HUDSON YARDS - PLATFORM

NYC DOB SUBMISSION UPDATE
MARCH 17, 2014

Discipline Index

ZONING
LIFE SAFETY
ARCHITECTURAL
STRUCTURAL
<table>
<thead>
<tr>
<th>Phase</th>
<th>Tower</th>
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TOTAL ZONING LOT AREA: 570,000 SF

KEY

- ZONING LOT BOUNDARY AND PROPERTY LINE
- PUBLIC ACCESS AREAS NEW THIS PHASE
- PUBLIC ACCESS AREAS EXISTING PER PREVIOUS PHASE
- EXISTING BUILDING PER PREVIOUS PHASE

*FLOOR AREA PER BUILDING SUBJECT TO CHANGE

PUBLIC ACCESS AREAS BY PHASE

**CONSTRUCTION FENCE WILL BE IN PLACE FOR PROTECTION AT LIMITS OF BUILDING AND PUBLIC ACCESS AREAS TO BE PROVIDED IN THIS PHASE**
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*FLOOR AREA PER BUILDING SUBJECT TO CHANGE 2. PUBLIC ACCESS AREAS BY PHASE

**CONSTRUCTION FENCE WILL BE IN PLACE FOR PROTECTION AT LIMITS OF BUILDING AND PUBLIC ACCESS AREAS TO BE PROVIDED IN THIS PHASE**
**Anticipated Cumulative Floor Area Provided**

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**TOTAL ZONING LOT AREA: 576,000 SF**

**NOTE:** WILL COMPLY WITH ALL OTHER APPLICABLE REQUIREMENTS OF SECTION 83-79 INCLUSIVE.
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**FLOOR AREA PER BUILDING SUBJECT TO CHANGE**

**CONSTRUCTION FENCE WILL BE IN PLACE FOR PROTECTION AT LIMITS OF BUILDING AND PUBLIC ACCESS AREAS TO BE PROVIDED IN THIS PHASE**

**NOTE:** WILL COMPLY WITH ALL OTHER APPLICABLE REQUIREMENTS OF SECTION 83-79 INCLUSIVE
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**TOTAL ZONING LOT AREA:** 576,000 SF

**KEY**

- Public Access Areas New This Phase
- Public Access Areas Existing Per Previous Phase
- Existing Building Per Previous Phase
- Zoning Lot Boundary and Property Line

**Note:** Will comply with all other applicable requirements of Section 99-79 inclusive.
1. REFER TO CONSULTANT DRAWINGS FOR ADDITIONAL WORK:

2. ALL FIRE RATINGS INDICATED ALONG EXISTING WORKS ARE SHOWN FOR INTENT ONLY AND NEED TO BE VERIFIED IN FIELD BY CONTRACTOR(S) PRIOR TO START OF CONSTRUCTION.

3. THE CONTRACTOR AND SUB-CONTRACTORS ARE TO CHECK AND VERIFY ALL DIMENSIONS AND JOB CONDITIONS BEFORE COMMENCEMENT OF WORK. ANY DISCREPANCIES BETWEEN

4. PROVIDE UL LISTED (OR EQUAL) FIRESTOP ASSEMBLIES FOR THROUGH PENETRATIONS OR JOINTS IN FIRE RESISTANCE RATED CONSTRUCTION AS REQUIRED BY

5. AT ALL ROOF-MOUNTED EQUIPMENT, PROVIDE MINIMUM 12" HIGH PRE-MANUFACTURED CURBS PER ARCHITECTURAL DRAWINGS.

6. ALL BUILDING SYSTEMS AND COMPONENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE CODES.

7. DIVISION 1 – GENERAL

8. PROVIDE HOT-DIPPED GALVANIZED STEEL WITH HIGH-PERFORMANCE PAINT SYSTEM FOR ALL EXTERIOR FERROUS METAL ITEMS, INCLUDING BUT NOT LIMITED TO

9. CONTRACTOR PROVIDE LIGHTWEIGHT CONCRETE FILL, SLOPED TO DRAIN (¼"/FT), 2" MIN. THICKNESS, FOR POSITIVE DRAINAGE AT

10. CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF THE COORDINATION OF ALL TRADES INCLUDING THE CUTTING, FITTING, DRILLING AND TAPPING OF ALL

11. PROVIDE 2-HOUR RATED WALL ASSEMBLY

12. IN SOCIAL AREAS PROVIDE SMOKE EXTINGUISHERS AND FIRE HOSES FOR EACH INTERIOR EXIT.

13. THE CONTRACTOR SHALL REVIEW AND COORDINATE THE TYPES AND LOCATIONS OF ALL MISCELLANEOUS STEEL REQUIRED BY THE EXTERIOR WALL INSTALLATIONS

14. ADVANCED AUTOMATION SYSTEMS TO INCLUDE, BUT NOT LIMITED TO:

15. GENERAL DESIGN REQUIREMENTS

16. FIRE RATED WALL INDICATIONS

17. CONSTRUCTION PARKING PLAN, WITH AN ENFORCEMENT POLICY; A CONSTRUCTION NOISE MANAGEMENT WITH AN ENFORCEMENT POLICY, AND A MAINTENANCE PLAN FOR

18. IT IS IMPORTANT TO NOTE THAT A COORDINATION OVERVIEW PLAN WILL BE SENT TO THE CONTRACTOR IN THE FORM OF A HARD COPY OR ELECTRONIC FILE.

19. TO ASSURE ALIGNMENT OF ALL JOINTS NOTED OR IMPLIED BY THE CONSTRUCTION DOCUMENTS.

20. MATERIALS AND FINISHES FOR THE BUILDING EXTERIOR SHOULD BE ENSURE TO MEET THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.

21. GENERAL PROPERTY NOTES

22. CONTRACTOR PROVIDE LIGHTWEIGHT CONCRETE FILL, SLOPED TO DRAIN (¼"/FT), 2" MIN. THICKNESS, FOR POSITIVE DRAINAGE AT

23. ARCHITECTURAL Graphic Symbols

24. NON-ARCHITECTURAL Graphic Symbols

25. ARCHITECTURAL KEY

26. MATERIAL KEY

27. INTERIOR FINISH KEY (ELEVATION ONLY)

28. FIRE RATED WALL INDICATIONS

29. PTE LEGEND:

30. RELATED COMPANIES

31. OXFORD PROPERTIES GROUP

32. TISHMAN CONSTRUCTION CORPORATION

33. Kohn Pedersen Fox Associates

34. Ove Arup & Partners P.C.

35. PARSONS TRANSPORTATION GROUP

36. Thornton Tomasetti, Inc.

37. STRUCTURAL ENGINEER: THORNTON TOMASETTI, INC.

38. MECHANICAL ENGINEER: KPF 

39. ELECTRICAL ENGINEER: TISHMAN CONSTRUCTION CORPORATION

40. ELECTRICAL CONTRACTOR: ENECO ELECTRIC CORP.

41. HVAC CONTRACTOR: AIR & HEAT INC.

42. SPRinkler CONTRACTOR: ETC-PROTACT INC.

43. MECHANICAL CONTRACTOR: AIR & HEAT INC.

44. ENGG CONTRACTOR: STRUCTURAL-ENGINEERING INC.

45. MASONRY CONTRACTOR: HARRIS MASONRY CORP.

46. WINDOW CONTRACTOR: WINSTON GLASS INC.

47. CONSTRUCTION MANAGER: TISHMAN CONSTRUCTION CORPORATION

48. ARCHITECT: KPF

49. OWNER: RELATED COMPANIES

50. GENERAL CONTRACTOR: TISHMAN CONSTRUCTION CORPORATION

51. ALL DIMENSIONS INDICATED ON THE DRAWINGS ARE TO CENTERLINE OF JOINT OR EDGE OF MATERIALS AT CORNERS UNLESS OTHERWISE NOTED.

52. DRAWN BY: HYE PL KPF

53. ISSUE DATE: 10/29/2013

54. COMPLETED DATE: 05/14/2014

55. CONTRACTOR PROVIDE HOT-DIPPED GALVANIZED STEEL WITH HIGH-PERFORMANCE PAINT SYSTEM FOR ALL EXTERIOR FERROUS METAL ITEMS, INCLUDING BUT NOT LIMITED TO

56. WHERE REQUIRED AT ROOF AREAS, PROVIDE LIGHTWEIGHT CONCRETE FILL, SLOPED TO DRAIN (¼"/FT), 2" MIN. THICKNESS, FOR POSITIVE DRAINAGE AT

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58. CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF THE COORDINATION OF ALL TRADES INCLUDING THE CUTTING, FITTING, DRILLING AND TAPPING OF ALL

59. PROVIDE UL LISTED (OR EQUAL) FIRESTOP ASSEMBLIES FOR THROUGH PENETRATIONS OR JOINTS IN FIRE RESISTANCE RATED CONSTRUCTION AS REQUIRED BY

60. AT ALL ROOF-MOUNTED EQUIPMENT, PROVIDE MINIMUM 12" HIGH PRE-MANUFACTURED CURBS PER ARCHITECTURAL DRAWINGS.

61. ALL BUILDING SYSTEMS AND COMPONENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE CODES.

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**GENERAL NOTES**

1. **LIRR JURISDICTION**
   - All LIRR structures and areas shown as LIRR at this level are within LIRR jurisdiction.
   - **LIRR ACCESS ROAD** for access to LIRR structures.
   - **EXISTING LIRR TRAINYARD** for existing LIRR train yard area.
   - **EXISTING LIRR DC SUBSTATION** for existing LIRR DC substation.
   - **EXISTING LIRR TRANSFORMER ACCESS** for existing LIRR transformer access.

2. **NON-LIRR JURISDICTION**
   - All non-LIRR structures and areas shown as non-LIRR at this level are within non-LIRR jurisdiction.
   - **LIRR INTERSTITIAL SPACE** for LIRR interstitial space.
   - **LIRR MAINTENANCE OF EQUIPMENT LOWBAY** for LIRR maintenance of equipment lowbay.
   - **LIRR EMPLOYEE ACCESS STAIR** provided as part of tower C project.
   - **LIRR 'THROAT' AREA** for LIRR 'throat' area.
   - **LIRR VENTILATION** for LIRR ventilation.

3. **LIRR TRAINYARD AREA** - An unconditioned space.
   - **PLATFORM LOWER LEVEL** provides the enclosure to LIRR trainyard area.
   - **PLATFORM UPPER LEVEL** is for LIRR maintenance access only.
   - **PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA** - an unconditioned space.
   - **PLATFORM UPPER LEVEL IS FOR LIRR MAINTENANCE ACCESS ONLY**.

