CITY OF TORRANCE

JIM FUENTES, SUPERVISOR, HVAC AND ELECTRICAL - GENERAL SERVICE DEPARTMENT

BUILDING & SAFETY
HVAC SPLIT SYSTEM/ROOF TOP UNIT REPLACEMENT

3031 TORRANCE BOULEVARD
TORRANCE, CA. 90503

TORRANCE CITY COUNCIL

PATRICK J. FUREY,	**MAYOR**
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MILTON S. HERRING, I,	**COUNCIL MEMBER**
GEOFF RIZZO	**COUNCIL MEMBER**
KURT WEIDEMAN,	**COUNCIL MEMBER**

CONTACT INFORMATION

CITY OF TORRANCE
HVAC AND ELECTRICAL - GENERAL SERVICE DEPARTMENT
3031 TORRANCE BOULEVARD
PROJECT SUPERVISOR: JIM FUENTES
PHONE: (310) 625-7931

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NOTES

1. IN THE CASE OF EMERGENCY, CALL, JIM FUENTES AT WORK PHONE #-310-625-793.
2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
3. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
4. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
5. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
6. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OR THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
7. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
8. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORM WATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
9. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERC HLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
10. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
11. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
12. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
13. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
14. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
15. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
16. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%
17. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OF ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
18. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

GENERAL NOTES

1. PROVIDE SHOP DRAWINGS AND EQUIPMENT SUBMITTALS TO THE OWNER'S REPRESENTATIVE FOR REVIEW PRIOR TO BEING SUBMITTED TO THE PROJECT ENGINEER.
2. PROVIDE COMPLETE AND PROPERLY FUNCTIONING CONTROL SYSTEM FOR THIS PROJECT.
3. COORDINATE THE INSTALLATION OF THE WORK OF ALL REQUIRED TRADES. IF DURING THE COURSE OF THE WORK, THE CONTRACTOR EXPERIENCES A PROBLEM RELATIVE TO THE DOCUMENTS, THE LOCAL APPLICABLE CODES AND GOVERNING DOCUMENTS, OR THE WORK CANNOT BE INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS FOR ANY REASON, NOTIFY ENGINEER FOR DIRECTION PRIOR TO EXECUTION OF THIS WORK. THE CONTRACTOR MAY BE RESPONSIBLE FOR REMOVING, AT NO ADDITIONAL COMPENSATION, ANY WORK INSTALLED, PRIOR TO RECEIVING DIRECTION FROM THE OWNER'S REPRESENTATIVE, IN VIOLATION OF THE CONTRACT DOCUMENTS OR APPLICABLE CODES.
4. SYMBOLS SHOWN ON THE DRAWINGS AND IN THE SCHEDULES INDICATE THE TYPE OF EQUIPMENT ONLY. REVIEW DRAWINGS TO DETERMINE THE EXACT QUANTITIES REQUIRED FOR EACH EQUIPMENT TYPE.
5. CONTRACTOR SHALL EMPLOY "CLEAN CONSTRUCTION" METHODS TO KEEP THE WORK AREA AND SYSTEMS FREE OF DUST, DIRT AND DEBRIS. DUCT OPENINGS, DIFFUSERS, GRILLES AND REGISTERS SHALL BE SEALED WITH VISQUINE IN ANY AREA OF THE PROJECT WHERE DUST GENERATING CONSTRUCTION ACTIVITIES OCCUR, INCLUDING THE PREPARATION OF WALL BOARD, PREPARATION, GRINDING OR FINISHING OF CONCRETE WORK OR ANY OTHER SIMILAR ACTIVITY. IF SIMILAR REWORK OF A PREVIOUSLY FINISHED AREA IS REQUIRED, AIR HANDLING UNITS AND FAN COILS SERVING THAT AREA SHALL BE SHUT DOWN, AND ALL GRILLES, REGISTERS, DIFFUSERS AND DUCT OPENINGS IN THAT AREA, WHETHER ABOVE OR BELOW THE CEILING, SHALL BE SEALED WITH VISQUINE TO PREVENT INFILTRATION OF DUST, DIRT AND DEBRIS INTO THE AIR DISTRIBUTION SYSTEM.
6. PROVIDE ALL CORING, TRENCHING, CUTTING AND PATCHING AS REQUIRED TO PERFORM THE WORK FOR THIS PROJECT.
7. COORDINATE LOCATIONS OF SENSORS AND OTHER DEVICES WITH ENGINEER AND OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
8. PROVIDE SUPPORT STEEL, HANGERS AND ACCESSORIES REQUIRED TO INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. DO NOT SUPPORT DEVICES FROM DUCTWORK, PIPES, OR ELECTRICAL CONDUIT. UNLESS OTHERWISE NOTED, DO NOT ALLOW PIPES OR CONDUIT TO DIRECTLY CONTACT THE BUILDING STRUCTURE, CEILING SYSTEM, LIGHT FIXTURES, ANY OTHER BUILDING SYSTEM COMPONENT, OR EACH OTHER.
9. PERFORM WORK IN ACCORDANCE WITH ALL CURRENT AND APPLICABLE LOCAL CODES AND REGULATIONS AND AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ).
10. PROVIDE CODE APPROVED FIRE STOPPING AT PENETRATIONS THROUGH BUILDING CONSTRUCTION TO ACHIEVE FIRE, SMOKE, AND SOUND RATINGS AS REQUIRED.
11. REPAIR ANY DAMAGE TO FIREPROOFING DUE TO INSTALLATION OF THIS WORK.
12. INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
13. PROVIDE EQUIPMENT SUITABLE FOR THE INTENDED PURPOSE.
14. PERFORM SYSTEM COMMISSIONING, CLEANING, SERVICING, BALANCING, TESTING, AND CERTIFICATION REQUIRED BY THE DOCUMENTS, CODE, LOCAL AUTHORITY HAVING JURISDICTION, AND AS RECOMMENDED BY THE EQUIPMENT MANUFACTURERS, PRIOR TO OCCUPANCY.
15. UPON COMPLETION OF TESTING, OPERATE EQUIPMENT TO VERIFY THAT ALL SYSTEMS FUNCTION PROPERLY. AFTER VERIFYING THE PROPER OPERATION, DEMONSTRATE THE OPERATION OF SYSTEMS AND EQUIPMENT TO THE OWNERS REPRESENTATIVES. PROVIDE 48 HOURS NOTICE AND SCHEDULE THE DEMONSTRATION WITH THE OWNER.
16. PROVIDE O & M MANUALS AS DESCRIBED IN SPECIFICATIONS.
17. PROVIDE TRAINING FOR OWNER'S MAINTENANCE AND ENGINEERING STAFF AS DESCRIBED IN SPECIFICATIONS.

