

Oversight / NHS

FHWA FULL OVERSIGHT? NO YES

NATIONAL HIGHWAY SYSTEM? NO YES

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

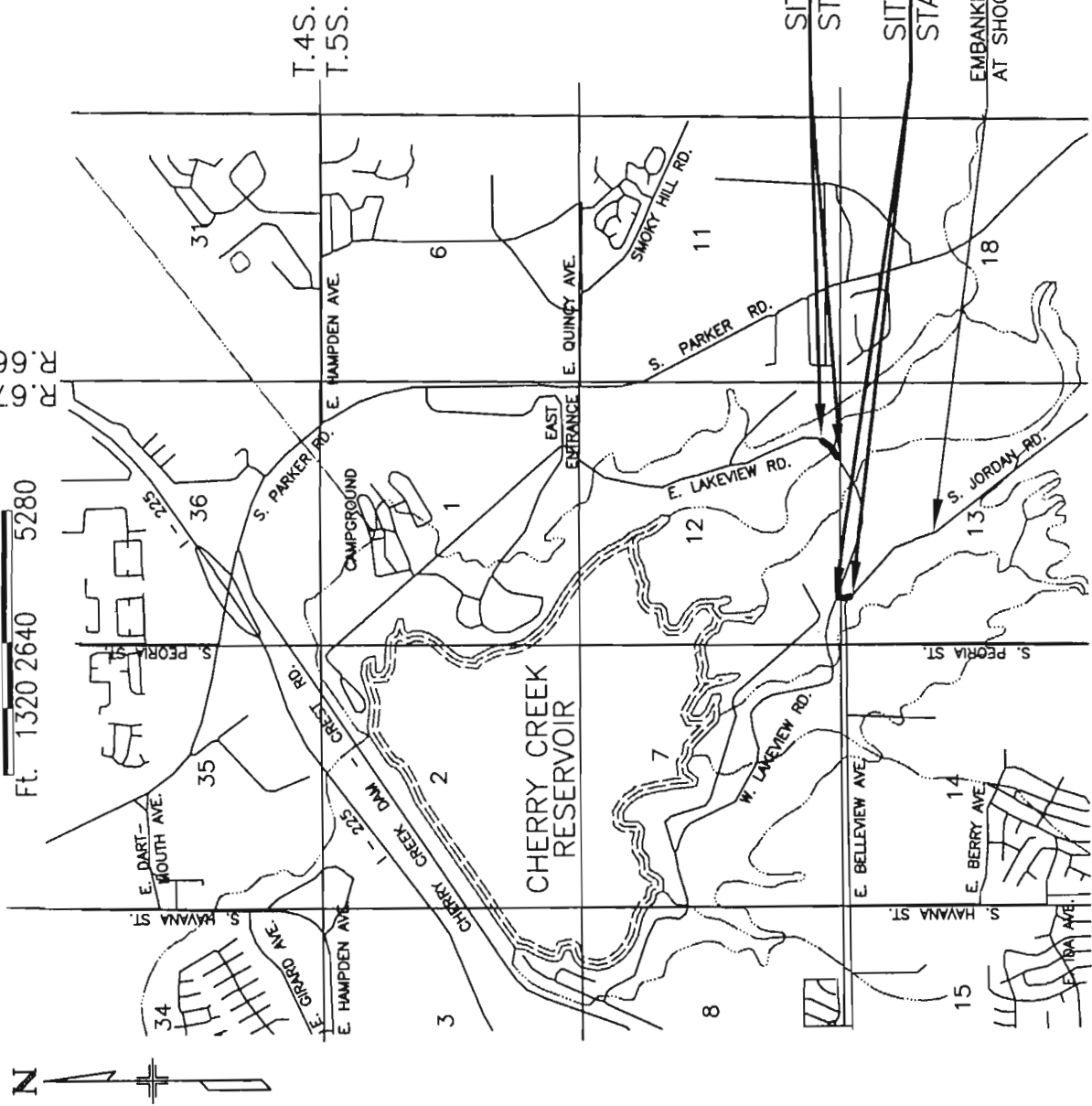
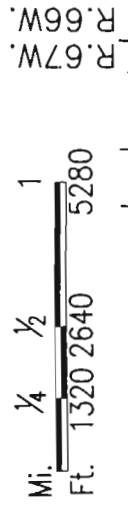
HIGHWAY CONSTRUCTION BID PLANS OF PROPOSED
CONSTRUCTED
CHERRY CREEK PARK IMPROVEMENTS
ARAPAHOE COUNTY
COLORADO PROJECT NO. CC R600-192

TABULATION OF LENGTH & DESIGN DATA

STATION	LINEAR FEET	
	ROADWAY	PARK ROADS
SITE 1 RAISE E. LAKEVIEW RD STA 801+00 BEGIN WORK SECTION STA 805+60 END WORK SECTION	460	
SITE 2 W. LAKEVIEW RD TO JORDAN RD CONNECTOR STA 31+00 BEGIN WORK SECTION STA 34+80 END WORK SECTION	380	
TOTAL	840	
SUMMARY OF PROJECT LENGTH	840	MILES 0.159
ROADWAY (NET LENGTH)	840	0.159
PROJECT GROSS LENGTH	840	0.159
SITE 1 DESIGN DATA	MATCH EXISTING MINIMUM RADIUS OF CURVE 1.84% MAXIMUM GRADE MINIMUM S.S.D. (HORIZONTAL) 25 MINIMUM S.S.D. (VERTICAL) 25 MAXIMUM DESIGN SPEED 25 ADT 130	
SITE 2 DESIGN DATA	250 ft 2.08% > 400 ft > 400 ft MINIMUM RADIUS OF CURVE MAXIMUM GRADE MINIMUM S.S.D. (HORIZONTAL) MINIMUM S.S.D. (VERTICAL) MAXIMUM DESIGN SPEED ADT 130	

* FOR INFORMATION ONLY

CONSTRUCTION PROJECT CODE NO. 14020



SHEET NO. INDEX OF SHEETS

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8	EARTHWORK AND STRUCTURE QUANTITIES
9	SURVEY TABULATION SHEET
10	COORDINATE GEOMETRY PLAN AND CURVE DATA SHEET
11-12	PROJECT CONTROL DIAGRAM
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15	SITE 1 APPROACH ROAD PLAN & PROFILES
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21	TABULATION OF SIGNS

NEW AND REVISED STANDARDS

Plan No. S-614-2
 Title CLASS 1 GROUND SIGN INSTALLATIONS (1 SHEET)
 Date AUG. 22, 2002

SITE 1 E. LAKEVIEW ROAD
 STA 801+00 TO STA 805+60

SITE 2 CONNECTOR ROAD
 STA 31+00 TO STA 34+80

EMBANKMENT BORROW & DISPOSAL
 AT SHOOTING RANGE

Computer File Information		Index of Revisions		Colorado Department of Transportation		Contract Information	
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Full Path:	C:\Plans Library\CC R600-192\	Phone:	(303) 757-9519	Void:	Project Engineer:	JEFF ALLEN	14020
Drawing File Name:	001_Title & Index.dwg	Region 6 Design	HNL	Comments:	PROJECT STARTED:	07/10/03	ACCEPTED: /
Acad Ver.:	R2002	Scale:	NTS	Units:	ENGLISH	Sheet Number	1

PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	S STANDARD TITLE	PAGE NUMBER
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<input checked="" type="checkbox"/> M-203-1	APPROACH ROADS	2	<input type="checkbox"/> M-607-2	CHAIN LINK FENCE	(3 SHEETS) 81-83	<input checked="" type="checkbox"/> S-614-1	TYPICAL GROUND SIGN PLACEMENT	114
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<input type="checkbox"/> M-606-13	GUARDRAIL, TYPE 7, F-SHAPE BARRIER	(4 SHEETS) 74-77						

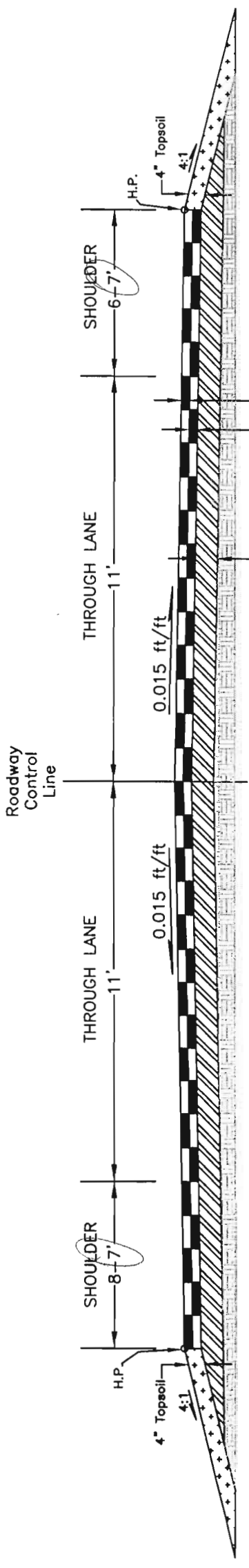
THE STANDARD PLAN SHEETS INDICATED HEREON BY A MARKED BOX ARE TO BE USED TO CONSTRUCT THIS PROJECT.

