



KENDALL SQUARE - INBOUND STATION

APRIL 17, 2019

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

MITIMCo

PERKINS + WILL / NADAAA

TURNER CONSTRUCTION

AGENDA ITEMS

1. OVERALL DISTRICT PLAN (SoMa Development)

2. STATION IMPROVEMENTS

- Existing Headhouse
- Plaza Level Plan (Future Phase)
- Platform Level Plan (Future Phase)

3. EARLY PHASE WORK

- Plaza Level
- Platform Level
- Interim Passenger Elevator

4. INTERIM INFRASTRUCTURE

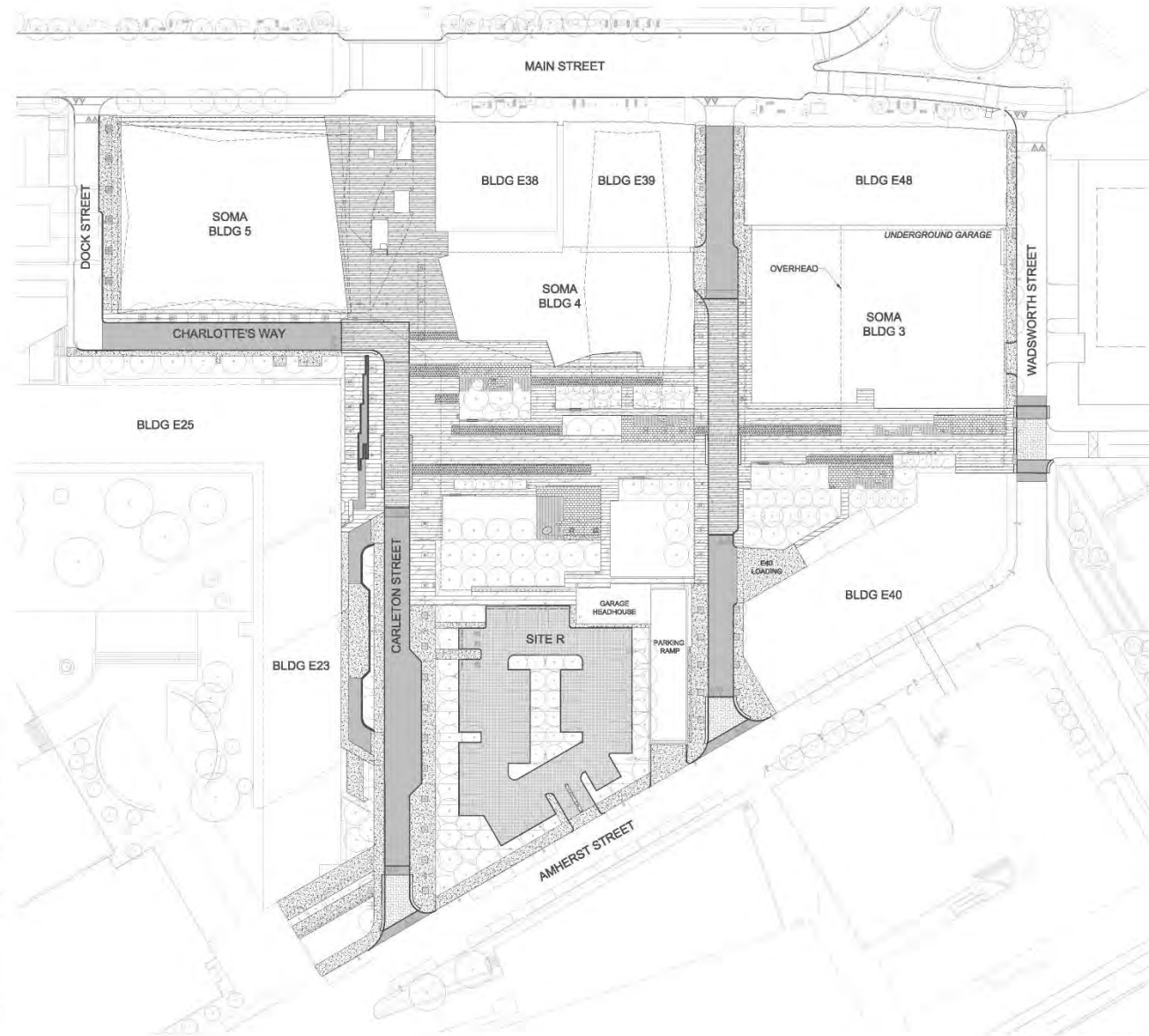
- Emergency Power
- Normal Power

5. INTERIM EGRESS ANALYSIS

OVERALL DISTRICT PLAN - SoMa DEVELOPMENT

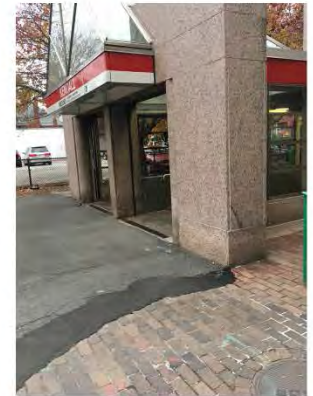
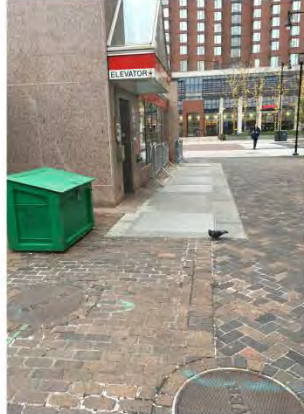


