IN LCC4.

COMPONENT LIST

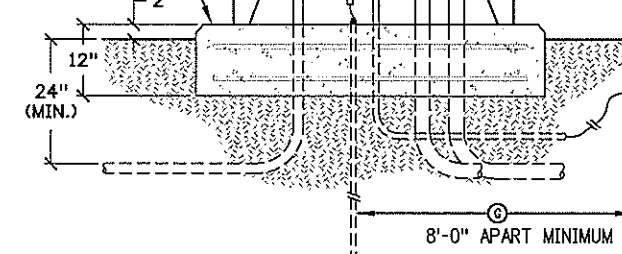
- Ⓐ NEMA 1, MLD, 120/240V-1Ph-3W LOAD CENTER (SEE PANEL SCHEDULE FOR BUS AMPERAGE, NUMBER OF POLES AND BREAKERS REQUIRED). FURNISH WITH COPPER BUS, FULL-SIZE NEUTRAL & GROUND BARS AND COVER.
- Ⓑ 30-AMP 4-POLE MECHANICALLY HELD LIGHTING CONTACTOR. FURNISH WITH 120-VOLT COIL. (3 RQR'D.)
- Ⓒ 1KVA, TRANSFORMER - NEMA 3R, 240V-1Ph (PRI), 480V-1Ph (SEC) W/FUSING INSIDE NEMA 4 ENCLOSURE. MOUNT TRANSFORMER TO SIDE OF NEMA 4.
- Ⓓ GFCI MAINT. RECEPTACLE IN A 1-GANG BACK BOX WITH COVER.
- Ⓔ NEMA 3R, 100A, 1Ph METER HOUSING TO UTILITY COMPANY SPECIFICATIONS. MOUNTED ON BACK SIDE OF ENCLOSURE.
- Ⓕ NEMA 3R, 100A, 2-POLE, HEAVY DUTY, FUSED DISCONNECT, UL LISTED FOR SERVICE EQUIPMENT AND FRN FUSES AS SHOWN ON ONE-LINE DIAGRAM
- Ⓖ w/NEUTRAL & GROUND BARS. MOUNTED ON BACK SIDE OF ENCLOSURE.
- Ⓗ 5/8"x 10'-0" Lg. COPPER-CLAD DRIVEN GROUND ROD WITH GROUND CONDUCTOR CADWELDED TO ROD. (2 REQUIRED)
- Ⓘ TELEMETRY RELAY - 120V COIL, 3-AMP CONTACTS, SPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 6.5VA, MAX. SEALED 1.5VA.
- Ⓚ CONTROL RELAY - 120V COIL, 15-AMP CONTACTS, DPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 20.5VA, MAX. SEALED 4.5VA.
- Ⓛ BY-PASS SWITCH - 120/277V RATED, SPDT, 20-AMP, TOGGLE SWITCH WITH BACK BOX AND COVER PLATE.
- Ⓜ NOTE: ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE LIGHTING CONTROL CENTER PAY ITEM.

1 TYPICAL LIGHTING CONTROL CENTER ELEVATION - LCC1,2,4,7,8,9,10,11,12,13,14 & 17
LE30 SCALE: N.T.S.



30"W.x48"H.x12" Dp. STAINLESS STEEL NEMA 4 HINGED ENCLOSURE WITH LEGS.

42"L x 24"W x 12"D CONCRETE PAD WITH 1" CHAMFER BY CONTRACTOR.



NOTE: (2) ITEM "C"s ARE REQUIRED ONLY IN LCC5 FOR SIGNAGE. LCC6 DOES NOT REQUIRE AN ITEM "C".

COMPONENT LIST

- Ⓐ NEMA 1, MLD, 120/240V-1Ph-3W LOAD CENTER (SEE PANEL SCHEDULE FOR BUS AMPERAGE, NUMBER OF POLES AND BREAKERS REQUIRED). FURNISH WITH COPPER BUS, FULL-SIZE NEUTRAL & GROUND BARS AND COVER.
- Ⓑ 30-AMP 4-POLE MECHANICALLY HELD LIGHTING CONTACTOR. FURNISH WITH 120-VOLT COIL. (3 RQR'D.)
- Ⓒ NEMA 3R 120V PHOTOCELL WITH TWIST-LOCK RECEPTACLE BASE. FOR ON/OFF CONTROL OF THE PARKING LOT LIGHTING.
- Ⓓ GFCI MAINT. RECEPTACLE IN A 1-GANG BACK BOX WITH COVER.
- Ⓔ NEMA 3R, 200A, 1Ph METER HOUSING TO UTILITY COMPANY SPECIFICATIONS. MOUNTED ON BACK SIDE OF ENCLOSURE.
- Ⓕ NEMA 3R, 200A, 2-POLE, HEAVY DUTY, FUSED DISCONNECT, UL LISTED FOR SERVICE EQUIPMENT AND FRN-R FUSES AS SHOWN ON ONE-LINE DIAGRAM w/NEUTRAL & GROUND BARS. MOUNTED ON BACK SIDE OF ENCLOSURE.
- Ⓗ 5/8"x 10'-0" Lg. COPPER-CLAD DRIVEN GROUND ROD WITH GROUND CONDUCTOR CADWELDED TO ROD. (2 REQUIRED)
- Ⓘ TELEMETRY RELAY - 120V COIL, 3-AMP CONTACTS, SPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 6.5VA, MAX. SEALED 1.5VA.
- Ⓚ CONTROL RELAY - 120V COIL, 15-AMP CONTACTS, DPDT RELAY W/SCREW TERMINAL BASE. MAX. INRUSH 20.5VA, MAX. SEALED 4.5VA.
- Ⓛ 1KVA, TRANSFORMER - NEMA 3R, 240V-1Ph (PRI), 480V-1Ph (SEC) W/FUSING INSIDE NEMA 4 ENCLOSURE. MOUNT TRANSFORMER TO SIDE OF NEMA 4.
- Ⓜ BY-PASS SWITCH - 120/277V RATED, SPDT, 20-AMP, TOGGLE SWITCH WITH BACK BOX AND COVER PLATE.
- Ⓝ NOTE: ALL COMPONENTS LISTED SHALL BE INCLUDED IN THE LIGHTING CONTROL CENTER PAY ITEM.

2 TYPICAL LIGHTING CONTROL CENTER - LCC5 & 6
LE30 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4699 HAWTHORNE COURT SOUTH STE. 102
BOULDER, CO 80504
303-440-7229

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Region 1
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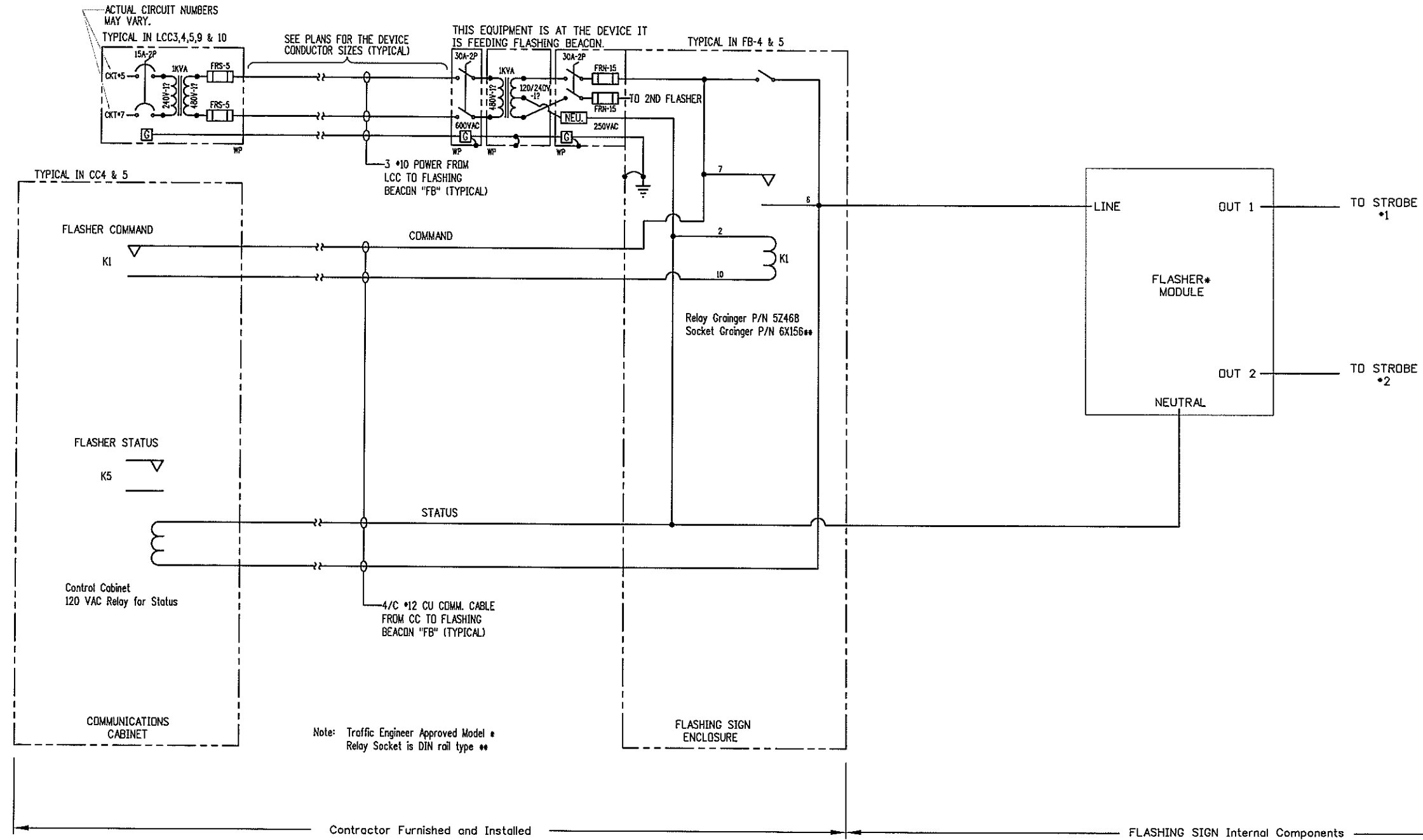
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LIGHTING PLAN LCC ELEVATIONS			
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16701
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1 FLASHING BEACON SIGN "FB" HARDWIRE (TYPICAL)
LE28 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4699 NAUTICAL COURT SOUTH STE. 402
BOULDER, CO 80501
303-550-7229

