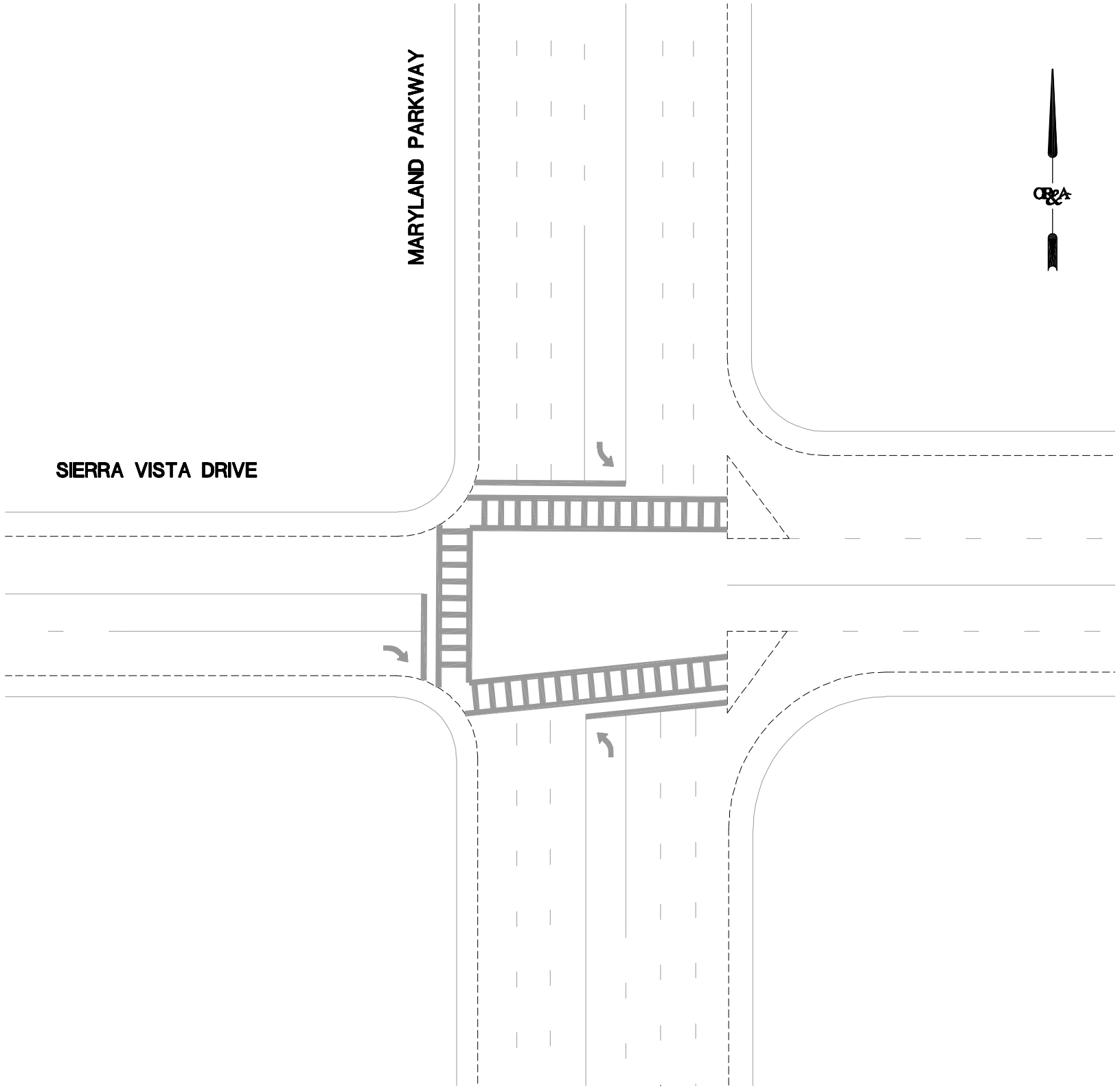

SITE #1 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
N	HIGH VISIBILITY CROSSWALK TREATMENT	4	LEG	4,000	16,000
W	PEDESTRIAN COUNTDOWN SIGNALS	8	EA	450	3,600
X	ENLARGED PEDESTRIAN SIGNAL HEADS	8	EA	2,000	16,000
				SUB TOTAL ($)	35,600
				CONTINGENCY @ 20% =	7,120
				DESIGN FEE @ 15% =	6,408
				CM & INSPECTION @ 10% =	4,272
				TOTAL ($)	53,400

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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3030 North Rocky Point Drive West, Suite 265 Tampa, FL 33607

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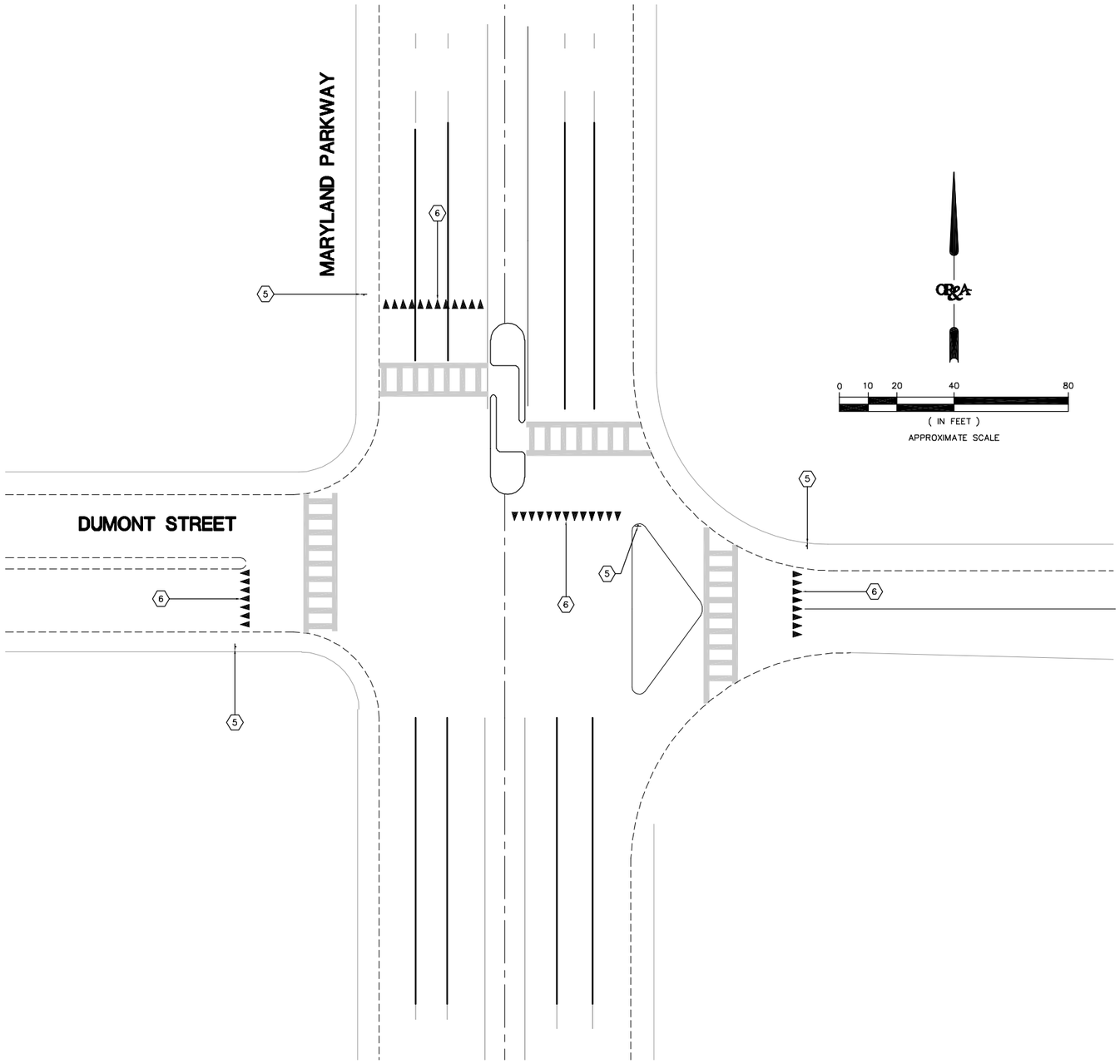
FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
MARYLAND PARKWAY AND SIERRA VISTA DRIVE

SITE NUMBER
1
SHEET OF



CONSTRUCTION NOTES

5. INSTALL REGULATORY SIGN PER CCUSD (SIGN TO BE PROVIDED TO CONTRACTOR BY COUNTY)
6. INSTALL TYPE I RETROREFLECTIVE PAVEMENT MARKING FIL (24" X 36" HEIGHT SOLID WHITE ISOSCLES TRIANGLE YIELD MARKINGS WITH 12" SPACING) PER MUTCD SECTION 38.16

STAGE 2

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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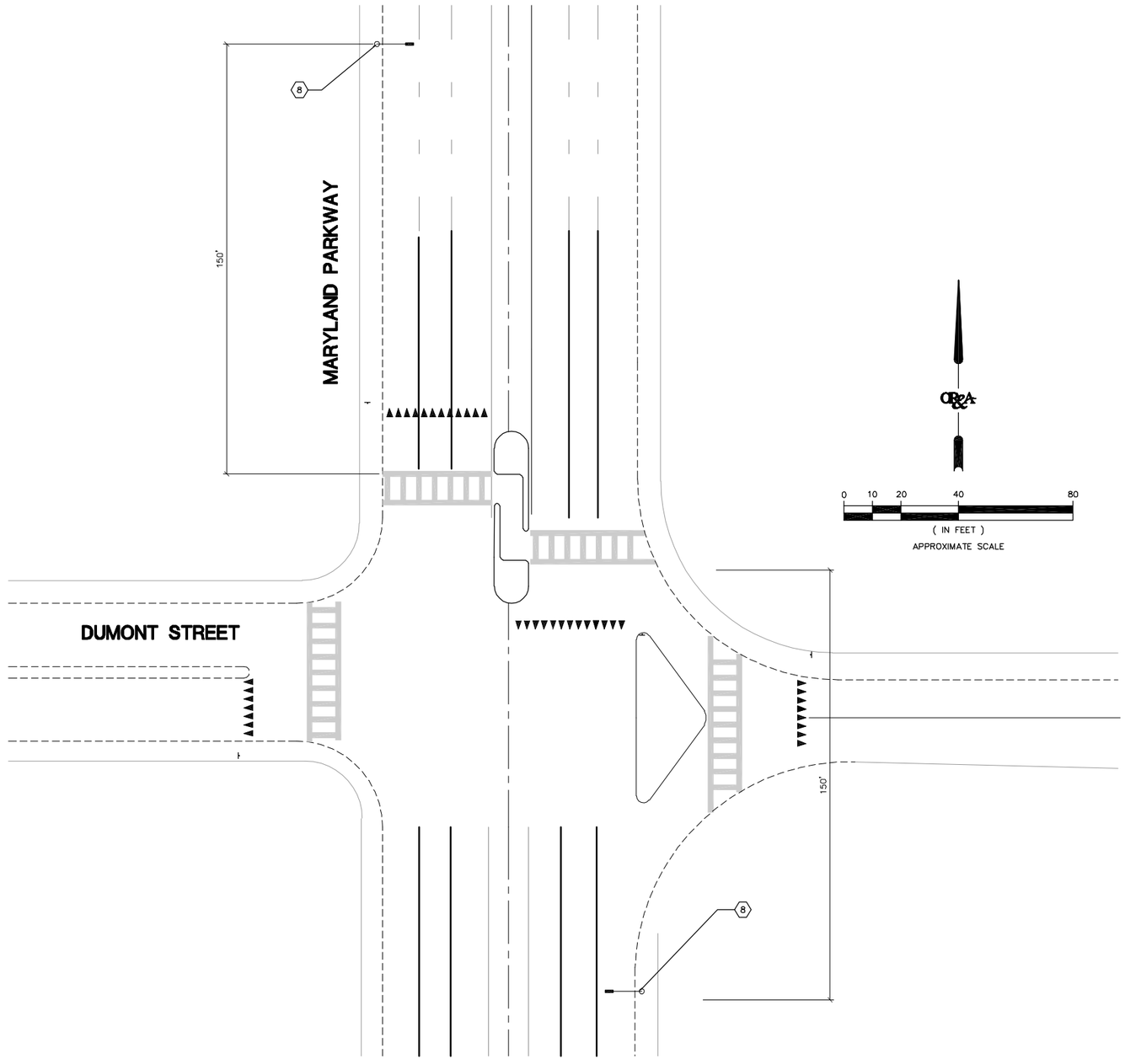
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
MARYLAND PARKWAY AND DUMONT STREET