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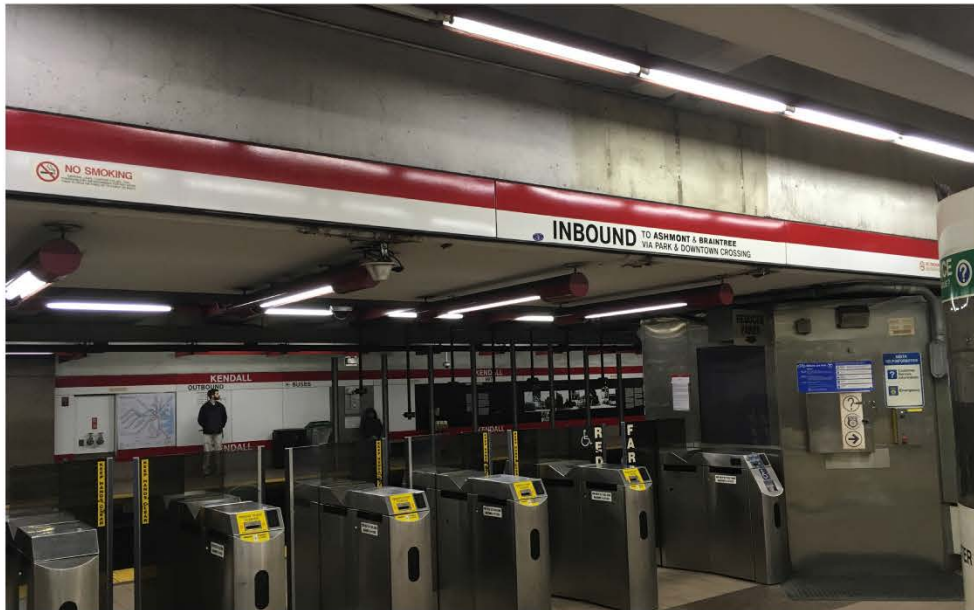
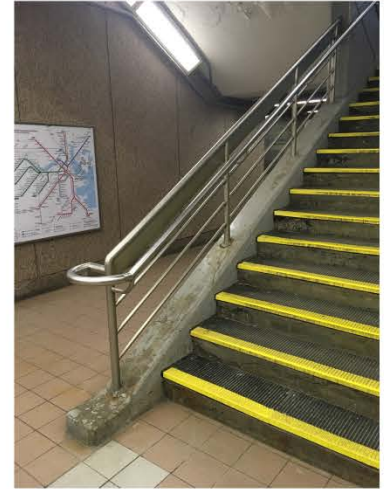
SCALE: 1"=30'

EXISTING HEADHOUSE

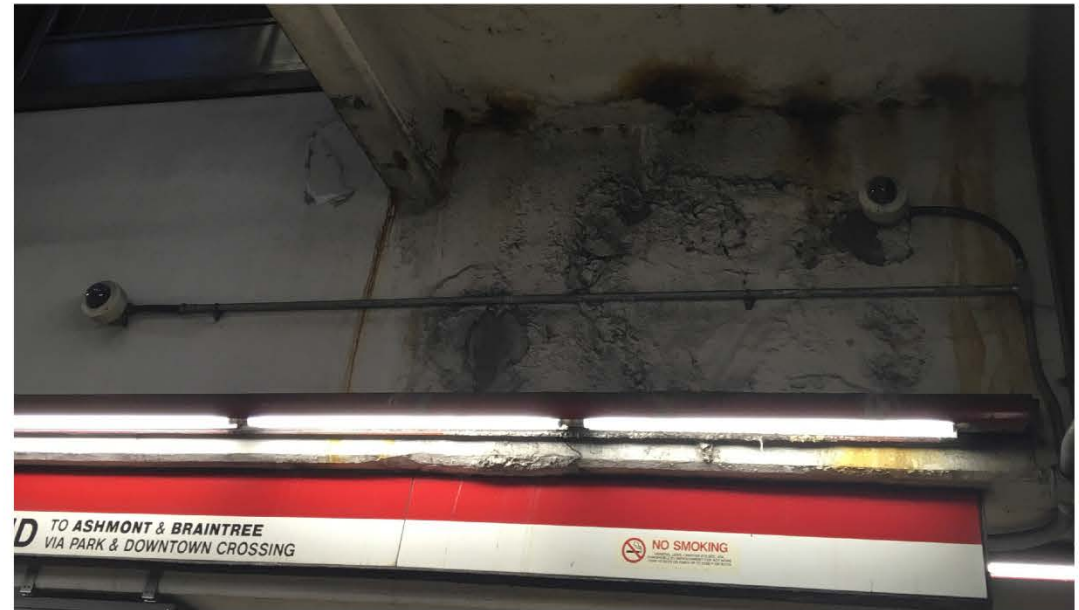


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EXISTING HEADHOUSE AND PLATFORM LEVEL



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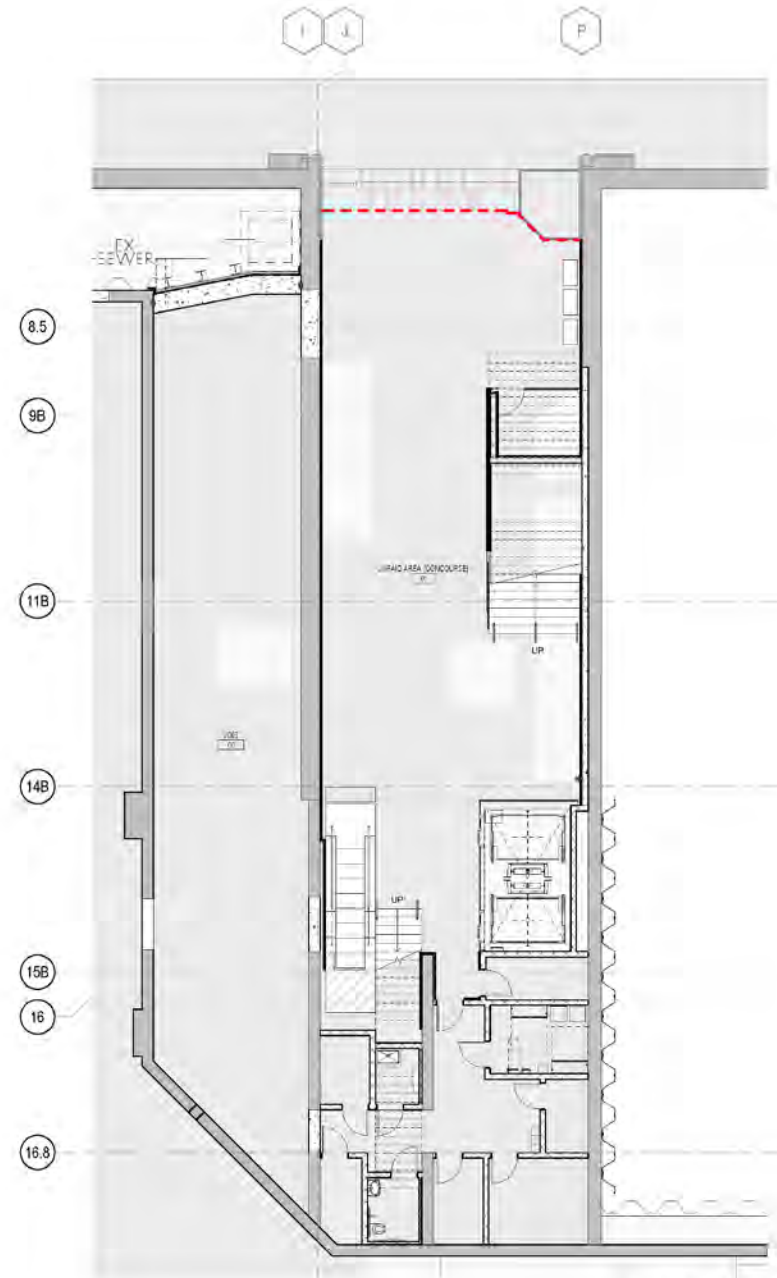






