

FOR INFORMATION ONLY

GENERAL NOTES

- FIELD TOLERANCE IS IN ACCORDANCE WITH THE ERECTOR'S MANUAL - STANDARDS & GUIDELINES FOR THE ERECTION OF PRECAST CONCRETE PRODUCTS PER SECTION 8.2 OF THE PCI MANUAL (CURRENT EDITION).
- ERECTOR TOLERANCES IN ACCORDANCE WITH PCI RECOMMENDED PRACTICE FOR ERECTION OF PRECAST CONCRETE & SECTION 8.3 OF THE PCI MANUAL (CURRENT EDITION).
- CONTRACTOR SHALL COORDINATE WITH THE PRECAST SUPPLIER SEGMENTS THAT ALLOW FOR THE LEAST AMOUNT OF THE TO UNLOAD FOR THE PRODUCTS SHIPPED. IN THE EVENT OF AN EXCESSIVE AMOUNT OF WAIT-TIME, THE CONTRACTOR AND PRECAST SUPPLIER SHALL COORDINATE THAT THE LOAD EITHER BE OFF-LOADED AND TEMPORARILY SUPPORTED OR RETURNED TO PRECAST SUPPLIER.
- CONTRACTOR SHALL PROVIDE AMPLE ROOM IN AN AREA OF FLAT, LEVEL GROUND ON SOILS SUITABLE TO SUPPORT WHEEL & OUTRIGGER LOADS FOR DELIVERY AND TEMPORARY STORAGE OF PRECAST PRODUCT (IF REQUIRED) ON ITS EDGE. CONTRACTOR SHALL COORDINATE WITH PRECAST SUPPLIER TEMPORARY STORAGE IF REQUIRED.
- ITEMS PROVIDED BY THE INSTALLATION CONTRACTOR:
 - ALL SHIMS UNDER PANELS.
 - ALL GROUT UNDER BASE PLATES AND IN ERECTION ANCHOR POCKETS, CHALKING AND BACKER RODS AT HORIZONTAL AND VERTICAL JOINTS.
 - ANCHOR BOLTS (PER DETAIL H ON 57.00)
 - ANCHOR BOLT WASHERS (PER DETAIL H ON 57.00)
 - ANCHOR BOLT NUTS (PER DETAIL H ON 57.00)
- ITEMS PROVIDED BY PRECAST SUPPLIER:
 - STEEL POSTS WITH STEEL BASE PLATES (WHERE NECESSARY)
- STAIN SHALL BE PENETRATING CONCRETE STAIN (OR COMPARABLE) APPLIED IN SHOP PER MANUFACTURER'S RECOMMENDATIONS BY SUPPLIER AND PROJECT SPECIFICATIONS, COLOR: FEDERAL STANDARD 595-B. TOUCH UP IN FIELD WITH SAME MATERIAL AS NECESSARY.
- REPAIR OF PANELS IS PER MANUFACTURER'S SPECIFICATIONS.
- PANEL CAP SHALL BE SMOOTH FINISH. PANEL WILL BE ASHLAR STONE FORM LINER FINISH PER THE SPECIFICATIONS. (SEE PANEL DETAILS)
- THE MINIMUM REINFORCEMENT BAR COVER SHALL BE 1 1/2" RL.
- ALL REINFORCEMENT SHALL BE EPOXY COATED.
- PANEL DIMENSIONS SHALL BE WITHIN 1/8" RL.
- ANGULAR DISTORTION WITH REGARD TO PANEL SQUARENESS, DEFINED AS THE DIFFERENCE BETWEEN THE TWO DIAGONALS, SHALL NOT EXCEED 1/2" RL.
- SURFACE DEFECTS ON FORMED SURFACES MEASURED ON A LENGTH OF 5 FT SHALL NOT BE MORE THAN 0.10 IN PRIOR TO LOADING PANELS ON TRUCK FOR DELIVERY.
- POSTS SHALL BE INSTALLED PLUMB TO WITHIN 1/20" OF VERTICAL FOR EVERY 15 FT OF HEIGHT AND TO WITHIN 1/20" OF THE STATION AND OFFSET INDICATED.
- DRILLED SHAFT FOUNDATIONS SHALL BE PLACED WITHIN 2 IN OF THE STATION AND OFFSET INDICATED.
- ALL LIFTING INSERTS CAST INTO THE PANELS SHALL BE HOT DIPPED GALVANIZED & SHALL BE INSTALLED INTO THE TOP EDGE OF EACH PANEL AT QUARTER POINTS AS SHOWN IN STEP (3) OF DETAIL 1/SZ.00.

