AUTOMATIC TRUCK WASH

CITY OF DUBLIN

6351 SHIER RINGS ROAD
DUBLIN, OHIO 43016

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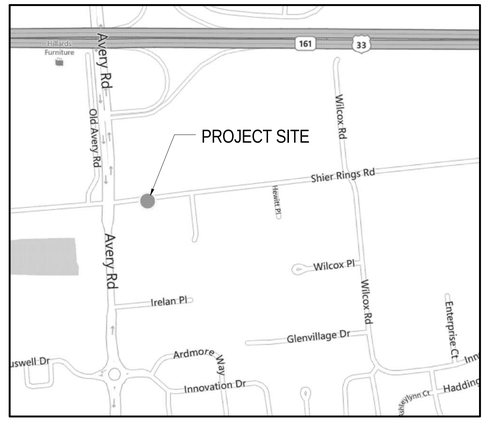
CODE INFORMATION
2011 OBC
USE GROUP: S-2, STORAGE
CONSTRUCTION TYPE: IIB
NO AUTOMATIC SPRINKLER SYSTEM
HEIGHT & AREA:
ACTUAL- 1 ST, 26', 7,700 SF
ALLOWABLE- 3 ST, 55', 26,000 SF
NO HEIGHT OR AREA MODIFICATIONS CALCULATED

SUMMARY OF WORK:

INSTALLATION OF NEW AUTOMATIC TRUCK WASH SYSTEM WITHIN EXISTING UTILITY BUILDING. WORK TO GENERALLY INCLUDE COORDINATION/INSTALLATION OF OWNER SUPPLIED TRUCK WASH SYSTEM AND ASSOCIATED ELECTRICAL AND PLUMBING SYSTEM REVISIONS. WORK TO ALSO INCLUDE HIGH PERFORMANCE WALL COATINGS IN THE TRUCK WASH BAY. REFER TO SPECIFICATIONS FOR SCOPE OF HIGH PERFORMANCE COATINGS REQUIRED.



LOCATION MAP
NTS

PREPARED BY:

STRUCTURAL ENGINEERS
800.542.3302
schaefer-inc.com
schaefer

SCHAEFER
815 GRANDVIEW AVE
COLUMBUS, OHIO 43215

SCHEESER BUCKLEY MAYFIELD
1540 CORPORATE WOODS PARKWAY
UNIONTOWN, OHIO 44685

PREPARED FOR:

City of Dublin

CITY OF DUBLIN
6555 SHIER RINGS ROAD
DUBLIN, OHIO 43016

schaefer

STRUCTURAL ENGINEERS
800.542.3302
CINCINNATI
COLUMBUS
www.schaefer-inc.com

STAMP:

STATE OF OHIO
CARRIE C. BREMER
E-73975
REGISTERED PROFESSIONAL ENGINEER
7/26/13

CITY OF DUBLIN

NEW AUTOMATIC TRUCK WASH

6351 SHIER RINGS ROAD
DUBLIN, OH 43016

ENGINEER: C. BREMER
MODELER: B. HINSON
CHECKED BY: S. BIRKLEY

ISSUE/REVISION/SUBMISSION		
NO	DATE	DESCRIPTION
	05.29.2013	50% OWNER REVIEW SET
	07.26.2013	PERMIT

DATE: 07.26.2013

SHEET NAME: COVER SHEET

PROJECT NUMBER: 1311.07

SHEET: **G100**

7/26/2013 2:58:08 PM C:\Users\bjh\Documents\1311\07 Dublin Truck Wash v12_bjh.rvt

DRAIN AND CLEANOUT SCHEDULE

MARK NO.	DESCRIPTION	MAKE/MODEL/SIZE	REMARKS
FD-1	FLOOR DRAIN	WADE NO. W-1103STD6 SERIES	CAST IRON FLOOR DRAIN WITH FLANGE, INTEGRAL REVERSIBLE CLAMPING COLLAR, SEEPAGE OPENINGS AND 6" DIA. NICKEL BRONZE STRAINER WITH 3" OUTLET. PROVIDE WITH TRAP PRIMER CONNECTION.
FD-2	TRENCH DRAIN	HUBBELL (POLYCAST) 800 SERIES	HEAVY DUTY PRECAST, PRESCOPED TRENCH DRAIN SYSTEM WITH DUCTILE IRON SLOTTED GRATING. INVERT AT UPSTREAM END TO BE 24" BELOW FINISHED FLOOR AND INVERT AT DOWNSTREAM END TO BE 36" BELOW FINISHED FLOOR. PROVIDE WITH OPENING FOR 4" DRAIN CONNECTION.

GENERAL NOTES

1. THE GENERAL NOTES LISTED HERE APPLY TO ALL PLUMBING DRAWINGS IN ADDITION TO ANY ADDITIONAL DRAWING NOTES ON THE INDIVIDUAL DRAWINGS.

2. SEE CODED NOTES ON INDIVIDUAL DRAWING SHEETS FOR SPECIFIC INSTRUCTIONAL NOTES.

3. FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE START OF CONSTRUCTION.

4. PLUMBING CONTRACTOR SHALL REVIEW SHEET HC-P-096 FOR ADDITIONAL INFORMATION ABOUT SYSTEM CONNECTION POINTS. ITEMS TO BE FURNISHED BY THE P.C. AND TRIM FURNISHED BY THE SUPPLIER.

5. P.C. IS RESPONSIBLE FOR SUBMITTING FOR AND SECURING THE PROJECT'S PLUMBING PERMIT AND ASSOCIATED PERMIT FEES.

6. SEE GENERAL NOTES ON SHEET HC-P-096 FOR ADDITIONAL PLUMBING SCOPE. PLUMBING CONTRACTOR IS TO PROVIDE PIPING MATERIAL INDICATED ON THAT SHEET AND PIPING PRESSURE'S RATING SHALL CONFORM WITH ASSOCIATED PLAN NOTES.

7. IT IS RECOGNIZED THAT DRAWINGS MAY BE PLOTTED AT DIFFERENT SCALES, SUCH THAT PLOTTED DRAWINGS MAY VARY FROM ACTUAL OR INTENDED DIMENSIONS. THEREFORE, DRAWINGS ARE DIAGRAMMATIC AND ARE NOT TO BE SCALED. SBM TAKES NO RESPONSIBILITY FOR ERRORS REGARDING DISCREPANCIES FROM THE ORIGINAL DRAWINGS DRAWN AT THE PROPER SCALE AND THOSE DRAWINGS THAT HAVE BEEN PLOTTED.

8. ALL FLOOR CUTTING SHALL BE MADE TO FULL DEPTH PRIOR TO REMOVAL. REPLACE CONCRETE IN KIND (MATCH EXISTING DEPTH AND 4000 PSI MINIMUM). BACKFILL TRENCH'S WITH ODOT #57 COURSE AGGREGATE.

PLUMBING SYMBOL LEGEND

ABBREVIATION	SYMBOL	DESCRIPTION
US	——— US ———	SANITARY SEWER BELOW FLOOR
SAN	——— SAN ———	SANITARY SEWER ABOVE FLOOR
	—— —— —— ——	SANITARY VENT
DCW	——— DCW ———	DOMESTIC COLD WATER
DHW	——— DHW ———	DOMESTIC HOT WATER
CA	——— CA ———	COMPRESSED AIR
G	——— G ———	GAS-LOW PRESSURE (8 OUNCES OR LESS)
	———⋈———	BALL VALVE
	C.O.	CLEANOUT
	FW/FCO	FLUSH WITH FLOOR CLEANOUT
	FD__-__	PLUMBING EQUIPMENT (SEE SCHEDULE)
	◯	CODED NOTE
E.C.	E.C.	ELECTRICAL CONTRACTOR
G.C.	G.C.	GENERAL CONTRACTOR
P.C.	P.C.	PLUMBING CONTRACTOR
A.F.F.	A.F.F.	ABOVE FINISHED FLOOR
F.F.E.	F.F.E.	FINISHED FLOOR ELEVATION
TYP.	TYP.	TYPICAL

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STAMP:

STATE OF OHIO
K. M. NOBLE
E-56746
REGISTERED
PROFESSIONAL ENGINEER

Kevin M. Noble 7/26/13
SIGNATURE DATE

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DUBLIN, OH 43016

ENGINEER: KMN

MODELER: CRM

CHECKED BY: KMN

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DATE: 07.26.2013

SHEET NAME:

