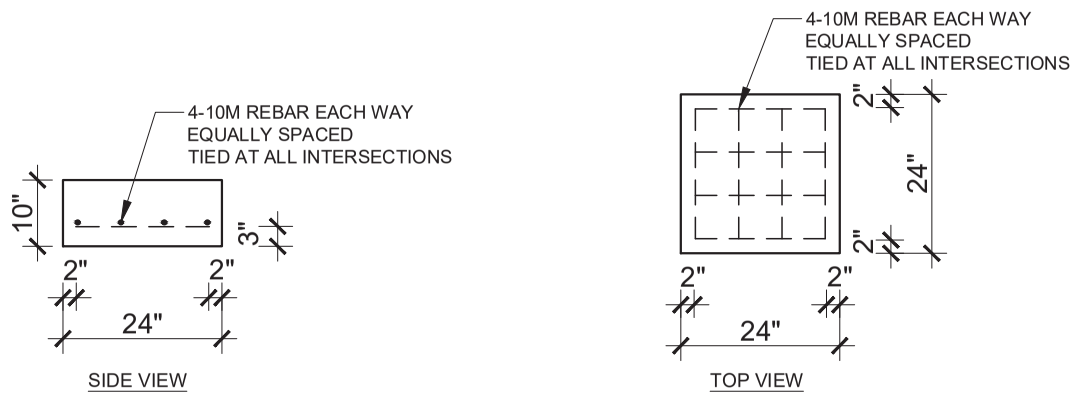
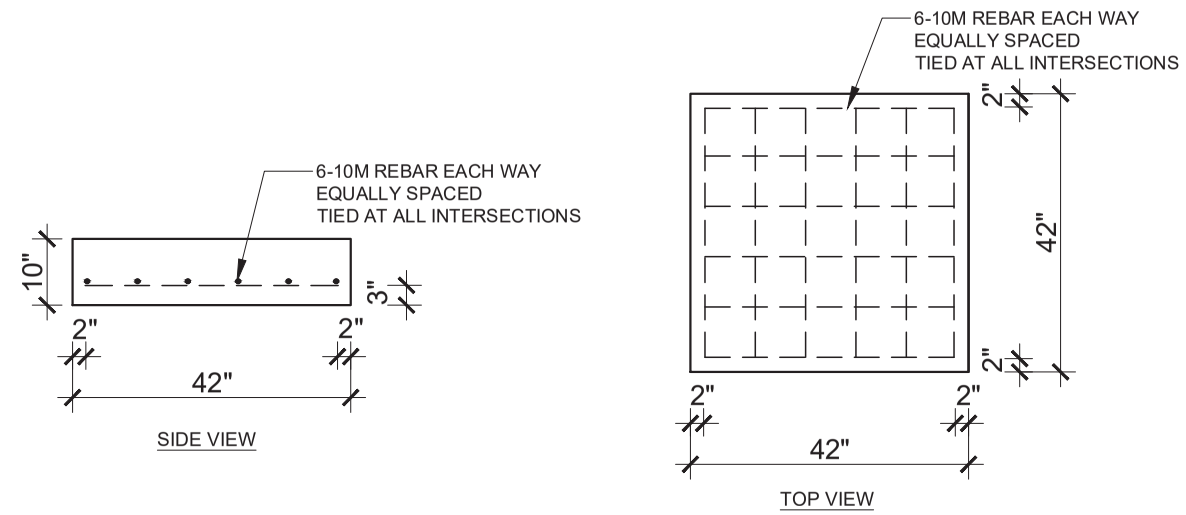
24"x24"x10" FOOTING PAD REINFORCED WITH 4-10M REBAR E/W

