

# COLORADO SPRINGS AIRPORT

## COLORADO SPRINGS, COLORADO

### RAC LOOP ROAD REHABILITATION

**SCHEDULE I (BASE BID)**  
**REHABILITATE RENTAL CAR LOOP ROAD**  
**AND INTERIOR SERVICE ROADS**

**SCHEDULE I (DEDUCT ALTERNATE 1)**  
**REHABILITATE LONG TERM PARKING ENTRANCE LANE**

**SCHEDULE I (DEDUCT ALTERNATE 2)**  
**REHABILITATE PORTION OF EAST - WEST**  
**INTERIOR SERVICE ROAD & WEST CUL-DE-SAC**

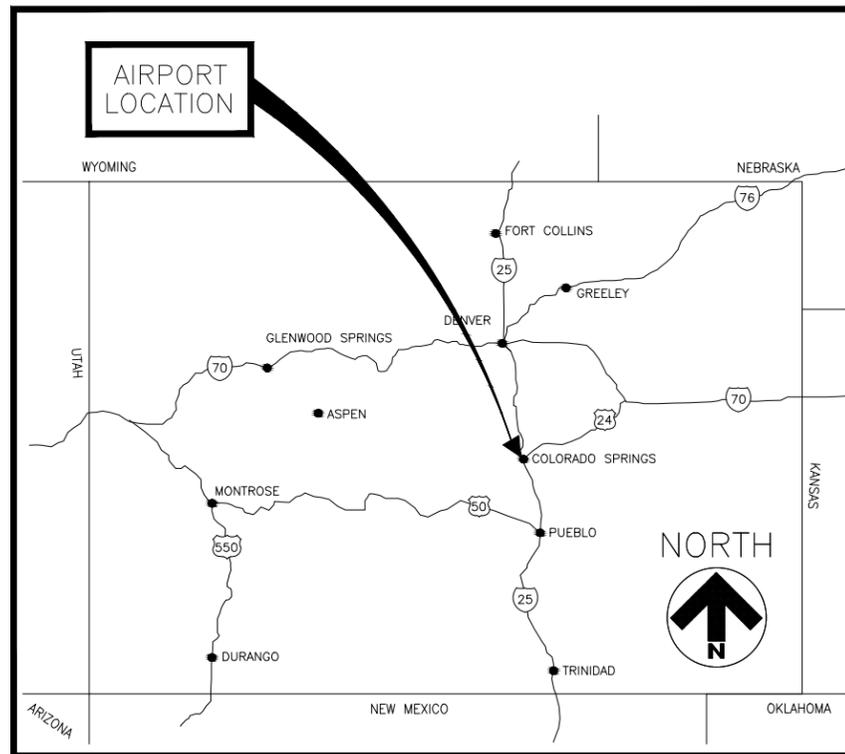
**SCHEDULE II (ADD ALTERNATE 1)**  
**REHABILITATE TOLL PLAZA PAVEMENT**

**COS SOLICITATION NO.: B16-094 IP**

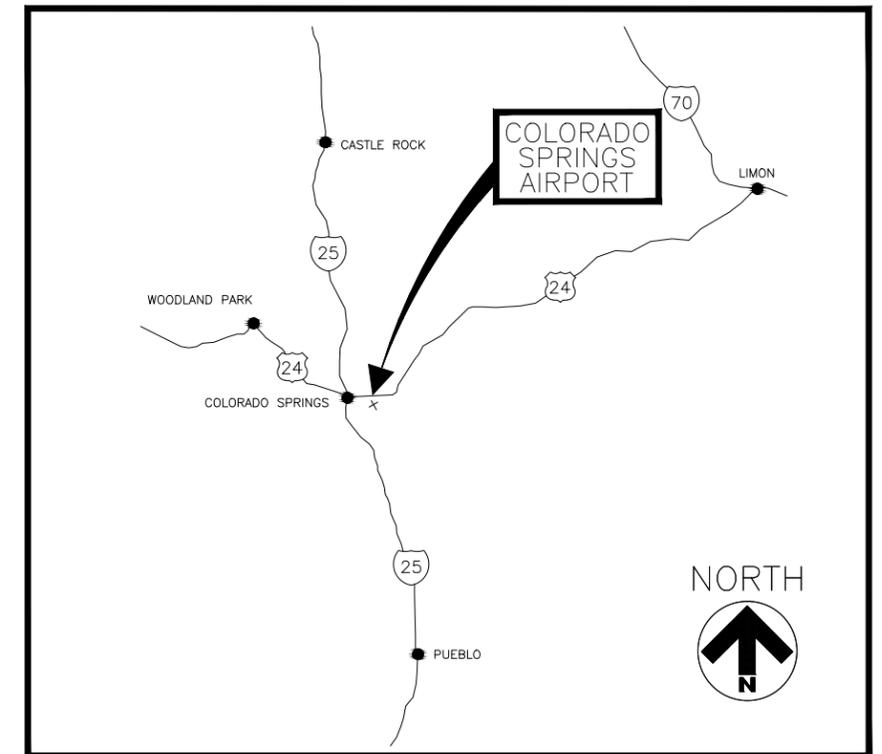


**COLORADO SPRINGS**  
**AIRPORT**

SCHEDULE E CONTINUES



**PROJECT LOCATION MAP**  
 NTS



**VICINITY MAP**  
 NTS

**IN ASSOCIATION WITH:**



7290 S. FRASER STREET  
 CENTENNIAL, COLORADO 80112



1903 LELARAY ST., SUITE 102  
 COLORADO SPRINGS, COLORADO 80909



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**JULY 8, 2016**  
**BID DOCUMENTS**

**RS&H PROJECT NO.: 224-0124-004**



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SUMMARY OF APPROXIMATE QUANTITIES										
ITEM NO.	WORK ITEM DESCRIPTION	UNIT	SCHEDULE I (BASE BID)	AS BUILT	SCHEDULE I (DEDUCT ALT 1)	AS BUILT	SCHEDULE I (DEDUCT ALT 2)	AS BUILT	SCHEDULE II (ADD ALT 1)	AS BUILT
626.01-1	MOBILIZATION	LS	1.00		(1.00)		(1.00)		1.00	
625.13-1	CONSTRUCTION SURVEYING	LS	1.00		(1.00)		(1.00)		1.00	
650.05-1	TEMPORARY CONSTRUCTION ITEMS	LS	1.00		(1.00)		(1.00)		1.00	
202.12-1	REMOVAL OF ASPHALT MAT (PLANING) - 2" NOMINAL DEPTH	SY	23,000.00		(540.00)		(1,930.00)		0.00	
202.12-2	REMOVAL OF ASPHALT MAT (PLANING) - 3" NOMINAL DEPTH	SY	4,400.00		0.00		0.00		2,700.00	
210.13-1	ADJUST MANHOLE COVER TO GRADE	EA	7.00		0.00		(1.00)		0.00	
210.13-2	ADJUST WATER VALVE BOX TO GRADE	EA	10.00		0.00		(2.00)		1.00	
306.04-1	RECONDITIONING OF SUBGRADE	SY	1,700.00		(20.00)		(50.00)		650.00	
400.01-1	HMA (GRADING S, PG 58-28)	Ton	7,300.00		(155.00)		(350.00)		500.00	
400.01-2	TACK COAT	GAL	9,100.00		(200.00)		(750.00)		550.00	
408.05-1	MINOR CRACK REPAIR (1/4-INCH TO 1 1/2-INCH)	LF	8,000.00		(255.00)		(650.00)		800.00	
408.05-2	MAJOR CRACK REPAIR (GREATER THAN 1 1/2-INCH)	LF	5,000.00		(20.00)		(150.00)		700.00	
408.05-3	FULL DEPTH PAVEMENT REPAIR	SY	1,700.00		(20.00)		(50.00)		650.00	
609.07-1	CURB AND GUTTER, TYPE 2 (SECTION IB & IIB)	LF	50.00		0.00		0.00		30.00	
627.13-1	PAVEMENT MARKING PRIME COAT	SF	7,900.00		0.00		0.00		200.00	
627.13-2	PAVEMENT MARKING PAINT (WATERBORNE)	SF	7,900.00		0.00		0.00		200.00	

**GENERAL NOTES:**

- THE SITE PLAN IS INTENDED ONLY AS A GENERAL DESCRIPTION OF WORK ITEMS AND THEIR APPROXIMATE LOCATIONS AND LIMITS. IT SHALL NOT BE USED AS A CONSTRUCTION PLAN. REFER TO THE PLAN SHEETS FOR DETAILED CONSTRUCTION REQUIREMENTS, LOCATIONS, AND ITEMS OF WORK.
- THE CONTRACTOR SHALL FURNISH ALL PLANT, LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION AND ALL OTHER ELEMENTS NECESSARY TO CONSTRUCT ALL ELEMENTS OF THIS PROJECT AS DESCRIBED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. THE PROJECT PAY ITEMS ARE INTENDED TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED AS SHOWN IN THESE PLANS. ALL INCIDENTAL WORK TO COMPLETE THE PROJECT, TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED IN THE COST OF PERFORMING THE VARIOUS ITEMS OF WORK.
- THE RULES, REGULATIONS AND REFERENCE SPECIFICATIONS, ENUMERATED HEREIN, SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS. THEY SHALL NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIAL AND WORKMANSHIP THAN ARE SPECIFIED HEREIN, OR WHEN SO REQUIRED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND PAY FOR ALL APPLICABLE PERMITS FOR CONSTRUCTION AND EQUIPMENT INCLUDING, BUT NOT LIMITED TO STORM WATER CONSTRUCTION GENERAL PERMIT, STORM WATER MANAGEMENT PLAN, AIR QUALITY PERMIT FOR BATCH PLANT, ETC.
- UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL REMOVE FROM THE SITE ALL SURPLUS MATERIAL AND EQUIPMENT BELONGING TO HIM/HER, OR SUBCONTRACTOR'S FORCES, AND RESTORE THE SITE TO THE SATISFACTION OF THE ENGINEER.
- THE CONTRACTOR SHALL ATTEND A PRE-CONSTRUCTION MEETING PRIOR TO BEGINNING WORK IN ORDER TO COORDINATE WORK PROCEDURES WITH ALL INTERESTED PARTIES. THE CONTRACTOR SHALL ALSO ATTEND WEEKLY JOB MEETINGS. THE CONTRACTOR SHALL ALSO ATTEND PRE-WORK MEETINGS PRIOR TO ALL MAJOR CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL SET BASIC REFERENCE LINE AND BENCH MARK GRADE CONTROL FROM WHICH THE WORK IS BUILT. ALL ELEVATIONS ARE BASED ON USGS DATUM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXTENDING THE CONTROL AND FURNISHING ALL ADDITIONAL STAKING AND MARKINGS NECESSARY TO CONTROL AND ACCOMPLISH THE WORK. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL CONTROL AND WILL BE RESPONSIBLE FOR THE COST OF RESETING ANY CONTROL DESTROYED OR DISTURBED DUE TO NEGLIGENCE OR CONSTRUCTION EFFORTS OF THE CONTRACTOR.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN EXCAVATING IN AREAS OF EXISTING UTILITIES. EXISTING UTILITIES SHALL BE LOCATED AND MARKED IN ADVANCE OF EXCAVATION IN ALL AREAS. ANY DAMAGE DONE TO FUNCTIONING UTILITIES SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS/HER EXPENSE AND AS DIRECTED BY THE AIRPORT OR PROJECT ENGINEER. THE LOCATIONS AND DEPTHS OF ANY UTILITIES SHOWN ON THE PLANS ARE ONLY AN APPROXIMATION - THEY ARE NOT AN ACCURATE REPRESENTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING ALL DAMAGE TO AIRPORT PROPERTY CAUSED BY HIS/HER FORCES AND HIS/HER SUBCONTRACTOR'S FORCES. THE CONTRACTOR SHALL CONTACT LOCAL UTILITY AND AIRPORT REPRESENTATIVES TO IDENTIFY UNDERGROUND CABLES, WATERLINES, ETC., PRIOR TO STARTING THE WORK. A MINIMUM OF 2 BUSINESS DAYS IS REQUIRED FOR IDENTIFICATION OF AIRPORT UTILITIES.
- ALL WORK SHALL CONFORM TO CDOT AND THE CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION AND DETAILS. PAVEMENT MATERIALS TO CONFORM TO PIKES PEAK REGIONAL ASPHALT PAVING SPECIFICATION. IN THE EVENT OF CONFLICTS, THE MOST RESTRICTIVE SPECIFICATION SHALL PREVAIL.
- THE UTILITIES AS SHOWN ON THE PLANS ARE FROM CITY OF COLORADO SPRINGS OR COS. IT SHALL BE UNDERSTOOD THAT ALL UTILITIES ARE NOT NECESSARILY SHOWN ON THE PLANS. BEFORE EXCAVATING, CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITY LOCATIONS INCLUDING ABANDONED UTILITIES AND SUBSURFACE ITEMS PRIOR TO CONSTRUCTION BY POTHOLES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF UTILITIES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE PROJECT LIMITS. CONSTRUCTION ACTIVITIES, IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES, SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER AND OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT THE CONTRACTOR'S OWN EXPENSE.
- CONTRACTOR MUST SUBMIT A TRAFFIC CONTROL PLAN TO COS FOR APPROVAL. TRAFFIC CONTROL PLAN MUST BE APPROVED PRIOR TO BEGINNING ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING THE TEMPORARY TRAFFIC CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A SAFE PROJECT SITE. THIS INCLUDES THE SAFETY OF THE TRAVELING PUBLIC ON EXISTING ROADWAY.
- ASPHALT MILLINGS SHALL BE PLACED IN THE EXISTING MILLING STOCKPILE SHOWN ON SHEET C003.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONSTANT COORDINATION BETWEEN THE SUBCONTRACTORS AND THE ENGINEER. ALL CONSTRUCTION ACTIVITIES PLANNED BY THE CONTRACTOR SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND AIRPORT OPERATIONS REPRESENTATIVES PRIOR TO IMPLEMENTATION.



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**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

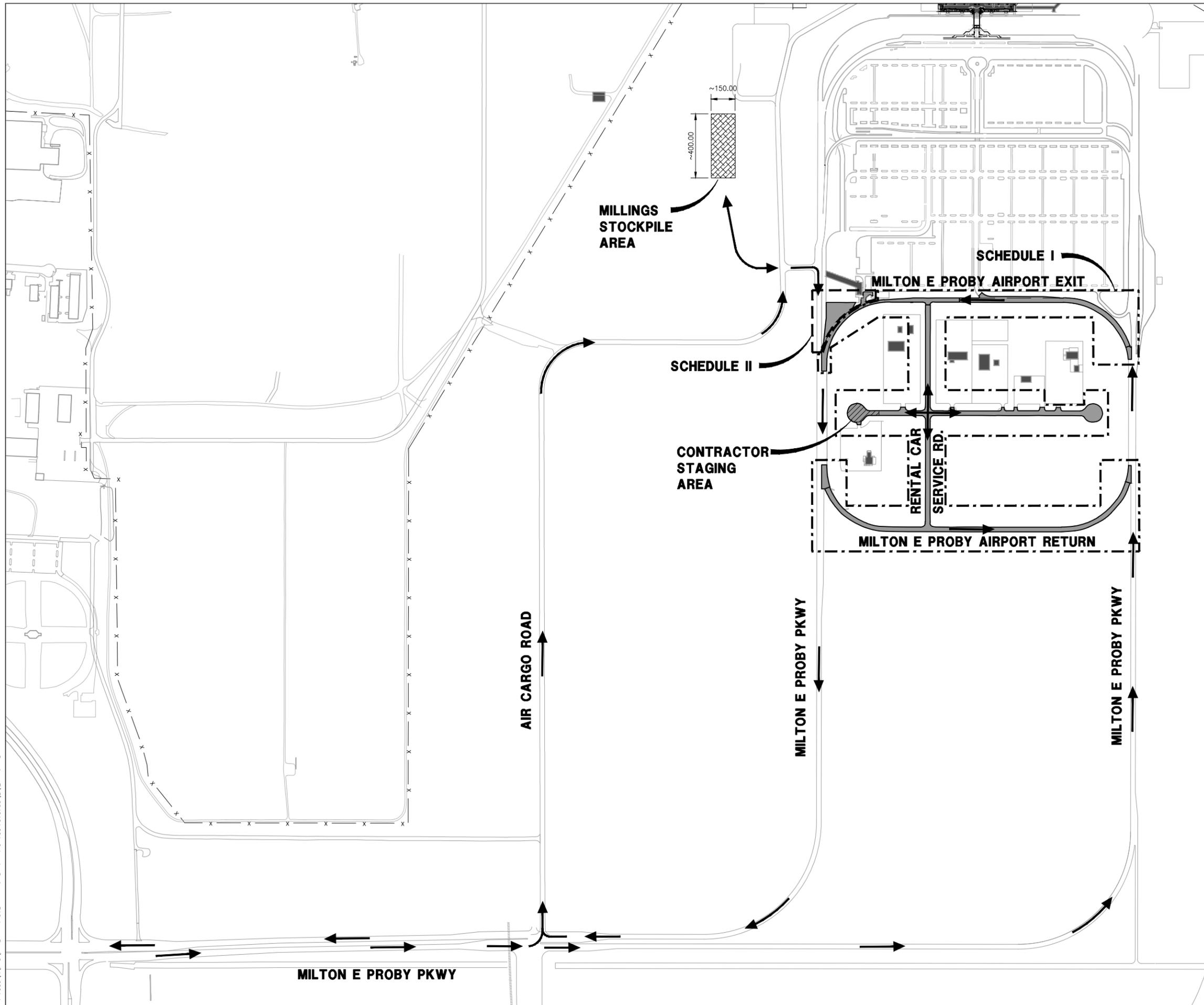
REVISIONS		
NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF  
RS&H PROJECT NUMBER  
224-0124-004  
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**INDEX OF  
DRAWINGS,  
QUANTITIES &  
GENERAL NOTES**

DRAWING NUMBER  
**C002**  
SHEET 2 OF 23  
**BID  
DOCUMENTS**

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Plotted by: Pomeroy, Jeff  
Plotted on: 7/7/2016 9:35 AM



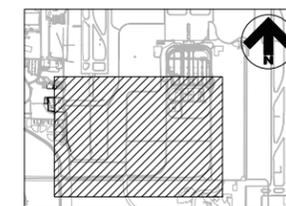
**LEGEND:**

-  PROJECT WORK LIMITS
-  MILLINGS STOCKPILE
-  CONTRACTOR STAGING AREA
-  HAUL ROUTE

**NOTES:**

1. CONTRACTOR SHALL PLACE ASPHALT MILLINGS IN THE EXISTING MILLING STOCKPILE SHOWN.
2. THE MILLINGS STOCKPILE AREA IS BEING USED AS A STAGING AREA FOR A DIFFERENT CONTRACTOR. COORDINATION WILL BE REQUIRED.