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Creation Date: February 11, 2008	Initials: GF
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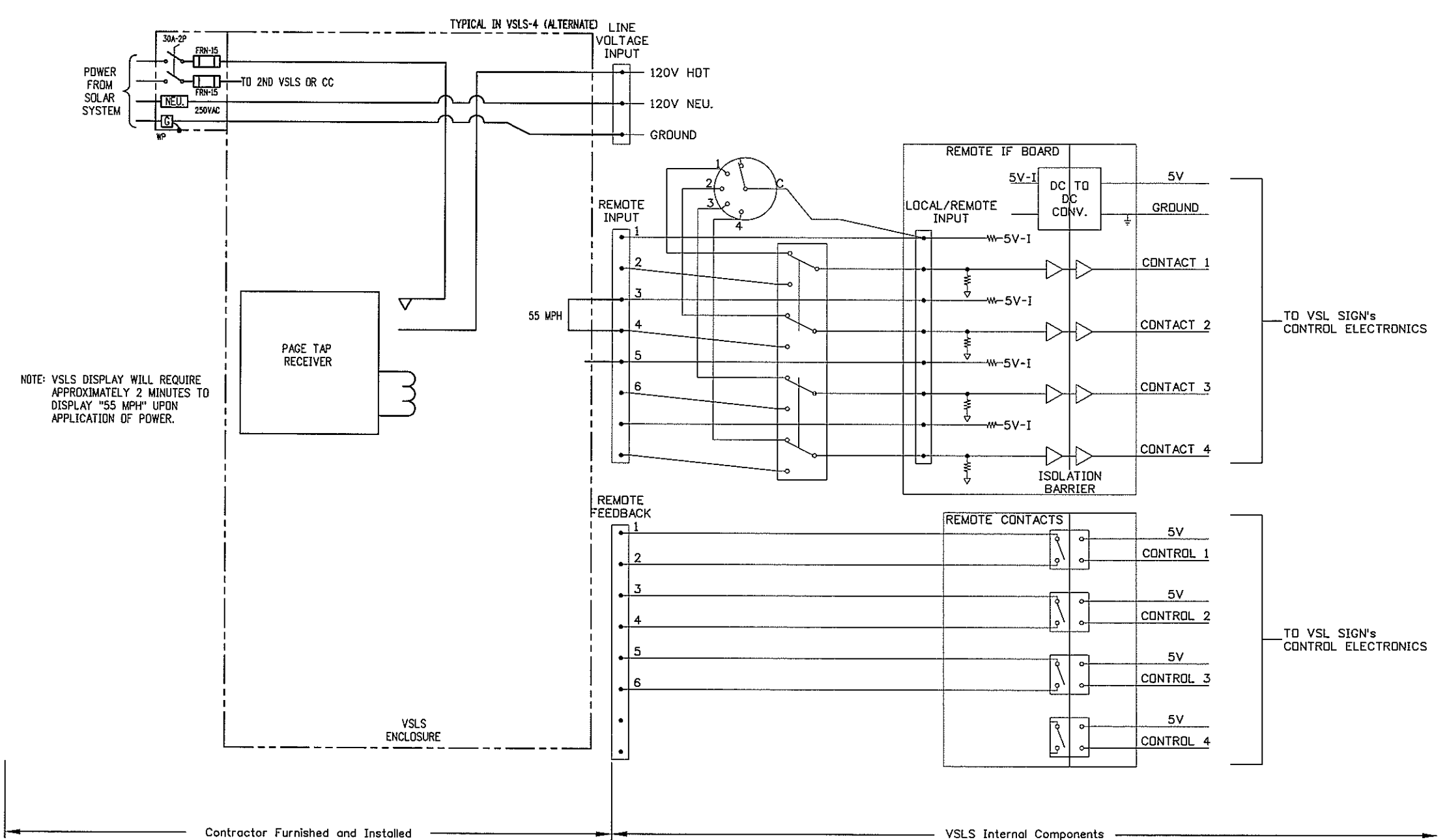
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NOTE: VLS DISPLAY WILL REQUIRE APPROXIMATELY 2 MINUTES TO DISPLAY "55 MPH" UPON APPLICATION OF POWER.

CONTACT 1	CONTACT 2	CONTACT 3	CONTACT 4	MESSAGE	FEEDBACK
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ON	OFF	OFF	X	*1	*1
OFF	ON	OFF	X	*2	*2
ON	ON	X	X	BLANK	*1,*2,*3
OFF	OFF	ON	X	*3	*3
ON	X	ON	X	BLANK	*1,*2,*3
X	ON	ON	X	BLANK	*1,*2,*3

X -> DDN'T CARE

1 VARIABLE SPEED LIMIT SIGN "VLS" PAGE TAP W/SOLAR POWER (TYPICAL)
LE27 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4499 NAUTICAL COURT SOUTH STE. 102
BOULDER, CO 80521
303-440-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
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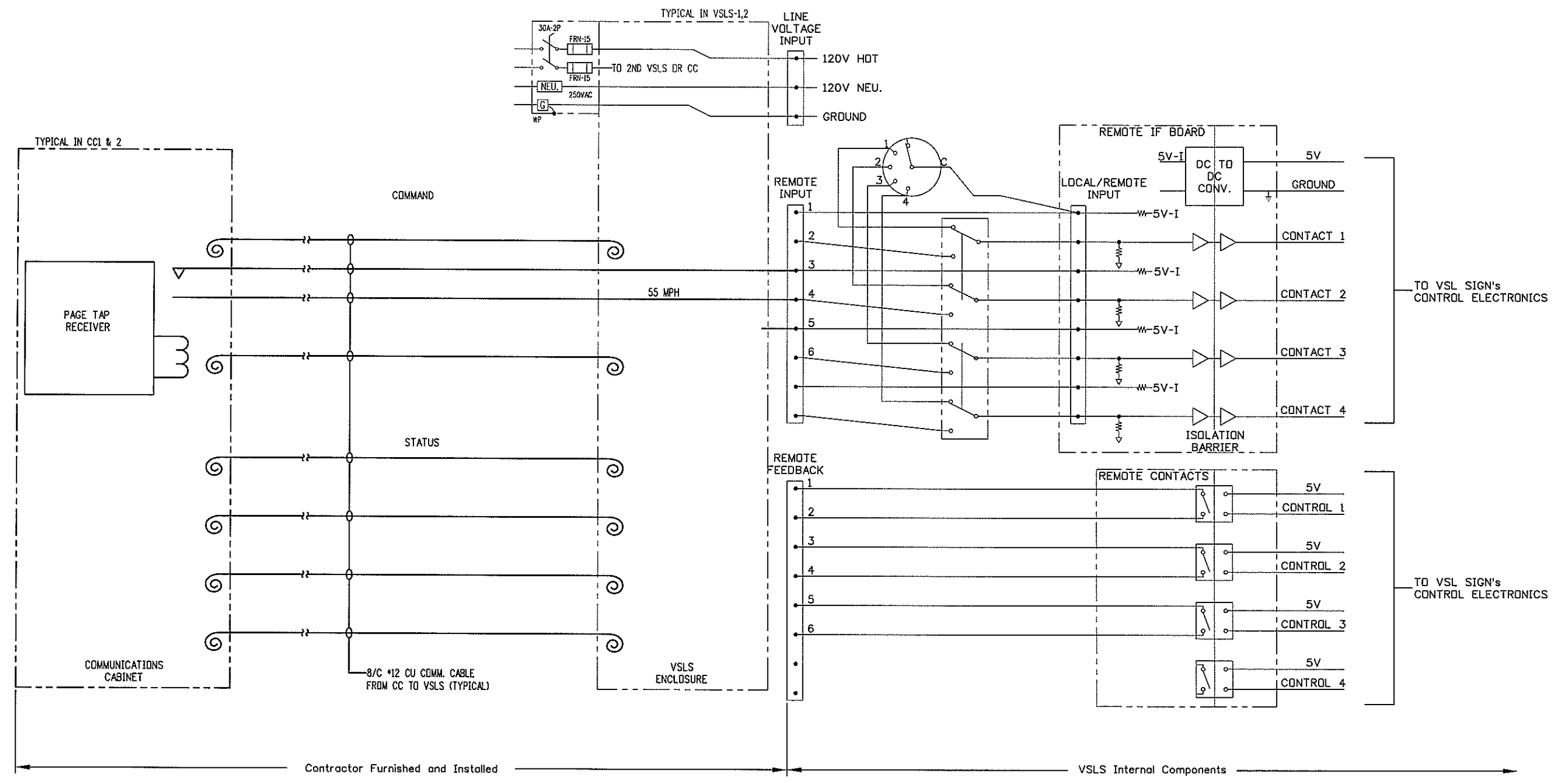
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CONTACT 1	CONTACT 2	CONTACT 3	CONTACT 4	MESSAGE	FEEDBACK
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X -> DON'T CARE

1 VARIABLE SPEED LIMIT SIGN "VSLs" PAGE TAP (TYPICAL)
LE26 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING
4699 HAUPTLEIGH COURT SOUTH STE 102
BOULDER, CO 80501
303-330-7229

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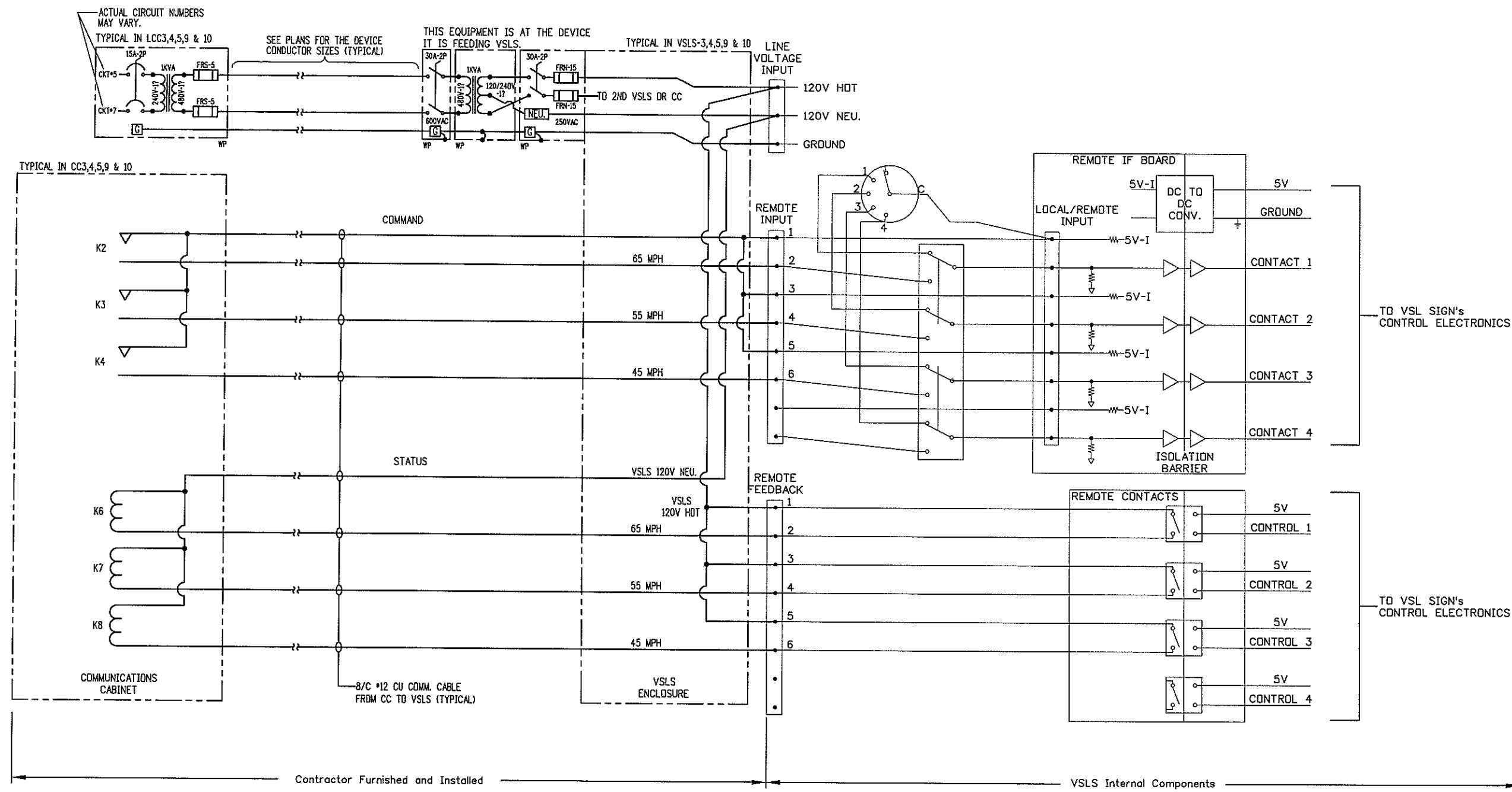
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Void:

LIGHTING PLAN LCC ELEVATIONS			
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Detailer:	JE	Numbers	
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IM 070A-003
16701
Sheet Number: 51