UN-FACTORED REACTION MAX. 7,500 lbs OR FACTORED REACTION MAX. 10,700 lbs



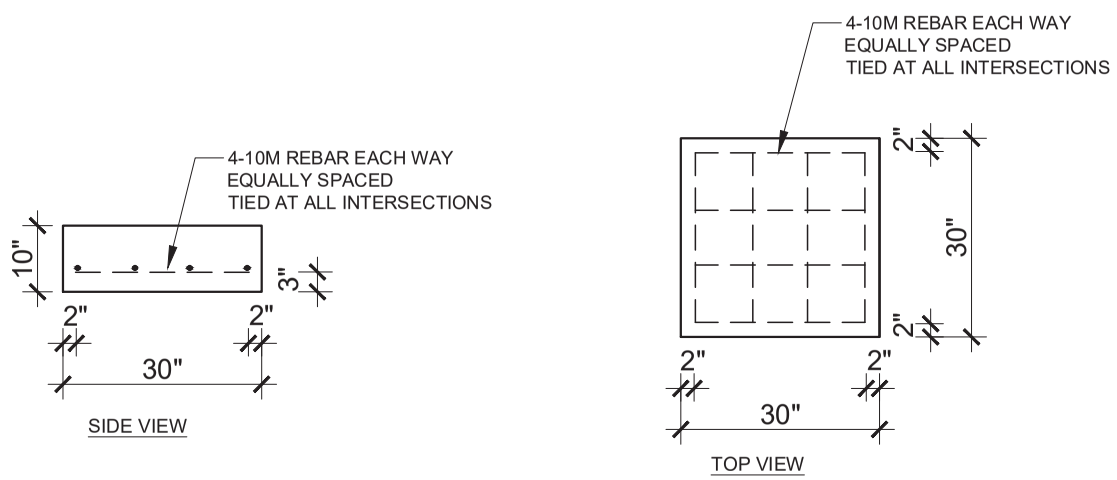
42"x42"x10" FOOTING PAD REINFORCED WITH 6-10M REBAR E/W

UN-FACTORED REACTION MAX. 22,960 lbs OR FACTORED REACTION MAX. 32,760 lbs



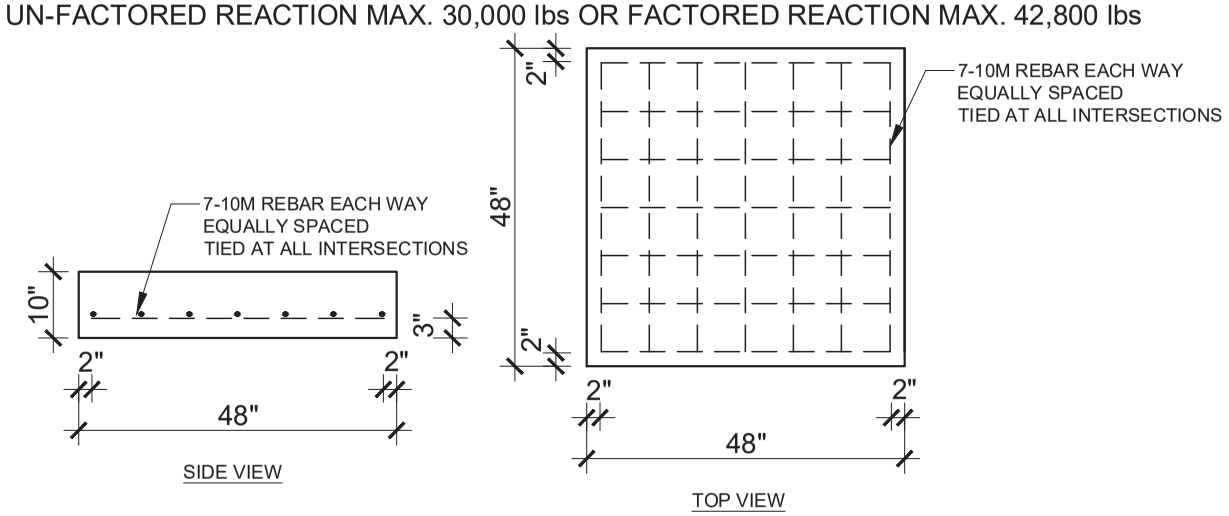
30"x30"x10" FOOTING PAD REINFORCED WITH 4-10M REBAR E/W

