NEW JACKING PAD PLATFORM
213 WEST ROOSEVELT ROAD
CHICAGO, ILLINOIS 60607
CONSTRUCTION DRAWINGS
MAY 01, 2013
OVERALL YARD PLAN

LOCATION OF PROPOSED WORK

PROPOSED JACKING PAD

DRAWINGS ARE DIAGRAMMATIC IN NATURE, FIELD VERIFY EXISTING CONDITIONS AND CONNECTION POINTS PRIOR TO STARTING WORK. FULLY COORDINATE WORK WITH OTHER TRADES.

CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND BE FAMILIAR WITH THE RULES AND REGULATIONS OF THE FEDERAL, STATE, COUNTY AND CITY OF CHICAGO. TEMPORARY SHUTDOWNS OF BUILDING SYSTEMS OR SITE UTILITIES MUST BE COORDINATED WITH AMTRAK.

PROTECT ANY WORK WHICH IS TO REMAIN OR HAS BEEN COMPLETED PRIOR TO NEW WORK, INCLUDING BUILDINGS, PAVEMENTS, CURBS AND THE LIKE ON THE SITE AND ADJACENT TO THE WORK.

ALL LINES ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS NOTED OTHERWISE. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND RELATIONS TO OTHER WORK PRIOR TO FABRICATION AND INSTALLATION.

COORDINATES AND WRITTEN DIMENSIONS SHALL PREVAIL, DO NOT SCALE DRAWINGS.

1. WORK AREA

2. WORK AREA
**STRUCTURAL NOTES:**

**A. DESIGN AND CONSTRUCTION**

1. DESIGN shall be in accordance with the following codes:
   - AISC
   - ACI
   - ASTC

2. PROVIDE:
   - SLEDGES
   - EDGE PROTECTION
   - BARRICADES
   - PICK AIRE

3. CONCRETE:
   - fc' = 4,000 PSI
   - Slump 4

4. FOUNDATION:

   **A. DESIGN AND CONSTRUCTION**

   1. **CONCRETE AND GROUT (CAST-IN-PLACE):**
      - ALL REINFORCING STEEL SHALL HAVE 3 INCHES CONCRETE COVER IF CAST.

   2. **CONSTRUCTION OF FOUNDATIONS:**
      - ALL REINFORCING STEEL SHALL BE LAPPED IN ACCORDANCE WITH AREMA AND AISC.

   **B. FOUNDATION**

   1. OVER-EXCAVATE TO A UNIFORM DEPTH BELOW THE FOUNDATION AS INDICATED ON THE DRAWINGS OR APPROVED IN ADVANCE; AND IF USED, THE DRAWINGS OR APPROVED IN ADVANCE.

   2. CONCRETE CYLINDERS (7 & 28 DAY AND SPARE) AND SLUMP TESTING ARE INTENDED TO SHOW DIMENSIONS AND DETAILS OF CONSTRUCTION ONLY.

   3. CONTRACTOR SHALL BE AWARE OF SUBGRADE UTILITIES AND ELECTRICAL AND MECHANICAL DIVISIONS AND EQUIPMENT WALLS SHALL BE CONTINUOUS AROUND CORNERS AND THROUGH WALLS.

   4. TO AVOID SCRAP CONCRETE, 0.50 FOR DRILLED PIERS, AND 0.55 FOR PORTLAND CEMENT GROUT.

   **C. CONCRETE AND GROUT (CAST-PLACE):**

   1. **PORTABLE JACK LOADS:** 35 TONS

   2. **DESIGN MODULUS OF SUBGRADE REACTION PER ECS GEOTECH REPORT:**

      **1.1. ECS MIDWEST, LLC**

      **1.2. GEOTECHNICAL INVESTIGATION AND REPORT PROVIDED BY:**

      **1.2.1. ECS MIDWEST, LLC**

      **1.2.2. ECS INDUSTRIAL FOUNDATION SERVICES**

      **1.2.3. ECS INDUSTRIAL FOUNDATION SERVICES**

      **1.2.4. ECS GEOTECH**

   **D. STRUCTURAL STEEL**

   1. RAIL PLATE ASSEMBLIES SHALL BE SHOP FABRICATED INCLUDING SHOULDER REINFORCEMENT. ALL ANCHOR BOLTS ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT. SHEAR PLANES (CONNECTION TYPE N) EXCEPT AS NOTED ON THE PLANS.

