
Date: June 15, 2020

Addendum No: 003

Project Number: R.105793.008

The following changes in the tender documents are effective immediately. This addendum will form part of the contract documents.

Drawings

1. E - Electrical

1. E6 Electrical Above Ceiling Communications New Work

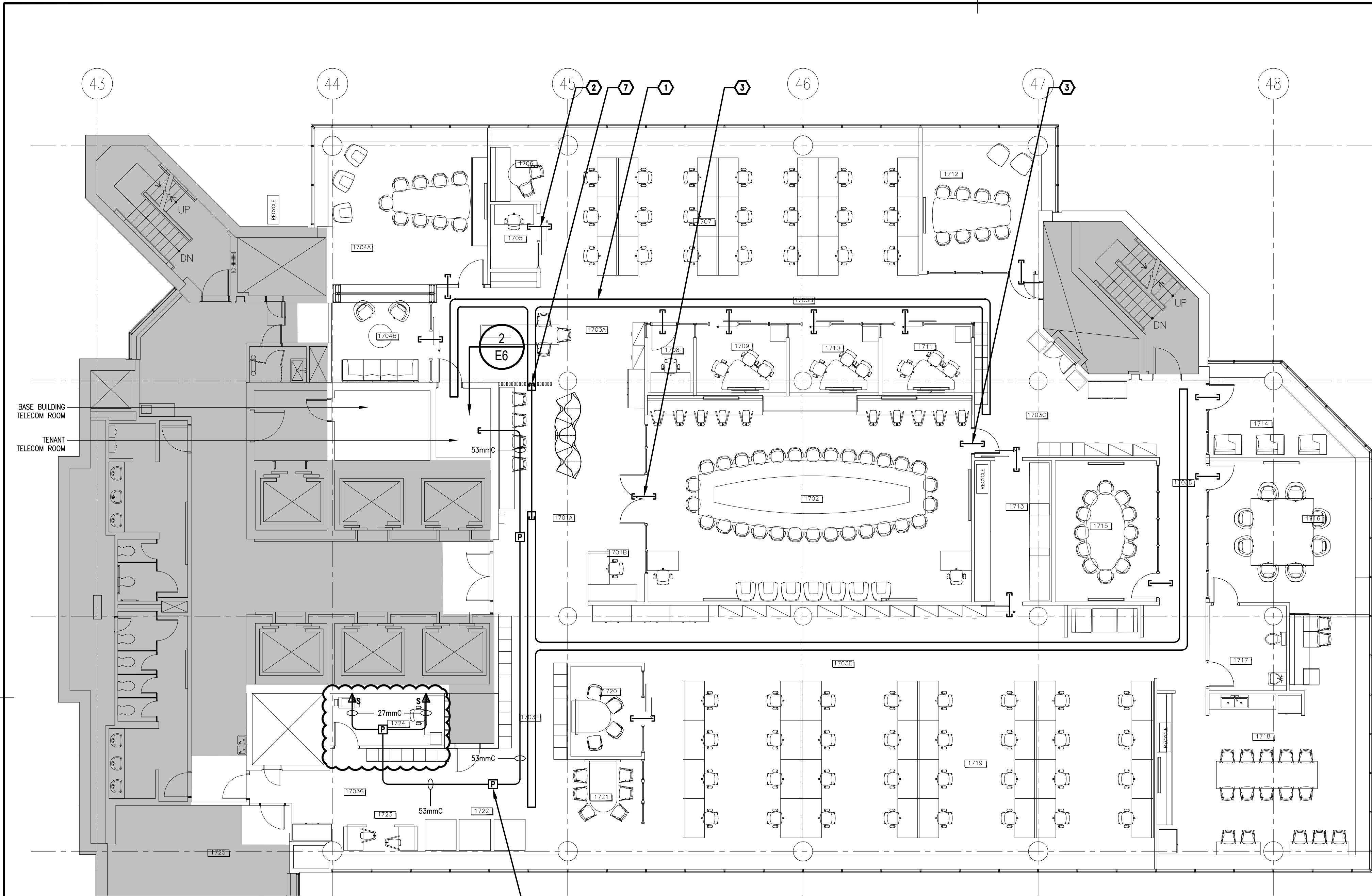
1. Delete drawing E6, add drawing E6/R2.

