WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY
SOUTH EMERGENCY OPERATIONS CENTER

26081 VIA PERA
MISSION VIEJO, CA 92691

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

PROJECT DESCRIPTION

THIS PROJECT IS INTENDED TO IMPROVE THE SEISMIC PERFORMANCE OF THE CEILING SYSTEM AT WEROC'S SOUTH EMERGENCY OPERATIONS CENTER IN MISSION VIEJO. THE CEILING WILL BE REPLACED WITH A CEILING THAT IS COMPLIANT WITH ESSENTIAL SERVICES FACILITIES REQUIREMENTS. THE PROJECT ALSO INCLUDES THE ADDITION OF PARTITION BRACES, WATER HEATER BRACING AND ACCESSIBILITY UPGRADES.

IT IS NOT INTENDED OR REQUIRED TO UPGRADE THE ENTIRE BUILDING OR TO UPGRADE THE BUILDING GENERALLY FOR CURRENT CODE OR ESSENTIAL SERVICES FACILITY PERFORMANCE.

PROJECT DATA

PROJECT ADDRESS:	26081 VIA PERA MISSION VIEJO, CA 92691
APN:	809-521-03
YEAR BUILT:	1981
STORIES:	1
CONSTRUCTION TYPE:	V-B
OCCUPANCY:	B
AREA:	2400 S.F. (TOTAL) 1275 S.F. (OFFICE AREA)
OCCUPANT LOAD:	
OFFICE:	635 S.F./100 = 7
BOARD ROOM:	640 S.F./15 = 43/50

1

SCOPE OF WORK

THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF THE FOLLOWING ITEMS:

1. REMOVE AND REPLACE THE CEILING WITH A CEILING HAVING SUPPORTS AND BRACING THAT COMPLY WITH THOSE FOR AN ESSENTIAL FACILITY.
2. RESUPPORT THE EXISTING LIGHTS AND MECHANICAL REGISTERS WITH SUPPORTS AND BRACING COMPLYING WITH THOSE FOR AN ESSENTIAL FACILITY.
3. PROVIDE ADDITIONAL PARTITION BRACING.
4. PROVIDE ONE ACCESSIBLE PARKING STALL AND PATH OF TRAVEL TO THE BUILDING ENTRANCE FOR CODE COMPLIANCE.

APPLICABLE CODES

2016 CALIFORNIA REFERENCED STANDARDS CODE, PART 1, TITLE 24 C.C.R.

2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.

2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (2014 NEC)

2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.

2016 CALIFORNIA EXISTING BUILDING CODE, PART 10, TITLE 24 C.C.R.

2016 TITLE 19 C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

AMERICANS WITH DISABILITIES ACT

CONTACTS

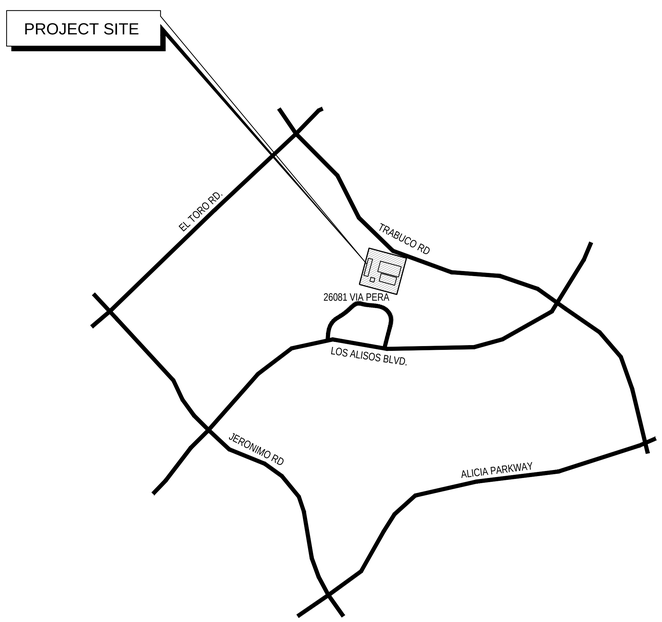
OWNER:
EL TORO WATER DISTRICT
24251 LOS ALISOS BLVD.
LAKE FOREST, CA 92630
CONTACT: DENNIS CAFFERTY, GENERAL MANAGER
PHONE: 949-837-7050 x 223

LESSEE:
MUNICIPAL WATER DISTRICT OF ORANGE COUNTY
18700 WARD STREET
FOUNTAIN VALLEY, CA 92708
CONTACT: KELLY HUBBARD, EMERGENCY SERVICE MANAGER
PHONE: 714-593-5010

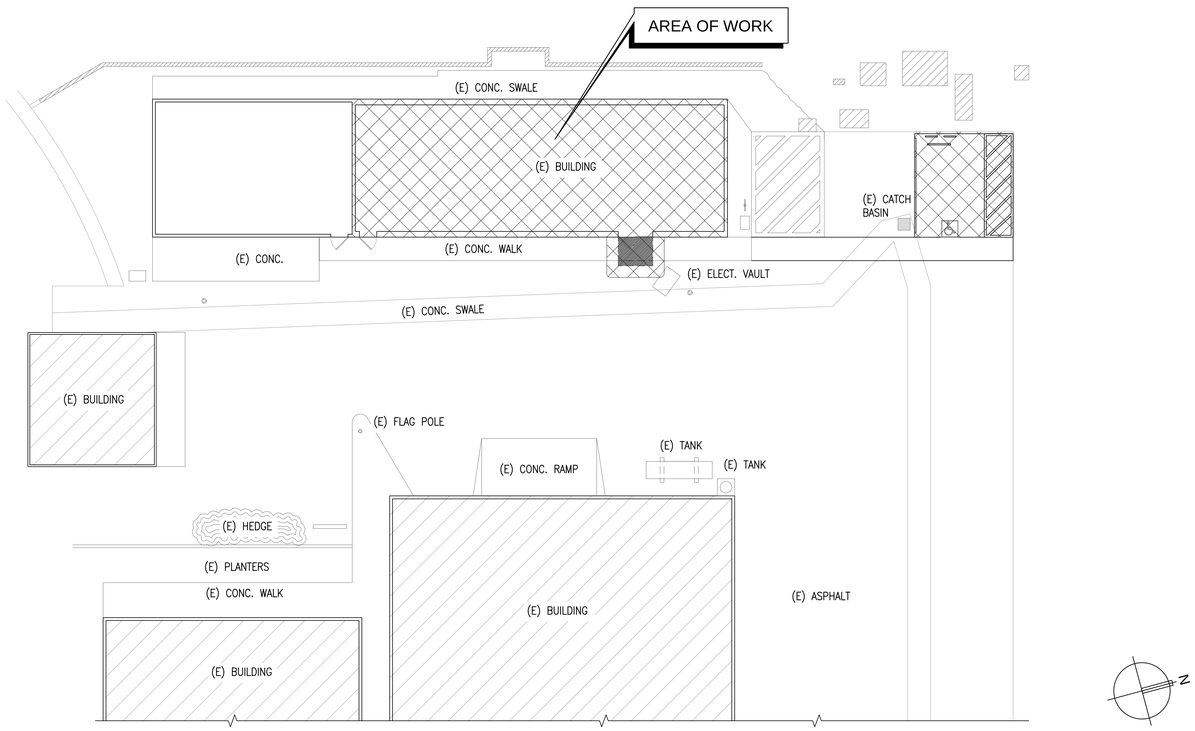
STRUCTURAL ENGINEER:
IDS GROUP, INC.
1 PETERS CANYON ROAD, SUITE 130
IRVINE, CA 92606
PHONE: (949) 387-8500

SHEET INDEX

VICINITY MAP



SITE PLAN



CLIENT

PROJECT NAME
WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

26081 VIA PERA
MISSION VIEJO, CA 92691

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

STAMP

STAMP
REGISTERED PROFESSIONAL ENGINEER
DAVID L. HILLMAN
No. 3680
STRUCTURAL
STATE OF CALIFORNIA
DATE SIGNED: 02-27-2018

ISSUE

REV.	DESCRIPTION	DATE
1	PLAN CHECK 1ST REVIEW	4/11/18

KEY PLAN

PROJECT NO.	17S020.01
PRINT DATE	
DRAWN BY	-.
CHECKED BY	D.P

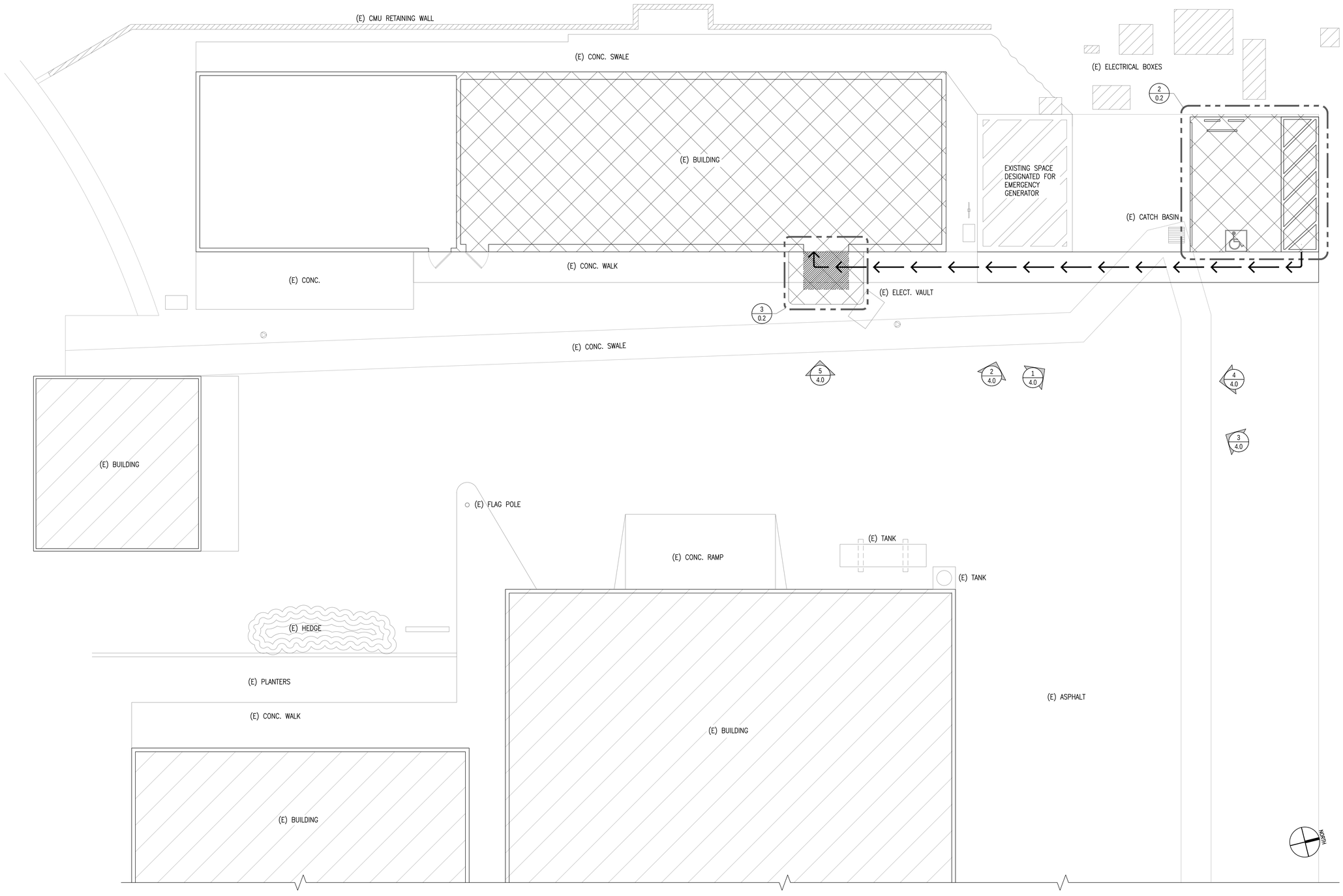
SHEET TITLE
COVER SHEET

SHEET NUMBER
0.0
SHEET NO. OF XXX

LEGEND:

1/4.0 INDICATES PHOTOS ON SHEET 4.0

PATH OF TRAVEL



PARTIAL SITE PLAN | 3/16"=1'-0" | 1

CLIENT

BE WATER PREPARED
Water Emergency Response Organization of Orange County
PROTECTING WATER THROUGH PREPAREDNESS & RESPONSE COORDINATION

PROJECT NAME

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

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MISSION VIEJO, CA 92691

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1 PETERS CANYON ROAD, SUITE 130
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TEL: 949-387-8500, FAX: 949-387-0800

STAMP

STAMP

REGISTERED PROFESSIONAL ENGINEER
CLAIR L. HILL III
No. 3686
STRUCTURAL
STATE OF CALIFORNIA

DATE SIGNED: 02-27-2018

ISSUE

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KEY PLAN

PROJECT NO.	17S020.01
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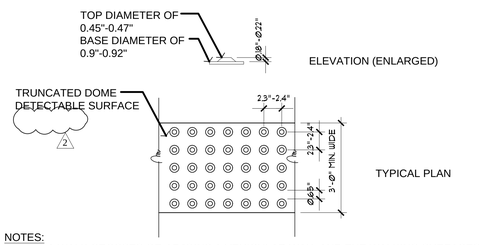
SHEET TITLE

PARTIAL SITE PLAN

SHEET NUMBER

0.1

SHEET NO. OF XXX



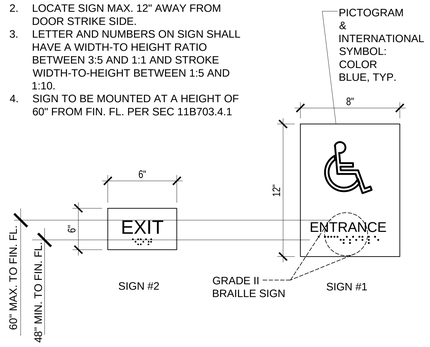
NOTES:

1. IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY, AND THE WALKING SURFACES ARE NOT SEPARATED BY CURBS, RAILINGS, OR OTHER ELEMENTS BETWEEN THE PEDESTRIAN AREAS AND THE VEHICULAR AREAS, THE BOUNDARY BETWEEN THE AREAS SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH SHALL EXTEND 36" IN THE DIRECTION OF TRAVEL FOR THE FULL WIDTH OF THE WALK WAY.
2. MANUFACTURER: HANOVER ARCHITECTURAL PRODUCTS OR APPROVED EQUAL ADDRESS: 5000 HANOVER RD. HANOVER, PA 17331
3. CONTRACTOR TO PROVIDE A DETECTABLE WARNING PRODUCT SAMPLE TO THE BUILDING INSPECTOR FOR APPROVAL OF COLOR CONTRAST WITH FINISH SURFACE

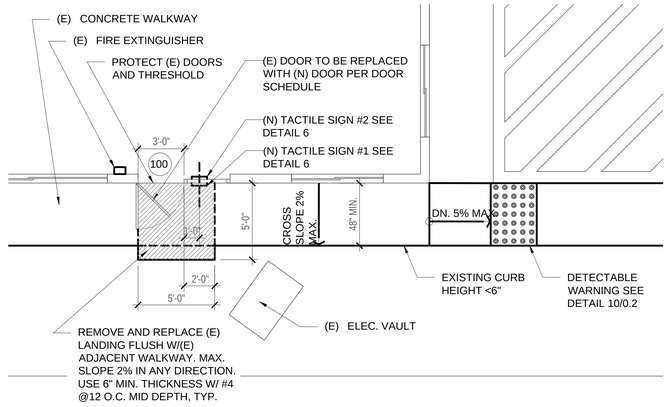
DETECTABLE WARNING | N.T.S. | 10

NOTES:

1. SIGN MATERIAL TO BE 1/8" THICK PLASTIC W/ 1/32" RAISED BORDER, GRAPHIC AND LETTERS.
2. LOCATE SIGN MAX. 12" AWAY FROM DOOR STRIKE SIDE.
3. LETTER AND NUMBERS ON SIGN SHALL HAVE A WIDTH-TO HEIGHT RATIO BETWEEN 3:5 AND 1:1 AND STROKE WIDTH-TO-HEIGHT BETWEEN 1:5 AND 1:10.
4. SIGN TO BE MOUNTED AT A HEIGHT OF 60" FROM FIN. FL. PER SEC 11B703.4.1



TACTILE SIGN | N.T.S. | 6



ENLARGED PLAN - ACCESSIBLE PATH OF TRAVEL | 1/4"=1'-0" | 3

GENERAL NOTES:

1. ADJOINING PUBLIC AND PRIVATE PROPERTY SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION, REMODELING, AND DEMOLITION WORK. PROTECTION MUST BE PROVIDED FOR FOOTINGS, FOUNDATIONS, WALLS AND ROOFS. PROVISIONS SHALL BE MADE TO CONTROL WATER RUNOFF AND EROSION DURING CONSTRUCTION OR DEMOLITION ACTIVITIES. THE PERSON MAKING OR CAUSING AN EXCAVATION TO BE MADE SHALL PROVIDE WRITTEN NOTICE TO THE OWNERS OF ADJOINING BUILDING ADVISING THEM THAT THE EXCAVATION IS TO BE MADE AND THAT THE ADJOINING BUILDINGS SHOULD BE PROTECTED.
2. SURFACE SLOPES OF ACCESSIBLE PARKING SPACES SHALL NOT EXCEED ¼ INCH PER FOOT IN ANY DIRECTION (CBC 1109A.8.3).
3. GRADE AND DEVELOP THE SITE SO THAT ACCESSIBLE ROUTES OF TRAVEL ARE PROVIDED FROM ACCESSIBLE PARKING AND ACCESSIBLE PASSENGER LOADING ZONES TO THE ACCESSIBLE ENTRANCES THEY SERVE. (CBC 1110A.1).
4. ABRUPT CHANGES IN LEVEL ALONG ANY ACCESSIBLE ROUTE SHALL NOT EXCEED ½ INCH. WHEN CHANGES IN LEVEL DO OCCUR, THEY SHALL BE BEVELED WITH A SLOP NO GREATER THAN 1 UNIT VERTICAL IN 2 UNITS HORIZONTAL (5 PERCENT SLOPE). CHANGES IN LEVEL NOT EXCEEDING ¼ INCH MAY BE VERTICAL (CBC 111A.1 AND CBC 1121.1).
5. CHANGES IN LEVEL GREATER THAN 1/2 INCH SHALL BE MADE BY MEANS OF A SLOPED SURFACE NOT GREATER THAN 1 UNIT VERTICAL IN 20 UNITS HORIZONTAL (5 PERCENT SLOPE), OR A CURB RAMP, RAMP, ELEVATOR OR SPECIAL ACCESS LIFT.
6. AT LEAST ONE ACCESSIBLE ROUTE OF TRAVEL IS PROVIDED, ALL ROUTES SHALL BE ACCESSIBLE (CBC 111A.2 AND CBC 1121A.2).
7. NO ABRUPT CHANGES IN ELEVATIONS ALONG PATH OF TRAVEL SOWN. THE SLOPE ALONG THE PATH OF TRAVEL SHALL NOT EXCEED 5 PERCENT.
8. AT EVERY PRIMARY PUBLIC ENTRANCE AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO AN ACCESSIBLE ROUTE OF TRAVEL, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL INDICATE THE DIRECTION TO ACCESSIBLE BUILDING ENTRANCES AND FACILITIES. SEE DETAIL 6
9. ACCESSIBLE PARKING SPACES SHALL BE PROVIDED WITH SIGNAGE AS REQUIRED BY CBC SECTION 1109A.8.8. SUCH SIGNAGE SHALL NOT BE BLOCKED FROM VIEW BY A VEHICLE PARKED IN THE SPACE. SEE DETAIL 5.
10. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP. THE CONSTRUCTION SHALL NO BE WITHIN TEN FEET OF ANY POWER LINES- WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/OR ADDITIONAL EXPENSES.

ACCESSIBLE PATH OF TRAVEL NOTES:

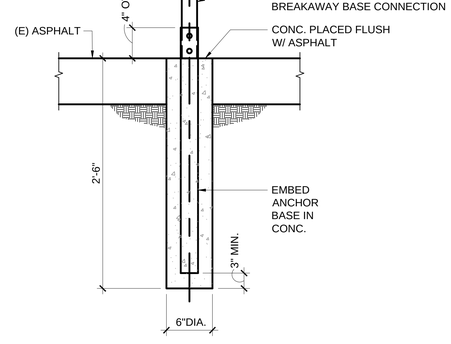
1. WITHOUT ANY ABRUPT LEVEL CHANGE EXCEEDING 1/2".
2. AT LEAST 48" IN WIDTH.
3. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%. REFER TO ACCESSIBLE RAMP/CURB RAMP WHERE SLOPE IN DIRECTION OF TRAVEL EXCEEDS 5%.
4. SURFACE IS STABLE, FIRM AND SLIP RESISTANT.
5. FREE OF OVERHANGING OBSTRUCTIONS AND PROTRUDING PER CBC SECTION 11B-307 AND SECTION 1116A ON SHEET A031.
6. ABRUPT CHANGES IN LEVEL EXCEEDING 4 INCHES IN A VERTICAL DIMENSION BETWEEN WALKS, SIDEWALKS OR OTHER PEDESTRIAN WAYS AND ADJACENT SURFACES OR FEATURES SHALL BE IDENTIFIED BY WARNING CURBS AT LEAST 6" IN HEIGHT ABOVE THE WALK OR SIDEWALK SURFACE OR BY GUARDS OR HANDRAILS WITH A GUIDE RAIL CENTERED 2" MIN. AND 4" MAX. ABOVE THE SURFACE OF THE WALK OR SIDEWALK. THESE REQUIREMENTS DO NOT APPLY BETWEEN A WALK OR SIDEWALK AND AN ADJACENT STREET OR DRIVEWAY. SECTION 11B-303.5

SIGNS AND IDENTIFICATIONS:

1. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS AS SET FORTH IN TITLE 24 AND AS SPECIFICALLY REQUIRED IN THIS SECTION.
2. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL CONSIST OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595B.
3. LETTERS AND NUMBERS ON SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO BETWEEN 1:5 AND 1:10.
4. CHARACTERS AND NUMBERS ON SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE READ. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE "I". LOWER CASE CHARACTERS ARE PERMITTED . FOR SIGNS SUSPENDED OR PROJECTED ABOVE THE FINISH FLOOR IN, THE MINIMUM CHARACTER HEIGHT SHALL BE 3".
5. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.
6. WHEN RAISED CHARACTERS OR SYMBOLS ARE USED, THEY SHALL CONFORM TO THE FOLLOWING:
   A. LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED 1/32" MINIMUM (CBC 11B-703.2.1) AND SHALL BE SAN-SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE COMPLYING WITH (CBC 11B-702.2.3)
   B. RAISED CHARACTERS OR SYMBOLS SHALL BE A MINIMUM OF 5/8" HIGH & MAX OF 2". (CBC 11B-703.2.5)
   C. PICTORIAL SYMBOL SIGNS (PICTOGRAMS) SHALL BE ACCOMPANIED BY THE EQUIVALENT VERBAL DESCRIPTION PLACED DIRECTLY BELOW THE PICTOGRAM. THE BORDER DIMENSION OF THE PICTOGRAM SHALL BE A MINIMUM OF 6" IN HEIGHT. (CBC 11B-703.6)
7. CONTRACTED (GRADE 2) BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 2.50 MM) ON CENTER IN EACH CELL WITH (7.6 MM) SPACE BETWEEN CELLS, MEASURED FROM THE FIRST COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF (0.60 MM) ABOVE THE BACKGROUND. BRAILLE DOTS SHALL BE DOMED OR ROUNDED.
8. ENTRANCES TO BUILDINGS AND FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PERSONS WITH DISABILITIES SHALL BE IDENTIFIED WITH A MINIMUM OF ONE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND WITH ADDITIONAL DIRECTIONAL SIGNS, UTILIZING THE SYMBOL, AT JUNCTIONS WHERE THE ACCESSIBLE ROUTE OF TRAVEL DIVERGES FROM THE REGULAR CIRCULATION PATH, TO BE VISIBLE TO PERSONS ALONG APPROACHING CIRCULATION PATHS. IN EXISTING BUILDINGS AND FACILITIES, ENTRANCES WHICH ARE NOT ACCESSIBLE SHALL HAVE DIRECTIONAL SIGNAGE COMPLYING WITH INDICATES THE LOCATION OF AND ROUTE TO THE NEAREST ACCESSIBLE ENTRANCE.
9. WHEN PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, RAISED LETTERS SHALL BE PROVIDED AND SHALL BE ACCOMPANIED BY BRAILLE IN CONFORMANCE WITH (CBC 11B-703.3) SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. ROOM IDENTIFICATION SIGNS SHALL BE POSITIONED AT 48 INCHES MINIMUM ABOVE THE FLOOR MEASURED TO THE BASE LINE OF THE BRAILLE CELLS AND 60 INCHES MAXIMUM MEASURED TO THE BASE LINE OF THE TOP ROW OF RAISED CHARACTERS.
10. EACH PARKING SPACE RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY REFLECTORIZED SIGN PERMANENTLY POSED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREAS AND, WHEN IN A PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80" FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON THE WALL AT THE INTERIOR END OF THE PARKING SPACE. AN ADDITIONAL SIGN OR ADDITIONAL LANGUAGE BELOW THE SYMBOL OF ACCESSIBILITY SHALL STATE "MINIMUM FINE $250." (FIG. A & B ABOVE). (CBC 2013 1109A8.8)
11. SIGNS TO IDENTIFY ACCESSIBLE PARKING SPACES MAY BE CENTERED ON THE WALL AT THE INTERIOR AND OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 36" FROM THE PARKING SPACE FINISHED GRADE, GROUND OR SIDEWALK. (CBC 2013 1109A8.8)
12. VAN ACCESSIBLE PARKING SPACES SHALL HAVE AN ADDITIONAL SIGN STATE "VAN-ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. AND SIGN SHALL BE 60" ABOVE FINISH FLOOR (CBC 11B-502.6)
13. ADDITIONAL SIGN SHALL ALSO BE POSTED, IN A CONSPICUOUS PLACE, AT EACH ENTRANCE TO OFF-STREET PARKING FACILITIES, OR IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE. THE SIGN SHALL BE NOT LESS THAN 17" BY 22" IN SIZE WITH LETTERING NOT LESS THAN 1" IN HEIGHT. (SEE FIG. ABOVE) (CBC 2013 1109A.8.8 AND 11B-502.8)
14. THE SURFACE OF EACH ACCESSIBLE PARKING SPACE OR STALL SHALL HAVE A SURFACE IDENTIFICATION DUPLICATING EITHER OF THE FOLLOWING SCHEMES:
   A. BY OUTLINING OR PAINTING THE STALL OR SPACE IN BLUE AND OUTLINING ON THE GROUND IN THE STALL OR SPACE IN WHITE OR SUITABLE CONTRASTING COLOR A PROFILE VIEW DEPICTING A WHEELCHAIR WITH OCCUPANT;
   OR
   B. BY OUTLINING A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON BLUE BACKGROUND. THE PROFILE VIEW SHALL BE LOCATED SO THAT IT IS VISIBLE TO A TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE SPACE AND SHALL BE 36" HIGH BY 36" WIDE. (CBC 1109A.8.8)

PATH OF TRAVEL COMPLIANCE:

ADJUSTED CONSTRUCTION COST IS $16,000 AND IS LESS THAN THE CURRENT VALUATION THRESHOLD. COST OF COMPLIANCE IS LIMITED TO 20% OF $16,000=$3,200. COST OF COMPLIANCE ON THIS SHEET IS APPROXIMATELY $6,000. PROVIDING ACCESSIBLE RESTROOM FOR FULL COMPLIANCE EXCEEDS THE CODE LIMITATION SO IS NOT INCLUDED IN THIS PROJECT .



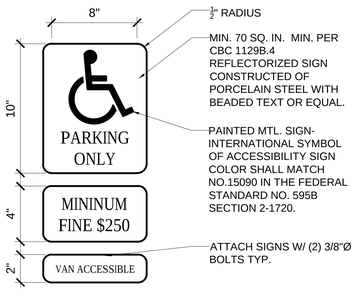
ACCESSIBLE PARKING STALL SIGNAGE MOUNTING HEIGHT

ATTACH SIGN W/ (2) 3/8"Ø BOLTS TYP.

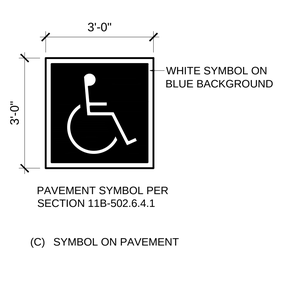
PARKING SIGN SHALL READ: "UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT THE OWNER'S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT (Address) OR BY TELEPHONING (Telephone Number)". ALL LETTERING SHALL BE A MINIMUM OF 1" IN HEIGHT.

APPROPRIATE INFORMATION SHALL BE ADDED TO SIGN.

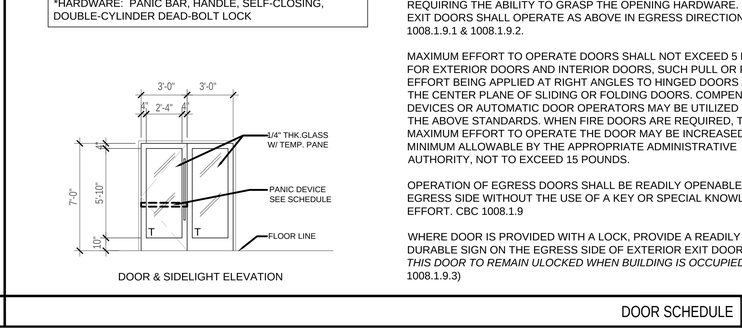
POST & FTG. SAME W/SIGN (A)



ACCESSIBLE PARKING STALL SIGNAGE

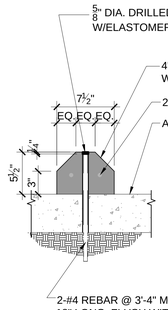


ACCESSIBLE PARKING STALL SIGNAGE | N.T.S. | 5



ENLARGED PLAN - ACCESSIBLE PARKING STALL | 1/4"=1'-0" | 2

DETAIL | N.T.S. | 7



WHEEL STOP DETAIL | N.T.S. | 4

DOOR SCHEDULE

DOOR NO.	WIDTH	HEIGHT	THK.	DOOR MATERIAL	FRAME MATERIAL
100	3'-0"	7'-0"	1 3/4"	ALUM.	HM
*HARDWARE: PANIC BAR, HANDLE, SELF-CLOSING, DOUBLE-CYLINDER DEAD-BOLT LOCK					

DOOR & SIDELIGHT ELEVATION

NOTES:

HAND-ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 44 INCHES ABOVE THE FLOOR. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN THE PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER-TYPE HARDWARE, BY PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION. CBC 1008.1.9.1 & 1008.1.9.2.

MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS FOR EXTERIOR DOORS AND INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MINIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS.

OPERATION OF EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. CBC 1008.1.9

WHERE DOOR IS PROVIDED WITH A LOCK, PROVIDE A READILY VISIBLE DURABLE SIGN ON THE EGRESS SIDE OF EXTERIOR EXIT DOORS STATING: *THIS DOOR TO REMAIN ULOCKED WHEN BUILDING IS OCCUPIED.* (CBC 1008.1.9.3)

DOOR SCHEDULE | N.T.S. | 1

CLIENT

BE WATER PREPARED
PROTECTING WATER THROUGH PREPAREDNESS & RESPONSE COORDINATION
Water Emergency Response Organization of Orange County

PROJECT NAME

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

26081 VIA PERA
MISSION VIEJO, CA 92691

ENGINEER/ARCHITECT

IDS
IDS GROUP

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

STAMP

STAMP

LICENSED ARCHITECT
JOSEPH SIMER
C 35573
31-19
STATE OF CALIFORNIA

ISSUE

REV.	DESCRIPTION	DATE
1	PLAN CHECK 1ST REVIEW	4/11/18
2	PLAN CHECK 2ND REVIEW	5/14/18

KEY PLAN

PROJECT NO.	17S020.01
PRINT DATE	
DRAWN BY	–.
CHECKED BY	D.P

SHEET TITLE

ACCESSIBILITY DETAILS

SHEET NUMBER

0.2

SHEET NO. OF XXX

HANOVER® GUIDELINE SPECIFICATION

Paving and Surfacing Hanover® Detectable Warning® Pavers

Product Name: Hanover® Detectable Warning® Pavers

Manufacturer: Hanover® Architectural Products,
5000 Hanover Road, Hanover, PA 17331
717.637-0500 • Fax 717.637.7145
info@hanoverpavers.com • www.hanoverpavers.com

1 PRODUCT DESIGN:

Basic Use:
Any pedestrian area requiring the use of Detectable Warning surface can utilize the Hanover® Detectable Warning® Paver. Manufactured in accordance with the requirements set forth in the Americans With Disabilities Act (ADA). Hanover® Detectable Warning® Paver is fabricated with a non-slip texture applied to the surface of the paver. Installations will benefit from its ability to withstand snow removal and freeze thaw conditions.Typical installations include railway platforms, handicap ramps, and as curb indication.

Composition and Materials:
Hanover® Detectable Warning® Pavers are made from Portland Cement, fine and coarse aggregates. Hanover® Detectable Warning® Pavers, high density, hydraulically pressed concrete units, are of a homogeneous mix manufactured to plus or minus 1/8" tolerances and produced by subjecting the concrete mix to a minimum pressure of 1,000 pounds per square inch over the entire surface area.This results in a product with the density and strength of natural stone. A Tudor® finish is a specialized texture designed to be "natural", and practical. It has a non-directional surface finish, which exposes the aggregate delicately, giving that paver a granite-like appearance. Custom specifications can be accommodated.

Limitations:
Not recommended for areas subject to vehicular traffic.

2 TECHNICAL DATA:

Application Standard:
Hanover® Detectable Warning® Pavers meet or exceed ASTM specifications for concrete paving stones C936 requiring minimum compressive strength of 8000 psi, maximum absorption of 5%, and freeze thaw testing per section of ASTM C67. Pavers are manufactured to have a minimum compressive strength of 8500 psi, with water absorption of 5% or less.

Physical Characteristics:
Pavers come in variety of sizes, ranging from 11 3/4" x 11 3/4" to 23 1/2" x 35 3/8" (actual size), as well as a variety of thicknesses ranging from 1 1/4" to 4". Not all sizes come in all thicknesses.

