

HISTORIC AND DESIGN REVIEW COMMISSION

June 07, 2017

HDRC CASE NO: 2017-079
COMMON NAME: Fox Tech High School
ADDRESS: 637 N MAIN AVE
LEGAL DESCRIPTION: NCB 788 BLK 2 LOT 10 FOX TECH HIGH SCHOOL
ZONING: D, HS
CITY COUNCIL DIST.: 1
LANDMARK: SA High School
APPLICANT: William Triplett/HEB
OWNER: San Antonio Independent School District
TYPE OF WORK: Addition to previously approved design to include landscaping
REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to install landscaping elements for CAST Tech.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 5, Guidelines for Site Elements

3. Landscape Design

A. PLANTINGS

- i. Historic Gardens*—Maintain front yard gardens when appropriate within a specific historic district.
- ii. Historic Lawns*—Do not fully remove and replace traditional lawn areas with impervious hardscape. Limit the removal of lawn areas to mulched planting beds or pervious hardscapes in locations where they would historically be found, such as along fences, walkways, or drives. Low-growing plantings should be used in historic lawn areas; invasive or large-scale species should be avoided. Historic lawn areas should never be reduced by more than 50%.
- iii. Native xeric plant materials*—Select native and/or xeric plants that thrive in local conditions and reduce watering usage. See UDC Appendix E: San Antonio Recommended Plant List—All Suited to Xeriscape Planting Methods, for a list of appropriate materials and planting methods. Select plant materials with a similar character, growth habit, and light requirements as those being replaced.
- iv. Plant palettes*—If a varied plant palette is used, incorporate species of taller heights, such informal elements should be restrained to small areas of the front yard or to the rear or side yard so as not to obstruct views of or otherwise distract from the historic structure.
- v. Maintenance*—Maintain existing landscape features. Do not introduce landscape elements that will obscure the historic structure or are located as to retain moisture on walls or foundations (e.g., dense foundation plantings or vines) or as to cause damage.

B. ROCKS OR HARDSCAPE

- i. Impervious surfaces* —Do not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located.
- ii. Pervious and semi-pervious surfaces*—New pervious hardscapes should be limited to areas that are not highly visible, and should not be used as wholesale replacement for plantings. If used, small plantings should be incorporated into the design.
- iii. Rock mulch and gravel* - Do not use rock mulch or gravel as a wholesale replacement for lawn area. If used, plantings should be incorporated into the design.

C. MULCH

- Organic mulch* – Organic mulch should not be used as a wholesale replacement for plant material. Organic mulch with appropriate plantings should be incorporated in areas where appropriate such as beneath a tree canopy.
- i. Inorganic mulch* – Inorganic mulch should not be used in highly-visible areas and should never be used as a wholesale replacement for plant material. Inorganic mulch with appropriate plantings should be incorporated in areas where appropriate such as along a foundation wall where moisture retention is discouraged.

D. TREES

i. Preservation—Preserve and protect from damage existing mature trees and heritage trees. See UDC Section 35-523 (Tree Preservation) for specific requirements.

ii. New Trees – Select new trees based on site conditions. Avoid planting new trees in locations that could potentially cause damage to a historic structure or other historic elements. Species selection and planting procedure should be done in accordance with guidance from the City Arborist.

iii. Maintenance – Proper pruning encourages healthy growth and can extend the lifespan of trees. Avoid unnecessary or harmful pruning. A certified, licensed arborist is recommended for the pruning of mature trees and heritage trees.

FINDINGS:

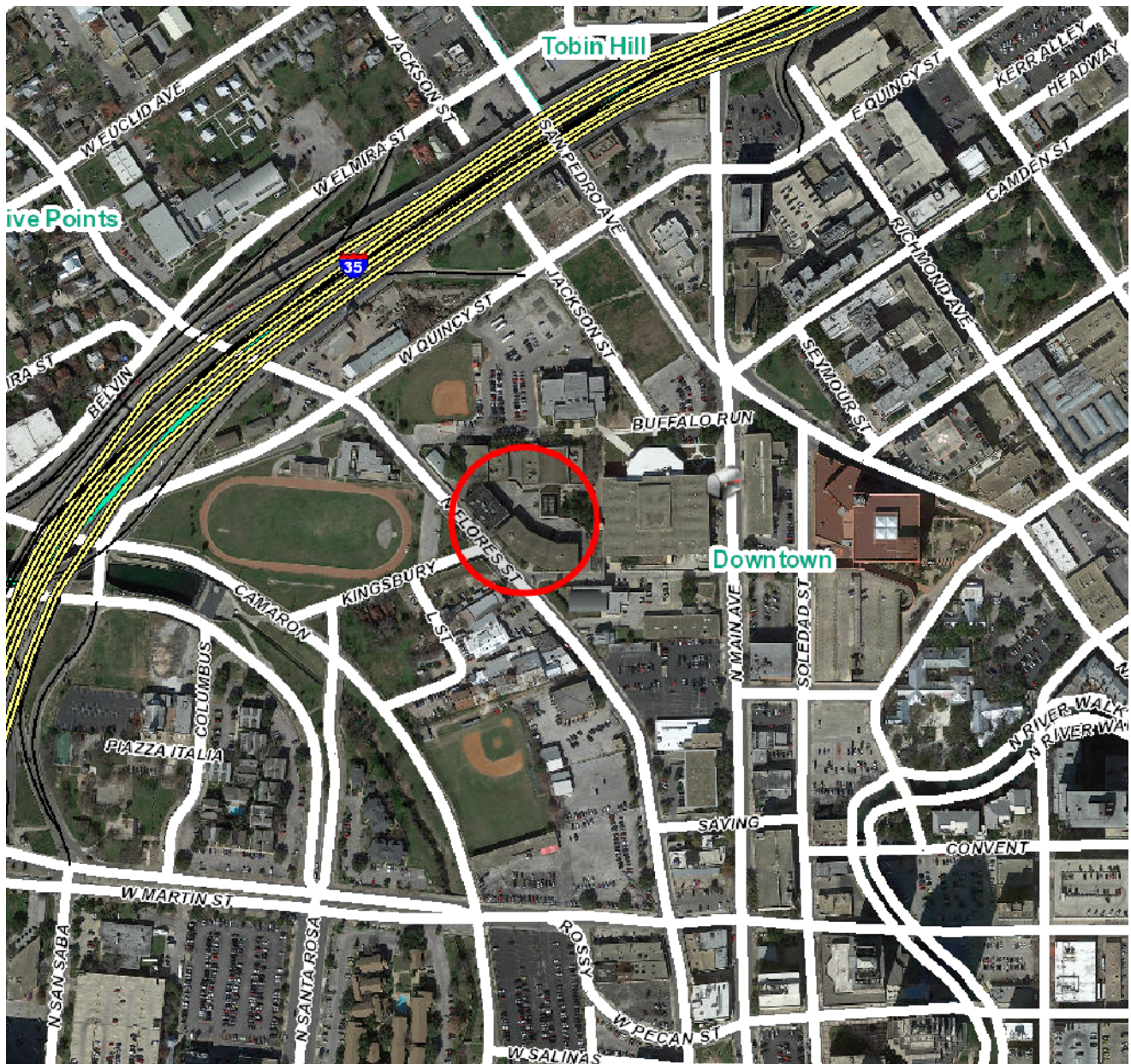
- a. The applicant is requesting a Certificate of Appropriateness for approval to install landscaping elements at Fox Tech High School for CAST Tech. The applicant has proposed various landscaping elements to include interior courtyard water features, courtyard paving and various plant materials to include, ground cover such as decomposed granite, trees and shrubbery. Staff finds the proposed landscaping materials and proposed design to be appropriate for the site. The addition of natural elements will significantly improve the pedestrian environment.
- b. ARCHAEOLOGY- The development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

RECOMMENDATION:

Staff recommends approval as submitted based on finding a with the stipulation that the development project shall comply with all federal, state, and local laws, rules, and regulations regarding archaeology.

CASE MANAGER:

Edward Hall



Flex Viewer

Powered by ArcGIS Server

Printed: Feb 22, 2017

The City of San Antonio does not guarantee the accuracy, adequacy, completeness or usefulness of any information. The City does not warrant the completeness, timeliness, or positional, thematic, and attribute accuracy of the GIS data. The GIS data, cartographic products, and associated applications are not legal representations of the depicted data. Information shown on these maps is derived from public records that are constantly undergoing revision. Under no circumstances should GIS-derived products be used for final design purposes. The City provides this information on an "as is" basis without warranty of any kind, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose, and assumes no responsibility for anyone's use of the information.



Legend

Fox Technical High School

Google earth

© 2016 Google

500 ft



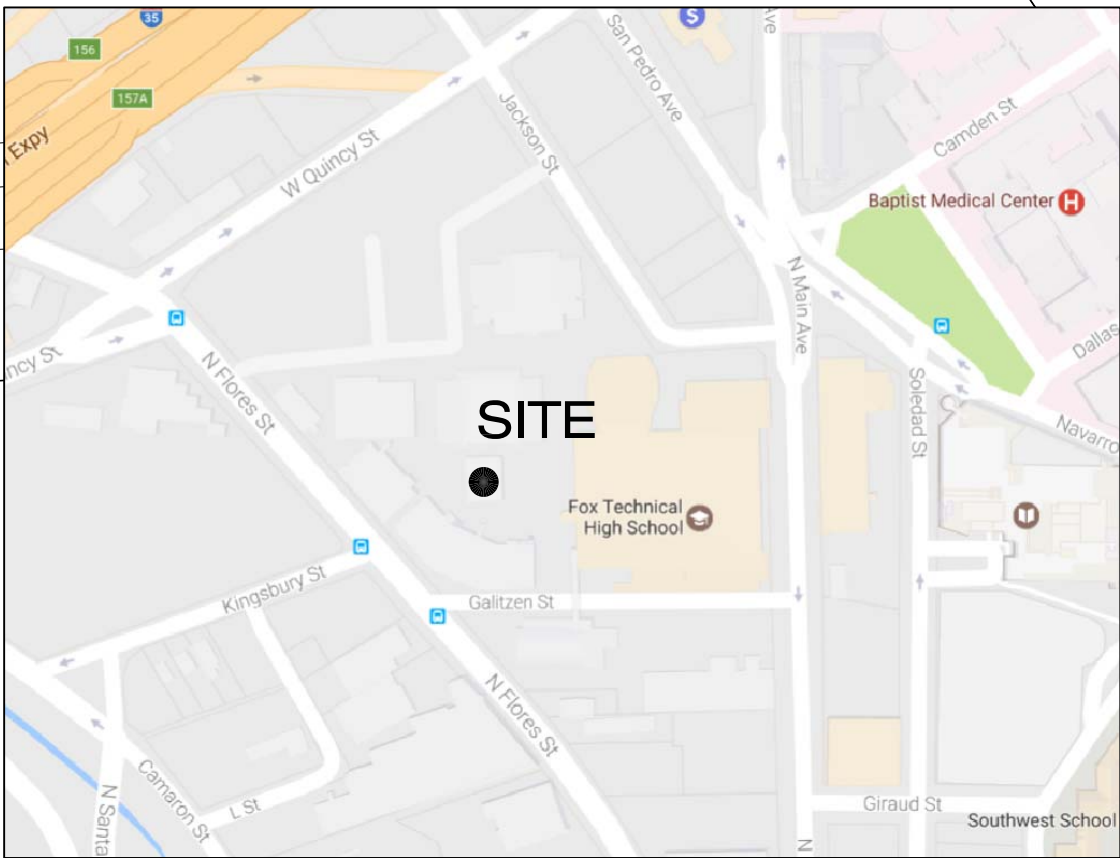


Fox Technical High School

Google earth
Legend

© 2016 Google

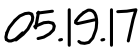
100 ft



H O R I Z O N
DESIGN AND DEVELOPMENT

PLANNING LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

14607 San Pedro Ave., Suite 200
San Antonio, Texas 78232
210.831.8564 jrobinson@horizondesign-sa.com



The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

153 Treeline Park
San Antonio, TX 78209

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

Drawn By: jo

Checked By: im

Sheet Title:
**OVERALL
LANDSCAPE
CONSTRUCTION
PLAN**

Sheet Number:

L1.0

Issue Date:

May 19, 2017

FINISH SCHEDULE

- ① = CONCRETE PAVING

② = BENCH
- STANDARD GRAY W/ MEDIUM BROOM FINISH

PER DEVELOPER

JOINT LEGEND

- CJ = TOOLED CONSTRUCTION JOINT

EJ = FIBERBOARD EXPANSION JOINT TOPPED W/ ELASTOMERIC SEALANT
- ELEVATION NUMBER REFERENCE

SECTION NUMBER REFERENCE
- X / L.X.X

X / L.X.X
- SHEET NUMBER REFERENCE

SHEET NUMBER REFERENCE
- (X)

FINISH SCHEDULE CALL-OUT REFERENCE

REFER TO SHEETS L1.3 AND L1.4 FOR LANDSCAPE CONSTRUCTION DETAILS.
REFER TO SHEETS L2.1 THRU L2.2 FOR LANDSCAPE GRADING PLANS.
REFER TO SHEET L3.0 FOR LANDSCAPE PLANTING PLANS.

- CONSTRUCTION NOTES:
1. REFER TO CIVIL PLANS FOR ALL UTILITIES INFORMATION AND SITE LAYOUT INFORMATION NOT DIRECTLY CONTROLLED BY THIS DOCUMENT.

2. WHERE INDICATED ON THIS DOCUMENT, NORTHINGS AND EASTING ARE DERIVED FROM CIVIL COORDINATE SYSTEM AND ARE PROVIDED FOR LAYOUT REFERENCE ONLY. VERIFY COORDINATES AND REPORT ANY DEVIATIONS TO LANDSCAPE ARCHITECT PRIOR TO PROCEEDING.

3. CONTRACTOR SHALL LAY-OUT ALL PROPOSED HARDSCAPE IMPROVEMENTS FROM INFORMATION PROVIDED AND COORDINATE FIELD REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTING ANY FORM WORK. PROPOSED HARDSCAPE IMPROVEMENTS SHALL @ CONTRACTOR'S DISCRETION BE LAID OUT W/ WOODEN STAKES (MAX. 20 FT. SPACING) OR PAINTED CLEARLY ON THE GROUND.

4. UPON APPROVAL OF PROPOSED HARDSCAPE IMPROVEMENT LAY-OUT, CONTRACTOR SHALL ERECT FORM WORK AND COORDINATE FIELD APPROVAL OF FORMS BY LANDSCAPE ARCHITECT PRIOR TO POURING OF ANY CONCRETE.

5. ALL FORM WORK FOR CONCRETE IMPROVEMENTS ON A RADIUS SHALL DESCRIBE A CONTINUOUS, SINGLE ARC AS INDICATED ON THE PLANS AND SHALL MEET OR REASONABLY APPROXIMATE THE RADIAL DIMENSIONS SHOWN ON THE PLANS. FORM WORK FOR HARDSCAPE IMPROVEMENTS ON MULTIPLE RADII SEGMENTS SHALL INTERSECT TANGENTIALLY.

6. ANY FORM WORK OR CONCRETE IMPROVEMENTS NOT CONSTRUCTED IN ACCORDANCE W/ THE CONTRACT DOCUMENTS SHALL BE REMOVED AT THE CONTRACTOR'S SOLE EXPENSE AND REPLACED W/ FORM WORK OR CONCRETE IMPROVEMENTS MEETING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

7. REFER TO SPECIFICATIONS FOR CONCRETE, REINFORCING, FORM WORK, AND SUBMITTAL REQUIREMENTS.

8. REFER TO LANDSCAPE GRADING PLANS FOR VERTICAL CONTROL OF CONCRETE IMPROVEMENTS.

9. ALL MATERIALS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS UNLESS STATED OTHERWISE.



HORIZON
DESIGN AND DEVELOPMENT
PLANNING LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING
14607 San Pedro Ave., Suite 200
San Antonio, Texas 78222
210.831.8564 jrobinson@horizondesign-sa.com

REGISTERED LANDSCAPE ARCHITECT
JON ROBINSON
STATE OF TEXAS
2375

05/19/17

The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER
SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT
CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

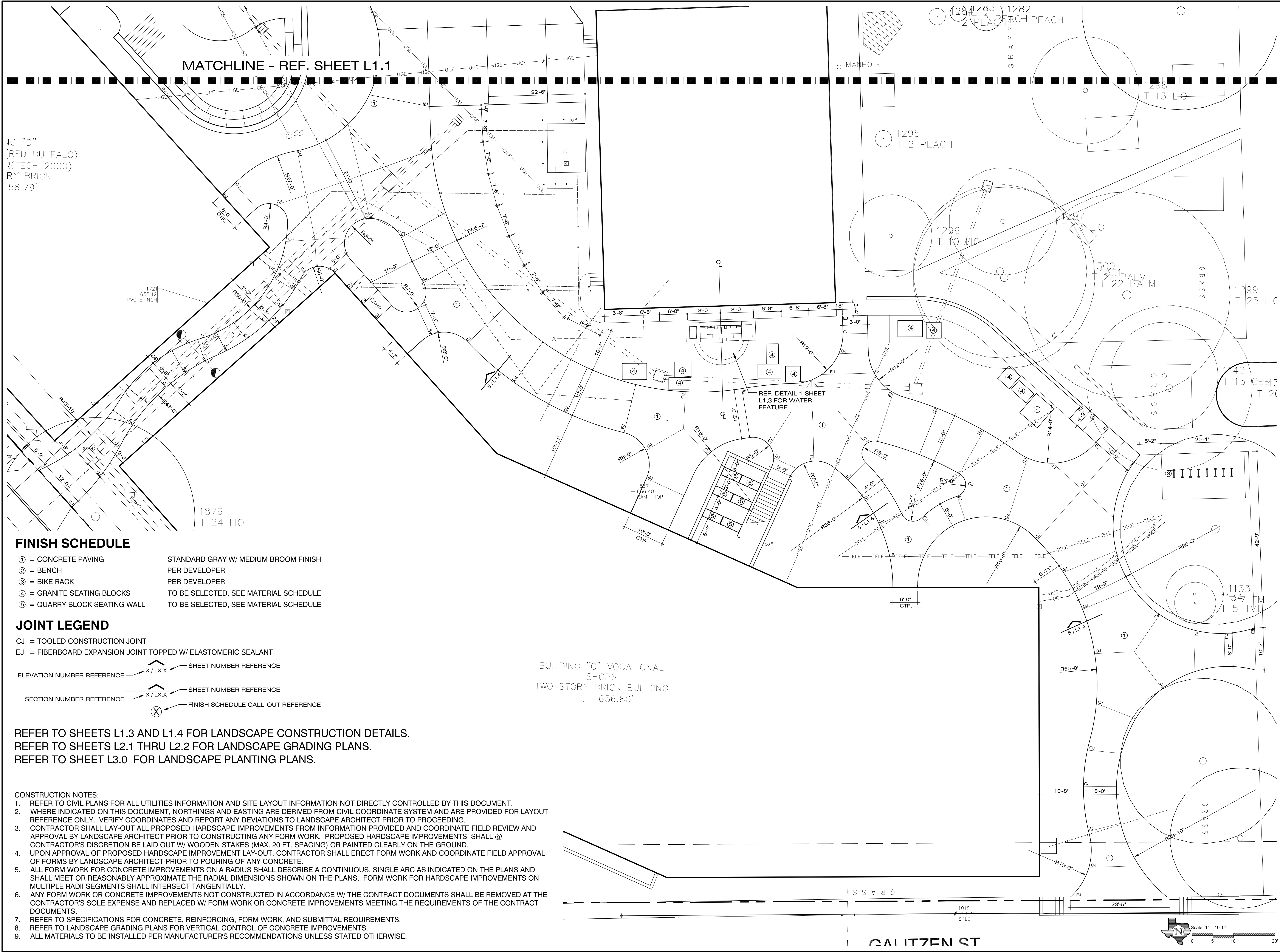
Drawn By: jo
Checked By: jr

Sheet Title:
ENLARGED
LANDSCAPE
CONSTRUCTION
PLAN

Sheet Number:

L1.1

Issue Date:
May 19, 2017



1/2" G "D"
RED BUFFALO
2" (TECH 2000)
RY BRICK
56.79'

- FINISH SCHEDULE**
① = CONCRETE PAVING
② = BENCH
③ = BIKE RACK
④ = GRANITE SEATING BLOCKS
⑤ = QUARRY BLOCK SEATING WALL
- STANDARD GRAY W/ MEDIUM BROOM FINISH
PER DEVELOPER
PER DEVELOPER
TO BE SELECTED, SEE MATERIAL SCHEDULE
TO BE SELECTED, SEE MATERIAL SCHEDULE

- JOINT LEGEND**
CJ = TOOLED CONSTRUCTION JOINT
EJ = FIBERBOARD EXPANSION JOINT TOPPED W/ ELASTOMERIC SEALANT
- ELEVATION NUMBER REFERENCE

SECTION NUMBER REFERENCE

X / LX.X

X / LX.X

SHEET NUMBER REFERENCE

SHEET NUMBER REFERENCE

(X)

FINISH SCHEDULE CALL-OUT REFERENCE

REFER TO SHEETS L1.3 AND L1.4 FOR LANDSCAPE CONSTRUCTION DETAILS.
REFER TO SHEETS L2.1 THRU L2.2 FOR LANDSCAPE GRADING PLANS.
REFER TO SHEET L3.0 FOR LANDSCAPE PLANTING PLANS.

