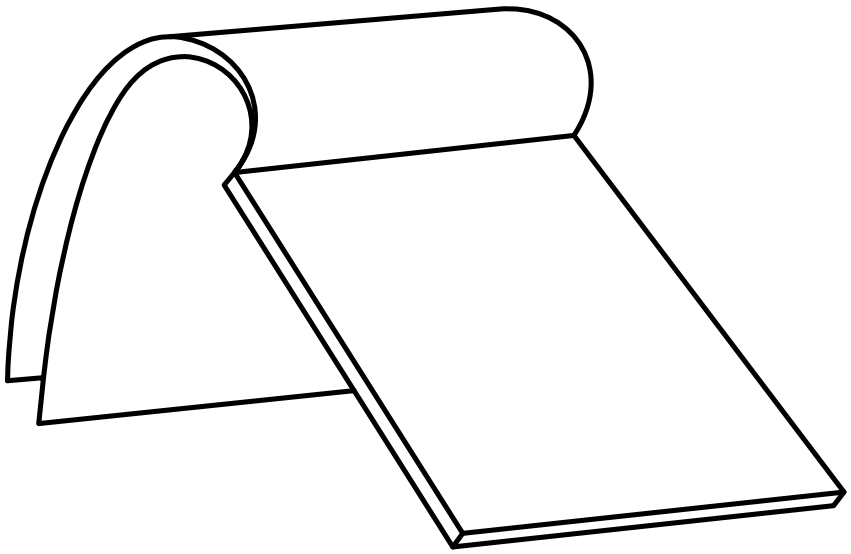
APPENDIX B

NOTES



INTRODUCTION

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• NOTES TO BE PLACED ON THE GENERAL NOTE SHEET

• NOTES TO BE PLACED IN THE BODY OF THE PLANS

IT IS THE INTENT OF THIS SECTION TO PROVIDE THE FOLLOWING NOTES FOR USE ON CONTRACT DOCUMENTS. ALTHOUGH EVERY ATTEMPT HAS BEEN MADE TO MAKE THESE NOTES GENERIC, THE DESIGNER IS RESPONSIBLE FOR THEIR ACCURACY AND APPLICABILITY FOR A PARTICULAR PROJECT.

THE NOTES WITHIN EACH OF THE FOLLOWING CATEGORIES SHOULD NOT BE CONSIDERED AS A PACKAGE. THE DESIGNER SHOULD SELECTIVELY CHOOSE ONLY THOSE NOTES WHICH ARE APPLICABLE.

IF THE NOTE IS NOT CORRECT FOR THE PROJECT, THE DESIGNER SHOULD MAKE THE APPROPRIATE CHANGES.

THE DESIGNER WILL NOTICE THAT MANY NOTES HAVE BEEN ELIMINATED FROM THIS APPENDIX. MOST OF THE NOTES THAT WERE ELIMINATED WERE DONE SO BECAUSE THE CONTENTS ARE ALREADY COVERED IN THE STANDARD SPECIFICATIONS, PROPOSAL, GENERAL OR SPECIAL NOTES, OR THE "TA" SECTION OF THE PROPOSAL. IF THE DESIGNER IS CONCERNED THAT A PARTICULAR SUBJECT IS NOT BEING ADDRESSED, HE SHOULD REVIEW THESE VARIOUS SOURCES AS WELL AS THE SPECIAL SPECIFICATIONS FOR IT'S INCLUSION BEFORE CREATING A NEW NOTE FOR THE PROJECT.

ADDITIONAL NOTES MAY BE NECESSARY, BUT THE DESIGNER IS REMINDED THAT THE PURPOSE OF THIS LATEST AND FUTURE REWRITES IS TO ELIMINATE REDUNDANCIES AND CONTRADICTIONS BETWEEN THE VARIOUS CONTRACT DOCUMENTS.

THRUWAY PLAN NOTE WRITING THEORY

DESIGNERS SHOULD BE AWARE OF THE FOLLOWING GUIDELINES THAT SHOULD BE APPLIED WHEN WRITING NOTES FOR THE CONTRACT PLANS OR PROPOSAL:

1. THE PURPOSE OF NOTES ARE TO RELAY INFORMATION TO THE CONTRACTOR THAT WILL ASSIST HIM IN CARRYING OUT THE TERMS OF THE CONTRACT.
2. NOTES SHOULD HELP THE CONTRACTOR UNDERSTAND THE DESIGN STANDARDS USED AND IDENTIFY ANY SPECIAL REQUIREMENTS OR FEATURES OF THE CONTRACT OR PROJECT LOCATION.

3. NOTES SHOULD SUPPLY THE CONTRACTOR WITH RELEVANT DESIGN DATA AND IDENTIFY APPROPRIATE REFERENCES AND GUIDELINES NOT COVERED AT SOME OTHER LOCATION.
4. NOTES SHOULD NOT BE USED IN LIEU OF SPECIAL SPECIFICATIONS.
5. NOTES SHOULD NOT BE REDUNDANT IN REGARDS TO OTHER NOTES OR SPECIAL SPECIFICATIONS.
6. NOTES SHOULD NOT CREATE "BURIED ITEMS OF WORK" IF THE "WORK" IS SUBSTANTIAL ENOUGH TO REQUIRE ITS OWN ITEM.

INDEX

A. NOTES TO BE PLACED ON THE GENERAL NOTE SHEET:

* - These notes are now located in the NYSDOT Standard Specifications or the "TA" section of the Contract Proposal.

B. NOTES TO BE PLACED IN THE BODY OF THE PLANS:

GENERAL NOTES

1. DESIGN SPECIFICATIONS : 2010 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS - 5th EDITION, AND THE CURRENT NEW YORK STATE STEEL CONSTRUCTION MANUAL, INCLUDING CURRENT ADDITIONS AND MODIFICATIONS, EXCEPT AS MODIFIEDBY THE NEWYORK STATE THRUWAY AUTHORITY THRUWAY STRUCTURES DESIGN MANUAL - FOURTH EDITION AND THESE PLANS.

2. {DESIGNER - USE NOTE 2A WHENEVER AN HS-22 LOAD RATING IS ATTAINABLE.}

2A. LIVE LOAD: HL-93 AND HS-22. THE LOAD RATINGS ARE IN ACCORDANCE WITH THE NEWYORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR HIGHWAY BRIDGE DESIGN - LIVE LOAD CRITERIA.

2B. LIVE LOAD: HL-93 AND HS-20. THE LOAD RATINGS ARE IN ACCORDANCE WITH THE AASHTO "MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES".

3. CONCRETE DATA: THE MINIMUM CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,000PSI AT 28 DAYS.

4. REINFORCING DATA: ALL NEW AND REPLACEMENT BAR REINFORCEMENT SHALL BE ASTM A 615 GRADE 60. BARS SHALL BE GALVANIZED AND FABRICATED IN ACCORDANCE WITH ASTM A 767, AND MEET THE REQUIREMENTS OF NYSDOT MATERIAL SPECIFICATION 709-11.

5. RECORD PLANS : RECORD PLANS COVERING PREVIOUS WORK WILL BE AVAILABLE FOR REVIEWBY ALL PROSPECTIVE BIDDERS AT THE AUTHORITY HEADQUARTERS IN ALBANY PRIOR TO THE LETTING DATE; REFER TO CONTRACT(S) _____.

6. SUBSURFACE EXPLORATIONS HAVE BEEN MADE FOR THIS PROJECT AT THE LOCATIONS INDICATED ON THE GENERAL PLAN. BORING LOGS AND OTHER SUBSURFACE INFORMATION MADE AVAILABLE FOR THE INSPECTION OF BIDDERS W ERE OBTAINED W ITH REASONABLE CARE AND RECORDED IN GOOD FAITH BY THE AUTHORITY.

7. {DESIGNER - CONTACT THE DIVISION AS TO THE AVAILABILITY OF SPOIL AREA WITHIN THE AUTHORITY'S RIGHT-OF-WAY, AND USE THE APPROPRIATE NOTE.}

7A. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT NO SPOIL AREA FOR SURPLUS MATERIALS IS AVAILABLE FOR THIS CONTRACT WITHIN THE AUTHORITY'S RIGHT-OF-WAY. THEREFORE, ALL MATERIAL TO BE REMOVED FROM THE JOB SITE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF THE AUTHORITY'S PROPERTY IN ACCORDANCE WITH ALL STATE, FEDERAL, AND LOCAL LAWS. ALL COSTS ASSOCIATED WITH THE SPOIL AREA AND REMOVAL OF SPOIL MATERIAL SHALL BE INCLUDED IN THE VARIOUS ITEMS OF THE CONTRACT.

7B. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT A SPOIL AREA FOR SURPLUS MATERIALS IS AVAILABLE FOR THIS CONTRACT WITHIN THE AUTHORITY'S RIGHT-OF-WAY. SEE DRAWING NO. _____ FOR LOCATION. ALL COSTS ASSOCIATED WITH THE SPOIL AREA AND REMOVAL OF SPOIL MATERIAL SHALL BE INCLUDED IN THE VARIOUS ITEMS OF THE CONTRACT.

{DESIGNER - MODIFY NOTE 8 FOR EACH PROJECT.}

8. THE CONTRACTOR SHALL HAVE AN ENGINEER LICENSED IN THE STATE OF NEW YORK PREPARE AND STAMP A SET OF PLANS AND ALL CALCULATIONS FOR THE FOLLOWING WORK:
   - STRUCTURAL LIFTING
   - JACKING FRAMES
   - DEMOLITION AND REMOVAL OF STRUCTURES
   - SUPERSTRUCTURE ERECTION
   - LATERAL STABILITY AND LATERAL, VERTICAL AND TORSIONAL STRENGTH OF GIRDERS AND TEMPORARY SUPPORTS AT ANY CANTILEVERED SLABS DURING ANY STAGE OF CONSTRUCTION.
   - COFFERDAMS

ALL CALCULATIONS FOR THE ABOVE WORK SHALL BE INDEPENDENTLY CHECKED.

9. WHEN JOINING FRESH CONCRETE TO NEW CONCRETE WHICH HAS ALREADY SET, OR TO EXISTING CONCRETE, THE CONCRETE IN PLACE SHALL HAVE ITS SURFACE SCOURED OR ABRADED WITH A SUITABLE TOOL TO REMOVE ALL LOOSE AND FOREIGN MATERIALS. THIS SURFACE SHALL BE SCRUBBED WITH WIRE BROOMS. AFTER THE SURFACE PREPARATION HAS BEEN ACCEPTED, THIS SURFACE SHALL BE THOROUGHLY WET AND KEPT SO FOR A PERIOD OF 12 HOURS IMMEDIATELY PRIOR TO PLACING THE NEW CONCRETE. THIS MAY BE ACCOMPLISHED BY CONTINUOUS WETTING WITH SOAKER HOSES OR THE USE OF BURLAP/BURLENE/ETC. SO THAT MOISTURE CAN BE MAINTAINED. IF,

IN THE OPINION OF THE ENGINEER, CONDITIONS OR THE SITUATION PROHIBITS THIS, THEN THE SURFACES SHALL BE WETTED FOR AS LONG AS POSSIBLE AT THE DISCRETION OF THE ENGINEER. THE CONTRACTOR SHALL REMOVE ANY PUDDLES OR FREE STANDING WATER WITH OIL-FREE COMPRESSED AIR, AND PROTECT THE SURFACES FROM DRYING, SO THAT THE EXISTING CONCRETE REMAINS IN A CLEAN, SATURATED, SURFACE DRY CONDITION UNTIL PLACEMENT OF THE NEW CONCRETE. IMMEDIATELY BEFORE PLACING THE NEWCONCRETE, THE FORMS SHALL BE DRAWN TIGHT AGAINST THE CONCRETE ALREADY IN PLACE.

{DESIGNER - USE NOTE 10 ONLY IF ELECTRICAL WORK IS INCLUDED IN PROJECT. THIS MAY INVOLVE LIGHTING, PUMPS,NAVIGATION LIGHTS, LIGHTED SIGNS, ETC.}

10. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-70 (NATIONAL ELECTRICAL CODE).

11. ALL METAL REINFORCING BAR CHAIRS AND SUPPORTS SHALL HAVE PLASTIC SHOES.

RECONSTRUCTION NOTES

NONE - INCLUDED IN PROP. & STD SPECS.

REMOVAL, EXCAVATION, AND BACKFILL NOTES

1. ALL EXCAVATIONS TO BE PLATED SHALL UTILIZE A MINIMUM 1 INCH THICK PLATE. ALSO, THE EDGE OF THE PLATE FACING ONCOMING TRAFFIC SHALL BE BEVELED. THE PLATE SHALL BE SECURELY FASTENED DOWN TO THE SATISFACTION OF THE ENGINEER AND SHALL BE STRUCTURALLY CAPABLE OF CARRYING ALL IMPOSED LOADS.

2. DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT DROP WASTE CONCRETE, DEBRIS OR OTHER MATERIAL TO RAILROAD RIGHT-OF-WAY, RIVERS, AND ROADWAYS BELOW THE BRIDGE EXCEPT WHERE THE PLANS OR SPECIFICATIONS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS, OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED. IF MATERIAL FALLS ON THE AREA BELOW AND ADJACENT TO THE BRIDGE, IT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR ON A DAILY BASIS.

3. THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS , SCREENS AND OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT BID PRICES OF THE APPROPRIATE ITEMS IN THE CONTRACT.

4. EXCAVATION BELOW THE PROPOSED BOTTOM OF THE NEW FOOTING ELEVATION WILL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER. BACKFILL OF UNAUTHORIZED EXCAVATIONS BELOW OR BEYOND PAYMENT LINES WILL BE AT THE CONTRACTOR'S EXPENSE. BACKFILL MATERIAL SHALL BE CONCRETE FOR STRUCTURES CLASS A, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

5. CARE SHALL BE EXERCISED IN EXCAVATING THE LAST 1 FOOT OF MATERIAL TO AVOID DISTURBING OR SOFTENING THE MATERIAL BELOW THE BOTTOM OF THE FOOTING ELEVATION. THE EXCAVATION SHALL BE PROGRESSED CONTINUOUSLY TO COMPLETION, THE FOOTING PLACED, FORMS REMOVED, AND BACKFILL MATERIAL PLACED AND COMPACTED WITHOUT DELAY.

