

August 29, 2018

Melanie Bachman Executive Director Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Notice of Exempt Modification – Emergency Backup Generator 340 Bloomfield Avenue, Windsor, CT 06095

Dear Melanie,

AT&T Mobility currently maintains a wireless telecommunications facility at the above referenced address. The monopole and AT&T's shelter are surrounded by buildings and a chain link fence. The shelter houses AT&T's equipment. AT&T currently does not maintain a generator at this cell site.

In an effort to further enhance the network reliability for the First Responder Network Authority (FirstNet), AT&T intends to modify its facility by installing a new 20KW natural gas fueled generator in a designated 4' x 5' lease area near AT&T's in close proximity to the ground equipment. The proposed generator will be placed on a 4' x 5' concrete pad. Construction Drawings are attached and approved by the landowner – Town of Windsor.

Please accept this letter as notification pursuant to R.C.S.A. Section 16-50j-73, for construction that constitutes modification pursuant to R.C.S.A Section 16-50j-72(b)(2). In accordance with R.C.S.A Section 16-50j-73, a copy of this submission is being sent to the Town of Windsor as property owner, Pete Souza, Town Manager, Eric Barz - Town Planner, the tower owner – Paul Pedicone of Crown Castle. Evidence of notifications are attached hereto.

AT&T's proposed Wireless Modifications Constitute An "Exempt Modification"

The proposed modification to the above mentioned Facility constitutes an exempt modification of an existing facility provided for R.C.S.A Section 16-50j-72(b)(2) and Council regulations promulgated pursuant thereto.

- 1) The proposed modification will not result in an increase in the height of the existing tower.
- 2) The generator and attached fuel tank will remain entirely within the limits of the leased area. The modifications therefore, will not require the extension of the existing boundary.
- 3) The proposed modification does not increase the noise levels at the boundary by six (6) decibels or more under normal conditions. Proposed modification is only used during emergency power failure of the commercial power.
- 4) The installation of a new generator and attached fuel tank will not change, in any way, radio frequency (RF) emissions at the facility.
- 5) Site Plan Approval by the Town of Windsor dated October 25, 2000 for the telecommunications tower is provided herewith.

For all foregoing reasons, AT&T Mobility respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A Section 16-50j-72(b)(2).

Best Regards,

Donna Love
Site Acquisition Manager, exclusive agent of AT&T Mobility
General Dynamics IT, Inc.
Mobile #315-480-5529

Enc.

Cc: Town of Windsor – Pete Souza, Town Manager Town of Windsor – Eric Barz, Town Planner Crown Castle – Paul Pedicone, Tower Owner

GENERAL DYNAMICS Wireless Services

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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October 25, 2000

Cuddy & Feder & Worby LLP ATTN: Daniel F. Leary 90 Maple Avenue White Plains, NY 10601-5196

Subject:

Special Use #546 - Wireless Telecommunications Tower, 340 Bloomfield Avenue, Zoning Regulations Sections 12.2 & 2.2.19E(1), NZ Zone, Town of Windsor/AT&T Wireless PCS, LLC

Site Plan #308E - Revision, Wireless Telecommunications Tower, 340 Bloomfield Avenue, NZ Zone, Town of Windsor/AT&T Wireless PCS, LLC

Dear Mr. Leary:

At its meeting on October 10, 2000 the Windsor Town Planning & Zoning Commission took the following action on the subject applications:

Approved subject to the following condition:

1) Final approval of the Fire Marshal regarding fire safety issues

Approval includes the following distance waiver:

1) 83 feet for Bloomfield Avenue south of site

Very truly yours,

Town Planning & Zoning Commission

/mm

I, Anita M. Mips, Chairperson of the Windsor Town Planning and Zoning Commission, hereby certify that on October 10, 2000 the Planning and Zoning Commission of the Town of Windsor granted approval of Special Use Application #546 for a Wireless Telecommunications Tower with a monopole height of 150 feet plus 20-foot Town public service whip antennas for a total height of 170 feet, under Zoning Regulations Sections 12.2 & 2.2.19E(1), subject to the following condition:

1) Final approval of the Fire Marshal regarding fire safety issues.

This approval also includes the following waiver in accordance with Zoning Regulations Section 12.1:

1) a waiver of the fall zone distance requirement for 83 feet in relation to the distance of the tower from Bloomfield Avenue, 340 feet being required, 257 feet being proposed.

Said Special Use was granted for the property located at:	340 Bloomfield Avenue
The owner of record of said parcel is:	Town of Windsor
Dated at Windsor, Connecticut, this 30 day of Nov	vember, 2000
Jack Douge Chairperson	
Public Act #75-317	
Received for Record this day of	, 2000

Attest: Town Clerk



VICINITY MAP



SITE NAME: WINDSOR CENTRAL FA LOCATION CODE: 10092835 **GENERATOR PROJECT**

SCOPE OF WORK

ADD STANDBY GENERATOR, ASSOCIATED CONCRETE PAD, AND UTILITY EQUIPMENT TO EXISTING AT\$T EQUIPMENT AREA. THERE WILL BE NO CHANGE IN THE SIZE OR HEIGHT OF THE TOWER OR ANTENNAS.

SITE LOCATION

TART HEADING NORTHEAST ON I-95 N. TAKE EXIT 38 TOWARD STATE I 5/MERRIT PKWY/WILBUR CROSS PKWY. MERGE ONTO MILFORD PKWY. TAKE THE CT-15 N/W CROSS PKWY EXIT TOWARD NEW HAVEN/HARTFORD. MERGE ONTO CT-15 N. TAKE EXIT 68 N-E TO MERGE ONTO 1-91 N TOWARD CT-66 HARTFORD/MIDDLETOWN. CONTINUE STRAIGHT TO STAY ON 1-91 N. TAKE EXIT 37 FOR CT-305/BLOOMFIELD AVENUE TOWARD WINDSOR CENTER. TURN RIGHT ONTO CT-305 E/BLOOMFIELD AVENUE, DESTINATION WILL BE ON THE LEFT.



TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN CONNECTICUT

CALL BEFORE YOU DIG 811 OR 1-800-922-4455

CONNECTICUT PUBLIC ACT 87-71 REQUIRES MIN, 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE.

APPLICABLE BUILDING CODE \$ STANDARDS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURREN' EDITION OF THE FOLLOWING CODES AS ADOPTED BY THE GOVERNING LOCAL AUTHORITIES. NOTHING NITHESE PLANS ARE TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

- INTERNATIONAL BUILDING CODE 2009
- . NATIONAL ELECTRIC CODE (IEEE)
- 3. AMERICAN CONCRETE INSTITUTE (ACI) 3 | 8. BUILDING CODE REQUIREMENTS FOR STRUCTURAL
- 4. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION
- . TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G, STRUCTURAL STANDARDS FOR STEEL OWER AND ANTENNA SUPPORTING STRUCTURES

AT¢T MGR.

. TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR

PROJECT INFORMATION

PROJECT MANAGER:

JOE NAGLE MARKET LEAD

GENERAL DYNAMICS WIRELESS SERVICES 661 MOORE RD STE 110

KING OF PRUSSIA, PA 19406 EMAIL: joseph.nagle@gdit.com

ENGINEER:

RAMAKER \$ ASSOCIATES, INC. 855 COMMUNITY DRIVE SAUK CITY, WI 53583 PH.: (608) 643-4100 FAX: (608) 643-7999 CONTACT: MIKE REEVE EMAIL: mreeve@ramaker.com

APPLICANT INFORMATION:

7150 STANDARD DR HANOVER, MD 21076

SITE NAME: WINDSOR CENTRAL SITE ID: 855662 FA NUMBER: 10092835

CROWN CASTLE INTERNATIONAL 12 GILL STREET, SUITE 5800 WOBURN, MA 01801

340 BLOOMFIELD AVENUE WINDSOR, CT 06095

COUNTY: HARTFORD

41.852492° N 72.660599° W LONG .:

GROUND ELEVATION: 118 FT AMSL

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE CLIENT IS STRICTLY PROHIBITED.

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- WIRING DETAILS
- E-2 PANEL AND PENETRATION DETAILS ATS, CONDUIT & GROUND ROD DETAILS
- GENERAC GENERATOR SPECIFICATIONS
- F-4 I GENERAC GENERATOR SPECIFICATIONS
- E-4.2 GENERAC GENERATOR SPECIFICATIONS
- E-5 GENERAC ATS SPECIFICATIONS

SIGNATURE BLOCK

DATE

GENERAL DYNAMICS DATE CONSTRUCTION MGR.