BUILDING DATA

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SCOPE OF WORK

THE SCOPE OF WORK OF THIS PROJECT COMPRISES OF THE MECHANICAL, ELECTRICAL,PLUMBING AND STRUCTURAL WORK TO ACCOMPLISH OF THE FOLLOWING:

1. DEMOLISH ONE SPLIT SYSTEM HEAT PUMP(3 TON COOLING CAPACITY) AND ONE PACKAGED ROOFTOP HEAT PUMP (5 TON COOLING CAPACITY). THE INDOOR UNIT RETURN PLENUM SHALL REMAIN.
2. REMOVE EXISTING REFRIGERANT PIPING CONNECTING THE OUTDOOR UNIT WITH THE INDOOR UNIT.
3. INSTALL ONE NEW SPLIT SYSTEM HEAT PUMP WITH SAME CAPACITY ON THE ORIGINAL LOCATION. INSTALL NEW REFRIGERANT PIPING CONNECTING THE INDOOR AND OUTDOOR UNITS. OUTDOOR UNIT SHALL BE MOUNTED ON THE ORIGINAL SUPPORT PLATFORM. INDOOR UNIT SHALL BE INSTALLED ON EXISTING RETURN PLENUM.
4. INSTALL ONE NEW PACKAGED HEAT PUMP WITH SAME CAPACITY ON THE ORIGINAL PLATFORM. PROVIDE NEW METAL COVER FOR THE SUPPORT PLATFORM.
5. REPLACE EXISTING THERMOSTATS WITH NEW MODEL AS SPECIFIED BY OWNER.

APPLICABLE CODE

AS APPLICABLE TO THE SCOPE OF WORK. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING CODES:

- 2016 CALIFORNIA BUILDING CODE, VOLUMES 1 AND 2
- 2016 CALIFORNIA ELECTRICAL CODE
- 2016 CALIFORNIA MECHANICAL CODE
- 2016 CALIFORNIA PLUMBING CODE
- 2016 CALIFORNIA EXISTING BUILDING CODE
- 2016 CALIFORNIA REFERENCED STANDARDS CODE
- 2016 CALIFORNIA ENERGY CODE
- 2016 CALIFORNIA FIRE CODE
- 2016 CALIFORNIA GREEN BUILDING STANDARD CODE (CALGREEN)

DRAWING INDEX

CONSULTANTS

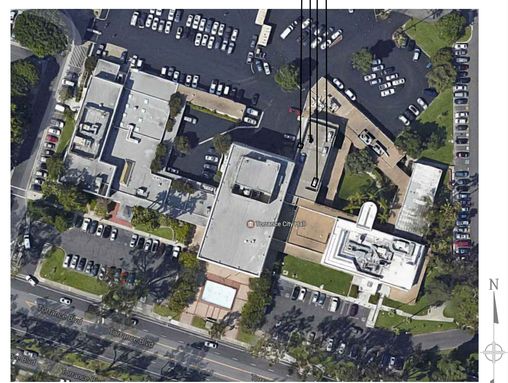
IDS MECHANICAL ENGINEERS. INC
1 PETERS CANYON ROAD. STE 150
IRVINE. CA. 92606

PHONE: 949-387-8500
FAX: 949-502-7640

ENGINEER OF RECORD:

MECHANICAL:	WALTER MACLEAN, P.E.	X412
ELECTRICAL:	ROB O'NEIL, P.E.	X425
STRUCTURAL:	SAID HILMY, S.E.	X116
PROJECT MANAGER:	MAYSOON SHEABAAN, P.E.	X432

