



**Business Services**

**Contracts Office**

5735 47th Avenue • Sacramento, CA 95824

(916) 643-2464

*Rose Ramos, Chief Business Officer*

**ADDENDUM NO. 1**

Date: May 20, 2022  
Issued by: Sacramento City Unified School District  
Project: **Project #0272-409**  
**Parkway ES Play Structure & Paving Repairs**

This addenda shall supersede the original Information, attachments, and specifications regarding this project where it adds to, deletes from, clarifies or otherwise modifies them. All other conditions and any previous addenda shall remain unchanged.

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**SPECIFICATIONS**

**AD1.01** Section 33 30 00 – Water Distribution System: Add the attached Spec Section to the contract documents.

**AD1.02** Section 33 40 00 – Exterior Sanitary Sewer System: Add the attached Spec Section to the contract documents.

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**PLANS**

**AD1.03** Sheet G001 Cover Sheet:

**Edit sheet index**: Add new sheet number and sheet name to sheet index list below CIVIL sub-header: Sheet #: C5 Sheet Name: Addendum 1 Utilities

**AD1.04** Sheet C5 – Addendum 1 Utilities: Add the attached Sheet C5 to the contract documents.

A. **Kinder Play Area**: work shown to be included in base bid, where underground utilities are below paving to be demolished and replaced.



- B. **Main Play Area:** pricing for work shown to be included in bid-alternate #1. Underground utilities are to be replaced below (e) asphalt paving to receive AC overlay. Saw-cut, demolish, and compact patch-back trench to 95%, and provide new asphalt patch-back section; 3" AC over 16" aggregate base.

**END OF ADDENDUM NO. 1**

**SECTION 33 30 00**  
**WATER DISTRIBUTION SYSTEM**

**PART 1      GENERAL**

1.01    APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

B. American Society for Testing Materials (ASTM) Publications:

- |        |   |
|--------|---|
| A 120  | Pipe, Steel, Black and Hot-dipped, zinc-coated (Galvanized) Welded and Seamless, for ordinary uses. |
| C 94   | Ready-Mixed Concrete  |
| D 2774 | Underground Installation of Thermoplastic Pressure Piping (ANSI/ASTM D 2774)                        |
| D 3139 | Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals                                  |
| F 477  | Elastomeric Seals (Gaskets) for Joining Plastic Pipe  |

C. American Water Works Association (AWWA) Publications:

- |      |  |
|------|--|
| C104 | Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water (ANSI/AWWA C104)                   |
| C110 | Gray-Iron and Ductile-Iron Fittings, 3 in. Through 48 in., for Water and Other Liquids (ANSI A21.10) |
| C111 | Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings (ANSI/AWWA C111)      |
| C115 | Flanged Ductile-Iron and Gray-Iron Pipe with Threaded Flanges  |
| C151 | Ductile-Iron, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids      |
| C509 | Resilient-Seated Gate Valves for Water and Sewerage Systems  |
| C600 | Installation of Gray and Ductile Cast-Iron Water Mains and Appurtenances (ANSI/AWWA C600)            |
| C651 | Disinfecting Water Mains   |

C704	Cold-Water Meters - Propeller Type for Main Line Applications
C900	Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. Through 12 in. for Water Distribution
C901	Polyethylene (PE) Pressure Pipe, Tubing, and Fittings, 1/2 In. Through 3 In., for Water
C905	Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 in. Through 36 in.

## 1.02 GENERAL REQUIREMENTS

A. Manufacturer's Data: Submit manufacturer's standard drawings or catalog cuts of the following items, except where both are specified, and data which indicates that the following materials conform to the specifications:

1. Pipe and Fittings
2. Joints and Couplings, including gaskets for joints
3. Valves
4. Corporation Stops, Curb Stops, & Saddles
4. Valve Boxes
5. Tracer Wire

## 1.03 DELIVERY, STORAGE, AND HANDLING OF MATERIALS

- A. Delivery and Storage: Inspect materials delivered to site for damage. Unload and store with minimum handling. Store materials on site in enclosures or under protective covering. Store plastic piping and rubber gaskets under cover out of direct sunlight. Do not store materials directly on the ground. Keep inside of pipes and fittings free of dirt and debris.
- B. Handling: Handle pipe, fittings, valves, hydrants, and other accessories in such manner as to ensure delivery to the trench in sound undamaged condition. Take special care to avoid injury to coatings and linings on pipe and fittings; make satisfactory repairs if coatings or linings are damaged. Carry pipe to the trench; do not drag it. Do not leave rubber gaskets and plastic piping that are not to be installed immediately out in the sunlight, but store under cover out of direct sunlight.