NORTH



KEYMAP



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COLORADO SPRINGS AIRPORT

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**SCHEDULE I (BASE BID)**  
REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS

**SCHEDULE I (DEDUCT ALTERNATE 1)**  
REHABILITATE LONG TERM PARKING ENTRANCE LANE

**SCHEDULE I (DEDUCT ALTERNATE 2)**  
REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC

**SCHEDULE II (ADD ALTERNATE 1)**  
REHABILITATE TOLL PLAZA PAVEMENT

**REVISIONS**

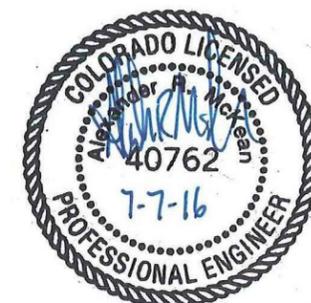
NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

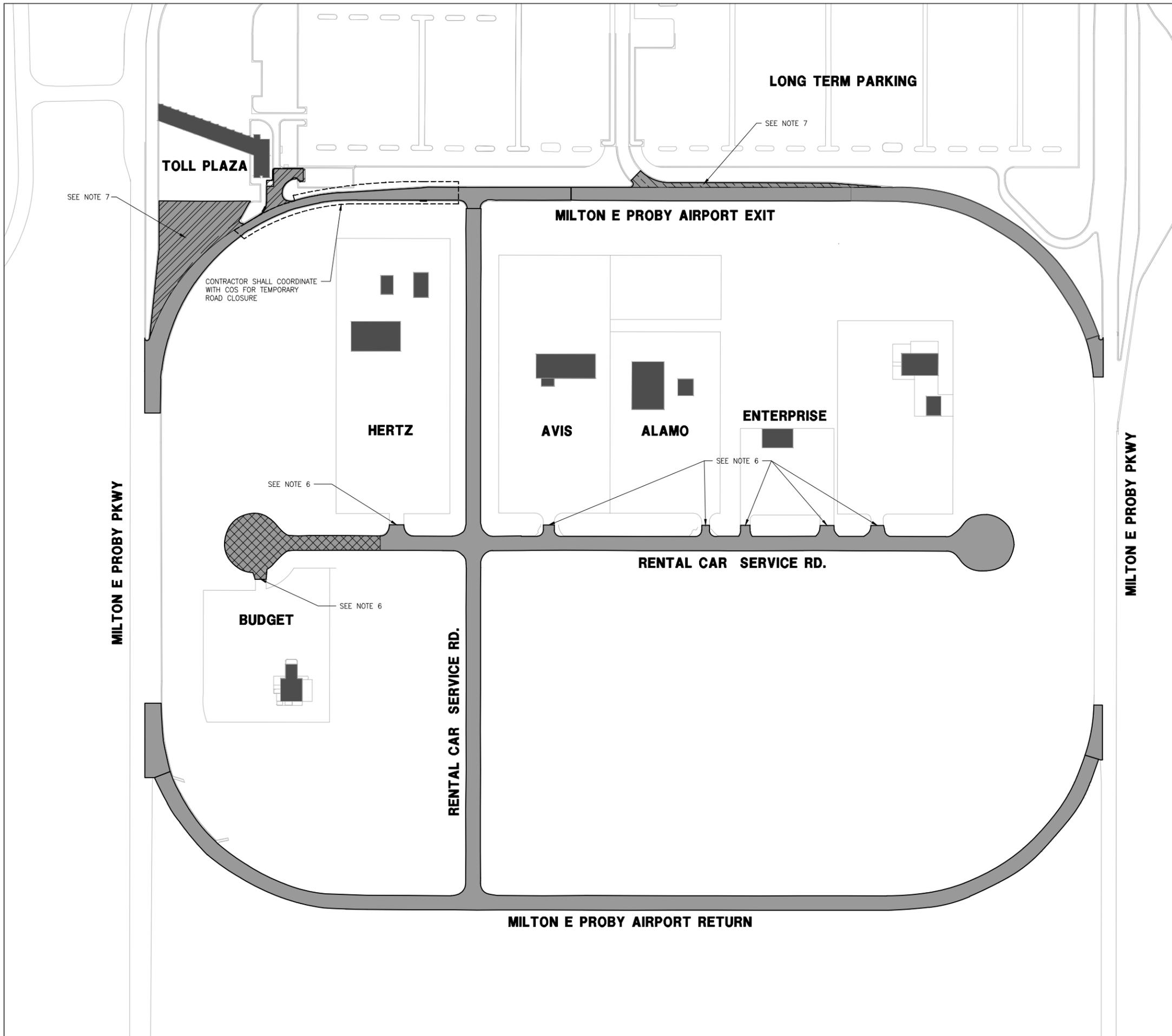
RS&H PROJECT NUMBER  
224-0124-004  
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**CONTRACT LAYOUT PLAN**

DRAWING NUMBER  
**C003**  
SHEET 3 OF 23  
**BID DOCUMENTS**



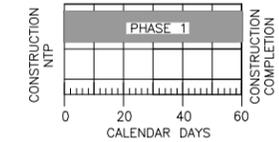
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 Plotted on: 7/7/2016 9:34 AM  
 Plotted by: Pouey, Jeff



**LEGEND:**

- PHASE 1 (BASE BID) WORK LIMITS
- PHASE 1 (ADD ALT 1) WORK LIMITS
- PHASE 1 (DEDUCT ALT 1) WORK LIMITS
- PHASE 1 (DEDUCT ALT 2) WORK LIMITS
- ROAD CLOSURE LIMITS

**PHASING SCHEDULE**

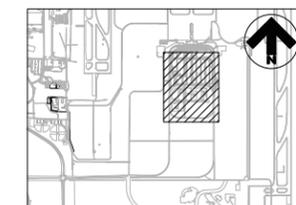
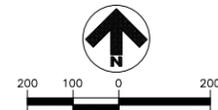


\* TOTAL SCHEDULE DURATION INCLUDES ALL ADMINISTRATION ACTIVITIES, SUBMITTALS ETC.

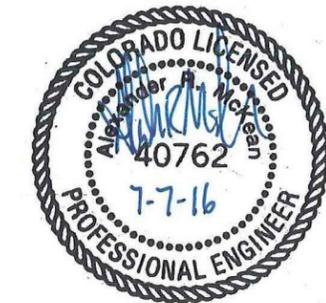
**NOTES:**

1. CONTRACTOR SHALL SUBMIT SCHEDULE AND PHASING PLAN FOR APPROVAL PRIOR TO BEGINNING ANY WORK.
2. ALL DAY WORK CONSTRUCTION ACTIVITIES SHALL ALLOW FOR ONE TRAVEL LANE TO REMAIN OPEN AT ALL TIMES.
3. MILLED SURFACES THAT WERE PLANED 2" OR LESS MAY BE OPENED TO TRAFFIC ONCE SURFACE HAS BEEN CLEANED. CONTRACTOR MUST PAVE FIRST LIFT WITHIN 10 DAYS OF OPENING MILLED SURFACE TO TRAFFIC.
4. AREAS REQUIRING MORE THAN 2" OF PLANING SHALL BE PAVED PRIOR TO OPENING TO ANY TRAFFIC.
5. CONTRACTOR MAY ELECT TO CLOSE FULL WIDTH SECTIONS OF ROADWAY FOR NIGHT WORK. NIGHT CLOSURES SHALL BE COORDINATED WITH AND APPROVED BY COS PRIOR TO CLOSING ANY PORTIONS OF ROADWAY. THESE NIGHT CLOSURES SHALL OCCUR BETWEEN THE HOURS OF 7:00 PM AND 5:00 AM.
6. CONTRACTOR SHALL COORDINATE WORK NEAR ENTRANCES TO RENTAL CAR FACILITIES WITH COS. ACCESS TO THESE FACILITIES MAY ONLY BE CLOSED FOR NIGHT OPERATIONS DURING THE HOURS OF 7:00 PM TO 5:00 AM, MONDAY THRU THURSDAY AND SATURDAYS FROM 4:00 PM TO 4:00 AM SUNDAY.
7. CONTRACTOR SHALL ALLOW FOR ONE TRAVEL LANE INTO LONG TERM PARKING AND IN FRONT OF THE TOLL PLAZA AT ALL TIMES.
8. SEE SHEETS C201-C204 FOR PLANING AND PAVING LOCATIONS.

NORTH



**KEYMAP**



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**COLORADO SPRINGS AIRPORT**

**RAC LOOP ROAD REHABILITATION**

**SCHEDULE I (BASE BID) REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS**

**SCHEDULE I (DEDUCT ALTERNATE 1) REHABILITATE LONG TERM PARKING ENTRANCE LANE**

**SCHEDULE I (DEDUCT ALTERNATE 2) REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC**

**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
 REVIEWED BY: ARM  
 DRAWN BY: JDP  
 DESIGNED BY: JFF

RS&H PROJECT NUMBER  
 224-0124-004  
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**OVERALL PHASING PLAN**

DRAWING NUMBER  
**C010**  
 SHEET 4 OF 23  
**BID DOCUMENTS**

Drawing: I:\Projects\2240124\004 Colorado Springs - RAC Loop Road\cad\010.dwg  
 Plotted on: 7/7/2016 9:35 AM  
 Plotted by: Pouey, Jeff

Figure 6H-10. Lane Closure on a Two-Lane Road Using Flaggers (TA-10)

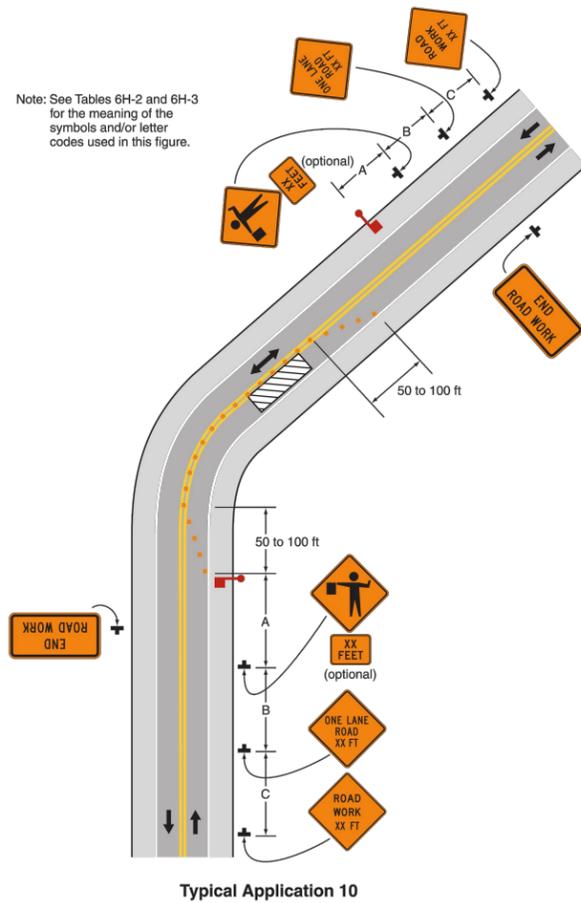
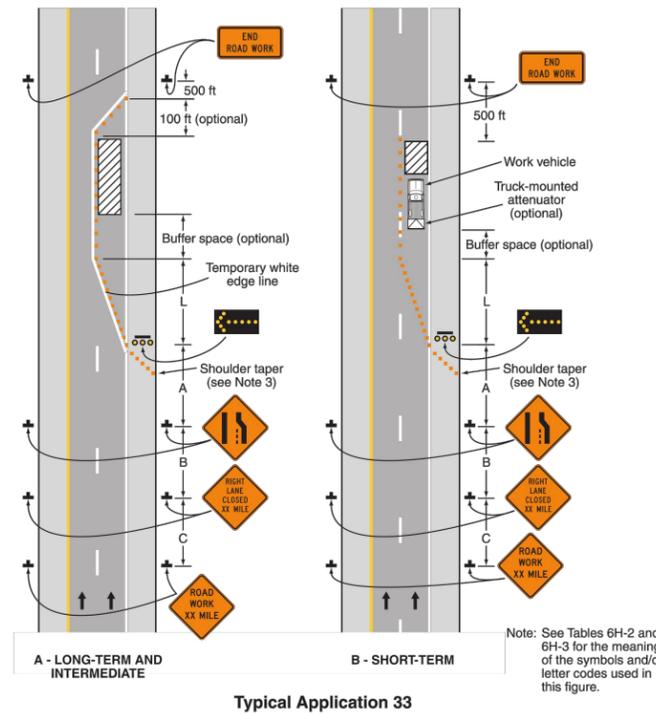


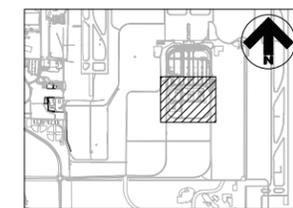
Figure 6H-33. Stationary Lane Closure on a Divided Highway (TA-33)



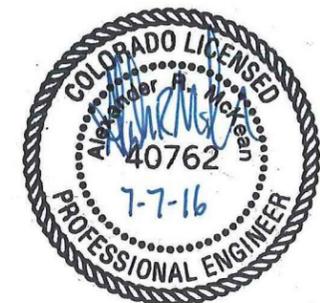
**TRAFFIC CONTROL EXAMPLES**

**NOTES:**

1. CONTRACTOR SHALL REFERENCE THE MUTCD (2009) AND THE MUTCD SUPPLEMENT FOR THE CITY OF COLORADO SPRINGS FOR ALL TRAFFIC CONTROL REQUIREMENTS.
2. CONTRACTOR MUST SUBMIT A TRAFFIC CONTROL PLAN TO COS FOR APPROVAL. TRAFFIC CONTROL PLAN MUST BE APPROVED PRIOR TO BEGINNING ANY WORK.
3. ALL TRAFFIC CONTROL EQUIPMENT AND MATERIALS SHALL MEET THE REQUIREMENTS OF CDOT SPECIFICATIONS SECTION 713.
4. ALL ITEMS RELATED TO TRAFFIC CONTROL (I.E. TRAFFIC CONTROL PLAN, EQUIPMENT, MATERIALS, ETC.) SHALL BE PAID FOR UNDER ITEM 650.05-1.



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**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

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DESIGNED BY: JFF

RS&H PROJECT NUMBER  
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**TRAFFIC CONTROL DETAILS**

DRAWING NUMBER

C011

SHEET 5 OF 23

**BID DOCUMENTS**



**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
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**HORIZONTAL &  
VERTICAL  
CONTROL PLAN**

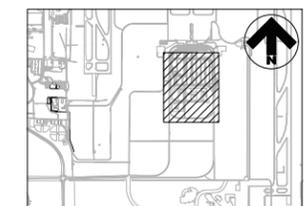
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**C020**  
SHEET 6 OF 23  
**BID  
DOCUMENTS**

**LEGEND:**

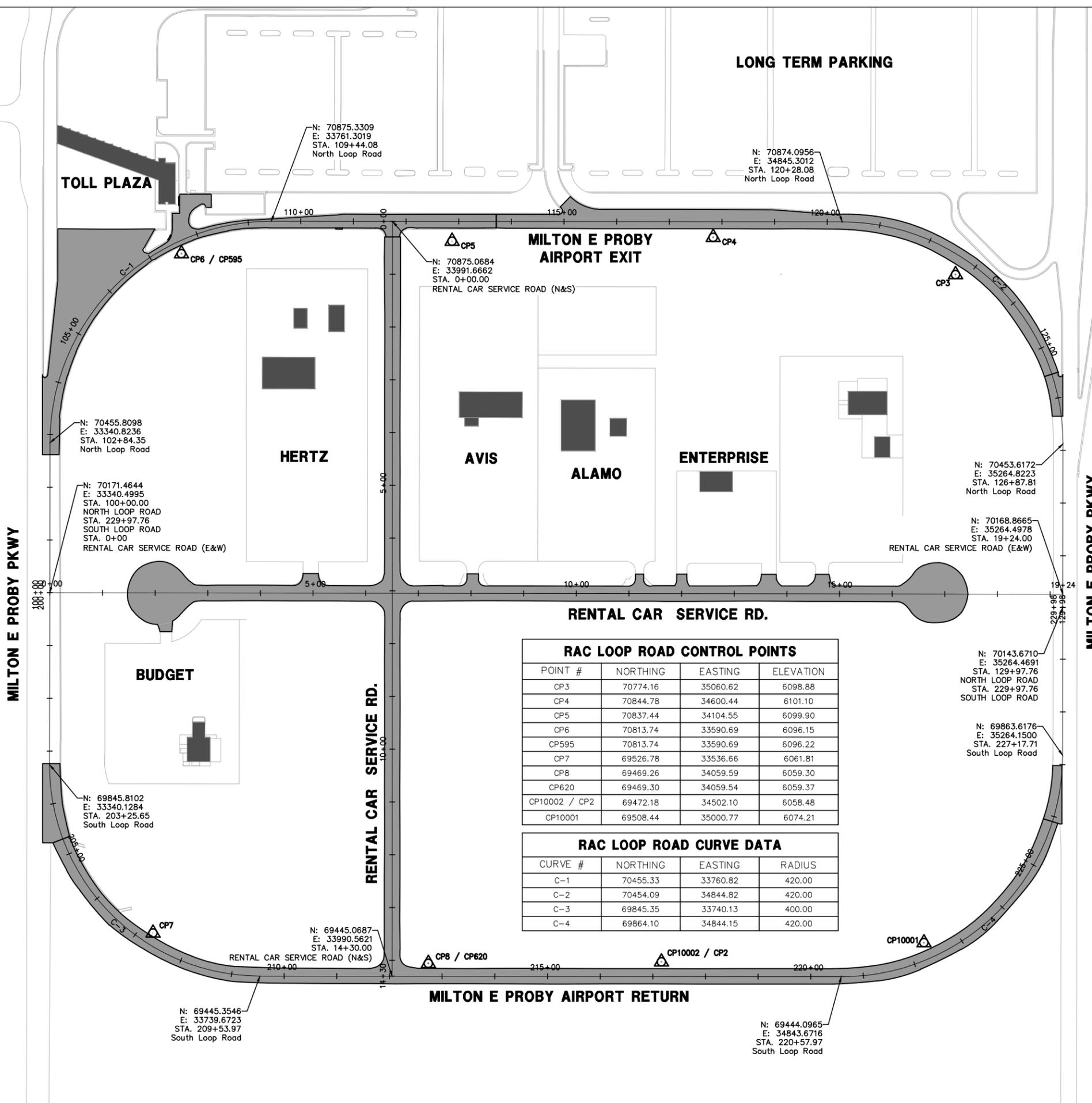
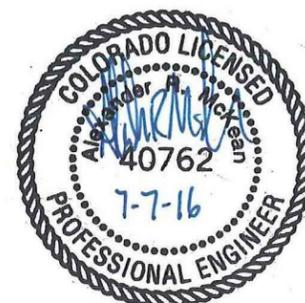
- RAC LOOP ROAD PAVEMENT REHABILITATION LIMITS
- SURVEY CONTROL POINTS

**NOTES:**

1. GROUND SURVEY AND CONTROL POINTS PROVIDED BY POLARIS SURVEYING, INC., MAY 2016.
2. ELEVATIONS SHOWN ARE BASED UPON THE 1988 NATIONAL GEODETIC VERTICAL DATUM (NAVD88). THE NAVD88 IS APPROXIMATELY 3.29 FEET ABOVE THE NAVD29 DATUM.
3. THE CONTRACTOR SHALL VERIFY, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, ANY CONTROL POINTS TO BE USED FOR CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
4. COORDINATES ARE BASED ON THE COS LOW DISTORTION COORDINATE SYSTEM.