   2. RAIL CLIPS AND SHOULDERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

   3. TEMPLATES SHALL BE USED FOR LOCATING DRILLED ANCHORAGE HOLES RELATIVE TO THE STRUCTURAL THICKNESS.

   **E. GENERAL CONSTRUCTION**

   1. DO NOT PLACE BACKFILL AGAINST FOUNDATIONS UNTIL CONCRETE HAS BEEN CURED FOR AT LEAST 72 HOURS. MAINTAIN BOUNDARIES THROUGHOUT THE CURE PERIOD. SEE NOTE C.2 ABOVE.

   2. FLAT CONCRETE SURFACES TO HAVE LIGHT BROOM FINISH.

   3. **HORIZONAL REINFORCING STEEL:**
      - 6" RICE BEFORE ADDITION OF SUPPLEMENTAL MATERIALS. CONCRETE SHALL BE AIR ENTRAINED. 15 PERCENT MAXIMUM FLY ASH. 25 PERCENT MAXIMUM GGBF.

   4. **FLAT CONCRETE SURFACES:**
      - WILLING TO 1/4" ELEVATION FROM STRAIGHTedge.

   5. **LEVEL CONCRETE SURFACES:**
      - WILLING TO 1/8" ELEVATION FROM STRAIGHTedge.

   6. PRIOR TO BEGINNING DEMOLITIONS WORK, CONTRACTOR TO SURVEY AND MEASURE AND DOCUMENT EXISTING GAGE AT FIVE LOCATIONS INSIDE THE CONCRETE PLACEMENT.

   7. **DEWATERING MAY BE NECESSARY. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF THE NEW RAIL.**

   8. **FLAT CONCRETE SURFACES TO HAVE LIGHT BROOM FINISH.**

   9. **HORIZONAL REINFORCING STEEL:**
      - 6" RICE BEFORE ADDITION OF SUPPLEMENTAL MATERIALS. CONCRETE SHALL BE AIR ENTRAINED. 15 PERCENT MAXIMUM FLY ASH. 25 PERCENT MAXIMUM GGBF.

   10. **FLAT CONCRETE SURFACES:**
      - WILLING TO 1/4" ELEVATION FROM STRAIGHTedge.

   11. **LEVEL CONCRETE SURFACES:**
      - WILLING TO 1/8" ELEVATION FROM STRAIGHTedge.

   12. **HORIZONAL REINFORCING STEEL:**
      - 6" RICE BEFORE ADDITION OF SUPPLEMENTAL MATERIALS. CONCRETE SHALL BE AIR ENTRAINED. 15 PERCENT MAXIMUM FLY ASH. 25 PERCENT MAXIMUM GGBF.
10'-0"
2'-0"
18'-9"
10'-0"
100'-0"

SAWCUT
SAWCUT
SAWCUT

CUT EXISTING AIR LINE AND INSTALL NEW AIR PIPING BELOW NEW CONCRETE, SEE 1/S151. NEW UNDERGROUND PIPING TO BE HDPE SDR 11.

EXISTING TRACK UNDER DRAIN
EXISTING TRACK UNDER DRAIN

EXISTING WATER CABINET
EXISTING WATER CABINET

EXISTING TRACK UNDER DRAIN
EXISTING TRACK UNDER DRAIN

EXISTING POWER
EXISTING POWER

EXISTING POWER
EXISTING POWER

34'-11" +/-
23'-8"

EXISTING CONCRETE PLATFORM

LEGEND

DEMOLISH & REMOVE EXISTING BALLAST, SUBBALLAST, RAIL PLATES, TIES, ANCHORAGE AND ALL ITEMS EMBEDDED WITHIN LIMITS. MINIMUM REMOVAL TO DEPTH REQUIRED BY SECTION 1/S130 AND ECS GEOTECHNICAL REPORT NO. 16:9254.

DEMOLISH AND REMOVE EXISTING SLAB, SLAB FOUNDATION AND EMBEDDED ITEMS. MINIMUM REMOVAL TO A DEPTH REQUIRED BY SECTION 1/S130 AND ECS GEOTECHNICAL REPORT NO. 16:9254.