PLUMBING GENERAL NOTES, LEGEND, AND SCHEDULE

PROJECT NUMBER: 1311.07

SHEET: **P-100**

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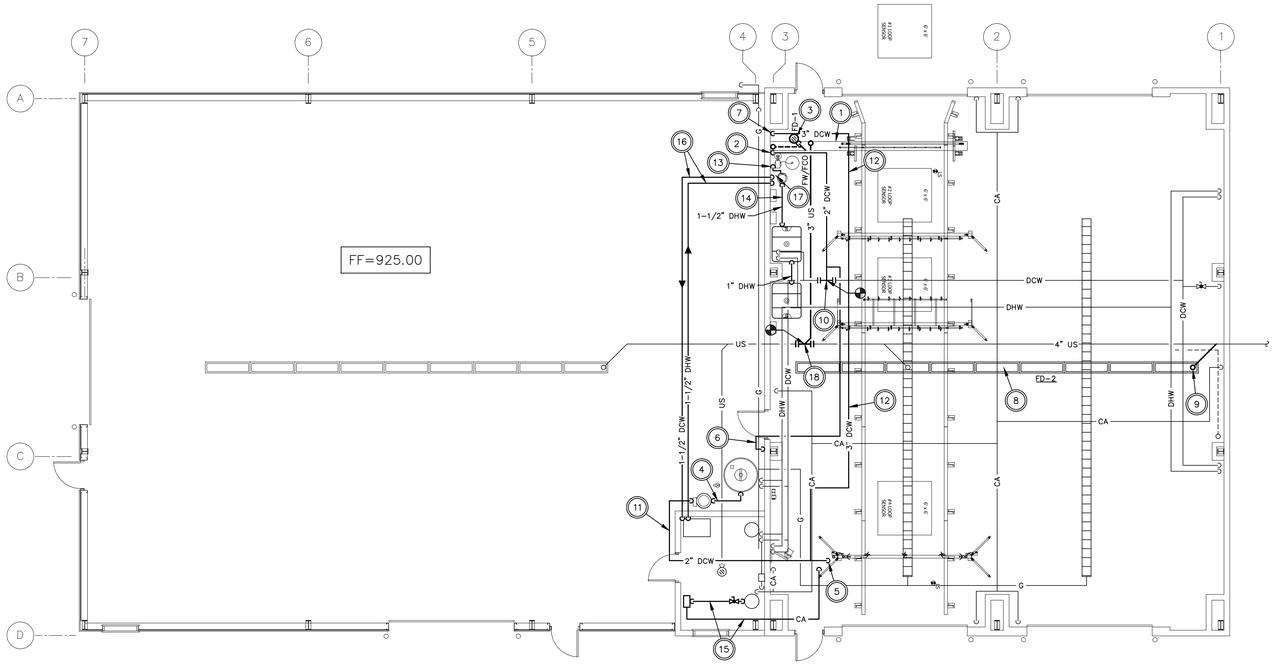
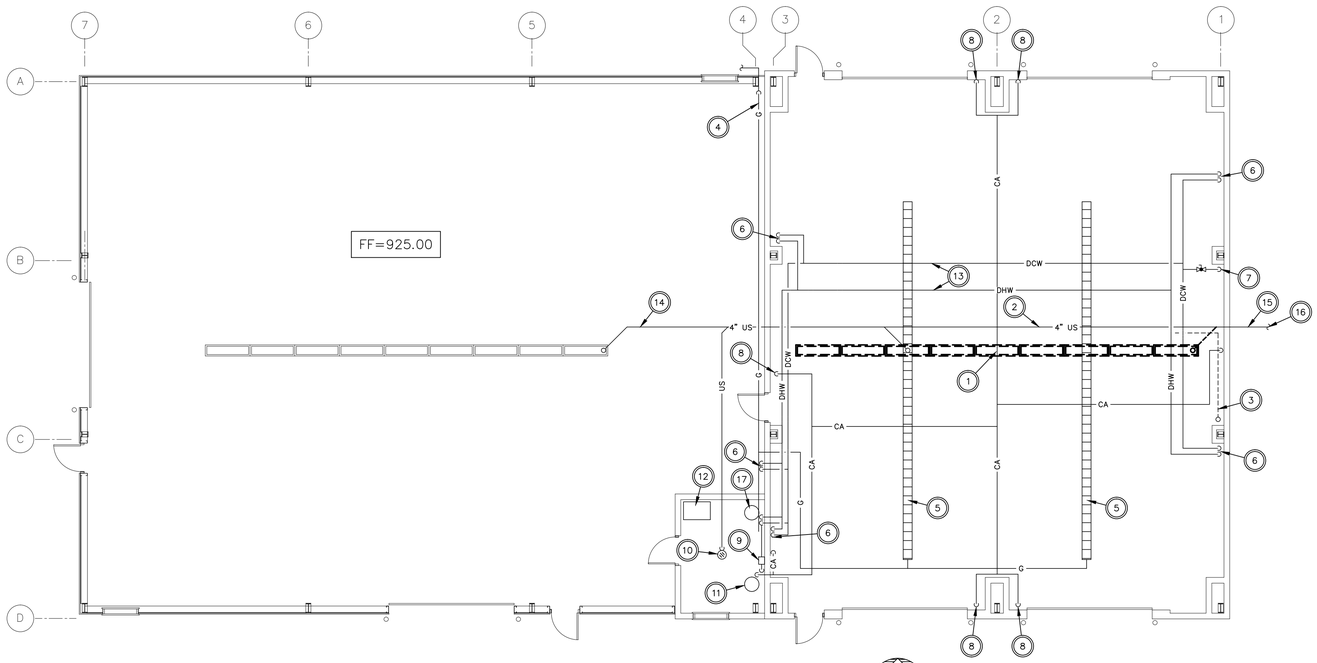


NEW WORK - PLUMBING

SCALE 0 8' 12' 16'



DEMOLITION - PLUMBING

SCALE 0 8' 12' 16'

CODED NOTES – NEW WORK

1. TRENCH FOR UNDERCARRIAGE WASH.

2. EXTEND 2" COPPER DCW SUPPLY LINE DOWN ALONG WALL AT 6' A.F.F., INSTALL MAIN SHUT OFF VALVE AT 3' A.F.F. INSTALL "CHICAGO FAUCET" 952–CP HOSE BIBB AND FRIMLY SECURE TO WALL. INSTALL FURNISHED PRESSURE GAUGE AND BALL VALVES AND EXTEND DCW TO WATER SOFTENER. PROVIDE 2" COPPER DCW BYPASS LINE WITH BALL VALVE AROUND SOFTENER.

3. INSTALL 3" US TO FLOOR DRAIN. INSTALL 2" VENT UP ALONG WALL AND EXTEND AS 3" VENT THRU ROOF.

4. INSTALL 3" SCH 80 PVC DCW LINE FROM TANK TO PUMP. MAKE ROUGH–IN AND FINAL CONNECTIONS.

5. INSTALL UNIONS AND FURNISHED SOLENOID VALVE AND EXTEND 2" SCH 40 GALVANIZED DCW TO RINSE ARCH. INSTALL PIPING AROUND GARAGE DOOR.

6. INSTALL 1–1/2" COPPER DCW DOWN ALONG WALL TO RINSE WATER TANK. INSTALL WITH UNIONS AND SUPPLIED SOLENOID VALVE AND MAKE CONNECTION TO TANK WITH AIR GAP DEVICE.

7. INSTALL 2" SCH 40 GALV DCW DOWN ALONG WALL TO NEW UNDER CARRIAGE TRENCH DRAIN.

8. INSTALL NEW PRE–MANUFACTURED TRENCH DRAIN SYSTEM HAVING LOW POINT WHERE NOTED AT 3.0' BELOW FLOOR LEVEL.

9. PROPOSED LOW POINT IN TRENCH DRAIN = 3.0' BELOW FINISHED FLOOR. REMOVE EXISTING LATERAL AND INSTALL NEW 4" SAN FROM TRENCH DRAIN TO 4" SAN MAIN.

10. CUT–IN NEW 2" COPPER DCW LINE INTO EXISTING 2" DCW IN CEILING SPACE.

11. EXTEND 3" SCH 40 US GALVANIZED PIPING FROM PUMP TO FIRST ELBOW. FROM ELBOW, EXTEND 2" SCH 40 GALVANIZED PIPING UP TO 20' A.F.F.

12. DOWNSTREAM OF 2" DCW CONNECTION TO RINSE ARCH. INSTALL 2"x3" INCREASER AND EXTEND 3" SCH 40 GALV DCW @ 20' A.F.F. TO UNDERCARRIAGE WASH. INSTALL WITH FURNISHED GATE VALVE AND PROVIDE AND INSTALL GLOBE VALVE AND UNIONS AND MAKE ROUGH–IN AND FINAL CONNECTIONS.

13. INSTALL A "CHICAGO FAUCET" 952–CP HOSE BIBB ON 1–1/2" DHW BEFORE BOOSTER PUMP.

14. INSTALL 1 1/2" COPPER DHW LINE BETWEEN PUMP AND DETERGENT MODULES AND DETERGENT NODE AS PER SHEET HC–P–096. PROVIDE AND INSTALL PRESSURE GAUGE AND BALL VALVES AND INSTALL WITH OTHER COMPONENTS FURNISHED.

15. INSTALL CA (100 PSI) LINE WITH VALVE FROM EX. AIR COMPRESSOR TO RINSE AIR CONTROL PANEL. EXTEND 1/2" FLEXIBLE TUBING (5 LINES) FROM PANEL TO RINSE ARCH.

16. DOWNSTREAM OF WATER SOFTENER BYPASS, EXTEND 1–1/2" COPPER DCW LINE UP TO CEILING SPACE AND OVER TO EXISTING HOT WATER BOILER. MAKE CONNECTIONS WITH VALVE INTO INCOMING DCW LINE SERVING BOILER. INSTALL VALVE ON EXISTING INCOMING DCW LINE AND CLOSE. TIE IN 1–1/2" COPPER LINE WITH VALVE INTO EXISTING HOT WATER SUPPLY TANK AND EXTEND LINE BACK OVER IN CEILING SPACER TO WATER BOOSTER PUMP.

17. INSTALL A 1–1/2" COPPER BYPASS LINE WITH CLOSED VALVE BETWEEN THE 1–1/2" DCW LINE TO BOILER AND THE 1–1/2" DHW LINE FROM BOILER @ 6' AFF.

18. CUT IN 3" US INTO EXISTING 4" US AND EXTEND AS SHOWN.

CODED NOTES – DEMOLITION

1. EXISTING 10" WIDE PRE–MANUFACTURED TRENCH DRAIN TO BE REMOVED AND REPLACED.

2. EXISTING 4" SANITARY DRAIN.

3. EXISTING 2" VENT LINE.

4. EXISTING 3" GAS MAIN UP TO CEILING SPACE.

5. EXISTING GAS FIRED TUBE HEATER IN CEILING SPACE.

6. EXISTING 3/4" DCW & 3/4" DHW LINES DOWN ALONG WALL TO HOSE OUTLETS.

7. EXISTING DCW DOWN ALONG WALL TO BELOW SLAB.

8. EXISTING HOSE OUTLET.

9. EXISTING 2" WATER SERVICE ENTRANCE WITH REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY.

10. EXISTING FLOOR DRAIN.

11. EXISTING AIR COMPRESSOR SYSTEM. 60 GAL, 12 CFM @ 100 PSIG.

12. EXISTING DOMESTIC HOT WATER BOILER (512 CFH INPUT WITH 636 GPH RECOVERY @ 80° TEMPERATURE RISE)

13. EXISTING 1–1/2" DCW & 1–1/2" DHW LINES IN CEILING SPACE. (20'–0" A.F.F.)

14. EX. 4" SAN INVERT = 922.0

15. EX. 4" SAN INVERT = 918.00

16. EX 4" SAN TO OIL INTERCEPTOR.

17. EXISTING 115 GALLON HOT WATER STORAGE TANK.

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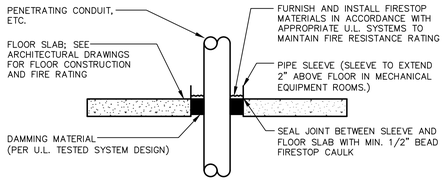
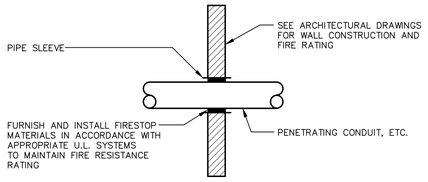
SHEET NAME: DEMOLITION AND NEW WORK - PLUMBING

PROJECT NUMBER: 1311.07

SHEET: P-200



FLOOR SECTION



WALL SECTION

NOTES:

1. WHERE CONDUIT, CABLES AND OTHER COMPONENTS PASS THROUGH FIRE OR SMOKE RATED WALLS OR FLOORS, PROVIDE NON-ASBESTOS SEAL ASSEMBLIES CLASSIFIED BY U.L. TO PROVIDE FIRE BARRIERS EQUAL TO OR GREATER THAN THE TIME RATING OF THE CONSTRUCTION BEING PENETRATED, WITH APPROPRIATE MATERIALS AND SYSTEMS THAT COMPLY WITH APPLICABLE CODES AND THAT HAVE BEEN TESTED IN ACCORDANCE WITH U.L. 1479 OR ASTM E814.