## **PART 2 PRODUCTS**

### **2.01 PIPING MATERIALS FOR WATER DISTRIBUTION MAINS**

#### **A. Polyvinyl Chloride (PVC) Plastic Piping (Diameter between 4 inches and 12 inches):**

1. **Pipe and Fittings:** Pipe shall conform to AWWA C900, Pressure Class 235 (DR 18) and shall be plain end or gasket bell end unless noted otherwise, with cast-iron-pipe-equivalent OD. Fittings shall be gray-iron or ductile-iron conforming to AWWA C110, and shall have cement-mortar lining conforming to AWWA C104, standard thickness.
2. **Joint and Jointing Materials:** Joints for pipe shall be push-on joints as specified in ASTM D3139. Joints between pipe and metal fittings, valves, and other accessories shall be mechanical-joints as specified in AWWA C111. Provide each joint connection with an elastomeric gasket suitable for the bell or coupling with which it is to be used. Gaskets for push-on joints for pipe shall conform to ASTM F477. Gaskets for mechanical-joints for joint connections between pipe and metal fitting, valves, and other accessories shall be as specified in AWWA C111. Joints between fittings, and between fitting and valves shall be flanged.

#### **B. Polyvinyl Chloride (PVC) Plastic Piping (Diameter less than 4 inches):**

1. **Pipe and Fittings:** Pipe shall conform to Schedule 40 conforming to ASTM Standard D1785-76.
2. **Fittings:** Schedule 40 socket cement shall conform to ASTM Standard D2466-78.
3. **Solvent Cement:** PVC solvent cement shall conform to ASTM Standard D2564-80.

#### **C. Ductile Iron Pressure Piping:**

1. **Pipe and Fittings:** Ductile-iron pipe shall conform to AWWA C151, Thickness Class 50. Flanged pipe shall conform to AWWA C115. Fittings shall conform to AWWA C110. Fittings shall have a minimum pressure rating of 250 psi. Ends of pipe and fittings shall be suitable for the joints specified hereinafter. Pipe and fittings shall have cement-mortar lining conforming to AWWA C104, standard thickness. Below ground pipe shall be bituminous coated.
2. **Jointing Materials:** Above ground pipe, and pipe and fittings as indicated, shall have flanged joints. Bolts, nuts, and gaskets for flanged connections shall be as recommended in the Appendix to AWWA C115. Horizontal below ground joints may be made with "Tyton" joints, except as noted hereinafter. Joints between fittings and between fittings and valves shall be flanged. Joints between pipe and fittings, valves and other accessories shall be mechanical joints as specified in AWWA C111.

## 2.02 VALVES

- A. Valves Placed Underground: Valves shall be gate type conforming to AWWA C509, Class 150. Valves shall turn right to close, and be suitable for underground installation. Valve shall have a mechanical joint or a flanged end or approved equivalent, as indicated, suitable for connection to flanged fittings. The 2" square operating nut shall be fitted to the top of the valve stem and secured in position by mechanical means. Valve shall have a resilient seal.
- B. Valves Placed Aboveground:
  - 1. Valves 3" and Larger: Valves shall be gate valves conforming to AWWA C509, Class 150 with flanged ends, non-rising stem, and hand wheel. Valves for vertical installation shall be designed to operate satisfactorily in the vertical position. Valves stem shall be O-ring sealed and valve shall turn right to close.
  - 2. Valves Smaller Than 3": Valves shall be gate valves of bronze construction with malleable iron handwheel, rated for minimum 125 psi working pressure. Valves shall have threaded ends.

## 2.03 VALVE BOXES

- A. Box shall be Christy G-5, Brooks 4-TT, or approved equal with C275 cast iron traffic lid and frame or approved equivalent. The lid shall have the word "water" cast into it.

## 2.04 TRACER WIRE AND WARNING TAPE

- A. Tracer wire shall be insulated copper or aluminum wire not less than 0.10 inch in diameter and shall be provided in sufficient length to be continuous over each separate run of nonmetallic pipe. Polyethylene plastic warning tape manufactured specifically for warning and identification of buried utility lines shall be provided on rolls, 3-inch-minimum width, color coded Blue with warning and identification imprinted in bold black letters continuously over the entire tape length. Warning and identification to read, "CAUTION, BURIED WATER LINE BELOW" or similar wording. Color and printing is to be permanent, unaffected by moisture or soil.

## 2.05 SLEEVE-TYPE MECHANICAL COUPLINGS

- A. Couplings shall be made from ductile iron compatible with the pressure rating of the pipe. Couplings shall have shop coat enamel, shall be made by Dresser, Rockwell, or equal approved, and shall be suitable for installation above or below ground.

# **PART 3 EXECUTION**

## 3.01 INSTALLATION OF PIPELINES

A. General Requirements: These requirements shall apply to all pipeline installation except where specific exception is made in the "Special Requirements..." paragraphs hereunder.