EXISTING CONCRETE PLATFORM

NOTES

1. COMPLY WITH ALL EPA, STATE, LOCAL, AND FEDERAL REGULATIONS.

2. UNDERGROUND UTILITIES, BOTH ABANDONED AND IN USE MAY BE PRESENT WHICH ARE NOT SHOWN. THE UTILITIES INDICATED MAY NOT BE AT THE EXACT LOCATION SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING UTILITY LINES AND FOUNDATIONS. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR UTILITIES NOT SHOWN.

3. USE EXCAVATED SOILS WHICH DO NOT APPEAR CONTAMINATED AS BACKFILL MATERIAL, WHENEVER POSSIBLE TO REDUCE THE QUANTITY OF SURPLUS SOILS GENERATED ON SITE. REMOVE SURPLUS SOIL FROM SITE AND DISPOSE OF IN A LAWFUL MANNER. IF FREE PRODUCT, HEAVILY CONTAMINATED SOIL, OR UNUSUAL DEBRIS (CRESOTE, ETC.) ARE IDENTIFIED BY QUALIFIED PERSONNEL, THE CONTAMINATED MATERIAL SHALL BE STOCKPILED IN A 1'-0" HIGH BERMED AREA ON PLASTIC, AND NOT REUSED AS BACKFILL MATERIAL. AMTRAK WILL DIRECT DISPOSAL OF CONTAMINATED MATERIAL.

4. COORDINATE EXTENTS OF DEMOLITION AND REMOVAL WITH NEW CONSTRUCTION.

5. REMOVE EXISTING TRACK SECTION AS NECESSARY TO CONSTRUCT THE NEW JACKING PAD. SEE NOTE 4. ASSUME A MINIMUM OF 25 TRACK FEET OF TRACK SECTION REMOVAL AT BOTH ENDS OF THE THE JACKING PAD.

6. CONTRACTOR TO COORDINATE WITH OWNER TO SALVAGE EQUIPMENT.

7. CONTRACTOR TO SURVEY TRACK PROFILE AND WORK LIMITS AND SUBMIT TO ENGINEER PRIOR TO BEGINNING OF WORK.

8. REFER TO S-001 AND SPECIFICATIONS FOR ADDITIONAL DEMOLITION NOTES AND REQUIREMENTS.

9. EXCESSIVE AND OVERLY AGGRESSIVE DEMOLITION TECHNIQUES OF THE EXISTING CONCRETE WILL CAUSE BREAKAGE AND COLLATERAL EFFECTS THAT ARE NOT INTENDED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE CONCRETE AS SHOWN IN THE PLANS WITHOUT CAUSING DAMAGE TO THE EXISTING CONCRETE THAT IS NOT INTENDED TO BE REMOVED.

10. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

11. EXTEND PAVEMENT REMOVAL TO LIMITS OF EXISTING SLAB.

12. SALVAGE ELECTRICAL HANDHOLDS AS NECESSARY, PROTECT DURING DEMOLITION.
COORDINATES

LEGEND

1. SITE PLAN IS BASED UPON EXISTING DRAWINGS AND INFORMATION.
2. CONTRACTOR SHALL REPAIR AND RESURFACE EXISTING ROADWAYS, DRIVEWAYS, AND PARKING AREAS AS REQUIRED FROM CONSTRUCTION ACTIVITIES.
3. CONTRACTOR SHALL PROVIDE TEMPORARY FENCE AROUND EXCAVATIONS AND SOIL STOCKPILES DURING CONSTRUCTION. CONTAMINATED EXCAVATIONS SHALL BE BACKFILLED WITH CLEAN BORROW MATERIAL.
4. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING LINE AND GRADE OF ALL NEW UTILITIES AS INSTALLED. IN ADDITION, CONTRACTOR TO RECORD LOCATION AND DEPTH OF EXISTING UTILITIES EXPOSED DURING NEW UTILITY INSTALLATION. CONTRACTOR SHALL DOCUMENT NEW AND EXISTING UTILITIES INFORMATION ON FIELD AS BUILT DRAWINGS.
5. REFER TO S-001 AND SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION NOTES AND REQUIREMENTS
6. EDGE LIMITS OF SLAB TO EXTEND TO MATCH THE LIMITS OF EXISTING SLAB.
7. USE APPROVED AMTRAK BENCHMARK TO LOCATE JACKING PAD.
8. RESET EXISTING MANHOLE RIM TO NEW GRADE. NEW SLAB ELEVATION TO MATCH TOP OF RAIL.
9. IT IS PERMISSIBLE TO USE A CONSTRUCTION JOINT IN LIEU OF A CONTRACTION JOINT DURING THE 10" SLAB CONSTRUCTION. CONTRACTOR SHALL SLOPE SLAB 1:100 TO DRAIN TOWARDS TRACK 11.
10. REPAIR AND REPLACE ANY TRACK REMOVED AS REQUIRED FROM CONSTRUCTION ACTIVITIES. ASSUME A MINIMUM OF 25 TRACK FEET AT BOTH ENDS OF THE NEW JACKING PAD. SEE DET. S-151
RAIL PLATE LAYOUT

