

Queens Community Board 2 Meeting

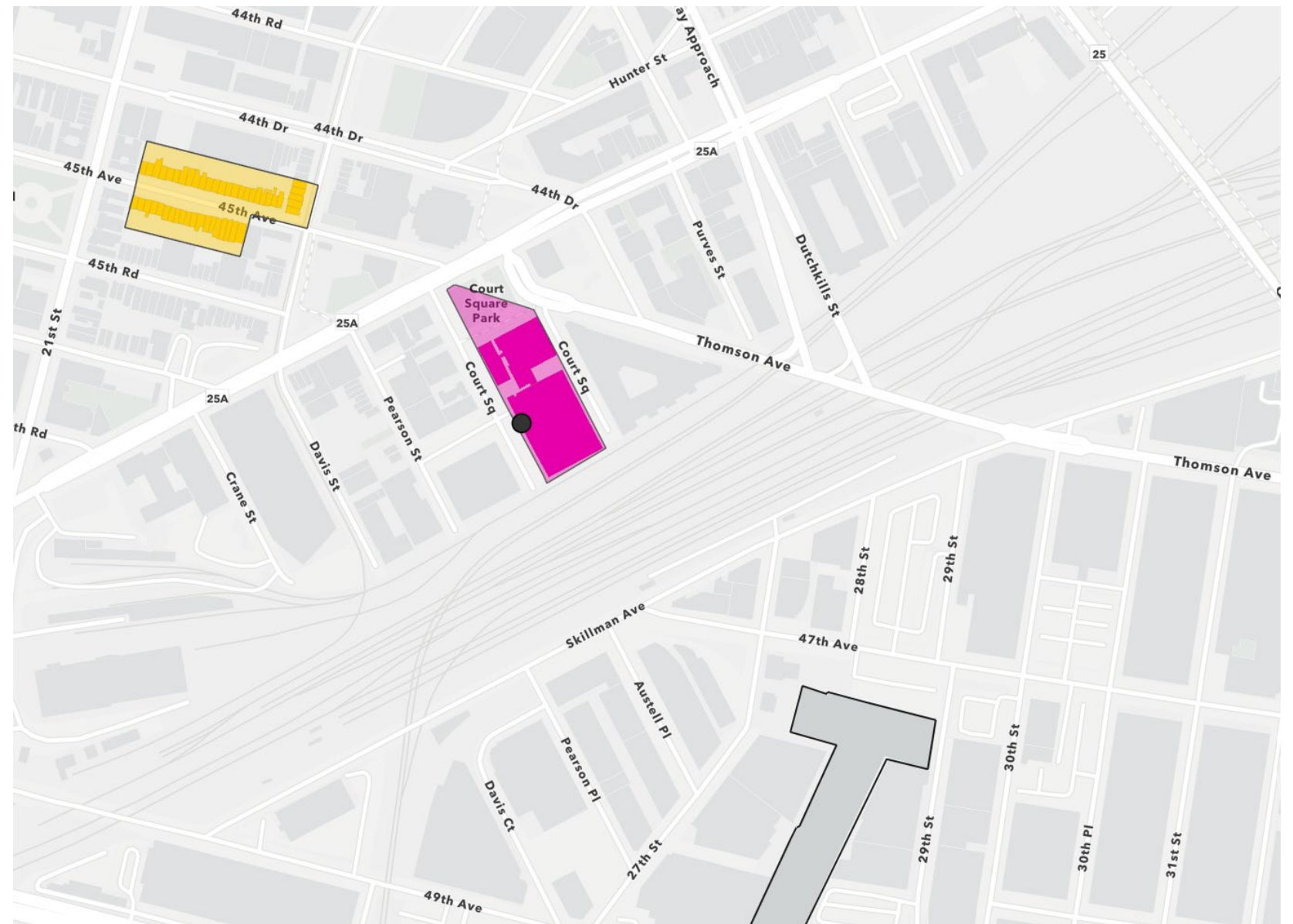
**Court Square Parking Garage
Solar Canopy**