1. Earthwork: Do earthwork in accordance with Section 02202, "Earthwork for Utilities."
2. Pipe Laying and Jointing: Water system shall be installed in accordance with AWWA C600-93. Pipe, fittings, valves, and accessories will be carefully inspected before and after installation and those found defective will be rejected. Remove fins and burrs from pipe and fittings. Before placing in position, clean pipe, fittings, valves, and accessories and maintain in a clean condition. Provide proper facilities for lowering sections of pipe into trenches. Do not under any circumstances drop or dump pipe, fittings, valves, or any other water line material into trenches. Cut pipe accurately to measurements established at the site and work into place without springing or forcing. Lay bell-and-spigot pipe with the bell end pointing in the direction of laying. Grade the pipeline in straight lines, taking care to avoid the formation of any dips or low points. Support pipe at its proper elevation and grade, taking care to secure firm and uniform support. Wood support blocking will not be permitted. Lay pipe so that the full length of each section of pipe and each fitting will rest solidly on the pipe bedding; excavate recesses to accommodate bells, joints, and couplings. Provide anchors and supports (where indicated and) where necessary for fastening work into place. Make proper provision for expansion and contraction of pipelines. Keep trenches free of water until joints have been properly made. At the end of each day's work, or to keep trench water out of the pipelines, close open ends of pipe with water tight plugs. Do not lay pipe when conditions of trench or weather are unsuitable. See note on plans regarding foreign matter entering pipelines.
3. Installation of Tracer Wire: Install a continuous length of tracer wire for the full length of each run of nonmetallic pipe. Attach wire to top of pipe in such manner that it will not be displaced during construction operations. Terminate at valve and curb boxes.
4. Connections to Existing Lines: Make connections to existing water lines in an approved manner in accordance with AWWA C651 and do so with a minimum interruption of service on the existing line.

B. Special Requirements for Installation of Polyvinyl Chloride (PVC) and Associated Fittings:

1. Installation, General: Install pipe and fittings in accordance with the general requirements for installation of pipelines and with the requirements of AWWA C900 for laying the pipe and jointing of pipe to valves, hydrants, and fittings, except as otherwise specified in the other subparagraphs hereunder.

2. Jointing: Make joints for pipe with the couplings and rubber rings previously specified for joints with this pipe; assemble these joints in accordance with the requirements of AWWA C900 for pipe joints. Make mechanical-joints between pipe and fittings, valves, and other accessories. Make mechanical-joints with the glands, gaskets, bolts, and nuts previously specified for this type joint; assemble these joints in accordance with the applicable requirements of AWWA C900 for joint assembly and with the recommendations of Appendix A to AWWA C111. Take special care to assure that the correct rubber ring or gasket, compatible with the annular groove of the bell or coupling, is used at each joint. Assemble joints made with sleeve-type mechanical couplings in accordance with the recommendations of the coupling manufacturer, as approved.
3. Pipe Anchorage: Provide concrete thrust blocks. Thrust blocks shall be as indicated for reaction or thrust backing and plugging of dead ends. Use concrete conforming to ASTM C 94 having a minimum compressive strength of 2,500 psi at 28 days.

C. Special Requirements for Installation of Ductile-Iron Pressure Lines:

1. Installation, General: Install pipe and fittings in accordance with the general requirements for installation of pipelines and with the requirements of AWWA C600 for pipe installation, joint assembly, and valve-and-fitting installation, except as otherwise specified in the other subparagraphs hereunder.
2. Joints: Make flanged joints with gaskets, bolts, and nuts previously specified for this type joint. Make flanged joints up tight, taking care to avoid undue strain on flanges, fittings, and other accessories. Align bolt holes for each flanged joint. Use full size bolts for the bolt holes; use of undersized bolts to make up for misalignment of bolt holes or for any other purpose will not be permitted. Do not allow adjoining flange faces to be out of parallel to such degree that the flanged joint cannot be made watertight without overstraining the flange. When any flanged pipe or fitting has dimensions that do not allow the making of a proper flanged joint as specified in this paragraph, replace it by one of proper dimensions. Assemble joints made with sleeve-type mechanical couplings in accordance with the recommendations of the coupling manufacturer, as approved.
3. Pipe Anchorage: Provide concrete thrust blocks (reaction backing) for pipe anchorage. Size and position thrust blocks as indicated. Use concrete conforming to ASTM C94 having a minimum compressive strength of 2,500 psi at 28 days.

D. Installation of Valves: Install gate valves in accordance with the requirements of AWWA C600 for valve-and-fitting installation. Make and assemble joints to gate valves as previously specified for making and assembling the same type joints between pipe and fittings.

E. Special Requirements for Installation of Water Service Piping:



1. Install pipe and fittings in accordance with the general requirements for installation of pipelines and with the applicable requirements of ASTM D 2774, except as otherwise specified in the other subparagraphs hereunder.

