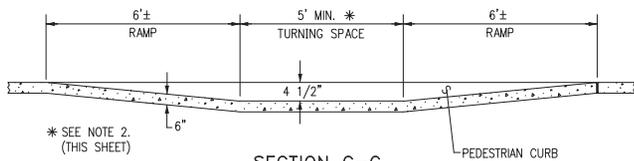
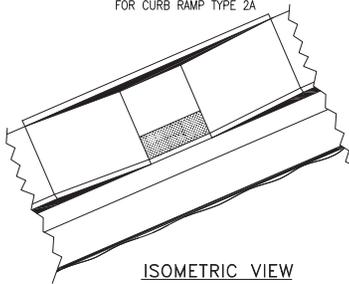


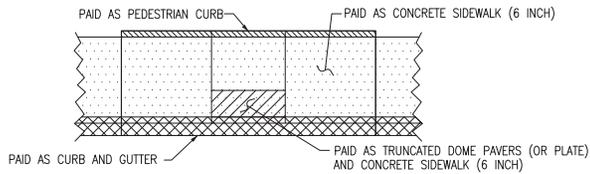
CURB RAMP TYPE 2A DETAIL



**SECTION C-C
FOR CURB RAMP TYPE 2A**



**ISOMETRIC VIEW
FOR CURB RAMP TYPE 2A**



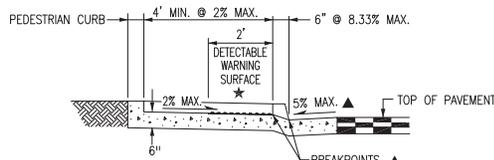
**RAMP PAY AREA
FOR CURB RAMP TYPE 2A**

NOTES

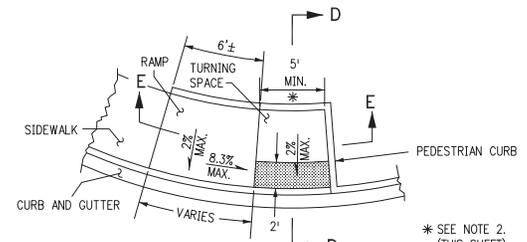
1. THE USE OF CURB RAMPS TYPE 2A OR 2C, WHILE COMPLIANT WITH THE AMERICANS WITH DISABILITIES ACT (ADA), IS DISCOURAGED BY THE CITY OF BOULDER DUE TO POTENTIAL ISSUES WITH PONDING WATER, DEBRIS COLLECTION AND ICE. TYPE 2 SERIES RAMPS WILL ONLY BE ALLOWED WHEN NO OTHER ADA COMPLIANT RAMP IS FEASIBLE. A CITY OF BOULDER CURB RAMP VARIANCE FORM MUST BE SUBMITTED TO, AND APPROVED BY THE PUBLIC WORKS PROFESSIONAL ENGINEER IN CHARGE OF THE RESPECTIVE PROJECT IN ORDER TO CONSTRUCT A TYPE 2 SERIES RAMP.
2. THE STANDARD TURNING SPACE IS 4 FEET BY 4 FEET. WHERE THE TURNING SPACE IS CONSTRAINED, THE TURNING SPACE SHALL BE 4 FEET BY 5 FEET MINIMUM. THE 5 FOOT DIMENSION SHALL BE PROVIDED IN THE DIRECTION OF THE RAMP RUN.

▲ THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND THE CURB PAN (OR ADJOINING ROAD SURFACE WHEN NO PAN EXISTS) SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL TYPICALLY NOT EXCEED 5%. IF A GUTTER SLOPE GREATER THAN 5% IS REQUIRED TO MAINTAIN PROPER DRAINAGE, THE RAMP SLOPE MUST BE REDUCED AN APPROPRIATE AMOUNT TO RETAIN AN ALGEBRAIC DIFFERENCE OF 13.33% AT THE BREAK LINE.

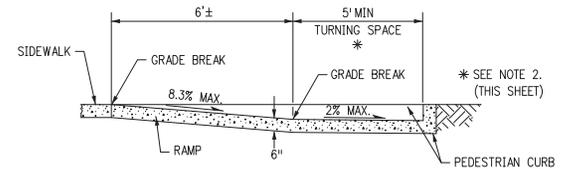
★ SEE DETECTABLE WARNING DETAILS DRAWING 2.07-H AND 2.07-I.