PLATFORM LEVEL PLAN (CONCOURSE) - FINAL CONDITION

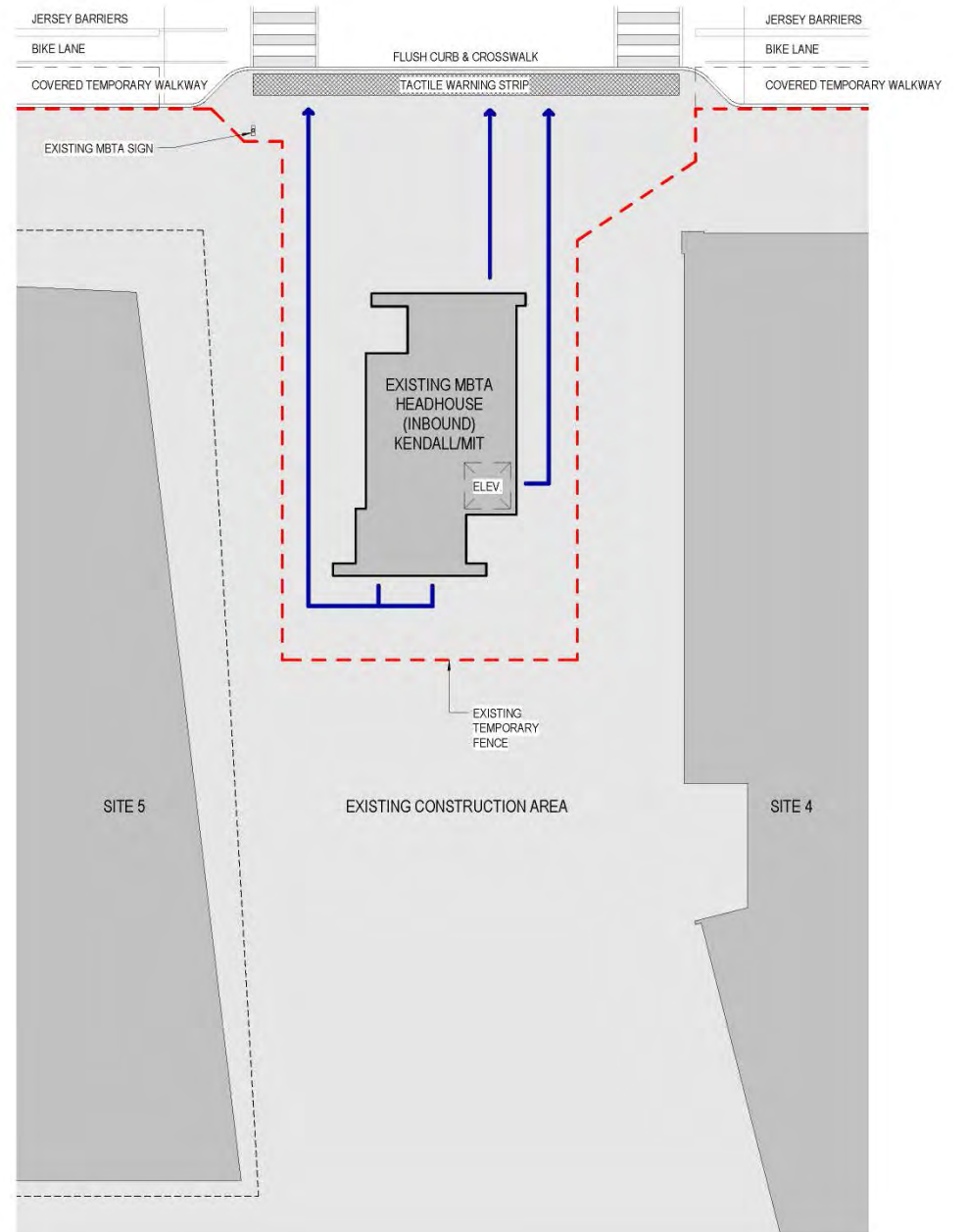
- VISUAL CLARITY TO COMMUTER CIRCULATION
- IMPROVED VISIBILITY TO ELEVATOR
- EXPANDS BACK-OF-HOUSE ZONE
- INTRODUCES AREA OF RESCUE ASSISTANCE
- LIMIT OF WORK TO SOUTH SIDE OF TURNSTILES (UNPAID AREA) AND SERVER ROOM



PLAZA LEVEL - EXISTING CONDITIONS



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PLAZA LEVEL - EARLY PHASE WORK PLAZA LEVEL

