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extended of Sheridan Road, except the pavements herein proposed to be constructed at the intersections of said Hawthorn Lane with Poplar Street, Myrtle Street, Fairview Avenue, and Woodland Avenue; ELDER LANE from the present pavement in Wilson Street to the southwesterly line extended of Sheridan Road, except the pavements herein proposed to be constructed at the intersections of said Elder Lane with Poplar Street, Myrtle Street and Woodland Avenue; SUNSET ROAD from the pavement herein proposed to be constructed in Poplar Street and from the present pavement in Wilson Street to the west line of the Remy Park Subdivision, except the pavement herein proposed to be constructed at the intersection of said Sunset Road with Myrtle Street; also SUNSET ROAD in said Remy Park subdivision from the west line of said subdivision easterly and northeasterly along curved lines to a point north of and opposite the east end of the curved line bounding the northwesterly portion of the public park in said subdivision lying west of Woodland Avenue, thence east in a straight line parallel with the straight line and said straight line extended bounding the north side of the several public parks in said subdivision to a point north of and opposite the west end of the curved line bounding the easterly portion of the public park in said subdivision lying east of Essex Road, thence easterly, southerly and westerly parallel with the said curved line bounding the easterly end of said last mentioned public park to a point south of and opposite the west end of said curved boundary line, thence west in a straight line parallel with the straight line and said straight line extended bounding the south side of the several public parks in said subdivision to a point south of and opposite the east end of the curved line bounding the southwesterly portion of the said public park lying west of Woodland Avenue, thence northwesterly and westerly along curved lines to and connecting with the pavement hereinbefore proposed to be constructed in said Sunset Road at the west line of said Remy Park Subdivision, except the pavements herein proposed to be constructed at the intersections of said Sunset Road with Woodland Avenue, and except the pavements herein proposed to be constructed at the intersections of said Sunset Road with Essex Road; HILL ROAD from the present pavement in Wilson Street to the present pavement at the west line of Trier Center Neighborhood Subdivision; that portion of WINNETKA AVENUE within the Village of Winnetka from the northeasterly line extended from the northwest of the right of way of the Chicago, North Shore and Milwaukee Railroad to the west line of the southeast quarter of section twenty-one (21), township forty-two (42) north, range thirteen (13) east; also WINNETKA AVENUE from the said west line of the southeast quarter of section twenty-one (21) and from the west line of the northeast quarter of section twenty-eight (28), township and range aforesaid, to the east line and the east line extended of the said northeast quarter of section twenty-eight (28) aforesaid; also that part of WINNETKA AVENUE within the Village of Winnetka from the east line extended of said west half of the northeast quarter of section twenty-eight (28) aforesaid to the southwesterly line extended from the northwest of Sheridan Road; BERTLING LANE from the pavement herein proposed to be constructed in Winnetka Avenue to and connecting with the present pavement in said Bertling Lane fifty-eight (58) feet north of and parallel with the north line extended of said Winnetka Avenue; also the street returns of Winnetka Avenue at Wilson Street, Warwick Avenue, Abbottsford Road, and that portion of the south street return of said Winnetka Avenue at Essex Road within the Village of Winnetka, as far back as the street line of Winnetka Avenue extended, be improved by adjusting present manhole covers, adjusting present catchbasin covers, adjusting present concrete sidewalk approaches, resetting present fire hydrants, resetting present electric light poles, furnishing and setting new cast iron manhole covers and cast iron catchbasin covers, constructing brick masonry valve vaults, constructing new concrete sidewalk approaches, constructing vitrified, salt glazed tile road drains and connections, constructing brick masonry manholes with cast iron covers, constructing brick masonry combination manholes and catchbasins with cast iron covers, constructing brick masonry catchbasins with cast iron covers, constructing cast iron sewer inlets each on a concrete base, refilling tile road trenches under proposed pavements with sand, refilling all other tile road drain trenches in said proposed improvement with equal parts cinders and earth, excavating, grading and preparing the subgrade to receive the proposed pavement, grading and leveling the parkways, grubbing, removing all surplus excavated materials and paving with a one (1) course reinforced Portland cement concrete pavement with integral curbs, with asphaltic felt filled joints, including a two (2) inch earth covering upon said pavement, the wetting and cleaning of the said concrete wearing surface of said proposed pavement, including all labor and material, and engineering and supervision during the construction of the said proposed improvement.

