

FILE NAME: 2023-036\_060TMM.dwg DATE: 2024.02.09 SHEET TITLE: FOUNDATION, ELEVATION & SECTION PLAN PROJECT No.: 2023-036 ADDRESS: 960 THOMAS AVENUE

**GENERAL**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL NECESSARY SHORING, BRACING AND FORMWORK. FORMWORK FOR NEW CONSTRUCTION SHALL BE BRIDGED OVER EXISTING SERVICES.
- ERRORS IN DRAWINGS AND/OR SPECIFICATIONS AND/OR PREVIOUSLY UNKNOWN EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACT ADMINISTRATOR BEFORE PROCEEDING WITH THE WORK. DURING THE B.D. OPPORTUNITY STAGE, CONTRACTOR SHALL REQUEST AN INTERPRETATION OF CONFLICTS. IF NO REQUEST IS MADE, BOTH PROVISIONS SHALL BE PRESUMED TO BE INCLUDED IN THE BID OPPORTUNITY AND THE CONTRACT ADMINISTRATOR SHALL DETERMINE WHICH PROVISION GOVERNS, AND THE CONTRACTOR SHALL PERFORM THE WORK AT NO ADDITIONAL COST TO THE CITY OF WINNIPEG.
- ANY UNSOUND STRUCTURAL CONDITIONS OBSERVED OR CREATED DURING CONSTRUCTION ARE TO BE REPORTED TO CONTRACT ADMINISTRATOR IMMEDIATELY.
- CONTRACTOR SHALL REVIEW, STAMP, SIGN AND DATE ALL SHOP DRAWINGS PRIOR TO FORWARDING TO ARCHITECT AND/OR CONTRACT ADMINISTRATOR. THE CONTRACT ADMINISTRATOR'S REVIEW IS TO BE FOR CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE RELEVANT CONTRACT DOCUMENTS. THE CONTRACT ADMINISTRATOR'S REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW, CHECK AND COORDINATE THE SHOP DRAWINGS PRIOR TO SUBMISSION. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR ERRORS AND EMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, DIMENSIONS, ETC..
- COORDINATE PLACEMENT AND LOCATION OF ITEMS BY SUBSEQUENT TRADES. RELEVANT TRADES SHALL REVIEW PRIOR TO ERECTION AND/OR INSTALLATION.
- CONFIRM THE LOCATION OF ALL SUB-GRADE SERVICES PRIOR TO COMMENCING SITE WORK.
- VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES TO BE REPORTED TO CONTRACT ADMINISTRATOR IMMEDIATELY. DO NOT SCALE DRAWINGS.
- CONFIRM ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES OR CONFLICTS TO BE REPORTED TO CONTRACT ADMINISTRATOR IMMEDIATELY.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR.

**CONCRETE**

- CONCRETE WORK SHALL BE IN ACCORDANCE WITH CSA A23.1-09 FOR "CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION" INCLUDING COLD WEATHER REQUIREMENTS WHEN THE TEMPERATURE FALLS BELOW 5°C.
- PROVIDE ONE SET OF CONCRETE TEST CYLINDERS IN ACCORDANCE WITH CSA A23.1-09 FOR EVERY 50 M3 OF CONCRETE PLACED AND A MINIMUM OF ONE SET FOR EACH STRUCTURAL COMPONENT.
- PERFORMANCE SPECIFICATION AS PER A23.1-09 TABLE 5:

MIN. CONCRETE STRENGTH @ 28 DAYS	35 MPA
EXPOSURE CLASS	C-1
MAX W/C RATIO	0.40
AIR ENTRAINMENT	4-7%

- COORDINATE THE LOCATION OF ALL ITEMS EMBEDDED IN CONCRETE WORK WITH SHOP DRAWINGS.
- CONTRACT ADMINISTRATOR TO BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF ALL MAJOR POURS.