KEYMAP



**RAC LOOP ROAD CONTROL POINTS**

POINT #	NORTHING	EASTING	ELEVATION
CP3	70774.16	35060.62	6098.88
CP4	70844.78	34600.44	6101.10
CP5	70837.44	34104.55	6099.90
CP6	70813.74	33590.69	6096.15
CP595	70813.74	33590.69	6096.22
CP7	69526.78	33536.66	6061.81
CP8	69469.26	34059.59	6059.30
CP620	69469.30	34059.54	6059.37
CP10002 / CP2	69472.18	34502.10	6058.48
CP10001	69508.44	35000.77	6074.21

**RAC LOOP ROAD CURVE DATA**

CURVE #	NORTHING	EASTING	RADIUS
C-1	70455.33	33760.82	420.00
C-2	70454.09	34844.82	420.00
C-3	69845.35	33740.13	400.00
C-4	69864.10	34844.15	420.00

Drawing: I:\Projects\2240124\004 Colorado Springs - Rac Loop Road\Cal V\CO20.dwg  
 Plotted on: 7/7/2016 9:36 AM



**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

RS&H PROJECT NUMBER  
**224-0124-004**  
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**BORING  
LOCATION  
LAYOUT PLAN**

DRAWING NUMBER  
**C021**  
SHEET 7 OF 23  
**BID  
DOCUMENTS**

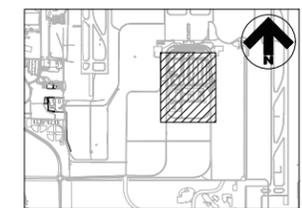
**LEGEND:**

- RAC LOOP ROAD PAVEMENT REHABILITATION LIMITS
- BORING LOCATIONS

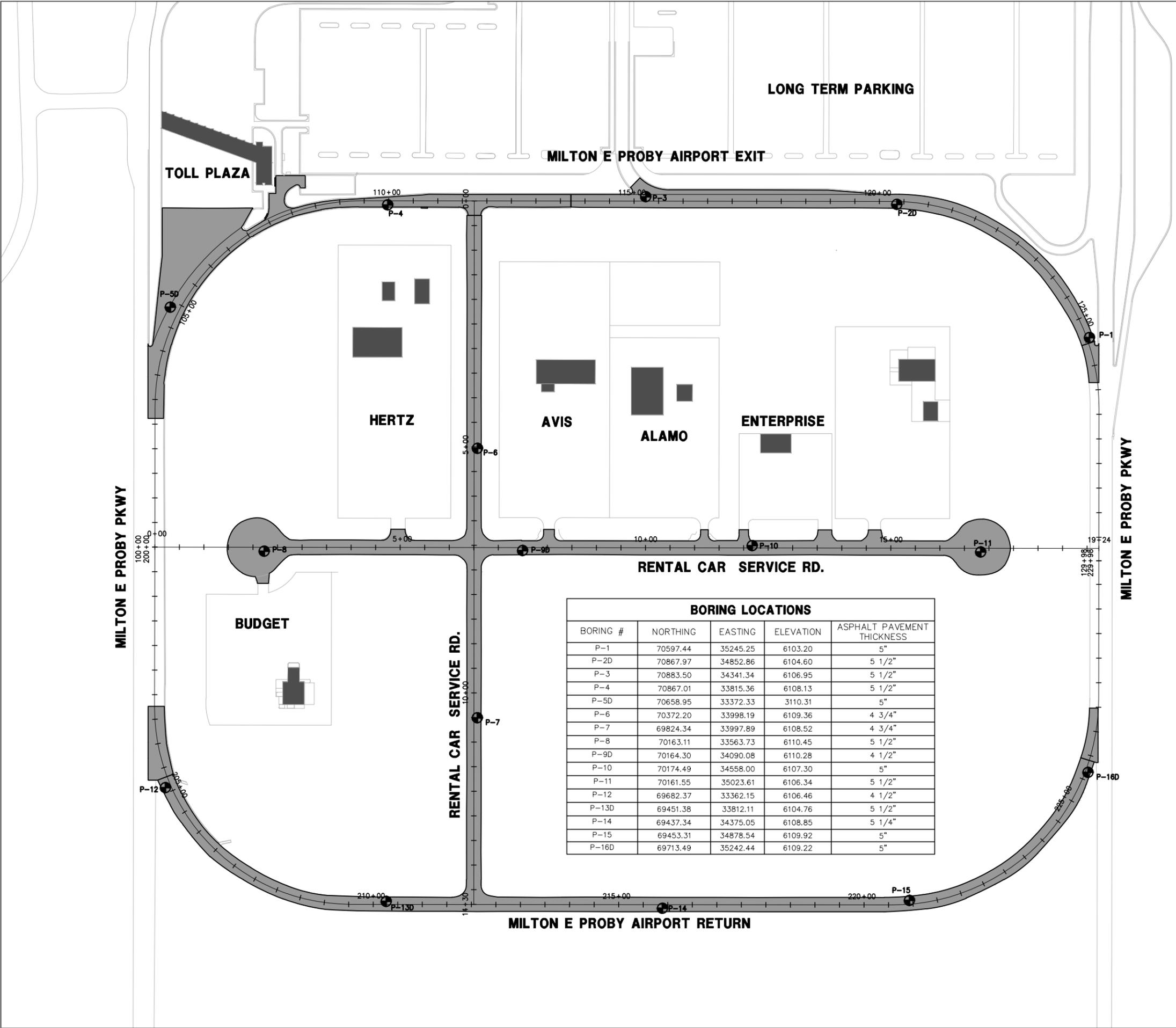
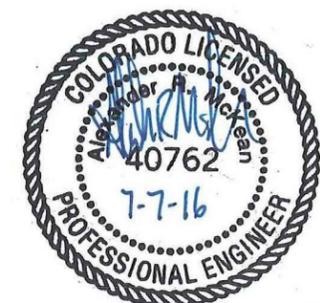
**NOTES:**

1. GEOTECHNICAL INVESTIGATIONS PERFORMED BY GEOLCAL IN MAY 2016. REPORT IS AVAILABLE UPON REQUEST.

NORTH



KEYMAP



BORING LOCATIONS				
BORING #	NORTHING	EASTING	ELEVATION	ASPHALT PAVEMENT THICKNESS
P-1	70597.44	35245.25	6103.20	5"
P-2D	70867.97	34852.86	6104.60	5 1/2"
P-3	70883.50	34341.34	6106.95	5 1/2"
P-4	70867.01	33815.36	6108.13	5 1/2"
P-5D	70658.95	33372.33	3110.31	5"
P-6	70372.20	33998.19	6109.36	4 3/4"
P-7	69824.34	33997.89	6108.52	4 3/4"
P-8	70163.11	33563.73	6110.45	5 1/2"
P-9D	70164.30	34090.08	6110.28	4 1/2"
P-10	70174.49	34558.00	6107.30	5"
P-11	70161.55	35023.61	6106.34	5 1/2"
P-12	69682.37	33362.15	6106.46	4 1/2"
P-13D	69451.38	33812.11	6104.76	5 1/2"
P-14	69437.34	34375.05	6108.85	5 1/4"
P-15	69453.31	34878.54	6109.92	5"
P-16D	69713.49	35242.44	6109.22	5"

Drawing: I:\Projects\2240124\004 Colorado Springs - RAC Loop Road\CAD\C021.dwg  
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**RAC LOOP ROAD  
REHABILITATION**

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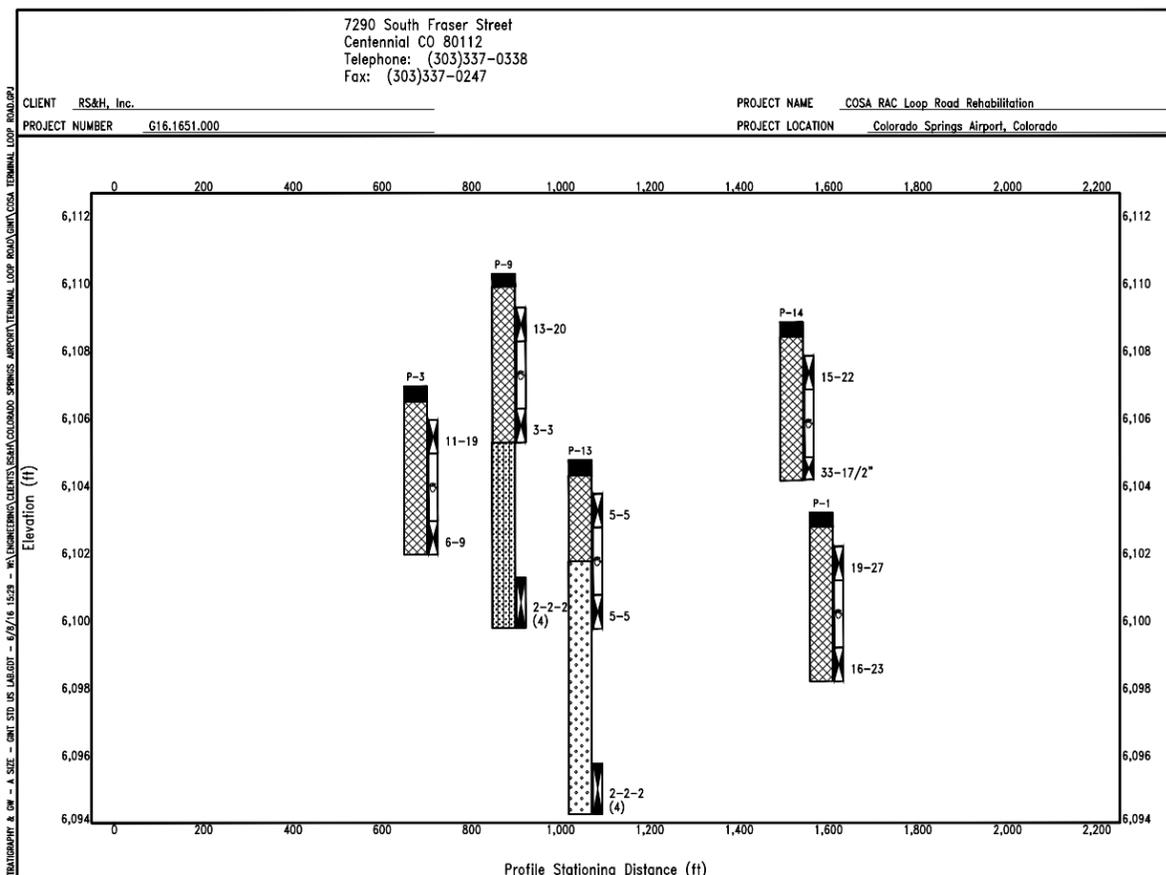
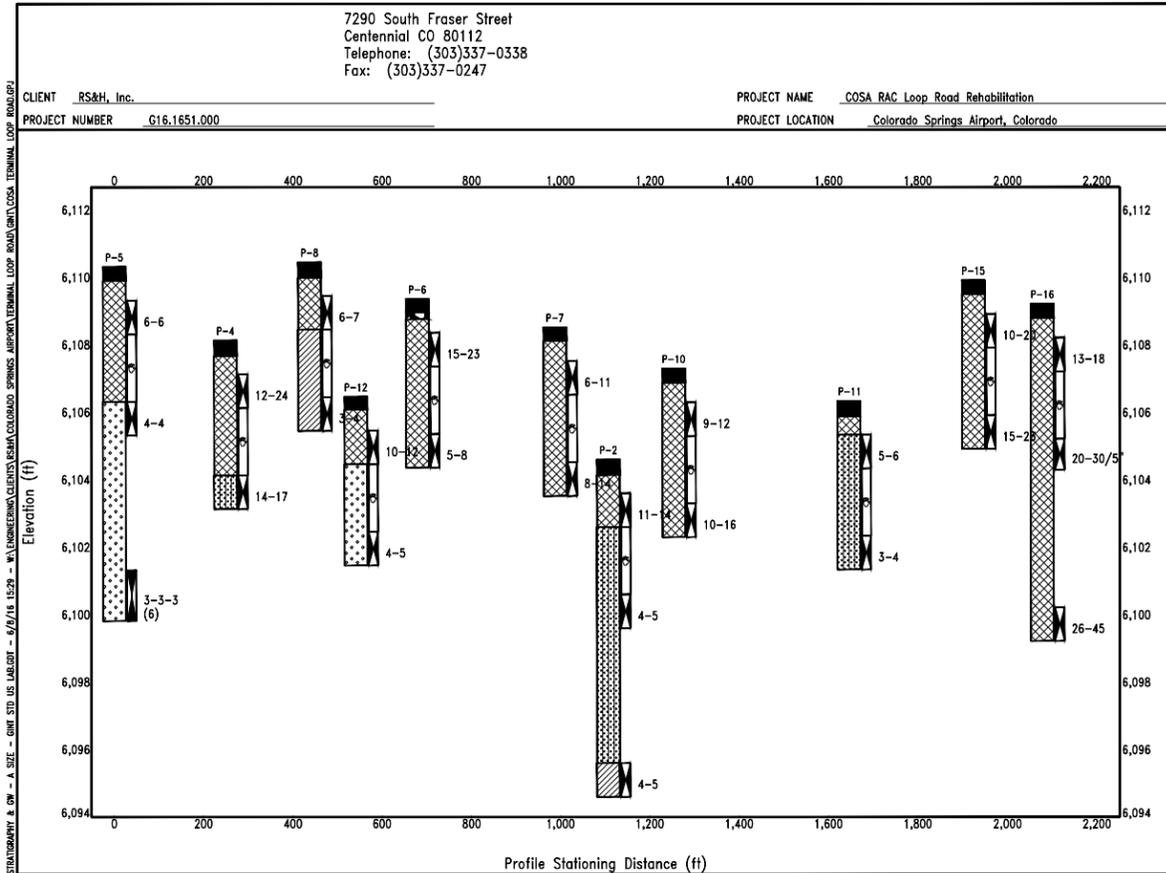
**BORING LOGS**

DRAWING NUMBER

**C022**

SHEET 8 OF 23

**BID  
DOCUMENTS**



7290 South Fraser Street  
Centennial CO 80112  
Telephone: (303)337-0338  
Fax: (303)337-0247

CLIENT RS&H, Inc. PROJECT NAME COSA RAC Loop Road Rehabilitation  
PROJECT NUMBER G16.1651.000 PROJECT LOCATION Colorado Springs Airport, Colorado

**KEY TO SYMBOLS**

**LITHOLOGIC SYMBOLS**  
(Unified Soil Classification System)

- ASPHALT PAVEMENT
- AGGREGATE BASE COURSE
- FILL
- SILTY SAND
- LEAN CLAY WITH SAND
- POORLY GRADED SAND

**SAMPLER SYMBOLS**

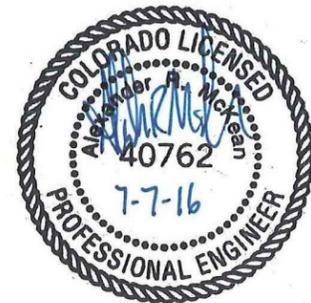
- Grab Sample
- Modified California Sampler
- Standard Penetration Test

**WELL CONSTRUCTION SYMBOLS**

**ABBREVIATIONS**

LL - LIQUID LIMIT (%)  
PI - PLASTIC INDEX (%)  
W - MOISTURE CONTENT (%)  
DD - DRY DENSITY (PCF)  
NP - NON PLASTIC  
-200 - PERCENT PASSING NO. 200 SIEVE  
PP - POCKET PENETROMETER (TSF)

TV - TORVANE  
PID - PHOTOIONIZATION DETECTOR  
UC - UNCONFINED COMPRESSION  
ppm - PARTS PER MILLION  
▽ Water Level at Time Drilling, or as Shown  
▽ Water Level at End of Drilling, or as Shown  
▽ Water Level After 24 Hours, or as Shown



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**LEGEND:**

-  2" PLANING & 4.5" HMA
-  3" PLANING & 3" HMA
-  PLANING AND MILLING TRANSITION
-  FINISH ELEVATION ADD 6000 FT TO SPOT ELEVATIONS
-  EXISTING WATER VALVE
-  ADJUST WATER VALVE
-  EXISTING FIRE HYDRANT
-  EXISTING SANITARY SEWER MANHOLE
-  ADJUST SANITARY SEWER MANHOLE
-  EXISTING DRAINAGE MANHOLE
-  EXISTING ELECTRICAL MANHOLE