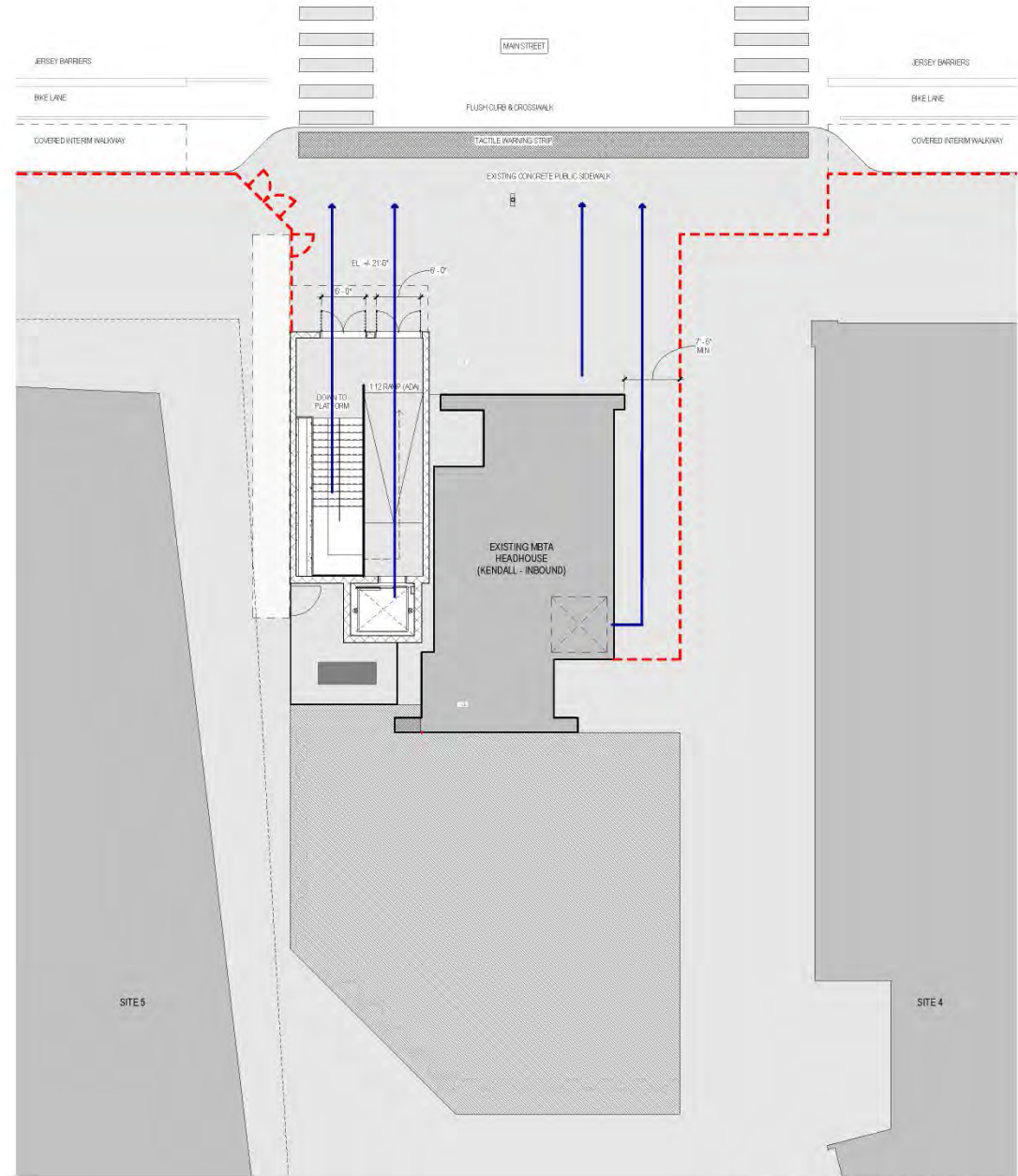
EAST CONDITION REMAINS MATERIALLY THE SAME AS CURRENT CONDITION



PROPOSED CONDITION WEST OF EXISTING HEADHOUSE (INTERIM HEADHOUSE)



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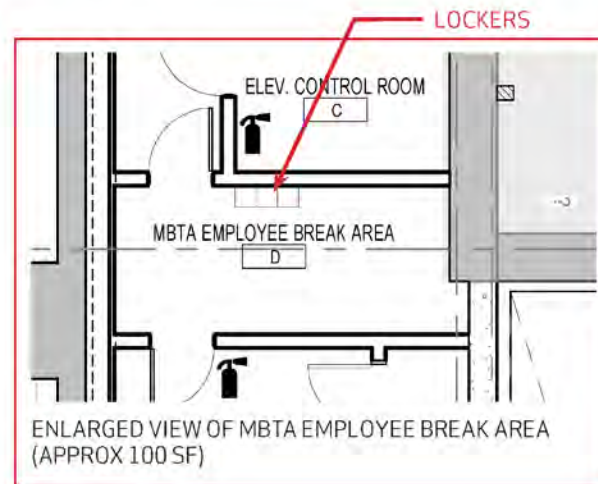
PLAZA LEVEL - EARLY PHASE WORK PLATFORM LEVEL

- WATER & GAS SERVICE TEMPORARILY CAPPED FOR DURATION OF CONSTRUCTION
- NEW SEWER LINE TO BE CONNECTED
- ALLOWS EXCAVATION WORK TO BEGIN SOUTH OF EXISTING HEADHOUSE
- PROVIDES INTERIM EGRESS STAIR
- PROVIDES INTERIM PASSENGER ELEVATOR
- THIS PHASE WILL INCLUDE BUILDING SUPERSTRUCTURE SOUTH OF THE HEADHOUSE

REQUESTED FUNCTIONS OF EMPLOYEE BREAK AREA

1. STORAGE FOR EMPLOYEE BELONGINGS
2. BREAK SPACE
3. A SPACE TO WARM-UP OR COOL-OFF
4. OUTLETS TO CHARGE DEVICES
5. STORAGE OF THE AED (DEFIBRILLATOR)
6. SIGHTLINES OF CUSTOMERS AT FARE GATES*

*ITEM 6 IS NOT ACCOMMODATED WITHIN ROOM, BUT MAY BE ADDRESSED BY MBTA VIA CCTV OR LIVE PERSONNEL. NEW ROOM HAS TEL/DATA AND POWER CAPABILITY PROVIDED.