CONTACT 1	CONTACT 2	CONTACT 3	CONTACT 4	MESSAGE	FEEDBACK
OFF	OFF	OFF	X	BLANK	NONE
ON	OFF	OFF	X	*1	*1
OFF	ON	OFF	X	*2	*2
ON	ON	X	X	BLANK	*1,*2,*3
OFF	OFF	ON	X	*3	*3
ON	X	ON	X	BLANK	*1,*2,*3
X	ON	ON	X	BLANK	*1,*2,*3

X -> DON'T CARE

1 VARIABLE SPEED LIMIT SIGN "VSL" HARDWIRE (TYPICAL)
LE25 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING
1699 N. JEFFERSON COURT SOUTH STE. 102
DENVER, CO 80202
303-535-7270

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTDT-Detail_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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DOT
REGION 1
18500 East Colfax
Aurora, CO 80011
Phone: (303) 365-7340
FAX: (303) 365-7343

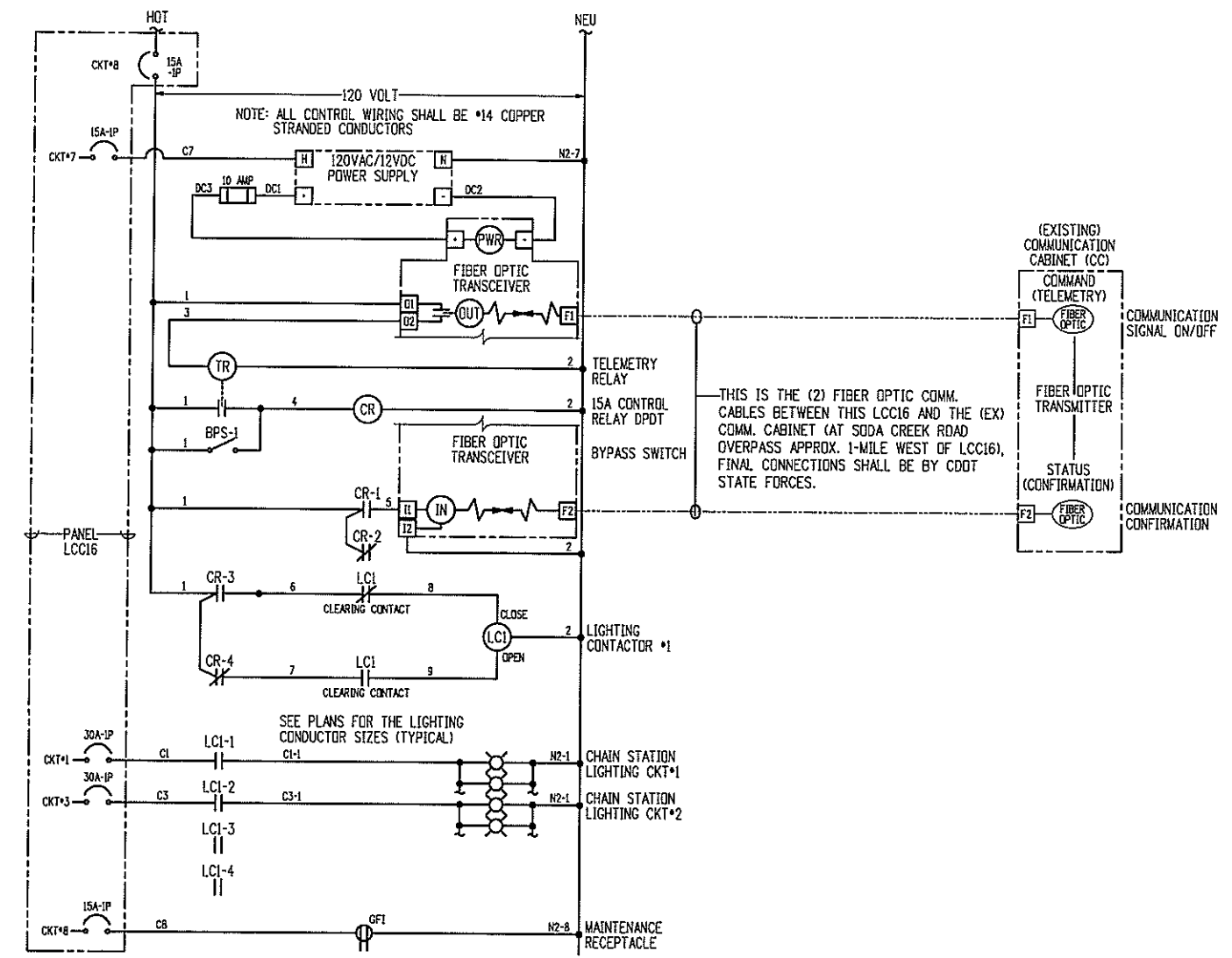
PBSJ
4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

REGION 1 DW

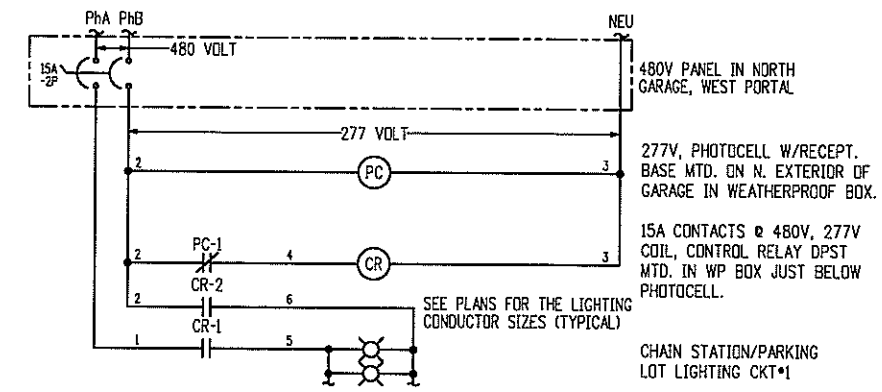
As Constructed	
No. Revisions:	
Revised:	
Void:	

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Designer:	GF	Structure	
Detailer:	JE	Numbers	
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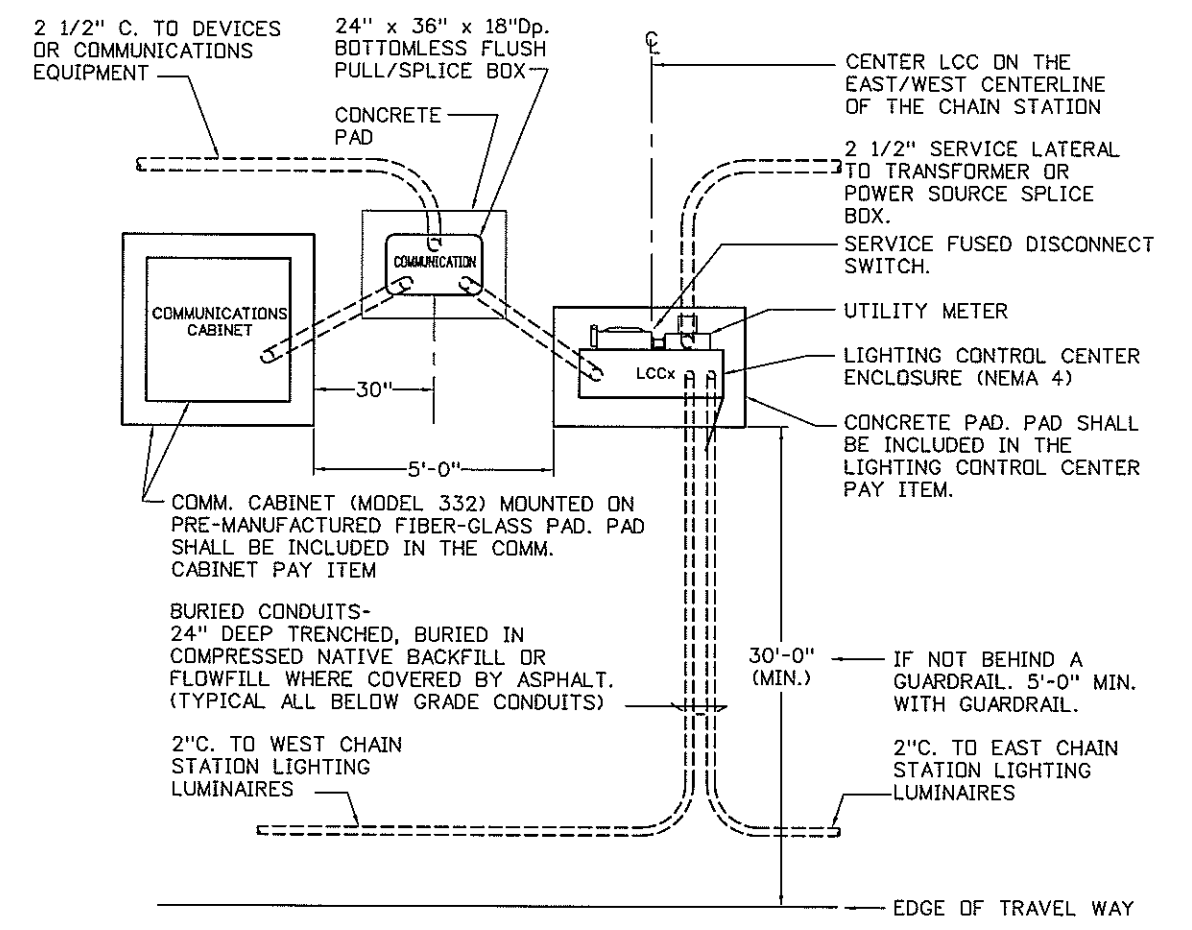
Project No./Code	
IM 070A-003	
16701	
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1 LIGHTING CONTROL SCHEMATIC FOR LCC16
LE24 SCALE: N.T.S.



2 LIGHTING CONTROL SCHEMATIC FOR MP-213-WB CHAIN STATION/PARKING LOT LIGHTING
LE24 SCALE: N.T.S.



3 TYPICAL LAYOUT OF NEW COMM. CABINET & LCC
LE24 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES
LIGHTING DESIGN AND ENGINEERING
4699 MAJESTIC COURT SOUTH STE. 102
BOKLEER, CO 80501
303-536-9229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTDT-Detail-Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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Region 1
18500 East Colfax
Aurora, CO 80011
Phone: (303) 365-7340
Fax: (303) 365-7343