- CONSTRUCTION NOTES:
- REFER TO CIVIL PLANS FOR ALL UTILITIES INFORMATION AND SITE LAYOUT INFORMATION NOT DIRECTLY CONTROLLED BY THIS DOCUMENT.
 - WHERE INDICATED ON THIS DOCUMENT, NORTHINGS AND EASTING ARE DERIVED FROM CIVIL COORDINATE SYSTEM AND ARE PROVIDED FOR LAYOUT REFERENCE ONLY. VERIFY COORDINATES AND REPORT ANY DEVIATIONS TO LANDSCAPE ARCHITECT PRIOR TO PROCEEDING.
 - CONTRACTOR SHALL LAY-OUT ALL PROPOSED HARDSCAPE IMPROVEMENTS FROM INFORMATION PROVIDED AND COORDINATE FIELD REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTING ANY FORM WORK. PROPOSED HARDSCAPE IMPROVEMENTS SHALL @ CONTRACTOR'S DISCRETION BE LAID OUT W/ WOODEN STAKES (MAX. 20 FT. SPACING) OR PAINTED CLEARLY ON THE GROUND.
 - UPON APPROVAL OF PROPOSED HARDSCAPE IMPROVEMENT LAY-OUT, CONTRACTOR SHALL ERECT FORM WORK AND COORDINATE FIELD APPROVAL OF FORMS BY LANDSCAPE ARCHITECT PRIOR TO POURING OF ANY CONCRETE.
 - ALL FORM WORK FOR CONCRETE IMPROVEMENTS ON A RADIUS SHALL DESCRIBE A CONTINUOUS, SINGLE ARC AS INDICATED ON THE PLANS AND SHALL MEET OR REASONABLY APPROXIMATE THE RADIAL DIMENSIONS SHOWN ON THE PLANS. FORM WORK FOR HARDSCAPE IMPROVEMENTS ON MULTIPLE RADII SEGMENTS SHALL INTERSECT TANGENTIALLY.
 - ANY FORM WORK OR CONCRETE IMPROVEMENTS NOT CONSTRUCTED IN ACCORDANCE W/ THE CONTRACT DOCUMENTS SHALL BE REMOVED AT THE CONTRACTOR'S SOLE EXPENSE AND REPLACED W/ FORM WORK OR CONCRETE IMPROVEMENTS MEETING THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
 - REFER TO SPECIFICATIONS FOR CONCRETE, REINFORCING, FORM WORK, AND SUBMITTAL REQUIREMENTS.
 - REFER TO LANDSCAPE GRADING PLANS FOR VERTICAL CONTROL OF CONCRETE IMPROVEMENTS.
 - ALL MATERIALS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS UNLESS STATED OTHERWISE.

HORIZON

DESIGN AND DEVELOPMENT

PLANNING LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING

14607 San Pedro Ave., Suite 200
San Antonio, Texas 78222
210.831.8564 jrobinson@horizondesign-sa.com

REGISTERED LANDSCAPE ARCHITECT
JON ROBINSON
2375
STATE OF TEXAS

05/19/17

The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER

SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT

CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER

2017-089

Drawn By: jo

Checked By: jr

Sheet Title:

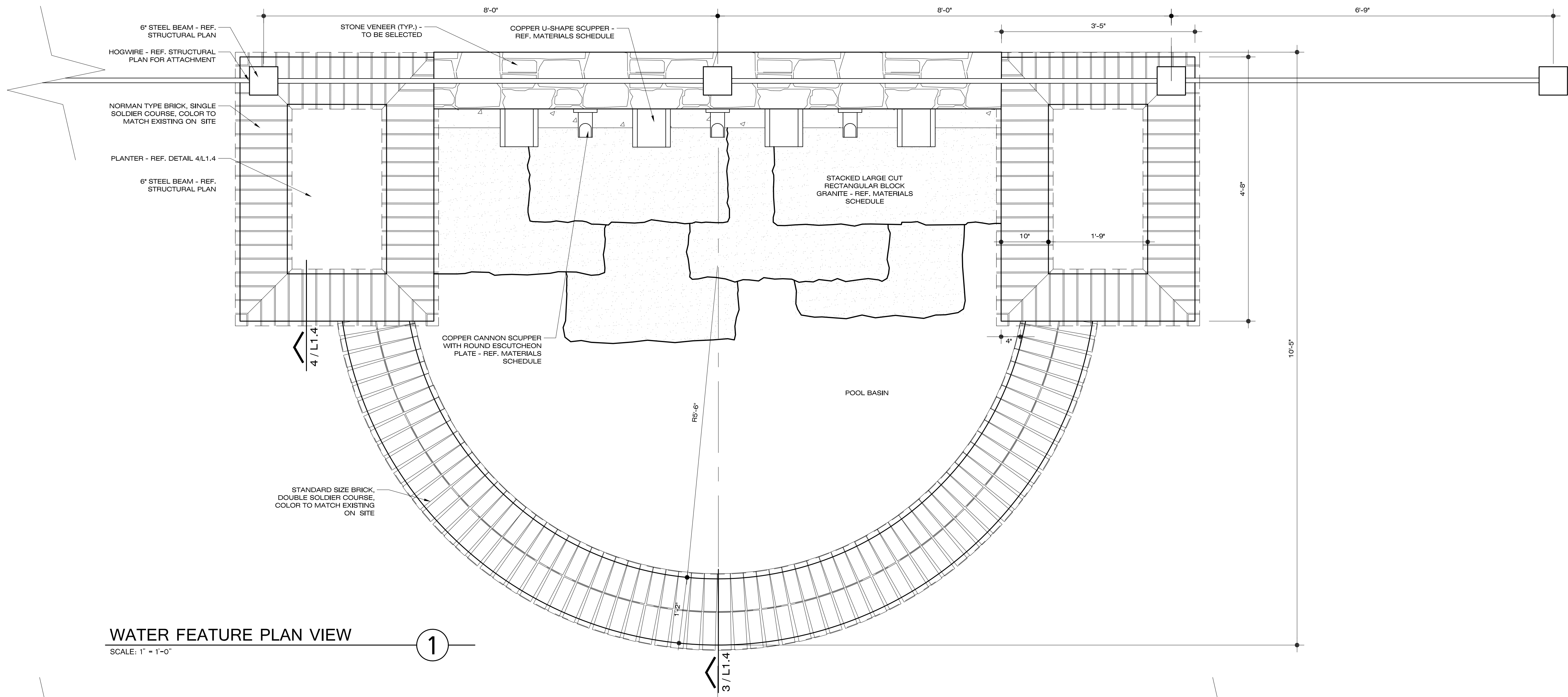
ENLARGED
LANDSCAPE
CONSTRUCTION
PLAN

Sheet Number:

L1.2

Issue Date:

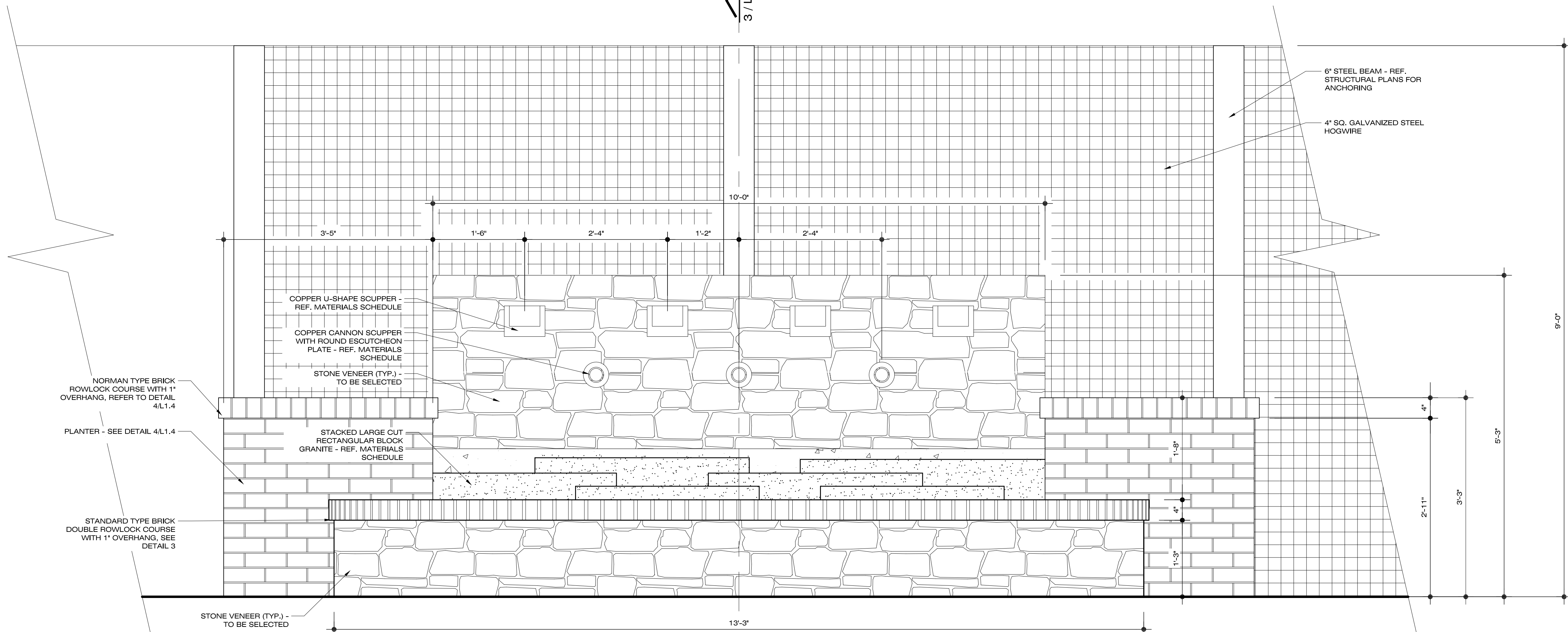
May 19, 2017



WATER FEATURE PLAN VIEW

SCALE: 1" = 1'-0"

1



WATER FEATURE ELEVATION

SCALE: 1" = 1'-0"

2



The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER
**SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS**

153 Treeline Park
San Antonio, TX 78209

PROJECT
CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

Drawn By: jo

Checked By: jr

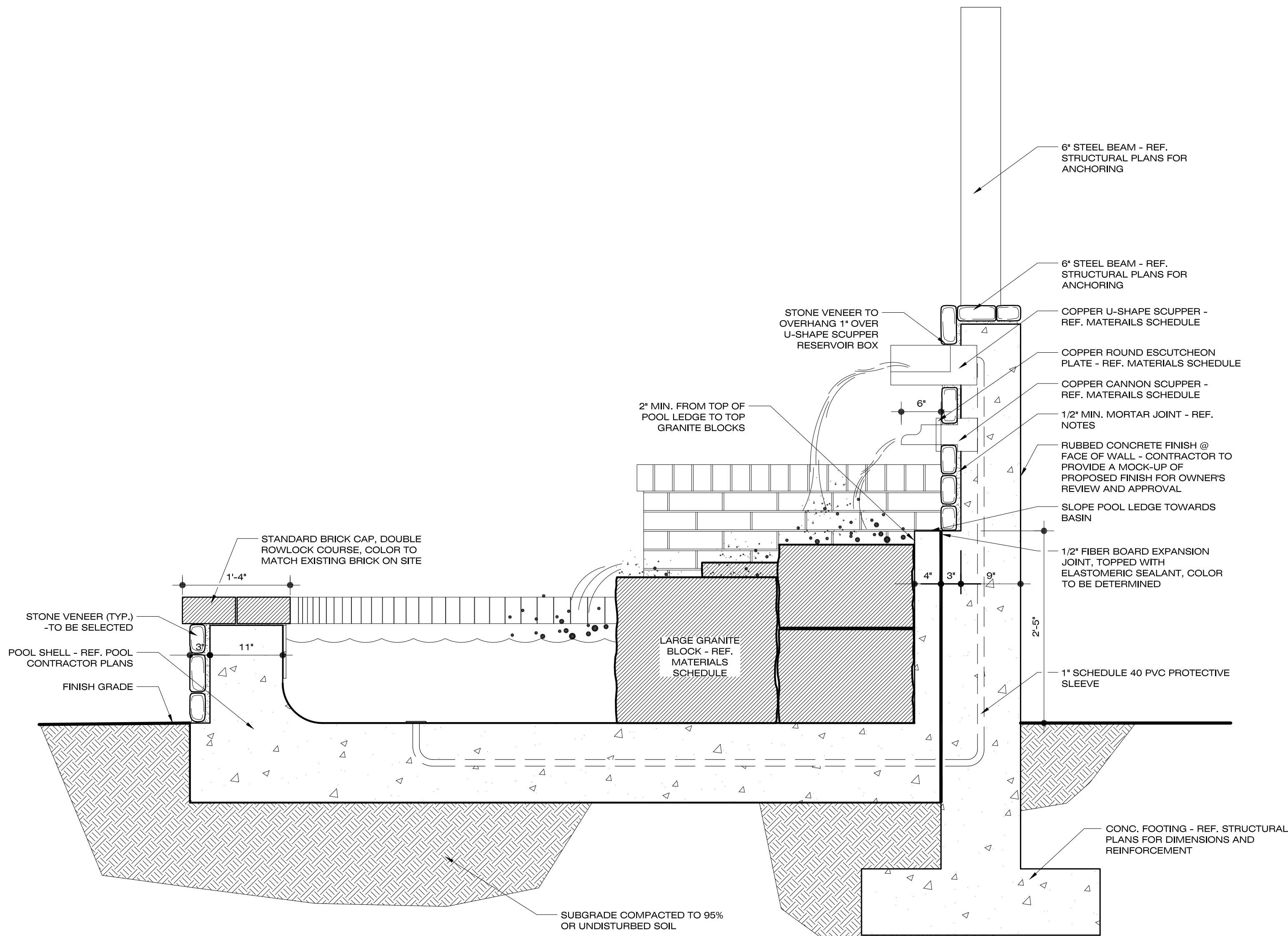
Sheet Title:
**LANDSCAPE
CONSTRUCTION
DETAILS**

Sheet Number:

L1.3

Issue Date:

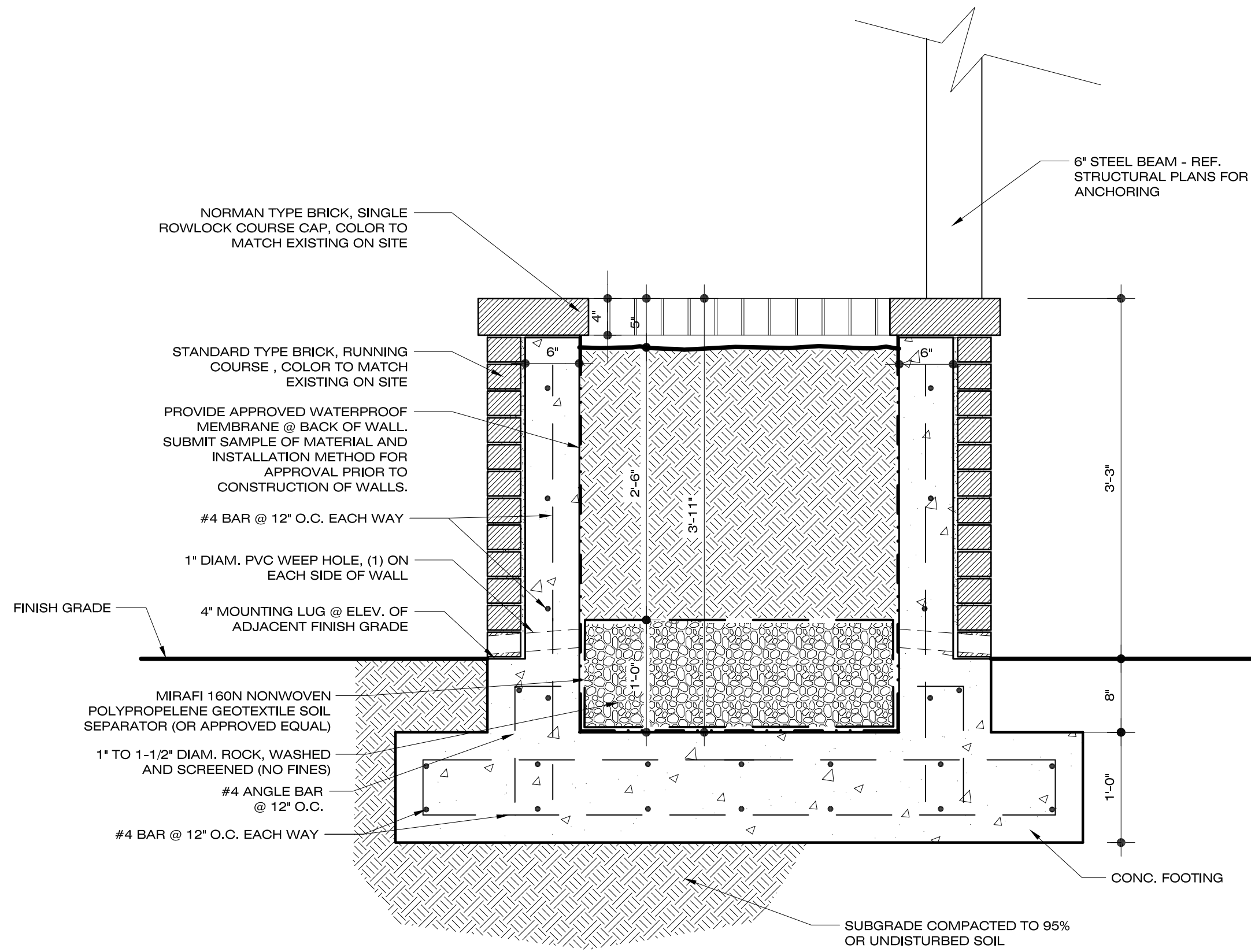
May 19, 2017



WATER FEATURE SECTION

SCALE: 1" = 1'-0"

3



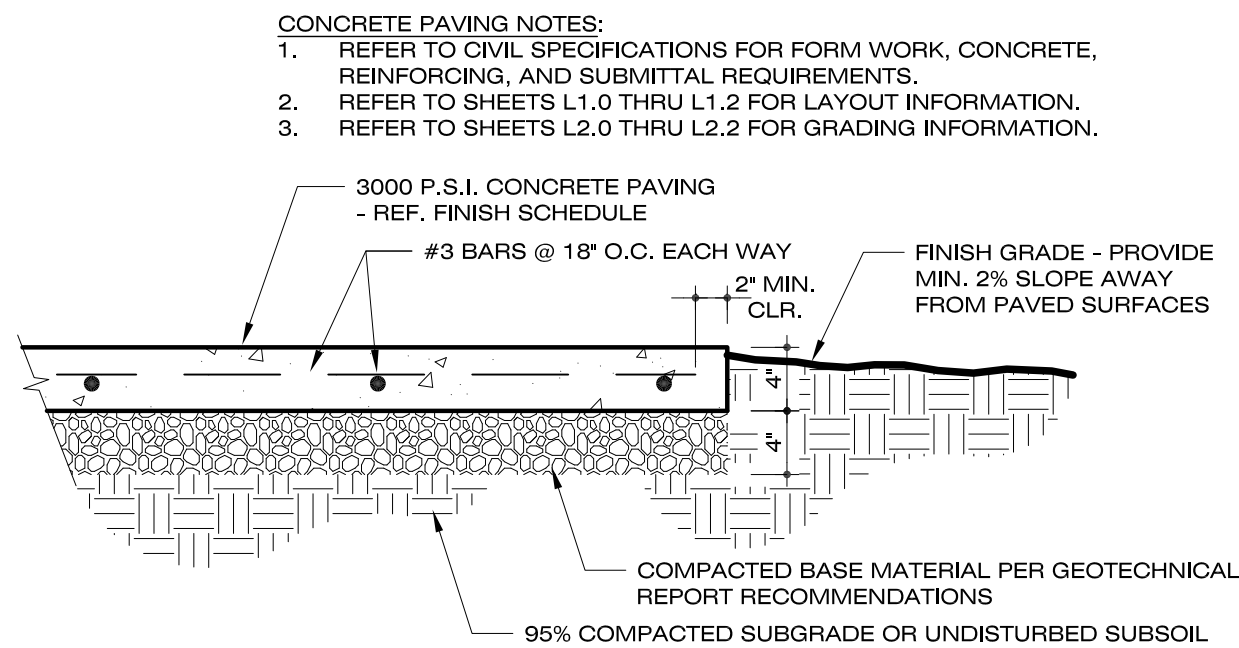
PLANTER WALL SECTION

SCALE: 1" = 1'-0"

4

WATER FEATURE CONSTRUCTION NOTES:

