

March 13, 2017

ADDENDUM NO. 1
TO
NEW STREET CONSTRUCTION
S. GREEN BAY AVENUE, E. 84TH STREET & E. 85TH STREET
S. GREEN BAY AVENUE FROM E. 83RD STREET TO E. 86TH STREET,
E. 84TH STREET FROM S. GREEN BAY AVENUE TO S. LAKE SHORE DRIVE

CDOT PROJ. NO. B-3-511
SPECIFICATION NO.: 225445

For which bids will be opened in the Department of Procurement Services, Bid and Bond, Room 103, City Hall, 121 N. La Salle St., Chicago, Illinois 60602, on March 22, 2017 is rescheduled to March 24, 2017 at 11:00 am Central Time.

BIDDER WILL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE
PROVIDED ON THE PROPOSAL PAGE

ADDENDUM

Change No.

1. Bid Opening Date is rescheduled from March 22, 2017 at 11:00 am to March 24, 2017 at 11:00 a.m. Central Time.
2. Remove pages DS-25 through DS-31 (7 pages) of Book 3, DETAIL SPECIFICATIONS, STANDARDS, AND DETAILS, with revised pages DS-25 through DS-31 (7 pages) attached. Additional information has been included requiring the Contractor to provide shop drawings for the transition pipe between the elliptical sewer and the manholes, and additional information has been noted regarding acceptable gaskets or sealing between joints of the elliptical sewer pipe.
3. Remove plan sheets 22, 23, 26 and replace with the attached revised plan sheets 22, 23, 26 with revisions dated March 8, 2017 and March 9, 2017 clarifying transitions of sewers between different sizes.
4. Clarifications as requested by bidders prior to issuance of this Addendum:

Q1. "At station nos. 26+40 and 29+85 we have 19"x30" elliptical pipe going in and out of the two manholes but no design for that kind of type A manhole."

Clarification: The intent of the plans was for the Contractor to provide a transition pipe section from the elliptical sewer cross section to a circular

cross section for insertion into the standard CDWM manholes. This is now clarified on the revised plans and specifications issued with Addendum No. 1.

Q2. "Spec calls for all reinforced concrete pipe to be gasket but that is not available in Illinois with out purchase from an out of state manufacture."

Clarification: The elliptical and box culvert storm sewer joints may be sealed with a gasket or utilizing mastic joint sealer and an external sealing band as revised in the updated detailed specification issued with Addendum No. 1.

Q3. "Could the elliptical pipe be mastic joint with a external wrap per IDOT specifications?"

Clarification: Addendum No. 1 includes a revised specification allowing use of mastic joint sealer and an external sealing band per IDOT Specifications for the elliptical storm sewer pipe installation.

END OF ADDENDUM 1

BIDDER WILL ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE PROPOSAL PAGE

City of Chicago
Department of Procurement Services

Jamie L. Rhee
Chief Procurement Officer

ITEM 43	***** – STORM SEWERS, 12-INCH (DUCTILE IRON PIPE)
ITEM 44	***** – STORM SEWERS, 24-INCH (REINFORCED CONCRETE PIPE)
ITEM 45	***** – STORM SEWERS, 42-INCH (REINFORCED CONCRETE PIPE)
ITEM 46	***** – STORM SEWERS, 48-INCH (REINFORCED CONCRETE PIPE)
ITEM 47	***** – STORM SEWERS, 60-INCH (REINFORCED CONCRETE PIPE)
ITEM 48	***** – STORM SEWERS, 72-INCH (REINFORCED CONCRETE PIPE)
ITEM 49	***** – STORM SEWERS, ELLIPTICAL, 30X19-INCH (REINFORCED CONCRETE PIPE)
ITEM 50	***** – DRAINAGE CONNECTION, 6-INCH VITRIFIED CLAY PIPE
ITEM 51	***** – DRAINAGE CONNECTION, 8-INCH DUCTILE IRON PIPE

Description: Work under these items shall be performed according to Section 550 of the Standard Specifications and the current City of Chicago Department of Water Management (DWM) Regulations for Sewer Construction and 2016 Stormwater Management except as herein modified. This item consists of constructing sewers to carry storm, sanitary, or a combination of sanitary and storm flows, as shown on the plans or at locations designated by the Commissioner.

This work shall consist of constructing storm sewers at locations designated by the Commissioner, including any excavation, disposal, bedding, dewatering, sheeting and/or shoring required to perform the work as specified.

This work shall include the provision and installation of transitional sewer sections at manhole connections. The 30"x19" elliptical sewers shall transition to a standard 24" circular sewer end piece, so that the circular end can fit into standard CDOT and CDWM manhole bases. This work will include any sealed plans for the transitional sewer sections and as noted below such as for bracing.

