STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

PAUL R. LEPAGE
GOVERNOR

February 25, 2011
Subject: **Brunswick, Freeport**
Federal Project No's: 15236.20 & 15236.30
State PINs: 015236.20 & 015236.30
Amendment No. 3

Dear Sir/Ms:

Make the following changes to the Bid Documents:

In the Bid Documents, both plans and book, **CHANGE** all references to "epoxy coated rebar" to read "**rebar**". Make this change in pen and ink.

In the Bid Book, "SPECIAL PROVISIONS, SECTION 104, Utilities" (replaced in amendment #1) page 1 of 5, **CHANGE** the telephone number for Pan Am Railways, George Thayer from "978-314-3689" to read "**978-663-6973**". Make this change in pen and ink.

In the Bid Book (page 56) **REMOVE** "SPECIAL PROVISION, SECTION 105, GENERAL SCOPE OF WORK, (Buy America Certification)", 1 page dated December 1, 2010 and **REPLACE** with the attached new "SPECIAL PROVISION, SECTION 105, GENERAL SCOPE OF WORK, (Buy American)", 1 page dated January 24, 2011.

In the Bid Book (pages 109 thru 111) **REMOVE** "SECTION 05 5213, PIPE AND TUBE RAILINGS" 3 pages and **REPLACE** with the attached new "SECTION 05 5213, PIPEAND TUBE RAILINGS" 3 pages.

In the Bid Book (pages 144 thru 148) **REMOVE** "SECTION 07 7100, ROOF SPECIALITIES" 5 pages and **REPLACE** with the attached new "SECTION 07 7100, ROOF SPECIALITIES" 6 pages.

In the Bid Book (page 177), "PART 3 – EXECUTION", "3.3 LIGHT POLE & LUMINAIRE INSTALLATION", under item "D", **CHANGE** the word "photo-cell" to read "**Time Clock**". Make this change in pen and ink.

In the Bid Book (page 225), at the top of the page above the word "SAMPLE", **ADD** the words "**APPENDIX A**" in pen and ink.

Attachments: SK-1 Metal Rail Fence
SK-2 Typical Contraction Joint Detail & Typical Expansion Joint Detail

The following questions have been received:

Question: With regard to the electrical panelboards: they are specified and drawn as NEMA 3R Enclosed. Considering they are housed in a gasketed NEMA 4X Enclosure, wouldn't NEMA 1 enclosures suffice?

Response: NEMA 1 is acceptable for the Panel boards inside the 4X Enclosure.

Question: Ornamental steel fence panels spec out 1" round balusters. Can square be substituted? Do you have an "F" spec for panels?

Response: A) Square balusters cannot be substituted for round balusters on the platform railing systems. B) The specifications for the platform railings are included in **SECTION 05 5213 (PIPE AND TUBE RAILINGS)** of the contract documents. A revised version of **SECTION 05 5213** is included with this addendum.

Question: Is it possible to get a bid list sent to me?

Response: The bid Plan Holders list is available on line.

Question: Could you clarify the type of metal railed fence detailed on drawing C-5. I could not find any additional information in the specifications.

Response: The metal fence detail on drawing C-5 is hereby revised per the attached sketch SK-1. The intent is for the fencing to match the design of the platform railings. The specifications for the metal fencing are the same as the platform railings and are included in **SECTION 05 5213 (PIPE AND TUBE RAILINGS)** of the contract documents. A revised version of **SECTION 05 5213** is included with this addendum.

Question: The schedule of items calls for 700 hours for flagging but flaggers are not listed on the wage scale. Please assign a wage for flaggers on this project.

Response: The successful contractor will need to request a flagger rate through the Department to the U.S Dept of Labor.

Question: The specified Holophane aluminum lighting poles and arms to match existing are manufactured in the free trade zone in Mexico. Does this comply with the Buy America?

Response: The Manufacturer must be able to present the Buy America Certification Letter for the Light Poles being provided. If this is not the case, a similar "equal" pole shall be submitted with the Buy America Certification Letter. This pole must be compatible with the specified fixture head if it is to be used. The FRA "Buy America"

clause is really a “Buy American” clause and a Special Provision 105 is included that better clarifies the requirements.

Question: The light pole part number called out on the drawings indicates a black powder paint finish. Specification section 2.7 (F) page 174 indicates prime coat finish. Which finish is correct?