VICINITY MAP



BUILDING AND SAFETY HVAC SYSTEM REPLACEMENT
3031 TORRANCE BLVD, TORRANCE, CA 90503

CLIENT

CITY OF TORRANCE
3031 TORRANCE BLVD.
TORRANCE , CA 90503

PROJECT NAME

BUILDING & SAFETY HVAC SPLIT SYSTEM AND ROOF TOP UNIT REPLACEMENT

CONSULTANT

IDS GROUP
1 PETERS CANYON ROAD, SUITE 130
IRVINE, CA. 92606
TEL: 949-387-8500, FAX: 949-387-0800

Project # 17X036.00

STAMP

REGISTERED PROFESSIONAL ENGINEER
WALTER M. MACLEAN II
No. 31382
EXP. 6-30-18
MECHANICAL
STATE OF CALIFORNIA

STAMP

REGISTERED PROFESSIONAL ENGINEER
SAID I. HILMY
No. 3680
STRUCTURAL
STATE OF CALIFORNIA

DATE SIGNED:11.16.2017

ISSUE

REV.	DESCRIPTION	DATE
	CITY SUBMITTAL	09/28/2017
	CITY RE-SUBMITTAL	11/16/2017

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

NAILING

CONNECTION	FASTENING [a, m]	LOCATION
1. JOIST TO SILL OR GIRDER	3 – 8d COMMON (2½" x 0.131")	TOENAIL
2. BRIDGING TO JOIST	2 – 8d COMMON (2½" x 0.131")	TOENAIL EACH END
3. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2 – 8d COMMON (2½" x 0.131")	FACE NAIL
4. WIDER THAN 1" x 6" SUBFLOOR TO EACH JOIST	3 – 8d COMMON (2½" x 0.131")	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2 – 16d COMMON (3½" x 0.162")	BLIND AND FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING SOLE PLATE TO JOIST OR BLOCKING AT PANELS BRACED WALL PANEL	16d (3½" x 0.135") AT 16" O.C. 3 – 16d (3½" x 0.135") AT 16" O.C.	TYPICAL FACE NAIL BRACED WALL
7. TOP PLATE TO STUD	2 – 16d COMMON (3½" x 0.162")	END NAIL
8. STUD TO SOLE PLATE	4 – 8d COMMON (2½" x 0.131") 2 – 16d COMMON (3½" x 0.162")	TOENAIL END NAIL
9. DOUBLE STUDS	16d (3½" x 0.135") AT 24" O.C.	FACE NAIL
10. DOUBLE TOP PLATES DOUBLE TOP PLATES	16d (3½" x 0.135") AT 16" O.C. 8 – 16d COMMON (3½" x 0.162")	TYPICAL FACE NAIL LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 – 8d COMMON (2½" x 0.131")	TOENAIL
12. RIM JOIST TO TOP PLATE	8d (2½" x 0.131") AT 6" O.C.	TOENAIL
13. TOP PLATES, LAPS AND INTERSECTIONS	2 – 16d COMMON (3½" x 0.162")	FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON (3½" x 0.162")	16" O.C. ALONG EDGE
15. CEILING JOISTS TO PLATE	3 – 8d COMMON (2½" x 0.131")	TOENAIL
16. CONTINUOUS HEADER TO STUD	4 – 8d COMMON (2½" x 0.131")	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (NOTE q.)	3 – 16d COMMON (3½" x 0.162") MINIMUM, TABLE 2308.10.4.1	FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (NOTE q.)	3 – 16d COMMON (3½" x 0.162") MINIMUM, TABLE 2308.10.4.1	FACE NAIL
19. RAFTER TO PLATE (NOTE 4.)	3 – 8d COMMON (2½" x 0.131")	TOENAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 – 8d COMMON (2½" x 0.131")	FACE NAIL
21. 1" x 8" SHEATHING TO EACH BEARING	3 – 8d COMMON (2½" x 0.131")	FACE NAIL
22. WIDER THAN 1" x 8" SHEATHING TO EACH BEARING	3 – 8d COMMON (2½" x 0.131")	FACE NAIL
23. BUILT–UP CORNER STUDS	16d COMMON (3½" x 0.162")	24" O.C.
24. BUILT–UP GIRDER AND BEAMS	20d COMMON (4" x 0.192") AT 32" O.C. 2 – 20d COMMON (4" X 0.192")	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES FACE NAIL AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	16d COMMON (3½" x 0.162")	AT EACH BEARING
26 . COLLAR TIE TO RAFTER	3 – 10d COMMON (3" x 0.148")	FACE NAIL
27. JACK RAFTER TO HIP	3 – 10d COMMON (3" x 0.148") 2 – 16d COMMON (3½" x 0.162")	TOENAIL FACE NAIL
28. ROOF RAFTER TO 2–BY RIDGE BEAM	2 – 16d COMMON (3½" x 0.162") 2 – 16d COMMON (3½" x 0.162")	TOENAIL FACE NAIL
29. JOIST TO BAND JOIST	3 – 16d COMMON (3½" x 0.162")	FACE NAIL
30. LEDGER STRIP	3 – 16d COMMON (3½" x 0.162")	FACE NAIL AT EACH JOIST
31. WOOD STRUCTURAL PANELS AND PARTICLEBOARD [b] SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING) SINGLE FLOOR (COMBINATION SUBFLOOR – UNDERLAYMENT TO FRAMING)	½" AND LESS 6d[c, l] 19/32" TO ¾" 8d[d] OR 6d[e] ⅞" TO 1" 10d[d] OR 8d[e] 1⅛" TO 1¼" 10d[d] OR 8d[e] ¾" AND LESS 6d[e] ⅞" TO 1" 8d[e] 1⅛" TO 1¼" 10d[d] OR 8d[e]	
32. PANEL SIDING (TO FRAMING)	½" AND LESS 6d[f] ⅝" 8d[f]	
33. FIBERBOARDING SHEATHING[g]	½" 6d COMMON NAIL (2" x 0.113") 25/32" 8d COMMON NAIL (2½" x 0.131")	
34. INTERIOR PANELING	¼" 4d[j] ⅜" 6d[k]	

GENERAL CONT.:

24. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR ALL SHORING REQUIRED IN ORDER TO SAFELY ACHIEVE THE FINAL CONSTRUCTION SHOWN ON THE DRAWINGS. THIS INCLUDES, BUT IS NOT LIMITED TO, ANY TYPES OF SHORING REQUIRED FOR SOILS EXCAVATION AND BACKFILL WORK; SUPPORT OF STRUCTURAL ELEMENTS UNTIL THEY HAVE ACHIEVED THE NECESSARY STRENGTH TO PERFORM IN THE FINAL POSITION AND MANNER SHOWN ON THE DRAWINGS; AND SUPPORT OF STRUCTURAL ELEMENTS THAT ARE MODIFIED AND THEREBY REDUCED IN STRENGTH IN ANY WAY DURING CONSTRUCTION AS REQUIRED TO ACHIEVE THE FINAL CONSTRUCTION AS SHOWN ON THE DRAWINGS. ALL SHORING CALCULATIONS AND DRAWINGS SHALL BE STAMPED BY A CALIFORNIA REGISTERED STRUCTURAL ENGINEER AND SUBMITTED FOR REVIEW PRIOR TO PERFORMING THE WORK.

25. THE CONTRACTOR SHALL COORDINATE ALL UTILITY LOCATIONS WITH OTHER DRAWINGS AND SHALL CONDUCT A DETAILED SURVEY OF EXISTING UTILITIES TO IDENTIFY INTERFERENCES WITH THE NEW CONSTRUCTION. PROMPTLY NOTIFY THE ARCHITECT OF ANY INTERFERENCES PRIOR TO PERFORMING THE WORK.

TOLERANCE

1. PERMITTED TOLERANCE SHALL BE ACCORDING TO THE GOVERNING CODE.

DESIGN CRITERIA

DESIGN CONFORMS TO CBC.

