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REVISIONS
1 08/12/2019
PLAN CHECK #1
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Implementation of Best Management Practices (BMPs) is required in Morgan Hill during all construction activities to protect local watersheds. Please review the attached Blueprint for a Clean Bay. For more information about construction BMPs, including trainings and materials, please review the resources listed below.

CITY CONSTRUCTION BMP BROCHURES

The following brochures are available on the City of Morgan Hill website at: <http://www.morganhill.ca.gov/1204/Construction-Best-Management-Practices>

- Dewatering Activities
- Earth-Moving and Heavy Equipment Operations
- Fresh Concrete and Mortar Application
- General Construction and Site Supervision
- Landscaping and Gardening
- Painting and Application of Solvents and Adhesives
- Roadwork and Paving

ONLINE TRAINING OPPORTUNITIES

- StormwaterOne - Free Stormwater Management Webinars: <http://stormwaterone.com/free-webinar>
- California State University Sacramento – Stormwater Best Management Practices Online Course (\$150): <http://www.csp.sus.ac.edu/stormwater-training/online.php>
- International Erosion Control Association Construction Site Stormwater Control (650 to \$65 per webinar): <http://icaa.com/learncommunity/>

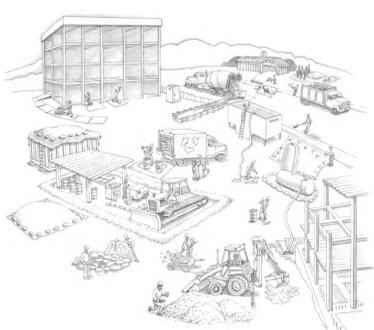
HANDBOOKS

- California Stormwater Quality Association Construction Best Management Practices Handbook: <https://www.csqqa.org/resources/bmp-handbook/construction>
- San Francisco Public Utilities Commission Construction Best Management Practices: <http://sfwater.org/modules/showdocument.aspx?documentid=4282>
- BASMAA Blueprint for a Clean Bay (attached): <http://www.basmaa.org/pdfs/06082018BlueprintforACleanBay.pdf>

Community Services Department
17525 Park Avenue
Morgan Hill, CA 95037
(408) 779-7221

Blueprint for a Clean Bay

Best Management Practices to Prevent Stormwater Pollution from Construction-Related Activities



The Bay Area Stormwater Management Agencies Association (BASMAA), a coalition of Bay Area municipalities from Alameda, Contra Costa, Merit, San Mateo, Santa Clara, Solano, and Sonoma Counties, developed this booklet as a resource for all general contractors, home builders, and subcontractors working on construction sites.

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Requirements for Dischargers

Municipal Stormwater Program
Municipalities in the Bay Area are required by federal regulations to develop programs to control the discharge of pollutants to the storm drain system, including the discharge of pollutants from construction projects. As a result, your development and construction projects are subject to new requirements designed to improve stormwater quality such as expanded plan check and review, contract specifications, stormwater treatment measures, runoff monitoring, and increased site inspection. For more information on municipal requirements, please contact the municipal representative listed on the back cover of this booklet. If you are the project owner, you may also wish to contact the municipal representative listed on the back cover of this booklet for more information.

Projects Equal To Or Greater Than 1 Acre

If your construction activity will disturb one acre or more, you must obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the SWPCB for stormwater discharges associated with construction activity. To obtain coverage under the General Permit, a Notice of Intent (NOI) must be filed with the SWPCB. The General Construction Permit requires you to prepare and carry out a Stormwater Pollution Prevention Plan (SWPPP). Your SWPPP must identify appropriate stormwater pollution prevention measures or best management practices (BMPs). Like the ones described in this booklet, to reduce pollutants in stormwater discharges from the construction site both during and after construction is complete. A best management practice or BMP is defined as any program, technology, process, practice, operating method, measure, or device that controls, prevents, removes, or treats pollutants from stormwater discharges to prevent sediment from entering the storm drainage system during construction activities.

Projects Less Than 1 Acre

If your project is less than one acre, you may still need to use BMPs to comply with local municipal requirements. Check with the local stormwater program (listed on back cover), or planning or engineering department for details.

For more information on the General Permits, call the State Water Resources Control Board's Stormwater Information Line at (916) 341-5537 or your local program.

Best Management Practices

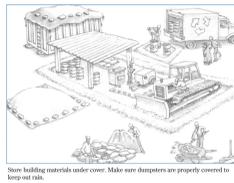
Store materials under cover
Wet and dry building materials, and drywall should be stored under cover and/or surrounded by berms when rain is forecast or during wet weather.

• Store stone, sand, and gravel under a temporary roof or secured plastic sheeting or tarp.

• Store around storage areas to prevent contact with runoff.

• Plaster or other powders can create large quantities of suspended solids in runoff, which can be toxic to aquatic life and cause serious environmental harm even if the materials are inert. Store all such materials under cover or in sealed, especially open bags – under a temporary roof or inside a building, or cover securely with an impermeable tarp. If properly stored dry materials, you may also help protect air quality, as well as water quality.

• Store containers of paints, chemicals, solvents, and other hazardous materials in accordance with secondary containment regulations and under cover during rainy periods.



Store building materials under cover. Make sure dumpsters are properly covered to keep rain out.

Open and/or loading dumpsters can be a source of stormwater pollution.

• Cover open dumpsters with plastic sheeting or a tarp. Secure the sheeting or tarp around the outside of the dumpster. If your dumpster has a cover, close it.

• If a dumpster is leaking, contain and collect leaking material. Return the dumpster to the leasing company for repair or exchange.

• Do not clean dumpsters on-site. Return to leasing company for periodic cleaning, if necessary.

Collect and properly dispose of paint removal wastes

Paint removal wastes include chemical paint stripping

residues, paint chips and dust, sand blasting material and wash water. These wastes contain chemicals that are harmful to the wildlife in our creeks and the water bodies they flow in. Keep all paint wastes away from the gutter, street, and storm drains.

• Non-hazardous paint chips and dust from dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash. Chemical paint stripping residue and chips and dust from marine paints or paints containing lead or tributyl tin must be disposed of as a hazardous waste.

• When stripping or cleaning building exteriors with high-pressure water, cover or berm storm drain inlets. If possible (and allowed by your local wastewater treatment plant), collect (trap or vacuum) and dispose of paint chips and dust into the sanitary sewer. Alternatively, discharge non-contaminated wash water into a dirt area and wash into the soil. Be sure to shovel or sweep up any debris that remains in the gutter and dispose of as garbage.

Clean up paints, solvents, adhesives, and cleaning solutions properly.

Although many paint materials can and should be recycled, liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes. When

Best Management Practices

- Keep pollutants off exposed surfaces. Place trash cans around the site to reduce litter. Dispose of non-hazardous construction wastes in covered dumpsters or recycling receptacles.
- Practice source reduction – reduce waste by ordering only the amount you need to finish the job.
- Do not over-apply pesticides or fertilizers and follow manufacturers instructions for mixing and applying materials.
- Recycle leftover materials whenever possible. Materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires are recyclable (check with the local planning or building department for more information).
- Dispose of all wastes properly. Materials that cannot be reused or recycled must be taken to an appropriate landfill or may require disposal at a hazardous waste. Never throw debris into channels, creeks or into wetland areas. Never store or leave debris in the street or near a creek where it may contact runoff.
- Illegal dumping is a violation subject to a fine and/or time in jail. Be sure that trailers carrying debris and other materials are covered during transit. The hauler may be cited and fined.
- Train your employees and inform subcontractors about the stormwater requirements and their own responsibilities.

Erosion Prevention and Sediment Control

Prevent erosion
Soil erosion is the process by which soil particles are removed from the land surface by wind, water and/or gravity. Soil particles removed by stormwater runoff are pollutants that when deposited in local creeks, lakes, Bay or Delta, can have negative impacts on aquatic habitat. Exposed soil after clearing, grading, or excavation is easily eroded by wind or water. The following practices will help prevent erosion from occurring on the construction site.

- Plan the development to fit the topography, soils, erosion patterns and natural vegetation of the site.
- Delineate clearing limits, easements, setbacks, sensitive or critical areas, trees, drainage courses, and buffer zones to prevent excessive or unnecessary disturbances and exposure.
- Use erosion control practices to remove sediments from stormwater before they are transported off-site or reach a storm drain inlet or nearby creek.

- These grading operations to reduce disturbed areas and limit exposure.
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- Use erosion control practices to remove sediments from stormwater before they are transported off-site or reach a storm drain inlet or nearby creek.
- Limit on-site construction routes and stabilize construction entrances (a) and exits (b).
- Remove existing vegetation only when absolutely necessary.
- Construct diversion ditches and drainage swales to channel runoff around the site.
- Use berms and drainage ditches to divert runoff around exposed areas. Place diversion ditches across the top of cut slopes.

Best Management Practices

they are thoroughly dry, empty paint cans, used brushes, rags, absorbent materials, and drywall should be no longer hazardous and may be disposed of as garbage.

• Never clean brushes or rinse paint containers into a street, gutter, storm drain, or creek.

• For water-based paints, paint out brushes to the extent possible and rinse to a drain leading to the environmental hazard.

• For oil-based paints, paint out brushes to the extent possible, and filter and reuse thinners and solvents.

• Dispose of unusable thinners and residual as hazardous waste.

• Recycle, return to supplier or donate unwanted non-hazardous (dry) paint. You may be able to recycle clean empty dry paint cans as metal (check with the local planning or building department for more information).

• Dried latex paint may be disposed of in the garbage.

• Unwashed paint (that is not recycled, thinned, and sludges must be disposed of as hazardous waste).

• Never and more paint components are recycling excess latex paint (check with the local planning or building department for more information).