The width of the roadway to be covered with the proposed concrete pavement, including the integral curb in that part of Winnetka Avenue within the Village of Winnetka from the northeasterly line extended from the northwest, of the right of way of the Chicago, North Shore and Milwaukee Railroad to the west line of the southeast quarter of section twenty-one (21), township forty-two (42) north, range thirteen (13) east, shall be fourteen (14) feet.

The width of the roadway to be covered with the proposed concrete pavement, including the integral curbs in that part of Winnetka Avenue from the west line of said southeast quarter of section twenty-one (21) and from the west line of the northeast quarter of section twenty-eight (28) in the township and range aforesaid, to the east line and the east line extended of the west half of the northeast quarter of section twenty-eight (28) aforesaid shall be twenty-eight (28) feet, except between the proposed pavement in Woodland Avenue and the proposed pavement in Essex Road where the proposed pavement, including integral curbs, shall be thirty-nine (39) feet in width, fourteen (14) feet of which said proposed pavement shall be laid south of and adjoining the center line of Winnetka Avenue and the remaining twenty-five (25) feet of said proposed pavement shall be laid north of and adjoining the center line of Winnetka Avenue.

The width of the roadway to be covered with the proposed concrete pavement including integral curb, in that part of Winnetka Avenue within the Village of Winnetka from the east line extended of the west half of the northeast quarter of said section twenty-eight (28) to the southwesterly line extended from the northwest of Sheridan Road shall be fourteen (14) feet.

The width of the roadway to be covered with the proposed concrete pavement, including integral curbs, in Woodland Avenue shall be nineteen (19) feet, except from the proposed pavement in Winnetka Avenue to the south line of Remy Park Subdivision where the proposed pavement, including integral curbs, shall be twenty-seven (27) feet six (6) inches in width, nine (9) feet six (6) inches of which said proposed pavement shall be laid west of and adjoining the center line of Woodland Avenue and the remaining eighteen (18) feet of said proposed pavement shall be laid east of and adjoining the center line of Woodland Avenue.

The width of the roadway to be covered with the proposed concrete pavement, including integral curbs, in Essex Road shall be nineteen (19) feet except from the proposed pavement in Winnetka Avenue to the south line of Remy Park Subdivision where the proposed pavement, including integral curbs, shall be twenty-seven (27) feet six (6) inches in width, nine (9) feet six (6) inches of which said proposed pavement shall be laid east of and adjoining the center line of Essex Road and the remaining eighteen (18) feet of said proposed pavement shall be laid west of and adjoining the center line of Essex Road.

The width of the roadway to be covered with the proposed concrete pavement, including integral curbs, in Poplar Street shall be twenty-four (24) feet.

The roadway at curb corners shall be widened along curved lines; the radius of the curb corner at the northeast corner of Woodland Avenue and Winnetka Avenue shall be ten (10) feet; the radius of the curb corner at the northwest corner of Essex Road and Winnetka Avenue shall be ten (10) feet; the radius of the curb corner at the southwest corner of Essex Road and Elder Lane shall be sixty (60) feet; the radius of the curb corner at the southwest corner of Hawthorn Lane and Fairview Avenue shall be twelve (12) feet; the radius of the curb corner at the northeast corner of Wilson Street and Winnetka Avenue shall be sixty (60) feet; the radif of the curb corners at Bertling Lane and Winnetka Avenue shall be thirty (30) feet; the radius of the easterly curb of the roadway herein proposed to be constructed at the west end of the most westerly public park in the Remy Park Subdivision shall be thirty-seven (37) feet six (6) inches; the radius of the westerly curb of the roadway herein proposed to be constructed at the east end of the most easterly public park in the Remy Park Subdivision shall be thirty-seven (37) feet six (6) inches; the radius of the most easterly curb at the east end of the pavement herein proposed to be constructed at the east end of Sunset Road in the Remy Park Subdivision shall be fifty-six (56) feet six (6) inches; the radii of the reverse curves where the two branches of the pavement herein proposed to be constructed in Sunset Road in Remy Park Subdivision merge into the single pavement herein proposed to be constructed at the west line of said Remy Park Subdivision shall be fifty-six (56) feet six (6) inches; the radii of all other curb corners shall be twenty-five (25) feet. The roadways of all street returns to be covered with the concrete pavement shall be of the same width as the present pavements which connect with said street returns, and the width of all other roadways, including integral curbs, herein proposed to be constructed shall be nineteen (19) feet; all in the Village of Winnetka, County of Cook and State of Illinois.