6. CARE SHALL BE TAKEN TO RETAIN NATURAL GROWTH AND PREVENT DAMAGE TO TREES WITHIN AND OUTSIDE THE LIMITS OF CONSTRUCTION, AND NOT SCHEDULED FOR REMOVAL. ANY DAMAGE CAUSED TO THIS NATURAL GROWTH SHALL BE RESTORED AT THE EXPENSE OF THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

7. STREAM CONSERVATION : THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO THE SATISFACTION OF THE ENGINEER TO PREVENT OR REDUCE TO A MINIMUM ANY DAMAGE TO ANY STREAM FROM POLLUTION BY DEBRIS, SEDIMENT, OR OTHER FOREIGN MATERIAL, OR FROM THE MANIPULATION OF EQUIPMENT AND/OR MATERIALS IN OR NEAR SUCH STREAMS. HE SHALL NOT RETURN DIRECTLY TO A STREAM, OR TO A DITCH IMMEDIATELY FLOWING INTO A STREAM, ANY WATER WHICH HAS BEEN USED FOR WASH PURPOSES OR OTHER SIMILAR OPERATIONS WHICH COULD CAUSE THIS WATER TO BECOME POLLUTED WITH SAND, SILT, CEMENT, OIL, OR OTHER IMPURITIES. IF HE USES WATER FROM A STREAM, HE SHALL CONSTRUCT AN INTAKE OR TEMPORARY DAM TO PROTECT AND MAINTAIN WATER RIGHTS AND TO SUSTAIN FISH LIFE DOWNSTREAM. THESE TEMPORARY MEASURES SHALL BE REMOVED AND THE AREA RESTORED AT THE COMPLETION OF THE WORK.

8. DEWATERING MAY BE REQUIRED FOR THE INSTALLATION OF NEW DRAINAGE FACILITIES AND THE CLEANING OF EXISTING DRAINAGE FACILITIES. THE COST OF DEWATERING IS TO BE INCLUDED IN THE VARIOUS DRAINAGE ITEMS. THE CONTRACTOR MUST OBTAIN THE REQUIRED PERMITS FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION IF HE ELECTS TO USE WELL POINTS.

9. {DESIGNER - IF THE PROJECT ONLY INVOLVES SOD GUTTERS AT THE FOUR BRIDGE CORNERS, USE NOTE 9B, OTHERWISE USE NOTE 9A.}

9A. THE COST OF FURNISHING AND PLACING WATER USED FOR SOD GUTTERS WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CURRENT ITEM FOR WATERING PLANTS AND SOD (INCLUDED IN BRIDGE ESTIMATE).

9B. THE COST OF FURNISHING AND PLACING WATER USED FOR SOD GUTTERS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE SODDING ITEM.

SUBSTRUCTURE NOTES

1. ALL DETERIORATED STRUCTURAL CONCRETE SHALL BE REMOVED TO A DEPTH WHERE SOUND CONCRETE IS EXPOSED. BEFORE STARTING THIS WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A PLAN SHOWING THE PROPOSED METHOD, EQUIPMENT AND SEQUENCE FOR THE REMOVAL WORK. BLASTING OR DYNAMITING WILL NOT BE PERMITTED.

2. ALL EXPOSED EDGES OF CONCRETE ARE TO BE CHAMFERED 1 INCH UNLESS OTHERWISE NOTED.

3. WHERE WEEP HOLES ARE SHOWN IN ABUTMENTS AND WALLS, THE PREFABRICATED COMPOSITE (STRUCTURAL / INTEGRAL ABUTMENT) DRAIN MATERIAL SHALL BE PROVIDED WITH A POSITIVE OUTLET FOR THE WATER IN THE DRAIN MATERIAL TO FLOW INTO THE WEEP. THIS MAY INVOLVE MAKING A HOLE IN THE CORE AT THE WEEP HOLE LOCATIONS FOR APPROVED DRAINS WITH AN IMPERMEABLE CORE. DO NOT PUNCTURE THE GEOTEXTILE. ANY DAMAGED GEOTEXTILE SHALL BE REPAIRED.

4. ALL PLACEMENTS OF SELECT STRUCTURE FILL, ITEM _____, SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.

5. WHERE PILES ARE TO BE PLACED THROUGH THE EMBANKMENT (6 INCH TOPSIZE), THE EMBANKMENT SHALL BE COMPACTED TO 95 PERCENT OF STANDARD PROCTOR MAXIMUM DENSITY.

6. HIGHWAY EMBANKMENT MATERIAL (HIGHWAY ESTIMATE) AND SELECT STRUCTURE FILL, ITEM _____, SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT, ON BOTH SIDES OF THE VERTICAL PAYMENT LINE.

7. {DESIGNER - CHOOSE EITHER 7A OR 7B}.

7A. PROTECTIVE SEALING OF STRUCTURAL CONCRETE, ITEM _____, (A CLEAR PENETRATING SEALER) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE SUBSTRUCTURES,EXCEPT FOR THE BOTTOM SURFACE OF PIERCAPS.

7B. PROTECTIVE SEALER FOR STRUCTURAL CONCRETE DURAL 356-CC, ITEM _____, (A SOLID COLOR PROTECTIVE SEALER) SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE SUBSTRUCTURES, EXCEPT THE BOTTOM SURFACE OF PIERCAPS.

8. CONCRETE ANCHOR STUDS FOR PIER NOSING:
ALL CONCRETE ANCHOR STUDS THAT ARE ATTACHED TO THE VARIOUS STEEL DETAILS SHALL MEET THE REQUIREMENTS LISTED IN MATERIAL SUBSECTION 709-05, STUD SHEAR CONNECTORS. PAYMENT FOR FURNISHING AND PLACING THE CONCRETE ANCHORS WILL BE DONE UNDER THE STRUCTURAL STEEL ITEM OF THE PIER NOSING REINFORCEMENT.

{USE NOTE #9 ON ALL NEW INTEGRAL ABUTMENT AND RIGID FRAME BRIDGES.}

9. WHEN BACKFILLING INTEGRAL ABUTMENT STEMS:
A HEIGHT DIFFERENTIAL OF NO MORETHAN 3 FEET SHALL BE MAINTAINED BETWEEN THE FRONT AND BACK BACKFILL UNTIL THE DECK CONCRETE FOR AN INDIVIDUAL STAGE HAS BEEN POURED AND CURED FOR AT LEAST 7 DAYS. AFTER THE 7 DAYS, THE BACKFILLING CAN BE COMPLETED.

10. CONSTRUCTION EQUIPMENT (INCLUDING ERECTION CRANES) PLACED BEHIND ALL NEW ABUTMENTS SHALL BE PLACED OUTSIDE THE LOCATION OF THE SOIL SLOPE FAILURE PLAIN AS SHOWN ON THE PLANS UNTIL THE DECK CONCRETE FOR AN INDIVIDUAL STAGE HAS BEEN POURED AND CURED FOR AT LEAST 7 DAYS.

SUPERSTRUCTURE NOTES

1. {DESIGNER - MODIFY NOTE 1A TO REFLECT PREDOMINANT STEEL TYPE ON THIS PROJECT.}

1A. STRUCTURAL STEEL: STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 50W, UNLESS OTHERWISE NOTED.

2. SHOP DRAWINGS, SHALL BE PREPARED AND SUBMITTED IN ACCORDANCE WITH THE NEW YORK STATE STEEL CONSTRUCTION MANUAL.

3. WELDING: ALL WELDING SHALL CONFORM TO THE LATEST VERSION OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL UNLESS OTHERWISE NOTED.

4. {DESIGNER - CHOOSE ONLY ONE OF THE FOLLOWING - 4A OR 4B.}

4A. ALL DECK FORMS USED SHALL BE REMOVABLE FORMS.

4B. ALL DECK FORMS USED SHALL BE EITHER REMOVABLE FORMS OR STAY-IN-PLACE FORMS.

5. THE USE OF WHIPHAMMERS WILL NOT BE ALLOWED IN THE REMOVAL OF STRUCTURAL CONCRETE DECKS WHERE THE EXISTING STEEL IS TO BE REUSED.

6. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT NO SEALER WAS APPLIED TO THE STRUCTURAL SLAB WHEN ORIGINALLY CONSTRUCTED OR REHABILITATED. THEREFORE DIFFICULTY MAY BE ENCOUNTERED WHEN REMOVING THE EXISTING WEARING COURSE AND SIDEWALKS FROM THE STRUCTURAL DECK.

7. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND ADVISE THE AUTHORITY OF THE TYPE, SIZE, AND WEIGHT OF ALL VEHICLES HE INTENDS TO USE ON THE STRUCTURE(S) DURING CONSTRUCTION BASED ON THE CONDITION OF THE EXISTING STRUCTURE(S). THIS DETERMINATION SHALL BE MADE BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK EMPLOYED AND PAID BY THE CONTRACTOR.

THE DETERMINATION BY THIS PROFESSIONAL ENGINEER IS TO BE SUBMITTED TO THE AUTHORITY 14 DAYS PRIOR TO THE USE OF ANY VEHICLES ON THE STRUCTURE(S) WITH ALL RESTRICTIONS ENUMERATED BY HIM BEING STRICTLY ADHERED TO.

IN THE EVENT THAT THE CONTRACTOR/SUBCONTRACTOR FAILS TO COMPLY WITH THE INSTRUCTIONS OF THE PROFESSIONAL ENGINEER FOR THE USE OF ANY VEHICLE, THE WORK WILL BE IMMEDIATELY SUSPENDED UNTIL CORRECTIVE PROCEDURES SATISFACTORY TO THE PROFESSIONAL ENGINEER AND THE AUTHORITY ARE EMPLOYED.

COSTS OF ALL DAMAGE, DIRECT OR INDIRECT, SHALL BE BORNE AND SUSTAINED BY THE CONTRACTOR.

8. CLEANING OF WEATHERING STRUCTURAL STEEL:

A. **IN THE FABRICATION SHOP:**

ALL SURFACES OF ALL WEATHERING STEEL SHALL BE COMMERCIALLY BLAST CLEANED TO A FINISH OF SSPC-SP6 IN ORDER TO REMOVE ALL DIRT, GREASE, PAINT, MILL SCALE OR OTHER FOREIGN MATERIAL PRIOR TO SHIPPING.

THE PURPOSE OF THIS SURFACE PREPARATION IS TO PRODUCE SURFACES WHICH WILL WEATHER UNIFORMLY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE STRUCTURAL STEEL ITEM.

B. **IN THE FIELD:**

THE OUTSIDE SURFACE OF THE FASCIA GIRDERS SHALL BE CLEANED SO THAT ALL DIRT, GREASE, PAINT OR OTHER FOREIGN MATERIAL IS REMOVED AT THE COMPLETION OF THE BRIDGE CONSTRUCTION. THE PURPOSE OF THE CLEANING IS TO RETURN THE FASCIA SURFACES TO THE CONDITION IN WHICH THEY LEFT THE FABRICATION SHOP. THE COST FOR THIS WORK SHALL BE INCLUDED UNDER THE VARIOUS ITEMS OF THE CONTRACT.

9. THE SURFACES OF GIRDERS SHALL BE PROTECTED FROM DECK OVERHANG

FORM SUPPORTS TO PREVENT DAMAGE TO THE PAINTED AND/OR BARE STEEL SURFACES.

10. THE CONTRACTOR AND STRUCTURAL STEEL FABRICATOR SHALL BE AWARE THAT DUE TO THE SKEW OF THE BRIDGE AND HIGH AMOUNT OF DEAD-LOAD DEFLECTION, THE GIRDERS WILL ROTATE TRANSVERSELY AS A RESULT OF DEFLECTING. THE CONTRACTOR AND FABRICATOR SHALL INSURE THAT THE STRUCTURAL STEEL IS FABRICATED AND ERECTED IN SUCH A WAY AS TO COMPENSATE FOR THIS ROTATION AND MAINTAIN THE GIRDER WEBS IN A VERTICAL POSITION AFTER THE NEW DECK HAS BEEN POURED.

11. PROTECTIVE SEALING OF STRUCTURAL CONCRETE ON NEW BRIDGE DECKS AND BRIDGE DECK OVERLAYS, ITEM _____, SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES OF THE STRUCTURAL DECK AND CONCRETE OVERLAY {if applicable} EXCEPT THE UNDERSIDE BETWEEN THE DRIP EDGES.

14. WHEN TRAFFIC STOPPAGES ARE REQUIRED AS PART OF THE STRUCTURAL STEEL ERECTION PROCEDURE, THE CONTRACTOR MAY REQUEST APPROVAL TO RELEASE TRAFFIC PRIOR TO THE REMOVAL OF THE GIRDER EXTERNAL SUPPORTS. WHEN REQUESTING THIS APPROVAL, THE CONTRACTOR SHALL SUBMIT FOR REVIEW, A SET OF CALCULATIONS PREPARED AND STAMPED BY A NYS LICENSED ENGINEER INDICATING THE LOCATION AND MINIMUM NUMBER OF BOLTS REQUIRED TO BE INSTALLED IN THE SPLICE TO SUPPORT THE GIRDER DEAD LOAD. THE CAPACITY OF THE MINIMUM NUMBER OF BOLTS REQUIRED IN THE SPLICE SHALL BE TWICE THE GIRDER DEAD LOAD FOR SHEAR AND MOMENT AT THE SPLICE LOCATION. THE BOLTS MUST BE THE SAME NOMINAL DIAMETER AND SPECIFICATION AS THE FINAL BOLTS AND MUST BE TIGHTENED UNTIL THERE IS NO GAP BETWEEN THE CONNECTED PARTS. A MINIMUM OF TWO HIGH STRENGTH BOLTS MUST BE INSTALLED IN EACH OF THE GIRDER FLANGES AND WEB SPLICE PLATES AT EACH END OF THE ABUTTING GIRDERS (A MINIMUM OF 12 BOLTS). ANY SUBSEQUENT LOOSENING OF THE BOLTS FOR ALIGNMENT OF THE GIRDER SPLICE PLATES SHALL REQUIRE TRAFFIC BENEATH THE GIRDER TO BE HALTED UNTIL THE ALIGNMENT AND RE-TIGHTENING OF THE BOLTS IS COMPLETED. UNDER NO CIRCUMSTANCES SHALL EXTERNAL SUPPORT OF THE GIRDER BE REMOVED UNTIL THE REQUIREMENTS OF SECTION 14 OF THE NYSSCM HAVE BEEN MET.

