



**NOTE A  
INITIAL SECTION REQUIREMENTS**

USE	MINIMUM LENGTHS	MAXIMUM GRADE
RESIDENTIAL	20'	5%
COMMERCIAL	40'	5%
INDUSTRIAL	60'	5%

**NOTE B  
RAMP SECTION REQUIREMENTS**

- MINIMUM LENGTH OF RAMP TRANSITION IS 12' BETWEEN GRADE BREAKS
- MAXIMUM GRADE BREAK IS 5%
- 15% RAMP GRADE MAXIMUM WITH NO PARKING
- 5% RAMP GRADE MAXIMUM WITH PARKING
- $\alpha \leq 5\%$

**GENERAL NOTES**

1. THIS STANDARD APPLIES TO ALL VEHICULAR RAMPS, COVERED AND UNCOVERED
2. ALL PARKING LAYOUT SHALL CONFORM TO CITY OF APW STD 470 & 471.
3. HELICAL RAMPS SHALL HAVE A MINIMUM OUTER RADIUS OF 35'.

**PARKING STRUCTURE RAMP**



REVISIONS			
No.	DATE	No.	DATE
A	07/85	B	07/86
C	05/97	D	10/18

*[Signature]*  
CITY ENGINEER

10/02/18  
DATE

*[Signature]*  
DIRECTOR OF PUBLIC WORKS

10/02/18  
DATE

STANDARD DETAIL  
**402**  
SHEET 1 OF 1

**DEPARTMENT OF PUBLIC WORKS**