The improvement herein provided for is further shown and described upon certain plates or drawings showing plans, sections, grades, elevations and details, which are hereto attached and made a part of this ordinance and marked respectively PLATE 1 and PLATE 2. The said several plates or drawings showing said plans, sections, grades, elevations and details, and each and all of the contents thereof, are herewith made a part of this ordinance with the same force and effect as if the said plans, sections, grades, elevations and details appearing upon said plates or drawings were set out or described in words and figures herein. Wherever the abbreviation "Fig." is used in this ordinance, it shall mean Figure. All such figures referred to in this ordinance are shown upon said PLATE 2.

The improvement herein provided for shall be composed of the following materials, to-wit:

Portland cement, crushed limestone, sand, brick, cinders, steel wire reinforcement, drain tile pipe, cast iron covers, asphaltic felt, and other materials necessary to construct the improvement herein provided for.

The elevations, lines and grades of the improvement herein provided for shall be as shown on said plates, and are given in feet and decimal parts of a foot above the established datum of the Village of Winnetka, Cook County, Illinois, as established by ordinance of the said Village of Winnetka passed on the twenty-third day of March, A. D. 1915.

All of the necessary excavation herein provided for shall be made to the depth, of the dimensions, and to the lines and grades herein provided for, and as shown upon said plates.

Trenches shall be excavated along the course of said improvement to receive the drains herein provided to be constructed under the said pavement, as shown on said plates, which said trenches shall be backfilled with sand. In the said trenches, there shall be laid at an average depth of three and one-half (3½) feet, three thousand six hundred forty-five (3,645) lineal feet of four (4) inch vitrified, salt glazed tile pipe for road drains, and two thousand fifteen (2,015) lineal feet of eight (8) inch vitrified, salt glazed tile bell and spigot pipe for road drains, including catch basin and inlet connections, laid at an average depth of four and one-half (4½) feet, and one hundred seventy (170) lineal feet of ten (10) inch vitrified, salt glazed tile bell and spigot pipe for road drains, laid at an average depth of eight (8) feet, as shown by PLATE 1 and Figs. 24, 25, 26 and 27.

Trenches shall also be excavated along the sides of said pavement to receive the drains herein provided to be constructed as shown on said plates, which said trenches shall be backfilled with earth and cinders in alternate piles of equal volume, as shown by Figs. 22 and 23. In the said trenches, there shall be laid, at an average depth of three and one-half (3½) feet, thirty-three thousand thirty (33,030) lineal feet of four (4) inch vitrified, salt glazed tile pipe for road drains, and thirty-six hundred seventy-five (3,675) lineal feet of eight (8) inch vitrified, salt glazed tile bell and spigot pipe for road drains, including catch basin and inlet connections, laid at an average depth of six and one-half (6½) feet, and fourteen hundred thirty (1,430) lineal feet of ten (10) inch vitrified, salt glazed tile bell and spigot pipe for road drains, laid at an average depth of eight (8) feet, as shown by PLATE 1 and Figs. 24, 25, 26 and 27.

The upper half of each of the joints of said four (4) inch drains shall be covered by a band of tar paper three (3) inches in width, as shown by Figs. 22 and 23.

The joints of said eight (8) inch and said ten (10) inch drains shall be filled with mortar composed by volume of one (1) part Portland cement and two (2) parts sand.