COLORADO
DEPARTMENT OF TRANSPORTATION

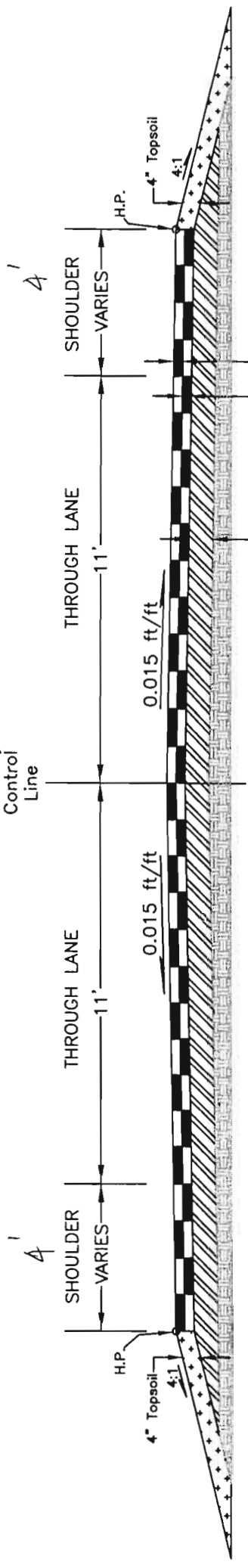
STANDARD PLANS LIST
M & S STANDARDS
OCTOBER 1, 2000

Computer File Information		Index of Revisions		As Constructed		Standard Plans List		Project No./Code	
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Drawing File Name:	002_Standard Plans List.dwg					Sheet Number		2	
Acad Ver.:	R2002	Scale:	NTS	Units:	ENGLISH				

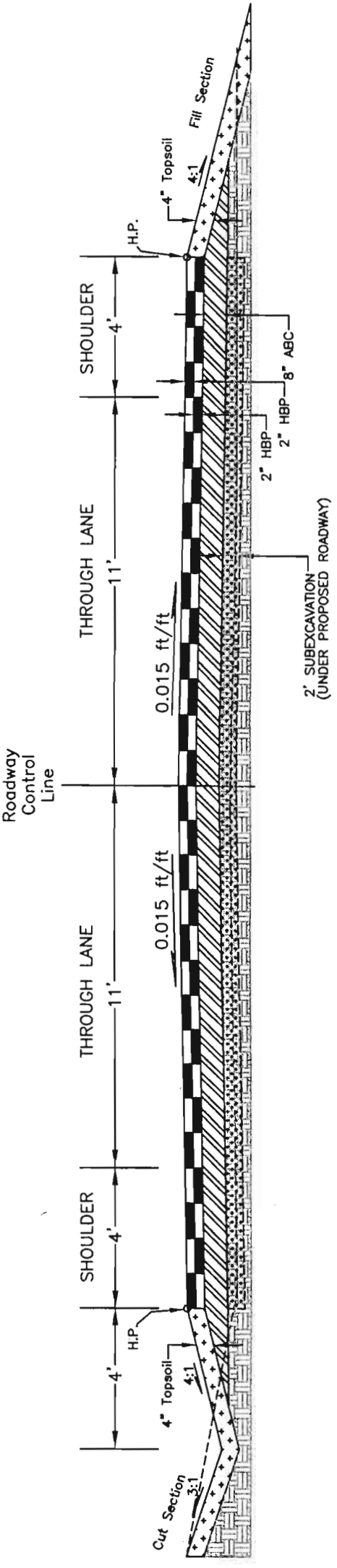
SITE 1
EAST LAKEVIEW ROAD STA 801+00 to STA 805+60



APPROACH ROAD STA 10+20 to STA 10+90



SITE 2
WEST LAKEVIEW ROAD & JORDAN ROAD CONNECTOR
STA 31+00 to STA 34+80



Computer File Information		Index of Revisions		As Constructed		Typical Sections		Project No./Code	
Creation Date:	01/02/2003	Initials:	JSH	No Revisions:	No Revisions:		CC R600-192		Sheet Number
Last Modification Date:	03/12/2003	Initials:	SFarber	Revised:	Revised:		14020		
Full Path:	C:\Plans Library\CC R600-192\			Void:	Void:		JSH Structure Numbers		Sheet Number
Drawing File Name:	003_Typical.dwg			Region 6 Design		HNL		1 of 1	
Acad Ver.	R2002	Scale:	N/A	Units:	ENGLISH		Typicals Subset Sheets:		3

GENERAL NOTES

FOR PRELIMINARY PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

HOT BITUMINOUS PAVEMENT (GR SX) (75) (PG 64--22) 110 LB/SY/INCH
 HOT BITUMINOUS PAVEMENT (PATCHING) 110 LB/SY/INCH
 EMULSIFIED ASPHALT (SS) TACK COAT 0.1 GAL/SY (DILUTED)
 AGGREGATE BASE COURSE (CLASS 6) 1.8 TONS/CY (1.33 LB/CF)

DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER. RATE OF APPLICATION SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.

TYPE OF COMPACTION FOR SUBGRADE ON THIS PROJECT SHALL BE AASHTO T-99. WATER FOR COMPACTION WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK.

DEPTH OF MOISTURE AND DENSITY CONTROL FOR THIS PROJECT SHALL BE 12 INCHES FOR RECONSTRUCTED OR NEW PAVEMENT AREAS.

THE SUBGRADE SHALL BE PROOF-ROLLED WITH A HEAVILY LOADED PNEUMATIC TIRE VEHICLE AS DIRECTED BY THE ENGINEER. AREAS THAT DEFORM EXCESSIVELY UNDER WHEEL LOADS SHALL BE REMOVED AND REPLACED PRIOR TO PAVING OR AS DIRECTED BY THE ENGINEER. THE ENGINEER SHALL DETERMINE ALL REQUIREMENTS OF PROOF-ROLLING. IT IS ESTIMATED THAT 20 HOURS OF PROOF ROLLING WILL BE REQUIRED FOR THIS PROJECT AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE A WATER TRUCK ON SITE FOR DUST CONTROL. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. WATER USED AS A DUST PALLIATIVE WILL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE COST OF THE WORK.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE EACH SUCCEEDING LAYER IS PLACED.

WHERE EXISTING ASPHALT PAVEMENT IS TO BE REMOVED TO PLACE NEW ASPHALT PAVEMENT, IT SHALL BE CUT TO A NEAT LINE FULL DEPTH WITH A PAVEMENT CUTTING SAW OR OTHER METHOD AS APPROVED BY THE ENGINEER TO AVOID DAMAGING REMAINING ASPHALT PAVEMENT. SAW CUTTING AND CONTAINMENT OF SAW RESIDUE SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE WORK.

MATERIAL THAT IS LOOSENEED FROM THE ROADWAY OR TRACKED ONTO THE ROADWAY BY THE CONTRACTOR'S EQUIPMENT WILL BE CLEARED OFF THE ROADWAY (BROOMED, SWEEP UP) IMMEDIATELY. NONE OF THE MATERIAL SHALL BE ALLOWED TO RUN OFF INTO WATERS OF THE STATE, THROUGH STATE INLETS, OR BY ANY OTHER MEANS.

TYPE OF COMPACTION FOR THIS PROJECT WILL BE AS FOLLOWS:

1 - SOILS CLASSIFIED BETWEEN A-1 AND A-2-5 SHALL BE COMPACTED TO A MODIFIED PROCTOR DENSITY (AASHTO T-99) WITHIN 2% OF OPTIMUM CONTENT.

2 - SOILS CLASSIFIED BETWEEN A-2-6 AND A-7-6 SHALL BE COMPACTED TO AT LEAST 95% OF AASHTO T-99 WITHIN A MOISTURE CONTENT OF 0% TO 3% ABOVE OPTIMUM MOISTURE CONTENT.

3 - SOILS CLASSIFIED AS A-4 AND ARE UNSTABLE AT THE MOISTURE CONTENTS IDENTIFIED ABOVE MAY BE COMPACTED AT A LOWER MOISTURE CONTENT TO THE SAME SPECIFIED DENSITY.

DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:

FULL DEPTH OF ALL EMBANKMENTS
 BASES OF FILLS - 12 INCHES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COLLECTION AND PROPER DISPOSAL OF WATER FROM PAVEMENT FOLLOWING M-208-1 TEMPORARY EROSION CONTROL MEASURES.

THE CONTRACTOR SHALL POWER BROOM (PICK UP TYPE) THE AREA BEFORE APPLICATION OF EMULSIFIED ASPHALT AS DIRECTED BY THE ENGINEER. NO DIRT, SAND, WATER, OR OTHER CONTAMINANTS WILL BE PERMITTED TO REMAIN ON THE SURFACE TO BE PAVED. THE COST OF BROOMING SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF WORK.

ALL CLEARING AND GRUBBING SHALL BE INCLUDED IN THE WORK.

ALL EQUIPMENT WILL REMAIN ON ROADWAY SURFACE OR PAVED PARKING LOTS. ANY OFF ROAD STAGING AREAS MUST BE PRE-APPROVED BY CDOT PROJECT ENGINEER AND THE CHERRY CREEK MAINTENANCE SUPERVISOR, ANDREW BAILEY.

THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS. ANY DISTURBANCES BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES, IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES, SHALL INCLUDE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDING OF ALL AREAS DISTURBED OUTSIDE THE PROJECT LIMITS AT NO COST TO THE PROJECT.

ANY REMOVAL OR RESET OF FENCE SHALL BE INCLUDED IN THE COST OF PAY ITEM RESET FENCE 100 L.F..

ANY DAMAGE TO ADJACENT LANDSCAPING, SPRINKLERS, OR OTHER IMPROVEMENTS DUE TO THE CONTRACTOR'S OPERATION WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

PLACED TOPSOIL SHALL BE 4-INCH DEPTH. IF THE TOPSOIL IS NOT GENERATED WITHIN THE PROJECT LIMITS, IT SHALL BE TREATED WITH A HERBICIDE APPLICATION AFTER PLACEMENT AND BEFORE NATIVE SEEDING. HERBICIDE TREATMENT SHALL BE PERFORMED BY A LICENSED HERBICIDE APPLICATOR AND SHALL BE INCLUDED IN THE COST OF THE PAY ITEM HERBICIDE TREATMENT (10 HOURS).

DISPOSAL OF EXCESS MATERIAL OFF-SITE OR THE IMPORTING OF MATERIALS ON-SITE, REGARDLESS OF PROPERTY OWNERSHIP, MUST BE DONE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS AND THE CDOT PRAIRIE DOG POLICY. IF THE CONTRACTOR HAS ANY QUESTIONS ABOUT WHETHER OR NOT THEY ARE IN COMPLIANCE, THEY SHOULD CALL REGION 6 ENVIRONMENTAL MANAGER AT (303) 757-9930 PRIOR TO REMOVAL AND DISPOSAL OF THE MATERIAL.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO SUBSECTION 105.06 OF THE STANDARD SPECIFICATIONS CONCERNING UTILITIES. THE CONTRACTOR SHALL CALL THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987 FOR UTILITY LOCATIONS AT LEAST 2 BUSINESS DAYS, NOT INCLUDING THE DAY OF ACTUAL NOTIFICATION, PRIOR TO ANY EXCAVATION. FOR UTILITIES ON PARK PROPERTY CONTRACTOR SHALL NOTIFY THE PARK MAINTENANCE SUPERVISOR, ANDREW BAILEY AT LEAST 2 BUSINESS DAYS BEFORE ANY EXCAVATION.

