GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS
2006 STANDARD SPECIFICATIONS

SECTION 101 – DEFINITIONS AND TERMS

1. 101.01 ABBREVIATIONS, is hereby corrected by deleting "American Railway Association" as the respective expression for ANSI and replacing it with "American National Standards Institute".

2. 101.01 ABBREVIATIONS, is hereby further corrected by deleting "American Wood-Preservers' Association" as the respective expression for ASTM and replacing it with "American International Standards Worldwide".

3. 101.01 ABBREVIATIONS, is hereby still further corrected by adding the abbreviation "AWPA" and its respective expression "American Wood-Preservers' Association" to the list of abbreviations immediately after "ASTM" and its respective expression.

4. 101.02 DEFINITIONS, is hereby modified by deleting the definition for ACTUAL COMPLETION DATE and replacing it with a new definition for ACTUAL COMPLETION DATE as follows:

   ACTUAL COMPLETION DATE – Date noted in the Completion and Acceptance memorandum on which designated responsible Agency personnel have reviewed the project(s) and determined that all Contract work is complete and all Contract requirements have been met, generally considered to be the last day the Contractor performed physical work on any Contract item.

5. 101.02 DEFINITIONS, is hereby further modified by adding the following as the last sentence of the definition for CONTRACTOR:

   The Contractor will act in an independent capacity and not as officers or employees of the State.

SECTION 105 – CONTROL OF THE WORK

6. 105.03 PLANS AND WORKING DRAWINGS, part (b) Working Drawings, subpart (3)b.4. Required Construction Drawings, is hereby modified by adding the following as the fifth row in the table:

501 HPC Structural Concrete (stay-in-place corrugated metal forms (SIPCMF))	Structures Engineer	For Approval

7. 105.03 PLANS AND WORKING DRAWINGS, part (b) Working Drawings, subpart (3)b.4. Required Construction Drawings, is hereby further modified by adding the following as the twelfth row in the table:

522 Lumber and Timber (erection plan)	Construction Engineer	Documentation Only

SECTION 107 – LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

8. 107.16 RESPONSIBILITY FOR DAMAGE CLAIMS, part (a) General, is hereby modified by deleting the second and third sentences in their entirety and replacing them with the following:

The State shall notify the Contractor in the event of any such claim or suit, and the Contractor shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit.

9. 107.16 RESPONSIBILITY FOR DAMAGE CLAIMS, part (a) General, is hereby further modified by adding the following paragraphs:

After a final judgment or settlement the Contractor may request recoupment of specific defense costs and may file suit in Washington Superior Court requesting recoupment. The Contractor shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Contractor.

The Contractor shall indemnify the State and its officers and employees in the event that the State, its officers or employees become legally obligated to pay any damages or losses arising from any act or omission of the Contractor.

10. 107.16 RESPONSIBILITY FOR DAMAGE CLAIMS, part (b) Submission for Damage Claims, is hereby modified by being re-designated from part "(b)" to part "(c)".

11. 107.16 RESPONSIBILITY FOR DAMAGE CLAIMS, is hereby modified by adding the following new part (b):

(b) Right to Retention of Funds. So much of the money due the Contractor under and by virtue of the Contract as shall be considered necessary by the Agency for such purpose may be retained for the use of the State. If no money is due, the Contractor's surety shall be held until such suit or suits, action or actions, or claim or claims for injuries or damages shall have been resolved and suitable evidence to that effect furnished by the Agency.

SECTION 108 – PROSECUTION AND PROGRESS

12. 108.14 TERMINATION OF CONTRACT FOR CONVENIENCE, is hereby modified by being deleted in its entirety and replaced with the following:

13. 108.14 TERMINATION OF CONTRACT FOR CONVENIENCE.

(a) General. The Agency may, by written order to the Contractor, terminate the Contract or any portion thereof when such termination would be in the best interest of the Agency.

Any such termination shall be effected by delivery to the Contractor an Order of Termination specifying the termination is for the convenience of the Agency, the extent to which performance of work under the Contract is terminated, and the effective date of the termination.

In the event such termination occurs, without fault and for reasons beyond the control of the Contractor, all completed items of work as of the date of termination will be paid for at the Contract bid price. Payment for partially completed work will be made either at agreed prices or by force account methods provided elsewhere in the Contract.

Pursuant to Subsection 109.07, no compensation will be allowed for items eliminated from the Contract.

Upon request the Contractor shall make all Contract-related records available to the Agency.

(b) Contractor Obligations. After receipt of the Order of Termination and except as otherwise directed by the Engineer, the Contractor shall immediately proceed to:

(1) To the extent specified in the Order of Termination, stop work under the Contract on the date specified.

(2) Place no further orders or subcontracts for materials, services, and/or facilities except as may be necessary for completion of such portion(s) of the work under the Contract as is (are) not terminated.

(3) Terminate and cancel all orders or subcontracts for materials, services, and/or facilities except as may be necessary for completion of such portion(s) of the work under the Contract as is (are) not terminated.

(4) Submit to the Engineer a material inventory list, certified as to quantity and quality of materials in its possession or in transit to the project.

(5) Transfer to the Agency all completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would be required to be furnished to the Agency.

(6) Take other action as may be necessary or as directed by the Engineer for the protection and preservation of the property related to the Contract which is in the possession of the Contractor and in which the Agency has or may acquire any interest.

(c) Claim by Contractor. After receipt of the Order of Termination from the Agency, the Contractor shall submit any claim for additional damages or costs not covered herein or elsewhere in the Contract within 60 days of the effective termination date, and not thereafter.

Should the Contractor fail to submit a claim within the 60 day period, the Agency may, at its sole discretion, based on information available to it, determine what, if any, compensation is due the Contractor and pay the Contractor the determined amount.

(d) Materials. At the option of the Agency, acceptable materials included in the material inventory in subpart (b)(4) above that have been obtained by the Contractor for the work but which have not been incorporated into the work may be purchased from the Contractor at actual cost delivered to a location prescribed by the Engineer or otherwise disposed of as mutually agreed.

Payment for materials included in the material inventory chosen to be purchased by the Agency will be made at actual cost delivered to the project or storage site designated by the Engineer, including transportation charges, to which 10 percent overhead and profit will be added.

(e) Idle Equipment. Idle equipment time claimed by the Contactor will be paid as follows:

(1) Contractor Owned Equipment. For the portion of any claim relating to idle equipment time for equipment owned by the Contractor, the Contractor will be entitled to recover equipment rates based on the Contractor's internal ownership costs. Recovery for idle equipment time shall not be based on published rental rates.

(2) Rented Or Leased Equipment. For the portion of any claim relating to idle equipment time for equipment rented or leased by the Contractor, the Contractor will be entitled to recover the lesser of the actual rental costs or fair market rental costs, and the amount shall not exceed 30 days rental.

(3) Limitations On Recovery For Idle Equipment. Claims for idle equipment time, whether for Contractor owned equipment or leased/rented equipment, following termination of the Contract pursuant to this Subsection are limited to a maximum of 30 days and may not include any operating expenses.

(f) Negotiation; No Anticipated Profit. Negotiation to settle a timely claim shall be for the sole purpose of reaching a settlement equitable to both the Contractor and the Agency. Settlement shall be based on actual costs incurred by the Contractor plus overhead and profit as specified in Subsection 109.06. Consequential damages, loss of overhead, loss of overhead contribution of any kind, and/or loss of anticipated profits on work not performed shall not be included in the Contractor's claim and will not be considered, allowed, or included as part of any settlement.

(g) Records. The Contractor shall make available to the Agency all cost records relevant to a determination of an equitable settlement.

(h) Contractual Responsibilities Continue. Termination of the Contract, or portion thereof, shall not relieve the Contractor of its contractual responsibilities for work completed and shall not relieve the Contractor's Surety of its obligation for and concerning any just claim arising out of the work performed.

SECTION 109 – MEASUREMENT AND PAYMENT

14. 109.09 STATEMENT OF MATERIALS AND LABOR FORM FHWA-47, is hereby modified by being deleted in its entirety.

SECTION 208 – COFFERDAMS

15. 208.01 DESCRIPTION, is hereby modified by deleting the word "specifications" and replacing it with the phrase "Contract Documents" in the first paragraph.

16. 208.12 BASIS OF PAYMENT, is hereby modified by deleting the phrase "the Engineer (by written order) requires" and replacing it with the phrase "the Contract Documents or the Engineer (by written order) require" in the second sentence of the fifth paragraph.

SECTION 301 – SUBBASE

17. 301.02 MATERIALS, is hereby modified by adding the following paragraphs:

When specified for use on the project or as directed by the Engineer, Subbase, RAP shall include cold planed grindings which have been screened or crushed by the Contractor in order that 100% passes the 37.5 mm (1 ½ inch) sieve prior to blending.

The grindings shall be blended in equal proportions (50% by mass (weight)) with material meeting the requirements of Subbase of Crushed Gravel, Fine Graded as specified in Table 704.05A.

18. 301.07 METHOD OF MEASUREMENT, is hereby modified by adding the following as the fourth paragraph of the Subsection text:

The quantity of Subbase, RAP to be measured for payment will be the number of metric tons (tons) of material in place in the complete and accepted work, as determined from the load tickets.

19. 301.08 BASIS OF PAYMENT, first paragraph, is hereby modified by adding the phrase "blending," before the phrase "transporting," in the second sentence.

20. 301.08 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
301.40 Subbase, RAP	Metric Ton (Ton)

SECTION 303 – ASPHALT TREATED PERMEABLE BASE

21. 303.02 MATERIALS, is hereby modified by deleting the second sentence of the second paragraph (paragraph below the Subsection listing) in its entirety.

22. 303.02 MATERIALS, is hereby further modified by deleting the eighth row (beginning with the phrase "Asphalt Binder") in its entirety from the table in the third paragraph.

23. 303.02 MATERIALS, is hereby still further modified by adding the word "written" before the word "approval" in the third (last) sentence of the fourth (last) paragraph.