**NOTES:**

1. SEE SHEETS C210 - C211 FOR TYPICAL SECTIONS AND DETAILS.
2. SEE SHEET C212 FOR CURB DETAILS.
3. SEE SHEET C213 FOR UTILITY ADJUSTMENT DETAILS.
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**COLORADO SPRINGS AIRPORT**

**RAC LOOP ROAD REHABILITATION**

**SCHEDULE I (BASE BID) REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS**

**SCHEDULE I (DEDUCT ALTERNATE 1) REHABILITATE LONG TERM PARKING ENTRANCE LANE**

**SCHEDULE I (DEDUCT ALTERNATE 2) REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC**

**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

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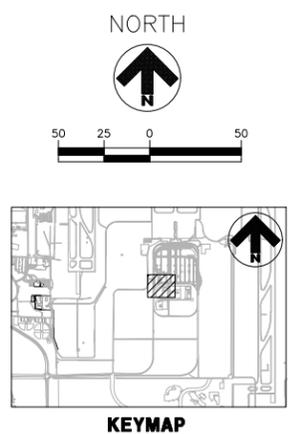
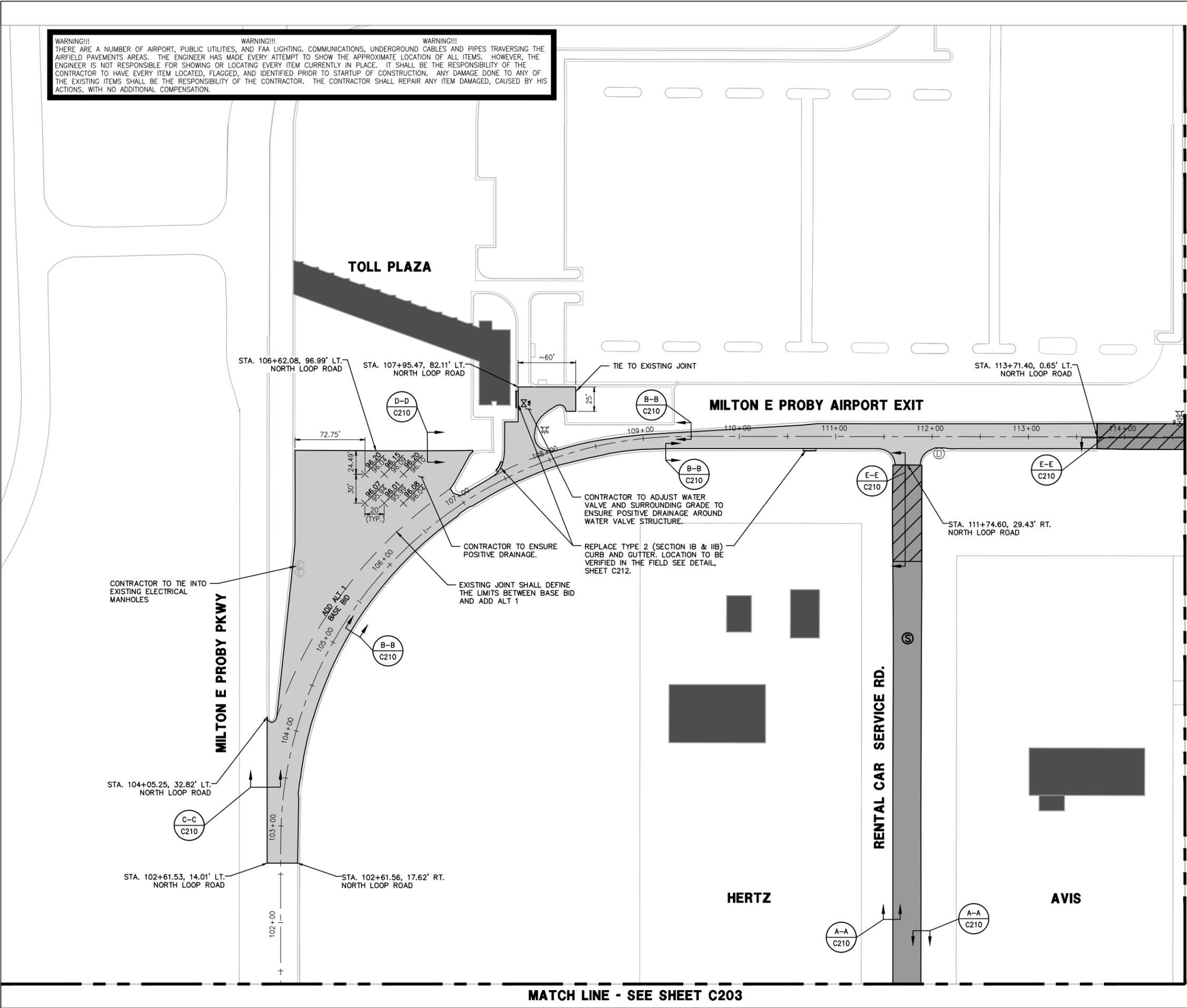
**GEOMETRY & PAVING PLAN**

(SHEET 1 OF 4)  
 DRAWING NUMBER  
**C201**  
 SHEET 9 OF 23  
 BID DOCUMENTS

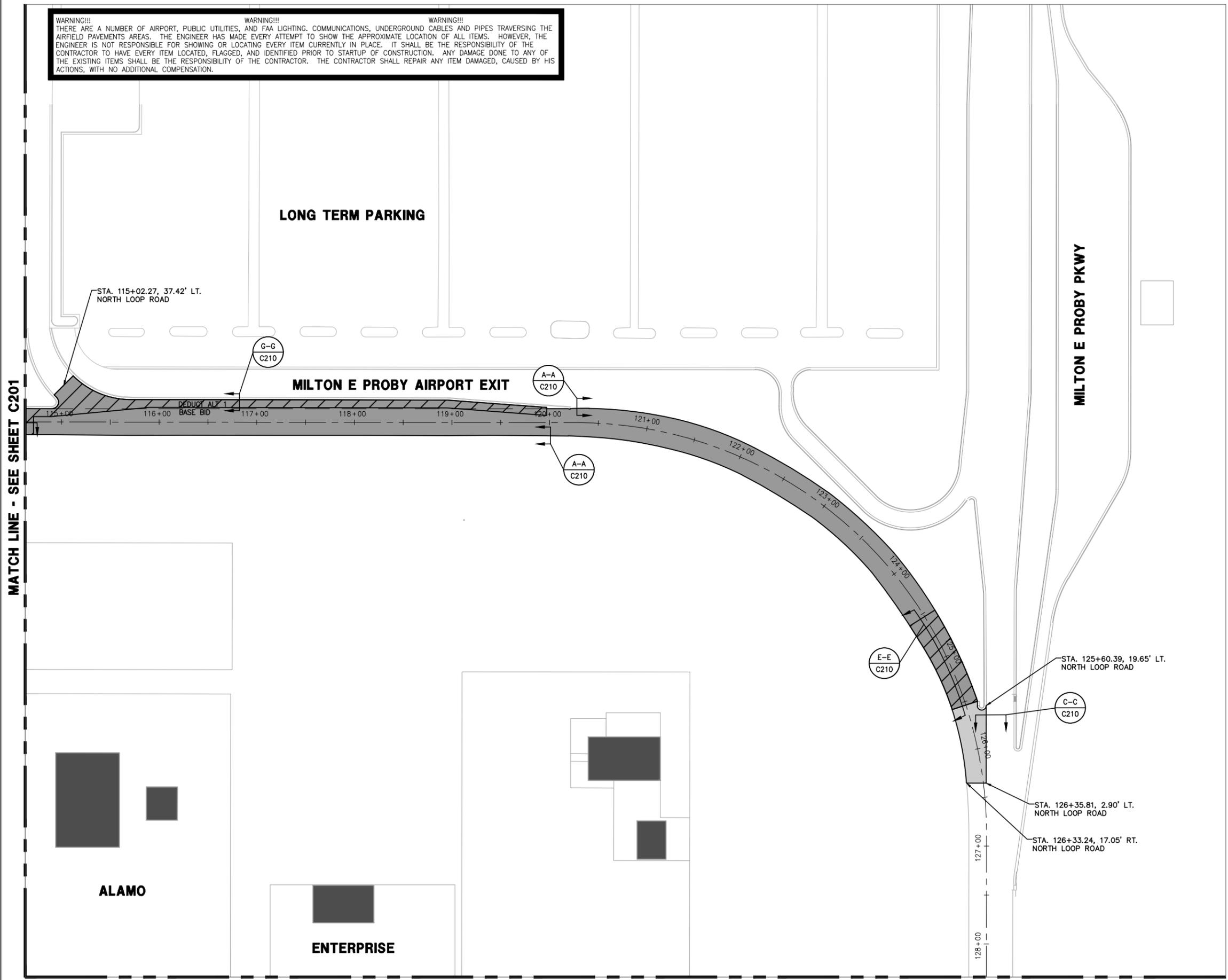
MATCH LINE - SEE SHEET C202

MATCH LINE - SEE SHEET C203

Drawing: I:\P\2240124\004 Colorado Springs - Rac Loop Road\CAD\C200-C204.dwg  
 Plotted on: 7/7/2016 9:36 AM



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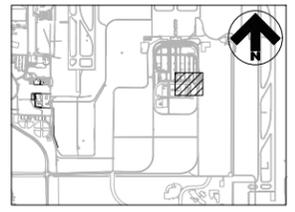
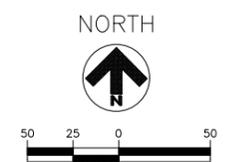


**LEGEND:**

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**NOTES:**

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**RAC LOOP ROAD REHABILITATION**

**SCHEDULE I (BASE BID) REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS**

**SCHEDULE I (DEDUCT ALTERNATE 1) REHABILITATE LONG TERM PARKING ENTRANCE LANE**

**SCHEDULE I (DEDUCT ALTERNATE 2) REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC**

**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
 REVIEWED BY: ARM  
 DRAWN BY: JDP  
 DESIGNED BY: JFF

RS&H PROJECT NUMBER  
**224-0124-004**  
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**GEOMETRY & PAVING PLAN**

**(SHEET 2 OF 4)**

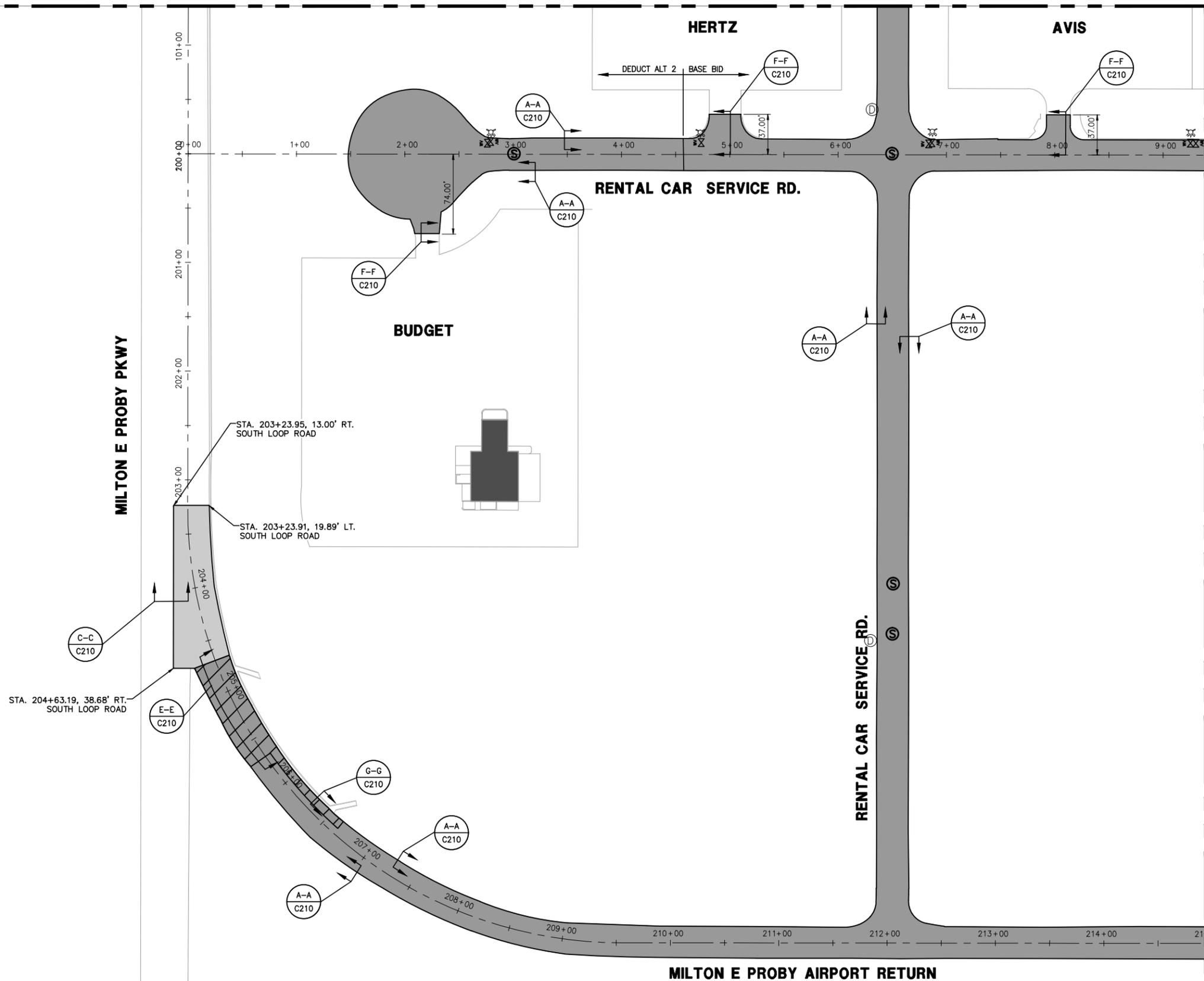
DRAWING NUMBER  
**C202**  
 SHEET 10 OF 23  
**BID DOCUMENTS**

Drawing: I:\P\2240124\004 Colorado Springs - Rac Loop Road\cad\C200-C204.dwg  
 Plotted by: Fouley, Jeff  
 Plotted on: 7/7/2016 9:36 AM

MATCH LINE - SEE SHEET C201

MATCH LINE - SEE SHEET C204

MATCH LINE - SEE SHEET C201



**LEGEND:**

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MATCH LINE - SEE SHEET C204



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COLORADO SPRINGS AIRPORT

**RAC LOOP ROAD REHABILITATION**

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**GEOMETRY & PAVING PLAN**

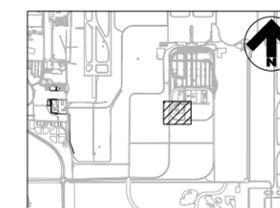
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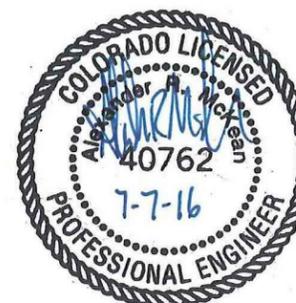
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SHEET 11 OF 23

**BID DOCUMENTS**



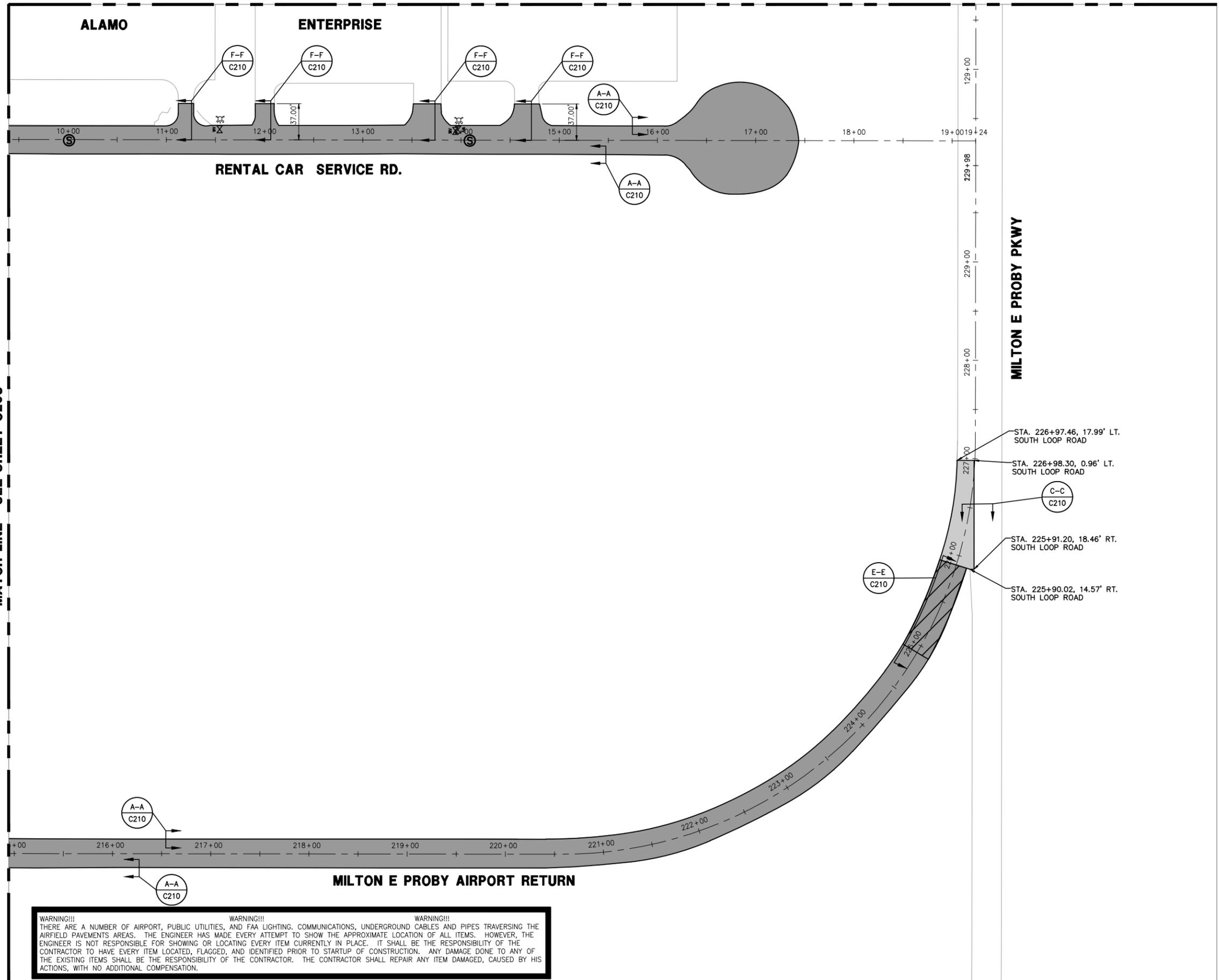
KEYMAP



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MATCH LINE - SEE SHEET C202



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**COLORADO SPRINGS AIRPORT**