IT IS ESTIMATED THAT 500 HOURS OF FLAGGING, 10 DAYS OF TRAFFIC CONTROL INSPECTION AND 35 DAYS OF TRAFFIC CONTROL MANAGEMENT WILL BE REQUIRED ON THIS PROJECT.

IT IS ESTIMATED THAT 25 TREES WILL REQUIRE TRIMMING AND 1 TREE AT STA 10+60 RT (RD APPROACH) WILL BE REMOVED AT SITE 1 WORK AREA AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR IS ADVISED THAT THERE ARE SEVERAL SPECIES OF NOXIOUS WEEDS IDENTIFIED WITHIN THE PROJECT AREA IN A SURVEY DONE BY THE COLORADO STATE PARKS, CHERRY CREEK PARK'S, ESRI ARCEXPLORER 2.0. THE CONTRACTOR SHALL HAVE AN ENVIRONMENTAL SPECIALIST OR BOTANIST THAT IS A SPECIALIST WITH THE NOXIOUS WEED REQUIREMENTS OF THE STATE OF COLORADO (COLORADO NOXIOUS WEED ACT 35-5.5-115, C.R.S.: 1996 SUPP.), CONDUCT A NOXIOUS WEED SURVEY AND CREATE A MANAGEMENT PLAN, PRIOR TO CLEARING AND GRUBBING. THE MANAGEMENT PLAN SHALL INCLUDE THE BEST MANAGEMENT PRACTICE, TECHNIQUE AND OR CHEMICAL TO BE USED TO CONTROL AND CONTAIN THE IDENTIFIED NOXIOUS WEED. THIS PLAN SHALL BE SUBMITTED TO THE ENGINEER AND ENVIRONMENTAL BIOLOGIST, RICK WILLARD (303.757.9304) FOR APPROVAL, 1 MONTH PRIOR TO CLEARING & GRUBBING.

ANY EQUIPMENT USED IN A NOXIOUS WEED AREA SHALL BE THOROUGHLY CLEANED PRIOR TO MOVING TO ANOTHER SITE OR LEAVING THE PROJECT. WASH WATER SHALL BE CONTAINED IN A BERMED CONTAINED SITE AND SHALL NOT BE ALLOWED TO ENTER INTO A STORMDRAIN OR CREEK.

IT IS ESTIMATED THAT 4 PIPES ON SITE 1 LOCATED AT STA'S 800+40, 800+78, 804+75 AND 10+89 (ROAD APPR) WILL BE CLEANED AND PAID FOR AS ITEM 202-CLEAN CULVERTS.

Computer File Information		Index of Revisions		Colorado Department of Transportation		General Notes		Project No./Code	
Creation Date:	12/28/2002	Initials:	JSH	 2000 South Holly Street Denver, Colorado 80222 Phone: (303) 757-9519 Fax: (303) 750-7452		Designer: JSH/SWF Structure Detailer: JSH/SWF Numbers Sheet Subject: Gen. Notes Subset Sheets: 1 of 1		CC R600-192 14020 Sheet Number 4	
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Acad Ver. R2002	Scale:	NTS	Units:	ENGLISH					

542.13

INDEX BOOK PAGE SHEET	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		ROADWAY		ROADWAY		PROJECT TOTALS	
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.
	202-00010	Removal of Trees	EACH	1	0						
	202-00011	Tree Trimming	EACH	26	0						
	202-00220	Removal of Asphalt Mat	SY	2,327	2,916					2,327	2,916
	202-04002	Clean Culvert	EACH	4	3					4	3
	203-00010	Unclassified Excavation (Complete in Place)	CY	1,982	500					1,982	500
	203-01100	Proof Rolling	HOURL	20	20					20	20
	203-01500	Blading	HOURL	20	20					20	20
	207-00210	Steep Slope Treatment	EACH	208	0					208	0
	208-00011	Erosion Bales (Weed Free)	EACH	36	13					36	13
	208-00020	Silt Fence	LF	440	540					440	540
	208-00045	Concrete Weebat Structures	EACH	3	0					3	0
	208-00670	Stabilized Construction Entrance	EACH	2	2					2	2
	208-00101	Sediment Removal and Disposal	HOURL	40	0					40	0
	208-00205	Erosion Control Supervisor	HOURL	40	7					40	7
	210-00810	Reset Ground Sign	EACH	1	1					1	1
	210-01000	Reset Fence	LF	100	0					100	0
	212-00006	Seeding (Native)	ACRE	0.8	0.8					0.8	0.8
	213-00003	Mulching (Weed Free)	ACRE	0.8	0.7					0.8	0.7
	213-00061	Mulch Tackifier	LB	300	1,500					300	1,500
	216-00041	Soil Retention Blanket (Straw/Coconut)	SY	100	891.10					100	891.10
	217-00020	Herbicide Treatment	HOURL	10	0					10	0
	304-06000	Aggregate Base Course (Class 6)	CY	983	952					983	952
	403-00720	Hot Bituminous Pavement (Patching) (Asphalt)	TON	150	427.47 542.13					150	427.47 542.13
	403-34741	Hot Bituminous Pavement (Grading SX) (75) (PG 64-22)	TON	775	668.80					775	668.80
	408-01000	Hot Poured Joint and Crack Sealant	TON	25	43.69					25	43.69
	411-10255	Emulsified Asphalt (Slow-Setting)	TON	334	0					334	0
	603-01120	12 Inch Reinforced Concrete Pipe	LF	15	15					15	15
	603-10120	12 Inch Corrugated Steel Pipe	LF	114	25					114	25
	603-10180	18 Inch Corrugated Steel Pipe	LF	116	176					116	176
	603-30012	12 Inch Steel End Section	EACH	4	6					4	6
	603-30018	18 Inch Steel End Section	EACH	4	4					4	4
	607-11525	Fence (Plastic)	LF	640	0					640	0

Computer File Information		Sheet Revisions		Colorado Department of Transportation		As Constructed		SUMMARY OF APPROXIMATE QUANTITIES		Project No./Code	
Creation Date:	07-Apr-2003	Initials:		No Revisions:		Street Address		CC R600-192		14020	
Last Modification Date:		Initials:		Revised:		2000 South Holly		Structure Numbers		Sheet Number: 5	
Full Path:	C:\PROJECTS\CHERRYCREEK\ADPLANS\11x17s			Void:		Denver, CO 80222		Sheet Subsets:		14020	
Drawing File Name:	14020_Sheet5					Phone: 303-757-9519 FAX: 303-750-7452		Sheet Subsets:		Sheet Number: 5	
Autocad by Autodesk						Region 6 - Design		Sheet Subsets:		Sheet Number: 5	

INDEX	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		PROJECT TOTALS	
				PLAN	AS CONST.	PLAN	AS CONST.
	612-00041	Delineator (Flexible) (Type I)	EACH	28	28	28	28
	612-00042	Delineator (Flexible) (Type II)	EACH	6	6	6	6
	614-00044	Sign Panel (Close)	SF	0	0	0	0
	614-00044	Timber Sign Post	SF	0	0	0	0
	620-00020	Sanitary Facility	EACH	2	2	2	2
	625-00000	Construction Surveying	LS	1	1	1	1
	626-00000	Mobilization	LS	1	1	1	1
	627-00005	Epoxy Pavement Marking	GAL	687	735.92	687	735.92
	627-30325	Preformed Plastic Pavement Marking (Type B) (Word-Symbol)	SF	724	829.59	724	829.59
	627-30330	Preformed Plastic Pavement Marking (Type B) (Xwalk-Stopline)	SF	2,360	2285	2,360	2285
	630-00000	Flagging	HOUR	500	669.50	500	669.50
	630-00007	Traffic Control Inspection	DAY	10	38	10	38
	630-00012	Traffic Control Management	DAY	35	44	35	44
	630-80342	Construction Traffic Sign (Panel Size B)	EACH	10	756	10	756
	630-80380	Traffic Cone	EACH	100	90	100	90
	202-00040	FORCE ACCOUNT =====					
	202-00033	REMOVE PIPE	EAH	1	1	1	1
	202-00250	REM PAVEMENT MARKING	SF	1197.3	1197.3	1197.3	1197.3
	202-05150	SANDBLASTING	SF	6724.41	6724.41	6724.41	6724.41

Computer File Information		Sheet Revisions		Colorado Department of Transportation		As Constructed		SUMMARY OF APPROXIMATE QUANTITIES		Project No./Code	
Creation Date:	07-Apr-2003	Initials:		No Revisions:		Street Address		CC R600-192		14020	
Last Modification Date:		Initials:		Revised:		2000 South Holly		Structure Numbers		14020	
Full Path:	C:\PROJECTS\CHERRYCREEK\ADPLANS\11x17s			Void:		Denver, CO 80222		Sheet Subsets:		Sheet Number: 6	
Drawing File Name:	14020_Sheet6					Phone: 303-757-9519 FAX: 303-750-7452		HNL			
AutocAD by Autodesk						Region 6 - Design					

TABULATION OF SURFACING QUANTITIES

STATION/LOCATION	AREA		HOT BITUMINOUS PAVEMENT (GR SX)(75) (PG 64-22) 4 INCHES	AGGREGATE BASE COURSE (CL 6) 8 INCHES		EMULSIFIED ASPHALT (SLOW-SETTING)		REMOVAL OF ASPHALT MAT
	SQ YDS	TONS		CU YDS	GALS	SQ YDS		
SITE 1 - E. LAKEVIEW RD								
STA. 801+00 TO STA. 805+00	1511	333		530.6*	146	1,511		
STA. 805+00 TO STA. 805+60	187	41		45.6	22	187		
SITE 1 - ROAD APPROACH								
STA. 10+20 TO STA. 10+95	299	66		71.7	24	299		
SITE 2 - CONNECTOR ROAD								
STA. 31+00 TO STA. 32+00	330	66		80.6	33	330		
STA. 32+00 TO STA. 34+30	767	169		186.7	77			
STA. 34+30 TO STA. 34+80	286	63		67.2	29			
SUBTOTAL		738		982.4	331	2,327		
IRREGULARITIES		37						
TOTAL		775		983	331	2,327		

*INCLUDES FULL DEPTH ABC BETWEEN STA. 802+ TO STA. 804+
IT IS ESTIMATED THAT 150 TONS OF HBP (PATCHING) (ASPHALT) WILL BE REQUIRED FOR THIS PROJECT.
IT IS ESTIMATED THAT 25 TONS OF HOT POURED JOINT AND CRACK SEALANT WILL BE REQUIRED FOR THIS PROJECT.