DCAS – Clean Energy

10/15/2025

Project Highlights

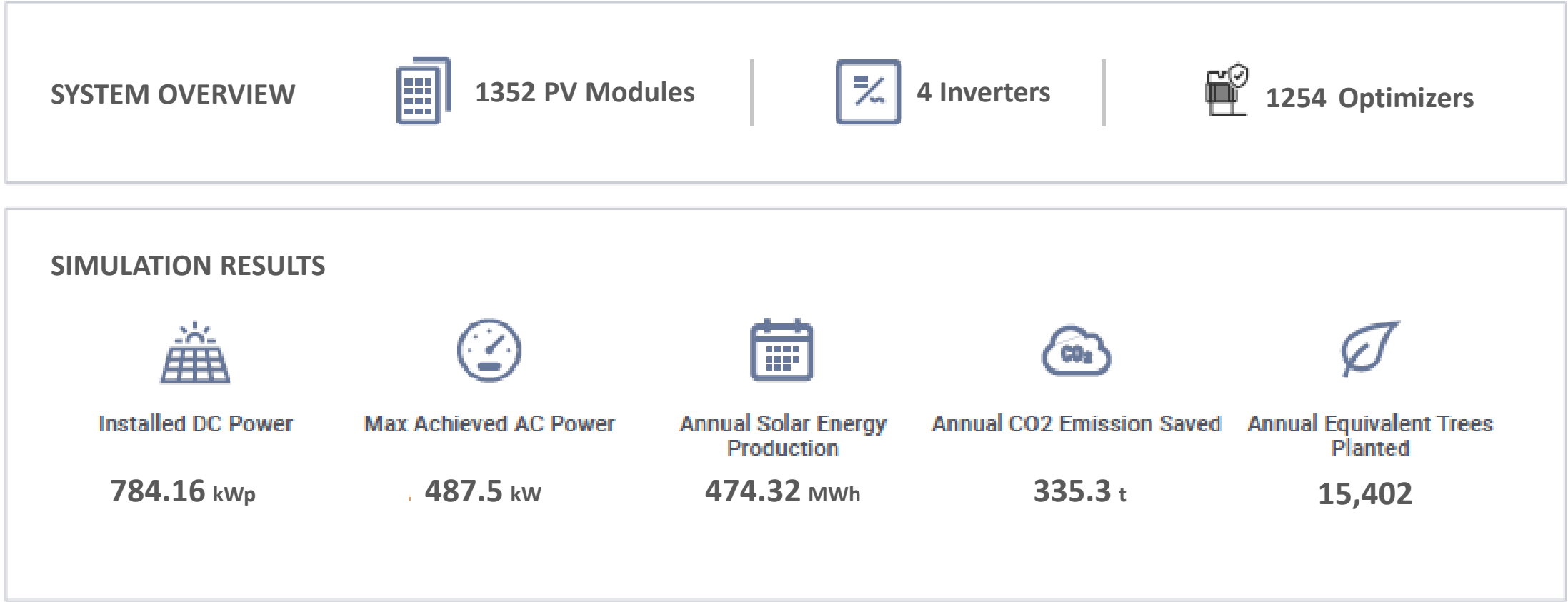
- ❑ First DCAS-developed parking canopy solar project (Queens BBJ Garage first developed by DDC) .
- ❑ DOT owned property with spacious garage with four Level-2 Dual-port EV Charging Stations used by public
- ❑ The solar project initially kickstarted in 2017 with many revisions to its design.



- Location : 45-40 Court Square Long Island City , NY 11101, Block 83, Lot 18.

Project Summary

Increase the capacity of solar systems installed on City property as part of the drive towards 150 MW of solar by 2035.



150 MW of Photovoltaic Solar planned or installed on City Properties by 2035.

4 Level-2 Dual-port EV Charging Stations

- Height of canopy: 12-13 feet from top deck.
- Designed to blend with existing building’s architecture.
- Four Level 2 EV charging stations (dual port) to charge 8 vehicles at a time

Photo 1 : Original photograph of Court Square Garage (Left View)



Photo 2: Rendering of Solar Canopy on top of Court Square Garage (Left View)



Photo 1 : Original photograph of Court Square Garage
(Right View)



Photo 2: Rendering of Solar Canopy on top of Court Square Garage
(Right View)



Photo 1 : Original photograph of Court Square Garage
(Rooftop View)



Photo 2: Rendering of Solar Canopy on top of Court Square
Garage (Rooftop View)





Photo : Rendering of Court Square Parking Garage (Night View)