Materials: Materials shall be per the above referenced specifications with the following additions:

- (a) Coarse aggregate for bedding material shall meet a CA 11 gradation in accordance with Article 1004.05 of the IDOT Standard Specifications.
- (b) Fine aggregate for backfilling material shall meet a FA 6 gradation in accordance with Article 1003.04 of the IDOT Standard Specifications.
- (c) Mastic Joint Sealer for Pipe.....Section 1055
- (d) Rubber Gaskets & Preformed Flexible Joint Sealants
for Concrete Pipe.....Section 1056
- (e) External Sealing Band Section 1057

Construction Requirements: Where a storm sewer or drain connection is to be made to a proposed E.S.V.C.P. storm sewer a manufactured Y or T branch pipe shall be installed in the sewer at this junction.

Where a storm sewer or drain connection is to be made to a proposed R.C.P. sewer a pipe section with a predrilled hole of the proper diameter shall be installed at this junction.

Where a storm sewer or drain connection is made to an existing sewer, a "T" or "Y" saddle shall be installed. The circular opening in the existing storm sewer must be core drilled to the same size as

the external diameter of the proposed storm sewer or drain connection. The protrusion of the proposed sewer into the existing sewer must not exceed a maximum of 1 inch. Edge of core holes must be a minimum of 1.5 feet from the edge of pipe and a minimum distance of 5 feet horizontally between holes. Do not drill holes higher than 10 and 2 o'clock.

All ductile iron pipe must be encased in 4-mil, cross-laminated, high density polyethylene tubing meeting the requirements of AWWA C105.

Where less than three feet of cover exists, use ductile iron pipe.

Sewer Trench: During construction of the sewer, it is the Contractor's responsibility to keep the sewer trench dry, control seepage from the surrounding earth, and prevent loss of ground from the excavation sides until the backfilling is completed to the required subgrade level. Water pumped from trenches or other excavations must be routed to settling basins before entering the City of Chicago sewer system. The Contractor must submit a means and method of dewatering to the Commissioner for OUC review and approval. Include locations of well points if required, as well as supporting calculations indicating the extent of drawdown and settlement.

In order to keep trench sides from caving and to allow no water inflow towards the trench excavation, the Contractor must design, provide and install trench box supports, or other trench support methods, suitable to field conditions. Where trench box methods are used, the Contractor must determine arrangement, sizes, types and construction sequence for all components of the trench box supports. The Contractor must submit design computations and details of the trench box supports and construction staging, for the Commissioner's approval prior to the installation of the trench box supports.

Submitted design computation items for whatever method of trench support the Contractor chooses to use shall include, but not be limited to, boring logs and associated field test data, geotechnical reports, any design assumptions used in the calculations, any relevant pages of reference used in the calculations, data of material properties used in the calculations, sketches of soil layering, cross sections and plan views supporting the calculations, soil parameters, water level, all pertinent structure and ground elevation points, existing adjacent foundations within influence zone, cut slopes and set-backs, list of all formulas used, calculation steps and procedures, any computer-assisted design analysis data, utilities within the zone of influence, groundwater control plan with dewatering calculations, manufacturer data showing serial numbers and loading capacities of support system components, and installation and dismantling procedures

All structural work, including design calculations, must be prepared, signed, and sealed by a Licensed Structural Engineer registered in the State of Illinois prior to being submitted to the Commissioner for approval.

All excavations must be properly protected to furnish safe working conditions, to prevent shifting of materials, to prevent damage to structures or other work, to avoid delay of the work, all in accordance with applicable safety and health regulations.

All costs to the Contractor resulting from the conditions of this work must be included in the prices for sewer and sewer structures.

Excavation in Open Cut: In the construction of monolithic concrete sewers and structures, the Contractor must, unless otherwise ordered by the Commissioner, excavate, sheet and brace the

trench or pits from the surface down so that the excavation will be of sufficient width and only sufficient width to permit the work to be constructed as specified.

The Contractor must restrict the width of the sewer trench to a maximum dimension equal to the external diameter of the pipe plus three (3) feet within the trench and a maximum dimension equal to the external diameter of the pipe plus five (5) feet measured at the ground surface. If soil conditions are unfavorable, or the depth of cut is excessive, the Contractor must partially or completely support the trench so as to maintain this specified maximum width of the trench.

When the depth of a trench exceeds the reach of the Contractor's equipment and excavation is made in two stages, the first stage may be left un-supported to a depth and width to be determined by the Contractor according to the stability of the ground. Otherwise, the first stage of excavation must be supported before the second stage of excavation is started.