2. GROUT, MORTAR OR GYPSUM BASED PRODUCTS SHALL NOT BE INSTALLED IN LIEU OF FIRESTOPPING MATERIALS AND U.L. SYSTEMS.

3. FOR SLEEVED PENETRATIONS, FIRESTOP ANNULAR SPACE, IF ANY, BETWEEN SLEEVE AND ADJACENT CONSTRUCTION TO MEET U.L. SYSTEM REQUIREMENTS. SEE NOTE 2 ABOVE.

4. THIS CONTRACTOR SHALL FIRESTOP ALL MISCELLANEOUS OPENINGS IN FIRE-RATED CONSTRUCTION RESULTING FROM HIS WORK.

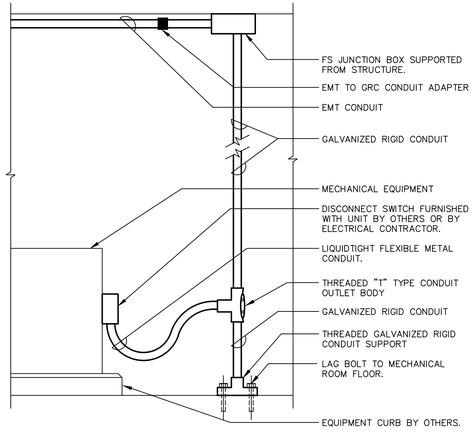
5. CONTRACTOR SHALL PROVIDE SUBMITTAL DRAWINGS TO ENGINEER, INCLUDING U.L. RATED SYSTEM NUMBER AND DETAIL FOR EACH TYPE OF PENETRATION AND CONFIGURATION.

6. SLEEVES USED FOR CABLE RISERS THROUGH FLOORS OR WALLS SHALL BE INSTALLED PER THE ABOVE FLOOR OR WALL SECTIONS. IN ADDITION, FIRESTOP MATERIAL SHALL BE PROVIDED INSIDE SLEEVE AFTER CABLES ARE COMPLETELY INSTALLED.

FIRESTOPPING DETAIL FOR PENETRATIONS THROUGH FIRE-RATED CONSTRUCTIONS

N.T.S.

UL FIRE STOP SYSTEMS FOR 1 AND 2 HOUR RATED WALL AND FLOOR ASSEMBLIES			
SERVICE	GYPSUM WALL PENETRATION	CONCRETE/MASONRY WALL PENETRATION	CONCRETE FLOOR PENETRATION
GRC CONDUIT (NOMINAL ≤ 6" DIA.)	WL1049	WS1055	CAJ1079
EMT CONDUIT (NOMINAL ≤ 4" DIA.)	WL1049	WS1055	CAJ1079
PVC CONDUIT/ INNER DUCT (≤ 2" DIA.)	WL2093	WJ2018	CAJ2031
CABLES (MAX. 3" DIA. CABLE BUNDLE	WL3076	WJ3022	CAJ3133
CABLE TRAYS	WL4005	WJ4009	CAJ4029
BUS DUCT	WL6001	CAJ6008	CAJ6008



MECHANICAL EQUIPMENT DROP DETAIL

N.T.S.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
$	20 AMP, SINGLE POLE SWITCH. HUBBELL #HBL1221I. MOUNT AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
$M	MANUAL MOTOR STARTER WITH NEON PILOT LIGHT. ALLEN-BRADLEY #600TQX216. MOUNT AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
$	20 AMP, SINGLE POLE SWITCH. HUBBELL #HBL1221I. SURFACE MOUNT IN 4" SQUARE BOX WITH EXPOSED WORK COVER AT 46" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
	20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLE. HUBBELL #HBL5362I. MOUNT AT 18" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
	TWO 20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLES. HUBBELL #HBL5362I. MOUNT IN COMMON BOX WITH COMMON PLATE AT 18" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
GFI	20 AMP, 125 VOLT, DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFRB300HILA (HOSPITAL GRADE) OR HUBBELL #GFR20ILA (SPECIFICATION GRADE). MOUNT AT 24" AFG TO CENTERLINE UNLESS OTHERWISE NOTED.
WP/GFI	20 AMP, 125 VOLT, DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE. HUBBELL #GFTR201 (HOSPITAL GRADE) OR HUBBELL #GFRR8300HITR (SPECIFICATION GRADE) WITH WEATHERPROOF "IN-USE" COVERPLATE. MOUNT VERTICALLY AT 24" AFG TO CENTERLINE UNLESS OTHERWISE NOTED.
	20 AMP, 125 VOLT, DUPLEX GROUNDING TYPE RECEPTACLE. HUBBELL #HBL5362I. SURFACE MOUNT AT 18" AFF TO CENTERLINE UNLESS OTHERWISE NOTED.
J	STANDARD STEEL JUNCTION BOX WITH COVER. LOCATE AND CONNECT AS DIRECTED. SUBSCRIPT INDICATES EQUIPMENT SERVED.
	POINT OF CONNECTION TO ELECTRIFIED EQUIPMENT. VERIFY EXACT LOCATION WITH RESPECTIVE EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
M	MOTOR FURNISHED AND INSTALLED BY OTHERS, WIRED BY ELECTRICAL CONTRACTOR. CONNECT AS DIRECTED BY MOTOR SUPPLIER. SUBSCRIPT INDICATES EQUIPMENT SERVED. EF – EXHAUST FAN
	FUSIBLE DISCONNECT SWITCH, HEAVY DUTY TYPE, (UNLESS NOTED OTHERWISE ON DRAWINGS) COMPLETE WITH FUSETRONS SIZED TO PROTECT MOTOR, EQUIPMENT OR CONDUCTORS (WHICHEVER IS APPLICABLE). SIZE, POLES, AND TYPE AS INDICATED. HORSEPOWER RATED, QUICK-MAKE, QUICK-BREAK.
	COMBINATION MAGNETIC MOTOR STARTER. REFER TO MOTOR STARTER SCHEDULE FOR DETAILS.
	PUSH BUTTON. REFER TO DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS.
PAN.	208/120V,3ø,4W PANELBOARD. REFER TO PANELBOARD SCHEDULE AND/OR SPECIFICATIONS FOR DETAILS.
	TELECOM CABLING SYSTEM OUTLET. MOUNT ADJACENT TO CONTROL PANEL. USE 4-11/16" SQUARE BOX WITH SINGLE GANG PLASTER RING. PROVIDE 1"C FROM THIS BOX TO CEILING CABLE PATHWAY. INSTALL (1) CAT5E CABLE BETWEEN THIS OUTLET AND THE EXISTING TELECOM BACKBOARD. TERMINATE AT OUTLET WITH CAT5E JACK AND WALLPLATE. TERMINATE AT TELECOM BACKBOARD ON EXISTING EQUIPMENT. TEST AND LABEL TO MATCH EXISTING SYSTEM.
A/3	EXPOSED BRANCH CIRCUIT HOMERUN. FOR NORMAL BRANCH CIRCUIT WIRING, CONTRACTOR MAY COMBINE UP TO THREE HOMERUNS IN ONE RACEWAY ON A WYE SYSTEM AND TWO HOMERUNS IN ONE RACEWAY ON A DELTA SYSTEM. QUANTITY OF MARKS INDICATE NUMBER OF CONDUCTORS. #12 AWG MINIMUM SIZE CONDUCTORS UNLESS NOTED OTHERWISE. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.
A/3	CONCEALED BRANCH CIRCUIT HOMERUN. FOR NORMAL BRANCH CIRCUIT WIRING, CONTRACTOR MAY COMBINE UP TO THREE HOMERUNS IN ONE RACEWAY ON A WYE SYSTEM AND TWO HOMERUNS IN ONE RACEWAY ON A DELTA SYSTEM. QUANTITY OF MARKS INDICATE NUMBER OF CONDUCTORS. #12 AWG MINIMUM SIZE CONDUCTORS UNLESS NOTED OTHERWISE. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.
FX	FLEXIBLE METAL CONDUIT OR LIQUIDTIGHT FLEXIBLE METAL CONDUIT (REFER TO SPECIFICATIONS) AND WIRING. QUANTITY OF MARKS INDICATE NUMBER OF CONDUCTORS. #12 AWG MINIMUM SIZE CONDUCTOR UNLESS OTHERWISE NOTED. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.
	EMERGENCY LIGHTING FIXTURE.

SYMBOL	DESCRIPTION
	RACEWAY AND CONDUCTORS CONCEALED ABOVE CEILING OR IN WALL AT ELECTRICAL CONTRACTOR'S OPTION. QUANTITY OF MARKS INDICATE NUMBER OF CONDUCTORS. #12 AWG MINIMUM SIZE CONDUCTOR UNLESS OTHERWISE NOTED. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.
	RACEWAY AND CONDUCTORS RUN EXPOSED ON CEILINGS OR WALLS. QUANTITY OF MARKS INDICATE NUMBER OF CONDUCTORS. #12 AWG MINIMUM SIZE CONDUCTOR UNLESS OTHERWISE NOTED. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTOR. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. REFER TO SPECIFICATIONS FOR RACEWAY TYPE.
	FLUORESCENT, INCANDESCENT AND/OR H.I.D. LIGHTING FIXTURES COMPLETE WITH LAMPS. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.
EX	EXIT LIGHTS. REFER TO LIGHTING FIXTURE SCHEDULE FOR DETAILS.
	BRANCH CIRCUIT UNDER FLOOR SLAB, UNDERGROUND OR ABOVE ACCESSIBLE CEILING OF FLOOR BELOW. QUANTITY OF MARKS INDICATES NUMBER OF CONDUCTORS. ALL BRANCH CIRCUITS SHALL HAVE SEPARATE NEUTRAL CONDUCTOR. NEUTRAL CONDUCTOR SHALL NOT BE SHARED BETWEEN CIRCUITS. ALL RACEWAYS TO CONTAIN SEPARATE EQUIPMENT GROUNDING CONDUCTORS.

AFF	ABOVE FINISHED FLOOR.
AFG	ABOVE FINISHED GRADE.
BFG	BELOW FINISHED GRADE.
FM	FLUSH MOUNTED.
SM	SURFACE MOUNTED.
EC	ELECTRICAL CONTRACTOR.
GC	GENERAL CONTRACTOR.
PC	PLUMBING CONTRACTOR.
FPC	FIRE PROTECTION CONTRACTOR.
MC	MECHANICAL CONTRACTOR (HVAC).
FBO	FURNISHED BY OTHER TRADES, BUT INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
GRC	GALVANIZED, RIGID, HEAVY WALL CONDUIT, UL LISTED.
EMT	GALVANIZED ELECTRIC METALLIC TUBING (THINWALL), UL LISTED.
PVC	CARLON PLASTIC CONDUIT, HEAVY WALL TYPE, POLYVINYL CHLORIDE, UL LISTED, SCHEDULE 40 UNLESS NOTED OTHERWISE.
WP	WEATHERPROOF.
GFI	GROUND FAULT INTERRUPTER.
NIC	NOT IN CONTRACT.
NL	NIGHT LIGHT.
EM	EMERGENCY.
DP	DISTRIBUTION PANEL.
PAN.	PANELBOARD.
"C"	SUBSCRIPT "C" INDICATES DEVICE TO BE MOUNTED 8" ABOVE COUNTERTOP TO CENTERLINE.
UCR	UNDERCOUNTER REFRIGERATOR.
REF	REFRIGERATOR.
CLG	CEILING.
"X"	SUBSCRIPT "X" BY SYMBOL INDICATES EXISTING ITEM TO REMAIN.