Where said drains shall be laid along the sides of said pavement as herein provided, the center line of said drains shall be located twenty-four inches back of the said integral curb, as shown by PLATE 1 and Figs. 28, 29, 30, 31, 32, 33 and 34, except that the four (4) inch drains herein provided to surround the public parks located in Remy Park Subdivision shall be laid twenty-four (24) inches inside of the edges of said pavements adjoining said public parks, as shown by PLATE 1.

There shall be constructed along the lines of the said improvement, as indicated on PLATE 1, one hundred thirty-one (131) catch basins. Each of said catch basins shall have an internal diameter of four (4) feet, and the height of the brick masonry over all of each of said catch basins shall be six and one-half (6½) feet, and each of said catch basins shall have a flat bottom of brick masonry six (6) inches in thickness extending under the entire catch basin, and shall have brick masonry walls eight (8) inches in thickness and shall be provided with a cast iron catch basin cover weighing not less than three hundred fifty (350) pounds, all as shown by Figs. 1, 2, 18 and 19. Each of said catch basin covers shall have an adjustable back or curb portion and shall have a horizontal grate eighteen (18) inches by twenty-two (22) inches, and the average thickness of the metal composing said catch basin cover shall be one (1) inch, all as shown by Figs. 1, 2, and 3. Each of said catch basin covers shall be set in mortar upon the top of the said brick masonry in such a manner that the top surface of the said grate shall be flush with the surface of the said pavement at the point where said catch basin shall be located, and the curb portion of said catch basin cover shall be on the line and grade of the integral curb of the said pavement where said catch basin shall be located, in such a manner as to receive the water from the surface of the said pavement, all as shown by Figs. 2 and 19. Each of said catch basins shall be provided with an eight (8) inch vitrified tile pipe outlet in the form of a bend which shall be set as shown by Figs. 1, 2 and 19, and to which shall be connected an eight (8) inch catch basin connection as hereinbefore provided for, and as shown by PLATE 1 and Figures 1, 2 and 19.

There shall be constructed along the lines of the said improvement, as indicated on PLATE 1, five (5) catch basins. Each of said catch basins shall have an internal diameter of four (4) feet, as shown by Figs. 1 and 2, and each of said catch basins shall have a flat bottom of brick masonry six (6) inches in thickness extending under the entire catch basin, and shall have brick masonry walls eight (8) inches in thickness, and shall be provided with a cast iron manhole cover weighing not less than four hundred eighty (480) pounds. Said manhole cover shall have an internal diameter of twenty-four (24) inches, shall be nine (9) inches in height and shall have an average thickness of metal of one (1) inch, and the lid of said cover shall be perforated to permit the entrance of water. The height of the brick work over all shall be six (6) feet six (6) inches, all as shown by Figs. 1, 2, 20 and 21. Each of said covers shall be set in mortar upon the top of the said brick masonry in such a manner that the top surface of the said perforated lid shall be flush with the surface of the said pavement at the point where said catch basin shall be located, as shown by Figs. 2 and 19. Each of said catch basins shall be provided with an eight (8) inch vitrified tile pipe outlet, in the form of a bend, which shall be set as shown by Figs. 1, 2 and 19, and to which shall be connected an eight (8) inch catch basin connection as hereinbefore provided for and as shown by PLATE 1 and Figs. 1, 2 and 19.

There shall be constructed along the lines of the said improvement, as indicated on PLATE 1, four (4) manholes. Each of said manholes shall have an internal diameter of four (4) feet, and the height of brick work over all of each of said manholes shall be eight (8) feet, and each of said manholes shall have a bottom of brick masonry six (6) inches in thickness extending under the entire manhole, shall have brick masonry walls eight (8) inches in thickness, and shall be provided with a cast iron cover weighing four hundred eighty (480) pounds, all as shown by Figs. 8, 9, 10 and 11. Each of said covers shall have an internal diameter of twenty-four (24) inches, shall be nine (9) inches in height, and shall have an average thickness of metal of one (1) inch. Each of said manholes shall be provided with five-eighth (⅝) inch round wrought iron foot rounds, as shown by Figs. 8, 9 and 10. The inside bottom and invert of each of said manholes shall be formed along straight or curved lines so as to conform to the direction of the flow of water through the manhole, as shown by Figs. 8, 9 and 10.