- WATER FEATURE AND ALL RELATED APPURTENANCES SHALL BE PERMITTED SEPARATELY FROM THE SITE AND BUILDING PERMIT.
- WATER FEATURE CONTRACTORS BID TO CONSTRUCT THE WATER FEATURES SHALL INCLUDE THE WATER FEATURES AND ANY AND ALL APPURTENANCES REQUIRED TO FILL, LEVEL, RECIRCULATE, AND OPERATE THE WATER FEATURES, INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
 - THE GUNITE OR CAST-IN-PLACE WATER FEATURE SHELL, INCLUDING AN EXTERIOR FINISH OF STUCCO AND AN INTERIOR FINISH OF MARBLE DUST POOL PLASTER (COLOR OF BOTH TO BE SELECTED), AND ALL STEEL REINFORCING, FORMWORK, AND SUBGRADE PREPARATION.
 - PRECAST CONC. CAP WHERE INDICATED, SUPPLIER, COLOR, AND FINISH TO BE SELECTED.
 - TWO (2) ROWS OF 4" SQ. PORCELAIN, CERAMIC, OR GLASS POOL TILE AT THE WATERLINE, COLOR AND PATTERN TO BE SELECTED.
 - INTERIOR LIGHTING OF THE LOWER WATER FEATURE, FIXTURE TO BE SELECTED.
 - ALL PIPES, PUMPS, DRAINS, JETS, ELECTRICAL WIRING AND CONTROLS, FILTER SYSTEMS, AND LEVELING DEVICES NECESSARY TO FILL THE WATER FEATURE, MAINTAIN A CONSTANT WATER SURFACE LEVEL, BALANCE THE FLOW FROM PRECAST CONC. WATER BOWLS INTO THE LOWER WATER FEATURE, AND RE-CIRCULATE, FILTER, AND CLEAN THE WATER FEATURE AS REQUIRED BY ANY APPLICABLE REGULATORY CODES IN EFFECT ON THE DATE HEREOF.
 - A BELOW-GRADE WATER STORAGE TANK TO CAPTURE, STORE, AND DELIVER GROUND WATER FROM AN EXISTING ON-SITE WATER WELL TO THE PROPOSED WATER FEATURES, INCLUDING ANY AND ALL PIPES, PUMPS, FITTINGS, ELECTRICAL WIRING, CONTROLS, AND PERMITS REQUIRED TO UTILIZE WATER FROM THE EXISTING ON-SITE WELL AS A WATER SOURCE FOR THE PROPOSED WATER FEATURES.
 - ALL REQUIRED PERMITS FOR CONSTRUCTION OF THE WATER FEATURES, WATER STORAGE TANK(S), AND ALL RELATED APPURTENANCES, INCLUDING ALL COSTS RELATED TO APPLYING FOR AND SECURING ANY AND ALL REQUIRED PERMITS.
- PRIOR TO ORDERING OR DELIVERING ANY MATERIALS TO THE PROJECT SITE, POOL CONTRACTOR SHALL SUBMIT FOR OWNER'S REVIEW AND APPROVAL, SCALED, DETAILED SHOP DRAWINGS INDICATING AT A MINIMUM THE FOLLOWING INFORMATION:
 - PROPOSED LOCATION AND ORIENTATION OF THE WATER FEATURES, WATER STORAGE TANK(S) AND EQUIPMENT ENCLOSURE LAYOUT W/ DIMENSIONAL CONTROL.
 - LOCATION OF ALL PUMPS, DRAINS, FILTERS, AND ALL OTHER NECESSARY PLUMBING OR ELECTRICAL APPURTENANCES.
 - ROUTING OF ALL PLUMBING AND ELECTRICAL LINES AND CONDUIT.
 - ALL PROPOSED MATERIALS (PRECAST CONC. COPING, WATERLINE TILE, GROUT AND MORTAR, MARBLE DUST PLASTER INTERIOR, STUCCO EXTERIOR, ETC.).
 - MANUFACTURERS CUT SHEETS FOR PROPOSED INTERIOR LIGHT FIXTURES AND CONTROLS.
 - SAMPLES OF AVAILABLE SELECTIONS FOR MARBLE DUST PLASTER, STUCCO, AND WATERLINE TILE.
 - PROPOSED EXPANSION AND CONTROL JOINT LAYOUT FOR PRECAST CONC. CAP.
 - CONSTRUCTION DETAILS, MOUNTING HARDWARE, AND WATERPROOFING.
- SHOP DRAWINGS FOR GUNITE OR CAST-IN-PLACE CONC. WATER FEATURE SHELL AND POOL EQUIPMENT ENCLOSURE SHALL BE PROVIDED BY THE POOL CONTRACTOR AND SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF TEXAS. ALL PROFESSIONAL FEES ASSOCIATED WITH THE STRUCTURAL ENGINEERING SHALL BE INCLUDED IN THE POOL CONTRACTORS BID.



TYPICAL CONCRETE PAVING

SCALE: 1" = 1'-0"

5

MATERIALS SCHEDULE

DESCRIPTION	SPECIFICATIONS
CANNON SCUPPER	AVAILABLE FROM BOBE WATER & FIRE FEATURES 3101 NORTH 29TH AVE PHOENIX, AZ 85017 P: 888.388.2623 F: 602.253.3496 www.bobewaterandfire.com FINISH: SMOOTH COPPER DIMENSIONS: A= 8" D= 8.5" B= 5" E= 3" C= 5" F= 1" NOTE: DIMENSIONS ARE LISTED IN REFERENCE TO BOBE CUSTOM SIZE. ESCUTCHEON PLATE: ROUND, 2.5" RADIUS.
U-SHAPE SCUPPER	AVAILABLE FROM BOBE WATER & FIRE FEATURES 3101 NORTH 29TH AVE PHOENIX, AZ 85017 P: 888.388.2623 F: 602.253.3496 www.bobewaterandfire.com FINISH: SMOOTH COPPER DIMENSIONS: A= 8" D= 9" B= 13" E= 4" C= 5" F= 1" NOTE: DIMENSIONS ARE LISTED IN REFERENCE TO BOBE CUSTOM SIZE.
STONE VENEER	AVAILABLE FROM BROOKS STONE RANCH 2051 FM 1102 NEW BRAUNFELS, TX 78132 P: 830.624.7554 PRODUCT: T.B.D. SIZE: T.B.D.
GRANITE SEATING BLOCKS & FOUNTAIN BLOCKS	AVAILABLE FROM BROOKS STONE RANCH 2051 FM 1102 NEW BRAUNFELS, TX 78132 P: 830.624.7554 PRODUCT: T.B.D. SIZE: T.B.D.
QUARRY BLOCK SEATING WALL	AVAILABLE FROM BROOKS STONE RANCH 2051 FM 1102 NEW BRAUNFELS, TX 78132 P: 830.624.7554 PRODUCT: T.B.D. SIZE: T.B.D.



05.19.17

The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER

THE SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT

CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER

2017-089

Drawn By: jo

Checked By: jr

Sheet Title:

LANDSCAPE
CONSTRUCTION
DETAILS

Sheet Number:

L1.4

Issue Date:

May 19, 2017

PART 1 - GENERAL

- 1.1

Work Included

A.

Place and spread topsoil and planting mix.

B.

Excavate and prepare plant pits.

C.

Place plants in pits and backfill with planting mix.

D.

Prune plants.

E.

Apply mulch to planter areas.

F.

Guarantee plants.

G.

Inspect plants during the Guarantee Period.
- 1.2

Reference Standards

A.

Nomenclature and size. All plants must be true to name and size in conformance with the following standards:

B.

American Joint Committee on Horticultural Nomenclature, 1942 ed. of Standardized Plant Names (Mount Pleasant Press, J. Horace McFarland Co., Harrisburg PA)

C.

American Standard of Nursery Stock, 1973 ed. (American Association of Nurserymen, Inc., Washington DC)
- 1.3

Submittals

A.

Submit weed control program in accordance with Sec. 01300

B.

Indicate chemicals to be employed, manufacturer's printed instructions as to dilution and application, solution strength, application method, rates, and frequency, and frequency of manual weeding.

C.

Submit chemical manufacturer's written certificate that material proposed for use meets local, state, and federal regulations for the type of material proposed and that the material is not toxic to humans and animals if applied per the manufacturer's written instructions.
- 1.4

Product Delivery, Storage, and Handling

A.

Handle and store all materials in such a manner as to prevent damage.
- 1.5

Existing Conditions

A.

Prior to commencement of work, investigate the site, locate and identify all existing underground utilities that may conflict with the installation of the work described in the contract documents, and notify the Landscape Architect of the conflict and do not proceed with construction in the affected area without specific direction.

B.

Protect identified utilities from damage during installation.
- 1.6

Guarantee

A.

All plants will be guaranteed against defects, including death and unsatisfactory growth, for a period of 12 months following the date of Substantial Completion. If replacement plants are installed, they will be guaranteed for an additional 12 months following their installation.
- 1.7

Responsibilities of Owner and Contractor

A.

The Contractor will provide monthly inspections of the project during construction and the guarantee period and immediately provide to the Owner and the Landscape Architect a written report identifying any irregularities which affect the guarantee.

B.

The Contractor will monitor any construction, whether conducted by other trades or the Owner's employees, adjacent to new and existing plants. The Contractor will identify and document any damage to the plants and immediately notify the Landscape Architect of same. The Contractor will replace any damaged plants at no expense to the Owner. Any reimbursement from other trades or contractors shall be the sole responsibility of the Contractor.

C.

The Contractor will remove and replace all dead plants.

D.

The Contractor will ensure all plants are installed in an upright position and to proper finish grade and will reset any plants not installed accordingly.

E.

The Contractor will have the sole responsibility for ensuring that all plants are maintained and watered adequately.
- 1.8

Final Inspection

A.

At the conclusion of the guarantee period, the Landscape Architect will inspect the planting to assess the final acceptance of the installation. Only plants that are alive and healthy will be accepted. The Contractor will replace any plants that are dead or, in the sole opinion of the Landscape Architect, in an unhealthy or unsightly condition or have lost their natural form due to dead or removed branches. The Contractor will bear the cost of replacing any plants.
- 1.9

Quality Assurance

A.

Before entering into a contract with any subcontractor, the General Contractor will investigate the proposed subcontractor's reputation and ability to perform the work and determine whether the subcontractor is stable, reputable, and skilled in this area of work. The General Contractor will require and review a minimum of the following submittals:

1.

Experience. The subcontractor will be a single firm specializing in landscape installation with a minimum 5 years documented experience. Documentation will demonstrate a minimum 10 installations of equal or greater size. The subcontractor will furnish the name, address, and telephone number for both the General Contractor and Owner on these projects, as well as the contract price, the company name under which the work was performed, and completion date.

2.

Personnel. The subcontractor will provide a list of the project manager and foreman proposed to complete the work, their years of experience in the industry, any formal training, and years of service with the current company. If a separate irrigation subcontractor is to be used, the same information will be provided.

3.

Business Expertise. The subcontractor will submit a current audited financial statement, current insurance certificate, contact information for their insurance company, bonding capacity and bonding company, and contact information for their bonding company.

B.

Should the subcontractor selected by the General Contractor default on the contract, fail to complete the work in conformance with the Contract Documents, or enter into bankruptcy, the Owner will pay the Landscape Architect as an additional service for any additional work occasioned by the subcontractor's default

PART 2 - PRODUCTS

- 2.1

Materials

A.

Topsoil. Provided by the landscape subcontractor from local sources, sandy loam which is fertile, friable, surface soil. Topsoil will be free of rocks, stones, subsoil, building debris, weeds, grass, clay lumps, and other materials which would be detrimental to turfgrass growth. Topsoil composition will be not less than 7% nor more than 12% clay and not more than 12% silt.

B.

Planting Mix. Plant mix composition will be 35% compost, 33% red sand, 16% composted topsoil, and 16% pine bark mulch.

C.

Commercial Fertilizer. Complete fertilizer of neutral character, with some elements derived from organic sources and containing available plant nutrients in the following percentages:

1.

For trees and shrubs - Woodace Top Dress Special (20-4-11, 6 - 9 month formula) at a rate of 5 to 10 lbs. per 100 SF.
- 2.2

Plant Materials

A.

The drawings contain a complete list of plant species, quantities, sizes, and other requirements. In the event that discrepancies occur between the quantities of plants indicated on the plant list and as indicated on the drawings, the plant quantities shown on the drawings will be given precedence.

B.

No substitutions of plants will be permitted without express prior written authorization by the Landscape Architect.

C.

All plants will comply with state and federal inspection and diseases infestation laws.

D.

All plants will be typical of their species or variety, with normal, well-developed branches and vigorous root systems.

E.

All plants will be healthy and vigorous, free from defects, disfigurement, knots, abrasions, sunscald, diseases, insect eggs or larvae, borers, and all other forms of diseases or infestations.

F.

All plants will be nursery stock. Any plants gathered from native stands must be kept under nursery conditions for a minimum of 1 full growing season, must be free from all foreign plants and weeds, and must meet all other requirements of the Contract Documents.

G.

Container-grown plants must exhibit development of fibrous roots and have a root mass that will retain its shape when removed from the container. Plants grown in smaller containers must have root growth sufficient to reach the sides of the container. Root-bound container-grown plants will be rejected.

H.

Container sizes of a large grade than listed in the American Standard for Nursery Stock (ASNS) shall be determined by the volume of the root ball specified in the ASNS for plants of the same size.

I.

All bare root plants must have a heavy, fibrous root system and dormant buds at the time of planting.

J.

All plants must have average height and spread proportions and branching habit in accordance with the appropriate sections of the ASNS.

K.

All plants which have girdled roots, stem, or major branch, have deformities of the stem or major branch, lack symmetrical growth habits, have dead or defoliated portions, or have any defect, injury, or conditions which in the sole opinion of the Landscape Architect renders them unsuitable, will be rejected.

L.

Balled and burlapped plants must have a solid ball of earth of minimum specified size held securely in place by burlap and stout rope. Oversized or exceptionally heavy plants will be accepted provided the size of the root ball or spread of the roots is increased proportionally. Root balls must be tight, unbroken, and free of weed or foreign plant growth. Root balls shall have the following depth-to-diameter ratios: root ball diameters of less than 20" = minimum depth of 75% of the diameter; root ball diameters of 20" to 30" = minimum depth of 2/3 of the diameter; root ball diameters over 30" = minimum depth of 60% of the diameter.

M.

Plants delivered as a single unit of 25 or less of the same size, species, and variety must be clearly marked and tagged. Plants delivered in large quantities of more than 25 must be segregated as to variety, grade, and size, and 1 plant in each 25 plants, or fraction thereof, of each size, species, and variety, must be tagged.

- N.

Plants stored under temporary conditions will be the responsibility of the Contractor and must be protected at all times from extreme weather conditions by insulating the root balls with sawdust, soil, mulch, or other approved measure. Plants stored on paved areas must be separated from the pavement with an insulating layer.
- O.

Protecting stored plants from theft or vandalism will be the sole responsibility of the Contractor. Any stolen plants will be replaced at no cost to the Owner.

2.3

Miscellaneous Materials

A.

Mulch. Shredded native mulch applied to a depth of 4" beneath all new trees and 4" beneath all shrubs.

B.

Stakes. Sound new hardwood, treated softwood, or redwood stakes, free of knot holes and other defects, or metal stakes. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire, minimum 12-gauge, with zinc-coated turnbuckles. Provide minimum ½" diameter rubber or plastic hose, cut to required lengths and of uniform color, material, and size, to protect tree trunks and branches from damage by wires. All new trees are to be staked.

C.

Anti-Dessicant: Emulsion type, film-forming agent designed to permit transpiration but retard excessive loss of moisture from plants. Deliver in manufacturer's full identified containers and mix in accordance with manufacturer's instructions.

D.

Plastic trunk protectors: Provide ArborGard+, AG 9-4+ by Deep Root Partners, L.P. (or equal), (1-800-458-7668) to protect new trees from damage by string trimmers and mowers.

PART 3 - EXECUTION

- 3.1

Inspection

A.

Inspect existing site conditions and progress of other trades before commencing landscape installation.

B.

Verify that construction has progressed to a point at which the landscape will not be adversely affected by subsequent construction and that existing conditions are acceptable for landscape installation.

C.

Report adverse conditions to the Landscape Architect and do not proceed with the work until adverse conditions have been rectified.

D.

Commencement of the landscape installation will constitute acceptance of the site conditions without qualification.
- 3.2

Preparation of Subsoil

A.

Inspect subsoil for the presence of objectionable materials such as rocks (2" diameter and greater), concrete waste, building debris, weeds, grass, and other material that would be detrimental to the growth of plants and turfgrass. Protect existing underground improvements from damage.

B.

Cultivate the subsoil to a depth of 3" or, if the subsoil is compacted due to heavy equipment traffic or storage, cultivate to a depth of 6".
- 3.4

Planting

D.

The Contractor will begin planting when other work divisions such as topsoil spreading have progressed sufficiently to permit planting.

E.

Planting will occur where it is shown on the Contract Documents unless obstruction overhead or underground are encountered or where changes in construction have been made. Prior to the excavation of shrub or tree pits, the Contractor will locate and identify all underground utility lines, electrical cables, irrigation lines, and conduits. If such obstructions are found, promptly notify the Landscape Architect and do not proceed without clear direction.

F.

No planting pits will be excavated until the proposed locations and plant sizes have been reviewed and approved by the Landscape Architect. Each plant will be planted in an individual pit dug with straight vertical sides. All plants will be set such that their original soil level is equal to the ultimate finish grade. No filling will be done around the trunks and stems. All ropes, wires, stakes, etc., will be removed from the sides and top of the root ball and removed from the pit before filling. Burlap will be properly cut and removed from the sides of the root ball. When a depth is specified for the plant pit, it will be construed as the depth below adjacent finish grade. Excess excavation from plant pits shall be either used elsewhere or removed from the site entirely.

G.

The Landscape Architect will review and approve the location and orientation of all plants prior to excavation of their pits. All trees will be planted in pits a minimum 24" greater in diameter than the container size or spread of their roots. In the event that solid rock is encountered in the bottom of the pit, break up and loosen the sides and bottom of the pit so that water will drain effectively. The pit will be a minimum of 9" deeper than the depth of the root ball and will have a crown from the middle to the sides in order to direct drainage away from the root ball. Place planting mix in the bottom of the pit and tamp down to prevent settling. Backfill the pits with planting mix in layers no greater than 9" and tamp down to avoid settling. Provide enough planting mix to bring to finish grade and form a saucer with a minimum 4" lip around the perimeter of the tree's root ball so water will pond and soak into the root ball.

H.

Stake trees immediately after planting, then remove the stakes after one (1) year.

I.

If deciduous trees are planted in full-leaf, spray with anti-dessicant to provide an adequate film over the trunk, branches, stems, and foliage.
- 3.5

Maintenance and Restoration

A.

The Contractor will ensure adequate and proper care of all plants and work done on this project until final acceptance, but in no case less than 30 days following Substantial Completion. This will include keeping all plants in a healthy growing condition by watering, cultivating, pruning, and spraying, keeping the planting areas free from insect infestation, weeds and grass, litter, and debris, and retaining the finish grade in a neat and uniform manner. Plant crowns, runners, and branches will be kept free of mulch at all times.

B.

Upon completion of the initial planting, the Landscape Architect will make an inspection of all plantings and notify the Contractor in writing of any replacements or corrective actions necessary to meet the provisions of the Contract Documents. The Contract will then replace all the rejected or missing plants and perform the specified corrective measures.

C.

All replacement plants will be of the same species, size, and quality. All rejected plants will be replaced within 30 days of notification.

- 3.6

Acceptance

A.

Upon receipt of a written request from the Contractor at least seven (7) prior, the Landscape Architect will inspect the planting and maintenance to determine its completion and the beginning of the guarantee period. All plants must be alive and healthy in order for the installation to be considered complete. Where inspected work does not comply with the requirements of the Contract Documents, replace rejected work and continue to perform the specified maintenance until the Landscape Architect re-inspects the work and finds it acceptable. Remove rejected plants and materials from the site.