1. LIVE LOADS:
   A. ROOF: 20 PSF
   B. EQUIPMENT (WHERE OCCURS): ACTUAL WEIGHT
2. DEAD LOADS: ACTUAL WEIGHT
3. WIND ANALYSIS: WIND LOADS ARE BASED ON CBC WITH THE FOLLOWING FACTORS:

   EXPOSURE CATEGORY C
   V = 120 MPH
   RISK CATEGORY IV
   GCpi = ±0.18
   Kzt = 1.0

   DESIGN WIND PRESSURE AND FORCES ON COMPONENTS AND CLADDING SHALL BE DETERMINED IN ACCORDANCE WITH CBC SECTION 1609A BY THE CALIFORNIA STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN OF SUCH ELEMENTS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

4. SEISMIC ANALYSIS: EQUIVALENT ANCHORAGE

   SITE CLASS D
   SEISMIC DESIGN CATEGORY D
   S_S = 1.169 g
   S_1 = 0.612 g
   Fa = 1.0
   Fv = 1.5
   S_{DS} = 1.079 g
   S_{D1} = 0.612 g

WOOD

1. WOOD MEMBERS SHALL BE DOUGLAS FIR–LARCH PER WCLIB OR WWPA, VISUALLY GRADED DIMENSION LUMBER AND SHALL BE SURFACED DRY (19% MOISTURE CONTENT MAXIMUM). ALL LUMBER SHALL BEAR THE GRADE STAMP OF AN APPROVED TESTING AGENCY, EXCEPT EXPOSAL LUMBER AT VISIBLE AREAS. STRUCTURAL FRAMING MEMBERS SHALL BE S4S AND GRADE MARKED AS No.1.
2. PLYWOOD SHEATHING SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF U.S. PRODUCT STANDARDS PS 1–95. STRUCTURAL USE PANELS SHALL CONFORM TO NER–108 (APA–PRP–108). EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE A.P.A. GRADE STAMP.
3. SHEATHING SHALL BE FIVE PLY WITH THICKNESS AND PANEL INDEX AS INDICATED ON DRAWINGS. STAGGER SHEETS PER PLAN. ROOF NAILING SHALL BE PER SCHEDULE ON DRAWINGS. OR AS INDICATED ON NOTES. INSTALL SHEETS WITH FACE GRAIN ACROSS SUPPORTS EXCEPT WHERE NOTED OTHERWISE.
4. BOLTS SHALL CONFORM TO ASTM A307. ALL BOLTS THROUGH WOOD SHALL HAVE STANDARD WASHERS. BOLT HOLES SHALL BE BORED 1/32" TO 1/16" LARGER THAN THE BOLT DIAMETER UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE TIGHTENED PRIOR TO BEING COVERED.
5. NAILS SHALL BE COMMON WIRE NAILS (0.131"øx2–1/2" FOR 8d; 0.148"øx3" FOR 10d; 0.148"øx3–1/4" FOR 12d; 0.162"øx3–1/2" FOR 16d) OR ACCESSORIES OF HARDWARE CONNECTORS. SEE CBC FOR MINIMUM NAILING SCHEDULE AT CONNECTIONS.
6. HARDWARE CONNECTORS AND ACCESSORIES SHALL BE SIMPSON STRONG–TIE CONNECTORS OR APPROVED EQUAL.
7. PLYWOOD NAILING SHALL HAVE A MINIMUM EDGE DISTANCE OF 3/8". NAIL HEADS SHALL BE FLUSH WITH TOP SURFACE OF PLYWOOD; SINKING NAIL HEADS IS PROHIBITED.
8. PROVIDE PLYWOOD EDGE NAILING AROUND THE PLYWOOD OPENINGS AND ALONG THE FULL HEIGHT OF ALL WOOD POSTS AND COLUMNS.
9. LAG SCREWS SHALL BE SCREWED, NOT DRIVEN, INTO WOOD MEMBER WITH PRE–DRILLED HOLES.
10. SOLID BLOCKING SHALL BE PLACED BETWEEN JOISTS AT POINTS OF SUPPORT AND POINTS WHERE SHEATHING IS DISCONTINUOUS.
11. APPLY ADHESIVE TO CONTACT SURFACES BETWEEN HORIZONTAL PLYWOOD SHEATHING AND SUPPORTING WOOD MEMBER.
12. WOOD MEMBER WITH WANE SHALL NOT BE LOCATED AT PLYWOOD JOINT.
13. NO STRUCTURAL MEMBER SHALL BE CUT WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
14. ALL BOLTS SHALL BE RE–TIGHTENED JUST PRIOR TO BEING COVERED.
15. BOLT HOLES AT WOOD MEMBERS SHALL NOT BE MORE THAN 1/16" LARGER THAN THE BOLT DIAMETER.
16. SOLID BLOCKING OR EQUIVALENT CROSS–BRIDGING SHALL BE INSTALLED BETWEEN ALL ROOF AND FLOOR JOISTS AT THE SPACING PER CODE.
17. FIRE BLOCKING SHALL BE INSTALLED BETWEEN ALL WALL STUDS IF REQUIRED BY CODE.