There shall be constructed along the lines of the said improvement, as indicated on said PLATE 1, eleven (11) combination manholes and catch basins. Each of said combination manholes and catch basins shall have an internal diameter of four (4) feet. The height of brick work over all of each of said combination manholes and catch basins shall be seven (7) feet. Each of said combination manholes and catch basins shall have a flat bottom twelve (12) inches in thickness extending under the entire combination manhole and catch basin, and shall have brick masonry walls eight (8) inches in thickness, and shall be provided with a cast iron catch basin cover weighing not less than three hundred fifty (350) pounds, all as shown by Figs. 16 and 17. Each of said catch basin covers shall have an adjustable back or curb portion, and shall have a horizontal grate eighteen (18) inches by twenty-two (22) inches, and the average thickness of metal composing said catch basin cover shall be one (1) inch, all as shown by Figs. 1, 2, 3, 16 and 17. Each of said covers shall be set in mortar upon the top of the said brick masonry in such a manner that the top surface of the said grate shall be flush with the surface of the said pavement at the point where said combination manhole and catch basin shall be located, and the curb portion of said catch basin cover shall be on the line and grade of the curb of the said pavement where said combination manhole and catch basin shall be located, in such a manner as to receive the water from the surface of the said pavement, all as shown by Fig. 17. Each of said combination manholes and catch basins shall be provided with five-eighth (⅝) inch round wrought iron foot rounds, as shown by Figs. 8, 9 and 10.

There shall be constructed along the lines of the said improvement, as indicated on said PLATE 1, nineteen (19) valve vaults. Each of said valve vaults shall have an internal diameter of four (4) feet. The height of the brick masonry over all of each of said valve vaults shall be six (6) feet six (6) inches, and each of said valve vaults shall have a flat bottom of brick masonry six (6) inches in thickness extending under the entire valve vault, shall have brick masonry walls eight (8) inches in thickness, and shall be provided with a cast iron manhole cover weighing four hundred eighty (480) pounds. Each of said covers shall have an internal diameter of twenty-four (24) inches, shall be nine (9) inches in height and shall have an average thickness of metal of one (1) inch, all as shown by Figs. 11, 12 and 13.

There shall be constructed along the lines of the said improvement, as indicated on PLATE 1, twenty-nine (29) inlets. Each of said inlets shall be furnished with a cast iron inlet cover weighing three hundred fifty (350) pounds, with an adjustable back or curb portion, and shall have a horizontal grate eighteen (18) inches by twenty-two (22) inches, and the average thickness of metal composing said cover shall be one (1) inch. Each of said inlet covers shall be set on a Portland cement concrete base thirty-six (36) inches square by eighteen (18) inches deep. The concrete for said base shall be composed by volume of one (1) part Portland cement, two (2) parts sand, and three (3) parts crushed limestone. Each of said inlet covers shall be so set upon the said concrete base that the top surface of the said grate shall be flush with the surface of the pavement at the point where the said inlet shall be located, in such a manner as to receive the water from the surface of the said pavement, and the curb portion of said inlet cover shall be on the line and grade of the integral curb of the said pavement where said inlet shall be located. The concrete base of each of said inlets shall be molded or formed so as to conduct the water into the eight (8) inch tile pipe connection hereinbefore provided for, and which connection shall connect said inlet with a present catch basin where said inlet shall be located, all as shown by PLATE 1 and Figs. 4 and 5.

There shall be furnished and set in place upon the brick masonry of present catch basins, as indicated by PLATE 1, three (3) new cast iron catch basin covers, each weighing not less than three hundred fifty (350) pounds, having an adjustable back or curb portion and provided with a horizontal grate eighteen (18) inches by twenty-two (22) inches, and the average thickness of the metal composing said catch basin cover shall be one (1) inch, all as shown by Figs. 1, 2 and 3. Each of said covers shall be set in mortar upon the top of the said brick masonry of the said present catch basins in such a manner that the top surface of the said cover shall be flush with the surface of the said pavement at the point where said catch basin shall be located, as shown by Figs. 2 and 19.