SITE ACQUISITION

WINDSOR CENTRAL FA ID # 10092835

DATE 08/02/2018

855 Community Dr, Sauk City, WI 53583 608-643-4100 www.Ramaker.com Sauk City, WI • Willmar, MN

Woodcliff Lake, NJ · Bayamon, PR

GENERAL DYNAMICS

hereby certify that this plan, specification, or report was prepare by me or under my direct supervision and that I am a duly Licensec Professional Engineer under the laws of the State of Connecticut.

Information Technology, Inc.

PREPARED FOR:

CONSULTANT:

GENERAL DYNAMICS

661 MOORE RD STE 110

KING OF PRUSSIA, PA 19406

340 BLOOMFIELD AVENUE WINSOR, CT 06095

A 8/2/18 REVISION A

TITLE SHEET

SCALE: NONE

38599

1 **AERIAL VIEW OF SITE**

NOTES TO SUBCONTRACTOR:

- . THE GENERAL SUBCONTRACTOR MUST VERIFY ALL DIMENSIONS. CONDITIONS AND ELEVATIONS BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.
- 2. IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL ORDINANCES, TO SAFELY EXECUTE ALL WORK AND SHALL BE RESPONSIBLE FOR SAME. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.
- 3. THE SUBCONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMAN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHOD NEEDED FOR PROPER PERFORMANCE OF THE WORK
- 4 CONSTRUCTION SUBCONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION SUBCONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION SUBCONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT
- 5. SITE GROUNDING SHALL COMPLY WITH AT&T WIRELESS SERVICES TECHNICAL SPECIFICATIONS FOR FACILITY GROUNDING FOR CELL SITE STANDARDS, LATEST EDITION, AND COMPLY WITH AT&T TOWERS GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN. GROUNDING SHALL BE COMPLETED BEFORE ERECTION OF TOWER.
- 6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION, IF TEMPORARY LIGHTING AND MARKING IS REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION (FAA), IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE NECESSARY LIGHTS AND NOTIFY THE PROPER AUTHORITIES IN THE EVENT OF A PROBLEM.
- 7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL CODES OR ORDINANCES. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.
- 8. ANY DAMAGE TO THE ADJACENT PROPERTIES WILL BE CORRECTED AT THE SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE LANDOWNER AND THE ENGINEER.
- 9. THE COMPLETE BID PACKAGE INCLUDES THESE CONSTRUCTION DRAWINGS ALONG WITH THE SPECIFICATIONS. SUBCONTRACTOR IS RESPONSIBLE FOR REVIEW OF TOTAL BID PACKAGE PRIOR
- IO. SUBCONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES WITHIN CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION.
- I I . THE SUBCONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE SUBCONTRACTOR'S EXPENSE
- I 2. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY THE TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED. ANY DAMAGE TO THE PROPERTY OUTSIDE THE LEASED PROPERTY SHALL BE REPAIRED BY THE SUBCONTRACTOR
- I 3. ALL SUITABLE BORROW MATERIAL FOR BACK FILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
- 14. SEEDING AND MULCHING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER. COMPLETION OF THE SITE DEVELOPMENT. THE SUBCONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAIN AN ADEQUATE COVER OF VEGETATION OVER THE SITE FOR A ONE YEAR
- 15. PERMITS: THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND INCURRING THE COST OF ALL REQUIRED PERMITS. INSPECTIONS, CERTIFICATES, ETC.
- I 6. RECORD DRAWINGS: MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS BETWEEN WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DRAWINGS WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT
- 17. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE GROUND STRUCTURES AND/OR EXISTING UTILITIES BELIEVED TO BE IN THE WORKING AREA. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO VERIFY ALL UTILITIES, PIPELINES AND OTHER STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS. THE SUBCONTRACTOR SHALL CONTACT THE LOCAL JURISDICTION'S DIGGER'S HOTLINE BEFORE DIGGING OR DRILLING. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AND ENGINEER AT THE SUBCONTRACTOR'S EXPENSE

GENERAL NOTES

- . THIS PROPOSAL IS FOR THE ADDITION OF A NEW GENERATOR ON A CONCRETE PAD TO AN EXISTING UNMANNED TELECOMMUNICATIONS FACILITY CONSISTING OF AN EQUIPMENT SHELTER AND TOWER
- 2. THE PROPOSED FACILITY WILL BE LINMANNED AND DOES NOT REQUIRE POTABLE WATER OR SEWER SERVICE
- 3. THE PROPOSED FACILITY IS UNMANNED AND IS NOT FOR HUMAN HABITAT. (NO HANDICAP

- ACCESS IS REQUIRED)
- 4. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION, APPROXIMATELY 2 TIMES PER MONTH BY AT&T TECHNICIANS.
- 5. OUTDOOR STORAGE AND SOLID WASTE CONTAINERS ARE NOT PROPOSED.
- G. ALL MATERIAL SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- 7. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED BY THE CONSTRUCTION OPERATION
- 8. SUBCONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTION REQUIRED FOR CONSTRUCTION.
- 9. SUBCONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS FROM THE SITE ON A DAILY BASIS.

ELECTRICAL NOTES: A. GENERAL

- I. COORDINATE LOCATION AND POWER REQUIREMENTS OF ALL EQUIPMENT WITH AT&T AND EQUIPMENT SUPPLIER PRIOR TO INSTALLATION.
- 2 COORDINATE LOCATION AND REQUIREMENTS FOR ELECTRICAL AND TELEPHONE SERVICES WITH THE PROPERTY REPRESENTATIVE, AT&T AND UTILITY COMPANIES. ROUTING OF CONDUITS MAY BE MODIFIED TO MEET SITE REQUIREMENTS. EXACT CONDUIT ROUTING TO BE DETERMINED IN THE FIELD
- 3. ALL WIRING AND EQUIPMENT SHOWN ON ELECTRICAL SHEETS SHALL BE FURNISHED AND INSTALLED UNDER ELECTRICAL PORTION OF CONTRACT UNLESS OTHERWISE NOTED
- 4. UNINTERRUPTED ELECTRICAL SERVICE FOR EXISTING EQUIPMENT SHALL BE MAINTAINED DURING THE INSTALLATION OF THE WORK DESCRIBED UNDER THESE DOCUMENTS TEMPORARY EQUIPMENT, CABLES AND WHATEVER ELSE IS NECESSARY SHALL BE PROVIDED AS REQUIRED TO MAINTAIN ELECTRICAL SERVICE. TEMPORARY SERVICE FACILITIES, IF REQUIRED AT ANY TIME, SHALL NOT BE DISCONNECTED OR REMOVED UNTIL NEW SERVICE EQUIPMENT IS IN PROPER OPERATION. IF ANY SERVICE OR SYSTEM MUST BE INTERRUPTED, THE CONTRACTOR SHALL REQUEST PERMISSION IN WRITING STATING THE DATE. TIME. ETC. THE SERVICE WILL BE INTERRUPTED AND THE AREAS AFFECTED. THIS REQUEST SHALL BE MADE IN SUFFICIENT TIME FOR PROPER ARRANGEMENTS TO BE MADE. WRITTEN PERMISSION SHALL BE OBTAINED FROM THE OWNER BEFORE INTERRUPTING ELECTRICAL SFRVICE
- 5. COORDINATE NEW WORK WITH OTHER TRADES AND VERIFY EXISTING CONDITIONS TO AVOID INTERFERENCE. IN CASE OF INTERFERENCE, AT&T'S REPRESENTATIVE WILL DECIDE WHICH WORK IS TO BE RELOCATED. REGARDLESS OF WHICH WAS FIRST INSTALLED
- 6. THE INSTALLATION MUST COMPLY WITH NEC AND ALL FEDERAL, STATE AND LOCAL RULES AND REGULATIONS.
- 7. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND FOLIPMENT UNLESS OTHERWISE DEFINED BY DIMENSIONS OR DETAILS EXACT EQUIPMENT LOCATIONS AND RACEWAY ROUTING SHALL BE GOVERNED BY ACTUAL FIELD CONDITIONS AND/OR DIRECTIONS FROM AT&T'S REPRESENTATIVE.
- 8. CONTRACTOR SHALL PAY ALL PERMITS AND FEES REQUIRED.
- 9. ALL MATERIALS SHALL BE FURNISHED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE STANDARDS REFERENCED BELOW:
 - ANSI (AMERICAN NATIONAL STANDARDS INSTITUTE) ASTIM (AMERICAN SOCIETY FOR TESTING MATERIALS)
 - ETL (ELECTRICAL TESTING LABORATORY)
 - ICEA (INSULATED CABLE ENGINEERS ASSOCIATION)
 - IEEE (INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS)
 - MBFU (NATIONAL BOARD OF FIRE UNDERWRITERS)
 - NESC (NATIONAL ELECTRICAL SAFETY CODE) NEMA (NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION)
 - NFPA (NATIONAL FIRE PROTECTION ASSOCIATION)
 - UL (UNDERWRITER'S LABORATORY)
- IO. CONTRACTOR SHALL REVIEW PLANS, DETAILS AND SPECIFICATIONS IN DETAIL AND ADJUST WORK TO CONFORM WITH ACTUAL SITE CONDITIONS SO THAT ELECTRICAL DEVICES AND EQUIPMENT WILL BE LOCATED AND READILY ACCESSIBLE. QUANTITIES LISTED IN MATERIAL LISTS ON THE DRAWINGS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL PROVIDE HIS OWN TAKEOFF FOR MATERIAL QUANTITY AND TYPES BASED ON ACTUAL SITE CONDITIONS, IN ADDITION, CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS TO INSTALL EQUIPMENT FURNISHED BY AT&T OR ITS SUPPLIERS. ALL ITEMS NOT SPECIFICALLY MENTIONED HEREIN OR SHOWN ON THE DRAWINGS, BUT WHICH ARE OBVIOUSLY NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION, SHALL BE INCLUDED.
- II. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) AT&T'S REPRESENTATIVE OF ANY CONFLICTS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK, IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- 12 ALL FLOORS WHERE PENETRATIONS ARE REQUIRED IN BUILDING ARE TO BE CORE DRILLED AND THEN FIREPROOFED