COORDINATES

1. REFER TO S-001 AND SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION NOTES AND REQUIREMENTS.
2. REFER TO SHEET S-150 FOR RAIL PLATE DETAILS.
3. SITE PLAN IS BASED UPON EXISTING DRAWINGS AND INFORMATION, ALL DIMENSIONS AND COORDINATES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND EXISTING CONSTRUCTION.
4. NEW TOP OF RAIL ELEVATION TO MATCH EXISTING.
5. USE APPROVED AMTRAK BENCHMARK TO LOCATE JACKING PAD.

LEGEND

RAIL PLATE TYPE "A", SEE 4/S-150
RAIL PLATE TYPE "B", SEE 5/S-150
EXISTING CONCRETE PLATFORM
NEW CONCRETE PLATFORM

NOTES

15'-0" EDGE OF JACKING PAD FOUNDATION SLAB

A 1894745.796 1174312.742
B 1894648.104 1174038.843

SCALE: 1/8" = 1'-0"

EXISTING CONCRETE PLATFORM
NEW CONCRETE PLATFORM

RAIL PLATE TYPE "A", SEE 4/S-150
RAIL PLATE TYPE "B", SEE 5/S-150
EXISTING CONCRETE PLATFORM
NEW CONCRETE PLATFORM

NOTES

1. REFER TO S-001 AND SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION NOTES AND REQUIREMENTS.
2. REFER TO SHEET S-150 FOR RAIL PLATE DETAILS.
3. SITE PLAN IS BASED UPON EXISTING DRAWINGS AND INFORMATION, ALL DIMENSIONS AND COORDINATES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND EXISTING CONSTRUCTION.
4. NEW TOP OF RAIL ELEVATION TO MATCH EXISTING.
5. USE APPROVED AMTRAK BENCHMARK TO LOCATE JACKING PAD.
NOTES

1. SEALED JOINT: SEE 6/S-150.
2. ACCURATE PLACEMENT OF STIRRUPS IS REQUIRED TO FACILITATE INSTALLATION OF THE TRACK PLATE.
3. ADJUST SPACING OF FOOTING REINFORCEMENT AS NECESSARY TO AVOID TRACK PLATE ANCHORAGE.
4. COMPLETE REMOVAL AND REPLACING EXISTING FILL MATERIALS TO A MINIMUM OF 3 FEET BELOW EXISTING GRADE AND PROOFROLL PER GEOTECH REPORT.
5. EXISTING 6" CONCRETE ELEV: 99'-4" thicken to 10" MIN.
6. ENGINEERED FILL TO A MINIMUM 3'-0" BELOW EXISTING GRADE.
7. REFERENCE SUBGRADE PREPARATION OPTION 1 PER ECS REPORT NO. 16:9254.
8. ADHESIVE ANCHOR INSTALL PER MANUFACTURER'S RECOMMENDATION.
9. 1'-6" MIN. PROJECTION INTO NEW CONCRETE.
10. CENTER IN EXISTING SLAB DEPTH.
11. 1'-3" CLR. TYP.
12. 2'-10" MIN.
13. 1'-6" MIN.
14. 1'-2" 1'-0" 10" 10"
15. #4 TIE @ 12" O.C.
16. #5 @ 8" MAX. O.C. ON PERIMETER
17. STD. HOOK
18. 2'-6" TYP.
19. 8" @ SIM.
20. #5 @ 8" O.C. ON PERIMETER
21. #4 TIE @ 12" O.C.
22. #5 @ 8" MAX. O.C.
23. IN ORGANIC EXPANSION MATERIAL
24. THICKENED SLAB SECTION
25. CONCRETE RAMP SECTION
26. JACKING PAD SECTION
EXISTING 480V POWER PANELBOARD PPB LOCATED IN 12TH STREET SUBSTATION 4A.

