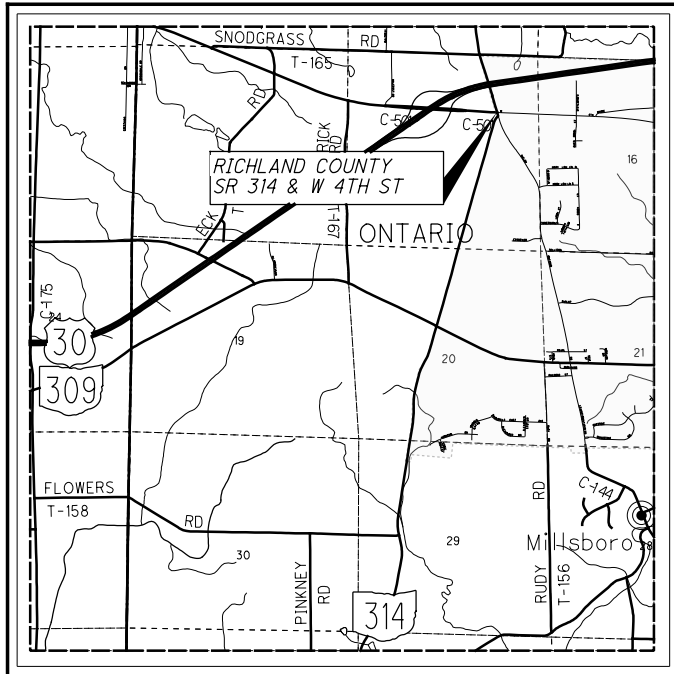


# STATE OF OHIO DEPARTMENT OF TRANSPORTATION

## RIC-314-4.91 TSG

CITY OF ONTARIO  
SPRINGFIELD TOWNSHIP  
RICHLAND COUNTY



**LOCATION MAP**

LATITUDE: N40°46'45" LONGITUDE: W82°39'08"



|                         |       |       |
|-------------------------|-------|-------|
| PORTION TO BE IMPROVED  | ----- | ===== |
| INTERSTATE HIGHWAY      | ----- | ===== |
| FEDERAL ROUTES          | ----- | ===== |
| STATE ROUTES            | ----- | ===== |
| COUNTY & TOWNSHIP ROADS | ----- | ===== |
| OTHER ROADS             | ----- | ===== |

**DESIGN DESIGNATION**

|                                   |       |       |
|-----------------------------------|-------|-------|
| CURRENT ADT (2023)                | ----- | 3,100 |
| DESIGN YEAR ADT (2043)            | ----- | 3,500 |
| DESIGN HOURLY VOLUME (2043)       | ----- | 400   |
| DIRECTIONAL DISTRIBUTION          | ----- | 0.5   |
| TRUCKS (24 HOUR B&C)              | ----- | 0.08  |
| DESIGN SPEED                      | ----- | 50    |
| LEGAL SPEED                       | ----- | 50    |
| DESIGN FUNCTIONAL CLASSIFICATION: |       |       |
| MAJOR COLLECTOR                   | ----- |       |
| NHS PROJECT                       | ----- | NO    |

**DESIGN EXCEPTIONS**

NONE

**ADA DESIGN WAIVERS**

NONE

**UNDERGROUND UTILITIES**  
Contact Two Working Days  
Before You Dig

**OHIO811.org**  
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764  
(Non members must be called directly)

PLANS PREPARED BY:

**OHIO DEPARTMENT OF  
TRANSPORTATION**

DISTRICT THREE ENGINEERING

ENGINEER'S SEAL:

SIGNED: *Craig A. Devore*  
DATE: 2022.0214

**INDEX OF SHEETS:**

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| TITLE SHEET                            | 1    |
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| SIGNAL DETAILS - SR 314 & W 4TH STREET | 9-11 |
| SURVEY CONTROL DATA                    | 12   |

| STANDARD CONSTRUCTION DRAWINGS |         |           |         |  | SUPPLEMENTAL SPECIFICATIONS |          |
|--------------------------------|---------|-----------|---------|--|-----------------------------|----------|
| DM-4.3                         | 1/15/16 | MT-105.10 | 1/17/20 |  | 800                         | 1/21/22  |
| DM-4.4                         | 1/15/16 | TC-12.31  | 1/21/22 |  | 809                         | 1/21/22  |
| HL-10.11                       | 1/15/21 | TC-81.11  | 7/16/21 |  | 813                         | 10/19/18 |
| HL-30.11                       | 1/15/21 | TC-81.22  | 7/16/21 |  | 816                         | 10/18/19 |
| HL-30.21                       | 4/17/20 | TC-82.10  | 7/19/19 |  | 825                         | 1/17/20  |
| HL-30.22                       | 1/15/21 | TC-83.20  | 7/21/17 |  | 832                         | 10/19/18 |
| HL-40.20                       | 7/17/20 | TC-85.20  | 7/20/18 |  | 907                         | 10/18/19 |
| HL-50.11                       | 1/16/15 |           |         |  | 909                         | 1/21/22  |
| HL-60.31                       | 1/17/20 |           |         |  | 913                         | 4/16/21  |
|                                |         |           |         |  | 916                         | 10/16/20 |
| ITS-13.10                      | 1/15/21 |           |         |  |                             |          |
| ITS-14.10                      | 1/15/21 |           |         |  |                             |          |
| ITS-15.10                      | 1/15/21 |           |         |  |                             |          |
| ITS-60.10                      | 1/15/21 |           |         |  |                             |          |
| MT-97.10                       | 4/19/19 |           |         |  |                             |          |

**FEDERAL PROJECT NUMBER**

E200653

**RAILROAD INVOLVEMENT**

NONE

**PROJECT DESCRIPTION**

SIGNAL REPLACEMENT AT SR 314 & W. 4TH STREET.  
THIS PROJECT WILL ALSO INSTALL VIDEO DETECTION.

**EARTH DISTURBED AREAS**

|  |                       |
|--|-----------------------|
| PROJECT EARTH DISTURBED AREA:              | N/A ACRES             |
|  | (MAINTENANCE PROJECT) |
| ESTIMATED CONTRACTOR EARTH DISTURBED AREA: | N/A ACRES             |
|  | (MAINTENANCE PROJECT) |
| NOTICE OF INTENT EARTH DISTURBED AREA:     | N/A ACRES             |
|  | (MAINTENANCE PROJECT) |

**2019 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED   
DATE 02/15/22 DISTRICT DEPUTY DIRECTOR

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DIRECTOR, DEPARTMENT OF  
TRANSPORTATION

TITLE SHEET

DESIGN AGENCY



DESIGNER  
MAE

REVIEWER  
CAD 02/09/22

PROJECT ID  
108047

SHEET TOTAL  
P.1 | 12

RIC-314-4.91 TSG

MODEL: Sheet PAPER: 17x11 (in.) DATE: 2/10/2022 TIME: 2:34:17 PM USER: meppley pwc:\ohio-dot-pw-bentley.com\shahidoc-pw-02\Documents\01 Active Projects\District 03\_D03108047\00-Engineering\Roadway\Sheets\108047\_GT001.dgn

**ITEM 633 – PREEMPT PHASE SELECTOR**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPT PHASE SELECTORS INCLUDING WIRING INTERFACE PANELS IN THE LOCAL CONTROLLER CABINET AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE PREEMPT PHASE SELECTORS COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS. THIS ITEM SHALL INCLUDE THE EXTRA CABINET SPACE NECESSARY TO BE LOCATED IN THE LOCAL CONTROLLER CABINETS WHERE INDICATED IN THE PLANS.

THE PHASE SELECTORS SHALL CONSIST OF A MODULE OR MODULES THAT WILL PROVIDE THE NECESSARY INPUTS TO THE CONTROLLER. PHASE SELECTORS SHALL BE SUPPLIED WITH SUFFICIENT QUANTITIES OF CHANNELS TO PROVIDE PREEMPTION FOR ALL APPROACHES TO THE INTERSECTION SEPARATELY. POWER SHALL BE OBTAINED FROM THE PHASE SELECTOR OR PHASE SELECTOR POWER SUPPLY AND NOT FROM THE LOCAL CONTROLLER TIMER.