- I. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE SHOWN OR AS REQUIRED BY CODE SUCH THAT NO MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (380 DEGREES TOTAL) FXIST IN A CONDUIT RUN
- 2. ALL POWER AND CONTROL/INDICATION WIRING SHALL BE TYPE THHN/THWN 800V RATED 75 DEGREES CELSIUS, UNLESS NOTED OTHERWISE

- 3. CONDUIT BENDS SHALL BE MADE IN ACCORDANCE WITH NEC TABLE 346-10. NO RIGHT ANGLE DEVICE OTHER THAN STANDARD CONDUIT ELBOWS WITH 12" MINIMUM INSIDE SWEEPS FOR ALL CONDUITS 2" OR LARGER.
- 4. POWER WIRING SIZE SHALL NOT BE SMALLER THAN #12 AWG
- 5. ALL WIRING SHALL BE COPPER. ALUMINUM WILL NOT BE ACCEPTABLE ALL POWER CIRCUITS SHALL CONTAIN A GROUND WIRE.
- 6. PHASE MARKINGS TO BE USED AT POWER CONDUCTOR TERMINATIONS
- 7. CONTRACTOR SHALL ENSURE INTEGRITY IS MAINTAINED WHEN INSTALLING CONDUIT AND
- 8. INSTALL PULL STRING IN ALL CONDUIT.
- 9. FOR ROOFTOP INSTALLS AND BUILD-OUTS, CONDUITS INSIDE BUILDING AND ON ROOF SHALL BE RGS. UNLESS OTHERWISE NOTED. FOR RAW LAND SITES AND CO-LOCATES, PVC SCHEDULE 80 SHALL BE UTILIZED UNLESS NOTED OTHERWISE
- 10. MAINTAIN MINIMUM 1'-0" VERTICAL AND 1'-0" HORIZONTAL SEPARATIONS FROM ANY MECHANICAL GAS PIPING.
- II. ALL WIRING ROUTED IN PLENUM TO BE RATED OR IN METALLIC FLEX (LIQUIDITE) CONDUIT.

C. EQUIPMENT

- EQUIPMENT/PARTS CONNECTED TO EXISTING PANELS, DUCTS, ETC. SHALL MATCH THE CHARACTERISTICS (A/C, V, A) OF THAT EQUIPMENT.
- 2. ALL ELECTRICAL EQUIPMENT OUTSIDE SHALL BE NEMA OR 3R RATED.

D. GROUNDING

- ALL GROUND CONNECTIONS TO BUILDING SHALL BE MADE USING TWO-HOLE CONNECTORS PROVIDE STAINLESS STEEL BOLTS AND LOCK WASHERS ON ALL MECHANICAL GROUND CONNECTIONS
- 2. ALL EQUIPMENT SURFACES TO BE BONDED TO GROUNDING SYSTEM SHALL BE STRIPPED O ALL PAINT AND DIRT. CONNECTIONS TO VARIOUS METALS SHALL BE OF A TYPE AS TO CAUSE A GALVANIC OR CORROSIVE REACTION. AREA SHALL BE REPAINTED FOLLOWING
- 3. ANY METALLIC ITEM WITHIN 6' OF GROUND CONDUCTORS MUST BE CONNECTED TO THE GROUNDING SYSTEM
- 4. EXTERIOR, ABOVE GRADE GROUND CONNECTIONS SHALL BE FURNISHED WITH A LIBERAL ROTECTIVE COATING OF ANTI-OXIDE COMPOUND
- ALL MATERIALS AND LABOR REQUIRED FOR THE GROUNDING SYSTEM AS INDICATED ON THE PLANS AND DETAILS, AND AS DESCRIBED HEREIN SHALL BE FURNISHED BY THIS CONTRACTOR UNLESS OTHERWISE NOTED.
- 6. EXACT LOCATION OF GROUND CONNECTION POINTS SHALL BE DETERMINED IN FIELD. ADJUST LOCATIONS INDICATED ON PLANS ACCORDING TO ACTUAL EQUIPMENT LOCATIONS TO KEEP THE GROUND CONNECTION CABLES AS SHORT AS PRACTICAL.
- 7. PROVIDE ALL ELECTRICAL SYSTEM AND EQUIPMENT GROUNDS AS REQUIRED BY THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE (1999) AND THE CURRENT EDITION OF THE NATIONAL ELECTRICAL SAFETY CODE. BONDING JUMPERS WITH APPROVED GROUND FITTINGS SHALL BE INSTALLED AT ALL RACEWAYS, EQUIPMENT ENCLOSURES, PULL BOXES, ETC. TO MAINTAIN GROUND CONTINUITY WHERE REQUIRED BY CODE.
- 8. ALL EQUIPMENT GROUND CONDUCTORS SHALL BE TIN COATED, #2 AWG COPPER UNLESS NOTED OTHERWISE ON THE DRAWINGS.

E. INSPECTION/DOCUMENTATION

- THE CONTRACTOR, UPON COMPLETION OF HIS WORK, SHALL PROVIDE AS-BUILT DRAWINGS INFORMATION SHOULD BE GIVEN TO THE GENERAL CONTRACTOR FOR INCLUSION IN FINAL AS-BUILT SURVEY DOCUMENTS TO BE GIVEN TO THE OWNER.
- 2. CONTRACTOR SHALL SUPPLY DOCUMENTATION ATTESTING TO THE COMPLETE GROUND SYSTEM'S RECEPTIVITY (MAX. 5 OHMS).
- AN ELECTRICAL INSPECTION SHALL BE MADE BY AND INSPECTING AGENCY APPROVED BY AT&T'S REPRESENTATIVE. CONTRACTOR SHALL COORDINATE ALL INSPECTIONS AND OBTAIN POWER COMPANY APPROVAL.
- 4 CONTRACTOR SHALL HAVE ATS AND GENERATOR RELAY INSTALLATION AND CONNECTIONS INSPECTED BY OTHERS TO ENSURE THAT ULLISTING FOR THAT EQUIPMENT IS NOT VOIDED



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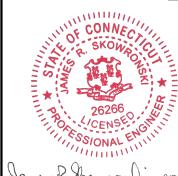
GENERAL DYNAMICS

Information Technology, Inc.

GENERAL DYNAMICS 661 MOORE RD STE 110 KING OF PRUSSIA, PA 19406

ertification \$ Seal

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8/2/18 REVISION A DATE DESCRIPTIO

FINAL.

