

WALLACE M. HENDRICK,
331 MADISON AVENUE,
NEW YORK.

SPECIFICATION'S

FOR

CONCRETE AND STEEL BRIDGE OVER THE LONG ISLAND MOTOR PARKWAY,
WAY, AT WESTBURY, NEW YORK, FOR THE MEADOWBROOK CLUB,
WESTBURY, N. Y.

Reference is made to Drawing Entitled "Plan and Detail of Bridge over Long Island Motor Parkway for the Meadowbrook Club, October 1928" prepared by Arthur G. Archibald, Civil Engineer-Surveyor, Hempstead, N. Y.

GENERAL

1. The work will include furnishing all materials, labor tools and equipment to construct the concrete and steel bridge over the Long Island Motor Parkway together with the excavations there for and its approach fills and railings as shown on the drawing above referred to and as described in more detail hereinafter. The site of the work together with any permission or franchise that may be necessary, to be provided by the purchaser.

BRIDGE

2. The bridge will have a clear span of 50 feet, measured at a height of two feet above the center line of the Parkway Pavement at the point of crossing. It will have a headroom clearance at this point of 12 feet and a width of roadway on top between concrete curbs of 20 feet. The foundations, abutments and wing walls will be constructed of concrete. The floor slab and curb walls will be of reinforced concrete, supported on steel beams as shown. A railing of 2 1/2 inch Galvanized pipe will be erected above the curb wall with the spaces between stanchions closed by a strong Galvanized steel wire mesh. Proper weep holes and drain pipes will be installed where indicated or required by the Engineer.

APPROACH
FILLS

3. The approach fills will be constructed on each side of the bridge abutments and extended to meet the natural ground level at distances of approximately 200 feet from the center line of the Parkway as shown. The top of embankments will be 26 feet wide with sides evenly graded on a one and one half, to one to slope. The northerly approach will be fanned out for entrance, from a westerly direction as well as from the North. These fills will be made from earth, furnished by the Purchaser, part coming from surplus piles on your new Polo field, the balance to be brought from an embankment near your Club house. The embankments so used to supply this material, will be left with a reasonably presentable appearance.

RAILINGS.

4. A railing will be constructed along the edges of approach fills wherever these fills are 3 feet or more in height above the normal ground level. This railing will be made of Concrete Posts, spaced approximately 10 feet apart on centers, set 3 feet in to the ground with a height of 4 feet 6 inches above the ground. Two railings of 2X6 feet lumber will be bolted to these posts. Rails to be secured end to end, to prevent projecting edges so far as possible. After completion, these rails will be given three good coats of white paint of final coat may be of color to suit the Purchaser.

EXCAVATION
FOR
FOUNDATIONS

5. The contractor will clear the site to be excavated of all refuse and rubbish and make all excavation of whatever materials are encountered to the proper line and grades for constructing the Concrete work for Bridge piers.

SHEATHING,
SHORING &
DRAINAGE.

6. The Contractor will provide and place at his own expense all shoring, sheathing and bracing required to support the sides of the excavations and will pump or otherwise remove any water that may be encountered that would interfere with the proper execution of the work. Water will not be allowed to rise upon, nor flow over any masonry structure until the mortar or concrete has properly set.

get 2x6 @ 12' long

BACKFILLING 7. All excavated materials not required for backfilling, will be placed in the approach fills.

PROPORTIONS 8. The concrete will have the proportion of one volume of cement, two volumes of sand and four volumes of gravel.

MIXING AND PLACING 9. The mixing of the concrete will be done in a batch mixer or by other approved means, in a thorough and satisfactory manner. The several ingredients will be carefully proportioned as required and the quantity of water used will be sufficient to secure a consistency of mixture that may be properly placed by joggling and spading with little ramming. Concrete that has begun to stiffen or set will not be placed in the work. Care will be taken in placing the concrete, and suitable appliances used to remove any entrained air and to force the coarse aggregate away from the face of the forms insuring a layer of mortar next thereto.

CEMENT 10. The cement used will be of an approved brand equal in quality to the best hydraulic Portland Cement, finely ground, dry, of uniform color and of good weight which will fully meet the requirements of the Standard Specifications and Tests for Portland Cement adopted by the American Society for Testing Materials. It will be put up in satisfactory packages and properly stored in a dry place. Any cement which does not fulfill the requirements above referred to may be rejected by the Engineer, and will be removed from the work by the Contractor.

SAND 11. The sand used for the concrete will be hard durable material, clean, coarse, well graded and suitable for the class of concrete work herein contemplated.

GRAVEL 12. The coarse aggregate will be composed of gravel. It will be clean material, of a hard, durable and acceptable character, and will be screened to well graded sizes, coarse to fine. That which is used in concrete members 9" or less in thickness will be

screened to pass through a 1" ring and to be retained by a 1/4" ring. For members over 9" in thickness it will be screened to pass through a 2 1/2" ring and be retained by a 1/4" ring.

WATER

13. Clean suitable water shall be provided by the purchaser under pressure from their pipe system adjacent to the bridge site. The Contractor will make necessary connections to the purchaser's pipes.

**FORMS
AND
CENTERS**

14. The Contractor will furnish and erect all forms and centers for the proper construction of the work. They will be strong and well braced so as to maintain their position to the lines and grades under the weight and during the placing of the fresh concrete. The forms of all surfaces which are to be exposed in the completed work will be finished smooth and coated, if required, in satisfactory manner so that they may be readily removed leaving a smooth, presentable surface. All forms will be made practically water tight. No forms will be used that are not clean.

Forms and centers will be of ample strength and in every way adequate for their respective purposes. Broken or otherwise defective forms or centers will be removed from the work.

FINISHING

15. After removal of forms, all exposed surfaces of the Concrete walls and abutments, appearing unduly rough or otherwise un-presentable in the judgment of the Engineer, will be rubbed down with a suitable abrasive substance. A wash of fine sand and white cement will be ground into all exposed surfaces ~~//~~ except the under side of the floor slab.

**REINFORCING
STEEL**

16. Steel for reinforcement will be deformed bars throughout of the sizes and bent to the dimensions and spaced in accordance with the detailed drawings submitted herewith. Bars will be made from billet stock, of structural grade and in accordance with its Standard Specifications of the American Society for Testing Materials for this class of material.

**STRUCTURAL
STEEL
BEAMS.**

17. Six structural steel "I" beams will be placed between abutments to support the ~~concrete~~ concrete floor and load as shown. The ends of "I"

beams, will rest on steel bearing plates so arranged that expansion and contraction will be provided for at one end. All steel will be new material, reasonably free from rust and in accordance with standard specifications of American Society Testing Materials, for this class of materials. Erection will be carefully done to insure accuracy required by the plans.

PAINTING

18. After Erection and Completion of concrete work, all exposed structural steel will be given three coats of the best paint. The first two coats of red lead, and final coat of Graphite paint.

WORKMANSHIP

19. There will be provided all skilled and common labor also competent superintendence to insure a first class and workmanlike job.

PROTECTION
OF
WORK AND
TRAFFIC

20. The work will be carried on in such manner as will cause the least interference and danger to traffic over the Motor Parkway. Warning signs, lamps, and flag men, will be placed where required by the Purchaser and the Long Island Motor Parkway to properly safeguard the work.

All work shown on the plan and not mentioned in these Specifications or vice versa, will be done the same as if shown in both.

O. McCarroll Sup.