14. **THE COST FOR ALL BOLTS, NUTS, WASHERS, WELDS, AND DIAPHRAGM CONNECTION SHIM PLATES SHALL BE INCLUDED IN THE PRICE BID FOR**

THE STRUCTURAL STEEL ITEM. NO DIRECT PAYMENT WILL BE MADE FOR THE WEIGHT OF THESE MATERIALS.

UTILITY NOTES

NONE - INCLUDED IN PROP. & STD. SPECS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES

NONE - INCLUDED IN PROP. & STD. SPECS.

RAILROAD NOTES

1. ALL AUTHORITY-APPROVED BRIDGE ERECTION OR DEMOLITION PROCEDURES SHALL BE SUBMITTED TO THE RAILROAD FOR APPROVAL. THESE PROCEDURES SHALL BE PREPARED, STAMPED AND SIGNED BY A NEW YORK STATE LICENSED PROFESSIONAL ENGINEER, AND SHALL INCLUDE THE FOLLOWING:

   - A PLAN OF THE EXISTING OR PROPOSED STRUCTURE WITH CRANE LOCATIONS, OPERATING RADII AND DELIVERY AND DISPOSAL AREAS INDICATED. THE PLAN SHALL LOCATE ALL OBSTRUCTIONS, SUCH AS WIRES, POLES, ADJACENT STRUCTURES, ETC. SHOWING THAT THE PROPOSED LIFTS ARE CLEAR OF THESE OBSTRUCTIONS.

   - COMPUTATIONS OF THE WEIGHT OF THE VARIOUS PICKS. CALCULATIONS SHALL BE MADE FROM PLANS OF THE EXISTING OR PROPOSED STRUCTURE. IF PLANS DO NOT EXIST AND WEIGHTS MUST BE CALCULATED FROM FIELD MEASUREMENTS, THE FIELD MEASUREMENTS ARE TO BE MADE UNDER THE SUPERVISION OF THE PROFESSIONAL ENGINEER SUBMITTING THE PROCEDURE AND HE SHALL INCLUDE SKETCHES AND ESTIMATED WEIGHT CALCULATIONS WITH HIS PROCEDURE. IF POSSIBLE, FIELD MEASUREMENTS SHALL BE TAKEN WITH A RAILROAD REPRESENTATIVE PRESENT. WEIGHTS SHALL INCLUDE THE WEIGHT OF CONCRETE, OR OTHER MATERIAL, THAT WILL BE INCLUDED IN THE LIFTS.

   - A DETAILED PROCEDURE, INCLUDING:

     - ORDER OF LIFTS AND ANY REPOSITIONING OR REHITCHING OF THE CRANES.
     - ANY TEMPORARY SUPPORTS OR INTERMEDIATE STAGES REQUIRED.
     - A TIME SCHEDULE OF THE VARIOUS STAGES AS WELL AS A SCHEDULE FOR THE ENTIRE PROCEDURE.

   - BACK-UP MATERIAL, SUCH AS:

     - CRANE CAPACITY CHARTS. CRANES MUST BE CAPABLE OF LIFTING 150% OF THE ACTUAL WEIGHT OF THE PICK. CRANE, COUNTERWEIGHT, AND BOOM NOMENCLATURE IS TO BE INDICATED.

- A DATA SHEET LISTING THE TYPE , SIZE AND ARRANGEMENT OF SLINGS OR OTHER CONNECTING EQUIPMENT. INCLUDE COPIES OF CATALOG CUTS OR INFORMATION SHEETS FOR SPECIALIZED EQUIPMENT.

2. FIVE (5) COPIES OF THE PROCEDURE ARE TO BE SENT TO THE RAILROAD'S TECHNICAL REPRESENTATIVE FOR THE PROJECT, ONE (1) COPY IS TO BE GIVEN TO THE RAILROAD'S FIELD REPRESENTATIVE, AND TWO (2) COPIES ARE TO BE GIVEN TO THE ENGINEER.

3. THE CONTRACTOR IS ADVISED THAT HE CAN EXPECT A MINIMUM THIRTY (30) DAY REVIEW PERIOD.

4. DURING REMOVAL OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS OR OTHER MATERIAL ONTO RAILROAD RIGHT-OF-WAY, RIVERS, AND ROADWAYS BELOW THE BRIDGE EXCEPT WHERE THE PLANS OR SPECIFICATIONS SPECIFICALLY PERMIT THE DROPPING OF MATERIAL. PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED. IF MATERIAL FALLS ON THE AREA BELOW AND ADJACENT TO THE BRIDGE, IT SHALL BE REMOVED FROM THE RAILROAD'S RIGHT-OF-WAY PROMPTLY, AND DISPOSED OF BY THE CONTRACTOR ON A DAILY BASIS.

5. ANY SCAFFOLDING OR PROTECTIVE SHIELD HUNG FROM THE BRIDGE WHICH REDUCES THE VERTICAL CLEARANCE ABOVE THE TOP OF THE RAIL MUST BE APPROVED BY THE RAILROAD PRIOR TO INSTALLATION.

6. THE COST OF FURNISHING, INSTALLING, MAINTAINING, REMOVING AND DISPOSING OF ALL PLATFORMS, NETS, SCREENS, AND OTHER PROTECTIVE DEVICES SHALL BE INCLUDED IN THE UNIT BID PRICE OF THE APPROPRIATE ITEMS OF THE CONTRACT.

7. UNLESS SPECIFICALLY AUTHORIZED BY THE RAILROAD'S REPRESENTATIVE, THE CONTRACTOR'S EQUIPMENT SHALL NOT BE OPERATED WITHIN 10 FEET FROM THE CENTERLINE OF ANY TRACK.

8. SEE THE PROPOSAL FOR ADDITIONAL INFORMATION REQUIRED FOR THE CONTRACTORS "RAILROAD PROTECTIVE LIABILITY POLICY".

9. THE CONTRACTOR'S EQUIPMENT OR MATERIALS SHALL NOT BE STORED ON THE RAILROAD'S RIGHT-OF-WAY.

10. THE ENGINEER SHALL TAKE ELEVATION SHOTS ON THE RAILROAD TRACK(S) IN THE VICINITY OF THE STRUCTURE TO MONITOR TRACK SETTLEMENT, IF ANY SHOULD OCCUR. THE MONITORING OF THE TRACK SHALL BE IN REGULAR INTERVALS AND SHALL NOT BE TERMINATED UNTIL THE COMPLETION OF THE STRUCTURE. THIS INFORMATION SHALL BE TRANSMITTED PERIODICALLY TO THE E.I.C., CHIEF ENGINEER AND THE RAILROAD'S REPRESENTATIVE FOR THEIR INSPECTION. BASED UPON THEIR INTERPRETATION, THE CHIEF ENGINEER SHALL DETERMINE IF MODIFICATIONS IN THE TRACK(S) PROFILE ARE REQUIRED.

MISCELLANEOUS NOTES

NONE - INCLUDED IN PROP. & STD. SPECS.

FOUNDATION NOTES

{Refer to the Foundation Design Report (FDR)for the appropriate notes to include in the Contract Plans}

1. PERFORM (A) SURVEY(S) TO ESTABLISH (A) BASELINE PROFILE(S) OF THE RAILROAD TRACK(S) AS DESCRIBED BELOW. INCLUDE THE COST OF THIS SURVEY WORK IN THE BID PRICE FOR SURVEY OPERATIONS, ITEM _____.

   A. PROVIDE TOP OF RAIL ELEVATIONS ON EACH RAIL AT 20 FOOT STATIONS FROM STATION ___ TO STATION ___. ESTABLISH HORIZONTAL CONTROL FOR THESE SAME POINTS.

   B. PROVIDE TRACK MONITORING AS DIRECTED BY THE ENGINEER, IN CONSULTATION WITH THE RAILROAD'S FIELD REPRESENTATIVE, WHEN IT IS SUSPECTED THAT ___ OPERATIONS NEAR THE TRACK(S) IS CAUSING A SUBSIDENCE IN THE RAIL OR TRACK PROFILE.

   C. IF DIRECTED BY THE ENGINEER, TAKE COMPARISON ELEVATIONS HOURLY DURING ___ OPERATIONS THROUGHOUT THE AFFECTED AREA.

   D. IMMEDIATELY REPORT ALL DEVIATIONS IN EXCESS OF ¼ INCH TO THE ENGINEER AND THE RAILROAD'S FIELD REPRESENTATIVE. HALT ALL ___ OPERATIONS UNTIL THE ENGINEER GIVES FURTHER DIRECTION.

2. GOVERN METHODS OF OPERATIONS TO MINIMIZE VIBRATIONS SO THAT PEAK PARTICLE VELOCITIES MEASURED AT THE ___ RESULTING FROM THE ___ DO NOT EXCEED ___ INCH PER SECOND. INCLUDE THE COST OF MONITORING IN ____.

3. PERFORM ITEM _____- BUILDING CONDITION SURVEY AT_____.

4. THE FOOTING FOR THE ___ IS DESIGNED TO EXERT A MAXIMUM BEARING PRESSURE OF ___ KSF.

5. KEY THE _____ FOOTING ____ FEET INTO COMPETENT ROCK FOR (SCOUR)/ (SLIDING RESISTANCE)/(SCOUR AND SLIDING RESISTANCE).

6. AT EACH OF THE SUBSTRUCTURES SUPPORTED ON ROCK, THE AUTHORITY'S ENGINEERING GEOLOGIST WILL BE REQUIRED TO INSPECT THE ROCK TO

DETERMINE IF IT IS COMPETENT TO SUPPORT THE DESIGN BEARING PRESSURE SHOWN ON THE CONTRACT PLANS.

7. ADHERE TO THE FOLLOWING PROCEDURES IF THE ROCK SURFACE AT A SUBSTRUCTURE IS NOT FOUND AT THE ELEVATION SHOWN ON THE CONTRACT PLANS:

   A. <u>ROCK SURFACE WITHIN 2.0 FEET OF THE PROPOSED BOTTOM-OF-FOOTING ELEVATION</u>

      - IF THE ROCK SURFACE IS HIGHER, REMOVE THE ROCK SO THAT THE MINIMUM FOOTING THICKNESS CAN BE PLACED.

      - IF THE ROCK SURFACE IS LOWER, PLACE ADDITIONAL FOOTING CONCRETE, CLASS A (NO CONCRETE CLASS SUBSTITUTIONS PERMITTED), ITEM _____, IN THE FOOTING SO THAT THE TOP-OF-FOOTING ELEVATION CAN BE ACHIEVED.

   B. <u>ROCK SURFACE MORE THAN 2.0 FEET FROM THE PROPOSED BOTTOM-OF-FOOTING ELEVATION</u>

      - THE ENGINEER WILL NOTIFY THE CHIEF ENGINEER OF THE NYSTA OF THIS CONDITION. THE CHIEF ENGINEER WILL DETERMINE IF: THE FOUNDATION FOR THE SUBSTRUCTURE HAS TO BE REDESIGNED, ADDITIONAL FOOTING CONCRETE HAS TO BE PLACED, OR ADDITIONAL ROCK HAS TO BE EXCAVATED.

8. ADHERE TO THE FOLLOWING PROCEDURES IF THE ROCK SURFACE AT A SUBSTRUCTURE IS NOT FOUND TO BE AT THE ELEVATION AS SHOWN ON THE CONTRACT PLANS:

   A. <u>ROCK SURFACE WITHIN 2.0 FEET OF THE PROPOSED BOTTOM-OF-TREMIE SEAL ELEVATION</u>

      - IF THE ROCK SURFACE IS HIGHER, RAISE THE TOP-OF-TREMIE SEAL AND FOOTING AND SHORTEN THE STEM SO THAT THE MINIMUM TREMIE SEAL AND FOOTING THICKNESS CAN BE PLACED.

- IF THE ROCK SURFACE IS LOWER, PLACE ADDITIONAL CONCRETE FOR STRUCTURES, CLASS G (DEPOSITED UNDER WATER), ITEM _____, IN THE TREM IE SO THAT THE TOP-OF-TREMIE ELEVATION CAN BE ACHIEVED.

B. ROCK SURFACE MORE THAN 2.0 FEET FROM THE PROPOSED BOTTOM-OF-TREMIE SEAL ELEVATION

- THE ENGINEER WILL NOTIFY THE CHIEF ENGINEER OF THE NYSTA OF THIS CONDITION. THE CHIEF ENGINEER WILL DETERMINE IF: THE FOUNDATION FOR THE SUBSTRUCTURE HAS TO BE REDESIGNED, ADDITIONAL CONCRETE FOR STRUCTURES, CLASS G, HAS TO BE PLACED,OR ADDITIONAL ROCK HAS TO BE EXCAVATED.

9. CONSTRUCT THE APPROACH EMBANKMENT AT THE ___ ABUTMENT TO SUBGRADE ELEVATION (INCLUDING)/(EXCLUDING) THE AREA TO BE OCCUPIED BY THE ABUTMENT. AFTER CONSTRUCTING THE APPROACH EMBANKMENTS TO THIS ELEVATION, OBSERVE A ___ WAITING PERIOD PRIOR TO (EXCAVATING FOR)/(CONSTRUCTING) THE ABUTMENT.