DOT
DEPARTMENT OF TRANSPORTATION

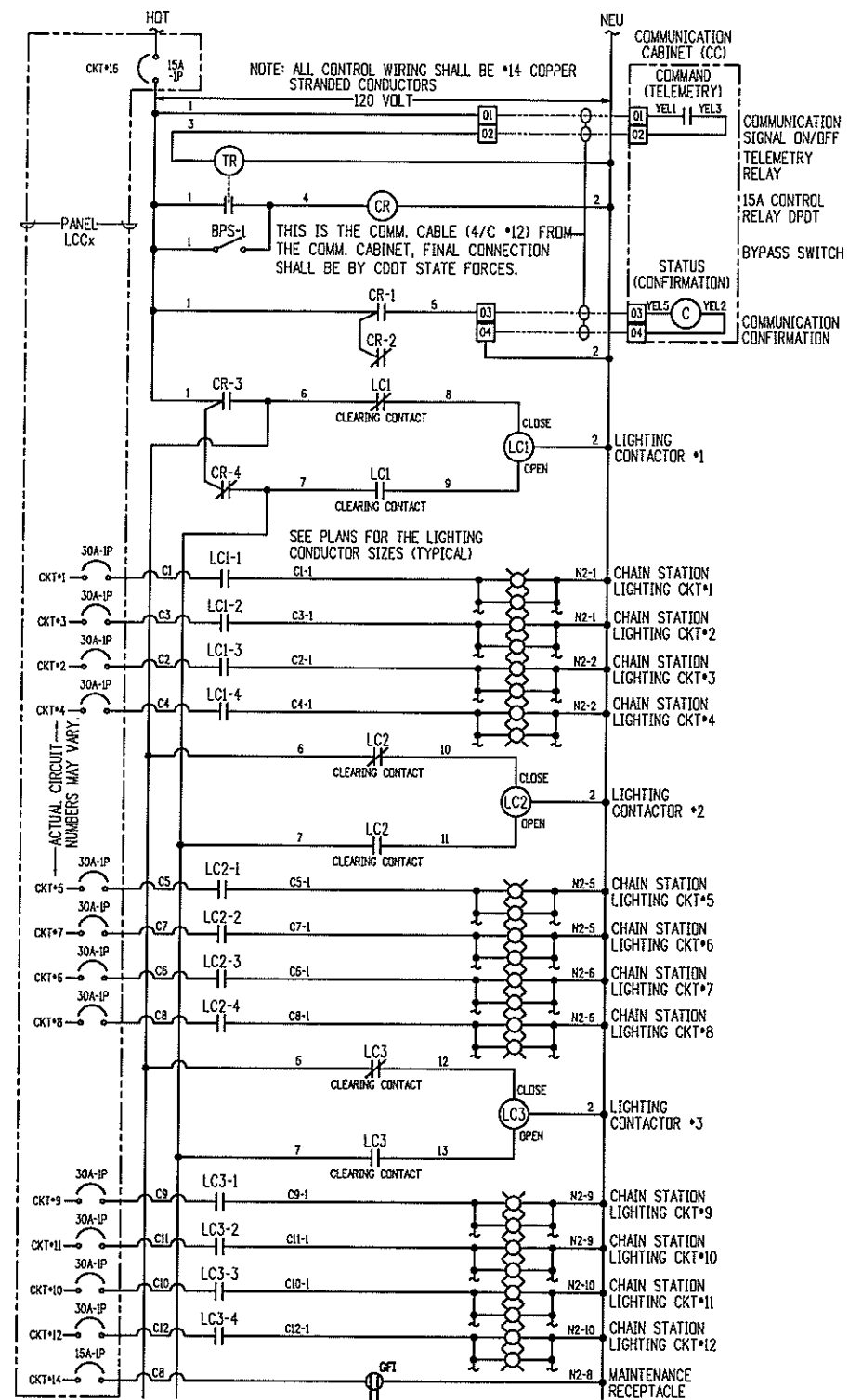
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PBSJ
4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

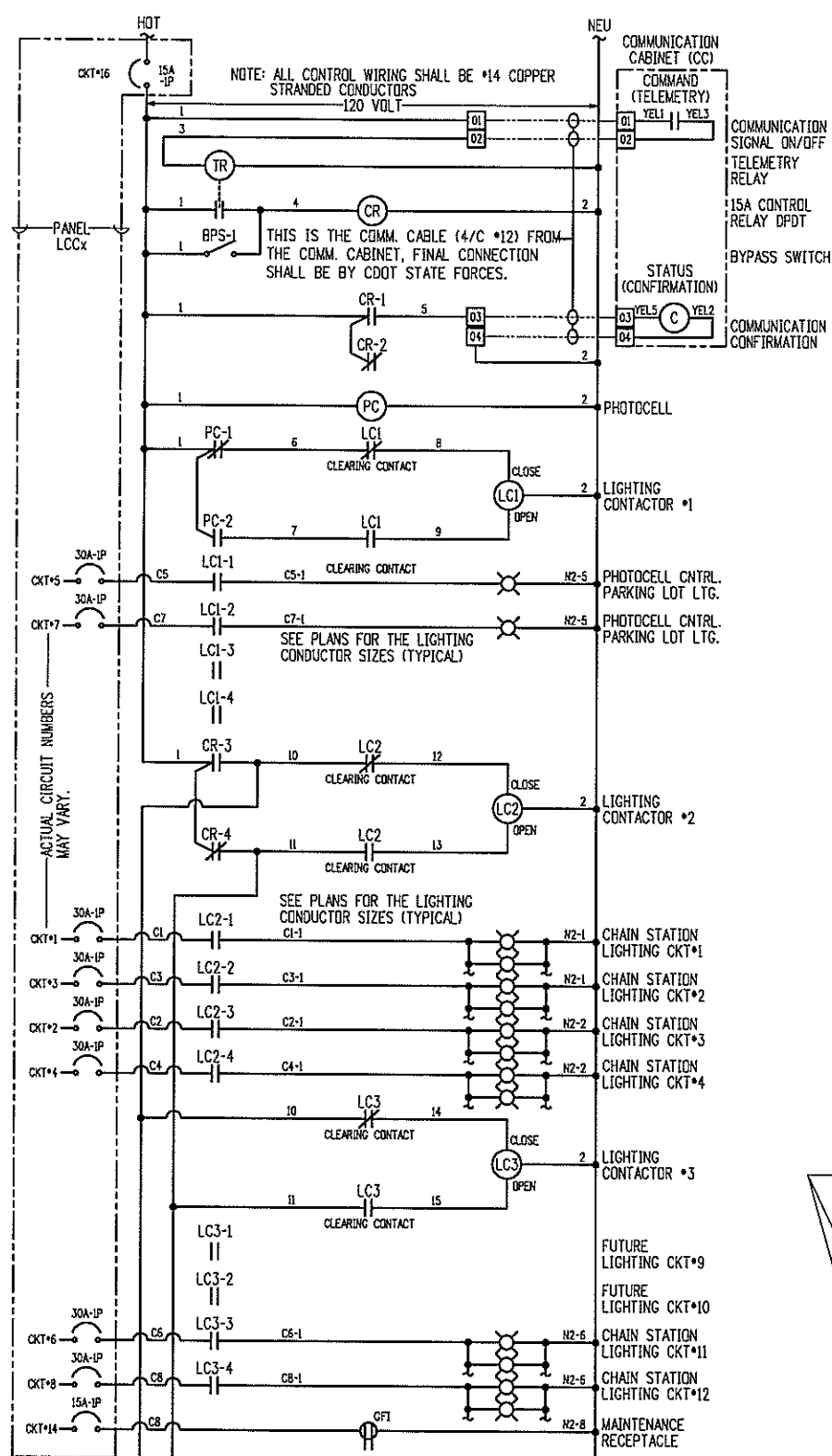
As Constructed
No. Revisions:
Revised:
Void:

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LCC SCHEMATIC & TYPICAL LAYOUT			
Designer:	GF	Structure	
Detailer:	JE	Numbers	
Sheet Subset:	LE	Subset Sheets:	24 OF 35

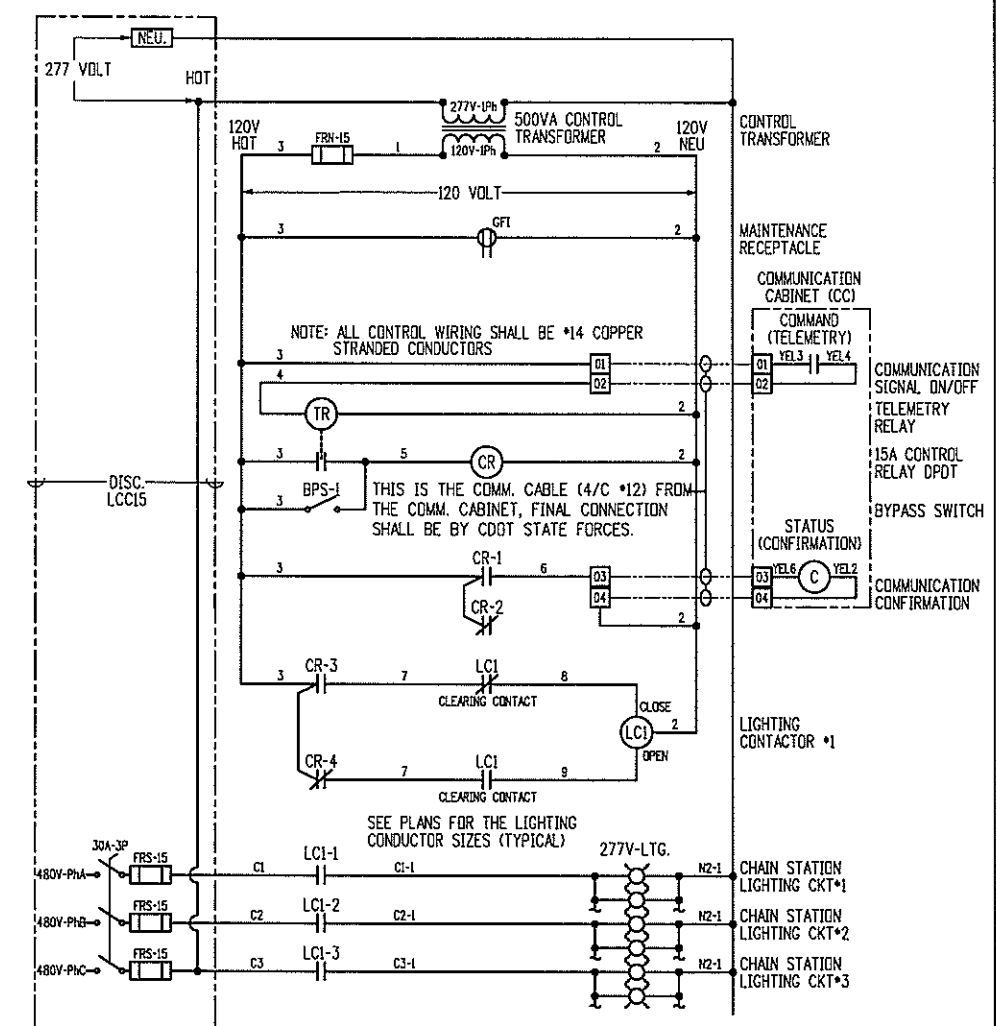
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IM 070A-003
16701
Sheet Number: 49



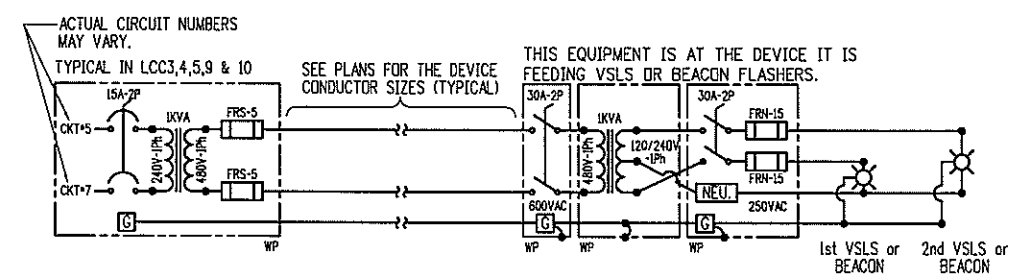
1 TYPICAL LIGHTING CONTROL SCHEMATIC LCC1,2,3,4,7,8,9,10,11,12,13,14 & 17
LE23 SCALE: N.T.S.