Specifications

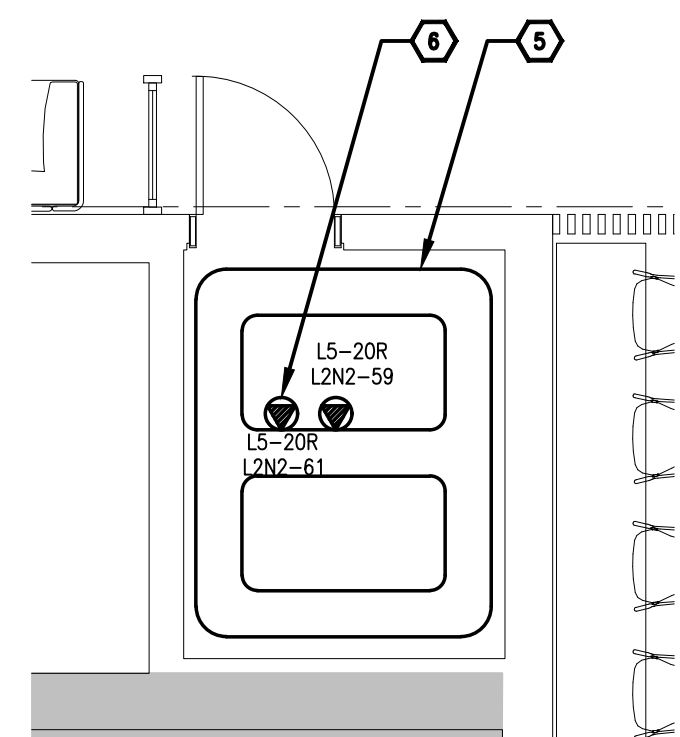
1. Section 01 00 10 – General Instructions

1. Remove item 1.7.3.1 in its entirety. Add item 1.7.3.1 to read: Storage space and site office are to be located within construction premises.

End of Instructions



1 ABOVE CEILING COMMUNICATIONS NEW WORK
E6 1:100



1 TENANT TELECOM ROOM DETAIL
E6 1:100

GENERAL NOTES

- ALL EXISTING TO REMAIN AND NEW CONDUITS IN THE AREA OF WORK SHALL BE PROPERLY SUPPORT TO BUILDING STRUCTURE.
- EXACT LOCATION AND MOUNTING HEIGHTS OF ALL OUTLETS TO BE COORDINATED WITH INTERIOR DESIGNER'S DRAWINGS PRIOR TO ROUGH IN. REFER TO ARCHITECTURAL DRAWINGS FOR MILLWORK, FURNITURE, SCREENS, AV COMPONENTS FOR REQUIREMENTS.
- PROVIDE NEW UPDATED, TYPED PANEL DIRECTORIES UPON PROJECT COMPLETION.

DRAWING NOTES

- PROVIDE NEW 300mm X 100mm WIRE BASKET TYPE CABLE TRAY IN CEILING SPACE OF OPEN OFFICE AREA AS INDICATED C/W ALL REQUIRED HARDWARE AND ACCESSORIES. PROVIDE GROUND WIRE IN TRAY. FIRE STOP ALL PENETRATIONS. REFER TO CABLE TRAY DETAILS ON DRAWING E8.
- TYPICAL: PROVIDE NEW 27mm CONDUIT SLEEVES IN ALL ENCLOSED SPACES. ENDS TO BE REAMED AND BUSHED. COORDINATE EXACT LOCATION ON SITE. FIRE STOP ALL PENETRATIONS.
- PROVIDE NEW 53mm CONDUIT SLEEVES IN LARGE MEETING ROOM AS SHOWN. ENDS TO BE REAMED AND BUSHED. COORDINATE EXACT LOCATION ON SITE. FIRE STOP ALL PENETRATIONS.
- TYPICAL: PROVIDE NEW 155mmX155mmX78mm PULL BOX ABOVE CEILING SPACE AS INDICATED. REFERENCE COMMUNICATIONS SPECIFICATIONS ON THIS DRAWING.
- PROVIDE NEW 305mm X 100mm LADDER TYPE CABLE TRAY AS INDICATED C/W ALL REQUIRED HARDWARE AND ACCESSORIES. CABLE TRAY SHALL BE INSTALLED AT 2250mm ABOVE FINISHED FLOOR. PROVIDE GROUND WIRE IN TRAY. REFERENCE CABLE TRAY DETAILS ON DRAWING E8.
- TYPICAL: PROVIDE NEW DEDICATED RECEPTACLE, TYPE AS INDICATED. RECEPTACLES TO BE MOUNTED ON THE SIDE OF THE CABLE TRAY. COORDINATE EXACT LOCATION ON SITE WITH DEPARTMENTAL REPRESENTATIVE.
- PROVIDE THREE (3) 103mm EMPTY CONDUITS C/W PULL STRINGS TO INTERCONNECT NEW CABLE TRAY RUNNING THROUGH THE SPACE.