SECTION 310 – RECLAIMED STABILIZED BASE

24. 310.07 SHAPING AND COMPACTING, is hereby modified by adding the following as the second paragraph of the Subsection text:

When additional aggregate material is added to the previously reclaimed roadway to correct geometric deficiencies, said material shall be subject to a second pass of the reclamation equipment to achieve a homogenous subbase and shall be shaped, graded, and compacted.

25. 310.10 BASIS OF PAYMENT, is hereby modified by adding the following as the second paragraph of the Subsection text:

No additional compensation will be provided for multiple passes of the reclamation equipment and additional shaping, grading, and compacting.

SECTION 406 – MARSHALL BITUMINOUS CONCRETE PAVEMENT

26. 406.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 406.03B – DESIGN CRITERIA is hereby modified by adding the phrase "%" after the phrase "Air Voids" in the first column, second row entry.

27. 406.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 406.03B – DESIGN CRITERIA is hereby further modified by deleting the seventh and eighth rows in their entirety and replacing them with the following:

Stability, Newtons (Pounds)	5340 (1200) min.	8010 (1800) min.
Flow, millimeters (0.01 inches)	2.0 – 4.5 (8.0 – 18.0)	2.0 – 4.0 (8.0 – 16.0)

28. 406.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 406.03B – DESIGN CRITERIA is hereby still further modified by adding the following as the tenth, eleventh, and twelfth rows, and by adding footnote 1 as follows:

PG Asphalt Binder (<15.0% RAP Content)	PG 58-28	PG 58-28
PG Asphalt Binder (15.0%≤ RAP Content <25.0%)	PG 52-34	PG 52-34
PG Asphalt Binder (25.0%≤ RAP Content ≤50.0%)[1]	footnote 1	footnote 1

1 - The Contractor shall determine the grade of PG binder necessary so that when combined with the RAP asphalt cement, the composite asphalt material grades at a PG 58-28 as a minimum. The maximum acceptable low end temperature is -28°C (-18°F) and the minimum acceptable high end temperature is 58°C (136°F). The Engineer will sample haul units from the plant and have the material extracted for grading at the Agency's Materials and Research Laboratory in Berlin, VT to verify the binder grade of the mix being supplied. The Contractor's Quality Control Plan shall specify a grading frequency and include an action plan for when test results verify that the grade of PG binder is less than a PG 58-28.

29. 406.03 COMPOSITION OF MIXTURE, part (c) Mix Design, is hereby modified by adding the following as the last sentence of the third paragraph:

For mix designs containing RAP, the dry and wet mixing times shall be adjusted to assure moisture from the RAP is completely dissipated prior to adding the liquid PG binder.

30. 406.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, is hereby modified by adding the following to the listing in the eighth paragraph:

h. For mix designs containing ≥ 25.0 percent RAP, indicate the following: RAP percentage, PG Grade of virgin binder determined, testing frequency of mix to verify composite PG Grade, and actions to be taken when test results are outside of PG Grade limits.

31. 406.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 406.03D – MINIMUM QUALITY CONTROL GUIDELINES is hereby modified by adding the following as the bottom row and by adding footnote 7 as follows:

Determine composite PG binder grade(7)	1 per 5000 metric ton (ton)	AASHTO R 29

7 - For mix containing ≥ 25.0 percent RAP.

32. 406.08 MIXING, is hereby modified by adding the word "wet" before the word "mixing" in the second (last) sentence of the fourth paragraph.

33. 406.14 COMPACTION, is hereby corrected by deleting the text "1.000" and replacing it with the text "0.000" in the fourteenth paragraph.

SECTION 415 – COLD MIXED RECYCLED BITUMINOUS PAVEMENT

34. 415.02 MATERIALS, table in second paragraph, is hereby corrected by deleting the second row in its entirety and replacing it with the following:

37.5 mm (1 ½ inches)	100

SECTION 417 – BITUMINOUS CRACK SEALING

35. 417.05 PREPARATION, is hereby modified by designating the first paragraph under a part (a) General heading.

36. 417.05 PREPARATION, is hereby further modified by designating the second through fifth paragraphs under a part (b) Bituminous Crack Sealing heading.

37. 417.05 PREPARATION, is hereby still further modified by adding the following new part (c):

(c) Bituminous Crack Sealing, "Blow and Go" Method. Bituminous Crack Sealing, "Blow and Go" Method shall be performed in accordance with part (b) of this Subsection, with the exception that no routing or saw cutting will be required prior to cleaning and sealing the crack.

38. 417.07 METHOD OF MEASUREMENT, is hereby modified by adding the phrase "and Bituminous Crack Sealing, "Blow and Go" Method" after the phrase "Bituminous Crack Sealing".

39. 417.08 BASIS OF PAYMENT, is hereby modified by adding the phrase "and Bituminous Crack Sealing, "Blow and Go" Method" after the phrase "Bituminous Crack Sealing" in the first sentence.

40. 417.08 BASIS OF PAYMENT, is hereby further modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
417.20 Bituminous Crack Sealing, "Blow and Go" Method	Kilogram (Pound)

SECTION 490 – SUPERPAVE BITUMINOUS CONCRETE PAVEMENT

41. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, TABLE 490.03B – DESIGN CRITERIA is hereby modified by adding the following as the bottom rows and by adding footnote 4 as follows:

PG Asphalt Binder (<15.0% RAP Content)	PG 58-28	PG 58-28
PG Asphalt Binder (15.0%≤ RAP Content <25.0%)	PG 52-34	PG 52-34
PG Asphalt Binder (25.0%≤ RAP Content ≤50.0%)[4]	footnote 4	footnote 4

4 - The Contractor shall determine the grade of PG binder necessary so that when combined with the RAP asphalt cement, the composite asphalt material grades at a PG 58-28 as a minimum. The maximum acceptable low end temperature is -28°C (-18°F) and the minimum acceptable high end temperature is 58°C (136°F). The Engineer will sample haul units from the plant and have the material extracted for grading at the Agency's Materials and Research Laboratory in Berlin, VT to verify the binder grade of the mix being supplied. The Contractor's Quality Control Plan shall specify a grading frequency and include an action plan for when test results verify that the grade of PG binder is less than a PG 58-28.

42. 490.03 COMPOSITION OF MIXTURE, part (b) Design Criteria, is hereby modified by deleting the table below footnote 3 of TABLE 490.03B – DESIGN CRITERIA in its entirety and replacing it with the following:

Aggregate Consensus Properties	Traffic Level (ESALs)	
	< 30,000,000	≥ 30,000,000
Fractured Faces Coarse Aggregate, % min	95/90	100/100
Uncompacted Void Content of Fine Aggregate, % min	45	45
Sand Equivalent, % min	45	50
Flat and Elongated, % max	10	10

43. 490.03 COMPOSITION OF MIXTURE, part (c) Mix Design, is hereby modified by adding the following as the last sentence of the fourth paragraph:

For mix designs containing RAP, the dry and wet mixing times shall be adjusted to assure moisture from the RAP is completely dissipated prior to adding the liquid PG binder.

44. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, is hereby modified by deleting footnote 2 below TABLE 490.03C – PRODUCTION TESTING TOLERANCES in its entirety and replacing it with the following:

2 – The VFA value shall not exceed 80.0% at any time for Type I, II, III, and IV mixes. Type V mixes may be adjusted upward to 82.0% upon written approval of the Engineer, and only on a case by case basis.

45. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, is hereby further modified by adding the following to the listing in the eighth paragraph:

h. For mix designs containing ≥ 25.0 percent RAP, indicate the following: RAP percentage, PG Grade of virgin binder determined, testing frequency of mix to verify composite PG Grade, and actions to be taken when test results are outside of PG Grade limits.

46. 490.03 COMPOSITION OF MIXTURE, part (d) Control of Mixtures, TABLE 490.03D – MINIMUM QUALITY CONTROL GUIDELINES is hereby modified by adding the following as the bottom row and by adding footnote 7 as follows:

Determine composite PG binder grade(7)	1 per 5000 metric ton (ton)	AASHTO R 29

7 – For mix containing ≥ 25 percent RAP.

47. 490.03 COMPOSITION OF MIXTURE, part (e) Quality Acceptance, subpart (2) Lot Size, is hereby corrected by replacing the phrase "406.03E" with the phrase "490.03E" in the first sentence.

48. 490.08 MIXING, is hereby modified by adding the word "wet" before the word "mixing" in the second (last) sentence of the fourth paragraph.

49. 490.14 COMPACTION, is hereby corrected by deleting the text "1.000" and replacing it with the text "0.000" in the fifteenth paragraph.

50. 490.14 COMPACTION, part (e) REJECTED MATERIAL, is hereby corrected by replacing the phrases "406.18" and "406.19" with the phrases "490.18" and "490.19", respectively, in the first sentence of the third (last) paragraph.

SECTION 501 – HPC STRUCTURAL CONCRETE

51. 501.02 MATERIALS, is hereby modified by adding the following as the tenth entry in the Subsection listing:

Stay-in-Place Corrugated Metal Forms (SIPCMF)……715.05

52. 501.02 MATERIALS, is hereby further modified by adding the following paragraph:

Precast concrete stay-in-place forms (prestressed deck panels) shall conform to the requirements of Section 510.

53. 501.09 FORMS, is hereby modified by deleting the word "call" and replacing it with the word "allow" in the fourth sentence of the first paragraph.

54. 501.09 FORMS, is hereby further modified by adding the following new part (k):

(k) Stay-in-Place Corrugated Metal Forms (SIPCMF) for Superstructure Deck Slabs.

(1) Use. Use of SIPCMF for superstructure deck slab construction shall be subject to the following requirements:

a. Fascia overhangs shall be formed with removable forms. The forms used shall leave the resulting concrete flat-surfaced.

b. Any bay, constructed in stages such that a longitudinal joint is required, shall be formed with removable forms.