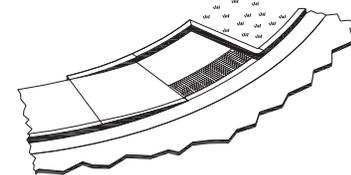
**SECTION D-D
FOR CURB RAMP TYPE 2A & 2C**



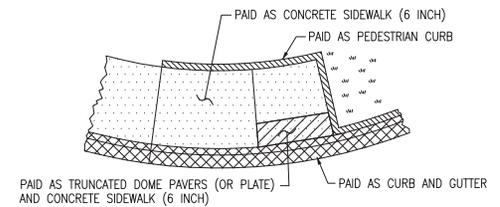
CURB RAMP TYPE 2C DETAIL



**SECTION E-E
FOR CURB RAMPS TYPE 2C**



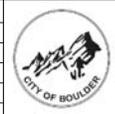
**ISOMETRIC VIEW
FOR CURB RAMPS TYPE 2C**



**RAMP PAY AREA
FOR CURB RAMP TYPE 2C**

Drawn by: [unclear] / Checked by: [unclear] / Date: [unclear] / Title: [unclear] / Project: [unclear] / Revision: [unclear] / Scale: [unclear] / Drawing Number: [unclear]

ADAPTED/MODIFIED FROM COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NUMBER M-608-1 SHEET NUMBER 2 OF 10 (LAST MODIFICATION DATE: 2/23/17 BY LTA)	DESCRIPTION	DATE:
Modified by: P Sanders	ISSUED	XXXX/20XX
Checked by: R Rindal		
Approved by: Director of Public Works		

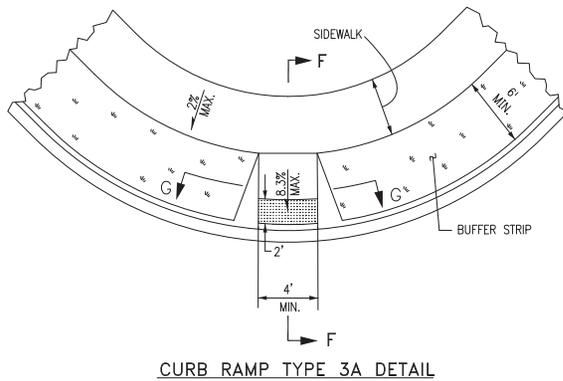


**City of Boulder, CO
Design and Construction
Standard**

**CURB RAMP TYPE 2
DETAILS**

NOT TO SCALE

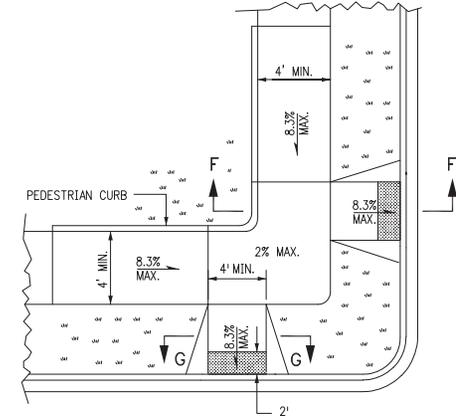
DRAWING NUMBER: **2.07-C**



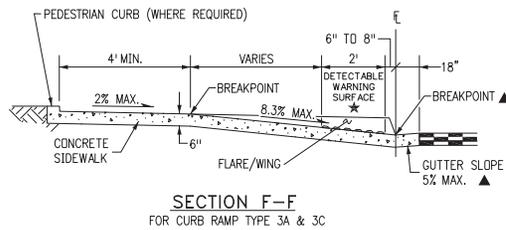
CURB RAMP TYPE 3A DETAIL

▲ THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND THE CURB PAN (OR ADJOINING ROAD SURFACE WHEN NO PAN EXISTS) SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL TYPICALLY NOT EXCEED 5%. IF A GUTTER SLOPE GREATER THAN 5% IS REQUIRED TO MAINTAIN PROPER DRAINAGE, THE RAMP SLOPE MUST BE REDUCED AN APPROPRIATE AMOUNT TO RETAIN AN ALGEBRAIC DIFFERENCE OF 13.33% AT THE BREAK LINE.