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**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

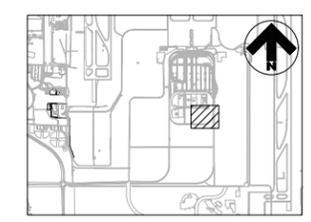
NO.	DESCRIPTION	DATE

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224-0124-004  
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**GEOMETRY & PAVING PLAN**

(SHEET 4 OF 4)

DRAWING NUMBER  
**C204**  
SHEET 12 OF 23  
BID DOCUMENTS



KEYMAP



MATCH LINE - SEE SHEET C203

Drawings: I:\P\2240124\004 Colorado Springs - Rac Loop Road\04\C204-C204.dwg  
Plotted by: Pauley, Jeff  
Plotted on: 7/7/2016 9:36 AM

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**RAC LOOP ROAD  
REHABILITATION**

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CAR LOOP ROAD AND  
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CUL-DE-SAC**

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REHABILITATE TOLL  
PLAZA PAVEMENT**

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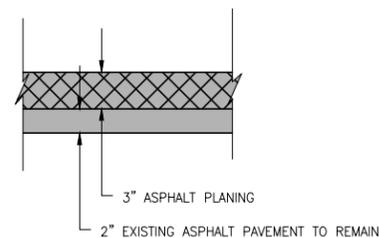
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PAVEMENT  
SECTIONS &  
DETAILS**

DRAWING NUMBER

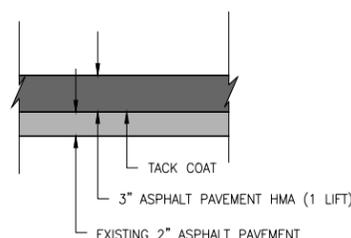
C210

SHEET 13 OF 23

**BID  
DOCUMENTS**



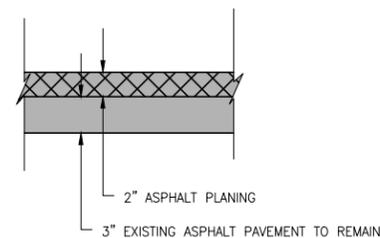
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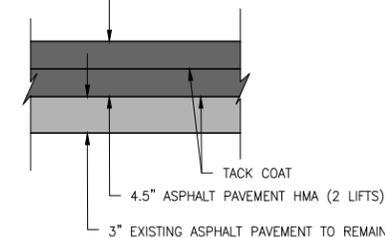
**(STEP 2)**

**3' PLANING & 3' HMA DETAIL**

NTS



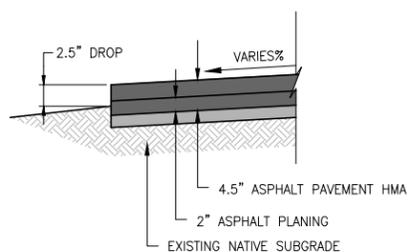
**(STEP 1)**



**(STEP 2)**

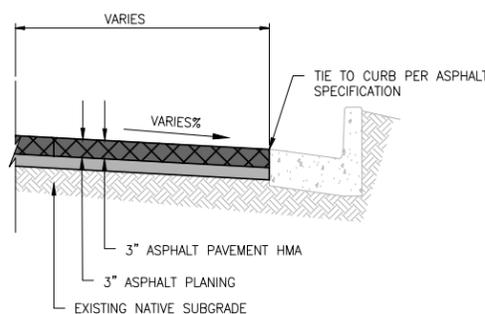
**2' PLANING & 4.5' HMA DETAIL**

NTS



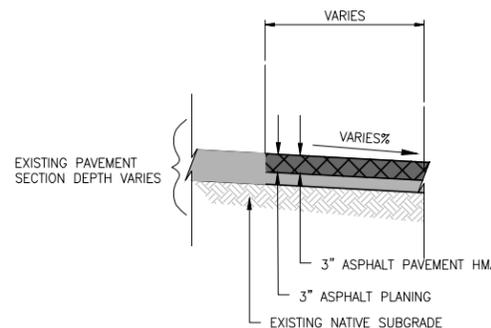
**SECTION A-A**

NTS



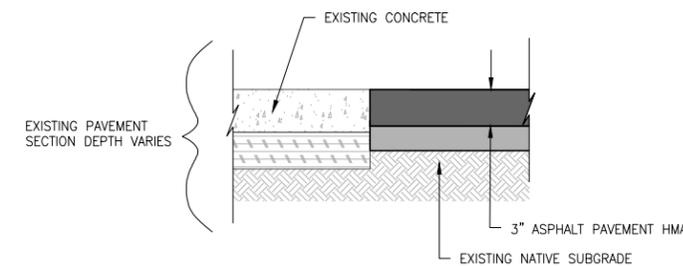
**SECTION B-B**

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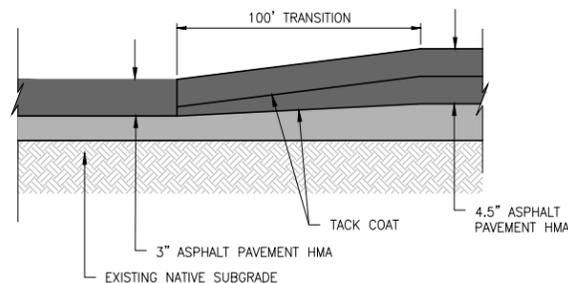
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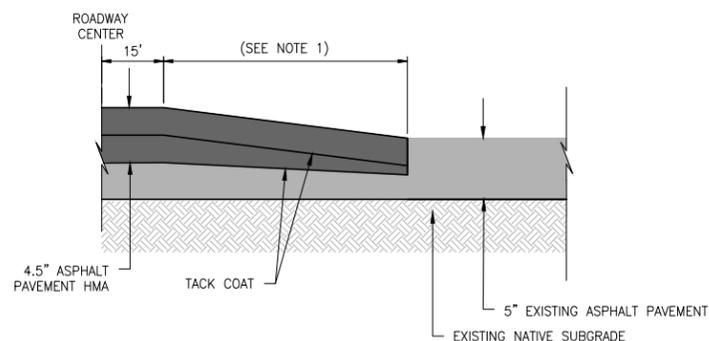
**SECTION D-D**

NTS



**SECTION E-E  
LONGITUDINAL TRANSITION SECTION**

NTS

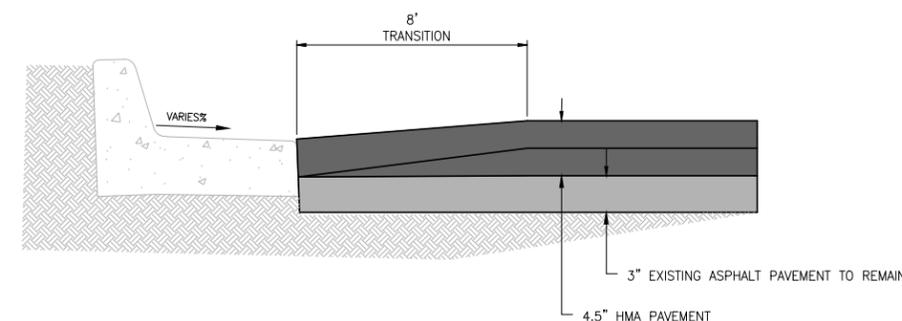


**SECTION F-F  
LONGITUDINAL TRANSITION SECTION**

NTS

**NOTE:**

- CONTRACTOR SHALL MAKE ANY NECESSARY ADJUSTMENTS TO TRANSITION LENGTH TO ENSURE A SMOOTH TRANSITION.



**SECTION G-G TRANSVERSE  
TRANSITION SECTION**

NTS

**GENERAL NOTES:**

- CONTRACTOR SHALL PLANE IN THE LONGITUDINAL DIRECTION IN ORDER TO MAINTAIN EXISTING GRADE BREAKS.
- CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, UTILITIES, CURB AND GUTTER, AND ADJACENT CONCRETE PAVEMENT. ANY DAMAGE TO ANY OF THE AFOREMENTIONED ITEMS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.





**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016

REVIEWED BY: ARM

DRAWN BY: JDP

DESIGNED BY: JFF

RS&H PROJECT NUMBER

224-0124-004

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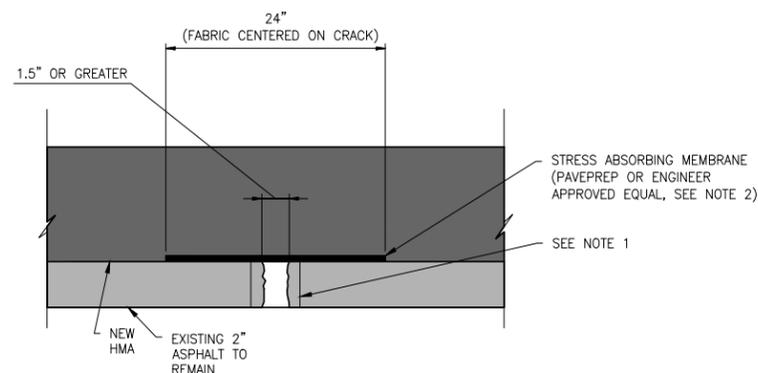
**PAVEMENT  
DETAILS**

DRAWING NUMBER

C211

SHEET 14 OF 23

**BID  
DOCUMENTS**

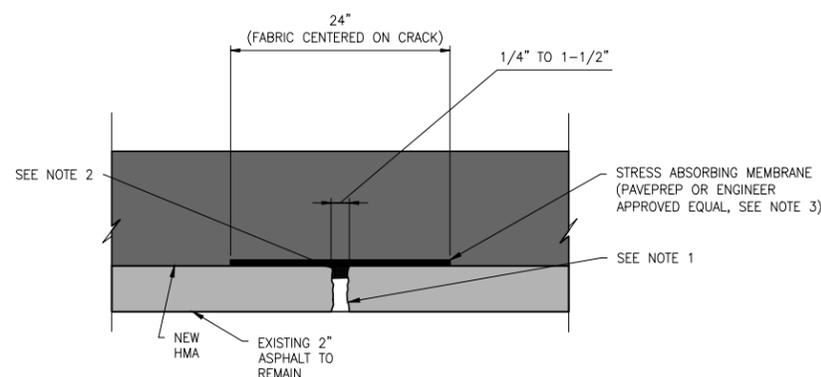


**NOTES:**

1. CONTRACTOR SHALL ROUTE CRACKS TO 4" MIN WIDTH, CLEAN AND FILL CRACK WITH 3/8" ST HOT MIX. USE OF ROCK TRENCHING WHEEL OR SIMILAR IS PREFERRED.
2. CONTRACTOR SHALL INSTALL STRESS ABSORBING MEMBRANE PER MANUFACTURERS INSTRUCTIONS. FABRIC SHALL EXTEND A MINIMUM OF 9" BEYOND EACH SIDE OF CRACK.

**MAJOR CRACK REPAIR DETAIL (GREATER THAN 1.5')**

NTS

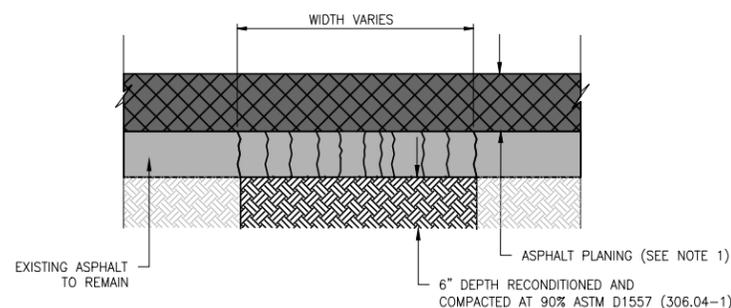


**NOTES:**

1. FOR CRACKS 1/4" TO 3/4" SEAL CRACK WITH HOT Poured MATERIAL CONFORMING TO THE REQUIREMENTS OF ASTM D6690, TYPE II. NO SAND REQUIRED.
2. FILL LARGE CRACKS GREATER THAN 3/4" UP TO 1-1/2" WITH CLEAN, FINE GRADED SAND PRIOR TO SEALING.
3. CONTRACTOR SHALL INSTALL STRESS ABSORBING MEMBRANE PER MANUFACTURERS INSTRUCTIONS. FABRIC SHALL EXTEND A MINIMUM OF 9" BEYOND EACH SIDE OF CRACK.

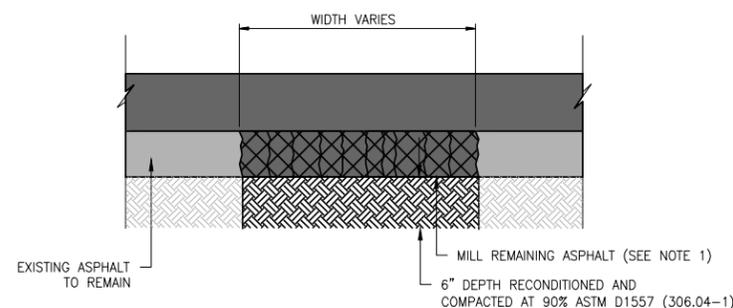
**MINOR CRACK REPAIR DETAIL  
(1/4' TO 1.5')**

NTS



**FULL DEPTH PAVEMENT REPAIR  
(STEP 1)**

NTS



**FULL DEPTH PAVEMENT REPAIR  
(STEP 2)**

NTS

**FULL DEPTH REPAIR NOTES:**

1. PRIOR TO ANY FULL DEPTH REPAIR OPERATIONS CONTRACTOR SHALL PLANE TO THE DEPTH SHOWN ON SHEETS C201-C204 AND NOTIFY ENGINEER ONCE PLANING OPERATIONS ARE COMPLETE. ENGINEER SHALL IDENTIFY ALL AREAS REQUIRING FULL DEPTH PAVEMENT REPAIR.
2. CONTRACTOR SHALL INSTALL STRESS ABSORBING MEMBRANE OVER ALL NEW JOINTS AND SHALL INSTALL PER MANUFACTURE'S INSTRUCTIONS. FABRIC SHALL EXTEND A MINIMUM OF 9" BEYOND EACH SIDE OF NEW JOINT.
3. CONTRACTOR SHALL USE CAUTION WHEN PERFORMING FULL DEPTH REPAIR AROUND EXISTING UTILITIES. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE





## RAC LOOP ROAD REHABILITATION

**SCHEDULE I (BASE BID)**  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS

**SCHEDULE I (DEDUCT  
ALTERNATE 1)**  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE

**SCHEDULE I (DEDUCT  
ALTERNATE 2)**  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC

**SCHEDULE II (ADD  
ALTERNATE 1)**  
REHABILITATE TOLL  
PLAZA PAVEMENT

### REVISIONS

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016

REVIEWED BY: ARM

DRAWN BY: JDP

DESIGNED BY: JFF

RS&H PROJECT NUMBER

224-0124-004

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## CURB DETAILS

DRAWING NUMBER

C212

SHEET 15 OF 23

BID

DOCUMENTS

**CURB AND GUTTER TYPE 2  
(SECTION IB)  
(6 IN. BARRIER - 1 FT. GUTTER)**

**CURB AND GUTTER TYPE 2  
(SECTION IIB)  
(6 IN. BARRIER - 2 FT. GUTTER)**

**CURB AND GUTTER TYPE 2  
(SECTION IM)  
(6 IN. MOUNTABLE - 1 FT. GUTTER)**

**CURB AND GUTTER TYPE 2  
(SECTION IIM)  
(6 IN. MOUNTABLE - 2 FT. GUTTER)**

**CURB AND GUTTER TYPE 2  
(SECTION MS)  
(4 IN. MOUNTABLE WITH SIDEWALK)**

**CONCRETE SIDEWALK**

**SIDEWALK EXPANSION JOINT**

### GENERAL NOTES

- ON ROADWAY CURVES WITH A RADIUS OF 1,900 FT. OR LESS, CURBS AND GUTTERS ARE TO BE PLACED ON THE ARC OF THE CURVE, UNLESS OTHERWISE NOTED ON THE PLANS. A MAXIMUM CHORD LENGTH OF 10 FT. MAY BE USED WHEN THE CURVE RADIUS IS GREATER THAN 1,900 FT.
- CONCRETE SHALL BE CLASS B.
- PROFILE GRADE OF CURBS AND GUTTERS SHALL BE LOCATED AT THE FLOW LINE.
- CURB TYPE 4 (KEY-WAY) MAY BE USED IN LIEU OF CURB AND GUTTER TYPE 2 (SECTIONS IB AND IM) UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- GUTTER CROSS SLOPES MAY BE ADJUSTED TO FACILITATE DRAINAGE FOR PROFILE GRADES AS SHOWN ON THE PLANS.
- THICKNESS OF CURB AND GUTTER SECTION SHALL MATCH CONCRETE PAVEMENT THICKNESS IF SHOWN ON THE PLANS. CURB AND GUTTER SHALL BE CLASS P CONCRETE IF PLACED MONOLITHICALLY WITH CONCRETE PAVEMENT.
- INCREASE SIDEWALK THICKNESS TO 6 IN. AT LOCATIONS SHOWN ON THE PLANS.
- MINIMUM SIDEWALK WIDTH IS 4 FT.

▲ EXPANSION JOINTS SHALL BE INSTALLED WHEN ABUTTING EXISTING CONCRETE OR FIXED STRUCTURE. EXPANSION JOINT MATERIAL SHALL BE 1/2" IN. THICK AND SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE.