4. **LIRR EMPLOYEE ACCESS STAIRS PROVIDED AS PART OF TOWER C PROJECT. N.I.C.**
   - **SECTOR PLANS** for additional information.
   - **SEPARATION AND EXTENT OF LIRR TRAINYARD**

5. **ALL AREAS SHOWN AS NON-LIRR AT THIS LEVEL TO BE A-303.00**
   - **ALL AREAS SHOWN AS NON-LIRR AT THIS LEVEL TO BE A-303.00**
   - **ALL NON-LIRR AREAS FLOORS & ENCLOSING WALL TO BE DESIGNED TO WITHSTAND WATER PRESSURE FROM ASSUMING WATER HEIGHT TO BASE FLOOD ELEVATION.**

6. **NO RESIDENTIAL Uses Proposed**
   - **NO OCCUPIABLE SPACES BELOW BASE FLOOD ELEVATION**
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**APPROVED UNDER DIRECTIVE 2 OF 1975**

Date: 05/14/2014

Damian Titus

HUDSON YARDS - PLATFORM

**OVERALL PLAN**

**TRACK LEVEL OVERALL PLAN**

**DRAWN BY**

**AUTHOR**

**SHEET NUMBER**

**DRAWING NUMBER**

**NASH SCALE**
HUDSON YARDS - PLATFORM

1. RESERVED FOR TRAIN YARD AND SUPPORTING FACILITIES INCLUDING MAINTENANCE OF EQUIPMENT, CONTROL TOWER, AND A/C & D/C SUBSTATION.

3. PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA. PLATFORM UPPER LEVEL LIRR TRAINYARD AREA - AN UNCONDITIONED SPACE. INCLUDES STORAGE AREAS OVER THROAT OF TRAIN PLATFORM UPPER LEVEL IS FOR LIRR MAINTENANCE YARD LEADING TO PENN STATION TRAIN YARD ACCESS ONLY.

5. NO RESIDENTIAL USES PROPOSED.

GENERAL NOTES

HUDSON YARDS - PLATFORM

Address: NEW YORK, NY

3. PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA. PLATFORM UPPER LEVEL LIRR TRAINYARD AREA - AN UNCONDITIONED SPACE. INCLUDES STORAGE AREAS OVER THROAT OF TRAIN PLATFORM UPPER LEVEL IS FOR LIRR MAINTENANCE YARD LEADING TO PENN STATION TRAIN YARD ACCESS ONLY.

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5. NO RESIDENTIAL USES PROPOSED.
APPROVED
Under Directive 2 of 1975

Date:

Damian Titus

05/14/2014:

ED

18' - 11"

27' - 9"

34' - 11"

29' - 0"

LIRR TRAINYARD AREA - AN UNCONDITIONED SPACE.
PLATFORM UPPER LEVEL IS FOR LIRR MAINTENANCE ACCESS ONLY

1. PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA. PLATFORM UPPER LEVEL LIRR TRAINYARD AREA - AN UNCONDITIONED SPACE.

2. HATCHED AREA DENOTES INACCESSIBLE SPACE

3. PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA - AN UNCONDITIONED SPACE.
PLATFORM UPPER LEVEL IS FOR LIRR MAINTENANCE ACCESS ONLY

4. SEE A-020 FOR DIAGRAMMATIC VIEW OF 3-HR SEPARATION AND EXTENT OF LIRR TRAINYARD ENCLOSURE

5. SEE SECTOR PLANS FOR ADDITIONAL INFORMATION.
THESE PROVIDED FOR REFERENCE ONLY.

6. NO OCCUPIABLE SPACES BENEATH BASE FLOOD ELEVATION DESIGNED AS PER ABFE 11'-4"

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HUDSON YARDS - PLATFORM

Address:
530 WEST 33RD STREET
NEW YORK, NY

3 LEVEL: +31'-7"
TOS   40'-6"
PL_LOWER PLATFORM LEVEL
TOS   35'-0"

VIADUCT
LIRR TRAINYARD

TOS   10'-0"
PL_TRACK LEVEL

TOS   1'-0"
PL_UTILITY LEVEL

Client
Related Companies
60 Columbus Circle
New York, NY 10023
TEL: 212.801.1000  FAX: 212.801.1048

Construction Manager
Tishman Construction Corporation
100 Park Avenue, 5th Floor
New York, NY 10017
TEL:212.708.3600

Architect
Kohn Pedersen Fox Associates
PCArchitects & Planning Consultants
11 West 42nd Street
New York, New York 10036
TEL: 212.977.6500  FAX: 212.956.2526

Structural Engineer
Ove Arup & Partners P.C.
77 Water Street
212.896.3000

Mechanical, Electrical, Plumbing, Fire Protection
100 Broadway
New York, NY 10005
TEL: 212.266.8300 FAX: 212.571.6825

PROPERTY LINE

STREET/CURB LEVEL: +26'-7"

STREET/CURB LEVEL: +22'-2"

STREET/CURB LEVEL: +31'-7"

STREET/CURB LEVEL: +32'-6"

STREET/CURB LEVEL: +18'-9"

EXISTING AMTRAK EMPIRE
EXISTING EMERGENCY EXIT
AMTRAK NORTH RIVER TUNNEL

EXISTING AMTRAK EMERGENCY EXIT

EXISTING EMERGENCY EXIT
AMTRAK NORTH RIVER TUNNEL

VIADUCT TO PENN STATION

LIRR EXHAUST AIR TOWER

LIRR TRAINYARD

VIADUCT

LIRR Substation

AECOM
New York, NY 10158
TEL: 212.973.9200 FAX: 212.682.6172

PROPERTY LINE

PROPERTY LINE

LIRR EXHAUST AIR TOWER

11TH AVENUE

10TH AVENUE VIADUCT

STREET/CURB
LEVEL: +31'-9"
LEVEL: +32'-6"
LEVEL: +31'-7"
LEVEL: +32'-6"
LEVEL: +31'-9"
LEVEL: +31'-9"
LEVEL: +32'-6"
LEVEL: +32'-6"
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Under Directive 2 of 1975

APPROVED

Date:

Damian Titus

05/14/2014:
scale: 1 1/2" = 1'-0"
storefront entry section detail - sills

scale: 1 1/2" = 1'-0"
section detail at storefront louver panel

scale: 1 1/2" = 1'-0"
storefront entry section detail - glass windows
MASONRY PARTITION, SEE PLAN FOR TYPE

UNDERSIDE OF SLAB

METAL FLOOR RUNNER

(2) LAYERS 5/8" GYPSUM SHEATHING

BASE AS SCHEDULED

FLOOR 40 MIL SELF-ADHERED MEMBRANE

EXTRUDED POLYSTYRENE BOARD INSULATION

6" STEEL STUDS (6ST20) AT 16" O.C., TYP.

ST1-SERIES PARTITION

N.T.S. - REFER TO SCHEDULE FOR MORE INFORMATION

ST2-SERIES PARTITION

N.T.S. - REFER TO SCHEDULE FOR MORE INFORMATION

ST3-SERIES PARTITION

N.T.S. - REFER TO SCHEDULE FOR MORE INFORMATION
Hudson Yards - Platform

1. Hatch area denotes proposed non-LIRR area.
2. Hatch area denotes LIRR platform scope not included in the scope of MOE/AC/Substation/Control.
3. Platform Lower Level provides the enclosure to LIRR Trainyard area. Platform Upper Level includes temporary required over throat and base of retail podium.
4. LIRR existing utilities shown for information. Existing utilities based on as-built drawings dated 1982. Refer to structural drawings for further foundation information.
5. LIRR employee access stair provided as part of Tower C project. N.I.C.
6. Waterproofing to be installed for all new slabs on grade. See structural drawings for extent.

Client: Related Companies
Address: 530 West 33rd Street, New York, NY 10023
Tel: 212.986.7514 Fax: 212.986.7510

Architect: Kohn Pedersen Fox Associates
Address: 11 West 42nd Street, New York, New York 10036
Tel: 212.977.6500 Fax: 212.956.2526

Structural Engineer: Thornton Tomasetti, Inc.
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Tel: 917.661.7800 Fax: 917.661.7801

Mechanical, Electrical, Plumbing, Fire Protection: AECOM
Address: 605 Third Avenue, New York, NY 10158
Tel: 212.896.3000

Construction Manager: Tishman Construction Corporation
Address: 100 Park Avenue, 5th Floor, New York, NY 10017
Tel: 212.708.3600

General Notes:
- Under Directive 2 of 1975
- Multiple levels of the building are not shown.

Scale: 1/16" = 1'-0"
HUDSON YARDS - PLATFORM

Address:
530 west 33rd street
New york, ny

GENERAL NOTES

1. HATCHED AREA DENOTES PROPOSED NON-LIRR PLATFORM AREA

2. HATCHED AREA DENOTES LIRR PLATFORM Scope NOT INCLUDED IN THE SCOPE OF MOE/AC/ SUBSTATION/CONTROL TOWER SUBMISSION

3. PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA. PLATFORM UPPER LEVEL INCLUDES TEMPORARY REQUIRED OVER THROAT AND SECTOR 5

4. LIRR EXISTING UTILITIES SHOWN FOR INFORMATION. EXISTING UTILITIES BASED ON AS-BUILT DRAWINGS DATED 1982. REFER TO STRUCTURAL DRAWINGS FOR FURTHER FOUNDATION INFORMATION.

5. LIRR EMPLOYEE ACCESS STAIR PROVIDED AS PART OF TOWER C PROJECT. N.I.C. 1-HOUR RATED WALL

6. LIRR Ventilation Ove Arup & Partners P.C.

7. AECOM 605 Third Avenue New York, ny 10158

8. MEN'S LOCKER ROOM

9. MEN'S CLOSET

10. CORRIDOR

11. MECHANICAL ROOM

12. WOMEN'S LOCKER ROOM

13. WOMEN'S CLOSET

14. TICKET ROOM

15. TICKET ROOM

16. CONTROL PANEL ROOM

17. PSCC ROOM

18. TICKET ROOM

19. TICKET ROOM

20. ENTRY ROOM

21. STORAGE ROOM

22. CONTROL TOWER/ENTRY LEVEL OVERALL

23. 1/16" = 1'-0"

24. 10/29/2013 1:48:10 PMC:

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NOTES:
1. ISOMETRIC IS INDICATIVE ONLY. PLEASE REFER TO SECTIONS & DETAILS.
2. COLUMNS TYPICALLY TERMINATE BELOW NORTH-SOUTH PLATE GIRDERS
3. DECK SLAB OMITTED FOR CLARITY OVER PART OF PLATFORM
NOTE:
1. STRUCTURAL SEPARATION TO ADJACENT STRUCTURES SHALL BE IN ACCORDANCE WITH NYCBC SECTION 1617.3.2 WITH A MINIMUM STRUCTURAL SEPARATION OF 1" FOR EVERY 50 FEET IN HEIGHT. GAP AT TOP OF PLATFORM SHALL MEET OR EXCEED 0.64" PER CODE. SEE ARCHITECTURAL DRAWINGS FOR SEPARATION WHICH EXCEEDS THIS VALUE.
NOTES:
1. REFER TO S-141.00 FOR SHEET NOTES
LEVEL 0'-0"
MIN. CLEARANCE AT CORE (17'-6" ELSEWHERE)
T.O. RAIL
EL. 8.5'
6" FIREPROOFING & DEFLECTION TOLERANCE
16'-6"

SHEET 47 OF 155

DI-01 PHASE 1 STRUCTURE UPDATE 9/20/2013
1

DI-02 PHASE 1 STRUCTURAL UPDATE 11/1/2013
2

MoE - PLATFORM SUBMISSION

NYC DOB FILING 12/4/2013

L.I.R.R. - PRE-FINAL 100% 11/22/2013

NYC DOB FILING

LIRR - 30% SUBMISSION

LIRR - 60% - PHASE I FDNS
2/15/2013

LIRR - 60% SUBMISSION 5/29/2013

LIRR - 90% SUBMISSION 8/09/2013

NYC DOB FILING 10/4/2013

HUDSON YARDS
PLATFORM

ADDRESS
530 WEST 33RD STREET
NEW YORK, NY

PROJECT No.