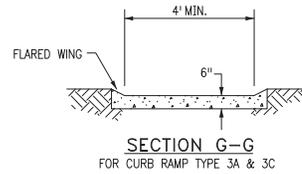
★ SEE DETECTABLE WARNING DETAILS DRAWING 2.07-H AND 2.07-L



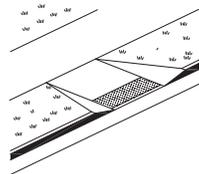
CURB RAMP TYPE 3C (COMBINATION) DETAIL



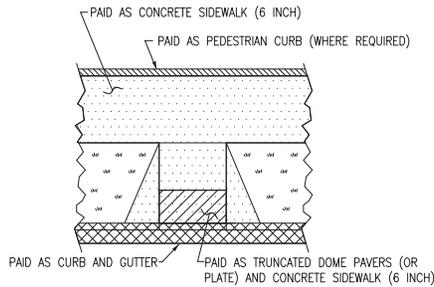
SECTION F-F
FOR CURB RAMP TYPE 3A & 3C



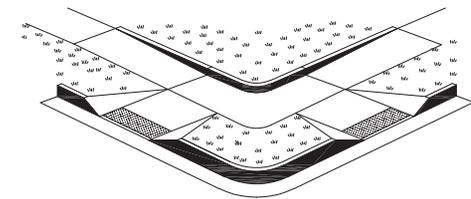
SECTION G-G
FOR CURB RAMP TYPE 3A & 3C



ISOMETRIC VIEW
FOR CURB RAMP TYPE 3A



RAMP PAY AREA
FOR CURB RAMP TYPE 3A



ISOMETRIC VIEW
FOR CURB RAMP TYPE 3C (COMBINATION)

Drawn by: M. [unreadable] / Checked by: P. Sanders / 2/23/17 BY LTA / ADAPTED FROM COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NUMBER M-608-1 SHEET NUMBER 3 OF 10 (LAST MODIFICATION DATE: 2/23/17 BY LTA) / Modified by: P. Sanders / Checked by: R. Rindal / Approved by: Director of Public Works

ADAPTED/MODIFIED FROM COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NUMBER M-608-1 SHEET NUMBER 3 OF 10 (LAST MODIFICATION DATE: 2/23/17 BY LTA)	DESCRIPTION	DATE:
Modified by: P. Sanders	ISSUED	XXXX/20XX
Checked by: R. Rindal		
Approved by: Director of Public Works		

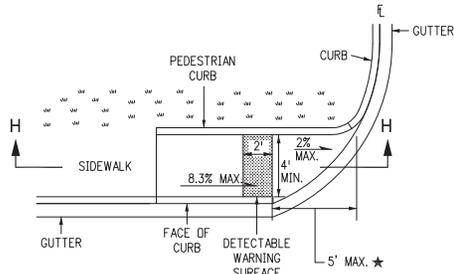


City of Boulder, CO
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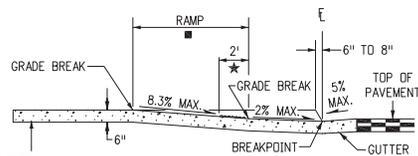
CURB RAMP TYPE 3
DETAILS

