

ISSUED FOR

- 2021-05-20 SCHEMATIC DESIGN
- 2021-07-23 100% DESIGN DEVELOPMENT QA
- 2021-08-06 BID SPO1
- 2021-08-06 BUILDING PERMIT
- 2021-08-06 SITE PLAN APPROVAL

METRIC

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CLIENT

TRILLIUM HEALTH PARTNERS
 150 DUNDAS ST. W. TORONTO, ON M5G 1A5
 TEL: (416) 595-8171 WEBSITE: www.trilliumhealthpartners.ca

CONSTRUCTION MANAGER

KENADAN CONTRACTING LTD.
 7880 SHEPPARD AVENUE EAST, SUITE 100
 MISSISSAUGA, ON L4V 1V5
 TEL: (905) 910-2680 WEBSITE: www.kenadan.com/

ARCHITECT & PRIME CONSULTANT

DIALOG
 35 JOHN STREET, SUITE 500
 TORONTO, ON M5V 1S8
 TEL: (416) 966-0220 WEBSITE: [dialogdesign.ca](http://www.dialogdesign.ca)

STRUCTURAL ENGINEER

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 35 JOHN STREET, SUITE 500
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MECHANICAL ENGINEER

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 TEL: (416) 966-0220 WEBSITE: [dialogdesign.ca](http://www.dialogdesign.ca)

ELECTRICAL ENGINEER

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 TEL: (416) 966-0220 WEBSITE: [dialogdesign.ca](http://www.dialogdesign.ca)

LANDSCAPE ARCHITECT

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 35 JOHN STREET, SUITE 500
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 TEL: (416) 966-0220 WEBSITE: [dialogdesign.ca](http://www.dialogdesign.ca)

CIVIL ENGINEER

MTE CONSULTANTS INC.
 1018 SUTTON DRIVE, UNIT A
 BURLINGTON, ON L7R 1B6
 TEL: (905) 639-2362 WEBSITE: [mte85.com](http://www.mte85.com)

SECURITY

THE ATARM GROUP INC.
 295-180 WOODWARD DRIVE
 OTTAWA, ON K2C 2P7
 TEL: (613) 617-3939 WEBSITE: [theatarmgroup.com](http://www.theatarmgroup.com)

SIGNAGE AND WAYFINDING

ENTRO
 13 HARBOUR SQUARE, SUITE 202
 TORONTO, ON M5J 2G2
 TEL: (416) 363-6868 WEBSITE: [entro.com](http://www.entro.com)

VIBRATION, NOISE, ACOUSTICS

SWALLOW ACOUSTICS CONSULTANTS LTD.
 23366 REVELS AVENUE
 MISSISSAUGA, ON L5G 4S5
 TEL: (905) 271-1888 WEBSITE: [thorntonsaathi.com](http://www.thorntonsaathi.com)

BUILDING CODE

LRI ENGINEERING INC.
 171 UNIVERSITY AVE. 2ND FLOOR, BOX 1
 TORONTO, ON M5H 1B3
 TEL: (416) 515-9331 WEBSITE: [lri.ca](http://www.lri.ca)

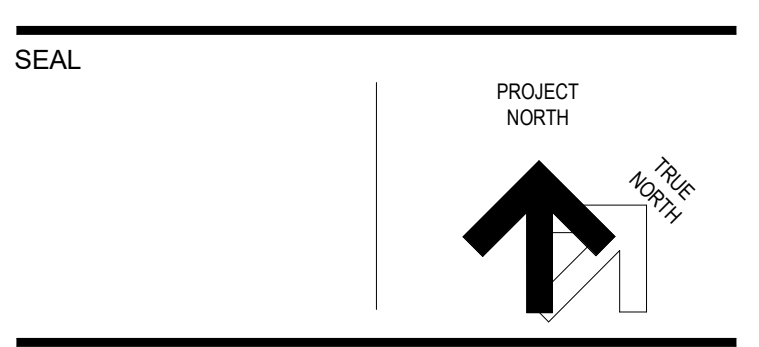
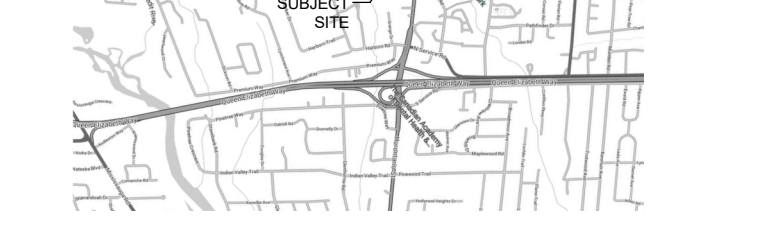
VERTICAL TRANSPORTATION