Wherever the nature of the ground will permit, the bottom of the excavation for the sewers must have the shape and dimensions of their outside invert and for pipe sewers the shape and dimensions of the outside of their lower quarter.

If the bottom of the trench cannot be shaped to the required form and maintained until a section of the sewer is safely constructed, then the bottom of the trench must be made to conform as nearly as possible to the external shape and dimensions of the sewer, and the space between the outer surface of the sewer and the bottom and sides of the trench must be made to conform as nearly as possible to the external shape and dimensions of the sewer and must be filled with suitable material for stabilization of the trench bottom.

All material unsuitable for backfill must be removed from the site as soon as excavated.

The length of a trench excavated ahead of the completed sewer is subject to the approval of the Commissioner.

Sheeting, Bracing and Lining: When the Contractor chooses to use sheeting for sewer construction, the Contractor must furnish, place and maintain all sheeting, bracing and lining required to properly maintain trenches and other excavations in open cut, to support the sides, floors and headings of excavations in tunnel and keep to a minimum any movements of the soil, pavement, utilities, or other structures outside the trench, pit or tunnel. Steel sheeting, when used, must be driven and must remain toed into undisturbed earth until such time as the sewer is built and backfill placed within one foot of the top of sheeting. Sheeting, bracing and lining must be so placed as to allow the work to be constructed to the lines and grades shown on the Plans or established by the Commissioner.

The Contractor's attention is called to the fact that in driving the steel sheeting, he will cut off existing catch basin drains, house drains and other existing drains and sewers now connected to the sewers to be replaced. Prior to connecting these drains to the new sewers, the contractor must take the necessary measures to assure proper drainage from the live drains encountered and thereby prevent the backing up of sewage and/or the flooding of adjacent basements of property.

As soon as possible after the pipe is laid and drain connections are made, the sewer trench must be backfilled with trench backfill. No attempt must be made to pull the sheeting until such time as the trench has been backfilled to within a foot of the top of the sheeting after the trench has been water jetted.

The Contractor must exercise special care during the progress of his work, and when so directed by the Commissioner must leave in place such sheeting and bracing as may be necessary to protect existing utilities and structures.

All work done by the Contractor in driving and pulling sheeting must be performed on weekdays only, between the hours of 8:00 a.m. and 6:00 p.m.

In general, all other sheeting and bracing must be removed as the trench or excavation is backfilled, provided such removal does not cause damage to adjacent structures or property, or to the work performed under this Contract. The Contractor will be compensated for sheeting left in place if ordered by the Commissioner.

If at any time the method used by the Contractor for supporting any material or structure in or adjacent to any excavation is not reasonably safe, in the opinion of the Commissioner, the Commissioner may require and the Contractor must provide at his expense, additional bracing and support necessary to furnish the added degree of safety required, but the taking of such added precautions will in no way relieve the Contractor of his sole and final responsibility for the safety of lives, work and structures.

Pipe and Gaskets for Circular Sewers: All circular pipe and fittings 24 inches in diameter and larger must be Class III, IV and V reinforced concrete pipe, A.S.T.M. Designation C76, Table III, IV and V, Wall B or Wall C with circular or elliptical reinforcement.

All reinforced concrete pipe used must be gasketed. Each length of pipe must be provided with bell and spigot or tongue and groove ends of concrete formed on machined rings to insure accurate joint surfaces. The theoretical diameters and the actual diameters of the contact surfaces must not vary more than 1/16 inch. Each spigot or tongue must be recessed to accommodate either a round rubber gasket or other confined, compression-type rubber gasket.

The rubber gaskets must be continuous, precision molded gaskets manufactured from a compound containing a basic polymer of not less than 50 percent, by volume, of neoprene and must contain no vulcanized vegetable oil, reclaimed rubber or any deleterious substance and will be the product of a manufacturer having at least five (5) years experience in the manufacture of rubber gaskets for sewer pipe joints. Circular gaskets must be of sufficient cross-sectional area and volume so that when the joint is assembled, the gasket will be compressed to form a watertight seal. Gaskets must be extruded or molded and cured in such a manner that any cross-section will be dense, homogenous and free from porosity, blisters, pitting and other imperfections. The gaskets must be molded or extruded to the tolerance as specified. All gaskets must be manufactured within a tolerance of plus or minus 1/64 of an inch on any dimension measured at any cross section. The physical properties of the gasket materials must conform to the requirements of those specified under A.S.T.M. Designation C443, A.S.T.M. Designation C361 and A.A.S.H.T.O. Designation M198. The Contractor must submit to the Commissioner for approval, detailed drawings of the pipe and pipe joint to be furnished and placed under this Contract, including the dimensions of the rubber gasket and the joint in the assembled pipe position. The gaskets must be seated on the pipe in accordance with the manufacturer's specifications and the ends of the pipe and the gaskets must be kept clean and free from damage until the joint has been made.