THE PHASE SELECTORS SHALL HAVE FRONT PANEL INDICATORS FOR ACTIVE PREEMPT CHANNEL STATUS. IT SHALL HAVE TEST SWITCHES TO ACTIVATE ALL PREEMPT CHANNELS.

FURNISH PREEMPT PHASE SELECTORS WITH 60-MONTH WARRANTIES OR FOR THE MANUFACTURER'S STANDARD WARRANTY WHICHEVER IS GREATER. ENSURE THAT THE WARRANTY PERIOD BEGINS ON THE DATE OF SHIPMENT TO THE PROJECT. ENSURE THAT EACH UNIT HAS A PERMANENT LABEL OR STAMP INDICATING THE DATE OF SHIPMENT.

PAYMENT FOR ITEM 633 "PREEMPT PHASE SELECTOR" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH PHASE SELECTOR IN PLACE, COMPLETELY INSTALLED IN THE LOCAL CONTROLLER SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

**ITEM 633 – PREEMPT CONFIRMATION LIGHT, LED**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING PREEMPT CONFIRMATION LIGHTS INCLUDING HARDWARE AND ALL OTHER ACCESSORIES THAT ARE NECESSARY TO MAKE THE PREEMPT CONFIRMATION LIGHT COMPLETELY FUNCTIONAL AND OPERATIONAL AS SHOWN IN THE PLANS.

A CONFIRMATION LIGHT SHALL BE SUPPLIED FOR EACH INTERSECTION TO INDICATE THAT THE EMERGENCY VEHICLE HAS ACHIEVED CONTROL OF THE TRAFFIC SIGNAL.

THE CONFIRMATION LIGHT SHALL BE A VAPOR TIGHT ALUMINUM LIGHTING FIXTURE. IT SHALL BE SUPPLIED WITH A CLEAR GLOBE, LED LAMP AND MOUNTING HARDWARE TO ATTACH TO THE TRAFFIC SIGNAL MAST ARM. THE CONFIRMATION LIGHT SHALL BE POWERED BY A LOAD SWITCH IN THE TRAFFIC SIGNAL CONTROLLER. SIGNAL CABLE CONFORMING TO 732.19 SHALL BE USED FOR CONFIRMATION LIGHTS. A MINIMUM OF 4-CONDUCTOR CABLE SHALL BE USED WITH THE GREEN WIRE SERVING AS THE SAFETY GROUND CONDUCTOR. PAYMENT FOR ITEM 633 "PREEMPT CONFIRMATION LIGHT, LED" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH LIGHT IN PLACE, COMPLETELY INSTALLED IN THE LOCATION SHOWN IN THE PLANS, WIRED, TESTED AND ACCEPTED.

**ITEM 633 – COMMUNICATIONS, AS PER PLAN**

THE ETHERNET RADIO UNIT SHALL BE FURNISHED AND INSTALLED PER SS 809.

THE ETHERNET RADIO UNIT SHALL BE A GE TRANSNET 900.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH COMMUNICATIONS, APP, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

**ITEM 809 – ATC CONTROLLER, AS PER PLAN**

THE CONTROLLER UNIT SHALL BE FURNISHED AND INSTALLED PER SS 809.

THE CONTROLLER SHALL BE A SIEMENS M60 ATC AND COMPATIBLE WITH THE CABINET TYPE BEING INSTALLED.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH ATC CONTROLLER, AS PER PLAN, IN PLACE, ALL CONNECTIONS MADE AND WIRING COMPLETED, TESTED AND ACCEPTED.

**ITEM 625 – SPECIAL, MAINTAIN EXISTING LIGHTING**

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

**ITEM 632 - POWER SERVICE, AS PER PLAN**

POWER SERVICE SHALL BE AS PER C&MS ITEM 632 AND SCD TC-83.10 WITH THE FOLLOWING EXCEPTIONS:

1. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN 5 FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND.
2. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES.
3. ALL POWER SERVICES SHALL BE METERED. THE METER SHALL HAVE A LEVER OPERATED BYPASS.