LIGHTING FIXTURE SCHEDULE

SYMBOL	CATALOG NO.	DESCRIPTION	MOUNTING	LAMP(S)
A	FHE-454-PCL-SD-1/4-PMP-WLF	LITHONIA: 14-5/8"x6"DEEP, 4-LAMP HIGH-PRESSURE HOSE-DOWN FLUORESCENT FIXTURE WITH ONE-PEICE FIBERGLASS HOUSING, FULLY GASKETED, IMPACT-RESISTENT CLEAR ACRYLIC DIFFUSER, WATERTIGHT PLUGS AT ALL CONDUIT ENTRY POINTS, IP65, IP66, IP67 RATED, NSF SPLASH ZONE 2 CERTIFIED, NEMA 4X, 1500 PSI HOSE-DOWN, SPREAD LIGHT DISTRIBUTION, SEGMENTED SPECULAR ALUMINUM REFLECTOR, WHITE FINISH, AND ONE (1) FOUR-LAMP ELECTRONIC BALLAST. FIXTURE PENDANT MOUNTED WITH WET LOCATION FITTING.	PENDANT	4-FP54/841/HO/XL/ECO

ENGINEER APPROVED EQUIVALENT FIXTURES BY THE FOLLOWING MANUFACTURERS ARE ACCEPTABLE:

SYMBOL	MANUFACTURER
A	METALUX, LIGHTOLIER

LIGHTING FIXTURE NOTES:

1. ALL FLUORESCENT FIXTURES SHALL BE PROVIDED WITH ELECTRONIC BALLASTS WITH 10% TOTAL HARMONIC DISTORTION OR LESS. REFER TO SPECIFICATIONS FOR ACCEPTABLE BALLASTS AND MANUFACTURERS.

2. "NL" SUBSCRIPT INDICATES THAT FIXTURE IS CONNECTED TO AN UNSWITCHED CIRCUIT FOR "NIGHT LIGHT" ILLUMINATION.

3. "EM" SUBSCRIPT INDICATES THAT FIXTURE IS CONNECTED TO AN EMERGENCY POWER (LIFE SAFETY) CIRCUIT FOR EGRESS ILLUMINATION. FIXTURE ALSO CONTAINS AN INTEGRAL BATTERY PACK FOR EMERGENCY ILLUMINATION BETWEEN LOSS OF NORMAL POWER AND CONNECTION TO ESSENTIAL POWER.

4. "*" ASTERISK INDICATES THAT ALL FIXTURES IN ROOM OR SPACE SHALL BE DOUBLE SWITCHED SUCH THAT THE OUTBOARD LAMPS OF EACH FIXTURE ARE CONTROLLED SEPARATELY FROM THE INBOARD LAMP(S) OF EACH FIXTURE FOR MULTIPLE LEVELS OF ILLUMINATION.

5. ALL LAMP CATALOG NUMBERS ARE OSRAM/SYLVANIA. REFER TO SPECIFICATIONS FOR OTHER ACCEPTABLE LAMP MANUFACTURERS.

ELECTRICAL GENERAL NOTES

1. THE GENERAL NOTES LISTED HERE APPLY TO ALL ELECTRICAL DRAWINGS IN ADDITION TO ANY ADDITIONAL DRAWING NOTES ON THE INDIVIDUAL DRAWINGS.

2. ALL EXISTING ELECTRICAL DEVICES WITHIN HATCHED AREAS TO REMAIN IN OPERATION UNLESS SHOWN OTHERWISE. REFEED ANY ITEM WHOSE WIRING IS INTERRUPTED DUE TO WORK IN ADJACENT AREAS.

3. DARK, DASHED ITEMS INDICATE ELECTRICAL EQUIPMENT, DEVICES, AND/OR LIGHTING TO BE REMOVED UNDER THE DEMOLITION PHASE OF PROJECT.

4. SEE SPECIFICATIONS FOR GENERAL CUTTING AND PATCHING REQUIREMENTS REQUIRED DURING DEMOLITION AND NEW CONSTRUCTION PHASES. REFER TO DRAWINGS FOR MORE SPECIFIC REQUIREMENTS.

5. SEE SPECIFICATIONS FOR SALVAGE RIGHTS TO ANY EQUIPMENT OR MATERIALS BEING REMOVED.

6. REMOVE ALL HANGERS AND SUPPORTS SERVING CONDUIT AND WIRE TO BE DEMOLISHED. PROVIDE AND/OR ADJUST EXISTING HANGERS TO SUPPORT ANY REMAINING CONDUIT AND WIRE, OR EQUIPMENT ADJACENT, TO REMAIN.

7. REMOVE ALL EXISTING WIRE FROM CONDUITS TO BE ABANDONED. REFER TO SPECIFICATIONS FOR REQUIREMENTS REGARDING ABANDONED CONDUITS.

8. DARKENED WALLS INDICATE NEW WALL CONSTRUCTION.

9. EC SHALL REMOVE AND REINSTALL ALL CEILING MATERIAL AS REQUIRED FOR ELECTRICAL WORK SHOWN. REPLACE ALL MATERIAL DAMAGED BY THIS CONTRACTOR.

10. SEE CODED NOTES ON INDIVIDUAL DRAWING SHEETS FOR SPECIFIC INSTRUCTIONAL NOTES.

11. FIELD VERIFY EXISTING CONDITIONS.

12. COORDINATE ELECTRICAL WORK WITH ALL CONTRACTORS ON SITE (GENERAL TRADES, PLUMBING, FIRE PROTECTION, HVAC, ETC) PRIOR TO COMMENCEMENT OF DEMOLITION/CONSTRUCTION WORK.

13. THE ELECTRICAL DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EXACT LOCATION OF EQUIPMENT, LIGHTING, AND DEVICES UNLESS DIMENSIONS ARE GIVEN FOR CLEARANCES, ETC. LIGHTING, DEVICES AND ELECTRICAL EQUIPMENT ARE TO BE INSTALLED ALONG THE GENERAL PLANS SHOWN ON THE DRAWINGS, BUT KEEPING IN MIND ACTUAL BUILDING CONDITIONS WHICH MUST BE CONFIRMED WITH-IN THE ACTUAL WORK AREA. CONTRACTORS, IN THEIR BIDS, ARE REQUIRED TO INCLUDE ALL LABOR AND MATERIALS AND OTHER RELATED WORK NECESSARY TO PROVIDE MINOR OFFSETS IN ELECTRICAL INSTALLATION TO AVOID CONFLICT WITH OTHER WORK ON THIS PROJECT, OR AS REQUIRED IN ORDER TO OBTAIN MAXIMUM HEAD ROOM OR EQUIPMENT ACCESS IN SPACES.

14. PHASING – SEE DIVISION 1 PROJECT SPECIFICATION PHASING DOCUMENTS FOR SPECIFIC PHASING INSTRUCTIONS. COORDINATE SHUT-DOWN OF ANY UTILITY IN ADVANCE WITH THE OWNER.

15. MAINTAIN REQUIRED RIGGING ACCESS CLEARANCES. COORDINATE CLEARANCE REQUIREMENTS WITH OTHER TRADES.

16. E.C. IS TO COORDINATE ALL MASONRY PENETRATION LOCATIONS AND SIZES WITH G.C.

17. AN ATTEMPT HAS BEEN MADE TO SHOW ALL ELECTRICAL ITEMS TO REMAIN OR BE REMOVED. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND REMOVE AND/OR RELOCATE ANY ITEM WHICH INTERFERES WITH NEW CONSTRUCTION.

18. POWER AND TELECOM RISER PULL BOXES MAY NOT BE SHOWN. PROVIDE PULL BOXES AT LOCATIONS REQUIRED. IN NO CASE SHALL A FEEDER CONDUIT HAVE BENDS OF MORE THEN 270° WITHOUT THE INSTALLATION OF A PULL BOX.

19. PROVIDE FIRESEALING OF ALL OPENINGS THROUGH FIRE RATED WALLS AND ASSEMBLIES. SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

20. EC TO COORDINATE ELECTRICAL AND TELECOMMUNICATIONS DEVICE LOCATIONS WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN. IF ELEVATIONS ARE NOT PROVIDED ON DOCUMENTS, EC SHALL COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT. DEVICE REQUIRED TO BE RELOCATED DUE TO LACK OF COORDINATION WILL BE DONE AT THE CONTRACTOR'S EXPENSE.

21. ALL OPEN LAMP LIGHTING FIXTURES WITHIN MECHANICAL, ELECTRICAL AND ELEVATOR MACHINE ROOMS TO BE PROVIDED WITH TUBE GUARDS (PLASTIC SLEEVES) OR SHATTERPROOF LAMPS.

22. TEMPORARY POWER AND LIGHTING SHALL BE PROVIDED DURING CONSTRUCTION. EXTEND FROM EXISTING POWER DISTRIBUTION, COORDINATE WITH OWNER.

23. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL PATHWAYS (J-HOOKS, WIRE MANAGEMENT TRAY, SLEEVES, CONDUITS AND PULLWIRE, BOXES, ETC.) FOR ALL SECURITY DEVICES, TELECOM DEVICES AND ASSOCIATED LOW VOLTAGE EQUIPMENT.

24. TELECOM STRUCTURED CABLING AND ASSOCIATED DEVICES SHALL BE PROVIDED BY OWNER'S SYSTEM VENDOR.

25. IT IS RECOGNIZED THAT DRAWNGS MAY BE PLOTTED AT DIFFERENT SCALES, SUCH THAT PLOTTED DRAWINGS MAY VARY FROM ACTUAL OR INTENDED DIMENSIONS. THEREFORE, DRAWINGS ARE DIAGRAMMATIC AND ARE NOT TO BE SCALED. SBM TAKES NO RESPONSIBILITY FOR ERRORS REGARDING DISCREPANCIES FROM THE ORIGINAL DRAWINGS DRAWN AT THE PROPER SCALE AND THOSE DRAWINGS THAT HAVE BEEN PLOTTED.