MATERIAL SPECIFICATIONS (PER DOT SPECIFICATIONS)

- PRECAST CONCRETE (NOISE ABATEMENT WALL, GROUND MOUNTED) CLASS PC
 - $f_c = 6000$ PSI @ 28 DAYS
 - $f_t = 2000$ PSI @ STRIPPING
 - $f_c = 4000$ PSI MIN. @ SHIPPING
 - DENSITY = 150 PCF
- CONCRETE AND STEEL COLORS PER FEDERAL STANDARD 595-B COLOR COLOR OF NOISE ABATEMENT WALL SYSTEM = COLOR #30340 (LIGHT BROWN EARTH TONE)
- CAISSON CONCRETE: CLASS CS, $f_c = 4000$ PSI @ 14 DAYS
- REINFORCING STEEL: ASTM A706, FY = 60,000 PSI, EPOXY COATED
- WELDED WIRE FABRIC: ASTM A197 (AKSHIO MASS), FY = 70,000 PSI MIN, EPOXY COATED
- BASE PLATES: AASHTO M227, ASTM F1554 GRADE 55
- ANCHOR BOLTS: AASHTO M227, ASTM F1554 GRADE 55
- HEAVY HEX NUTS: ASTM A33
- HARDENED STEEL WASHERS: ASTM F436
- STEEL POSTS: AASHTO M270 GRADE 345 (GRADE 50), FY = 50,000 PSI*
- LIFTING INSERTS: UNIVERSAL BUILDING PRODUCTS DFFAS8712C 57x7 1/2" DROP FORGED FOOT ANCHOR (LONG LIFT SYSTEM) OR EQUAL.
- SHIMS: VERSA-A-SHIM HIGH IMPACT PLASTIC SHIMS PER ASTM D792 & ASTM D695
- STRUCTURAL CHALK: SKOWAR 51 NS FLEXIBLE EPOXY CONTROL-JOINT SEALER/ADHESIVE OR EQUAL
- BACKER ROD: MILE 180N FLOW PRODUCT SIZED PER BACKER ROD MANUFACTURING, INC. OR EQUAL
- NON-STRUCTURAL CHALK SEALANT: AC-20 FIBER PROORA CORPORATION SPECIFICATIONS AND MANUFACTURING STANDARDS OR EQUAL.
- EMERGENCY ACCESS DOOR HARDWARE PACKAGE:
 - MASTERTEC-CARR PRODUCTS:
 - a) HEAVY DOOR HINGE: NARROW-PROFILE WELD-ON LIFT OFF HINGES, STYLE 6 - CATALOG 115 ITEM 1315A55
 - b) SLIDE BOLT AT BASE OF DOOR: ADJUSTABLE-GUIDE EXTRA-LONG SLIDE BOLTS CATALOG 115 ITEM 1236A13
 - c) PADLOCK: HASS-STYLE 1 - CATALOG 114 ITEM 1546B
 - d) LOCK: KONG PADLOCK ITEM NO. 3770 FOR FIRE DEPARTMENT ACCESS
 - e) KONG BOX 3700 SERIES SURFACE MOUNT FOR HINGED DOOR

*IF USED IN PLACE OF #3 TEMP/SURVIVAGE EPOXY COATED REINFORCEMENT

*BASE PLATES AND STEEL POSTS SHALL BE GALVANIZED ACCORDING TO ASTM A305 AND AASHTO M111

INSTALLATION (DRILLED CAISSON SHAFI INSTALLATION)