NOT TO SCALE

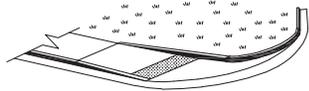
DRAWING NUMBER: 2.07-D



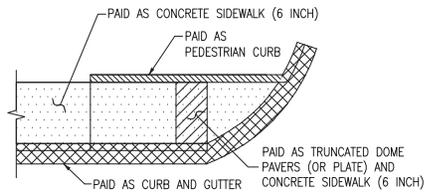
CURB RAMP TYPE 4A DETAIL



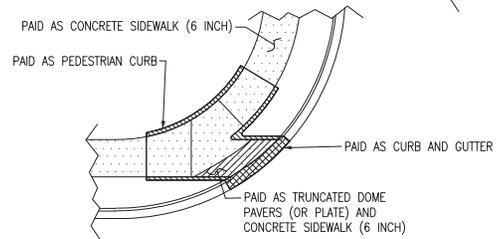
**SECTION H-H
FOR CURB RAMP TYPE 4A**



**ISOMETRIC VIEW
FOR CURB RAMP TYPE 4A**



**RAMP PAY AREA
FOR CURB RAMP TYPE 4A**



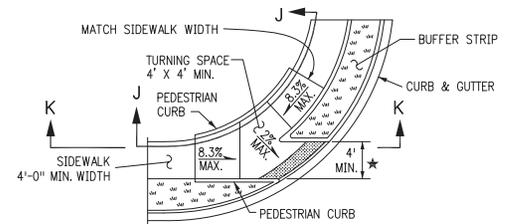
**RAMP PAY AREA
FOR CURB RAMP TYPE 4B**

NOTES

1. RAMP GRADE BREAKS SHALL BE PERPENDICULAR TO THE RUNNING SLOPE.
2. THE USE OF CURB RAMP TYPE 4B, WHILE COMPLIANT WITH THE AMERICANS WITH DISABILITIES ACT (ADA), IS DISCOURAGED BY THE CITY OF BOULDER DUE TO POTENTIAL ISSUES WITH PONDING WATER, DEBRIS COLLECTION AND ICE. TYPE 4B RAMPS WILL ONLY BE ALLOWED WHEN NO OTHER ADA COMPLIANT RAMP IS FEASIBLE. A CITY OF BOULDER CURB RAMP VARIANCE FORM MUST BE SUBMITTED TO, AND APPROVED BY THE CITY OF BOULDER PUBLIC WORKS PROFESSIONAL ENGINEER IN CHARGE OF THE RESPECTIVE PROJECT IN ORDER TO CONSTRUCT A TYPE 2 SERIES RAMP.

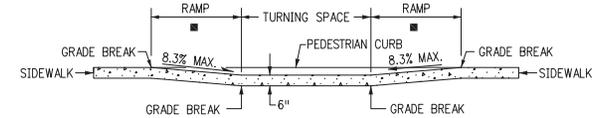
★ SEE DETECTABLE WARNING DETAILS DRAWING 2.07-H AND 2.07-I.

■ SEE GENERAL NOTE 4 ON SHEET 2.07A

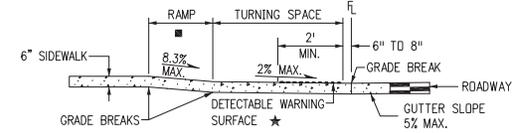


CURB RAMP TYPE 4B DETAIL

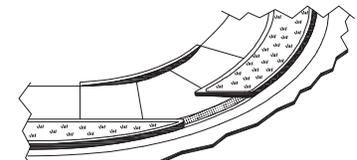
FOR USE WHERE PEDESTRIAN CROSSING IS IN ONE DIRECTION ONLY.



**SECTION J-J
FOR CURB RAMP TYPE 4B**



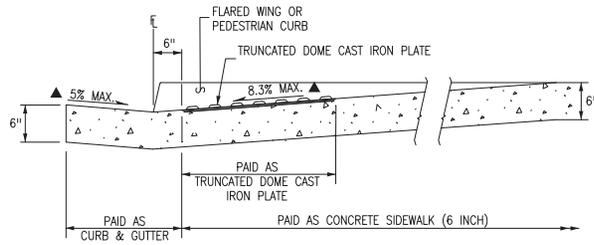
**SECTION K-K
FOR CURB RAMP TYPE 4B**



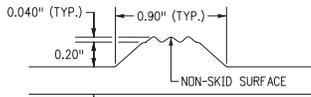
**ISOMETRIC VIEW
FOR CURB RAMP TYPE 4B**

Drawn by: [unclear] Checked by: [unclear] Date: [unclear]
 City of Boulder, CO
 Department of Public Works
 2017-03-01
 2.07-E