Photo 1 : Original photograph of Court Square Garage (Side View)



Photo 2: Rendering of Solar Canopy on top of Court Square Garage (Side View)



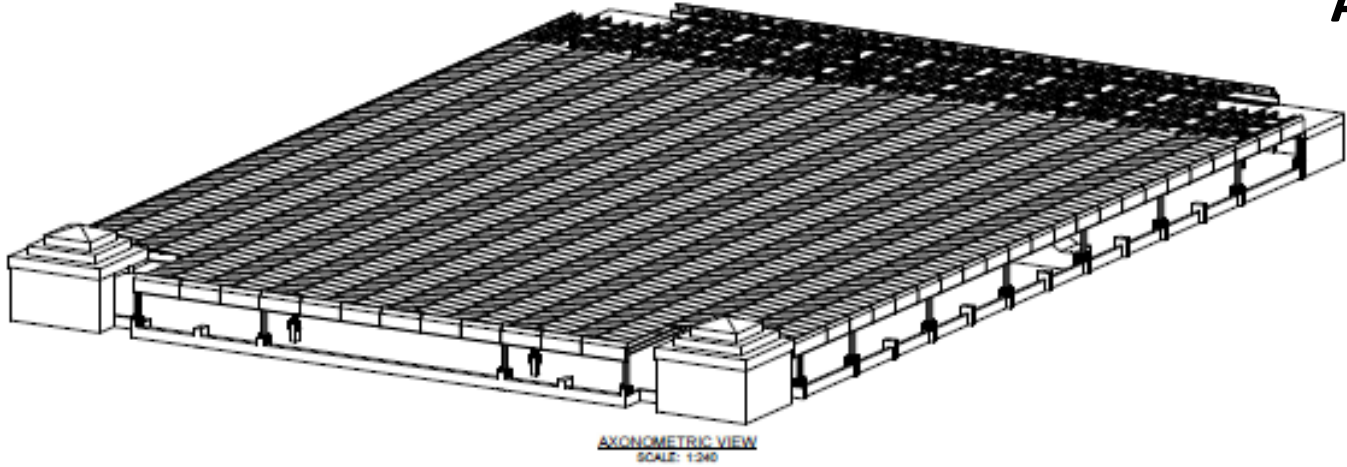
Project Schedule

- The project is currently in Design Phase.

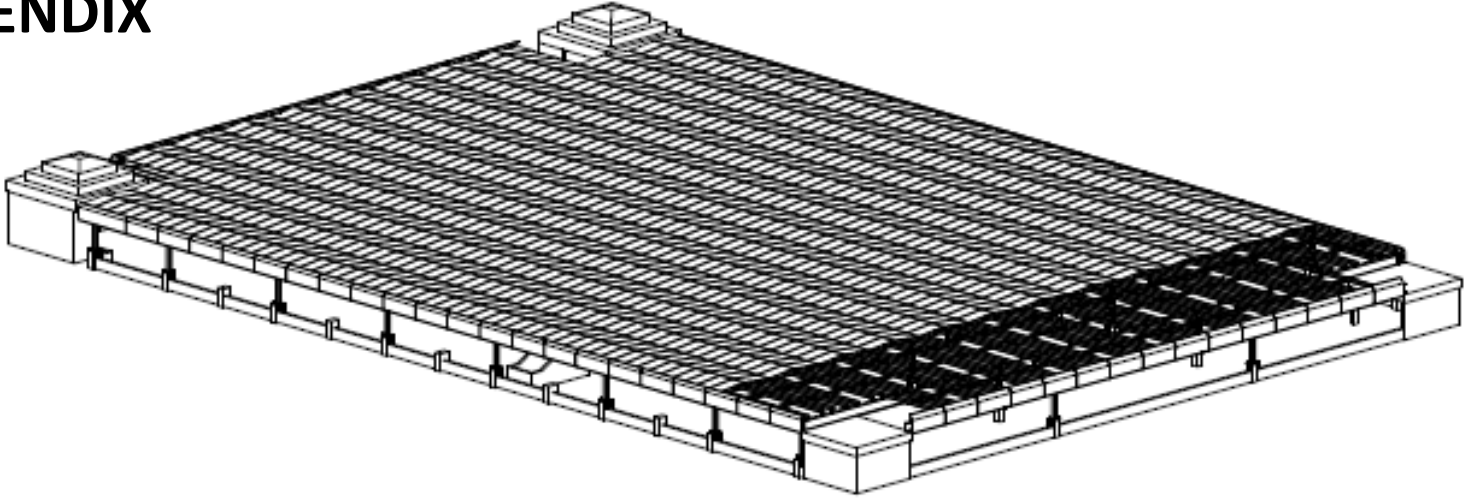
Estimated Construction Start Date	12/01/2025
Estimated Construction Completion	10/31/2026



