



Technology Education Department  
Advanced Technical Drawing - Architectural

## PROJECT ANALYSIS

FOR

MERCEDES BENZ DEALERSHIP

BY

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To design a forty-eight thousand four hundred square foot exercise facility for Cohen's Judo Club, restaurant for Tsukasa, and a McDonalds with a playhouse. The structure is to have a masonry exterior with steel superstructure and a flat roof. The eighty five thousand thirty two square foot site on 2020 Northwest Highway in Arlington Heights, must provide parking and facility to host people and allow people to train. The total cost of the project must not exceed \$9 million and must be complete by June 1, 2011.

### I. CLIENT DATA

- A. Cohen's Judo Club. McDonalds. Tsukasa
- B. Irwin Cohen.
- C. 108 Terrace Drive.
- D. Mundelein, IL 60060.
- E. Judo Training Facility. McDonald's with Playouse. Tsukasa Restaurant

### II. BUILDING SITE DATA

- A. Lot Dimensions \_\_\_\_\_ X \_\_\_\_\_ Area 85,032 sq. ft.
- B. 48,400 sq. ft building
- C. Parking Lot

- D. Existing Easements Per City Ordinance
- E. 2020 Northwest Highway, Arlington Heights, IL 60004
- F. Utilities Available:
  - 1. Water Service – Village of Arlington Heights
  - 2. Sewer Service – Village of Arlington Heights
  - 3. Electrical Service – Commonwealth Edison Co.
  - 4. Natural Gas - Nicor
  - 5. Telephone – AT&T
  - 6. Internet Access – AT&T

### III. PERSONNEL DATA & NEEDS

- A. Number of Occupants
  - 1. Salaried Employees - 3-6. 10-15. 35-40.
  - 2. Hourly Employees - 0. 5-8. 10-14.
  - 3. Part-time Employees - 0. 5-7. 25-26.
- B. List of Personnel by Position
  - 1. Job Title Coach – Manager Qty. 1
    - a. Responsibilities of Job - Teach students judo plus handle all payments and events that  
  
are involved with the club.
    - b. Equipment Needed for Job - Office Equipment, Judo Training Equipment, Weights
  - 2. Job Title Coach Qty. 2-5
    - a. Responsibilities of Job - Teach students judo, help students improve their technique and

run events that take place with or in the facility.

- b. Equipment Needed for Job - Judo Training Equipment, Weights
3. Job Title Head Manager Qty. 1
- a. Responsibilities of Job - Hire Employees, Make sure everyone is working, open restaurant, manage financial assets.
  - b. Equipment Needed for Job - Office with computer.
4. Job Title - Cook Qty. 3-4
- a. Responsibilities of Job - Cook food, get food from storage, help unload delivery truck.
  - b. Equipment Needed for Job - Kitchen with equipment, cold storage, dry storage, unloading dock.
5. Job Title - Cashier Qty. 3-4
- a. Responsibilities of Job - Serve Customers, Take orders, unload delivery truck, man drive-thru.
  - b. Equipment Needed for Job - Cash Register, Headset for drive-thru, area for customers to wait.
6. Job Title - Bus Boy/Janitor Qty. 1-2
- a. Responsibilities of Job - Clean up after customers, help unload delivery truck.
  - b. Equipment Needed for Job - Janitorial equipment and storage, unloading dock.
7. Job Title - Restaurant Owner Qty. 1
- a. Responsibilities of Job - Hire employees, Fire employees, Manage assets,

Keep track of

deliveries, satisfy customers, listen to complaints.

- b. Equipment Needed for Job - Office with computer, unloading dock, restaurant.
8. Job Title - Head Chef Qty. 1
- a. Responsibilities of Job - Manage cooks, Manage menu, Cook food, Talk to customers.
  - b. Equipment Needed for Job - Kitchen with equipment, storage facilities.
9. Job Title - Chef Qty. 8-10
- a. Responsibilities of Job - Cook Food, Get food from storage.
  - b. Equipment Needed for Job - Kitchen with equipment, Storage facilities.
10. Job Title – Waiter/Waitress Qty. 10-15
- a. Responsibilities of Job - Serve customers, Take orders, Manage payment from customer.
  - b. Equipment Needed for Job - Cash register, Waiting area, Employee area.
11. Job Title - Host/Hostess Qty. 3-5
- a. Responsibilities of Job - Take names for reservations, seat guests, help serve guests.
  - b. Equipment Needed for Job - Hostess desk, Customer waiting area.
12. Job Title - Bus Boy/Janitor Qty. 5-8
- a. Responsibilities of Job - Clean up after customers, help serve customers, clean dishes,  
  
unload delivery trucks.
  - b. Equipment Needed for Job - Janitorial equipment and storage, unloading dock.