Preformed tapered holes of the proper dimensions as shown on the Plans for the connection of drains and future drain connections will be provided during the manufacture of the pipe. Tapered holes must be so formed that the drain connection will enter the sewer at an angle of approximately 90 degrees with the axis of the sewer. Whenever the diameter of a preformed tapered hole is equal to or exceeds 50 percent of the diameter of the pipe, additional reinforcement steel satisfactory to the Commissioner must be placed around the hole. Pipe must not be less than 4 feet or more than 8 feet long unless otherwise approved by the Commissioner. The work must be carefully planned with regard to the matching of pipe openings to existing drain locations and the cutting of pipes for connections will be permitted only in special cases, and where permitted must be done in a manner satisfactory to and approved by the Commissioner.

If preformed tapered holes have not been provided for the connection of the drains and for future drain connections, the Contractor must make circular cored openings in the sewer pipe.

Lengths of pipe that are cracked, broken or otherwise defective must not be used in the work. All pipe and fittings must be re-inspected for soundness and damage due to handling immediately before being laid and any pipe not conforming to the requirements of these Specifications must be rejected and removed immediately from the site of the work.

Joints: In addition to the jointing materials used by the Contractor in conforming to the gasket manufacturer's recommended practices as specified herein, the Contractor must seal all circular sewer joints in reinforced concrete pipe sewers with Portland cement mortar. The Portland cement mortar must be applied to the joint and finished smooth on the entire circumference of pipe on the inside and, so far as practicable, on the outside circumference. All foreign material and excess mortar must be removed from the inside surface of the sewer as pipe laying progresses.

Pipe and Gaskets for Elliptical Sewers:

Elliptical sewers joint connections may be connected and sealed with rubber gaskets and mortar as noted above for circular sewers, or may be connected and sealed with mastic joint sealer for pipe and external sealing bands as per Sections 1055 and 1057 of the SSRBC.

Transitional Section Shop Drawings

Shop drawings for the transitional sections between elliptical and circular sewer must be reviewed and approved by the Commissioner prior to the transitions being built at the precast offsite facility. All required structural calculations and drawings must be stamped and signed by a registered Illinois Structural Engineer.

Pipe Laying: Trenches must be kept as free as practicable from excess water until the mortar in the joints has sufficiently hardened.

Each length of pipe must be laid to the required line and grade on a firm, even embedment as described herein, and as shown on the Plans, with the groove end up grade. After the pipe with the gasket is lowered into position, it must be drawn home by use of a winch and cable so as to be in proper alignment. The Contractor must prevent excessive movement of the pipe when partially or completely home so as not to displace the rubber gasket or damage the pipe spigot or bell.

Whenever pipe laying is discontinued, the unfinished end of the sewer must be protected from displacement and cave-in or other injury and a suitable stopper or dam must be placed in the end of the sewer.

All concrete pipe sewers must be embedded in a firm even bed of granular material. This embedment must have a minimum thickness of six (6) inches below the bottom of the pipe except in the event that rock is encountered in this zone. The granular embedment must be placed at least to the spring line of the pipe, and as shown on the Plans or ordered by the Commissioner. The same embedment, as specified, must be placed beneath all precast integral manhole bases and the Contractor must use special care in placing each base to obtain the proper and maximum bearing on the granular embedment in order to minimize future settlement. The work includes the removing and disposing of material replaced by the granular embedment, except that where rock is encountered, it will be removed at the price bid in the proposal for rock excavation, which includes the furnishing, transporting and placing of the granular embedment and all incidental and appurtenant work for rock excavation.

All pipe sewers must be surrounded and covered by trench backfill above the granular embedment as soon as they are laid.

QC/QA Requirements: The Contractor must provide a Manufacturer's written certification that the materials comply with these specifications and be from an IDOT approved source when available.

Inspection and Acceptance: All sewers and sewer structures must be inspected by the Department of Sewers prior to the final payment to the Contractor. In conjunction with these sewer inspections, the Contractor must furnish a videotape of a televised inspection of the interior of all main line sewer constructed and the existing main line sewer to be connected to under this contract. Record the videotape under the supervision of the Commissioner. The cost of producing and furnishing the video tape will be incidental to the STORM SEWER items(s) of the contract. Perform 2 sessions of videotaping of the sewer: 1) before construction and 2) prior to the placement of final wearing surface. The name, phone number, and contact person of the firm which will be performing the videotaping of the sewer must be provided by the Contractor at the pre-construction meeting. Clean all sewers prior to videotaping. The final acceptance of the sewer shall be based on the sewer videotape. All deficiencies exposed on the videotape must be corrected by the Contractor within 30 calendar days of notification.