Best Management Practices

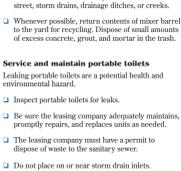
Keep fresh concrete and cement mortars out of gutters, storm drains, and creeks
Concrete and cement-derived mortars that wash into gutters and storm drains are toxic to fish and other aquatic environment.

• Locate mortar/stucco mixers inside bermed areas to avoid discharge to street or storm drains.

• Avoid mixing excess amounts of fresh concrete or cement mortar.

• Store dry and wet materials under covers, protected from rainfall runoff.

• Wash out concrete transit mixers only in designated washout areas where the water will flow into settling ponds or onto dirt or stockpiles of aggregate base or sand. Pump water from settling ponds to the sanitary sewer, where allowed. Whenever possible, recycle washout by pumping back into concrete mixer.



Recycle wash water and wet groutings at a landfill that chips and covers plant material.

Best Management Practices

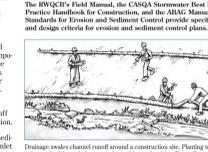
- Plant vegetation on exposed slopes. Where replanting is not feasible, use erosion control blankets (e.g., jute or straw matting, glass fiber or excelsior matting, mesh netting).
- Consider slope regrading with cross drains to increase soil stability.
- Cover stockpiled soil and landscaping materials with secure plastic sheeting and divert runoff around them.
- As a backup measure, protect drainage courses, creeks, or catch basins with filter rolls, all fences, sand/gravel bags and/or temporary drainage swales.
- Once grading is completed, stabilize the disturbed areas using permanent vegetation as soon as possible. Use temporary erosion control until permanent rainstrainers, and ripnet if necessary.
- Conduct routine inspections of erosion control measures especially before and immediately after rainstorms, and repair if necessary.

Control Sediment

Sedimentation is defined as the process of depositing sediments carried away by runoff. Sediments consist of soil particles, chips, sands, and other materials. The purpose of sediment control practices is to remove sediments from stormwater before they are transported off-site or reach a storm drain inlet or nearby creek.

Use berms and drainage ditches to divert runoff around exposed areas.

- Use terracing, rip rap, sand/gravel bags, rocks, filter rolls, and/or temporary vegetation on slopes to reduce runoff velocity and trap sediments. Do not use silt fabric or other sediment filters for this purpose.
- Use check dams in temporary drains and swales to reduce runoff velocity and promote sedimentation.
- Protect storm drain inlets with sediment basins. Storm drain inlet protection devices include sand/gravel bag barriers, filter



Drainage swales channel runoff around a construction site. Planting vegetation on an erodible graded area, or terracing and installing filter rolls and/or all fences throughout an erodible area for preventing erosion and controlling runoff.

Demolition Waste Management

Make sure all demolition waste is properly disposed of.
Demolition debris that is left in the street or pushed over the curb into a creek bed or drainage facility causes performance for flood control, storm drain maintenance, and the health of our environment. Different types of materials have different disposal requirements or recycling options.

Service and maintain portable toilets

Leaking portable toilets are a potential health and environmental hazard.

• Inspect portable toilets for leaks.

• Be sure the loading company adequately maintains, promptly repairs, and replaces units as needed.

• The leasing company must have a permit to dump toilets, covered at night and during wet weather, and taken to a landfill for disposal.

• Do not place on or near storm drain inlets.

Dispose of cleared vegetation properly

Cleared vegetation, tree trimmings, and other plant material can cause environmental damage if it gets into creeks. Such "organic" material requires large quantities of oxygen to decompose, which reduces the oxygen available for fish and other aquatic life.

• Do not dispose of plant material in a creek or drainage facility or leave it in a roadway where it can clog storm drain inlets.

• Avoid disposal of plant material in trash dumpsters or mixing it with other wastes. Compact plant material to take it to a landfill or other facility that composts yard waste (check with the local planning or building department for more information).

• Arrange for an adequate debris disposal schedule to ensure that dumpsters do not overflow.

• Most local planning or building departments have lists of recycling and disposal services for construction and demolition debris.

Hazardous debris such as asbestos must be handled in accordance with specific laws and regulations and disposed of as a hazardous waste. For more information on asbestos handling and disposal regulations, contact the Bay Area Air Quality Management District.

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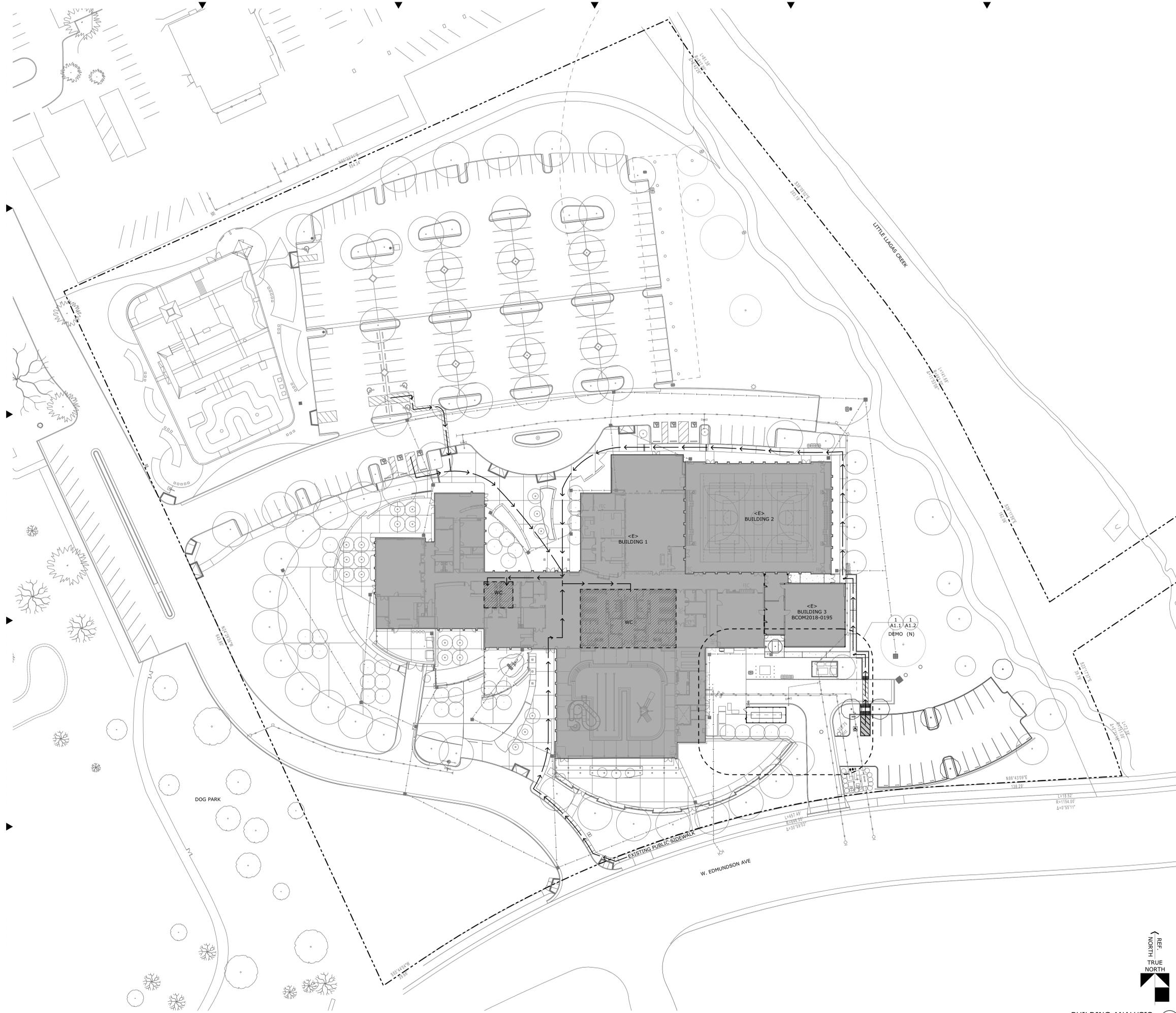
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GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING:
 - A. APPLICABLE SECTIONS OF THE STATE OF CALIFORNIA'S DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, LATEST EDITION, HEREINAFTER CALLED "CALTRANS";
 - B. CALIFORNIA PLUMBING CODE AND CALIFORNIA BUILDING CODE PROVISIONS;
 - C. AWWA STANDARD SPECIFICATIONS;
 - D. CITY/COUNTY DESIGN STANDARDS WHERE APPLICABLE;
 - E. STANDARDS OF THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OFFICE OF STANDARDS AND RULES OF THE STATE DIVISION OF INDUSTRIAL SAFETY;
 - F. THESE PLANS AND DETAILS SHOWN HEREON, WHERE CONFLICTS EXIST BETWEEN ANY OF THE ABOVE LISTED SPECIFICATIONS THE MOST STRINGENT SPECIFICATION SHALL PREVAIL.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL <E> ABOVE GROUND UTILITIES AND PROVIDE FOR THEIR TEMPORARY DISCONNECTION, PROTECTION, REMOVAL AND/OR STORAGE AS MAY BE REQUIRED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE COUNTY/DISTRICT TO DETERMINE WHETHER TEMPORARY SERVICES ARE NECESSARY.
3. ALL SPOILS, DEBRIS, AND INCIDENTAL ITEMS SHALL BE HAULED OFF SITE BY CONTRACTOR AND BE DISPOSED OF IN A LAWFUL MANNER AS IT ACCUMULATES.
4. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE IN ANY WAY, ANY EXISTING ELEMENTS NOT DESIGNATED FOR REMOVAL. SUCH DAMAGE IS THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY/DISTRICT.
5. COORDINATE SHUT-OFF OF ALL UTILITIES PRIOR TO ANY DEMOLITION.
6. CONTRACTOR IS TO PROTECT AND KEEP <E> TREES NOT MARKED FOR RELOCATION OR REMOVAL.
7. THE SITE MUST BE CLEANED AT THE END OF EACH BUSINESS DAY.
8. CONTRACTOR TO MAINTAIN A SAFE, SECURE SITE.
9. THIS DRAWING IS TO OUR BEST KNOWLEDGE AND REFLECTS THE <E> SITE CONDITIONS.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE ALL PERMITS NECESSARY TO PERFORM THE WORK, INCLUDING BUT NOT LIMITED TO WORK IN THE PUBLIC RIGHT-OF-WAY, TREE REMOVAL, AND UTILITY MODIFICATIONS.
11. ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING UTILITY LINES OR FACILITIES TO REMAIN IN PLACE. WHETHER OR NOT SUCH LINES OR FACILITIES ARE SHOWN ON THESE PLANS, AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO. CONTRACTOR IS ADVISED TO CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 642-2444 OR A PRIVATE UNDERGROUND LOCATER SERVICE (AT CONTRACTOR'S EXPENSE) AND THE AFFECTED UTILITY COMPANY FOR MARKING UNDERGROUND LINES PRIOR TO BEGINNING WORK.
12. TO REDUCE CONSTRUCTION DUST THESE CONTROL MEASURES SHALL BE REQUIRED DURING DEMOLITION/CONSTRUCTION
 - WATER ALL ACTIVE CONSTRUCTION AREAS AT LEAST TWICE DAILY
 - COVER ALL TRUCKS HAULING SOIL, SAND, OR LOOSE MATERIALS OR REQUIRE ALL TRUCKS TO MAINTAIN AT LEAST TWO FEET OF FREEBOARD.
 - SWEEP STREET DAILY (WITH WATER SWEEPERS) IF VISIBLE SOIL MATERIAL IS CARRIED INTO ADJACENT PUBLIC STREETS.
 - ENCLOSE, COVER, WATER TWICE DAILY OR APPLY NON-TOXIC SOIL BINDERS TO EXPOSED STOCKPILES (DIRT, SAND, ETC.)