DRAWN BY

DATE:

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NO. DESCRIPTION DATE

Sheet Number

Drawing Title

Drawing Number / B-SCAN Drawing Number

11/22/2013 6:18:30 PM C:\Scratch\N11330.00 - East Pl atform - Central_cchu.rvt

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PC Architects & Planning Consultants

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Related Companies
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Tel: 212.801.1000  Fax: 212.801.1048

L.I.R.R. - 30% SUBMISSION

L.I.R.R. - 60% - PHASE I FDNS
2/15/2013

L.I.R.R. - 90% SUBMISSION 8/09/2013

L.I.R.R. - PRE-FINAL 100% 11/22/2013

PRELIMINARY
NOT FOR CONSTRUCTION
INFLUENCE LINE OF AMTRAK EGRESS TUNNEL

T/SLAB EL = 31' - 6"
T/FDN EL = 6' - 6"

BOT OF AMTRACK EGRESS TUNNEL EL. -40'-2 3/4"

INFLUENCE LINE OF AMTRAK EGRESS TUNNEL

NO. 7 LINE VENTILATION TUNNEL
APPROXIMATE ROCK SURFACE

CLEAR ZONE ALONG WITH TUNNEL BEYOND

1/8" = 1'-0"
1 SECTION AT GRID E4
2 SECTION AT GRID E2
LEVEL 1 - RETAIL

40'-6" FUTURE COLUMN
ABOVE, TYP.

EXISTING AMTRAK TUNNEL
EXISTING TRACKS, TYP.

DOUBLE TRUSS TAA1

PHASE II PLATFORM
STRUCTURE BEYOND 33RD STREET
EXIST. SUB-SLAB
EXISTING RETAINING WALL
PHASE II PLATFORM BEYOND NORTH YARD WALL
PRESSURE SLAB

LEVEL 1 - RETAIL

40'-6" PROPOSED FUTURE AMTRAK TUNNEL
EXISTING EMPIRE LINE TUNNEL
EXISTING TRACKS, TYP.

FUTURE COLUMN ABOVE, TYP.

TOWER C EXIST STRUCT
EXIST. SUB-SLAB 0"
DOUBLE TRUSS TAA2
DOUBLE TRUSS TAA3
DOUBLE TRUSS TAA4
DOUBLE TRUSS TAA5
LEVEL 1 - RETAIL

40'-6"

EXPANSION JOINT. SEE TYP. DETAIL ABOVE, TYP.

NEW PLATFORM BRACING

NEW MOE SLAB

NEW MEZZANINE LEVEL

EXIST. RETAINING WALL

PHASE II PLATFORM STRUCTURE

DOUBLE TRUSS

NEW MOE SLAB

OUT-OF-PLANE TRUSS

L.I.R.R. - PRE-FINAL 100% 11/22/2013

MoE - PLATFORM SUBMISSION

PRELIMINARY NOT FOR CONSTRUCTION

S-269.00 ELEVATION AT GRID LINE 5

1/8" = 1'-0"
EXISTING EMPIRE LINE TUNNEL

PROPOSED FUTURE AMTRAK TUNNEL

PHASE II PLATFORM STRUCTURE

EXPANSION JOINT SEE TYP. DETAIL

CRAWL SPACE

LEVEL 1 - RETAIL

PR

A.5

A.6
PHASE II PLATFORM STRUCTURE

LEVEL 1 - RETAIL

S-418.00

EXISTING CAISSON CLR.

17'-6"

Key Plan

Project No. Drawn By

Date: 11/22/2013

Drawing Title

HUDSON YARDS PLATFORM

Address 530 WEST 33RD STREET
NEW YORK, NY

Drawing Number / B-SCAN Drawing Number

N11330.00

HyE - PL - S-274.00

NYC DOB FILING

12/4/2013

DI-02 PHASE 1 STRUCTURAL UPDATE

11/1/2013

MoE - PLATFORM SUBMISSION

11/22/2013

DI-01 PHASE 1 STRUCTURE UPDATE

9/20/2013

L.I.R.R. - PRE-FINAL 100% 11/22/2013

L.I.R.R. - 90% SUBMISSION 8/09/2013

L.I.R.R. - 60% SUBMISSION 5/29/2013

L.I.R.R. - 60% - PHASE I FDNS 3/29/2013

L.I.R.R. - 30% SUBMISSION 2/15/2013

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1/8" = 1'-0"
EXISTING TRACKS, TYP.
OUT OF PLANE DOUBLE TRUSSES TYP.

EXISTING EMPIRE LINE TUNNEL
10TH AVE LOADING DOCK
EXISTING RETAINING WALL
EXISTING ABUTMENT TO BE CUT

CLR.
17'-6"

ELEVATION AT GRID LINE 11

ELEVATION AT GRID LINE 11
LEVEL 1 - RETAIL

40'-6"

PHASE II PLATFORM STRUCTURE

NEW CONCRETE WALL ON TOP OF EXISTING WALL

STEEL COLUMN

A-FRAME

FUTURE COLUMN ABOVE, TYP.

EXISTING ROOF OF SUBSTATION BUILDING

FRAMING TO PENETRATE SUBSTATION BUILDING WALL

NEW CONCRETE FOUNDATION WALL

COLUMNS TO PENETRATE EXISTING ROOF

EXISTING CONTROL TOWER ROOF TO BE DEMOLISHED TO ACCOMMODATE FRAMING

EXISTING RETAINING WALL

EXISTING MANHOLE

PRESSURE SLAB

1/8" = 1'-0"

ELEVATION AT GRID LINE 14.8

NYC DOB FILING 12/4/2013
DI-02 PHASE 1 STRUCTURAL UPDATE 11/1/2013
L.I.R.R. - PRE-FINAL 100% 11/22/2013
LIRR - 30% SUBMISSION
LIRR - 60% - PHASE I FDNS 2/15/2013
3/29/2013
LIRR - 60% SUBMISSION 5/29/2013
NYC DOB FILING 6/17/2013
LIRR - 90% SUBMISSION 8/09/2013
DI-01 PHASE 1 STRUCTURE UPDATE 9/20/2013
NYC DOB FILING 10/4/2013
121331763
ES316938610
SHEET 79 OF 201
05/14/2014: APPOVED
Under Directive 2 of 1975
05/14/2014: APPOVED
Under Directive 2 of 1975

Prepared by

S-281.00 SHEET 78 OF 201

Hudson Yards Platform

Address

530 WEST 33RD STREET

NEW YORK, NY

HUDSON YARDS PLATFORM

02/15/2013

Hyde Park

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LIRR - 30% SUBMISSION

LIRR - 60% - PHASE I FDNS

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3/29/2013

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DI-01 PHASE 1 STRUCTURE UPDATE 9/20/2013
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DI-02 PHASE 1 STRUCTURAL UPDATE 11/1/2013
L.I.R.R. - PRE-FINAL 100% 11/22/2013

MoE - PLATFORM SUBMISSION
PRELIMINARY
NOT FOR CONSTRUCTION

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S-281.00 SHEET 78 OF 201

Hudson Yards Platform

Address

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HUDSON YARDS PLATFORM

02/15/2013

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LIRR - 30% SUBMISSION

LIRR - 60% - PHASE I FDNS

2/15/2013
3/29/2013

LIRR - 60% SUBMISSION 5/29/2013
NYC DOB FILING 6/17/2013
LIRR - 90% SUBMISSION 8/09/2013
DI-01 PHASE 1 STRUCTURE UPDATE 9/20/2013
NYC DOB FILING 10/4/2013

DI-02 PHASE 1 STRUCTURAL UPDATE 11/1/2013
L.I.R.R. - PRE-FINAL 100% 11/22/2013

MoE - PLATFORM SUBMISSION
PRELIMINARY
NOT FOR CONSTRUCTION

Prepared by
NOTE TO DRAWER: TOP OF ROCK SOCKET IS HIGHEST ELEVATION BASED ON INFLUENCE LINE. ACTUAL TOP OF ROCK AND SOCKET TO BE FIELD VERIFIED BY CONTRACTOR AND GEOTECHNICAL ENGINEER.
### Pile Cap Schedule

<table>
<thead>
<tr>
<th>Pile Type</th>
<th>H (in)</th>
<th>L (in)</th>
<th>W (in)</th>
<th>S (in)</th>
<th>Bottom Long Bars</th>
<th>Bottom Short Bars</th>
<th>Top Long Bars</th>
<th>Top Short Bars</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC3</td>
<td>48</td>
<td>100</td>
<td>52</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C1-1 PC8</td>
<td>48</td>
<td>66</td>
<td>52</td>
<td>52</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Pile and Pile Cap Legend

- Cast-in-place pile cap
- Column
- Pile cap mark
- L (in)
- W (in)
- S (in)

### Notes

1. Pile cap elastic limit XX'-X"
2. See typical pile cap schedule and details.

### Typical Cast-in-Place Pile Cap Section - Steel Column

1. Typical cast-in-place pile cap section - steel column
2. See detail for layout.
PIER OVER FUTURE AMTRAK TUNNEL - TYPE A

**PIER OVER AMTRAK TUNNEL - TYPE A**

**PIER SCHEDULE**

- **PIER OVER AMTRAK TUNNEL SCHEDULE**
  - **PIER TYPE**
  - **D**
  - **#**
  - **DESCRIPTION**
  - **REMARKS**
  - **PIER A**
    - **2'-0"**
    - **4'-0"**
    - **6'-0"**
    - **10'-0"**
    - **3 3/16"**
    - **T.O. EXIST. GRADE LEVEL 1'-0"**
    - **VERT. REINFORCEMENT (SEE SCHEDULE)**
    - **2" MIN. CONC. COVER**
    - **HORIZ. TIES (SEE PIER SCHEDULE)**
    - **10-KSI CONCRETE**
  - **PIER B**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER C**
    - **4'-6"**
    - **10-KSI CONCRETE**
  - **PIER D**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER E**
    - **7'-6"**
    - **4'-6"**
    - **10-KSI CONCRETE**
  - **PIER F**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER G**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER H**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER I**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER J**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER K**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER L**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER M**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER N**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER O**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER P**
    - **2'-0"**
    - **2'-0"**
    - **5-KSI CONCRETE**
  - **PIER Q**
    - **2'-0"**
    - **2'-0""
**SOLID BOX SECTIONS TABLE (S-SECTIONS)**