EXISTING WATER & GAS LINES CUT & CAPPED FOR DURATION OF CONSTRUCTION

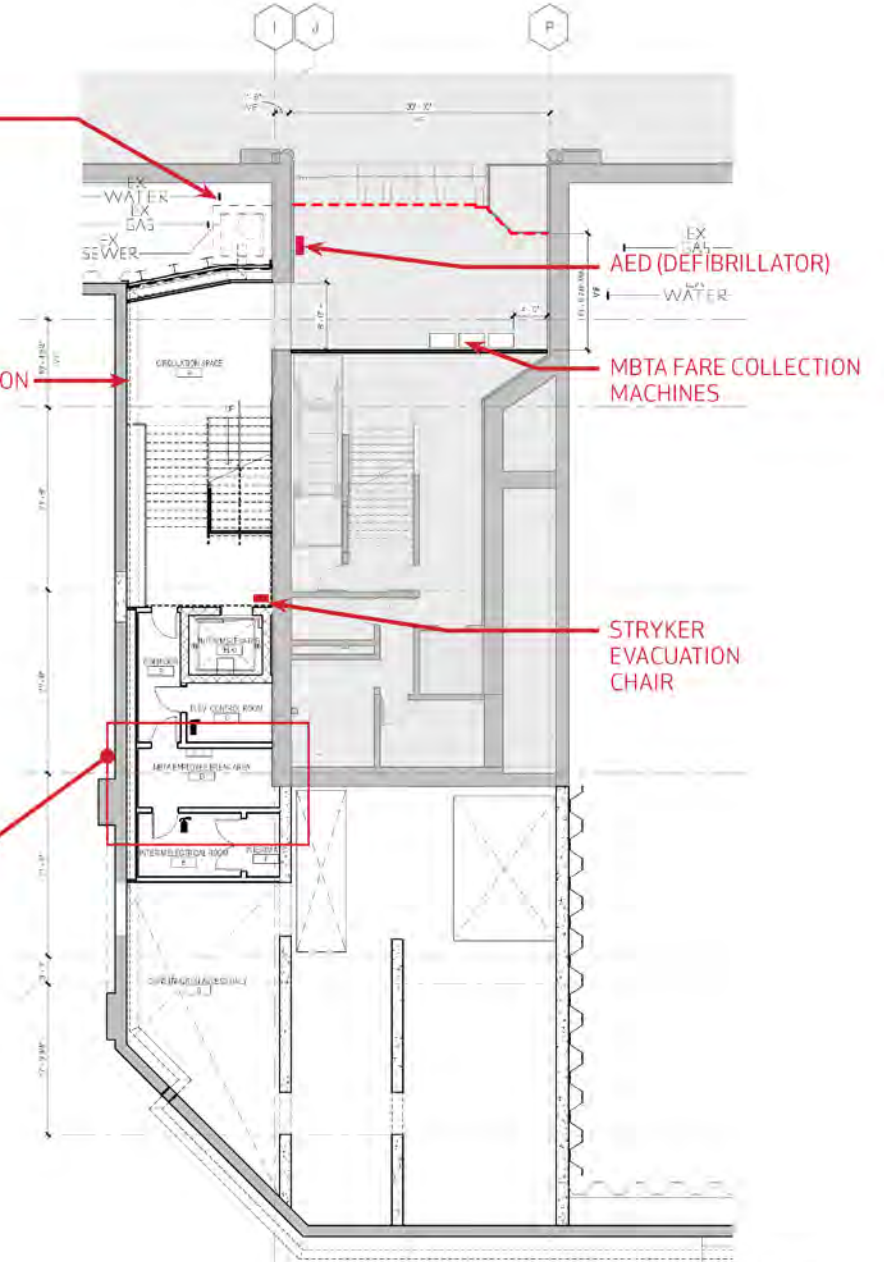
NEW SEWER LINE CONNECTION

AED (DEFIBRILLATOR)