2 TYPICAL LIGHTING CONTROL SCHEMATIC LCC5 & 6
LE23 SCALE: N.T.S.



3 LIGHTING CONTROL SCHEMATIC LCC15 (480V-3Ph)
LE23 SCALE: N.T.S.



4 TYPICAL POWER CIRCUIT FOR VSL'S & BEACON'S
LE23 SCALE: N.T.S.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
1499 NAUTICAL COURT SOUTH STE. 102
BOULDER, CO 80501
303-430-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
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Drawing File Name: _LTD-Details_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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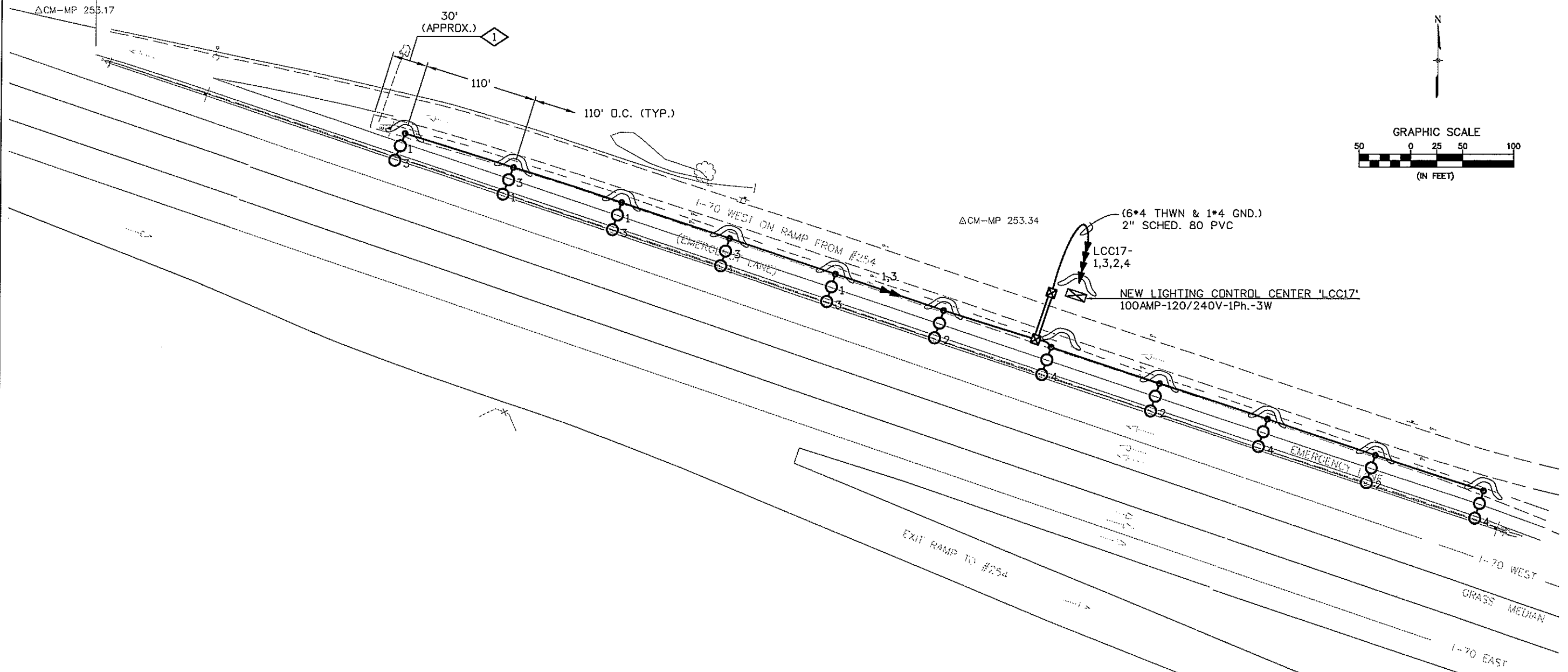
REGION I DW

PBSJ
4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

As Constructed		LIGHTING PLAN LCC CONTROL SCHEMATICS		Project No./Code
No. Revisions:				IM 070A-003
Revised:		Designer: GF	Structure Numbers	16701
Void:		Detailer: JE		
		Sheet Subset: LE	Subset Sheets: 23 OF 35	Sheet Number: 48

WORK NOTES:

- 1 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 30'-0" FROM END OF MEDIAN. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' O.C.) AS SHOWN.



PRELIMINARY

MP 254WB

CLANTON & ASSOCIATES
 LIGHTING DESIGN AND ENGINEERING
 4699 HAVELLS COURT SOUTH STE 102
 BOULDER, CO 80531
 303-438-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
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DOT
 DEPARTMENT OF TRANSPORTATION

Region 1
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

REGION I **DW**

PBSJ

4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

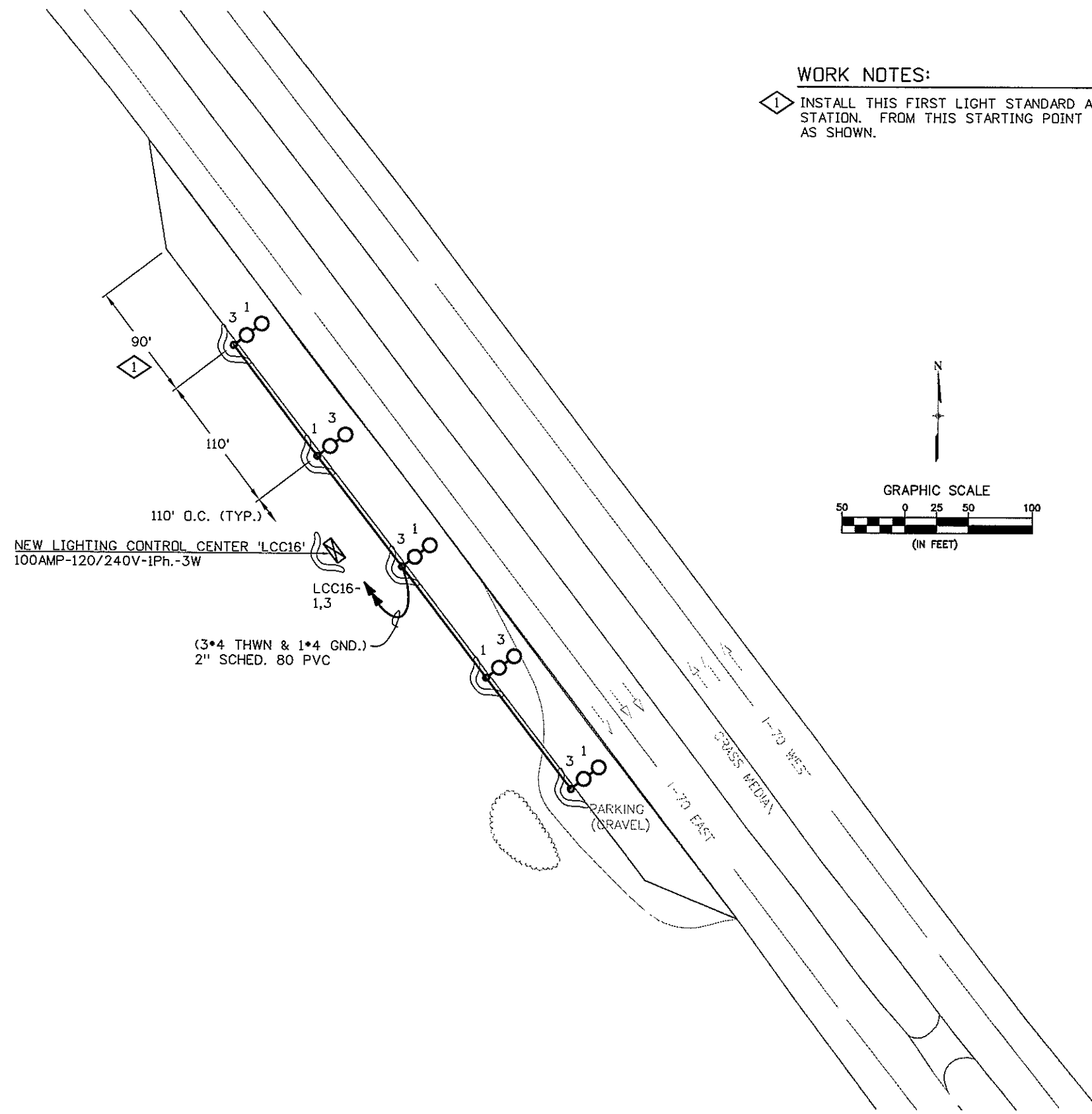
As Constructed
No. Revisions:
Revised:
Void:

LIGHTING PLAN & SWMP SITE MAP			
Designer:	GF	Structure	
Detailer:	JE	Numbers	
Sheet Subset:	LE	Subset Sheets:	22 OF 35

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IM 070A-003
16701
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WORK NOTES:

- 1 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 90'-0" FROM END OF FULL-WIDTH STATION. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' O.C.) AS SHOWN.



PRELIMINARY

MP 251EB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 4999 NAUTIGUS COURT SOUTH STE. 102
 BOULDER, CO 80501
 303-535-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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DOT
 DEPARTMENT OF TRANSPORTATION

Region 1
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

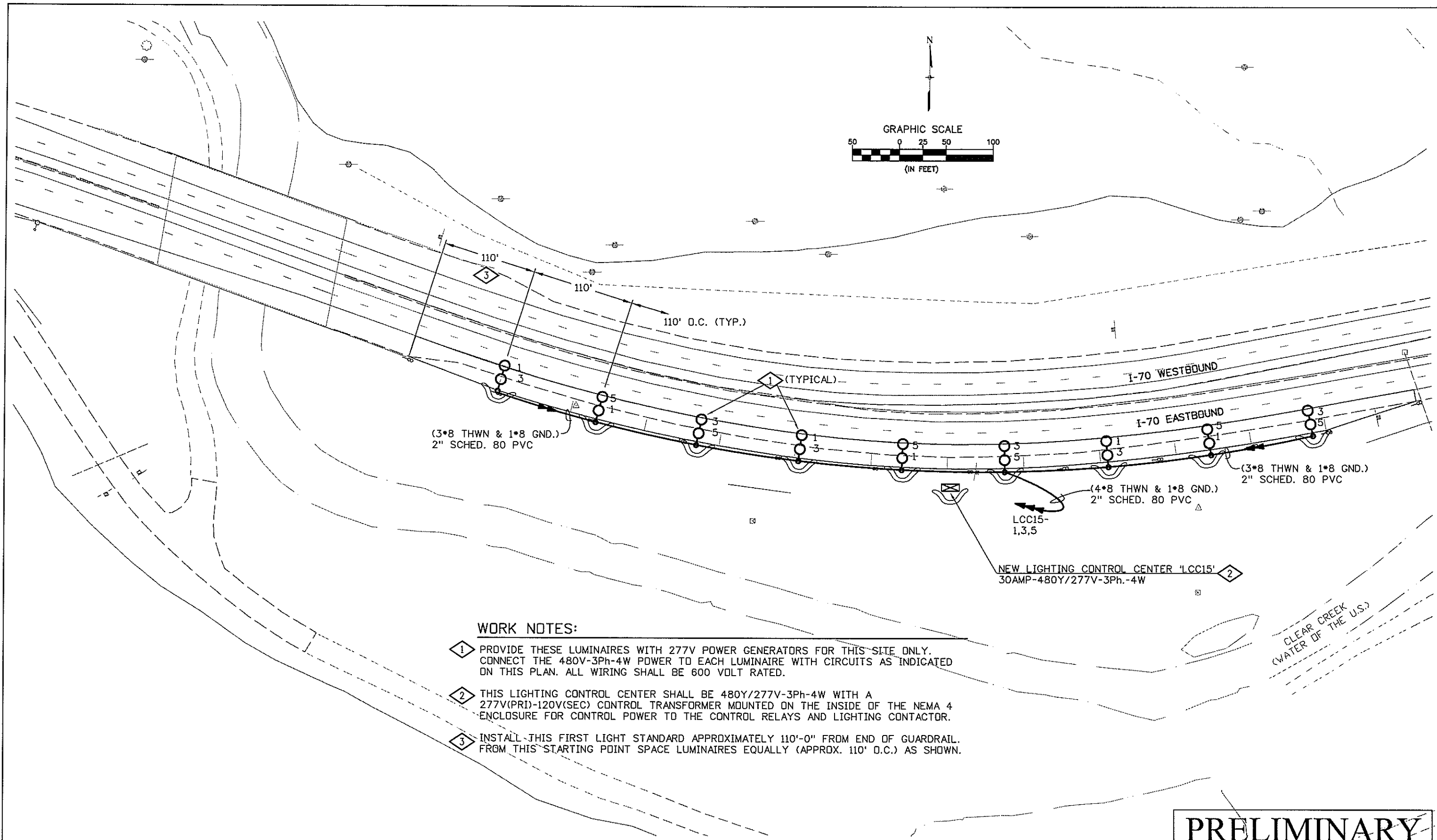
PBSJ
 4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

REGION I DW

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LIGHTING PLAN & SWMP SITE MAP			
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WORK NOTES:

- 1 PROVIDE THESE LUMINAIRES WITH 277V POWER GENERATORS FOR THIS SITE ONLY. CONNECT THE 480V-3Ph-4W POWER TO EACH LUMINAIRE WITH CIRCUITS AS INDICATED ON THIS PLAN. ALL WIRING SHALL BE 600 VOLT RATED.
- 2 THIS LIGHTING CONTROL CENTER SHALL BE 480Y/277V-3Ph-4W WITH A 277V(PRI)-120V(SEC) CONTROL TRANSFORMER MOUNTED ON THE INSIDE OF THE NEMA 4 ENCLOSURE FOR CONTROL POWER TO THE CONTROL RELAYS AND LIGHTING CONTACTOR.
- 3 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 110'-0" FROM END OF GUARDRAIL. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' O.C.) AS SHOWN.