DRAWING NUMBER

2

SHEET 2 OF 3



CONSTRUCTION NOTES

(8) INSTALL PEDESTRIAN ACTIVATED FLASHING 150' IN ADVANCE OF THE CROSSWALK PER CC PLAN SET SHEET T-2 PROJECT L-1816 OF 2006 TCIP-PHASE 3

STAGE 3

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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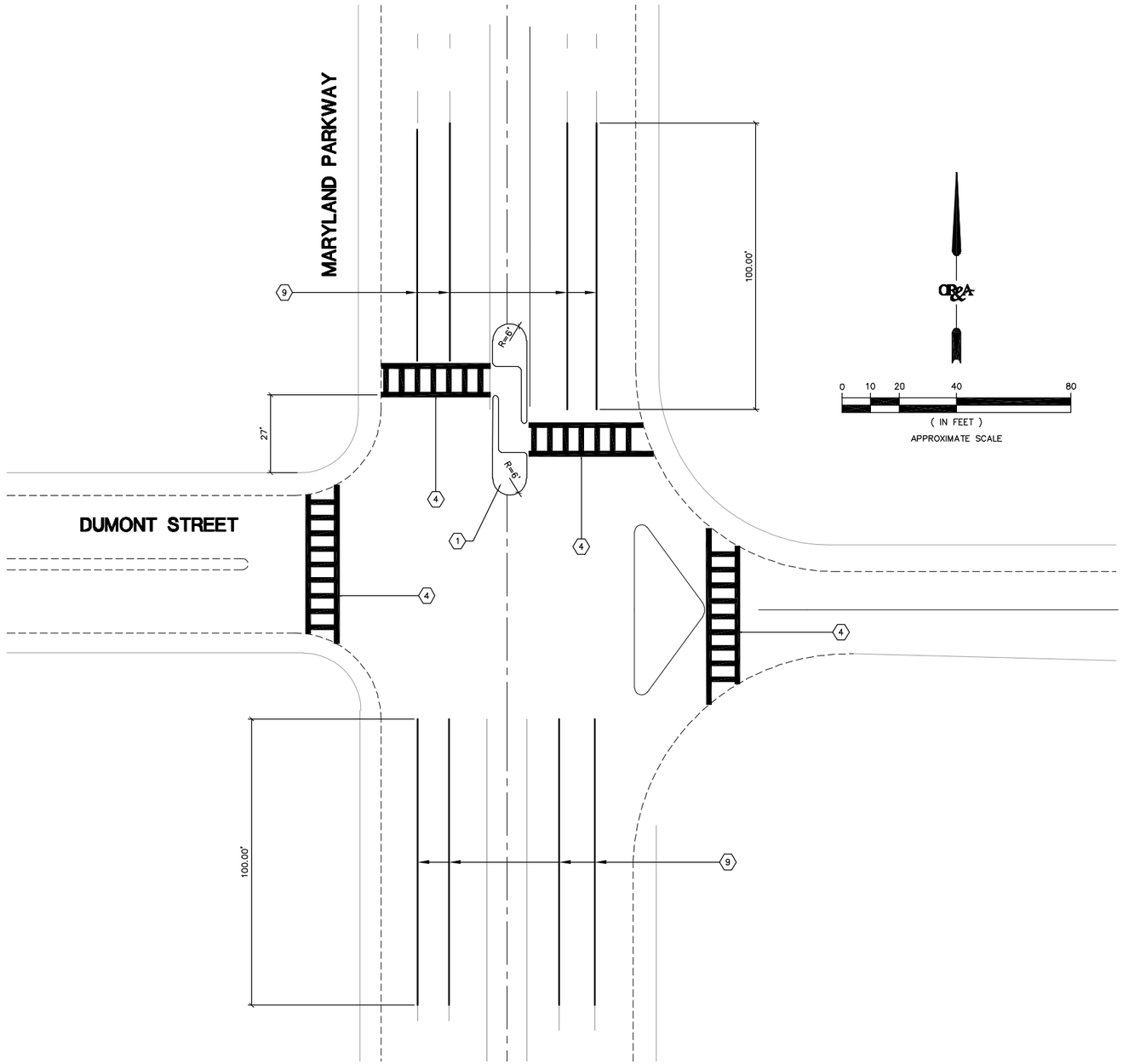
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
MARYLAND PARKWAY AND DUMONT STREET

DRAWING NUMBER

2

SHEET 3 OF 3



CONSTRUCTION NOTES

1. INSTALL MEDIAN ISLAND PER CC PLAN SHEET T-2 PROJECT L-1816
4. INSTALL HIGH VISIBILITY CROSSWALK PER USDCCA DWG NO 254 & 254A
9. INSTALL 100' X 6" SOLID WHITE LANE LINE ALONG MARYLAND PARKWAY

STAGE 1

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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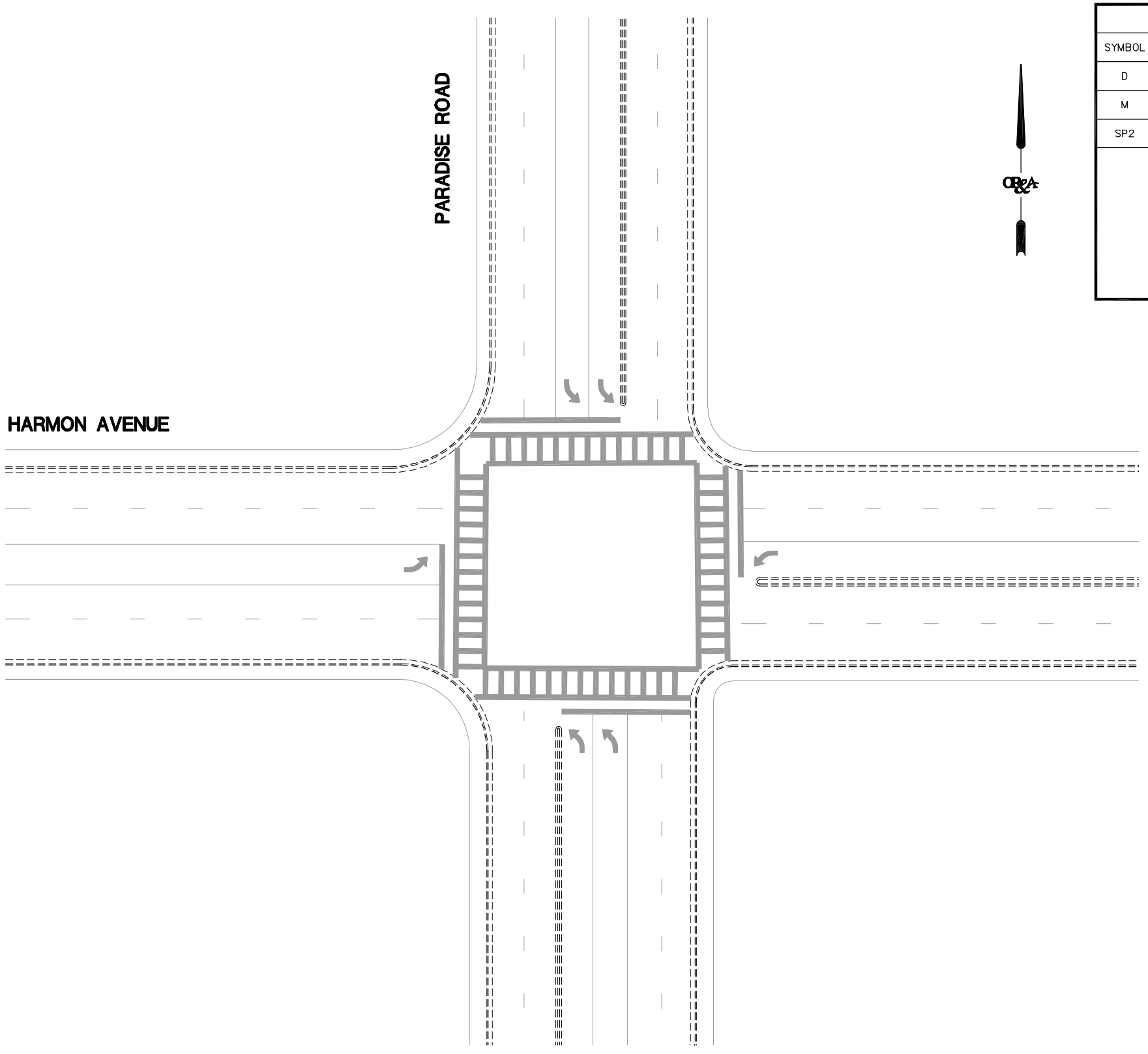
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
MARYLAND PARKWAY AND DUMONT STREET