UN-FACTORED REACTION MAX. 11,715 lbs OR FACTORED REACTION MAX. 16,715 lbs



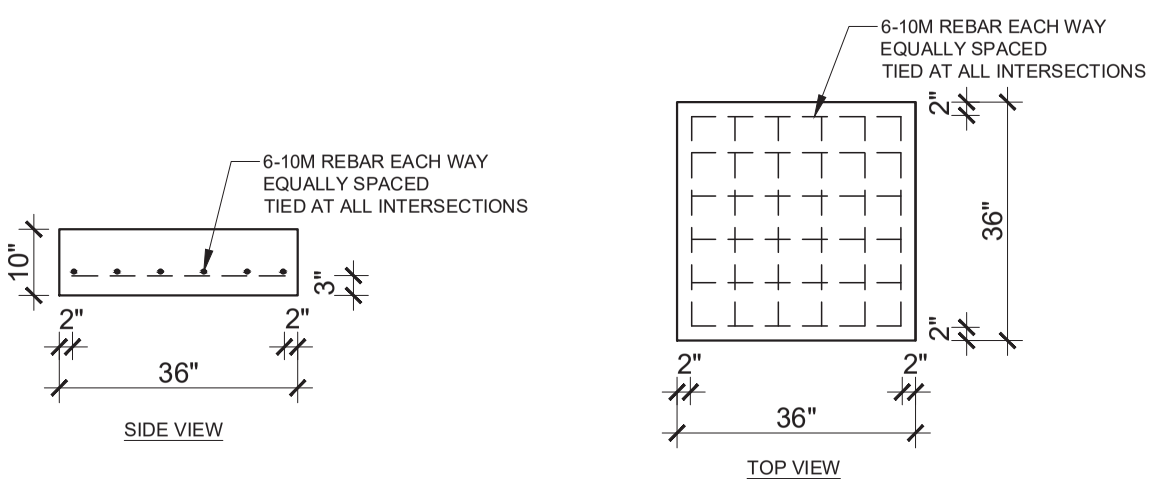
48"x48"x10" FOOTING PAD REINFORCED WITH 7-10M REBAR E/W

UN-FACTORED REACTION MAX. 30,000 lbs OR FACTORED REACTION MAX. 42,800 lbs



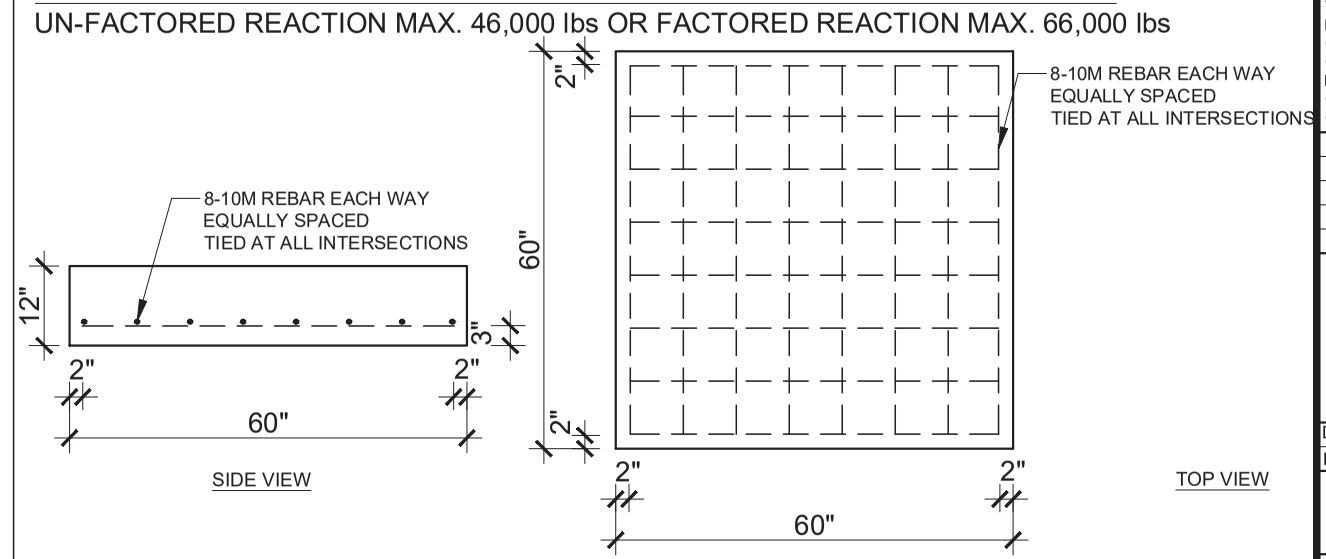
36"x36"x10" FOOTING PAD REINFORCED WITH 6-10M REBAR E/W

UN-FACTORED REACTION MAX. 16,875 lbs OR FACTORED REACTION MAX. 24,075 lbs



60"x60"x12" FOOTING PAD REINFORCED WITH 10-10M REBAR E/W

UN-FACTORED REACTION MAX. 46,000 lbs OR FACTORED REACTION MAX. 66,000 lbs



ASSUMED SOIL BEARING CAPACITY OF 2,000 psf WITH NO GROUND WATER.

THE ACTUAL SOIL BEARING CAPACITY MUST BE CONFIRMED BY A SITE SPECIFIC SOIL BEARING INVESTIGATION. IF THE SOIL BEARING INVESTIGATION INDICATES LASS THAN 2,000 psf SOIL BEARING CAPACITY OR ANY INDICATION OF GROUND WATER, THIS DESIGN SHALL NT APPLY.

