



# Metro-North Railroad Roof Replacement at Hastings Station



# Presentation:

1. History
2. Existing Conditions
3. Station Specific Scope Overview
4. Coordination Requirements
5. Progress Drawings

# History

- ❖ Railroad service from as far back as the 1840s, served both passengers and a local sugar refinery
- ❖ A major fire destroyed the waterfront in 1875, and the sugar refinery left but other industries took its place
- ❖ Current building built in 1910 by the New York Central
- ❖ Designed by Warren & Wetmore, same as Grand Central Terminal, Yonkers and Ossining stations
- ❖ Hosts The Good Witch since 2020



c. 1900

Damaged decking

East Elevation  
*Looking West*



## Evidence of Water Intrusion

North Attic  
*Looking East*



**Suspect Chimney  
Flashing in need of  
Replacement**

**North Elevation  
*Looking South***





# Scope of Work

## *Hastings on Hudson*

- ❖ Replacement of timber decking and installation of ice and water shield
- ❖ Rehabilitation of damaged rafters
- ❖ Replacement of fascia beam and decorative timber pieces (in-kind)
- ❖ Replacement of Spanish-style terracotta roof tile (in-kind)
- ❖ Installation of copper snow guards, gutters, and leaders
- ❖ Paint color to match existing
- ❖ Rehabilitation to the chimney, including new flashing