10. THIS WAITING PERIOD MAY BE REDUCED BY THE CHIEF ENGINEER OF THE NYSTA, BASED UPON THE INTERPRETATION BY THE AUTHORITY'S GEOTECHNICAL ENGINEER OF READINGS FROM ___ INSTALLED AT THE FOLLOWING LOCATIONS:_____.

    INSTALL AND MONITOR THE INSTRUMENTATION IN ACCORDANCE WITH THE APPROPRIATE NYSDOT GEOTECHNICAL ENGINEERING BUREAU SOIL CONTROL PROCEDURE.

11. POUR THE PEDESTALS FOR THE ABUTMENTS _____ (WEEKS/MONTHS) AFTER THE ABUTMENTS HAVE BEEN BACKFILLED TO SUBGRADE SURFACE.

12. ___ MAY BE ENCOUNTERED AT THE PROPOSED FOOTING ELEVATION OF THE ___. IF THIS MATERIAL IS ENCOUNTER ED, REMOVE IT AND REPLACE W ITH ___, ITEM ___, TO THE DEPTH AND EXTENT DIRECTED BY THE ENGINEER.

DRILLED SHAFT FOUNDATION NOTES FOR USE WITH SECTION 644- OVERHEAD SIGN STRUCTURES

{Designers should consult with the NYSTA Geotechnical Engineer to determine which of these notes are appropriate for their project. In general, note #1 should always be included and notes #2 and #3 will be included based on individual project soil conditions.}

1. THE DRILLED SHAFT FOUNDATIONS FOR THESE STRUCTURES DERIVE SOME OR ALL OF THEIR CAPACITY FROM SIDE FRICTION ALONG THE LENGTH OF THE SHAFT. THE DEVELOPMENT OF SIDE FRICTION IS DEPENDANT UPON FLUID CONCRETE BEING PLACED DIRECTLY AGAINST SOIL ALONG THE LENGTH OF THE SHAFT. UNDER NO CIRCUMSTANCES SHALL TEMPORARY CASINGS BE LEFT IN PLACE. ALL TEMORARY CASINGS SHALL BE REMOVED AS THE CONCRETE IS PLACED.

2. DUE TO THE PRESENCE OF GROUNDWATER AND LOOSE COHESIONLESS SOIL AT THE BASE OF THE DRILLED SHAFT, IT MAY NOT BE POSSIBLE TO DEWATER THE SHAFT AND PLACE CLASS A CONCRETE IN THE DRY, AS SPECIFIED IN SUBSECTION 644-3.05 A. FOR THESE SITUATIONS, THE SHAFT EXCAVATION SHALL NOT BE DEWATERED AND SHALL BE CONCRETED WITH CLASS G TREMIE CONCRETE IN ACCORDANCE WITH SUBSECTION 555-3.05 –DEPOSITING STRUCTURAL CONCRETE UNDER WATER. THE BOTTOM OF THE SHAFT EXCAVATION SHALL BE CLEANED OF LOOSE MATERIAL TO THE SATISFACTION OF THE ENGINEER IMMEDIATELY PRIOR TO CONCRETEING. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR DRILLED SHAFT FOR OVERHEAD SIGN STRUCTURES.

3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE LAYER OF _____ INDICATED IN BORING ____. THE SHAFTS FOR _____ ARE DESIGNED TO GAIN ALL OF THEIR GEOTECHNICAL CAPACITY BELOW THE BOTTOM OF THIS LAYER, WHICH IS ESTIMATED TO EXTEND TO A (DEPTH)/(ELEVATION) OF _____. THE SHAFT SHOULD EXTEND A MINIMUM OF _____ FEET BELOW THE BOTTOM OF THIS LAYER.

COFFERDAM AND DEWATERING NOTES

1. SHOULD THE CONTRACTOR ELECT TO LAY BACK A PORTION OF EXISTING EARTH ADJACENT TO AN EXCAVATION REQUIRING A COFFERDAM, ANY REQUIRED EXTENSIONS OF THE COFFER DAM NECESSARY TO KEEP W ATER FROM ENTERING THE EXCAVATION SHALL BE FURNISHED AND PLACED AT NO COST TO THE AUTHORITY.

2. WHERE A COFFERDAM IS USED COMPLETELY OR PARTIALLY AROUND AN EXCAVATION, THE COST OF DEWATERING THE ENTIRE EXCAVATION, REGARDLESS OF SOURCE OF WATER, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE COFFERDAM ITEM.

3. THE W ATER LEVELS NOTED ON THE BORING LOGS FOR THIS STRUCTURE MAY NOT BE INDICATIVE OF ACTUAL WATER CONDITIONS AT THE TIME OF CONSTRUCTION.

4. PLACE THE COFFERDAMS FOR THE ___ SO THAT THEY WILL NOT INTERFERE WITH THE DRIVING OF BATTER PILES.

5. THE COFFERDAM AND TREMIE SYSTEM SHALL BE FLOODED AS DIRECTED BY THE ENGINEER WHEN THE WATER ELEVATION EXCEEDS _____.

6. SHOULD FIELD CONDITIONS REQUIRE A CHANGE FROM THE TYPE OF COFFERDAM SYSTEM CALLED FOR ON THE PLANS, THE ENGINEER SHALL CONTACT THE CHIEF ENGINEER OF THE N.Y.S.T.A. FOR COORDINATION WITH APPROPRIATE AGENCIES TO APPROVE THE CHANGE.

{Include the following note on the contract plans when cofferdams are used with a tremie system:}

7. THE COFFERDAM AND TREMIE SYSTEM SHALL BE DESIGNED TO AUTOMATICALLY FLOOD BY NON-MECHANICAL MEANS WHEN THE WATER ELEVATION EXCEEDS _____.

{Include the following notes on the contract plans as applicable:}

8. IF MULTIPLE COFFERDAMS ARE REPLACED BY A SINGLE SYSTEM, AS PERMITTED BY THE AUTHORITY'S HYDRAULICS ENGINEER, PAYMENT SHALL

BE BASED ON ALL OF THE APPLICAB LE COFFERDAM ITEMS INDICATED ON THE PLANS.

9. DEWATERING OF THE COFFERDAM SHALL BE ACCOMPLISHED BY PUMPING THE WATER TO AN APPROVED UPLAND VEGETATED AREA OUTSIDE OF THE STREAMBED AS SHOWN ON THE PLANS AND/OR APPROVED BY THE ENGINEER. TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL, SUCH AS HAY BALES OR APPROVED EQUAL, MAY BE REQUIRED AS DETERMINED BY THE ENGINEER. NO SETTLEMENT BASIN SHALL BE CONSTRUCTED.

10. THE CONTRACTOR SHALL HAVE THE OPTION OF INSTALLING A SEPARATE COFFERDAM OR INCORPORATING THE PERMANENT SHEETING INTO THE COFFERDAM ITEM.

11. IF THE CONTRACTOR ELECTS TO INCORPORATE THE PERMANENT SHEETING IN THE COFFERDAM ITEM, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ANY ADDITIONAL BRACING REQUIRED TO STRENGTHEN THE PERMANENT SHEETING SYSTEM AND PROVIDE ANY WORK NECESSARY TO RETURN THE PERMANENT SHEETING TO ITS INTENDED FUNCTION AFTER THE COFFERDAM FUNCTION IS COMPLETE.

{The following note shall be provided to specify water elevations developed for use at this location.}

12. ORDINARY HIGH WATER IS ESTIMATED TOBE _____. THIS IS DEFINED AS THE WATER SURFACE ELEVATION FOR THE MEAN ANNUAL FLOOD, WHICH IS THE FLOOD THAT HAS A RECURRENCE INTERVAL OF 2.33 YEARS.

    ORDINARY W ATER IS ESTIMATED TO BE_____. THIS IS DEFINED AS THE HIGHEST SURFACE WATER ELEVATION LIKELY TO BE ENCOUNTERED DURING ONE CONSTRUCTION SEASON (OTHER THAN MAJOR FLOODS). IT IS ALWAYS LESS THAN THE ORDINARY HIGH WATER ELEVATION AND IT IS USUALLY AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

    LOW W ATER IS ESTIMATED TO BE _____. THIS W ATER ELEVATION IS THE NORMAL LOW WATER ELEVATION PREVALENT DURING ONE CONSTRUCTION SEASON FOR MORE THAN 25% OF THE TIME. IT IS AN OBSERVED ELEVATION RATHER THAN A COMPUTED ONE.

SHEET PILING NOTES

{Refer to the Foundation Design Report (FDR) , if applicable, for the appropriate notes to include in the Contract Plans}

1. THE MINIMUM SECTION MODULUS OF THE STEEL SHEETING SHALL BE ____IN^3/FT.

2. THE MINIMUM THICKNESS OF THE STEEL SHEETING SHALL BE 3/8 INCH.

{Use the following note if higher strength steel (50 KSI) is required for temporary or interim steel sheeting. If ASTM A328 steel is acceptable (38 KSI), no special note is needed.}

3. THE STEEL SHEETING SHALL CONFORM TO ASTM A572, GRADE 50.

{Use the following note if higher strength steel (50 KSI) is required for permanent steel sheeting. If ASTM A328 steel is acceptable (38 KSI), no special note is needed.}

4. THE STEEL SHEETING SHALL CONFORM TO ASTM A690, GRADE 50, "PILING FOR USE IN MARINE ENVIRONMENTS".

5. THE MAXIMUM DEPTH OF EXCAVATION FOR THE STEEL SHEETING IS ____FEET.

6. THE MINIMUM EMBEDMENT LENGTH FOR THE STEEL SHEETING IS___FEET.

{Cold-formed steel sheeting is an economical alternative to hot rolled sheeting and can be used for temporary sheeting where hard driving conditions are not present. Choose one of the following notes for each use of interim and/or temporary steel sheeting.}

7A. COLD-FORMED STEEL SHEETING SHALL NOT BE USED FOR ____.

7B. COLD-FORMED STEEL SHEETING MAY BE USED FOR ____.

{A detail with the above information may be used in lieu of these (or some of these) notes.}

8. CUT OFF THE INTERIM STEEL SHEETING, ITEM_____, (AT SUBGRADE SURFACE) / (1 FOOT BELOW FINISHED GRADE).

9. CUT OFF THE INTERIM STEEL SH EETING, ITEM_____, AT THE TOP OF THE RAILROAD TIE DURING CONSTRUCTION. AFTER BACKFILLING THE ___, CUT OFF THE SHEETING 2 FEET BELOW EXISTING GROUNDLINE.

10. THE FOLLOWING INFORMATION WAS USED IN THE DESIGN OF THE (STEEL SHEETING)/(SOLDIER PILE AND LAGGING WALL)/(EARTH SUPPORT SYSTEM):

LOCATION	ELEVATION (FEET)	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)

A. THE PASSIVE EARTH PRESSURE COEFFICIENT (K_p) WAS DIVIDED BY (1.25)/(1.50).

B. GROUNDWATER WAS ASSUMED AT ELEVATION ___ FEET.

C. A SURCHARGE LOAD OF ___ PSF WAS APPLIED AT THE TOP OF THE WALL.

D. SHEETING CANNOT BE DRIVEN BELOW ELEVATION ___, DUE TO (ROCK, BOULDERS, COMPACT MATERIAL, OBSTRUCTIONS, ARTESIAN WATER PRESSURE, ETC.).

PILE NOTES

{Refer to the Foundation Design Report (FDR) for the appropriate notes to include in the Contract Plans.}

1. THE ___ PILES ARE DESIGNED TO SUPPORT A MAXIMUM ALLOWABLE LOAD OF ___ KIPS PER PILE. DRIVE THESE PILES TO ACHIEVE A CAPACITY OF ___ KIPS PER PILE. THESE PILES HAVE AN ESTIMATED LENGTH OF ___ FEET.

2. THE ___ PILES ARE DESIGNED TO SUPPORT A MAXIMUM ALLOWABLE LOAD OF ___ KIPS PER PILE. DRIVE THESE PILES TO PRACTICAL REFUSAL (20 BLOWS PER INCH), AND A MINIMUM CAPACITY OF ___ KIPS PER PILE. THESE PILES HAVE AN ESTIMATED LENGTH OF ___ FEET.

3. DRIVE THE PILES AT THE ___ TO A MINIMUM DEPTH OF ___ FEET. THE ENGINEER WILL IMMEDIATELY CONTACT THE CHIEF ENGINEER OF THE NYSTA IF THE MINIMUM DEPTH IS NOT ACHIEVED.

4. DYNAMIC PILE TESTS SHALL BE CONDUCTED ON THE FIRST PILE DRIVEN AT _____ OR AT OTHER LOCATIONS ORDERED BY THE ENGINEER. THE DRIVING CRITERIA FOR THE REMAINING PILES SHALL BE BASED ON THE RESULTS OF THESE TESTS. THE PILE USED FOR THE DYNAMIC PILE TEST SHALL BE A MINIMUM OF 5 FEET LONGER THAN THE ESTIMATED PILE LENGTH AT THE TEST LOCATION. REFER TO THE SPECIAL NOTE IN THE PROPOSAL TITLED "FURNISHING EQUIPMENT AND PERSONNEL-DYNAMIC LOAD TESTING OF PILES".

5. THE DYNAMIC PILE TEST WILL CONSIST OF ONE TEST AT INITIAL DRIVE AND A RESTRIKE AFTER A ___-HOUR WAITING PERIOD. ADDITIONAL PILES MAY BE DRIVEN DURING THIS TIME, STARTING A MINIMUM DISTANCE OF 10 FEET FROM THE TEST PILE AND PROGRESSING AWAY FROM THE TEST PILE.

6. THE EXISTING ___ (IS)/(ARE) PILE SUPPORTED. THESE EXISTING PILES MAY INTERFERE WITH THE INSTALLATION OF THE PROPOSED PILES. IF THERE ARE PILE INTERFERENCES, THE CHIEF ENGINEER OF THE NYSTA WILL DIRECT THE CONTRACTOR HOW TO PROCEED.