END OF SECTION



05/19/17

The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER

SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT

CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER

2017-089

Drawn By: jo

Checked By: jr

Sheet Title:

LANDSCAPE
SPECIFICATIONS

Sheet Number:

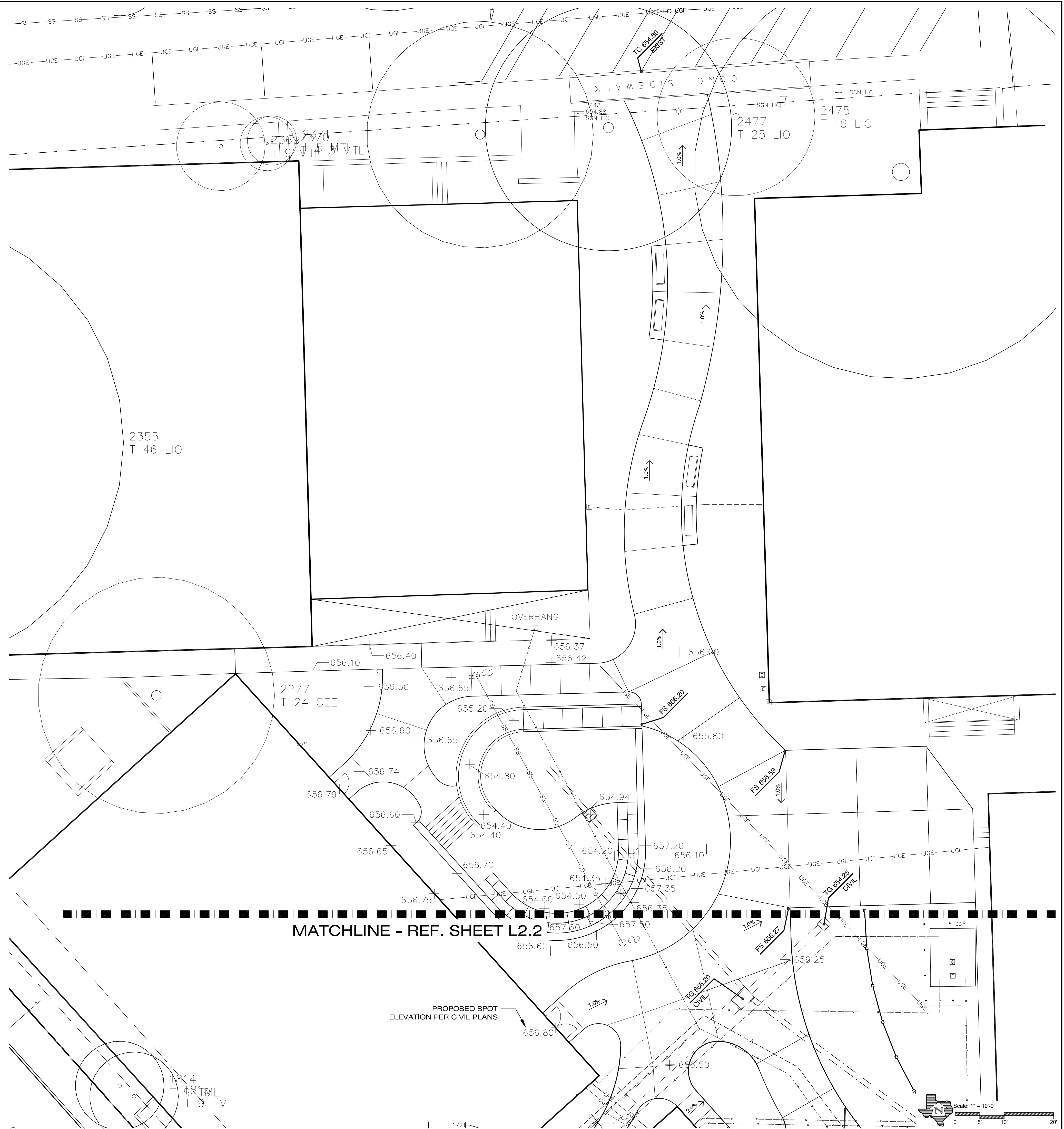
L2.0

Issue Date:

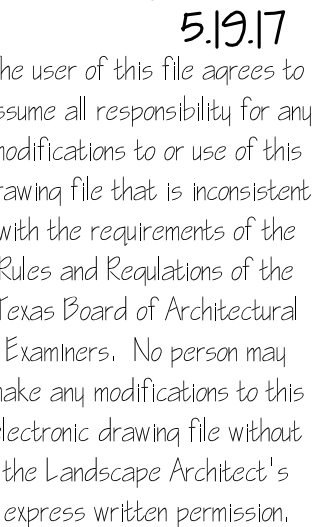
May 19, 2017

FG = FINISH GRADE
FS = FINISH SURFACE
LP = LOW POINT
TC = TOP OF CURB
TG = TOP OF GRATE
TP = TOP OF PILASTER (NOT INCLUDING CAP)
TW = TOP OF WALL (NOT INCLUDING CAP)

1. WHERE INDICATED ON THESE PLANS, EXISTING TOPOGRAPHY, IMPROVEMENTS, AND UTILITIES ARE DERIVED FROM AN OWNER-PROVIDED SURVEY AND SHOWN FOR REFERENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING ALL EXISTING SITE CONDITIONS.
2. IN THE EVENT ANY EXISTING CONDITIONS ARE ENCOUNTERED WHICH DIFFER FROM THOSE SHOWN ON THESE PLANS OR CONFLICT WITH INSTALLATION OF THE LANDSCAPE IMPROVEMENTS, CONTRACTOR SHALL IMMEDIATELY CEASE WORK IN THE AFFECTED AREA, NOTIFY THE OWNER'S REPRESENTATIVE OF THE CONFLICT(S), AND NOT PROCEED WITHOUT SPECIFIC WRITTEN DIRECTION.
3. VERIFY ALL SPOT ELEVATIONS AND CONTOUR LINES SHOWN FOR REFERENCE.
4. GRADE ALL LANDSCAPE FEATURES (HARDSCAPE AND SOFTSCAPE) AS SHOWN ON THE PLANS UNLESS PROHIBITED BY SITE CONDITIONS. REFER TO NOTE 2 ABOVE.
5. UNLESS SPECIFICALLY SHOWN ON THE PLANS, THE FOLLOWING TOLERANCES SHALL BE MAINTAINED:
 - A. FOR UNPAVED LANDSCAPE AREAS, A MAX. SLOPE OF 3:1 (33.3%) IN ANY DIRECTION.
 - B. FOR PAVED SURFACES, A MAX. RUNNING SLOPE OF 5.0% AND MAX. CROSS-SLOPE OF 2.0%.
6. MAINTAIN EXISTING OVERALL DRAINAGE PATTERNS PRESENT ON THE SITE, DO NOT CONSTRUCT IMPROVEMENTS SUCH THAT THEY IMPEDE THE EXISTING FLOW OF SURFACE RUNOFF ACROSS THE SITE, AND PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS, WALLS, AND PAVED SURFACES W/ MIN. 2.0% SLOPE.
7. VERIFY LOCATION AND DEPTH OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO ANY EXCAVATION.
8. OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT SHALL REVIEW AND APPROVE ALL FORM WORK PRIOR TO POURING OF ANY CONCRETE OR INSTALLATION OF ANY PAVED SURFACES CONTROLLED BY THE PLANS.
9. REFER TO SHEETS L1.0 THRU L1.12 FOR LAYOUT INFORMATION, CONSTRUCTION NOTES, AND DETAILS.



PLANNING LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING
14607 San Pedro Ave., Suite 200
San Antonio, Texas 78232
210.831.8564 jrobinson@horizondesign-sa.com



SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

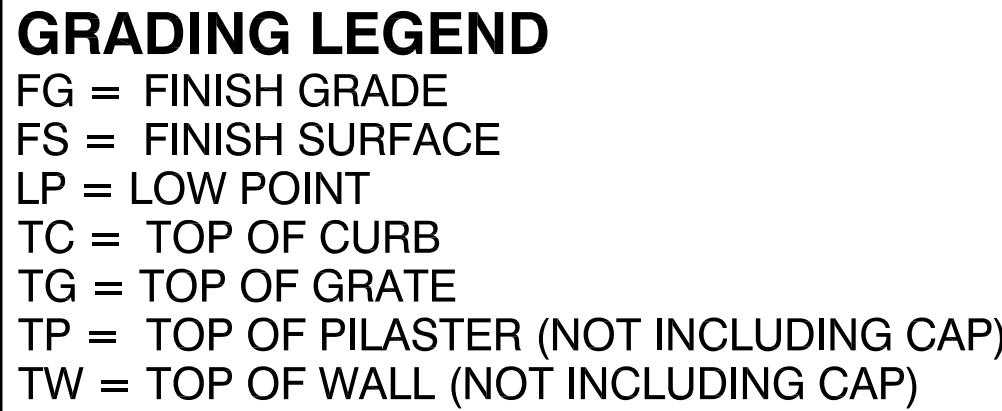
PROJECT CAST High School

REVISIONS

Sheet Number:

Issue Date:

May 19, 2017



GRADING NOTES:

1. WHERE INDICATED ON THESE PLANS, EXISTING TOPOGRAPHY, IMPROVEMENTS, AND UTILITIES ARE DERIVED FROM AN OWNER-PROVIDED SURVEY AND SHOWN FOR REFERENCE ONLY. CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING ALL EXISTING SITE CONDITIONS.
2. IN THE EVENT ANY EXISTING CONDITIONS ARE ENCOUNTERED WHICH DIFFER FROM THOSE SHOWN ON THESE PLANS OR CONFLICT WITH INSTALLATION OF THE LANDSCAPE IMPROVEMENTS, CONTRACTOR SHALL IMMEDIATELY CEASE WORK IN THE AFFECTED AREA, NOTIFY THE OWNER'S REPRESENTATIVE OF THE CONFLICT(S), AND NOT PROCEED WITHOUT SPECIFIC WRITTEN DIRECTION.
3. VERIFY ALL SPOT ELEVATIONS AND CONTOUR LINES SHOWN FOR REFERENCE.
4. GRADE ALL LANDSCAPE FEATURES (HARDSCAPE AND SOFTSCAPE) AS SHOWN ON THE PLANS UNLESS PROHIBITED BY SITE CONDITIONS. REFER TO NOTE 2 ABOVE.
5. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, THE FOLLOWING TOLERANCES SHALL BE MAINTAINED:
 - A. FOR UNPAVED LANDSCAPE AREAS, A MAX. SLOPE OF 3:1 (33.3%) IN ANY DIRECTION.
 - B. FOR PAVED SURFACES, A MAX. RUNNING SLOPE OF 5.0% AND MAX. CROSS-SLOPE OF 2.0%.
6. MAINTAIN EXISTING OVERALL DRAINAGE PATTERNS PRESENT ON THE SITE, DO NOT CONSTRUCT IMPROVEMENTS SUCH THAT THEY IMPEDE THE EXISTING FLOW OF SURFACE RUNOFF ACROSS THE SITE, AND PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS, WALLS, AND PAVED SURFACES W/ MIN. 2.0% SLOPE.
7. VERIFY LOCATION AND DEPTH OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO ANY EXCAVATION.
8. OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT SHALL REVIEW AND APPROVE ALL FORM WORK PRIOR TO POURING OF ANY CONCRETE OR INSTALLATION OF ANY PAVED SURFACES CONTROLLED BY THE PLANS.
9. REFER TO SHEETS L1.0 THRU L1.12 FOR LAYOUT INFORMATION, CONSTRUCTION NOTES, AND DETAILS.



5.19.17
The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER
SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

Drawn By: jo
Checked By: jr

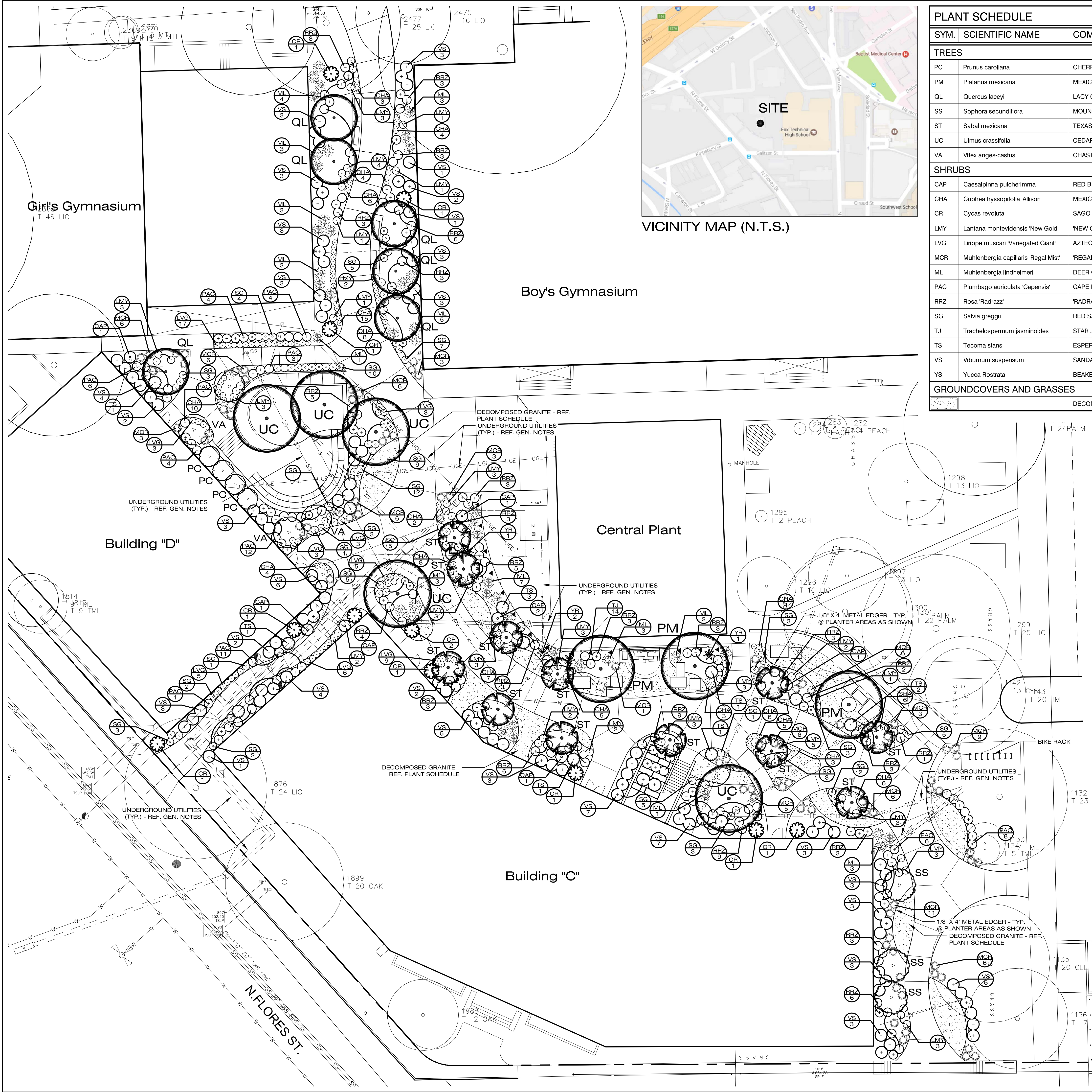
Sheet Title:

ENLARGED LANDSCAPE GRADING PLAN

Sheet Number:

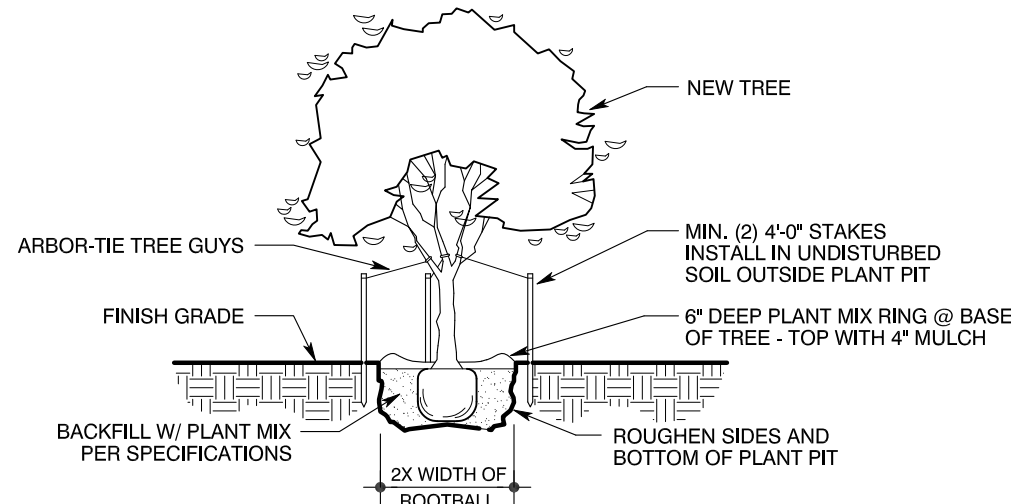
Issue Date:

May 19, 2017



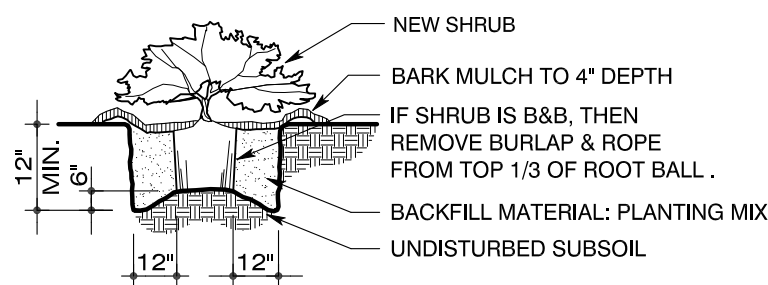
PLANT SCHEDULE						SIZE = CALIPER OR SPREAD
SYM.	SCIENTIFIC NAME	COMMON NAME	HGT.	SIZE	CONDITION	REMARKS
TREES						
PC	Prunus carolina	CHERRY LAUREL	-	1.5" CAL.	B and B	DECIDUOUS / SINGLE STEM
PM	Platanus mexicana	MEXICAN SYCAMORE	-	3" CAL.	B and B	DECIDUOUS / SINGLE STEM
QL	Quercus laceyi	LACY OAK	-	2" CAL.	B and B	DECIDUOUS / SINGLE STEM
SS	Sophora secundiflora	MOUNTAIN LAUREL	-	2" CAL.	B and B	EVERGREEN / MULTI-TRUNKED
ST	Sabal mexicana	TEXAS SABAL PALM	CTH, PER PLAN		B and B	SPECIMEN QUALITY, SINGLE STEM. SUPPLIED BY THE PALM BUDDHA, (210) 771-8432, NO SUBSTITUTIONS.
UC	Ulmus crassifolia	CEDAR ELM	-	3" CAL.	B and B	DECIDUOUS / SINGLE STEM
VA	Vitex anages-castus	CHASTE TREE	-	2" CAL.	B and B	DECIDUOUS / MULTI-TRUNKED
SHRUBS						
CAP	Caesalpinna pulcherrima	RED BIRD OF PARADISE	-	5 GAL.		ACCENT / PLANT AS SHOWN
CHA	Cuphea hyssopifolia 'Allison'	MEXICAN HEATHER	-	1 GAL.		PERENNIAL / PLANT @ 24" O.C.
CR	Cycas revoluta	SAGO PALM	-	15 GAL.		ACCENT / PLANT AS SHOWN
LMY	Lantana montevidensis 'New Gold'	'NEW GOLD' LANTANA	-	1 GAL.		PERENNIAL / PLANT AT 30" O.C.
LVG	Liriope muscar 'Variegated Giant'	AZTEC GRASS	-	1 GAL.		EVERGREEN / PLANT @ 24" O.C.
MCR	Muhlenbergia capillaris 'Regal Mist'	'REGAL MIST' MUHLY	-	1 GAL.		ACCENT / PLANT AS SHOWN
ML	Muhlenbergia lindheimeri	DEER GRASS	-	5 GAL.		ACCENT / PLANT AS SHOWN
PAC	Plumbago auriculata 'Capensis'	CAPE PLUMBAGO	-	5 GAL.		EVERGREEN / PLANT AT 3'-0" O.C.
RRZ	Rosa 'Radrazz'	'RADRAZZ' KNOCK-OUT ROSE	-	5 GAL.		EVERGREEN / PLANT AT 3'-0" O.C.
SG	Salvia greggii	RED SALVIA	-	3 GAL.		EVERGREEN / PLANT AT 30" O.C.
TJ	Trachelospermum jasminoides	STAR JASMINE	-	5 GAL.		EVERGREEN / PLANT AT 5'-6" O.C.
TS	Tecoma stans	ESPERANZA	-	5 GAL.		ACCENT / PLANT AS SHOWN
VS	Viburnum suspensum	SANDANKWA VIBURNUM	-	5 GAL.		EVERGREEN / PLANT AT 4'-0" O.C.
YS	Yucca Rostrata	BEAKED YUCCA	-	5 GAL.		ACCENT / PLANT AS SHOWN
GROUNDCOVERS AND GRASSES						
		DECOMPOSED GRANITE	-			APPLY TO 3" COMPACTED DEPTH OVER SUBGRADE W/ GEO-TEXTILE WEED BARRIER AND PRE-EMERGENT HERBICIDE. FILL UNDER ADJACENT SHRUBS.