SYMBOL LEGEND

- - - - - PROPERTY LINE
- <E> BLDG
- ACCESSIBLE PATH OF TRAVEL
- WC BATHROOMS LOCATED WITHIN BLDG

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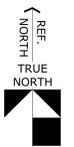
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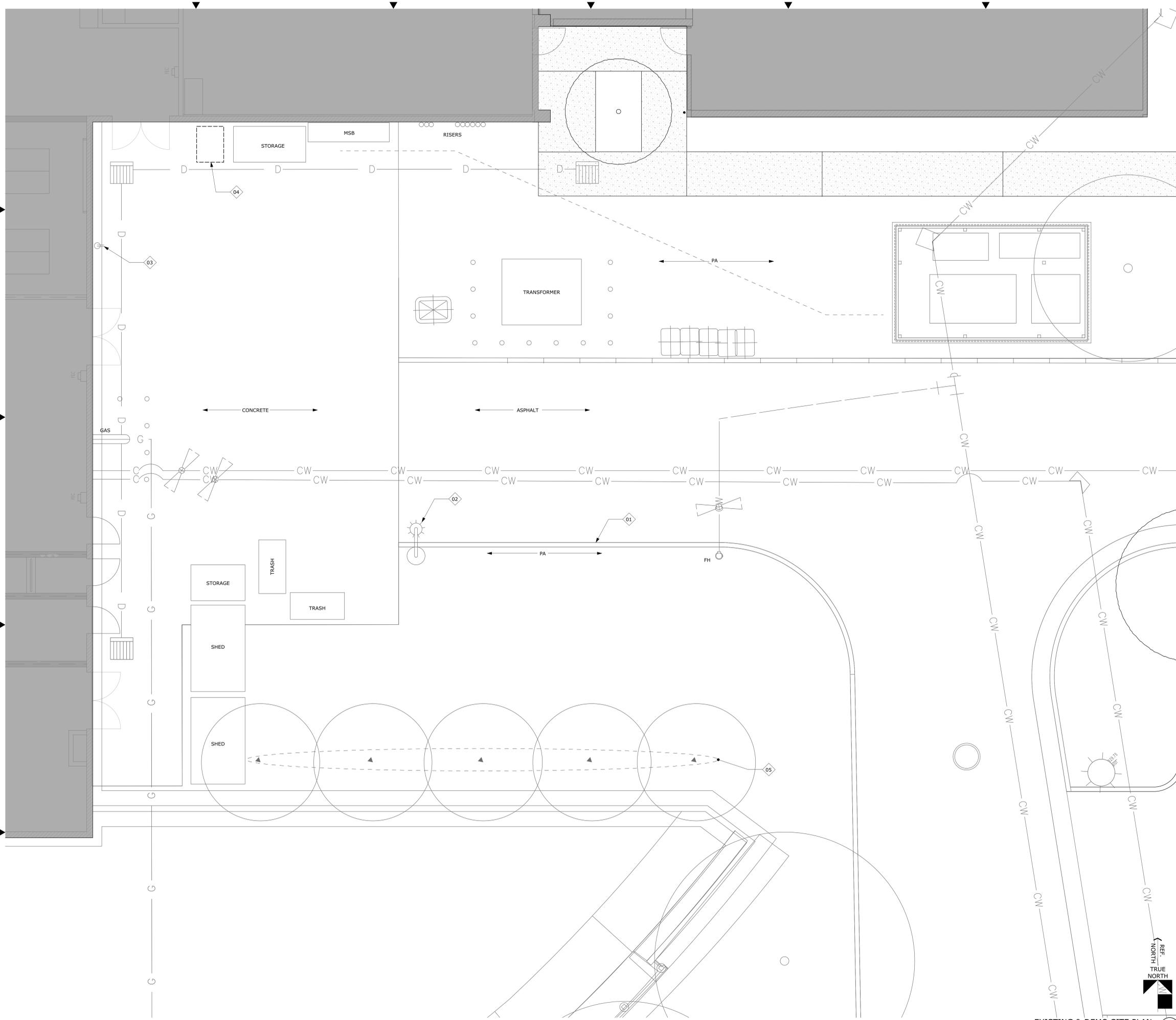
OVERALL SITE PLAN
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GENERAL NOTES

1. CONTRACTOR SHALL VERIFY LOCATION OF ALL <E> ABOVE GROUND UTILITIES AND PROVIDE FOR THEIR TEMPORARY DISCONNECTION, PROTECTION, REMOVAL AND/OR STORAGE AS MAY BE REQUIRED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE COUNTY/DISTRICT TO DETERMINE WHETHER TEMPORARY SERVICES ARE NECESSARY.
2. ALL SPOILS, DEBRIS, AND INCIDENTAL ITEMS SHALL BE HAULED OFF SITE BY CONTRACTOR AND BE DISPOSED OF IN A LAWFUL MANNER AS IT ACCUMULATES.
3. CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE IN ANY WAY ANY EXISTING ELEMENTS NOT DESIGNATED FOR REMOVAL. SUCH DAMAGE IS THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY/DISTRICT.
4. COORDINATE SHUT-OFF OF ALL UTILITIES PRIOR TO ANY DEMOLITION.
5. CONTRACTOR IS TO PROTECT AND KEEP <E> TREES.
6. THE <E> BUILDINGS ARE TO REMAIN IN USE DURING CONSTRUCTION.
7. THE SITE MUST BE CLEANED AT THE END OF EACH BUSINESS DAY.
8. CONTRACTOR TO MAINTAIN A SAFE, SECURE SITE.
9. THIS DRAWING IS TO OUR BEST KNOWLEDGE AND REFLECTS THE <E> SITE CONDITIONS.
10. FOR ADDITIONAL SITE DEMOLITION, SEE CIVIL PLANS

DEMOLITION KEY NOTES

- 01 <E> CURB TO REMAIN
- 02 <E> LIGHT FIXTURE TO REMAIN
- 03 <E> PORTABLE GENERATOR PLUG-IN
- 04 RELOCATE <E> BOX
- 05 HIRE PROFESSIONAL TREE TRIMMING COMPANY THAT TRIMS BRANCHES THROUGHOUT TREE TO LIGATON CANOPY & REMOVE DEAD BRANCHES & TRIM BRANCHES THAT ARE WITHIN 5'-0" OF (N) FENCE - BALANCE TREE LIMBS THROUGHOUT

SYMBOL LEGEND

--- ITEMS TO BE DEMOLISHED

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EXISTING & DEMO SITE PLAN
 CENTENNIAL RECREATION CENTER GENERATOR PROJECT
 CITY OF MORGAN HILL
 171 W EDMUNDSON AVE, MORGAN HILL, CA 95037