GENERAL NOTES

GENERAL

1. SCOPE OF WORK: THIS PROJECTS INVOLVES;
   A. HVAC EQUIPMENT REPLACEMENT
2. PERFORM CONSTRUCTION AND WORKMANSHIP INCLUDING ALL MATERIALS IN COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS, AND THE 2016 CBC.
3. COMPLY FULLY WITH ALL CODES HAVING JURISDICTION OVER THE WORK. IF ANY WORK SHOWN OR INDICATED ON THE DRAWINGS IS IN CONFLICT WITH ANY CODE HAVING JURISDICTION, BRING IT TO THE ATTENTION OF THE OWNER PRIOR TO THE COMMENCEMENT OF ANY WORK WHICH WOULD BE AFFECTED BY IT.
4. NOTES AND DETAILS ON DRAWINGS TAKE PRECEDENCE OVER "GENERAL NOTES" AND TYPICAL DETAILS.
5. ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER FOR RESOLUTION PRIOR TO COMMENCING ANY WORK.
6. ALL EXISTING CONDITIONS, WHETHER OR NOT SPECIFICALLY NOTED ON THE DRAWINGS, SHALL BE VERIFIED PRIOR TO THE COMMENCEMENT OF ANY WORK. DO NOT PROCEED WITH ANY ITEM OR WORK THAT IS REASONABLY QUESTIONABLE WITHOUT ADVISING THE OWNER. OBTAIN DIRECTION FROM THE OWNER AS TO HOW TO PROCEED. SUBMIT ALL QUESTIONS ON "RFI" FORM.
7. BECOME FAMILIAR WITH ALL THE CONTRACT DOCUMENTS AND BE RESPONSIBLE FOR COORDINATION OF ALL TRADES TO ASSURE PROPER CONSTRUCTION OF THE PROJECT.
8. COORDINATE AND VERIFY ALL CONDITIONS, DIMENSIONS, AND ELEVATIONS WITHIN THIS SET OF DOCUMENTS PRIOR TO LAYOUT. NOTIFY THE OWNER OF ANY DISCREPANCIES BEFORE PROCEEDING.
9. ALL INFORMATION, DIMENSIONS, AND ELEVATIONS SHOWN OR NOTED TO EXISTING STRUCTURE ARE BASED ON BEST INFORMATION CURRENTLY AVAILABLE AT THE TIME OF THE PREPARATION OF THESE DRAWINGS. NO WARRANTY IS IMPLIED AS TO THE ACCURACY OF EXISTING CONDITIONS. THE CONTRACTOR SHALL REFER TO THE ORIGINAL CONSTRUCTION DOCUMENTS FOR INFORMATION REGARDING EXISTING CONSTRUCTION AND SHALL FIELD VERIFY ALL CONDITIONS. IF CONDITIONS BECOME APPARENT WHICH DIFFER FROM THE CONDITIONS SHOWN HEREIN, THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER. DIMENSIONS TAKE PRECEDENCE OVER SCALE OF DRAWING. HOWEVER, ANY SIGNIFICANT CONFLICTS SHALL BE RESOLVED AS NOTED.
10. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO PRIOR REVIEW BY THE STRUCTURAL ENGINEER.
11. DIMENSIONS: DO NOT SCALE DRAWINGS. RELY ON WRITTEN DIMENSIONS GIVEN AND FIELD VERIFICATION. IF NO DIMENSIONS ARE GIVEN, NOTIFY THE OWNER FOR CLARIFICATIONS. IF DISCREPANCIES ARE FOUND, NOTIFY THE OWNER BEFORE THE COMMENCEMENT OR RESUMPTION OF WORK. ALL NOTIFICATIONS SHALL BE BY "RFI".
12. THE CONTRACTOR SHALL SUPERVISE, DIRECT THE WORK AND BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. THE SUPPORTING SERVICES BY THE STRUCTURAL ENGINEER, WHETHER PERFORMED PRIOR TO, DURING, OR AFTER CONSTRUCTION, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DRAWINGS; BUT THEY DO NOT GUARANTEE THE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.
13. IN THE EVENT THAT THERE ARE ANY UTILITIES AFFECTED, ANY SUCH MODIFICATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THAT OF THE OWNER. ALL OUTLETS EITHER ELECTRICAL OR MECHANICAL, OR ANY ASSOCIATED REWORK OR MODIFICATIONS WILL BE A PART OF THE BID AND NOT TO BE CONSTRUED AS THE WORK OF THE OWNER. SUFFICIENT DUE DILIGENCE ON THE PART OF THE CONTRACTOR WILL ELIMINATE ANY POTENTIAL ISSUES AND ACCEPTANCE OF THE AGREEMENT SHALL BIND CONTRACTOR TO SAID ACCEPTANCE.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA AND BE RESPONSIBLE TO SECURE THE WORK AREA DURING CONSTRUCTION PERIOD. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. REPAIR IF DAMAGED.
15. THE CONTRACTOR SHALL EXERT EVERY EFFORT TO PREVENT DUST AND CONSTRUCTION DEBRIS FROM CONTAMINATING THE WORK AREA AND SURROUNDING PUBLIC AREAS. THESE EFFORTS SHALL INCLUDE BUT NOT BE LIMITED TO PROVIDING A DAILY CLEANUP OF THE CONSTRUCTION AREA.
16. THE CONTRACTOR SHALL EXERT EVERY EFFORT TO MINIMIZE THE CONSTRUCTION NOISE AND DISTURBANCE DURING CONSTRUCTION.
17. ANY PARTS OF WORK AREA WHICH ARE TO BE BARRICADED OR SEALED TO NON–CONSTRUCTION INDIVIDUALS MUST BE COORDINATED WITH AND APPROVED BY THE OWNER BEFORE PROCEEDING WITH THE WORK.
18. CUTTING, BORING, OR DRILLING OTHER THAN THAT DETAILED ON STRUCTURAL DRAWINGS SHALL NOT BE DONE WITHOUT THE STRUCTURAL ENGINEER'S APPROVAL.
19. CONSTRUCTION NOTED AS "EXISTING" IS TO REMAIN U.N.O. PROTECT AS REQUIRED. "EXISTING" CONSTRUCTION REMOVED BY THE CONTRACTOR FOR ANY REASON SHALL BE REPLACED TO MATCH EXISTING AT NO ADDITIONAL COST TO THE OWNER. ALL ITEMS NOT SPECIFICALLY IDENTIFIED AS EXISTING (E) ARE CONSIDERED NEW WORK AND ARE PART OF THIS CONTRACT.
20. PERFORM ALL PATCHING AND RESTORATION AS REQUIRED BY THE WORK. THE WORK SHALL MATCH ADJACENT SURFACES UNLESS SPECIFICALLY NOTED OTHERWISE TO THE SATISFACTION OF THE OWNER.
21. PROVIDE BARRICADING AND MAINTAIN ANY REQUIRED LIGHTS, WARNING, AND DIRECTIONAL SIGNS, AND OTHER PROTECTION NEAR AND ABOUT THE AREA OF THE WORK AS MAY BE REQUIRED BY THE OWNER, OR BY ANY OTHER GOVERNING AUTHORITY. PROVIDE NECESSARY MEANS TO PROTECT ANY SURROUNDING ADJACENT SITE STRUCTURES, PROPERTIES, SERVICING UTILITIES, PEDESTRIAN AND VEHICLE WAYS, AND MAINTAIN ALL SAFETY MEASURES UNTIL WORK IS COMPLETED.
22. PROVIDE AND ENGINEER ALL TEMPORARY STRUCTURAL AND SAFETY ELEMENTS REQUIRED TO ACCOMPLISH THE WORK.
23. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. THE SUPPORTING SERVICES BY THE ENGINEER, WHETHER PERFORMED PRIOR TO, DURING, OR AFTER CONSTRUCTION, ARE PERFORMED SOLELY FOR THE PURPOSE OF ASSISTING IN QUALITY CONTROL AND IN ACHIEVING CONFORMANCE WITH CONTRACT DRAWINGS AND PROJECT SPECIFICATIONS; BUT THEY DO NOT GUARANTEE THE CONTRACTOR'S PERFORMANCE AND SHALL NOT BE CONSIDERED AS SUPERVISION OF CONSTRUCTION.