(2) Design Requirements. The following requirements shall govern the design of SIPCMF:

a. Design span shall be the clear span of form plus 50 mm (2 inches) measured parallel to the form flute (also referred to as the form valley).

b. Design load shall be the sum of the weight of forms, bar reinforcement, plastic concrete, and 2.7 kPa (55 psf) for construction loads.

c. Unit working stress shall not exceed 0.725 of the specified minimum yield strength of the material.

d. Dead load deflection shall not exceed 1/180 times the form span length or 13 mm (1/2 inch), whichever is less.

e. Physical design properties shall be computed with the requirements of the American Iron and Steel Institute Specifications for the Design of Cold Formed Steel Structural Members, latest edition.

(3) Construction Requirements. The following construction requirements shall apply to the use of SIPCMF:

a. The Contractor shall submit Construction Drawings for SIPCMF in accordance with Subsection 105.03. These Drawings shall contain the following information as a minimum:

1. A layout showing the compression and tension region of each beam/girder.

2. The method of SIPCMF attachment for the compression and tension regions.

3. Geometric properties of each type of panel being used.

4. Identification of the supplier of the SIPCMF.

5. The number, location, and type of panels being used within each girder bay.

6. Panel laps, taking into account the direction of concrete pours.

7. The specifications for the material used to fill the flutes.

8. Any other material data, erection information, or miscellaneous notes that may be required.

b. Handling and Installation. Care and protection shall be given the metal form sheets, supports, and accessory items during handling, shipping, and storage. During loading, hoisting, and unloading operations, extra precaution and care shall be taken to prevent damage to ends, corners, and edges of form sheets, supports, and accessory items. If the form units and accessories are to be stored prior to installation, they shall not be placed in contact with the ground and shall be adequately covered or protected to keep them dry.

Form supports shall be placed in direct contact with the flange of beam/girder/stringer or floorbeam. All attachments shall be made by permissible welds, bolts, clips, or other approved means. The welding of form supports to steel not considered weldable or to portions of flanges subject to tensile stresses shall not be permitted. Welds and welding shall be in accordance with Subsection 506.10, with the exception that a 3 mm (1/8 inch) fillet weld will be permitted.

Form sheets shall not be permitted to rest directly on the flanges. They shall be securely fastened to form supports by self-tapping screws and shall have a minimum bearing length of 25 mm (1 inch) at each end. Transverse construction joints shall be located at the bottom of a valley. A 6 mm (1/4 inch) diameter weep hole shall be drilled at the lower end of each flute or valley.

Screed and pouring runway supports shall not be located directly on the form sheets, form supports, or reinforcing steel. No loose sheets or miscellaneous hardware shall be left on the structural slab at the end of the working day.

The corrugated metal sheets shall be fabricated for the placement sequence used, with the joints between sections of sheets overlapped or securely fastened to eliminate differential deflections. Any exposed form metal where galvanizing has been damaged shall be cleaned and repaired to the satisfaction of the Engineer.

(4) Inspection Procedures. The following three step inspection procedure will be used to check the soundness of the concrete deck against the SIPCMF:

a. Not less than two days after completion of a concrete structural slab pour, but prior to the next slab pour, one panel of the SIPCMF shall be removed from the most recently completed pour of each span, at a location selected by the Engineer, in order to provide visual evidence that the concrete mix or the construction procedures are obtaining the desired results. If the concrete mix or the construction procedures are varied significantly within a pour, such as a change in the extent of vibration or change in the workability of the mix, another section of forming shall be removed to verify that the new procedures are yielding desirable results.

b. After the concrete has attained 85% of the specified design strength, the Engineer will spot-check the underside areas of the steel forms by sounding with a suitable weight hammer. If honeycomb or voided areas are detected, the SIPCMF at that location shall be removed for a visual inspection.

c. A minimum of two percent of the total SIPCMF area shall be removed for visual inspection of the concrete surface. The amount of sounding and form removal may be moderated, at the Engineer's discretion, after a substantial amount of the slab has been constructed and inspected, if the Contractor's methods of construction and results of the inspections as outlined above indicate that sound concrete is being obtained throughout the slab.

If, after removing a section of form, the concrete is found to be defective, additional panels shall be removed as directed by the Engineer. All defective concrete shall be repaired to match the adjacent concrete in section and color to the satisfaction of the Engineer.

The Contractor shall provide all facilities required for the safe, suitable, and convenient means of access to the forms for the Engineer's inspection procedures.

The form sections shall be removed by a metal saw or air-carbon-arc gouging with minimum damage to the concrete. Cuts shall only be sufficiently deep to sever the form. Any other method of removal shall be submitted to the Structures Engineer for approval. Cuts parallel to the corrugations in the forms shall be located on the sloping surface midway between a crest and valley. Cuts parallel to the supporting beams/girders shall be made through the supporting angles taking care not to damage the structural steel beams/girders.

The Contractor will not be required to replace the forms which have been removed.

55. 501.19 METHOD OF MEASUREMENT, is hereby modified by inserting the word "superstructure" before the phrase "precast concrete stay-in-place forms" in the first sentence.

SECTION 502 – SHORING SUPERSTRUCTURES

56. 502.03 CONSTRUCTION REQUIREMENTS, is hereby modified by adding the following paragraphs:

When components and/or materials that are not otherwise specified for removal are removed from the structure during shoring operations and the components and/or materials are to be re-installed in the construction, the components and/or materials shall be carefully removed and salvaged by the Contractor.

Components and/or materials to be retained and re-installed shall be stored at the location specified in the Contract or as directed by the Engineer.

The Contractor shall take every precaution necessary to prevent damage to remaining components and/or materials and those to be retained for re-installation. Damage to remaining structure components and/or materials and to those to be re-installed shall be repaired or replaced by the Contractor both to the satisfaction of the Engineer and at no additional cost to the Agency.

57. 502.04 METHOD OF MEASUREMENT, is hereby modified by adding the following as the second paragraph of the Subsection text:

Unless otherwise specified in the Contract, all work for removing, salvaging, stockpiling, and re-installing existing structure components and/or materials during the Contractor's shoring operations will not be measured for payment, but will be considered incidental to Shoring Superstructure.

SECTION 503 – PREPARING SUBSURFACE FOR DRIVING PILING

58. 503.01A MATERIALS, is hereby made a new Subsection of this Section as follows:

59. 503.01A MATERIALS. Materials shall meet the requirements of the following Subsections:

Aggregate for Bituminous Surface Treatment	704.11
Corrugated Polyethylene Pipe	710.03
Polyvinyl Chloride (PVC) Plastic Pipe	710.06
Steel Tubing	714.11

60. 503.02A CONSTRUCTION REQUIREMENTS FOR PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES, is hereby made a new Subsection of this Section as follows:

61. 503.02A CONSTRUCTION REQUIREMENTS FOR PRE-EXCAVATION OF INTEGRAL ABUTMENT PILES. The pre-excavation of integral abutment piles shall consist of augering, pre-boring, or some other means of excavation to produce an excavation to the depth and diameter specified in the Contract Documents. The excavation shall be maintained during the pile driving operations by temporary casings. Unless otherwise specified in the Contract, the depth of pre-excavation shall be 2.4 meters (8 feet) from the top of the pile cut-off elevation.

Temporary casings may be either rigid or flexible. Rigid casings shall be smooth-walled unperforated pipes made of steel tubing or PVC plastic pipe. Rigid casings shall include all necessary lifting mechanisms for removal prior to placement. Flexible casings shall be corrugated polyethylene pipe. The inner diameter of the pipe shall be 100 mm (4 inches) larger than the diagonal width of the pile.

Following installation of the piles, the pre-excavation shall be backfilled with peastone meeting the requirements of Subsection 704.11. Rigid casings shall not be left in place without the written approval of the Structures Engineer. Flexible casings may be left in place.

62. 503.03 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

The quantity of Pre-Excavation of Integral Abutment Piles to be measured for payment will be the total number of meters (linear feet) of excavation to the depth specified in the Contract Documents or as ordered by the Engineer, measured to the nearest meter (linear foot) from the top of the ground at the time of excavation to the bottom of the excavation.

63. 503.04 BASIS OF PAYMENT, is hereby modified by adding the following paragraph and pay item:

The accepted quantity of Pre-Excavation of Integral Abutment Piles will be paid for at the Contract unit price per meter (linear foot). Payment shall be full compensation for all excavation as well as furnishing, transporting, storing, and installing the materials specified, including the temporary casing and peastone, and for removing the temporary casing. No additional compensation will be made for temporary casing left in place at the Contractor's request.

Payment will be made under:

Pay Item	Pay Unit
503.20 Pre-Excavation of Integral Abutment Piles	Meter (Linear Foot)

SECTION 505 – PILING

64. 505.03 FURNISHING OF PILING, is hereby modified by adding the following new part (e):

(e) Steel Piling for Integral Abutments. Steel piling up to and including 10 meters (35 feet) in length shall be furnished in one unwelded piece.

Steel piling over 10 meters (35 feet) in length shall be furnished with not more than the number of splices allowed by Table 505.05B.

Steel piling shall be of the size, type, and material specification indicated in the Plans. No substitutions for the number, size, and material specification of the pile will be allowed without the written authorization of the Project Manager.

65. 505.04 DRIVING OF PILING, is hereby modified by adding the following new part (f):

(f) Steel Piling for Integral Abutments. In addition to meeting all of the requirements for steel piling in Subsections 505.04(a) and 505.04(e), Steel Piling for Integral Abutments shall be installed to the following tolerances:

Piling shall be installed such that no portion of the top 3 meters (10 feet) of the pile is out of plumb more than 20 mm in 1000 mm (1 inch in 4 feet). For piles that cannot be inspected internally after installation, the Contractor shall check the pile for plumb prior to installing the last 1.5 meters (5 feet) of pile, or after installation is completed provided that the exposed portion of the pile is a minimum of 1.5 meters (5 feet) in length. The Engineer may require that driving be stopped in order to check the pile for plumb. Pulling laterally on piles to correct out-of-plumb errors, or splicing a section that meets the tolerances for plumb in this section on an out-of-plumb section will not be permitted.

No pile shall be nearer than 150 mm (6 inches) to the face of the concrete stem.