COMMUNICATION NOTES

- CONDUITS:
 - ALL TELECOMMUNICATIONS PATHWAYS SHALL BE INSTALLED IN HOME RUN CONDUITS ORIGINATING FROM THE TELECOMMUNICATION OUTLET TO THE CABLE TRAY SYSTEM OR TO THE APPLICABLE TELECOM ROOM (TR AND MER/MTR). THE USE OF J HOOKS IS PERMITTED AND SHALL BE INSTALLED AS PER CODES AND STANDARDS.
 - ALL CONDUITS AND PULL BOXES SHALL BE INSTALLED IN ACCORDANCE WITH CEC, PART 1, TA-569 COMMERCIAL BUILDING STANDARD FOR TELECOMMUNICATIONS PATHWAYS AND SPACES AND APPLICABLE BUILDING CODES. CONDUIT SHALL BE RIGIDLY FASTENED AND ADEQUATELY SUPPORTED TO WITHSTAND PULLING TENSIONS. THE INSIDE RADIUS OF A BEND IN A CONDUIT SHALL BE NOT LESS THAN SIX TIMES THE INTERNAL DIAMETER WHEN THE CONDUIT IS LESS THAN 50mm IN DIAMETER AND TEN TIMES THE INTERNAL DIAMETER WHEN CONDUIT IS 50mm IN DIAMETER OR LARGER.
 - IN ACCORDANCE WITH TA-606 AND TA-569, ALL ZONE CONDUITS SHALL BE IDENTIFIED AND LABELED AT BOTH ENDS. TAGS SHALL IDENTIFY START AND FINISH OF CONDUIT RUNS. PULL BOXES SHALL BE LABELED ON THE EXPOSED EXTERIOR.
 - ALL CONDUITS SHALL ORIGINATE AND BE PHYSICALLY CONNECTED TO THE TELECOM BACKBOARDS IN THE TRS, CABLE TRAY AND PULL BOX.
 - ALL METALLIC PARTS OF THE CABLE DISTRIBUTION SUPPORTING SYSTEM SHALL BE BONDED TOGETHER MECHANICALLY, INCLUDING AT ALL TRANSITION POINTS (I.E. CABLE TRAY AND DISTRIBUTION CONDUIT NOT MECHANICALLY CONNECTED) USING A #6 AWG GREEN JACKETED STRANDED COPPER GROUND WIRE. THE METALLIC COMPONENTS OF THE CABLE DISTRIBUTION SYSTEM SHALL BE BONDED TOGETHER AT THE MTR AND TRS AND THEN BONDED TO THEIR RESPECTIVE TELECOM GROUND BUS BARS.
 - ALL FITTINGS, CONNECTORS AND COUPLINGS ARE TO BE STEEL.
 - ALL CONDUITS/SLEEVES THAT ENTER THE TR SHALL BE FITTED WITH AN APPROVED GROUND BUSHING C/W GROUND LUG AND BONDED TOGETHER MECHANICALLY (ONE CONTINUOUS PIECE PREFERRED). THIS SHALL BE CONNECTED TO THE APPROVED BUILDING GROUND BY MEANS OF A #6 AWG GREEN JACKETED STRANDED COPPER GROUND WIRE TO THE GROUNDING BUS BAR.
 - ALL CONDUITS ENTERING OR EXITING THROUGH THE CEILING OR WALLS OF THE TR SHALL PROTRUDE INTO THE ROOM 25-50mm OR AS DESIGNATED BY THE DEPARTMENTAL REPRESENTATIVE DESIGN AUTHORITY.
 - ALL CONDUIT RUNS SHALL FOLLOW BUILDING GRID LINES AND SHALL BE CONCEALED WHERE POSSIBLE.
 - ALL CONDUITS SHALL BE THIN WALL EMT, REAMED AND BUSHED AT BOTH ENDS AND BONDED TO THE DISTRIBUTION SYSTEM. RIGID PVC OR FLEXIBLE METALLIC CONDUITS ARE ACCEPTABLE IN LIMITED SITUATIONS.