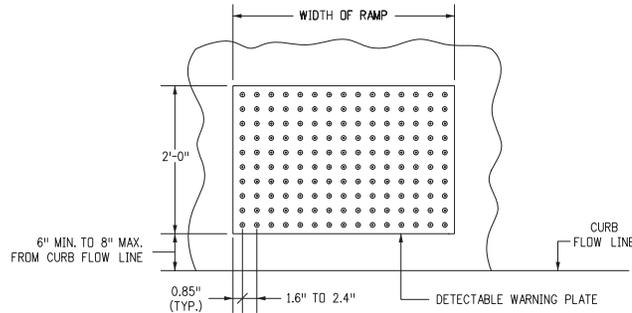
ADAPTED/MODIFIED FROM COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NUMBER M-608-1 SHEET NUMBER 4 OF 10 (LAST MODIFICATION DATE: 2/23/17 BY LTA) Modified by: P Sanders Checked by: R Rindal Approved by: Director of Public Works	DESCRIPTION	DATE:		City of Boulder, CO Design and Construction Standard	CURB RAMP TYPE 4 DETAILS	NOT TO SCALE
	ISSUED	XXXX/20XX				
						DRAWING NUMBER: 2.07-E



SECTION VIEW FOR TYPES 1 AND 3 CURB RAMPS

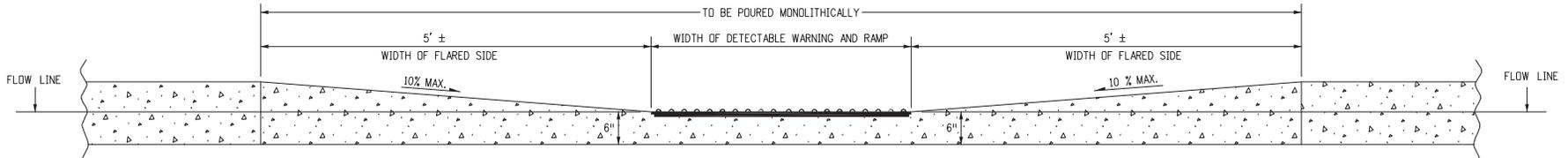


ELEVATION VIEW OF DETECTABLE WARNING PLATE

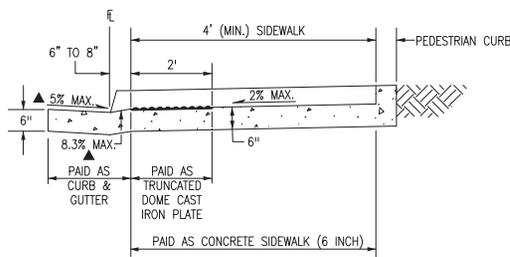


PLAN VIEW OF DETECTABLE WARNING SURFACE

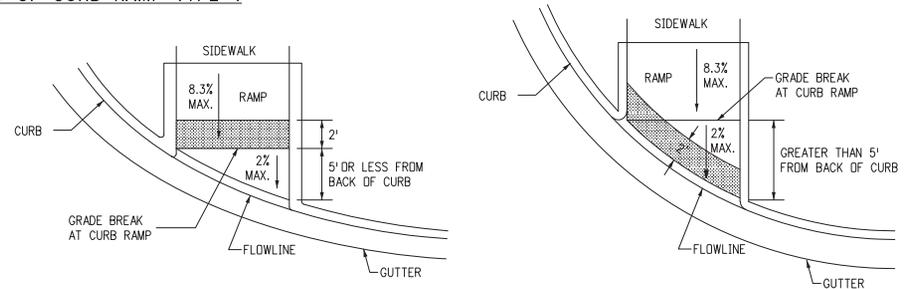
- NOTES**
1. THE DETECTABLE WARNINGS SHALL BE MADE OF CAST IRON TRUNCATED DOME PLATES.
 2. THE CITY ENGINEER SHALL APPROVE THE MANUFACTURER, STYLE AND COLOR OF TRUNCATED DOME PLATES.
 3. INSTALLATION OF TRUNCATED DOME PLATES SHALL BE DONE PER MANUFACTURERS RECOMMENDATIONS.
 4. THE DETECTABLE WARNING SURFACE SHALL SPAN THE ENTIRE WIDTH OF THE RAMP. IF CONDITIONS DO NOT ALLOW THE ENTIRE SPAN, THE DETECTABLE WARNING SURFACE SPAN SHALL NOT BE MORE THAN 2 INCHES AWAY FROM EACH SIDE OF THE RAMP.
- ▲ THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND THE CURB PAN (OR ADJOINING ROAD SURFACE WHEN NO PAN EXISTS) SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL TYPICALLY NOT EXCEED 5%. IF A GUTTER SLOPE GREATER THAN 5% IS REQUIRED TO MAINTAIN PROPER DRAINAGE, THE RAMP SLOPE MUST BE REDUCED AN APPROPRIATE AMOUNT TO RETAIN AN ALGEBRAIC DIFFERENCE OF 13.33% AT THE BREAK LINE.