If the location and/or out-of-plumb tolerances specified herein are exceeded, the extent of corrective measures will be evaluated by the Engineer. If in the judgment of the Engineer corrective measures are necessary, suitable measures shall be designed and constructed by the Contractor. The Contractor shall bear all costs, including delays, associated with the corrective action.

66. 505.05 SPLICES, is hereby modified by adding the following new part (c):

(c) Splices for Steel Piling for Integral Abutments. Splices shall be made in accordance with the details shown in the Plans at locations approved by the Engineer.

Splices will be allowed as shown in the following table:

TABLE 505.05B
ALLOWABLE SPLICES

Length of Steel Piling		Maximum Number of Splices Allowed
Meters	Feet	
Over 10 to and including 18	Over 35 to and including 60	1
Over 18 to and including 37	Over 60 to and including 120	3
Over 37 to and including 55	Over 120 to and including 180	5

The splicing sequence shall be arranged to exclude splices from the upper 6 meter (20 foot) section of the piles. The total number of splices in the upper 6 meter (20 foot) section of the piles shall be limited to one per abutment.

67. 505.08 METHOD OF MEASUREMENT, part (a) Piling, subpart (1) is hereby modified by adding the following paragraph:

Steel Piling for Integral Abutments will be the total number of meters (linear feet) for each pile driven, accepted, and left in place, measured to the nearest meter (linear foot).

68. 505.09 BASIS OF PAYMENT, is hereby modified by adding the following new part (c) immediately after part (b):

(c) Steel Piling for Integral Abutments of the size specified will be paid for at the Contract unit price per meter (linear foot).

69. 505.09 BASIS OF PAYMENT, is hereby further modified by adding the following pay items:

Pay Item	Pay Unit
505.10 Steel Piling, HP 250 X 62 (HP 10 X 42)	Meter (Linear Foot)
505.155 Steel Piling, HP 310 X 93 (HP 12 X 63)	Meter (Linear Foot)
505.165 Steel Piling, HP 310 X 125 (HP 12 X 84)	Meter (Linear Foot)
505.25 Steel Piling for Integral Abutments, HP 310 X 79 (HP 12 X 53)	Meter (Linear Foot)
505.255 Steel Piling for Integral Abutments, HP 310 X 93 (HP 12 X 63)	Meter (Linear Foot)
505.26 Steel Piling for Integral Abutments, HP 310 X 110 (HP 12 X 74)	Meter (Linear Foot)
505.265 Steel Piling for Integral Abutments, HP 310 X 125 (HP 12 X 84)	Meter (Linear Foot)
505.27 Steel Piling for Integral Abutments, HP 360 X 108 (HP 14 X 73)	Meter (Linear Foot)
505.28 Steel Piling for Integral Abutments, HP 360 X 132 (HP 14 X 89)	Meter (Linear Foot)
505.29 Steel Piling for Integral Abutments, HP 360 X 152 (HP 14 X 102)	Meter (Linear Foot)
505.30 Steel Piling for Integral Abutments, HP 360 X 174 (HP 14 X 117)	Meter (Linear Foot)

SECTION 506 – STRUCTURAL STEEL

70. 506.18 ERECTION, part (b) Bearings and Anchorages, subpart (3), is hereby modified by adding the following as the last sentence of the first paragraph:

Additional aggregates shall not be added to the material during field mixing.

71. 506.18 ERECTION, part (b) Bearings and Anchorages, subpart (3), is hereby further modified by adding the following as the second, third, fourth, and fifth paragraphs of the Subsection text:

Prior to ordering materials and starting the work, the Contractor shall submit a drilling and mortaring proposal to the Engineer for approval, including a premixed mortar material brand name.

The drilled holes to be mortared shall be thoroughly cleaned, wetted, and free of standing water.

The mortar shall be mixed in a mechanical mixer according to the manufacturer's recommendations and shall be readily pourable so that when poured it completely fills the remaining hole cavities. The placement of mortar for each bearing shall be continuous and complete at all hole locations.

All exposed mortar shall be cured for a period of not less than three (3) days by the wetted burlap method in accordance with Section 501. Curing shall commence as soon as practical after mortar placement. The Contractor shall not apply any forces to the anchor bolts during the curing period.

SECTION 513 – PROTECTIVE COATINGS

72. 513.04 SURFACE PREPARATION, part (c) Testing Equipment, is hereby modified by being deleted in its entirety and replaced with the following:

(c) Testing Equipment. For shop or field painting the Contractor shall provide (for the Contractor's use) quality control testing equipment as specified in Subsection 631.07. If required by the Contract for field testing by the Engineer, the Contractor shall provide the testing equipment specified in accordance with Section 631.

73. 513.07 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

Unless otherwise specified in the Contract Documents, no measurement for payment will be made for protective coatings testing equipment provided by the Contractor.

SECTION 522 – LUMBER AND TIMBER

74. 522.04 DRAWINGS, is hereby modified by adding the following paragraphs:

The Contractor shall prepare and submit Construction Drawings for structural timber erection in accordance with Section 105.

The erection plan shall include methods and sequence of structural timber erection, temporary bracing requirements, the equipment to be used for the erection, the necessary computations to indicate the magnitude of stress in the segments during erection and to demonstrate that all of the erection equipment has adequate capacity for the work to be performed, and provisions for all stages of construction, including temporary stoppages. The Contractor shall follow the erection plan as submitted.

75. 522.06 HANDLING, is hereby modified by adding the following paragraph:

Cranes, lifting devices, and other equipment for all structural timber erection shall be of adequate design and capacity to safely erect, align, and secure all members and components in their final positions without damage. The Contractor is solely responsible for the methods and equipment employed for the erection of the structural timber members.

76. 522.07 FRAMING, is hereby modified by adding the following as the last sentence of the first paragraph:

Except as directed by the Engineer, structure framing and boarding shall be constructed square, plumb, and straight.

77. 522.15 METHOD OF MEASUREMENT, is hereby modified by adding the following sentence at the end of the first paragraph:

For longitudinal nail-laminated decking, longitudinal plank decking, and runners, member length will be measured as the overall superstructure length of in place decking and runners, measured to the next 0.25 m (1 foot) increment.

78. 522.16 BASIS OF PAYMENT, is hereby modified by deleting the second sentence of the first paragraph in its entirety and replacing it with the following:

Payment for each quantity will be full compensation for detailing, fabricating, furnishing, transporting, handling, placing or erecting, and painting or treating the material specified, including all hardware and timber connectors; for providing all falsework, forms, bracing, sheeting, or other timber used for erection purposes; for furnishing and implementing the erection plan, when required; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

79. 522.16 BASIS OF PAYMENT, is hereby further modified by deleting the second paragraph of part 2. in its entirety and replacing it with the following:

Payments for the quantity of Structural Glued Laminated Timber will be full compensation for detailing, fabricating, furnishing, transporting, handling, placing or erecting, and painting or treating the material specified, including all hardware and timber connectors; for providing all falsework, forms, bracing, sheeting, or other timber used for erection purposes; for furnishing and implementing the erection plan, when required; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

SECTION 525 – METAL RAILINGS

80. 525.01 DESCRIPTION, is hereby modified by being deleted in its entirety and replaced with the following:

81. 525.01 DESCRIPTION. This work shall consist of furnishing and erecting hand railing or bridge railing, and performing repairs to existing bridge railing.

82. 525.03 FABRICATION DRAWINGS, is hereby modified by adding the following paragraph:

These requirements do not apply to work performed under part (e) of Subsection 525.05.

83. 525.05 INSTALLATION, is hereby modified by adding the following new part (e):

(e) Bridge Railing Repair. Bridge railing repair of the Type specified shall be performed at the locations indicated in the Plans and as directed by the Engineer.

(1) Bridge Railing Repair, Type I. Type I bridge railing repair shall consist of installing new heavy duty steel beam panels and offset blocks on existing fascia-mounted or curb-mounted posts spaced at 1.9 meters (6.25 feet) or less.

(2) Bridge Railing Repair, Type II. Type II bridge railing repair shall consist of installing new nested heavy duty steel beam panels and offset blocks on existing fascia-mounted or curb-mounted posts spaced greater than 1.9 meters (6.25 feet).

(3) Bridge Railing Repair, Type III. Type III bridge railing repair shall consist of installing new heavy duty steel beam panels and offset blocks on new fascia-mounted or curb-mounted posts utilizing existing anchor bolts.

84. 525.06 METHOD OF MEASUREMENT, is hereby modified by adding the following paragraph:

The quantity of Bridge Railing Repair of the Type specified to be measured for payment will be the number of meters (feet) of railing repaired in the complete and accepted work, measured within the limits shown on the Plans or as directed by the Engineer. No additional measurement will be made for nested beam panels.

85. 525.07 BASIS OF PAYMENT, is hereby modified by adding the following paragraphs:

The accepted quantity of Bridge Railing Repair of the Type specified will be paid for at the Contract unit price per meter (linear foot). Payment will be full compensation for detailing, treating, furnishing, handling, and placing railing components; for bolts and hardware necessary for installing railing components; for all work necessary for verifying and adjusting post height and/or bolt spacing of existing posts; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Removal and disposal of existing railing components required for performing Bridge Railing Repair of the Type specified will be paid for under Contract item 525.10.

86. 525.07 BASIS OF PAYMENT, is hereby further modified by adding the following pay items:

Payment will be made under:

Pay Item	Pay Unit
525.11 Resetting Railing	Meter (Linear Foot)
525.50 Bridge Railing Repair, Type I	Meter (Linear Foot)
525.55 Bridge Railing Repair, Type II	Meter (Linear Foot)
525.60 Bridge Railing Repair, Type III	Meter (Linear Foot)

SECTION 528 – TEMPORARY BRIDGE

87. 528.04 DESIGN AND CONSTRUCTION DETAILS, part (c) Railing, is hereby corrected by replacing the phrase "621.06" with the phrase "621.07" in the first paragraph.