# Timeline

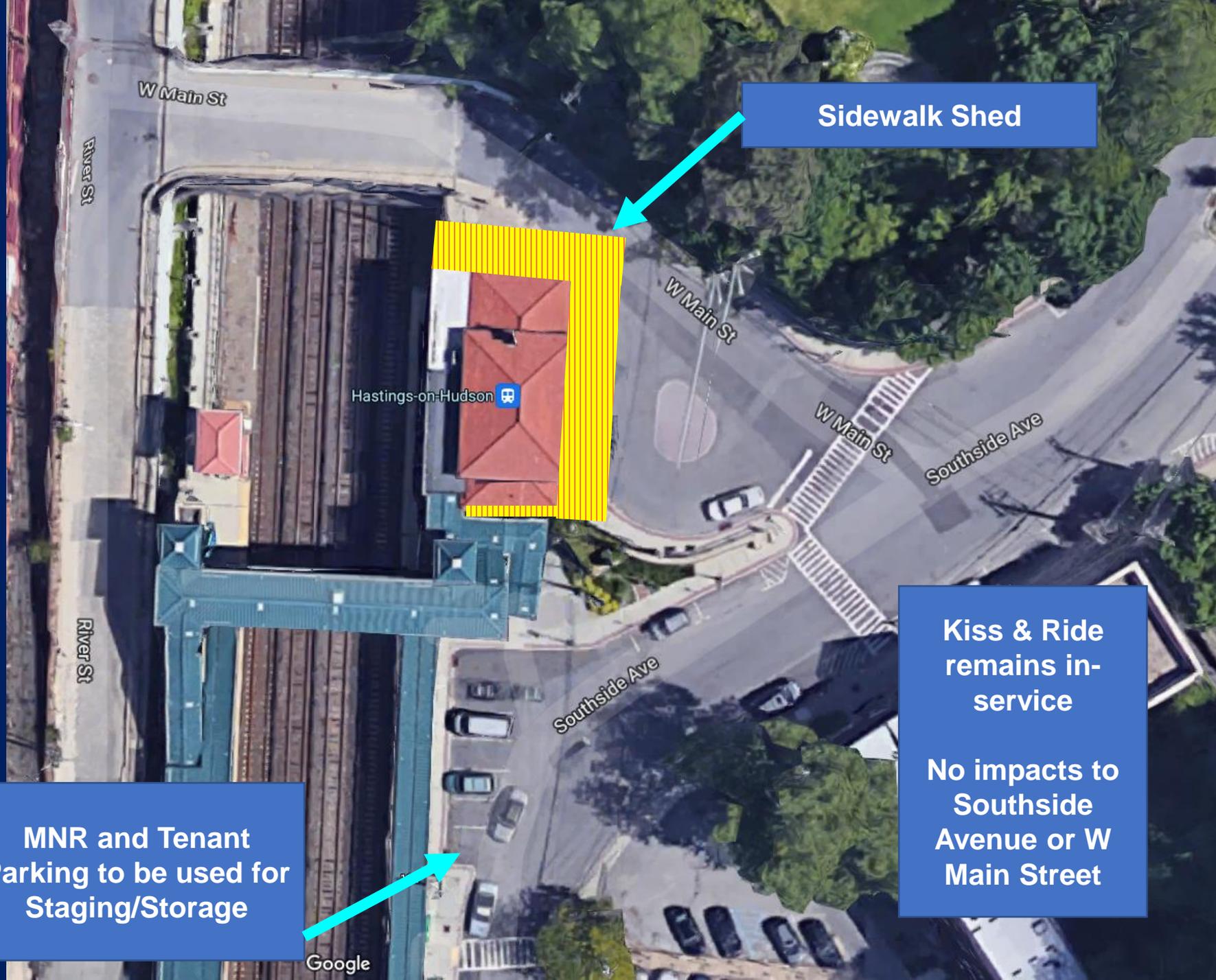
## *Hastings on Hudson*

- ❖ June 2021: Finish Design
- ❖ July 2021: Advertise Construction Contract
- ❖ November 2021: Award Construction Contract
- ❖ February 2022: Begin Sitework at Hastings Station
- ❖ Complete all construction by conclusion of 4<sup>th</sup> Quarter 2022

# Anticipated Disruptions

## *Hastings on Hudson*

- ❖ All work will be conducted at-height from a sidewalk shed – isolated from street level
- ❖ No impact to station access, platform access, or flow of traffic
- ❖ Several parking spaces will be required for laydown & storage