### 3.02 PRESSURE AND LEAKAGE TESTING

- A. Field Tests and Inspections, General: The Engineer will conduct field inspections and witness all field tests specified in this section. The Contractor shall perform all field tests, and provide all labor, equipment, and incidentals required for testing. Do not begin testing on any section of a pipeline until compaction is completed and until at least 7 days after placing of the concrete thrust blocks.
- B. Testing Procedure: Pressure and leakage test all water mains and water service lines. The pressure test shall be run at 150 psi and the leakage test at 100 psi. Compaction of the backfill must be completed before testing can occur. Allowable leakage will be as follows:

<u>Pipe Size</u>	<u>Gal.s/Hour/1000'</u>
6"	0.41
8"	0.54

### 3.03 STERILIZATION

- A. After the system has passed the pressure and leakage tests, the system shall be disinfected in accordance with AWWA Standard C651 with the following modifications:
  1. A chlorine concentration of approximately 100 parts of chlorine per million parts of water (PPM) is introduced into the water mains.\* This shall produce a residual chlorine concentration of not less than 25 PPM after 24 hours.\* All methods of chlorination included in AWWA Standard C651 are approved except where trench water or foreign material has entered the system as determined by the Engineer.
  2. Twenty-four to 48 hours\*\* after introduction of chlorinated water, treated water (minimum 25 PPM residual chlorine required) is flushed from the water mains (residual chlorine to be less than 0.1 milligram per liter).\* Flushing water is to be discharged into a storm drain system or other approved location. Discharge into the sanitary sewer system is strictly prohibited. No water is to accumulate on public rights-of-way or easements or in any manner as to create a potential hazard to existing public improvements or any under construction.
  3. Forty-eight hours\*\* after flushing the system, water samples are taken by the Engineer for bacteriological tests.\* Should any water be removed from the new system during this 48 hour period, the tests will be invalidated resulting in restarting

the test procedure at Step 1. Sampling points shall be as designated on the plans. No hose will be permitted at any sampling point.

Unless otherwise directed by the Engineer, one sample shall be taken at each sampling point.

4. If no coliform bacteria are detected in the samples, the water mains are considered clear. In the event coliform is detected in any sample, sterilization procedure must be restarted at Step 1 within 24 hours of notice. The Engineer may allow retesting without resterilizing if the bacteria level is low and fecal coliform and E. Coli are not detected in the original test.
5. Operation of existing valves by the contractor will invalidate the tests resulting in restarting the sterilization procedure at step 1. After sterilization procedures are complete and the system accepted by the Engineer, the contractor will not be permitted to operate any valves. District forces alone will have the authority to operate valves after sterilization.

\* Inspection required.

\*\* Should the end of any of the foregoing periods fall on a non-working day, the order of procedure will be continued to the next regular working day.

**END OF SECTION**

**SECTION 33 40 00**  
**EXTERIOR SANITARY SEWER SYSTEM**

**PART 1      GENERAL**

1.01    APPLICABLE PUBLICATIONS

- A. The General Conditions and Supplementary Conditions apply to this Section.
- B. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

American Society for Testing and Materials (ASTM) Publications:

C12	Installing Vitrified Clay Pipe Lines
C94	Ready-Mixed Concrete
C425	Compression Joints for Vitrified Clay Pipe and Fittings
C478	Precast Reinforced Concrete Manhole Sections
C700	Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated
C828	Low-Pressure Air Test for Vitrified Clay Pipe Fittings
D3139	Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals
D3212	Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
F477	Elastomeric Seals (Gaskets) for Joining Plastic Pipe

American Water Works Association (AWWA) Publications:

C105	Polyethylene Encasement for Ductile-Iron Piping for Water and Other Liquids
C110	Gray-Iron and Ductile-Iron Fittings, 3 in. through 48 in., for Water and Other Liquids
C111	Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings

C151	Ductile-Iron, Centrifugally Cast in Metal Molds or Sand-Lined Molds, for Water or Other Liquids.
C600	Installation of Ductile Iron Water Mains and Their Appurtenances
C905	Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14-inch through 36-inch

Uni-Bell Plastic Pipe Association (UNI) Publications:

UNI-B-5	Installation of Polyvinyl Chloride (PVC) Sewer Pipe
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1.02 SANITARY SEWER GRAVITY SYSTEM

- A. The system shall include pipelines and manholes. Provide mains and laterals of polyvinyl chloride (PVC) plastic pipe, except where specifically called out, or where ductile-iron pipe is required at sewer/water line crossings.

1.03 SHOP DRAWINGS

- A. Submit shop drawings for the following:

1. Precast concrete grade rings.
2. Gravity Sewer Pipeline.

1.04 MANUFACTURER'S DATA

- A. Submit manufacturer's standard drawings or catalog cuts of the following items:

1. Fittings
2. Joints and Couplings

1.05 STANDARDS COMPLIANCE

- A. Submit manufacturer's certificates of conformance or compliance for each of the following materials which are specified to conform to publications referenced under paragraph, "Materials" in this section:

1. Pipe and fittings, including factory-applied linings.
2. Pipe joint materials.
3. Precast concrete manhole grade rings.