DRAWING NUMBER
2

SHEET 1 OF 3



SITE #4 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
D	TURNING VEHICLES YIELD TO PEDESTRIANS	8	EA	300	2,400
M	REGULATORY SIGNS FOR MOTORIST	8	EA	300	2,400
SP2	RECONSTRUCT SIDEWALK RAMP FOR ADA CLEARANCE COMPLIANCE	2	EA	1,300	2,600
				SUB TOTAL ($)	7,400
				CONTINGENCY @ 20% =	1,480
				DESIGN FEE @ 15% =	1,332
				CM & INSPECTION @ 10% =	888
				TOTAL ($)	11,100

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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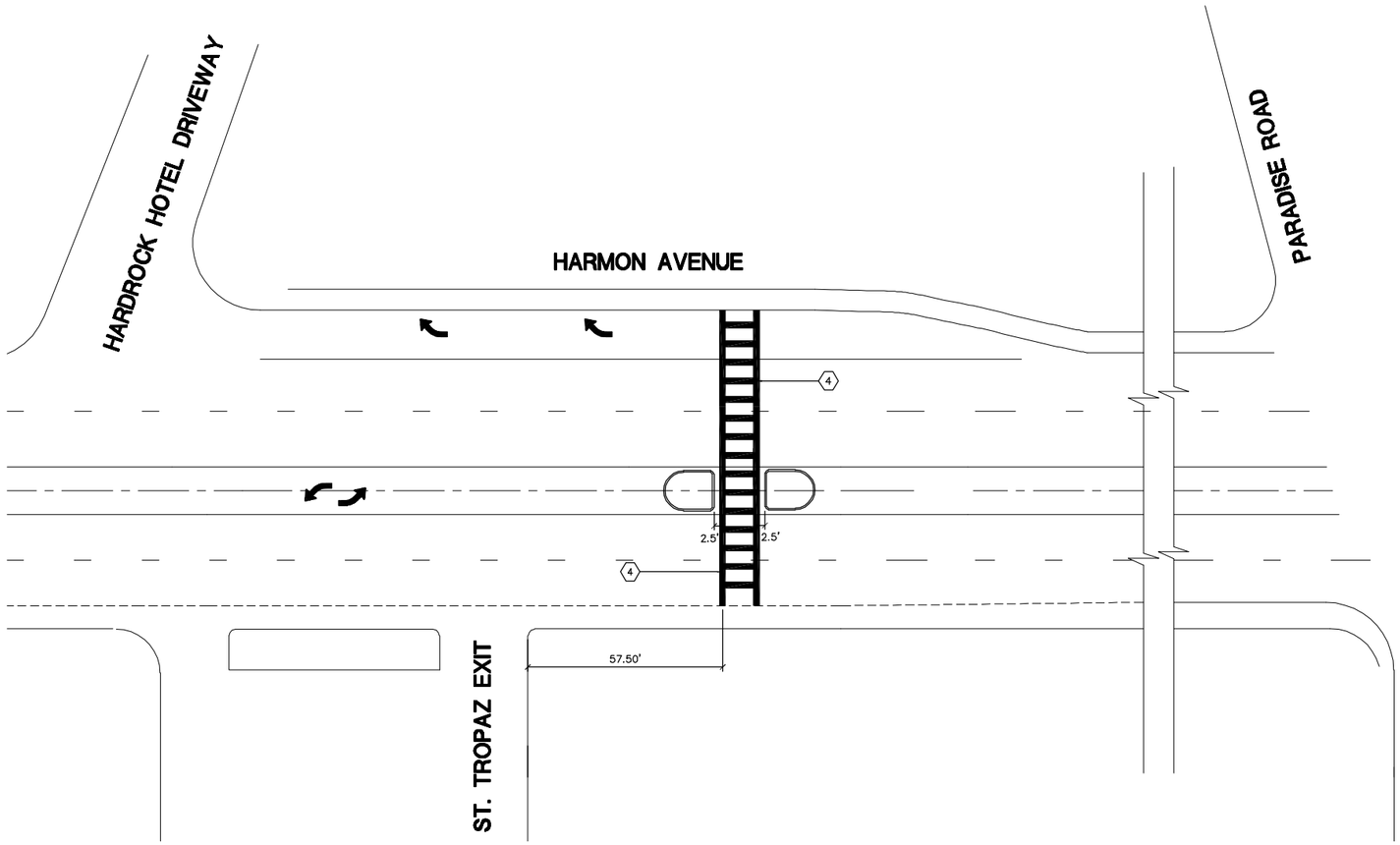
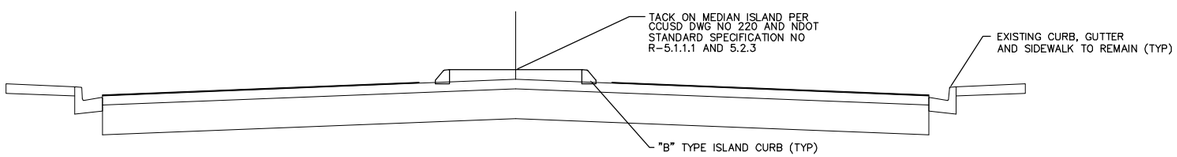
FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
HARMON AVENUE AND PARADISE ROAD

SITE NUMBER
4
SHEET OF





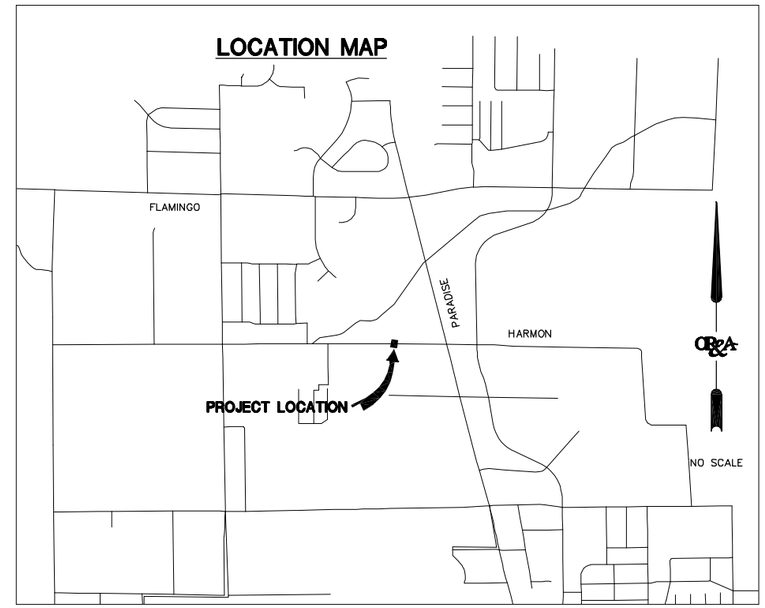
HARMON AVENUE - PARADISE ROAD

SCALE: NONE

2 / –

CONSTRUCTION NOTES

4 INSTALL HIGH VISIBILITY CROSSWALK PER USDCCA DWG NO 254 & 254A



NOTE:
FOR FURTHER QUESTION ON INSTALLATION OR CONSTRUCTION CONTACT MUKUND DANGETI AT (702) 895-1362

STAGE 2

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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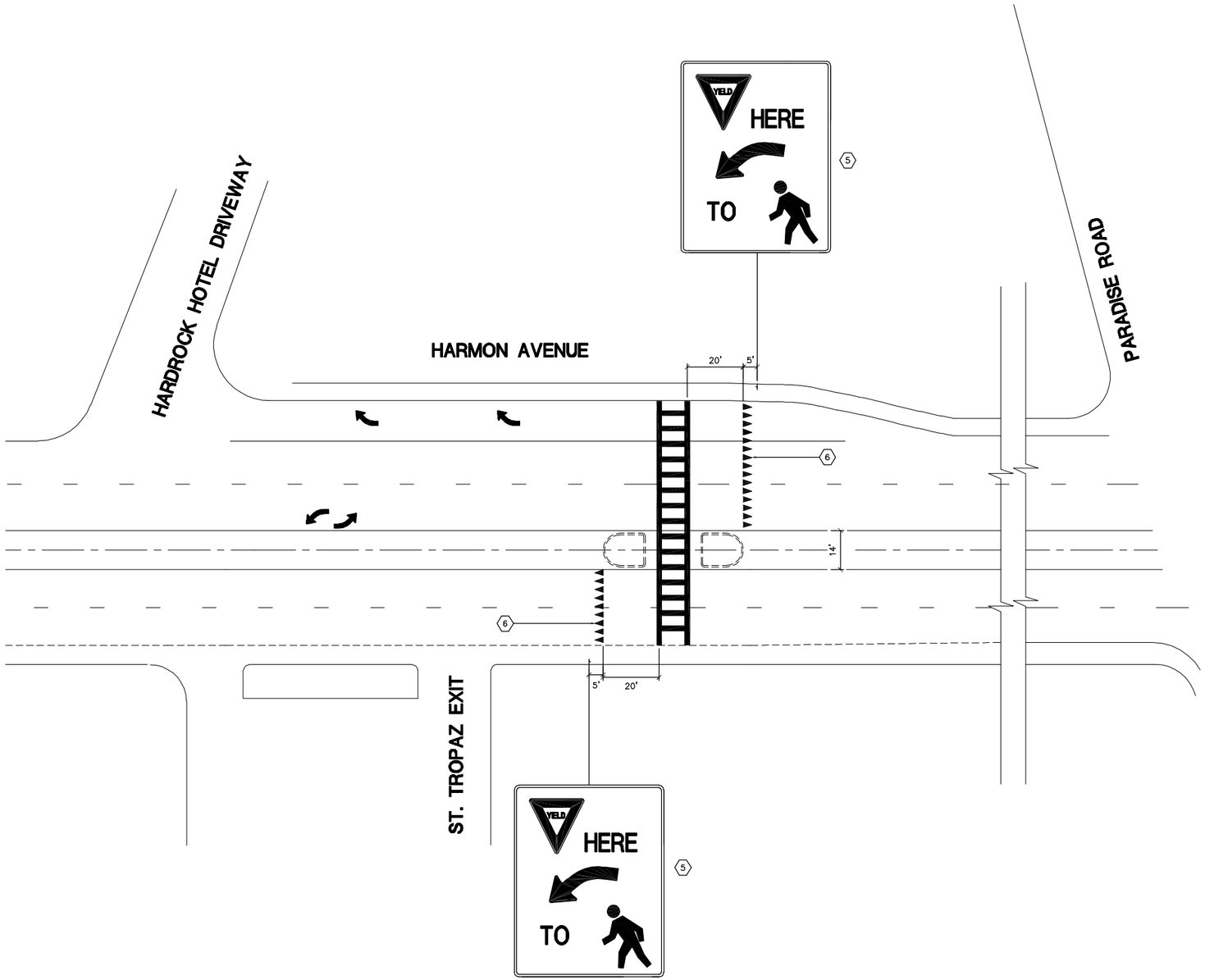
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
HARMON AVENUE - PARADISE ROAD

