

Developing a Sign Plan



Determine Scope

Will the sign plan encompass:

- An entire Field Office Area ?
- An ACEC?
- WSA?
- Campground?



Research and Data Collection

1. Review the Resource Management Plan
2. Complete a Sign Inventory
3. Produce a Map

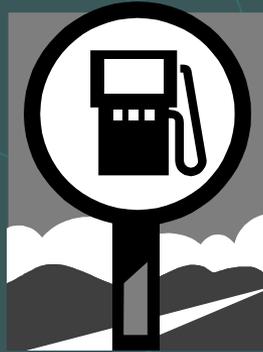


Consider Relevant Variables for the site:

- What types of users are expected in the area?
- What is the climate?
- What are the resources (trails in the area, hazards, recreation opportunities, available services/facilities)?

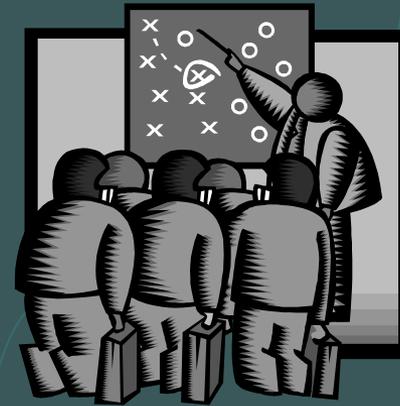
Determine Objectives

- Are signs needed to provide information, improve safety or identify a place or feature?



Develop Strategy

1. Determine what messages to convey.
2. Determine the most effective location to present information.
3. Determine the material to use and any special design character



Prepare the Plan

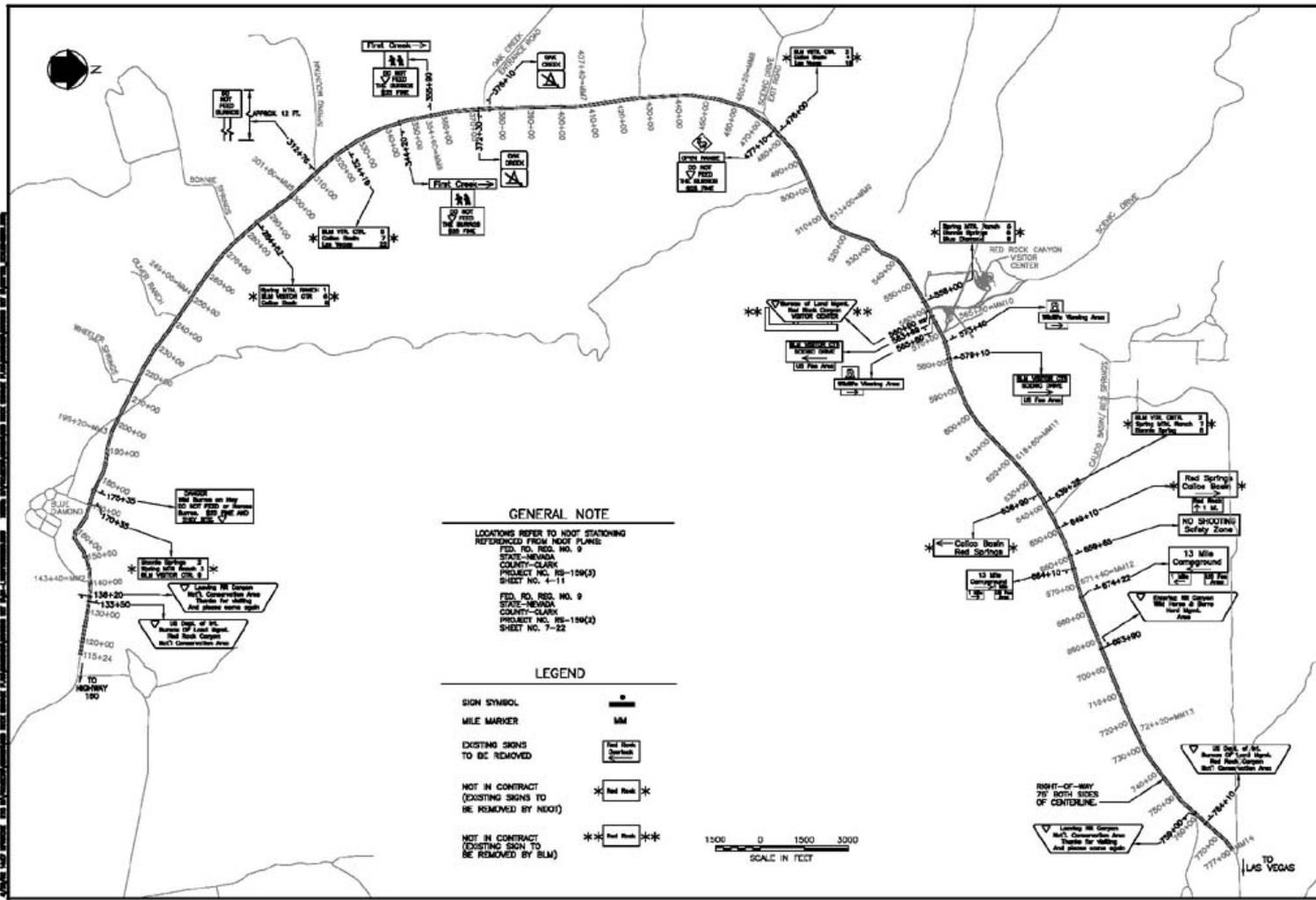
- Include narrative describing objectives and planning criteria
- Show project limits
- Include the inventory
- Show proposed locations and sign content
- Show proposed graphic layout for each sign (schematic ok)
- Include a sign schedule (list of all signs, messages, materials and quantity)
- Include cost estimate
- Include a maintenance plan