Metric Size	Actual Size	1 1/2"	2"	2 1/4"	2 1/2"	3"	4"
297mm x 297mm	11 3/4" x 11 3/4"	X	X	X	X	X	
597mm x 597mm	23 1/2" x 23 1/2"		X	X	X	X	X
597mm x 747mm	23 1/2" x 29 1/2"		X	X	X	X	
597mm x 897mm	23 1/2" x 35 3/8"		X	X	X	X	

3 INSTALLATION:

Edge Restraint:
Adequate edge restraints and a properly prepared base are essential to the successful performance of Hanover® Detectable Warning® Pavers. When utilizing a bituminous setting bed, edge restraints can be wood, steel, PVC, Hanover® RockCurb®, or other systems specifically designed to restrain concrete pavers.

Base:
Bituminous setting bed over 4 in. thick concrete base slab is the preferred method for Hanover® Detectable Warning® Pavers, however, asphaltic concrete base slab is also acceptable. Alternate installation methods include latex modified mortar setting bed over concrete base slab. Careful attention must be given to local soils and drainage conditions, type of expected traffic, and municipal requirements.

Pavers may also be installed as an overlay system on existing concrete or asphalt pavements. Filter cloth is recommended over the existing pavement prior to installing pavers.

4 AVAILABILITY

Availability:
Hanover® Detectable Warning® Pavers are readily available in the continental United States. For further information call Hanover® Architectural Products, Inc.

Cost:
Cost will vary depending upon paver sizes, finish, color and quantity ordered.

5 WARRANTY

Hanover® Architectural Products, Inc. will certify specific pavers to meet or exceed internal standards as well as previously stated ASTM performance standards.

6 MAINTENANCE

Hanover® Detectable Warning® Pavers require practically no maintenance if installed properly. Degree of soiling and staining will depend on type and amount of use over time. Contact manufacturer for information regarding sealing and cleaning concrete pavers. Hanover® Asphalt Block require practically no maintenance if installed properly. Degree of soiling and staining will depend on type and amount of use over time. Contact manufacturer for information regarding cleaning of Asphalt Block pavers.

7 TECHNICAL SERVICES

Complete technical information and printed literature from manufacturer.

FILING SERVICES
SPEC-DATA
Sweets General Building
LA File

HANOVER®
Architectural Products
5000 Hanover Road, Hanover, PA 17331
717.637.0500 • fax 717.637.7145
www.hanoverpavers.com

4.14.14

2

ABBREVIATIONS

@	AT
&	AND
A.B.	ANCHOR BOLT
ABV.	ABOVE
ADD'L. (ADDL.)	ADDITIONAL
ADJ.	ADJACENT
ALT.	ALTERNATE
ALUM.	ALUMINUM
APPRX. (APPROX.)	APPROXIMATE(LY)
ARCH.	ARCHITECT(URAL)
BLDG.	BUILDING
BLKG.	BLOCKING
BLW.	BELOW
BM.	BEAM
B.N.	BOUNDARY NAILING
BNDRY.	BOUNDARY
B.O.C.	BOTTOM OF CONCRETE
B.O.F.	BOTTOM OF FOOTING
BOT. (B)	BOTTOM
BRCG.	BRACING
BRDG.	BRIDGE (ING)
BRG.	BEARING
BTWN.	BETWEEN
CAMB. (C)	CAMBER(ED)
CBC	CALIFORNIA BUILDING CODE
CANT.	CANTILEVER(ED)
C.F.	CUBIC FEET (FOOT)
C.I.P.	CAST-IN-PLACE
C.I.D.H.	CAST-IN-DRILLED HOLE
C.J.	CONTROL JOINT; CONSTRUCTION JOINT
C.L. (℄)	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
C.P.	COMPLETE-PENETRATION
CTSK.	COUNTERSINK
CTR.	CENTER(ED)
C.Y.	CUBIC YARD
d	d PENNY NAIL
DBA	DEFORMED BAR ANCHOR
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DOUGLAS FIR
DIA. (ø)	DIAMETER
DIAG.	DIAGONAL
DIAPH.	DIAPHRAGM
DIM.	DIMENSION
DN.	DOWN
DO	DITTO (REPEAT)
DWG. (DWGS.)	DRAWING(S)
DWL.	DOWEL
EA.	EACH
E.F.	EACH FACE
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMB.	EMBED(MENT)
E.N.	EDGE NAIL
ENG.	ENGINEER
EQ.	EQUAL
EQPT.	EQUIPMENT
EQUIV.	EQUIVALENT
EXP.	EXPANSION
EXIST. (E)	EXISTING
EXT.	EXTERIOR
FDN.	FOUNDATION
FIN.	FINISH(ED)
FLR.	FLOOR
F.N.	FIELD NAIL; FACE NAIL
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD
F.O.W.	FACE OF WALL
F.P.	FULL (COMPLETE) PENETRATION
FRP	FIBER REINFORCED POLYMER
F.S.	FAR SIDE
FT. (')	FOOT (FEET)
FTG.	FOOTING
F.V.	FIELD VERIFY
GA.	GAUGE
GALV.	GALVANIZE(D)
GLB.	GLU-LAM/GLULAM GLUED LAMINATED BEAM
GRD.	GRADE
GYP.	GYPSUM
HD.	HOLDOWN; HAND
HDR.	HEADER
HGR.	HANGER
HORIZ. (H)	HORIZONTAL
H.S.	HEADED STUD
H.S.B.	HIGH STRENGTH BOLT
HT.	HEIGHT
I.D.	INSIDE DIAMETER
IN. (")	INCH(ES)
INFO.	INFORMATION
JST.	JOIST
JT.	JOINT
K	KIPS; 1000
K.P.	KING POST
LAT.	LATERAL
L.B.	LAG BOLT
LB (#)	POUND
L.F.	LINEAL FEET (FOOT)
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT. WT.	LIGHT WEIGHT
MAX.	MAXIMUM
M.B.	MACHINE BOLT
MECH.	MECHANICAL
M.E.P.	MECHANICAL, ELECTRICAL AND PLUMBING
MEZZ.	MEZZANINE
MFR.	MANUFACTURER
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MTL.	METAL
(N)	NEW
NO. (#)	NUMBER
N.S.	NEAR SIDE
N.T.S.	NOT TO SCALE
O/C (O.C.)	ON CENTER
O.D.	OUTSIDE DIAMETER
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
ORTHO.	ORTHOGONAL
O.W.J.	OPEN WEB JOIST
PC	PILE CAP
PCF	POUNDS PER CU.FT.
PL.	PLATE
PLYWD.	PLYWOOD
P.P.	PARTIAL-PENETRATION
P.S.F.	POUNDS PER SQUARE FOOT
P.S.I.	POUNDS PER SQUARE INCH
PT	PRETENSIONED
P.T.	PRESSURE TREATED
QTY.	QUANTITY
RAD. (R)	RADIUS
RBS	REDUCED BEAM SECTION
RDP	RESPONSIBLE DESIGN PROFESSIONAL
REF.	REFERENCE
REINF.	REINFORCEMENT (ING)
REQ'D. (REQD.)	REQUIRED
RF.	ROOF
R.O.	ROUGH OPENING
S.A.D.	SEE ARCHITECTURAL DRAWINGS
SC	SLIP-CRITICAL
S.C.D.	SEE CIVIL DRAWINGS
SCH.	SCHEDULE
SEP.	SEPARATION
SHT.	SHEET
SIM.	SIMILAR
SKW.	SKEW(ED)
S..G.	SLAB-ON-GRADE
SPEC.	SPECIFICATION
SQ.	SQUARE
ST	SNUG-TIGHTENED
STD.	STANDARD
STAGG.	STAGGER(ED)
STIFF.	STIFFENER
STIR.	STIRRUP
STL.	STEEL
STRUC(T).	STRUCTURAL
SUSP.	SUSPENDED
SYMM.	SYMMETRICAL
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TEMP.	TEMPORARY
THK.	THICK(NESS)
T.N.	TOE NAIL
T.O.	TOP OF
T.O.C.	TOP OF CONCRETE
T.O.S.	TOP OF STEEL; TOP OF SHEATHING
T.O.W.	TOP OF WALL
TRANS.	TRANSVERSE
T.S.G.	TAPERED STEEL GIRDER
TYP.	TYPICAL
U.O.N. (U.N.O.)	UNLESS OTHERWISE NOTED
UTIL.	UTILITY
VERT. (V)	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
(W)	WIDE; WIDTH
WD.	WOOD
W.P.	WORK POINT
WT.	WEIGHT
W.W.F.	WELDED WIRE FABRIC
X-STG	EXTRA STRONG
XX-STG	DOUBLE EXTRA STRONG

CAST-IN-PLACE CONCRETE

1. CONCRETE SHALL BE MIXED, PLACED AND CURED IN ACCORDANCE WITH ACI 318, LATEST EDITION, AND PROJECT SPECIFICATIONS.
2. PORTLAND CEMENT SHALL BE TYPE II UNLESS OTHERWISE NOTED.
3. FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618 CLASS N OR F MAY BE USED AS A PARTIAL SUBSTITUTION FOR PORTLAND CEMENT UP TO A MAXIMUM OF 25% TOTAL CEMENTTITIOUS MATERIALS BY WEIGHT IF THE MIX DESIGN IS PROPORTIONED BY METHOD B OR C.
4. ALL CONCRETE SHALL BE NORMAL WEIGHT (145 PCF) HARD ROCK TYPE UNLESS OTHERWISE NOTED.
5. AGGREGATES IN NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33 (HARDROCK).
6. CONCRETE MIXING OPERATIONS, ETC. SHALL CONFORM TO ASTM C94.
7. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH ($f'c$) AT 28 DAYS AS FOLLOWS, UNLESS OTHERWISE NOTED:
   A. FOUNDATION, FOOTINGS, PILES, PILE CAPS: 2,500 PSI
   B. SLABS-ON-GRADE: 2,500 PSI
8. COMPRESSIVE STRENGTH TEST REPORTS SHALL BE SUBMITTED TO THE ENGINEER.
9. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY, BEARING A REGISTERED CIVIL ENGINEER'S STAMP, AND REVIEWED BY THE ENGINEER PRIOR TO USE.
10. CONCRETE COVERAGE OF REINFORCING STEEL SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
    A. SLABS-ON-GRADE:
       TOP REINF.: 2" U.N.O.
       BOTTOM REINF.: 3" U.N.O.
11. ALL EXPOSED CONCRETE EDGES SHALL BE FORMED WITH A ¾" CHAMFER UNLESS OTHERWISE NOTED.
17. CURING COMPOUND USED ON CONCRETE SHALL BE REVIEWED BY THE ENGINEER.

TOLERANCE

1. PERMITTED TOLERANCE SHALL BE ACCORDING TO THE CBC.

STRUCTURAL OBSERVATION

1. THE OWNER SHALL EMPLOY THE ENGINEER OF RECORD REGISTERED/LICENSED IN THE STATE OF CALIFORNIA WHO IS RESPONSIBLE FOR THE STRUCTURAL DESIGN, TO DO STRUCTURAL OBSERVATION.
2. THE STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH CBC SECTION 1704. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE PROJECT INSPECTOR, DEPUTY INSPECTOR, SPECIAL INSPECTOR OR CITY INSPECTOR.
3. STRUCTURAL OBSERVER OF RECORD : SAID HILMY, S3680
4. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE CONSTRUCTION THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.

   CONSTRUCTION STAGE ELEMENTS / CONNECTIONS TO BE OBSERVED;
   A. FOLLOWING SUSPENSION & BRACING OF CEILING PRIOR TO CEILING TILE INSTALLATION.
5. OBSERVED DEFICIENCIES: ANY OBSERVED DEFICIENCIES SHALL BE DESCRIBED ON THE FORM; THE OBSERVER SHALL ALSO INDICATE WHETHER A RE-OBSERVATION IS REQUIRED TO VERIFY CORRECTIVE ACTIONS HAVE BEEN PROPERLY TAKEN OR THAT THE CORRECTIVE ACTIONS ARE DEEMED VERIFIABLE BY THE SPECIAL INSPECTOR OR CITY INSPECTOR PRIOR TO INSPECTION APPROVAL.