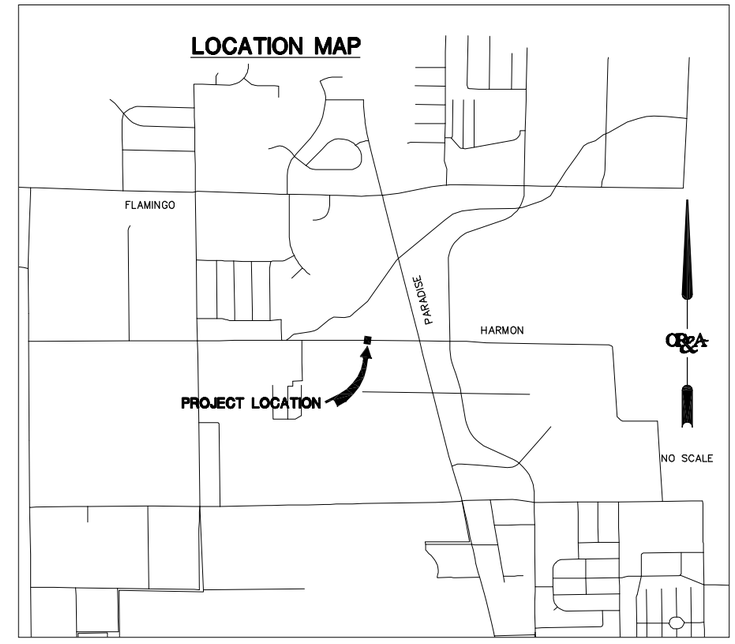
SITE NUMBER
5
SHEET 2 OF 4



CONSTRUCTION NOTES

(5) INSTALL REGULATORY SIGN PER CCUSD (SIGN TO BE PROVIDED TO CONTRACTOR BY COUNTY)

(6) INSTALL TYPE I RETROREFLECTIVE PAVEMENT MARKING FILM (24" BASE x 36" HEIGHT SOLID WHITE ISOSCLES TRIANGLE YIELD MARKINGS WITH 12" SPACING) PER MUTCD SECTION 3B.16



NOTE:
FOR FURTHER QUESTION ON INSTALLATION OR CONSTRUCTION CONTACT MUKUND DANGETI AT (702) 895-1362

STAGE 3

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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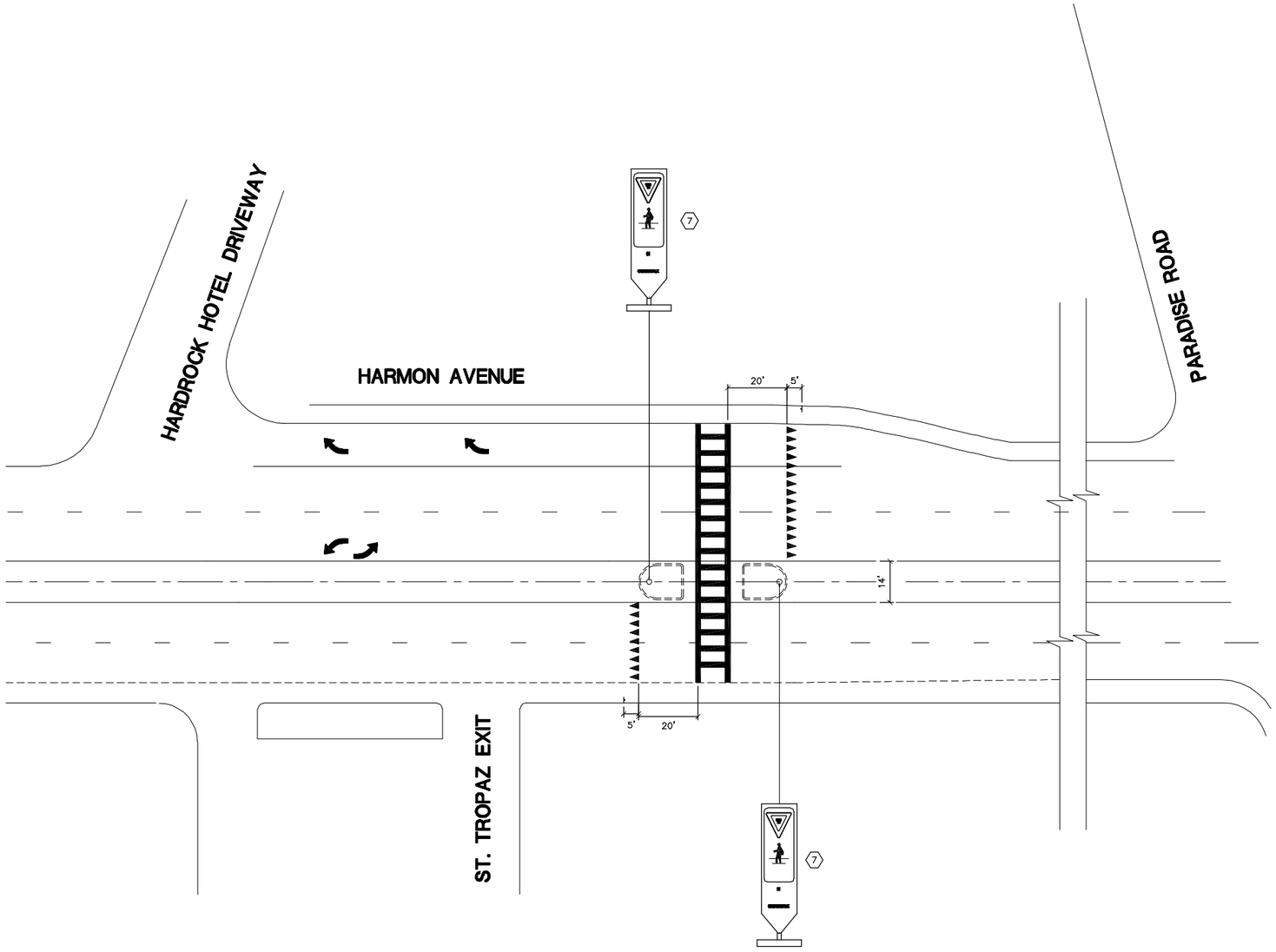
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

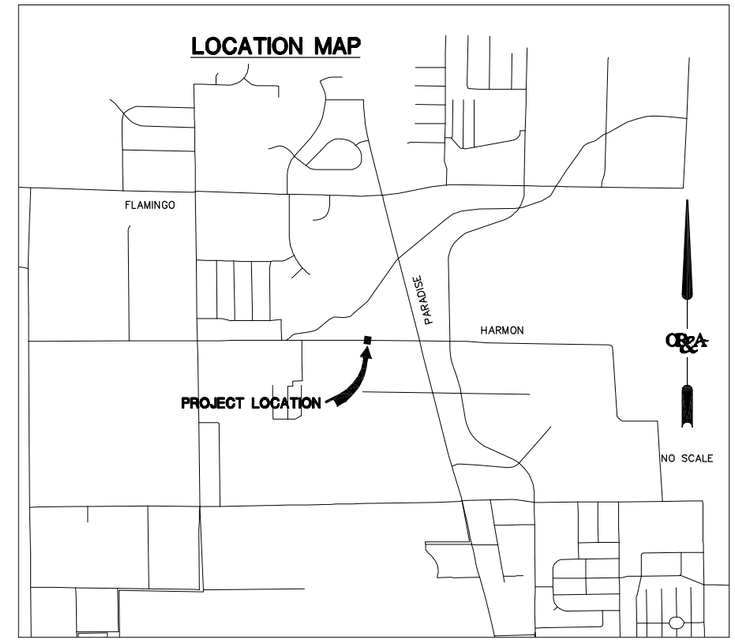
PEDESTRIAN SAFETY COUNTERMEASURES
HARMON AVENUE - PARADISE ROAD

SITE NUMBER
5



CONSTRUCTION NOTES

(7) INSTALL IN ROADWAY KNOCKDOWN SIGN PER CCUSD (TO BE PROVIDED TO CONTRACTOR BY COUNTY)



NOTE:
FOR FURTHER QUESTION ON INSTALLATION OR CONSTRUCTION CONTACT MUKUND DANGETI AT (702) 895-1362

STAGE 4

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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Las Vegas, NV 89144
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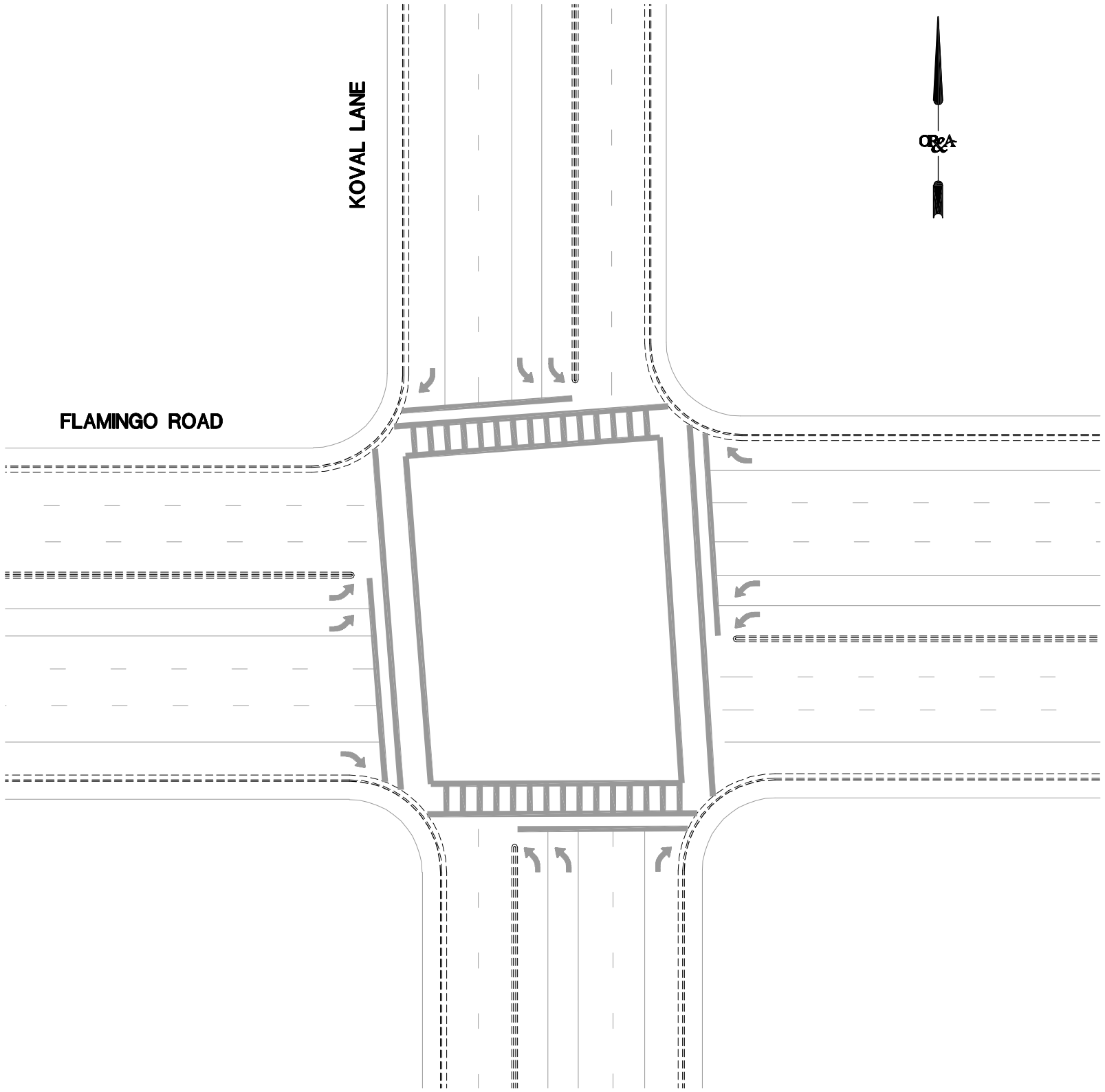
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
HARMON AVENUE - PARADISE ROAD