① GUTTER CROSS SLOPES SHALL BE 1/2" IN./FT. WHEN DRAINING AWAY FROM CURB AND 1 IN./FT. WHEN DRAINING TOWARD CURB (WITH EXCEPTION TO IMMEDIATELY ADJACENT TO CURB RAMP - SEE STANDARD PLAN M-608-1 FOR SLOPE REQUIREMENTS).

● WHEN TIE BARS ARE REQUIRED, THE GUTTER THICKNESS SHALL BE INCREASED TO THE PAVEMENT THICKNESS (T). BARS SHALL BE EPOXY-COATED #4 CONFORMING TO AASHTO M 284 AND SPACED AT 3 FT. INTERVALS. THEY SHALL BE INSERTED 1/2" AND 1#2 LENGTH INTO THE GUTTER.

#### LEGEND FOR RADII

A = 1/2" TO 1/4"

B = 1"

C = 1 1/2"

D = 1 1/2" TO 2"

#### CONSTRUCTION OF CONCRETE GUTTERS AT INTERSECTION

THIS AREA SHALL BE POURED MONOLITHICALLY WITH CURB AND GUTTER AND SHALL BE CLASSIFIED AS "CONCRETE PAVEMENT".

FLOW LINE LOCATION WILL BE ESTABLISHED BY W/2 SHOWN ON PLANS.

#### Computer File Information

Creation Date: 07/04/12 Initials: DLM  
Last Modification Date: 05/16/14 Initials: LTA  
Full Path: www.coloradodot.info/business/designsupport  
Drawing File Name: 609010104.dgn  
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

#### Sheet Revisions

Date	Comments
07/24/12	Changed Tie Bar spacing from 30" to 36"
05/16/14	Revised Gutter Cross Slope Note to include ADA Ramp

Colorado Department of Transportation  
4201 East Arkansas Avenue  
Denver, Colorado 80222  
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Project Development Branch DLM/LTA

## CURB, GUTTERS, AND SIDEWALKS

STANDARD PLAN NO.  
M-609-1  
Sheet No. 1 of 4

Issued By: Project Development Branch on July 4, 2012

### NOTES:

- CONTRACTOR SHALL COORDINATE WITH COLORADO SPRINGS UTILITIES PRIOR TO ADJUSTING ANY STRUCTURES.





## RAC LOOP ROAD REHABILITATION

**SCHEDULE I (BASE BID)**  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS

**SCHEDULE I (DEDUCT  
ALTERNATE 1)**  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE

**SCHEDULE I (DEDUCT  
ALTERNATE 2)**  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC

**SCHEDULE II (ADD  
ALTERNATE 1)**  
REHABILITATE TOLL  
PLAZA PAVEMENT

### REVISIONS

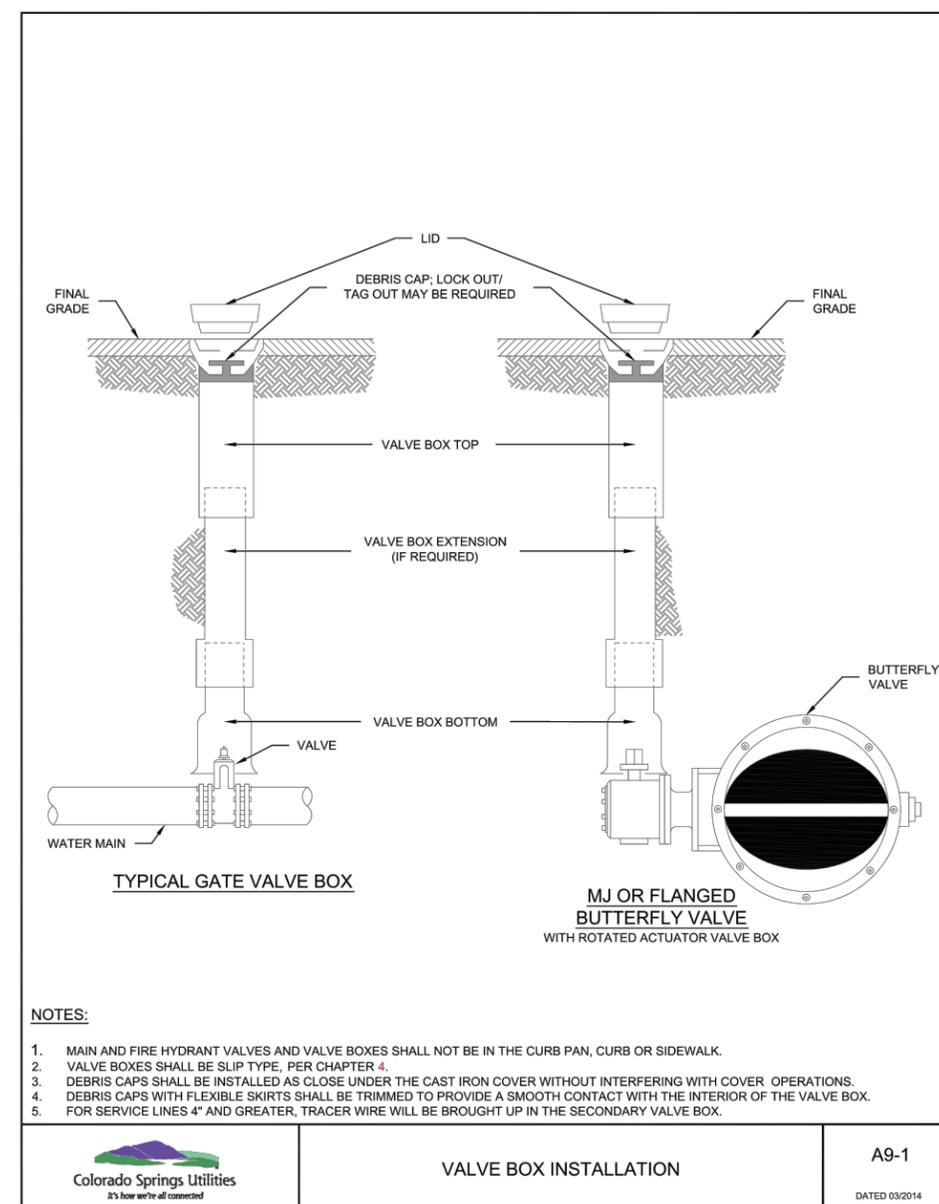
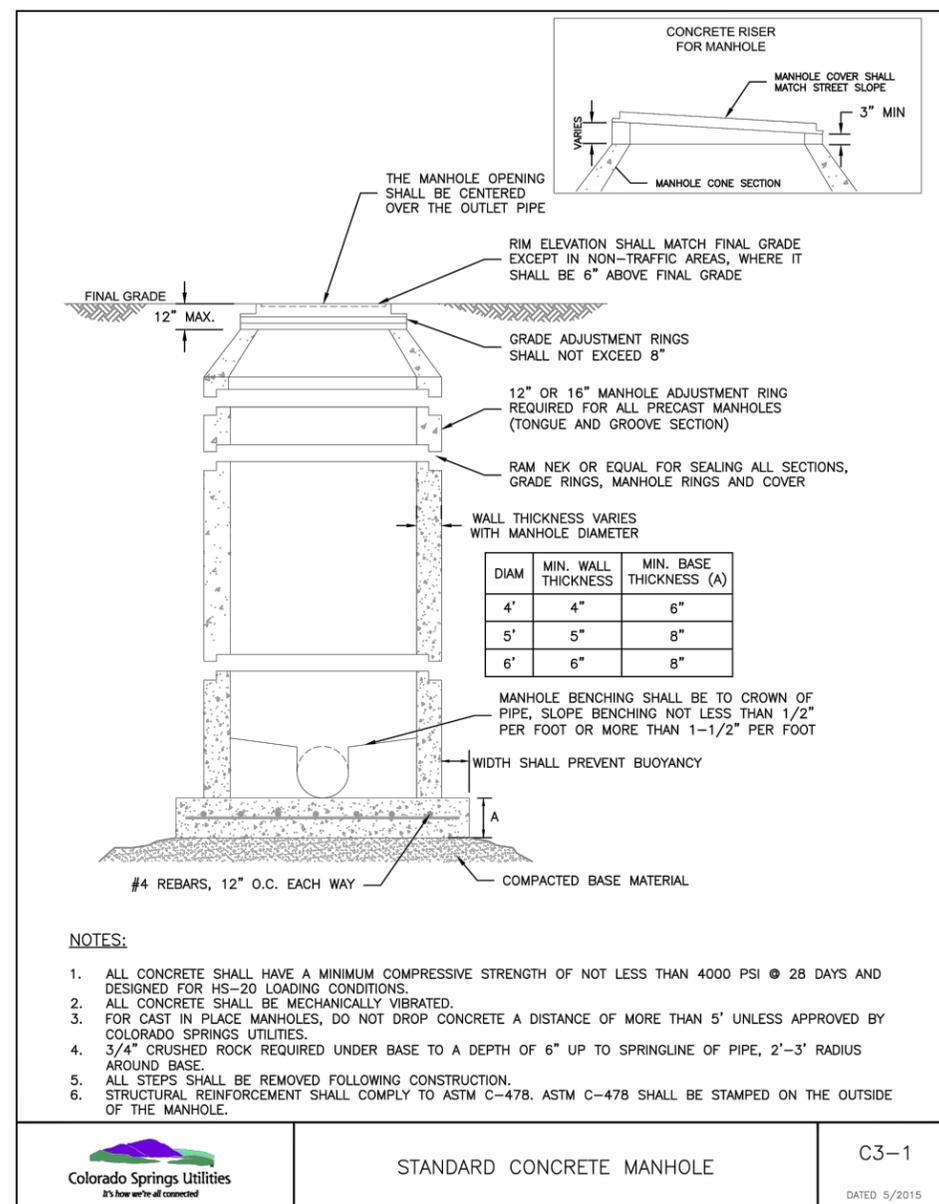
NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

RS&H PROJECT NUMBER  
**224-0124-004**  
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## UTILITY ADJUSTMENT DETAILS

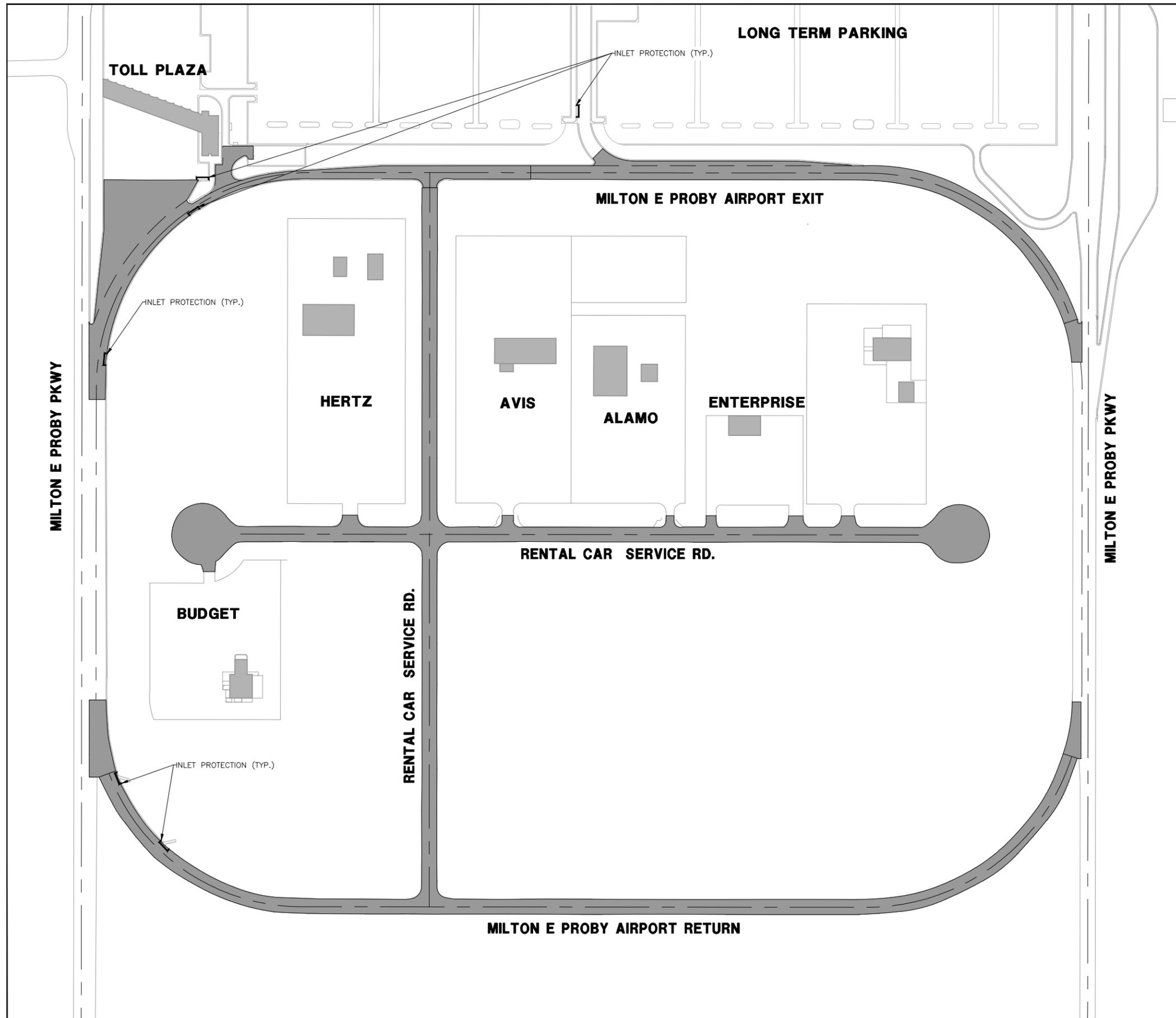
DRAWING NUMBER  
**C213**  
SHEET 16 OF 23  
**BID  
DOCUMENTS**



### NOTES

- THE ABOVE DETAILS ILLUSTRATE TYPICAL INSTALLATIONS OF SANITARY MANHOLES AND WATER VALVES. ACTUAL STRUCTURES MAY VARY. THE CONTRACTOR SHALL INSPECT THE MANHOLES AND VALVE BOXES TO SATISFY THEMSELVES ON THE REQUIREMENTS TO ADJUST TO THE NEW GRADES.
- CONTRACTOR SHALL COORDINATE WITH COLORADO SPRINGS CITY ENGINEERING DEPARTMENT AND COLORADO SPRINGS UTILITIES (CSU) TO OBTAIN ALL NECESSARY PERMITS AND SCHEDULE ANY NECESSARY INSPECTORS PRIOR TO ADJUSTING ANY STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL STRUCTURES PRIOR TO ORDERING ANY MATERIALS FOR UTILITY ADJUSTMENTS, AND SHALL NOTIFY THE ENGINEER IF THERE ARE ANY DISCREPANCIES.
- SEE THE SPECIFICATIONS FOR DETAILED INFORMATION RELATED TO ADJUSTMENT OF THE SANITARY MANHOLES AND WATER VALVES.



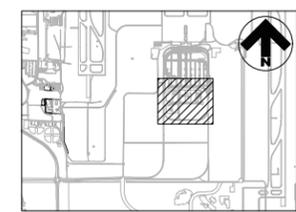
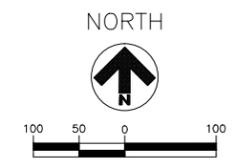


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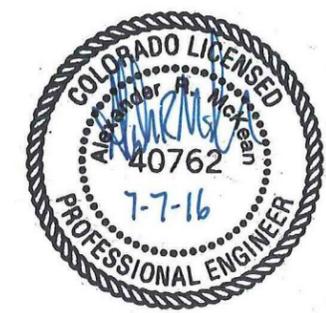
-  INLET PROTECTION
-  WORK AREA

**NOTES:**

1. SEE SHEET C452 FOR EROSION CONTROL NOTES.
2. CONTRACTOR SHALL USE TEMPORARY INLET PROTECTION ON ALL INLETS WITHIN OR ADJACENT TO WORK AREAS.
3. INLET PROTECTION SHALL BE INCLUDED IN THE COST OF 630.16-1.