Review Your Proposal

1. Does the plan meet applicable regulations:
 - MUTCD
 - BLM
 - State Highway R.O.W
 - NEPA
2. Does the plan meet budget concerns
3. Does the plan satisfy the goals of the Resource Management Plan





UNITED STATES DEPARTMENT OF TRANSPORTATION
BUREAU OF LAND MANAGEMENT

DRAWING SET B1
HIGHWAY 159 SIGN DEMOLITION PLAN
RED ROCK CANYON NATIONAL CONSERVATION AREA

LAS VEGAS DISTRICT
NEVADA

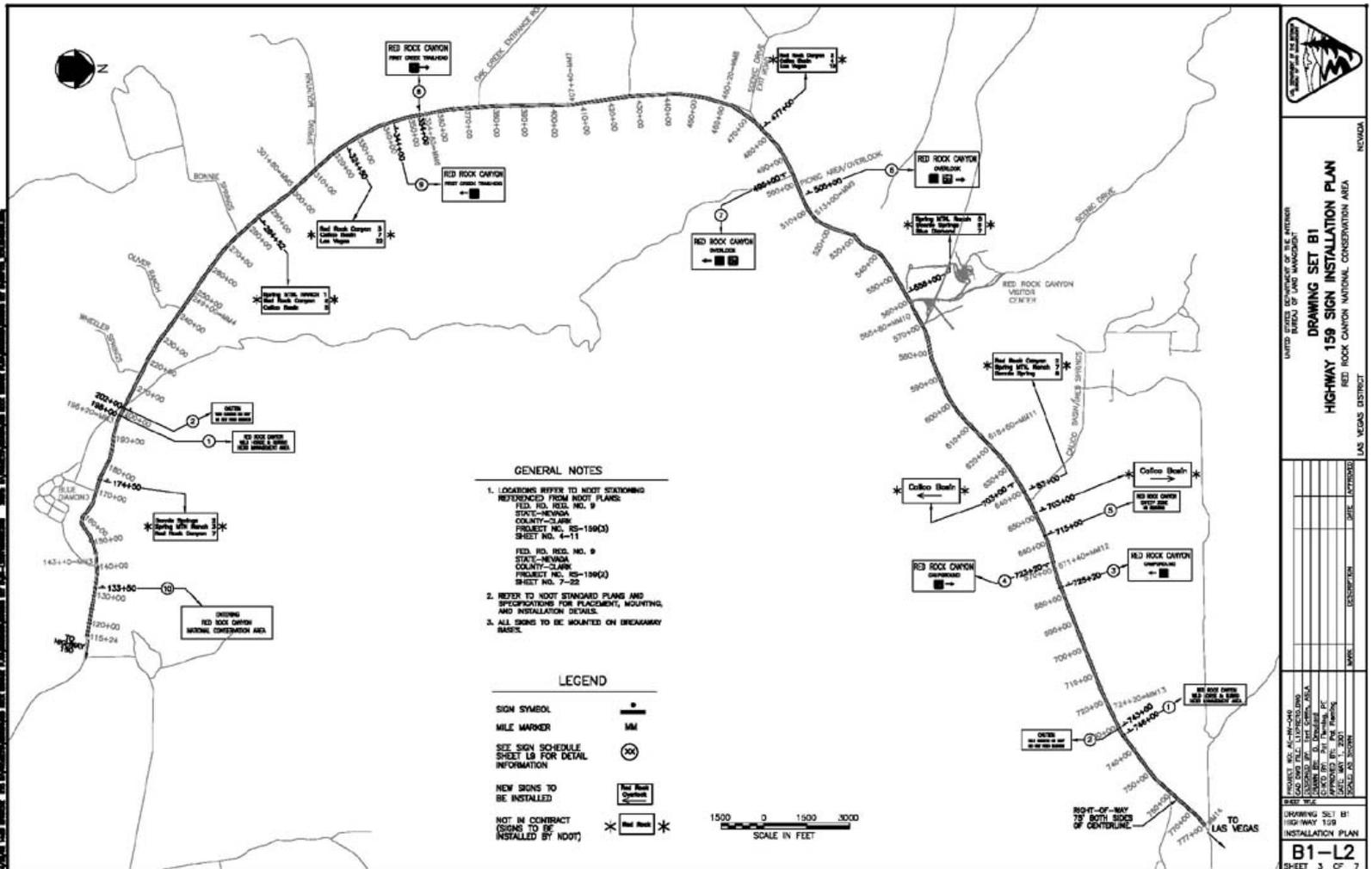
NO.	DESCRIPTION	DATE	BY

PROJECT NO. 15-159-000
CONTRACT NO. 15-159-000
DRAWING SET B1
DRAWING NO. B1-11
DATE: APR 1, 2011
SCALE: AS SHOWN

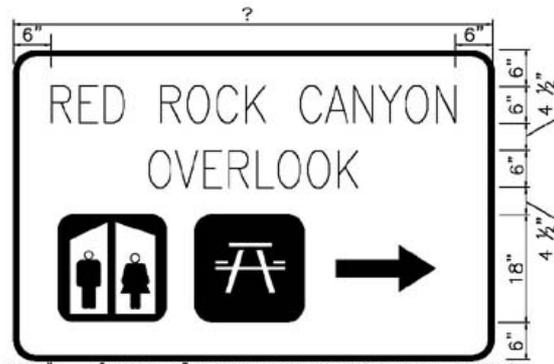
DATE: 04/01/11
DRAWING SET: B1
HIGHWAY 159
DEMOLITION PLAN

B1-L1
SHEET 2 OF 7

Sign Inventory