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Marlon Hathaway 7/26/13
SIGNATURE DATE

CITY OF DUBLIN

NEW AUTOMATIC TRUCK WASH

6351 SHIER RINGS ROAD
DUBLIN, OH 43016

ENGINEER: JAR
MODELER:
CHECKED BY: MCH

ISSUE/REVISION/SUBMISSION		
NO	DATE	DESCRIPTION
	05.29.2013	50% OWNER REVIEW SET
	07.26.2013	PERMIT

DATE: 07.26.2013

SHEET NAME: ELECTRICAL SYMBOL LEGEND AND NOTES

PROJECT NUMBER: 1311.07

SHEET: **E-100**

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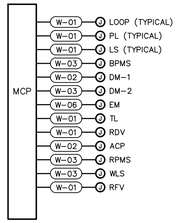
TRUCK WASH EQUIPMENT SYMBOL KEY ⊙ XX

SYMBOL	DESCRIPTION
WS	WATER SOFTNER, TWIN TANK
BP	DETERGENT WATER BOOSTER PUMP (7-1/2HP,480V,3ø)
BPMS	BOOSTER PUMP MOTOR STARTER
DM-1	DETERGENT MODULE
DM-2	DETERGENT MODULE
PL	PACE LIGHT
MCP	MASTER ELECTRICAL CONTROL PANEL
EM	SYSTEM STOP WITH RINSE START UP
RDV	RINSE DIVERTER VALVE
TL	TRAFFIC LIGHT
LS	LIMIT SWITCH
RFID	RFID ACCESS PANEL
AC	ACCESS CONTROL PANEL
CTL	3 COLOR TRAFFIC LIGHT
RWT	RINSE WATER TANK (NO ELECTRICAL CONNECTION)
WLS	WATER LEVEL SENSOR
RFV	RINSE FILL VALVE
RPMS	RINSE PUMP MOTOR STARTER
RWP	RINSE WATER PUMP (60HP,480V,3ø)
ACP	RINSE AIR CONTROL PANEL

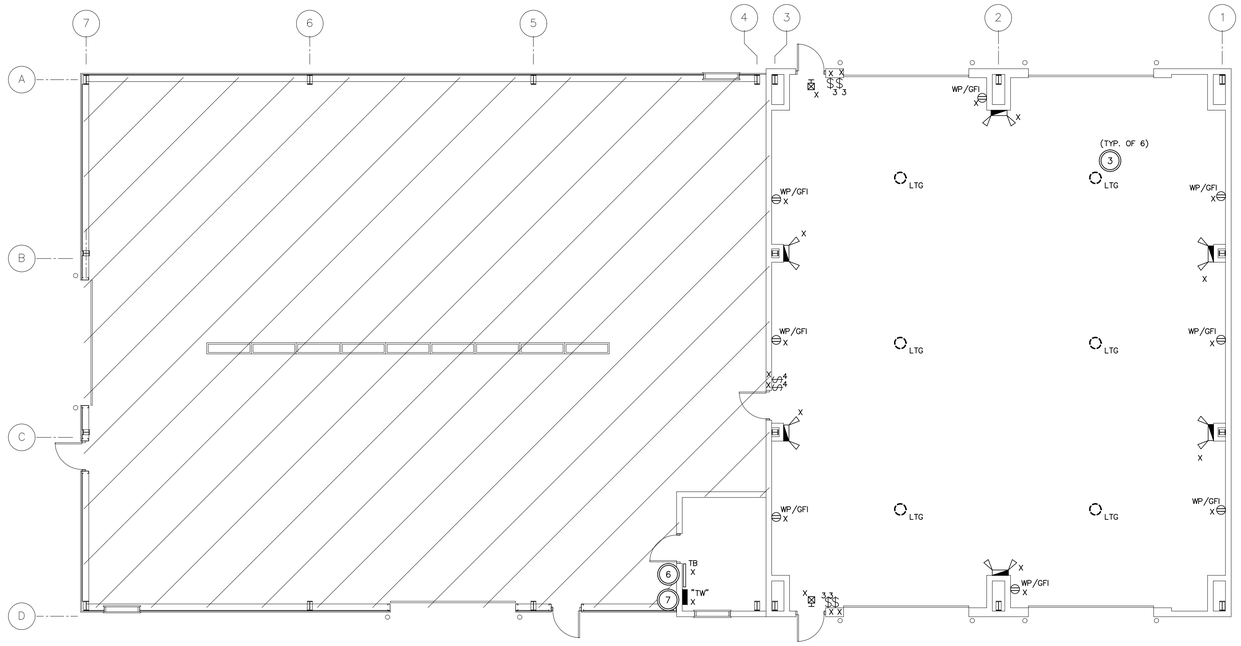


TRUCK WASH LOW VOLTAGE WIRING DETAIL

N.T.S.

(W-00) TRUCK WASH WIRING KEY (W-00)

SYMBOL	DESCRIPTION
W-01	SHIELDED 2-#18, 24V DC
W-02	SHIELDED 3-#18, 24V DC
W-03	SHIELDED 4-#18, 24V DC
W-04	SHIELDED 5-#18, 24V DC
W-05	SHIELDED 6-#18, 24V DC
W-06	SHIELDED 7-#18, 24V DC
W-07	SHIELDED 8-#18, 24V DC
W-08	SHIELDED 9-#18, 24V DC



DEMOLITION - FLOOR PLAN - ELECTRICAL

SCALE 0 8' 12' 16'

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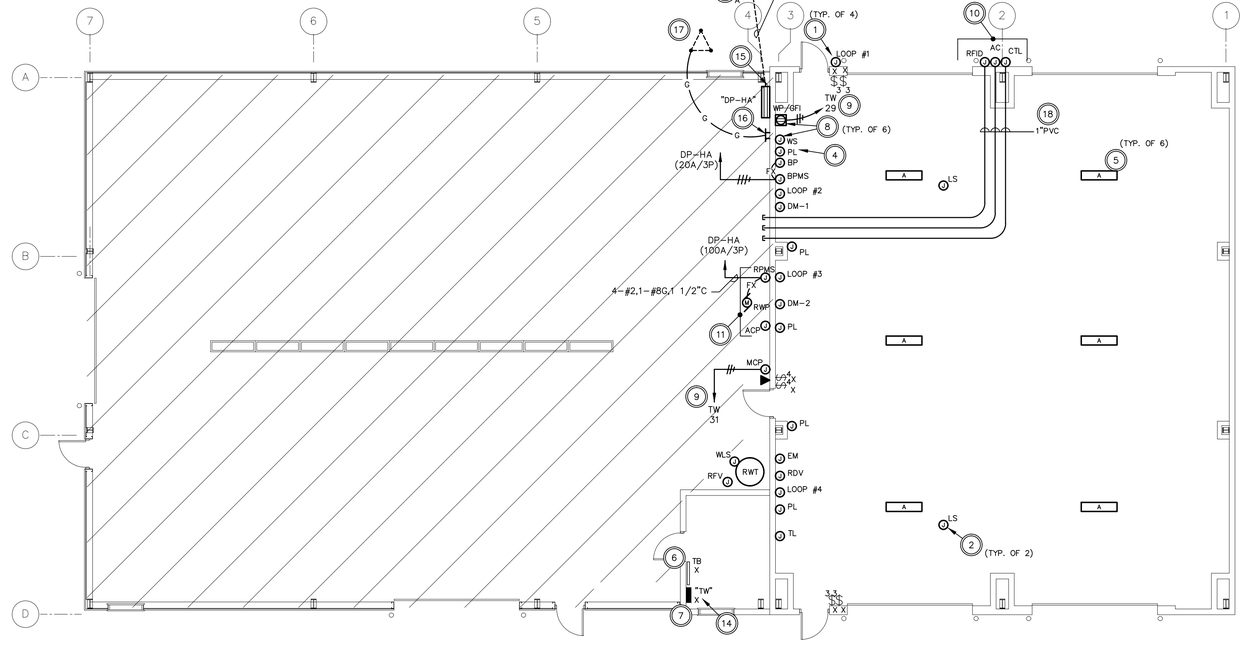

NEW WORK - FLOOR PLAN - ELECTRICAL

SCALE 0 8' 12' 16'

N

PLAN NOTES

1. AN ATTEMPT HAS BEEN MADE TO SHOW ALL ELECTRICAL ITEMS TO REMAIN OR BE REMOVED. EC SHALL FIELD VERIFY EXISTING CONDITIONS AND REMOVE OR RELOCATE ANY ITEM WHICH INTERFERES WITH NEW CONSTRUCTION.
2. ALL EXISTING ELECTRICAL DEVICES WITHIN HATCHED AREAS TO REMAIN IN OPERATION UNLESS SHOWN OTHERWISE. REFEED ANY ITEM WHOSE WIRING IS INTERRUPTED DUE TO WORK IN ADJACENT AREAS. (TYP.)
3. FIELD VERIFY EXISTING CONDITIONS.
4. DARK DASHED ITEMS INDICATE ELECTRICAL EQUIPMENT, DEVICES, AND/OR LIGHTING TO BE REMOVED.
5. ELECTRICAL ITEMS SHOWN DASHED AND INDICATED TO BE REMOVED SHALL BE DISCONNECTED AND ALL ASSOCIATED CIRCUIT AND WIRING BE REMOVED BACK TO SOURCE OR NEXT DEVICE TO REMAIN.
6. NOTIFY THE OWNER OF ANY REQUIRED SYSTEM SHUTDOWNS IN ACCORDANCE WITH THE SPECIFICATIONS.
7. THE FLUORESCENT LAMPS (AND BALLASTS) NEED TO BE CAREFULLY REMOVED AND STORED FOR PROPER DISPOSAL AS " UNIVERSAL WASTE" AS REQUIRED BY EPA. THIS WOULD INCLUDE ALL OTHER TYPES OF LIGHT BULBS SUCH AS" INCANDESCENT, SODIUM, MERCURY, ETC." THESE MATERIALS CANNOT BE DISPOSED AS DEMOLITION WASTE.
8. TRUCK WASH EQUIPMENT SUPPLIER IS HYDRO-CHEM SYSTEMS. 800-666-1992, KEITH BAILEY.
9. TRUCK WASH EQUIPMENT TO BE FURNISHED BY EQUIPMENT SUPPLIER, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
10. ALL WIRING SHALL BE SURFACE MOUNTED IN CONDUIT (3/4" MINIMUM). WITHIN TRUCK WASH AREA SHALL BE PVC. REFER TO SPECIFICATIONS OTHER AREAS. VERIFY ALL WIRING WITH TRUCK WASH EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
11. EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL TRUCK WASH EQUIPMENT TO BE COORDINATED WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