REPLACE EXISTING SPARE 100A-3P CIRCUIT BREAKER WITH 60A-3P CIRCUIT BREAKER.

VERIFY AND MATCH EXISTING AIC RATING, TURN SPARE 100A-3P CIRCUIT BREAKER OVER TO OWNER. UPDATE PANELBOARD DIRECTORY TO READ "JACKING PAD POWER".

PROVIDE 2" CONDUIT WITH (3) #1 + #4 GROUND FROM EXISTING HH84A TO EXISTING PANELBOARD PPB. CONDUIT SHALL BE SURFACE MOUNTED ON SUBSTATION 4A EXTERIOR WALL. REFER TO DET. 1/151

UTILIZE EXISTING 4" SPARE CONDUIT, PROVIDE (3) #1 + #4 GROUND.

SAW CUT EXISTING CONCRETE PLATFORM FROM EXISTING HH51 TO PROPOSED JACKING PAD EQUIPMENT RACK. PROVIDE 2" CONDUIT WITH (3) #1 + #4 GROUND FROM EXISTING HH51 TO SAFETY SWITCH ON EQUIPMENT RACK.

NOT ALL EXISTING UTILITIES ARE SHOWN. ALL EXISTING CONDUIT SIZES AND ROUTING SHOWN ARE BASED ON ALL INFORMATION AVAILABLE AT DATE OF PRINT AND ARE SUBJECT TO FIELD VERIFICATION. VERIFY ACTUAL CONDUIT ROUTING AND CABLING WITH EXISTING AND PROPOSED UTILITIES PRIOR TO COMMENCING ANY WORK.

AVAILABLE CONDUIT RUNS ARE BASED ON EXISTING DOCUMENTS PROVIDED BY AMTRAK. ANY UNDERSIZED OR OUT OF PLACE UTILITIES SHALL BE ADJUSTED PRIOR TO COMMENCING ANY WORK.

EXISTING CONDUIT PROCISION [SUBSTATION 4A] TO PROVIDE (3) #1 + #4 GROUND FROM EXISTING EXISTING HH84A TO SAFETY SWITCH ON EQUIPMENT RACK.

REPLACE ANY AFFECTED EXISTING PAVEMENT DAMAGES BY CONSTRUCTION ACTIVITY. REFER TO DET. 1/151.


NOTES

LEGEND

EXISTING CONDUIT

NEW CONDUIT

KEYNOTES


NOTES

LEGEND

EXISTING CONDUIT

NEW CONDUIT

KEYNOTES

600V, 60A, 3-POLE, FUSED, NEMA 3R HEAVY DUTY SAFETY SWITCH COMPLETE WITH (3) 60A FUSES.
1-1/4" R.S.C. WITH: (3) #1 + #4 GROUND
1-1/4" R.S.C. WITH: (3) #4 + #10 GROUND
60A, 3 PHASE, 480V, 3-WIRE + GROUND, WEATHERPROOF RECEPTACLE AND BACKBOX (RECEPTACLE AND BACKBOX PROVIDED BY JACK SUPPLIER, INSTALLED BY ELECTRICAL CONTRACTOR).
1-5/8" X 1-5/8" 12 GA GALVANIZED STEEL SUPPORT CHANNEL, SECURE TO POST WITH STAINLESS STEEL U-BOLTS (TYPICAL).
3" DIAMETER R.S.C. CONCRETE FILLED VERTICAL SUPPORT POST, 5'-0" ABOVE GRADE, 4'-0" BELOW GRADE (TYPICAL OF 2).