7. DIFFICULT DRIVING OF PILES MAY BE ENCOUNTERED AND IT MAY BE NECESSARY TO USE MECHANICAL EQUIPMENT TO REMOVE VERY COMPACT MATERIAL OR BOULDERS FROM THE LOCATION OF THE PILES. WHEN REQUIRED, SPUD OR EXCAVATE HOLESPRIOR TO DRIVING IN ACCORDANCE WITH SECTION 551.

8. THE USE OF MECHANICAL PILE SPLICES FOR CAST-IN-PLACE CONCRETE PILES MAY BE ALLOWED ON THIS STRUCTURE IF THE FOLLOWING REQUIREMENTS ARE MET:

    A. PLACE A SEAL WELD COMPLETELY AROUND THE TOP AND BOTTOM OF THE SPLICER SLEEVE.

    B. DO NOT USE A SPLICER SLEEVE WITHIN 30 FEET OF THE PILE TOE.

    C. AVOID THE USE OF MECHANICAL PILE SPLICES WITHIN 6 FEET OF THE PILE CUT-OFF ELEVATION.

9. DO NOT USE MECHANICAL PILE SPLICES ON THIS STRUCTURE.

10. PLACE THE PILES FOR THE INTEGRAL ABUTMENTS IN ___ INCH DIAMETER HOLES THAT EXTEND 8 FEET BELOW THE BOTTOM OF EACH ABUTMENT STEM. KEEP EACH OF THESE HOLES OPEN DURING THE INSTALLATION OF PILES SO THAT CUSHION SAND (MEETING THE REQUIREMENTS OF SECTION 703-06) CAN BE PLACED LOOSELY AROUND EACH PILE FOR THE FULL DEPTH OF THE HOLE. INCLUDE THE COST OF EXCAVATING THE HOLES, CASING AND CUSHION SAND IN THE UNIT PRICE BID FOR THE PILE ITEM.

11. PROVIDE ___-GAUGE, TAPERED CAST-IN-PLACE CONCRETE PILES.

12. PROVIDE CAST-IN-PLACE CONCRETE PILES WITH A MINIMUM WALL THICKNESS OF ___ INCH.

13. EQUIP ALL CAST-IN-PLACE CONCRETE PILES WITH 60-DEGREE CONICAL SHOES. ATTACH THE SHOE TO THE PILE W ITH A ___ INCH FILLET WELD, WELD ALL AROUND.

14. EQUIP ALL CAST-IN-PLACE CONCRETE PILES WITH 3/4-INCH THICK FLAT CLOSURE PLATES. SUPPLY A FLAT PLATE WITH A DIAMETER THAT DOES NOT EXCEED THE PILE DIAMETER BY MORE THAN 1/2 INCH. ATTACH THE PLATE TO THE PILE WITH A ___ INCH FILLET WELD, WELD ALL AROUND.

15. EQUIP ALL STEEL BEARING PILES WITH REINFORCED SHOES.

16. EQUIP ALL STEEL BEARING PILES WITH APF HP77750 OR EQUIVALENT.

17. AFTER COMPLETION OF THE PILE INSTALLATION, THE ENGINEER SHALL COMPLETE THE "ACTUAL PILE LENGTH" TABLE FOR INCLUSION IN THE AS-BUILT PLANS.

DIAPHRAGM DETAIL NOTES

1. WHERE HOLES ARE INDICATED, CONNECTIONS SHALL BE MADE WITH 7/8 INCH DIAMETER HIGH-STRENGTH BOLTS UNLESS OTHERWISE SPECIFIED.

2. CROSS FRAMES MAY BE FABRICATED TO FIT THE GIRDERS IN THEIR ERECTED POSITION AND CAMBERED SHAPE, BUT DEFLECTED VERTICALLY DUE TO STEEL DEAD LOAD ONLY.

3. THE CONTRACTOR MAY PLACE DIAPHRAGMS ON EITHER SIDE OF THE BEARING STIFFENERS OR STIFFENER CONNECTION PLATES AS NECESSARY TO CORRECT ALIGNMENT PROVIDED THERE WILL BE NO INTERFERENCE WITH OTHER STRUCTURAL DETAILS.

4. TAPERED OR FLAT SHIM PLATES MAY BE USED IN THE CONNECTION BETWEEN SKEWED DIAPHRAGMS AND THE BEARING STIFFENERS OR STIFFENER CONNECTION PLATES. VARIABLE THICKNESSES OF SHIM PLATES MAY BE USED. THE MINIMUM THICKNESS OF SHIM PLATES SHALL BE 1/8 TH INCH, WITH A MAXIMUM NUMBER OF THREE SHIM PLATES PERMITTED AT ANY CONNECTION. THE TOTAL THICKNESS OF ALL SHIM PLATES USED AT ANY CONNECTION SHALL NOT EXCEED 1 INCH. SHIM PLATES SHALL HAVE THE DIMENSIONS OF THE FAYING SURFACE. THE SHIM MATERIAL SHALL CONFORM TO ASTM A709, GRADE 36, EXCEPT THAT ON UNPAINTED STRUCTURES, THE SHIM MATERIAL SHALL CONFORM TO ASTM A709, GRADE 50W. NO ADDITIONAL PAYMENT WILL BE MADE FOR FURNISHING AND PLACING THE SHIM PLATES.

5. TO FACILITATE THE INSTALLATION OF DIAPHRAGMS LOCATED IN THE CLOSURE POUR BAY, CONNECTION HOLES SHALL BE FIELD DRILLED RATHER THAN SHOP DRILLED IN EITHER THE DIAPHRAGM OR THE CONNECTION PLATE AT ONE END OF THE DIAPHRAGM/GIRDER CONNECTION. THIS PRACTICE WILL ELIMINATE THE PROBLEM OF HOLE MISALIGNMENT ON STAGE CONSTRUCTION PROJECTS.

CAMBER NOTES

1. THE TOTAL CAMBER TOLERANCE FOR THESE GIRDERS IS +3/4", -0". THE CAMBER SHALL BE CHECKED IN THE VERTICAL POSITION (FULL MINUS STEEL GIRDER ONLY DEAD LOAD) IN THE FABRICATION SHOP BY THE FABRICATOR, AND IN THE FIELD IN THE VERTICAL POSITION AFTER ERECTION BY THE CONTRACTOR (FULL MINUS STEEL GIRDER AND DIAPHRAGM DEAD LOAD). THE CONTRACTOR WILL NOT BE ALLOWED ANY ADDITIONAL CAMBER TOLERANCE BEYOND THAT SHOWN ABOVE IN THE FIELD. REFER TO THE ERECTION/CAMBER MONITORING PROCEDURE ON THE STEEL FRAMING PLAN SHEET. ALL CAMBER REQUIREMENTS SHALL BE STRICTLY ENFORCED AND CERTIFIED BY THE SHOP AND FIELD INSPECTORS.

2. THE CAMBER LABELED "VERTICAL CURVE" IN THE TABLE IS THE CAMBER REQUIRED TO FOLLOW THE VERTICAL CURVE.

3. THE CAMBER LABELED "GIRDER D.L." IN THE TABLE IS THE CAMBER REQUIRED TO OFFSET THE DEFLECTION DUE TO THE DEAD LOAD WEIGHT OF THE GIRDER ONLY AS FABRICATED.

4. THE CAMBER LABELED "DIAPHRAGM D. L." IN THE TABLE IS THE CAMBER REQUIRED TO OFFSET THE DEFLECTION DUE TO THE DEAD LOAD WEIGHT OF THE DIAPHRAGMS/CROSSFRAMES AND LATERAL BRACING AS FABRICATED.

5. THE CAMBER LABELED "CONCRETE D.L." IN THE TABLE IS THE CAMBER REQUIRED TO OFFSET THE DEFLECTION DUE TO THE DEAD LOAD WEIGHT OF THE CONCRETE SLAB.

6. THE CAMBER LABELED "SUPERIMPOSED D.L." IN THE TABLE IS THE CAMBER REQUIRED TO OFFSET THE DEFLECTION DUE TO THE WEIGHT OF THE CURB, SIDEWALK, RAILING OR BARRIER, AND WEARING SURFACE.

7. THE TOTAL CAMBER IS THE SUM OF VERTICAL CURVE, GIRDER DEAD LOAD, DIAPHRAGM DEAD LOAD, CONCRETE DEAD LOAD AND SUPERIMPOSED DEAD LOAD. ALL CAMBER OFFSETS ARE MEASURED VERTICALLY TO THE TOP OF THE WEB, FROM A STRAIGHT REFERENCE LINE DRAWN FROM THE INTERSECTION OF THE TOP OF THE WEB AND THE CENTERLINE OF THE BEARINGS AT ONE END OF THE GIRDER, TO THE CORRESPONDING POINT AT THE OTHER END OF THE GIRDER.

8. POSITIVE NUMBERS IN THE TABLE INDICATE VALUES ABOVE THE STRAIGHT

REFERENCE LINE.

9. NEGATIVE NUMBERS IN THE TABLE INDICATE VALUES BELOW THE STRAIGHT REFERENCE LINE.

10. THE CAMBER OFFSETS ARE TABULATED IN INCHES.

CURVED GIRDER STEEL ERECTION NOTES

1. THE DESIGN OF THIS STRUCTURE ASSUMES THAT THE STRUCTURAL STEEL IS COMPLETELY ERECTED BEFORE IT IS ALLOWED TO DEFLECT UNDER ITS OWN (STEEL) DEAD LOAD. DEFLECTIONS INCURRED DURING THE VARIOUS STAGES OF THE ERECTION ARE NOT CONSIDERED. THEREFORE, THE ACTUAL ERECTION METHODS AND SEQUENCES EMPLOYED BY THE CONTRACTOR MAY HAVE A SUBSTANTIAL EFFECT ON THE FINAL STEEL PROFILE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY COMPENSATORY ACTION TO ENSURE THAT THE FINAL ALIGNMENT AND PROFILE OF THE ERECTED STEEL CONFORMS TO SUBSECTION 1213 AND 1214 OF THE NEW YORK STATE STEEL CONSTRUCTION MANUAL (SCM). IN ACCORDANCE WITH SECTION 564 OF THE STANDARD SPECIFICATIONS, THE COST OF ERECTION SHALL BE INCLUDED IN THE PRICE BID FOR THE STRUCTURAL STEEL ITEM, UNLESS OTHERWISE NOTED. ANY CORRECTIVE WORK NECESSARY TO RE-POSITION PREVIOUSLY ERECTED STEEL TO ACHIEVE ACCEPTABLE ALIGNMENT AND PROFILE MUST BE APPROVED BY THE AUTHORITY, AND SHALL BE PERFORMED AT NO COST TO THE AUTHORITY.

DECK SLAB PLACEMENT NOTES

1. {DESIGNER - CHOOSE 1A OR 1B, W HICHEVER IS APPLICABLE BASED ON AN ANALYSIS OF THE PLACEMENT PLAN.}

1A. THE CONCRETE DECK SLAB FOR THIS STRUCTURE SHALL BE PLACED ACCORDING TO THE PLACEMENT PLAN SHOWN. NO ALTERNATIVE PLAN WILL BE CONSIDERED.

1B. THE CONCRETE DECK SLAB FOR THIS STRUCTURE MAY BE PLACED ACCORDING TO THE PLACEMENT PLAN SHOWN. THE CONTRACTOR MAY, AT HIS OPTION, SUBMIT AN ALTERNATE PLAN TO THE ENGINEER, FOR REVIEW AND CONSIDERATION BY THE AUTHORITY. NO RELATED WORK, INCLUDING THE INSTALLATION OF FORMS, MAY BE PROGRESSED BY THE CONTRACTOR UNTIL THE WRITTEN APPROVAL OF THE ALTERNATE PLAN IS RECEIVED FROM THE AUTHORITY. THE AUTHORITY WILL REPLY WITHIN TEN (10) WORKING DAYS AFTER RECEIPT OF THE CONTRACTOR'S PLAN. THE AUTHORITY WILL NOT APPROVE PLANS WHICH INCREASE THE PROBABILITY OF DEFLECTION CRACKING.

2. CONCRETE PLACEMENT AND FINISHING OPERATIONS SHALL BE PERFORMED AS RAPIDLY AS POSSIBLE. THE ENGINEER MAY ORDER THE CONTRACTOR TO STOP PLACEMENT OPERATIONS AT ANY TIME IF, IN THE ENGINEER'S OPINION, CONCRETE PLACED HAS STARTED TO SET, OR IS ABOUT TO SET, AND FURTHER PLACEMENT OF CONCRETE WILL CAUSE DEFLECTION CRACKING.

3. IN THE EVENT THE CONTRACTOR'S DECK PLACEMENT OPERATION IS STOPPED PRIOR TO COMPLETION, WHETHER BY HIS OW N DECISION OR BY ORDER OF THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A FINISHED DECK GRADE WHICH MATCHES THE PLANNED PROFILE. ANY SUBSEQUENT REVISIONSTO DECK FORMS MADE NECESSARY BY SUCH ACTION SHALL BE AT THE CONTRACTOR'S EXPENSE.

4. CONSTRUCTION JOINTS SHOULD BE PLACED PARALLEL TO THE SKEWANGLE. DECK CONCRETE SHALL BE PLACED SO THAT THE LEADING EDGE PARALLELS THE SKEW . FINISHING MACHINE(S) SHALL BE OPERATED AS CLOSE TO THE SKEW ANGLE AS PRACTICABLE. THE CONTRACTOR SHALL NOTIFY THE AUTHORITY THROUGH HIS DETAILED WRITTEN PLAN AS DESCRIBED BELOW IF HIS EQUIPMENT CANNOT MATCH THE SKEW ANGLE OF THE BRIDGE.

5. ALL AREAS SHOWN ON THE PLANS AS "POUR 1" MUST BE PLACED DURING THE INITIAL CONTINUOUS WORK PERIOD. SUBSEQUENT PLACEMENTS WILL NOT BE PERMITTED UNTIL 72 HOURS AFTER THE START OF THE PREVIOUS PLACEMENT.