WINDSOR CENTRAL FA ID # 10092835

DATE 08/02/2018

340 BLOOMFIELD AVENUE WINSOR, CT 06095

SHEET TITLE:

GENERAL NOTES

SCALE: NONE

38599 N- I SHEET

SCOPE OF WORK DETAILS

GENERAL

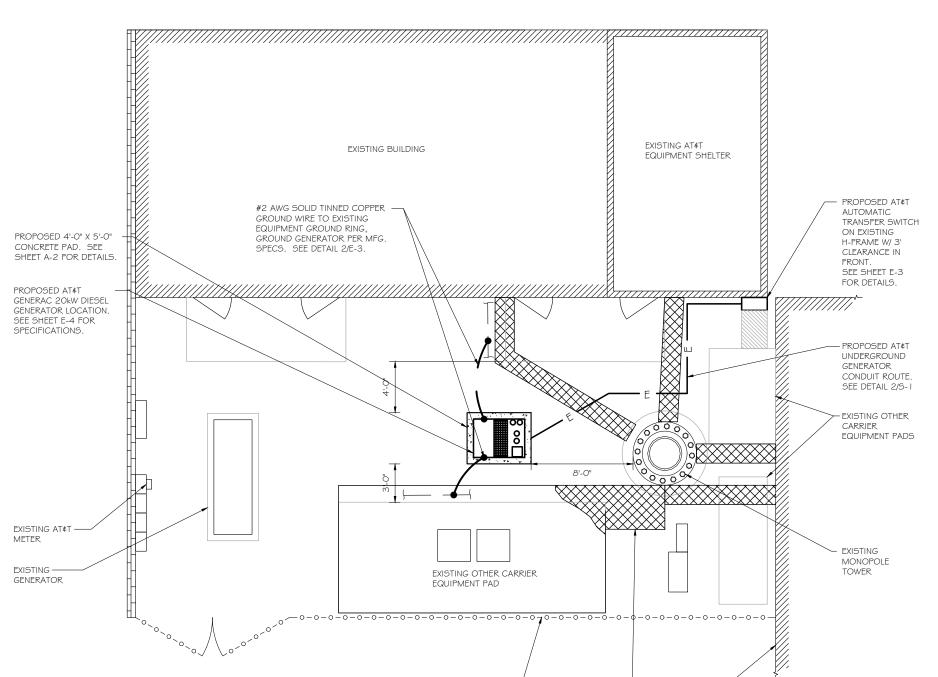
- NEW GENERAC DIESEL GENERATOR PROVIDED BY GENERAL DYNAMICS & INSTALLED BY GENERAL CONTRACTOR, SEE E-4.
- NEW 4'-0" X 10'-0" CONCRETE PAD PROVIDED \$ INSTALLED BY
- GENERAL CONTRACTOR (AS REQUIRED) SEE S-1 NEW GENERAC AUTOMATIC TRANSFER SWITCH PROVIDED BY GENERAL DYNAMICS & INSTALLED BY CONTRACTOR (AS
- REQUIRED) SEE E-3 & E-5.
 CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION
- CONTRACTOR SHALL RESTORE & REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER

- INSTALL PULL STRING IN EACH CONDUIT

 (1) NEW 2" AND (1) NEW 1" ELECTRICAL CONDUITS WITH CONDUCTORS TO RUN FROM NEW GENERATOR TO NEW ATS. CONDUIT PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. SEE E-1, E-2 \$ E-3.
- (2) NEW I" ELECTRICAL CONDUIT WITH CONDUCTORS TO RUN FROM NEW GENERATOR TO AC PANEL. CONDUIT PROVIDED \$
 INSTALLED BY GENERAL CONTRACTOR. SEE E-1, E-2 \$ E-3.

 (I) NEW I" ALARM CONDUIT \$ CABLING PROVIDED \$ INSTALLED
- BY GENERAL CONTRACTOR. SEE E-1, E-2 & E-3.

NEW EXOTHERMIC CONNECTION FROM EXISTING GROUND RING TO NEW MECHANICAL CONNECTION AT GENERATOR CHASSIS. GENERAL CONTRACTOR TO VERIFY LOCATION IN FIELD. LOCATE GROUND RODS NO MORE THAN 8'-O" APART.







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WINDSOR CENTRAL FA ID # 10092835

340 BLOOMFIELD AVENUE WINSOR, CT 06095

SITE PLAN & EQUIPMENT LAYOUT

38599 SHEET A- I

SITE PLAN

EXISTING ICE -

BRIDGE, TYP.

FXISTING

BUILDING

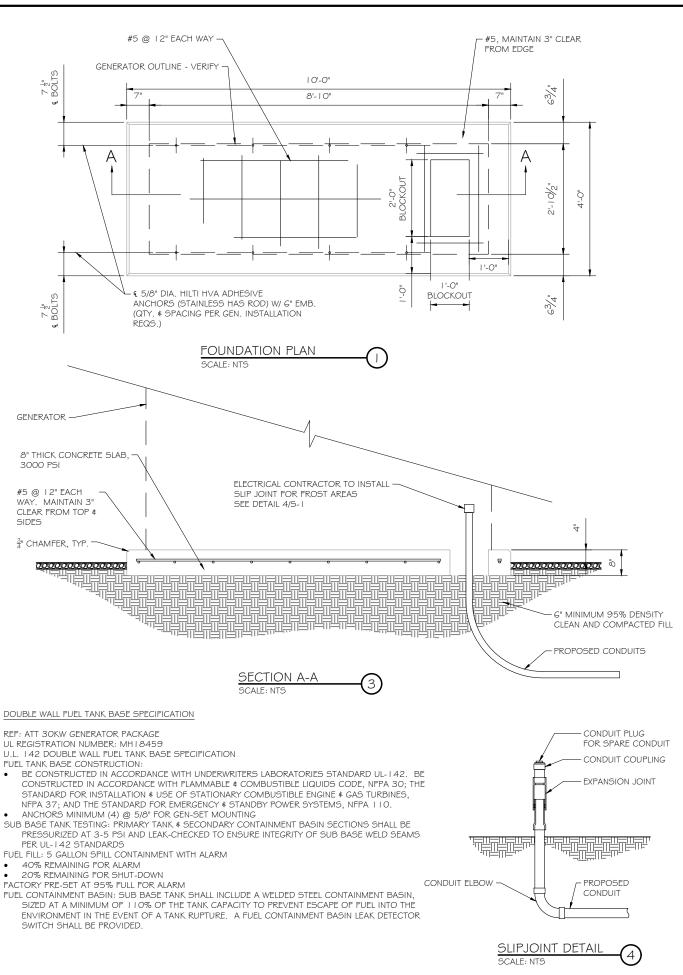
EXISTING -

CHAIN-LINK FENCE



 \odot





VERIFY WIRE AND CONDUIT QUANTITY & SIZES WITH GENERATOR MAKE \$ MODEL # PRIOR TO INSTALLATION. VERIFY ELECTRICAL RESTORE SURFACE TO MATCH REQUIREMENTS WITH LOCAL UTILITY PROVIDER. ORIGINAL CONDITION - UNDISTURBED SOIL COMPACTED BACKFILL (SUITABLE ON SITE MATERIAL) 6" WARNING TAPE ELECTRICAL CONDUIT(S) WHERE APPLICABLE * 6" TYF

> * SEPARATION DIMENSION TO BE VERIFIED WITH LOCAL UTILITY COMPANY REQUIREMENTS

- I. PROVIDE PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW. 2. PROVIDE RGS CONDUIT AND ELBOWS AT STUB UP LOCATIONS (I.E.
- SERVICE POLE, BTS EQUIPMENT, ETC.) 3. INSTALL UTILITY PULLBOXES PER NEC.



STRUCTURAL GENERAL NOTES

- LO GENERAL CONDITIONS
- 1.1 DESIGN & CONSTRUCTION OF ALL WORK SHALL CONFORM TO LOCAL BUILDING CODES, ACI 318-11. IN CASE OF CONFLICT BETWEEN THE CODES, STANDARDS, REGULATIONS, SPECIFICATIONS, GENERAL NOTES AND/OR MANUFACTURER'S REQUIREMENTS,
- I.2 IT IS THE EXPRESS INTENT OF PARTIES INVOLVED IN THIS PROJECT THAT THE CONTRACTOR OR SUBCONTRACTOR OR INDEPENDENT CONTRACTOR OR THE RESPECTIVE EMPLOYEES SHALL EXCULPATE THE ARCHITECT, THE ENGINEER, TECH. CONSTRUCTION MANAGER, THE OWNER, & THEIR AGENTS FROM ANY LIABILITY WHATSOEVER & HOLD THEM HARMLESS AGAINST 1055. DAMAGES, LIABILITY OR ANY EXPENSE ARISING IN ANY MATTER FROM THE WRONGFUL OR NEGLIGENT ACT. OR FAILURE TO CARRY METHODS, TECHNIQUES OR PROCEDURES OR FAILURE TO CONFORM TO THE STATE SCAFFOLDING ACT IN CONNECTIONS WITH THE WORK.
- 1.3 DO NOT SCALE DRAWINGS
- 1.4 VERIFY ALL EQUIPMENT MOUNTING DIMENSIONS PER MANUFACTURER DRAWINGS
- 1.5 DESIGN LOADS ARE (GENERAC): LIVE LOAD