- AUGER HOLE TO REQUIRED DEPTH. SEE PRECAST SHOP DRAWINGS FOR PER LOCATIONS, DEPTH AS NECESSARY.
- PLACE REBAR PER DRILLED PIER/CAISSON DETAILS
- PLACE $f_c = 4000$ PSI CONCRETE IN AUGERED HOLE TO THE DEPTH AND ELEVATIONS SPECIFIED ON PLAN AND ELEVATION SHEETS AND FOOTING SCHEDULE OF THESE PRECAST SHOP DRAWINGS.
- NET SET STEEL COLUMNS IMMEDIATELY UPON PLACEMENT OF CONCRETE IN AUGERED HOLE TO THE DEPTH AND ELEVATIONS SPECIFIED ON THE PLAN, ELEVATION SHEETS, AND COLUMN SCHEDULE.
- DRILLED CAISSON FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLE 516.02 OF THE DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- IF SOIL IS UNSUITABLE, IN ORDER TO PREVENT CAVING THE USE OF A 3/4" PERMANENT STEEL LINER MAY BE REQUIRED. INSTALLATION OF THE 3/4" PERMANENT LINER SHALL BE IN ACCORDANCE WITH DOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 516, ARTICLE 516.02(a). THIS APPLICATION MAY BE UTILIZED UNDER DRY OR WET CONDITIONS FELDING THE CHARACTERISTICS OF THE SOILS ENCOUNTERED.

(GROUT (BY OTHERS))

- GROUT STRENGTH: 6000 PSI IN 28 DAYS
4000 PSI IN 3 DAYS
(DO NOT ALLOW GROUT TO FREEZE PRIOR TO REACHING 5000 PSI)

(PANEL INSTALLATION - NOISE ABATEMENT WALL, GROUND MOUNTED)

- PRESET STEEL POSTS TO THE NECESSARY ELEVATION TO OBTAIN TOP OF ELEVATIONS SPECIFIED ON THE PLAN AND ELEVATION DRAWINGS. SEE 3&4/SZ.00 FOR SHIM DETAILS.
- ERECT PRECAST PANEL ON THE SHIMS AND INTO SLOT PROVIDED IN STEEL POST BETWEEN PANELS AND CLIP ANGLES. SEE COLUMN DETAILS ON SHEET 57.00.
- RELEASE PANEL FROM THE CRANE.
- FULLY CHALK JOINTS BETWEEN PANELS WITHIN 7 DAYS OF ERECTION OF PANEL.

(PANEL INSTALLATION - NOISE ABATEMENT WALL, STRUCTURE MOUNTED)

- PRESET BOTTOM NUTS AND WASHERS TO THE NECESSARY ELEVATION, AND SHIMS TO THE NECESSARY THICKNESS TO OBTAIN TOP OF PRECAST ELEVATIONS SPECIFIED ON THE PLAN AND ELEVATION SHEETS AND STRUCTURE MOUNTED DETAILS. (DETAILS 4 & 5 ON SHEET 57.00)
- ERECT PRECAST PANEL ON THE SHIMS AND INTO SLOT PROVIDED IN STEEL POSTS BETWEEN PANELS.
- INSTALL TOP NUTS AND WASHERS SHIM TIGHT.
- USING TOP AND BOTTOM NUTS AND WASHERS, PLUMB THE PRECAST PANEL.
- INSTALL BACKER ROD WITH STRUCTURAL CHALK TO STABILIZE PANEL.
- LOCK OFF DOUBLE NUTS STATUS, PLUS 1/4" TIGHT.
- INSTALL STABILIZATION PADS
- FULLY CHALK JOINTS BETWEEN PANELS ALONG CENTERLINE OF PANEL WIDTH SO THAT JOINT FILLER IS NOT VISIBLE TO HINDER THE AESTHETIC APPEARANCE OF THE WALL. CLEAN OFF ANY JOINT FILLER THAT PROTRUDES BEYOND STRUCTURAL WIDTH OF PANEL.
- RELEASE PANEL FROM THE CRANE.