MBTA FARE COLLECTION MACHINES

STRYKER EVACUATION CHAIR

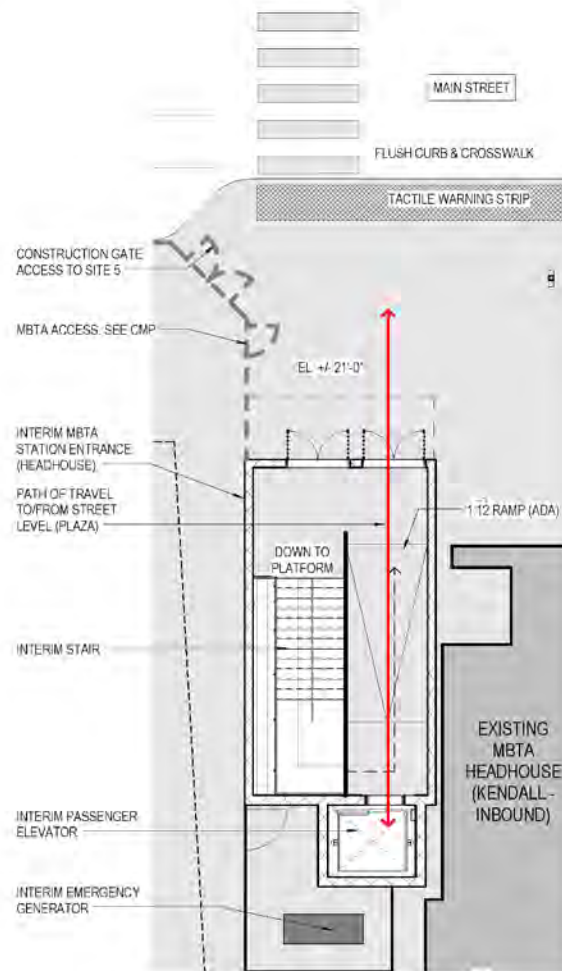
LOCKERS



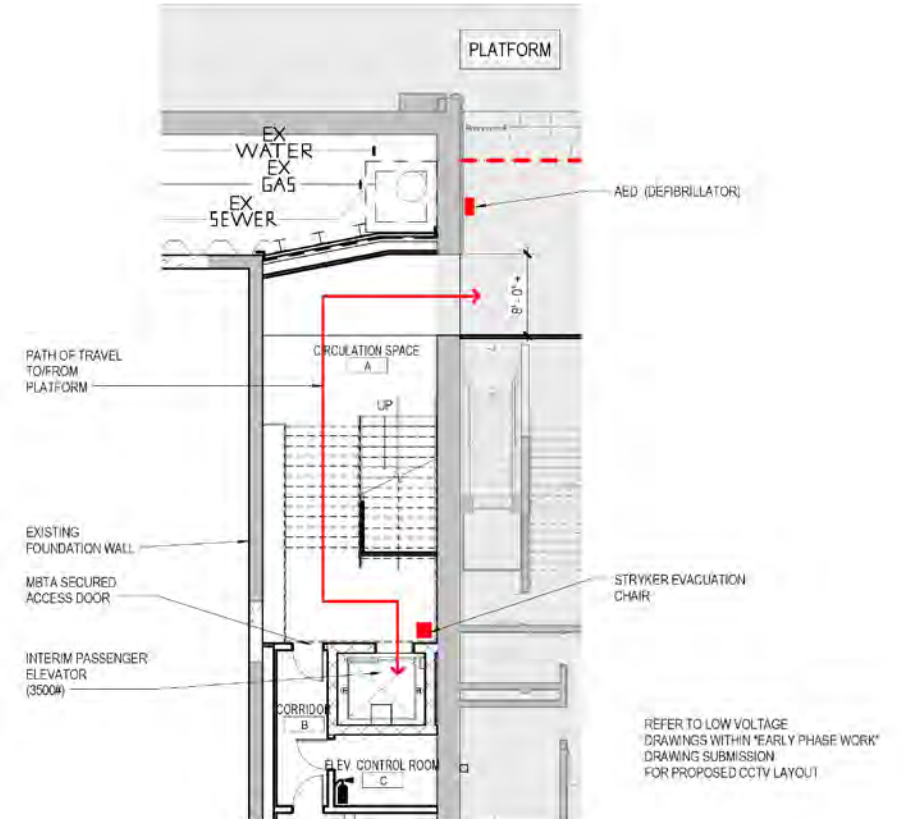
INTERIM PASSENGER ELEVATOR

- SUMP PIT WITHIN THE ELEVATOR PIT (PROVIDED WITH MANUAL PUMP)
- VISION PANELS IN THE DOORS: 4" X 20" CENTERED AT 60" IN THE DOOR
- CCTV SECURITY CAMERA(S) WITHIN CAB AND AT EXTERIOR AND INTERIOR HEADHOUSE DOOR LOCATIONS.
- TRANSIT POLICE COMMUNICATION DEVICE WITHIN THE ELEVATOR CAB AND AT EACH LANDING

PLAZA LEVEL

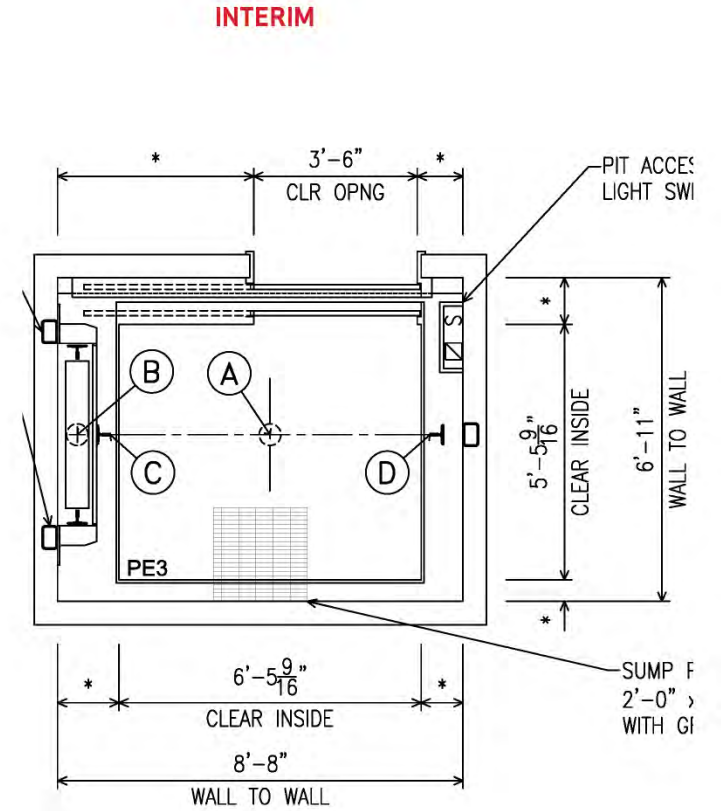
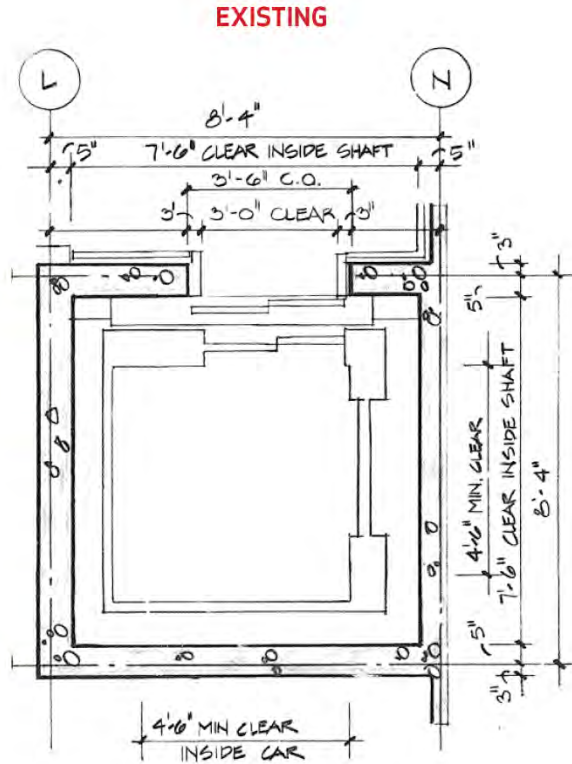