PRELIMINARY

MP 241EB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 4099 SAUTER COURT SOUTH STE 102
 BOULDER, CO 80502
 303-440-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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DOT
 DEPARTMENT OF TRANSPORTATION

Region 1
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

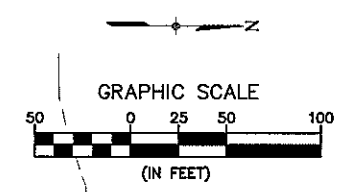
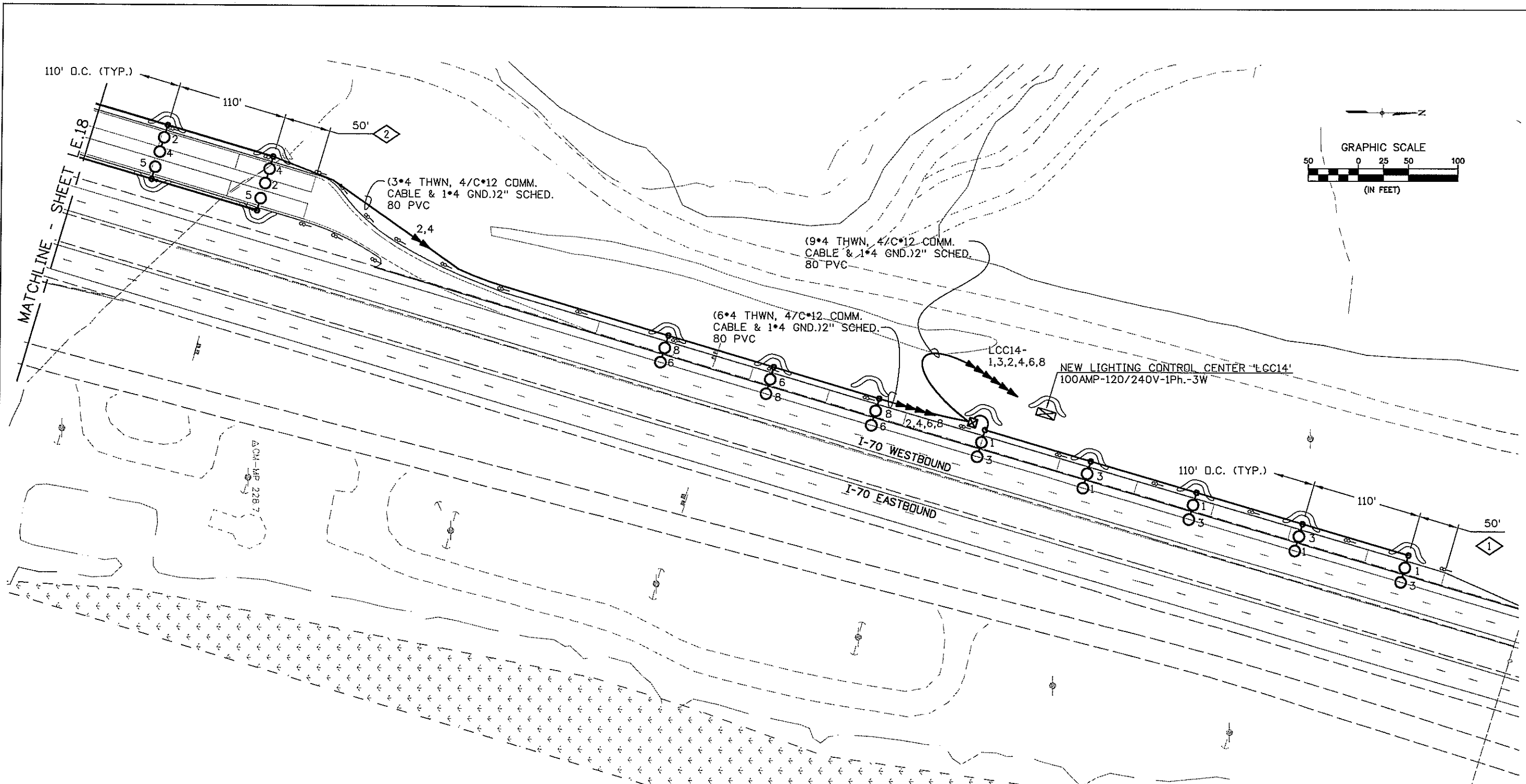
PBSJ
 4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

REGION I DW

As Constructed	
No. Revisions:	
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LIGHTING PLAN & SWMP SITE MAP			
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WORK NOTES:

- 1 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 50'-0" FROM END OF FULL-WIDTH STATION. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' D.C.) AS SHOWN.
- 2 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 50'-0" FROM FIRST STALL. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' D.C.) AS SHOWN.

PRELIMINARY

MP 228WB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 4899 HAUPTLIS COURT SOUTH, STE. 102
 BOULDER, CO 80536
 303-440-1229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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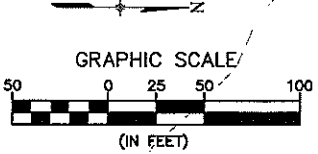
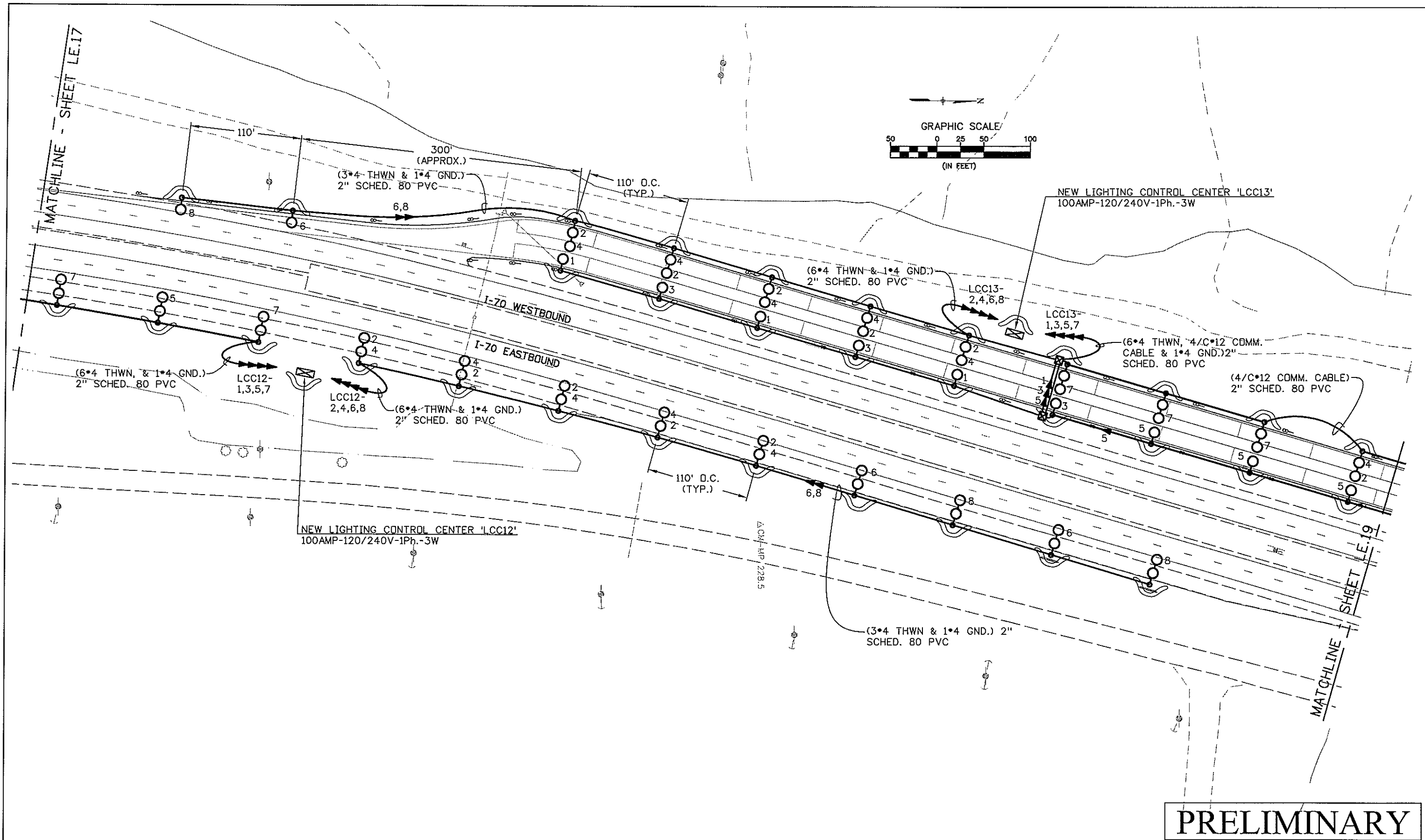
DOT
 DEPARTMENT OF TRANSPORTATION

Region 1
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

PBSJ
 4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

REGION I DW

As Constructed		LIGHTING PLAN & SWMP SITE MAP		Project No./Code
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Revised:		Designer: GF	Structure Numbers	16701
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PRELIMINARY

MP 228EB & WB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 4699 NAVILLE COURT SOUTH STE. 102
 BOULDER, CO 80501
 303-440-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
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DOT REGION 1
 DEPARTMENT OF TRANSPORTATION
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