CODED NOTES

1. LOOP SENSOR JUNCTION BOX. LOOP WIRE FROM JUNCTION BOX SHALL BE FURNISHED AND INSTALLED BY TRUCK WASH EQUIPMENT SUPPLIER. (TYPICAL FOR 4 LOOP JUNCTION BOXES)
2. LIMIT SWITCH (LS) LOCATED WITHIN CEILING AREA, SUPPORTED OFF RAFTER. COORDINATED EXACT LOCATION WITH TRUCK WASH EQUIPMENT SUPPLIER.
3. LIGHT FIXTURE TO BE REMOVED. EXISTING CONDUIT AND WIRING TO REMAIN AND BE CONNECTED TO NEW LIGHT FIXTURE IN SAME LOCATION. REFER TO NEW PLAN.
4. PACE LIGHT (PL) MOUNTED ON WALL AT 7'-0" AFF. (TYPICAL)
5. NEW LIGHT FIXTURE CONNECTED TO EXISTING BRANCH CIRCUIT AND CONTROLS. (TYPICAL OF 6)
6. TELECOMMUNICATION BACKBOARD TO REMAIN.
7. ELECTRICAL PANELBOARD TO REMAIN. (200A,208/120V,3ø,4W,200A/3P MCB,42 SPPACES).
8. WATER SOFTNER, TWIN TANK. (120V,1ø). INTEGRAL CORD AND PLUG PROVIDED WITH UNIT.
9. CONNECT TO EXISTING SPARE (20A/1P) CIRCUIT BREAKER IN EXISTING PANEL.
10. ACCESS CONTROL DEVICES AND WIRING TO BE FURNISHED AND INSTALLED BY OWNERS EQUIPMENT VENDER.
11. EXACT LOCATION OF RINSE WATER PUMP TO BE COORDINATED WITH EQUIPMENT SUPPLIER AND EXISTING FIELD CONDITIONS.
12. REFER TO SITE PLAN ON DRAWING E201 FOR CONTINUATION.
13. NEW UNDERGROUND DUCTBANK. REFER TO SECTION DETAILS AND OR ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
14. CONTRACTOR SHALL PROVIDE IDENTIFICATION LABEL. "ELECTRICAL SERVICE #1. #2 ELECTRICAL SERVICE IS LOCATED ON NORTH PORTION OF GARAGE."
15. CONTRACTOR SHALL PROVIDE IDENTIFICATION LABEL. "ELECTRICAL SERVICE #2. #1 ELECTRICAL SERVICE IS LOCATED IN MECHANICAL ROOM ON SOUTH PORTION OF GARAGE."
16. SERVICE ENTRANCE GROUND BAR. REFER TO DETAIL.
17. GROUND MAT. REFER TO DETAIL.
18. CONDUITS ROUTED AT ROOF STRUCTURE.

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Marlon Hathaway 7/26/13
SIGNATURE DATE

CITY OF DUBLIN

NEW AUTOMATIC TRUCK WASH

6351 SHIER RINGS ROAD
DUBLIN, OH 43016

ENGINEER: JAR
MODELER:
CHECKED BY: MCH

ISSUE/REVISION/SUBMISSION		
NO	DATE	DESCRIPTION
	05.29.2013	50% OWNER REVIEW SET
	07.26.2013	PERMIT

DATE: 07.26.2013

SHEET NAME: DEMOLITION AND NEW WORK - FLOOR PLANS - ELECTRICAL

PROJECT NUMBER: 1311.07

SHEET: **E-200**

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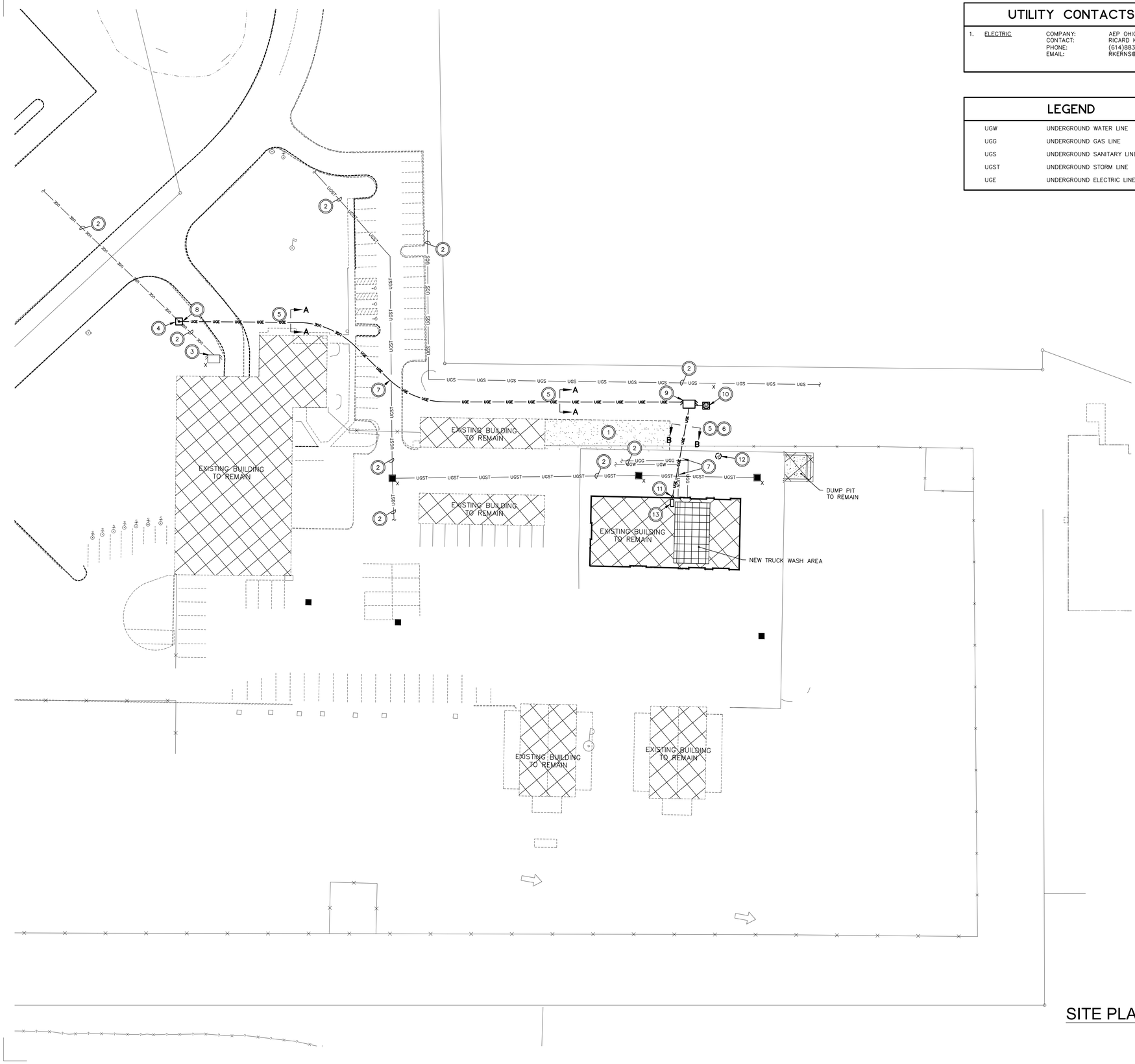

UTILITY CONTACTS

1.	ELECTRIC	COMPANY:	AEP OHIO
		CONTACT:	RICARD KERNS
		PHONE:	(614)883-6862
		EMAIL:	RKERNS@AEP.COM

LEGEND

UGW	UNDERGROUND WATER LINE
UGG	UNDERGROUND GAS LINE
UGS	UNDERGROUND SANITARY LINE
UGST	UNDERGROUND STORM LINE
UGE	UNDERGROUND ELECTRIC LINE

EXCAVATION NOTES

1. THE SIZE, LOCATION AND DEPTH OF UNDERGROUND UTILITIES SHOWN ON THIS PLAN AND ASSOCIATED DETAILS ARE BASED ON INFORMATION PROVIDED BY OTHERS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE DIGGING AND SHALL TAKE NECESSARY MEASURES TO PROTECT HIMSELF, HIS PERSONNEL, AND THE PUBLIC FROM HARM DUE TO CONTACT WITH UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE PLANS.

2. ELECTRICAL CONTRACTOR SHALL PERFORM ALL EXCAVATION AND BACKFILLING FOR NEW ELECTRICAL DUCTBANKS. TOPSOIL AND SEED TO BE PROVIDED TO MATCH EXISTING. PATCHING EXISTING DRIVES AND PARKING AREAS TO BE MADE TO MATCH EXISTING.

3. ELECTRICAL CONTRACTOR SHALL CHOOSE ROUTING OF UNDERGROUND CONDUIT WHICH MINIMIZES ROOT DAMAGE TO THE EXISTING LANDSCAPING.

4. EXISTING UNDERGROUND ELECTRIC, WATER, GAS, SANITARY, AND STORM LINES ARE SHOWN FOR REFERENCE ONLY. EXACT LOCATIONS TO BE DETERMINED IN FIELD. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH EXISTING UNDERGROUND LINES WHICH SHALL BE GIVEN RIGHT-OF-WAY.

CODED NOTES

1. NEW STORAGE BUILDING. NOT IN CONTRACT. COORDINATE EXACT BOUNDARY WITH OWNER. NEW UNDERGROUND DUCTBANK SHALL BE ROUTED AROUND NEW BUILDING.

2. EXISTING UNDERGROUND UTILITY TO REMAIN. REFER TO LEGEND FOR TYPE.

3. EXISTING PAD MOUNTED UTILITY TRANSFORMER TO REMAIN.

4. MEDIUM VOLTAGE UTILITY TAP TO BE FURNISHED AND INSTALLED BY UTILITY.

5. NEW UNDERGROUND DUCTBANK. REFER TO SECTION DETAILS AND/OR ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.

6. COORDINATE UNDERGROUND SECONDARY DUCTBANK ROUTING WITH NEW STORAGE BUILDING LOCATION. DUCTBANK SHALL BE ROUTED AROUND NEW BUILDING.

7. COORDINATE DEPTH OF NEW UNDERGROUND DUCTBANK WITH EXISTING UNDERGROUND LINE.

8. NEW UNDERGROUND DUCTBANK TO BE INSTALLED WITH-IN 2' OF EXISTING UNDERGROUND UTILITY DUCTBANK. COORDINATE EXACT LOCATION OF EXISTING WITH UTILITY AND OHIO UTILITIES PROTECTION SERVICE (OUPS).

9. NEW PAD MOUNTED UTILITY TRANSFORMER. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION AND GRADING WITH POWER UTILITY COMPANY AND NEW STORAGE BUILDING PROJECT'S SITE CONTRACTOR.

10. NEW STAND-ALONE UTILITY METER, MOUNTED ON UNI-STRUT.

11. ROUTE DUCTBANK UP AT EXTERIOR OF BUILDING INTO LB FITTINGS. CONVERT FROM PVC TO GRC BELOW GRADE, EXTEND GRC ABOVE GRADE. ROUTE CONDUITS FROM EXTERIOR LB FITTING, THROUGH EXISTING EXTERIOR WALL, INTO NEW DISTRIBUTION PANELBOARD.

12. EXISTING ELECTRICAL JUNCTION BOX STUBBED UP 12" FROM GRADE FOR POWER TO DUMP STATION FROM TRUCK WASH BUILDING. CONTRACTOR SHALL REMOVE JUNCTION BOX AND PROVIDE NEW HAND HOLE IN SAME LOCATION WITH ENGRAVED CONCRETE LID, "ELECTRIC" QUAZITE. FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. REWORK EXISTING BRANCH CIRCUIT WIRING AS REQUIRED. COORDINATE EXACT GRADING LEVEL AND LOCATION WITH SITE CONTRACTOR FOR NEW STORAGE BUILDING PROJECT.