SECTION VIEW OF CURB RAMP TYPE 1



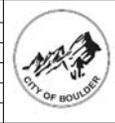
SECTION VIEW FOR TYPE 2 CURB RAMP



DETECTABLE WARNING PLACEMENT GUIDE FOR CAST IRON PLATES

ADAPTED/MODIFIED FROM COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NUMBER M-608-1 SHEET NUMBER 7 OF 10 (LAST MODIFICATION DATE: 2/23/17 BY LTA)
 Modified by: P Sanders
 Checked by: R Rindal
 Approved by: Director of Public Works

DESCRIPTION	DATE:
ISSUED	XXXX/20XX

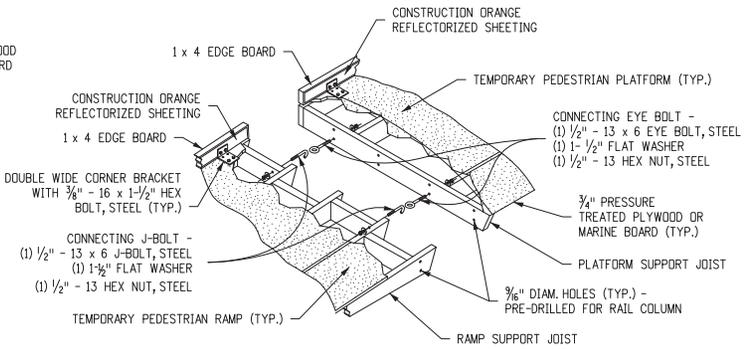
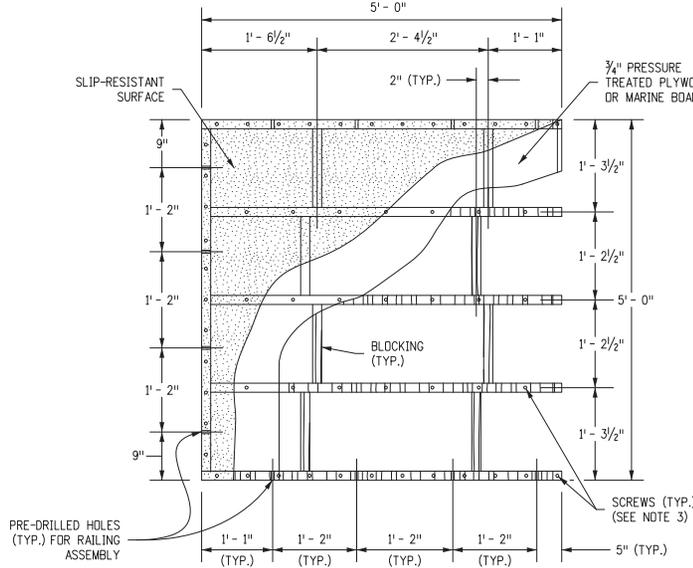