TABULATION OF DELINEATORS

	TYPE 1 (FLEXIBLE)* CRYSTAL EACH	TYPE 2 (FLEXIBLE)* RED EACH	REMARKS
SITE 1 - E. LAKEVIEW RD			
STA. 801+00 TO STA. 805+60	8		430' R CURVE
STA. 804+72		2	PIPE LOCATION
SUBTOTAL			
SITE 2 - CONNECTOR ROAD			
STA. 31+00 TO STA. 34+80	20		250' R CURVE
STA. 32+00		2	PIPE LOCATION
STA. 34+75		2	PIPE LOCATION
TOTAL	28	6	

*CONTRACTOR SHALL USE CARSONITE ROADMARKER FLEXIBLE DELINEATOR OR EQUIVALENT AS DIRECTED BY THE ENGINEER

PAVEMENT STABILIZATION DATA (20 YEAR DESIGN)

PAVEMENT DESIGN CRITERIA (For Information Only)			
Design Parameters	PATCHING	FLEXIBLE PAVEMENT	
DESIGN LIFE (YEARS)	20	20	
18 k ESAL	50,000	50,000	
INITIAL SERVICEABILITY	4.5	4.5	
TERMINAL SERVICEABILITY	2.5	2.5	
% RELIABILITY	90	90	
OVERALL STANDARD DEVIATION	0.44	0.44	
R-VALUE DESIGN	5	5	
SOIL RESILIENT MODULUS (psi)	3020	3020	
STRUCTURAL COEFFICIENT	0.44	0.44	
DRAINAGE COEFFICIENT	1	1	
TOTAL REQUIRED STR. NUMBER (inch)	2.70	2.70	
Pavement Thickness (inch)			4" HBP
Base Thickness (inch)			8" ABC (CI 6)
HBP Grading			SX(75)(PG 64-22)

Computer File Information	Initials: SWF	As Constructed	Project No./Code
Creation Date: 1/02/03	Initials: SFARBER	No Revisions:	CC R600-192
Last Modification Date: 3/25/03		Revised:	14020
Full Path:		Void:	
Drawing File Name:			
Acad Ver. 2002	Scale: N/A		
	Units: English		
Colorado Department of Transportation		TABULATIONS OF SURFACING AND DELINEATORS	
Street Address: 2000 South Holly Denver, CO 80222 Phone: 303-757-9519 FAX: 303-750-7452		Designer: SWF Detailer: SWF Sheet Subst: _____ Structure Numbers: _____ Subst Sheets: _____ Sheet Number: 7	

TABULATION OF STRUCTURE QUANTITIES

STATION/LOCATION	# UNCLASSIFIED EXCAVATION		# STRUCTURE EXCAVATION		# STRUCTURE BACKFILL		CONCRETE REINFORCED PIPE	CORRUGATED STEEL PIPE	END SECTION CSP	"H" OVER CULV.	MISCELLANEOUS	
	CUBIC YARD		CU YD		CU YD							
	EXCAV.	DITCH	EMB	CL 1	CL 2	LINEAR FEET						LINEAR FEET
SITE 1 - E. LAKEVIEW RD												
STA 804+72 LT			2		1	3	6			1		
STA 804+72 RT			2		6	6	9			1		SKREW 21" RT
SITE 1 - ROAD APPROACH												
STA 10+88 LT			2		6	4		12	1			
STA 10+88 RT			2		4	3		6	1			SKREW 19" LT
SITE 2 - CONNECTOR ROAD												
STA 31+95			50		52	36		98	2	1		SKREW 24" LT FROM CL
STA 34+70			33		89	30		114	2	1		
TOTAL			91		158	82	15	114	4	4		

STRUCTURE EXCAVATION, BACKFILL AND UNCLASSIFIED EXCAVATION IS FOR INFORMATION ONLY. THESE QUANTITIES SHALL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PIPES.

SUMMARY OF EARTHWORK QUANTITIES

ITEM	PROJECT TOTALS
UNCLASSIFIED EXCAVATION (CIP) ROADWAY (FROM COMPUTER)	CU. YD.
SITE 1 EAST LAKEVIEW RD	185
ROAD APPROACH	64
SITE 2 CONNECTOR RD	560
TOP 6 INCHES UNCLASSIFIED EXCAVATION AS TOPSOIL	298
2' SUBEXCAVATION OF ORIGINAL GROUND	775
WETLAND MITIGATION (LOCATION AS DETERMINED BY THE ENGINEER)	100
TOTAL FOR PAY QUANTITY	1,982
FOR INFORMATION ONLY	CU. YD.
COMPACTION (AASHTO T99) EMBANKMENT (NET) BASES OF CUT AND FILLS	976
TOTAL	1,370
TOTAL	2,346
EMBANKMENT MATERIAL (FOR INFORMATION ONLY)	CU. YD.
SITE 1 - E. LAKEVIEW RD ROAD APPROACH	162
SITE 2 - CONNECTOR ROAD 2' SUBEXCAVATION	19
TOTAL	775
WETTING QUANTITIES (FOR INFORMATION ONLY)	966
COMPACTION (2,346 x 45 GAL/CY)	GAL
TOTAL	105,570
ROADWAY QUANTITIES BALANCE (FOR INFORMATION ONLY)	CU. YD.
UNCLASSIFIED EXCAVATION	1,584
WETLAND MITIGATION	100
UNCLASSIFIED EXCAVATION AS TOPSOIL	298
EMBANKMENT MATERIAL x FACTOR (966 X 1.15)	1,111
EXCESS TO BE DISPOSED OF BY THE CONTRACTOR	1,684


EXCAVATION THAT IS NOT USEABLE FOR THE PROJECT WILL BE DEPOSITED AT A DESIGNATED SITE AS DIRECTED BY THE ENGINEER. EMBANKMENT WILL BE EXCAVATED FROM A DESIGNATED PARKS SOURCE. COST TO BE INCLUDED IN UNCLASSIFIED EXCAVATION (CIP). UNCLASSIFIED EXCAVATION AS TOPSOIL WILL BE STOCKPILED AND DISTRIBUTED TO SITE 2 AND OTHER PARK SITES AS DIRECTED BY THE ENGINEER. COST TO BE PAID FOR AS STOCKPILE TOPSOIL.

EMBANKMENT MATERIAL SHALL HAVE A RESISTANCE VALUE OF AT LEAST 10 WHEN TESTED BY THE HVEEM STABILOMETER. BORROW SOURCE AND DISPOSAL SITE WITHIN CHERRY CREEK STATE PARK AT THE GUN RANGE IS WITHIN 1 MILE TO THE PROJECT SITES.

Creation Date: 01/02/2003	Initials: SWF
Last Modification Date: 014/07/2003	Initials: SWF
Full Path: C:\Plans Library\CC R600-192\	
Drawing File Name: EARTHWORK.dwg	
Acad Ver: R2002	Scale: N/A
Units: ENGLISH	

Index of Revisions	

Colorado Department of Transportation



2000 South Holly Street
Denver, Colorado 80222
Phone: (303) 757-9519 Fax: (303) 750-7452

Region 6 Design HNL

As Constructed

No Revisions: _____

Revised: _____

Void: _____

Earthwork and Structure Quantities

Project No./Code: CC R600-192

Designer: SWF

Detailer: SWF

Structure Numbers: 14020

SWF Numbers: _____

Sheet Subset: Typical

Subsets: 1 of 1

Sheet Number: 8

TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

- Horizontal Control
- Vertical Control
- Roadway Alignment
- Original Terrain Data
- Other: _____

Format*
 PLAN SHEET _____
 PLAN SHEET _____
 PLAN SHEET _____
 PLAN SHEET _____

*Specify the information format, i.e., plan sheet, computer disk, computer printout, or other.
 The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

- Landscaping
- Signalization
- Safety Improvement
- Asphalt Overlay
- Concrete Overlay
- Minor Widening
- Major Reconstruction
- New Roadway Construction
- Bridge Replacement
- Bridge Widening
- New Bridge
- Other: _____

SURVEY WORK TO BE PERFORMED BY OTHERS:

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER ITEM 625:

- Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
- Verification and Maintenance of Horizontal and Vertical Control
- Verify or Determine existing grades and alignments
- Verify or Determine existing topography
- Clearing and Grubbing Limits
- Removal Limits
- Excavation and Embankment
- Excavation
 - Unclassified
 - Stripping
 - Muck
 - Rock
 - Borrow
 - Other: wetland mitigation
- Embankment
- Site Grading
- Erosion Control (Perm)
- Other: _____
- As Staked Earthwork Quantities

GRADE STAKES	GRID	SPECIAL INTERVAL
YES	-	50 FT.
-	-	-
-	-	-
-	-	-
-	-	-
YES	-	50 FT.
-	-	-
-	-	-

- Landscaping
- Top Soil
- Seeding
- Mulching
- Planting
- Other: _____
- Erosion Control
 - Seeding (Temp)
 - Silt Fences
 - Straw Bales
 - Temporary Berm
 - Riprap (Temp)
 - Other (Temp Diversion, Temp Slope Drain, Bush Barrier, Check Dam, Other: _____)