Response: Provide the Manufacturers standard Black Powder Paint Finish.

Question: Light pole calculation criteria for wind and ice loading are outlined in the specs. Do the calculations need to be submitted for approval with a PE stamp? If so, is this required to be a Maine PE stamp?

Response: The calculations need to be submitted for review/approval, and shall be certified by a professional engineer licensed in the state of Maine.

Question: Warranty for the specified Holophane poles/arms/fixtures is 6 years electrical and 2 years for mechanical (paint, corrosion, color retention, replacements). Is this warranty acceptable?

Response: This Warranty is acceptable.

Question: Specification Section 3.3, page 177, indicates lighting system shall be operated by photo-cell control. Are these required to be photocells in each light fixture or 1 photocell for the circuit?

Response: Clarification - Refer to detail 3 on drawing E-5. All site light fixtures are controlled by Time Clock. Therefore, photocells are not required. Please see the above pen and ink change

Question: Page 3 of 5 in Amendment #2 under RR General Requirements references “appendices”. We cannot find any “appendices” in the bid documents.

Response: The sample Railroad Service Agreement to be found in the appendices starts on page 225 of the bid book and should have been labeled Appendix A.

Question: Please provide the number of trains per day and train speed.

Response: Please see Special Provision 104 Coordination with Railroad Operations for number of trains. Exact train speeds can not be determined at this time.

Question: Will RR flaggers be required when work is on the street side of the platform or when the only work activity is building finish trade work away from the track side?

Response: A Railroad Flagger will be required whenever any work is being performed within the railroad right of way.

Question: Can the coal ash excavated from area A be placed in the clean common fill between the pile caps?

Response: Coal Ash may be placed in the common fill areas as long as there is compliance with the capping requirements outlined in Special Provision Section 203 Excavation and Embankment (Coal Ash Management).

Question: I am confused on Expansion and contraction joints. The plans call for contraction joints at 5' oc each way and expansion joints at 50' oc. Standard specification 502.12 Expansion and Contraction Joints states "Expansion and contraction joints shall be located and constructed as shown on the Plans. Water stops shall be one continuous piece at each location. Joint cover, as shown on the Plans, shall be applied to all joints where water stops cannot physically be installed, as determined by the Resident." I do not see construction details on the plans for the joints, please advise.

Response Attached is a typical contraction and expansion joint detail for the slab on grade / low platform at Freeport.

Question: The details at the elevated platform in Freeport are a little hard to follow the elevations but it appears the area under the platform is totally enclosed. Can gravel back fill be used up to the underside of the ramp and slabs? This would eliminate false work and leaving a hollow spot under the platform, please advise.

Response: Frost resistant granular backfill material (crushed stone) can be used up to the underside of the ramp and slabs instead of false work at the Contractor's option at Freeport.

Consider these changes and information prior to submitting your bid on March 2, 2011.

Sincerely,

for Scott Bickford
Contracts & Specifications Engineer

SPECIAL PROVISION
SECTION 105
GENERAL SCOPE OF WORK
(Buy American)

All iron, steel, and manufactured goods shall be produced in the United States. All iron and steel manufacturing processes must take place in the United States, except for metallurgical processes involving refinement of steel additives. There is no requirement for the origin of components and subcomponents of manufactured goods. Products listed at 48 CFR 25.104(a) have been determined to be unavailable in the United States and if required for the project may be purchased from foreign sources. No unauthorized use of foreign iron, steel, and/or manufactured goods will be allowed on this project.

Prior to payment, the Contractor shall provide a certification from the producer of steel or iron; or any product containing steel or iron as a component; or any manufactured good stating that all steel or iron or manufactured good furnished or incorporated into the furnished product was manufactured in the United States in accordance with the requirements of the Buy American provisions. Such certification shall also include a statement that the iron or steel product or component or manufactured good was produced entirely within the United States.

SECTION 05 5213

PIPE AND TUBE RAILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Platform railings and guardrails.

1.02 RELATED REQUIREMENTS

A. Section 03 3000 - Cast-in-Place Concrete: Placement of anchors in concrete.

B. Section 05 5000 - Metal Fabrications

C. Section 09 9000 - Painting and Coating: Paint finish.

1.03 REFERENCE STANDARDS

A. ASTM A 123/A 123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2002.

B. ASTM E 935 - Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings; 2000 (Reapproved 2006).

C. ASTM E 985 - Standard Specification for Permanent Metal Railing Systems and Rails for Buildings; 2000 (Reapproved 2006).

D. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); The Society for Protective Coatings; 2002 (Ed. 2004).

1.04 SUBMITTALS

A. Shop Drawings: Indicate profiles, sizes, connection attachments, anchorage, size and type of fasteners, and accessories.

PART 2 PRODUCTS

2.01 RAILINGS - GENERAL REQUIREMENTS

A. Design, fabricate, and test railing assemblies in accordance with the most stringent requirements of ASTM E 985 and applicable local code.

B. Design railing assembly, wall rails, and attachments to resist lateral force of 75 lbs at any point without damage or permanent set. Test in accordance with ASTM E 935.

C. Allow for expansion and contraction of members and building movement without damage to connections or members.

D. Dimensions: See drawings for member sizes, configurations and heights.

E. Provide anchors and other components as required to attach to structure, made of same materials as railing components unless otherwise indicated; where exposed fasteners are unavoidable provide flush countersunk fasteners.

1. For anchorage to concrete, provide epoxy bolts drilled into concrete, for bolting anchors.

F. Provide welding fittings to join lengths, seal open ends, and conceal exposed mounting bolts and nuts, including but not limited to elbows, T-shapes, splice connectors, flanges, escutcheons, and wall brackets.

2.02 STEEL RAILING SYSTEM

A. Welding Fittings: Factory- or shop-welded from matching pipe or tube; seams continuously welded; joints and seams ground smooth.

B. Galvanizing: In accordance with requirements of ASTM A 123/A 123M.
   1. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20, type I or II to match shop applied material.

2.03 FABRICATION

A. Accurately form components to suit specific project conditions and for proper connection to building structure.

B. Fit and shop assemble components in largest practical sizes for delivery to site.

C. Fabricate components with joints tightly fitted and secured.

D. Welded Joints:
   1. Exterior Components: Continuously seal joined pieces by continuous welds. Drill condensate drainage holes at bottom of members at locations that will not encourage water intrusion.
   2. Interior Components: Continuously seal joined pieces by continuous welds.
   3. Grind exposed joints flush and smooth with adjacent finish surface. Make exposed joints butt tight, flush, and hairline. Ease exposed edges to small uniform radius.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that field conditions are acceptable and are ready to receive work.

B. Verify dimensions and layout of platforms where steel rails are to be installed.

3.02 PREPARATION

A. Clean and strip galvanized coating where site welding is required.

3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install components plumb and level, accurately fitted, free from distortion or defects, with tight joints.

C. Anchor railings securely to structure.

D. Field weld anchors as indicated on shop drawings. Touch-up welds with primer. Grind welds smooth.

E. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.

3.04 TOLERANCES

A. Maximum Variation From Plumb: 1/4 inch.

B. Maximum Offset From True Alignment: 1/4 inch.

C. Maximum Out-of-Position: 1/4 inch.

END OF SECTION

SECTION 07 7100

ROOF SPECIALTIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.02 SUMMARY

A. Section Includes:
   1. Roof-edge drainage systems.

B. Related Sections:

   1. Division 06 Section "Rough Carpentry".

1.03 PERFORMANCE REQUIREMENTS

A. General Performance: Roof specialties shall withstand exposure to weather and resist thermally induced movement without failure, rattling, leaking, or fastener disengagement due to defective manufacture, fabrication, installation, or other defects in construction.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes to prevent buckling, opening of joints, hole elongation, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Provide clips that resist rotation and avoid shear stress as a result of thermal movements. Base calculations on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1.04 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Samples for Initial Selection: For each type of roof specialty indicated with factory-applied color finishes.

C. Samples for Verification: For roof-edge drainage systems made from 12-inch lengths of full-size components including fasteners, cover joints, accessories, and attachments.

1.05 INFORMATIONAL SUBMITTALS

A. Warranty: Sample of special warranty.

1.06 CLOSEOUT SUBMITTALS

A. Maintenance Data: For roofing specialties to include in maintenance manuals.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Do not store roof specialties in contact with other materials that might cause staining, denting, or other surface damage. Store roof specialties away from uncured concrete.

B. Protect strippable protective covering on roof specialties from exposure to sunlight and high humidity, except to extent necessary for the period of roof specialties installation.

PART 2 - PRODUCTS

2.01 EXPOSED METALS

A. Aluminum Sheet: ASTM B 209, alloy as standard with manufacturer for finish required, with temper to suit forming operations and performance required.