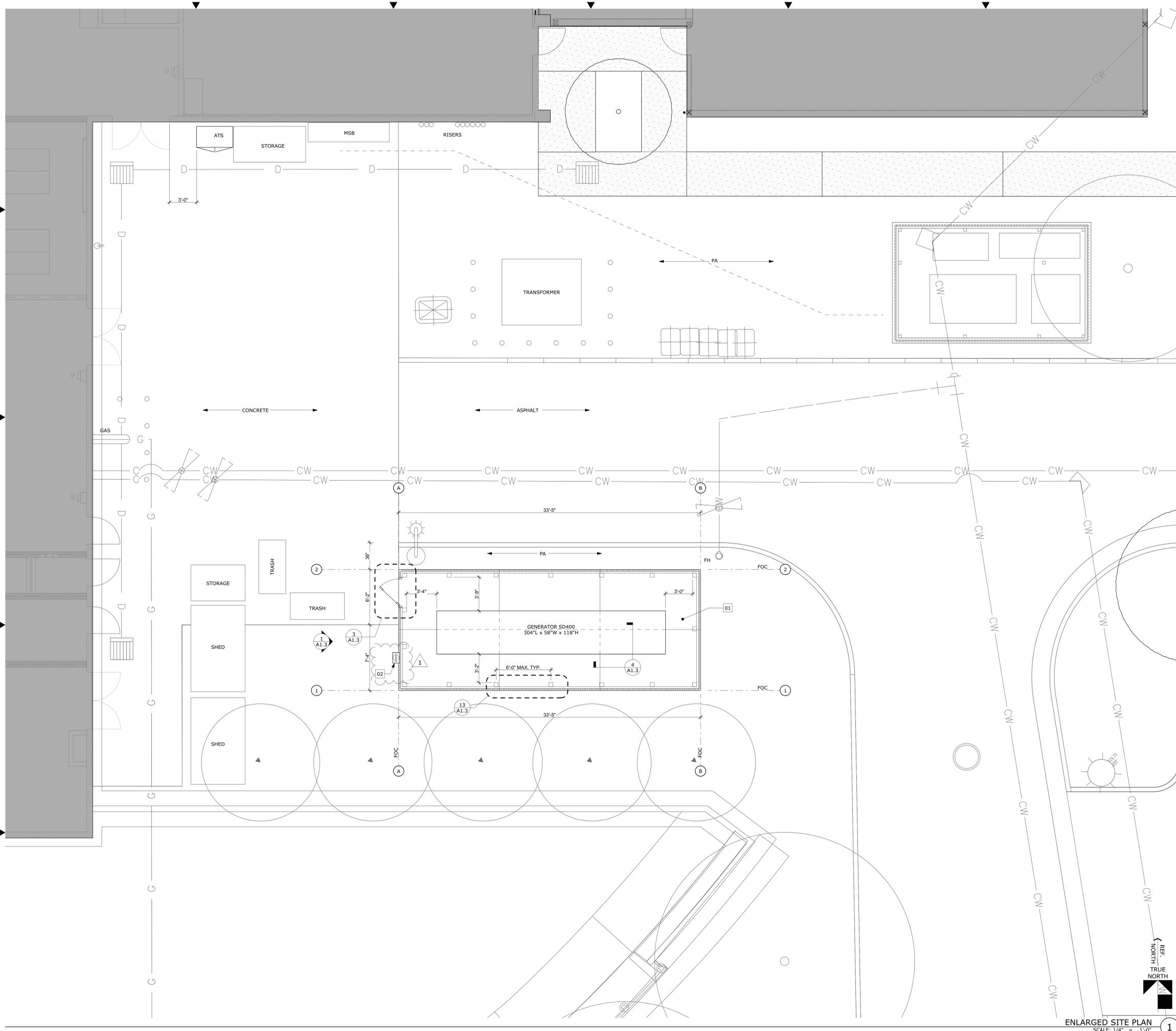
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EXISTING & DEMO SITE PLAN
 SCALE: 1/4" = 1'-0"



GENERAL NOTES

- SCD = SEE CIVIL DRAWINGS
1. GENERATOR SHALL MEET UL142 AND UL2200 REQUIREMENTS.
 2. ALL PIPING SHALL BE LABELED IN ACCORDANCE WITH ASME STANDARD A13.1 "SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS" AND IN ACCORDANCE WITH UNIDOC'S "MARKING REQUIREMENTS AND GUIDELINES FOR HAZEROUS MATERIALS AND HAZEROUS WASTE" PER CFC 5507.2.3, 5003.2.2.1 #2 AND 5003.5
 3. PROVIDE A SIGN AT THE MAIN ELECTRICAL SHUT-OFF BOX IDENTIFYING THE TYPE AND LOCATION OF ALL NORMAL AND EMERGENCY POWER SOURCES CONNECTED AT THAT LOCATION.

KEY NOTES

- 01 SEE 12/A1.3 FOR SLAB DIMENSIONS, THICKNESS & REBAR REQUIREMENTS
- 02 20-B-C FIRE EXTINGUISHER IN HEAVY DUTY OUTDOOR CABINET.

SYMBOL LEGEND

- PA PLANTING

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ENLARGED SITE PLAN
CENTENNIAL RECREATION CENTER GENERATOR PROJECT
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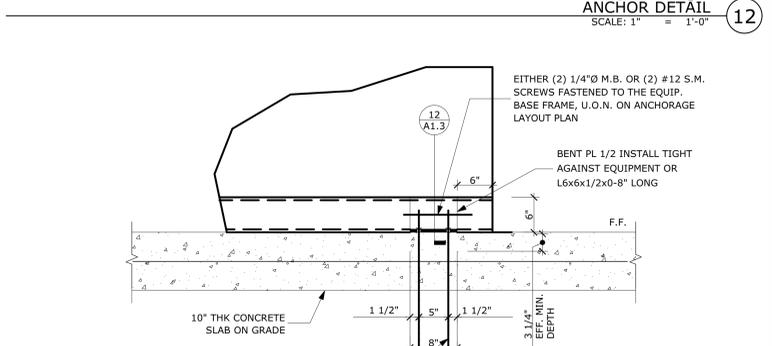
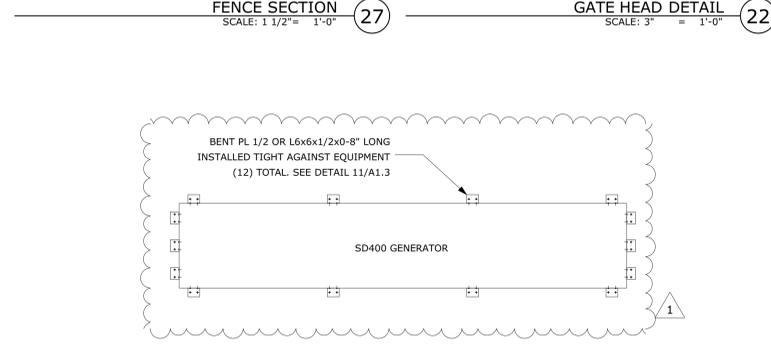
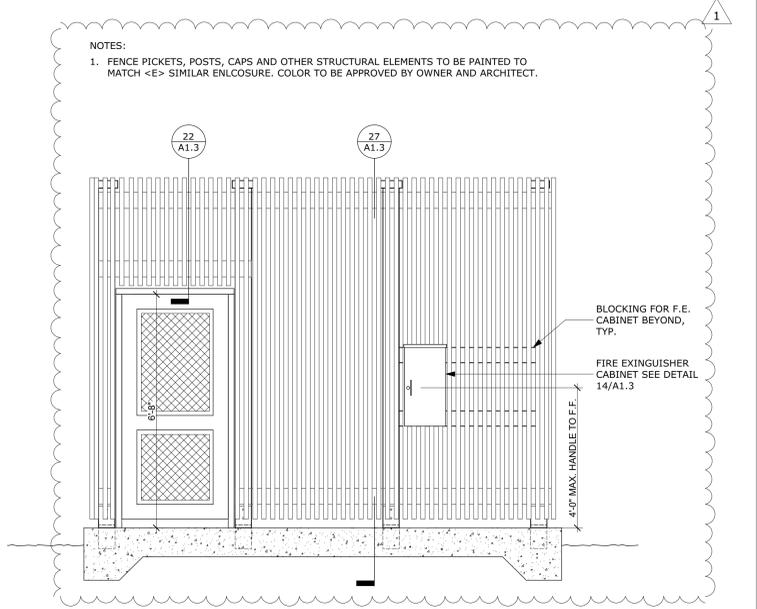
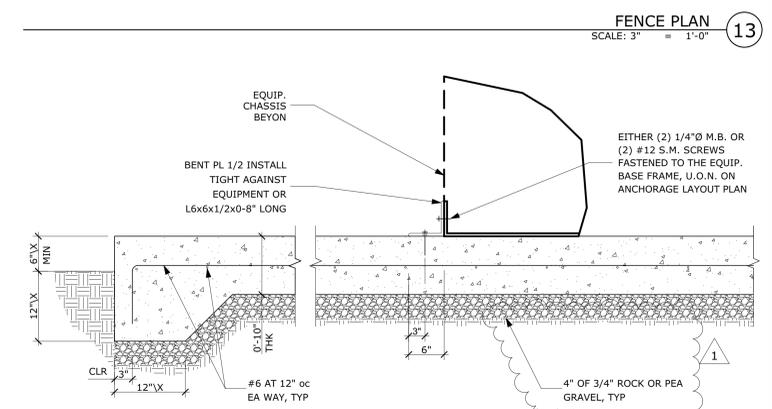
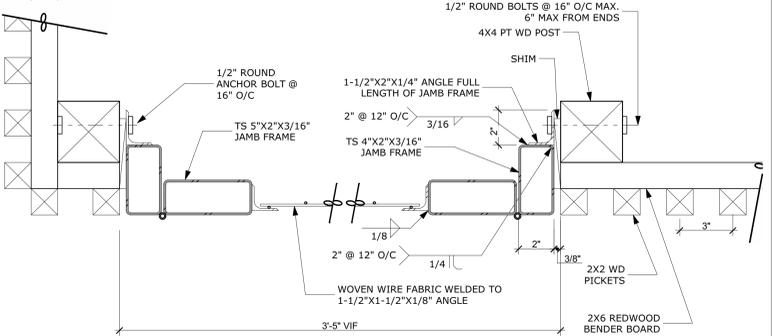
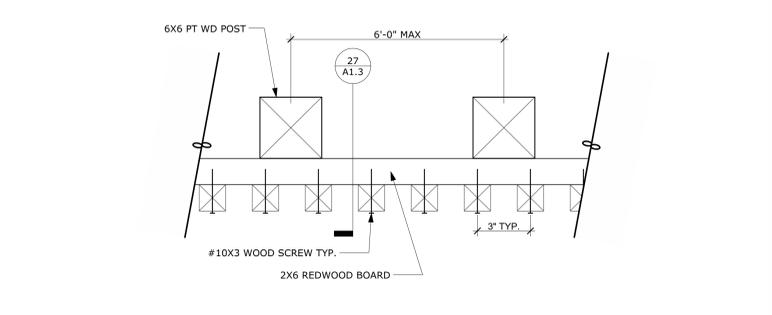
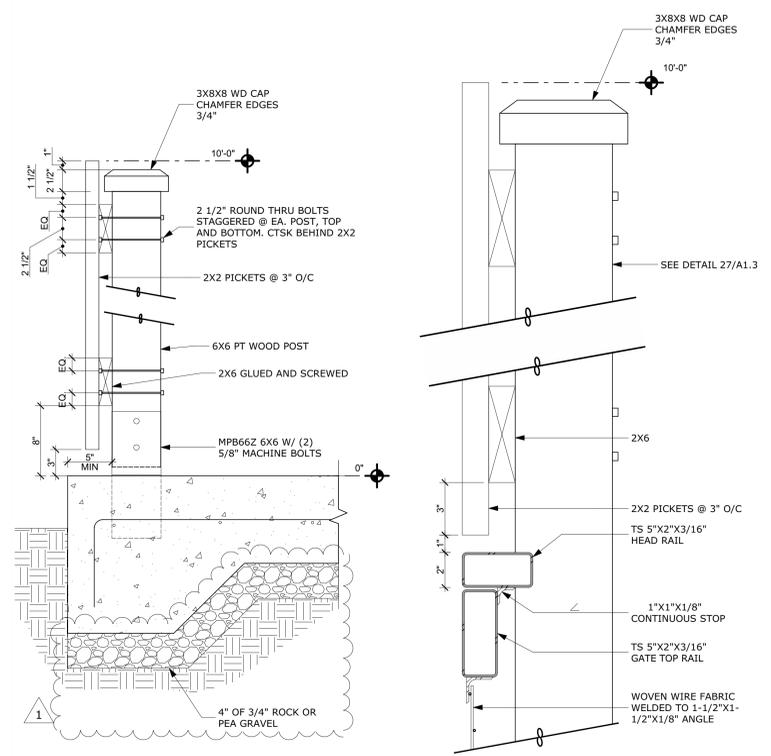
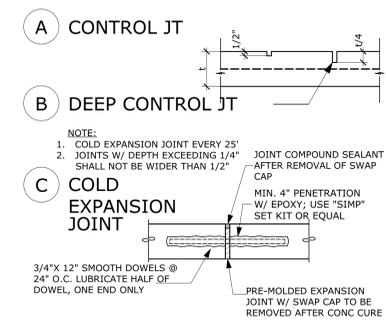
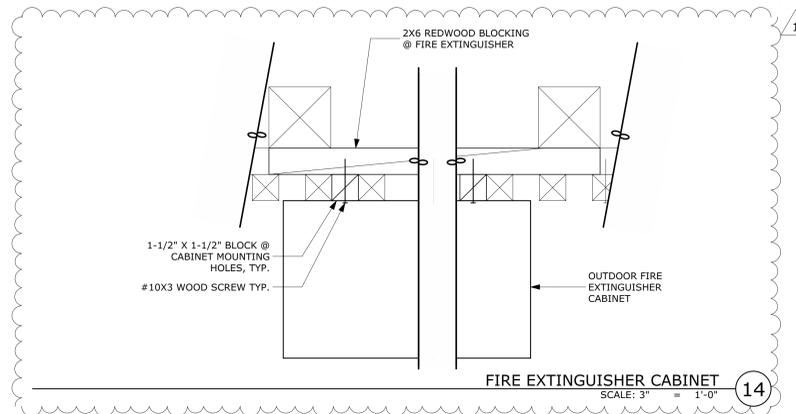
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ENLARGED SITE PLAN
SCALE: 1/4" = 1'-0"



