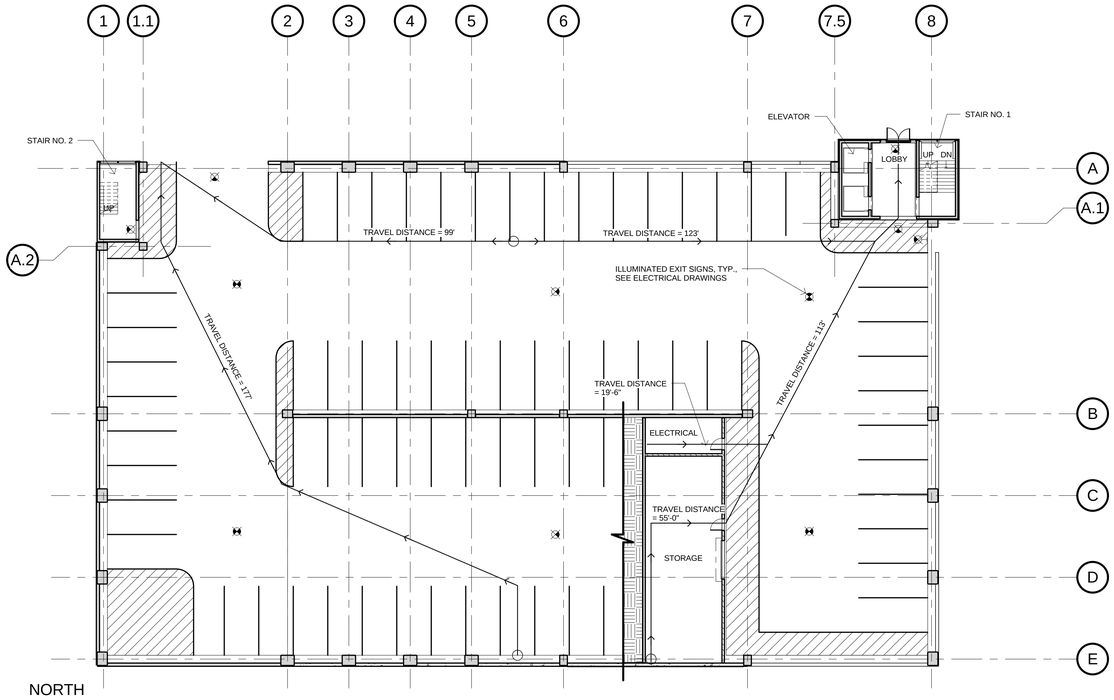
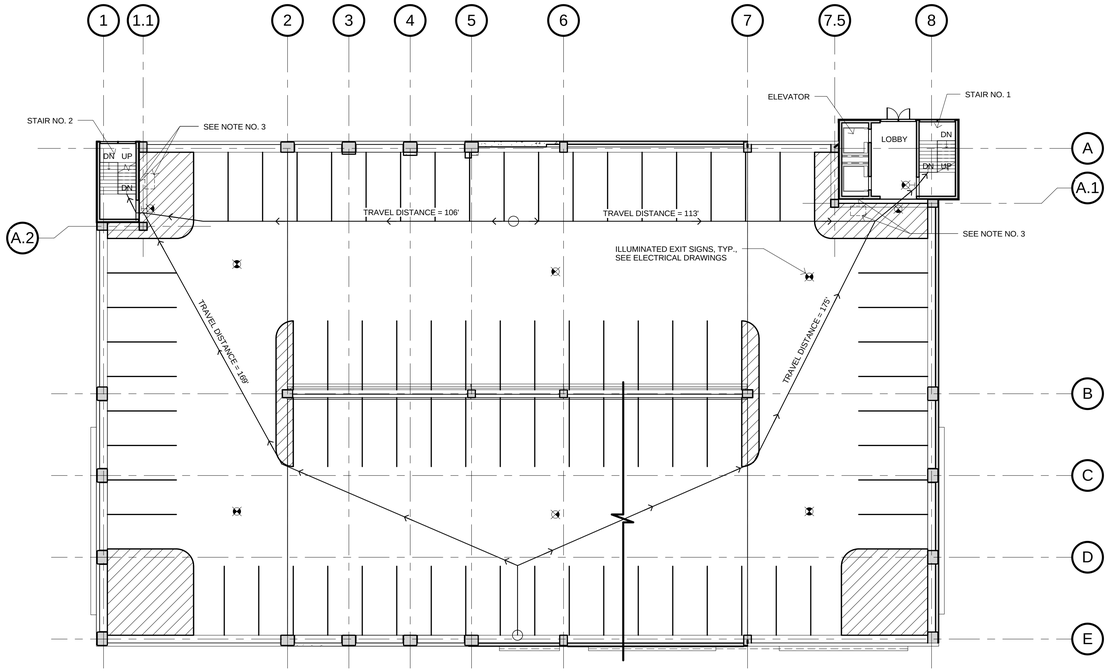