13. APPROXIMATE LOCATION OF NEW ELECTRICAL SERVICE.

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Marlon Hathaway 7/26/13
SIGNATURE DATE

CITY OF DUBLIN

NEW AUTOMATIC TRUCK WASH

6351 SHIER RINGS ROAD
DUBLIN, OH 43016

ENGINEER: MH
MODELER: MK
CHECKED BY: JR

ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	05.29.2013	50% OWNER REVIEW SET
	07.26.2013	PERMIT

DATE: 07.26.2013

SHEET NAME: SITE PLAN - ELECTRICAL

PROJECT NUMBER: 1311.07

SHEET: E-201

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SITE PLAN - ELECTRICAL

SCALE

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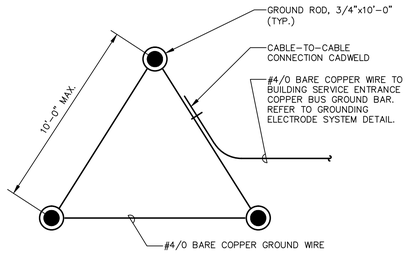

NOTE:

BURY TOP OF GROUND ROD AT 6" BELOW FINISHED GRADE.

SERVICE ENTRANCE MADE ELECTRODE GROUND MAT DETAIL

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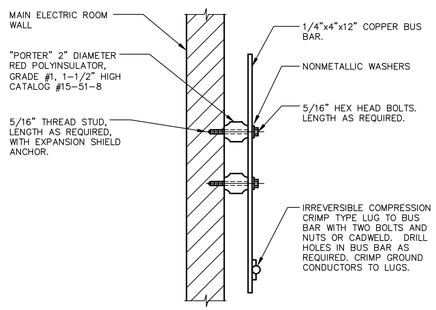

SERVICE ENTRANCE GROUND BAR DETAIL

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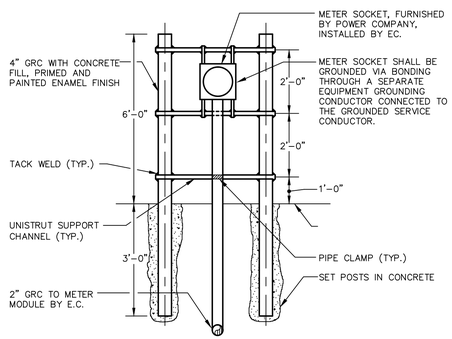

METERING PEDESTAL DETAIL

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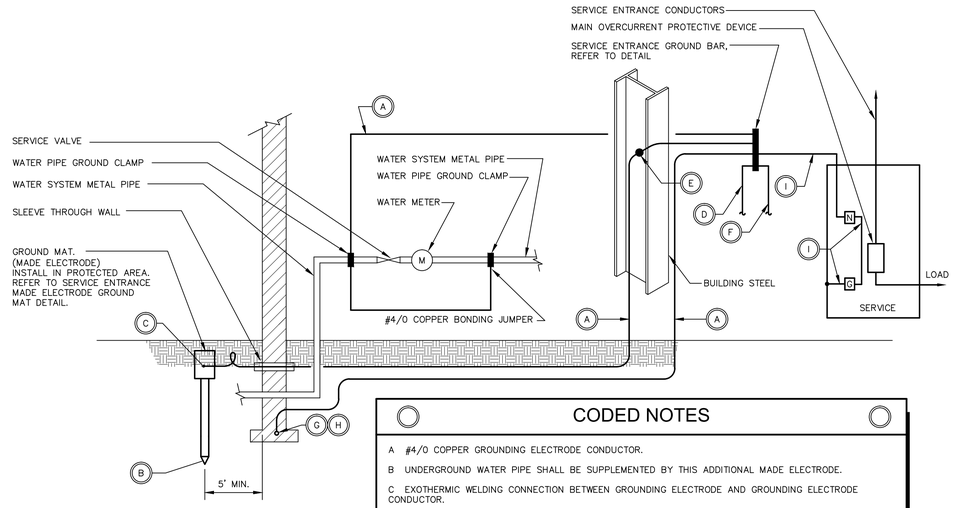


CODED NOTES

A #4/0 COPPER GROUNDING ELECTRODE CONDUCTOR.

B UNDERGROUND WATER PIPE SHALL BE SUPPLEMENTED BY THIS ADDITIONAL MADE ELECTRODE.

C EXOTHERMIC WELDING CONNECTION BETWEEN GROUNDING ELECTRODE AND GROUNDING ELECTRODE CONDUCTOR.

D #6 COPPER WIRE TO MAIN TELECOMMUNICATIONS BACKBOARD COPPER BUS GROUND BAR. REFER TO DRAWINGS FOR LOCATION.

E EXOTHERMIC WELDING CONNECTION BETWEEN BUILDING STEEL AND GROUNDING ELECTRODE CONNECTION.

F ISOLATED GROUND COPPER WIRE TO ISOLATED GROUND PANELBOARDS. (IF ANY).

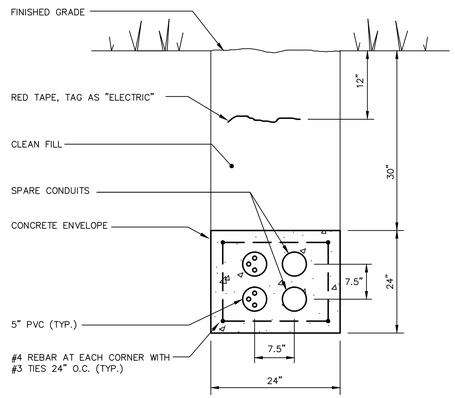
G FOUNDATION REBAR NEAR BASE OF FOOTER WHERE AVAILABLE. WHERE NOT AVAILABLE, FURNISH AND INSTALL 20 FT. MIN. OF #4/0 BARE COPPER CABLE NEAR BOTTOM OF FOOTER WITH AT LEAST 2" OF CONCRETE COVER.

H EXOTHERMIC WELDED CONNECTION TO REBAR OR #4/0 COPPER GROUND CABLE IN FOOTER.

I MAIN BONDING JUMPER. SIZE PER NEC 250.28(D).

SERVICE ENTRANCE ELECTRODE SYSTEM DETAIL

N.T.S.



SECTION "A-A"

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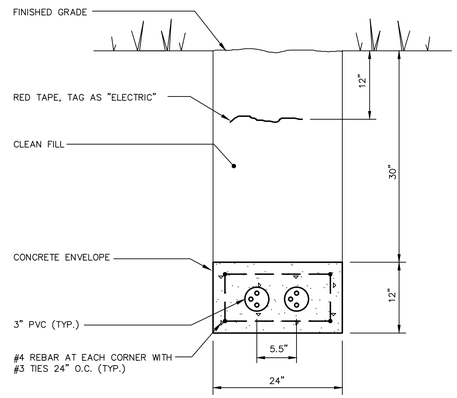

SECTION "B-B"

N.T.S.

GENERAL NOTES

1. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS ON DUCT BANK CONSTRUCTION (I.E. CONCRETE REQUIREMENTS, ETC.)

2. NONMETALLIC SPACERS OF REQUIRED SIZE SHALL BE PROVIDED TO SUPPORT PVC CONDUITS RUN ENCASED IN CONCRETE. SPACERS SHALL BE PROVIDED AT 8' INTERVALS MINIMUM.

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ISSUE/REVISION/SUBMISSION

NO	DATE	DESCRIPTION
	05.29.2013	50% OWNER REVIEW SET
	07.26.2013	PERMIT

DATE: 07.26.2013

SHEET NAME: ELECTRICAL DETAILS

PROJECT NUMBER: 1311.07

SHEET: **E-300**

Drawing = Y:\13OOT\Design\Elec\ 13OOT E-300.dwg Tab = E-300 Username = jross Date = Jul 26, 2013 - 9:48am

GENERAL NOTES

1. CUSTOMER'S PORTION SUBJECT TO INSPECTION BY LOCAL GOVERNMENT, BUILDING AUTHORITIES AND AEP PRIOR TO ACTIVATING TRANSFORMER.

2. METER LOCATION AND ROUTE OF METERING CONDUIT SHALL BE APPROVED BY AEP PRIOR TO INSTALLATION.

3. THE DESIGN OF CUSTOMER OWNED CABLES, INCLUDING SIZE AND NUMBER ENTERING OR LEAVING COMPANY EQUIPMENT MUST BE APPROVED BY AEP PRIOR TO INSTALLATION.

SIZE: 4/0 NUMBER: 4 APPROVED: R. KERNS

4. COMPRESSION TYPE CONNECTORS SHOULD BE USED WHEN ATTACHING ANY CABLE TO COMPANY EQUIPMENT. CONNECTORS MUST HAVE NEMA STANDARD DRILLING. USE 2-HOLE CONNECTORS FOR 350 MCM AND LARGER CABLES. CONNECTORS MUST BE COMPATIBLE WITH THE METAL USED IN THE CABLE.

THE OWNER OF EACH CABLE SHALL FURNISH AND INSTALL CONNECTORS ON EACH OF THEIR CABLES. CABLES MUST BE INSTALLED AND TERMINATED TO PLACE A MINIMUM STRAIN ON THE POINT OF ATTACHMENT TO THE EQUIPMENT. THE OWNER OF THE CABLE SHALL ATTACH THE CABLE TO THE EQUIPMENT USING BOLTS PROVIDED BY THE EQUIPMENT OWNER. THE BOLTS MUST BE INSTALLED FINGER TIGHT ONLY. THE OWNER OF THE EQUIPMENT SHALL SECURELY TIGHTEN THE BOLTS.

5. PASSAGE TO PROPOSED TRANSFORMER LOCATION MUST BE ACCESSIBLE BY TRUCK REQUIRING 12' HIGH BY 10' WIDE OPENING IN WALLS AND FENCES AND PASSABLE REGARDLESS OF WEATHER OR SOIL CONDITIONS.

6. TRANSFORMER COMPARTMENT SHALL BE ACCESSIBLE TO AEP ONLY.

7. UNDERGROUND CABLE ROUTE BETWEEN TERMINAL POLE AND TRANSFORMER PAD TO BE WITHIN 6" OF FINAL GRADE.

8. SECONDARY ENCLOSURE IS REQUIRED WHEN SPECIFIED BY AEP. AEP WILL FURNISH, INSTALL AND MAINTAIN SECONDARY ENCLOSURE WHEN REQUIRED. SECONDARY ENCLOSURE TO BE ACCESSIBLE TO AEP ONLY. PAD FOR SECONDARY ENCLOSURE (INCLUDING CONDUITS) TO BE FURNISHED BY CUSTOMER AND CONSTRUCTED IN ACCORDANCE WITH AEP SPECIFICATIONS AND STANDARDS. CUSTOMER TO PERMANENTLY MARK CONDUITS ROUTED TO TRANSFORMER AND TO LOAD.