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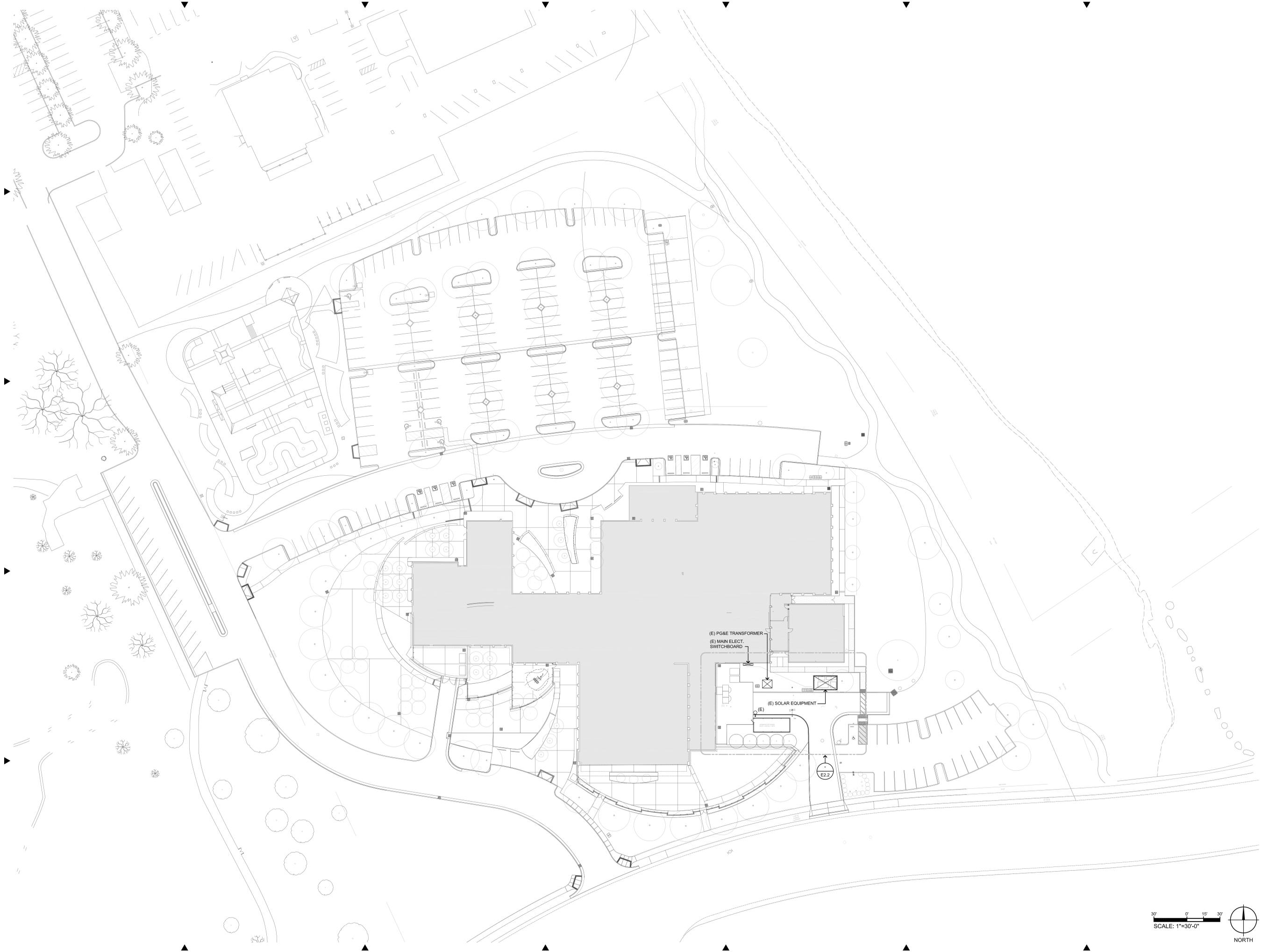
SITE DETAILS
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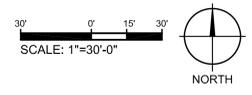
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ELECTRICAL SITE PLAN
CENTENNIAL RECREATION CENTER GENERATOR PROJECT
CITY OF MORGAN HILL
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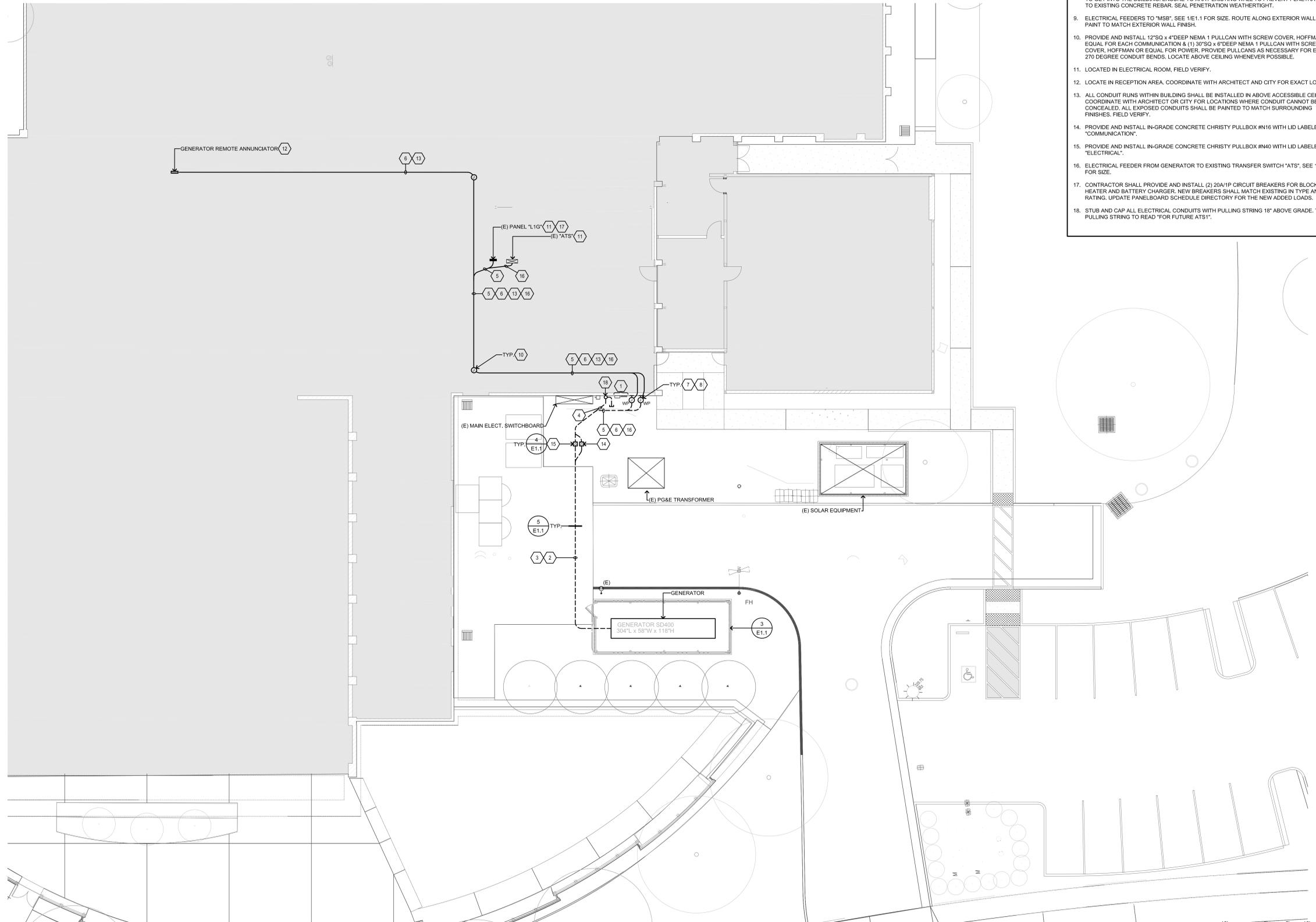
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CIRCUIT AMPACITY / VOLTAGE	CIRCUIT LENGTH	REQUIREMENT
20/120	56'-90'	1/2" C., 2 #10 & 1 #10 GND.
20/120	91'-140'	1/2" C., 2 #8 & 1 #10 GND.
20/277	131'-205'	1/2" C., 2 #10 & 1 #10 GND.
20/277	206'-330'	1/2" C., 2 #8 & 1 #10 GND.