APPENDIX



AXONOMETRIC VIEW
SCALE: 1:240



AXONOMETRIC VIEW
SCALE: 1:240

PV MODULE SPECS

EAGLE 72 G6B
545-585 WATT • N-TYPE BIFACIAL
Positive power tolerance of 0-+3%

THE MOST DEPENDABLE SOLAR PRODUCT

- 40% rated since 2015, Bloomberg New Energy Index
- Top performance in the industry 3rd party lab
- Automated mechanical layout and intelligent intelligence
- Vertically integrated, high control on quality
- Premium solar technology in USA, Vietnam, and Malaysia

KEY FEATURES

- N-Type Technology**
N-type silicon cells with 100% TOPCon technology, superior performance and long-term stability.
- Multi-Junction Cell Technology**
Better light absorption and conversion efficiency to generate more power output and reliability.
- Bifacial Power Gain**
N-type silicon cells with 100% TOPCon technology, superior performance and long-term stability.
- Low Temperature Coefficient**
Best in class temperature coefficient for highest performance in all climates.
- Industry Grade Construction**
Five Type 2744 optical grade glass cover sheet and thick frame for highest mechanical load resistance.
- Shade Tolerant**
Passive design allows consistent performance even with shading by trees or debris.
- Protected Against All Environments**
Corrosion resistant, humidity, salt, rain, marine environment, wind, lightning, and hail.
- Warranty**
12-year product and 20-year linear power warranty.

CE **UL** **IEC**

MODULE - JKM580N-72HL4-BDV
QTY - 1352 MODULES TOTAL
OUTPUT - 784.16kW

ENGINEERING DIMENSIONS

MECHANICAL CHARACTERISTICS

TEMPERATURE CHARACTERISTICS

MAXIMUM RATINGS

PACKAGING CONFIGURATION

BI-DIRECTIONAL POWER GAIN

WARRANTY

ELECTRICAL CHARACTERISTICS

NOTES: 1. Irradiance: 1000W/m² 2. Cell Temperature: 25°C 3. Ambient Temperature: 25°C 4. Wind Speed: 36m/s

DRAWING INDEX

- S001 - COVER SHEET
- S002 - MODULE LAYOUT
- S100 - PIER/COLUMN LAYOUT
- S200 - ARRAY FRAMING PLAN
- S300 - ARRAY SECTIONS
- S301 - ARRAY SECTIONS
- S302 - ARRAY ELEVATIONS
- S303 - ARRAY ELEVATIONS
- S303 - STAIRWELL ELEVATIONS
- S400 - CONNECTION DETAILS
- S500 - CONNECTION AXONOMETRIC VIEWS

GOVERNING CODE:		DESIGN PARAMETER TABLE	
NEW YORK CITY 2022 BUILDING CODE		STRUCTURAL RISK CATEGORY	
SHOW LOAD:		GROUND SNOW LOAD, PSF	
25	P _g	FLAT ROOF SNOW LOAD, PSF	
21	P _f	SNOW EXPOSURE FACTOR	
1	C _e	SNOW LOAD IMPORTANCE FACTOR	
1	I _s	THERMAL FACTOR	
1.2	C _t	MIN SNOW LOAD FOR LOW-SLOPE ROOF, PSF	
25	P _{ss}	BASIC DESIGN WIND SPEED, MPH	
WIND LOAD:		WIND IMPORTANCE FACTOR	
117	V	VELOCITY PRESSURE EXPOSURE COEFFICIENT	
1	I _w	GROUND ELEVATION FACTOR	
0.85	K _z	WIND EXPOSURE CATEGORY	
1	K _d	INTERNAL PRESSURE COEFFICIENT	
44-6.18	GCFI	ENCLOSURE CLASSIFICATION FOR NEW GARAGE	
PARTIALLY OPEN		ENCLOSURE CLASSIFICATION FOR THE EXISTING GARAGE	
34	C _d	VELOCITY PRESSURE, PSF	
-37.5 / 42.4	P	DESIGN WIND PRESSURE (GRC)	
SEISMIC DESIGN:		SEISMIC IMPORTANCE FACTOR	
1	I _s	SHORT PERIOD SPECTRAL RESPONSE ACCELERATION	
0.258	S _s	5% Damped SPECTRAL RESPONSE ACCELERATION	
0.8	S ₁	SITE CLASS (ASSUMED)	
1	C _s	SEISMIC DESIGN CATEGORY	