 - UNLESS OTHERWISE SPECIFIED, ALL CONDUIT RUNS SHALL BE A MAXIMUM OF 30 METERS IN LENGTH WITH A MAXIMUM OF TWO 90-DEGREE BENDS BETWEEN PULL POINTS.
 - A PULL BOX SHALL BE PLACED IN CONDUIT RUNS WHERE THE SUM OF THE BENDS EXCEEDS 180 DEGREES, WHERE THE OVERALL LENGTH OF THE CONDUIT RUN IS MORE THAN 30m, OR IF THERE IS A REVERSE BEND IN THE RUN.
 - PULL BOXES SHALL BE MADE OF CODE GAUGE STEEL AND SHALL HAVE A RUST RESISTANT FINISH. LOCATIONS AND SIZES OF ALL PULL BOXES SHALL BE AS INDICATED.
 - IN ALL INSTANCES PULL BOXES SHALL BE PLACED IN STRAIGHT SECTIONS OF CONDUIT RUN AND SHALL NOT BE USED IN LIEU OF A BEND. CORRESPONDING ENDS OF THE CONDUIT ARE TO BE ALIGNED WITH EACH OTHER. CONDUIT FITTINGS SHALL NOT BE USED IN PLACE OF PULL BOXES OR BENDS.
 - PULL BOXES SHALL BE INSTALLED AT A REASONABLE HEIGHT, IN AN EXPOSED LOCATION SUCH THAT ACCESS FOR INSTALLATION OF CABLES IS NOT PROHIBITED. PULL BOXES SHALL NOT BE PLACED IN A FIXED FALSE CEILING SPACE, UNLESS IMMEDIATELY ABOVE A SUITABLY MARKED AND HINGED ACCESS PANEL. PROVIDE INDICATOR DECALS ON CEILING T-BAR RAIL OR CEILING TILES SHOWING LOCATION OF PULL BOX OR SPLICE BOX. REFER TO THE DESIGN AUTHORITY FOR DETAILS.
 - THE MINIMUM SIZE (INSIDE DIAMETER) FOR EMT CONDUIT RUNNING BETWEEN THE TELECOMMUNICATIONS ROOM AND THE TELECOMMUNICATIONS OUTLET AT AN OUTLET LOCATION IS TWENTY-SEVEN MILLIMETERS (27mm).
 - THE MAXIMUM HORIZONTAL DISTANCE SHALL BE 90 METERS. THIS IS THE CABLE LENGTH FROM THE MECHANICAL TERMINATION IN THE TR AND MTR ROOMS TO THE TELECOMMUNICATIONS OUTLET. WHERE THE HORIZONTAL DISTANCE EXCEEDS 90 METERS, PROVIDE ADDITIONAL ROOMS AS REQUIRED.
 - CABLE FILL CAPACITIES OF CONDUIT, CABLE TRAY AND RACEWAYS SHALL NOT BE GREATER THAN 40%.
 - A PULL CORD OR FISH TAPE SHALL BE INSTALLED IN ALL CONDUITS.
 - THE TELECOMMUNICATIONS OUTLET CONDUIT SYSTEM SHALL BE LABELLED GREEN.
 - PLACE PULL BOXES IN ACCESSIBLE LOCATIONS ONLY.
 - THE TELECOMMUNICATION OUTLET CONDUIT SYSTEM SHALL BE LABELLED GREEN.
 - THE USE OF C, LB, LL AND TYPE T TYPE FITTINGS IS NOT PERMITTED.
 - CONDUITS ENDING IN THE VICINITY OF CABLE TRAY SHALL BE TERMINATED AT A HEIGHT OF NO LESS THAN 100mm AND NO MORE THAN 150mm FROM THE TOP OF THE CABLE TRAY. CONDUIT RUNS SHALL NOT BE PUNCHED THROUGH THE SIDE OF THE CABLE TRAY. CONDUIT ENDS ARE TO BE BONDED TO THE CABLE TRAY. INSTALLER IS TO ENSURE THAT THE BONDING CABLE IS SECURED TO THE OUTSIDE OF THE CABLE TRAY.