<table>
<thead>
<tr>
<th>Width (w)</th>
<th>Thickness (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-12X12</td>
<td>12</td>
</tr>
<tr>
<td>S-16X18</td>
<td>16</td>
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<tr>
<td>S-20X16</td>
<td>20</td>
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<td>S-30X30</td>
<td>30</td>
</tr>
<tr>
<td>S-36X36</td>
<td>36</td>
</tr>
</tbody>
</table>

**BUILT-UP W SECTIONS TABLE**

<table>
<thead>
<tr>
<th>Width (w)</th>
<th>Thickness (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W14X730</td>
<td>14</td>
</tr>
<tr>
<td>W18X840</td>
<td>18</td>
</tr>
<tr>
<td>W20X1000</td>
<td>20</td>
</tr>
<tr>
<td>W24X1200</td>
<td>24</td>
</tr>
<tr>
<td>W30X1500</td>
<td>30</td>
</tr>
</tbody>
</table>

**BUILT-UP BOX SECTION TABLE (B-SECTIONS)**

<table>
<thead>
<tr>
<th>Width (w)</th>
<th>Thickness (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-16X16</td>
<td>16</td>
</tr>
<tr>
<td>B-20X20</td>
<td>20</td>
</tr>
<tr>
<td>B-24X24</td>
<td>24</td>
</tr>
<tr>
<td>B-30X30</td>
<td>30</td>
</tr>
<tr>
<td>B-36X36</td>
<td>36</td>
</tr>
</tbody>
</table>

**BUILT-UP BOX SECTION TABLE (NO FILL)(BB-SECTIONS)**

<table>
<thead>
<tr>
<th>Width (w)</th>
<th>Thickness (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB-20X20</td>
<td>20</td>
</tr>
<tr>
<td>BB-24X24</td>
<td>24</td>
</tr>
<tr>
<td>BB-30X30</td>
<td>30</td>
</tr>
<tr>
<td>BB-36X36</td>
<td>36</td>
</tr>
</tbody>
</table>

**TYPICAL SECTION OF BOX COLUMN**

1. BUILDUP: 
   - Width (w) and Thickness (t) combinations for specific requirements.
2. SOLID SHAPE: 
   - Dimensions and notes for solid column sections.
3. ENCASED IN CONCRETE: 
   - Details for columns encased in concrete, including dimensions and notes.

**NOT TO SCALE**

- 1" = 1'-0"
- TYPICAL STEEL COLUMN SECTION FOR 
  - TYPICAL STEEL COLUMN SECTION FOR 
  - TYPICAL STEEL COLUMN SECTION FOR 
  - TYPICAL SECTION OF BOX COLUMN: SOLID SHAPE

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**Designates for North American Construction**
- Key Plan
- Sheet Number
- Column Details I

**NOTICE**
- Contract is subject to Engineer review before submission.
- NOTE: CONTRACTOR TO SUBMIT PROPOSED PLATE SIZES AND LAYOUT FOR ENGINEER REVIEW.

**Columns Section Types**
- 3 COLUMN SECTION TYPES
- TYPICAL STEEL COLUMN SECTION FOR:
  - tf=tf≤2" (UNTIL 8' ABOVE T.O.R.)
  - tf=tw> 2" (ABOVE 8' FROM T.O.R.)
  - tf=tw < 2" (UNTIL 8' ABOVE T.O.R.)
- TYPICAL W SHAPE COLUMN ENCASED IN CONCRETE

**Columns Section Details**
- SEE COLUMN SECTION DETAIL FOR SOLID SECTION (S-SECTIONS)
- SEE COLUMN SECTION DETAIL FOR BUILT-UP BOX SECTION (BB-SECTIONS)
NOTES:
1. SEE COLUMN SCHEDULE FOR BASE PLATE SIZE, ORIENTATION AND THICKNESS.
2. BASE PLATE THICKNESS SHOWN ON SCHEDULE IS A MIN. DIMENSION AFTER ALL MILLING IS COMPLETED.
3. COLUMN STABILITY DURING ERECTION IS RESPONSIBILITY OF CONTRACTOR.
4. SEE COLUMN SCHEDULE FOR ANCHOR ROD SIZE AND SEE ANCHOR ROD DETAIL FOR ADDITIONAL INFORMATION.
5. CONTRACTOR'S OPTION TO FIELD WELD COLUMNS TO BASEPLATES FOR HEAVY DIAMETER-anchor rods.

1. POST-TENSION ANCHOR ROD IN CAISSON
2. SHEAR LUG DETAIL
3. TYPICAL POST-INSTALLED ANCHOR BOLT
4. TYPICAL ANCHOR ROD DETAIL
TYPICAL DETAIL AT FUTURE COLUMN SUPPORTED ON PLATE GIRDER

TYPICAL DETAIL AT FUTURE COLUMN SUPPORTED ON TRUSS CHORD

TYPICAL DETAIL AT FUTURE PODIUM COLUMN SUPPORTED ON PLATFORM COLUMN

TYPICAL DETAIL AT FUTURE COLUMN SUPPORTED ON DOUBLE TRUSS
EXISTING WALL TO REMAIN.
CLEAN & ROUGHEN EXIST SURFACE TO 1/4" AMPLITUDE.
9" LINER MATCH BOTTOM OF EXISTING WALL KEY WALL TO SOUND ROCK (75TSF)
V.I.F. 3'-6" 10'-0" VARIES VARIES
T.O. FINISH GRADE EL. VARIES
TOP OF ROCK VARIES
GRADE EL. VARIES SEE ARCH DWGS
9" VARIES VARIES
SEE S-363 FOR TOP WALL REINFORCING DETAILS
6" TIMBER TIES
STONE BALLAST EL. =13'-6"
#4@9" o.c. VERT.
#4@9" o.c. HORIZ.
#3 PINS 9" o.c. HORIZ. 9" o.c. VERT. 6" EMBEDMENT WITH HILTI HY 150MAX OR APPROVED EQUAL
NEW SIDEWALK SEE CIVIL DRAWINGS.
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Section at Plaza with existing wall higher than top of curb - no liner</td>
</tr>
<tr>
<td>2</td>
<td>Section at Plaza with existing wall rebuilt - no corbel</td>
</tr>
<tr>
<td>3</td>
<td>Section at Plaza - existing Amtrack stairtower</td>
</tr>
<tr>
<td>4</td>
<td>Section at Plaza with upper part of existing wall to be rebuilt</td>
</tr>
</tbody>
</table>

**Notes:**
- CURB SEE PLAZA FINISH DWGS
- TOP OF ARCH FINISH
- NEW SIDEWALK
- 4.5" EXPANSION JOINT
- PL
- #5@12"o.c. VERT
- #7@12"o.c. VERT
- ALTERNATING
- (PANELS 8 TO 10)
- NEW DOWELS DRILL & EPOXY
- #7@12"o.c. ALTERNATE WITH EXIST BARS
- (PANELS 8 TO 10)
- #5@12"o.c. ALTERNATE WITH EXIST BARS
- EXIST VERT BARS TO BE PRESERVED
- BEARING PLATE
- EXP BEARING
- 3/4" DEPTH STIFFENER
- #5@6"o.c.
- CLEAR
- 2"

**Address:**
530 West 33rd Street
New York, NY 10001

**Project:**
Hudson Yards Platform

**Ownership and Management:**
Oxford Properties Group

**Architect:**
Kohn Pedersen Fox Associates PC

**Structural Engineer:**
Thornton Tomasetti, Inc.

**Civil, Mechanical, Electrical, Plumbing, Fire Alarm, Fire Protection, Security:**
Parsons Transportation Group

**LIRR Ventilation:**
Ove Arup & Partners P.C.

**LIRR Substation:**
AECOM

**Construction Manager:**
Tishman Construction Corporation

**Client:**
Oxford Properties Group

**Contact Information:**
- Tel: 212.986.7514  Fax: 212.986.7510
- Related Companies
  - Tel: 212.801.1000  Fax: 212.801.1048
- Construction Manager
  - Tishman Construction Corporation
  - Tel: 212.708.3600
- Architect
  - Kohn Pedersen Fox Associates PC
  - Tel: 212.977.6500  Fax: 212.956.2526
- Structural Engineer
  - Thornton Tomasetti, Inc.
  - Tel: 917.661.7800 Fax: 718.661.7801
- Civil, Mechanical, Electrical, Plumbing, Fire Alarm, Fire Protection, Security
  - Parsons Transportation Group
  - Tel: 212.266.8300 Fax: 212.571.6825
- LIRR Ventilation
  - Ove Arup & Partners P.C.
  - Tel: 212.896.3000
- LIRR Substation
  - AECOM
  - Tel: 212-973-9200 Fax:212.682.6172

**Dimensions:**
- 3/4" = 1'-0"
NEW SIDEWALK
PL
PRESERVE EXISTING REBAR
TOP OF ARCH
FINISH
1 1/4"
0"
BEAM POCKET
BEARING PLATE PER TYP DETAILS
2'-0"
NEW DOWELS DRILL & EPOXY #5@12"o.c. ALTERNATE WITH EXIST BARS
#5@12"o.c. VERT WITH DOWELS
#5@9"o.c. 2 MIN HORIZ DRILL AND EPOXY DOWELS #3@8"o.c. 6" EMBEDMENT
TOP OF ARCH FINISH
NEW SIDEWALK
PL
SAWCUT EXISTING WALL. EPOXY COAT TOP OF WALL
#3 DOWELS @ 12"o.c.
#3 PINS @ 9"o.c. 6" EMBEDMENT
EXPANSION BOLT
SAWCUT EXISTING WALL. EPOXY COAT TOP OF WALL
#3 DOWELS @ 12"o.c.
#3 PINS @ 9"o.c. 6" EMBEDMENT
S-364.00 RETAINING WALL @ 33rd STREET - TOP SECTION DETAILS II
HYE - PL - S-364.00
DI-02 PHASE 1 STRUCTURAL UPDATE 11/1/2013
L.I.R.R. - PRE-FINAL 100% 11/22/2013      MoE - PLATFORM SUBMISSION
PRELIMINARY 
NOT FOR 
CONSTRUCTION
05/14/2014:
APPROVED
Under Directive 2 of 1975
05/14/2014:
APPROVED
Under Directive 2 of 1975
05/14/2014:
APPROVED
Under Directive 2 of 1975
05/14/2014:
APPROVED
Under Directive 2 of 1975
05/14/2014:
APPROVED
Under Directive 2 of 1975
05/14/2014:
TYPICAL NEW RETAINING WALL AT 33RD STREET

RETAINING WALL TO BE BUILT AFTER EXIST 33RD STREET ROADWAY GIRDER IS REMOVED

FORM SAVER
COUPLER
TOWER E
FUTURE COLUMN ABOVE

#6@12" o.c. TYP
#6@12" o.c. TYP
#8@12" o.c. TYP

EL. 8'-0"
EL. 3'-0"
EL. 6'-0"

1/2" = 1'-0"

1/2"

1 1/2"=1'-0"

#10@12" o.c. TYP
#11@12" o.c. FOR PANEL (A) & (B)
#10@12" o.c. FOR PANEL (C)

20#10 CONT.
T.O. ROCK V.I.F.
EL. -10'-0" FOR PANEL (A)
EL. -8'-0" FOR PANEL (B)
EL. -5'-0" FOR PANEL (C)

#6 STIRRUPS@6" o.c. (10 LEGS)
CONT. FTG.