## 1.06 TESTS

- A. All tests required by the applicable referenced publication shall have been performed, whether specified in that publication to be mandatory or otherwise. For tests which are not specified in the referenced publication to be performed at definite intervals during manufacture, the tests shall have been performed within three years of the date of submittal of certificates on the same type, class, grade, and size of material as is being provided for the project.

## 1.07 DELIVERY, STORAGE, AND HANDLING OF MATERIALS

### A. Delivery and Storage:

1. Piping: Inspect materials delivered to site for damage; store with minimum of handling. Store materials on site in enclosures or under protective coverings. Store plastic piping and rubber gaskets under cover out of direct sunlight. Do not store materials directly on the ground. Keep inside of pipes and fittings free of dirt and debris.
2. Precast Concrete Manholes: Handle precast manhole sections with care to avoid chipping and breakage; store as directed. Protect precast concrete from contact with the earth and exposure to weather; keep dry until used. Use of masonry or precast concrete containing frost will not be permitted.
3. Handling: Handle pipe, fittings, and other accessories in such manner as to ensure delivery to the trench in sound undamaged condition. Take special care not to injure linings of pipe and fittings; if lining is damaged, make satisfactory repairs. Carry pipe to trench; do not drag it. Do not leave rubber gaskets and plastic piping that are not to be installed immediately in the sunlight, but store under cover out of direct sunlight.

## **PART 2 MATERIALS & PRODUCTS**

### 2.01 GRAVITY SEWER PIPING

#### A. Clay Piping

1. Pipe and Fittings: Pipe and fittings shall conform to ASTM C700, extra strength bell-and-spigot piping only.
2. Jointing Materials: Jointing materials shall conform to ASTM.

#### B. Ductile Iron Pipe and Associated Fittings:

1. Pipe and Fittings: Ductile iron pipe shall conform to AWWA C151, Thickness Class 51. Fittings shall conform to AWWA C110; fittings with push-on joint ends

shall conform to the same requirements as fittings with mechanical-joint ends, except that the bell design shall be modified, as approved by the Contracting Officer, for push-on joint. Fittings shall have strength at least equivalent to that of the pipe. Ends of pipe and fittings shall be suitable for the joints specified hereinafter.

2. Push-On Joints: Shape of pipe ends and fitting ends, gaskets, and lubricant for joint assembly shall conform to AWWA C111. Drawings of the joint and gasket shall be furnished.

C. Polyvinyl Chloride (PVC) Plastic Piping:

1. Pipe and Fittings: Pipe and fittings shall conform to ASTM D3034 (SDR 35), with ends suitable for elastomeric gasket joints.
2. Joints and Jointing Material: Joints shall conform to ASTM D3212. Gaskets shall conform to ASTM F477.

2.02 CONCRETE MATERIALS

- A. Precast Concrete Manhole Sections: Precast concrete manhole risers, cones, and grade rings shall conform to ASTM C478.
- B. Poured-in-place Concrete: Use concrete conforming to ASTM C94, 1" maximum, having a minimum compressive strength of 2,500 psi at 28 days.

**PART 3 EXECUTION**

3.01. EARTHWORK

- A. Do earthwork in accordance with pertinent Specification Sections.

3.02. PIPE LAYING AND JOINTING

- A. Each pipe and fitting will be inspected before and after installation and those found defective will be rejected. Provide proper facilities for lowering sections of pipe into trenches. Lay non-pressure pipe with the bell ends in the upgrade direction. Adjust spigots in bells to give a uniform space all around. Blocking or wedging between bells and spigots will not be permitted. Replace by one of the proper dimensions any pipe or fitting that does not allow sufficient space for proper calking or installation of joint material. At the end of each day's work, close open ends of pipe temporarily with wood blocks or bulkheads.
- B. Connections to Existing: Make connections to existing in an approved manner. Conduct work so that there is minimum interruption of service on existing line.

### 3.03. SPECIAL REQUIREMENTS FOR INSTALLATION OF PVC PLASTIC PIPING

- A. Install pipe and fittings in accordance with the general requirements for installation of pipelines and with the requirements of UNI-B-5 for laying and joining pipe and fittings. Make joints with the gaskets previously specified for joints with this piping; assemble these joints in accordance with the requirements of UNI-B-5 for assembly of joints. Make joints to other pipe materials in accordance with the recommendations of the plastic pipe manufacturer.