- BASKET TYPE CABLE TRAY:
 - WIRE BASKET TRAY MUST BE EQUAL TO OR EXCEED WIRE BASKET TRAY SPECIFICATIONS AND MUST BE INSTALLED TO MEET THE NATIONAL AND LOCAL BUILDING CODES, CEC AND CSA STANDARDS.
 - WIRE BASKET TRAY SHALL BE MANUFACTURED FROM ROUND STEEL WIRE THAT IS A MINIMUM OF 5mm IN DIAMETER. WIRES SHALL BE WELDED AT INTERSECTIONS TO FORM A GRID PATTERN AND THE TRAY SHALL BE U-SHAPED WITH EQUAL HEIGHT SIDEWALLS. WIRE BASKET TRAY SHALL BE INSTALLED IN THE CEILING PLENUM AND BE USED FOR CABLING DISTRIBUTION. INACCESSIBLE AREAS SUCH AS LOOK-IN TYPE CEILING TILES, DRYWALL OR PLASTER SHALL NOT BE USED AS DISTRIBUTION PATHWAYS.
 - WIRE BASKET TRAYS SHALL BE LOCATED TO SUIT THE APPLICATION. NOTHING SHALL PROTRUDE, PENETRATE OR PASS THROUGH THE BASKET TRAY. ALSO, IT SHALL BE ACCESSIBLE FOR FUTURE CHANGES TO BOTH THE CABLE TRAY AND CABLING SYSTEM.
 - SUPPORT WIRE BASKET TRAYS TO SUIT LOADING AND RECOMMENDED SUPPORT REQUIREMENTS IN THE CANADIAN ELECTRICAL CODE, PART 1, FOR THE APPLICABLE CLASS. A SUPPORT SHALL BE PLACED WITHIN A MAXIMUM OF 610mm ON EITHER SIDE OF ANY CONNECTION TO A FITTING.
 - THE INSIDE OF THE WIRE BASKET TRAY SHALL BE FREE OF BURRS, SHARP EDGES OR PROJECTIONS, WHICH COULD DAMAGE CABLE INSULATION.
 - USE ONLY INSTALLATION TOOLS RECOMMENDED BY THE MANUFACTURER TO FIELD FABRICATE BASKET TRAY INTERSECTIONS AND CHANGES IN ELEVATION. USE SIDE-ACTION BOLT CUTTERS WITH AN OFFSET HEAD TO CUT BASKET TRAY. USE A BENDING TOOL TO FORM THE ENDS OF CUT SECTIONS DOWNWARD AT 90° TO ALLOW EASY DROP-IN. INSTALLATION WITH APPROVED SUPPORTS. MANUFACTURER'S ACCESSORIES AND FITTINGS SUCH AS SUPPORT WASHERS, AND WASHER SPLICE KITS SHALL BE USED FOR THE INSTALLATION OF THE WIRE BASKET TRAY.
 - WIRE BASKET TRAYS SHALL BE INSTALLED AT LEAST 300mm AWAY FROM FLUORESCENT LUMINARIES AND SHALL CROSS POWER CABLES AT RIGHT ANGLES. PROVIDE MINIMUM 300mm ACCESS HEADROOM ABOVE THE CABLE TRAY WHERE PRACTICAL. DO NOT PERMIT OTHER BUILDING COMPONENTS SUCH AS: AIR CONDITIONING DUCTS TO RESTRICT ACCESS TO TRAYS.
 - WIRE BASKET TRAY SHALL BE SUPPORTED EVERY 1500mm OR LESS IN ACCORDANCE WITH TA-569-D. SUPPORTS MAY BE LOCATED DIRECTLY UNDER SPLICES OR INTERSECTIONS IF RECOMMENDED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. IF SUPPORTS ARE NOT LOCATED UNDER SPLICES OR INTERSECTIONS, BASKET TRAY SHALL BE SUPPORTED WITHIN 610mm ON BOTH SIDES OF EVERY SPLICE OR INTERSECTION. SUPPORT BASKET TRAY ON BOTH SIDES OF EVERY CHANGE IN ELEVATION.
 - SECURE WIRE BASKET TRAY TO EACH SUPPORT WITH A MINIMUM OF ONE FASTENER. FOLLOW THE MANUFACTURER'S RECOMMENDED ASSEMBLY, SPLICE AND INTERSECTION FORMING PRACTICES.
 - BASKET TRAY SHALL BE BONDED TO THE TELECOMMUNICATION GROUNDING BUS BAR (TGB) USING AN APPROVED GROUND LUG ON THE BASKET TRAY AND A MINIMUM #6 GROUNDING WIRE OR AS RECOMMENDED BY THE MANUFACTURER. VERIFY BONDS AT SPLICES AND INTERSECTIONS BETWEEN INDIVIDUAL BASKET TRAY SECTIONS AND SUPPORTS. CABLE PATHWAY SHOULD BE ELECTRICALLY CONTINUOUS THROUGH BONDING AND ATTACHED TO THE TGB.
- DATA OUTLETS:
 - OUTLET BOXES SHALL BE 100mm X 100mm X 54mm AND FITTED WITH A SINGLE GANG PLASTER RING. WHEREVER POSSIBLE, THE FACE OF THE PLASTER RING SHOULD BE INSTALLED FLUSH.
 - OUTLET BOXES SHALL BE INSTALLED IN LOCATIONS THAT ARE APPROVED AND SPECIFIED BY THE DEPARTMENTAL REPRESENTATIVE. UNLESS OTHERWISE NOTED ON THE BUILDING PLANS, THE OUTLET BOX SHALL BE INSTALLED 300mm AFF OR AT THE SAME HEIGHT AND WITHIN 300mm OF THE ADJACENT ELECTRICAL DUPLEX RECEPTACLES.
 - CONDUIT MUST ENTER THE OUTLET BOXES FROM THE TOP OR BOTTOM.
 - BACK TO BACK OUTLET BOXES SHALL NOT BE USED.
 - PLASTER RINGS OR RAISED ADAPTER PLATES SHALL NOT BE USED TO REDUCE THE SIZE OF THE OUTLET SUCH THAT TWO ADDITIONAL RECEPTACLES COULD NOT BE ADDED TO THE OUTLET IN THE FUTURE.
 - THE CONTRACT MANAGEMENT AUTHORITY AT NO ADDITIONAL COST MAY CHANGE THE LOCATION OF THE OUTLET, PROVIDED THAT THE DISTANCE IS NOT GREATER THAN 3M AND SUFFICIENT NOTICE IS GIVEN PRIOR TO INSTALLATION.
 - IF WALLS ARE TO BE FINISHED WITH DRYWALL OR OTHER BUILDING MATERIAL, OUTLET BOXES SHALL BE INSTALLED TO ENSURE THAT WHEN THE WALL IS COMPLETE, THE BOX WILL BE FLUSH WITH THE EXTERIOR SURFACE.
- PULL BOXES:
 - PULL BOXES SHALL BE CONSTRUCTED OF AT LEAST 16 GAUGE STEEL AND SHALL HAVE A RUST RESISTANT FINISH.
 - IN LIEU OF A BEND, THE CORRESPONDING CONDUIT ENDS SHOULD BE ALIGNED WITH EACH OTHER.
 - WHEREVER SPACE PERMITS, PULL BOX SIZING SHALL BE BASED ON INDUSTRY STANDARDS OR APPROVED BY THE DEPARTMENTAL REPRESENTATIVE-TCDNE DESIGN AUTHORITY.