3 1/16"
ELEVATION TRUSSES T13.5A, T13.5B, T13.5C
TRUSS TB1 ELEVATION

TRUSS TB3 ELEVATION

TRUSS TB2 ELEVATION

TRUSS TB4 ELEVATION

LEGEND

CAMBER TOLERANCE FOR TRUSSES SHALL BE AS FOLLOWS:

- PRIOR TO INSTALLATION -0, +½"
- INSTALLED, PRIOR TO INSTALLATION OF FLOORS -¼", +¼"

CAMBER TOLERANCE FOR JOISTS SHALL BE AS FOLLOWS:

- PRIOR TO INSTALLATION -0, +¼"
- INSTALLED, PRIOR TO INSTALLATION OF FLOORS -½"
TRUSS TC1 ELEVATION

TRUSS TC3 ELEVATION

TRUSS TC4 ELEVATION

LEGEND

CAMBER TOLERANCE FOR TRUSSES SHALL BE AS FOLLOWS:

P    INDICATES AXIAL FORCE IN TRUSS CHORD
V    INDICATES SHEAR FORCE IN TRUSS CHORD
M    INDICATES MOMENT IN TRUSS CHORD
TF  INDICATES AXIAL FORCE TRANSFERRED THROUGH THE CONNECTION JOINT IN KIPS

PRIOR TO INSTALLATION -0, +½"
INSTALLED, PRIOR TO INSTALLATION OF FLOORS -¼", +¼"
TRUSS TF1 ELEVATION

TRUSS TF3 ELEVATION

TRUSS TF2 ELEVATION

NOTES:
CAMBER TOLERANCE FOR TRUSSES SHALL BE AS FOLLOWS:
PRIOR TO INSTALLATION -0, +½"
INSTALLED, PRIOR TO INSTALLATION OF FLOORS -¼", +¼"

CAMBER TO EXIST TOP TRUSSES SHALL BE AT FOLLOWING:
1.1' = 1'-0"

KEY PLAN
DATE:
05/14/2014:

DEPT OF BLDGS JOB NUMBER SCAN CODE

APPROVED
Under Directive 2 of 1975

Damian Titus
TRUSS TG1, TH1, TK1 ELEVATION

TRUSS TJ1, TL1 ELEVATION

TRUSS TM1
LEVEL 1 - RETAIL

LOADING DOCK EL. 27'-0"

W14X398
W14X311
W14X311
W14X311
W14X311
W14X311
W14X211
W14X211
W14X211
W14X211
W14X257
W14X257
W14X257
W14X257

12'-0"

+600 -4200 -4100 -2400 -2400 +1900 -1500 +1700 -1600 +2100 -300 +2400

+3700 +1500 -200 +100 -100 +2100 -2400 +1900

M500 V50 TF2500 M600 V2600 M400 V50 TF3300 M500 V2600 M600 V100 TF3300 M600 V1450 M200 V50 TF200 M600 V1550

S-431.00 5

M1200 V150 TF4100 M700 V2300 M300 V50 TF4100 M400 V1050 M300 V50 TF2400 M300 V1050 M400 V50 TF2400 M500 V1800 M500 V50 TF1700 M500 V1450 M400 V50 TF2500 M500 V1450

1/4" = 1'-0"

TRUSS T10A ELEVATION

TRUSS T10A ELEVATION - CONTINUED

PRELIMINARY NOT FOR CONSTRUCTION

APPROVED Under Directive 2 of 1975

Date: 05/14/2014

Damian Titus

APPROVED

Under Directive 2 of 1975

Date:

Damian Titus

05/14/2014:
TYPICAL TOP CHORD TRUSS COMPRESSION ONLY SPLICE

TYPICAL TRUSS DIAGONAL SPLICE

TYPICAL TRUSS BOTTOM CHORD TENSION SPLICE

TYPICAL WELDED TRUSS NODE

TYPICAL WELDED TRUSS NODE

SECTION TYPICAL WELDED TRUSS NODE
TRUSS TOP CHORD
SHEAR PLATE
COLUMN
PLATE
1 1/8" A490 SCB, TYP.
END PLATE
PLATE
1 1/8" A490 SCB, TYP.
COLUMN
1 1/8" A490 SCB, TYP.
4"
FILLER PL. BELOW,
SHIM AS REQ'D.
END CHORD
BEARING PLATE
END PLATES
FLANGE PLATES
1 1/8" A490 SC CLASS B
CJP WEB TYP.
CJP FLG. TYP.
END PL.
WEB PL. TO CHORD
WEB PL TO TRUSS VERT.
COLUMN
TRUSS TOP CHORD
TRUSS BOTTOM CHORD
OUTER FLANGE PL.
INNER FLANGE PL.
CJP TYP
CJP TYP
PL 3/4" MIN.
1
TRUSS BOTTOM CHORD
1 1/8" A490SCB, TYP.
BRACKET PLATES
END PLATES
COLUMN
1. Top Chord Section at Column Above Truss Location (Gridline D10 & AA10)

2. Section Thru Double Truss at Column Above Location (Gridline D10 & AA10)

3. Bottom Chord Section at Column Above Truss Location (Gridline D10 & AA10)

4. Section at Double Truss Vertical at Column Above

5. Double Truss Support Wing Plates at Box Column

6. Double Truss Bottom Chord Node Transfer Beam

7. Section at Double Truss Bottom Chord Node Transfer Beam

8. Double Truss Top Chord Node Transfer Beam

9. Section at Double Truss Top Chord Transfer Beam Connection
DOUBLE TRUSS CHORD BEARING PLS 1 1/8" A490_SC(B) 3'-0"

FITTED STIFFENER 2'-6"

EXTEND CENTER (2) COL. PLATES TO CREATE SEAT BRACKET SUPPORT

SINGLE TRUSS CHORD 1 1/8" A490_SC(B)

FLANGE PLS TYP 1 1/8" A490_SC(B), TYP

CJP TYP AT WEB AND FLANGES

CJP TYP NS/FS GUSSETS

CJP TYP AT WEB AND FLANGES

1" EXT. WEB PL GUSSET PL

S-436

S-436

S-436

1 1/8" A490_SC(B), TYP

FLANGE PLS 8" PL

EQ Eq

CJP TYP AT WEB AND FLANGES

CJP TYP NS/FS BOX COL PL AT NS/FS FLANGES PL

CJP TYP 2 SIDES,

CJP TYP 9

STIFFENER PL

5"

1

1

CJP TYP 3" MIN. INTERIOR PLATE, TYP.
ENDS OF EACH PLANK

4'-0" GROUT FILL AT 8"

3/4" Ø HEADED STUD @12" O.C.

#6 BAR, TYP

16" HOLLOW CORE PLANK

6" CONCRETE TOPPING SLAB

#7X18'-0" ADD'L BARS CENTERED ON SUPPORT 0"

WELD PLATE FOR 5 K/FT #7 TYP, BARS

3/4" CLEAR DAM HOLLOW CORE PLATE GIRDER (SEE PLAN)

16" PC SLAB

4" TOPPING

16" PRECAST SLAB

6" TOPPING

12" BEARING 9'-0"

FOUNTAIN VAULT 24" CURB

1" = 1'-0"

2 FOUNTAIN VAULT

3/8" = 1'-0"

3 PLENUM SECTION

1" = 1'-0"

2 TYPICAL PRECAST PLANK SUPPORT DETAIL

4 TYPICAL PRECAST PLANK SUPPORT DETAIL

3 PLENUM SECTION

1" = 1'-0"

12" BEARING 12" BEARING

PLATE GIRDER PROJECTIONS

TYPICAL PRECAST PLANK SUPPORT DETAIL

PLATE GIRDER (SEE PLAN)
EXISTING CAISSON FOUNDATION

NEW STEEL COLUMN

EXISTING REBAR

EXISTING REBAR

EXISTING REBAR

EXISTING LONGITUDINAL BARS TO BE REPLACED

BRIDGE RAILING ANCHOR BOLTS TO BE SAW CUT.

2" CLR. COVER

2" CLR. COVER

EXISTING REBAR

WABO STRIP SEAL EXPANSION JOINT (OR SIMILAR APPROVED)

EXISTING REBAR

MM SYSTEMS PF SERIES FIRE PROTECTION BARRIER (OR SIMILAR APPROVED) SEE ARCH DWGS.

FIRE PROTECTION SIDEWALK PRIMARY SLAB

LOCAL CUT-OUT IN SIDEWALK SLAB

NOTES: EXPANSION JOINT AND FIRE PROTECTION ARE SHOWN INDICATIVELY ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS. REINFORCEMENT IS INDICATIVE AND TO BE CONFIRMED BASED ON DETAILS OF SELECTED EXPANSION JOINT, FIRE PROTECTION BARRIER AND CONFIRMATION OF 11TH AVENUE VIADUCT REBAR IN SIDEWALK.

UTILITY TRENCH TIP OF 11TH AVE BEAM TO TIP OF PLATFORM STRUCTURE +/=- 2'-6"

FILL AND FINISH SEE ARCH DWGS.

EXISTING 11TH AVE SIDEWALK

6" (VARIES FROM 17'-10" TO 17'-11")

VARIES T.O.R.

EXISTING 11TH AVE SIDEWALK 6"

VARIES (VARIES FROM 15'-6" TO 18'-0")

LOWEST 15'-6"

REFERENCE TO TYPICAL EXPANSION JOINT DETAIL

FILL AND FINISH SEE ARCH DWGS.

1/2" STAINLESS STEEL THRESHOLD PLATE SEE ARCH DWGS

1/4" 6" 4" EXISTING REBAR

EXPANSION JOINT AND FIRE PROTECTION ARE SHOWN INDICATIVELY ONLY.

REFERENCE TO TYPICAL EXPANSION JOINT DETAIL

FILL AND FINISH SEE ARCH DWGS.
NOTE: REFER TO DRAWING S-131.00 TO S-139.00 FOR BRIDGING LAYOUT.