- GENERAL NOTES:
- REFER TO SPECIFICATIONS FOR ALL CONTRACT PLANTING.
 - INSTALL APPROVED IMPORTED PLANTING MIX TO MIN. DEPTH OF 6" IN ALL AREAS SCHEDULED AS LANDSCAPE PLANTING AREAS.
 - INSTALL APPROVED IMPORTED TOPSOIL TO 4" DEPTH IN ALL TURFGRASS AREAS.
 - CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES IN THE FIELD PRIOR TO INSTALLATION AND MUST REPORT ANY DEVIATION IN SITE CONDITIONS TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH WORK IN THE AFFECTED AREA.
 - WHERE SHOWN ON THESE PLANS, UTILITY INFORMATION IS PROVIDED FOR REFERENCE ONLY. REF. CIVIL AND MEP PLANS FOR ALL UTILITY INFORMATION.
 - VERIFY LOCATION AND DEPTH OF ALL EXISTING AND PROPOSED UTILITIES PRIOR TO ANY EXCAVATION. IN THE EVENT POTENTIAL CONFLICT(S) OCCUR BETWEEN UTILITIES AND LANDSCAPE IMPROVEMENTS, IMMEDIATELY CEASE WORK IN THE AFFECTED AREA, REPORT THE CONFLICT(S) TO THE OWNER'S REPRESENTATIVE, AND DO NOT PROCEED UNTIL RECEIPT OF SPECIFIC WRITTEN DIRECTION.
- URBAN DEER NOTES:
- AT THE TIME THESE DOCUMENTS WERE PREPARED THE LANDSCAPE ARCHITECT WAS NOT AWARE OF A LOCAL URBAN DEER POPULATION.
 - IN THE EVENT AN URBAN DEER POPULATION IS DISCOVERED, CONTRACTOR IS SOLELY RESPONSIBLE FOR PROTECTING ALL NEWLY-INSTALLED PLANTS THROUGH THE 30-DAY MAINTENANCE PERIOD.
 - APPLY "LIQUID FENCE" (OR APPROVED EQUAL) TO ALL PLANTS AS NEEDED TO DISCOURAGE BROWSING BY DEER.
 - ANY NEWLY-INSTALLED PLANTS EATEN OR BROWSED BY DEER PRIOR TO THE EXPIRATION OF THE 30-DAY MAINTENANCE PERIOD SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- OVERHEAD ELECTRIC NOTES:
- ALL PROPOSED LARGE SPECIES TREES (AS DEFINED BY THE UNIFIED DEVELOPMENT CODE IN EFFECT HEREOF) SHALL BE PLANTED NO CLOSER THAN 20' TO ALL OVERHEAD ELECTRIC UTILITY LINES.
 - CONTRACTOR IS SOLELY RESPONSIBLE FOR FIELD LOCATING ALL OVERHEAD ELECTRIC UTILITY LINES AND ENSURING THAT NO LARGE SPECIES TREES ARE PLANTED WITHIN 20' OF ANY OVERHEAD ELECTRIC UTILITY LINES.
 - WHERE CITY INSPECTORS FIND ANY PROPOSED LARGE SPECIES TREES TO BE IN VIOLATION OF PROXIMITY TO OVERHEAD ELECTRIC UTILITY LINES, THE CONTRACTOR SHALL RELOCATE TREES AT NO ADDITIONAL COST TO THE OWNER.



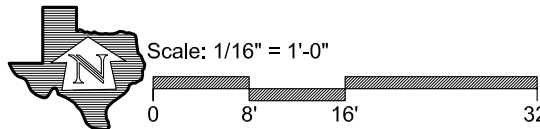
TREE PLANTING DETAIL

NEW TREES
1/8" = 1'-0"



SHRUB PLANTING DETAIL

NEW SHRUBS
1/8" = 1'-0"



5/19/17
The user of this file agrees to assume all responsibility for any modifications to or use of this drawing file that is inconsistent with the requirements of the Rules and Regulations of the Texas Board of Architectural Examiners. No person may make any modifications to this electronic drawing file without the Landscape Architect's express written permission.

OWNER
**SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS**

153 Treeline Park
San Antonio, TX 78209

PROJECT
CAST High School

637 N Main Ave
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

Drawn By: jo

Checked By: jr

Sheet Title:

**LANDSCAPE
PLANTING
PLAN**

Sheet Number:

L3.0

Issue Date:

May 19, 2017

TYPICAL WEEKLY SCHEDULE BASED ON PRECIPITATION RATE					
Precipitation Rate (in/hr)		Water Desired (in/wk)	Time/Cycle (min)	No. of Zones	Total Time * Min. Hrs.
Rotor Zones .64		.80			
Spray Zones 1.74		.80			
MP Rotators .45		.80			
Turf Drip Zones .96		.80			
Drip Zones .64		.80	75.0	8	600 10.0
Bubbler Zones 3.87		.80	12.0	2	24 0.4
Total System Hours of Operation Per Week					10.4

* IT WILL BE NECESSARY TO DIVIDE WATERING TIME INTO 2 TO 3 CYCLES TO MINIMIZE RUNOFF. A TYPICAL SCHEDULE WOULD ALLOW WATERING TO OCCUR TWO TIMES PER WEEK. TOTAL WATERING TIME WOULD BE DIVIDED BY THE NUMBER OF WATERING DAYS. THIS SCHEDULE IS DESIGNED FOR SUMMER WATER USAGE AND ESTABLISHMENT OF NEW PLANTING.

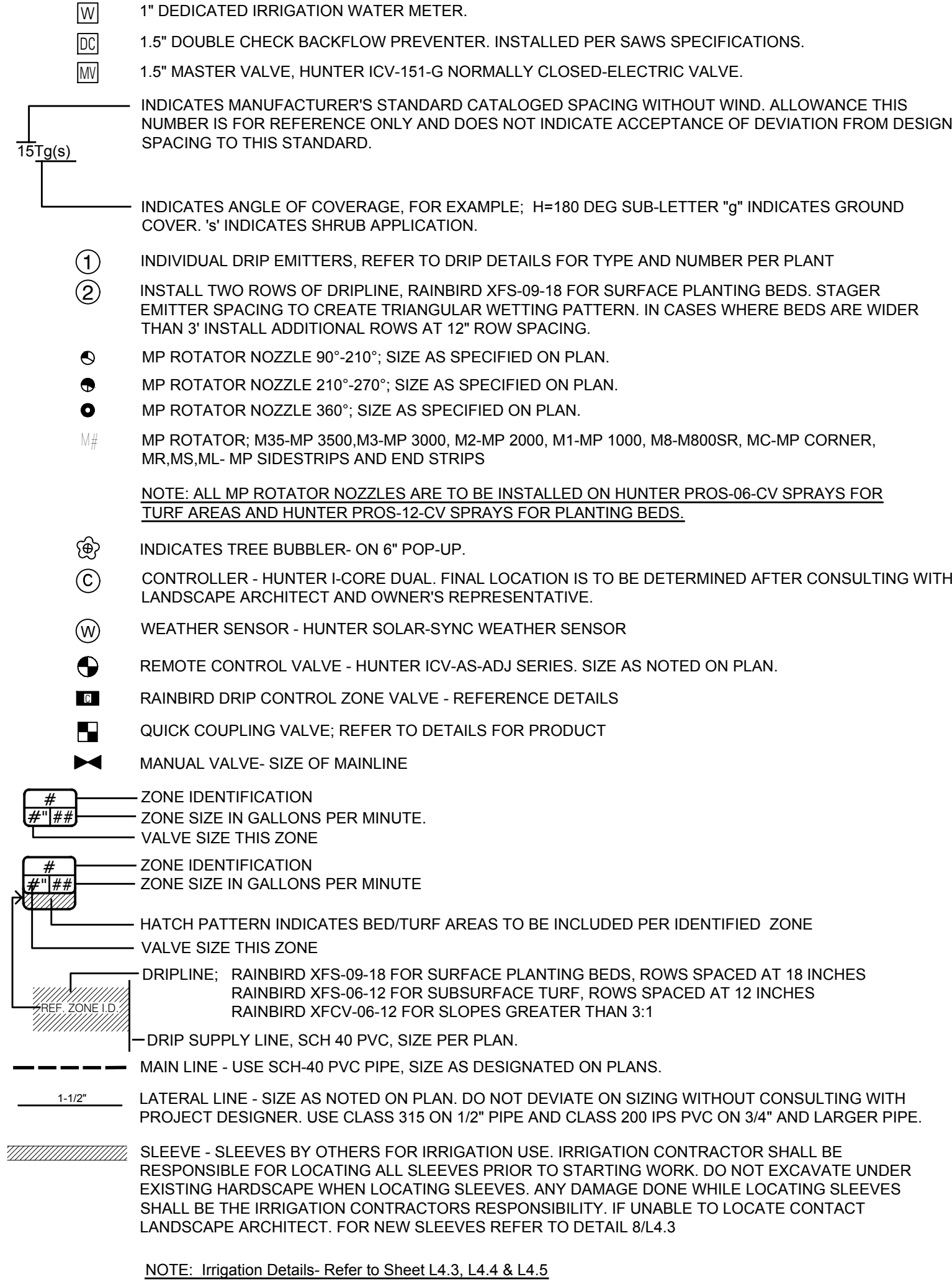
4 ET VALVE SCHEDULE

PRESSURE REQUIREMENT CALCULATIONS @ ZONE No. 7	
DESIGN STATISTICS FOR CALCULATIONS	
Total Zone Flow:	22.0 g.p.m.
Electric Valve Size:	1.5"
Static Pressure Less 10% (static @ 79 psi):	71.1 p.s.i.
ACCUMULATIVE LOSSES FROM CITY MAIN TO FURTHEST HEAD	
Sprinkler head requirement:	40 p.s.i.
Zone Pipe/Fitting Loss:	2.68 p.s.i.
1.5" Electric Valve Loss:	1.5 p.s.i.
Elevation Net Loss (+0 FT.):	
System Mainline Loss (2" Sch 40 Main):	0.46 p.s.i.
Backflow Preventer Loss (1.5"):	4.5 p.s.i.
Water Meter Loss (1"):	2.8 p.s.i.
Master Electric Valve Loss (1.5"):	1.5 p.s.i.
Type K Copper Service Loss:	
Total Net Loss:	13.43 p.s.i.
Design Pressure:	53.43 p.s.i.
Notes: System requires a minimum of 54 psi static pressure for system to operate properly. Irrigation Contractor shall conduct on site pressure test to verify site pressure prior to starting work. Contractor shall notify Owner's Representative of pressure deficiencies or any other on site problems that may alter the effectiveness of the system. Pipe has been size to insure that velocity does not exceed 5 FPS. do not change pipe size in the filed without consulting system designer.	

3 CRITICAL ZONE CHART

- CONSTRUCTION NOTES:
1. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH THE SPECIFICATIONS AND ALL SUBMITTAL REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE FOR SITE INSPECTIONS AS SPECIFIED IN THE SPECIFICATIONS. FAILURE TO NOTIFY THE OWNER'S REPRESENTATIVE DOES NOT RELIEVE THE CONTRACTOR FROM INSPECTION APPROVAL AND WILL REQUIRE THE CONTRACTOR TO UNCOVER WORK AS REQUIRED FOR APPROVAL AT THE COST OF THE CONTRACTOR. IRRIGATION CONTRACTOR IS TO INFORM OWNER'S REPRESENTATIVE OF THE START DATE OF WORK.
 2. THE IRRIGATION CONTRACTOR IS REQUIRED BY LAW TO NOTIFY TEXAS ONE CALL (800-245-4545) 72 HOURS PRIOR TO ANY EXCAVATION. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIMSELF FAMILIAR WITH ALL UNDERGROUND UTILITIES, PIPES AND STRUCTURES. IRRIGATION CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR ANY COST INCURRED DUE TO DAMAGE OF SAID UTILITIES WHETHER OR NOT TEXAS ONE CALL IS NOTIFIED.
 3. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WITHOUT VERIFYING ACTUAL ON-SITE WATER PRESSURE FROM THE SOURCE. DO NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
 4. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER CONTRACTORS AS REQUIRED TO ACCOMPLISH IRRIGATION INSTALLATION.
 5. DUE TO SCALE OF DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS SLEEVES, ETC., WHICH MAY BE REQUIRED. IRRIGATION CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC., SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS AND WITHIN PROPERTY LINES.
 6. IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO COORDINATE PIPING WITH THE LANDSCAPE SUBCONTRACTOR TO AVOID CONFLICT WITH PLANTING BEDS. IT WILL BE THE RESPONSIBILITY OF THE IRRIGATION SUBCONTRACTOR TO MOVE PIPING TO ALLOW PROPER PLACEMENT OF PLANT MATERIAL. THE IRRIGATION CONTRACTOR SHALL MAKE MINOR ADJUSTMENTS TO ENSURE PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.
 7. NO MACHINE TRENCHING IS TO BE DONE WITHIN DRIPLINE OF TREES, TRENCHING IS TO BE DONE BY HAND OR BY TUNNELING UNDER ROOT SYSTEM BY METHOD APPROVED BY OWNER'S REPRESENTATIVE. PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND EXISTING PLANT MATERIAL TO AVOID DAMAGE TO EXISTING PLANTS. DO NOT CUT ANY ROOT OVER 3/4" DIAMETER. ANY CUTS MADE SHALL BE CLEAN AND WITHOUT FRAVED ENDS.
 8. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR SLEEVES AND CHASES WHEREVER PIPING OR CONDUIT PASSES. UNDER ALL PAVING, THROUGH WALLS, ETC. ALL SLEEVE LOCATIONS MAY NOT BE SHOWN ON PLAN. COORDINATE WITH ARCHITECTURAL AND CIVIL DRAWINGS, GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS AS REQUIRED. ALL SLEEVE AND CHASE LOCATIONS ARE NOT NOTED ON PLAN. ALL SLEEVES SHALL BE SCH 40 PVC, SIZED TWICE THE DIAMETER OF PIPE OR COMBINATION OF PIPES ENCLOSED WITHIN THE SLEEVE.
 9. CONFIRM STATIC WATER PRESSURE AT LEAST 7 DAYS BEFORE BEGINNING WORK. IF STATIC WATER PRESSURE IS LESS THAN STATED IN PRESSURE CALCULATIONS DO NOT PROCEED UNTIL DIRECTED SO BY THE LANDSCAPE ARCHITECT. IF ACTUAL SITE STATIC PRESSURE EXCEEDS DESIGN PRESSURE BY 15 P.S.I. IN ANY ZONE, A PRESSURE REDUCING VALVE SHALL BE INSTALLED. REFER TO DETAILS FOR MODEL.
 10. ADJUSTABLE FLOW CONTROLS SHALL BE REQUIRED ON CIRCUIT REMOTE CONTROL VALVE. PRESSURE AT ANY POINT WITHIN A ZONE SHALL NOT VARY BY MORE THAN 10% FROM THE DESIGN SPRINKLER OPERATING PRESSURE. SEE SPECIFICATIONS FOR TESTING.
 11. ALL IRRIGATION WORK SHALL BE INSTALLED UNDER THE SUPERVISION OF A LICENSED (IN THE STATE OF TEXAS) IRRIGATION CONTRACTOR.
 12. OBTAIN COVERAGE TEST APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO PLANTING, SODDING OR SEEDING.
 13. ALL UNDESIGNATED END LATERAL PIPING SHALL BE ½" IN SPRAY ZONES AND ¾" IN ROTOR ZONES.
 14. SPRINKLER HEAD SPACING SHALL NOT EXCEED 50% OF SPRAY DIAMETER BASED ON MANUFACTURERS OPERATING SPECIFICATIONS. SPRINKLER HEAD SPACING SHALL BE DESIGNED FOR HEAD-TO-HEAD COVERAGE OR HEADS SHALL BE SPACED AS PER MANUFACTURER'S RECOMMENDATIONS AND ADJUSTED FOR PREVAILING WINDS. THE SYSTEM SHALL BE DESIGNED SO THAT IRRIGATION IS NOT APPLIED TO VEHICULAR TRAFFIC LANES, OTHER PAVEMENT OR STRUCTURES.
 15. ALL ROTORS SHALL BE LOCATED 12" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE. ALL SPRAY HEADS SHALL BE LOCATED 6" FROM PAVEMENT, CURBS OR EDGE OF STRUCTURE.
 16. VALVE AND CIRCUITS SHALL BE SEPARATED BASED ON WATER USE. SO THAT TURF AREAS ARE WATERED SEPARATELY FROM SHRUB AND GROUND COVER AREAS. IRRIGATION HEADS IN THE TURF AREAS WILL BE VALVED SEPARATELY FROM SHRUB AND/OR GROUND COVER AREAS. IT IS RECOMMENDED THAT SEASONAL COLOR AREAS BE WATERED SEPARATELY. UNDER NO CIRCUMSTANCES ARE ZONE TYPES TO BE COMBINED I.E. ROTARY HEADS WITH SPRAYS, TURF AREAS WITH PLANTING BEDS.
 17. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM STATIC PRESSURE ON SITE PRIOR TO STARTING WORK. REFER TO NOTES #9 AND #10.
 18. IT IS THE IRRIGATION CONTRACTOR'S RESPONSIBILITY TO SECURE ALL REQUIRED PERMITS AND PAY ALL ASSOCIATED FEES UNLESS OTHERWISE NOTED. ALL LOCAL CODES SHALL PREVAIL OVER ANY DISCREPANCIES CONTAINED IN THESE DOCUMENTS.
 19. UNSLEEVED PIPES MAY BE SHOWN UNDER PAVEMENT FOR GRAPHIC CLARITY. INSTALL PIPES IN ADJACENT SLEEVES WITHIN LANDSCAPE AREAS.
 20. ELECTRIC POWER SHALL BE PROVIDED TO CONTROLLER LOCATION BY GENERAL CONTRACTOR. IRRIGATION CONTRACTOR SHALL PROVIDE FINAL HARD-WIRE TO CONTROLLERS.
 21. SPRINKLER HEADS SHALL HAVE MATCHED PRECIPITATION RATES WITHIN EACH CONTROL VALVE CIRCUIT.
 22. SERVICEABLE CHECK VALVES SHALL BE REQUIRED ADJACENT TO PAVED AREAS WHERE ELEVATION DIFFERENCES MAY CAUSE LOW HEAD DRAINAGE.
 23. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A CONTROLLER CAPABLE OF DUAL OR MULTIPLE PROGRAMMING. CONTROLLERS SHALL HAVE MULTIPLE CYCLE START CAPACITY AND A FLEXIBLE CALENDAR PROGRAM, INCLUDING THE CAPABILITY OF BEING SET TO WATER EVERY FIVE DAYS. ALL AUTOMATIC IRRIGATION SYSTEMS SHALL BE EQUIPPED WITH A RAIN SENSOR SHUT-OFF DEVICE.
 24. ALL IRRIGATION WIRES SHALL BE UL LISTED FOR DIRECT UNDERGROUND BURIAL AND SHALL BE SIZED PER THE MANUFACTURER'S RECOMMENDATIONS. ALL WIRE SPICES SHALL BE MADE WITH WATERPROOF CONNECTORS.
 25. ALL IRRIGATION HEADS SHALL BE ADJUSTED TO MINIMIZE OVER-SPRAY ONTO ALL IMPERVIOUS SURFACES.
 26. ALL PIPE CONNECTIONS SHALL BE PRIMED WITH AN APPROVED COLOR PRIMER BEFORE BEING CHEMICAL WELDED.
 27. AFTER AWARD OF CONTRACT AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE ORDERED FROM SUPPLIERS OR DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEM MATERIALS, OR PROCESSES PROPOSED TO BE FURNISHED AND INSTALLED AS PART OF THIS CONTRACT. THE LANDSCAPE ARCHITECT OR OWNER'S AUTHORIZED REPRESENTATIVE WILL ALLOW NO SUBSTITUTIONS WITHOUT PRIOR WRITTEN ACCEPTANCE. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.
 28. IRRIGATION CLOSEOUT DOCUMENTS SHALL INCLUDE A WATER BUDGET. A LAMINATED COPY OF THE WATER BUDGET SHALL BE PERMANENTLY INSTALLED INSIDE THE IRRIGATION CONTROLLER DOOR.

2 CONSTRUCTION NOTES:



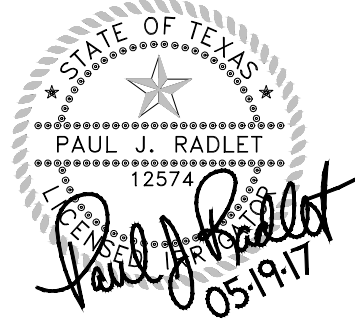
1 LEGEND

STATEMENT OF IRRIGATION DESIGN STANDARDS CONFORMITY:
This plan is complete and conforms to the design and installation parameters of the irrigation design and equipment standards set out in 35-510(j) and 35-511(c)(6) of the City of San Antonio Unified Development Code.

Paul J. Radlett
Paul J. Radlett TX LI # 12574

- SPECIAL NOTES:
1. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH ALL LOCAL AND STATE MANDATED IRRIGATION ORDINANCES AND CODES AND WILL SECURE ALL REQUIRED PERMITS.
 2. ALL WIRES, CONTROL VALVES, AND PRESSURIZED WATER SUPPLY LINES SHALL NOT BE LOCATED WITHIN THE EXISTING ROW OR OUTSIDE PROPERTY BOUNDARIES.