Canada

Public Works and Government Services Canada
Travaux publics et services gouvernementaux Canada

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Consulting Engineers

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Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

L'entrepreneur doit vérifier toutes les dimensions et conditions sur le site et aviser immédiatement l'ingénieur de toute divergence.

| 7 | ADDENDUM 003 | 2020-06-15 |
|---|------------------------|------------|
| 6 | ADDENDUM 002 | 2020-06-12 |
| 5 | ISSUED FOR TENDER R1 | 2020-04-16 |
| 4 | ISSUED FOR TENDER | 2020-04-01 |
| 3 | ISSUED FOR 100% REVIEW | 2020-03-13 |
| 2 | ISSUED FOR 99% REVIEW | 2020-02-24 |
| 1 | ISSUED FOR 66% REVIEW | 2020-02-06 |

| revisions | description | date |
|-----------|---------------------------------------|------|
| A | A detail no. du detail | A |
| B | B location drawing no. sur dessin no. | B |
| C | C drawing no. dessin no. | C |

project project

NCR - QUEBEC
GC WORKPLACE FIT-UP

drawing dessin

ABOVE CEILING COMMUNICATIONS NEW WORK

| | | |
|-----------------|--------------|---------------------------|
| Designed By | AG | Conçu par |
| Date | JAN. 2020 | (yyyy/mm/dd) |
| Drawn By | AG | Dessiné par |
| Date | JAN. 2020 | (yyyy/mm/dd) |
| Reviewed By | RB | Examiné par |
| Date | JAN. 2020 | (yyyy/mm/dd) |
| Approved By | RB | Approuvé par |
| Date | JAN. 2020 | (yyyy/mm/dd) |
| Tender | | Soumission |
| | EVA LEFEBRE | |
| Project Manager | | Administrateur de projets |
| Project no. | | No. du projet |
| | R.105793.008 | |
| Drawing no. | | No. du dessin |
| | E6/R2 | |