There shall be furnished and set in place upon the brick masonry of present catch basins, as indicated by PLATE 1, twenty-nine (29) new manhole covers, each weighing not less than four hundred eighty (480) pounds. Each of said manhole covers shall have an internal diameter of twenty-four (24) inches, shall be nine (9) inches in height and shall have an average thickness of metal of one (1) inch, all as shown by PLATE 1 and Figs. 9 and 11.

There shall be furnished and set in place upon the brick masonry of present catch basins, as indicated by PLATE 1, two (2) new cast iron manhole covers, each weighing not less than four hundred eighty (480) pounds. Each of said manhole covers shall have an internal diameter of twenty-four (24) inches, shall be nine (9) inches in height, and shall have an average thickness of metal of one (1) inch, and the lid of each of said manhole covers shall be perforated to permit the entrance of water, as shown by Figs. 20 and 21. Each of said covers shall be set in mortar upon the top of the brick masonry of the said present catch basins in such a manner that the top surface of the said perforated lid shall be flush with the surface of the said pavement at the point where each of said catch basins shall be located, as shown by Figs. 2 and 19.

Nineteen (19) present catch basin covers shall be adjusted to the lines and grades of the finished pavement herein provided for where said catch basins shall be located, in such a manner as to receive the water from the surface of the said pavement.

One hundred forty-one (141) present manhole covers shall be adjusted to the finished grade of the improvement herein provided for, where said manholes shall be located.

All catch basins, manholes, combination manholes and catch basins, and valve vaults herein provided to be constructed shall be constructed of brick masonry. Said brick masonry shall consist of first class hard burned sewer brick, laid in mortar composed by volume of one (1) part Portland cement and two (2) parts sand.

All cast iron covers herein provided for shall be set in mortar composed by volume of one (1) part Portland cement and two (2) parts sand, and shall be thoroughly coated with an asphaltic paint.

All manholes herein provided to be constructed shall be similar in design to the present manhole at the east end of Sunset Road in Remy Park Subdivision, in Winnetka, Cook County, Illinois.

All catch basins herein provided to be constructed shall be similar in design to the present catch basin at the northwest corner of Elm Street and Lincoln Avenue, in Winnetka, Cook County, Illinois.

All cast iron sewer inlets herein provided to be constructed shall be similar in design to the present cast iron sewer inlet on the east side of Sheridan Road, three hundred (300) feet southerly from Humboldt Avenue, in Winnetka, Cook County, Illinois.

Five (5) present fire hydrants now located within the proposed lines of the pavement herein provided to be constructed shall be reset in the parkway at positions respectively two (2) feet back of the integral curb herein provided to be constructed where said fire hydrants are respectively located, as shown by PLATE 1.

Twenty (20) present electric light poles now located within the proposed lines of the pavement herein provided to be constructed shall be reset in the parkway at positions respectively two (2) feet back of the integral curb herein provided to be constructed where said electric light poles are respectively located.

There shall be adjusted to the finished grades of the improvement herein provided to be constructed, nineteen hundred fifty (1950) square feet of present concrete sidewalk approaches, where the said sidewalk approaches do not conform to the said finished grades, by raising or lowering the said sidewalk approaches as required, so that said approaches shall meet the said integral curb and shall be even, smooth and continuous.

Throughout the course of the improvement herein provided for, there shall be constructed a total of two thousand ten (2010) lineal feet of concrete sidewalk approaches, where it shall become necessary to connect the present sidewalk approaches with the said integral curb herein provided for. The said sidewalk approaches herein provided to be constructed shall be five (5) feet four (4) inches in width, four (4) inches thick at the edges and five (5) inches thick at the center line, and shall be laid on a six (6) inch layer of cinders, as shown by Figs. 14 and 15. The concrete to be used in the construction of said sidewalk approaches shall be composed by volume of one (1) part Portland cement, two (2) parts sand and three (3) parts crushed limestone.