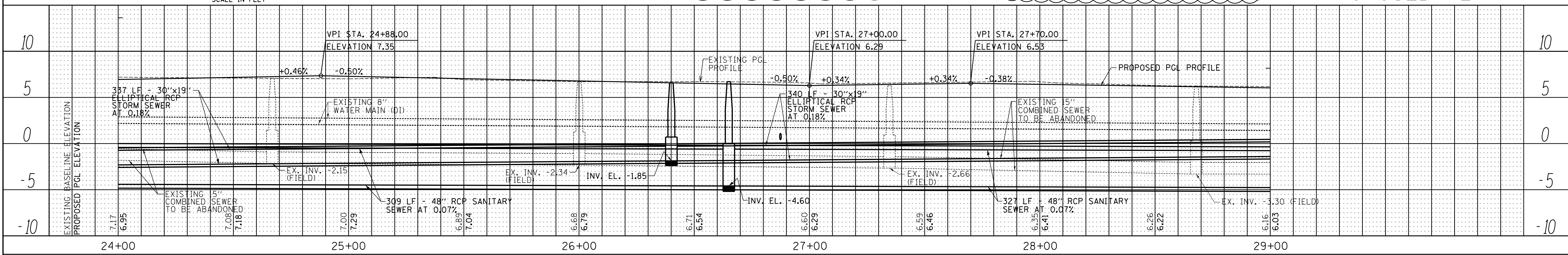
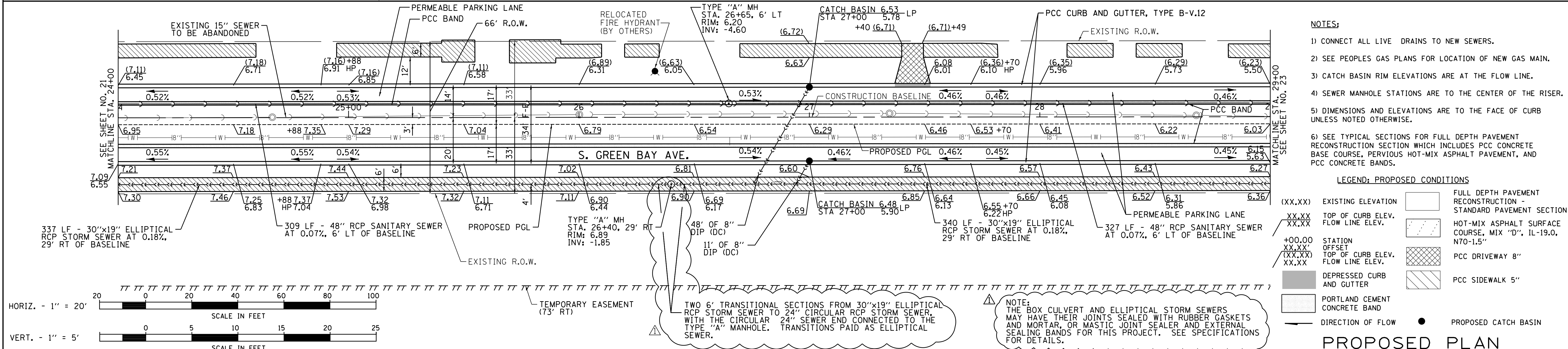
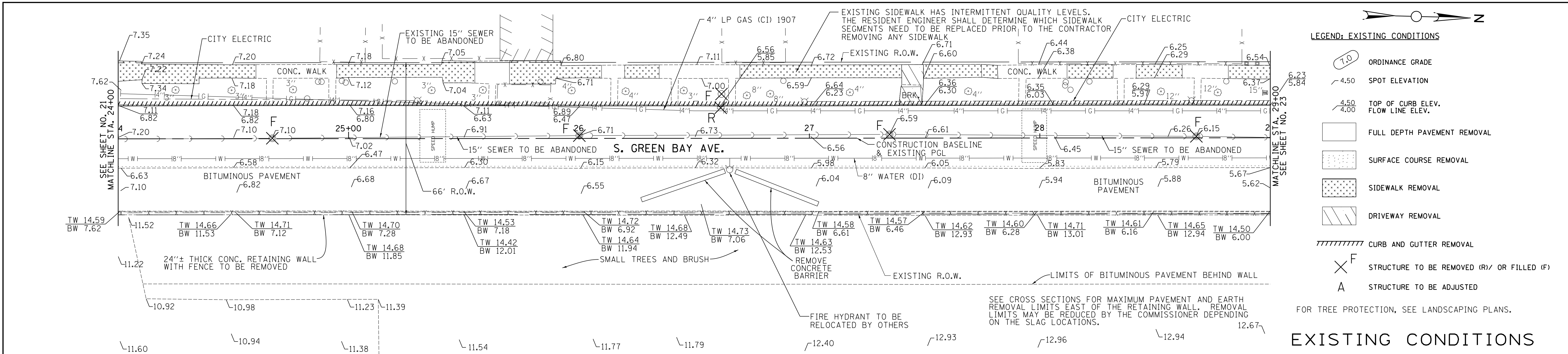
All costs incurred by the Contractor to make the required repairs are to be borne solely by the Contractor. Pavement removal, if required, must be in full panel sections and pavement anchors will be required for pavement restoration. The Contractor is required to re-videotape the sewer to verify that the deficiencies noted on any previous videotape have been corrected to the satisfaction of the Chicago Department of Sewers. All costs to re-videotape the sewer, regardless of the number of times required, will be borne solely by the Contractor. Every effort is to be made by the Contractor to correct all deficiencies prior to the placement of the final wearing surface. If, in the opinion of the Commissioner, the Contractor has delayed in submitting the videotape, the placement of the final wearing surface may be suspended. No time extension will be granted due to this suspension and the Commissioner will be sole judge as to any delays. Include location maps, legends and descriptions on all videotape submittals. 2 copies of each submittal are required.