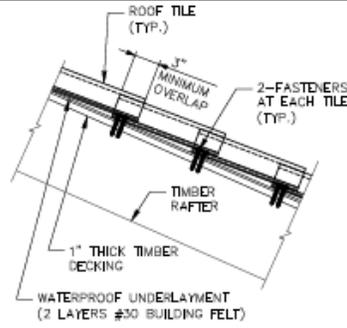


**Sidewalk Shed**

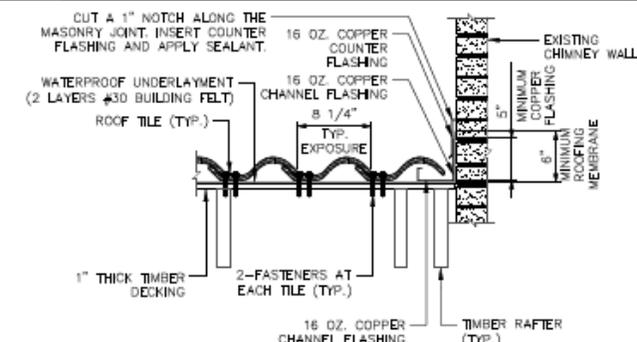
**Kiss & Ride  
remains in-  
service**

**No impacts to  
Southside  
Avenue or W  
Main Street**

**MNR and Tenant  
Parking to be used for  
Staging/Storage**



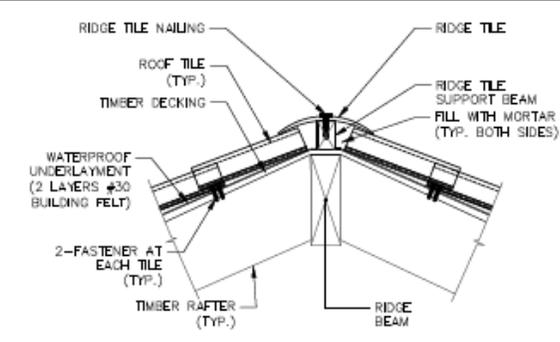
**1 TYPICAL ROOF DETAIL**  
MNR-A-302 SCALE: 1 1/2" = 1'-0"  
SCALE IN FEET



**2 TYPICAL ROOF DETAIL AT CHIMNEY**  
MNR-A-302 SCALE: 1 1/2" = 1'-0"  
SCALE IN FEET



**3 TYPICAL ROOF DETAIL AT OVERHANG**  
MNR-A-302 SCALE: 1 1/2" = 1'-0"  
SCALE IN FEET

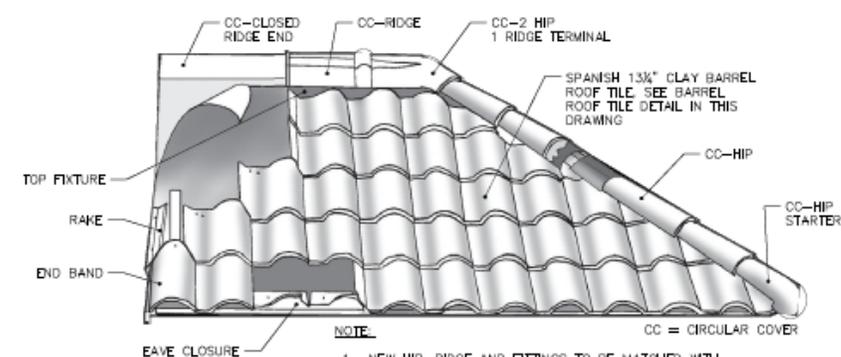


**4 TYPICAL ROOF DETAIL AT RIDGE**  
MNR-A-302 SCALE: 1 1/2" = 1'-0"  
SCALE IN FEET



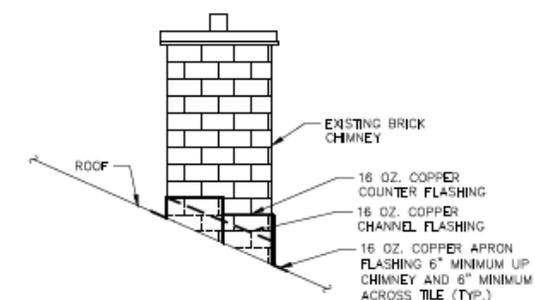
ROOF TILE	
CHARACTERISTICS	SPECIFICATIONS
WEIGHT PER SQUARE(*)	900 LBS
PIECES PER SQUARE(*)	171 PIECES
OVERALL SIZE	9-3/4" x 13-1/4"
THICKNESS	1/2"
EXPOSURE	8-1/2" x 10-1/2"
INSTALLED BARREL HEIGHT OFF DECK	3" NOMINAL
MINIMUM SLOPE	4:12
BASE TEXTURE	SMOOTH
(*) 1 SQUARE = 100 S.F.	

NOTE:  
NEW ROOF TILE COLOR TO MATCH WITH EXISTING ROOF TILE.  
FINAL SELECTION OF THE NEW ROOF TILES SUBJECT TO MNR APPROVAL.



NOTE:  
1. NEW HIP, RIDGE AND FITTINGS TO BE MATCHED WITH EXISTING. FINAL SELECTION OF NEW HIP, RIDGE AND FITTINGS SUBJECT TO MNR APPROVAL.

**5 TYPICAL ROOF DETAIL AT WALL RUNNER**  
MNR-A-302 SCALE: 1 1/2" = 1'-0"  
SCALE IN FEET



**TYPICAL CHIMNEY FLASHING DETAILS**  
SCALE: N.T.S.

**NEW SPANISH 13-1/4 CLAY BARREL ROOF TILE**  
(ROOF TILE BY LUDOWICI OR APPROVED EQUAL)  
SCALE: N.T.S.

**TYPICAL HIP, RIDGE & FITTINGS DETAILS**  
(BY LUDOWICI OR APPROVED EQUAL)  
SCALE: N.T.S.

**TYPICAL COPPER GUTTER DETAIL**  
SCALE: N.T.S.

**TYPICAL SNOW GUARD DETAIL**  
SCALE: N.T.S.



PRO 100 COPPER SNOW GUARD BY BERGER OR APPROVED EQUAL (SEE SNOW GUARD NOTES)

NOTE:  
1. SNOW GUARDS SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.  
2. FINAL SELECTION OF THE SNOW GUARD SUBJECT TO MNR APPROVAL.