- Roadway Bases
 - Untreated Subgrade
 - Treated Subgrade
 - Aggregate Base Course
 - Other: _____
- Pavements
 - PMBB - Plant Mix Bituminous Base
 - HBP - Hot Bituminous Pavement
 - Concrete
 - Other: HBP Longitudinal Joints
- Roadway Elements
 - Curb and Gutter
 - Drop inlets - alignment and grades
 - Retaining Walls
 - Guard Rail
 - Sidewalk
 - Other: _____
- Riprap (Perm)
- Slope and Ditch Paving
- Minor Structures
 - Structure Excavation limits
 - Culverts
 - Culverts w/ Headwalls and Wingwalls
 - Concrete Box Culverts w/ Headwalls and Wingwalls
 - Pipes
 - Sanitary Sewer
 - Storm Sewer
 - Water
 - Irrigation
 - Miscellaneous
 - Manholes
 - Inlets
 - Other: _____
- Major Structures - Overhead Signs, Concrete Box Culverts, Bridges - and all other structures assigned a structure number
 - Structure Excavation limits
 - Concrete Box Culverts w/ Headwalls and Wingwalls
 - Piling locations and cut off elevations
 - Caisson locations and elevations
 - Footing locations, alignment, and elevations
 - Abutment/Pier locations, alignment, and elevations
 - Wingwall skew angles/offsets
 - Structural concrete form locations
 - Substructure survey (Required by Subsection 601.12 for Bridges and S-614-50 for Overhead signs)
 - Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
 - Deck grades at Girder 10th or "n" th point locations and elevations
 - Slope and Ditch Paving
 - Other: RIP RAP (PERMANENT)
- Fencing
 - Temporary
 - Permanent
 - Sound Barriers
 - Other: _____
- Delineators
 - Temporary
 - Permanent
- Lighting and Traffic Control Devices (Perm)
 - Signal pole locations and elevations
 - Light pole locations and elevations
 - Signs
 - Field verify sign post locations, elevations, and lengths before fabrication.
 - Other: _____
- Pavement Marking
 - Striping (Temp)
 - Striping (Perm)
 - Symbols
 - Other: _____

GRADE STAKES	GRID	SPECIAL INTERVAL	SPECIAL OFFSET
-	-	-	-
YES	-	-	50 FT.
-	-	-	-
YES	-	-	50 FT.
-	-	-	-

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER ITEM 629:

- Temporary Lighting and Construction Traffic Control Devices
 - Signal pole locations and elevations (Temp)
 - Light pole locations and elevations (Temp)
 - Signs (Temp)
 - Other: _____
- Easement (Temp)(Staking)

- Monumentation
 - Control
 - Right of Way (Temp) (Staking)
 - Right of Way
 - Land corners, Aliquot corners
 - Easement (Temp)(Staking)
 - Easement (Perm)
 - Reference the specified existing monuments: ** _____
 - Relocate the specified existing monuments: ** _____
 - Locate monuments. It is estimated _____ hours are required.

** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

All work shall be done in accordance with the latest edition of the entire CDOT Survey Manual including all revisions to date:
 - Chapter 5 - Construction Surveying, revised 02/07/96.

Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.

The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer _____ days prior to the Presurvey Conference.

- The following surveying notebooks are required:
- Alignment Notebook
 - Benchmark Notebook
 - Control Survey/Monumentation Notebook
 - Minor Structure Notebook
 - Major Structure Notebook
 - Slope Staking Notebook
 - Grade Notebook
 - Other Notebook(s): _____

Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.


The Contractor shall furnish an As Staked earthwork quantity to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDOT Survey Manual.
 A printed copy of the As Staked earthwork data and a computer disk in the specified format shall be submitted to the Engineer.
 The Contractor shall field verify original ground cross sections at maximum 160 m (500 ft) intervals.

Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within the specified tolerance.

The Contractor shall perform all field surveying and calculations necessary to tie plan grades into field grades.

The Contractor shall coordinate construction staking on the project with any utility work.

The Contractor's Surveyor shall submit as built plans if different than plan sheets and seal final ROW plans prior to final acceptance of project

Survey Tabulation Sheet		Project No./Code CC R600-192
Computer File Information	Index of Revisions	As Constructed
Creation Date: 01/13/2003 Initials: JSH/SWF		No Revisions:
Last Modification Date: 01/13/2003 Initials: JSH/SWF		Revised:
Full Path: C:\Plans Library\CC R600-192\		Void:
Drawing File Name: 005_Survey Tab.dwg		
Acad Ver: R2002 Scale: NTS Units: ENGLISH		
Colorado Department of Transportation		Sheet Subject: Survey Tab
 2000 South Holly Street Denver, Colorado 80222 Phone: (303) 757-8519 Fax: (303) 750-7462		Structure Numbers 14020
Region 6 Design		Sheet Number 9
HNL		1 of 1

HORIZONTAL CONTROL										CURVE DATA											
PI #	STATION	NORTHING	EASTING	BEARING	DISTANCE	CURVE	STATION	DELTA	T	R	L										
	SITE 1 E. LAKEVIEW RD																				
POT	STA 800+00.00	1653053.57	3187628.83	N 57°10'27"E	101.13																
PI	STA 801+01.13	1653108.39	3187713.81	N 57°13'45"E	356.78																
PC	STA 801+77.59	1653149.78	3187778.10																		
PI	STA 804+57.91	1653301.51	3188013.81	N 10°27'52"W	244.58	CURVE 1	STA 804+57.91	13°44'24" LT	280.32	418.00	493.86										
PT	STA 806+71.45	1653577.17	3187962.90																		
POT	STA 807+02.49	1653607.69	3187957.25																		
	SITE 1 ROAD APPROACH																				
POT	STA 10+00.00	1653366.95	3188060.31	N 72°25'13"W	32.40																
PC	STA 10+15.95	1653371.77	3188045.11																		
PI	STA 10+32.40	1653376.73	3188029.43	N 62°03'27"W	78.41	CURVE 2	STA 10+32.40	32°00'00" RT	16.45	181.40	32.81										
PT	STA 10+48.76	1653384.44	3188014.89																		
POT	STA 11+10.71	1653413.48	3187960.16																		
	SITE 2 CONNECTOR ROAD																				
POT	STA 30+00.00	1652622.36	3184868.18	N 49°15'43"W	291.69																
PC	STA 31+07.20	1652692.32	3184786.96																		
PI	STA 32+91.69	1652812.72	3184647.17	N 23°35'28"E	266.44	CURVE 3	STA 32+91.69	23°04'26" RT	184.50	250.00	317.88										
PT	STA 34+25.08	1652881.75	3184950.11																		
POT	STA 35+07.03	1653056.90	3184753.80																		

Computer File Information		Sheet Revisions		Colorado Department of Transportation		As Constructed		COORDINATE GEOMETRY PLAN		Project No./Code	
Creation Date: 02/13/03	Initials: SWF			Street Address		No Revisions:		CURVE DATA SHEET		CC R600-192	
Last Modification Date: 3/25/03	Initials: SWF			2000 South Holly		Revised:		Structure Numbers		14020	
Full Path: C:\PROJECTS				Denver, CO 80222		Void:		Sheet Numbers		Sheet Number	
Drawing File Name: GEOMETRY.DWG				Phone: 303-757-9519 FAX: 303-750-7452				Sheet Subsets:			
Acad Ver: R2002	Scale: N/A	Units: English		Region 6 Design				HNL			

Control Points, Project Specific Coordinates (U.S. Survey Feet)

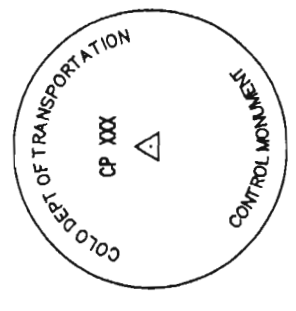
Point	Northing	Easting	Elev.	Description
190	1652966.637	3185031.290	5569.822	Set 3.25" CDOT alum. cap "CP 190"
191	1652542.728	3185737.000	5573.401	Set 3.25" CDOT alum. cap "CP 191"
192	1652583.290	3186236.637	5573.800	Set 3.25" CDOT alum. cap "CP 192"
193	1652563.945	3186858.145	5574.417	Set 3.25" CDOT alum. cap "CP 193"
194	1653421.554	3188038.010	5580.731	Set 3.25" CDOT alum. cap "CP 194"
195	1653876.973	3187928.444	5579.155	Set 3.25" CDOT alum. cap "CP 195"
2011	1657219.441	3189938.689	5675.927	Found 3.0" brass cap COA "CHERRY 1984"
5254	1664119.422	3182080.785	5547.17	Found 3.25" alum. cap NGS "WEBB"
5260	1649352.585	3184663.593		Found 3.5" brass cap "Cherry Creek 1200 1997"
8174	1653746.790	3191991.565	5711.540	Found 3.0" brass cap COA "BEND 1984"

GPS Control Points Geodetic/Colorado State Plane Coordinate System of 1983 Central Zone (U.S. Survey Feet)

Point	Latitude	Longitude	Northing	Easting	Ellipsoid	Geoid-93	Ortho.	Scale Factor	Name
190	39°37'27.65834"N	104°50'35.23694"W	1652494.600	3184121.743	5513.082	-56.740	5569.822		CP 190
191	39°37'23.41962"N	104°50'26.25999"W	1652070.812	3184827.251	5516.651	-56.750	5573.401		CP 191
192	39°37'23.78444"N	104°50'19.87290"W	1652111.363	3185326.745	5517.038	-56.762	5573.800		CP 192
193	39°37'23.54859"N	104°50'11.93426"W	1652092.023	3185948.076	5517.639	-56.778	5574.417		CP 193
194	39°37'31.93645"N	104°49'56.77978"W	1652949.387	3187127.604	5523.906	-56.825	5580.731		CP 194
195	39°37'36.44393"N	104°49'58.13688"W	1653404.676	3187018.069	5522.326	-56.829	5579.155		CP 195
2011	39°38'04.72211"N	104°49'43.81263"W	1656746.19	3189027.74	5619.825	-56.102	5675.927	0.99971040	Cherry*
5254	39°39'13.45597"N	104°51'23.59721"W	1663644.20	3181172.08	5490.346	-56.824	5547.17	0.99998237	Webb**
5260	39°36'47.37617"N	104°50'51.94005"W	1648881.58	3183754.15		-56.627		0.99997579	Cherry Creek CBL 1200**
8174	39°37'30.26126"N	104°49'17.91226"W	1653274.53	3191080.03	5654.651	-56.889	5711.540	0.99997767	Bend*

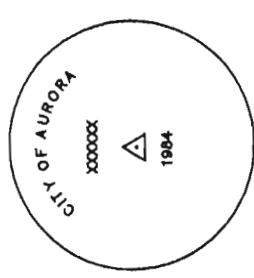
NOTE: * = Denver Metro Area GPS Network 1994
 ** = Nat'l Geodetic Survey