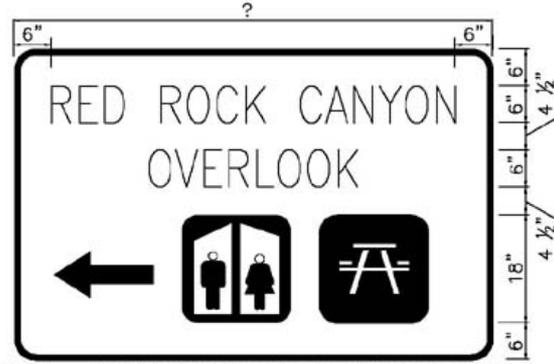
Proposed Sign Locations



SIGN #6 - 6" RADIUS, 1" BORDER, WHITE ON BROWN, MUTCD SERIES C FONT. STANDARD ARROW SEE SHEET B1-L5



SIGN #8 - 6" RADIUS, 1" BORDER, WHITE ON BROWN, MUTCD SERIES C FONT. STANDARD ARROW SEE SHEET B1-L5



SIGN #7 - 6" RADIUS, 1" BORDER, WHITE ON BROWN, MUTCD SERIES C FONT. STANDARD ARROW SEE SHEET B1-L5



SIGN #9 - 6" RADIUS, 1" BORDER, WHITE ON BROWN, MUTCD SERIES C FONT. STANDARD ARROW SEE SHEET B1-L5

NOTES:

1. IMAGE SHOWN IS REVERSE NEGATIVE OF ACTUAL SIGN COLOR.
2. SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR MUTCD SERIES C FONT.

NOTES: THIS DRAWING IS A PRELIMINARY DESIGN AND SHOULD NOT BE USED FOR CONSTRUCTION OF SIGNS WITHOUT THE APPROVAL OF THE DESIGNER.