**REINFORCING**

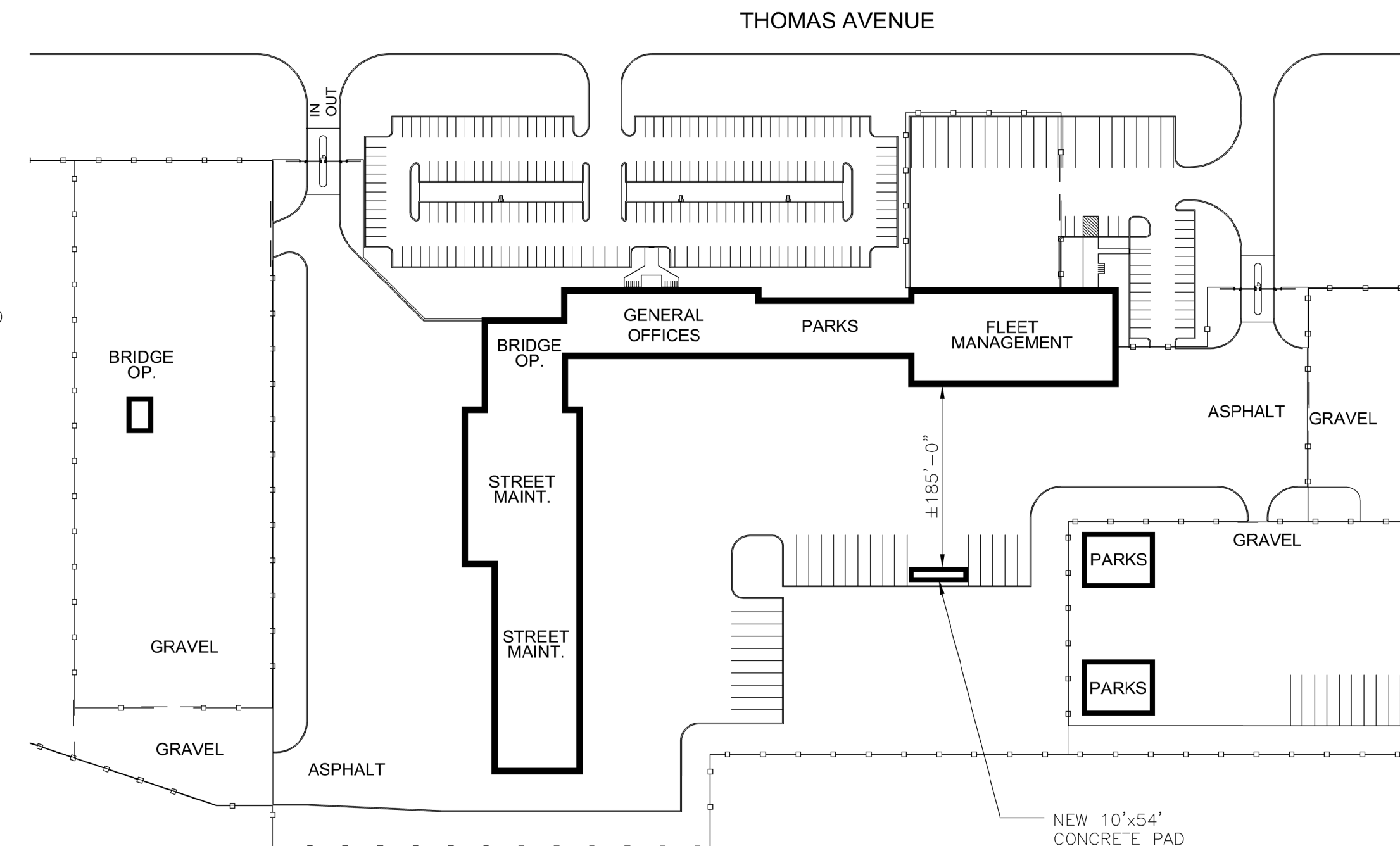
- ALL BARS TO CONFORM TO CSA G30.18-M92 GRADE 400.
- ALL STEEL TO BE DETAILED IN ACCORDANCE WITH THE CURRENT ACI DETAILING MANUAL.
- MINIMUM CLEAR COVER TO REINFORCING TO BE 1 1/2" EXCEPT WHERE CAST AGAINST & PERMANENTLY EXPOSED TO EARTH TO BE 3".
- ALL REINFORCING SHALL BE HELD IN PLACE WITH PROPER ACCESSORIES.
- ALL REINFORCING STEEL SHALL BE CLEANED OF ALL DIRT, GREASE AND OTHER DELETERIOUS MATERIALS PRIOR TO PLACING.
- ALL REINFORCING SHALL BE NEW BILLET DEFORMED BARS.