1. Surface: As selected by owner / State of Maine finish.
2. Mill Finish: As manufactured.
3. Exposed Coil-Coated Finishes: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

    a. Two-Coat Fluoropolymer: AAMA 620. System consisting of primer and fluoropolymer color topcoat containing not less than 70 percent PVDF resin by weight.
    b. Three-Coat Fluoropolymer: AAMA 620. System consisting of primer, fluoropolymer color coat, and clear fluoropolymer topcoat, with both color coat and clear topcoat containing not less than 70 percent PVDF resin by weight.
    c. Concealed Surface: Pretreat with manufacturer's standard white or light-colored acrylic or polyester backer finish, consisting of prime coat and wash coat with a minimum total dry film thickness of 0.5 mil.

4. Clear Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.
5. Color Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.

B. Aluminum Extrusions: ASTM B 221, alloy and temper recommended by manufacturer for type of use and finish indicated, finished as follows:

1. Exposed High-Performance Organic Finish: Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.

    a. Two-Coat Fluoropolymer: AAMA 2604 or AAMA 2605. System consisting of primer and fluoropolymer color topcoat containing not less than 70 percent PVDF resin by weight.
    b. Three-Coat Fluoropolymer: AAMA 2605. System consisting of primer, fluoropolymer color coat, and clear fluoropolymer topcoat, with both color coat and clear topcoat containing not less than 70 percent PVDF resin by weight.

2. Clear Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.
3. Color Anodic Finish, Coil Coated: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.

2.02 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, protective coatings, sealants, and other miscellaneous items required by manufacturer for a complete installation.

B. Fasteners: Manufacturer's recommended fasteners, suitable for application and designed to meet performance requirements. Furnish the following unless otherwise indicated:
    1. Fasteners for Aluminum: Aluminum or Series 300 stainless steel.

2.03 ROOF-EDGE DRAINAGE SYSTEMS

A. Manufacturers: Subject to compliance with requirements.

B. Basis-of-Design Product: Subject to compliance with requirements, provide as selected by owner / State of Maine or comparable product by one of the following:

1. Andreas Renner KG.
2. Architectural Products Company.
3. ATAS International, Inc.
4. Berger Building Products, Inc.
5. Castle Metal Products.
6. Cheney Flashing Company.
7. CopperCraft by FABRAL; a Euramax company.
8. Hickman Company, W. P.
9. Klauer Manufacturing Company.
10. Merchant & Evans, Inc.
11. Metal-Era, Inc.
12. Metal-Fab Manufacturing, LLC.
13. MM Systems Corporation.
14. National Sheet Metal Systems, Inc.
15. Perimeter Systems; a division of Southern Aluminum Finishing Company, Inc.

C. Gutters: Manufactured in uniform section lengths not exceeding 12 feet, with matching corner units, ends, outlet tubes, and other accessories. Elevate back edge at least 1 inch above front edge. Furnish flat-stock gutter straps, gutter brackets, expansion joints, and expansion-joint covers fabricated from same metal as gutters.

1. Fabricate from the following exposed metal:
   a. Formed Aluminum: As selected by owner / State of Maine thick.

2. Gutter Profile: As selected by owner / State of Maine and SMACNA's "Architectural Sheet Metal Manual."
3. Embossed Surface: As selected by owner / State of Maine.
4. Applied Fascia Cover (Concealed Gutter): As selected by owner / State of Maine.
5. Corners: As selected by owner / State of Maine.
6. Gutter Supports: As selected by owner / State of Maine.
7. Special Fabrications: As selected by owner / State of Maine.
8. Gutter Accessories: As selected by owner / State of Maine.

D. Downspouts: As selected by owner / State of Maine complete with elbows. Furnish with metal hangers, from same material as downspouts, and anchors.
1. Formed Aluminum: As selected by owner / State of Maine thick.
2. Extruded Aluminum: As selected by owner / State of Maine thick.

E. Aluminum Finish: As selected by owner / State of Maine.

1. Color: As selected by owner / State of Maine.

2.04 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical and painted finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions, and other conditions affecting performance of the Work.

B. Examine roof edges for suitable conditions for roof specialties.

C. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION, GENERAL

A. General: Install roof specialties according to manufacturer's written instructions. Anchor roof specialties securely in place, with provisions for thermal and structural movement. Use fasteners, solder, protective coatings, separators, sealants, and other miscellaneous items as required to complete roof-specialty systems.