NOTE:
CONTRACTOR SHALL SIZE BRANCH CIRCUIT CONDUCTORS PER THE TABLE ABOVE AS DETERMINED BY THE CIRCUIT CONDUCTOR LENGTH, U.O.N. CONTRACTOR SHALL SPLICE TO #12 AWG WITHIN TERMINATION BOX FOR DEVICE CONNECTION IF NECESSARY.

- ### SHEET NOTES
- ELECTRICAL BOX AND CONDUITS TO REMAIN.
 - CONTRACTOR SHALL PROVIDE AND INSTALL:
 - ELECTRICAL CONDUIT ONLY AND STUB ALL NEAR BUILDING. SEE 1/E1.1 FOR SIZE.
 - GENERATOR BRANCH CIRCUITS AND STARTING CIRCUITS TO PANEL "L1G", SEE 3/E1.1 FOR BRANCH CIRCUIT SIZE.
 - CONDUIT FOR ANNUNCIATOR COMMUNICATION WIRES. SEE 3/E1.1 FOR CONDUIT AND WIRING SIZE.
 - ELECTRICAL FEEDER FROM GENERATOR TO EXISTING "ATS", SEE 1/E1.1 FOR SIZE.
 - BRANCH CIRCUIT FOR RECEPTACLE, SEE 3/E1.1 FOR SIZE.
 - CONTRACTOR SHALL CONFIRM WITH CITY TRENCHING ROUTING PRIOR TO STARTING WORK. BACKFILL MATERIALS TO MATCH EXISTING CONCRETE/ASPHALT FINISH.
 - ELECTRICAL CONDUITS ONLY. STUB OUT NEAR BUILDING. SEE 1/E1.1 FOR SIZE.
 - GENERATOR BRANCH CIRCUITS, RECEPTACLE BRANCH CIRCUIT AND STARTING CIRCUITS TO PANEL "L1G", SEE 3/E1.1 FOR BRANCH CIRCUIT SIZE.
 - CONDUIT FOR ANNUNCIATOR COMMUNICATION WIRES. SEE 3/E1.1 FOR CONDUIT AND WIRING SIZE.
 - PROVIDE AND INSTALL (1) 12"SQ x 4"DEEP NEMA 3R PULLCAN WITH SCREW COVER, HOFFMAN OR EQUAL FOR COMMUNICATIONS & (1) 30"SQ x 6"DEEP NEMA 3R PULL CAN WITH SCREW COVER, HOFFMAN OR EQUAL FOR POWER. PAINT TO MATCH EXTERIOR WALL FINISH.
 - CONTRACTOR SHALL ROUTE CONDUITS UP ON EXTERIOR WALL AND PUNCH THROUGH WALL TO GET INTO THE BUILDING. ENSURE TO XRAY EXISTING WALL TO PREVENT PENETRATIONS TO EXISTING CONCRETE REBAR. SEAL PENETRATION WEATHERTIGHT.
 - ELECTRICAL FEEDERS TO "MSB", SEE 1/E1.1 FOR SIZE. ROUTE ALONG EXTERIOR WALL AND PAINT TO MATCH EXTERIOR WALL FINISH.
 - PROVIDE AND INSTALL 12"SQ x 4"DEEP NEMA 1 PULLCAN WITH SCREW COVER, HOFFMAN OR EQUAL FOR EACH COMMUNICATION & (1) 30"SQ x 6"DEEP NEMA 1 PULLCAN WITH SCREW COVER, HOFFMAN OR EQUAL FOR POWER. PROVIDE PULLCANS AS NECESSARY FOR EVERY 270 DEGREE CONDUIT BENDS. LOCATE ABOVE CEILING WHENEVER POSSIBLE.
 - LOCATED IN ELECTRICAL ROOM, FIELD VERIFY.
 - LOCATE IN RECEPTION AREA. COORDINATE WITH ARCHITECT AND CITY FOR EXACT LOCATION.
 - ALL CONDUIT RUNS WITHIN BUILDING SHALL BE INSTALLED IN ABOVE ACCESSIBLE CEILING. COORDINATE WITH ARCHITECT OR CITY FOR LOCATIONS WHERE CONDUIT CANNOT BE CONCEALED. ALL EXPOSED CONDUITS SHALL BE PAINTED TO MATCH SURROUNDING FINISHES. FIELD VERIFY.
 - PROVIDE AND INSTALL IN-GRADE CONCRETE CHRISTY PULLBOX #N16 WITH LID LABELED "COMMUNICATION".
 - PROVIDE AND INSTALL IN-GRADE CONCRETE CHRISTY PULLBOX #N40 WITH LID LABELED "ELECTRICAL".
 - ELECTRICAL FEEDER FROM GENERATOR TO EXISTING TRANSFER SWITCH "ATS", SEE 1/E1.1 FOR SIZE.
 - CONTRACTOR SHALL PROVIDE AND INSTALL (2) 20A/1P CIRCUIT BREAKERS FOR BLOCK HEATER AND BATTERY CHARGER. NEW BREAKERS SHALL MATCH EXISTING IN TYPE AND AIC RATING. UPDATE PANELBOARD SCHEDULE DIRECTORY FOR THE NEW ADDED LOADS.
 - STUB AND CAP ALL ELECTRICAL CONDUITS WITH PULLING STRING 18" ABOVE GRADE. TAG PULLING STRING TO READ "FOR FUTURE ATS1".



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PARTIAL ELECTRICAL SITE PLAN

CENTENNIAL RECREATION CENTER GENERATOR PROJECT

CITY OF MORGAN HILL
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ELECTRICAL SPECIFICATIONS
CENTENNIAL RECREATION CENTER GENERATOR PROJECT
CITY OF MORGAN HILL
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6. Engine mounted thermostatically controlled water jacket heater(s) for engine to aid in quick starting. Heater(s) shall be rated 1500 watts, 120 volts, single phase, 60 Hz. Heater(s) shall be disconnected by an oil pressure switch mounted on engine whenever engine starts. Contractor shall provide proper branch circuit from normal utility power source as required.

D. Engine Cooling System

- Engine shall be radiator cooled by engine mounted radiator system including belt-driven pusher fan, coolant pump, and thermostat temperature control. Performance of components shall be required by set manufacturer.
- Provide 50% ethylene glycol antifreeze solution to fill engine cooling system.
- Engine cooling system shall be designed to provide heat efficiently from engine, but ensure dependable engine performance and long operating life. Exhausting of radiator air from enclosure shall be directed up.

E. Exhaust System

- Exhaust silencer shall be provided for the engine of size as recommended by manufacturer. Silencer shall be chambered construction of the critical type. Silencer shall be field mounted on flexible exhaust connector. Noise level shall be maximum of 69dB at 10 feet with minimum back pressure. Exhaust pipe shall be extended straight 5 feet above enclosure.
- Provide a suitable air cap on the stack outlet. Provide all necessary flanges and special fittings, etc. for proper installation.

F. Engine Fuel System

- Fuel system shall assure continuous operation and clean fuel to the engine. The tank shall be capable of holding a minimum of 350 gallons of fuel. Tank design shall be sufficient to displace heat from adjacent engine; maximum temperature of tank shall not exceed 110 degrees F. Fuel tank shall be provided with high and low level alarms.
- Protection from moving components shall be supplied in accordance with CAL-OSHA standards.