SITE NUMBER
5
SHEET 4 OF 4



SITE #7 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
N	HIGH VISIBILITY CROSSWALK TREATMENT	4	LEG	5,000	20,000
W	PEDESTRIAN COUNTDOWN SIGNALS	8	EA	450	3,600
X	ENLARGED PEDESTRIAN SIGNAL HEADS	8	EA	2,000	16,000
				SUB TOTAL ($)	39,600
				CONTINGENCY @ 15% =	5,940
				DESIGN FEE @ 12% =	5,465
				CM & INSPECTION @ 8% =	3,643
				TOTAL ($)	54,648

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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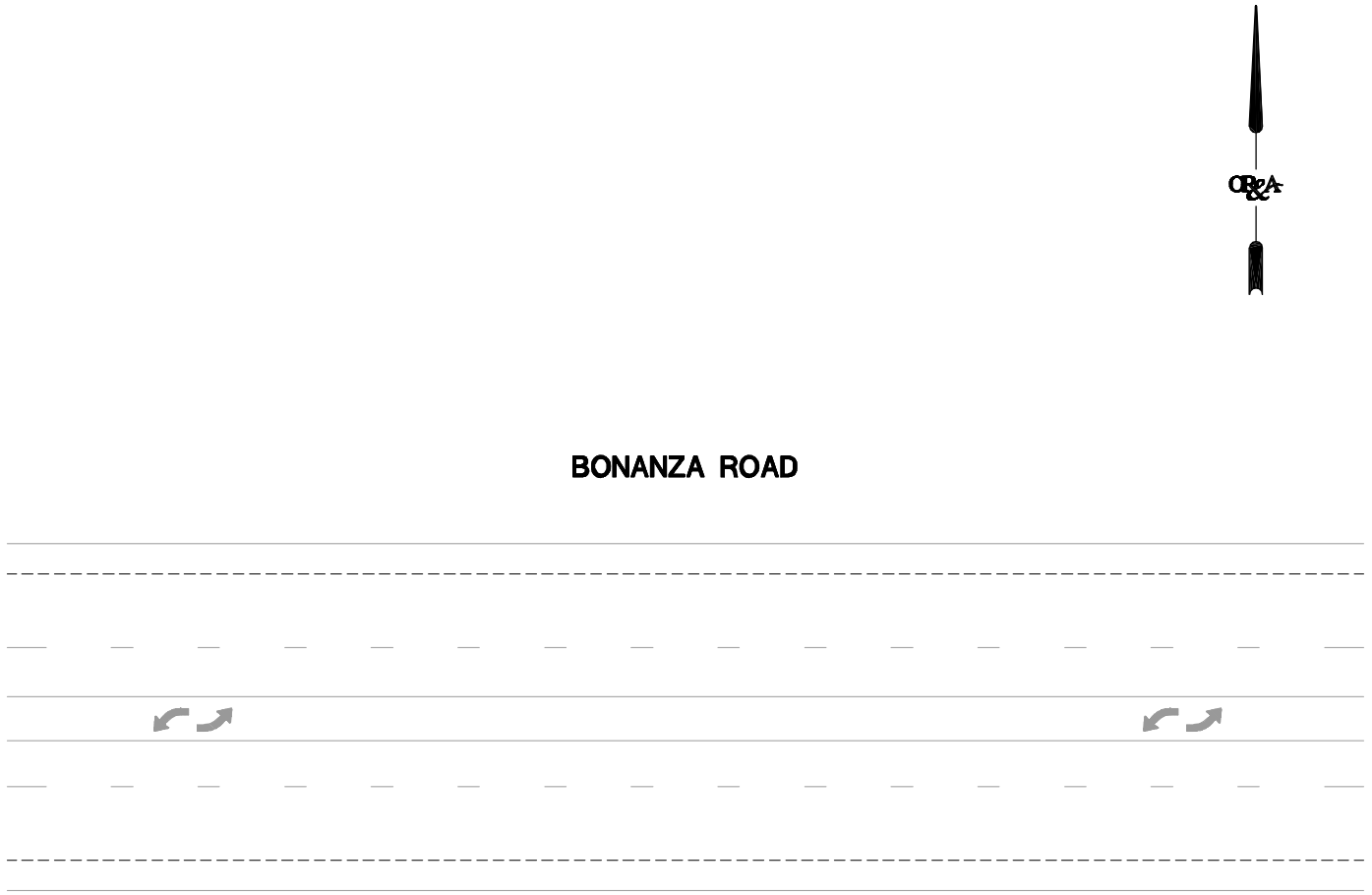
FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
FLAMINGO ROAD AND KOVAL LANE

SITE NUMBER
7
SHEET OF



SITE #10 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
E	ADVANCE YIELD MARKINGS	4	LANE	1,000	4,000
N	HIGH VISIBILITY CROSSWALK TREATMENT	1	LEG	3,800	3,800
O	MEDIAN REFUGE	1	LS	10,000	10,000
Q	SMART LIGHTING	2	EA	3,500	7,000
S	ITS AUTOMATIC PEDESTRIAN DETECTION DEVICES	1	LS	9,000	9,000
U	PEDESTRIAN ACTIVATED FLASHING YELLOW	1	LS	30,000	30,000
Y	DANISH OFFSET	1	EA	2,500	2,500
SP2	CONSTRUCT NEW SIDEWALK RAMP	2	EA	1,300	2,600
				SUB TOTAL ($)	68,900
				CONTINGENCY @ 15% =	10,335
				DESIGN FEE @ 15% =	11,885
				CM & INSPECTION @ 10% =	7,924
				TOTAL ($)	99,044

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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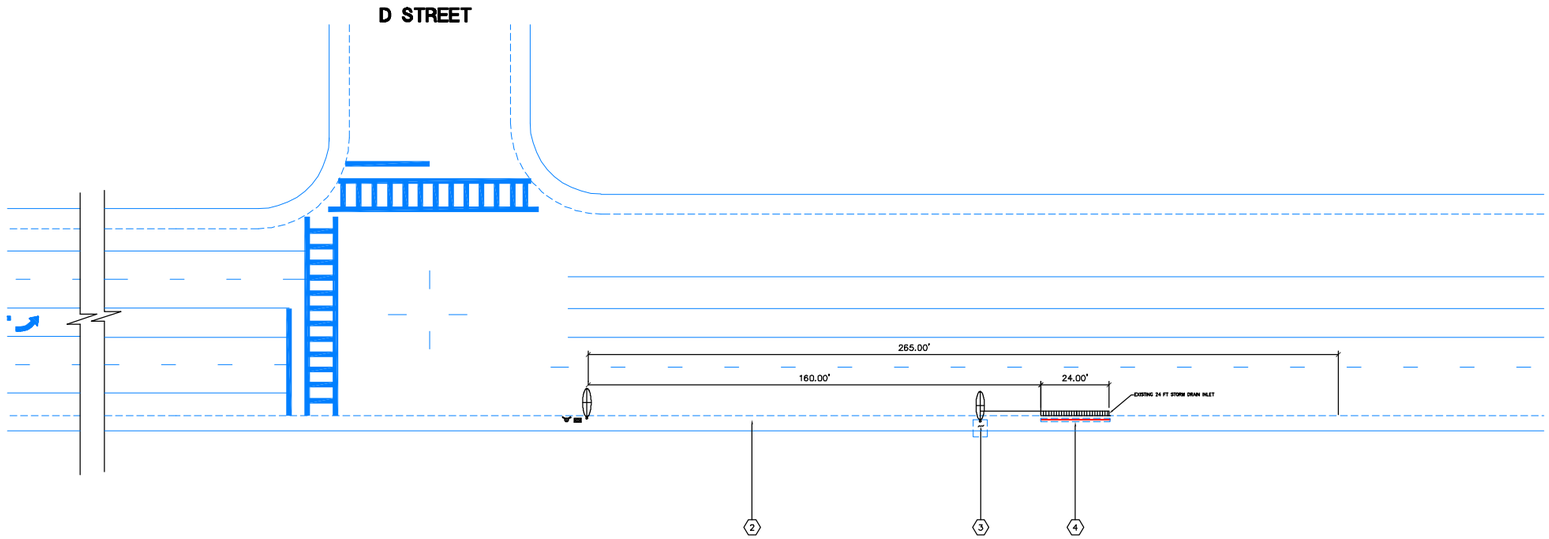
FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

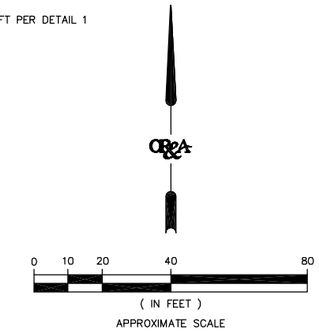
POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
BONANZA ROAD NEAR D STREET