Project Control Point

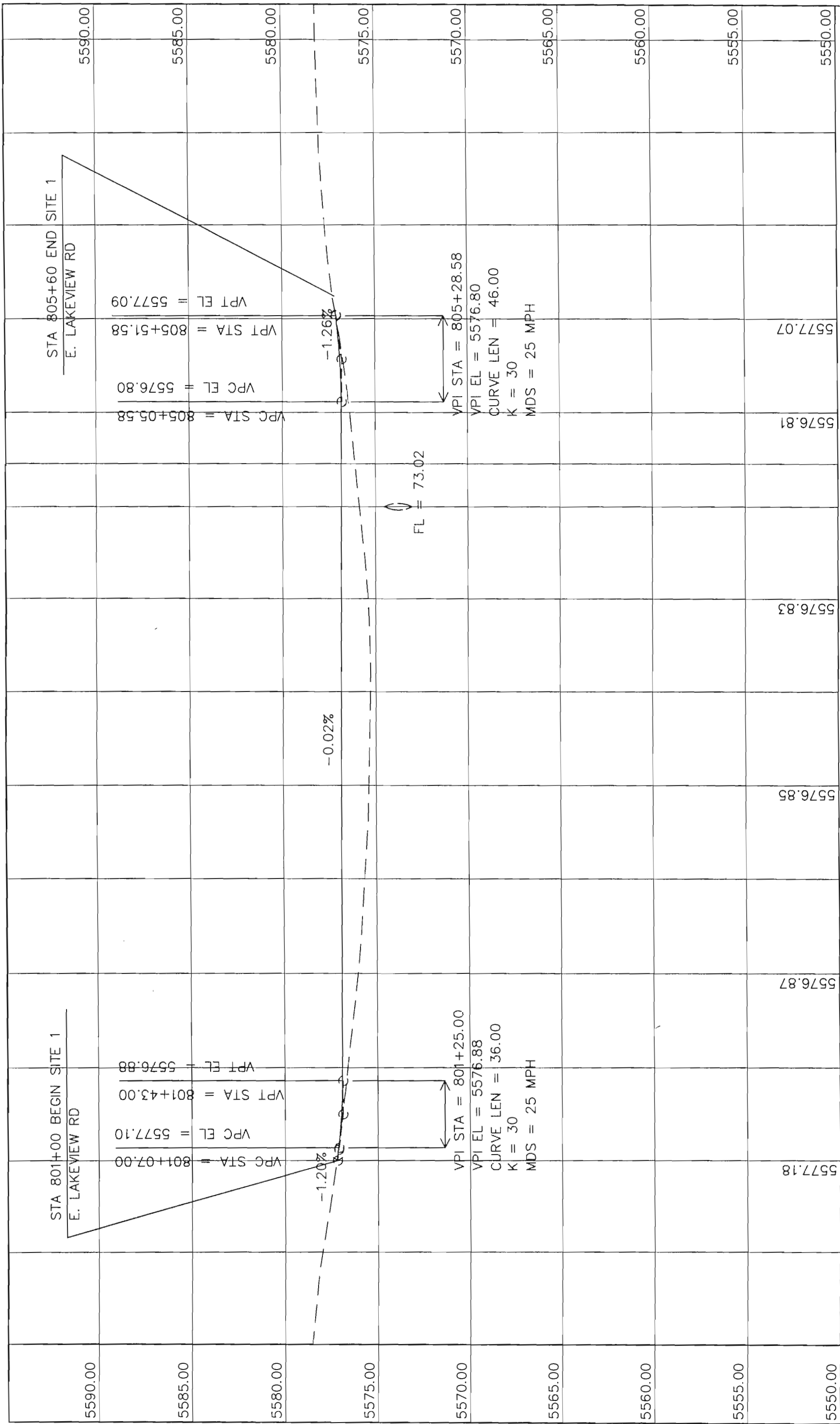


Typical CDOT 3.25" Aluminum Cap Control point set

Basis of Bearings Control Point



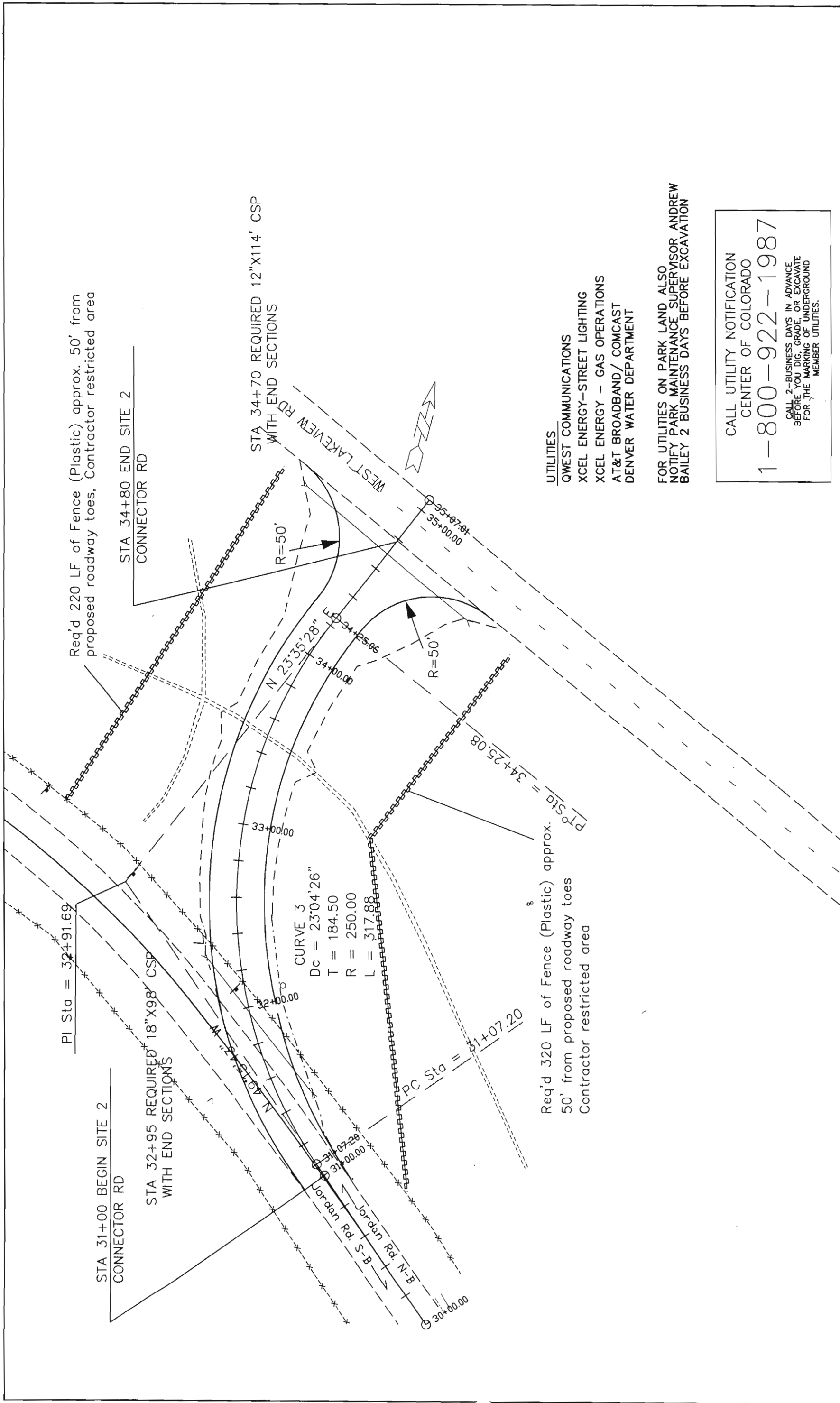
City of Aurora Brass Cap Control point recovered



5590.00	5585.00	5580.00	5575.00	5570.00	5565.00	5560.00	5555.00	5550.00
800+00	801+00	802+00	803+00	804+00	805+00	806+00	807+00	807+00
Computer File Information			Colorado Department of Transportation			PROFILE - SITE 1		
Creation Date: 01/15/03			2000 South Holly Street			EAST LAKEVIEW RD		
Initials: SWF			Denver, Colorado 80222			CC R600-192		
Last Modification Date:			Phone: 303-757-9519			14020		
Full Path: \\-PROJECTS			FAX: 303-750-7452			Structure Numbers		
Drawing File Name: .dwg			Region 6 Design			Detailer: SFARBER		
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As Constructed	Sheet Revisions
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Revised:	
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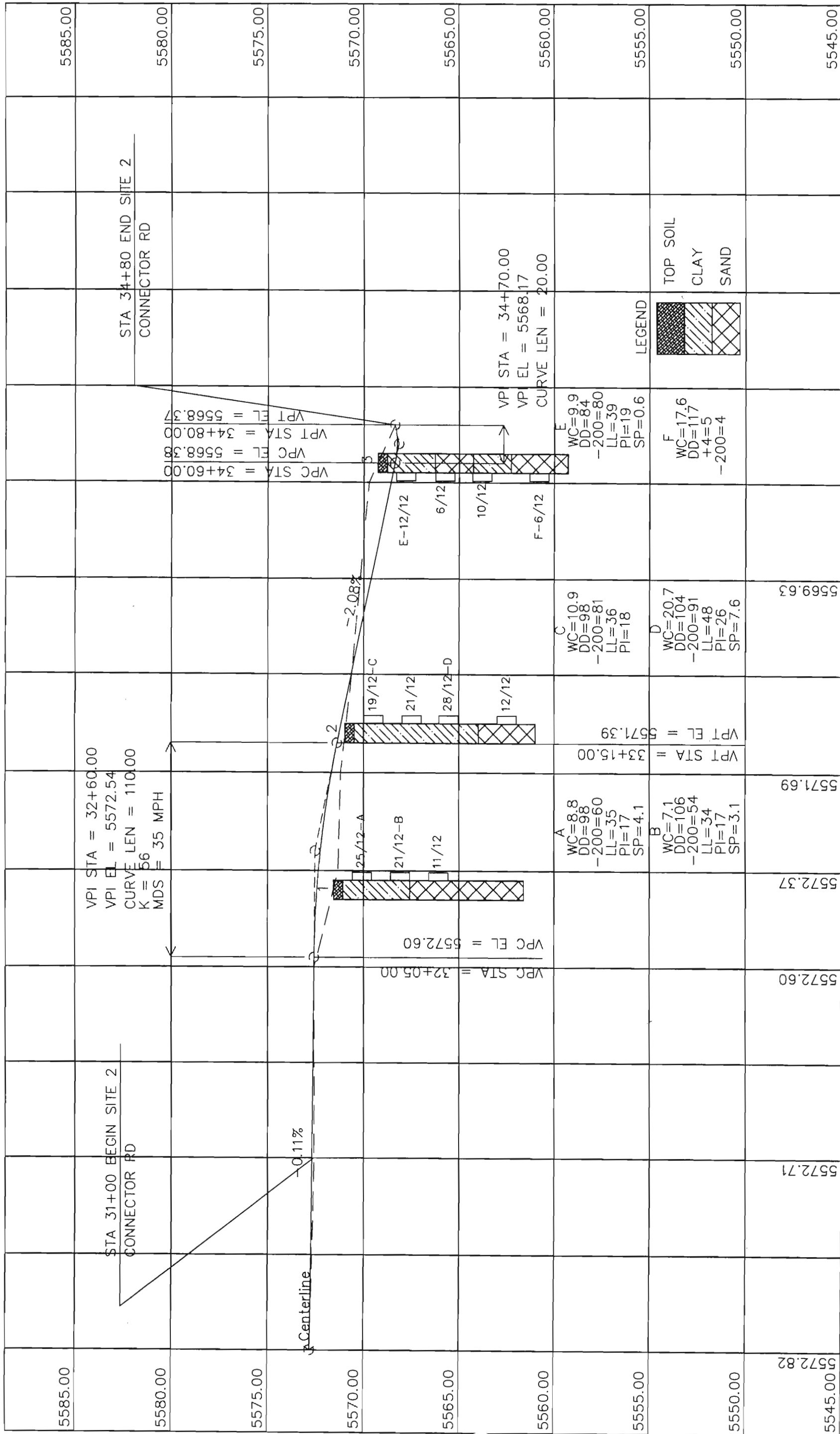