FOLIPMENT SIZE : 889.1" H, 106" W, 38" D WEIGHT WITH WOODEN SHIPPING SKID

ENCLOSED GENERATOR : 3974 LBS

- 2.0 FOR DESIGN \$ ANALYSIS OF THE FOUNDATION, THE MINIMUM NET SOIL BEARING CAPACITY SHALL BE ASSUMED TO BE 2000 PSF.
- 3.1 MEET OR EXCEED THE FOLLOWING CODES \$ STANDARDS:

: ACI318-11 CONSTRUCTION · ACI3O I

CRSI MANUAL OF STANDARD PRACTICE DETAILING ASTM A 615 GRADE 60, DEFORMED REINF. STEEL

ASTM C 94. READY MIX CONCRETE MIXING AIR ENTRAINMENT ACI 318 AND ASTM C-260

- AGGREGATE ASTM C 33 AND C 330 (FOR LIGHT WEIGHT) 3.2 CONCRETE STRENGTH AT 28 DAYS SHALL BE 4000 PSI MINIMUM
- 3.3 DO NOT FIELD BEND OR WELD TO GRADE GO REINFORCED STEEL
- 3.4 PROVIDE AIR ENTRAINED CONCRETE WITH AIR CONTENT OF 5 TO 7% FOR ALL CONCRETE EXPOSED TO EARTH OR WEATHER. 3.5 MAXIMUM AGGREGATE SIZE: 3/4"
- 3.6 DO NOT USE IN ADMIXTURE, WATER OR OTHER CONSTITUENTS OF CONCRETE WHICH HAS CALCIUM CHLORIDE.
- 3.7 MINIMUM COVER FOR REINFORCING STEEL SHALL BE AS SHOWN ON PLAN.
- 4.0 FOUNDATION ¢ EXCAVATION NOTES
- 4.1 SLAB SHALL BE CONSTRUCTED UPON UNDISTURBED, NATURAL SUBGRADE OR COMPACTED GRANULAR FILL WITH AN ASSUMED
- MINIMUM NET ALLOWABLE BEARING CAPACITY OF 2000 PSF.

 4.2 ALL ORGANIC AND/OR OTHER UNSUITABLE MATERIAL SHALL BE REMOVED FRO FOUNDATION \$ SLAB SUBGRADE \$ BACKFILL AREAS \$ THEN BACKFILLED WITH ACCEPTABLE GRANULAR FILL COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT (ASTM D1557).
- 4.3 THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY WATER, FROST, OR ICE FROM PENETRATING ANY FOOTING OR STRUCTURAL SUBGRADE BEFORE & AFTER PLACING OF CONCRETE, AND UNTIL SUCH CONCRETE HAS FULLY CURED.



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PREPARED FOR:



CONSULTANT:

GENERAL DYNAMICS

Information Technology, Inc. **GENERAL DYNAMICS** 661 MOORE RD STE 110 KING OF PRUSSIA, PA 19406

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DATE 08/02/2018 FINAL

WINDSOR CENTRAL FA ID # 10092835

340 BLOOMFIELD AVENUE WINSOR, CT 06095

SHEET TITLE:

FOUNDATION DETAILS

SCALE: NONE

38599 SHEET S-

DIAGRAM CIRCUIT SCHEDULE

NO.	FROM	ТО	WIRES	GROUND	CONDUIT SIZE	FUNCTION
	NORMAL POWER SOURCE	AUTOMATIC TRANSFER SWITCH	(3) 3/0	(1) #4	2"	NORMAL POWER FEEDER TO ATS (CUT BACK EXISTING)
2	AUTOMATIC TRANSFER SWITCH	LOAD CENTER	(3) 3/0	(1) #4	2"	POWER FEEDER FROM ATS TO PANEL
3	GENERATOR	AUTOMATIC TRANSFER SWITCH	(3) 3/0	(1) #4	2"	EMERGENCY POWER FEEDER TO ATS
4	AUTOMATIC TRANSFER SWITCH	GENERATOR	(2) #10	(1) #10	1"	START CIRCUIT
5	LOAD CENTER (DISTRIBUTION CENTER)	GENERATOR, ATS	(2) #12 (2) #12 (2) #12	(1) #12 (1) #12 (1) #12	"	CIRCUIT FOR GENERATOR BLOCK HEATER \$ BATTERY HEATER CIRCUIT FOR BATTERY CHARGER CIRCUIT FOR AT5
6	ALARM BLOCK	GENERATOR	I 2-PAIR 24 AWG OR 2EA G-PAIR CAT5	N/A	1"	ALARM CABLES (1) I 2 PAIR 24 AWG (RUN THRU INTERIOR OF SHELTER \$ INTO ALARM BOX. PROVIDE 24" OF SLACK CABLE. FINAL PUNCH DOWN IS BY AT\$T TECH. LABEL ALL WIRES

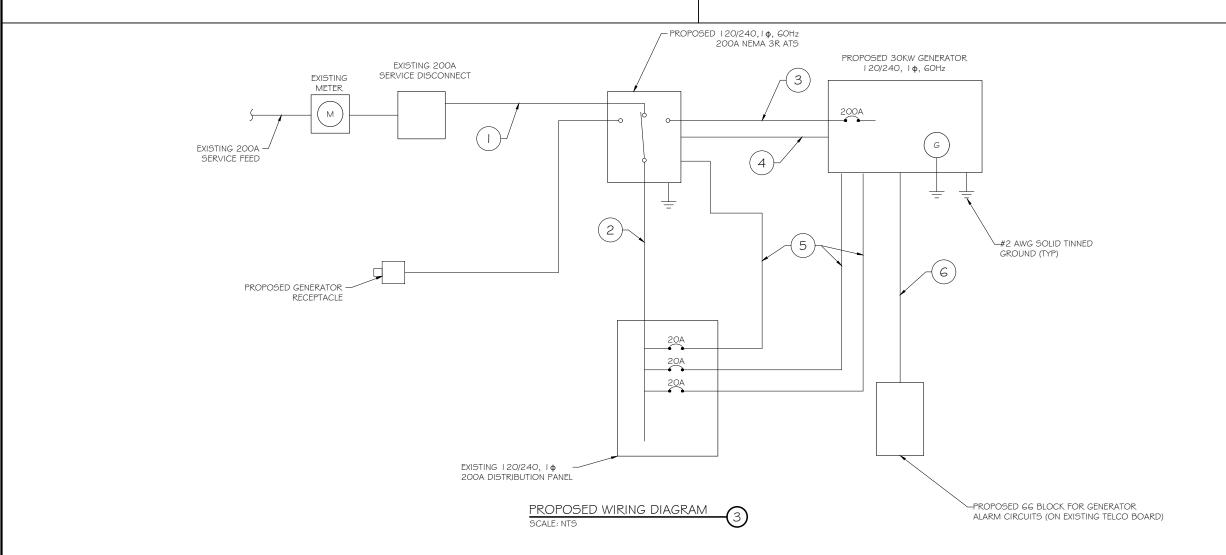
CIRCUIT DETAIL

ALARM WIRE IDENTIFICATION CHART

WIRE	ALARM		
BROWN BROWN / WHITE	GENERATOR RUNNING		
GREEN GREEN / WHITE	CRITICAL FAULT		
BLUE BLUE / WHITE	MINOR FAULT		
ORANGE ORANGE / WHITE	LOW FUEL		
BROWN * BROWN / WHITE *	FUEL LEAK		
*CATS CABLE ONLY, FROM 2ND CATS CABLE			

ALARM WIRING IDENTIFICATION CHART

SCALE: NTS





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PROJECT INFORMATION:
340 BLOOMFIELD AVENUE WINSOR, CT 06095

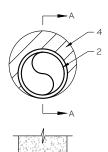
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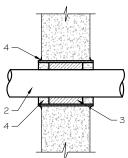
WIRING DETAILS

SCALE: NONE

38599 SHEET E- 1

				AC Distribution Par	al Javant Di	in arom			
Breaker	Breaker			AC DISTRIBUTION Par	Breaker	Breaker			
Position	Type	On/Off	Size	Circuit Label	Position	Type	On/Off	Size	Circuit Label
1	25				2	1P	On	20	EXTERIOR RECEPTACLE
3	2P	On	50	HVAC #2	4	1P	Off	20	SPARE
5 7	2P	On	30	RECTIFIER #5	6 8	1 7P	On	30	RECTIFIER #8
9	2P	On	30	RECTIFIER #9	10 12	2P	On	31	RECTIFIER #10
13 15	2P	On	30	RECTIFIER #11	14 16	1 72	On	32	RECTIFIER #12
17 19	2 P	On	30	RECTIFIER #19	18 20	1 70	On	30	RECTIFIER #14
21 23	2 P	On	30	RECTIFIER #21	22 24	- 2P	On	30	RECTIFIER #16
25 27	2 P	Off	20	RECTIFIER #23	26 28	1 7P	On	30	RECTIFIER #18
29	2P	On	30	NOKIA CABINET	30	1P	On	15	INTERIOR LIGHTS
31	21	Oli	30	NOKIA CABINET	32	2P	On	20	SPACE
33	2P	Off	20	SPACE	34	24	Oil	20	SPACE
35	21	OII	20	SFACE	36	1P	ON	,20	BATTERY CHARGER
37	1P	ON	,20	ATS	38	1P	ON	/20	BLOCK HEATER
39 41	2P	Off	30	AUXILARY SERVICES	40 42	1 12	Off	30	AUXILARY SERVICES





- IF EXISTING CONSTRUCTION VARIES FROM THIS DETAIL, AN EQUAL 3-HR U.L. PENETRATION APPROPRIATE FOR THE EXISTING WALL TYPE SHALL BE CONSTRUCTED
- GC SHALL USE NON-SHRINKING CAULK TO WEATHERSEAL ALL PENETRATIONS INTO OR THRU SHELTER WALL.