CLIENT

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3031 TORRANCE BLVD.
TORRANCE , CA 90503

PROJECT NAME

BUILDING & SAFETY HVAC SPLIT SYSTEM AND ROOF TOP UNIT REPLACEMENT

CONSULTANT

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DATE SIGNED:11.16.2017

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	CITY RE-SUBMITTAL	11/16/2017

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

S0.1

CITY OF TORRANCE
COMMUNITY DEVELOPMENT DEPARTMENT
BUILDING & SAFETY
3031 TORRANCE BLVD.
TORRANCE, CA 90503
(310)618-5910

STRUCTURAL OBSERVATION PROGRAM
AND DESIGNATION OF THE
STRUCTURAL OBSERVER

PROJECT ADDRESS: 3031 TORRANCE BLVD. PERMIT APPL. NO.: _____

Description of Work: ROOF TOP HVAC REPLACEMENT

Owner: CITY OF TORRANCE Architect: IDS GROUP Engineer: IDS GROUP

STRUCTURAL OBSERVATION (only checked items are required)			
Firm or Individual to be responsible for the Structural Observation: Name: Said Hilmy Phone: (949) 387-8500 Calif. Registration: S 3680			
FOUNDATION	**WALL**	**FRAME**	**DIAPHRAGM**
☐ Footing, Stem Walls, Piers	☐ Concrete	☐ Steel Moment Frame	☐ Concrete
☐ Mat Foundation	☐ Masonry	☐ Steel Braced Frame	☐ Steel Deck
☐ Caisson, Piles, Grade Beams	☐ Wood	☐ Concrete Moment Frame	☐ Wood
☐ Stepp'g/Retain'g Foundation, Hillside Special Anchors	☐ Others	☐ Masonry Wall Frame	☒ Others: ROOF TOP EQUIPMENT ANCHORAGE
☐ Others:		Others:	

DECLARATION BY OWNER
I, the Owner of the project, declare that the above listed firm or individual is hired by me to be the Structural Observer.

_____
Signature Date

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if S.O. is different from the A/E of Record)
I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

S 3680 10/3/2017
Signature License No. Date

BUILDING & SAFETY

CONSTRUCTION:	**TYPE V**
OCCUPANCY:	**B-2**

NOTES:

1. MECHANICAL, ELECTRICAL AND PLUMBING PLANS ARE UNDER A SEPARATE PERMIT AND A SEPARATE SUBMITTAL.
2. ROOF EQUIPMENT SCREEN SHOULD BE HIGHER THAN ALL ROOF MOUNTED EQUIPMENT.

⚠1

NAILING CONT.:

a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED.

b. NAILS SPACED AT 6 INCHES ON CENTER AT EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES AT SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.

c. COMMON OR DEFORMED SHANK (6d – 2" x 0.113"; 8d – 2½" x 0.131"; 10d – 3" x 0.148").

d. COMMON (6d – 2" x 0.113"; 8d – 2½" x 0.131"; 10d – 3 x 0.148").

e. DEFORMED SHANK (6d – 2" x 0.113"; 8d – 2½" x 0.131"; 10d – 3" x 0.148").

f. CORROSION–RESISTANT SIDING (6d – 1⅞" x 0.106"; 8d – 2⅜" x 0.128") OR CASING (6d – 2" x 0.099"; 8d – 2½" x 0.113") NAIL.

g. FASTENERS SPACED 3 INCHES ON CENTER AT EXTERIOR EDGES AND 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS, WHEN USED AS STRUCTURAL SHEATHING. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NON–STRUCTURAL APPLICATIONS.

h. CORROSION–RESISTANT ROOFING NAILS WITH $^{7}/_{16}$–INCH–DIAMETER HEAD AND 1½–INCH LENGTH FOR ½–INCH SHEATHING AND 1¾–INCH LENGTH FOR $^{25}/_{32}$–INCH SHEATHING.

i. CORROSION–RESISTANT STAPLES WITH NOMINAL $^{7}/_{16}$–INCH CROWN OR 1–INCH CROWN AND 1¼–INCH LENGTH FOR ½–INCH SHEATHING AND 1½–INCH LENGTH FOR $^{25}/_{32}$–INCH SHEATHING. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).

j. CASING (1½" x 0.080") OR FINISH (1½" X 0.072") NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTEREDIATE SUPPORTS.

k. PANEL SUPPORTS AT 24 INCHES. CASING OR FINISH NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.

l. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS (2½" x 0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.

m. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF $^{7}/_{16}$ INCH.

n. FOR ROOF SHEATHING APPLICATIONS, FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.

o. FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS FOR SUB–FLOOR AND WALL SHEATHING AND 3 INCHES ON CENTER AT EDGES, 6 INCHES AT INTERMEDIATE SUPPORTS FOR ROOF SHEATHING.

p. FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.

q. CEILING JOIST AND RAFTER CONSTRUCTION SHALL BE IN ACCORDANCE WITH CBC SECTION 2308.10.