Method of Measurement: This work will be measured for payment in place per foot in accordance with Article 550.09 with the following additions: When a proposed sewer is to be placed at the same location of an existing sewer, the removal of the existing sewer will not be measured for payment. Televising and inspection of sewers will not be measured separately for payment and is considered incidental to the work.

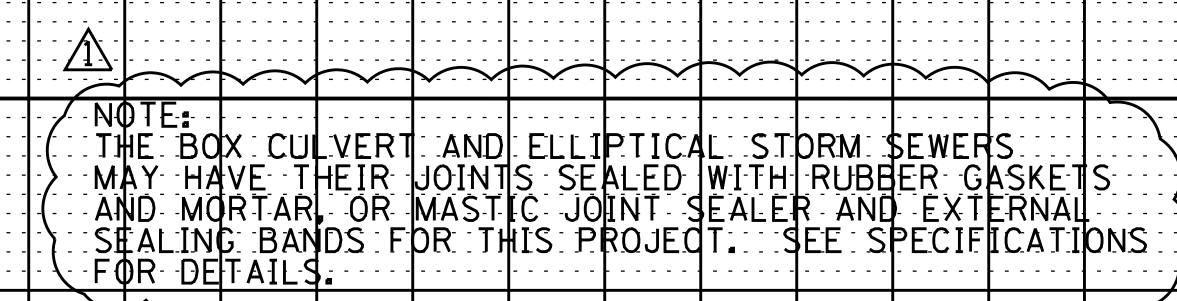
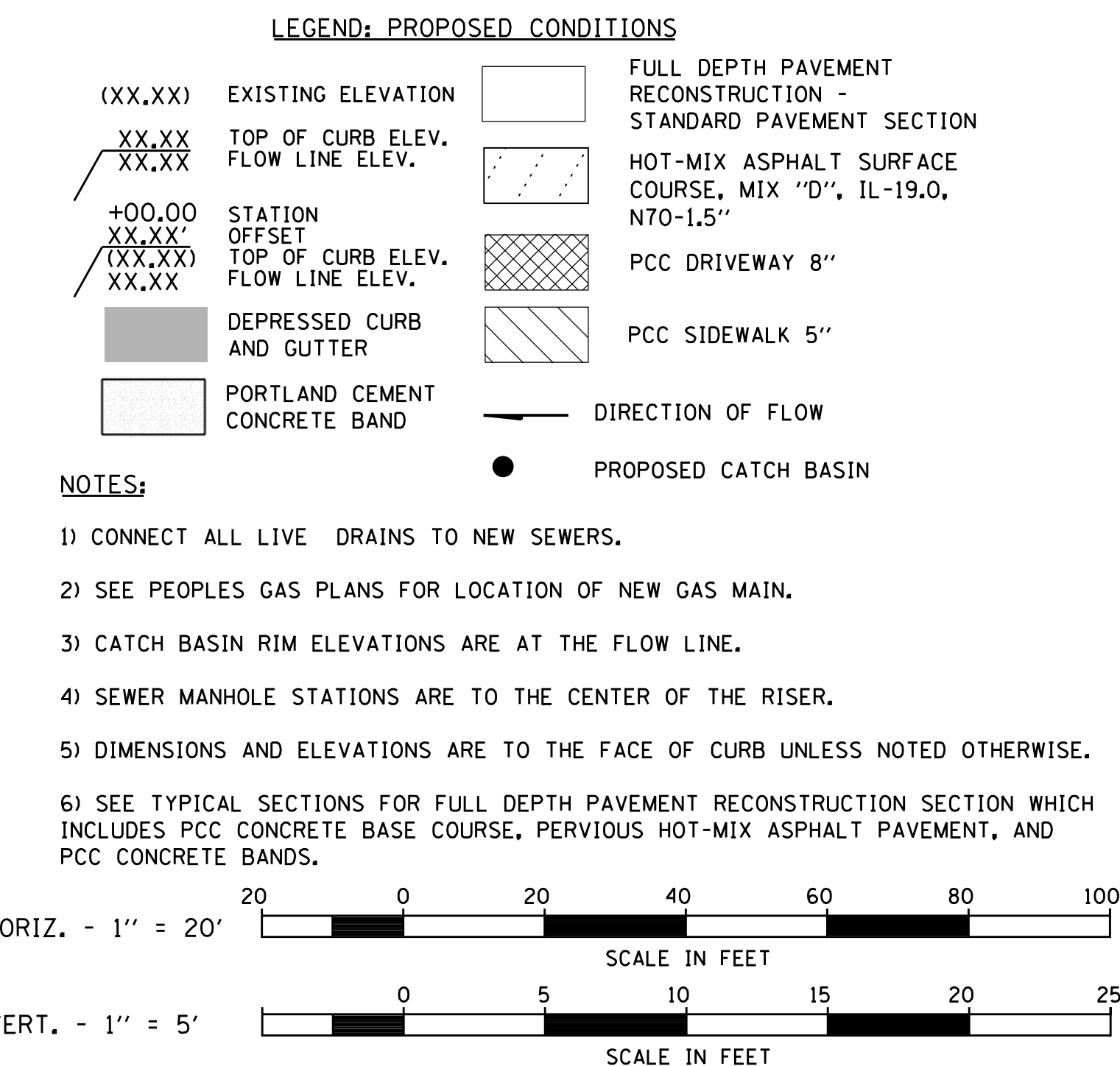
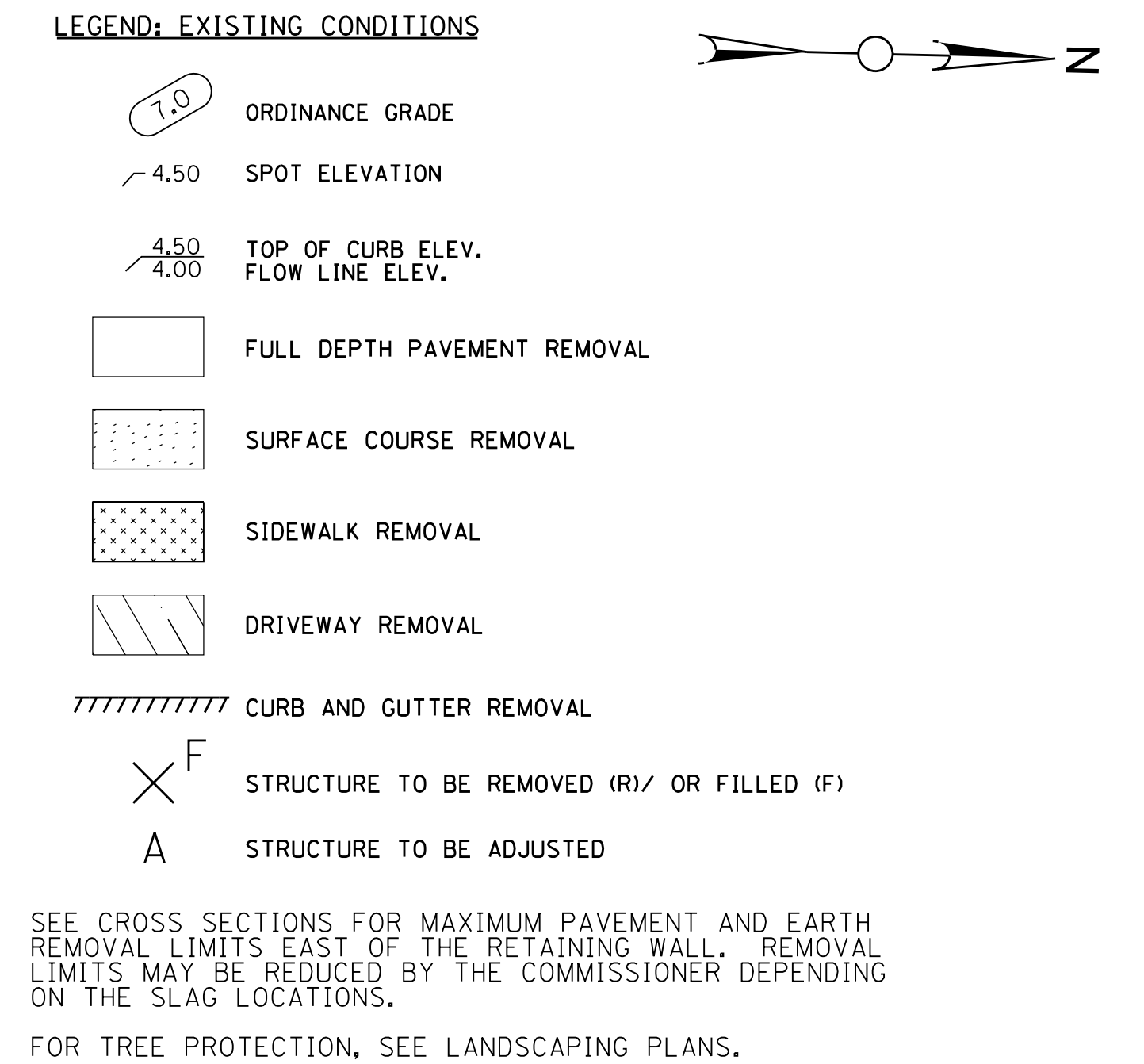
Basis of Payment: This work will be paid for at the contract unit price per foot for the STORM SEWERS, 12-INCH (DUCTILE IRON PIPE), STORM SEWERS, 24-INCH (REINFORCED CONCRETE PIPE), STORM SEWERS, 42-INCH (REINFORCED CONCRETE PIPE), STORM SEWERS, 48-INCH (REINFORCED CONCRETE PIPE), STORM SEWERS, 60-INCH (REINFORCED CONCRETE PIPE), STORM SEWERS, 72-INCH (REINFORCED CONCRETE PIPE), STORM SEWERS, ELLIPTICAL, 30X19-INCH (REINFORCED CONCRETE PIPE), DRAINAGE CONNECTION, 6-INCH VITRIFIED CLAY PIPE, DRAINAGE CONNECTION, 8-INCH DUCTILE IRON PIPE and will also include an incidental, salvaging manhole and catch basin frames, lids and covers, and inlet frames and grates, all bypass pumping or dewatering required for the installation of reinforced concrete pipe sewer in open cut . Furnishing and placing plugs in abandoned sewers and drains not filled with trench backfill will be paid for under the item, CONTROLLED LOW STRENGTH MATERIAL (CLSM).