CONCOURSE LEVEL



PASSENGER ELEVATOR COMPARISON (EXISTING VS. INTERIM)

| PASSENGER ELEVATOR | EXISTING | INTERIM |
|---------------------|--------------------|-------------------------|
| TYPE | HYDRAULIC | MRL - GEARLESS TRACTION |
| DOOR WIDTH | 3'-0" CLEAR | 3'-6" CLEAR |
| DOOR HEIGHT | 7'-0" CLEAR | 7'-0" CLEAR |
| CAB WIDTH | 5'-0" CLEAR | 6'-5 9/16" CLEAR |
| CAB DEPTH | 5'-0" CLEAR | 5'-5 9/16" CLEAR |
| CLASS LOAD RATING | UNKNOWN | A |
| MANUFACTURER | UNKNOWN | OTIS |
| MODEL | UNKNOWN | G2S |
| AGE | CIRCA 1983 | NEW |
| ADA-COMPLIANT | UNKNOWN | YES |
| STRETCHER COMPLIANT | NO | YES |
| DOOR CONFIGURATION | 90 DEGREE (2-DOOR) | SINGLE DOOR |
| WEIGHT CAPACITY | 2000 LBS. | 3500 LBS. |
| SPEED | 100 FPM | 150 FPM |



EXTERIOR (EXISTING)



INTERIOR (EXISTING)



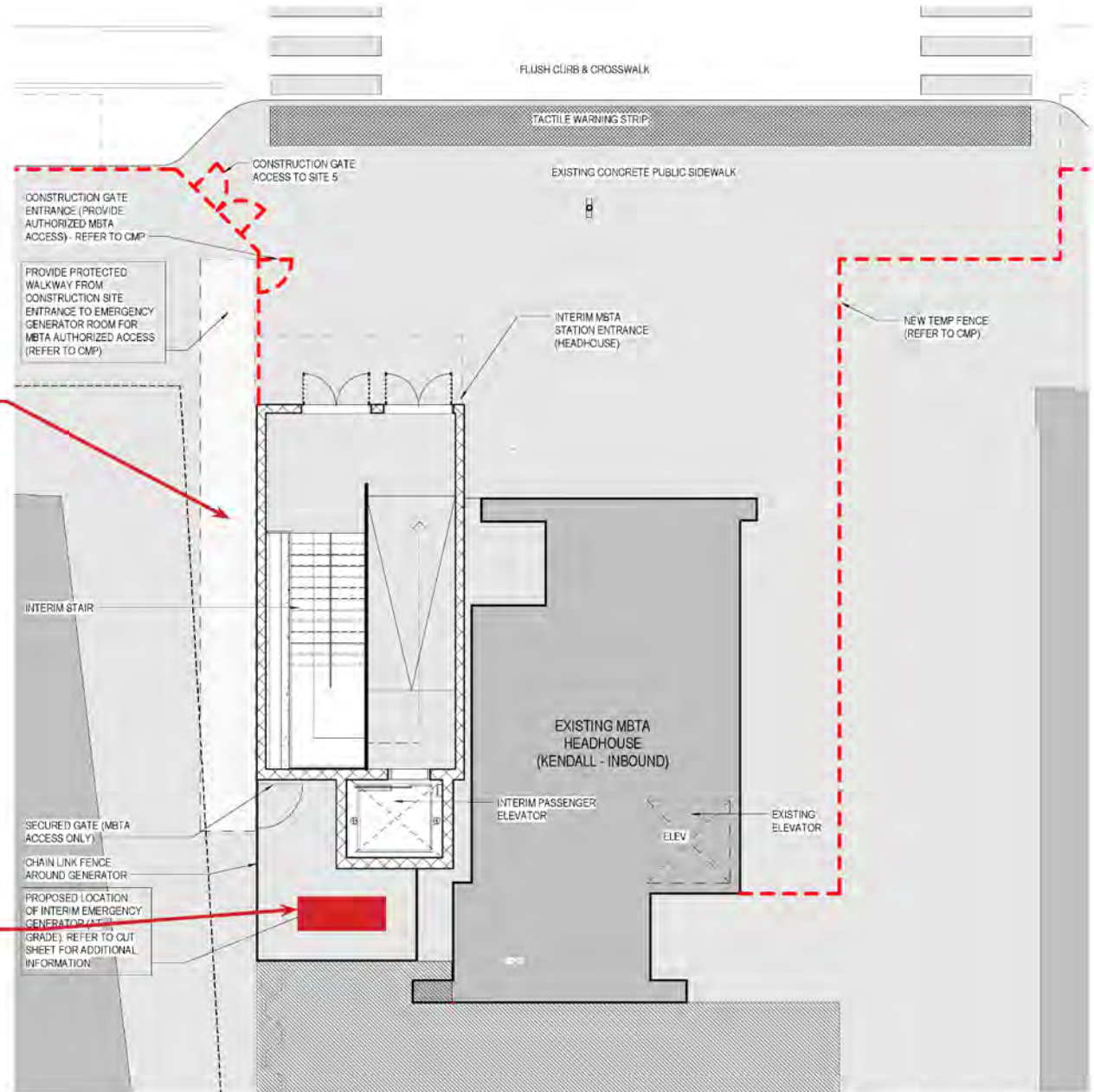
FOR ILLUSTRATIVE PURPOSES. ACTUAL FINISHES MAY VARY.