DRILLED CAISSONS

- THIS ITEM SHALL CONSIST OF CONSTRUCTING CONCRETE SHAFT FOUNDATIONS CAST IN DRILLED HOLES IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, DETAILS SHOWN ON THE PLANS AND FURTHER DESCRIBED HEREIN.
- CAISSON DESIGN IS BASED UPON SOIL TYPES AND PROPERTIES PROVIDED ON SHEETS 42 THRU 54 AND 97 THRU 100 OF THE DESIGN DRAWINGS. IF SOIL CONDITIONS IN FIELD DEVIATE FROM THOSE INDICATED IN THE DESIGN DRAWINGS, THE RESIDENT ENGINEER SHALL CONTACT LARSON ENGINEERING, INC PRIOR TO CONTRACTOR COMPLETING THE CAISSON.
- THE DRILLING OF THE HOLES SHALL BE ACCOMPLISHED BY MEANS OF EITHER TRUCK MOUNTED OR CRANE MOUNTED EARTH AUGERS. THE DRILL UNIT USED SHALL BE SUCH THAT THE SHAFTS CAN BE EXCAVATED TO THE DIMENSIONS AND ALIGNMENT REQUIRED BY THE PLANS. THE DRILL UNIT SHALL HAVE ADEQUATE CAPACITY TO CREATE A SHAFT EXCAVATION TO A DEPTH OF 20 PERCENT BEYOND THE DEPTHS INDICATED ON THE PLANS.
- IF BOULDERS OR MASONRY FOUNDATIONS SHOULD BE ENCOUNTERED BELOW THE NATURAL GROUND DURING DRILLING, THE HOLES SHOULD CONTINUE THROUGH THESE OBSTRUCTIONS. ALL LOOSE MATERIAL EXISTING AT THE BOTTOM OF THE HOLE AFTER DRILLING OPERATIONS AND EXCAVATION SHALL BE REMOVED BEFORE PLACING CONCRETE IN THE HOLES.
- ALL EXCAVATIONS SHALL BE INSPECTED PRIOR TO CONCRETE PLACEMENT BY AN OWNER'S REPRESENTATIVE TO VERIFY SUITABLE BEARING MATERIAL OF CAPACITY AS SPECIFIED IN THE DESIGN DRAWINGS. THE CONTRACTOR SHALL HAVE AVAILABLE A SUITABLE LIGHT FOR THE INSPECTION OF THE DRILLED HOLES FOR ITS ENTIRE DEPTH. ALL HOLES SHALL BE EXAMINED FOR STRAIGHTNESS. THE ALIGNMENT OF THE SHAFT SHALL NOT VARY FROM VERTICAL BY MORE THAN 1.5%.
- NOTIFY THE OWNER'S REPRESENTATIVE AND LARSON ENGINEERING, INC WHEN ADDITIONAL EXCAVATION IS REQUIRED TO MEET SUITABLE BEARING MATERIAL.
- SURFACE WATER SHALL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED PRIOR TO PLACING CONCRETE THEREIN. A DRAINAGE SYSTEM OF SUFFICIENT CAPACITY SHALL BE INSTALLED AND OPERATED TO MAINTAIN THE CONSTRUCTION AREA FREE OF WATER AT ALL TIMES. IF DRAINING OF THE HOLE CANNOT BE READILY ACCOMPLISHED WITHOUT LOSS OF GROUND OR CREATING QUICK CONDITIONS, THEN THE HOLE SHALL BE LINED AND DRAINAGE CONCRETE SHALL BE USED.
- IF UNSUITABLE SOILS ARE FOUND, IN ORDER TO PREVENT CAVING OF THE HOLE BEFORE CONCRETE IS PLACED THEREIN, A PERMANENT LINER MAY BE INSTALLED AT THE OPTION OF THE CONTRACTOR PER DOT

(DRILLED CAISSONS CONT'D)

STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 516, ARTICLE 516.02(a). PERMANENT LINERS SHALL BE INSTALLED AN EFFICIENT HEIGHT ABOVE THE UNSUITABLE SOIL ELEVATIONS (APPROXIMATELY 1 FT TO 2 FT ABOVE) AND TO A DEPTH EQUAL TO OR GREATER THAN THE DESIGN DEPTH INDICATED IN THE SHOP DRAWINGS TO PREVENT CAVING.