REINFORCING STEEL

1. ALL CONCRETE SHALL BE REINFORCED. REINFORCING STEEL SHALL BE NEW DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60 UNLESS OTHERWISE NOTED.
2. REINFORCING STEEL SHALL BE FIRMLY SUPPORTED AND ACCURATELY PLACED.
3. NO HEATING SHALL BE ALLOWED FOR BENDING OF REINFORCING STEEL.

SOILS AND FOUNDATIONS

1. ALL PORTIONS OF THE WORK PERTAINING TO EXCAVATIONS AND FOUNDATIONS SHALL CONFORM TO CBC CHAPTER 18.
2. LOCATE AND PROTECT EXISTING UTILITIES TO REMAIN DURING AND/OR AFTER CONSTRUCTION.
3. NO CONDUITS FOR HIGH OR LOW VOLTAGE ELECTRICAL WIRING MAY BE PLACED WITHIN BUILDING STRUCTURE FOUNDATIONS OR EQUIPMENT SUPPORT FOUNDATIONS.

STRUCTURAL TESTS AND INSPECTIONS

1. STRUCTURAL TESTS AND INSPECTIONS SHALL BE IN ACCORDANCE WITH THE CBC.

EQUIPMENT ANCHORAGE

ALL MECHANICAL AND ELECTRICAL EQUIPMENT (AND OTHER ITEMS NOTED BELOW) SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN THE CBC AND ASCE.

THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS, AND THE PROJECT INSPECTOR WILL VERIFY THAT THESE ITEMS HAVE ANCHORAGE:

A. EQUIPMENT WEIGHING LESS THAN 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.
B. FURNITURE REQUIRED TO BE ATTACHED IN ACCORDANCE WITH ASCE.
C. TEMPORARY OR MOVABLE EQUIPMENT WITH FLEXIBLE CONNECTIONS TO POWER OR UTILITIES.
D. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.
E. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE RESPONSIBLE DESIGN PROFESSIONAL.

GENERAL

1. ALL CONSTRUCTION AND WORKMANSHIP, INCLUDING MATERIALS, SHALL CONFORM TO THESE DRAWINGS AND THE CBC.
2. GOVERNING CODE AUTHORITY: CITY OF MISSION VIEJO.
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. WHERE NOT INDICATED OTHERWISE, THE LATEST EDITION OF ALL CITED DOCUMENTS SHALL GOVERN.
5. THE TERM CBC IN THESE DRAWINGS MEANS 2016 CALIFORNIA BUILDING CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, ALL PARTS AND VOLUMES.
6. 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. HOWEVER, ANY SIGNIFICANT CONFLICTS SHALL BE RESOLVED AS NOTED.
7. THE CONTRACTOR SHALL:
   A. BECOME FAMILIAR WITH ALL CONTRACT DOCUMENTS.
   B. CHECK ALL DIMENSIONS.
   C. BE RESPONSIBLE FOR COORDINATION OF ALL TRADES TO ASSURE PROPER CONSTRUCTION OF THE PROJECT.
   ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK.
8. DIMENSIONS: DIMENSIONS TAKE PRECEDENCE OVER SCALE OF DRAWING. RELY ON WRITTEN DIMENSIONS GIVEN AND FIELD VERIFICATION. IF DISCREPANCIES ARE FOUND, NOTIFY THE OWNER BEFORE THE COMMENCEMENT OR RESUMPTION OF WORK. IF NO DIMENSION ARE GIVEN, NOTIFY THE OWNER FOR CLARIFICATIONS. ALL NOTIFICATIONS SHALL BE BY "RFI".
9. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. NOTES AND DETAILS ON DRAWINGS TAKE PRECEDENCE OVER "GENERAL NOTES" AND TYPICAL DETAILS. 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 ENGINEER.
10. CONDITIONS NOTED AS "EXISTING" OR (E) ARE 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 MATERIALS, FEATURES OR CONDITIONS NOT SPECIFICALLY IDENTIFIED AS "EXISTING" OR (E) ARE CONSIDERED NEW WORK AND ARE PART OF THE PROJECT SCOPE OF WORK.
11. 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.
12. ANY DISCREPANCIES FOUND IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION PRIOR TO COMMENCING ANY WORK.
13. 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.
14. 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 ENGINEER AND SUBMITTED FOR REVIEW PRIOR TO PERFORMING THE WORK.
15. 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 ENGINEER OF ANY INTERFERENCES PRIOR TO PERFORMING THE WORK.
16. IN THE EVENT THAT THERE ARE ANY UTILITIES AFFECTED, ANY MODIFICATIONS 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.
17. LOCATE ALL EMBEDDED ITEMS, REINFORCING STEEL AND TENDONS USING NON-DESTRUCTIVE MEANS PRIOR TO DRILLING OR CORING. DO NOT DAMAGE EMBEDDED ITEMS WITHOUT APPROVAL BY THE STRUCTURAL ENGINEER.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF WORK AREA DURING CONSTRUCTION PERIOD. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTY AND UTILITIES IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES.
19. 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.
20. SECURE THE CONSTRUCTION SITE. 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.
21. PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE AND ADJACENT STRUCTURE(S), FINISHES AND UTILITIES DURING CONSTRUCTION.
22. PROVIDE AND ENGINEER ALL TEMPORARY STRUCTURAL AND SAFETY ELEMENTS REQUIRED TO ACCOMPLISH THE WORK.
23. THE CONTRACTOR SHALL EXERT EVERY EFFORT TO PREVENT DUST AND CONSTRUCTION DEBRIS FROM CONTAMINATING THE WORK AREA. THESE EFFORTS SHALL INCLUDE BUT NOT BE LIMITED TO PROVIDING A DAILY CLEANUP OF THE CONSTRUCTION AREA. THE CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
24. CUTTING, BORING, SAW-CUTTING OR DRILLING THROUGH NEW STRUCTURAL MEMBERS OTHER THAN THOSE DETAILED ON STRUCTURAL DRAWINGS SHALL NOT BE DONE WITHOUT THE ENGINEER'S APPROVAL.
25. 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.

DESIGN CRITERIA

DESIGN CONFORMS TO CBC.

1. LIVE LOADS: ROOF 20 PSF
2. DEAD LOADS: SELF WEIGHT
3. SEISMIC ANALYSIS: EQUIVALENT LATERAL FORCE PROCEDURE

   SITE CLASS D
   SEISMIC DESIGN CATEGORY D

   S_s = 1.439 g
   S_1 = 0.537 g
   F_a = 1.0
   F_v = 1.5
   S_{DS} = 0.959 g
   S_{D1} = 0.537 g

CLIENT

BE WATER PREPARED — PROTECTING WATER THROUGH PREPAREDNESS & RESPONSE COORDINATION
Water Emergency Response Organization of Orange County

PROJECT NAME

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

26081 VIA PERA
MISSION VIEJO, CA 92691

ENGINEER/ARCHITECT

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

STAMP

REGISTERED PROFESSIONAL ENGINEER — SAID L. HILMY — No. S680 — STRUCTURAL — STATE OF CALIFORNIA

DATE SIGNED: 02-27-2018

ISSUE

REV.	DESCRIPTION	DATE
1	PLAN CHECK 1ST REVIEW	4/11/18
2	PLAN CHECK 2ND REVIEW	5/14/18

KEY PLAN

PROJECT NO.	17S020.01
PRINT DATE	
DRAWN BY	-.
CHECKED BY	D.P

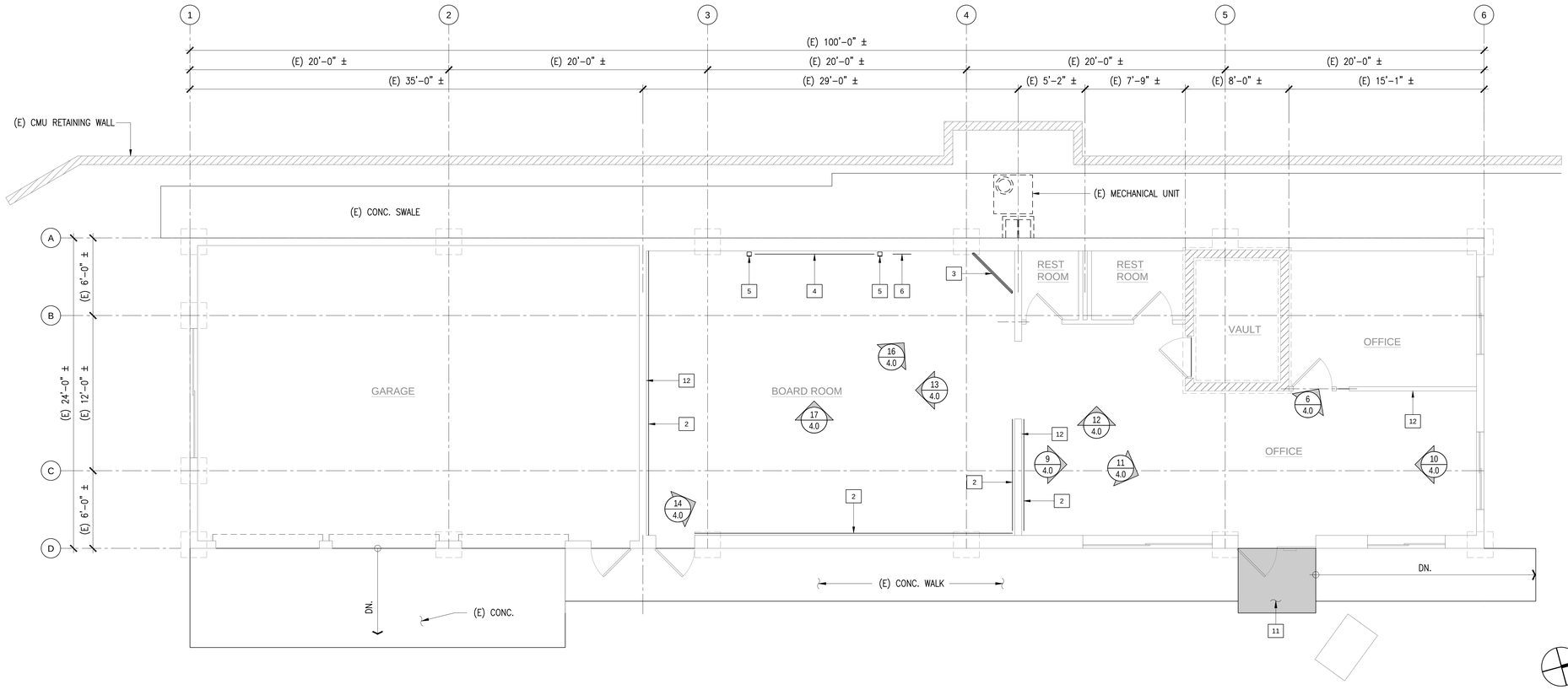
SHEET TITLE

GENERAL NOTES

SHEET NUMBER

1.0

SHEET NO. OF XXX



KEYNOTES:

1. REMOVE AND REPLACE SUSPENDED CEILING AND INSULATION. (E) LIGHTS AND HVAC REGISTERS TO REMAIN SUPPORT AND BRACE CEILING LIGHTS, REGISTERS AND EQUIPMENT PER SHEET 3.0. REUSE (E) INSULATION.
2. (E) WALL MOUNTED WHITE BOARDS TO REMAIN PROTECT IN PLACE
3. (E) WALL MOUNTED TV TO REMAIN PROTECT IN PLACE
4. (E) WALL MOUNTED SCREEN TO REMAIN PROTECT IN PLACE
5. (E) WALL MOUNTED SPEAKER TO REMAIN PROTECT IN PLACE
6. (E) WALL MOUNTED SIGN TO REMAIN PROTECT IN PLACE
7. (E) POWER DROP TO REMAIN PROTECT IN PLACE
8. (E) CEILING HUNG SIGN REMOVE AND REINSTALL ON CEILING
9. (E) CEILING MOUNTED PROJECTOR REMOVE AND REINSTALL ON CEILING
10. (E) WALL MOUNTED EXIT SIGN TO REMAIN PROTECT IN PLACE.
11. REMOVE AND REPLACE LANDING PER SHEET 0.2
12. PROVIDE PARTITION BRACING AT 8'-0" O.C. MAX. PER 15/S3.0 TO 18/S3.0
13. PROVIDE COIL STRAP BRACING TO (E) CEILING JOIST FOR EXISTING ± 6 GAL. WATER HEATER. PROVIDE STRAP IN 4 DIRECTIONS MIN. W/ #10 SCREWS TO HEATER AND FRAMING, TYP.