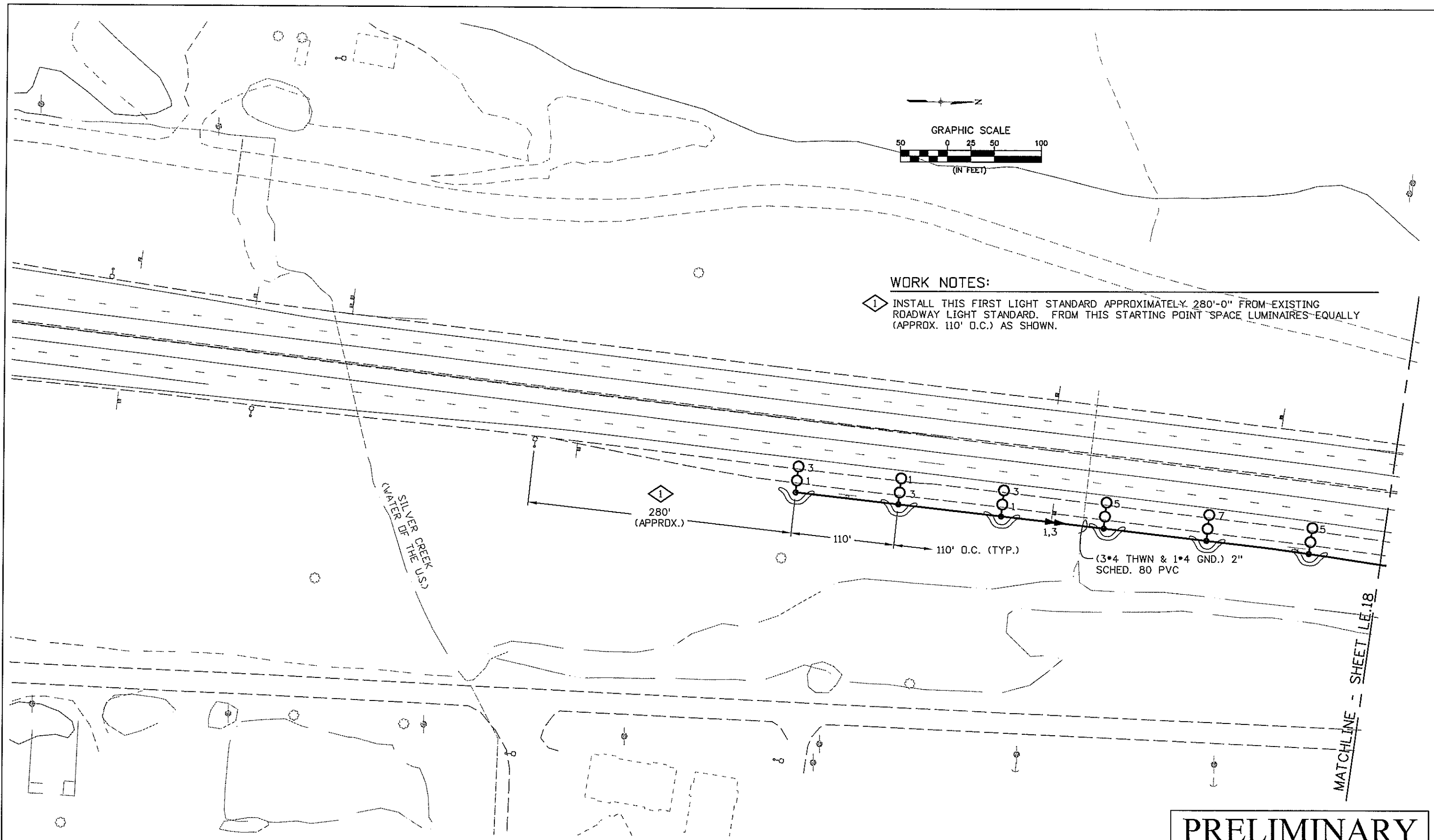
PBSJ
 4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

REGION I DW

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No. Revisions:	
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Void:	

LIGHTING PLAN & SWMP SITE MAP			
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WORK NOTES:

1 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 280'-0" FROM EXISTING ROADWAY LIGHT STANDARD. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' O.C.) AS SHOWN.

PRELIMINARY

MP 228EB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 4699 NAUPELLE COURT SOUTH STE. 102
 BOULDER, CO 80501
 303-440-7229

Computer File Information	
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Last Modification Date: March 25, 2008	Initials: JE
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DOT
 DEPARTMENT OF TRANSPORTATION

Region 1
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

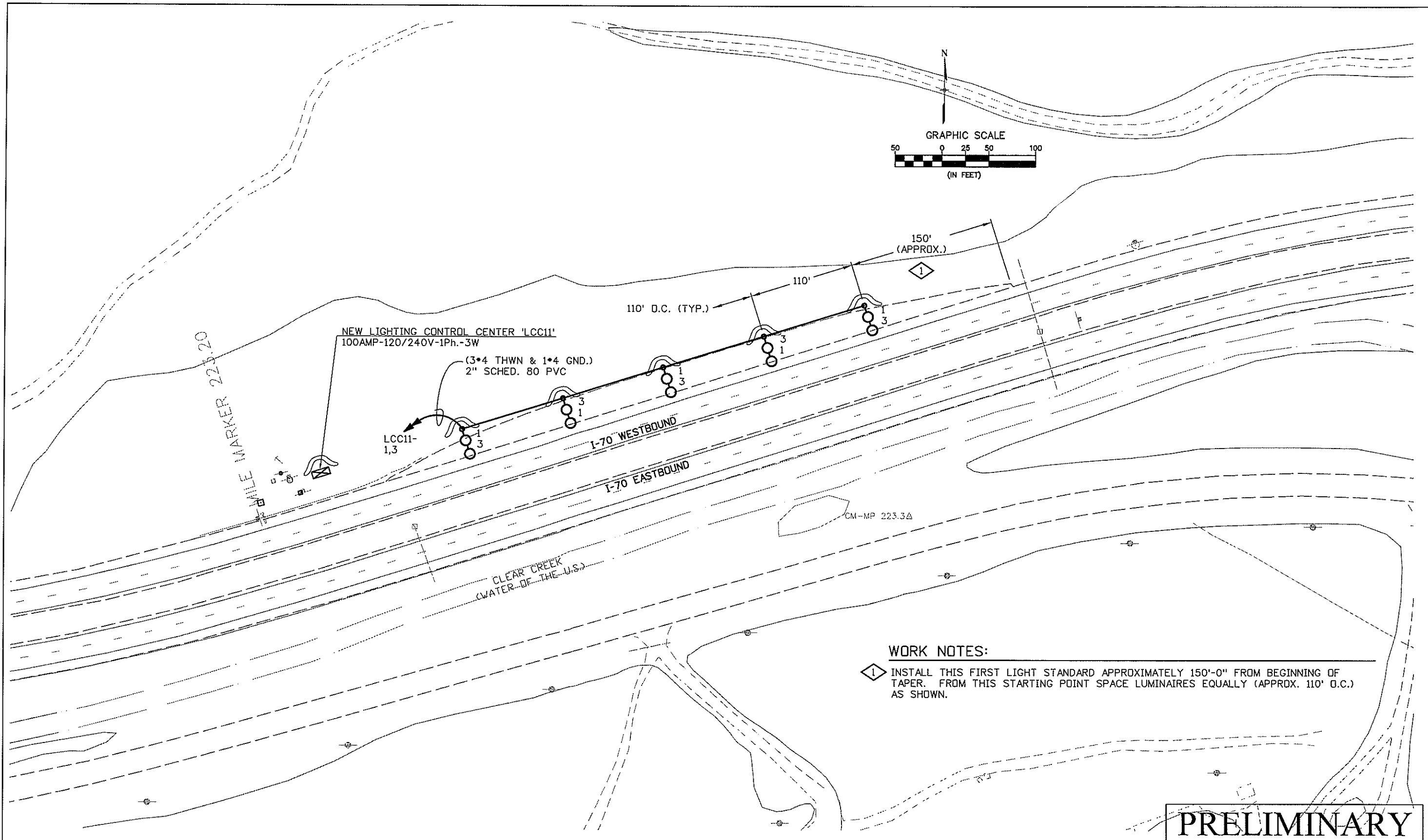
PBSJ
 4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

REGION I DW

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PRELIMINARY

MP 223WB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 1499 NAUTICAL COURT SOUTH STE. 102
 BOULDER, CO 80501
 303-440-7229

Computer File Information	
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Last Modification Date: March 25, 2008	Initials: JE
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DOT
 DEPARTMENT OF TRANSPORTATION

Region 1
 18500 East Colfax
 Aurora, CO 80011
 Phone: (303) 365-7340
 FAX: (303) 365-7343

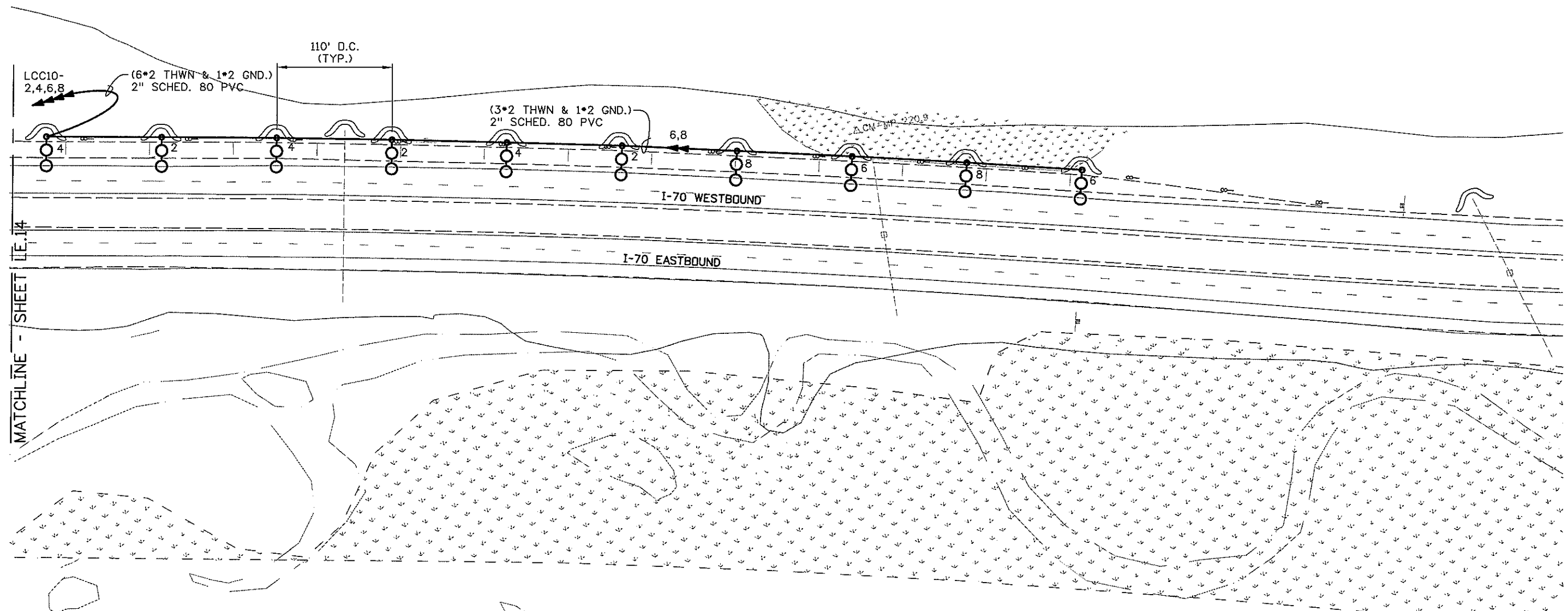
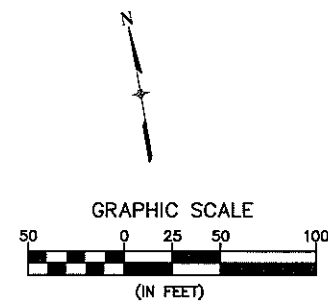
PBSJ
 4601 DTC Blvd.
 Suite 700
 Denver, CO 80237
 Phone: (303) 221-7275
 Fax: (303) 221-7276

REGION I DW

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MATCHLINE - SHEET LE.14

PRELIMINARY

MP 221WB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4699 N. I-70 EAST COURT SOUTH SITE 102
DENVER, CO 80231
303-530-7220

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\	
Drawing File Name: _LTPL-Plan_Sheets.dwg	
Scale: REFER TO BAR SCALE	Units: ENGLISH

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DOT REGION 1
DEPARTMENT OF TRANSPORTATION
Region 1
18500 East Colfax
Aurora, CO 80011
Phone: (303) 365-7340
FAX: (303) 365-7343