ABBREVIATIONS

@	AT	LT.	LIGHT
<	ANGLE		
&	AND	MAX.	MAXIMUM
℄	CENTER LINE	MECH.	MECHANICAL
#	POUND, NUMBER	MIN.	MINIMUM
		MISC.	MISCELLANEOUS
A.B.	ANCHOR BOLT		
ABV.	ABOVE	NE	NORTHEAST
A.C.T.	ACOUSTICAL CEILING TILE	N.I.C.	NOT IN CONTRACT
ADJ.	ADJACENT	No.	NUMBER
A.F.F.	ABOVE FINISH FLOOR	N.T.S.	NOT TO SCALE
ALT.	ALTERNATE	NW	NORTHWEST
ALUM.	ALUMINUM		
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	O.C.	ON CENTER
		OSHPD	OFFICE OF STATEWIDE HEALTH AND PLANNING DEVELOPMENT
BLDG.	BUILDING		
BM.	BEAM		
BOT.	BOTTOM	REF.	REFER, REFERENCE
BTWN.	BETWEEN	REQ'D.	REQUIRED
CBC	CALIFORNIA BUILDING CODE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
C.I.P.	CAST–IN–PLACE	S.F.	SQUARE FOOT
C.J.	CONTROL JOINT	SHT.	SHEET
CLG.	CEILING	SHTG.	SHEATHING
CLR.	CLEAR	SIM.	SIMILAR
COL.	COLUMN	STD.	STANDARD
CONC.	CONCRETE	STL.	STEEL
CONT.	CONTINUOUS	S.O.G.	SLAB–ON–GRADE
DBL.	DOUBLE	T.O.	TOP OF
DET.	DETAIL	T.O.M.	TOP OF MASONRY
DIA.	DIAMETER	T.O.P.	TOP OF PLATE
DWG.	DRAWING	T.O.S.	TOP OF SLAB, TOP OF STEEL
E.J.	EXPANSION JOINT	T.O.W.	TOP OF WALL
EA.	EACH	T.S.	TUBE STEEL
EQ.	EQUAL		
EXP.	EXPANSION/EXPOSED	TEMP.	TEMPERED
EXIST.	EXISTING	THK.	THICK, THICKNESS
(E)	EXISTING	TYP.	TYPICAL
EXT.	EXTERIOR	U.N.O.	UNLESS NOTED OTHERWISE
F.F.	FINISH FLOOR		
FIN.	FINISH		
FLR.	FLOOR	V.C.T.	VINYL COMPOSITION TILE
F.O.S.	FACE OF STUD	V.I.F.	VERIFY IN FIELD
FTG.	FOOTING		
F.V.	FIELD VERIFY	W/	WITH
		W/O	WITHOUT
GA.	GAUGE		
GALV.	GALVANIZED		
G.B.	GYPSUM BOARD		
HGT.	HEIGHT		
HR.	HOUR		
HVAC	HEATING, VENTILATION, and AIR CONDITIONING		

CLIENT

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GENERAL NOTES

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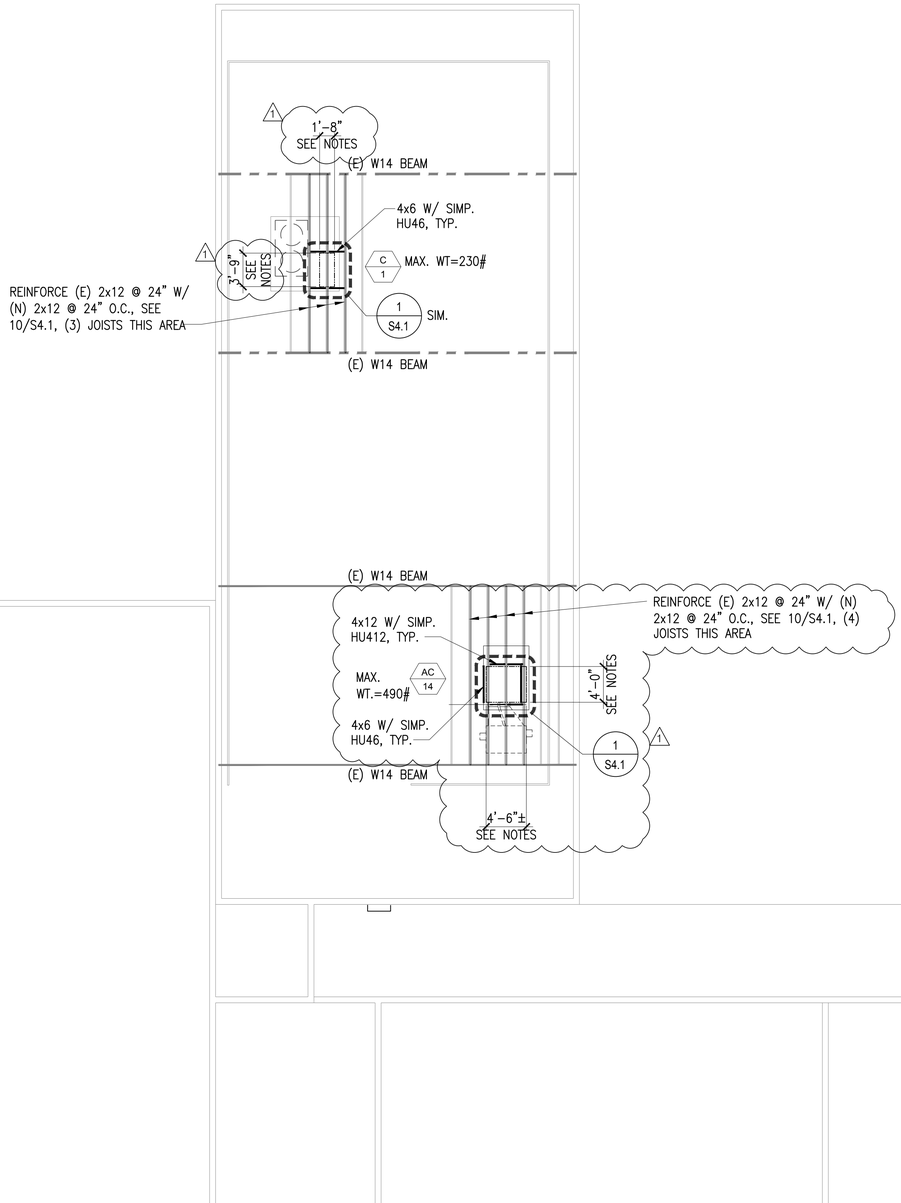

NOTES:
1. EQUIPMENT PLATFORM DIMENSION SHOWN HEREWITH ARE APPROXIMATE.
2. GENERAL CONTRACTOR TO COORDINATE EQUIPMENT PLATFORM DIMENSION WITH EQUIPMENT MANUFACTURER PRIOR TO CONSTRUCTION.