1. Install roof specialties level, plumb, true to line and elevation; with limited oil-canning and without warping, jogs in alignment, buckling, or tool marks.
2. Provide uniform, neat seams with minimum exposure of solder and sealant.
3. Install roof specialties to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before manufacture.
4. Torch cutting of roof specialties is not permitted.
5. Do not use graphite pencils to mark metal surfaces.

B. Metal Protection: Protect metals against galvanic action by separating dissimilar metals from contact with each other or with corrosive substrates by painting contact surfaces with bituminous coating or by other permanent separation as recommended by manufacturer.

C. Expansion Provisions: Allow for thermal expansion of exposed roof specialties.

1. Space movement joints at a maximum of 12 feet with no joints within 18 inches of corners or intersections unless otherwise shown on Drawings.
2. When ambient temperature at time of installation is between 40 and 70 deg F, set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures.

D. Fastener Sizes: Use fasteners of sizes that will penetrate substrate not less than recommended by fastener manufacturer to achieve maximum pull-out resistance.

E. Seal joints as required by roofing-specialty manufacturer.

F. Seal joints as required for watertight construction. Place sealant to be completely concealed in joint. Do not install sealants at temperatures below 40 deg F.

3.03 ROOF-EDGE DRAINAGE-SYSTEM INSTALLATION

A. General: Install components to produce a complete roof-edge drainage system according to manufacturer's written instructions. Coordinate installation of roof perimeter flashing with installation of roof-edge drainage system.

B. Gutters: Join and seal gutter lengths. Allow for thermal expansion. Attach gutters to firmly anchored gutter supports spaced not more than per manufacturer’s recommendations apart. Attach ends with rivets and solder to make watertight. Slope to downspouts.

1. Install gutter with expansion joints not exceeding 50 feet apart. Install expansion joint caps.

C. Downspouts: Join sections with manufacturer's standard telescoping joints. Provide hangers with fasteners designed to hold downspouts securely; locate fasteners at top and bottom and at approximately 60 inches o.c.
   1. Connect downspouts to underground drainage system indicated.

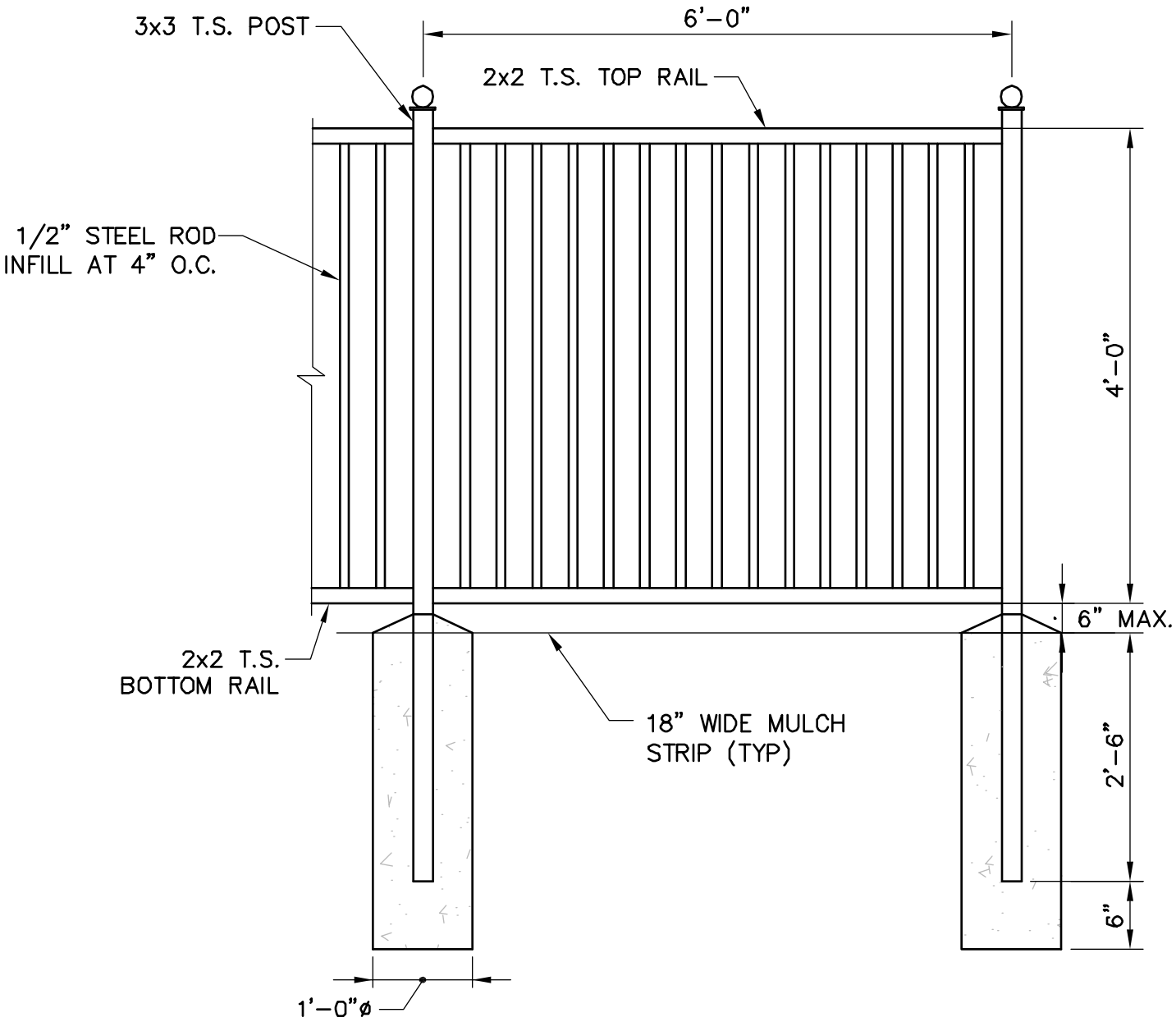
3.04 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Remove temporary protective coverings and strippable films as roof specialties are installed. On completion of installation, clean finished surfaces including removing unused fasteners, metal filings, pop rivet stems, and pieces of flashing. Maintain roof specialties in a clean condition during construction.