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DRAWING SET B1 - SIGN LAYOUT
RED ROCK CANYON NATIONAL CONSERVATION AREA

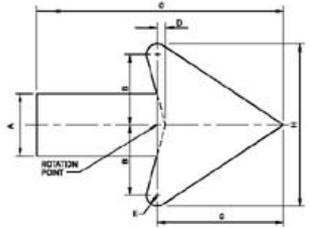
NO.	DESCRIPTION	DATE	BY

PROJECT NO. AL-100-004
CONTRACT FILE NO. 100-100-004
DRAWING NO. B1-L4
CHECKED BY: J. L. SMITH
DATE: 10/11/2001
SCALE: AS SHOWN

B1-L4
DRAWING SET B1
SIGN LAYOUT
HIG-100-150
SHEET 5 OF 7

Sign Content and Layout

SIGN SCHEDULE									
SIGN NO.	DESCRIPTION	QUANTITY	SIGN LOCATION	MOUNTING AND INSTALLATION DETAILS	SHAPE	COLORS	ROAD CATEGORY	SIZE/MUTCD #	SIGN SUPPLY
1	LINE 1: RED ROCK CANYON	2	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN	HWY 158 CATEGORY 1 48-85MPH	6" UPPERCASE LETTERS Lst = 7	GOVERNMENT FURNISHED
	LINE 2: WILD HORSE & BURRO								
	LINE 3: HERD MANAGEMENT AREA								
2	LINE 1: CAUTION	2	SHEET B1-12	SHEET B1-13	[Symbol]	BLACK ON YELLOW	HWY 158 CATEGORY 1 48-85MPH	6" UPPERCASE LETTERS Lst = 7	GOVERNMENT FURNISHED
	LINE 2: WILD BURROS ON HWY								
	LINE 3: DO NOT FEED BURROS								
3	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS)	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 48-85MPH	18" x 18" SYMBOL SYMBOL# RS-038 Lst = 7	GOVERNMENT FURNISHED
	LINE 2: CAMPGROUND (6" UPPERCASE LETTERS)								
	LINE 3: CAMPGROUND SYMBOL								
4	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS)	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 48-85MPH	18" x 18" SYMBOL SYMBOL# RS-038 Lst = 7	GOVERNMENT FURNISHED
	LINE 2: CAMPGROUND (6" UPPERCASE LETTERS)								
	LINE 3: CAMPGROUND SYMBOL								
5	LINE 1: RED ROCK CANYON	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN	HWY 158 CATEGORY 1 48-85MPH	6" UPPERCASE LETTERS Lst = 7	GOVERNMENT FURNISHED
	LINE 2: SAFETY ZONE								
	LINE 3: NO SHOPIPING								
6	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS)	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 48-85MPH	18" x 18" SYMBOL SYMBOL# RS-044 SYMBOL# RS-022 Lst = 7	GOVERNMENT FURNISHED
	LINE 2: OVERLOOK (6" UPPERCASE LETTERS)								
	LINE 3: RESTROOMS SYMBOL, PICNIC AREA SYMBOL								
7	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS)	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 48-85MPH	18" x 18" SYMBOL SYMBOL# RS-044 SYMBOL# RS-022 Lst = 7	GOVERNMENT FURNISHED
	LINE 2: OVERLOOK (6" UPPERCASE LETTERS)								
	LINE 3: RESTROOMS SYMBOL, PICNIC AREA SYMBOL								
8	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS)	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 48-85MPH	18" x 18" SYMBOL SYMBOL# RS-044 SYMBOL# RS-022 Lst = 7	GOVERNMENT FURNISHED
	LINE 2: FIRST CHECK TRAILHEAD (6" UPPERCASE LETTERS)								
	LINE 3: HIKING TRAIL SYMBOL								
9	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS)	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 48-85MPH	18" x 18" SYMBOL SYMBOL# RS-044 SYMBOL# RS-022 Lst = 7	GOVERNMENT FURNISHED
	LINE 2: FIRST CHECK TRAILHEAD (6" UPPERCASE LETTERS)								
	LINE 3: HIKING TRAIL SYMBOL								
10	LINE 1: ENTRANCE	1	SHEET B1-12	SHEET B1-13	[Symbol]	WHITE ON BROWN	HWY 158 CATEGORY 1 48-85MPH	6" UPPERCASE LETTERS Lst = 7	GOVERNMENT FURNISHED
	LINE 2: RED ROCK CANYON								
	LINE 3: NATIONAL CONSERVATION AREA								