**STRUCTURAL STEEL**

- ALL "W" AND "HSS" SECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA G40.21-04 M350W, ALL OTHER SECTIONS SHALL BE IN ACCORDANCE WITH CAN/CSA G40.21-04 M300W.
- ALL WELDING SHALL CONFORM TO CSA W59-03 (R2008); FABRICATORS TO BE CERTIFIED IN ACCORDANCE WITH CSA W47.1-09.
- FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH CAN/CSA S16-09, "LIMIT STATES DESIGN OF STEEL STRUCTURES".
- SUPPLY STEEL WITH PROPERTIES NOTED IN STEEL GRADES TABLE BELOW.

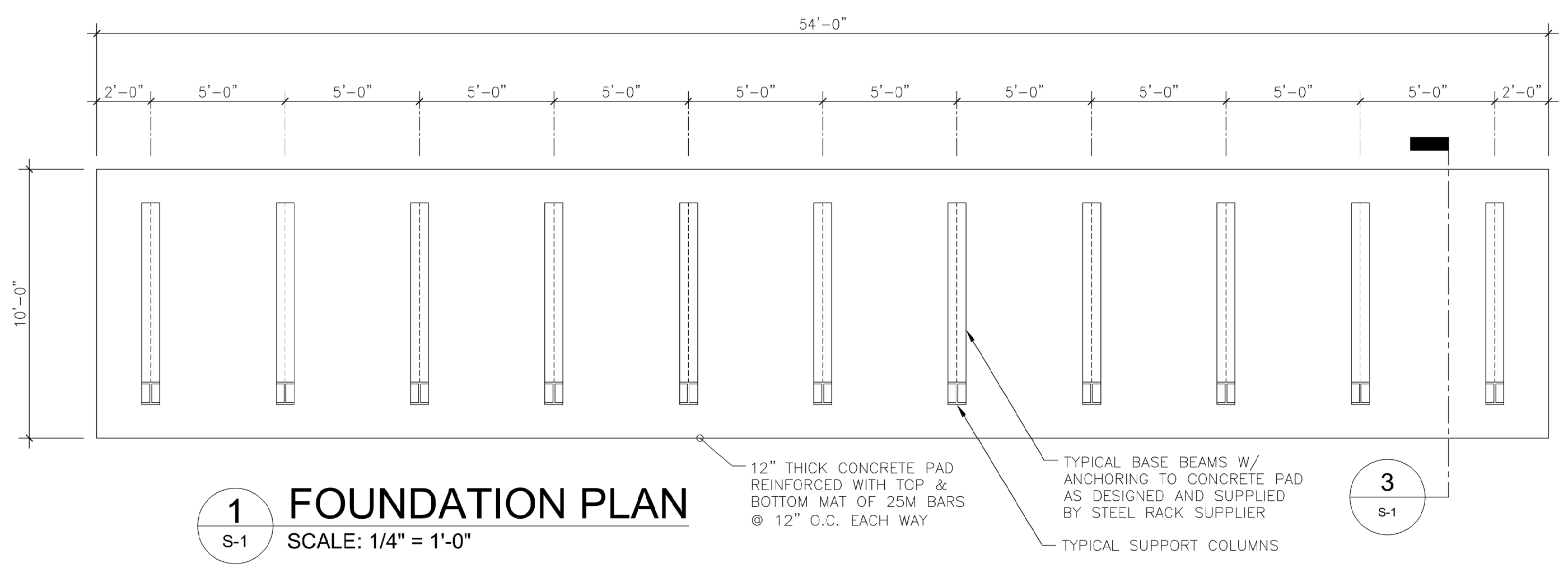
MEMBER TYPE	GRADE
ROLLED W-SHAPE, TEES	CSA G40.21 350W OR ASTM A 992 GRADE 50
WELDED WIDE FLANGE SECTIONS	CSA G40.21 350W
HOLLOW STRUCTURAL SHAPES & PLATES	CSA G40.21 350W CLASS C
OTHER STRUCTURAL SHAPES & PLATES	CSA G40.21 350W
BOLTS	ASTM A325
ANCHOR RODS	ASTM F1554 GRADE 36
HEADED STUD ANCHORS	ASTM A108
THREADED RODS	ASTM A36