### 3.05 FIELD TESTS AND INSPECTIONS

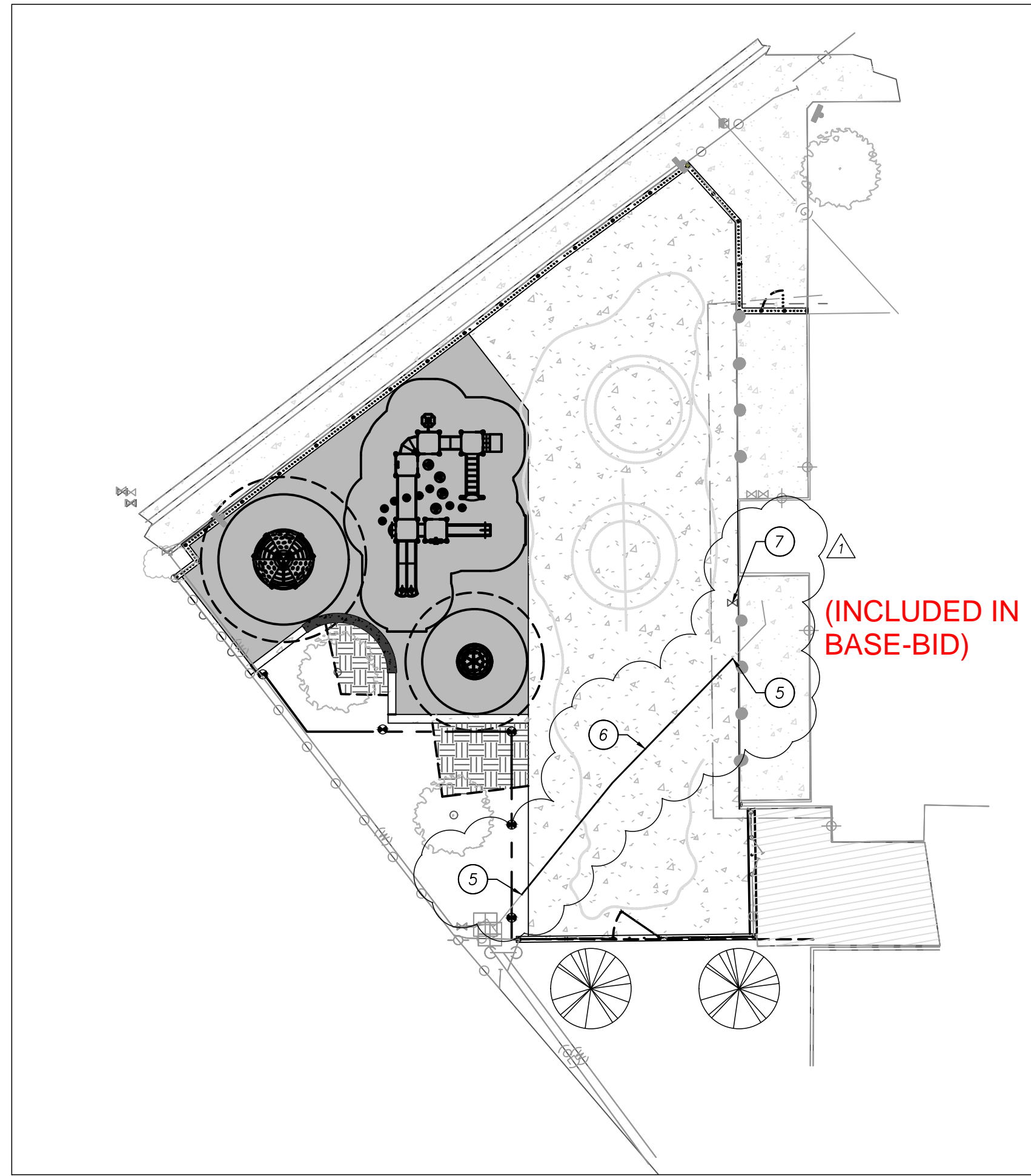
- A. Field Tests and Inspections, General: The Engineer or inspector will witness all field tests specified in this section. The Contractor shall perform all field tests and provide all labor, equipment, and incidentals required for testing.
- B. Pipeline Testing: Check each straight run of pipeline for visible deficiencies by holding a light in a manhole; it shall show a practically full circle of light through the pipeline when viewed from the adjoining end of line.
- C. TV Inspection: The Contractor will pay for a TV Inspection of the newly installed sewer pipes, and is responsible for the cost of repairs required, if any.

### 3.06 DEFLECTION TESTING

- A. Deflection Testing: (P.V.C. Gravity Sewer Only) Deflection shall be measured not less than 30 days after the pipe has been installed, backfilled, and compacted. A go-no-go Mandrel shall be pulled through the pipe by hand. All locations with deflection over 5 percent shall be excavated and reinstalled. Any pipe subjected to any method or process other than removal, which attempts, even successfully, to reduce or cure any over deflection, shall be uncovered, removed from the site and replaced with new pipe. The Mandrell shall be a rigid, non-adjustable, odd-numbering-leg (9 legs minimum) Mandrell having an effective length not less than its nominal diameter. The minimum diameter along the full length shall be 5.563 inches for 6-inch (nominal) diameter pipe.