**PROGRESS PRINT**

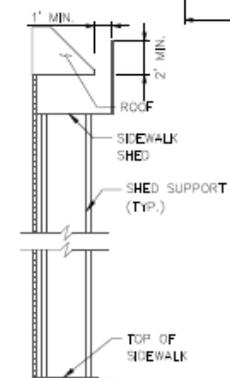
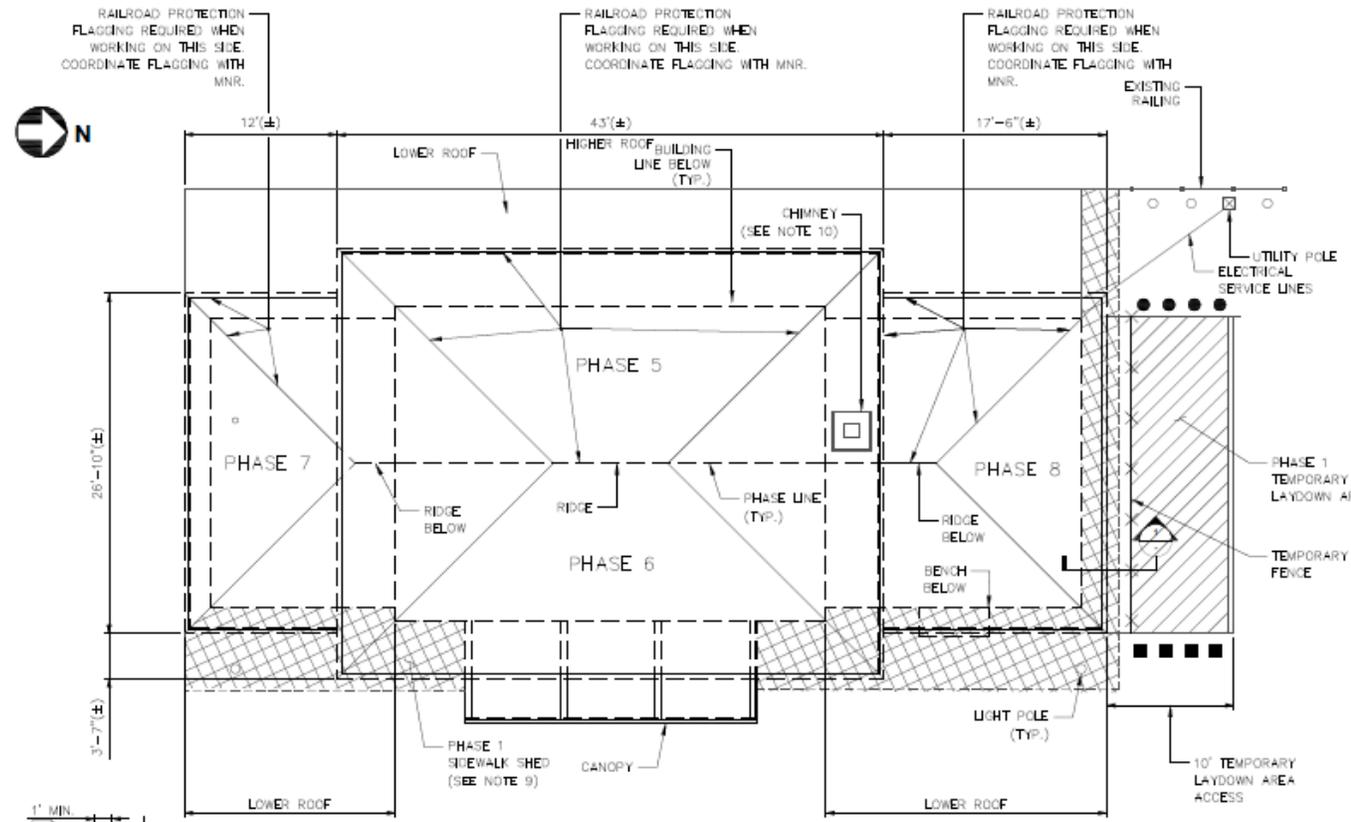
CERTIFIED BY: \_\_\_\_\_  
ACCEPTED BY: \_\_\_\_\_  
METRO-NORTH RAILROAD  
DATE: \_\_\_\_\_