C. Replace roof specialties that have been damaged or that cannot be successfully repaired by finish touchup or similar minor repair procedures.

END OF SECTION



METAL RAIL FENCE

NOT TO SCALE

SK-1

McFarland Johnson

53 REGIONAL DRIVE
CONCORD, NH 03301-8500
PHONE (603) 225-2978
FAX (603) 225-0095

PASSENGER RAIL PLATFORMS
JOB TOWNS OF BRUNSWICK AND FREEPORT

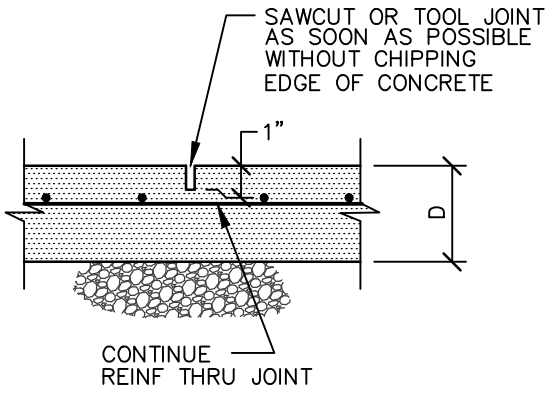
SHEET NO. SK-2 OF

CALCULATED BY PCB DATE 02/24/11

CHECKED BY PCB DATE 02/24/11

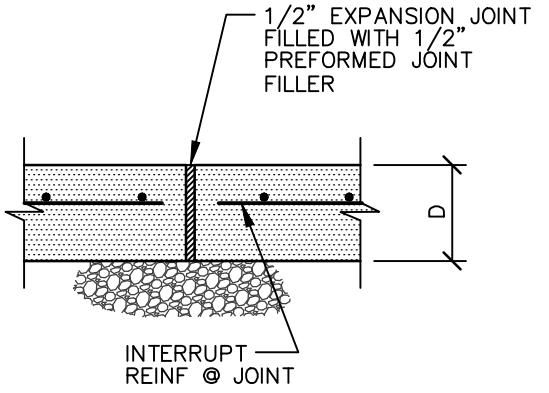
SCALE N.T.S.

NO.	DATE	REVISION



SLAB ON GRADE

TYPICAL CONTRACTION JOINT DETAIL



SLAB ON GRADE

TYPICAL EXPANSION JOINT DETAIL