SOREMAN ENGINEERING INC.
 55 ST. CLAIR AVENUE WEST, SUITE 205
 TORONTO, ON M4V 1T7
 TEL: (416) 323-2133 WEBSITE: [soremangenr.com](http://www.soremangenr.com)

HARDWARE

SPYDERC
 35 HUDA RD.
 MISSISSAUGA, ON L4H 3M5
 TEL: (905) 271-4889 WEBSITE: [spyderc.com](http://www.spyderc.com)

KEYPLAN



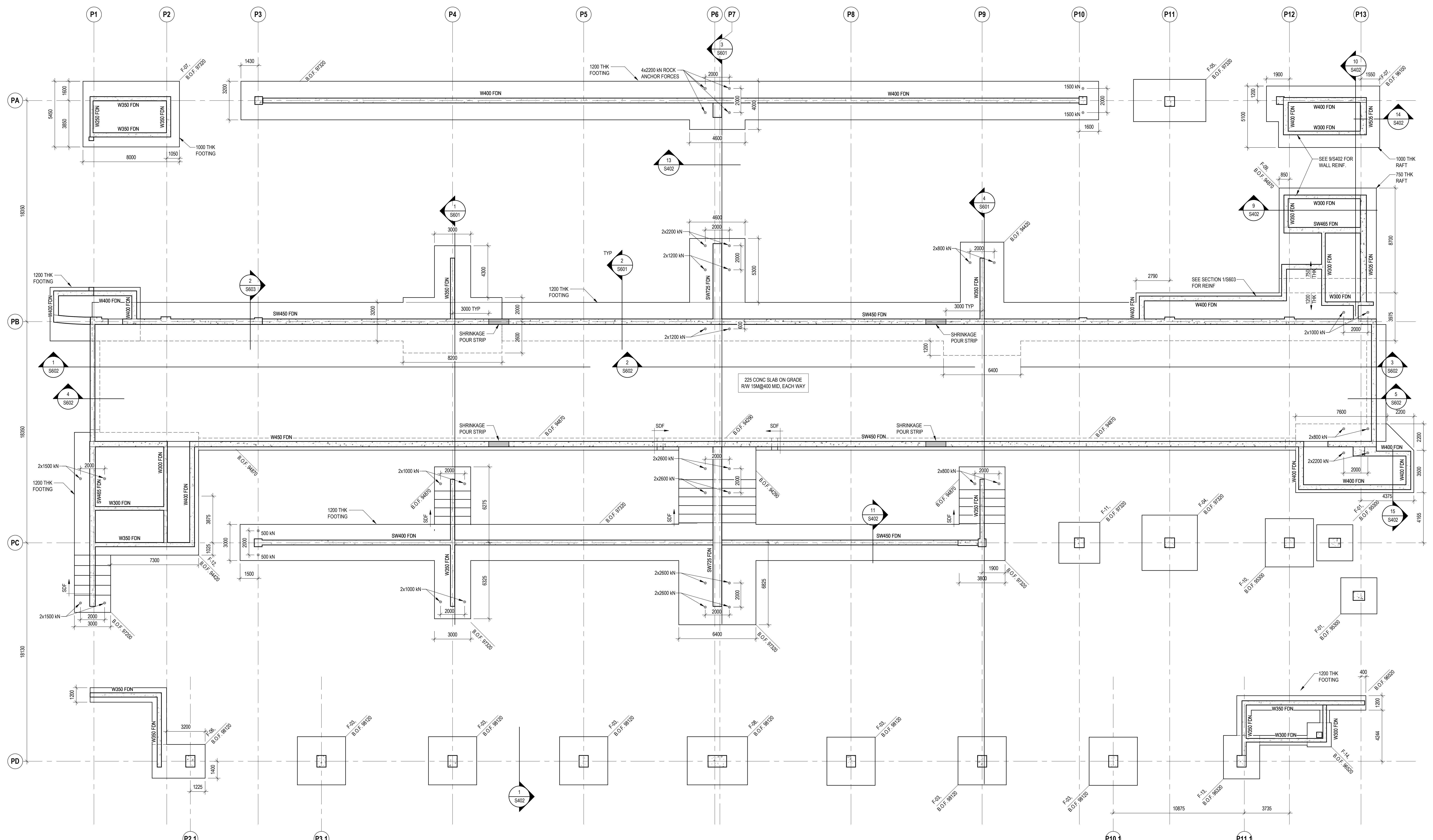
THP M-SITE HOSPITAL PARKING STRUCTURE

100 QUEENSWAY WEST,
 MISSISSAUGA, ONTARIO
 L5B 1B8

FOUNDATION PLAN AND ROCK ANCHORS

DRAWN: KAZ CHECKED: JG
 PLOT DATE: 06/2021 1:18:02 PM

S201



FOUNDATION PLAN
 SCALE: 1:125

FOUNDATION PLAN NOTES:

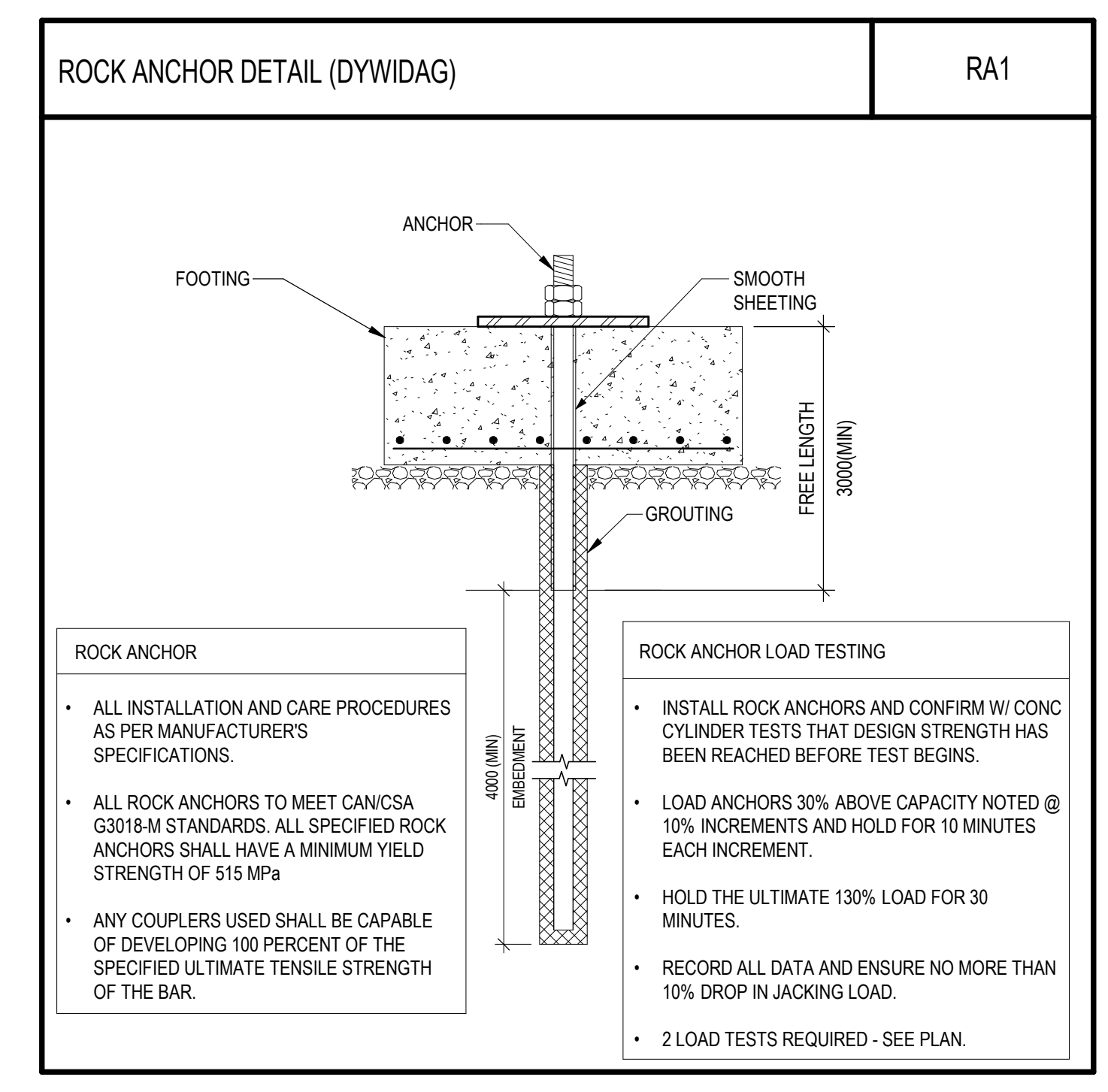
- COORDINATE ALL MECHANICAL AND ELECTRICAL UNDERGROUND SERVICES WITH UNDERGROUND STRUCTURE. REPORT TO ENGINEER ON RECORD ANY INTERFERENCE PRIOR TO COMMENCING THE WORK.
- REFER TO GENERAL NOTES FOR ADDITIONAL FOUNDATION INFORMATION.