LEGEND:

1 / 4.0 — INDICATES PHOTOS ON SHEET 4.0

FLOOR PLAN | 1/4"=1'-0" | 1

CLIENT

PROJECT NAME

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

26081 VIA PERA
MISSION VIEJO, CA 92691

ENGINEER/ARCHITECT

IDS GROUP

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

STAMP

STAMP

REGISTERED PROFESSIONAL ENGINEER — DAVID L. HILL — No. 3680 — STRUCTURAL — STATE OF CALIFORNIA

DATE SIGNED: 02-27-2018

ISSUE

REV.	DESCRIPTION	DATE
1	PLAN CHECK 1ST REVIEW	4/11/18

KEY PLAN

PROJECT NO.	17S020.01
PRINT DATE	
DRAWN BY	-.
CHECKED BY	D.P

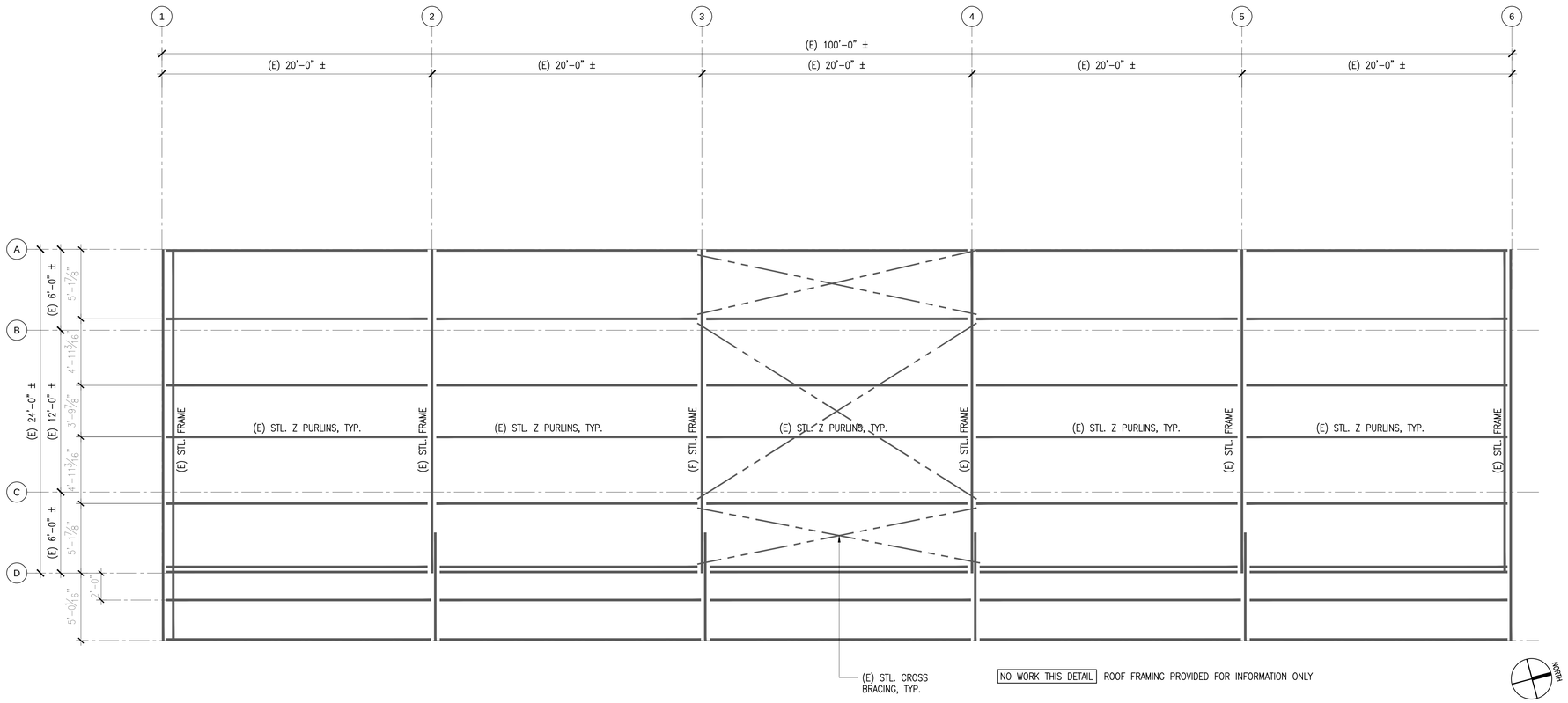
SHEET TITLE

FLOOR PLAN

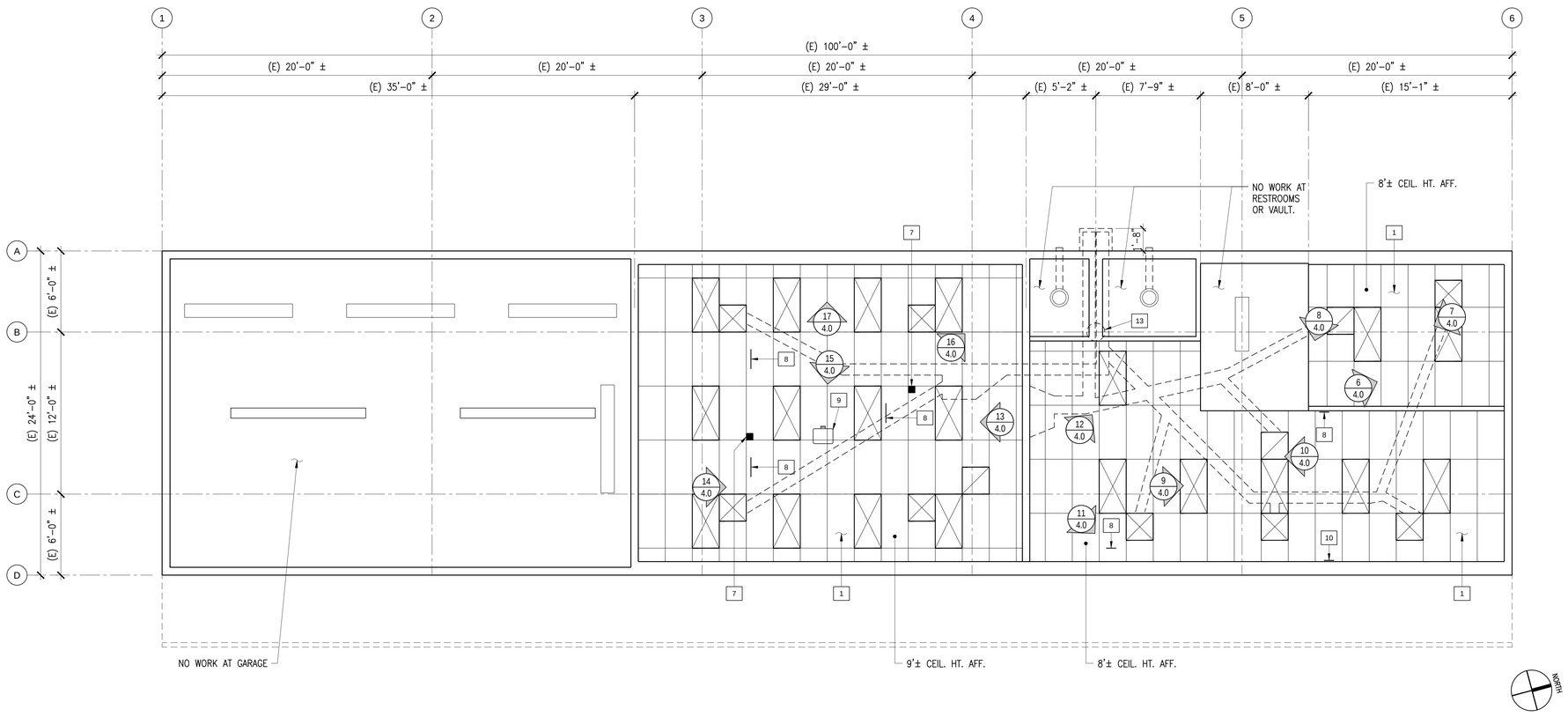
SHEET NUMBER

2.1

SHEET NO. OF XXX



ROOF FRAMING PLAN | 1/4"=1'-0" | 2



KEYNOTES:

1. REMOVE AND REPLACE SUSPENDED CEILING AND INSULATION. (E) LIGHTS AND HVAC REGISTERS TO REMAIN SUPPORT AND BRACE CEILING LIGHTS, REGISTERS AND EQUIPMENT PER SHEET 3.0. REUSE (E) INSULATION.
2. (E) WALL MOUNTED WHITE BOARDS TO REMAIN PROTECT IN PLACE
3. (E) WALL MOUNTED TV TO REMAIN PROTECT IN PLACE
4. (E) WALL MOUNTED SCREEN TO REMAIN PROTECT IN PLACE
5. (E) WALL MOUNTED SPEAKER TO REMAIN PROTECT IN PLACE
6. (E) WALL MOUNTED SIGN TO REMAIN PROTECT IN PLACE
7. (E) POWER DROP TO REMAIN PROTECT IN PLACE
8. (E) CEILING HUNG SIGN REMOVE AND REINSTALL ON CEILING
9. (E) CEILING MOUNTED PROJECTOR REMOVE AND REINSTALL ON CEILING
10. (E) WALL MOUNTED EXIT SIGN TO REMAIN PROTECT IN PLACE.
11. REMOVE AND REPLACE LANDING PER SHEET 0.2
12. PROVIDE PARTITION BRACING AT 8'-0" O.C. MAX. PER 15/S3.0 TO 18/S3.0
13. PROVIDE COIL STRAP BRACING TO (E) CEILING JOIST FOR EXISTING ± 6 GAL. WATER HEATER. PROVIDE STRAP IN 4 DIRECTIONS MIN. W/ #10 SCREWS TO HEATER AND FRAMING, TYP.