{OPTIONAL NOTE: INSERT THE FOLLOWING NOTE WHEN THE DESIGNER SPECIFIES THAT TWO SIMULTANEOUS PLACEMENT OPERATIONS SHALL BE USED.}

6. POUR 1 SHALL BE ACCOMPLISHED BY THE SIMULTANEOUS OPERATION OF TWO FINISHING MACHINES AND CREWS. A MINIMUM RATE OF PLACEMENT OF __ CY/HR SHALL BE MAINTAINED BY EACH MACHINE.

{OPTIONAL NOTE: INSERT THE FOLLOWING NOTE WHEN THE STRUCTURE CONTAINS THREE OR MORE SPANS.}

7. THE CONTRACTOR MAY DIVIDE "POUR 2" INTO SEPARATE SEGMENTS PROVIDED THE 72 HOUR WAITING PERIOD BETWEEN PLACEMENTS IS OBSERVED.

8. LONGITUDINAL CONSTRUCTION JOINTS WILL NOT BE PERMITTED UNLESS DETAILED ON THE PLANS.

9. A DETAILED WRITTEN PLAN OF THE PROPOSED PLACEMENT PLAN MUST BE SUBMITTED AND HAVE AUTHORITY APPROVAL BEFORE INSTALLATION OF FORMS. THIS PLAN SHALL;
   A. CLEARLY STATE HOW THE CONCRETE WILL BE PLACED USING THE EQUIPMENT, PERSONNEL, AND ANY OTHER REQUIRED RESOURCES.
   B. INCLUDE THE QUANTITY, TYPE, AND RELEVANT FEATURES OF EQUIPMENT USED IN THIS WORK THAT WILL AFFECT THE RATE OF PLACEMENT.
   C. INCLUDE CONTINGENCIES FOR CHANGES IN WEATHER, EQUIPMENT BREAKDOWNS, BATCH PLANT DELAYS, OR ANY OTHER FACTORS THAT COULD DELAY OR STOP THIS WORK.
   D. STATE HOW PLACEMENT OPERATIONS WILL BE STOPPED IF REQUIRED, AND HOW THE END OF CONCRETE (TEMPORARY BULKHEAD) WILL BE FINISHED.
   E. STATE AN ANTICIPATED RATE OF CONCRETE VOLUME PLACED PER HOUR.

{OPTIONAL NOTE: INSERT THE FOLLOW ING NOTE W HEN THE STRUCTURE HAS A CROSS-SLOPE TRANSITION.}

10. SINCE THIS STRUCTURE HAS A CROSS-SLOPE TRANSITION, IT MAY BE ADVISABLE TO PLACE THE SCREEDING MACHINE PERPENDICULAR TO THE CENTERLINE.

{OPTIONAL NOTES: INSERT THE FOLLOWING THREE (3) NOTES WHEN CONTINUOUS PLACEMENTS MAY BE ALLOWED.}

11. THE AUTHORITY WILL NOT APPROVE ANY PLAN, NOR WILL IT ALLOW ANY METHOD THAT INCREASES THE PROBABILITY OF DEFLECTION CRACKING. THE ENGINEER MAY ORDER THE PLACEMENT OPERATIONS STOPPED IF THE APPROVED PLAN IS NOT FOLLOWED IN ANY WAY.

12. 6 HOURS IS THE TIME LIMIT FROM START TO FINISH OF A CONTINUOUS PLACEMENT.

13. A MINIMUM CONCRETE PLACEMENT RATE OF__ CY/HR/FINISHING MACHINE SHALL BE MAINTAINED THROUGHOUT THE PLACEMENT OPERATION.

14. THE CONTRACTOR MAY ONLY USE REMOVABLE FORMS OR PERMANENT CORRUGATED METAL FORMS TO FORM THE UNDERSIDE OF THE STRUCTURAL SLAB.

15. IF PERMANENT CORRUGATED METAL FORMS ARE USED, THE CORRUGATIONS SHALL BE FILLED WITH STYROFOAM TO PROVIDE A FLAT BOTTOM OF SLAB SURFACE CORRESPONDING WITH THE ELEVATIONS SPECIFIED ON THE CONTRACT PLANS.

16. CONTINUOUS BURLAP WETTING FOR THE MINIMUM FOURTEEN (14) CURING DAYS AS PER 557-3.11 A.1. IS REQUIRED. NO OTHER CURING OPTIONS WILL BE CONSIDERED.

CONCRETE BOX CULVERT NOTES

1. {DESIGNER - CHOOSE ONE OF THE FOLLOWING NOTES.}

1A. THE DETAILS SHOWN FOR THE CULVERT BARREL ARE BASED ON THE ASSUMPTION THAT THE WATER IN THE STREAM CHANNEL WILL BE DIVERTED OR CARRIED IN A FLUMEDURING THE ENTIRE CONSTRUCTION OF THE BARREL. SHOULD THE CONTRACTOR DESIRE TO DIVERT THE WATER THROUGH ONE OF THE CELLS BEFORE COMPLETION OF THE ENTIRE BARREL, HE SHALL SUBMIT TO THE DIRECTOROF ENGINEERING FOR APPROVAL, THE CONSTRUCTION PROCEDURES HE INTENDS TO FOLLOW WITH THE SKETCHES SHOWING THE LOCATION OF THE PROPOSED CONSTRUCTION AND CONTRACTION JOINTS AND THE CHANGES IN THE BAR REINFORCEMENT DETAILS.

1B. THE DETAILS SHOWN FOR THE CULVERT BARREL ARE BASED ON THE ASSUMPTION THAT THE WATER IN THE STREAM CHANNEL WILL BE DIVERTED THROUGH ONE OF THE CELLS BEFORE COMPLETION OF THE ENTIRE BARREL. SHOULD THE CONTRACTOR DESIRE TO DIVERT THE WATER OR CARRY IT IN A FLUME DURING THE ENTIRE CONSTRUCTION OF THE BARREL, HE SHALL SUBMIT TO THE DIRECTOR OF ENGINEERING FOR APPROVAL, THE CONSTRUCTION PROCEDURE HE INTENDS TO FOLLOW WITH SKETCHES INDICATING ANY CHANGES IN THE LOCATION OF CONSTRUCTION AND CONTRACTION JOINTS AND IN THE BAR REINFORCEMENT DETAILS.

LUMBER AND TIMBER NOTES

1. STRESS GRADED LUMBER AND TIMBER HAS BEEN DESIGNED FOR THE FOLLOWING ALLOWABLE STRESSES, AND THE TYPE USED MUST MEET THESE MINIMUM REQUIREMENTS (SEE AASHTO 17TH EDITION SECTION 13):

EXTREME FIBER IN BENDING	1600psi
TENSION PARALLEL TO GRAIN	950psi
COMPRESSION PERPENDICULAR TO GRAIN	625psi
COMPRESSION PARALLEL TO GRAIN	1100psi
HORIZONTAL SHEAR PARALLEL TO GRAIN	85psi
MODULUS OF ELASTICITY	1600ksi

2. LUMBER AND TIMBER DESIGNATED TO BE TREATED WITH WOOD PRESERVATIVE SHALL USE A WATER BORNE WOOD PRESERVATIVE CONFORMING TO AWPA STANDARD C2 OF MATERIAL SPECIFICATION 708-31.

3. THE MINIMUM RETENTION OF CHROMATED COPPER ARSENATE (CCA) SHALL BE 0.60 PCF, OR AS SPECIFIED FOR WOOD IN CONTACT WITH SOIL IN ACCORDANCE W ITH THE CURRENT AWPA STANDARD C2, WHICHEVER IS GREATER.

INVERSET BRIDGE NOTES

1. CONCRETE IN THE DECK SLAB SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF ____ PSI AT 28 DAYS.

2. {DESIGNER - USE ONLY ONE OF THE FOLLOWING NOTES.}

2A. ASTM A709, GRADE 50W STEEL SHALL BE USED AS STRUCTURAL STEEL, AND THE HIGH STRENGTH BOLTS USED IN DIAPHRAGM CONNECTIONS SHALL BE ASTM A325, TYPE III.

2B. ASTM A709, GRADE 36 STEEL SHALL BE USED AS STRUCTURAL STEEL, AND THE HIGH STRENGTH BOLTS USED IN DIAPHRAGM CONNECTIONS SHALL BE ASTM A325, TYPE I.

3. THE BRIDGE SUPERSTRUCTURE IS A PATENTED STRUCTURAL SYSTEM. THE ONLY COMPANY IN THE AREA LICENSED TO MANUFACTURE THE UNITS IS THE FORT MILLER COMPANY INC., P.O. BOX 98, SCHUYLERVILLE, NEW YORK 12871 (TELEPHONE NUMBER: 518-695-5000).

4. SHOP DRAWINGS FOR THE UNITS SHALL CONTAIN, AS A MINIMUM, THE FOLLOWING:

   A. MINIMUM CONCRETE STRENGTHS FOR ROTATION, LIFTING AND TRANSPORTATION.
   B. DEFLECTION REQUIRED TO PROPERLY PRESTRESS THE STEEL BEAMS.
   C. DESIGN LOADS.
   D. TRANSPORTATION POINTS.

5. TO ENSURE FULL AND EVEN BEARING BETWEEN BOTTOM OF BEAMS AND MASONRY PLATES, THE BOTTOM SURFACES OF BEAMS IN THE BEARING AREAS SHALL, WITHIN EACH PANEL, BE FABRICATED TO BE TRULY IN ONE PLANE.

6. THE _____ BEAMS SHALL BE SEGREGATED INTO _____ SETS WITH EACH SET MATCHED AS CLOSELY AS POSSIBLE FOR CAMBER. EACH SET SHALL THEN BE USED TO FABRICATE A BRIDGE PANEL. AT THE TIME OF PANEL MANUFACTURE (BEAMS ABOVE DECK), THE NATURAL BEAM CAMBER SHALL BE UP.

7. THE MICROTEXTURE OF THE BRIDGE DECK SHALL BE OBTAINED BY CASTING THE BRIDGE DECK AGAINST THE SCOTT SYSTEM FLEX-LINER SAND BLAST NO. 3 FORM LINER.

8. ALL REINFORCEMENT SHALL HAVE A COVER OF 2 INCHES UNLESS SHOWN OTHERWISE. ALL BARS IN TH E DECK AND APPROACH SLAB SHALL BE GALVANIZED.

9. AFTER THE INVERSET UNITS ARE CAST , THEY SHOULD BE MEASURED FOR SWEEP AND THE BEARING ANCHOR BOLT LOCATIONS RECALCULATED AND CHANGED AS NEEDED TO CLEAR THE BEAMS. ANCHOR BOLTS MAY BE CAST INTO THE BRIDGE SEATS, OR AT THE CONTRACTOR'S OPTION, DRILLED AND GROUTED INTO THE ABUTMENTS, AT NO ADDITIONAL COST TO THE AUTHORITY.

10. {DESIGNER - CHOOSE ONLY ONE OF THE FOLLOWING AND FOR NOTE 10A, DESIGNATE COLOR WITH EITHER FEDERAL STANDARD 595a NUMBER OR MUNSELL BOOK NOTATION NUMBER TO WHICH COLOR CONFORMS.}

10A. STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED UNDER ITEM____ ____. AFTER CLEANING, MILL SCALE SHALL NOT BE PRESENT. AT THE TIME OF SHIPMENT OF THE UNITS TO THE JOB SITE, THE 3 COATS OF PAINT SHALL HAVE BEEN APPLIED. THE COLOR OF THE FI NISH COATING SHALL BE ____. THE COLOR SHALL CONFORM TO _____. VIEW ING SHALL BE DONE UNDER NORTH STANDARD DAYLIGHT. FOLLOWING THE WELDING OF THE BEAMS TO THE SOLE PLATES AND THE INSTALLATION OF THE DIAPHRAGMS, THE EXPOSED STEEL, HIGH STRENGTH BOLTS AND DAMAGED PAINT SURFACES IN THESE AREAS SHALL BE PAINTED IN ACCORDANCE WITH THE PROVISIONS OF ITEM _____.

10B. CLEANING (ASTM A709, GRADE 50W STEEL):

A. **IN THE FABRICATION SHOP:** ALL WEATHERING STEEL SHALL BE BLAST CLEANED OF ALL DIRT, GREASE, PAINT, MILL SCALE OR OTHER FOREIGN MATERIAL PRIOR TO SHIPPING. THE PURPOSE OF THE CLEANING IS TO PRODUCE FASCIA SURFACES WHICH WILL WEATHER UNIFORMLY.

B. **IN THE FIELD:**
THE OUTSIDE SURFACE OF THE FASCIA STRINGERS SHALL BE CLEANED SO THAT ALL DIRT, GREASE, PAINT OR OTHER FOREIGN MATERIAL IS REMOVED AT THE COMPLETION OF THE BRIDGE CONSTRUCTION. THE PURPOSE OF THE CLEANING IS TO RETURN THE FASCIA SURFACES TO THE CONDITION IN WHICH THEY LEFT THE FABRICATION SHOP.

THE COST OF CLEANING THIS STEEL IN THE FABRICATION SHOP AND THE FIELD SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

11. THE INVERSET UNITS MAY BE CONSTRUCTED WITHOUT DIAPHRAGMS. HOWEVER, PRIOR TO TRANSPORTATION TO THE BRIDGE SITE, ALL DIAPHRAGMS INTEGRAL TO ANY ONE UNIT SHALL BE INSTALLED.

12. GRIND ALL EDGES OF STEEL AS NEEDED TO REMOVE SHARP EDGES PRIOR TO CLEANING FOR PAINTING.

13. BEARING ANCHOR BOLT NUTS SHALL BE FINGER TIGHT ONLY.

14. AFTER THE INVERSET UNITS ARE IN PLACE AND THE BEAMS ARE WELDED TO THE BEARINGS, THE UNITS SHALL BE POST LOADED AS APPROVED BY THE ENGINEER TO BRING THE EDGES OF THE ADJACENT DECK PANELS TO THE SAME ELEVATION. IN THIS CONDITION, THE SHEAR KEYS SHALL BE FILLED AND THE DIAPHRAGMS INSTALLED. POST LOADING SHALL CONTINUE WITHOUT THE ADDITION OF ANY OTHER SIGNIFICANT LIVE LOADS UNTIL THE SHEAR KEY GROUT HAS CURED AND THE DIAPHRAGMS HAVE BEEN MADE FULLY FUNCTIONAL. (PRIOR TO PLACING SHEAR KEY GROUT MATERIAL, COAT SHEAR KEY WITH GROUT CONFORMING TO MATERIAL SPECIFICATION 721-03 EPOXY POLYSULFIDE GROUT.)