INTERIM EMERGENCY POWER

• EMERGENCY POWER WILL BE SUPPLIED WITH A 30kW EMERGENCY DIESEL GENERATOR AT GRADE NEXT TO THE HEADHOUSE. A PROTECTED PATHWAY FROM MAIN STREET WILL BE PROVIDED FOR ACCESS TO THE GENERATOR. AN AUTOMATIC TRANSFER SWITCH WILL BE PROVIDED WITHIN A 2-HOUR RATED ENCLOSURE BELOW

PROVIDE PROTECTED WALKWAY FROM CONSTRUCTION SITE ENTRANCE TO EMERGENCY GENERATOR AREA FOR MBTA AUTHORIZED ACCESS (REFER TO CMP)

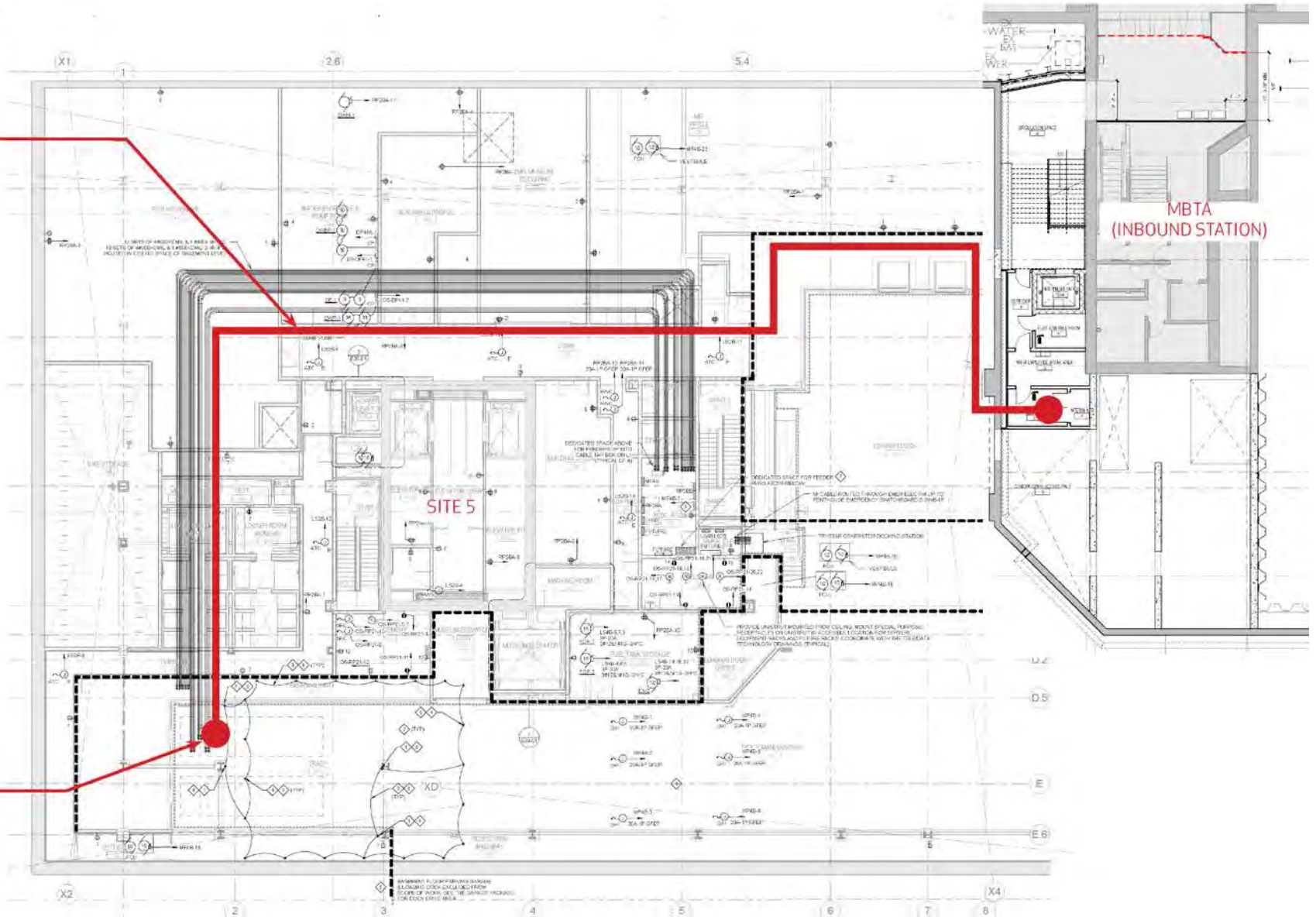
PROPOSED LOCATION OF INTERIM EMERGENCY GENERATOR (AT GRADE)



INTERIM NORMAL POWER FEED

PROPOSED APPROXIMATE ROUTE OF CONDUIT FROM INTERIM HEADHOUSE TO NORMAL POWER-SOURCE

NOTE: CONDUIT WILL RISE UP TO LEVEL 1 SWITCHGEAR ROOM (W/ PERMANENT SWITCHGEAR)



INTERIM HEADHOUSE EGRESS ANALYSIS

CONCLUSION (PER CODE CONSULTANT)

THE EARLY PHASE MEANS OF EGRESS MAINTAINS THE EXISTING MEANS OF EGRESS SYSTEM PERFORMANCE DURING CONSTRUCTION OF THE NEW RELOCATED / RECONSTRUCTED HEADHOUSE ACCORDING TO THE NFPA 130 METHODOLOGY, WITH:

- NO CHANGE IN WALKING TIME
- NO CHANGE IN WIDTH OF EGRESS STAIR
- NO CHANGE IN EGRESS CAPACITY
- NO CHANGE IN PLATFORM EVACUATION TIME
- NO CHANGE IN EVACUATION TO A POINT OF SAFETY (SURFACE AT EXTERIOR PLAZA)
- **NO CHANGE IN EGRESS CAPACITY WITH THE REMOVAL OF THE EXISTING ESCALATOR AND THE EXISTING SOUTH STAIR**

RLSB-1 (MAINTAINED)
RLSB-2 (UNAFFECTED)

| SUMMARY (RLSB-1) | EGRESS CAPACITY IN PEOPLE PER MINUTE (PPM) |
|------------------------|--|
| EXISTING PLATFORM | 172 PPM |
| EXISTING FARE GATES | 275 PPM |
| EXISTING STAIR | 126 PPM |
| INTERIM STAIR | 126 PPM (NO CHANGE) |
| INTERIM PORTAL OPENING | 199 PPM |
| INTERIM EGRESS DOORS | 278 PPM |