After the necessary roadway excavation, including grading, grubbing, the removal of surplus excavated materials, and the backfilling of trenches have been completed, the subgrade shall be prepared so that said subgrade, after being thoroughly rolled or tamped, shall be at the grade or elevation herein provided to receive the said paving material, as shown by PLATE 1, and Figs. 28, 29, 30, 31, 32, 33 and 34.

After the said subgrade has been prepared, as herein provided, it shall be brought to a firm, unyielding surface by rolling with a self-propelled roller weighing not less than fifteen (15) tons; and all portions which are inaccessible to the roller shall be thoroughly tamped with a hand tamper weighing not less than fifty (50) pounds.

All cement herein provided to be used shall be some first class brand of American Portland cement which shall meet the following requirements:

a: The specific gravity of said cement shall be not less than 3.10.

b: In a test for fineness, said cement shall leave by weight a residue of not more than eight (8) per cent on a number one hundred (100) sieve and a residue of not more than twenty-five (25) per cent on a number two hundred (200) sieve.

c: In a test for time required in setting, said cement shall not develop initial set in less than thirty (30) minutes, and must develop hard set in not less than one (1) hour, nor more than ten (10) hours.

d: The minimum requirements for tensile strength for bricquets one (1) inch in cross section made from such cement shall be that said bricquets shall show no retrogression in strength within the periods specified.

Neat Cement.

Age.	Strength.
24 hours in moist air	175 pounds
7 days (1 day in moist air, 6 days in water)	500 pounds
28 days (1 day in moist air, 27 days in water)	600 pounds

One Part Cement and Three Parts Standard Ottawa Sand.

7 days (1 day in moist air, 6 days in water)	200 pounds
28 days (1 day in moist air, 27	

days in water).....275 pounds

e: The said cement shall not contain more than 1.75 per cent of anhydrous sulphuric acid (SO_3), nor more than 4.0 per cent of magnesia (MGO).

All sand herein provided to be used in the construction of the said reinforced concrete pavement, the said integral curbs, the said sidewalk approaches, the said bases of inlets, the said mortar for brick masonry, the said mortar for setting cast iron covers, and the said mortar for drain pipe joints shall consist of particles graded from fine to coarse, with the coarse particles predominating. Said sand when dry shall pass a screen having four (4) meshes per linear inch. Not more than twenty-five (25) per cent of said sand shall pass a sieve having fifty (50) meshes per linear inch, and not more than five (5) per cent of said sand shall pass a sieve having one hundred (100) meshes per linear inch. Said sand shall not contain vegetable or other deleterious matter, nor more than three (3) per cent by weight of clay or loam. Said sand shall be of such a quality that mortar composed by weight of one (1) part Portland cement, and three (3) parts of said sand, when made into bricquets shall show a tensile strength, when tested at seven (7) and twenty-eight (28) days respectively, equal to or greater than the strength of bricquets composed by weight of one (1) part of said Portland cement and three (3) parts of standard Ottawa sand, when similarly tested.

All sand herein provided to be used for the backfilling of said trenches shall consist of bank sand or Lake Michigan shore sand.

All crushed stone herein provided to be used in the construction of the said reinforced concrete pavement, the said integral curbs, the said bases for inlets, and the said sidewalk approaches, shall consist of clean, tough, durable crushed limestone, free from vegetable or other deleterious matter, and shall contain no soft, flat or elongated particles. The size of said crushed stone shall be such as to pass a two and one-half (2½) inch round opening and shall range from two and one-half (2½) inches down, so that not more than five (5) per cent shall pass through a screen having four (4) meshes per linear inch, and so that no intermediate sizes shall be removed.

All cinders herein provided to be used in the backfilling of trenches and under the concrete sidewalk approaches herein provided to be constructed shall consist of clean boiler cinders.

All water necessary to be used in the construction of said improvement shall be clean Lake Michigan water.

All four (4) inch road drain pipe herein provided to be used shall consist of hard well burned vitrified, salt glazed tile pipe as shown by Fig. 24. All eight (8) inch and ten (10) inch road drain pipe shall consist of well burned vitrified, salt glazed tile bell and spigot pipe, as shown by Figs. 25, 26 and 27.