- SOIL CAPACITY AT THE USE OF SHALLOW FOOTINGS TO BE VERIFIED PRIOR TO INSTALLATION OF CONCRETE BY GEOTECHNICAL ENGINEER.
- FOUNDATION ELEVATIONS AND CONDITION OF BEARING STRATA TO BE VERIFIED BY GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- B.O.F. DENOTES BOTTOM OF FOOTING ELEVATION.
- BEAR UNLESS OF FOOTINGS AT ELEVATIONS INDICATED ON PLAN OR 500 mm BELOW TOP OF SHALE BEDROCK ELEVATION, WHICHEVER IS DEEPER.
- UPLIFT FORCES MUST BE RESISTED BY ROCK/SOIL ANCHORS CAPABLE OF RESISTING THE FORCES INDICATED ON PLAN.
- COORDINATE WITH STRUCTURAL ENGINEER ANY MODIFICATION REQUIRED DURING THE EXCAVATION OR INSTALLATION OF SHALLOW AND DEEP FOUNDATIONS AS A RESULT OF SITE CONDITION.
- REFER TO PLAN S401 AND S41A FOR ZONE REINFORCEMENT LAYOUT IN FOUNDATION STRUCTURE.
- STEP DOWN FOOTINGS (SDF) AS REQUIRED TO ACHIEVE BOTTOM OF FOOTING (B.O.F.) ELEVATION. MAXIMUM STEP HEIGHT TO BE 600mm.
- REFER TO DRAWING S401 AND S41A FOR WALLS AND ZONE REINFORCEMENT DETAILS.