DISCONNECT SWITCH ENCLOSURES FURNISHED IN ACCORDANCE WITH CMS ITEM 632, POWER SERVICE, AS PER PLAN, SHALL INCLUDE A PADLOCK EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNON 680, WITH LOCK BODY OF BRONZE OR BRASS AND KEYING SHALL BE TO THE STATE MASTER.

THE POWER SOURCE LOCATION SHALL BE INDICATED IN THE PLANS OR AS DETERMINED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL CONTACT OHIO EDISON FOR INFORMATION REGARDING THE METER BASE INSTALLATION PRIOR TO THE ORDERING POLES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REQUESTING AND SCHEDULING ANY INSPECTIONS OHIO EDISON MAY REQUIRE FOR THE POWER SERVICE HOOK UP. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT OHIO EDISON FOR THE ELECTRICAL SERVICE CONNECTION. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR SPLICE POWER CABLE INTO OHIO EDISON'S CIRCUITS. THE VOLTAGE SUPPLIED SHALL BE NOMINALLY 120/240V. THE PROPOSED RACK SHOULD BE CONSTRUCTED SIMILAR TO HL-40.20. THE RACK SHOULD SUPPORT THE METER BASE, SIGNAL DISCONNECT, LIGHTING DISCONNECT SWITCH, AND THE LIGHTING CONTROL CENTER AND THE PHOTOCCELL. THE PHOTOCCELL SHALL BE 1' - 2' ABOVE THE LCC ENCLOSURE.

A 4" THICK WORKPAD SHALL BE PROVIDED UNLESS IN AN OTHERWISE PAVED AREA. IN LEVEL AREAS, THE TOP OF THE PAD SHALL BE 1" ABOVE THE GROUND LINE. IN STEEPLY SLOPED AREAS THE PAD'S LOCATION SHALL BE ADJUSTED TO PROVIDE ACCESS AND DRAINAGE. THE CONCRETE PAD SHALL EXTEND IN FRONT OF THE RACK FOR A DEPTH OF 30" AND SHALL HAVE A WIDTH OF THE DISTANCE BETWEEN THE STEEL PIPE SUPPORTS. PAYMENT FOR THE CONCRETE PAD SHALL BE INCLUDED IN POWER SERVICE ITEM.

WHEN THE PROJECT BEGINS AND THE CONTRACTOR HAS TAKEN OVER THE MAINTAINANCE OF THE EXISTING SYSTEM, THEY SHALL PROVIDE ALL REQUIRED LAYOUTS AND LOCATIONS OF THE EXISTING AND PROPOSED ELECTRICAL CIRCUITS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LOCATE AND MARK THE UNDERGROUND ELECTRICAL CIRCUITS, LOOPS AND LOOP LEAD INS DURING THE DURATION OF THE PROJECT. THIS WORK SHOULD BE CONSIDERED INCIDENTAL TO POWER SERVICE, AS PER PLAN.

SALVAGE THE FOLLOWING EQUIPMENT FOR DISTRICT 3: CONTROLLER, CONFLICT MONITOR (MMU), COMMUNICATIONS EQUIPMENT INCLUDING THE MODEM, RADIO, ANTENNA, AND UPS INVERTER. CONTACT STEVE FRANKS (419-207-7184) IN ORDER TO SCHEDULE DELIVERY OF SALVAGED ITEMS.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS AND THE PAYING OF ALL FEES. THE CONTRACTOR SHALL PAY ALL POWER CHARGES UNTIL THE SIGNAL IS ACCEPTED BY THE MAINTAINING AGENCY. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

**TC-12.31 BASE PLATE CONNECTION**  
ALL REFERENCE ITEMS THAT REFER TO THE TC-12.31 STANDARD DRAWING SHALL HAVE BASE CONNECTION FABRICATED AS PER THE "STANDARD BASE DESIGN" WHICH UTILIZES COMPLETE JOINT PENETRATION (CJP) WELDS.

GENERAL NOTES

DESIGN AGENCY



DESIGNER  
MAE

REVIEWER  
CAD 02/09/22

PROJECT ID  
108047

SHEET TOTAL  
P.4 | 12