U.L. SYSTEM NO. C-AJ- I 150 CONDUIT THROUGH BEARING WALL SIMILAR TO U.L. DESIGN NO. U902 F RATING = 3 HRT RATING = O HR

- FLOOR OR WALL ASSEMBLY: MINIMUM 4-1/2" THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAMETER OF OPENING IS 4". SEE CONCRETE BLOCKS 9CATZ) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- THROUGH PENETRATIONS: ONE METALLIC PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE ANNULAR SPACE SHALL BE MINIMUM O". (POINT CONTACT) TO MAXIMUM 1-3/8". THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:
 - A. STEEL PIPE-NOMINAL G" DIAMETER (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
 - B. IRON PIPE-NOMINAL 6" DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE. C. CONDUIT - NOMINAL 4" DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOMINAL 3-1/2" DIAMETER (OR SMALLER) STEEL CONDUIT
- PACKING MATERIAL: MINIMUM 6" THICKNESS OF MIN 4.0 PCF MINERAL WOOL BATTING INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL
- FILL, VOID, OR CAVITY MATERIAL*: SEALANT: MINIMUM 1/4" THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR AND WITH BOTH SURFACES OF WALL. AT THE POINT CONTACT LOCATION BETWEEN PIPE AND CONCRETE, A MINIMUM 1/2" DIAMETER BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE/PIPE INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL. W RATING APPLIES ONLY WHEN CPGO IS OR CPGO 4 SEALANT IS

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC. : CP6015, CP604, CP606, OR FS-ONE

* BEARING THE UL CLASSIFICATION MARK

OUTER WALL PENETRATION DETAIL (IF APPLICABLE)



NEW 20A BREAKERS FOR ATS, BLOCK HEATER AND BATTERY CHARGER ON NEW AT\$T GENERATOR

EXISTING PANEL SCHEDULE

CONTRACTOR TO LABEL WIRES WITH P-TOUCH OR SIMILAR LABELS ONLY. ABSOLUTELY NO HANDWRITTEN LABELS.

*CONTRACTOR TO UTILIZE NEXT AVAILABLE IN SEQUENCE SINGLE BREAKER POSITION FOR GENERATOR, BATTERY CHARGER, BATTERY HEATER AND BLOCK HEATER



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TAP TO

HORIZONTAL CABLE

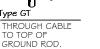
VERTICAL STEEL

HORIZONTAL PIPE

SURFACE OR THE SIDE OF









Type VS CABLE TAP DOWN AT 45°TO VERTICAL STEEL SURFACE OR SIDE OF HORIZONTAL OR VERTICAL PIPE.



THROUGH CABLE

Type GY

TO SIDE OF

GROUND ROD

Type VV THROUGH VERTICAL CABLE TO VERTICAL STEEL SURFACE OR TO THE SIDE OF EITHER HORIZONTAL OR



HORIZONTAL CABLE HORIZONTAL STEEL CABLE OFF SURFACE.



GROUND ROD



Гуре ТА TFF OF HORIZONTAL RUN AND TAP CABLES



DATE 08/02/2018

100% EMPLOYEE-OWNED

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A 8/2/18 REVISION A

MARK DATE DESCRIPTION

FINAL

SHEET TITLE:

PANEL AND PENETRATION DETAILS

SCALE: NONE

38599 E-2 SHEET



CONDUIT (TYP)

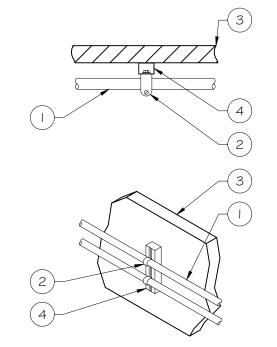
(2) BUTTERFLY CLAMP AS REQUIRED

(3) EXISTING WALL/CEILING

> VERTICAL "UNISTRUT" PI 000 'T' SERIES LENGTH BASED ON NUMBER OF CONDUIT TO BE MOUNTED

WALL CONSTRUCTION TYPE	USE
HOLLOW	3/8" DIA. TOGGLE BOLT
HOLLOW, AT STUD	3/8" DIA. LAG SCREW
CONCRETE BLOCK (HOLLOW)	3/8" DIA. HILTI HY-20 WITH SCREEN, MINIMUM EMBEDMENT 2-1/2"
CONCRETE (SOLID)	3/8" DIA. HILTI HY-150 WITH SCREEN MINIMUM EMBEDMENT 2-1/2"

NOTE: USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT & CONNECTIONS OF CHANNELS SPACE UNITS @ 5'-O" O.C. LENGTH OF RUN



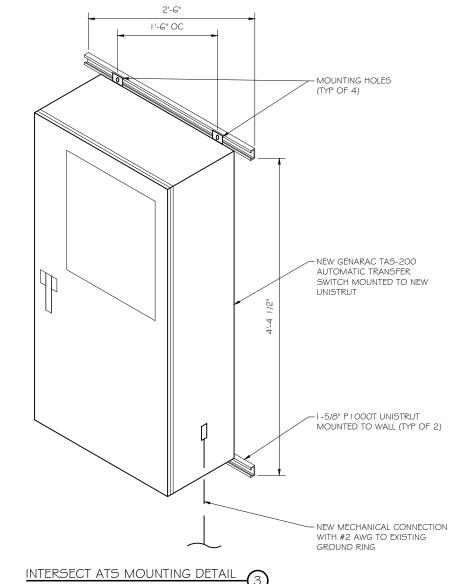
- CADWELD – GRADE #2 AWG BCW GROUND RING GROUND ROD COPPERWELD 5/8"Ø x 8'-0" LONG (MAX)

GROUND ROD DETAIL

WALL CONSTRUCTION TYPE	USE
HOLLOW	3/8" DIA. TOGGLE BOLT
HOLLOW, AT STUD	3/8" DIA. LAG SCREW
CONCRETE BLOCK (HOLLOW)	7/16" DIA. HILTI HY-20 WITH SCREEN MINIMUM EMBEDMENT 2-1/2"
CONCRETE (SOLID)	7/16" DIA. HILTI HY-150 WITH SCREEN MINIMUM EMBEDMENT 2-1/2"

CONDUIT WALL MOUNT

- USE GALVANIZED OR STAINLESS STEEL HARDWARE FOR WALL MOUNT AND CONNECTION OF CHANNELS
- 2. GC SHALL USE NON-SHRINKING CAULK TO WEATHER SEAL ALL PENETRATIONS INTO OR THROUGH SHELTER WALL



- GROUND RODS MAY BE: - COPPER CLAD STEEL SOLID COPPER
- GROUND RODS SHALL HAVE A MAXIMUM SPACING TWICE THE LENGTH OF ROD
- SEE RESISTIVITY REPORT FOR VERIFICATION AS AVAILABLE
- A LARGER CONDUCTOR SHALL BE REQUIRED IN AREAS HIGHLY PRONE TO LIGHTNING AND/OR AREAS WITH HIGHLY ACIDIC SOIL
- GROUND RODS INSTALLED WITHIN CLOSE PROXIMITY TO TOWER OR WHEN SOIL IS AT OR BELOW 2,000 OHM-CM, SHALL BE GALVANIZED TO PREVENT GALVANIC CORROSION OF TOWER, (SEE ANSI/TIA-EIA-222-G)
- PROVIDE (I) GROUND LEAD TO EACH SIDE OF THE GENERATOR



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PREPARED FOR:



CONSULTANT:

GENERAL DYNAMICS

Information Technology, Inc. GENERAL DYNAMICS 661 MOORE RD STE 110 KING OF PRUSSIA, PA 19406

hereby certify that this plan, specification, or report was prepare by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of <u>Connecticut</u>.