8. A CONTRACTOR WHO NEEDS TO OVER-EXCAVATE AREAS OF PROTECTED UNSUITABLE SOILS. OVER-EXCAVATION REQUIRES EXCAVATING PER OSHA REGULATIONS AND STANDARDS AND PROVIDING TEMPORARY PROTECTION AND SUPPORT TO UTILITIES NEAR AND WITHIN THE AREA OF EXCAVATION. TEMPORARY SHORING MAY BE REQUIRED IN ORDER TO MAINTAIN EXCAVATION WITHIN THE RIGHT-OF-WAY LIMITS OF THE PROJECT. THE CONCRETE DRILLED PIER SHALL BE SET TO ITS PROPER DEPTH, SIZE, AND ELEVATION PRIOR TO BACKFILLING. CONCRETE SHALL BE ALLOWED TO CURE TO 75% OF ITS DESIGN CAPACITY PRIOR TO BACKFILLING. THE AREA OF OVER-EXCAVATION AROUND THE CONCRETE DRILLED PIER SHALL BE BACKFILLED IN COMPACTED LIFTS OF NOT MORE THAN 8" AND SHALL BE WITHIN 5% OF THE STANDARD PROCTOR. THE CONTRACTOR CAN USE SOIL CLASSIFIED AS SUITABLE SOILS PER THE ENGINEER AS BACKFILL MATERIAL.

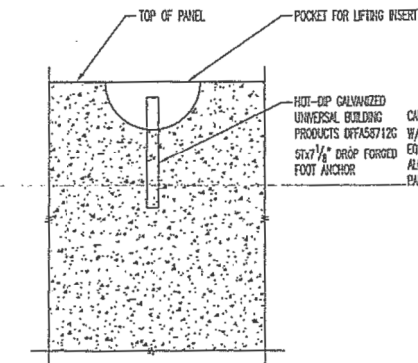
9. THE METHOD OF PLACING CONCRETE IN THE SHAFTS SHALL BE PRE-APPROVED BY THE RESIDENT ENGINEER. THE METHOD USED SHALL BE ONE THAT WILL PROVIDE A CONTINUOUS FLOW WITH NO SEGREGATION OF THE CONCRETE MATERIALS.

SHALLOW SPREAD FOOTINGS

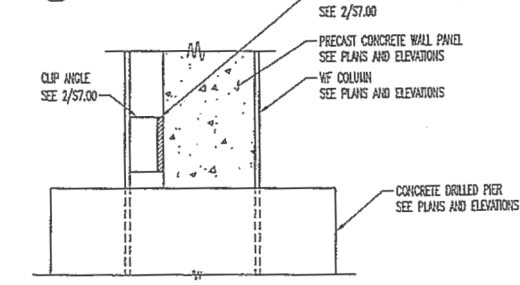
- THIS ITEM SHALL CONSIST OF CONSTRUCTING ISOLATED SHALLOW CONCRETE FOUNDATIONS CAST IN FORMED OUT EXCAVATED HOLES AS SHOWN ON THE PLANS AND DETAILS HEREIN.
- SPREAD FOOTING DESIGN IS BASED ON SOIL TYPES AND PROPERTIES PROVIDED ON SHEETS 42 THRU 54 OF THE DESIGN DRAWINGS. IF SOIL CONDITIONS IN FIELD DEVIATE FROM THOSE INDICATED IN THE DESIGN DRAWINGS, THE RESIDENT ENGINEER SHALL CONTACT LARSON ENGINEERING, INC PRIOR TO PLACEMENT OF THE CONCRETE.
- SOIL SHALL BE COMPACTED TO 95% OF ITS STANDARD ... PRIOR TO PLACING CONCRETE.
- CONCRETE SHALL BE PROTECTED FROM FREEZING PRIOR TO BEING COVERED WITH BACKFILL.
- FOUNDATION SHALL BE BACKFILLED AS SOON AS POSSIBLE SO AS TO LIMIT THE EFFECTS OF WATER INFILTRATION AND FROST HEAVE.