FOOTING SCHEDULE					
MARK	W	L	THICKNESS	REINFORCING	REMARK
F-01	3000	3000	1200	12-25M EW	25% HOOKED AT ENDS
F-03	4000	4000	1400	26-25M EW	25% HOOKED AT ENDS
F-04	4000	4000	1400	26-25M EW	25% HOOKED AT ENDS
F-05	3000	6000	1400	17-30M (LONG) / 30-25M SHORT	ADD 17-30M 4000 BLZ E-W - 25% HOOKED AT ENDS
F-06	2000	4400	1200	SEE PLAN	
F-07	SEE PLAN	SEE PLAN	1000	SEE PLAN	
F-08	5000	4000	1200	20-25M LONG / 25-25M SHORT	25% HOOKED AT ENDS
F-09	8000	8700	150	SEE PLAN	
F-10	4000	4000	1200	20-25M EW	25% HOOKED AT ENDS
F-11	3400	3400	1200	17-25M EW	25% HOOKED AT ENDS
F-12	SEE PLAN	SEE PLAN	1200	SEE PLAN	
F-13	3000	3000	1200	15-25M (LONG) / 15-25M SHORT	25% HOOKED AT ENDS
F-14	2000	2000	1000	12-20M EW	50% HOOKED AT ENDS