#### IV. CUSTOMER NEEDS

- A. Outside of Building – Parking Lot. Drive-Thru, Parking Lot. Dining Area, Parking Lot
- B. Inside of Building – Office, Locker Rooms, Weight Room, Mat Area. Dining Room, Kitchen, Employee Area, Bathrooms, Storage, Mechanical. Dining Room, Foyer, Bathrooms, Kitchen, Storage Area, Mechanical Area, Bar.

#### V. BUILDING DESIGN DATA

- A. Approximate Shape Desired - Rectangular Building
- B. Maximum Length & Width Allowed - 200 ft by 100 ft
- C. Number of Levels Desired - Two Floors for the Tsukasa and Judo Club
- D. Square Footage Desired - 48,400 sq. ft
- E. Style of Building Desired – Modern Look

#### VI. BUILDING MATERIALS DESIRED

- A. Exterior Walls – Concrete Block
- B. Roofing – Green Roof
- C. Soffit or Trim - Steel
- D. Windows – Picture Windows
- E. Glazing of Windows – Reduced Glare and Less Light in Tsukasa
- F. Exterior Doors – Glass Door and Double Thick woods doors for Tsukasa
- G. Roof Drainage System – Green Roof
- H. Interior Walls - 2x4 Stud with Gypsum board
- I. Interior Doors – Wooden Doors
- J. Interior Trim – Modern Gray Paint
- K. Cabinetry - Shelves in storage areas
- L. Hardware – Safe in Head Manager Office
- M. Floor Coverings – Tile Floor in McDonalds, Concrete Floor in Judo Facility,

Hardwood in

Tsukasa

N. Wall Coverings - Paint

O. Ceilings – Drop Ceiling in Restaurants and none in judo facility

P. Lighting – Flourescent in McDonalds and Judo Facility, Yellow Light in Tsukasa

## VII. SPACE NEEDS

A. Public Areas (Type & Sq.Ft.)

1. Mat Area – 5,000, Weight Room – 2,500, Locker Room – 3,000.
2. Dining Area – 1,500, Bathrooms - 500, Playhouse – 3,000.
3. Foyer – 1,500, Dining Area – 10,000, Outdoor Dining Area – 10,000, Bathrooms –  
1,500, Venue Area – 10,000.

B. Employee Areas (Type & Sq.Ft.)

1. Office - 500.
2. Office - 200, Employee Area – 500, Kitchen – 1,000.
3. Office - 500, Employee Area – 1,000, Kitchen – 1,500.

C. Mechanical Areas (Type & Sq.Ft.)

1. Utility Area - 500.
2. Utility Area - 500.
3. Utility Area - 500.

D. Storage Areas (Type & Sq.Ft.)

1. Janitorial Storage - 100.
2. Cold Storage - 450, Dry Storage - 400, Janitorial Storage - 100.

3. Cold Storage – 1,000, Dry Storage – 1,000, Janitorial Storage - 150.

#### VIII. MECHANICAL EQUIPMENT & SPECIAL FEATURES

- A. Heating System – ABC Plumbing Heating a& Cooling Inc.
- B. Cooling System – ABC Plumbing Heating & Cooling Inc.
- C. Electronic Air Cleaner - Ionic Zone IZ-3600MGT
- D. Water Heater - ABC Plumbing Heating & Cooling Inc.
- E. Humidifier – MeeFog Commercial Humidifiers
- F. Dehumidifier - Hi-E Dry Dehumidifiers
- G. Central Vacuum Cleaner - Cap Vac Central Vacuum Systems
- H. Intercom System - Siedle Intercom Systems
- I. Security System – ADT Security Systems
- J. Skylights - Duo-Gard Skylights
- K. Atriums - No Atrium

#### IX. MISCELANEOUS INFORMATION & NOTES

Outside Dining Area for Tsukasa with venue for events such as parties and weddings.