ELECTRICAL

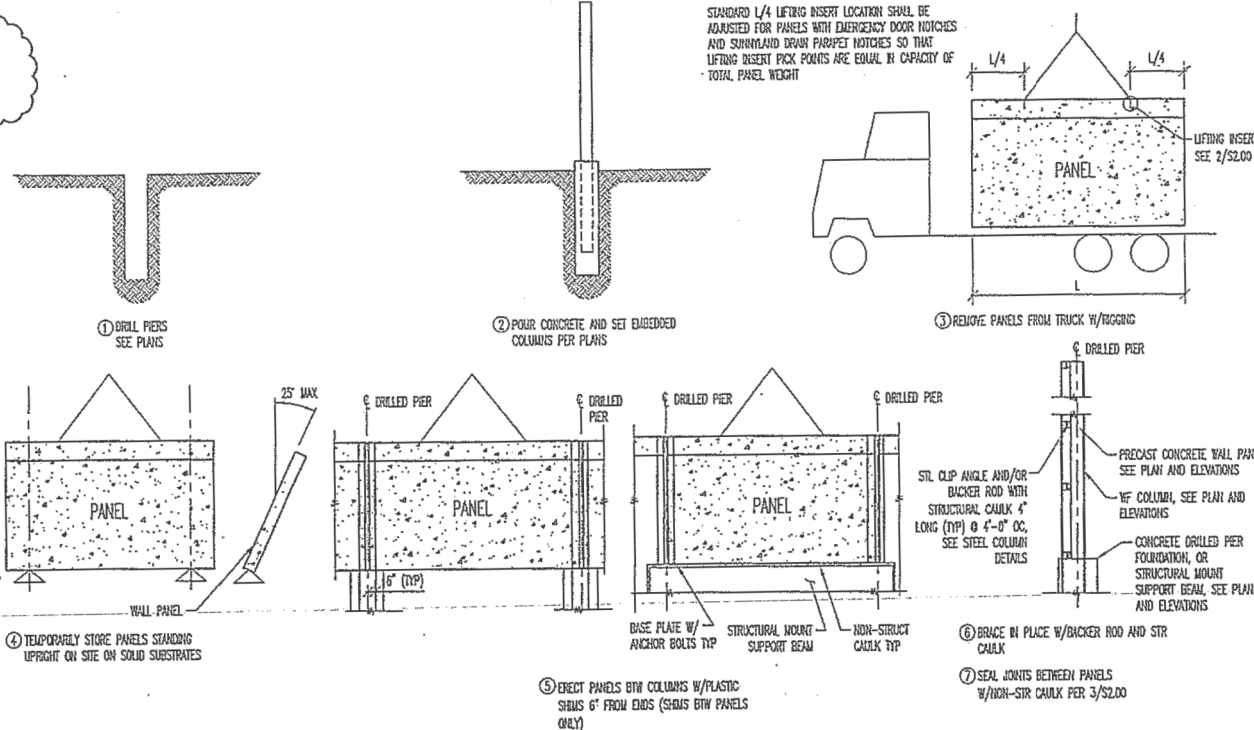
- WHEN WORKING IN THE VICINITY OF COMED'S ELECTRIC TRANSMISSION LINES DURING THE INSTALLATION, OSHA REQUIRES THAT A MIN. 20' WORKING CLEARANCE DISTANCE MUST BE MAINTAINED BETWEEN THE BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED ON THE EQUIPMENT FOR THE PETITIONER'S CONTRACTOR AND COMED'S EXISTING SOUTHERLY 345,000 VOLT ELECTRIC TRANSMISSION CONDUCTORS. OSHA REQUIRES A MINIMUM OF 14' WORKING CLEARANCE DISTANCE MUST BE MAINTAINED BETWEEN THE BOOMS, ARMS OR OTHER PARTS THAT CAN BE RAISED ON THE EQUIPMENT FOR THE PETITIONER'S CONTRACTOR AND COMED'S EXISTING NORTHERLY 138,000 VOLT ELECTRIC TRANSMISSION CONDUCTORS. UNDER NO CIRCUMSTANCES, SHOULD TRUCK BEDS BE RAISED UNDERNEATH COMED TRANSMISSION LINES.