SECTION 529 – REMOVAL OF STRUCTURES AND BRIDGE PAVEMENT

88. 529.06 BASIS OF PAYMENT, is hereby modified by deleting the fourth (last) sentence of the first paragraph in its entirety and replacing it with the following:

Payment will be full compensation for the removal and disposal of the specified items; for removal, salvage, and stockpiling of components and materials specified in the Contract; for excavating, backfilling, regrading, and performing site restoration incidental to the removal of specified items; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

SECTION 531 – BEARING DEVICES

89. 531.01 DESCRIPTION, is hereby modified by deleting the phrase "and pot bearing devices" and replacing it with the phrase "pot, and elastomeric pad bearing devices."

90. 531.04 FABRICATION, part (a) General, is hereby modified by deleting the fifth paragraph in its entirety and replacing it with the following:

Steel bearings, expansion fabric bearing pads, and fixed and expansion pot bearings shall be designed and fabricated in accordance with Section 14 of the AASHTO *LRFD Bridge Design Specifications* and Section 18 of the AASHTO *LRFD Bridge Construction Specifications*.

91. 531.04 FABRICATION, part (c) Finish, is hereby modified by deleting the phrase "Division II of the AASHTO *Standard Specifications for Highway Bridges*" and replacing it with the phrase "the AASHTO *LRFD Bridge Construction Specifications*".

92. 531.04 FABRICATION, part (e) Sliding Surfaces, subpart (1) is hereby modified by being deleted in its entirety and replaced with the following:

(1) The minimum thickness of TFE material shall be as follows:

For all applications, the thickness of TFE shall be at least 1.6 mm (1/16 inch) after compression. The thickness of recessed sheet TFE shall be at least 4.8 mm (3/16 inch) when the maximum dimension of TFE is less than or equal to 610 mm (24 inches), and at least 6.4 mm (1/4 inch) when the maximum dimension of the TFE is greater than 610 mm (24 inches).

93. 531.04 FABRICATION, part (e) Sliding Surfaces, subpart (2)a. is hereby modified by being deleted in its entirety and replaced with the following:

a. The thickness of the stainless steel sheet shall be at least 1.9 mm (14 gauge) when the maximum dimension of the surface is less than or equal to 305 mm (12 inches), and at least 3.0 mm (11 gauge) when the maximum dimension is larger than 305 mm (12 inches).

94. 531.04 FABRICATION, part (h) Confined Elastomer (Pot) Bearings, is hereby modified by deleting the phrase "*Standard Specifications for Highway Bridges*" and replacing it with the phrase "*LRFD Bridge Construction Specifications*" in the first paragraph.

95. 531.04 FABRICATION, part (h) Confined Elastomer (Pot) Bearings, subpart (7), is hereby modified by deleting the phrase "Division II of the AASHTO *Standard Specifications for Highway Bridges*" and replacing it with the phrase "the AASHTO *LRFD Bridge Construction Specifications*".

96. 531.04 FABRICATION, is hereby modified by adding the following new part (i):

(i) Elastomeric Pad Bearings. The following shall apply to the design and fabrication of elastomeric pad bearings:

(1) Alternate configurations may be submitted for approval. Any alternate(s) shall be designed and certified to meet the design loads and criteria specified in the Contract Documents. The alternate(s) shall maintain the anchorage system shown in the Plans and shall be designed per Section 14 of the AASHTO LRFD Bridge Design Specifications. Bridge seat elevations may be revised to accommodate alternate configurations.

(2) Except as modified within the Contract Documents, all fabrication shall meet the requirements of AASHTO M 251.

(3) No fabric reinforcement shall be allowed in the fabrication of elastomeric pads for elastomeric bridge bearing devices.

(4) All required fabrication of steel components of the bearings shall occur before the vulcanization process.

(5) The steel surfaces to be bonded to elastomeric material during vulcanization shall not be metalized or galvanized.

97. 531.05 INSTALLATION, is hereby modified by adding the following paragraphs:

Elastomeric bridge bearing pads without external load plates may be placed on a concrete or steel surface provided that it is flat to within a tolerance of 0.005 of the nominal dimension for steel reinforced bearings and 0.01 of the nominal dimension for others. Bearings shall be placed on surfaces that are horizontal to within 0.01 radians (0.120 inch/12 inches). Any lack of parallelism between the top of the bearing and the underside of the girder that exceeds 0.01 radians shall be corrected by a method approved by the Engineer.

Exterior plates of the bearing shall not be welded unless at least 38 mm (1 ½ inches) of the steel exists between the weld and the elastomer. In no case shall the elastomer or the bond be subjected to temperature higher than 205°C (400°F).

98. 531.06 METHOD OF MEASUREMENT, is hereby modified by deleting the phrase "materials including bearing pads" and replacing it with the phrase "components" in the second sentence.

99. 531.07 BASIS OF PAYMENT, is hereby modified by deleting the second sentence of the first paragraph in its entirety and replacing it with the following:

Payment will be full compensation for detailing, furnishing, handling, transporting, and placing the material specified, including surface preparation, protective coating, testing, anchor bolt assemblies, drilling for anchor bolts, mortar, proprietary anchoring systems, bearing device components, welding, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

100. 531.07 BASIS OF PAYMENT, is hereby further modified by adding the following paragraph:

Payment for alternate bearing designs and submittals will be considered incidental to the appropriate Section 531 pay item in the Contract.

SECTION 541 – STRUCTURAL CONCRETE

101. 541.02 MATERIALS, is hereby modified by adding the following paragraph:

Precast concrete stay-in-place forms (prestressed deck panels) shall conform to the requirements of Section 510.

102. 541.19 METHOD OF MEASUREMENT, is hereby modified by deleting the period and adding the phrase ", including the volume of superstructure precast concrete stay-in-place forms, but excluding the volume of steel or other stay-in-place forms and form filling materials." after the word "Engineer" at the end of the first sentence of the first paragraph.

SECTION 604 – DROP INLETS, CATCH BASINS, AND MANHOLES

103. 604.03 GENERAL CONSTRUCTION REQUIREMENTS, is hereby modified by adding the following paragraphs:

Except for components cast using the dry cast process, precast concrete components shall not have the forms removed until a minimum compressive strength of 15 Mpa (2000 psi) has been achieved. Precast components shall not be moved until two hours after they have been cast and until a minimum compressive strength of 15 Mpa (2000 psi) has been achieved. Concrete cylinders shall be made, in accordance with AASHTO T 23, at the last placement of the day.

Reinforced precast sections shall not be shipped from the manufacturing facility until the eighth day from the date of manufacture, except when the supplier provides test results demonstrating that the design strength has been achieved.

104. 604.05 CURING AND PROTECTION, is hereby modified by adding the following paragraphs:

Precast concrete shall be cured using membrane curing compound. The curing compound shall be applied to the concrete surface after finishing, as soon as the free water on the surface has disappeared and no water sheen is visible, but not so late that the liquid curing compound will be absorbed into the concrete. When curing compound cannot be applied as specified herein, the manufacturer shall instead immediately begin wet curing the unit until curing compound can be applied. When this method is used in conjunction with the dry cast process, the curing room shall be kept at 100% humidity until a minimum compressive strength of 15 Mpa (2000 psi) has been obtained.

When the forms are removed prior to 7 days, the exposed concrete surfaces shall be wet with water within one half hour of form removal and shall be kept wet until the curing compound is applied. Before application, the concrete shall be allowed to reach a uniformly damp appearance with no free water on the surface, and then the compound shall be applied immediately.

Precast concrete drainage components shall not be subjected to freezing temperatures prior to attaining the specified 28 day compressive strength. Components which are exposed to freezing before reaching the required 28 day compressive strength shall be rejected without further cause. Any additional testing on the rejected components as determined by the Engineer to gain acceptance will be at the expense of the manufacturer.

SECTION 605 - UNDERDRAINS

105. 605.04 INSTALLATION, part (e) Backfill, is hereby corrected by replacing the phrase "Subsection 704.17" with the phrase "drainage aggregate" in the first sentence of the first paragraph.

SECTION 616 – CURBS AND GUTTERS

106. 616.14 METHOD OF MEASUREMENT, is hereby modified by adding the phrase "Bituminous Concrete Curb of the type specified (linear measure);" after the phrase "Cast-in-Place Concrete Curb of the type specified;" in the first paragraph.

107. 616.14 METHOD OF MEASUREMENT, is hereby further modified by adding the phrase "(volume measure)" after the phrase "Bituminous Concrete Curb of the type specified" in the second paragraph.

108. 616.15 BASIS OF PAYMENT, is hereby modified by adding the phrase "Bituminous Concrete Curb of the type specified (linear measure);" after the phrase "Cast-in-Place Concrete Curb of the type specified;" in the first paragraph.

109. 616.15 BASIS OF PAYMENT, is hereby further modified by adding the phrase "(volume measure)" after the phrase "Bituminous Concrete Curb of the type specified" in the second paragraph.

110. 616.15 BASIS OF PAYMENT, is hereby still further modified by adding the following pay items:

Payment will be made under:

Pay Item	Pay Unit
616.305 Bituminous Concrete Curb, Type A	Meter (Linear Foot)
616.315 Bituminous Concrete Curb, Type B	Meter (Linear Foot)

SECTION 618 - SIDEWALKS

111. 618.07 BASIS OF PAYMENT, is hereby corrected by replacing the phrase "(square yard)" with the phrase "(square foot)" in the third sentence of the first paragraph.

SECTION 621 – TRAFFIC BARRIERS

112. 621.03 POSTS AND OFFSET BLOCKS, is hereby modified by adding the following as the second paragraph of the Subsection text:

Posts for Steel Backed Timber Guardrail shall be driven into pilot holes that have been punched or drilled. The dimensions of the pilot hole shall not exceed the dimensions of the post by more than 25 mm (1 inch). If impenetrable material is encountered while placing the post, the pilot shall be enlarged to provide not less than 150 mm (6 inches) of clearance on all sides and a minimum depth of 760 mm (2.5 feet). The post shall be set in concrete, the type as approved by the Engineer, to within 150 mm (6 inches) of the top of the hole. The remaining 150 mm (6 inches) shall be backfilled with a suitable material and compacted to the satisfaction of the Engineer.