This work shall include the costs for the transitional sewer sections and the associated shop drawings. The transitions from 30"x19" elliptical sewers to 24" circular sewer shall be paid as STORM SEWERS, ELLIPTICAL, 30X19-INCH (REINFORCED CONCRETE PIPE).

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J303-8-17 ELLIPTICAL SEWER CLARIFICATION				SEWER TRENCH BACKFILL			DRAWN BY: JSO		<div> 8501 W. Higgins Road; Suite 280 Chicago, Illinois 60631 (773) 399-0112</div>	CITY OF CHICAGO	GREEN BAY AVENUE IMPROVEMENTS	GREEN BAY AVENUE EXISTING CONDITIONS, PROPOSED IMPROVEMENT AND PROFILE STA. 24+00 TO STA. 29+00	SHEET NO. 22 OF 133
STATION LOCATION			DESCRIPTION		VOLUME CU. YDS.	CHECKED BY: TNS							
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NO. BY DATE DESCRIPTION										DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING	CDOT PROJECT NO. B-3-511		
REVISIONS													PROJECT No.



07/97/001	JSD 3-8-17 ELLIPTICAL SEWER CLARIFICATION			SEWER TRENCH BACKFILL			DRAWN BY: JSO			 8501 W. Higgins Road, Suite 280 Chicago, Illinois 60631 (773) 399-0112	CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING	GREEN BAY AVENUE IMPROVEMENTS CDOT PROJECT NO. B-3-511	GREEN BAY AVENUE EXISTING CONDITIONS, PROPOSED IMPROVEMENT AND PROFILE STA. 29+00 TO STA. 33+00	SHEET NO. 23 OF 133 PROJECT No.
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