**KEYMAP**



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**COLORADO SPRINGS AIRPORT**

**RAC LOOP ROAD REHABILITATION**

**SCHEDULE I (BASE BID)**  
REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS

**SCHEDULE I (DEDUCT ALTERNATE 1)**  
REHABILITATE LONG TERM PARKING ENTRANCE LANE

**SCHEDULE I (DEDUCT ALTERNATE 2)**  
REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC

**SCHEDULE II (ADD ALTERNATE 1)**  
REHABILITATE TOLL PLAZA PAVEMENT

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

RS&H PROJECT NUMBER  
**224-0124-004**  
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**EROSION CONTROL PLAN**

DRAWING NUMBER  
**C451**  
SHEET 17 OF 23  
**BID DOCUMENTS**

Drawing: I:\P\2240124\004 Colorado Springs - RAC Loop Road\04\C451-C452.dwg  
 Plotted by: Paley, Jeff  
 Plotted on: 7/7/2016 9:40 AM



**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016

REVIEWED BY: ARM

DRAWN BY: JDP

DESIGNED BY: NKL

RS&H PROJECT NUMBER

224-0124-004

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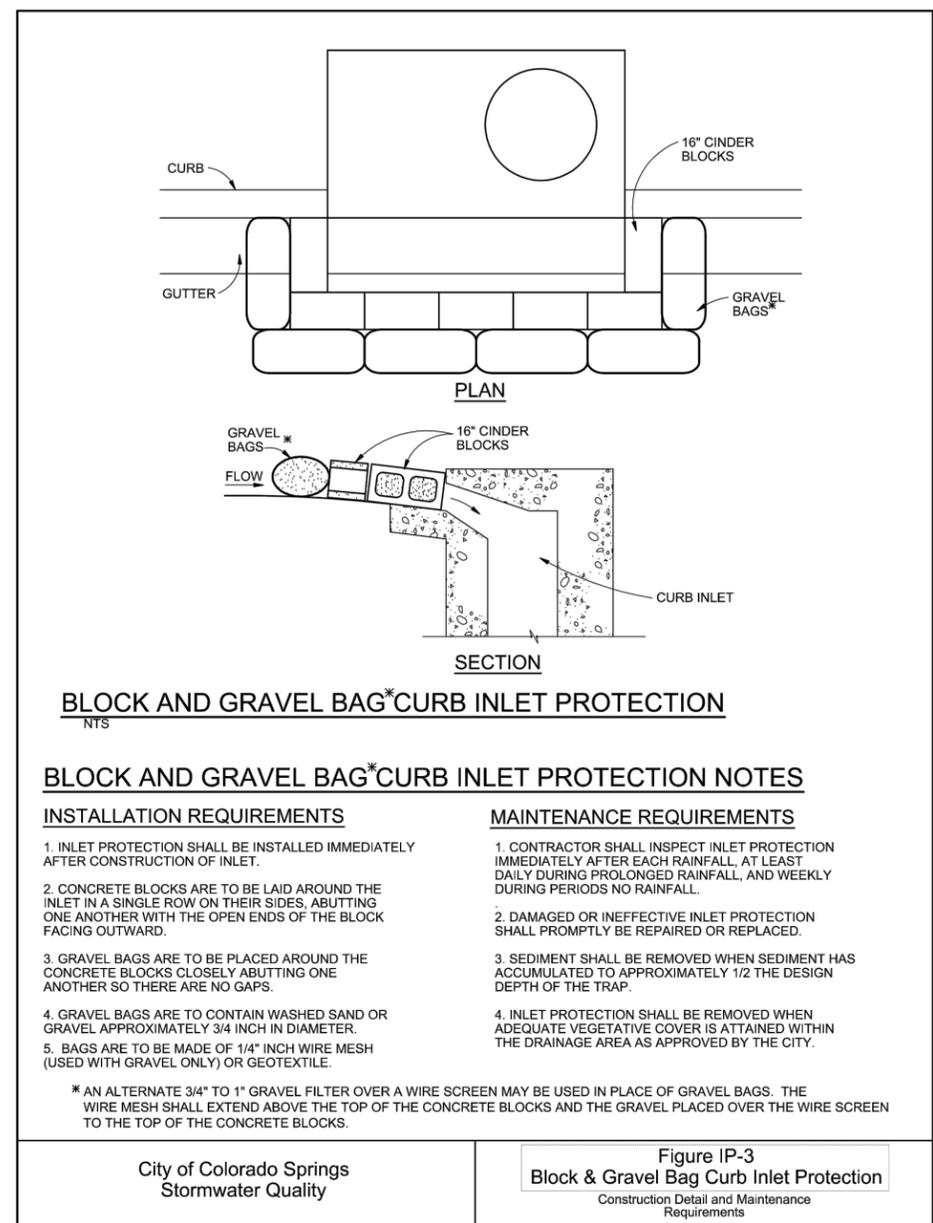
**EROSION  
CONTROL  
DETAILS**

DRAWING NUMBER

C452

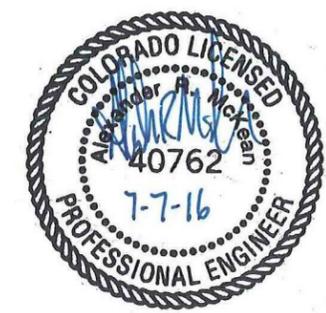
SHEET 18 OF 23

**BID  
DOCUMENTS**



**GENERAL EROSION CONTROL NOTES**

1. THE PURPOSE OF EROSION CONTROL IS TO PREVENT POLLUTION OF BODIES OF WATER ON OR ADJACENT TO THE PROJECT SITE. IN ADDITION, EROSION CONTROL SHALL PREVENT DAMAGE TO ADJACENT PROPERTY, AIRPORT PROPERTY AND WORK IN PROGRESS. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE CITY OF COLORADO SPRINGS EROSION CONTROL MANUAL.
2. CONTRACTOR SHALL REFERENCE THE PRE-CONSTRUCTION ENVIRONMENTAL PLANNING GUIDE IN THE SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR MEETING ALL REQUIREMENTS LISTED.
3. ALL EROSION AND SILTATION MEASURES ARE TO BE PLACED PRIOR TO PLANING AND/OR PAVING OPERATIONS.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT ALL EROSION CONTROL DEVICES DAILY AND AFTER EVERY RAINFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
5. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
6. DURING CONSTRUCTION, ALL STORM DRAIN INLETS WILL BE PROTECTED BY BLOCK AND GRAVEL BAG INLET PROTECTION, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
7. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
8. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION.
9. EROSION CONTROL IS A SUBSIDIARY RESPONSIBILITY OF THE WORK ITEMS IN THIS PROJECT. THERE SHALL BE NO SEPARATE MEASUREMENT OR PAYMENT FOR INSPECTION, MAINTENANCE, REMOVAL AND SITE RESTORATION OF ANY EROSION CONTROL MATERIALS.





**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

RS&H PROJECT NUMBER  
224-0124-004  
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**PAVEMENT  
MARKING PLAN**

(SHEET 1 OF 4)

DRAWING NUMBER

**C701**  
SHEET 19 OF 23

**BID  
DOCUMENTS**

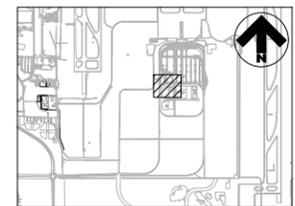
**LEGEND:**

- EXISTING ROADWAY MARKINGS
- NEW ROADWAY MARKINGS
- C1 MARKING CURVE ID SEE CURVE TABLE

**NOTES:**

1. SEE SHEETS C710 FOR ROADWAY MARKING DETAILS.
2. MARKING LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION OF PAINT.

NORTH



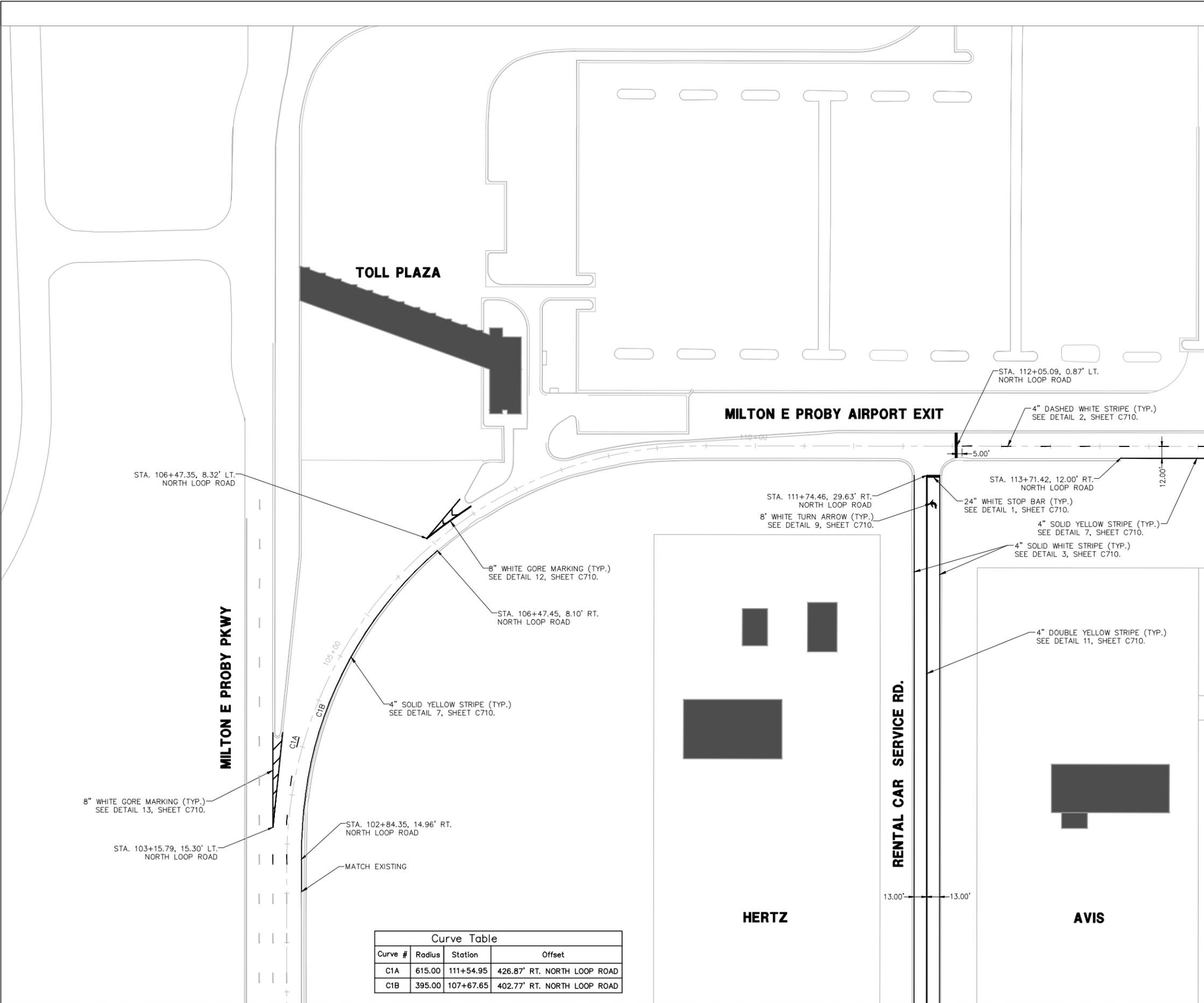
KEYMAP



MATCH LINE - SEE SHEET C702

RENTAL CAR SERVICE RD.

MATCH LINE - SEE SHEET C703



Curve Table			
Curve #	Radius	Station	Offset
C1A	615.00	111+54.95	426.87' RT. NORTH LOOP ROAD
C1B	395.00	107+67.65	402.77' RT. NORTH LOOP ROAD

Drawings: I:\P\2240124\004 Colorado Springs - Rac Loop Road\cad\c701-C704.dwg  
Plotted by: Fouley, Jeff  
Plotted on: 7/7/2016 9:41 AM



**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

RS&H PROJECT NUMBER  
224-0124-004  
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**PAVEMENT  
MARKING PLAN**

**(SHEET 2 OF 4)**

DRAWING NUMBER  
**C702**  
SHEET 20 OF 23  
BID  
DOCUMENTS

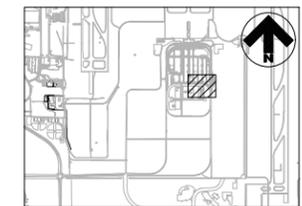
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- EXISTING ROADWAY MARKINGS
- NEW ROADWAY MARKINGS
- C1 MARKING CURVE ID SEE CURVE TABLE

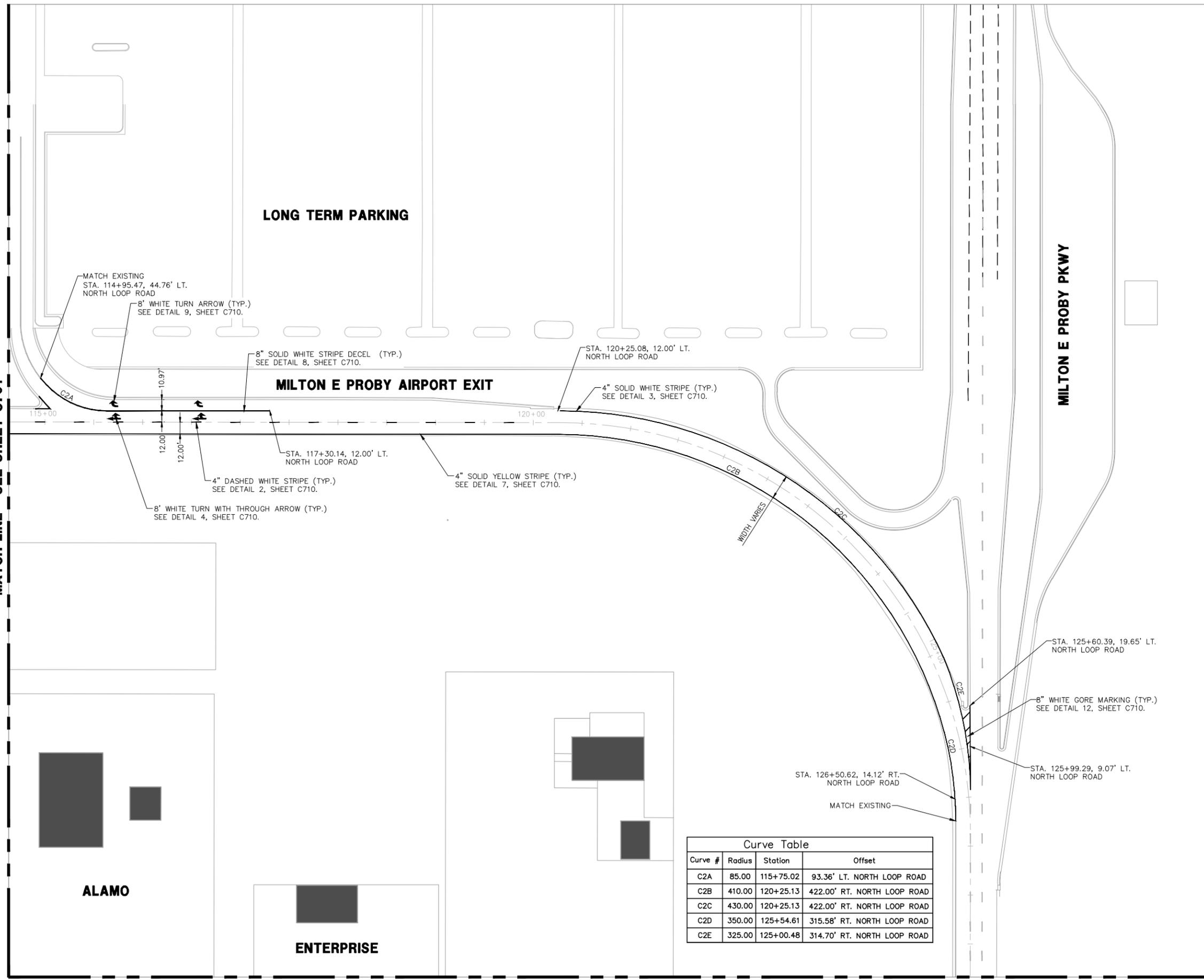
**NOTES:**

1. SEE SHEETS C710 FOR ROADWAY MARKING DETAILS.
2. MARKING LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION OF PAINT.

NORTH



KEYMAP



Curve Table				
Curve #	Radius	Station	Offset	
C2A	85.00	115+75.02	93.36'	LT. NORTH LOOP ROAD
C2B	410.00	120+25.13	422.00'	RT. NORTH LOOP ROAD
C2C	430.00	120+25.13	422.00'	RT. NORTH LOOP ROAD
C2D	350.00	125+54.61	315.58'	RT. NORTH LOOP ROAD
C2E	325.00	125+00.48	314.70'	RT. NORTH LOOP ROAD

MATCH LINE - SEE SHEET C701

MATCH LINE - SEE SHEET C704

MATCH LINE - SEE SHEET C701

**LEGEND:**

-  EXISTING ROADWAY MARKINGS
-  NEW ROADWAY MARKINGS
- C1 MARKING CURVE ID SEE CURVE TABLE



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COLORADO SPRINGS  
AIRPORT

**RAC LOOP ROAD  
REHABILITATION**

**SCHEDULE I (BASE BID)  
REHABILITATE RENTAL  
CAR LOOP ROAD AND  
INTERIOR SERVICE  
ROADS**

**SCHEDULE I (DEDUCT  
ALTERNATE 1)  
REHABILITATE LONG  
TERM PARKING  
ENTRANCE LANE**

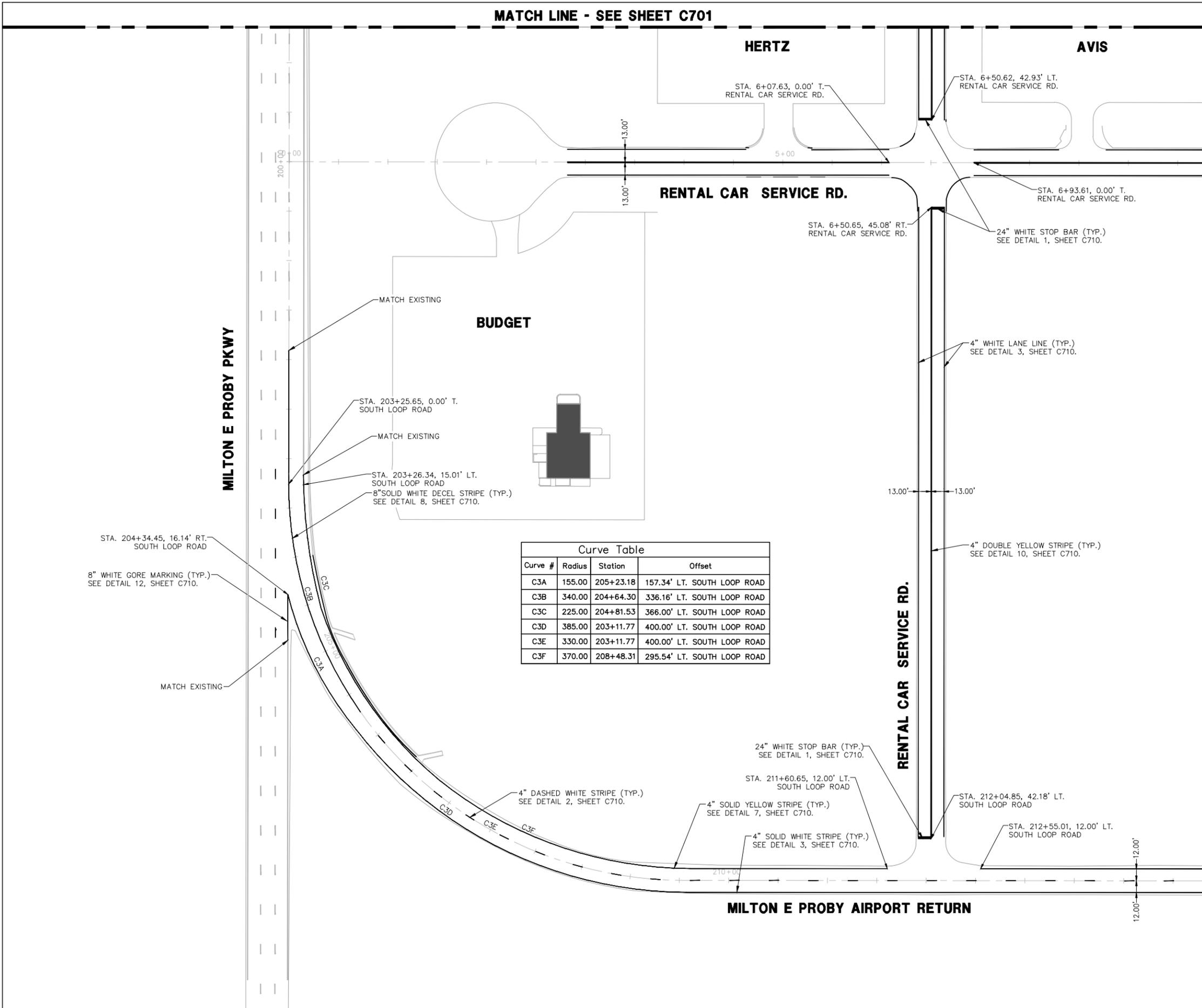
**SCHEDULE I (DEDUCT  
ALTERNATE 2)  
REHABILITATE PORTION  
OF EAST - WEST  
INTERIOR SERVICE  
ROAD & WEST  
CUL-DE-SAC**

**SCHEDULE II (ADD  
ALTERNATE 1)  
REHABILITATE TOLL  
PLAZA PAVEMENT**

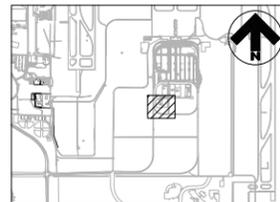
**NOTES:**

1. SEE SHEETS C710 FOR ROADWAY MARKING DETAILS.
2. MARKING LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION OF PAINT.