**END OF SECTION**

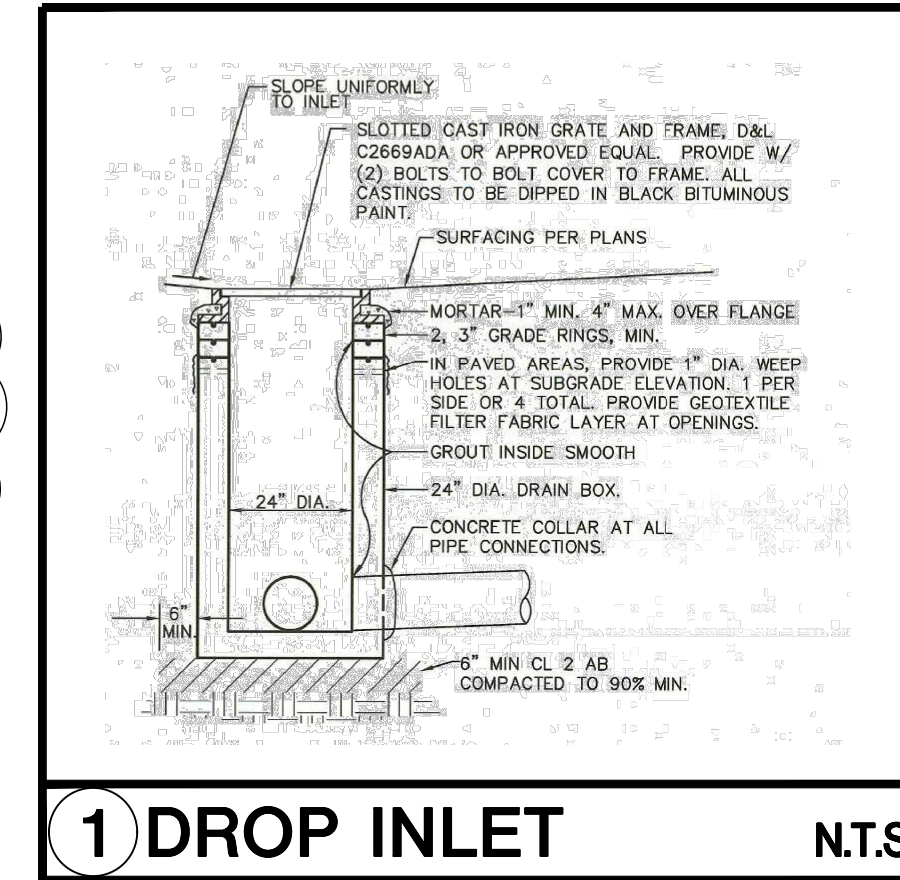




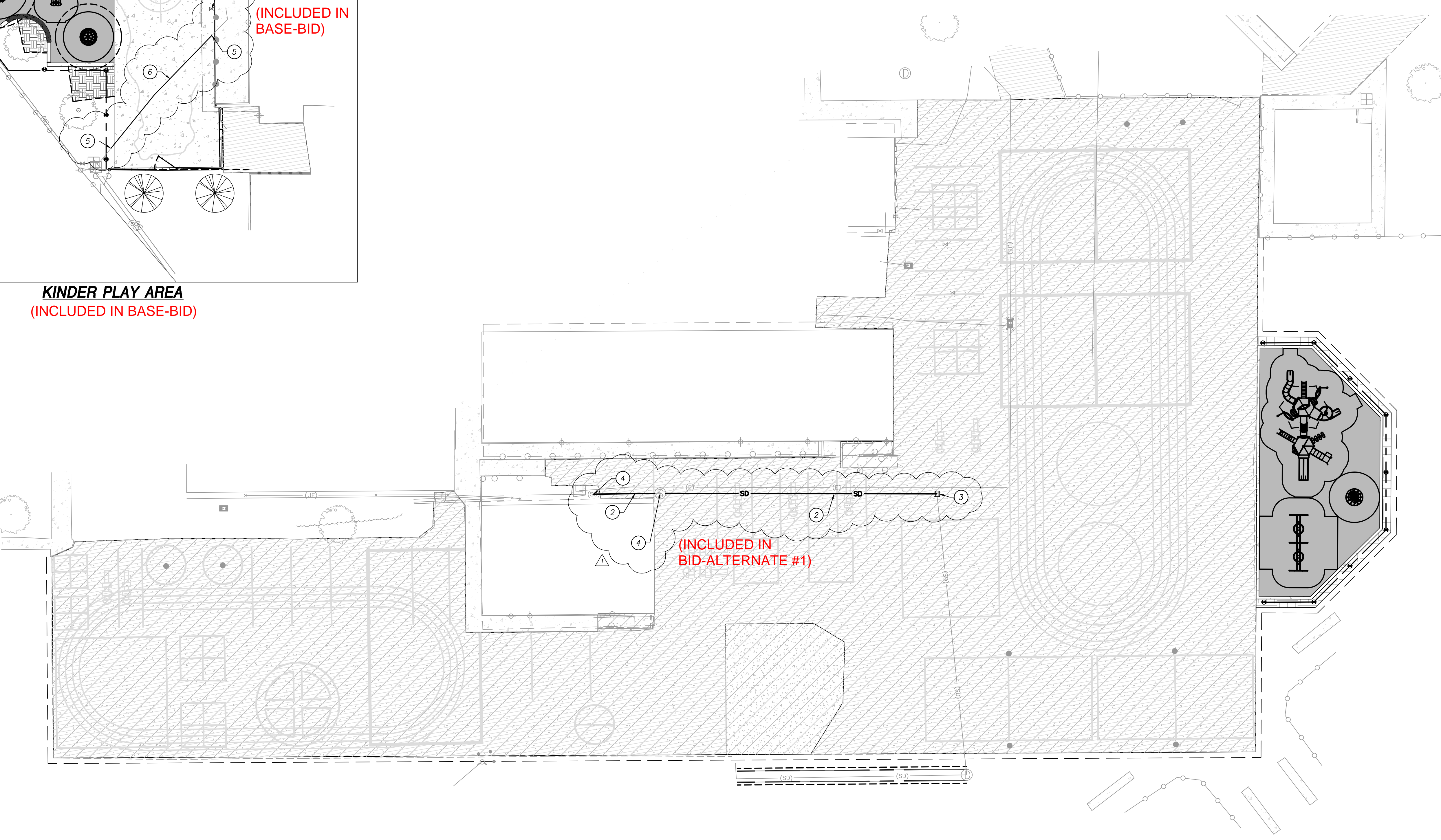
**KINDER PLAY AREA**  
(INCLUDED IN BASE-BID)

**CONSTRUCTION KEYNOTES**

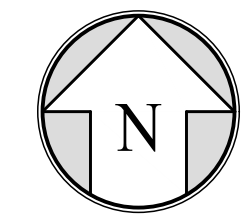
- 1 CUT EXISTING 4" STORM DRAIN PIPE AND CONNECT NEW STORM DRAIN PIPE WITH APPROPRIATE COUPLERS/FITTINGS.
- 2 REMOVE EXISTING STORM DRAIN PIPE AND REPLACE WITH NEW 4" PVC (ASTM D3034, SDR35) STORM DRAIN PIPE. SLOPE TO MATCH EXISTING.
- 3 REMOVE EXISTING DRAIN INLET AND REPLACE WITH NEW DRAIN INLET STRUCTURE WITH ADA COMPLIANT GRATE. SEE DETAIL 1 ON THIS SHEET.
- 4 EXISTING MANHOLE ASSUMED TO BE STORM DRAIN. CUT EXISTING 4" STORM DRAIN PIPE WITHIN 1" OF THE OUTSIDE OF THE MANHOLE AND CONNECT NEW STORM DRAIN PIPE WITH APPROPRIATE COUPLERS/FITTINGS.
- 5 CUT EXISTING WATER PIPE AND CONNECT NEW WATER PIPE WITH APPROPRIATE COUPLERS/FITTINGS.