15. SHEAR KEYS AND OTHER HOLES IN THE DECK SHALL BE FILLED IN ACCORDANCE WITH MATERIAL SPECIFICATION 701-06 CEMENT BASED GROUT MATERIALS FOR SHEAR KEYS FOLLOWING THE CONSTRUCTION PROCEDURE CONTAINED IN THE PCCM SECTION 400, MATERIAL REQUIREMENTS. SECTION 400 SHALL BE MODIFIED BY THE FOLLOWING PARAGRAPH AND AS ALLOWED BY THE ENGINEER:

16. SHEAR KEYS OR SLAB EDGES SHALL BE CLEANED PRIOR TO SHIPMENT OF THE UNITS AND TOUCH UP CLEANED AT THE JOB SITE AS ORDERED BY THE ENGINEER. GROUT MAY BE PLACED DOWN TO A TEMPERATURE OF 35 DEGREES F. HOWEVER, CURE TIME SHALL BE EXTENDED UNTIL THE ENGINEER DETERMINES THAT THE GROUT HAS BECOME HARD. DURING CURE TIME, GROUT SHALL BE PROTECTED FROM FREEZING.

17. ALL EXPOSED EDGES OF CONCRETE, INCLUDING EDGES OF EXPANSION, CONTRACTION AND CONSTRUCTION JOINTS, SHALL BE CHAMFERED 1 INCH.

18. RUB FINISHING OF CONCRETE SURFACES SHALL NOT BE REQUIRED. HOWEVER, VOIDS FOUND IN THE CONCRETE UPON REMOVAL OF FORMS SHALL BE FILLED WITH MORTAR. DECKS SHALL BE TEXTURED AS DESCRIBED ELSEWHERE IN THE CONTRACT.

19. THE MACROTEXTURE OF THE BRIDGE DECK SHALL BE OBTAINED BY LONGITUDINAL SAWCUT GROOVING ITEM _____.

PRESTRESSED CONCRETE NOTES

1. THE PRESTRESSING STRANDS SHALL BE 0.6 INCH DIAMETER WITH A GUARANTEED ULTIMATE STRENGTH OF 270 KSI, LOWRELAXATION. JACKING FORCE = 44 KIPS PER STRAND.

2. REQUIRED MINIMUM CONCRETE STRENGTH AT TRANSFER = 8 KSI. REQUIRED MINIMUM CONCRETE STRENGTH AT 56 DAYS = 10 KSI.

3. THE ALLOW ABLE TENSION IN THE PRESTRESSED CONCRETE UNITS AT TRANSFER = ____ f'ci PSI; AT 28 DAY STRENGTH = ____ f'c PSI.

4. DOWNWARD DEFLECTION UNDER DEAD LOAD (SLAB) = ____ INCH.

5. DOWNWARD DEFLECTION UNDER DEAD LOAD (SUPERIMPOSED) =___ INCH.

6. UPWARD CAMBER AT TRANSFER DUE TO PRESTRESS FORCE AND BEAM DEAD LOAD = ____ INCH.

7. UPWARD CAMBER AFTER ALL LOSSES DUE TO PRESTRESS FORCE AND BEAM DEAD LOAD = ____ INCH.

8. THE LOCATION AND TYPE OF ALL TEMPORARY INSERTS SHALL BE APPROVED BY THE DIRECTOR, STRUCTURAL DESIGN BUREAU, AND DETAILED ON THE PRESTRESSED CONCRETE "WORKING DRAWINGS".

9. BAR REINFORCEMENT SHALL BE ASTMA615, GRADE 60. MINIMUM CONCRETE COVER TO MILD STEEL SHALL BE AS SHOWN ON THE NYS BD SHEETS.

10. THE TOPS OF PRESTRESSED UNITS SHALL RECEIVE A TRANSVERSE STIFF BROOM FINISH WITH AN AMPLITUDE OF ¼ INCH.

11. ALL EXPOSED CORNERS, EXCEPT THE TOP, SHALL BE CHAMFERED ¾ INCH.

12. THE TRANSVERSE TENDONS SHALL BE ½ INCH DIAMETER STRAND WITH A GUARANTEED ULTIMATE STRENGTH OF 270KSI. THE TRANSVERSE TENDONS SHALL BE POLYSTRAND, GALVANIZED STRAND OR EQUAL, AND SHALL BE TENSIONED TO A FORCE OF 28 KIPS.

13. PREMOULDED BITUMINOUS JOINT FILLER SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 705-08 AND BE PAID FOR UNDER THE BEARING ITEM.

14. THE ENDS OF BEAMS AND ANCHOR DOWEL HOLES SHALL BE MADE VERTICAL ¼ INCH UNDER FULL D.L. AND GRADE. ANCHOR DOWELS TO BE PAID FOR UNDER THE BEARING ITEMS.

15. {DESIGNER - USE NOTE 15A WHEN THE DESIGN REQUIRES DEBONDING OF STRANDS.}

15A. THE STRANDS SHALL BE BLANKETED (DEBONDED) TO THE LENGTHS SHOWN ON THE CONTRACT PLANS. THE BLANKETING SHALL BE DONE BY:

A. 1 WRAP SPLIT PLASTIC SHEATHING, OR
B. SOLID PLASTIC SHEATHING

WHEREVER REQUIRED, THE SHEATHING SHALL BE THOROUGHLY SEALED WITH TAPE TO PREVENT BLEED-THROUGH OF CONCRETE. THE MINIMUM THICKNESS SHALL BE 0.025 INCHES.

GREASE OR CHEMICALS SHALL NOT BE USED FOR BLANKETING THE STRANDS. THE METHOD OF BLANKETING THE STRANDS SHALL BE SHOWN ON THE WORKING DRAWINGS FOR APPROVAL BY THE DIRECTOR, STRUCTURAL DESIGN BUREAU.

THE UNIT PRICE BID FOR THE PRESTRESSED UNITS SHALL INCLUDE THE COST OF BLANKETING THE STRANDS.

16. ANCHOR DOWEL HOLE FILL MATERIAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ELASTOMERIC BEARING, ITEM 565.XXXX, AND SHALL MEET MATERIAL REQUIREMENTS AS FOLLOWS:

A. EXPANSION END MATERIAL OPTION:

- NEW YORK STATE MATERIAL SPECIFICATION 702-0700 - ASPHALT FILLER
- FEDERAL MATERIAL SPECIFICATION SS-S-00200D - ELASTOMERIC POLYMER TYPE, TWO-COMPONENT, JET FUEL RESISTANT, COLD APPLIED

- FEDERAL MATERIAL SPECIFICATION TT-2-00227E - ELASTOMERIC TYPE, MULTI-COMPONENT
- FEDERAL MATERIAL SPECIFICATION TT-2-00230C - ELASTOMERIC TYPE, SINGLE COMPONENT

B. FIXED END MATERIAL OPTION:

- NEW YORK STATE MATERIAL SPECIFICATION 701-05 - CONCRETE GROUTING MATERIAL
- NEW YORK STATE MATERIAL SPECIFICATION 701-06 - CEMENT BASED GROUTING MATERIAL FOR SHEAR KEY
- NEW YORK STATE MATERIAL SPECIFICATION 721-01 - EPOXY RESIN SYSTEM WITH SAND*
- NEW YORK STATE MATERIAL SPECIFICATION 721-03 - EPOXY POLYSULFIDE GROUT WITH SAND*

* BONE-DRY, SANDBLAST SAND SHALL BE ADDED IN THE RATIO OF (1) PART EPOXY TO (2) PARTS SAND BY VOLUME.

APPROACH SLAB NOTES

{THE FOLLOWING NOTES SHALL BE PLACED ON THE PLANS AS REQUIRED:}

1. SLEEPER SLABS SHALL BE BUILT IN CAREFULLY EXCAVATED COMPACTED ABUTMENT EMBANKMENT MATERIAL OR FOUNDED ON UNDISTURBED SOIL. LOOSE BACKFILL WILL NOT BE ALLOWED UNDER THE SLEEPER SLAB.

2. UNHINDERED LONGITUDINAL MOVEMENT OF THE APPROACH SLAB IS ACHIEVED BY MATCHING THE SURFACE OF THE SUBBASE COURSE TO TH E ROADWAY GRADE AND CROSS SLOPE. POLYETHYLENE CURING COVERS (WHITE OPAQUE) IN ACCORDANCE WITH MATERIAL SPECIFICATION 711-04 SHALL BE PLACED ON T OP OF THE FINISHED SUBBASE COURSE FOR T HE FULL WIDTH OF THE ROADWAY. THE CURING C OVER'S THICKNESS SHALL BE 4 MILS. LAPS SHALL BE 2 FEET MINIMUM. THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

3. STEEL TROWEL FINISH THE SLEEPER SLABS AT THE APPROACH SLAB INTERFACE, AND TWO 1/16 INCH THICK LAYE RS OF COMPRESSED SYNTHETIC SHEET GASKET (TREATED ON BOTH SIDES) SHALL BE PLACED BETWEEN T HE SLEEPER SLAB AND THE APPROACH SLAB END TO ALLOW FOR MOVEMENT. THIS SHEET GASKET MATERIAL SHALL BE SEA-R O CSG-2, AS MANUFACT URED BY THE SEA-RO PACKING COMPANY, INC., WOODRICH, NJ, OR AN EQUAL APPROVED BY THE DSD. THE TOP OF SLEEPER SLAB IS TO MATCH THE CROSS SLOPE AND GRADE OF ROADWAY. THE COST OF THIS WORK AND M ATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

4. AT THE **MANDATORY** COLD FORMED JOINT BETWEEN THE APPROACH SL AB AND T HE BRIDGE DECK A ¼ INCH WIDE x 1½ INCH DEEP SAW CUT SHALL BE MADE IN THE WEARING SURFACE DIRECTLY OVER THE JOINT. THI S SAWCUT WILL BE THE FULL WIDTH OF THE APPROACH SL AB. SEAL THE SAWCUT WITH HOT POURED JOINT SEALER AS PER FED. SPEC. SS-S-001401. THE COST IS TO BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

{ON JOINTLESS BRIDGE ABUTMENTS ONLY}

5A. THE TOP OF THE BACKWALL SHALL BE STEEL TROWEL FINISHED. COMPRESSED SYNTHETIC SHEET GASKET (TREATED BOTH SIDES) SHALL BE PLACED ON TOP OF THE BACKWALL. TH IS MATERIAL SHALL BE SEA-RO CSG- 2, AS MANUFACTURED BY TH E SEA-RO P ACKING COMPANY, INC., WOODRICH, NJ, OR AN EQUAL AP PROVED B Y THE DSD. TWO 1/16 INCH THICK SHEETS SHALL BE USED, AND THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE APPROACH SLAB ITEM.

{ON SEMI-INTEGRAL ABUTMENTS ONLY}

5B. THE TOP OF BRIDGE SEATS SHALL BE STEEL TROWEL FINISHED. A TYPE "E" PVC WATER STOP SHALL BE CAST FROM THE BRIDGE SEAT INTO THE CURTAIN WALL. A ½ INCH THICK ELASTOMERIC PAD SHALL BE PLACED BETWEEN THE CURTAIN WALL AND THE BRIDGE SEAT. AT THE EXPANSION ABUTMENT(S), TWO 1/16 INCH THICK LAYERS OF COMPRESSED SYNTHETIC SHEET GASKET (TREATED ON BOTH SIDES) SHALL BE PLACED BETWEEN THE ELASTOMERIC PAD AND THE BOTTOM OF THE CURTAIN WALL. THIS SHEET GASKET MATERIAL SHALL BE SEA-RO CSG-2, AS MANUFACTURED BY THE SEA-RO PACKING COMPANY, INC., WOODRICH, NJ , OR AN EQUAL APPROVED BY THE DSD. THE COST FOR THESE MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE STRUCTURAL DECK ITEM. NO SHEET GASKET MATERIAL SHALL BE USED AT THE FIXED ABUTMENT.

STAGE CONSTRUCTION DECK SLAB CONCRETE PLACEMENT PROCEDURE

STAGE 1

1. POURS "1A" AND "1B" SHALL BE PLACED CONSECUTIVELY OR CONCURENTLY WITHIN ONE 6 HOUR PERIOD.

2. NO EARLIER THAN 72 HOURS AFTER POURS "1A" AND "1B" HAVE BEEN COMPLETED, POUR "2" SHALL BE PLACED IN ONE OPERATION WITHIN A 6 HOUR PERIOD.

3. NO EARLIER THAN 14 DAYS AFTER POUR "2" HAS BEEN COMPLETED, THE SIDEWALK POUR "3" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE.

4. NO EARLIER THAN 72 HOURS AFTER POUR "3" HAS BEEN COMPLETED, THE PARAPET POUR "4" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE.

STAGE 2

1. POUR "5A" AND "5B" SHALL BE PLACED CONSECUTIVELY OR CONCURENTLY WITHIN ONE 6 HOUR PERIOD.

2. NO EARLIER THAN 72 HOURS AFTER POURS "5A" AND "5B" HAVE BEEN COMPLETED, POUR "6" SHALL BE PLACED IN ONE OPERATION WITHIN A 6 HOUR PERIOD. NO EARLIER THAN 14 DAYS AFTER POUR "6" HAS BEEN COMPLETED, THE CONTRACTOR SHALL COMPARE THE MIDSPAN STRUCTURAL STEEL ELEVATIONS OF BOTH SPANS TO THOSE OF STAGE 1. IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS WITHIN 1/4 INCH OF THE STAGE 1 STRUCTURAL STEEL ELEVATION, ALL OF THE DIAPHRAGMS AND LATERAL BRACING BETWEEN G4 AND G5 SHALL BE INSTALLED AND FULLY CONNECTED PRIOR TO PROCEEDING TO STEP 3 . IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS MORE THAN 1/4 INCH HIGHER THAN THE STAGE 1 STRUCTURAL STEEL ELEVATION, DO NOT INSTALL THE DIAPHRAGMS OR LATERAL BRACING AND PROCEED WITH STEP 3.