LEGEND:

1/4.0 — INDICATES PHOTOS ON SHEET 4.0

REFLECTED CEILING PLAN | 1/4"=1'-0" | 1

CLIENT

PROJECT NAME

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

26081 VIA PERA
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ENGINEER/ARCHITECT

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1 PETERS CANYON ROAD, SUITE 130
IRVINE, CA 92606
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STAMP

STAMP

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER L. HILLMAN — No. 3680 — STRUCTURAL — STATE OF CALIFORNIA

DATE SIGNED: 02-27-2018

ISSUE

REV.	DESCRIPTION	DATE
1	PLAN CHECK 1ST REVIEW	4/11/18

KEY PLAN

PROJECT NO.	17S020.01
PRINT DATE	
DRAWN BY	-.
CHECKED BY	D.P

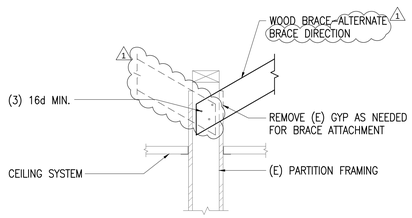
SHEET TITLE

REFLECTED CEILING & ROOF FRAMING PLANS

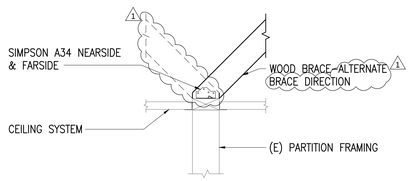
SHEET NUMBER

2.2

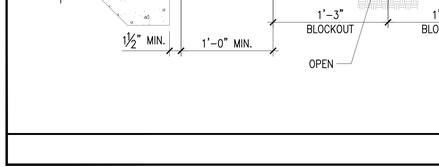
SHEET NO. OF XXX



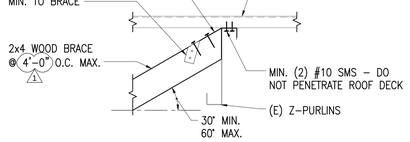
BRACE CONNECTION @ EXTENDED PARTITION | 1 1/2"=1'-0" | 18



BRACE CONNECTION @ LOW PARTITION | 1 1/2"=1'-0" | 17



BRACING PARALLEL TO JOIST | 1 1/2"=1'-0" | 16



BRACING PERPENDICULAR TO JOIST | 1 1/2"=1'-0" | 15

SECTION AT MECHANICAL UNIT | 1 1/2"=1'-0" | 14

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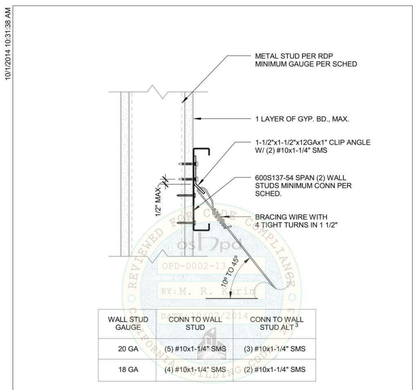

WALL STUD GAUGE	CONN TO WALL STUD	CONN TO WALL STUD ALT
20 GA	(5) #10x1-1/4" SMS	(3) #10x1-1/4" SMS
18 GA	(4) #10x1-1/4" SMS	(2) #10x1-1/4" SMS

NOTES:

1. RDP SHALL DESIGN FRAMING WALL TO CARRY THE CEILING LOAD PER NOTE #2.
2. SEISMIC BRACE WIRE FORCE = 473 LBS (ASD LEVEL). BRACING WIRE SHALL HAVE A MINIMUM STRETCH LENGTH OF 12", WHEN USED AT FREE JOINT.
3. APPLIES WHERE CLIP ATTACHED DIRECTLY TO WALL STUD.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	BRACING WIRE CONNECTION TO METAL STUD WALL	CL4.35

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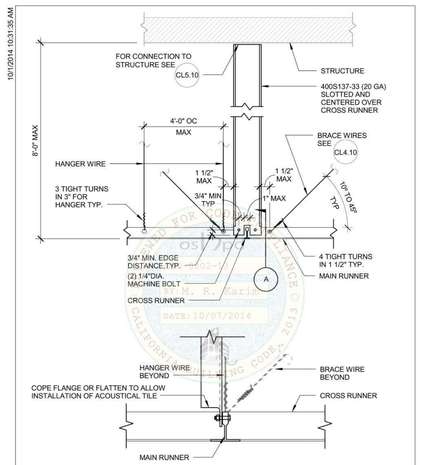

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED ACOUSTICAL CEILING - CHANNEL TYPE STRUT	CL3.10

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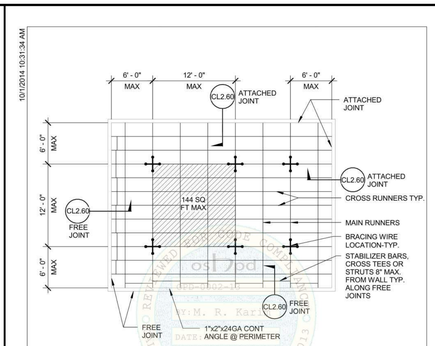

NOTES:

1. BRACING WIRES AND COMP. STRUT SHALL OCCUR AT EVERY 144 SQ. FT. MAX. IN ROOMS OVER 144 SQ. FT.
2. RDP MAY ELECT TO SPECIFY TIGHTER SPACING AND COMP. STRUTS TO ALLOW SMALLER ANCHORS PER SCHEDULES ON SHEETS CL4.31 & CL6.60.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	TYPICAL CEILING PLAN FOR $S_{DS} \leq 1.15$ AND z/h <= 1.0	CL2.22

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SHEET METAL SCREW (SMS) ALLOWABLE STRENGTHS (CONTINUED)
TABLE 3 - NON-PRYING CONDITION
SHEET METAL SCREW ALLOWABLE STRENGTHS FOR STEEL TO STEEL CONNECTIONS WITH TWO LAYERS OF 5/8" GYP BOARD BETWEEN STEEL SURFACES.

Fy (KSI)	MIL (STEEL GA)	FASTENER SIZE									
		NO. 14		NO. 12		NO. 10		NO. 8		NO. 6	
		0.250 IN		0.216 IN		0.190 IN		0.164 IN		0.138 IN	
		SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)
50	97 (12)	166	275	130	205	-	-	-	-	-	-
	68 (14)	166	275	130	205	100	159	-	-	-	-
	54 (16)	166	261	130	205	100	159	80	118	-	-
	43 (18)	166	144	130	124	100	109	80	94	50	79
	33 (20)	-	-	-	-	70	84	50	72	40	61

NOTES:
1. SEE GENERAL NOTES ON CL1.30 FOR ADDITIONAL INFORMATION ,
2. ALLOWABLE STRENGTH VALUES DO NOT ACCOUNT FOR EFFECTS FROM PRYING. THE RDP IN RESPONSIBLE CHARGE TO PROVIDE ADEQUATE BLOCKING/RESTRAINT TO PREVENT PRYING ACTION. WHERE PRYING OCCURS, THE VALUES AND CONSTRAINTS OF TABLE 4 SHALL BE USED.

TABLE 4 - PRYING CONDITION (SEE DETAILS BELOW - STRUT CAN BE HORIZONTAL OR VERTICAL)
SHEET METAL SCREW ALLOWABLE STRENGTHS FOR STEEL TO STEEL CONNECTIONS WITH ONE OR TWO LAYERS OF 5/8" GRP BOARD BETWEEN STEEL SURFACES AND MAXIMUM PRYING MOMENT ARM OF 1 5/8"

Fy (KSI)	MIL (STEEL GA)	FASTENER SIZE									
		NO. 14		NO. 12		NO. 10		NO. 8		NO. 6	
		0.250 IN		0.216 IN		0.190 IN		0.164 IN		0.138 IN	
		SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)
50	97 (12)	40	275	30	205	-	-	-	-	-	-
	68 (14)	40	275	30	205	25	159	-	-	-	-
	54 (16)	40	261	30	205	25	159	20	118	-	-
	43 (18)	40	144	30	124	25	109	20	94	10	79
	33 (20)	-	-	-	-	15	84	15	72	10	61

NOTES:
1. SEE GENERAL NOTES ON CL1.30 FOR ADDITIONAL INFORMATION.
2. ALLOWABLE STRENGTH VALUES LISTED IN TABLE 4 ARE BASED UPON A LIMITED TEST ASSEMBLY WHERE THE ORIGIN AND DIRECTION OF THE LOAD RESULTS IN PRYING UPON THE FASTENER. THE MAGNITUDE OF THIS PRYING EFFECT SHALL BE LIMITED TO A MOMENT ARM OF 1 5/8" FROM THE FASTENER.

WALL ELEV WITH LOAD APPLIED THROUGH STRUT

PLAN VIEW

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SHEET METAL SCREW ALLOWABLE STRENGTHS - PAGES 2 OF 2	CL1.32

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OPTION 1

OPTION 2

NOTES:

1. THIS IS APPLIED FOR PERIMETER WIRE ATTACHEMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO STRUCTURE ABOVE
2. RDP SHALL DESIGN FRAMING WALL TO CARRY THE CEILING LOAD. SEE TABLE BELOW FOR LOADS. LOADS ASSUME A TRIBUTARY AREA OF 16 SQ FT AND ARE UNFACTORED.
3. WALLS SHALL BE DESIGNED FOR HANGER FORCES BELOW. AT FREE JOINT, HANGER WIRE SHALL HAVE A MINIMUM STRETCH LENGTH OF 12"

OPTION 3

HANGER FORCES	VERTICAL	HORIZONTAL
DEAD	64 LBS	11 LBS
SEISMIC (0.14S_{DS} Wp)		
S_{DS} <= 1.15	11 LBS	2 LBS
1.15 < S_{DS} <= 1.73	16 LBS	3 LBS
1.73 < S_{DS} <= 2.50	23 LBS	4 LBS

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	HANGER WIRE CONNECTION TO METAL STUD WALL	CL4.25

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NOTES:

1. SEE GENERAL NOTE #15 ON CL0.03

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED ACOUSTICAL CEILING - LIGHT FIXTURES/ AIR TERMINAL SUPPORT DETAIL	CL2.80

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NOTES:

1. SEE SUSPENDED CEILING NOTES #13 & #14 ON CL0.02
2. STRUTS SHALL NOT REPLACE HANGER WIRES.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SUSPENDED CEILING BRACING ASSEMBLY	CL2.10

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SHEET METAL SCREW (SMS) ALLOWABLE STRENGTHS
TABLE 1
SHEET METAL SCREW ALLOWABLE STRENGTHS FOR STEEL TO STEEL CONNECTIONS.

Fy (KSI)	MIL (STEEL GA)	FASTENER SIZE									
		NO. 14		NO. 12		NO. 10		NO. 8		NO. 6	
		0.250 IN		0.216 IN		0.190 IN		0.164 IN		0.138 IN	
		SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)
50	97 (12)	704	275	525	205	-	-	-	-	-	-
	68 (14)	704	275	525	205	405	159	-	-	-	-
	54 (16)	613	261	525	205	405	159	303	118	-	-
	43 (18)	302	144	280	124	263	109	244	94	165	79
	33 (20)	-	-	-	-	177	84	164	72	151	61

NOTES:
1. SEE GENERAL NOTES ON CL1.30 FOR ADDITIONAL INFORMATION ,
2. WHERE ONE OR TWO LAYERS OF GYP BOARD OCCURS BETWEEN STEEL SURFACES, THE ALLOWABLE VALUES OF TABLE 2 & 3 SHALL BE USED.
3. ALLOWABLE STRENGTH VALUES DO NOT ACCOUNT FOR EFFECTS FROM PRYING. THE RDP IN RESPONSIBLE CHARGE OF THE PROJECT SHALL PROVIDE ADEQUATE BLOCKING/RESTRAINT TO PREVENT PRYING ACTION. WHERE PRYING OCCURS, THE VALUES AND CONSTRAINTS OF TABLE 4 SHALL BE USED.

TABLE 2 - NON-PRYING CONDITION
SHEET METAL SCREW ALLOWABLE STRENGTHS FOR STEEL TO STEEL CONNECTIONS. WITH ONE LAYER OF 5/8" GYP BOARD BETWEEN STEEL SURFACES.