- 6 REMOVE EXISTING IRRIGATION PIPING AND REPLACE WITH NEW SCH 80 PVC (SIZE TO MATCH EXISTING).
- 7 REMOVE AND REPLACE EXISTING VALVE AND VALVE BOX. NEW VALVE SHALL MATCH EXISTING. NEW VALVE BOX SHALL BE CHRISTY G-5 BOX, OR APPROVED EQUAL.



**1 DROP INLET** N.T.S.



**MAIN PLAY AREA** (INCLUDED IN BID-ALTERNATE #1)



SCALE: 1" = 20'



CALIFORNIA DESIGN WEST ARCHITECTS, Inc.

2100 19th Street  
Sacramento, CA 95818

Phone: (916) 446-2466  
Fax: (916) 446-5118  
Web Page: ca-dw.com

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ARCHITECT CONSULTANT:



PROJECT NAME:  
**PARKWAY ELEMENTARY SCHOOL**

3324 GLENMOOR DRIVE  
SACRAMENTO, CA 95827

**PLAY STRUCTURE & PAVING REPAIRS**

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

5735 47th Avenue  
Sacramento CA, 95824  
SACRAMENTO COUNTY

KEY PLAN:



SHEET TITLE:  
**ADDENDUM 1 UTILITIES**

JOB NUMBER:  
220085

DATE:  
MAY 20, 2022

REVISION:

**C5**