- UTILITIES**
- QWEST COMMUNICATIONS
 - XCEL ENERGY-STREET LIGHTING
 - XCEL ENERGY - GAS OPERATIONS
 - AT&T BROADBAND/ COMCAST
 - DENVER WATER DEPARTMENT
- FOR UTILITIES ON PARK LAND ALSO NOTIFY PARK MAINTENANCE SUPERVISOR ANDREW BAILEY 2 BUSINESS DAYS BEFORE EXCAVATION

CALL UTILITY NOTIFICATION
 CENTER OF COLORADO
 1-800-922-1987

CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Computer File Information		As Constructed		PLAN - SITE 2 CONNECTOR RD		Project No./Code	
Creation Date: 01/15/03	Initials: SFARBER	No Revisions:				CC R600-192	
Last Modification Date:	Initials: SWF	Revised:		Designer: SFARBER	Structure Numbers	14020	
Full Path: \\PROJECTS		Void:		Detailer: SFARBER	Sheet Subset:	Sheet Number 16	
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Acad Ver. 2002	Scale: 1:50						
				Colorado Department of Transportation			
				 2000 South Holly Street Denver, Colorado 80222 Phone: 303-757-9519 FAX: 303-750-7452			
				Region 6 Design		HNL	
Sheet Revisions							



Station	As Constructed	Project No./Code
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31+00		14020
32+00		Sheet Number 17
33+00		
34+00		
35+00		
36+00		

Computer File Information

Creation Date: 01/15/03 Initials: SWF
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Sheet Revisions

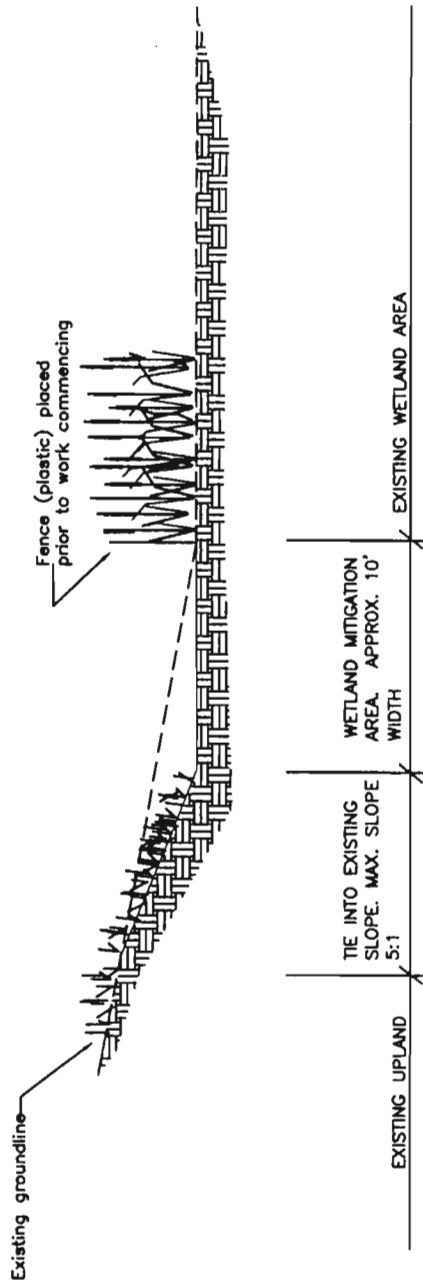
No	Revisions
1	As Constructed
2	No Revisions
3	Revised
4	Void

Colorado Department of Transportation

2000 South Holly Street
 Denver, Colorado 80222
 Phone: 303-757-9519 FAX: 303-750-7452
 Region 6 Design HNL

PROFILE - SITE 2 CONNECTOR RD

Designer: SFARBER
 Detailer: SFARBER
 Structure Numbers
 Sheet Subset



Conceptual Cross-section Wetland Mitigation Area

not to scale

NOTES

Prior to mitigation construction an on-site environmental review meeting shall occur between the Contractor, Engineer, CDOT Staff Landscape Architect (303) 757-9174, Region Biologist and State Parks representative to discuss wetland mitigation intent. At this meeting adjacent existing wetland area not to be disturbed and mitigation grading area shall be flagged by the Staff Landscape Architect.

Existing wetlands shall be fenced for protection with fence (plastic) prior to construction work commencing.

930 SF of wetland mitigation shall be created on site by grading an area adjacent to the existing cattails. Elevation of mitigation area shall match that of the existing wetlands. The bottom of the wetland mitigation site shall be surveyed to certify contour grade elevations. Survey to be included in the construction survey. See construction survey tab.

It is estimated that 100 CY of unclassified excavation (CIP) shall be generated on site.

The wetland floor shall be left in a roughened condition to provide diversity.

Immediately upon final grading, adjacent upland slopes that have been disturbed shall be topsoiled and seeded/mulched with the mix shown on the Stormwater Management plan. Fertilizer will not be required in the mitigation site or on surrounding upland slopes.

WETLAND TABULATION

PAY ITEM	UNIT	QUANTITY
203 Unclassified Excavation (CIP)	CY	100*
607 Fence (Plastic)	LF	100**

*Quantity carried to Tabulation of Earthwork

**Quantity carried to Storm Water Management Plan

Computer File Information

Creation Date: 3/03	Initials: CVC
Last Modification Date:	Initials:
Full Path:	
Drawing File Name: Region 6	
Acad Ver.: 2000	Scale:

Sheet Revisions

Colorado Department of Transportation

4201 E. Arkansas Ave
Denver, CO 80222
Phone: 303-757-9174 FAX:



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WETLAND MITIGATION PLAN

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TABULATION OF TRAFFIC ENGINEERING ITEMS

ITEM	UNIT	TOTALS
210 RESET GROUND SIGN	EA	1
614 SIGN PANEL (CLASS I)	SF	3
614 TIMBER SIGN POST (4 X 4)	LF	9
627 EPOXY PAVEMENT MARKING	GAL	687
627 PREFORMED PLASTIC PAVEMENT MARKING (TYPE B)(XWALK-STOP LINE)	SF	2360
627 PREFORMED PLASTIC PAVEMENT MARKING (TYPE B)(WORD-SYMBOL)	SF	724
630 FLAGGING	HR	500
630 TRAFFIC CONTROL MANAGEMENT	DY	35
630 TRAFFIC CONTROL INSPECTION	DY	10
630 CONSTRUCTION TRAFFIC SIGN (B)	EA	10
630 TRAFFIC CONE	EA	100

NOTES:

1. CONTRACTOR SHALL USE MUTCD 2000 AND CDOT 2000 M STANDARDS FOR S-630-1 FOR TYPICAL PLACEMENT OF CONSTRUCTION TRAFFIC CONTROL DEVICES

2. PAINT QUANTITIES INCLUDE:

- EPOXY
 - 10.0 MILES OF DOUBLE YELLOW (4" WIDE) CENTER LINE = 63,300
 - 12.0 MILES OF SINGLE WHITE (4" WIDE) BIKE LANE LINE = 21,400
 - 1070 CAR PARKING (4" WIDE - 20' LONG) WHITE BAY LINES = 21,400
 - 115 CAR PARKING - PARALLEL (4" WIDE) WHITE BAY LINES = 2530
 - 159 BOAT PARKING (4" WIDE X 38' LENGTH) WHITE BAY LINES = 6042
 - 11,700 LF OF VARIOUS STRIPED OFF AREAS (4" WIDE) WHITE
 - 200' SINGLE WHITE (8" WIDE) TURN LANE LINE

PREFORMED PLASTIC PAVEMENT MARKING (TYPE B)(XWALK-STOP LINE)

620' OF STOP BAR WHITE 2' HEIGHT TO ACCOMPANY STOP SIGNS ON MAJOR ROADS

13 OF PED/BIKE CROSSINGS
- 87 WHITE CROSSWALKS (2' X 10')

CURB PAINT

YELLOW 10 GAL
BLUE 5 GAL

PREFORMED PLASTIC PAVEMENT MARKING (TYPE B)(WORD-SYMBOL)

- 3 END BIKE WHITE (5 SF EACH - LETTERS 2' HT) 15
- 36 XING WHITE (5 SF EACH - LETTERS 4' HT) 180
- 12 NO PARKING (19 SF EACH - LETTERS 4' HT) PLACED EVERY 20 FT. 228
- 43 HANDICAP (7 SF EACH) 301

Computer File Information

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Full Path:	PROJETS/14020 COR600-192 CHERRY CREEK STATE PARK		
Drawing File Name:	Traffic_Control_Tabulation.dwg		
Scale:	NONE		

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No.	Description	Date

Colorado Department of Transportation



Region 6 Traffic
2000 S. Holly Street
Denver, CO 80222

Phone: 303-757-9511
FAX: 303-757-9907

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TABULATION OF TRAFFIC ENGINEERING ITEMS

Designer:	THM
Detailer:	THM
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Sheet Submittal	

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14020

SCHEDULE OF CONSTRUCTION TRAFFIC CONTROL DEVICES

SIGN CODE	LEGEND	DIMENSIONS (INCHES)	QUANTITY			
			A	B	C	SP
48W4-2	ROAD/WORK/AHEAD	48 x 48	4			
48W20-7a	Flagger (Symbol)	48 x 48	2			
48W20-7b	BE/PREPARED/TO STOP	48 x 48	2			
48G20-10	THANK YOU/ XYZ/CONSTRUCTION	48 x 48	2			
	TOTAL		10			

3. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE INVENTORY OF EXISTING PAVEMENT MARKINGS AND RECORDING OF SUCH MARKINGS SO THAT THE NEW MARKINGS WILL BE INSTALLED TO MATCH. ADDITIONS/OR CHANGES TO EXISTING PAVEMENT MARKING PAINT IS SHOWN ON DETAIL SHEET. ANY PAINT REMOVAL NEEDED, AS PER PROJECT ENGINEER, WILL BE INCLUDED WITH THE PRICE OF THAT PAINT.