All cast iron covers for catch basins, manholes, combination manholes and catch basins, inlets and valve vaults herein provided for shall be constructed of tough gray iron, free from blow holes, cinder spots or cold shuts. The ultimate tensile strength thereof shall be not less than sixteen thousand (16,000) pounds per square inch. All cast iron covers above mentioned, after cast and before cooling, shall receive a thorough coat of an asphaltic paint. The said cast iron covers shall be set in mortar composed by volume of one (1) part Portland cement and two (2) parts sand.

The steel wire reinforcement herein provided for shall be that which is commonly known to the trade as "wire fabric" and shall be used in such quantity as shall weigh at least forty (40) pounds to each one hundred (100) square feet of pavement. All steel wire composing the said wire fabric herein provided to be used in the construction of the said reinforced concrete pavement shall be uniform in diameter, fibrous, tough and ductile. The said wire shall have an ultimate tensile strength of eighty-five thousand (85,000) pounds per square inch. The said wire reinforcement shall be placed not less than two (2) inches from the finished surface of the pavement and otherwise shall be placed as shown by Figs. 28, 29, 30, 31, 32, 33 and 34. The said wire reinforcement shall extend to within two (2) inches of all joints, but shall not cross said joints. Adjacent widths of said fabric shall be lapped not less than four (4) inches when the lap is made at right angles to the center line of the said pavement, and said adjacent width of said fabric shall be lapped not less than one (1) foot when the lap is made parallel to the center line of the said pavement.

Joints to provide for contraction and expansion shall be placed thirty (30) feet apart throughout the course of said pavement and shall be normal to the center line of said pavement. The said joints shall be one-fourth (¼) inch in width and shall be filled with an asphaltic felt extending from the bottom surface of the said pavement and the said integral curb herein provided for, to a height of one-half (½) inch above the top surface of said finished pavement and curb.

Asphaltic felt one-four (¼) inch in thickness shall be placed between all the cast iron covers of catch basins, manholes, vaults and inlets and the reinforced concrete pavement where said covers shall be located; and said felt shall extend from the bottom surface of the pavement to the top surface thereof, as shown by Figs. 3, 6 and 11.

All concrete herein provided for the construction of the said reinforced concrete pavement, the said integral curbs, said sidewalk approaches, and said bases for inlets, shall be composed by volume of one (1) part Portland cement, two (2) parts sand and three (3) parts crushed limestone, and shall be mixed with water as herein provided. The sand and crushed limestone herein provided for shall be mixed thoroughly with sufficient water, in a batch mixer, to produce a concrete of a consistency such that water will flush to the surface under light tamping, but the amount of water used shall not be sufficient to cause a separation of the coarse aggregate from the mortar, in handling the concrete.

All mortar herein provided to be used for the construction of said brick masonry, adjusting and setting said cast iron covers, constructing said drain pipe joints, and for the exposed surfaces of the said integral curbs, shall be composed by volume of one (1) part cement as herein provided and two (2) parts sand as herein provided.

The reinforced concrete pavement herein provided for shall be constructed on the subgrade herein provided for, according to the dimensions and the sections thereof as shown by PLATE 1 and Figs. 28, 29, 30, 31, 32, 33 and 34.

There shall be constructed at the same time and as an integral part of the reinforced concrete pavement herein provided for, an integral concrete curb, which shall be constructed along the sides of the said pavement, except the said fourteen (14) foot pavement in Winnetka Avenue which shall have an integral curb constructed only along the northerly side thereof. Said integral curb, as herein provided for, shall be constructed across the ends of the pavement herein provided for, across the alley intersections, as shown by PLATE 1, nor where catch basin covers, inlet covers, and combination manhole and catch basin covers are herein provided to be located; and all of said integral curb shall be constructed according to the dimensions and details thereof, as shown by Figs. 28, 29, 30, 31, 32, 33 and 34.

furnished with a cast iron | per lineal foot.....$ 2,756.25 | STRAIGHT LINE AND SAID STRAIGHT | NETKA AVENUE AND THE