1.02 Switches:

- Switches shall be rated 20 amperes to 120/277 volts ac. Units shall be flush mounted, self-grounding, quiet operating toggle devices. Handle color shall be as specified by the Architect.
- Manufacturer: Hubbell #HBL1221 Series, Leviton #1221 Series
- Timed switches shall be as designed by Paragon Electric Company #ET2000 or Watt Stopper TS-200 rated for the voltage specified on drawings. Time out shall be adjustable from 5 minutes up to 12 hours. Unit shall be provided with warning alarm.

1.03 Plates:

- General - Plates shall be of the style and color to match the wiring devices, and of the required number of gangs. Plates shall conform with NEMA WD 1, UL 514 and FS W-P-455A. Plates on finished walls shall be non-metallic or stainless steel. Plates on unfinished walls and on fittings shall be zinc plated steel or case metal and shall have rounded corners and beveled edges.
- Non-Metallic: Plates shall be plain with beveled edges and shall be nylon or reinforced fiberglass.
- Stainless Steel: Plates shall be .016 inches thick with beveled edges and shall be manufactured from No. 430 alloy having a brushed or satin finish.
- Cast Metal: Plates shall be cast or malleable iron covers with gaskets so as to be moisture resistant or weatherproof.
- Blank Plates: Cover plates for future telephone outlets shall match adjacent device wall plates in appearance and construction.

2.02 Cable Terminations and Splices:

- Splices - UL Listed wirenuts.
- Workmanship - Shall comply with the following:
 - Make up and form cable and orient terminals to minimize cable strain and stress on device being terminated as specified.
 - Burnish oxide from conductor prior to inserting in oxide breaking compound filled terminal.

2.03 Circuit and Conductor Identification:

- Color Coding - Provide color coding for all circuit conductors. Insulation color shall be white for larger conductors, and color as follows:

VOLTAGE	208/120V	480/277V
Phase A	Black	Black
Phase B	Red	Orange
Phase C	Blue	Yellow
Neutral	White	Grey
Ground	Green	Green
- Cable coloring shall be in the conductor insulation for all conductors #10 AWG and smaller; for larger conductors, color shall be either in the insulation or in colored plastic tape applied at every location where the conductor is readily accessible.
- Circuit Identification - All underground distribution and service circuits shall be provided with plastic identification tags in each secondary box and at each termination. Tags shall identify the source transformer of the circuit and the building number(s) serviced by the circuit.

4.01 Workmanship:

- All electrical equipment and materials shall be installed in a neat and workmanship manner in accordance with the "NECA / Standard Practices For Good Workmanship in Electrical Contracting". Workmanship of the entire job shall be first class in every respect.

4.02 Equipment Installations:

- Provide the required splices, bolts and anchors, and securely attach all equipment and materials to structural members and/or framing.
- Do all the cutting and patching necessary for the proper installation work and repair any damage done.
- Earthquake restraints: all electrical equipment, including conductors over 2 inches in diameter, shall be braced and anchored to resist a horizontal force acting in any direction per Title 24, part 2, table 16-6, section 2.
- Structural work: All core drilling, bolt anchor insertion, or cutting of existing structural concrete shall be approved by a California registered structural consulting engineer prior to the execution of any such work. All floor slabs and structural concrete walls to be drilled, cut or bolt anchors inserted, the contractor shall find and mark all reinforcing in both faces before use of scribe, push-meter, or pro-former. Submit sketch showing location of rebar and proposed cuts, cores, or bolt anchor locations for approval.

4.03 Field Tests:

- Perform equipment field tests and adjustments. Properly calibrate, adjust and operationally check all circuits and components, and demonstrate as ready for service.
- Operational Tests: Operationally test all circuits to demonstrate that the circuits and equipment have been properly installed and adjusted and are ready for full-time service. Demonstrate the proper functioning of circuits in all modes of operation, including alarm conditions.

4.04 Records:

- Maintain one copy of the Contract Drawing Sheets on the site of work for recording the "as built" condition. After completion of the work, the Contractor shall carefully mark the work as actually constructed, revised, deleted and added to the Drawing Sheets as required. As built Drawings shall be delivered to the Architect within ten (10) days of completion of construction.

4.05 Clean Up:

- Upon completion of electrical work, remove all surplus materials, rubbish, and debris that accumulated during the construction work. Leave the entire area neat, clean, and acceptable to the Architect.

SECTION 1600
GENERAL ELECTRICAL REQUIREMENTS
PART 1 - GENERAL

1.01 Description of Work:

- Furnish and install all required in-place equipment, conduits, conductors, cables and any miscellaneous materials for the satisfactory interconnection and operation of all associated electrical systems.

1.02 Submittals:

- As specified in Division 1. Submit to the Architect shop drawings, manufacturer's data and certificates for equipment, materials and finish, and pertinent details for each system specified. Information to be submitted includes manufacturer's descriptive literature of catalogued products, equipment, drawings, diagrams, performance and characteristic curves as applicable, test data and catalog cuts. Obtain written approval before procurement, fabrication, or delivery of the items to the job site.
- Proposed substitutions of products will not be reviewed or approved prior to awarding of the Contract.
- Substitutions shall be proven to the Architect or Engineer to be equal or superior to the specified product. Architect's decision is final. The Contractor shall pay all costs incurred by the Architect and Engineer in reviewing and processing any proposed substitutions whether or not a proposed substitution is accepted.
- If a proposed substitution is rejected, the contractor shall furnish the specified product at no increase in contract price.
- If a proposed substitution is accepted, the contractor shall be completely responsible for all dimensional changes, electrical changes, or changes to other work which are a result of the substitution. The accepted substitution shall be made in addition to the owner or design consultants.

1.03 Quality Assurance:

- Codes: All electrical equipment and materials, including installation and testing, shall conform to the latest editions of the following applicable codes:
 - California Electrical Code (CEC).
 - Occupational Safety and Health Act (OSHA) standards.
 - All applicable local codes, rules and regulations.
 - Electrical Contractor shall possess a C-10 license and all other licenses as may be required. Licenses shall be in effect as of this contract and the unexpired licenses may be required in the duration of this contract.
- Variance: In instances where two or more codes are at variance, the most restrictive requirement shall apply.
- Standards: Equipment shall conform to applicable standards of American National Standards Institute (ANSI), Electronics Industries Association (EIA), Institute of Electrical and Electronics Engineers (IEEE), and National Electrical Manufacturers Association (NEMA).
- Underwriter Laboratories (UL) listing is required for all equipment and materials where such listing is effective for Underwriter Laboratories. Provide written evidence to those for work required by the NEC to have such labels.
- The electrical contractor shall guarantee all work and materials installed under this contract for a period of one (1) year from date of acceptance by owner.
- All work and materials covered by this specification shall be subject to inspection at any and all times by representatives of the Architect and Engineer. The contractor shall be responsible for and approval by the owner or his representative. Any material found not conforming with these specifications shall, within 3 days after being notified by the owner, be removed from premises; if said material has been installed, entire expense of removing and replacing same, including any cutting and patching that may be necessary, shall be borne by the contractor.

1.04 Contract Documents:

- Drawings: The Electrical Drawings shall govern the general layout of the completed construction.
 - Locations of equipment, panels, pullboxes, ground conductors, ground connections, approximate unless dimensioned, verifying locations with the Architect prior to installation.
 - The general arrangement and location of existing conduits, piping, apparatus, etc., is approximate. The drawings and specifications are for the assistance and guidance of the contractor, exact locations, distances and elevations are governed by actual field conditions. Accuracy of data given herein and the drawings is not guaranteed. Minor changes may be necessary to accommodate work. The contractor is responsible for verifying existing conditions. Should it be necessary to deviate from the design due to interference with existing conditions or work in progress, claims for additional work shall be considered as waived.
 - Unauthorized substitutions shall be considered as void.
 - All drawings and divisions of these specifications shall be considered as whole. The contractor shall report any apparent discrepancies to the Architect immediately upon receipt.
 - The contractor shall be held responsible to have examined the site and compared it with the specifications and plans to determine if any necessary changes to the contractor's work are to be performed. He shall be held responsible for knowledge of all existing conditions whether or not accurately described. No subsequent allowance shall be made for any extra expense due to failure to make such examination.

1.05 Closeout Submittals:

- Manuals: Furnish manuals for equipment where manuals are specified in the equipment specifications or are specified in Division 1.

1.06 Coordination:

- Coordinate the electrical work with the other trades, code authorities and the Architect. Provide and install all trenching, backfilling, pull boxes, splice boxes, etc. for all locations indicated on the Drawings.
- Utility Company charges shall be paid by the Owner.
- Contractor shall pay all inspection and other applicable fees and procure all permits necessary for the completion of this work.
- Where connections must be made to existing installations, properly schedule all the required work, including the power shutdown period.
- When two trades join together in an area, make certain that no electrical work is omitted.

SECTION 1610
CONDUITS, RACEWAYS AND FITTINGS
PART 1 - EXECUTION

1.01 Conduit, Raceway and Fitting Installation:

- For conduit runs exposed to weather provide rigid metal (GRS).
- For conduit run underground, in concrete or masonry block wall and under concrete slabs, install minimum 7/8" size nonmetallic (PVC) or PVC elbows. Where conduits transition from underground or under slabs to above grade install wrapped rigid metal (GRS) elbows and risers.
- For conduit runs concealed in steel or wood framed walls or in ceiling spaces or exposed in interior spaces above six feet over the finished floor, install EMT.
- Flexible metal conduit shall be used only for the connection of recessed lighting fixtures and motor connections unless otherwise noted on the Drawings. Liquid-tight flexible conduit shall be used for motor connections.
- The minimum size raceway shall be 1/2-inch unless indicated otherwise on the Drawings.
- Installation shall comply with the NEC.
- Moisture Seals: Provide in accordance with NEC paragraphs 230-6 and 308-5(g).
- Where PVC conduit transitions from underground to above grade, provide rigid steel 90's with risers. Rigid steel shall be half-lap wrapped with 20 mil tape and extend minimum 12" above grade.
- Provide a nylon pull cord in each empty raceway.
- Provide galvanized rigid steel factory fittings for galvanized rigid steel conduit.
- Make up underground raceways to provide drainage; for example, slope conduit from equipment located inside a building to the pull box or manhole located outside the building.
- Conduits shall be blown out and swabbed prior to pulling wires.