NORTH

FIRE-LIFE SAFETY PLAN AT GROUND LEVEL

1/16" = 1'-0"



NORTH

FIRE-LIFE SAFETY PLAN AT SECOND LEVEL

1/16" = 1'-0"

CODE ANALYSIS SUMMARY

BUILDING CODE: 2006 INTERNATIONAL BUILDING CODE AND DEPARTMENT OF VETERANS AFFAIRS STANDARDS

A. BUILDING TYPE:
1. OCCUPANCY: S-2, OPEN PARKING STRUCTURE
2. CONSTRUCTION TYPE: IIB PER TABLE 406.3.5
3. MAXIMUM HEIGHT PER TABLE 406.3.5: 8 TIERS PERMITTED / 4 TIERS PROVIDED
4. MAXIMUM FLOOR AREA PER TABLE 406.3.5: 50,000 S.F. PERMITTED / 29,158 PROVIDED

GROUND LEVEL:
OPEN PARKING STRUCTURE 29,158 S.F.

SECOND LEVEL:
OPEN PARKING STRUCTURE 29,158 S.F.

THIRD LEVEL:
OPEN PARKING STRUCTURE 29,158 S.F.

TOP LEVEL:
OPEN PARKING STRUCTURE 24,600 S.F.

STORAGE (S-2): 1,080 S.F.

ELECTRICAL: 188 S.F.

MACHINE ROOM: 374 S.F.

TOTAL BUILDING AREA: 113,718 S.F.

B. OPENNESS: OPENINGS IN EXTERIOR WALL OF OPEN PARKING STRUCTURES PER SECTION 406.3.3.1

GROUND LEVEL:
PERCENT OF PERIMETER AREA PERIMETER = 6,733 S.F.
OPENINGS = 2,273 S.F.
REDUCTION OF OPENING WITH WIRE MESH = 92 S.F.
THEREFORE, 2,273 S.F. - 92 S.F. = 2,181 S.F.
PERCENT OF OPENINGS = 2,181 S.F. / 6,733 S.F. = 32%

PERCENT OF PERIMETER LENGTH: PERIMETER = 724 L.F.
OPENINGS = 551 L.F.
PERCENT OF LENGTH OPEN = 551 L.F. / 724 L.F. = 76%

SECOND AND THIRD LEVEL:
PERCENT OF PERIMETER AREA PERIMETER = 6,733 S.F.
OPENINGS = 2,433 S.F.
PERCENT OF OPENINGS = 2,433 S.F. / 6,733 S.F. = 36%

PERCENT OF PERIMETER LENGTH: PERIMETER = 724 L.F.
OPENINGS = 551 L.F.
PERCENT OF LENGTH OPEN = 551 L.F. / 724 L.F. = 76%

TOP LEVEL:
PERCENT OF PERIMETER AREA: 100% OPEN PROVIDED

C. MEANS OF EGRESS:
1. OCCUPANT LOAD PER TABLE 1004.1.1:

GROUND LEVEL:
OPEN PARKING STRUCTURE: 200 S.F. / OCCUPANT 30,428 S.F. = 152 OCCUPANTS

SECOND AND THIRD LEVEL:
OPEN PARKING STRUCTURE: 200 S.F. / OCCUPANT 29,158 S.F. = 146 OCCUPANTS

TOP LEVEL:
OPEN PARKING STRUCTURE: 200 S.F. / OCCUPANT 24,600 S.F. = 123 OCCUPANTS

2. EGRESS WIDTH PER OCCUPANT PER TABLE 1005.1 (WITHOUT SPRINKLER SYSTEM)

GROUND LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S):
AT STAIRWAYS: 0.3 INCHES PER PERSON x 152 OCCUPANTS = 46 INCHES REQUIRED / 54 INCHES PROVIDED
AT DOORS: 0.2 INCHES PER PERSON x 152 OCCUPANTS = 30 INCHES REQUIRED / 60 INCHES PROVIDED