- STEEL ERECTOR SHALL BE RESPONSIBLE FOR SUPPLYING AND ERECTING ALL TEMPORARY BRACING TO PROVIDE STABILITY FOR THE STRUCTURE AS A WHOLE, UNTIL ALL RELATED STRUCTURAL FRAMING IS ERECTED AND COMPLETELY INSTALLED.
- FABRICATOR SHALL NOTIFY THE CONTRACT ADMINISTRATOR OF ANY PROPOSED MEMBER SUBSTITUTIONS OR CHANGED CONNECTION DETAILS.
- RACK SUPPLIER IS RESPONSIBLE FOR DESIGN AND DETAILING OF ALL STRUCTURAL STEEL MEMBERS AND CONNECTIONS.
- ANCHOR BOLTS SHALL BE SUPPLIED BY STRUCTURAL STEEL SUPPLIER & SET BY CONTRACTOR.
- STRUCTURAL STEEL SUPPLIER SHALL SUBMIT SHOP DRAWINGS FOR REVIEW OF FABRICATION, SIZES, DIMENSIONS AND PLACEMENT. ALL CONNECTIONS ARE TO BE SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA.

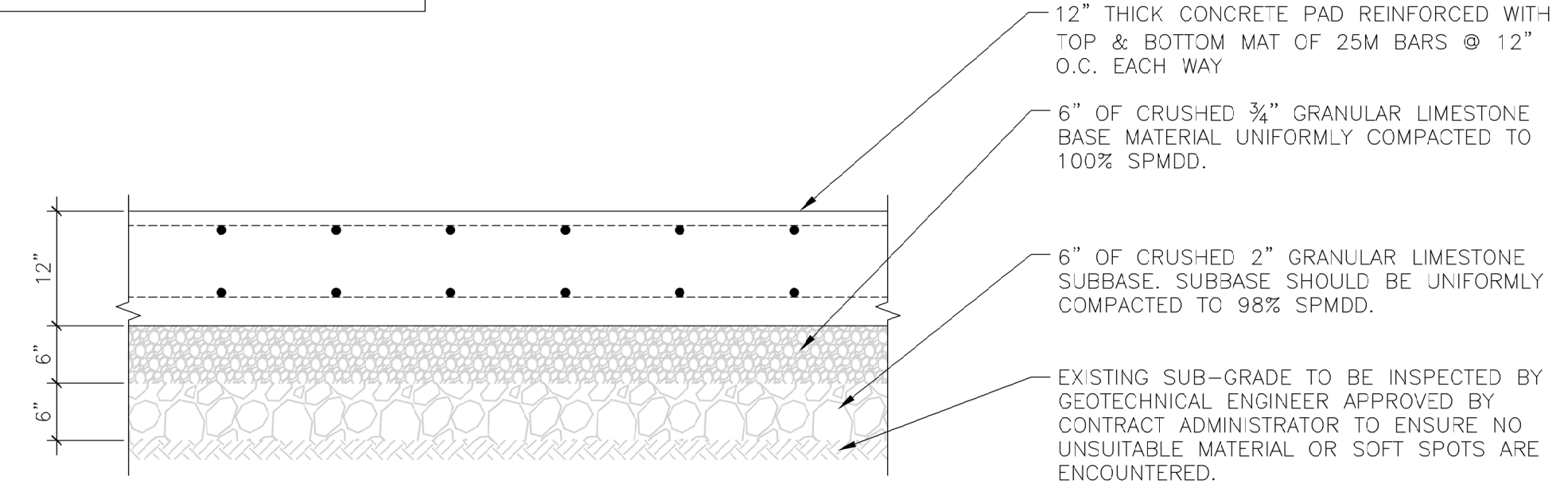


**DESIGN CRITERIA**

SNOW LOAD = 36 PSF (TOP LEVEL ONLY)
LIVE LOAD = 100 PSF ON EACH STORAGE LEVEL OR 2700 POUNDS PER ARM
WIND LOAD = 30 PSF
ASSUMED SOIL BEARING CAPACITY = 1000 PSF