113. 621.04 RAIL ELEMENTS, is hereby modified by adding the following new part (d):

(d) Steel Backed Timber Rail. Timber rails shall be cut to produce a close fit at all joints. Field cuts shall be treated with an approved material as determined by the Engineer.

114. 621.06 ENERGY ABSORPTION ATTENUATOR, is hereby modified by adding the following paragraph:

Should an attenuator, or component thereof, in service on the project become damaged and require replacement, as determined by the Engineer, the damaged attenuator, or component thereof, shall be replaced immediately with a backup attenuator, or component thereof, stored on the project in order that there is minimal disruption to incorporating a fully functional attenuator as required by the project traffic control plan.

115. 621.14 METHOD OF MEASUREMENT, is hereby modified by adding the following as the fourth paragraph of the Subsection text:

The quantity of Steel Backed Timber Guardrail to be measured for payment will be the number of meters (linear feet) installed in the complete and accepted work, measured from end to end along the face of rail, including terminal sections. The measured length will be multiplied by a pay factor of 1.4 for a post spacing of 1.5 m (5 feet).

116. 621.14 METHOD OF MEASUREMENT, is hereby further modified by deleting the phrase "Steel Backed Timber Guardrail," from the first sentence of the fifth paragraph of the Subsection text.

117. 621.14 METHOD OF MEASUREMENT, is hereby still further modified by adding the following as the eleventh paragraph of the Subsection text:

The Contract quantity for Energy Absorption Attenuator includes one backup attenuator to be provided by the Contractor and stored on the project in the event an attenuator, or component thereof, in service is damaged and needs replacement.

118. 621.14 BASIS OF PAYMENT, is hereby modified by re-designating the Subsection number from "621.14" to "621.15".

119. 621.15 BASIS OF PAYMENT, is hereby modified by deleting the eighth paragraph in its entirety and replacing it with the following paragraph:

Payment will be full compensation for furnishing, transporting, handling, and placing the materials specified, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work. For Steel Backed Timber Guardrail, enlarging holes as necessary for placement of posts, furnishing and placing concrete fill and backfill material, and compacting backfill to the satisfaction of the Engineer will not be paid for separately, but will be considered incidental to the unit price bid for Contract item 621.18.

120. 621.15 BASIS OF PAYMENT, is hereby modified by deleting the twelfth paragraph in its entirety and replacing it with the following paragraph:

Payment for the backup attenuator will be made as follows:

(a) 50 percent of the Contract unit price will be paid when the backup attenuator is delivered to and placed in storage at the project site to the satisfaction of the Engineer.

(b) The remaining 50 percent of the Contract unit price will be paid when the stored attenuator, or component thereof, is installed on the project and/or removed from the project site, when no longer required, as determined by the Engineer.

121. 621.15 BASIS OF PAYMENT, is hereby further modified by adding the following pay items:

Payment will be made under:

Pay Item	Pay Unit
621.206 Steel Beam Guardrail, Galvanized/Nested	Meter (Linear Foot)
621.207 Steel Beam Guardrail, Galvanized/Nested w/2.4 m (8 feet) Posts	Meter (Linear Foot)
621.216 HD Steel Beam Guardrail, Galvanized/Nested	Meter (Linear Foot)
621.217 HD Steel Beam Guardrail, Galvanized/Nested w/2.4 m (8 feet) Posts	Meter (Linear Foot)

SECTION 630 – UNIFORMED TRAFFIC OFFICERS AND FLAGGERS

122. 630.01 DESCRIPTION, part (e) Responsibility of Contractor to Protect Public and Workers, is hereby modified by being re-designated from part "(e)" to part "(f)".

123. 630.01 DESCRIPTION, is hereby modified by adding the following new part (e):

(e) Use of Railroad Flaggers. Railroad flaggers shall be used within the limits of the project whenever the Contractor's operations are such as to make it necessary as described in the Contract Special Provisions.

Flaggers used in conjunction with railroad operations shall receive approval for use by the operating Railroad. The Contractor may contact the operating Railroad for a listing of approved flaggers.

124. 630.03 CLOTHING AND EQUIPMENT, is hereby modified by adding the following new part (c):

(c) For Railroad Flaggers.

(1) Railroad flaggers shall be trained, clothed, and equipped in accordance with guidelines, rules, and/or regulations set forth by the operating Railroad.

125. 630.05 METHOD OF MEASUREMENT, is hereby modified by deleting the phrase "and Flaggers" and replacing it with the phrase ", Flaggers, and Flaggers, Railroad" in the first sentence.

126. 630.06 BASIS OF PAYMENT, is hereby modified by adding the following as the second paragraph of the Subsection text:

The accepted quantity of Flaggers, Railroad will be paid for at the Contract unit price per hour. Payment will be full compensation for labor hours accrued on the project by a railroad flagger in the employ of the operating Railroad. The unit price shall include the costs of any equipment, clothing, and training required for the railroad flagger(s).

127. 630.06 BASIS OF PAYMENT, is hereby further modified by deleting the phrase "and/or Flaggers" and replacing it with the phrase ", Flaggers, and/or Flaggers, Railroad" in the first and third lines of the third (last) paragraph.

128. 630.06 BASIS OF PAYMENT, is hereby still further modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
630.20 Flaggers, Railroad	Hour

SECTION 631 – FIELD OFFICE

129. 631.01 DESCRIPTION, is hereby modified by adding the following paragraph:

The equipment furnished for testing of protective coatings shall be used by the Engineer as required by the Contract.

130. 631.08 METHOD OF MEASUREMENT, is hereby modified by adding the following to the first paragraph:

Unless otherwise specified in the Contract Documents, no measurement for payment will be made for protective coatings testing equipment provided by the Contractor.

SECTION 649 – GEOTEXTILE FABRIC

131. 649.02 MATERIALS, is hereby modified by adding the following new part (c):

(c) Where woven wire reinforcement is used, the woven wire shall be 14 gauge minimum with a 150 mm (6 inch) maximum mesh opening.

132. 649.04 INSTALLATION, part (a) General, subpart (6) Silt Fence, is hereby modified by adding the phrase ", and when required woven wire reinforcement," after the word "geotextile" in the first sentence of the first paragraph.

133. 649.04 INSTALLATION, part (a) General, subpart (6) Silt Fence, is hereby further modified by deleting the second paragraph in its entirety and replacing it with the following paragraph:

Either wood or steel posts shall be used. The posts shall have a minimum length of 910 mm (3 feet) and shall be embedded a minimum of 405 mm (16 inches) below the ground surface. The spacing of the posts shall be as shown in the Plans, or as determined by the silt fence manufacturer or the Engineer.

134. 649.06 BASIS OF PAYMENT, is hereby modified by adding the following pay item:

Payment will be made under:

Pay Item	Pay Unit
649.515 Geotextile for Silt Fence, Woven Wire Reinforced	Square Meter (Square Yard)

SECTION 653 – EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

135. 653.05 EROSION MATTING, is hereby modified by deleting the first two paragraphs of the Subsection text in their entirety and replacing them with the following:

Temporary erosion matting shall be used to anchor loose mulch and provide temporary erosion control while vegetation is established in those areas where vegetation will provide permanent erosion protection.

Permanent erosion matting shall be used where vegetation will not sustain expected flow conditions or provide sufficient long-term erosion protection. Permanent erosion matting shall provide sufficient thickness and void space to permit soil filling and/or retention to allow for the development of vegetation.

SECTION 701 – HYDRAULIC CEMENT

136. 701.02 PORTLAND CEMENT, is hereby modified by adding the following:

Portland cements that fail to meet all parts of AASHTO M 85 due to the dilution of the original cement with added limestone will be acceptable, provided the original portland cement used in the product met AASHTO M 85 requirements prior to the addition of limestone.

SECTION 704 - AGGREGATES

137. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (a) Aggregate for Marshall Bituminous Concrete Pavement, subpart (1) Grading (c) Recycled Asphalt Pavement (RAP), is hereby modified by adding the following to the first paragraph:

The percentage of RAP, when stated as a percentage of the total mix, shall be limited to a maximum of 50.0 percent for both design and production purposes.

138. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (a) Aggregate for Marshall Bituminous Concrete Pavement, subpart (1) Grading (c) Recycled Asphalt Pavement (RAP), is hereby further modified by adding the following as the fourth sentence of the fifth paragraph:

The recovered RAP binder material shall be graded according to AASHTO R 29 for all samples.

139. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (1) Grading (c) Recycled Asphalt Pavement (RAP), is hereby modified by deleting the number "15" and replacing it with the number "50.0" in the second (last) sentence of the first paragraph.

140. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (3) Fractured Faces, Angularity, subpart a. Coarse Aggregate is hereby modified by deleting the phrase "and usage (depth) in the pavement structure" in the first sentence.

141. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (3) Fractured Faces, Angularity, subpart a. Coarse Aggregate is hereby further modified by deleting the table (retaining the table title), footnote (1), and Note 1 below the first paragraph in their entirety and replacing them with the following:

Traffic (ESALs)	CA1/CA2
<30,000,000	95/90[(1)]
≥ 30,000,000	100/100

[(1)] 95/90 denotes that 95 percent of the coarse aggregate has one fractured face and 90 percent has two or more fractured faces.

142. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (3) Fractured Faces, Angularity, subpart b. Fine Aggregate is hereby modified by deleting the phrase "and usage (depth) in the pavement structure" in the first sentence.

143. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (3) Fractured Faces, Angularity, subpart b. Fine Aggregate is hereby further modified by deleting the table (retaining the table title) and Note 1 below the first paragraph in their entirety and replacing them with the following:

Traffic (ESALs)	Uncompacted Void Content
All	45

144. 704.10 AGGREGATES FOR BITUMINOUS CONCRETE PAVEMENT, part (b) Aggregate for Superpave Bituminous Concrete Pavement, subpart (8) Clay Content is hereby modified by deleting the table (retaining the table title) below the first paragraph in its entirety and replacing it with the following:

Traffic (ESALs)	Sand Equivalent
≤ 30,000,000	45
> 30,000,000	50

145. 704.16 DRAINAGE AGGREGATE, part (a), TABLE 704.16A – DRAINAGE AGGREGATE text is hereby corrected by deleting the phrase "0 to 10" from the Percent By Mass (Weight) Passing the Square Mesh Sieves requirement for the 2.36 mm (No. 8) Sieve Designation and replacing it with the phrase "0 to 5".