9. PROTECTION BARRIER – 4" MIN. STEEL POSTS FILLED WITH CONCRETE AND SET IN CONCRETE, MINIMUM HEIGHT 4 FEET, MUST BE PROVIDED. LOCATIONS SHALL BE SPECIFIED BY THE AEP ENGINEER TO INSURE ACCESS TO TRANSFORMER. BARRIERS SHALL BE PLACED SO THAT BOTH TRANSFORMER DOORS CAN FREELY SWING OPEN AT LEAST 180°. NO NEW BARRIERS SHALL BE PLACED OR EXISTING ONES MOVED AFTER TRANSFORMER INSTALLATION. ANY EXCEPTIONS TO THIS RULE MUST BE APPROVED BY THE AEP ENGINEER IN WRITING, AFTER CONSULTING THE APPLICABLE LINE DEPARTMENT.

10. COMBUSTIBLE MATERIALS, COMBUSTIBLE BUILDINGS OR PART OF BUILDINGS, FIRE ESCAPES AND DOOR AND WINDOW OPENINGS SHALL BE SAFEGUARDED FROM TRANSFORMER FIRES BY APPROVED SEPARATIONS, FIRE WALLS OR ENCLOSURES.

11. METERING CONDUIT 2" GALV. STEEL OR RIGID CONDUIT OF SCH. 40 OR DB. LESS THAN 25' IN LENGTH.

12. DUCTS THAT WILL HAVE PRIMARY CABLE ARE TO BE INSTALLED SIDE BY SIDE TOWARDS THE FRONT OF THE PAD. PRIMARY DUCTS MAY EXTEND IN ANY DIRECTION AS REQUIRED TO TERMINAL POLE. DO NOT INSTALL MORE THAN 2 ELBOWS TO A TERMINAL POLE.

REQUIREMENTS FOR THREE PHASE PAD MOUNT TRANSFORMER FOUNDATIONS

FAILURE TO FOLLOW ALL CONDITIONS ON THIS SHEET MAY RESULT IN A DELAY OF SERVICE - PLEASE READ CAREFULLY

1. AFTER PRIMARY AND SECONDARY CONDUITS ARE IN PLACE, THE AREA FOR THE TRANSFORMER FOUNDATION MUST BE THOROUGHLY COMPACTED BEFORE PLACING CRUSHED STONE OR GRAVEL AND BEFORE POURING FOUNDATION.

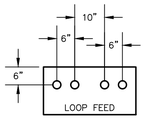
2. CONCRETE TO BE CITY OF COLUMBUS OR STATE OF OHIO DEPARTMENT OF TRANSPORTATION CLASS "C" WITH 6% ±8% AIR ENTRAPMENT, 2"–4" SLUMP AND 3500PSI MINIMUM. PAD TO BE CONSTRUCTED OF A MINIMUM 3 INCH COVER OVER ALL REBAR. WIRE MESH WITH A MINIMUM CROSS-SECTIONAL AREA OF 0.176 SQUARE INCHES PER FOOT OF PAD WIDTH MAY BE USED IN PLACE OF REBAR.

3. THE TYPE, THICKNESS AND REINFORCING OF THE FOUNDATION IS A MINIMUM DESIGN, ACTUAL FOUNDATION FURNISHED MAY EXCEED THESE REQUIREMENTS, BUT MUST BE APPROVED BY AEP ENGINEERING. PRIMARY AND SECONDARY MUST COME THROUGH THE FOUNDATION IN DESIGNATED AREAS.

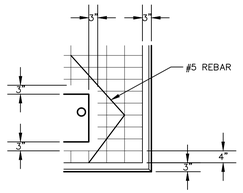
4. THE FOUNDATION SHALL BE LOCATED AWAY FROM WINDOWS, DOORS, FIRE ESCAPES, ENTRANCES AND VENTILATING DUCTS. THE LOCATION MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE FOR OIL INSULATED TRANSFORMERS INSTALLED OUTDOORS.

5. THE FOUNDATION SHALL BE PLACED 3'–0" HORIZONTALLY FROM BUILDING OR STRUCTURE. SINGLE STORY BUILDINGS WITH ROOF OVERHANGS REQUIRE THAT THE FOUNDATION BE PLACED NO CLOSER THAN 3'–0" HORIZONTALLY OUT FROM THE EDGE OF THE OVERHANG. A 10' UNOBSTRUCTED AREA IN FRONT OF THE TRANSFORMER IS REQUIRED FOR SWITCHING.

6. THE CUSTOMER SHALL BE RESPONSIBLE FOR OBTAINING ANY INSPECTIONS OF APPROVALS NECESSARY TO ENSURE COMPLIANCE WITH ALL APPLICABLE BUILDING OR FIRE CODES AND LOCAL ORDINANCES AND LAWS.



DETAIL "A" - PRIMARY COMPARTMENT
N.T.S.



DETAIL "B"
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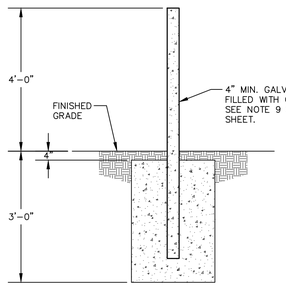

PROTECTION BARRIER DETAIL
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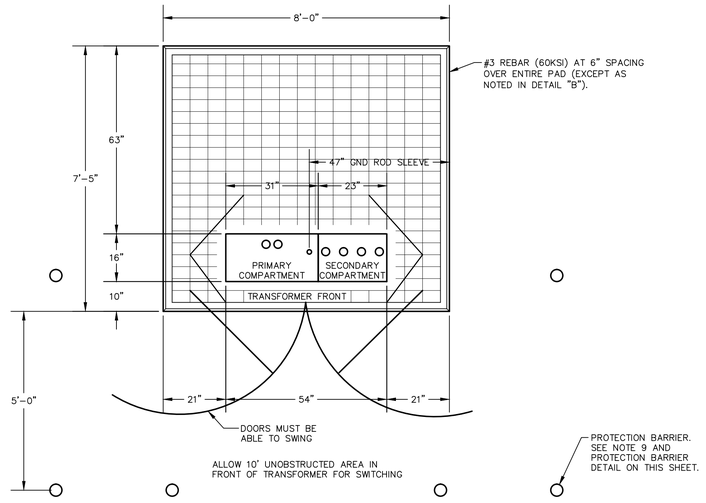
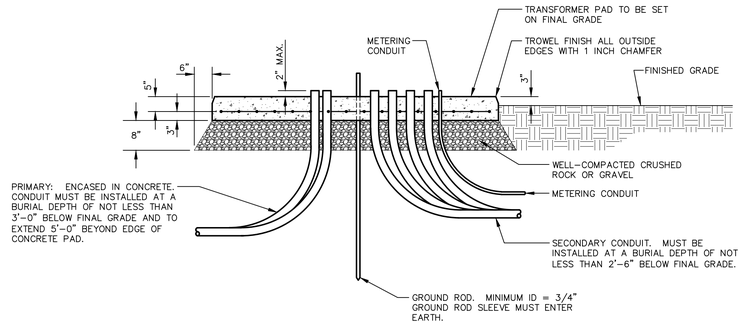




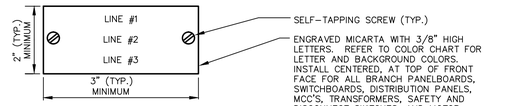
TRANSFORMER PAD DETAIL
N.T.S.

STANDARD COLORS:

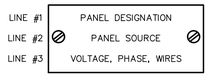
ELECTRICAL EQUIPMENT SUCH AS:
1. PANELBOARDS, MOTOR STARTERS, MOTOR CONTROL CENTERS, DISTRIBUTION PANELS, SWITCHBOARDS, DISCONNECT SWITCHES (IF APPLICABLE)

A. 208Y/120 VOLTS (NORMAL) – GREEN BACKGROUND, WHITE LETTERS
B. 480Y/277 VOLTS (NORMAL) – BLACK BACKGROUND, WHITE LETTERS
C. 208Y/120 VOLTS (EMERGENCY) – WHITE BACKGROUND, RED LETTERS
D. 480Y/277 VOLTS (EMERGENCY) – RED BACKGROUND, WHITE LETTERS

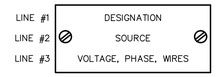
NAMEPLATE COLOR CODING AND VERBIAGE SHALL BE REVIEWED IN DETAIL WITH THE OWNER PRIOR TO FABRICATION.



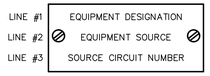
(TYPICAL FOR ALL NAMEPLATES)
GENERAL NAMEPLATE DETAIL



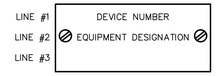
BRANCH PANELBOARD NAMEPLATE



SWITCHBOARD/DISTRIBUTION PANEL/MOTOR CONTROL CENTER NAMEPLATE

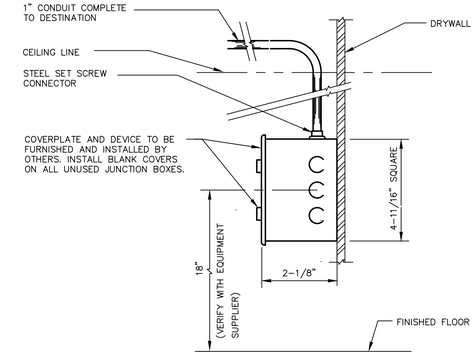


TRANSFORMER/SAFETY SWITCH/ DISCONNECT SWITCH/MOTOR STARTER NAMEPLATE

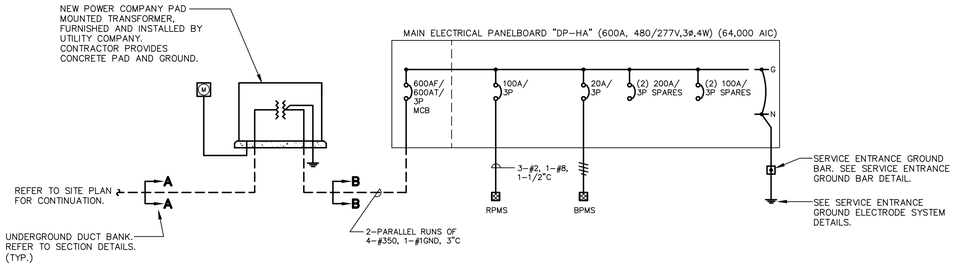


SWITCHBOARD/DISTRIBUTION PANEL/M.C.C./ BRANCH OVERCURRENT PROTECTIVE DEVICE OR STARTER NAMEPLATE

(REFER TO SPECIFICATION SECTION 16195)
IDENTIFICATION TAGGING DETAILS
N.T.S.



TYPICAL SURFACE MOUNTED OUTLET
N.T.S.



ONE LINE DIAGRAM
N.T.S.

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ENGINEER: JAR
MODELER:
CHECKED BY: MCH

ISSUE/REVISION/SUBMISSION		
NO	DATE	DESCRIPTION
	05.29.2013	50% OWNER REVIEW SET
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SHEET NAME: ELECTRICAL DETAILS

PROJECT NUMBER: 1311.07

SHEET: E-301

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