GENERAL PROJECT NOTES

1. ALL STRUCTURAL WORK SHALL CONFORM TO THE PROJECT SPECIFICATIONS, INCLUDING THE 2022 NEW YORK CITY BUILDING CODE. THE FOLLOWING STANDARDS WERE USED AS SPECIFIED IN THE GOVERNING BUILDING CODE:
 - a) ASCE 7-16 MINIMUM DESIGN LOADS (AND ASSOCIATED CRITERIA) FOR BUILDINGS AND OTHER STRUCTURES
 - b) ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 - c) AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS
2. CONTRACTOR SHALL PROVIDE TEMPORARY SHORING, BRACING AND SHEETING AND SHALL MAKE SAFE ALL FLOORS, ROOFS, WALLS AND ADJACENT PROPERTY AS PROJECT CONDITIONS REQUIRE. SHORING AND SHEETING SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROJECT JURISDICTION, HIRED BY THE CONTRACTOR, WHO SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE OWNER'S REVIEW.
3. DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION GIVEN IN STRUCTURAL DRAWINGS ARE BASED ON INFORMATION CONTAINED IN VARIOUS ORIGINAL DESIGN AND CONSTRUCTION DOCUMENTS PROVIDED BY THE OWNER, AND LIMITED FIELD OBSERVATIONS AND MEASUREMENTS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PERTAINING TO EXISTING CONDITIONS BY ACTUAL MEASUREMENT AND OBSERVATION AT THE SITE. ALL DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER OF RECORD FOR EVALUATION BEFORE THE AFFECTED CONSTRUCTION IS PUT IN PLACE.
4. ALL STEEL COLUMNS, BEAMS, BRIDGING, FITTINGS, BOLTS AND ANCHOR RODS TO BE HOT DIPPED GALVANIZED AND PAINTED TMECC 06WH ALBATROSS.
5. ALL W-FLANGE MEMBERS TO BE GRADE A992. ALL ANGLE BRIDGING MEMBERS TO BE GRADE A36. ALL PLATE HARDWARE TO BE GRADE A36 UNLESS NOTED GRADE 50. ALL BOLTS TO GRADE A325N. ALL ANCHOR RODS TO BE GRADE F1554-55. ALL WELDING ELECTRODES E70XX.
6. ALL BOLTS MARKED AS "TC" MAY USE DIRECT TENSION INDICATOR WASHERS WITH NON-TC BOLTS TO ACHIEVE CORRECT BOLT TENSION.

INSPECTIONS:

1. SPECIAL INSPECTIONS (NYC)
 - a. SPECIAL INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION SHALL BE PERFORMED BY A TESTING AGENCY PROVIDED BY THE OWNER FOR THE FOLLOWING ITEMS:
 - i. STRUCTURAL STEEL - WELDING (BC 1705.2.1)
 - ii. STRUCTURAL STEEL - DETAILS (BC 1705.2.2)
 - iii. STRUCTURAL STEEL - HIGH STRENGTH BOLTING (BC 1705.2.3)
2. PROGRESS INSPECTIONS (NYC)
 - a. INSPECTIONS REQUIRED BY THE LOCAL JURISDICTION SHALL BE PERFORMED BY A TESTING AGENCY PROVIDED BY THE OWNER FOR THE FOLLOWING ITEMS:
 - i. FINAL (28-114, 28-116.2.4.2, BC 110.5, DIRECTIVE 14 OF 1975, AND 1 RCNY 101-10)
 - b. THE TESTING AGENCY FOR THE INSPECTIONS SHALL FILE ALL APPROPRIATE