3/4" FULL HEIGHT WEB STIFFENER POSITIONED TO ALIGN WITH BRIDGING.

1 1/8" DIA. A490SC-B BOLT, TYP.

1/2" = 1'-0"
EX. TOWER C SLAB ON METAL DECK

EX. TOWER C FRAMING

EX. TOWER C COLUMN

CONNECT TO EXISTING COLUMN FOR FORCES SHOWN ON PLAN. COORDINATE WITH CONNECTION PREPARATION PROVIDED ON EXISTING COLUMN

#4@12" O.C. DRILL AND GROUT TO EX. TOWER C SLAB

CONC. SLAB ON METAL DECK - SEE PLAN

PLATE GIRDER - SEE PLAN

W-BEAM SEE PLAN

PG SEE PLAN

EX. TOWER C FRAMING

EX. TOWER C SLAB ON METAL DECK

STEP IN EX. TOWER C SLAB BEYOND. REFER TO TOWER C DWGS

EX. TOWER C FRAMING BEYOND

W-BEAM SEE PLAN

PLATE GIRDER SEE PLAN

1/2" WEB REINFORCEMENT PLATE EACH SIDE OF WEB

1 1/2" FULL DEPTH STIFFENER BOTH SIDES OF WEB

CONNECT TO EX. TOWER C COLUMN FOR FORCE SHOWN ON PLAN

3'-8" 4'-0" 7" 7"
APPROVED
Under Directive 2 of 1975
Date:
Damian Titus
05/14/2014:
1. SECTION AT WALL ALONG NORTH EDGE OF YARDS

2. PLAN DETAIL AT COLUMN L14.5
**TRANSFER GIRDER BETWEEN COLS H9 AND H8**

**TYPICAL TRANSFER GIRDER ALONG GRID 3**
TRANSFER GIRDERS BETWEEN COLS M9 AND M8
ELEVATOR PIT S-1 PART PLAN

FRIGHT ELEVATOR PIT PART PLAN

SECTION AT ELEVATOR S-1

PRELIMINARY
NOT FOR CONSTRUCTION

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SHEET 168 OF 201
ELEVATOR PIT BETWEEN GRID 1-3C-D

SECTION AT ELEVATOR PIT BETWEEN GRID 1-3C-D

ELEVATOR PIT BETWEEN GRID 1-3AA-A

ELEVATOR PIT BETWEEN GRID 1-3AA-A

SECTIONS & DETAILS

1 ELEVATOR PIT BETWEEN GRID 1-3/C-D

4 ELEVATOR PIT BETWEEN GRID 1-3/AA-A

3 SECTION AT ELEVATOR PIT BETWEEN GRID 1-3/C-D

L.I.R.R. - PRE-FINAL 100% 11/22/2013

DI-02 PHASE 1 STRUCTURAL UPDATE 11/1/2013

NYC DOB FILING 10/4/2013

DI-01 PHASE 1 STRUCTURE UPDATE 9/20/2013

PRELIMINARY

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HUDSON YARDS PLATFORM
Address 530 WEST 33RD STREET
NEW YORK, NY

S-652.00

ELEVATOR PIT SECTIONS & DETAILS

S-652.00
1. See schedule for details.
2. Square anchors are acceptable for columns up to 396 in.
3. Rectangular anchors are acceptable for columns over 396 in.
4. Anchors must be spaced at least 12" on center.
5. Anchors must be fully grouted.
6. Anchors must be placed at least 6" from the column face.
7. Anchors must be approved by the owner.

**Table 1: Square Anchor Pattern**

<table>
<thead>
<tr>
<th>Column Size</th>
<th>Anchor Pattern</th>
<th>Anchor Diameter</th>
<th>Anchor Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>396 in.</td>
<td>SQ</td>
<td>3/4&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>397 in.</td>
<td>SQ</td>
<td>1&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

**Table 2: Rectangular Anchor Pattern**

<table>
<thead>
<tr>
<th>Column Size</th>
<th>Anchor Pattern</th>
<th>Anchor Diameter</th>
<th>Anchor Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>396 in.</td>
<td>REC</td>
<td>3/4&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>397 in.</td>
<td>REC</td>
<td>1&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

**Table 3: Column Sizes and Anchor Requirements**

<table>
<thead>
<tr>
<th>Column Size</th>
<th>Anchor Pattern</th>
<th>Anchor Diameter</th>
<th>Anchor Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>396 in.</td>
<td>SQ</td>
<td>3/4&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>397 in.</td>
<td>SQ</td>
<td>1&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>398 in.</td>
<td>SQ</td>
<td>3/4&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>399 in.</td>
<td>SQ</td>
<td>1&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>400 in.</td>
<td>SQ</td>
<td>3/4&quot;</td>
<td>12&quot;</td>
</tr>
<tr>
<td>401 in.</td>
<td>SQ</td>
<td>1&quot;</td>
<td>12&quot;</td>
</tr>
</tbody>
</table>

**Notes:**
- All columns must be designed by a registered professional engineer.
- All anchors must be approved by the owner.
- All work must be completed in accordance with the specifications.

** Typical Column Splice Details**

1. See Schedule for details.
2. Anchors must be spaced at least 12" on center.
3. Anchors must be fully grouted.
4. Anchors must be placed at least 6" from the column face.
5. Anchors must be approved by the owner.

**Typical Tension/Moment Column Splice Details (Contractor-Designed)**

1. See Schedule for details.
2. Anchors must be spaced at least 12" on center.
3. Anchors must be fully grouted.
4. Anchors must be placed at least 6" from the column face.
5. Anchors must be approved by the owner.

**Typical Base Plate Details**

1. See Schedule for details.
2. Anchors must be spaced at least 12" on center.
3. Anchors must be fully grouted.
4. Anchors must be placed at least 6" from the column face.
5. Anchors must be approved by the owner.

**Typical Shear Lug Details**

1. See Schedule for details.
2. Anchors must be spaced at least 12" on center.
3. Anchors must be fully grouted.
4. Anchors must be placed at least 6" from the column face.
5. Anchors must be approved by the owner.
**TYPICAL BEAM CONNECTION SCHEDULE**

<table>
<thead>
<tr>
<th>Beams</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>W8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TYPICAL BEAM TO COLUMN SHEAR CONNECTION**

- Skew connection
- Welded connection

**TYPICAL BEAM TO COLUMN SHEAR CONNECTION (4 TYPES)**

1. Typical beam to beam shear connection
2. Typical beam to column shear connection
3. Typical skewed beam shear connection
4. Typical extended plate beam to column web shear connection

**TYPICAL BEAM TO COLUMN FLANGE MOMENT CONNECTION - BOLTED/WELDED**

- Bolted connection
- Welded connection

**TYPICAL WEB DOUBLE PLATE CONNECTION**

- Detail for web doubler plate connection

- Load transfer from beam to column

- Moment transfer from beam to column

- Fixity at column web

**TYPICAL BEAM TO COLUMN MOMENT CONNECTION**

- Typical beam to column moment connection

- Bolted connection

- Welded connection

- Fixed end

- Fixed plate

---

**NOTES:**

1. Refer to typical detail ST-BM-07
2. All bolting moment and axial connections at a minimum shall have pretensioned bolts in standard holes at flanges and webs unless otherwise noted.
3. All beam-to-column connections shall be designed to minimize warping effects due to fabrication and erection.

**APPROVED**
Under Directive 2 of 1975
Date:
Damian Titus
05/14/2014
Under Directive 2 of 1975

NOT TO SCALE

Date:

Damian Titus

05/14/2014:

ES525038330

HUDSON YARDS

PLATFORM

NEW YORK, NY

PLATE THICKNESS AND WIDTH TO MATCH BEAM FLANGE

PRELIMINARY

NOT FOR
CONSTRUCTION

WIDE FLANGE BEAM

TYPICAL

STIFFENER PLATE (1/4" MINIMUM)

3/8" FITTED STIFFENER WHERE INDICATED AS TCS

1-7/8" DIA A325 SC BOLTS

ANGLE TO BEAR

TRANSVERSE ANGLE (MINIMUM 16" LENGTH)

ON DECK RIB

STAIR HANGER BY STAIR CONTRACTOR

P

STAIR CONTRACTOR TO PROVIDE KICKER ASSEMBLY WHEN e>1" LOCATION TO BE COORDINATED WITH ALL TRADES (L 3 x 3 x 1/4" MINIMUM)

L 4 x 4 x 1/4 AT 1'-0" OC

EXISTING SLAB

L 3 x 3 x 1/4 AT 5'-0" OC MAXIMUM OR AS SHOWN ON PLAN

L 4 x 4 x 1/4 AT 1'-0" OC

EXISTING SLAB

5/8" DIA DRILLED IN EXPANSION ANCHOR

3/4" DIA SLIP CRITICAL BOLT, TYPICAL WELDED CONNECTION AT CONTRACTOR'S OPTION

TYPICAL TORSIONAL CONNECTION AT STAIRWELL / TC AND TCS LOCATIONS

1. SEE TYPICAL PLAN DETAILS FOR STAIRWELLS

2. PLATE SHOWN COMPARES TO SHOW THE PROPER ORIENTATION.

3. SEE TYPICAL TORSIONAL CONNECTION AT STAIRWELL AND TYPICAL KICKER DETAIL AT STAIR HANGER

TYPICAL ELEVATOR DIVIDER BEAM DETAIL

1. SEE PLAN FOR DIVIDER BEAM SIZE 2. ELEVATOR DIVIDER BEAM LOCATIONS TO BE COORDINATED BY CONTRACTOR

TYPICAL KICKER DETAIL AT STAIR HANGER

1. SEE TYPICAL PLAN DETAILS FOR STAIRWELLS

2. DETAIL APPLIES WHERE KICKERS ARE NOT PERMITTED DUE TO CONFLICTS SUCH AS MEP REQUIREMENTS

3/8" PLATE TYPICAL

TYPICAL STEEL BEAM DETAILS IV

1. SEE PLAN FOR KICKER MATERIAL 2. ALL KICKERS TO BE FABRICATED AND INSTALLED BY STAIR CONTRACTOR

1. REFER TO TYPICAL TORSIONAL CONNECTION AT STAIRWELL AND TYPICAL KICKER DETAIL AT STAIR HANGER

BID PRICE SHALL ASSUME THAT THIS DETAIL APPLIES, UNLESS COORDINATED BETWEEN CONTRACTOR AND STAIR SUPPLIER

1. SEE TYPICAL TORSIONAL CONNECTION AT LONG SPAN BEAM

2. DETAIL APPLIES WHERE KICKERS ARE NOT PERMITTED DUE TO CONFLICTS SUCH AS MEP REQUIREMENTS

1. BID PRICE SHALL ASSUME THAT THIS DETAIL APPLIES, UNLESS COORDINATED BETWEEN CONTRACTOR AND STAIR SUPPLIER

TYPICAL PLAN DETAILS FOR STAIRWELLS

1. SEE PDF DETAILS FOR STAIRWELLS

2. DETAIL APPLIES WHERE KICKERS ARE NOT PERMITTED DUE TO CONFLICTS SUCH AS MEP REQUIREMENTS

TYPICAL KICKER DETAIL (P  2,000 LBS)