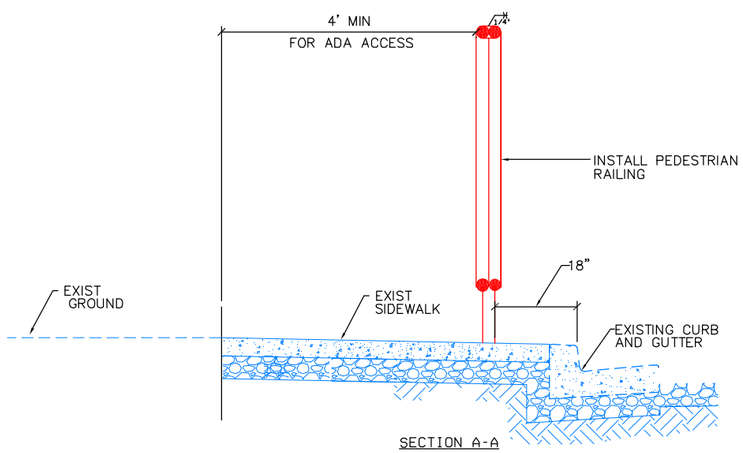
SITE NUMBER
10
SHEET OF

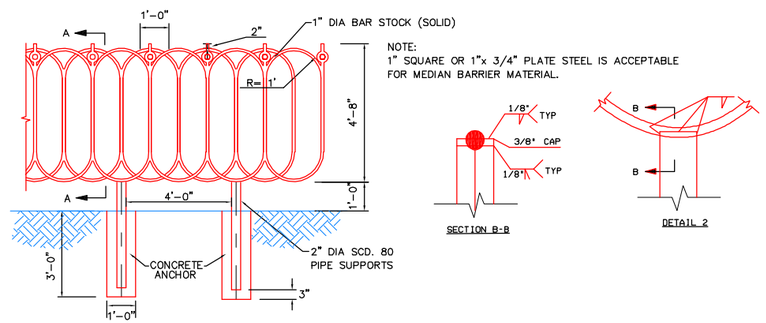


CONSTRUCTION NOTES

1. INSTALL IN-ROADWAY KNOCKDOWN SIGN "WATCH FOR PEDS" PER DWG DETAIL 123.05A
2. INSTALL PEDESTRIAN RAILING 265 FT PER DETAIL 1
3. SEE SHEET 2 OF 2
4. SEE SHEET 2 OF 2







NOTE:
1" SQUARE OR 1"x 3/4" PLATE STEEL IS ACCEPTABLE FOR MEDIAN BARRIER MATERIAL.

PEDESTRIAN RAILING

SCALE: NONE

1 / –

NDOT COLOR CODING LEGEND

- FACILITIES TO BE INSTALLED
- FACILITIES THAT ARE EXISTING

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	05/02/2003
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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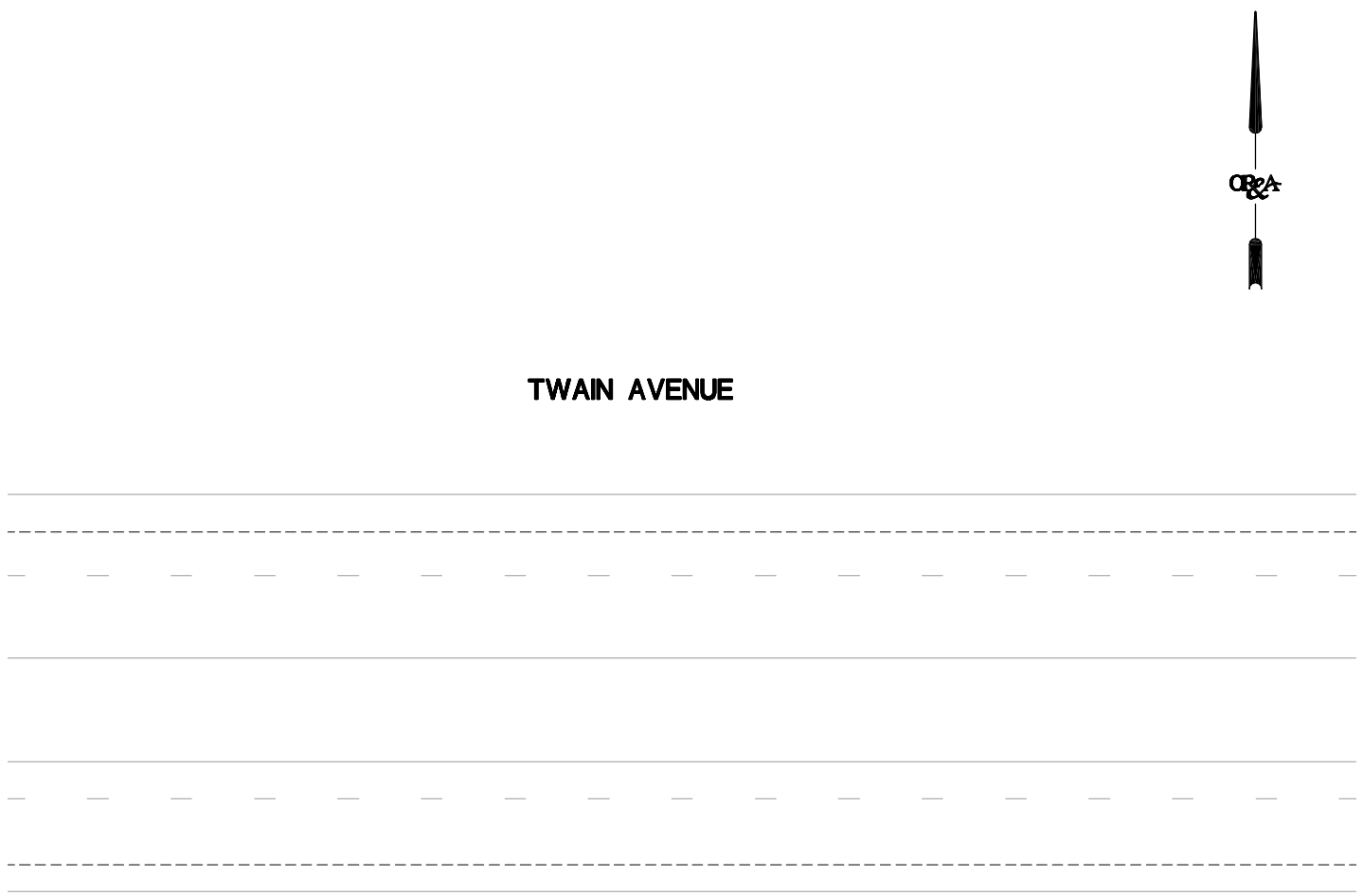
FHWA COOPERATIVE AGREEMENT DTFH61–01–X–00134

PEDESTRIAN SAFETY COUNTERMEASURES
BONANZA ROAD NEAR D STREET

DRAWING NUMBER
10
SHEET 1 OF 1



SITE #11 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
H	IN-ROADWAY KNOCKDOWN SIGNS	8	EA	250	2,000
T	PORTABLE SPEED TRAILERS	1	EA	15,000	15,000
				SUB TOTAL ($)	17,000
				CONTINGENCY @ 20% =	400
				DESIGN FEE @ 15% =	300
				CM & INSPECTION @ 10% =	200
				TOTAL ($)	17,900

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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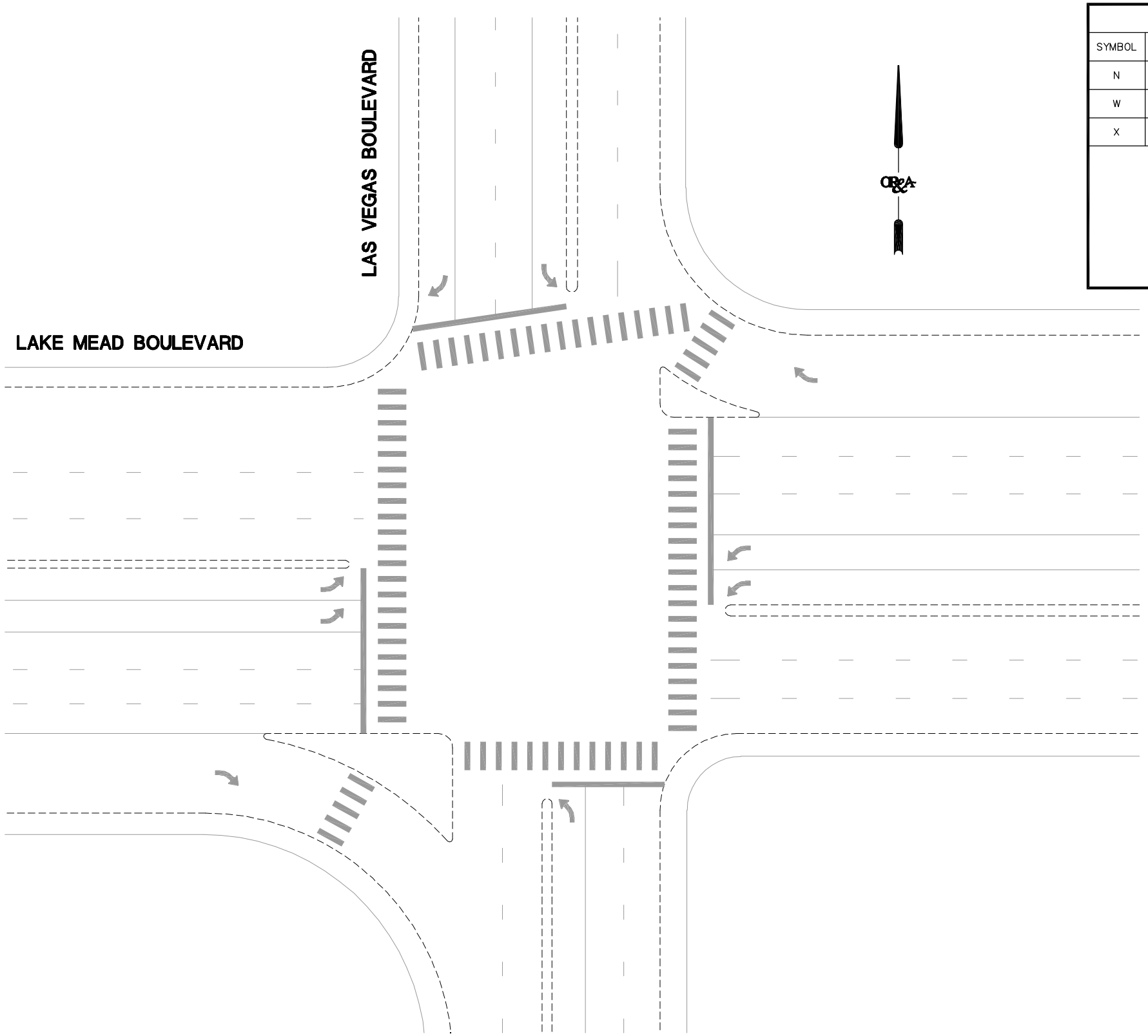
FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
TWAIN AVENUE BETWEEN CAMBRIDGE STREET AND SWENSON STREET

SITE NUMBER
11
SHEET OF



SITE #13 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
N	HIGH VISIBILITY CROSS WALK TREATMENT	4	LEG	5,000	20,000
W	PEDESTRIAN COUNTDOWN SIGNAL	8	EA	450	3,600
X	ENLARGED PEDESTRIAN SIGNAL HEADS	8	EA	2,000	16,000
				SUB TOTAL ($)	39,600
				CONTINGENCY @ 15% =	5,940
				DESIGN FEE @ 12% =	5,465
				CM & INSPECTION @ 8% =	3,643
				TOTAL ($)	54,648