Fy (KSI)	MIL (STEEL GA)	FASTENER SIZE									
		NO. 14		NO. 12		NO. 10		NO. 8		NO. 6	
		0.250 IN		0.216 IN		0.190 IN		0.164 IN		0.138 IN	
		SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)	SHEAR (LB)	TENSION (LB)
50	97 (12)	226	275	180	205	-	-	-	-	-	-
	68 (14)	226	275	180	205	140	159	-	-	-	-
	54 (16)	226	261	180	205	140	159	120	118	-	-
	43 (18)	226	144	180	124	140	109	120	94	60	79
	33 (20)	-	-	-	-	100	84	80	72	60	61

NOTES:
1. SEE GENERAL NOTES ON CL1.30 FOR ADDITIONAL INFORMATION ,
2. ALLOWABLE STRENGTH VALUES DO NOT ACCOUNT FOR EFFECTS FROM PRYING. THE RDP IN RESPONSIBLE CHARGE OF THE PROJECT SHALL PROVIDE ADEQUATE BLOCKING/RESTRAINT TO PREVENT PRYING ACTION. WHERE PRYING OCCURS, THE VALUES AND CONSTRAINTS OF TABLE 4 SHALL BE USED.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SHEET METAL SCREW ALLOWABLE STRENGTHS - PAGES 1 OF 2	CL1.31

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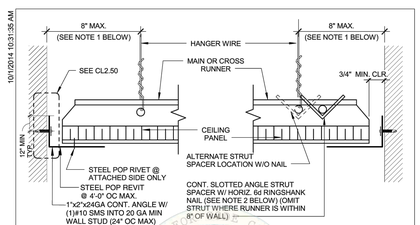
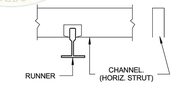


ATTACHED JOINT **FREE JOINT**

1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STRUTS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. SPACERS MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH "DIAMOND POINTS" OF SIRRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. STEEL POP RIVETS SHALL HAVE MINIMUM ALLOWABLE SHEAR STRENGTH OF 120# AND ULTIMATE SHEAR STRENGTH OF 300#.



APPROVED SPACER

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	CEILING PERIMETER INCLUDING NON-EXITWAY CORRIDORS	CL2.60

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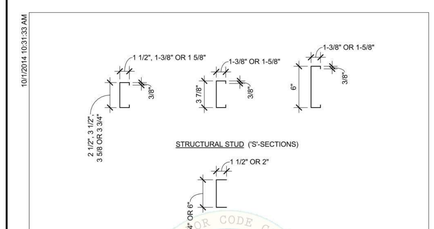

DESIGNATION THICKNESS (MILS)	REFERENCE ONLY GAUGE NO.
18	25
27	22
33	20
43	18
54	16
68	14
97	12
118	10

NOTE:

1. F_y = 50KSI FOR 54 MIL (16GA) & THICKER SECTIONS, AND F_y = 33KSI FOR SECTIONS UP TO & INCLUDING 43 MI (18GA).
2. SIZE AND THICKNESS ARE CONSIDERED MINIMUMS.
3. STRUCTURAL STUDS SHALL NOT BE PUNCHED UNLESS NOTED OTHERWISE.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	METAL STUD PROFILES	CL1.40

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SHEET METAL SCREW (SMS) GENERAL NOTES

1. THE ALLOWABLE STRENGTHS ARE BASED UPON THE AISI S100-07/S2-10 AND ARE LIMITED BY ACTUAL TESTED STRENGTH OF THE SCREWS IN TENSION AND SHEAR.
2. THE ALLOWABLE STRENGTHS ARE BASED UPON THE LEAST OF THE AVERAGE TESTED TENSILE AND SHEAR STRENGTHS TABULATED FROM ICC ESR'S 1976, 2196, 1730, 1408, AND THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA). FASTENER TYPES AND SIZES APPLY TO NON-PROPRIETARY FASTENER TYPES AND SIZES, AND DOES NOT ENDORSE A SPECIFIC MANUFACTURER. WHERE PROPRIETARY FASTENERS ARE SPECIFIED, NO EXCEPTIONS ARE TAKEN TO THE USE OF MANUFACTURER SPECIFIC VALUES THAT ARE BASED UPON THE AISI S100-07/S2-10, SECTION E4. ALL SCREW FASTENERS SHALL SATISFY ICC-ES AC118-ACCEPTANCE CRITERIA FOR SELF TAPPING SCREW FASTENERS.
3. TABLE 1 REPRESENTS ALLOWABLE TENSION AND SHEAR STRENGTHS FOR NON-PROPRIETARY SHEET METAL SCREWS FOR STEEL TO STEEL CONNECTIONS.
4. TABLES 2 AND 3 REPRESENT ALLOWABLE TENSION AND SHEAR STRENGTHS THAT INCORPORATE THE EFFECTS OF EITHER ONE (1) OR TWO (2) LAYERS OF 5/8" GYPSUM BOARD BETWEEN FASTENER HEAD AND CONNECTING STEEL MATERIAL.
5. IN ORDER TO USE THE VALUES IN TABLES 1, 2, AND 3, THE ATTACHMENTS SHALL BE DETAILED IN SUCH A WAY AS TO AVOID PRYING AND THE STUDS MUST BE STABILIZED WITH FULL-DEPTH BLOCKING WITH CONTINUOUS STRAPS ALONG THE FLANGES OR WITH BACKING BARS.
6. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHOULD NOT BE LESS THAN THREE (3) EXPOSED THREADS.
7. STEEL THICKNESSES JOINED ARE ASSUMED TO BE THE SAME. IF DISSIMILAR THICKNESSES ARE BEING CONNECTED, THE VALUE FOR THE THINNER PART JOINED SHALL BE USED.
8. THE MINIMUM SPACING BETWEEN CENTERS OF FASTENERS SHALL NOT BE LESS THAN 3 X FASTENER DIAMETER. THE MINIMUM EDGE DISTANCE FROM THE CENTER OF A FASTENER TO THE EDGE OF ANY PART SHALL NOT BE LESS THAN 1.5 X FASTENER DIAMETER. WHERE THE END DISTANCE IS PARALLEL TO THE FORCE ON THE FASTENER, THE NOMINAL SHEAR STRENGTH SHALL BE LIMITED BY SECTION E4.3.2 OF THE AISI S100-07/S2-10.
9. GALVANIZED METAL STUDS, TRACK AND SHEET STEEL SHALL CONFORM TO ASTM A653-09a MATERIAL (OR OTHER EQUIVALENT ASTM LISTED MATERIALS IN THE AISI S100-07/S2-10, SECTION A2.1) WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 43 MIL (18 GA) AND LIGHTER, AND MINIMUM YIELD STRENGTH OF 50 KSI FOR 54 MIL (16 GA) & HEAVIER.
10. WHERE VALUES ARE NOT GIVEN, SUCH COMBINATIONS OF SCREW SIZES & MATERIAL THICKNESS ARE NOT RECOMMENDED.
11. IF THE ATTACHMENT DETAILS RESULT IN PRYING WITH A MOMENT ARM NOT TO EXCEED 1.5/8", THE VALUES IN TABLE 4 MAY BE USED. IF THE ATTACHMENT DETAILS RESULT IN PRYING WITH A MOMENT ARM THAT EXCEEDS 1 5/8", THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE OF THE PROJECT SHALL DETERMINE THE ALLOWABLE VALUES AND SUBMIT SUBSTANTIATION FOR THEM TO OSHPD FOR REVIEW.
12. INTERACTION OF SHEAR AND TENSION SHALL BE BASED ON $T/T_{ALL} + V/V_{ALL} \leq 1.0$.
13. REFER TO NOTE 6A ON CL0.00 FOR ADDITIONAL SHEET METAL SCREW REQUIREMENTS.

Section Title :	OSHPD STANDARD SUSPENDED CEILING DETAILS	OPD No:
Sheet Title :	SHEET METAL SCREW GENERAL NOTES	CL1.30

10/07/2014 | OPD-0002-13: Reviewed for Code Compliance by Karim | Page 24 of 66

CLIENT

BE WATER PREPARED — PROTECTING WATER THROUGH PREPAREDNESS & RESPONSE COORDINATION — Water Emergency Response Organization of Orange County

PROJECT NAME

WATER EMERGENCY RESPONSE ORGANIZATION OF ORANGE COUNTY SOUTH EMERGENCY OPERATIONS CENTER

SUPPORT AND BRACING OF NON-STRUCTURAL ELEMENTS

26081 VIA PERA
MISSION VIEJO, CA 92691

ENGINEER/ARCHITECT

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

STAMP

STAMP

REGISTERED PROFESSIONAL ENGINEER — WILLIAM L. HILBURN — No. 3680 — STRUCTURAL — STATE OF CALIFORNIA

DATE SIGNED: 02-27-2018

ISSUE

REV.	DESCRIPTION	DATE
1	PLAN CHECK 1ST REVIEW	4/11/18

KEY PLAN

PROJECT NO.	17S020.01
PRINT DATE	
DRAWN BY	-.
CHECKED BY	D.P

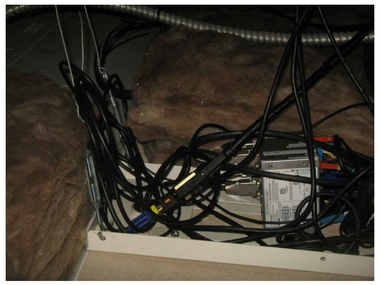
SHEET TITLE

DETAILS

SHEET NUMBER

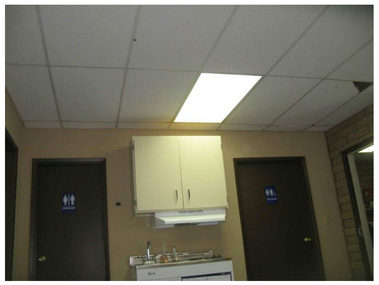
3.0

SHEET NO. OF XXX



CEILING PROJECTOR MOUNT | N.T.S. | 20

SOUTHWEST CORNER OF ROOM | N.T.S. | 16



CEILING AT RESTROOMS | N.T.S. | 12

VAULT EDGE CONDITION | N.T.S. | 8

DRIVE AISLE | N.T.S. | 4

TYP. SPACE ABOVE CEILING | N.T.S. | 19

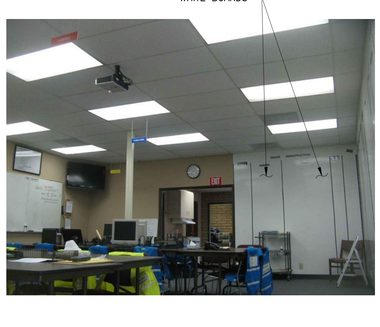
CEILING MOUNTED PROJECTOR | N.T.S. | 15

CEILING AT FRONT WALL | N.T.S. | 11

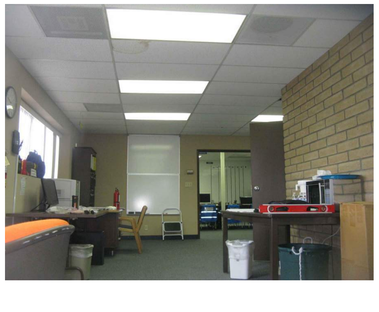
OFFICE CEILING | N.T.S. | 7

BUILDING OVERVIEW | N.T.S. | 3

TYP. SPACE ABOVE CEILING | N.T.S. | 18



EOC CEILING WEST | N.T.S. | 14



EAST END OF LOBBY OFFICE | N.T.S. | 10

OFFICE CEILING | N.T.S. | 6

PARKING AREA OVERVIEW | N.T.S. | 2

WALL MOUNTED PROJECTOR SCREEN | N.T.S. | 17

EOC CEILING EAST | N.T.S. | 13

WEST END OF LOBBY OFFICE | N.T.S. | 9

BUILDING ENTRY | N.T.S. | 5

PARKING AREA OVERVIEW | N.T.S. | 1

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PHOTOS

SHEET NUMBER

4.0

SHEET NO. OF XXX