TYPICAL KICKER DETAIL (2,000 LBS=  P  5,000LBS)

TYPICAL KICKER DETAIL (P  2,000 LBS)
TYPICAL SLAB REINFORCEMENT AT EXTERIOR COLUMN
SLAB EDGE EXTENDS 2" OR MORE BEYOND FACE OF COLUMN

TYPICAL SLAB REINFORCEMENT AT EDGE COLUMN
SLAB EDGE EXTENDS LESS THAN 2" BEYOND FACE OF COLUMN

TYPICAL SLAB REINFORCEMENT AT CORNER COLUMN
SLAB EDGE EXTENDS 2" OR MORE BEYOND FACE OF COLUMN

TYPICAL DECK SUPPORT AT COLUMN

TYPICAL DECK SUPPORT AT WET COLUMN

TYPICAL DECK SUPPORT AT BOX COLUMN

TYPICAL DECK SUPPORT AT INTERIOR COLUMN

TYPICAL DECK SUPPORT AT COLUMN

TYPICAL DECK SUPPORT AT WET COLUMN

NOTES:
1. SLAB REINFORCEMENT SHOWN TO BE PLACED IMMEDIATELY BELOW THE TYPICAL SLAB TOP BAR REINFORCEMENT.
2. SEE TYPICAL DECK SUPPORT AT COLUMN DETAIL.

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NOTE:
1. SLAB REINFORCEMENT SHOWN TO BE PLACED IMMEDIATELY BELOW THE TYPICAL SLAB TOP BAR REINFORCEMENT.
2. SEE TYPICAL DECK SUPPORT AT COLUMN DETAIL.
1. NO REINFORCEMENT IS REQUIRED FOR OPENING SIZE LESS THAN 10" x 10" IF ALL OF THE FOLLOWING CRITERIA ARE MET:
   A. 3/4" CLEAR
   B. THE CLEAR DISTANCE TO THE ADJACENT OPENING OR OPENINGS IS 1'-0" OR MORE PARALLEL TO DECK SPAN
   C. 2'-0" OR MORE PERPENDICULAR TO DECK SPAN
   D. 5'-0" MAXIMUM

2. SLAB REINFORCEMENT OR CHANNEL FRAMING IS REQUIRED FOR OPENINGS THAT DO NOT SATISFY NOTE 1

3. ATTACH DECK TO CHANNELS (TYPICAL)

4. IF SLEEVES ARE USED, THE SLEEVES ARE TO BE INSTALLED SUCH THAT STEEL DECK WILL BE CUT AT LEAST 7 DAYS AFTER PLACING OF CONCRETE

5. CONDUIT STUB OUTS UP OR DOWN SHALL BE TREATED AS A TYPICAL COMPOSITE STEEL DECK AT OPENING SEE TYPICAL DETAILS

6.くだらぬ空白

7. CONSTRUCTION MANAGER

8. MECHANICAL EQUIPMENT SUPPORT FRAMING

9. STRUCTURAL ENGINEER

10. LIRR VENTILATION

11. MECHANICAL EQUIPMENT
COLUMN TYPES - BAR ARRANGEMENT

1. FOR ALL TYPES STAGGER ALL TB HOOKS
2. FOR TYPE B A BARR OF TB HOOKS SHOULD BE PLACED IN 3 NAIL HOLE
3. FOR TYPE A A BARR OF TB HOOKS SHOULD BE PLACED IN 3 NAIL HOLE

NOTES:
1. FOR ALL TYPES STAGGER ALL TIE HOOKS 2. FOR TYPE D TOTAL NUMBER OF BARS SHOULD BE SPACED AROUND PERIMETER IN SUCH A WAY AS TO ACHIEVE APPROXIMATELY EQUAL SPACING
3. FOR TYPE G TOTAL NUMBER OF BARS SHOULD BE SPACED AROUND PERIMETER IN SUCH A WAY AS TO ACHIEVE EQUAL SPACING ON THE TWO LONG SIDES

SCHEDULED
LCS, LTS, LDC
EMBEDMENT LENGTH
Ld, LDH, LDC
SCHEDULED
WHICHEVER IS GREATER
IF HOOK IS REQ'D

S - COLUMN TIE SPACING
TYPICAL
1 1/2" CLEAR TO TIES
PROVIDE ADDITIONAL TIES AS REQUIRED SUCH THAT EVERY VERTICAL BAR IS TIED
PROVIDE 90° STANDARD HOOK IF Ld GREATER THAN SUPPORTING MEMBER DEPTH MINUS 3 INCHES
S = COLUMN TIE SPACING
COLUMN VERTICAL REINFORCEMENT SEE COLUMN SCHEDULE
COLUMN TIES SEE COLUMN SCHEDULE
COLUMN DOWELS SEE SCHEDULE
SUPPORTING MEMBER

TYPICAL BOTTOM OF COLUMN

TYPICAL CONCRETE COLUMN PIER DETAILS
HYE - PL - S-732.00
-
1. LINTEL ANGLES AND W-SHAPE LINTELS SHALL BE ASTM A 36 STEEL MINIMUM.
2. NO MORE THAN SIX COURSES OF CMU MAY BE PLACED, REINFORCED, GROUTED AND CURED AT ONE TIME ABOVE LINTEL BEFORE PROCEEDING.
3. PROVIDE FULLY GROUTED JAMB AND PIER WITH VERTICAL BARS(S) IN EACH CELL OVER FULL GROUTED LENGTH.
4. PROVIDE ALL SUPPORTED JAMB AND PIER WIDTHS WHERE CMU IS INTERRUPTED BY LINTELS.
5. PROVIDE MINIMUM 8" BEARING EACH END.
6. 2L LINTELS SHALL BE WELDED OR BOLTED TOGETHER AT INTERVALS NOT TO EXCEED 1' TO MINIMIZE SHEAR.
7. AT PIERS WIDER THAN REQUIRED PER SCHEDULE, IT IS ACCEPTABLE TO REINFORCED EDGES.
8. SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS.
EXISTING FOUNDATION WALL
SEE TOWER C DWG'S

EXISTING T.O. SLAB
EL. 8'-6"

EXISTING M.O.E. WALL TO REMAIN
EXISTING M.O.E. COLUMNS
EXISTING TOWER C
EXIST. AND NEW M.O.E. STRUCTURE

LEGEND:
TB INDICATES NEW TIE BEAM
INDICATES NEW PILECAP
PCX-Y INDICATES NEW CONCRETE FILLED STEEL COLUMN
INDICATES NEW CONCRETE FILLED STEEL COLUMN
INDICATES NEW STEEL WIDE-FLANGE COLUMN
INDICATES NEW ROCK ANCHOR

SHEET NOTES:
1. SEE GENERAL NOTES FOR CONCRETE COMPRESSIVE STRENGTH
2. T/FOOTING = EL. YY'-Y", AS SHOWN ON PLAN
3. FOR ADDITIONAL INFORMATION REFER TO THE FOLLOWING DRAWINGS:
   DRAWING LISTS, GENERAL NOTES, AND S0 SERIES DRAWINGS
   LOADLING DIAGRAMS
   TYPICAL FOUNDATION DETAILS
   S3 SERIES DRAWINGS
   STEEL COLUMN SCHEDULES
   S4 SERIES DRAWINGS
   STEEL TYPICAL DETAILS
   S7 SERIES DRAWINGS
4. MAXIMUM TOP OF ROCK SOCKET SHOWN ON S-310.00 TO S-313.00 IS THE HIGHEST ELEVATION AT WHICH ROCK SOCKET BEGINS.
5. ROCK COUNTERS ARE BY LANGAN GEOTECHNICAL ENGINEERS. ACTUAL TOP OF ROCK AND SOCKET TO BE FIELD VERIFIED BY THE CONTRACTOR AND GEOTECHNICAL ENGINEER.
6. EXISTING UTILITIES, BUILDINGS AND TUNNELS ARE SHOWN FOR REFERENCE ONLY. LOCATIONS AND DIMENSIONS OF ALL EXISTING CONDITIONS ARE TO BE FIELD VERIFIED. SEE GENERAL NOTES SHEET S-003.00 FOR REFERENCES TO EXISTING DRAWINGS.
7. DIMENSIONS ON SHEETS S-310.00 TO S-313.00 NOTED AS CLEARANCE TO TRACK IS THE DISTANCE BETWEEN CENTERLINE OF TRACK TO FACE OF COLUMN.
8. DIMENSIONS SHOWN ON S-121.00 TO S-129.00 SHOW THE DISTANCE BETWEEN THE FACE OF EXISTING TUNNEL (V.I.F.) AND THE FACE OF PERMANENT STEEL CASING.
NEW SLAB AT TRACK AREA

STEP SECTION @ MOE TRACK ENTRANCE

STEP SECTION @ RAIL TRENCH

CONCRETE HAUNCH @ INTERIOR CMU WALL

CONCRETE HAUNCH @ EXTERIOR CMU

NEW SLAB @ COLUMN SUPPORTED BY PIER

CANTILEVER SLAB NEAR TRACK ZONE

EDGE OF RAIL TRENCH

SECTION @ RECESSED RAIL

SECTION @ RAIL POST

BASE CONNECTION OF RAIL POST

PRELIMINARY NOT FOR CONSTRUCTION
EDGE ANGLE TO BE SHORED DURING CONCRETE POUR

#4@12" O.C.

LTE BENT PL4X4X3/8 HANGER BEYOND SLAB ON METAL DECK

OVERHANG SLAB TO BE SHORED DURING CONCRETE POUR

3/4" STUD @ 12" O.C. ALONG EDGE OF SLAB

EXIST. MOE ROOF BEAMS PROVIDE FULL FITTED STIFFENER CONNECTION

EXIS. MOE ROOF BEAMS TO REMAIN

NEW 2L 4X3x3/8" LLBB

T.O. UPPER PLATFORM STRUCT. SLAB
T.O. STL EXIST MOE ROOF

UPPER PLATFORM STRUCTURAL SLAB AND FRAMING

NEW PLATFORM FRAMING TO CLEAR EXISTING MOE ROOF FRAMING

REMOVE EXISTING ROOF AND W10 FRAMING

REMOVE EXISTING 2L KICKERS

EXISTING MOE ROOF BEAM TO REMAIN

UPPER PLATFORM STRUCTURAL SLAB AND FRAMING

NEW PLATFORM FRAMING TO CLEAR EXISTING MOE ROOF FRAMING

BRACE EXIST. MOE ROOF BEAMS TO NEW STRUCTURE

NEW 2L3X3X5/16 KICKERS WITH SPACERS @ 2'-0" O.C.