SUBMISSIONS		NO.	DATE	DESCRIPTIONS	DRWN	CHKD	APPRD
A	02/02/20	PRELIMINARY SUBMISSION	RP	MP	SJ		

**SJH ENGINEERING, P.C.**  
131 WEST 33RD STREET, 16TH FLOOR  
NEW YORK, NY 10011

**MTA Metro-North Railroad**  
420 Lexington Avenue,  
New York, NY 10017

**HASTINGS STATION ARCHITECTURAL TYPICAL SECTIONS AND DETAILS**  
CONTRACT NO. 106835  
SCALE AS NOTED  
DATE 09/15/21  
DRAWING NO. MNR-A-302  
SHEET 11 OF 14



1 SECTION 1 - SIDEWALK SHED  
SCALE: N.T.S.

PHASING PLAN  
SCALE: 3/16" = 1'-0"  
SCALE IN FEET

PHASING AND PROTECTION NOTES:

- THE CONSTRUCTION PHASING SHOWN ON THIS DRAWING IS THE REQUIRED SEQUENCE. THE CONTRACTOR SHALL SUBMIT DETAILS OF HIS/HER SEQUENCE OF CONSTRUCTION FOR THE APPROVAL OF MNR.
- AS PER THE SHOWN SEQUENCE OF CONSTRUCTION, THE WORK SHALL BE PERFORMED IN NINE (9) PHASES AS INDICATED BELOW:
  - PHASE 1: ERECT SIDEWALK SHED, OVERHEAD PROTECTION, LAYDOWN AREA, AND MPT.
  - PHASE 2: REMOVE AND STORE OUTSIDE STATION LIGHT FIXTURES. PROTECT FROM DAMAGE. SEE DRAWINGS A-201 AND A-202 FOR LOCATION OF LIGHT FIXTURES.
  - PHASE 3: DEMOLISH CANOPY TILES AND WATERPROOFING. DEMOLISH GUTTERS, SNOW GUARDS, AND ANY OTHER ELEMENTS OTHER THAN LEAD CONTAINED TIMBER. TEMPORARY PROTECTION HAS TO BE PROVIDED BY GENERAL CONTRACTOR TO PREVENT WATER PENETRATION INTO BUILDING UNTIL ROOF RECONSTRUCTION.
  - PHASE 4: LEAD ABATEMENT WORK TO BE PERFORMED BY LEAD CONTRACTOR, ENGAGED BY MNR. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE LEAD CONTRACTOR. LEAD PAINTED TIMBER TO BE REMOVED BY LEAD CONTRACTOR. STEEL BRACKETS AND BEAMS TO REMAIN, AND TO BE ABATED BY LEAD CONTRACTOR.
  - PHASE 5: DEMOLISH AND RECONSTRUCT WEST SIDE OF HIGHER ROOF. DURING THE WORK FLAGGING WILL BE NECESSARY. CONTRACTOR TO COORDINATE FLAGGING WITH MNR.
  - PHASE 6: DEMOLISH AND RECONSTRUCT EAST SIDE OF HIGHER ROOF.
  - PHASE 7: DEMOLISH AND RECONSTRUCT SOUTH LOWER ROOF. DURING THE WORK ON SOUTHWEST SIDE, FLAGGING WILL BE NECESSARY. CONTRACTOR TO COORDINATE FLAGGING WITH MNR.
  - PHASE 8: DEMOLISH AND RECONSTRUCT NORTH LOWER ROOF. DURING THE WORK ON NORTHWEST SIDE, FLAGGING WILL BE NECESSARY. CONTRACTOR TO COORDINATE FLAGGING WITH MNR.
  - PHASE 9: REMOVE SIDEWALK SHED, OVERHEAD PROTECTION, LAYDOWN AREA, MPT, AND CLEANUP.
- EACH PHASE SHALL ENCOMPASS ALL REMOVAL AND CONSTRUCTION WORK FOR THE ROOF AS INDICATED ON THE DRAWINGS.
- AT THE END OF EACH WORK DAY THE ROOF SHALL BE COVERED, AND THE BUILDING SHALL BE KEPT FUNCTIONAL DURING ALL CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL PROTECT EXISTING BUILDING ELEMENTS WHICH WILL REMAIN IN PLACE FOR THE DURATION OF WORK ON THIS CONTRACT. PROVIDE DUST COVERING AT A MINIMUM AND PROTECTIVE SHED WHERE NECESSARY.