STANDARD UNIFORM TRAFFIC CONTROL DEVICES ARROW
NOT TO SCALE

GENERAL NOTES

1. ALL SIGNS TO BE GOVERNMENT FURNISHED, CONTRACTOR INSTALLER.
2. ALL SIGN POSTS, MOUNTING HARDWARE, AND FOUNDATION MATERIALS TO BE CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
3. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR REGULATORY SIGN CODE DESIGNATIONS.
4. REFER TO NEVADA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS FOR PLACEMENT, MOUNTING, AND INSTALLATION DETAILS.

POST SELECTION CHART

SIGN AREA (a) (m ²)	H(n)					
	6<ch<8.4	2.4<ch<3.0	3.0<ch<3.5	3.6<ch<4.2	4.2<ch<4.5	4.5<ch<5.0
0<cc<0.6	A	A	A	A	A	A
0.6<cc<1.0	A	A	A	A	A	A
1.0<cc<1.2	A	A	A	A	A	A
1.2<cc<1.4	A	A	A	A	A	A
1.4<cc<1.6	A	A	A	A	A	A
1.6<cc<1.8	A	A	A	A	A	A
1.8<cc<2.0	A	A	A	A	A	A
2.0<cc<2.3	A	A	A	A	A	A
2.3<cc<2.6	A	A	A	A	A	A
2.6<cc<3.0	A	A	A	A	A	A
3.0<cc<3.5	A	A	A	A	A	A
3.5<cc<4.0	A	A	A	A	A	A
4.0<cc<4.5	A	A	A	A	A	A
4.5<cc<5.0	A	A	A	A	A	A

POST SELECTION CHART

POST TYPE	DESCRIPTION	REFERENCE SHEET
A	64 mm Square Metal Post (2.8 mm)-single post	T-31.2.1
B	64mm Square Metal Post (3.5 mm)-single post	T-31.2.1
C	Single Post Unbraced NPS3 Round MetalPost	T-31.3.1 thru T-31.3.2
D	Double Post Unbraced NPS3 Round MetalPost	T-31.3.1 thru T-31.3.2
E	Double Post Braced (See Note 4) Post-NPS3 Round MetalPost Brace-NPS3 Round MetalPost	T-31.4.1 thru T-31.4.3
F	SpecialDesign contact Traffic engineering	

- GENERAL NOTES:**
1. Sign area is total of Major & Secondary signs.
 2. Alternate posts must be approved by Traffic Engineering.
 3. NPS = Standard Pipe sizes, see ASTM-A-33
 4. For double post braced supports, minimum 'c' > clear zone width maximum of 9 m, except when protected by guardrail or barrier rail. For clear zone widths, refer to AASHTO Roadside Design Guide 1994 Ed. Chapter 3.

LETTER SIZE (UPPER CASE)	ARROW SPECIFICATIONS							
	A	B	C	D	E	G	H	
1/2"	3/16"	3/32"	3/8"	1/32"	1/32"	3/4"	1/2"	
3/4"	9/32"	7/16"	9/16"	3/64"	1/16"	1-1/8"	3/4"	
1"	5/8"	7/8"	3/4"	1/16"	5/64"	1-1/2"	1-1/32"	
1-1/4"	9/16"	5/8"	1-1/8"	1/8"	1/8"	2-1/4"	1-1/2"	
2-1/4"	7/8"	1"	1-3/4"	3/16"	3/16"	3-1/2"	2-3/8"	
4"	2-1/4"	2-5/8"	4-1/2"	3/8"	7/16"	6"	6-1/8"	
6"	3-5/16"	3-13/16"	6-11/16"	1/2"	11/16"	13-5/16"	8"	

LAYOUT CHART - ROAD SIGNS

ROAD TYPE	NO LETTER	MINIMUM SPACE	MINIMUM PLATE	SIZE OF SCHEDULE	CORNER RADIUS	ARROW LENGTH	ARROW WIDTH
6"	6"	4" MIN	18"	1"	6"	13.5MIN	8"