SECTION 707 – JOINT MATERIALS

146. 707.301 MORTAR, TYPE I, Subsection heading, is hereby corrected by re-designating the Subsection number from "707.301" to "707.01".

SECTION 708 – PAINTS, STAINS, AND TRAFFIC MARKING MATERIALS

147. 708.08 PAINT FOR PAVEMENT MARKINGS, part (d) Waterborne Traffic Paint, subpart (2) Composition, chart text is hereby corrected by deleting the phrase "25% min." from the Total Volatile Content requirement for both WHITE and YELLOW/GREEN/BLUE paints and replacing it with the phrase "25% max.".

148. 708.08 PAINT FOR PAVEMENT MARKINGS, part (d) Methyl-methacrylate Paint, is hereby corrected by being re-designated from part "(d)" to part "(e)".

SECTION 712 – CRIBBING MATERIALS

149. 712.03 TIMBER CRIBBING, part (c) Preservative Treatment, is hereby modified by deleting the phrase "C1, C2, and C14" in the first paragraph.

SECTION 714 – STRUCTURAL STEEL

150. 714.05 HIGH-STRENGTH BOLTS, NUTS, AND WASHERS, is hereby modified by deleting the second and third paragraphs in their entirety and replacing them with the following:

Bolts installed in painted structural components shall be Type 1, shall be provided with appropriate nuts and washers, as required, and the combination of bolt, nut, and washer shall be mechanically galvanized in accordance with AASHTO M 298, Class 50, Type I.

Bolts installed in unpainted weathering steel structural components shall be Type 3 and shall be provided with appropriate nuts and washers, as required.

SECTION 715 – MISCELLANEOUS METALS

151. 715.05 STAY-IN-PLACE CORRUGATED METAL FORMS (SIPCMF) FOR SUPERSTRUCTURE SLABS, is hereby made a new Subsection of this Section as follows:

152. 715.05 STAY-IN-PLACE CORRUGATED METAL FORMS (SIPCMF) FOR SUPERSTRUCTURE SLABS.

(a) General. Forms and form supports shall be in conformance with ASTM A 653/A 653M, Grades A thru E, Coating Designation G165. Fabrication shall be in conformance with ASTM A 924/A 924M. Prior to the fabrication of forms, the Contractor shall submit to the Engineer certification for conformity of steel and galvanizing to ASTM A 653/A 653M.

(b) Certification. A Type D Certification shall be furnished in accordance with Subsection 700.02.

SECTION 719 – EPOXY RESIN MATERIALS

153. SECTION 719 - EPOXY RESIN MATERIALS, is hereby made a new Section of the Specifications.

154. 719.01 THIS SUBSECTION RESERVED

155. 719.02 EPOXY BONDING COMPOUND, is hereby made a new Subsection of the Specifications as follows:

156. 719.02 EPOXY BONDING COMPOUND. Epoxy bonding compound shall meet the requirements of ASTM C 881 for the application and temperature range for which it is to be used.

Certification. A Type A Certification will be furnished in accordance with Subsection 700.02(c).

SECTION 720 - GEOTEXTILES

157. 720.04 SAMPLING, TESTING, AND ACCEPTANCE REQUIREMENTS, part (d) Minimum Average Roll Value, TABLE 720.04A – VAOT MINIMUM AVERAGE ROLL VALUES FOR GEOTEXTILES (METRIC) and TABLE 720.04A – VAOT MINIMUM AVERAGE ROLL VALUES FOR GEOTEXTILES (ENGLISH) are hereby modified by changing the column heading "Pay Item 649.51 For Silt Fence" to "Pay Items 649.51 and 649.515 For Silt Fence".

158. 720.04 SAMPLING, TESTING, AND ACCEPTANCE REQUIREMENTS, part (d) Minimum Average Roll Value, TABLE 720.04A – VAOT MINIMUM AVERAGE ROLL VALUES FOR GEOTEXTILES (ENGLISH), Pay Item 649.31 Under Stone Fill, ≥50%, is hereby corrected by deleting the entries for 1. Grab Tensile Strength (lbs.), 2. Burst Strength (psi), 3. Puncture (lbs.), and 4. Trapezoidal Tear Strength (lbs.) of "315", "510", "110", and "110", respectively, and replacing them with entries of "200", "250", "80", and "80", respectively, and by correcting the description of Geotextile Property 7. by deleting the phrase "(% Strength" and replacing it with the phrase "(% Strength Retained)".

SECTION 726 – PROTECTIVE COATINGS AND WATERPROOFING MATERIALS

159. 726.01 TIMBER PRESERVATIVE, is hereby modified by deleting the second sentence of the first paragraph in its entirety and replacing it with the following:

Acceptable preservatives and AWPA Preservative Standards are as follows:

160. 726.01 TIMBER PRESERVATIVE, is hereby further modified by deleting the second paragraph (beginning with "Glued laminated timber") in its entirety and replacing it with the following:

For wood components, AWPA Product Use and Commodity Specifications shall be as listed below:

Component	AWPA Use Category	AWPA Commodity Spec.
Sawn Guardrail Post	UCB4	6A
Sawn Bollard, Marker Post, Guide Post, and Fence Post	UC4B	6A
Sawn Sign Post	UC4A	6A
Sawn Structural Lumber and Timber	UC4B	6A
Sawn Nonstructural Lumber	UC4B	6A
Sawn Timber Cribbing	UC4B	6A
Structural Glued Laminated Timber	UC4B	6F
Round Fence Post	UC4B	6B
Round Timber Pole	UC4B	6D

161. 726.01 TIMBER PRESERVATIVE, is hereby still further modified by adding the word "Miscellaneous" after the phrase "AWPA" in the first sentence of the third paragraph.

SECTION 727 – FENCING MATERIALS

162. 727.01 WOVEN WIRE FENCE, part (c) Wood Posts and Braces, is hereby modified by adding the word "Round" at the beginning of the first paragraph.

163. 727.01 WOVEN WIRE FENCE, part (c) Wood Posts and Braces, is hereby further modified by deleting the third paragraph in its entirety and replacing it with the following:

If sawn posts are used they shall be rough sawn and conform to the requirements of Subsection 728.01. The nominal dimensions shall be at least 100 mm (4 inches) square and of the length shown on the Plans.

SECTION 728 – GUARDRAIL, GUIDE POSTS, AND BARRIERS

164. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby modified by adding the phrase "straight and sound" before the phrase "seasoned Red (Norway) Pine" and by deleting the phrase ", straight, sound, and cut from live timber" in the first sentence of the first paragraph.

165. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby further modified by adding the word "stress" before the phrase "grade requirements" in both the second and third sentences of the first paragraph.

166. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby still further modified by adding the phrase "and care" before the phrase "of treated material" in the fourth (last) sentence of the first paragraph.

167. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby still further modified by deleting the word "saturated" and replacing it with the word "treated" in the second sentence of the fifth paragraph.

168. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby still further modified by deleting the phrase "American Lumber Standards Committee (ALSC) approved grading standards" and replacing it with the phrase "the American Softwood Lumber Standard (ASLS) developed by the American Lumber Standards Committee" in the first sentence of the sixth paragraph.

169. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby still further modified by deleting the phrase "ALSC" and replacing it with the phrase "ASLS" in the second (last) sentence of the sixth paragraph.

170. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby still further modified by deleting the seventh paragraph in its entirety.

171. 728.01 POSTS AND POST ACCESSORIES, part (a) Wood Posts and Offset Blocks for Rail, Guardrail, Barriers, and Guide Posts, is hereby still further modified by deleting the phrase "for soil use specified in AWPA Standard C2" and replacing it with the phrase "specified in AWPA Standards" in the first sentence of the tenth paragraph.

172. 728.02 RAIL ELEMENTS, part (f) Certification, is hereby modified by being re-designated from part "(f)" to part "(g)".

173. 728.02 RAIL ELEMENTS, is hereby modified by adding the following new part (f):

(f) Steel Backed Timber Guardrail. Timber for rail shall have a minimum allowable bending stress of 10 Mpa (1450 psi). Steel rails and splice plates shall conform to AASHTO M 270M/M 270 Grade 345 (Grade 50) steel and shall be galvanized in accordance with AASHTO M 111M/M 111.

174. 728.02 RAIL ELEMENTS, part (g) Certification, is hereby modified by adding the phrase "and steel backed timber guardrail" after the phrase "plank rail" in the second sentence.

175. 728.02 RAIL ELEMENTS, part (g) Certification, is hereby further modified by deleting the phrase "For cable, beam, and box beam rail," in the third (last) sentence and replacing it with the phrase "For beam and box beam rail,".

176. 728.03 HARDWARE, part (e) Certification, is hereby modified by being re-designated from part "(e)" to part "(f)".

177. 728.03 HARDWARE, is hereby modified by adding the following new part (e):

(e) Hardware for Steel Backed Timber Guardrail. Bolts and lag screws shall conform to ASTM F 568M, Class 4.6 (ASTM A 307 Grade A). Washers shall conform to ASTM F 844. Nuts shall conform to AASHTO M 291M (AASHTO M 291). All fastener hardware shall be galvanized in accordance with AASHTO M 232M/M 232.

SECTION 729 – CURB MATERIALS

178. 729.01 VERTICAL GRANITE CURB, part (b) Finish and Surface Dimensions, fourth paragraph, is hereby modified by deleting the first sentence in its entirety and replacing it with the following:

The top front arris line shall be rounded to a 13 mm (1/2 inch) radius as shown in the Contract Documents.