4. RESET GROUND SIGN SHALL INCLUDE W8-1 LOCATED ON JORDAN ROAD AND WILL BE RESET AS PER PROJECT ENGINEER.

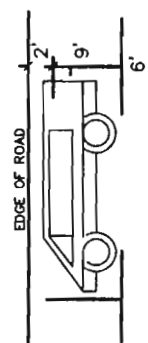
5. CONTRACTOR SHALL MAINTAIN BIKE/PEDESTRIAN PATHS AT ALL TIMES DURING THE COURSE OF THE PROJECT.

6. TO DETERMINE FINAL PLACEMENT OF PAVEMENT MARKINGS, CONTRACTOR SHALL CONTACT CHERRY CREEK STATE PARK MAINTENANCE SUPERVISOR, ANDREW BAILEY 303 699-3860 X 715. CONTACT SHALL BE MADE 48 HOURS PRIOR TO PAVEMENT MARKING PLACEMENT.

4" subitk = 93,332 LF
= 31,110 SF

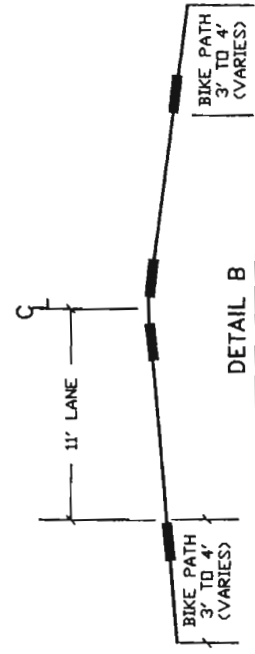
PAVEMENT MARKING DETAILS

1. "END BIKE" SYMBOLS SHALL BE PLACED IN BIKE PATH AT WEST ENTRANCE SB; (APPROXIMATELY) CAMP GROUND ROAD AT TRAIL END NB; EAST SHADE SHELTER ROAD NB.
2. XING SYMBOLS SHALL BE PLACED ON EACH SIDE OF CROSSWALK IN THE MIDDLE OF THROUGH LANE FOR EACH DIRECTION
3. A 8" CHANNELIZING LINE SHALL BE PLACED FOR LEFT TURN LANE.
4. PARKING LINES SHALL BE COLOR WHITE, 4" WIDE.
 - PARKING BAYS LINES LENGTH 22'
 - PARALLEL PARKING 9' PERPENDICULAR (FROM CURB AND GUTTER) AND 6' T'S.
5. SYMBOLS "NO PARKING" SHALL BE PLACED AT EAST BOAT RAMP PARKING LOT ALONGSIDE OF WESTSIDE OF PARKING LOT. AS PER CHERRY CREEK PARK MAINTENANCE SUPERVISOR ANDREW BAILEY 303 699-3660 EXT. 715. SUPERVISOR SHALL BE CONTACTED 48 HOURS IN ADVANCE OF SYMBOL PLACEMENT.
6. SINGLE WHITE 4" WIDE LINE WILL BE USED FOR BIKE LANE. BIKE LANE LINES SHALL BE REPLACED IN ADDITION TO ADDING BIKE LANE LINE ON EAST AND WEST LAKEVIEW ROAD IN BOTH DIRECTIONS. THROUGH LANES SHALL BE 11' FROM CENTER AND BIKE LANES WILL VARY FROM 3' TO 4'. SEE DETAIL B.
7. ADD STRIPING OF CENTER ISLAND AT WEST BOAT RAMP ACCESS ROAD. SEE DETAIL C.



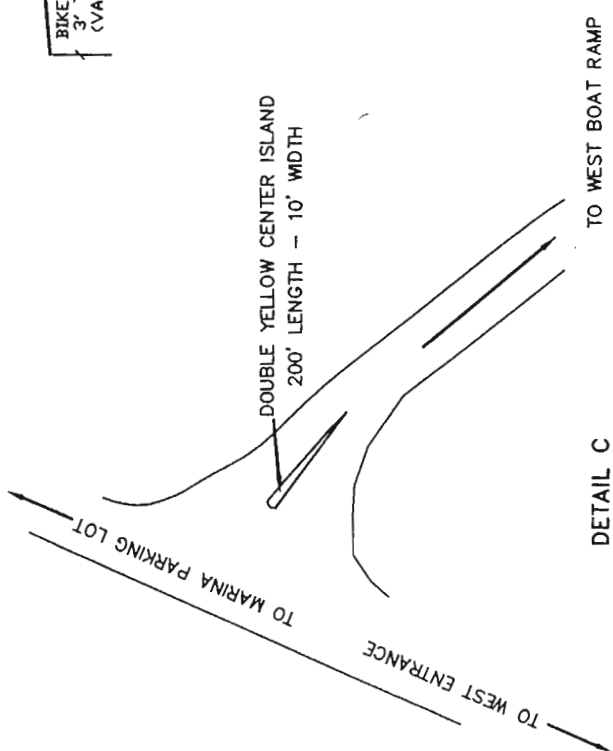
DETAIL A

PARALLEL PARK SPACE PAVEMENT MARKING



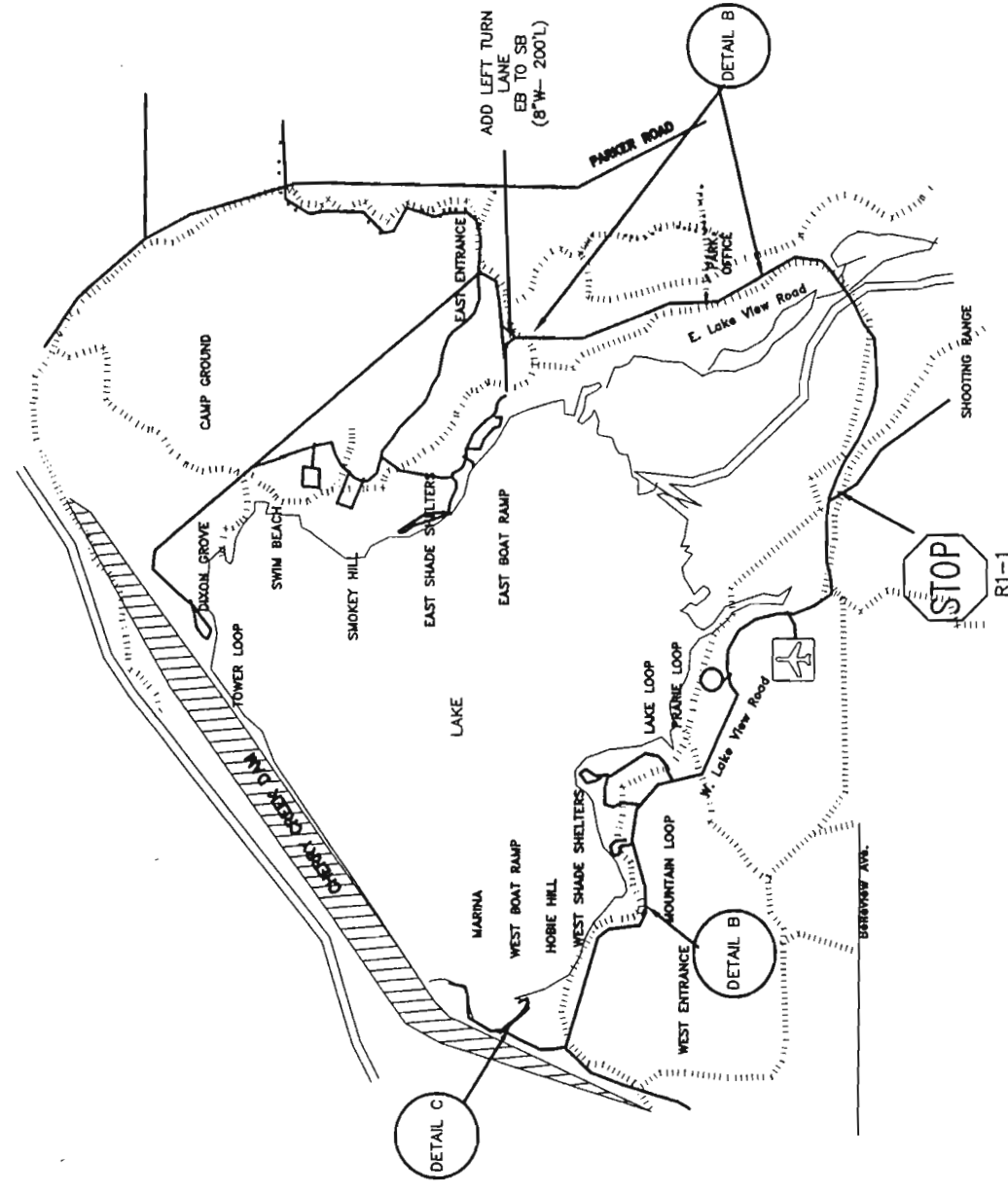
DETAIL B

BIKE LANE PAVEMENT MARKING



DETAIL C

CENTER LINE CHANNELIZING WEST BOAT RAMP



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PAVEMENT MARKING DETAILS	
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Detailer:	THM
Structure Numbers	
Sheet Subset:	

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