(2)-7/8" A325N BOLTS WITH 5/16" SHEAR TAB

CONTROL TOWER EDGE BEAM

#5@12"o.c.

FACADE 3-12

5/16" THICK BENT PLATE (A36)

#4@12"O.C. TRANSVERSE REINF 4'-0" MAX

4'-0" MAX
# Hudson Yards - Platform

## NYC DOB POST-APPROVAL AMENDMENT

October 28, 2016

## Discipline Index

- ZONING
- LIFE SAFETY
- ARCHITECTURAL
- FOUNDATION
- STRUCTURAL

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<td>DOB POST-APPROVAL AMENDMENT 10/28/2016</td>
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</table>
1. SYMBOL KEY
   - RESERVED FOR TOWER A & RETAIL PODIUM SERVICE
   - 2-HOUR RATED WALL
   - HATCHED AREA DENOTES LIRR PLATFORM

2. GENERAL NOTES
   - HUDSON YARDS - 530 WEST 33RD STREET NEW YORK, NY
   - PLATFORM LOWER LEVEL PROVIDES THE ENCLOSURE TO LIRR TRAINYARD AREA. PLATFORM UPPER LEVEL BASE OF RETAIL PODIUM
   - NOTE
   - DRAWN BY: HYE - PL - HYE-800.00
   - SCALE: 1/16" = 1'-0"

3. COMMENTS
   - Track Level Overall Plan
   - DRAWING NUMBER: EG-800.01
   - DATE: 10/27/2016 4:05:36 PM

4. SEPARATION AND EXTENT OF LIRR TRAINYARD ENCLOSURE

5. ARCHITECT
   - Kohn Pedersen Fox Associates
   - 11 WEST 42ND STREET NEW YORK, NEW YORK 10036
   - TEL: 212.977.6500  FAX: 212.956.2526

6. STRUCTURAL ENGINEER
   - Thornton Tomasetti, Inc.
   - 51 MADISON AVENUE NEW YORK, NY 10010
   - TEL: 917.661.7800  FAX: 917.661.7801

7. MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION
   - Tutor Perini Building Corporation
   - 360 WEST 31ST STREET, SUITE 1510 NEW YORK, NY 10001
   - TEL: 646.569.4200

8. LIRR - TRAINSHED SENTINIMENT
   - Client Related Companies
   - 60 COLUMBUS CIRCLE NEW YORK, NY 10023
   - TEL: 212.986.7514  FAX: 212.986.7510

9. LIRR VENTILATION
   - AECOM
   - 605 THIRD AVENUE NEW YORK, NY 10158
   - TEL: 212.973.9200  FAX: 212.682.6172

10. LIRR SUBSTATION
    - 77 WATER STREET NEW YORK, NY 10005
    - TEL: 212.896.3000

11. RAILYARD VENTILATION INTAKE
    - 77 WATER STREET NEW YORK, NY 10005

12. NON-LIRR SPACE FILED UNDER JOB #140332343

13. ISSUE TO FDNY 12/12/2013

14. PROPOSED FDNY SUBMISSION FOR RECORDS ACCESS TO LIRR TRACK LEVEL

15. NO. DESCRIPTION DATE

16. DRAWN BY: HYE - PL - HYE-800.00
   - SCALE: 1/16" = 1'-0"
   - DRAWING NUMBER: EG-800.01
   - DATE: 10/27/2016 4:05:36 PM
   - 30 SECOND DELAYED EGRESS (IF PERMITTED BY LIRR).

17. TRACK LEVEL LIFE SAFETY PLAN
APPROVED
Under Directive 2 of 1975
Date:
Damian Titus
AMENDED APPLICATION
11/15/2016
PLAT FORM AND MOE SCOPE FOR NON-LIRR OCCUPIED AREAS:

MCD DEPARTMENT OF BUILDING NOTES

1. SUPPORT OF THE PLATFORM: THE PLATFORM MUST BE SUPPORTED TO BE SECURE AND SAFE. UNSTABLE PLATFORMS ARE PROHIBITED.

2. PLATFORM DESIGN: THE PLATFORM MUST BE DESIGNED TO BE STRONG AND STABLE. THE PLATFORM MUST BE ABLE TO WITHSTAND THE WEIGHTS OF THE OCCUPANTS.

3. PLATFORM LOCATION: THE PLATFORM MUST BE LOCATED IN AN AREA WHERE IT IS EASY TO ACCESS.

4. PLATFORM MAINTENANCE: THE PLATFORM MUST BE MAINTAINED IN A CLEAN AND SAFE CONDITION.

5. PLATFORM SECURITY: THE PLATFORM MUST BE SECURED TO PREVENT UNAUTHORIZED ACCESS.

6. PLATFORM DESIGN: THE PLATFORM MUST BE DESIGNED TO BE STRONG AND STABLE. THE PLATFORM MUST BE ABLE TO WITHSTAND THE WEIGHTS OF THE OCCUPANTS.

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9. PLATFORM SECURITY: THE PLATFORM MUST BE SECURED TO PREVENT UNAUTHORIZED ACCESS.

10. OTHER REQUIREMENTS: THE PLATFORM MUST COMPLY WITH ALL OTHER REQUIREMENTS OF THE BUILDING CODE.
Under Directive 2 of 1975
Date:
11/15/2016

damian titus
AMENDED APPLICATION
EXPANSION JOINT DETAIL AT GL PE FACING NORTH ALONG TOWER E

EXPANSION JOINT AT GRIDLINE 13 FACING NORTH ALONG TOWER E (SLIP SLAB CONDITION)
## Partition Types

### Section 1: Wall Partition

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<th>Type</th>
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<th>Notes</th>
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### Section 2: Ceiling

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<td>2'-0&quot;</td>
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</table>

### Section 3: Floor Sill

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Size</th>
<th>Panel Type</th>
<th>Notes</th>
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<tbody>
<tr>
<td>M-8</td>
<td>Granite</td>
<td>7 5/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
<tr>
<td>M-8-2</td>
<td>Granite</td>
<td>7 5/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
<tr>
<td>M-8/1-3</td>
<td>Granite</td>
<td>11 7/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
<tr>
<td>M-8-3</td>
<td>Granite</td>
<td>7 5/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
<tr>
<td>M-8-A</td>
<td>Granite</td>
<td>11 3/8&quot;</td>
<td>2 5/8&quot;</td>
<td>-</td>
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<tr>
<td>M-10</td>
<td>Granite</td>
<td>9 5/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
<tr>
<td>M-10-2</td>
<td>Granite</td>
<td>9 5/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
<tr>
<td>M-10-3</td>
<td>Granite</td>
<td>9 5/8&quot;</td>
<td>3 5/8&quot;</td>
<td>-</td>
</tr>
</tbody>
</table>

### Section 4: Other

- **Wall Partition**: 1-3 1-Series 1-3 4 1/4" 1 5/8" 3 5/8" - - 49 LINED WITH WALL PARTITION TILE
- **Wall Partition**: 2-3-P 2-Series 2-3-P 6 3/8" 2 5/8" 3 5/8" - - 49 3/4" PLYWOOD FINISH ON BOTH SIDES
- **Wall Partition**: 3-6-A 3-Series 3-6-A 7 7/8" 3 5/8" 6" - - 49
- **Wall Partition**: C-8 C-Series C-8 8" - - - - 49
- **Wall Partition**: C-14 C-Series C-14 1'-2" - - - - 49
- **Wall Partition**: C-24 C-Series C-24 2'-0" - - - - 49
- **Wall Partition**: M-8 M-Series M-8 7 5/8" - - - - 49
- **Wall Partition**: M-8-2 M-Series M-8-2 7 5/8" - - 2 U905 49
- **Wall Partition**: M-10 M-Se ries M-10 9 5/8" - - - U905 49
- **Wall Partition**: M-10-2 M-Se ries M-10-2 9 5/8" - - 2 U905 49
- **Wall Partition**: M-10-3 M-Se ries M-10-3 9 5/8" - - 3 U905 49
- **Wall Partition**: M-8-A M-Series M-8-A 11 3/8" 2 5/8" 1 - 49
- **Wall Partition**: M-10 M-Se ries M-10 9 5/8" - - - U905 49
- **Wall Partition**: M-10-2 M-Se ries M-10-2 9 5/8" - - 2 U905 49
- **Wall Partition**: M-10-3 M-Se ries M-10-3 9 5/8" - - 3 U905 49

### Approval

- **APPROVED Under Directive 2 of 1975**
- **Date**: 11/15/2016
- **Author**: Damian Titus
AMENDED APPLICATION
Under Directive 2 of 1975

Date: 11/15/2016

Damian Titus

HUDSON YARDS - MOE REBUILD

HATCHED AREA DENOTES MOE REBUILD SCOPE
HATCHED AREA DENOTES PODIUM SHELL

1. PLATFORM SCOPE (NON-MOE)

2. HATCHED AREA DENOTES MOE REBUILD SCOPE

SECTOR 5
SECTOR 2
LOWER 11TH
LIRR TRACK LEVEL

EXISTING UTILITIES BASED ON AS-BUILT DRAWINGS DATED 1982.
REFER TO STRUCTURAL DRAWINGS FOR 1-HOUR RATED PARTITION/SEPARATION

2-HOUR RATED PARTITION/SEPARATION

5. LIRR EMPLOYEE ACCESS STAIR PROVIDED AS PART OF TOWER'S PROJECT

AECOM
510 Madison Avenue
New York, New York 10022
TEL: 212.977.6500  FAX: 212.956.2526

Structural Engineer
Thornton Tomasetti, Inc.
51 Madison Avenue
New York, NY 10005
TEL: 917.661.7800  FAX: 917.661.7801

Mechanical, Electrical, Plumbing, Fire Protection
Parsons Transportation Group
TEL: 212.266.8300  FAX: 212.571.6825

LIRR Ventilation
12' - 0"

MEN'S ELEC CLOSET
LOCKER ROOM
RM MEN'S
TOILET CORRIDOR
ROOM
HEAT ROOM
JANITORIAL

19 DOB POST-APPROVAL AMENDMENT 10/28/2016
16 ASI-M-028 10/01/2015
15 ASI-M-026 7/07/2015
9 L.I.R.R. - Pre-Final 100% MoE 5/2/2014
8 L.I.R.R. - Pre-Final 100% Rev.01 1/15/2014
4 L.I.R.R. - 60% MoE SUPPLEMENT 8/02/2013
3 L.I.R.R. - 60% MoE SUBMISSION 7/12/2013

No. Description Date

4
2198
FLOOR PLAN MoE

1
2198
FLOOR PLAN MoE CONTROL TOWER/ENTRY LEVEL OVERALL

5
2198
A-810.00 FLOOR PLAN MoE CONTROL TOWER/ENTRY LEVEL OVERALL APPROVED