A 8/2/18 REVISION A MARK DATE DESCRIPTION

SSUE FINAL

WINDSOR CENTRAL FA ID # 10092835

DATE | O8/02/2018

340 BLOOMFIELD AVENUE WINSOR, CT 06095

ATS, CONDUIT & GROUND ROD DETAILS

SCALE: NONE

38599 E-3 SHEET

GENERAC | INDUSTRIAL

Model G007098-0 (Steel)

Standby Power Rating

20 kW AC, 60 Hz

EPA Certified Stationary Emergency



Image used for illustration purposes only

Codes and Standards

Generac products are designed to the following standards:



UL2200, UL508, UL142, UL489



NFPA 37, 70, 99, 110



NEC700, 701, 702, 708



ISO 3046, 7637, 8528, 9001



NEMA ICS10, MG1, 250, ICS6, AB1



Powering Ahead

For over 50 years, Generac has provided innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial applications under adverse conditions

Generac is committed to ensuring our customers' service support continues after their generator purchase.

SDC20 | 2.5L | 20 kW - AC

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC INDUSTRIAL

Model G007098-0 (Steel)

STANDARD FEATURES

ENGINE SYSTEM

- Oil Drain Extension
- · Air Cleaner with Service Indicator
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- Exhaust Silencer with Drain

· Factory Filled Oil & Coolant

Fuel System Primary Fuel Filter

Cooling System

- 120V AC Coolant Heater
- · Closed Coolant Recovery System
- UV/Ozone Resistant Hoses Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- · Radiator Drain Extension

Electrical System

- · Battery Charging Alternator
- AGM Spill Proof Battery
- Battery Cables
- Sealed/Rubber-Booted Engine Electrical Connec-
- Solenoid Activated Starter Motor
- Output Circuit Breaker

CONTROL SYSTEM

Frequency

- Digital H Control Panel Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser Special Applications Programmable PLC
- RS-232/485 Communications
- All-Phase Sensing Voltage Regulator
- Full System Status 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- · kW Hours, Total & Last Run
- Real/Reactive/Apparent Power All Phase AC Voltage
- All Phase Currents
- Oil Pressure Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage **MODEL OPTIONS**

CONTROL SYSTEM

 Isochronous Governor Control Waterproof/Sealed Connectors

ALTERNATOR SYSTEM

· Class H Insulation Material

Vented Rotor

Skewed Stator

Amortisseur Winding

· Brushless Excitation

Rotor Dynamically Spin Balanced

Internal Genset Vibration Isolators

. High Heat Wrapped Exhaust Piping

Silencer Enclosed Within Generator

• 12 Gallon System Spill Containment 2.5 Gallon Fuel Fill Spill Containment

Separation of Circuits- High/Low Voltage

Full Load Capacity Alternator

· Protective Thermal Shutdown

Sealed Bearings

GENERATOR SET

Single Side Service

Silencer Heat Shield

5 Year Extended Warranty

· Extended Factory Testing

2/3 Pitch

- · Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)

Date/Time Fault History (Event Log)

- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance Algorithm
- Sealed Boards
- Password Parameter Adjustment Protection
- · Single Point Ground Connections
- 15 Channel Data Logging
- 0.2 msec High Speed Data Logging
- · Alarm Information Automatically Comes Up On the

Alarms

- · Serviceable Items Accessible Though Lift-Off Door
- High Performance Sound-Absorbing Material
- · Gasketed Door
- Stamped Air-Intake Louvers
- Rhino Coat[™] Textured Polyester Powder Coat
- 150 MPH Wind Rating
- 36" Snow Rating

FUEL TANK

- UL 142 Compliant
- Double Wall Construction
- Factory Pressure Tested (5 psi)

- Stainless Steel Hardware
- Integrated Fork Pockets

· Generator Run- Dry Contact

- Major Alarm- Dry Contact
- Minor Alarm- Dry Contact
- . Low Fuel Alarm- Dry Contact · Rupture Basin Alarm- Dry Contact
- · Alarms & Warnings Time and Date Stamped
- · Alarms & Warnings for Transient and Steady State
- Snap Shots of Key Operation Parameters During Alarms & Warnings
- Alarms and Warnings Spelled Out (No Alarm Codes)

- O 21 Light Annunciator- Shipped Loose Kit and Field
- O External E-Stop-Shipped Loose Kit and Field

ENCLOSURE

- Aluminum Enclosure
- O Extreme Cold Weather Kit Shipped Loose Kit and Field Installed

TANKS

O External Fuel Vent- Shipped Loose Kit and Field

ENCLOSURE

- Single Door Latch Lockable with Key & Padlock

- · Rupture Basin Alarm
- Fuel Level Gauge and Sender Check Valve in Supply Line
- Rhino Coat™ Textured Polyester Powder Coat

hereby certify that this plan, specification, or report was prepare by me or under my direct supervision and that I am a duly Licensec Professional Engineer under the laws of the State of <u>Connecticut</u>. WILLIAM CONTRACTOR

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Woodcliff Lake, NJ · Bayamon, PR

GENERAL DYNAMICS

Information Technology, Inc.

PREPARED FOR:

CONSULTANT:

GENERAL DYNAMICS

661 MOORE RD STE 110

KING OF PRUSSIA, PA 19406



A 8/2/18 REVISION A

FINAL

WINDSOR CENTRAL FA ID # 10092835

DATE 08/02/2018

340 BLOOMFIELD AVENUE MINSOR, CT 06095

DATE DESCRIPTION

GENERAC 20KW GENERATOR **SPECIFICATIONS**

SCALE: NONE

38599 SHEET E-4

GENERAC 20KW GENERATOR SPECIFICATIONS



Model G007098-0 (Steel)

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

Ge	

Make	Mitsubishi	
EPA Emissions Compliance	Interim Tier 4	
Cylinder #	4	
Туре	In-Line	
Displacement - L (Cu In)	2.5 (158)	
Bore - mm (in)	88 (3.5)	
Stroke - mm (in)	103 (4.1)	
Compression Ratio	22:1	
Intake Air Method	Naturally Aspirated	

Liigiilo	dovorning	

Governor	Electronic Isochro
Frequency Regulation (Steady State)	± 0.25%

Lubrication System

Oil Pump Type	Trochoid Gear Pump
Oil Filter Type	Filtering Paper, Full Flow
Crankcase Capacity - L (gts)	6.5 (6.9)

Cooling System

Forced Circulation	
Centrifugal Pump	
Pusher	
2100	
431.8 (17)	
1000	
120	
	Centrifugal Pump Pusher 2100 431.8 (17) 1000

Fuel System

Fuel Type	Ultra Low Sulfur Diesel #2	
Fuel Specifications	ASTM	
Fuel Filtering (microns)	6	
Fuel Inject Pump Make	Bosch	
Injector Type	Engine Driven Gear	
Engine Type	Diesel	
Fuel Supply Line - mm (in.)	6.6 (0.26)	

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	12V-50A
Battery Size	650 CCA
Battery Group	35
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	Mecc Alte ECP 28-2L/4
Poles	4
Field Type	Revolving
Insulation Class - Rotor	Н
Insulation Class - Stator	Н
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<45
Standard Excitation	Brushless

earings	Dual Sealed
oupling	Belt, Pulley
oad Capacity - Standby	100%
rototype Short Circuit Test	Yes
oltage Regulator Type	Digital
umber of Sensed Phases	All
egulation Accuracy (Steady State)	±0.5%

RATING DEFINITIONS

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

SDC20 | 2.5L | 20 kW - AC

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

GENERAC INDUSTRIAL

Model G007098-0 (Steel)

OPERATING DATA

POWER RATINGS

Single-Phase 120/240 VAC @1.0pf 20 kW Amps: 83 Circuit Breaker Size 100A

FUEL CONSUMPTION RATES*

Diesel - gph (lph)

Percent Load	Standby
25%	0.74 (2.80)
50%	0.99 (3.75)
75%	1.41 (5.30)
100%	1.90 (7.19)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

ENGINE

	Standby
gpm (lpm)	11.9 (45)
gal (L)	3.5 (13.2)
BTU/hr	238,200
cfm (m ³ /min)	2365 (67)
°F (°C)	77° (25°)
in H ₂ O	0.50
	gal (L) BTU/hr cfm (m³/min) °F (°C)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Bated Power cfm (m3/min)	88 (2 49)

EXHAUST

		Standby	
Rated Engine Speed	rpm	1800	
Horsepower at Rated kW**	hp	33.5	
Piston Speed	ft/min	1220.47	
BMFP	psi	96.5	

		Standby
Exhaust Flow (Rated Output)	cfm (m³/min)	193 (328)
Max. Backpressure (Post Silencer)	inHg (kPa)	1.38 (4.67)
Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	928 (497.7)

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

Deration - Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.