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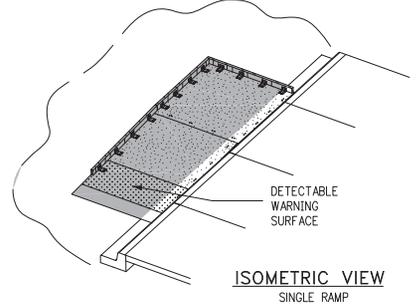
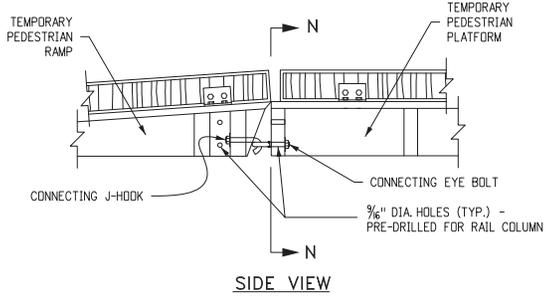
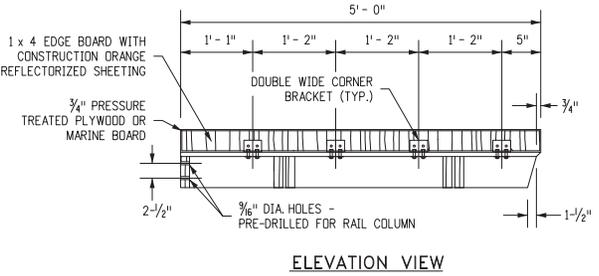
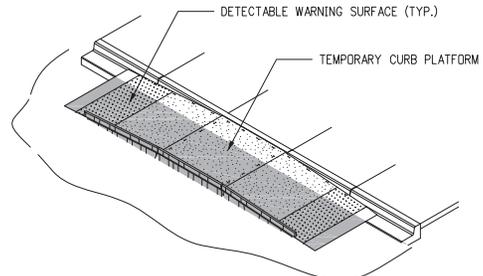
CAST IRON
 DETECTABLE WARNING
 DETAILS

NOT TO SCALE
 DRAWING NUMBER: 2.07-H

Drawn by: [Name] / Checked by: [Name] / Approved by: [Name] / Date: [Date] / Scale: [Scale] / Project: [Project Name] / Sheet: [Sheet Number] of [Total Sheets]



- NOTES**
1. ALL HOLES SHOWN SHALL BE DRILLED TO FACILITATE RE-USE AND FLEXIBLE EXPANSION.
 2. THIS DESIGN ASSUMES OPTIMAL CONDITIONS AND A STANDARD CURB HEIGHT OF 6 INCHES. INSTALLED RAMPS SHALL BE NO STEEPER THAN 8.3% AND SHALL HAVE A CROSS-SLOPE OF 2.0% OR LESS. USE SHIMS OR GROUT AS REQUIRED TO ADJUST FOR EXISTING CONDITIONS AND TO PREVENT ROCKING. SHIMS SHALL BE NO HIGHER THAN 1 INCH AND SHALL BE SECURED TO THE RAMP AND/OR PLATFORM. FOR CURBS SHORTER THAN 6 INCHES, INSTALL A RAMP ON THE SIDEWALK, NO STEEPER THAN 8.3%, AND MADE OF GROUT OR AS APPROVED BY THE ENGINEER. ADJUSTMENTS TO THE PLATFORM DIMENSIONS SHOWN MAY BE REQUIRED TO MATCH EXISTING CONDITIONS.
 3. SCREWS SHALL BE USED TO SECURE THE RAMP SURFACE. SPACING SHALL BE IN ACCORDANCE WITH THE CURRENT BUILDING CODE.
 4. USE A SLIP-RESISTANT TREATMENT FOR SURFACE OF RAMP.
 5. ALL FASTENERS SHALL BE GALVANIZED.



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ADAPTED/MODIFIED FROM COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN NUMBER M-608-1 SHEET NUMBER 10 OF 10 (LAST MODIFICATION DATE: 2/23/17 BY LTA)

Modified by: P Sanders
 Checked by: R Rindal
 Approved by: Director of Public Works

DESCRIPTION	DATE:
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City of Boulder, CO
 Design and Construction
 Standard

TEMPORARY
 PARALLEL
 CURB RAMP DETAILS

NOT TO SCALE

DRAWING NUMBER: 2.07-K