CONCISE engineering

CONCISE ENGINEERING LTD.
CALGARY, AB
TEL: 403-479-1350

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DESIGN PARAMETERS:

DESIGN CODE: ALBERTA BUILDING CODE - LATEST
NATIONAL BUILDING CODE OF CANADA - LATEST

ROOF LOAD:		FLOOR LOAD:	
SNOW/RAIN LOAD:	21 PSF	LIVE LOAD:	40 PSF
DEAD LOAD:	10 PSF	DEAD LOAD:	10 PSF

ALLOWABLE SOIL BEARING CAPACITY: ASSUMED 2,000 psf (100kPa)
ASSUMED NO GROUND WATER

CONCRETE COMPRESSIVE STRENGTH TO BE MIN. 20MPa @ 28 DAYS
ALL REINFORCING STEEL TO BE CSA G30.18m 400 MPa
UNIT WEIGHT OF CONCRETE: 150 psf
CONCRETE MAX SLUMP: 3"
ENTRAINED AIR: 4-7%
MAXIMUM SIZE AGGREGATE: ¾"

PERFORMANCE RECOMMENDATIONS:
- THE FOOTING PADS SHALL BE PLACED ON UNDISTURBED SOIL THAT IS FREE FROM FROST DELETERIOUS MATERIALS AND EXCESSIVE MOISTURE
- PREVENT WATER FROM ACCESSING THE BEARING SOILS BEFORE, DURING AND AFTER CONSTRUCTION.
- THE MINIMUM DEPTH OF THE FOUNDATION BELOW FINISHED GROUND SHALL CONFORM TO ARTICLE 9.12.2.2 ABC 2019
- PROVIDE 3" CONCRETE COVER WHERE REBAR ADJACENT TO SOIL
- PROVIDE 2" CONCRETE COVER WHERE REBAR ADJACENT TO FORMWORK
- BEND ALL REBAR AT CORNERS AND EXPAND MIN. 24" PAST CORNERS
- TIE REBAR AT ALL INTERSECTIONS
-PREVENT ANY ECCENTRIC LOADING ON FOOTING STRUCTURE BY INSTALLING THE FOUNDATION WALLS OR COLUMNS IN THE CENTER OF THE STRIP FOOTING OR FOOTING PAD. THE CAPACITY OF THE FOUNDATION STRUCTURE WILL BE REDUCED IF ECCENTRIC LOADING OCCURS.
- INSTALL WEEPING TILE AROUND THE PERIMETER OF THE FOUNDATION AND CONNECT IT TO STORM SEWER OR SUMP PUMP SYSTEM.
- IF 15M REBAR IS TO BE REPLACED, 2-10M REBAR SHALL BE USED
- MIN. CONCRETE STRENGTH IS BASED ON THE ASSUMPTION THAT THE SULPHATE CONCENTRATION IN THE SOIL IS NEGLIGIBLE. FOR OTHER SULPHATE CONCENTRATION IN THE SOIL, THE CONCRETE STRENGTH SHALL BE ADJUSTED ACCORDINGLY.
-SHOULD THERE BE ANY DEVIATION BETWEEN THIS DESIGN AND THE GEOTECHNICAL REPORT OR SOIL BEARING INVESTIGATION REPORT, THE GEOTECHNICAL REPORT OR SOIL BEARING REPORT SHALL SUPERSEDE THIS DESIGN.

THIS DESIGN APPLIES ONLY TO NOTED PROJECT.
IT IS THE RESPONSIBILITY OF THE BUILDER TO ENSURE ALL CONSTRUCTION IS CARRIED OUT ACCORDINGLY TO THE CRITERIA STATED IN THIS DOCUMENT. IF ANY DESIGN OR PROCEDURAL CHANGES ARE MADE DURING OR AFTER CONSTRUCTION THEN WORK SHOULD BE STOPPED AND CONCISE ENGINEERING SHOULD BE NOTIFIED.

REVISIONS		
DATE	DATE	DESIGNER

PERMIT TO PRACTICE #15313
MEMBER# 72091
PROFESSIONAL ENGINEER ALBERTA
2025-01-21

EXPIRY DECEMBER 31, 2025

DRAWN BY:	P. HUANG
REVIEWED BY:	T.ZAORALEK

TYPICAL FOOTING PAD SPECIFICATIONS
SOIL BEARING CAPACITY 2,000 psf

PROJECT NO:	
PROJECT LOCATION:	GENERAL FOOTING LETTER
CUSTOMER:	STAR BUILDING MATERIALS
SCALE:	NTS
SHEET NUMBER:	