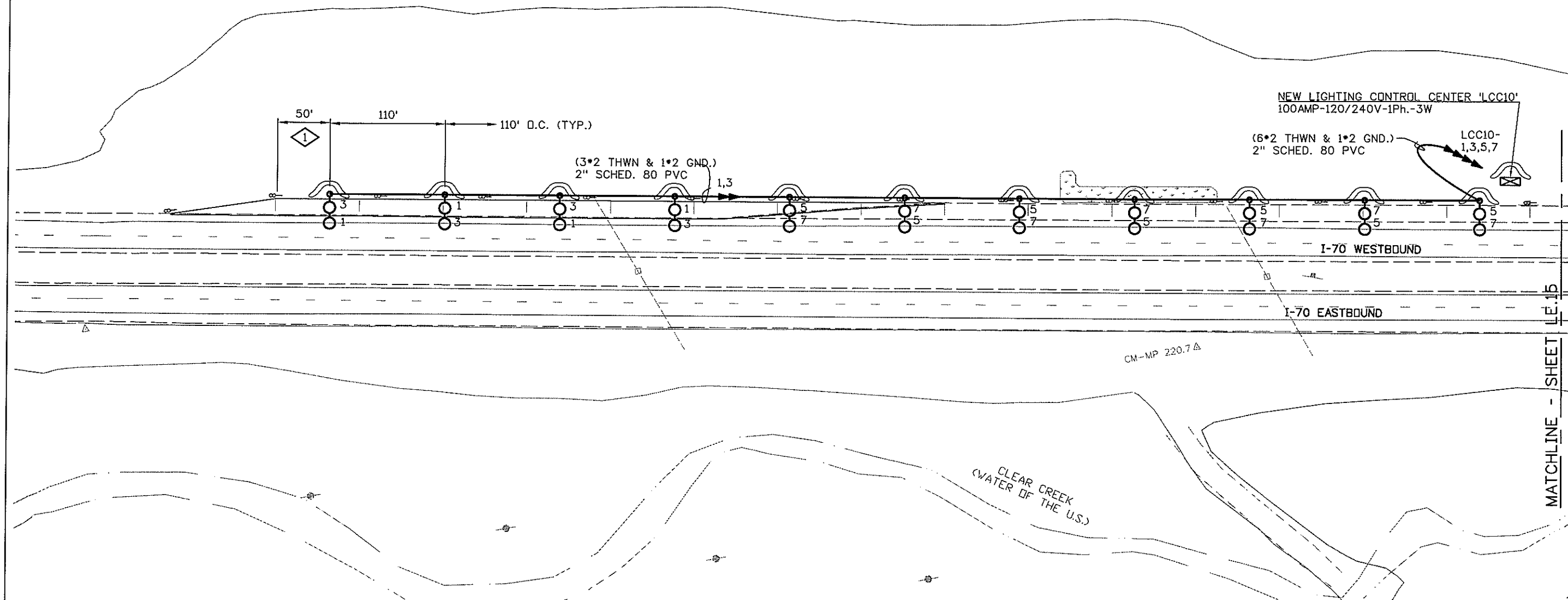
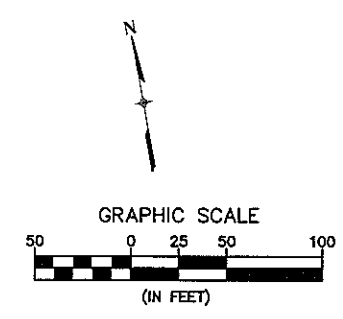
PBSJ
4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

REGION I DW

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LIGHTING PLAN & SWMP SITE MAP			
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WORK NOTES:

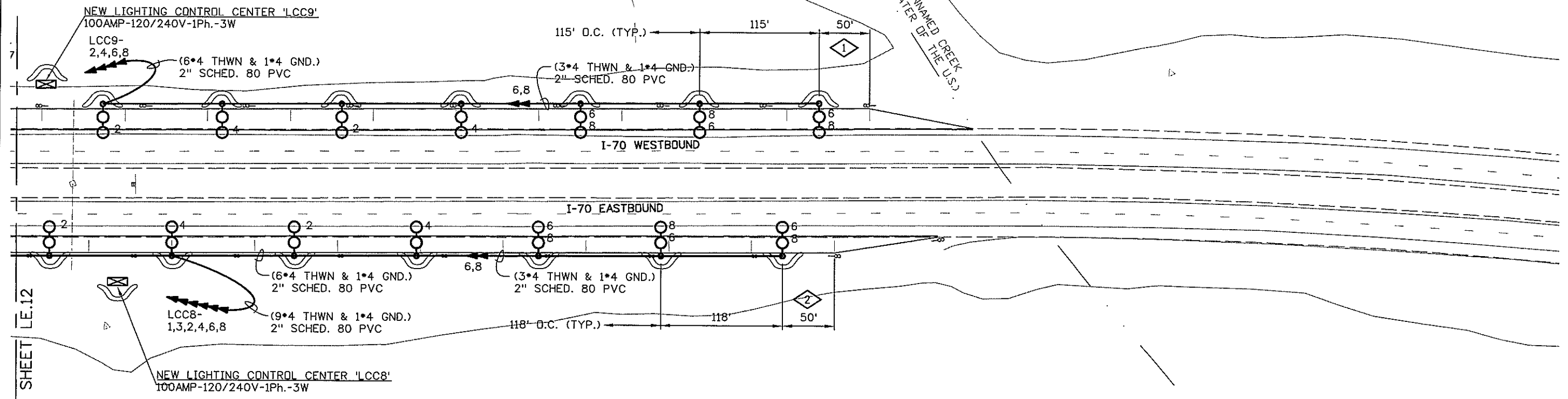
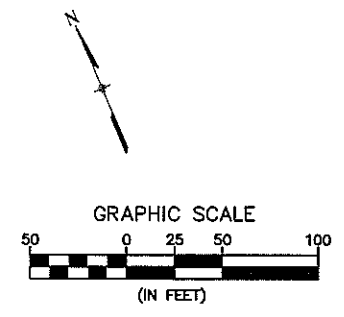
① INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 50'-0" FROM END OF FULL WIDTH STATION. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 110' D.C.) AS SHOWN.

PRELIMINARY

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
4699 NAUFELIS COURT SOUTH STE 107
BOULDER, CO 80501
303-440-7229

MP 221WB

Computer File Information		Index of Revisions		 Region 1 18500 East Colfax Aurora, CO 80011 Phone: (303) 365-7340 FAX: (303) 365-7343	 4601 DTC Blvd. Suite 700 Denver, CO 80237 Phone: (303) 221-7275 Fax: (303) 221-7276	As Constructed		LIGHTING PLAN & SWMP SITE MAP		Project No./Code	
Creation Date: February 11, 2008	Initials: GF					No. Revisions:			IM 070A-003		
Last Modification Date: March 25, 2008	Initials: JE					Revised:	Designer: GF	Structure Numbers	16701		
Full Path: Z:\VAIL CHAIN STATIONS\CURRNET\						Void:	Detailer: JE	Sheet Subset: LE	Subset Sheets: 14 OF 35	Sheet Number: 39	
Drawing File Name: _LTPL-Plan_Sheets.dwg				REGION I DW							
Scale: REFER TO BAR SCALE	Units: ENGLISH										



MATCHLINE - SHEET LE.12

WORK NOTES:

- 1 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 50'-0" FROM END OF FULL-WIDTH STATION. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 115' O.C.) AS SHOWN.
- 2 INSTALL THIS FIRST LIGHT STANDARD APPROXIMATELY 50'-0" FROM END OF FULL-WIDTH STATION. FROM THIS STARTING POINT SPACE LUMINAIRES EQUALLY (APPROX. 118' O.C.) AS SHOWN.

PRELIMINARY

MP 219EB & WB

CLANTON & ASSOCIATES LIGHTING DESIGN AND ENGINEERING
 1499 MAFFELI COURT SOUTH STE. 102
 BOULDER, CO 80521
 303-440-7229

Computer File Information	
Creation Date: February 11, 2008	Initials: GF
Last Modification Date: March 25, 2008	Initials: JE
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DOT
DEPARTMENT OF TRANSPORTATION

Region 1
18500 East Colfax
Aurora, CO 80011
Phone: (303) 365-7340
FAX: (303) 365-7343

REGION I **DW**

PBSJ

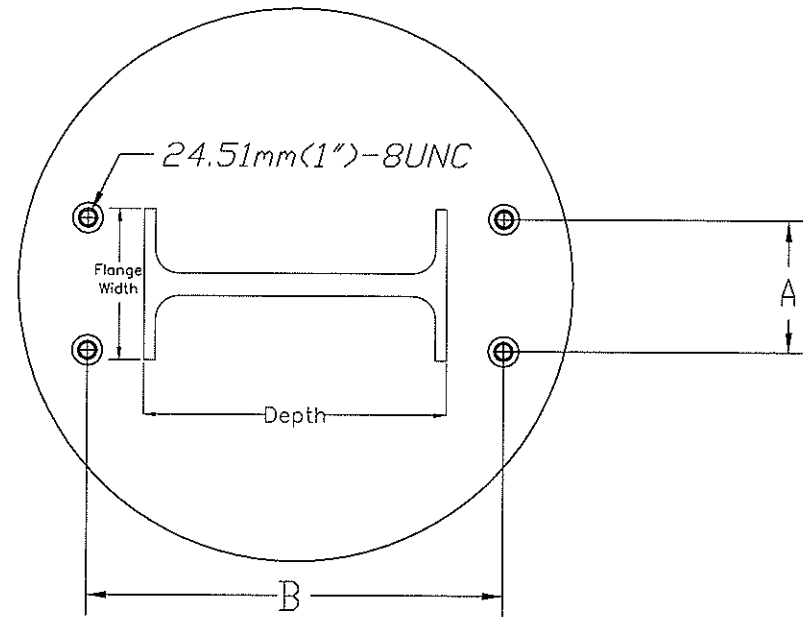
4601 DTC Blvd.
Suite 700
Denver, CO 80237
Phone: (303) 221-7275
Fax: (303) 221-7276

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No. Revisions:
Revised:
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LIGHTING PLAN & SWMP SITE MAP			
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PLAN VIEW OF FOOTING



METRIC STEEL SHAPES

SIZE	Depth (mm)	Flange Width (mm)
W310 x 39	310	165
W250 x 39	262	147
W250 x 33	258	146
W200 x 31	210	134
W200 x 27	207	133
W150 x 22	152	152
W150 x 18	153	102

ENGLISH STEEL SHAPES

SIZE	Depth (in)	Flange Width (in)
W12 x 26	12	6 1/2
W10 x 26	10	5 3/4
W10 x 22	10	5 3/4
W8 x 21	8	5 1/4
W8 x 18	8	5 1/4
W6 x 15	6	6
W6 x 12	6	4

A (lateral spacing of anchors)

76.2mm(3") for B-525 used on 152mm(6") & 203mm(8") wide flange posts

101.6mm(4") for B-525 used on 254mm(10"), 305mm(12"), 356mm(14"), 406mm(16"), 457mm(18") & 533mm(21") wide flange posts.

B (longitudinal spacing of anchors)

bracket #1 - depth of post section plus 201.6mm(7 15/16")

bracket #2 - depth of post section plus 204.8mm(8 1/16")

bracket #3 - depth of post section plus 206.8mm(8 1/8")

NOTES:

1. Footing Size:

Type 1 to Type 6 footings shown on S-614-6 require a 150mm(6") increase in in diameter ("D") to accommodate anchors shown on this detail. Horizontal reinforcing hoops will be increased to provide a 50mm(2") clearance from outside the footing. Reinforcing and other structural data remain the same. Type 7 requires no change.

2. A rigid steel template is recommended for anchor installation. The anchor spacing for template is dependent on the size of the required posts and brackets. See "Plan View of Footing" for details.

Computer File Information		Index of Revisions		Colorado Department of Transportation		As Constructed		Multi-Directional Break-Away Detail		Project No./Code
Creation Date:	1/28/97	Initials:	SJH					For Anchor Installations		IM 070A-003
Last Modification Date:	1/29/97	Initials:	SJH					Revised:	Designer: SJH	Structure Numbers
Full Path:	\STANDARD\							Void:	Detailer: SJH	16701
Drawing File Name:	MULTI-1.dwg								Sheet Subset: Traffic	Subset Sheet Number: 8 of 11
				4201 E. Arkansas Denver, CO 80222 Phone: 757-9355 FAX: 757-9219 Staff Traffic						Sheet Number - 73