N

PARTIAL ROOF ROOF FRAMING PLAN | 1/8"=1'-0" | 1

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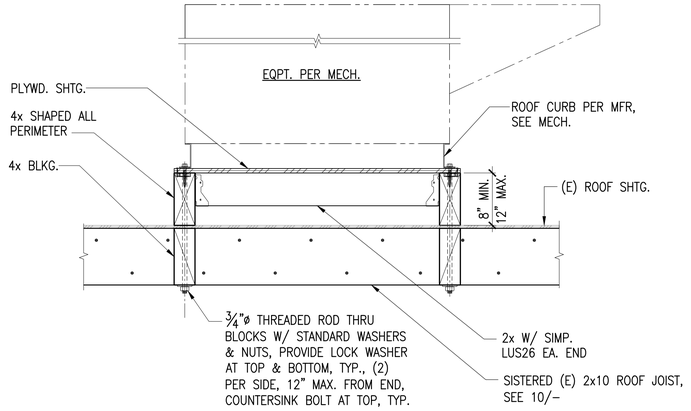
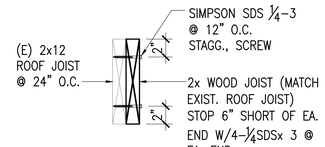
ROOF PLAN

SHEET NUMBER

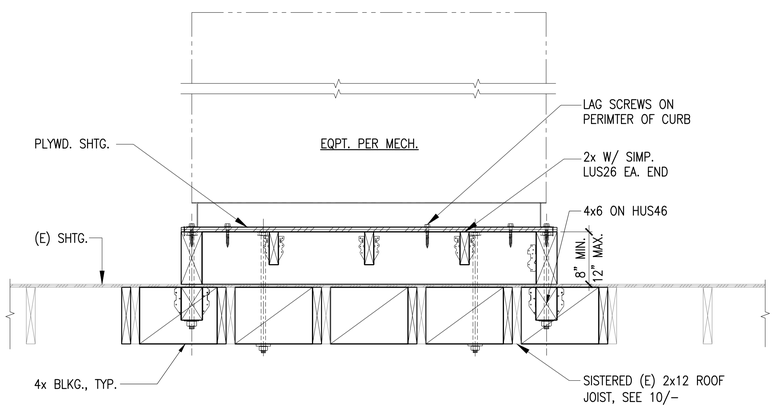
S3.2



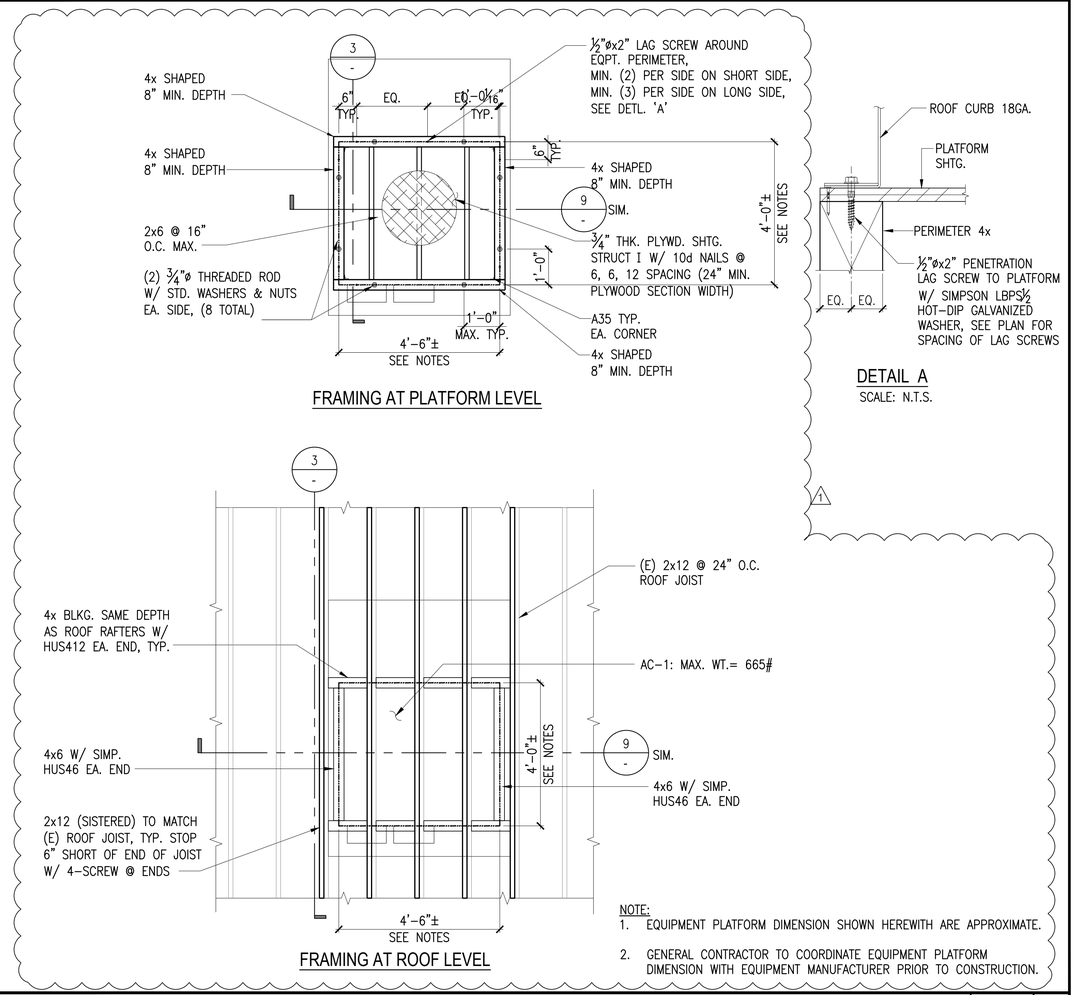
EQUIPMENT PLATFORM FRAMING SECTION | 1/2"=1'-0" | 3



TYP. DOUBLED JOIST | 1 1/2"=1'-0" | 10



EQUIPMENT PLATFORM FRAMING SECTION | 1/2"=1'-0" | 9



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EQUIPMENT PLATFORM FRAMING PLAN | 1/2"=1'-0" | 1

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