3. NO EARLIER THAN 14 DAYS AFTER POUR "6" HAS BEEN COMPLETED, THE SIDEWALK POUR "7" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE. AFTER THIS POUR HAS SET, THE CONTRACTOR SHALL COMPARE THE MIDSPAN STRUCTURAL STEEL ELEVATIONS OF BOTH SPANS TO THOSE OF STAGE 1. IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS WITHIN 1/4 INCH OF THE STAGE 1 STRUCTURAL STEEL ELEVATION, ALL OF THE DIAPHRAGMS AND LATERAL BRACING BETWEEN G4 AND G5 SHALL BE INSTALLED AND FULLY CONNECTED PRIOR TO PROCEEDING TO STEP 4. IF THE

STAGE 2 STRUCTURAL STEEL ELEVATION IS MORE THAN 1/4 INCH HIGHER THAN THE STAGE 1 STRUCTURAL STEEL ELEVATION, DO NOT INSTALL THE DIAPHRAGMS OR LATERAL BRACING AND PROCEED WITH STEP 4.

4. NO EARLIER THAN 72 HOURS AFTER POUR "7" HAS BEEN COMPLETED, THE PARAPET POUR "8" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE.

STAGE 3

1. NO EARLIER THAN 72 HOURS AFTER THE COMPLETION OF POUR "8" ALL OF THE DIAPHRAGMS AND LATERAL BRACING BETWEEN G4 AND G5 SHALL BE INSTALLED AND FULLY CONNECTED IF THEY WERE NOT REQUIRED DURING STEPS 2 OR 3 IN STAGE 2.

2. NO EARLIER THAN 72 HOURS AFTER POUR "8" HAS BEEN COMPLETED, THE CLOSURE POUR "9" SHALL BE PLACED IN ONE CONTINUOUS OPERATION WITHIN A 6 HOUR PERIOD.

3. NO EARLIER THAN 14 DAYS AFTER POUR "9" HAS BEEN COMPLETED, THE MEDIAN TEMPORARY CONCRETE BARRIER SHALL BE REMOVED AND THE ENTIRE STRUCTURE SHALL BE STRIPED FOR THE FINAL TRAFFIC CONFIGURATION.

RIGID FRAME STAGE CONSTRUCTION DECK SLAB CONCRETE PLACEMENT PROCEDURE

STAGE 1

1. POUR "1A" SHALL BE PLACED IN ONE CONTINUOUS OPERATION STARTING AT THE PIER END AND WORKING NORTH TOWARD THE NORTH ABUTMENT. THIS POUR SHALL BE DONE AT NIGHT WITH A SINGLE LANE CLOSURE ON THE THRUWAY WITH THE OPEN LANE TRAFFIC SLOWED TO 35 MPH. TRAFFIC SHALL REMAIN AT THIS SPEED UNTIL 4 HOURS AFTER THIS POUR IS COMPLETED.

2. NO EARLIER THAN THE FOLLOWING NIGHT POUR "1B" SHALL BE PLACED IN ONE CONTINUOUS OPERATION STARTING AT THE PIER END AND WORKING SOUTH TOWARD THE SOUTH ABUTMENT. THIS POUR SHALL BE DONE AT NIGHT WITH A SINGLE LANE CLOSURE ON THE THRUWAY WITH THE OPEN LANE TRAFFIC SLOWED TO 35 MPH. TRAFFIC SHALL REMAIN AT THIS SPEED UNTIL 4 HOURS AFTER THIS POUR IS COMPLETED.

3. NO EARLIER THAN 72 HOURS AFTER POUR "1B" HAS BEEN COMPLETED, POURS "2A", “2B”, AND “2C” SHALL BE PLACED EITHER CONCURRENTLY OR CONSECUTIVELY. THESE POURS MAY BE DONE DURING THE DAY OR AT NIGHT WITH NO THRUWAY TRAFFIC SPEED RESTRICTIONS.

4. NO EARLIER THAN 21 DAYS AFTER THE THREE POUR "2”s HAVE BEEN COMPLETED, THE SIDEWALK POUR "3" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE. UNDER NO CIRCUMSTANCES SHALL THE CURING PERIOD OF 21 DAYS FOR THE THREE POUR “2”s BE REDUCED BY THE EARLY LOADING CRITERIA OF THE NYSDOT STANDARD SPECIFICATIONS.

5. NO EARLIER THAN 72 HOURS AFTER POUR "3" HAS BEEN COMPLETED, THE PARAPET POUR "4" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE.

STAGE 2

1. POUR "5A" SHALL BE PLACED IN ONE CONTINUOUS OPERATION STARTING AT THE PIER END AND WORKING NORTH TOWARD THE NORTH ABUTMENT. THIS POURS SHALL BE DONE AT NIGHT WITH A SINGLE LANE CLOSURE ON THE THRUWAY WITH THE OPEN LANE TRAFFIC SLOWED TO 35 MPH. TRAFFIC SHALL REMAIN AT THIS SPEED UNTIL 4 HOURS AFTER THIS POUR IS COMPLETED.

2. NO EARLIER THAN THE FOLLOWING NIGHT POUR "5B" SHALL BE PLACED IN ONE CONTINUOUS OPERATION STARTING AT THE PIER END AND WORKING SOUTH TOWARD THE SOUTH ABUTMENT. THIS POUR

SHALL BE DONE AT NIGHT WITH A SINGLE LANE CLOSURE ON THE THRUWAY WITH THE OPEN LANE TRAFFIC SLOWED TO 35 MPH. TRAFFIC SHALL REMAIN AT THIS SPEED UNTIL 4 HOURS AFTER THIS POUR IS COMPLETED.

3. NO EARLIER THAN 72 HOURS AFTER POUR "5B" HAS BEEN COMPLETED, POURS "6A", “6B”, AND “6C” SHALL BE PLACED EITHER CONCURRENTLY OR CONSECUTIVELY. THESE POURS MAY BE DONE DURING THE DAY OR AT NIGHT WITH NO THRUWAY TRAFFIC SPEED RESTRICTIONS. NO EARLIER THAN 21 DAYS AFTER THE POUR "6"s HAVE BEEN COMPLETED, THE CONTRACTOR SHALL COMPARE THE MIDSPAN STRUCTURAL STEEL ELEVATIONS OF BOTH SPANS TO THOSE OF STAGE 1. IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS WITHIN 1/4 INCH OF THE STAGE 1 STRUCTURAL STEEL ELEVATION, ALL OF THE DIAPHRAGMS AND LATERAL BRACING BETWEEN G4 AND G5 SHALL BE INSTALLED AND FULLY CONNECTED PRIOR TO PROCEEDING TO STEP 4. IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS MORE THAN 1/4 INCH HIGHER THAN THE STAGE 1 DECK ELEVATION, DO NOT INSTALL THE DIAPHRAGMS OR LATERAL BRACING AND PROCEED WITH STEP 4.

4. NO EARLIER THAN 21 DAYS AFTER THE THREE POUR "6”s HAVE BEEN COMPLETED, THE SIDEWALK POUR "7" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE. UNDER NO CIRCUMSTANCES SHALL THE CURING PERIOD OF 21 DAYS FOR THE THREE POUR “6”s BE REDUCED BY THE EARLY LOADING CRITERIA OF THE NYSDOT STANDARD SPECIFICATIONS. AFTER POUR 7 HAS SET, THE CONTRACTOR SHALL COMPARE THE MIDSPAN STRUCTURAL STEEL ELEVATIONS OF BOTH SPANS TO THOSE OF STAGE 1. IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS WITHIN 1/4 INCH OF THE STAGE 1 STRUCTURAL STEEL ELEVATION, ALL OF THE DIAPHRAGMS AND LATERAL BRACING BETWEEN G4 AND G5 SHALL BE INSTALLED AND FULLY CONNECTED PRIOR TO PROCEEDING TO STEP 5. IF THE STAGE 2 STRUCTURAL STEEL ELEVATION IS MORE THAN 1/4 INCH HIGHER THAN THE STAGE 1 STRUCTURAL STEEL ELEVATION, DO NOT INSTALL THE DIAPHRAGMS OR LATERAL BRACING AND PROCEED WITH STEP 5.

5. NO EARLIER THAN 72 HOURS AFTER POUR "7" HAS BEEN COMPLETED, THE PARAPET POUR "8" SHALL BE COMPLETED ACROSS THE FULL LENGTH OF THE BRIDGE.

STAGE 3

1. NO EARLIER THAN 72 HOURS AFTER THE COMPLETION OF POUR "8" ALL OF THE DIAPHRAGMS AND LATERAL BRACING BETWEEN G4 AND G5 SHALL BE INSTALLED AND FULLY CONNECTED IF THEY WERE NOT REQUIRED DURING STEPS 3 OR 4 IN STAGE 2.

2. NO EARLIER THAN 72 HOURS AFTER THE COMPLETION OF POUR "8" THE CLOSURE POUR "9" SHALL BE PLACED ACROSS THE FULL LENGTH OF THE BRIDGE.

3. NO EARLIER THAN 14 DAYS AFTER POUR "9" HAS BEEN COMPLETED, THE MEDIAN TEMPORARY CONCRETE BARRIER SHALL BE REMOVED AND THE ENTIRE STRUCTURE SHALL BE STRIPED FOR THE FINAL TRAFFIC CONFIGURATION.

CAMBER/ERECTION MONITORING PROCEDURE

1. ALL GIRDERS SHALL BE SHIPPED TO THE SITE ONLY AFTER CAMBERS HAVE BEEN SHOP VERIFIED TO BE WITHIN TOLERANCE BY THE AUTHORITY'S INSPECTOR IN THE VERTICAL POSITION UNDER GIRDER DEAD LOADING ONLY. ANY VARIATIONS FROM THE EXPECTED SHOWN ON THE CONTRACT PLANS SHALL BE REPORTED TO THE DIRECTOR OF STRUCTURES DESIGN FOR POSSIBLE CORRECTIONS. THE FABRICATOR SHALL HAVE THE PROPER EQUIPMENT AND PERSONNEL TO HEAT ADJUST THE CAMBER IF DIRECTED. REFER TO SECTION 15 IN THE NYSDOT STEEL CONSTRUCTION MANUAL FOR HEAT CAMBERING PROCEDURES. THE EXACT PROCEDURE USED SHALL BE SUBMITTED TO THE DIRECTOR OF STRUCTURES DESIGN FOR APPROVAL PRIOR TO IMPLEMENTATION. NO GIRDERS SHALL BE SHIPPED TO THE SITE UNLESS THE CAMBERS ARE WITHIN THE TOLERANCES SHOWN ON THESE PLANS.

2. EACH GIRDER SHALL BE ERECTED INDIVIDUALLY. SUBSEQUENT GIRDERS SHALL BE ERECTED AND BE SAFELY ATTACHED TO THE PRECEDING GIRDER PRIOR TO ERECTING THE NEXT GIRDER IN THE OPERATION.

3. UPON COMPLETION OF ERECTION, ELEVATION SHOTS SHALL BE TAKEN AT TENTH POINTS ALONG THE CENTER-LINE OF EACH GIRDER TO VERIFY STEEL DEAD LOAD DEFLECTION. ANY VARIATIONS FROM THE EXPECTED SHOWN ON THE CONTRACT PLANS SHALL BE REPORTED TO THE DIRECTOR OF STRUCTURES DESIGN FOR POSSIBLE FIELD CORRECTIONS. IN THIS SITUATION, NO WORK SHALL PROGRESS UNTIL THE PROBLEM IS RESOLVED TO HIS SATISFACTION.

4. UPON COMPLETED INSTALLATION OF FORMWORK, DECK REINFORCING, AND SCREED MACHINE, ELEVATION SHOTS SHALL BE TAKEN AT TENTH POINTS ALONG THE CENTER-LINE OF EACH GIRDER DURING THE DRY RUN TO VERIFY APPROPRIATE HAUNCH DEPTHS, DECK THICKNESS, AND THE APPEARANCE OF ANY DIFFERENTIAL DEFLECTIONS BETWEEN THE ADJACENT GIRDERS. ANY VARIATIONS FROM THE DEFLECTIONS SHOWN ON THE CONTRACT PLANS, INDICATIONS OF POSSIBLE NEGATIVE HAUNCH, OR INDICATIONS OF POSSIBLE SUBSTANDARD DECK THICKNESS SHALL BE REPORTED TO THE DIRECTOR OF STRUCTURES DESIGN FOR POSSIBLE FIELD CORRECTIONS. IN THIS SITUATION, NO WORK SHALL PROGRESS UNTIL THE PROBLEM IS RESOLVED TO HIS SATISFACTION.

5. DURING THE DECK POURING OPERATION, THE CONTRACTOR SHALL MONITOR THE ACTUAL DECK THICKNESS AT TENTH POINTS ALONG THE CENTERLINE OF EACH GIRDER TO INSURE THE MINIMUM THICKNESS AND REINFORCING COVER AS SHOWN ON THESE PLANS. IF THIS IS NOT THE CASE, THE DIRECTOR OF STRUCTURES DESIGN SHALL BE IMMEDIATELY NOTIFIED OF THE SITUATION AND POSSIBLE RAMIFICATIONS (IE SUBSTANDARD DECK THICKNESS). IN THIS SITUATION, NO WORK SHALL PROGRESS UNTIL THE PROBLEM IS RESOLVED TO HIS SATISFACTION.

6. THE CONTRACTOR AND FABRICATOR SHALL NOTE THE CAMBER TOLERANCES SHOWN ON THE CAMBER TABLE SHEET.