WALL SCHEDULE			
MARK	THICKNESS	REINFORCEMENT	REMARK
SW400 FDN	400	SEE SECTION 1/S603	
SW450 FDN	450	SEE SECTION 1/S603	
SW465 FDN	465	15M@240 HV EF	
SW725 FDN	725	15M@200 HV EF	
W350 FDN	250	15M@400 HV EF	
W300 FDN	300	15M@200 HV EF	SEE S1602 FOR ELEVATOR PIT LONG WALLS
W350 FDN	300	15M@300 HV EF	SEE SECTION 1/S601 FOR WALL ON GRID P1
W400 FDN	400	15M@250 HEF / 15M@400 VEF	USE 15M@200H ON GRID PC
W450 FDN	450	SEE SECTION 1/S603	
W500 FDN	500	15M@300 HV EF	

ROCK/SOIL ANCHOR NOTES:

- REFER TO GEOTECHNICAL REPORT FOR SOIL CAPACITIES, BOREHOLE LOGS AND ADDITIONAL INFORMATION REQUIRED FOR ROCK/SOIL ANCHOR DESIGN.
- FORCES SHOWN ARE FACTORED NET UPLIFT FORCES RESULTING FROM SEISMIC LOADS AND HAVE BEEN CALCULATED PER NBC: 2015, CLAUSE 4.1.8.16.3 WITH RFR=1. ACCEPTABLE TO INCREASE THE SPECIFIED SOIL CAPACITY BY A FACTOR OF 1.3 FOR ANCHOR SHAFTS AND CONFINEMENT LENGTHS.
- PROVIDE MINIMUM 3000 FREE LENGTH AT TOP OF ANCHORS TO ENGAGE FOOTING CAPACITY IN RESISTING UPLIFT FORCE.
- THE DESIGN, MANUFACTURE OF, INSTALLATION, TESTING, AND THE FINAL INSPECTION OF THE DELEGATED DESIGN ROCK ANCHORS IS THE RESPONSIBILITY OF THE ROCK ANCHOR MANUFACTURER. PROVIDE A STAMPED SET OF FOUNDATION DRAWINGS ISSUED FOR CONSTRUCTION, FOLLOWED BY ALL PERIODIC INSPECTION REPORTS AND A FINAL REVIEW REPORT BY THE ENGINEER RESPONSIBLE FOR THE DESIGN OF THE ROCK ANCHORS. THE FINAL LETTER BY THE ENGINEER RESPONSIBLE FOR THE DESIGN OF THE ROCK ANCHORS SHALL INCLUDE THE STATEMENT THE ROCK ANCHOR FOUNDATIONS AS DESIGNED AND INSTALLED ARE ADEQUATE TO SUPPORT THE LOADS INDICATED ON THE STRUCTURAL DRAWINGS AND SATISFY THE REQUIREMENTS OF THE ONTARIO BUILDING CODE.
- PERFORM AT LEAST TWO(2) FULL SCALE PULL-OUT TESTS ("PERFORMANCE TEST") AS PER SPECIFICATIONS.
- EACH INSTALLED ANCHOR MUST BE PROOF LOADED AS PER SPECIFICATIONS.



RA1

- ROCK ANCHOR**
- ALL INSTALLATION AND CARE PROCEDURES AS PER MANUFACTURER'S SPECIFICATIONS.
 - ALL ROCK ANCHORS TO MEET CANCSA C63014 M STANDARDS. ALL SPECIFIED ROCK ANCHORS SHALL HAVE A MINIMUM YIELD STRENGTH OF 515 MPa.
 - ANY COUPLERS USED SHALL BE CAPABLE OF DEVELOPING 100 PERCENT OF THE SPECIFIED ULTIMATE TENSILE STRENGTH OF THE BAR.

- ROCK ANCHOR LOAD TESTING**
- INSTALL ROCK ANCHORS AND CONFIRM W/ CONG CYLINDER TESTS THAT DESIGN STRENGTH HAS BEEN REACHED BEFORE TEST BEGINS.
 - LOAD ANCHORS 3% ABOVE CAPACITY NOTED @ 1% INCREMENTS AND HOLD FOR 10 MINUTES EACH INCREMENT.
 - HOLD THE ULTIMATE 130% LOAD FOR 30 MINUTES.
 - RECORD ALL DATA AND ENSURE NO MORE THAN 10% DROP IN JACKING LOAD.
 - 2 LOAD TESTS REQUIRED - SEE PLAN.