1.02 Terminations:

- Manufacturer - Terminals as manufactured by B&B, Buroloy or equal.
- Receptacles shall be specification grade, rated 20 amperes, two-pole, 3-wire, 125V, NEMA 5-20 configuration, self-grounding with screw terminals. Color shall be as selected by the Architect.
- Devices shall have a nylon face, back and side wirt.
- Manufacturer: Hubbell #H820 Series, Leviton #825 Series.
- GFCI Receptacles:
 - Device shall be rated 20 amperes, 2-pole, 3-wire, 120 volt, conforming to NEMA 5-20 configuration. Face shall be nylon composition. Unit shall have an LED type red indicator light, test and reset push buttons. Color shall be as selected by the Architect.
 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
 - Manufacturer: Hubbell #GF20_LA Series, Leviton #7899 Series.
- Automatically Controlled Receptacles [Tamper Resistant]
 - Receptacles shall be specification grade, rated 20 amperes, two pole, 3-wire, 125V, NEMA 5-20 configuration, self-grounding with screw terminals. Color shall be selected by the Architect.
 - Devices shall have a nylon face, back and side wirt. Marking permanently printed, molded, or stamped on the face of the receptacle and in compliance with standard receptacle marking requirements stated in California Building Energy Efficiency Standards Section 130.52(d)(1).
 - Manufacturer: Pass & Seymour 26352, D, 26357, H (Half Switched Receptacles); TR26352, D, TR26352, H (Half Switched Receptacles); Hubbell XXX_X, XXXXX_X (Half Switched Receptacles); TRXXX_X, TRXXX_X (Half Switched Receptacles); Leviton XXX_X, XXX_X (Half Switched Receptacles)

1.03 Tapes:

- Tags used for terminations and cable marking shall be compatible with the insulation and jacket of the cable and shall be of plastic material.

SECTION 1610
OUTLET, JUNCTION AND PULL BOXES
PART 1 - PRODUCTS

1.01 Outlet Boxes, Junction and Pull Boxes

- Standard Outlet Boxes: Galvanized steel, knock-out type size and configuration best suited to the application indicated on the Drawings. Minimum box size shall be 4 inches square (octagon for most light fixtures) by 1-1/2 inches deep with 4 mud rings as required. Boxes used with conduit 1" or larger shall be minimum 2" deep.
- Switch Boxes: Minimum box size shall be 4 inches square by 1-1/2 inches deep with mud rings as required. Install multiple switches in standard gang boxes with raised device covers suitable for the application indicated.
- Cooduit bodies: Cast iron alloy. Cooidt bodies with threaded conduit holes and with nonspreading cast iron covers. Bodies shall be used to facilitate pulling of conductors or to make changes in conduit direction only. Splices are not permitted in conduit bodies. Cross-hinds Form C Conduits, Apletion Form 35 Uniles or equal.
- Sheet Metal Boxes: Use standard outlet or concrete ring boxes wherever possible; otherwise use a minimum 16 gauge galvanized sheet metal, NEMA 1 box size to Code requirements with covers secured by cadmium plated machine screws located six inches on centers. Circle AW Products.
- Flush Mounted Pull Boxes and Junction Boxes: Provide overlapping covers with flush head cover retaining screws, prime coated.

SECTION 1610
MECHANICAL AND PLUMBING ELECTRICAL WORK
PART 1 - EXECUTION

1.01 Mechanical and Plumbing Electrical Work:

- Standard electrical power and/or devices for all mechanical and plumbing equipment supplied and/or installed under this Contract shall be coordinated and verified with the following:
 - Mechanical and Plumbing Drawings.
 - Mechanical and Plumbing sections of these Specifications.
 - Manufacturers of the Mechanical and Plumbing equipment supplied.
- Sheet Metal Boxes: Use standard outlet or concrete ring boxes wherever possible; otherwise use a minimum 16 gauge galvanized sheet metal, NEMA 1 box size to Code requirements with covers secured by cadmium plated machine screws located six inches on centers. Circle AW Products.
- Flush Mounted Pull Boxes and Junction Boxes: Provide overlapping covers with flush head cover retaining screws, prime coated.
- Disconnect switches.
- Manual line motor starters.
- Automatic line voltage controls and magnetic starters shall be furnished by the Mechanical and/or Plumbing Contractor and installed and connected by the Electrical Contractor. When subcontracted for by the Mechanical and/or Plumbing Contractor, all line voltage control wiring installed by the Electrical Contractor shall be done per directions from the Mechanical and/or Plumbing Contractor, and controls shall be by the Mechanical and/or Plumbing Contractor.
- Manual motor starters, where required, shall have toggle type operators with pilot light and melting alloy for overload protection, NEMA 1, Type FC-1P (curtain) or Type FC-1P (hubs) or ITE, WESTINGHOUSE or GENERAL ELECTRIC equal.
- Bus Layout:
 - Outlet boxes shall be installed at the locations and elevations shown on the drawings or specified herein. Make adjustments to locations as required by structural conditions and to suit coordination requirements of other trades.
 - Locate switch outlet boxes on the latch side of doorways.
 - Outlet boxes shall not be installed back to back nor shall through-wall boxes be permitted. Outlet boxes on opposite sides of a common wall shall be separated horizontally by at least one stud or vertical structural member.
 - For outlets mounted above counters, benches or backpanels, coordinate location and mounting height with built-in units. Adjust mounting height to agree with required location for equipment service.
 - On fire rated walls, the total face area of the outlet boxes shall not exceed 100 square inches per 100 square feet of wall area.
- Support:
 - Outlet Boxes installed in metal stud walls shall be equipped with brackets designed for attaching directly to the studs or shall be mounted on specified box supports.
 - Fixture outlet boxes installed in suspended ceiling of gypsum board or lath and plaster construction shall be mounted to 10 gauge metal channel bars attached to main ceiling runners.
 - Fixture outlet boxes installed in suspended ceilings supporting acoustical tiles or panels shall be supported directly from the structure above where pendant mounted lighting fixture are to be installed on the box.
 - Fixture Boxes above tile ceilings having exposed suspension systems shall be supported directly from the structure above.
 - Outlet and/or junction boxes shall not be supported by grid or fixture hanger wires as follows:
 - Nonmetallics Limit-8, or ITC seven only.

SECTION 1620
LINE VOLTAGE WIRE AND CABLE
PART 1 - PRODUCTS

1.01 Conductors:

- Conductors shall be copper, type THHN/THWN/MTWV and gasoline resistant, 600 volt rated insulation.
- Conductors shall be stranded copper.
- Minimum power and control wire size shall be No. 12 AWG unless otherwise noted.
- All conductors used on this Project shall be the same type and conductor material.

1.02 Terminations:

- Manufacturer - Terminals as manufactured by B&B, Buroloy or equal.
- Receptacles shall be specification grade, rated 20 amperes, two-pole, 3-wire, 125V, NEMA 5-20 configuration, self-grounding with screw terminals. Color shall be selected by the Architect.
- Devices shall have a nylon face, back and side wirt.
- Manufacturer: Hubbell #H820 Series, Leviton #825 Series.
- GFCI Receptacles:
 - Device shall be rated 20 amperes, 2-pole, 3-wire, 120 volt, conforming to NEMA 5-20 configuration. Face shall be nylon composition. Unit shall have an LED type red indicator light, test and reset push buttons. Color shall be as selected by the Architect.
 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
 - Manufacturer: Hubbell #GF20_LA Series, Leviton #7899 Series.
- Automatically Controlled Receptacles [Tamper Resistant]
 - Receptacles shall be specification grade, rated 20 amperes, two pole, 3-wire, 125V, NEMA 5-20 configuration, self-grounding with screw terminals. Color shall be selected by the Architect.
 - Devices shall have a nylon face, back and side wirt. Marking permanently printed, molded, or stamped on the face of the receptacle and in compliance with standard receptacle marking requirements stated in California Building Energy Efficiency Standards Section 130.52(d)(1).
 - Manufacturer: Pass & Seymour 26352, D, 26357, H (Half Switched Receptacles); TR26352, D, TR26352, H (Half Switched Receptacles); Hubbell XXX_X, XXXXX_X (Half Switched Receptacles); TRXXX_X, TRXXX_X (Half Switched Receptacles); Leviton XXX_X, XXX_X (Half Switched Receptacles)

1.03 Tapes:

- Tags used for terminations and cable marking shall be compatible with the insulation and jacket of the cable and shall be of plastic material.

SECTION 1620
LINE VOLTAGE WIRE AND CABLE
PART 1 - PRODUCTS

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 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
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LINE VOLTAGE WIRE AND CABLE
PART 1 - PRODUCTS

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 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
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LINE VOLTAGE WIRE AND CABLE
PART 1 - PRODUCTS

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 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
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PART 1 - PRODUCTS

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 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
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SECTION 1620
LINE VOLTAGE WIRE AND CABLE
PART 1 - PRODUCTS

1.01 Conductors:

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 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
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SECTION 1620
LINE VOLTAGE WIRE AND CABLE
PART 1 - PRODUCTS

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 - GFCI equipment shall meet UL 943 Class A standards with a tripping time of 140 second at 5 milliamperes current imbalance. Operating trips shall extend from .11 to 158 FT. Unit shall have transient voltage protection and shall be ceramic encapsulated for protection against moisture.
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