MATCH LINE - SEE SHEET C704



Curve Table			
Curve #	Radius	Station	Offset
C3A	155.00	205+23.18	157.34' LT. SOUTH LOOP ROAD
C3B	340.00	204+64.30	336.16' LT. SOUTH LOOP ROAD
C3C	225.00	204+81.53	366.00' LT. SOUTH LOOP ROAD
C3D	385.00	203+11.77	400.00' LT. SOUTH LOOP ROAD
C3E	330.00	203+11.77	400.00' LT. SOUTH LOOP ROAD
C3F	370.00	208+48.31	295.54' LT. SOUTH LOOP ROAD



REVISIONS		
NO.	DESCRIPTION	DATE

DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF  
RS&H PROJECT NUMBER  
224-0124-004  
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**PAVEMENT  
MARKING PLAN**

(SHEET 3 OF 4)

DRAWING NUMBER

**C703**

SHEET 21 OF 23

**BID  
DOCUMENTS**

Drawing: I:\P\2240124\004 Colorado Springs - RAC Loop Road\Cad\A\C701-C704.dwg  
Plotted on: 7/7/2016 9:42 AM

MATCH LINE - SEE SHEET C702

ALAMO

ENTERPRISE

RENTAL CAR SERVICE RD.

MILTON E PROBY PKWY

Curve Table				
Curve #	Radius	Station	Offset	
C4A	408.00	220+54.97	420.00' LT. SOUTH LOOP ROAD	
C4B	425.00	227+17.71	420.00' LT. SOUTH LOOP ROAD	
C4C	420.00	220+53.49	395.24' LT. SOUTH LOOP ROAD	

**LEGEND:**

-  EXISTING ROADWAY MARKINGS
-  NEW ROADWAY MARKINGS
- C1 MARKING CURVE ID SEE CURVE TABLE

**NOTES:**

1. SEE SHEETS C710 FOR ROADWAY MARKING DETAILS.
2. MARKING LAYOUT TO BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION OF PAINT.



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COLORADO SPRINGS AIRPORT

**RAC LOOP ROAD REHABILITATION**

**SCHEDULE I (BASE BID) REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS**

**SCHEDULE I (DEDUCT ALTERNATE 1) REHABILITATE LONG TERM PARKING ENTRANCE LANE**

**SCHEDULE I (DEDUCT ALTERNATE 2) REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC**

**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

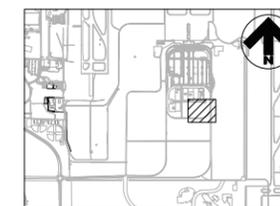
DATE ISSUED: JULY 8, 2016  
REVIEWED BY: ARM  
DRAWN BY: JDP  
DESIGNED BY: JFF

RS&H PROJECT NUMBER  
224-0124-004  
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**PAVEMENT MARKING PLAN**

(SHEET 4 OF 4)

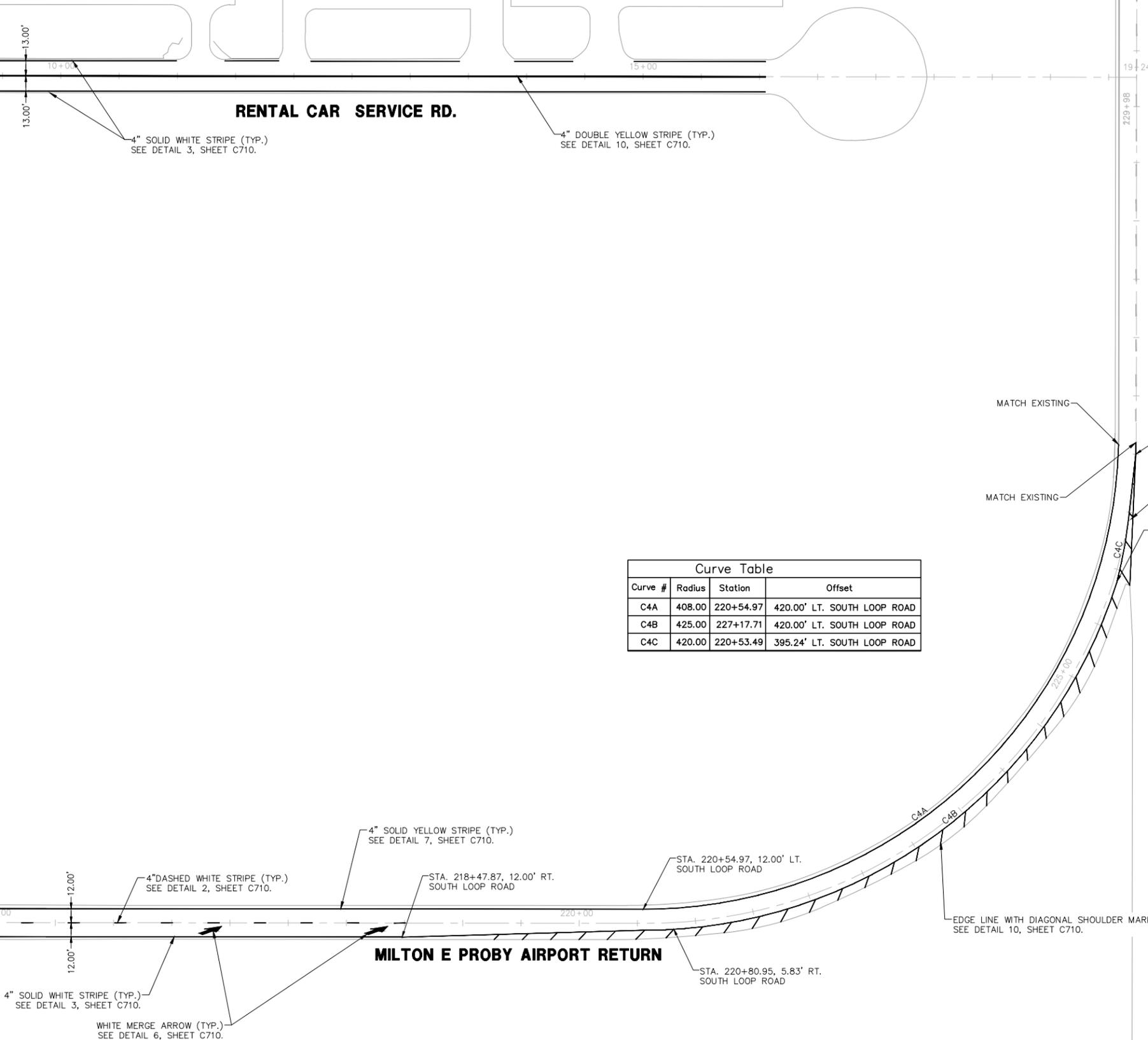
DRAWING NUMBER  
**C704**  
SHEET 22 OF 23  
BID DOCUMENTS



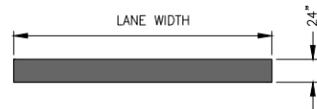
KEYMAP



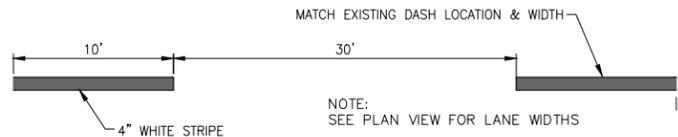
MATCH LINE - SEE SHEET C703



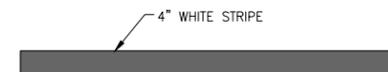
Drawing: I:\P\2240124\004 Colorado Springs - Rac Loop Road\cadd\C701-C704.dwg  
 Plotted by: Pomeroy, Jeff  
 Plotted on: 7/7/2016 9:42 AM



**1 WHITE STOP BAR DETAIL**  
C710 NTS



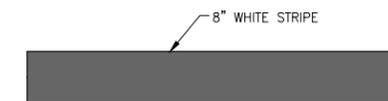
**2 DASHED WHITE STRIPE DETAIL**  
C710 NTS



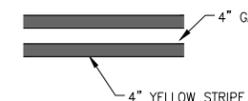
**3 SOLID WHITE STRIPE DETAIL**  
C710 NTS



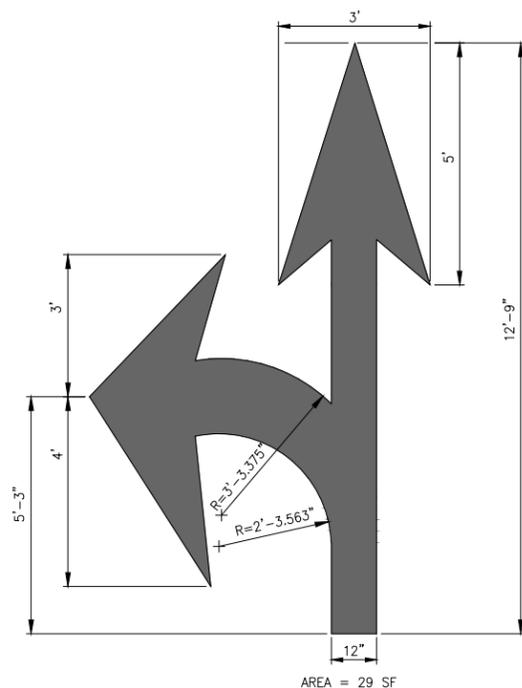
**7 SOLID YELLOW STRIPE DETAIL**  
C710 NTS



**8 SOLID WHITE STRIPE DECEL DETAIL**  
C710 NTS

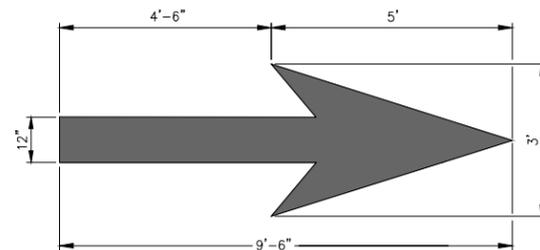


**11 DOUBLE YELLOW STRIPE DETAIL**  
C710 NTS

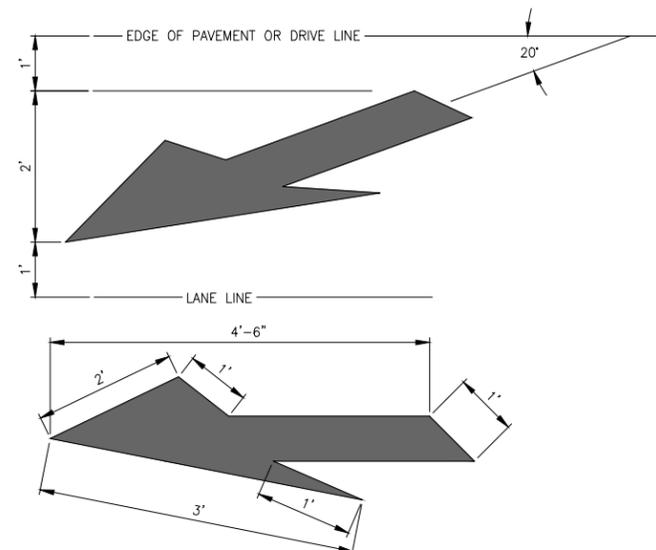


**4 WHITE TURN WITH THROUGH ARROW DETAIL**  
C710 NTS

NOTE:  
MIRROR AS REQUIRED FOR LEFT OR  
RIGHT ARROW AS SHOWN ON PLANS



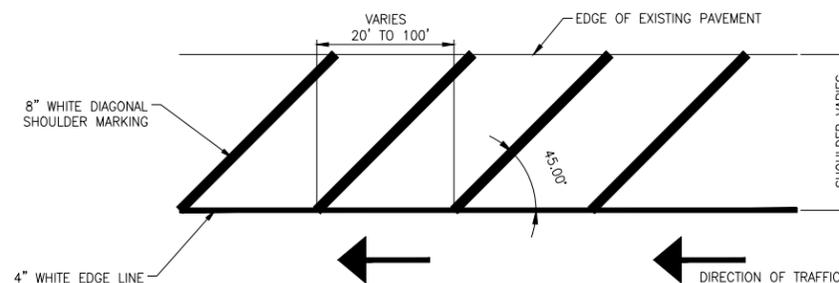
**5 WHITE THROUGH ARROW DETAIL**  
C710 NTS



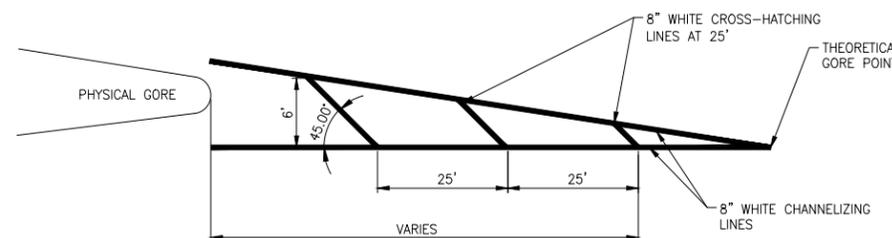
**6 WHITE MERGE ARROW DETAIL**  
C710 NTS

**GENERAL MARKING NOTES:**

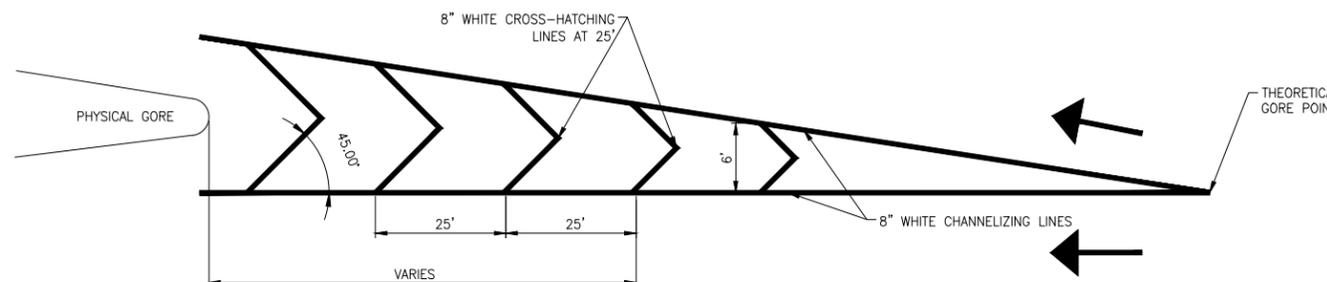
1. ALL MARKINGS TO RECEIVE TYPE I GLASS BEADS.
2. PAINT LAYOUT (CHALKED) SHALL BE APPROVED BY THE OWNER PRIOR TO PAINTING.



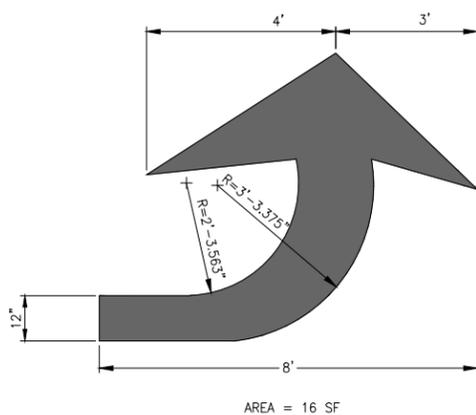
**10 EDGE LINE WITH DIAGONAL SHOULDER MARKING**  
C710 NTS



**13 GORE MARKINGS - 2**  
C710 NTS



**12 GORE MARKINGS - 1**  
C710 NTS



**9 WHITE TURN ARROW DETAIL**  
C710 NTS

NOTE:  
MIRROR AS REQUIRED FOR LEFT OR RIGHT ARROW AS  
SHOWN ON PLANS



**RAC LOOP ROAD REHABILITATION**

**SCHEDULE I (BASE BID) REHABILITATE RENTAL CAR LOOP ROAD AND INTERIOR SERVICE ROADS**

**SCHEDULE I (DEDUCT ALTERNATE 1) REHABILITATE LONG TERM PARKING ENTRANCE LANE**

**SCHEDULE I (DEDUCT ALTERNATE 2) REHABILITATE PORTION OF EAST - WEST INTERIOR SERVICE ROAD & WEST CUL-DE-SAC**

**SCHEDULE II (ADD ALTERNATE 1) REHABILITATE TOLL PLAZA PAVEMENT**

**REVISIONS**

NO.	DESCRIPTION	DATE

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**PAVEMENT MARKING DETAILS**

DRAWING NUMBER  
**C710**  
SHEET 23 OF 23  
**BID DOCUMENTS**