855 Community Dr, Sauk City, WI 53583 608-643-4100 www.Ramaker.com

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PREPARED FOR:



CONSULTANT:

GENERAL DYNAMICS

Information Technology, Inc. GENERAL DYNAMICS 661 MOORE RD STE 110 KING OF PRUSSIA, PA 19406

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A 8/2/18 REVISION A

FINAL

WINDSOR CENTRAL FA ID # 10092835

DATE 08/02/2018

340 BLOOMFIELD AVENUE WINSOR, CT 06095

GENERAC 20KW GENERATOR SPECIFICATIONS

SCALE: NONE

38599 E-4. SHEET

GENERAC 20KW GENERATOR SPECIFICATIONS



SDC20 | 2.5L | 20 kW - AC INDUSTRIAL DIESEL GENERATOR SET GENERAC INDUSTRIAL

Model G007098-0 (Steel)

EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

_				
re.	0	n	٩n	al:

Make	Mitsubishi	
EPA Emissions Compliance	Interim Tier 4	
Cylinder #	4	
Туре	In-Line	
Displacement - L (Cu In)	2.5 (158)	
Bore - mm (in)	88 (3.5)	
Stroke - mm (in)	103 (4.1)	
Compression Ratio	22:1	
Intake Air Method	Naturally Aspirated	

Fuel System

Engine	Gover	ning
--------	-------	------

Governor	Electronic Isochronous	
Francisco Description (Ctondy Ctota)	. 0.050/	

Lubrication System

Oil Pump Type	Trochoid Gear Pump
Oil Filter Type	Filtering Paper, Full Flow
Crankcase Capacity - L (gts)	6.5 (6.9)

Cooling System

Cooling System Type	Forced Circulation
Water Pump Type	Centrifugal Pump
Fan Type	Pusher
Fan Speed (rpm)	2100
Fan Diameter - mm (in)	431.8 (17)
Coolant Heater Wattage	1000
Coolant Heater Voltage	120

Fuel Type	Ultra Low Sulfur Diesel #2
Fuel Specifications	ASTM
Fuel Filtering (microns)	6
Fuel Inject Pump Make	Bosch
Injector Type	Engine Driven Gear
Engine Type	Diesel
Fuel Supply Line - mm (in.)	6.6 (0.26)

Engine Electrical System

System Voltage	12 VDC
Battery Charger Alternator	12V-50A
Battery Size	650 CCA
Battery Group	35
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	Mecc Alte ECP 28-2L/4
Poles	4
Field Type	Revolving
Insulation Class - Rotor	Н
Insulation Class - Stator	Н
Total Harmonic Distortion	<5%
Telephone Interference Factor (TIF)	<45
Standard Excitation	Brushless

earings	Dual Sealed
oupling	Belt, Pulley
oad Capacity - Standby	100%
ototype Short Circuit Test	Yes
oltage Regulator Type	Digital
umber of Sensed Phases	All
egulation Accuracy (Steady State)	±0.5%

RATING DEFINITIONS

Standby - Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.

SDC20 | 2.5L | 20 kW - AC

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

DOWER BATING	വ

Single-Phase 120/240 VAC @1.0pf	20 kW	Amps: 8
Circuit Breaker Size	100A	

FUEL CONSUMPTION RATES*

Diesel - gph (lph)

Percent Load	Standby
25%	0.74 (2.80)
50%	0.99 (3.75)
75%	1.41 (5.30)
100%	1.90 (7.19)

^{*} Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

gpm (lpm)	11.9 (45)
gal (L)	3.5 (13.2)
BTU/hr	238,200
cfm (m ³ /min)	2365 (67)
°F (°C)	77° (25°)
in H ₂ O	0.50
	gal (L) BTU/hr cfm (m ³ /min) °F (°C)

COMBUSTION AIR REQUIREMENTS

	Standby
Flow at Bated Power cfm (m ³ /min)	88 (2 49)

ENGINE EXHAUST

		Standby		
Rated Engine Speed	rpm	1800	Exhaust Flow (Rated Output)	cfm (m³/min)
Horsepower at Rated kW**	hp	33.5	Max. Backpressure (Post Silencer)	inHg (kPa)
Piston Speed	ft/min	1220.47	Exhaust Temp (Rated Output - Post Silencer)	°F (°C)
BMEP	nsi	96.5		

Deration - Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

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PREPARED FOR:

GENERAC INDUSTRIAL

Standby 193 (328)

1.38 (4.67) 928 (497.7)

Model G007098-0 (Steel)



CONSULTANT:

GENERAL DYNAMICS

Information Technology, Inc. GENERAL DYNAMICS 661 MOORE RD STE 110 KING OF PRUSSIA, PA 19406

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A 8/2/18 REVISION A

DATE 08/02/2018

FINAL

WINDSOR CENTRAL FA ID # 10092835

340 BLOOMFIELD AVENUE WINSOR, CT 06095

GENERAC 20KW GENERATOR SPECIFICATIONS

SCALE: NONE

38599 E-4.2 SHEET

GENERAC 20KW GENERATOR SPECIFICATIONS



^{**} Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

TTS Series **Switches 200 Amps 600 VAC**

GENERAC' | INDUSTRIAL

TAS200

200A Automatic Transfer Switch

1 of 3 2 of 3

TAS200

The Generac TAS200 Automatic Transfer Switch

Flexibility for multiple application installations

Multiple generator support with 3 source panel

Designed with a 6 inch touch screen controller for improved user interface

Camlock functionality for mobile generator sources



Image used for Bustration purposes only.

Features

- STEEL CONSTRUCTION
- NEMA 3R ENCLOSURE WITH HINGED "PADLOCKING" DOORS
- STAINLESS STEEL HARDWARE
- CAMLOCK "QUICK CONNECT" CAPABILITY
- OPERATIONAL STATUS VIEW VIA **6 INCH TOUCH SCREEN**
- TEST FUNCTION FAST TEST & NORMAL TEST
- UL1008 LISTED FOR EMERGENCY SYSTEMS

Optional Features

- EXTENDED WARRANTY
- THREE-PHASE VOLTAGE CONFIGURATIONS

Codes and Standards

Generac products are designed to the following



UL1008, UL508, UL50, CSA C22.2 No. 178



NEC 700, 701 and 702



NEMA 250

Application and Engineering Data

Dimensions	24"W x 12"D x 48"H
Velght	210 lbs.
	Single Chamber with Main Door
	Steel
	UL Type / NEMA 3R Rated
Construction	Powder Coat Finish for Corrosion Resistance
	C-UL-US Listed - Automatic Transfer Switch
	Stainless Steel Hardware
	3-Point Latching System with Pad-Lockable Handles
Secretion Outland	Wall
Mounting Options	H-frame
nstalled	Pre-wired alarm terminal strip

Voltage/Phase/Amps	120/240 Single-Phase, 200A 120/208 3-Phase, 200A 120/240 3-Phase, 200A	
P. J.	Eaton 200 amp Utility Breaker	
Breaker	Eaton 200 arrip Generator Breaker	
Maximum RMS Symmetrical Fault Current - Amps	25k AIC Rated	
Protective Device Continuous Rating (Max) Amp	200	
Input to Generator	350MCM - #6 AWG	
Output to Site	350MCM - #6 AWG	
Generator Annunciator Connector	Deutsch DTM04-12PA-L012	
	Generator Run Alarm	
	Generator Fail — Shutdown Alarm	
AL T LIB I	Generator Fail – Non Shutdown Alarm	
Alarm Terminal Board	Low Fuel Alarm	
	Generator Theft Alarm	
	AC Utility Fail Alarm	

Carnlock Component	Shipped loose for multiple installation options	
Dimensions	9" W x 9.4" D x 24.25" H	Eld West Co
200A Camlock Generator Connection	Single-Phase: Black L1, Red L2, White-Neutral, Green-Ground	SENERAC
	3-Phase: Black L1, Red L2, Blue L3, White-Neutral, Green-Ground	
	Uses 4 CH E1016 Male Connectors	
	Mating Connector – CH E1016 Female	



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PREPARED FOR:



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A 8/2/18 REVISION A IARK DATE DESCRIPTION

HASE FINAL

WINDSOR CENTRAL FA ID # 10092835

DATE 08/02/2018

340 BLOOMFIELD AVENUE WINSOR, CT 06095

GENERAC ATS SPECIFICATIONS

SCALE: NONE

38599 E-5 SHEET