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
LAKE MEAD BOULEVARD AND LAS VEGAS BOULEVARD

SITE NUMBER
13
SHEET OF

REMOVAL

(5A) REMOVE EXISTING SIDEWALK RAMP AND REPLACE SIDEWALK, CURB AND GUTTER TO MATCH EXISTING

CONSTRUCTION NOTES

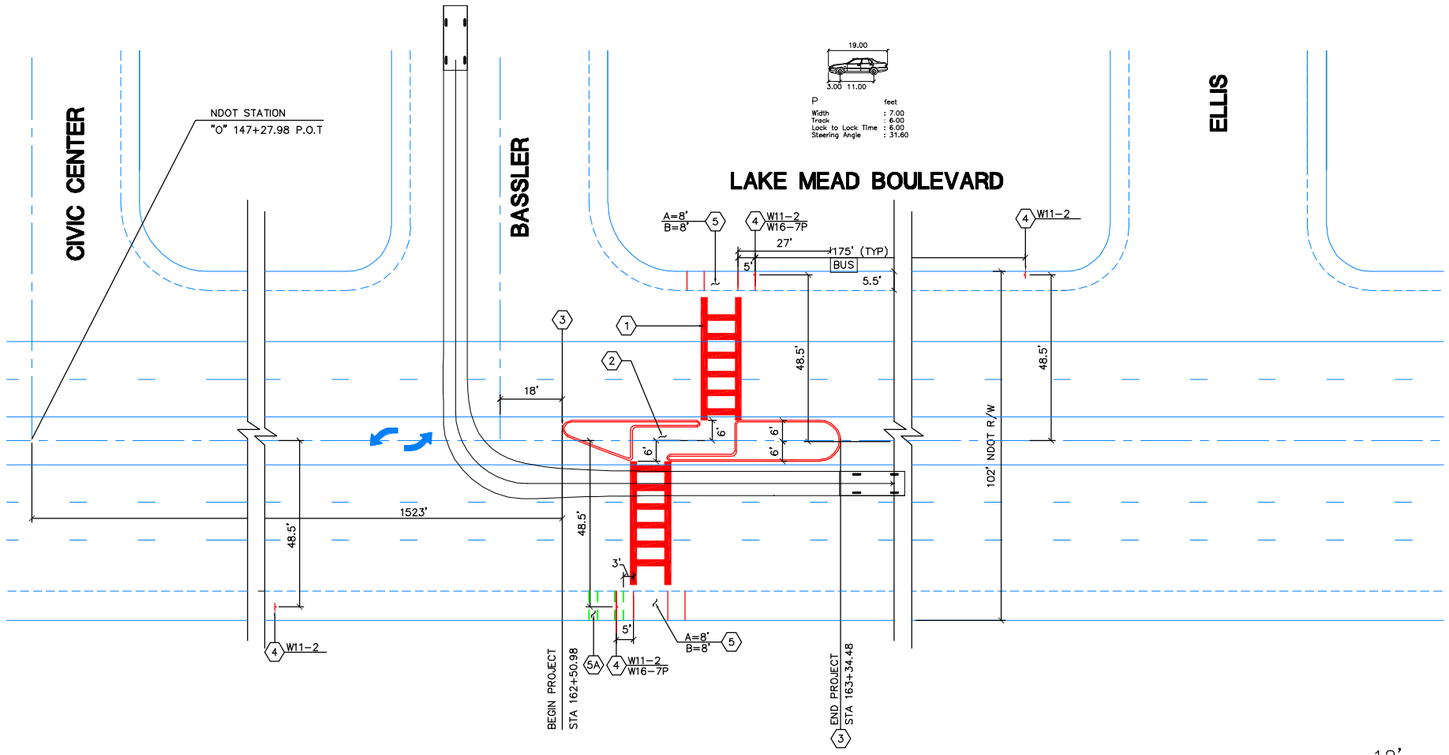
(1) INSTALL HIGH VISIBILITY CROSSWALK PER CCUSD DWG NO 254A & NDOT SPECIFICATIONS (BY OTHERS)

(2) CONSTRUCT DANISH OFFSET/MEDIAN ISLAND PER DETAIL 1

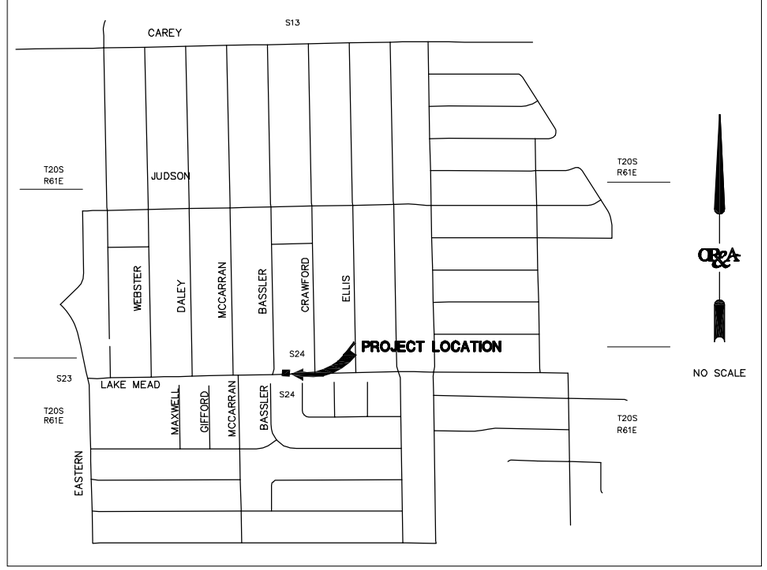
(3) INSTALL MEDIAN NOSE MARKINGS PER CCUSD DWG NO 248 REFLECTIVE PAINT TO EXTEND 4' BACK FROM NOSE

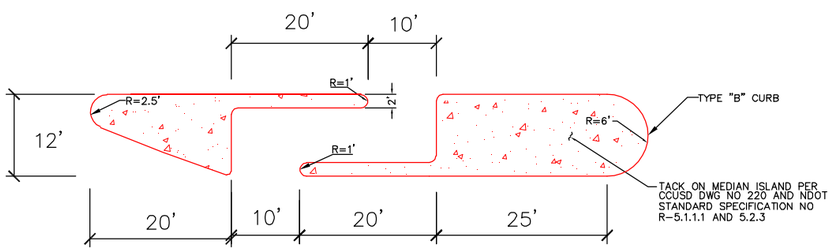
(4) INSTALL W11-2 (36" X 36") AND W16-7P (30" X18") PEDESTRIAN SIGN (HIGH INTENSITY SIGN FACE SHEETING ON BOTH SIGNS)

(5) INSTALL CASE 1 SIDEWALK RAMP PER CCUSD DWG NO 235 (1 OF 4) TO CONFORM WITH THE LATEST AMERICANS WITH DISABILITIES (ADA) REQUIREMENTS PER SHEET 2 OF 2



LOCATION MAP

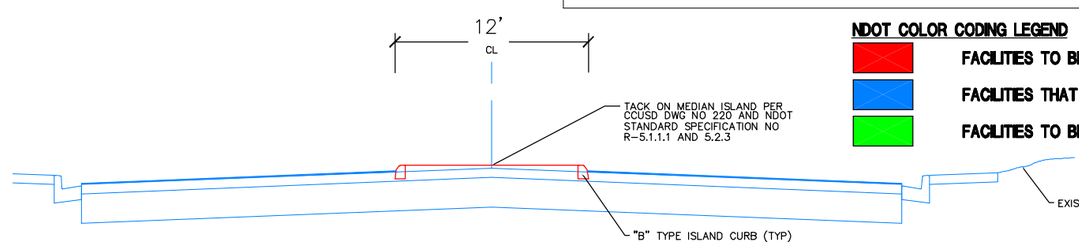




DANISH OFFSET/MEDIAN ISLAND DETAIL @ LAKE MEAD BLVD - BELMONT STREET TO McCARRAN STREET

SCALE: NONE

(1 / –)



LAKE MEAD BLVD - MEDIAN SECTION

SCALE: NONE

(2 / –)

NDOT COLOR CODING LEGEND

- FACILITIES TO BE INSTALLED
- FACILITIES THAT ARE EXISTING
- FACILITIES TO BE REMOVED

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	08/15/2006
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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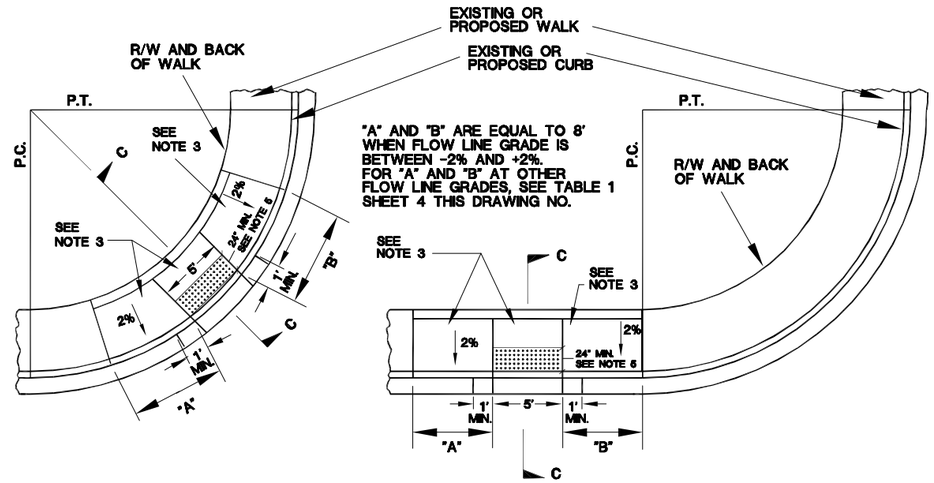
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
LAKE MEAD BOULEVARD BETWEEN BELMONT TO McCARRAN STREET

SITE NUMBER
15

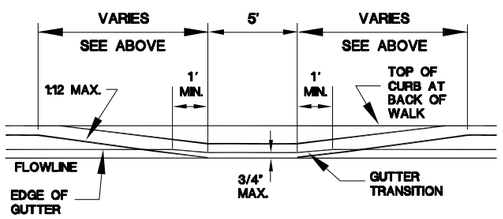
SHEET 1 OF 2



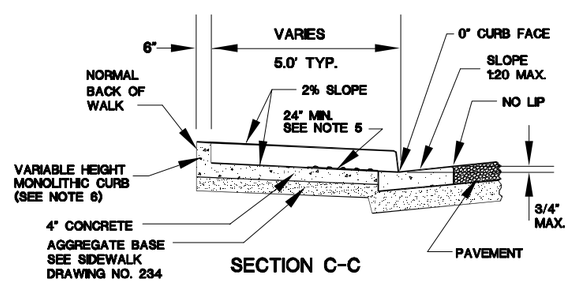
RAMP IN CURB RETURN

RAMP OUTSIDE CURB RETURN

SIDEWALK RAMP
CASE I



PROFILE



SECTION C-C

NOTES:

1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN UNLESS OTHERWISE APPROVED.
3. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. WHEN CONSTRUCTING RAMP WHERE CURB & GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB & GUTTER.
5. DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WHICH COMPLY WITH DETAILS ON SHEET 4 OF THIS DRAWING NO. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES SHALL BE PLACED ON BOTTOM PORTION OF RAMP EXTENDING THE FULL WIDTH OF THE RAMP AND TO A MINIMUM DEPTH OF 24 INCHES. PAVER BLOCKS PERMITTED ONLY IN THE CITY OF BOULDER CITY FOR DETECTABLE WARNING AREAS.
6. CURB MAY BE PLACED AND IS PREFERRED BEHIND BACK OF WALK IF SUFFICIENT RIGHT-OF-WAY OR EASEMENTS EXIST AND AS APPROVED BY THE ENGINEER.