SECOND AND THIRD LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S):
AT STAIRWAYS: 0.3 INCHES PER PERSON x 146 OCCUPANTS = 44 INCHES REQUIRED / 54 INCHES PROVIDED
AT DOORS: 0.2 INCHES PER PERSON x 146 OCCUPANTS = 29 INCHES REQUIRED / 60 INCHES PROVIDED

TOP LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S):
AT STAIRWAYS: 0.3 INCHES PER PERSON x 123 OCCUPANTS = 37 INCHES REQUIRED / 54 INCHES PROVIDED
AT DOORS: 0.2 INCHES PER PERSON x 123 OCCUPANTS = 25 INCHES REQUIRED / 60 INCHES PROVIDED

3. MINIMUM NUMBER OF EXITS PER SECTION 1019:

GROUND LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S): 2 EXITS REQUIRED (PER TABLE 1019.1 / 2 EXITS PROVIDED

SECOND AND THIRD LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S): 2 EXITS REQUIRED (PER TABLE 1019.1 / 2 EXITS PROVIDED

TOP LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S): 2 EXITS REQUIRED (PER TABLE 1019.1 / 2 EXITS PROVIDED

4. LENGTH OF EXIT ACCESS TRAVEL (WITHOUT SPRINKLER SYSTEM) PER TABLE 1016.1

GROUND LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S): 300 FEET MAXIMUM / 177 FEET MAXIMUM PROVIDED

SECOND AND THIRD LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S): 300 FEET MAXIMUM / 175 FEET MAXIMUM PROVIDED

TOP LEVEL:
OPEN PARKING STRUCTURE (USE GROUP S): 300 FEET MAXIMUM / 175 FEET MAXIMUM PROVIDED

D. FIRE RESISTIVE REQUIREMENTS:
1. STRUCTURAL REQUIREMENTS FOR TYPE IIB CONSTRUCTION: SEE SHEET SS 001
2. FIRE SEPARATION DISTANCE FOR USE GROUP S-2 PER TABLE 602:
GREATER THAN 10 FEET BUT LESS THAN 30 FEET = 0 HOUR REQUIRED
3. FIRE SEPARATION AT ELEVATOR HOISTWAY: 2 HOURS

E. FIRE PROTECTION SYSTEM:
1. AUTOMATIC FIRE SPRINKLER SYSTEMS:
OPEN PARKING STRUCTURE: NOT REQUIRED PER SECTION 903.2.9
2. STANDPIPE SYSTEM:
CLASS I MANUAL STANDPIPE
REQUIRED PER SECTION 905.1 (INSTALLED PER NFPA 14)
3. FIRE EXTINGUISHERS:
REQUIRED PER SECTION 906.1 PER CFC 2007

NOTES:

1. THE CLEAR HEIGHT OF EACH FLOOR LEVEL IN VEHICAL AND PEDESTRIAN TRAFFIC AREAS SHALL NOT BE LESS THAN 7 FEET PER IBC 406.2.2.
2. ELEVATOR HOISTWAY 8" PRECAST CONCRETE WALLS TO BE 2-HOUR FIRE RESISTANT, SEE TABLE 720.1(2).
3. AREA FOR ASSISTED RESCUE TO BE 30" x 48". PROVIDE AND INSTALL SIGN ON WALL AT +72 INCHES A.F.F. TO CENTER OF SIGN USING MECHANICAL FASTENERS. SIGN TO READ "AREA OF ASSISTED RESCUE" AND SHALL INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.

CONSTRUCTION DOCUMENTS - FINAL SUBMISSION

Revisions:	Date

CONSULTANTS:

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Drawing Title: Fire - Life Safety Plans and Analysis

Approved: Project Director

Project Title: VA Northern California Health Care System Parking Structure

Location: 10535 Hospital Way, Mather, CA 95655

Date: 06/15/2011 | Checked: ECF | Drawn: RAT

Project Number: 612 - CSI - 102

Building Number: N/A

Drawing Number: GI 300

Dwg. 4 of 122

Office of Construction and Facilities Management

Department of Veterans Affairs

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