179. 729.02 GRANITE BRIDGE CURB, part (b) Finish and Surface Dimensions, third paragraph, is hereby modified by deleting the first sentence in its entirety and replacing it with the following:

The top front arris line shall be rounded to a 13 mm (1/2 inch) radius as shown in the Contract Documents.

180. 729.05 BITUMINOUS CONCRETE CURB, part (b) Performance-Graded Asphalt Binder, is hereby modified by deleting the phrase "as directed by the Engineer" and replacing it with the phrase "as specified on the Plans or in the Contract Documents".

181. 729.06 TREATED TIMBER CURB, part (a) Miscellaneous Hardware, is hereby modified by adding the phrase "fasteners," after the phrase "spikes," in the first sentence.

SECTION 731 – BEARING PADS FOR STRUCTURES

182. 731.02 BEARING PADS, is hereby made a new Subsection of the Specifications as follows:

183. 731.02 BEARING PADS. Bearing pads shall be manufactured from all new materials comprised of high quality elastomer with a random distribution of synthetic fibers in proper proportion to maintain strength and stability. The finished product shall withstand a compressive load perpendicular to the plane of laminations of 48.2 MPa (7000 psi). The surface hardness shall have a Shore A Durometer of 80 ± 10 in accordance with ASTM D 2240.

Certification. A Type A Certification shall be furnished in accordance with Subsection 700.02.

184. 731.03 ELASTOMERIC MATERIAL, is hereby modified by deleting the first paragraph in its entirety and replacing it with the following:

Unless otherwise shown in the Plans or specified in the Contract Documents, the elastomeric compound for pot bearings shall be neoprene conforming to AASHTO *LRFD Bridge Design Specifications* Subsection 14.7.4.2.

SECTION 732 – RAILING MATERIALS

185. 732.02 ALUMINUM BRIDGE RAILING, part (b) Stainless Steel Bolts, Nuts, Washers, and Set Screws, is hereby corrected by deleting the phrase "ASTM A 593" and replacing it with the phrase "ASTM F 593" in the first and fourth paragraphs, and by deleting the phrase "ASTM A 594" and replacing it with the phrase "ASTM F 594" in the fourth paragraph.

SECTION 750 – TRAFFIC SIGNS

186. 750.01 SIGN POSTS, part (c) Wood Posts, is hereby modified by deleting the first paragraph in its entirety and replacing it with the following:

Wood posts shall be seasoned, straight, and sound sawn timber comprised of either Oak, Cedar, Spruce, Western Fir, or other approved wood. The posts shall conform to the dimensions shown on the Plans or requirements specified in the Contract Documents.

SECTION 752 – TRAFFIC CONTROL SIGNALS

187. 752.02 STRAIN POLES, part (a) Wood Poles, is hereby modified by deleting the first paragraph in its entirety and replacing it with the following:

Wood poles for span wire mounted signal heads shall be either Douglas Fir or Southern Pine. The poles to be used shall be Class 3 and shall be a minimum of 11 mm (35 feet) in length, unless otherwise specified. Wood poles shall meet the specification requirements of ANSI 05.1 "Piles and Poles, Wood."

188. 752.06 TRAFFIC SIGNAL CONTROLLERS, part (a) General, subpart (1) Controller/Auxiliary Equipment, is hereby modified by deleting the phrase "(April: first Sunday; October: last Sunday)" in the last sentence of the first paragraph.

SECTION 755 – LANDSCAPING MATERIALS

189. 755.11 EROSION MATTING, is hereby modified by being deleted in its entirety and replaced with the following:

755.11 EROSION MATTING.

(a) Temporary Erosion Matting. Temporary erosion matting shall conform to one of the following specifications and corresponding properties found in Table 755.11A.

(1) Mulch Control Netting. A temporary biodegradable rolled erosion control product (RECP) composed of planar woven natural fiber.

(2) Erosion Control Blanket. A temporary all natural biodegradable rolled erosion control product composed of processed fibers mechanically bound together to form a continuous matrix.

(b) Permanent Erosion Matting. Permanent erosion matting shall be a long-term non-degradable rolled erosion control product composed of ultraviolet stabilized, non-degradable, synthetic fibers, filaments, nettings, and/or wire mesh processed into three dimensional reinforcement matrices conforming to one of the specifications and corresponding properties found in Table 755.11B.

(c) Certification. A Type A Certification shall be furnished in accordance with Subsection 700.02 for both temporary and permanent erosion matting.

TABLE 755.11A - STANDARD SPECIFICATION FOR TEMPORARY ROLLED EROSION CONTROL PRODUCTS
(For use where natural vegetation will provide permanent erosion protection)

Product Description	Material Composition	Longevity (months)	Slope Applications*		Channel Applications*	Minimum Tensile Strength[1] kN/m(lbs/ft)
			Maximum Gradient (h:v)	C Factor[2,5]	Maximum Shear Stress[3,4,6] Pa(lbs/ft^2)	
Mulch Control Nets	All natural biodegradable mesh or woven netting.	3	5:1	≤ 0.10	12 (0.25)	0.073 (5)
		12	5:1	≤ 0.10	12 (0.25)	0.073 (5)
		24	5:1	≤ 0.10	12 (0.25)	0.36 (25)
Netless Rolled Erosion Control Blankets	All natural biodegradable fibers mechanically interlocked together to form a continuous matrix.	3	4:1	≤ 0.10	24 (0.5)	0.073 (5)
		12	4:1	≤ 0.10	24 (0.5)	0.073 (5)
Single-net Erosion Control Blankets	All natural processed, biodegradable fibers mechanically bound together by a single net of yarn or twine woven into a continuous matrix.	3	3:1	≤ 0.15	72 (1.5)	0.73 (50)
		12	3:1	≤ 0.15	72 (1.5)	0.73 (50)
Double-net Erosion Control Blankets	All natural processed, biodegradable fibers mechanically bound together between two nets of yarn or twine woven into a continuous matrix.	3	2:1	≤ 0.20	84 (1.75)	1.09 (75)
		12	2:1	≤ 0.20	84 (1.75)	1.09 (75)
		24	1.5:1	≤ 0.25	96 (2.00)	1.45 (100)
		36	1:1	≤ 0.25	108 (2.25)	1.82(125)

Notes:

* "C" factor and shear stress for mulch control nettings must be obtained with netting used in conjunction with pre-applied mulch material.

1 Minimum Average Roll Values, Machine direction using Erosion Control Technology Council (ECTC) Mod. ASTM D 5035.

2 "C" Factor calculated as ratio of soil loss from RECP protected slope (tested at specified or greater gradient, h:v) to ratio of soil loss from unprotected (control) plot in large-scale testing. These performance test values should be supported by periodic bench scale testing under similar test conditions using ECTC Test Method # 2.

3 Required minimum shear stress RECP (unvegetated) can sustain without physical damage or excess erosion (> 12.7 mm (0.5 in) soil loss) during a 30-minute flow event in large-scale testing. These performance test values should be supported by periodic bench scale testing under similar test conditions and failure criteria using ECTC Test Method #3.

4 The permissible shear stress levels established for each performance category are based on historical experience with products characterized by Manning's roughness coefficients in the range of 0.01 - 0.05.

5 Acceptable large-scale test methods may include ASTM D 6459, ECTC Test Method # 2, or other independent testing deemed acceptable by the Engineer.

6 Per the Engineer's discretion. Recommended acceptable large-scale testing protocol may include ASTM D 6460, ECTC Test Method #3 or other independent testing deemed acceptable by the Engineer.

TABLE 755.11B - STANDARD SPECIFICATION FOR PERMANENT ROLLED EROSION CONTROL PRODUCTS

(For applications where vegetation alone will not provide sufficient long-term erosion protection)

PERMANENT[1]- All categories of Turf Reinforcement Mat (TRM) must have a minimum thickness of 6.35 mm(0.25 inches) per ASTM D 6525 and ultraviolet stability of 80% per ASTM D 4355 (500 hours exposure).

Type	Product Description	Material Composition	Slope Applications	Channel Applications	Minimum Tensile Strength[2,3] kN/m(lbs/ft)
			Maximum. Gradient (h:v)	Maximum Shear Stress[4,5] Pa(lbs/ft^2)	
A	Turf Reinforcement Mat	Non-degradable synthetic fibers, filaments, nets, wire mesh and/or other elements, processed into a permanent, three-dimensional matrix of sufficient thickness.*	0.5:1	288(6.0)	1.82(125)
B	Turf Reinforcement Mat		0.5:1	384(8.0)	2.19(150)
C	Turf Reinforcement Mat		0.5:1	480(10.0)	2.55(175)

Notes:

* TRMs, which may be supplemented with degradable components, are designed to impart immediate erosion protection, enhance vegetation establishment and provide long-term functionality by permanently reinforcing vegetation during and after maturation. Note: TRMs are typically used in hydraulic applications, such as high flow ditches and channels, steep slopes, stream banks, and shorelines, where erosive forces may exceed the limits of natural, unreinforced vegetation or in areas where limited vegetation establishment is anticipated.

1 For TRMs containing degradable components, all property values must be obtained on the non-degradable portion of the matting alone.

2 Minimum Average Roll Values, machine direction only for tensile strength determination using ASTM D 6818 (Supersedes Mod. ASTM D 5035 for RECPs).

3 Field conditions with high loading and/or high survivability requirements may warrant the use of a TRM with a tensile strength of 44 kN/m(3,000 lb/ft) or greater.

4 Required minimum shear stress TRM (fully vegetated) can sustain without physical damage or excess erosion [>12.7 mm (0.5 in.) soil loss] during a 30-minute flow event in large scale testing. These performance test values should be supported by periodic bench scale testing under similar test conditions and failure criteria using ECTC Test Method #3.

5 Acceptable large-scale testing protocol may include ASTM D 6460, ECTC Test Method #3, or other independent testing deemed acceptable by the Engineer.

SECTION 780 – CONCRETE REPAIR MATERIALS

190. 780.03 RAPID SETTING CONCRETE REPAIR MATERIAL, part (b) Time of Setting, is hereby corrected by deleting the second sentence in its entirety.