- THE CONTRACTOR SHALL INSTALL FALL PROTECTION AS PER OSHA REGULATIONS. DURING ANY WORK ON THE ROOF, THE DETAILS OF FALL PROTECTION SHALL BE SIGNED AND SEALED BY A NEW YORK REGISTERED PROFESSIONAL ENGINEER AND SUBMITTED TO MNR FOR REVIEW AND APPROVAL.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL HIS/HER MEANS AND METHODS OF CONSTRUCTION. ALL WORK SHALL BE COORDINATED WITH MNR AND TENANTS CURRENTLY OCCUPYING THE BUILDING SPACES.
- SUGGESTED CONSTRUCTION SEQUENCE FOR PHASES 5 TO 8:
  - REMOVE EXISTING ROOF TILES, ROOFING MEMBRANE, FLASHING SYSTEM, TONGUE AND GROOVE TIMBER DECKING, VERTICAL FASCIA BEAM, FASCIA BOARDS, GUTTERS AND LEADERS.
  - INSPECT WALL RUNNER AND NOTIFY THE ENGINEER OF ANY OBSERVED DEFECTS. THE ENGINEER WILL REVIEW THE EXTENT OF DEFECTS, IF ANY, AND PROVIDE REPAIR DETAILS AS REQUIRED.
  - PAINT REMOVAL FROM EXISTING MEMBERS WILL BE PERFORMED BY OTHERS.
  - INSTALL NEW STRUCTURAL MEMBERS (TIMBER DECKING, VERTICAL FASCIA BEAM AND FASCIA BOARD).
  - INSTALL SPECIFIED ROOFING MEMBRANE, INSULATION AND FLASHING SYSTEM.
  - INSTALL NEW TILES.
  - INSTALL NEW COPPER GUTTERS AND LEADERS.
  - PAINT ALL THE OVERHANGS (EAVES), COLORS TO MATCH EXISTING COLORS. PAINT SHALL BE MATCHED USING RAL COLORS AND BE APPROVED BY MNR.
- CONTRACTOR SHALL INSTALL OVERHEAD PEDESTRIAN PROTECTION WITH TEMPORARY NIGHT TIME LIGHTING AND WATERPROOF WORK PLATFORM. PROVIDE SHOP DRAWING DESIGN FOR SIDEWALK SHED FOR APPROVAL BY MNR. DESIGN TO BE PREPARED BY NYS P.E. POWER FOR LIGHTING WILL BE AVAILABLE FROM THE MNR STATION. CONTRACTOR SHALL COORDINATE THE POWER SOURCE WITH MNR.
- POWER WASH CHIMNEY WITH LOW PRESSURE AND REPOINT BRICK MORTAR JOINTS AS REQUIRED.
- THE CONTRACTOR SHALL COORDINATE THE STAGING/PHASING WORK WITH CONTRACT DRAWINGS AND SPECIFICATIONS. ANY AND ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.

LEGEND:

- TEMPORARY LAYDOWN AREA.
- SIDEWALK SHED.
- DRUMS
- CHANNELIZING DEVICE

**PROGRESS PRINT**

CERTIFIED BY:	
ACCEPTED BY:	
METRONORTH RAILROAD	
DATE:	

NO.	DATE	DESCRIPTIONS	DRWN	CHKD	APPVD
A	03/03/20	PRELIMINARY SUBMISSION	BP	MP	SJ

**SUBMISSIONS**

**SJH ENGINEERING, P.C.**  
 151 WEST 33RD STREET, 16TH FLOOR  
 NEW YORK, NY 10001

**Metro-North Railroad**  
 420 Lexington Avenue,  
 New York, NY 10017

<b>HASTINGS STATION GENERAL PHASING PLAN</b>	
CONTRACT NO. 106855	TITLE
SCALE AS NOTED	DATE 03/13/21
DRAWING NO. <b>MNR-G-004</b>	
SHEET 04 OF 14	

# Thank you!