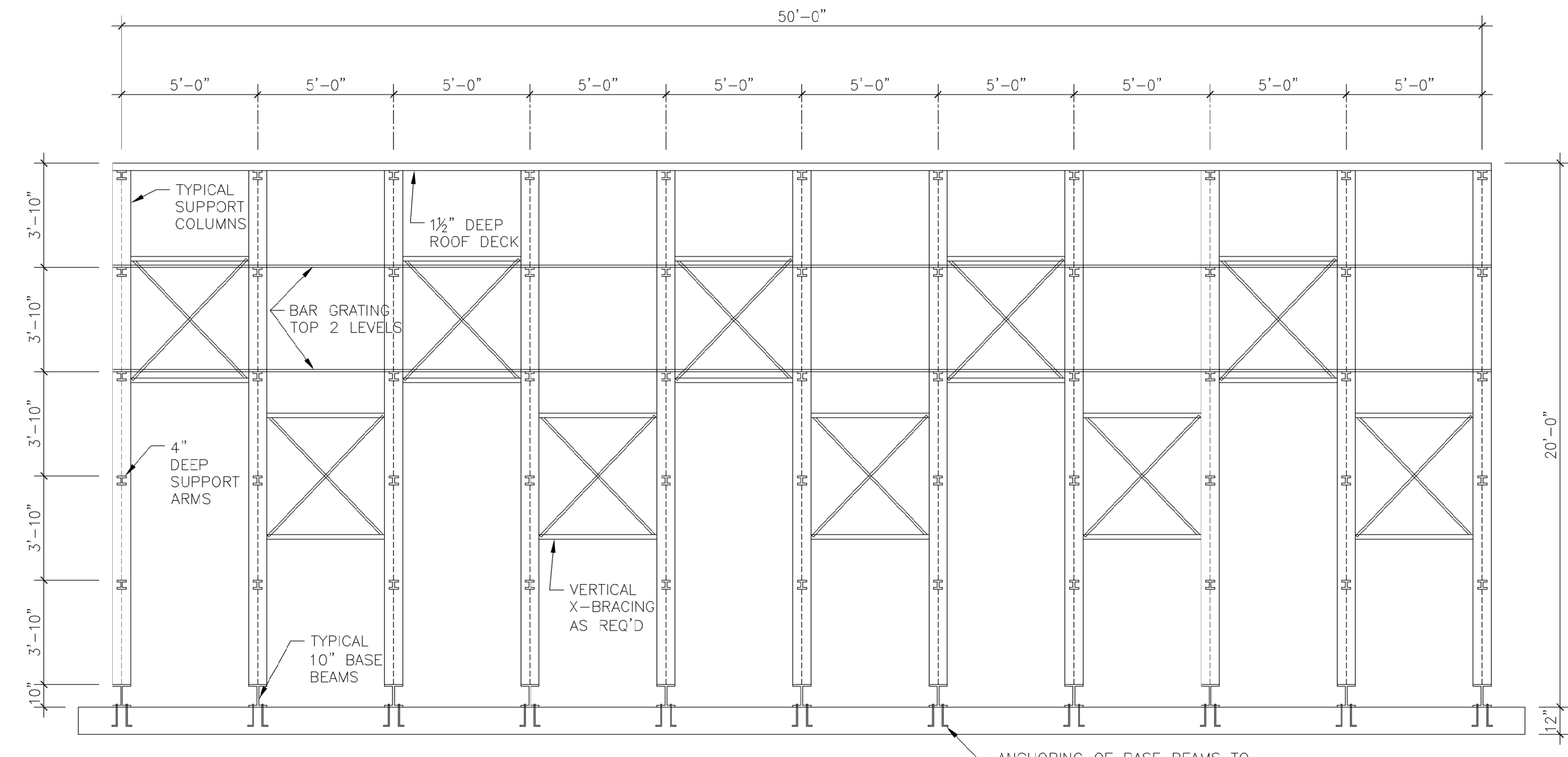


**1 FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"



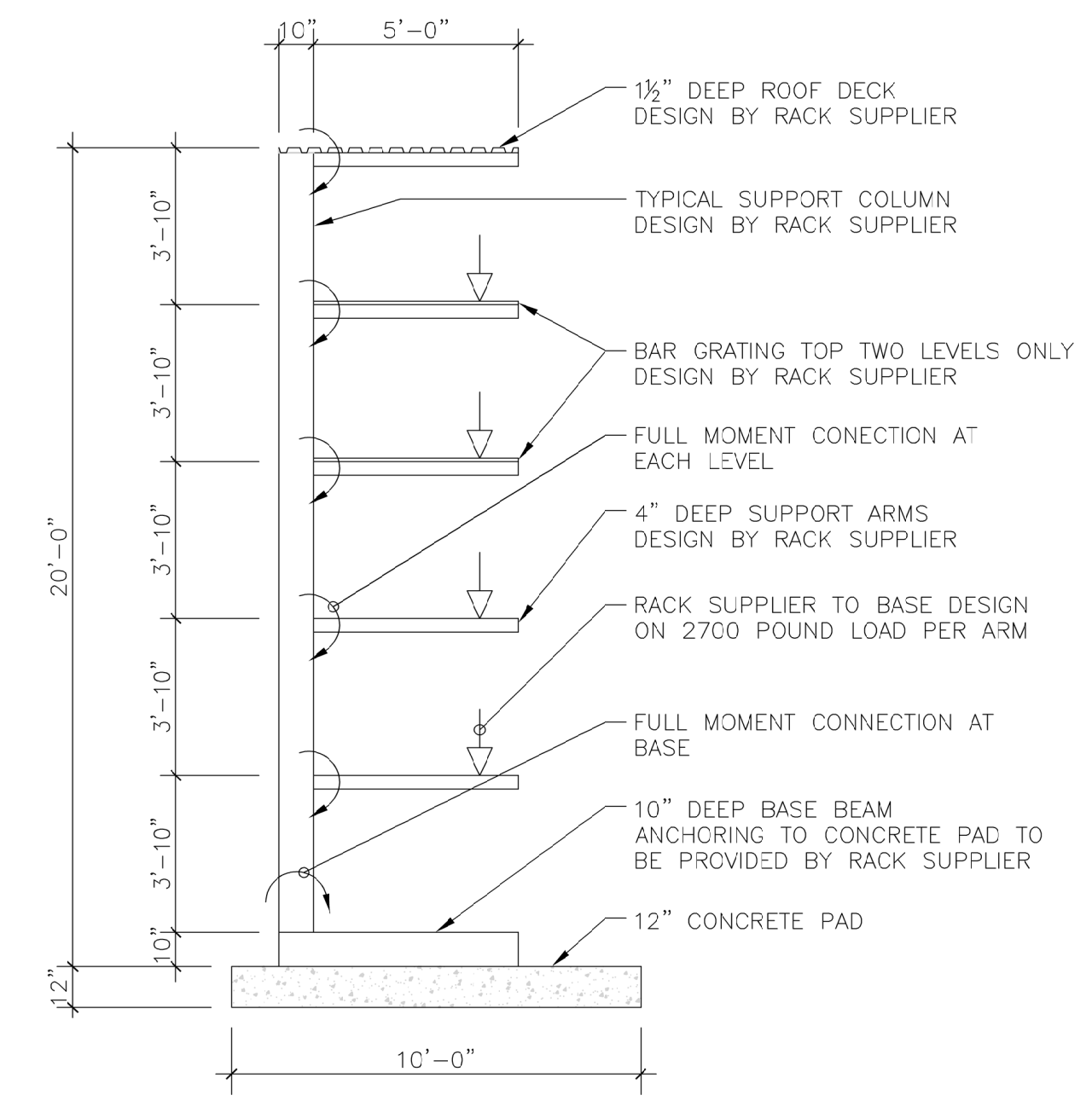
**4 TYPICAL CONCRETE PAD DETAIL**  
SCALE: 3/4" = 1'-0"

NOTE: ALL GRANULAR FILL SHOULD MEET THE LATEST CITY OF WINNIPEG CONSTRUCTION SPECIFICATIONS (CW3110) FOR SUBBASE AND BASE COURSE.



**2 FRONT ELEVATION**  
SCALE: 1/4" = 1'-0"

ALL STEEL COMPONENTS, CONNECTIONS AND ANCHORING OF RACK SYSTEM ARE TO BE DESIGNED BY RACK SUPPLIER. CONTRACTOR TO SUBMIT SHOP DRAWINGS STAMPED BY ENGINEER REGISTERED IN MANITOBA FOR REVIEW AND COORDINATION.



**3 SECTION**  
SCALE: 1/4" = 1'-0"

No.	REVISION/DESCRIPTION	BY	DATE
0	ISSUED FOR CONSTRUCTION	SJB	FEB. 3, 2024



DATE	USER	APPROVAL
2024.02.08	SJB	BON

THE CITY OF WINNIPEG  
ASSETS & PROJECT MANAGEMENT  
DEPARTMENT  
MUNICIPAL ACCOMMODATIONS DIVISION  
3-65 GARRY STREET, R3C 4K4

PROJECT  
**PUBLIC WORKS DEPARTMENT  
FLEET MANAGEMENT  
STORAGE RACK**  
960 THOMAS AVENUE

SHEET TITLE  
**FOUNDATION PLAN  
ELEVATION  
SECTION**

SCALE	PROJECT No.	SHEET No.
AS SHOWN	2023-036	S-1