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	RM
DRAWN BY:	JR,NV
CHECKED BY:	RR
DATE:	08/15/2006
JOB NUMBER:	2003_123
SCALE:	AS SHOWN

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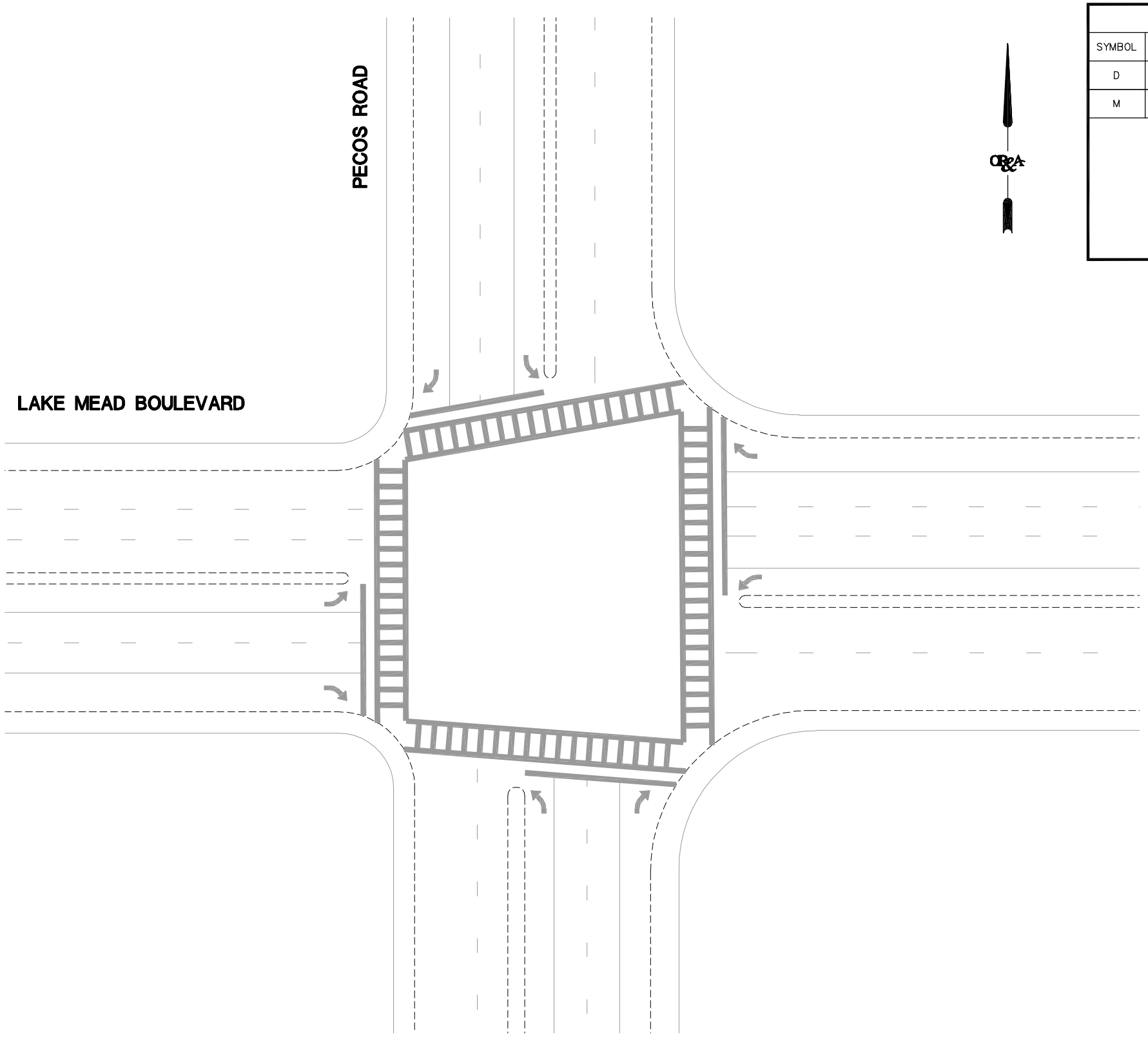
FHWA COOPERATIVE AGREEMENT DTFH61-01-X-00134

PEDESTRIAN SAFETY COUNTERMEASURES
LAKE MEAD BOULEVARD BETWEEN BELMONT TO McCARRAN STREET

SITE NUMBER
15



SITE #16 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
D	TURNING VEHICLES TO PEDESTRIAN SIGN	8	EA	300	2,400
M	REGULATORY SIGN FOR MOTORIST	8	EA	300	2,400
				SUB TOTAL ($)	4,800
				CONTINGENCY @ 20% =	960
				DESIGN FEE @ 12% =	691
				CM & INSPECTION @ 8% =	461
				TOTAL ($)	6,912

NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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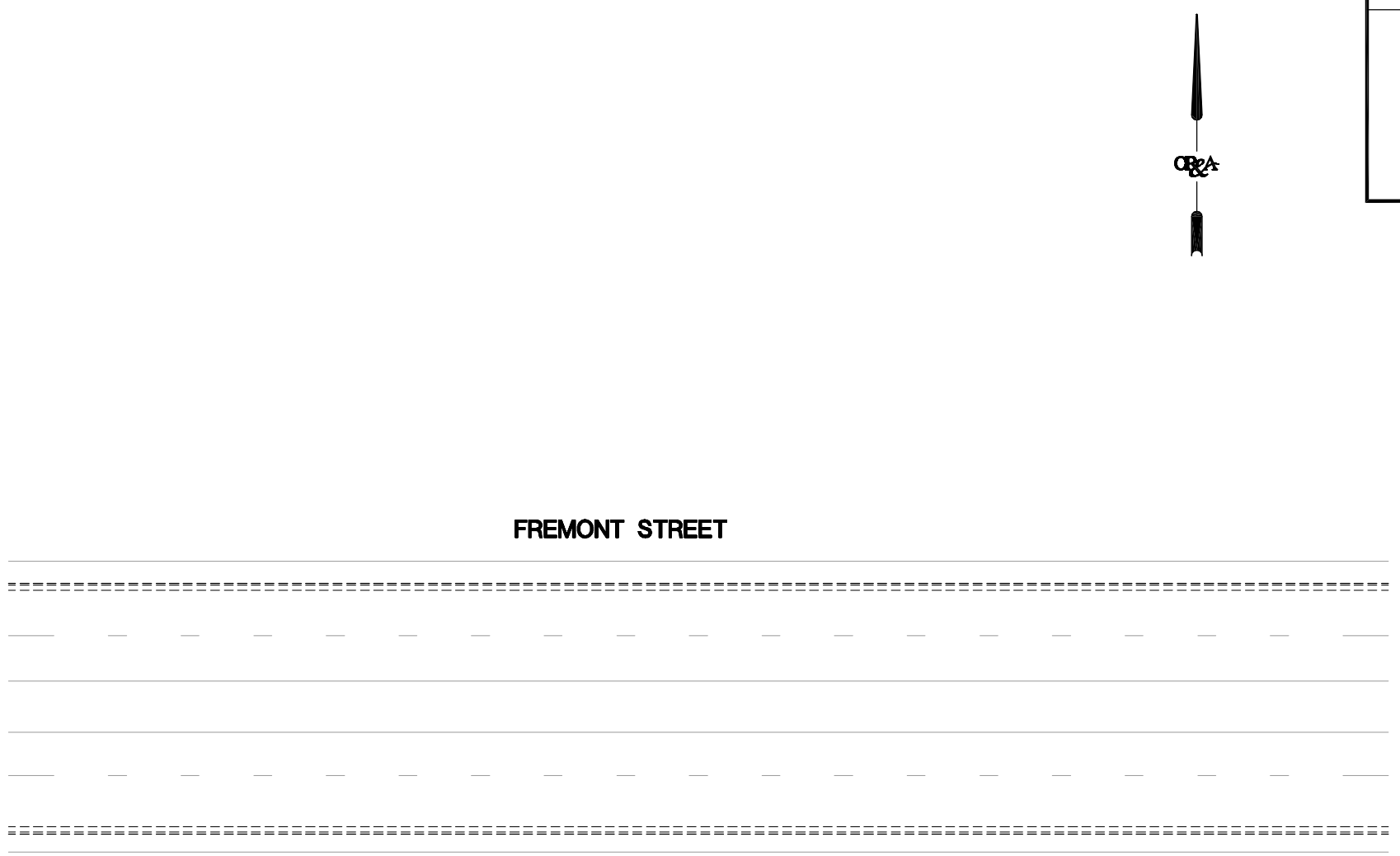
FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61-01-X-00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
LAKE MEAD BOULEVARD AND PECOS ROAD

SITE NUMBER
16
SHEET OF

SITE #18 POTENTIAL COUNTERMEASURES					
SYMBOL	COUNTERMEASURE	QUANTITY	UNIT	UNIT COST ($)	COST ($)
H	IN–ROADWAY KNOCKDOWN SIGNS	8	EA	250	2,000
				SUB TOTAL ($)	2,000
				CONTINGENCY @ 20% =	400
				DESIGN FEE @ 12% =	288
				CM & INSPECTION @ 10% =	240
				TOTAL ($)	2,928



NUMBER	REVISION DESCRIPTION	DATE

PROJECT MANAGER:	RR
DESIGNED BY:	BT
DRAWN BY:	JR
CHECKED BY:	RR
DATE:	07/18/2002
JOB NUMBER:	2002_014
SCALE:	NONE

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FHWA PEDESTRIAN SAFETY COOPERATIVE AGREEMENT DTFH61–01–X–00134

POTENTIAL COUNTERMEASURES FOR PEDESTRIAN FACILITIES
FREMONT STREET BETWEEN 8TH STREET AND 6TH STREET

SITE NUMBER
18
SHEET OF