UNIVERSITY OF NEVADA
SCHOOL OF CIVIL AND ENVIRONMENTAL ENGINEERING

DRAWING SET B1 - SIGN SCHEDULE
RED ROCK CANYON NATIONAL CONSERVATION AREA

LAS VEGAS DISTRICT

NO.	DESCRIPTION	DATE

PROJECT: RED ROCK CANYON
CONTRACT NO. 110-1000
DRAWING NO. B1-15
SHEET NO. 6 OF 7

DATE: 11/15/01
DRAWN BY: J. L. BROWN
CHECKED BY: J. L. BROWN
DATE: 11/15/01
SCALE: AS SHOWN

B1-15
SHEET 6 OF 7

Sign Schedule

MESSAGE

COLORS

SIGN SCHEDULE									
SIGN NO.	DESCRIPTION	QUANTITY	SIGN LOCATION	MOUNTING AND INSTALLATION DETAILS	SHAPE	COLORS	ROAD CATEGORY	SIZE/MATCH #	SIGN SUPPLY
1	LINE 1: RED ROCK CANYON LINE 2: WILD HORSE & BURRO LINE 3: HERD MANAGEMENT AREA	2	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN	HWY 158 CATEGORY 1 45-85MPH	6" UPPERCASE LETTERS LxH = 7	GOVERNMENT FURNISHED
2	LINE 1: CAUTION LINE 2: WILD BURROS ON HWY LINE 3: DO NOT FEED BURROS	2	SHEET B1-L2	SHEET B1-L3		BLACK ON YELLOW	HWY 158 CATEGORY 1 45-85MPH	6" UPPERCASE LETTERS LxH = 7	GOVERNMENT FURNISHED
3	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS) LINE 2: CAMPGROUND (6" UPPERCASE LETTERS) LINE 3: ← CAMPGROUND SYMBOL	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 45-85MPH	18" X 18" SYMBOL SYMBOL #: RS-036 LxH = 7	GOVERNMENT FURNISHED
4	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS) LINE 2: CAMPGROUND (6" UPPERCASE LETTERS) LINE 3: CAMPGROUND SYMBOL →	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 45-85MPH	18" X 18" SYMBOL SYMBOL #: RS-036 LxH = 7	GOVERNMENT FURNISHED
5	LINE 1: RED ROCK CANYON LINE 2: SAFETY ZONE LINE 3: NO SHOOTING	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN	HWY 158 CATEGORY 1 45-85MPH	6" UPPERCASE LETTERS LxH = 7	GOVERNMENT FURNISHED
6	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS) LINE 2: OVERLOOK (6" UPPERCASE LETTERS) LINE 3: RESTROOMS SYMBOL, PICNIC AREA SYMBOL →	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 45-85MPH	18" X 18" SYMBOL SYMBOL #: RS-044 SYMBOL #: RS-022 LxH = 7	GOVERNMENT FURNISHED
7	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS) LINE 2: OVERLOOK (6" UPPERCASE LETTERS) LINE 3: ← RESTROOMS SYMBOL, PICNIC AREA SYMBOL	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 45-85MPH	18" X 18" SYMBOL SYMBOL #: RS-044 SYMBOL #: RS-022 LxH = 7	GOVERNMENT FURNISHED
8	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS) LINE 2: FIRST CREEK TRAILHEAD (6" UPPERCASE LETTERS) LINE 3: HIKING TRAIL SYMBOL →	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 45-85MPH	18" X 18" SYMBOL SYMBOL #: RS-066 LxH = 7	GOVERNMENT FURNISHED
9	LINE 1: RED ROCK CANYON (6" UPPERCASE LETTERS) LINE 2: FIRST CREEK TRAILHEAD (6" UPPERCASE LETTERS) LINE 3: ← HIKING TRAIL SYMBOL	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN, SILVER WHITE SYMBOL OR BROWN BACKGROUND	HWY 158 CATEGORY 1 45-85MPH	18" X 18" SYMBOL SYMBOL #: RS-066 LxH = 7	GOVERNMENT FURNISHED
10	LINE 1: ENTERING LINE 2: RED ROCK CANYON LINE 3: NATIONAL CONSERVATION AREA	1	SHEET B1-L2	SHEET B1-L3		WHITE ON BROWN	HWY 158 CATEGORY 1 45-85MPH	6" UPPERCASE LETTERS LxH = 7	GOVERNMENT FURNISHED

QUANTITY

SIZE

LOCATION

SHAPE

Sign Schedule- Detail

Implement the Plan

- Order Signs.
- Install Signs.
- Develop program to continuously evaluate signs
- Actively maintain and replace your signs



Final Thoughts

Consider the Message! 😊



It Pays to Plan! ☺