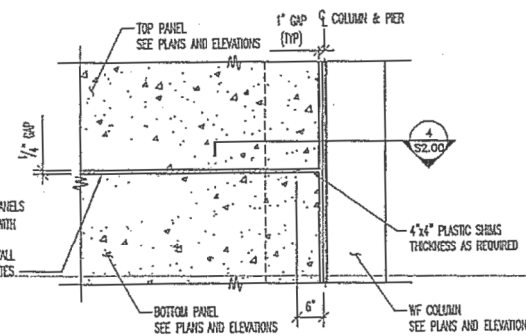
2 TYPICAL LIFTING INSERT DETAIL
N.T.S.



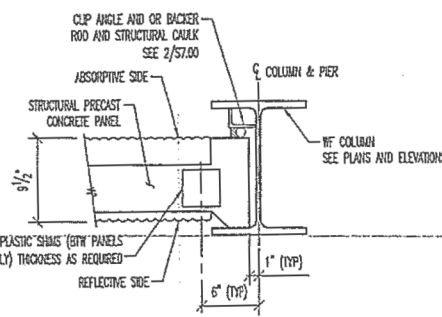
3 CLIP ANGLE DETAIL
N.T.S.



1 TYPICAL NOISE ABATEMENT WALL INSTALLATION SEQUENCE & PROCEDURES
N.T.S.



3 HORIZONTAL JOINT DETAIL
N.T.S.



4 PANEL CONNECTION TO COLUMN DETAIL
N.T.S.

NOTE: CLIP ANGLES SHALL BE WELDED TO STEEL POSTS IN SHOP PRIOR TO GALVANIZING. CLIP ANGLES AND STEEL POSTS SHALL THEN BE GALVANIZED TOGETHER IN SHOP AND RESPECTED PRIOR TO SHIPPING. SEE 2/57.00 FOR SPECIFIC PANEL CONNECTION TO COLUMN DETAILS

NOTE:
1) THESE DRAWINGS HAVE BEEN PREPARED FOR THE FABRICATION OF THE PRECAST NOISE ABATEMENT WALLS AND PROVIDE GENERAL INSTALLATION SEQUENCE AND PROCEDURES FOR THE CONTRACTOR. THE CONTRACTOR SHALL RETAIN SOLE RESPONSIBILITY FOR THE MEANS, METHODS, AND TECHNIQUES OF CONSTRUCTION OF THE NOISE ABATEMENT WALLS FOR COMPLIANCE WITH LAWS, REGULATIONS, AND CODES, AND FOR THE SAFETY OF CONSTRUCTION APPLICABLE TO THIS WORK.

APPROVED
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DATE: 5/11/2013
Signature of Engineer and Title: [Signature]
Engineer of Design and Title: [Signature]

FILE NAME =	USER NAME = SEYMORECP	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TYPICAL CONCRETE NOISE ABATEMENT WALL REPAIR DETAILS AND NOTES (I-55)		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Default	DRAWN -	REVISED -					VAR.	2013-0411	VARIOUS	44	26
	PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -					CONTRACT NO. 60W86				
	PLOT DATE = 7/11/2013	DATE -	REVISED -					ILLINOIS FED. AID PROJECT				