HORIZON
DESIGN AND DEVELOPMENT
PLANNING LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING
14607 San Pedro Ave., Suite 200
San Antonio, Texas 78232
210.831.8564 jrobinson@horizondesign-sa.com



OWNER
SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT
CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

Drawn By: pjr, wor

Checked By: jr

Sheet Title:

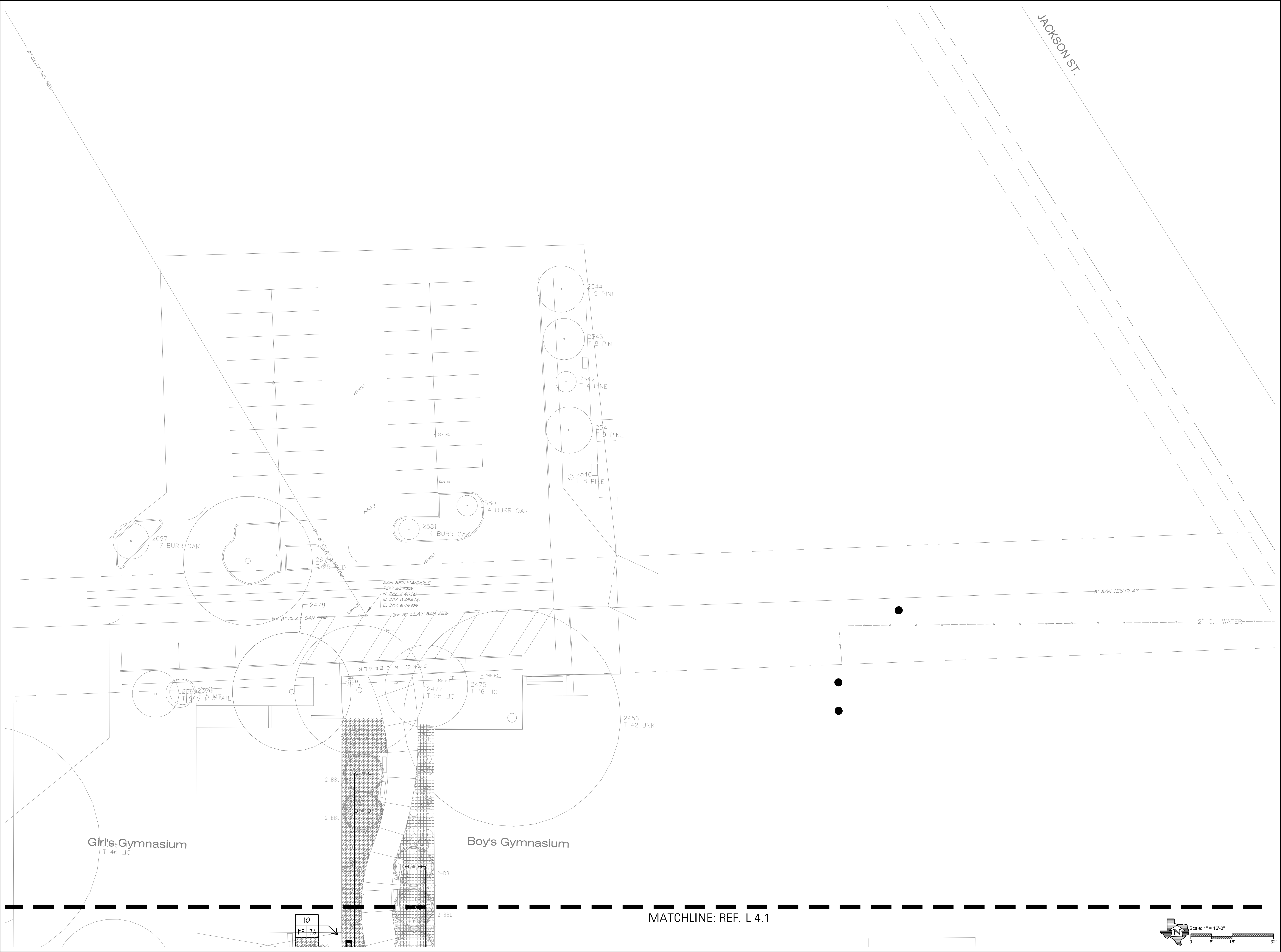
IRRIGATION
NOTES

Sheet Number:

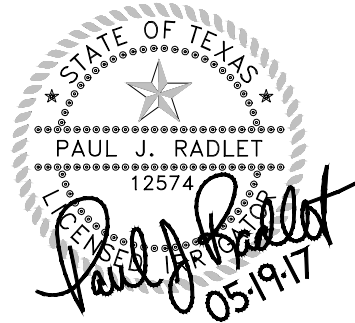
L4.0

Issue Date:

May 19, 2017



H O R I Z O N
DESIGN AND DEVELOPMENT
PLANNING LANDSCAPE ARCHITECTURE
DEVELOPMENT CONSULTING
14607 San Pedro Ave., Suite 300
San Antonio, Texas 78232
210.831.8564 jrobinson@horizondesign-sa.com



OWNER

SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT

CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

Drawn By: pjr, wor
Checked By: jr

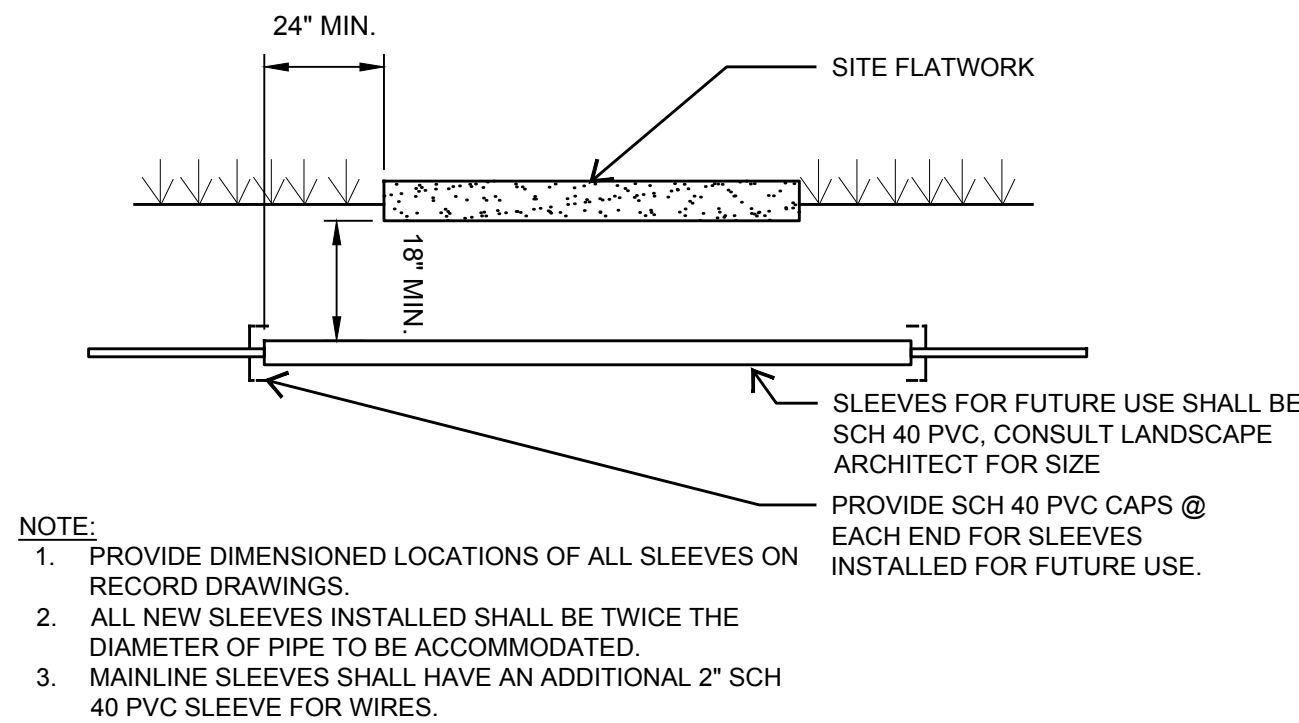
Sheet Title:
IRRIGATION
PLAN

Sheet Number:

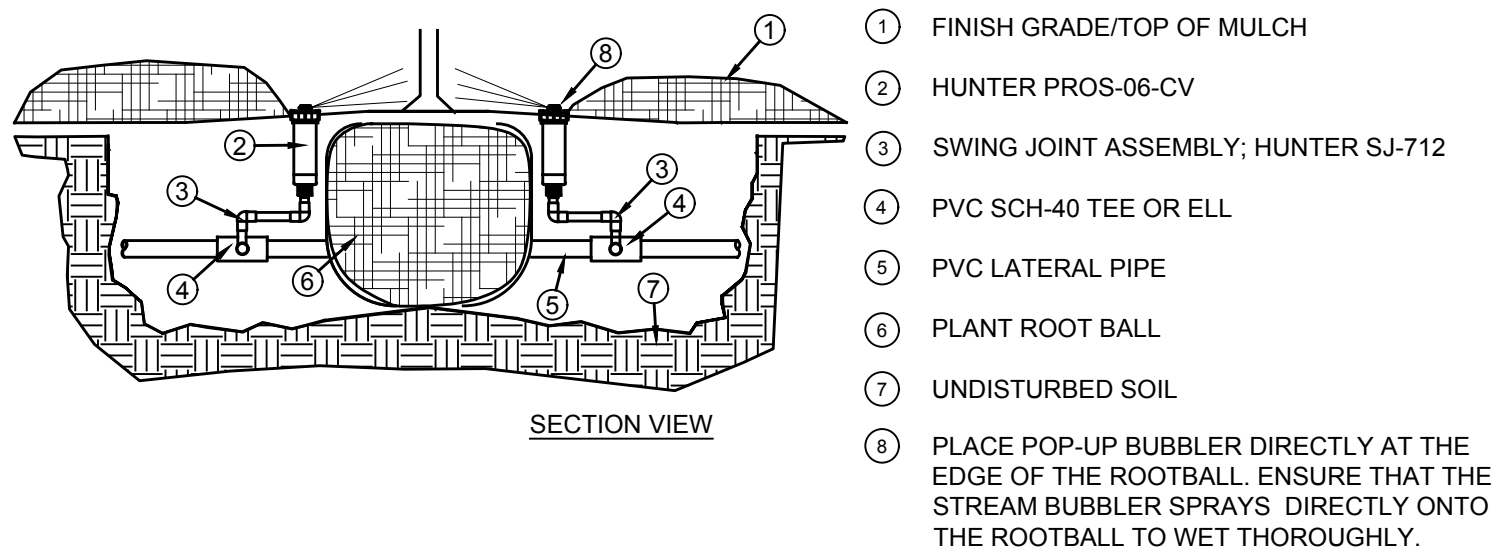
L4.2

Issue Date:

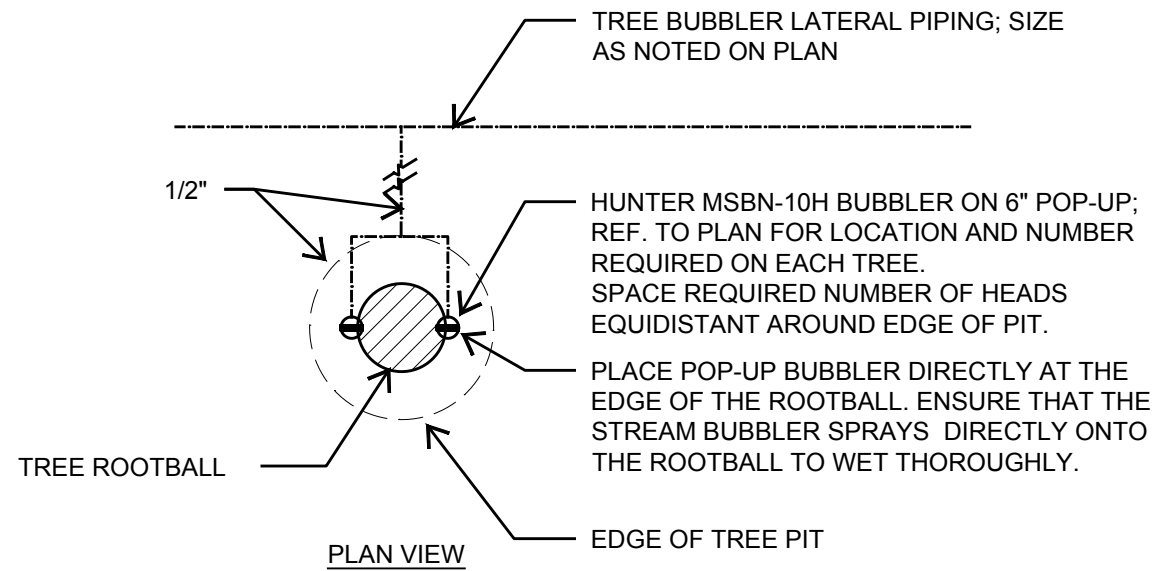
May 19, 2017



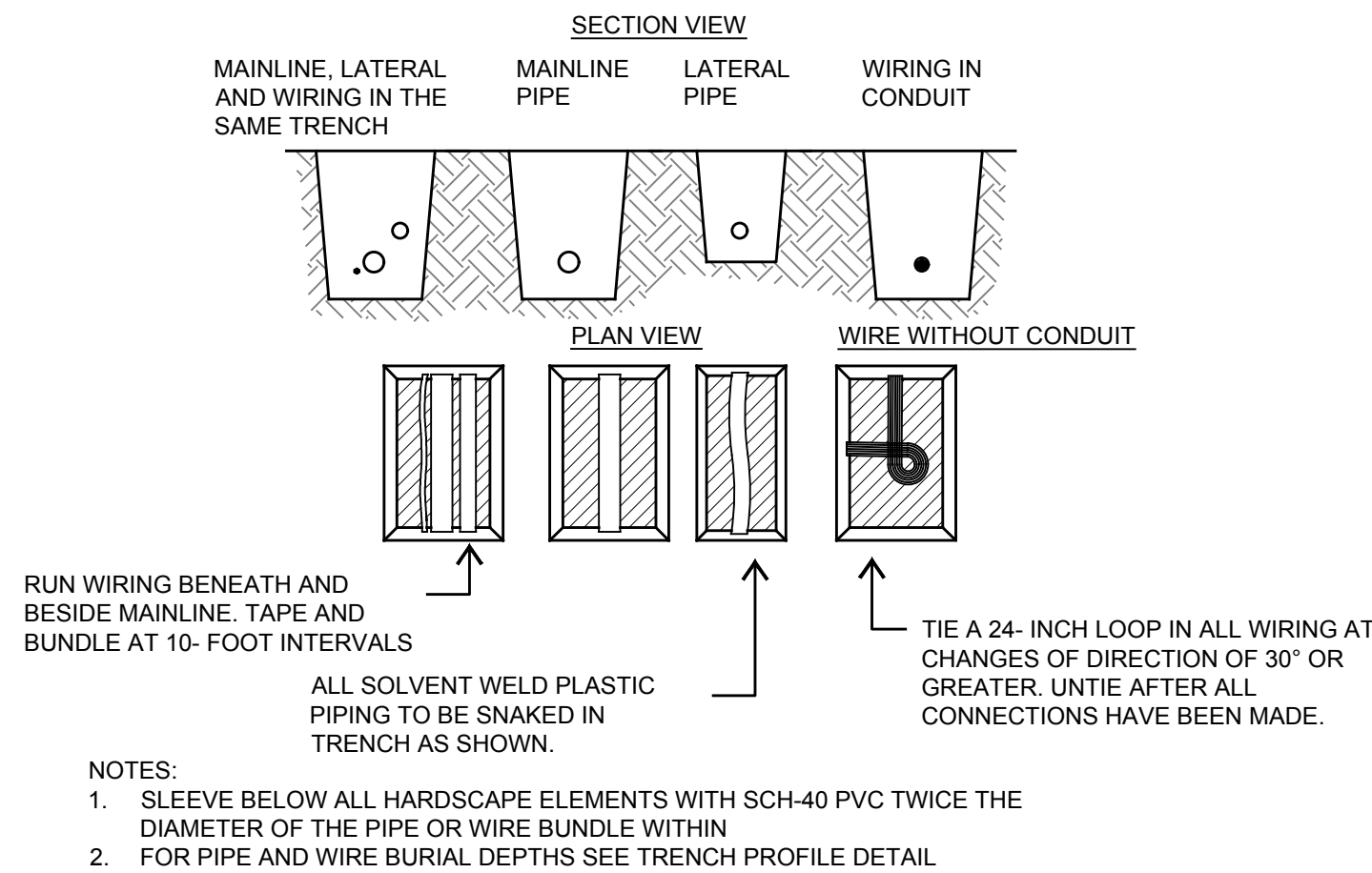
8 IRRIGATION SLEEVE



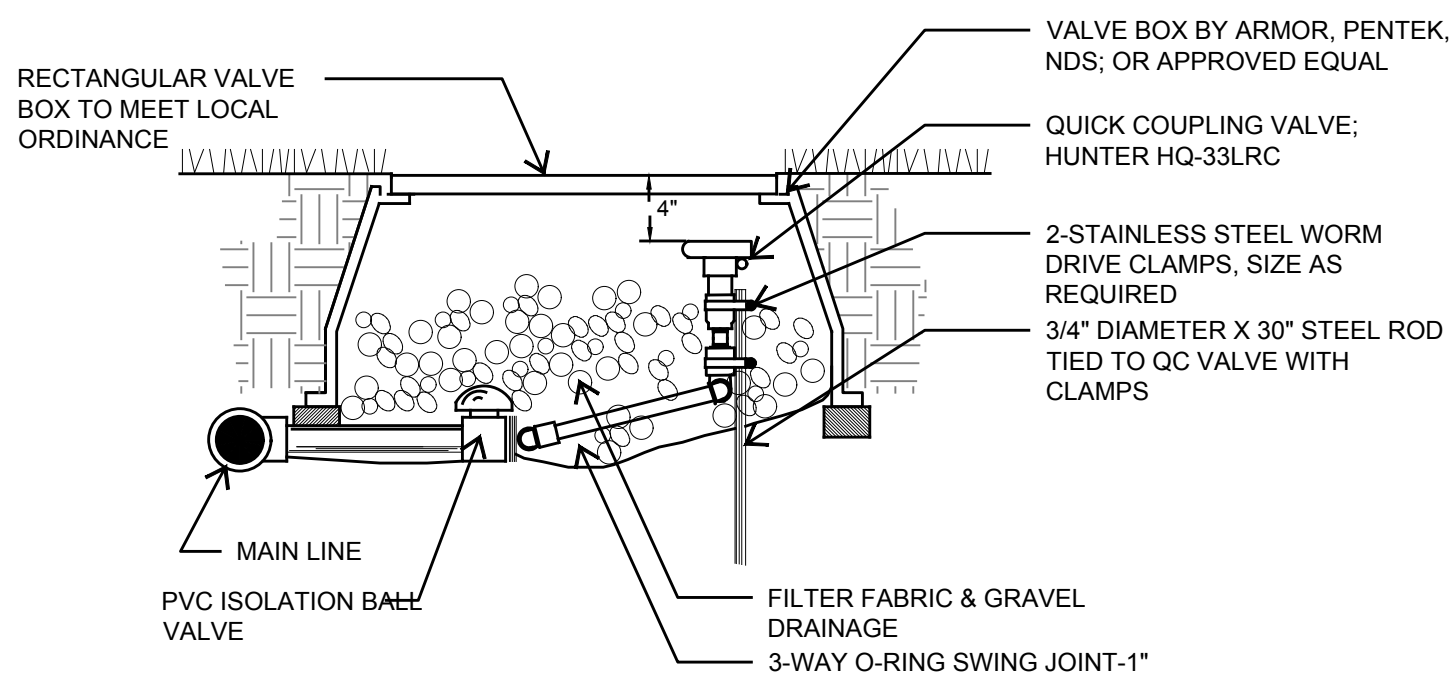
7 TREE BUBBLER ASSEMBLY- SECTION



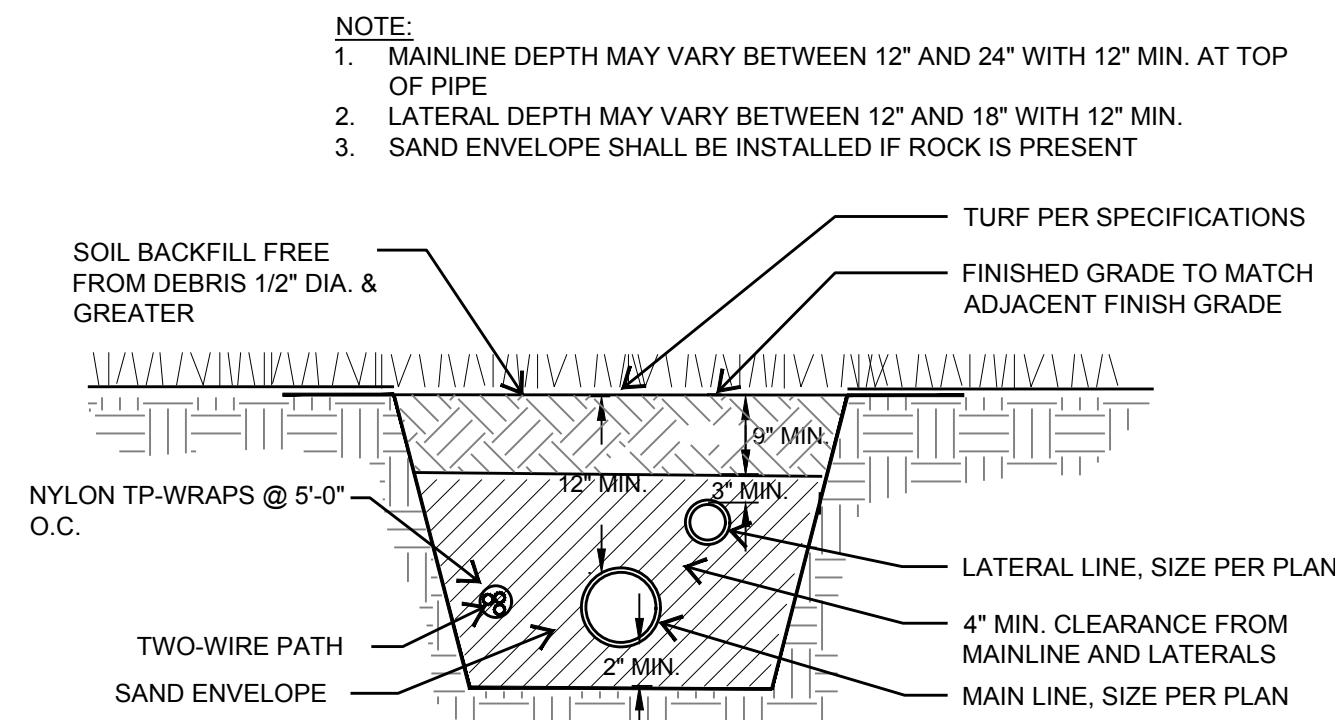
6 TREE BUBBLER ASSEMBLY- PLAN



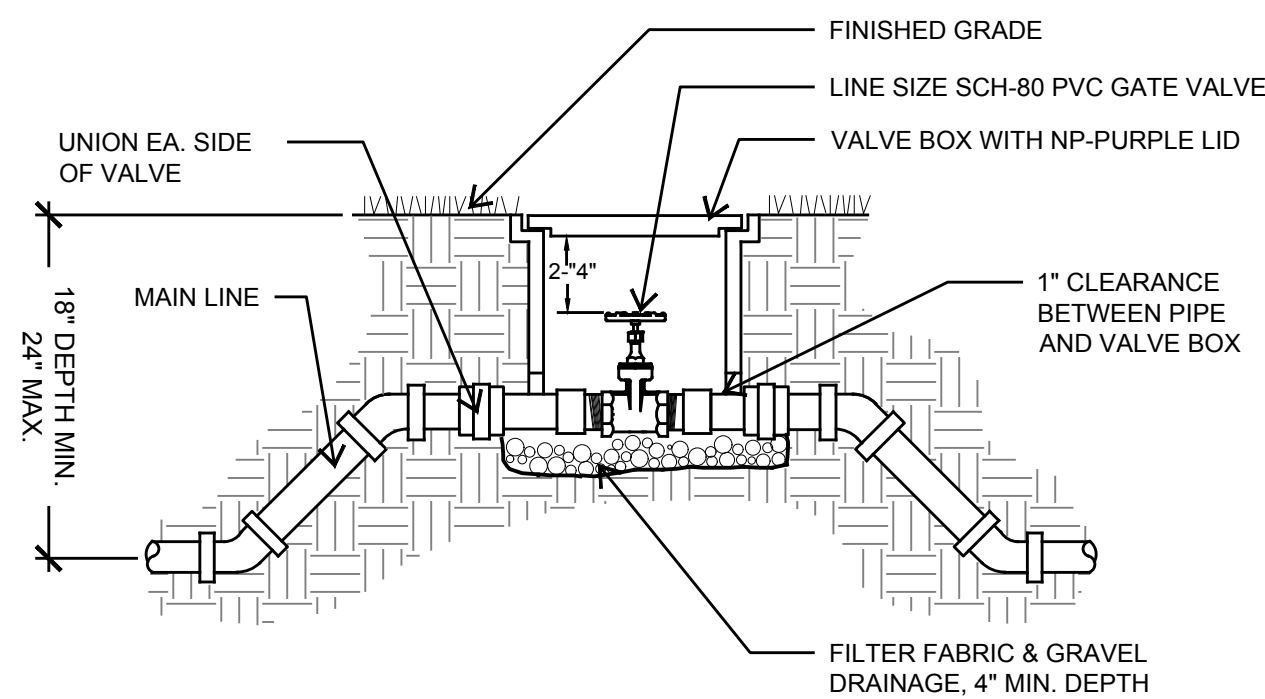
9 IRRIGATION TRENCH



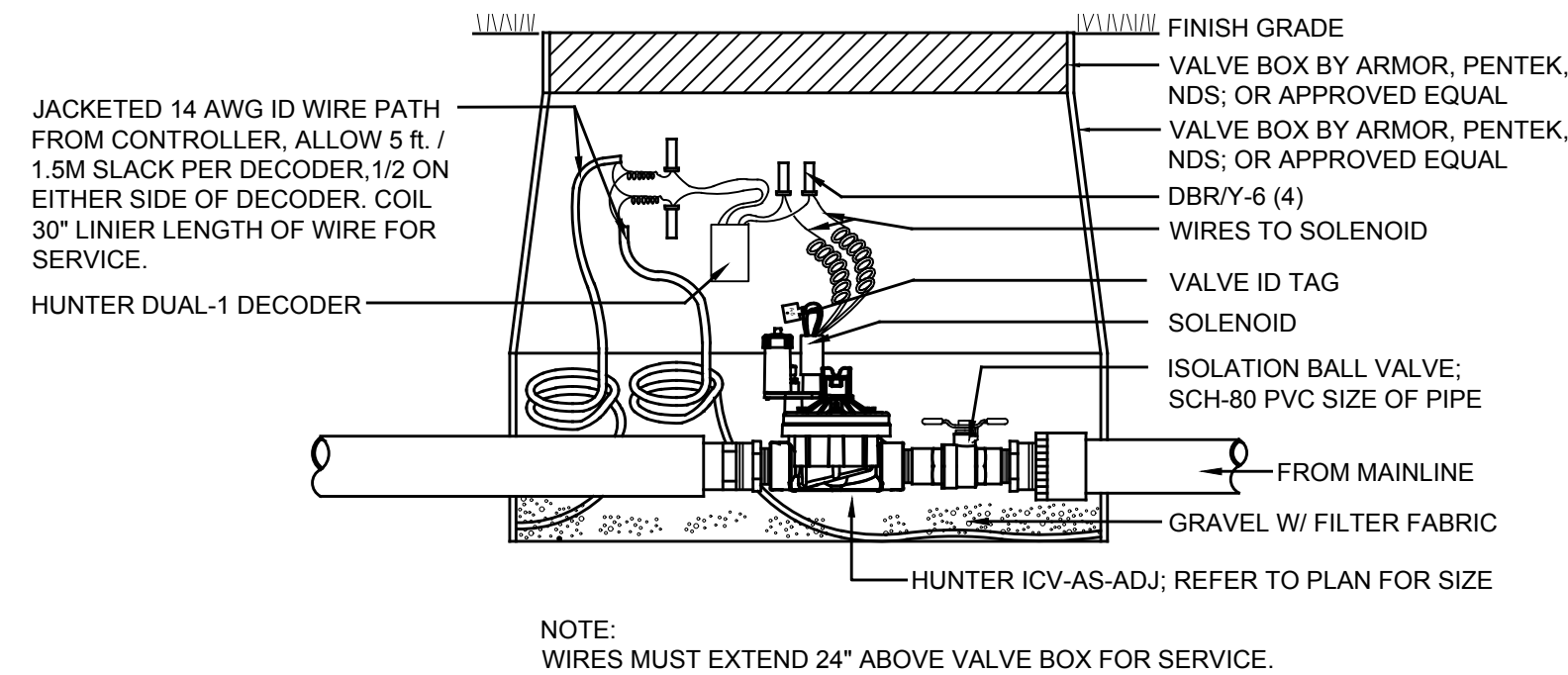
5 QUICK COUPLER VALVE



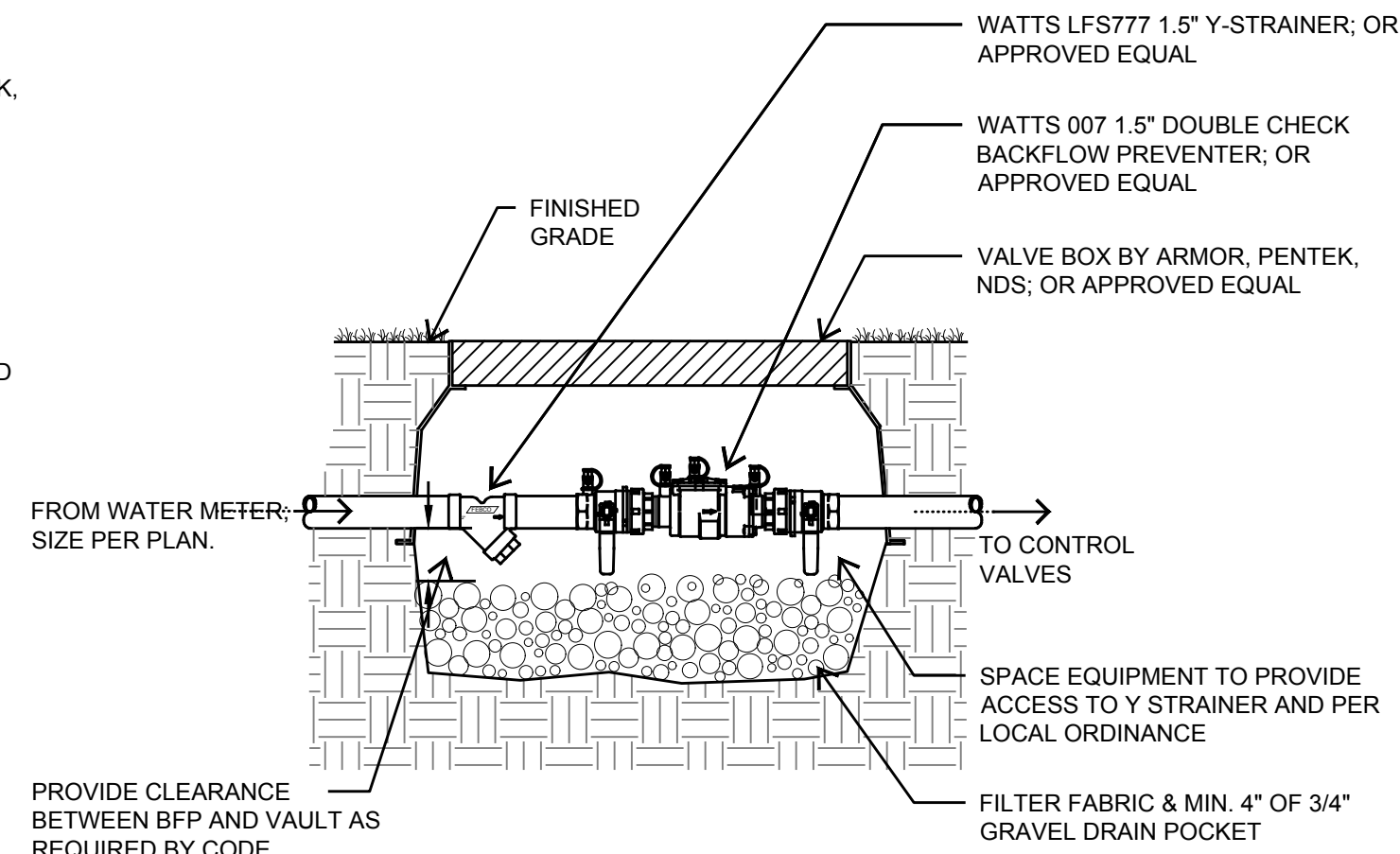
4 TRENCH PROFILE



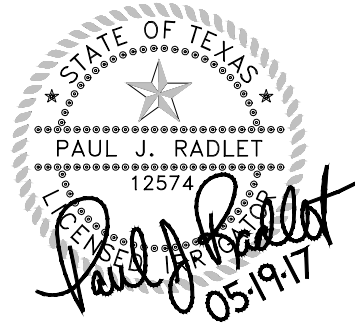
3 MANUAL ISOLATION VALVE



2 MASTER VALVE



1 BACKFLOW DEVICE



OWNER
**SAN ANTONIO
I.S.D FOUNDATION**
c/o KATE ROGERS

153 Treeline Park
San Antonio, TX 78209

PROJECT
CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER
2017-089

Drawn By: pjr, wor
Checked By: jr

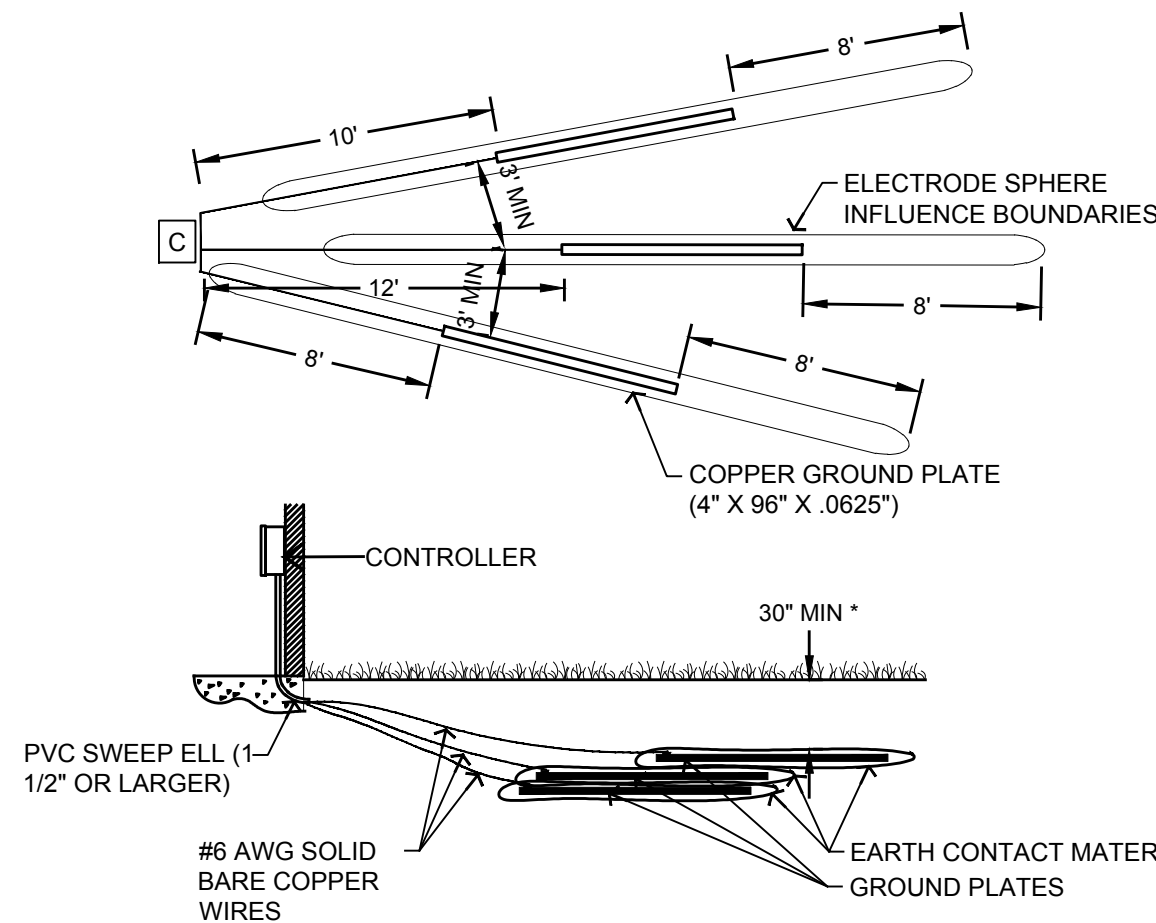
Sheet Title:
**IRRIGATION
DETAILS**

Sheet Number:

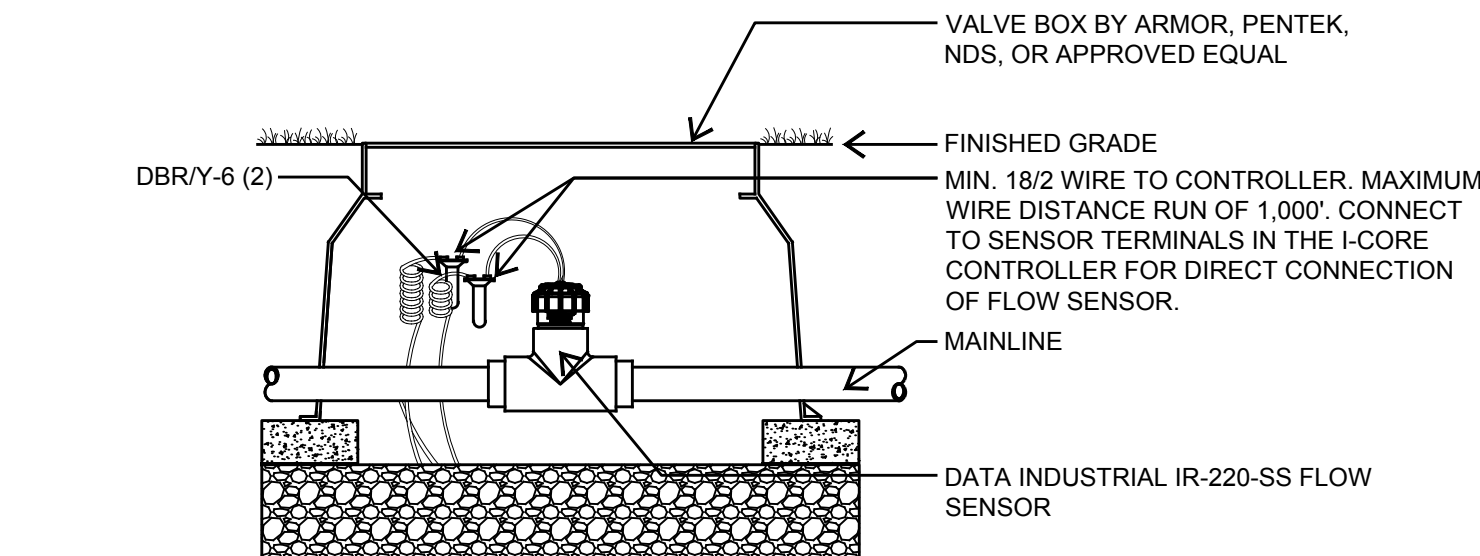
L4.4

Issue Date:

May 19, 2017

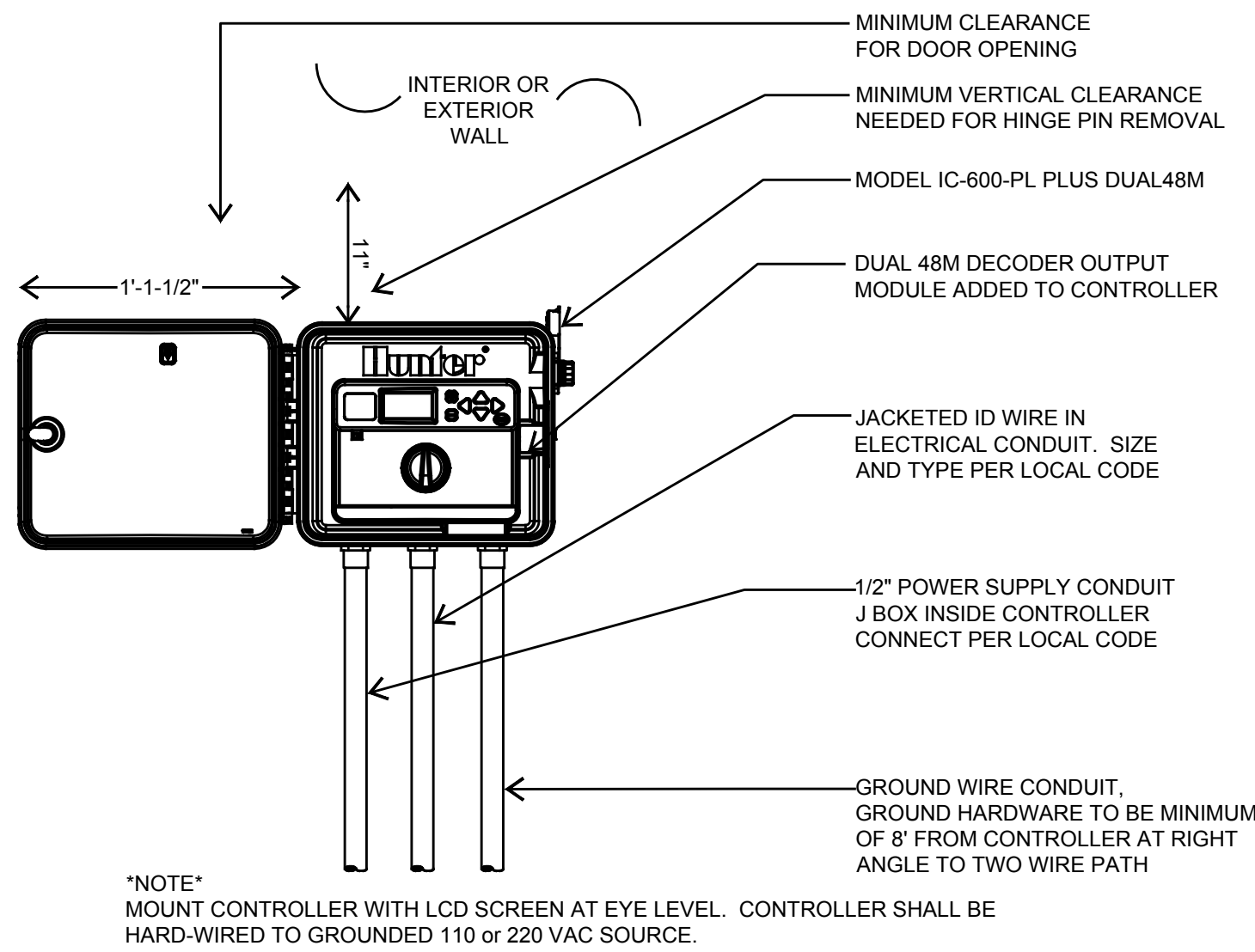


5 CONTROLLER GROUNDING

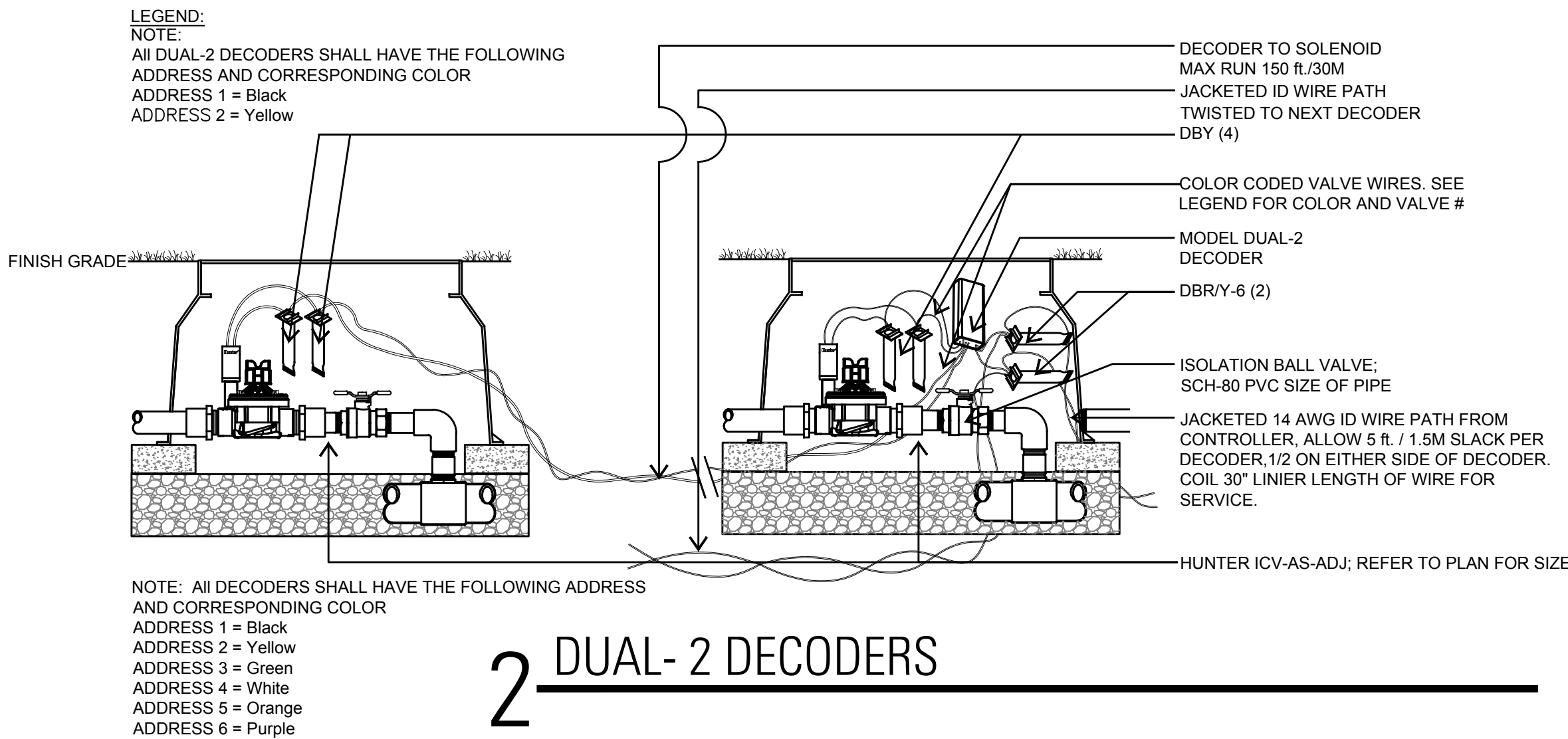


- NOTES:
1. FLOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) POSITIONED VERTICALLY AND BODY (TEE) POSITIONED HORIZONTALLY.
 2. MAX. DISTANCE BETWEEN THE INTERFACE PANEL AND THE SENSOR 1,000 ft. (14 AWG MIN. WIRE SIZE).
 3. UPSTREAM SIDE OF SENSOR BODY MUST BE A MIN. OF 10X PIPE DIA. FROM VALVE OR NEAREST TURN/FITTING IN SYSTEM

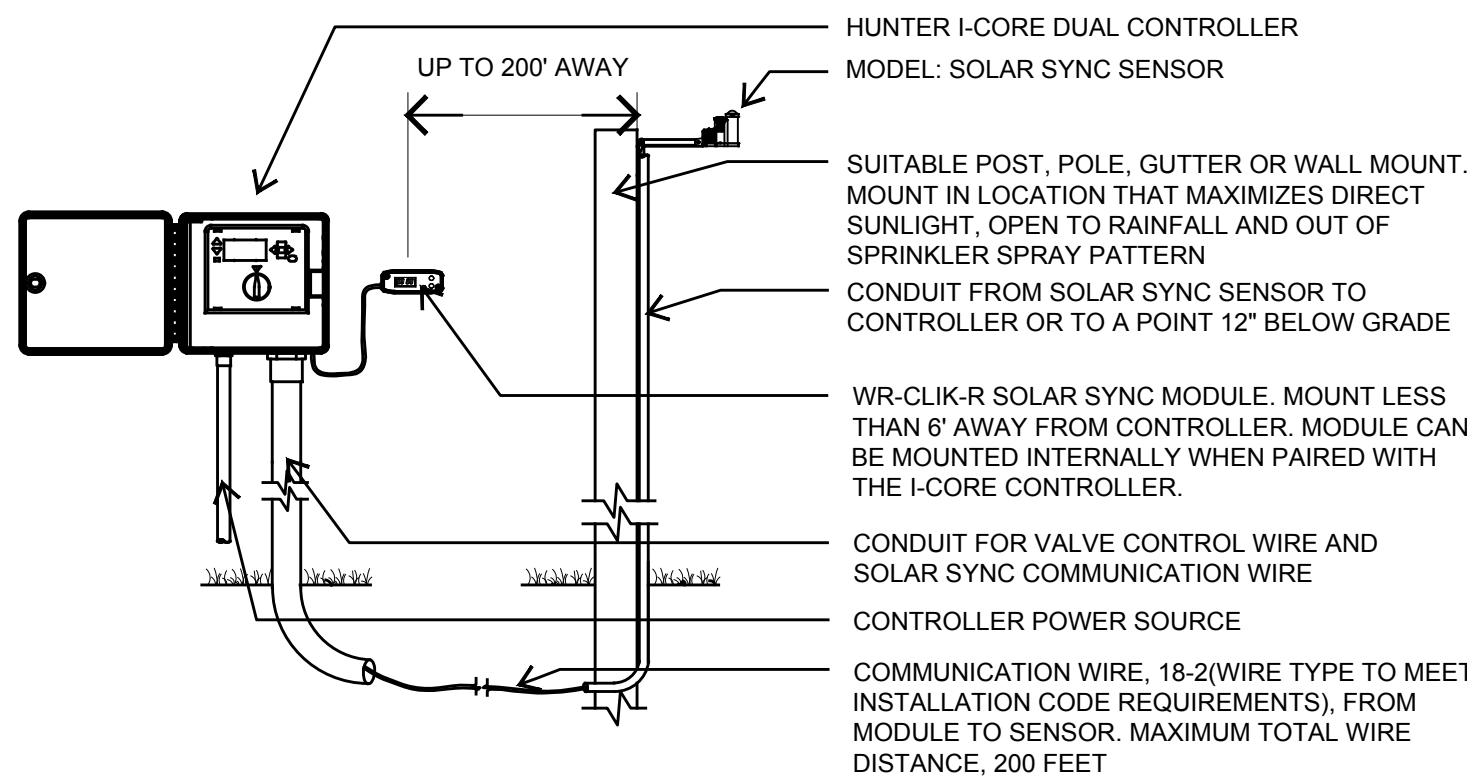
3 FLOW SENSOR



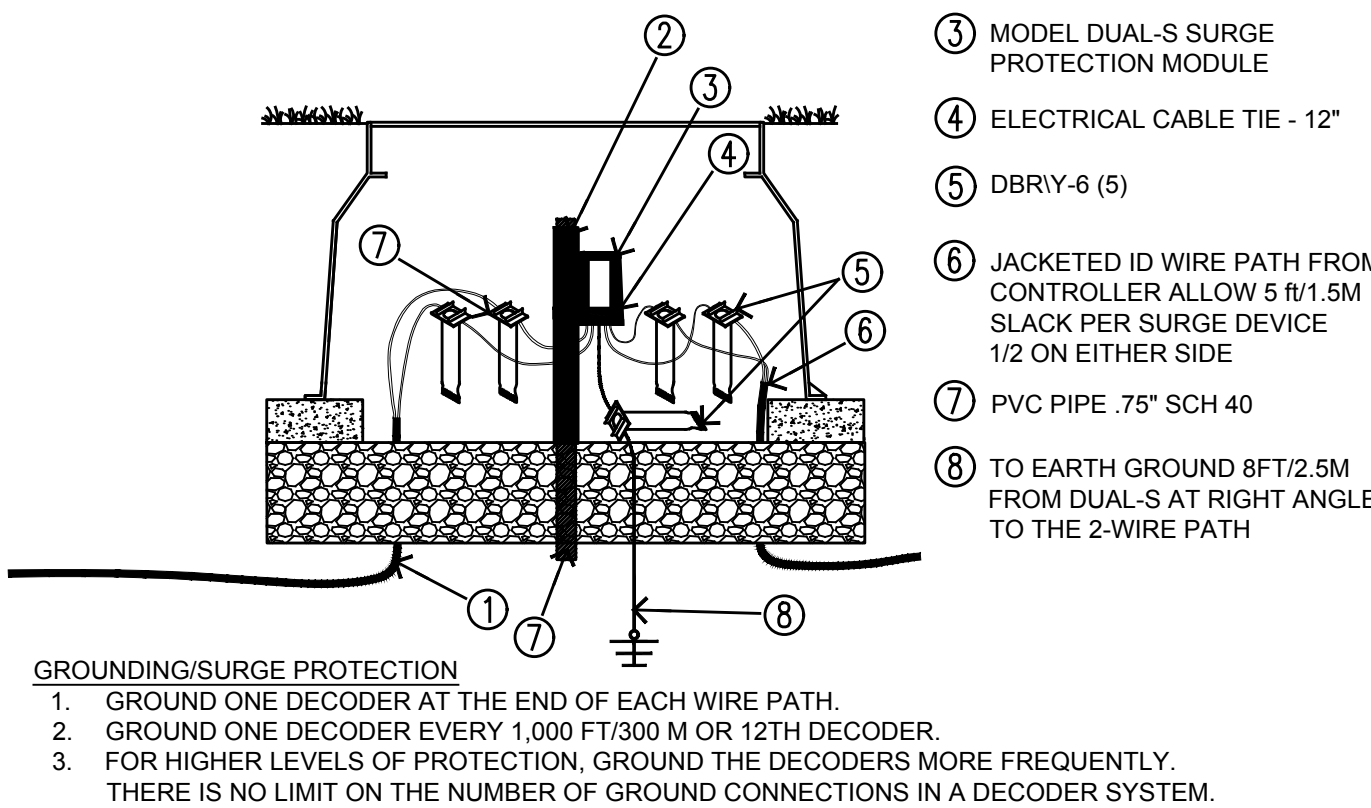
7 I-CORE DUAL CONTROLLER



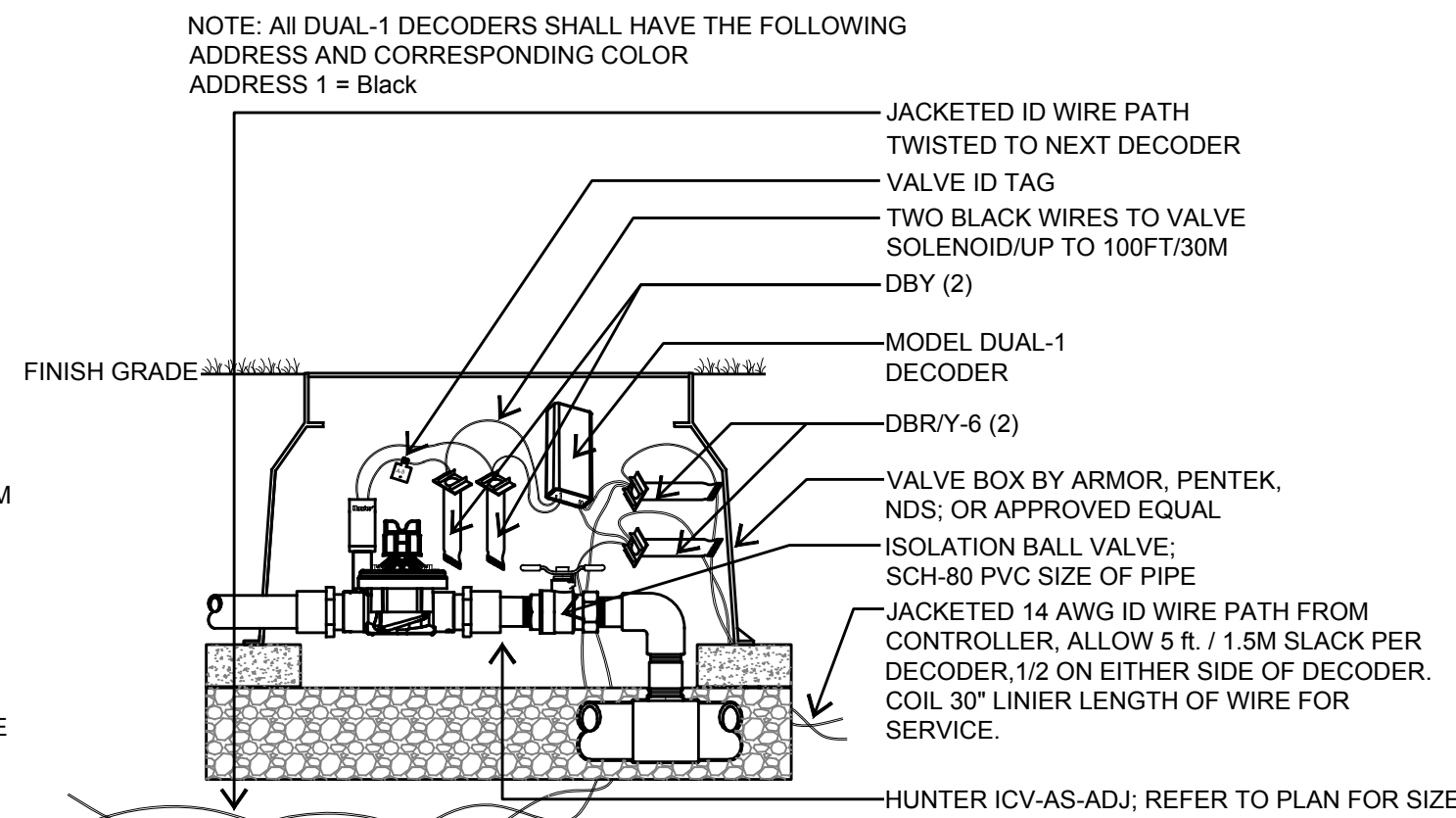
2 DUAL-2 DECODERS



6 WEATHER SENSOR



4 GROUNDING / SURGE PROTECTION



1 DUAL DECODER

- 1.) DRIP LINE SHALL BE BURIED 3" TO 5" BELOW FINISHED SOIL GRADE IN PLANTING BEDS AFTER PLANTING AND BEFORE MULCH AND 4" TO 6" BELOW FINISHED GRADE IN TURF AREAS.
- 2.) STAGER EMITTER SPACING IN PARALLEL ROWS TO CREATE TRIANGULAR WETTING PATTERN.
- 3.) ALL DRIP LINE SHALL BE SECURED USING SOIL STAPLES AS SUPPLIED BY THE MANUFACTURER SPACED A MAX. OF 3' ON CENTER.
- 4.) DRIP LATERALS SHOWN ON THE PLANS ARE USED TO INDICATE ZONING SIZES AND RELATIONSHIPS. INSTALLATION OF DRIP ZONES SHALL FOLLOW ONE OF THE TWO METHODS DESCRIBED IN DTLs. 3/4-LI 2.2. AND RAIN BIRD'S RECOMMENDED INSTALLATION SPECIFICATIONS.
- 5.) RAIN BIRD XFS SERIES DRIP LINE SHALL BE USED AS FOLLOWS;
TURF AREAS: XFS-06-12, ROWS SPACED AT 12 INCHES
BED AREAS: XFS-09-18, ROWS SPACED AT 18 INCHES
BED AREAS WITH SLOPE 3:1 OR MORE: XFOV-06-12
- 6.) WHEN CONFLICTS OCCUR BETWEEN THESE DRAWINGS AND THE MANUFACTURER'S SPECIFICATIONS DEFER TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS.
- 7.) EACH DRIP ZONE SHALL HAVE A DRIP SYSTEM OPERATION INDICATOR, RAIN BIRD MODEL OPERIND. INSTALL PER RAIN BIRD RECOMMENDATIONS.

CONTRACTOR TO USE EASY FIT COMPRESSION OR 17MM INSERT FITTINGS WITH DRIPLINE BY RAIN BIRD. REFER TO MANUFACTURER'S SPECIFICATIONS FOR ALL PARTS TO INSURE COMPATIBILITY.

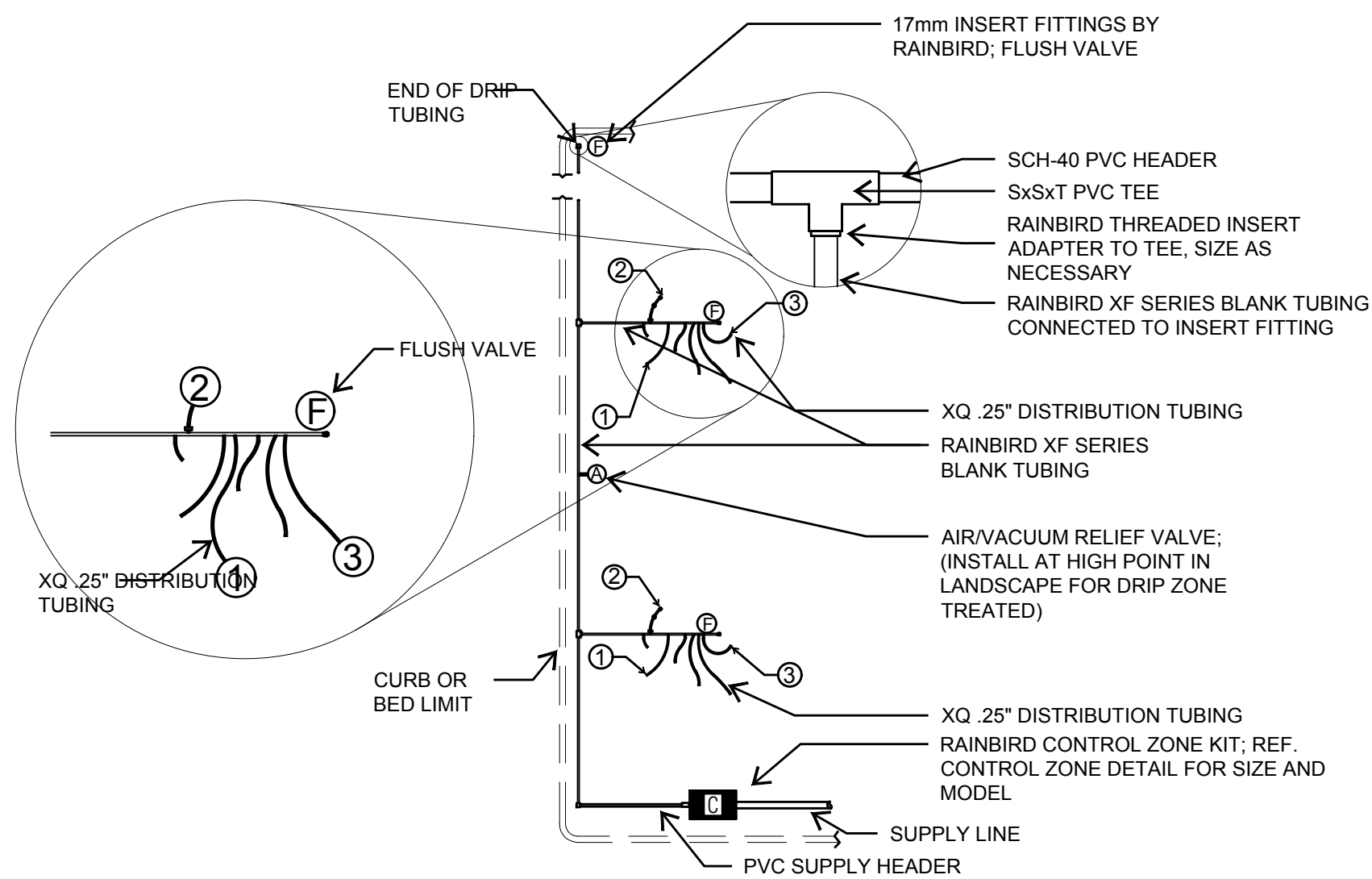
PROPER SIZING OF SUPPLY AND EXHAUST HEADERS
(17MM XFS SERIES DRIPLINE)

TOTAL ZONE FLOW	PIPE SIZE
UP TO 5 GPM	1/2" SCH 40 PVC or 1/2" CLASS 315 PVC
5.1 TO 8 GPM	3/4" CLASS 200 PVC
8.1 TO 13 GPM	1" CLASS 200 PVC
13.1 TO 22 GPM	1-1/4" CLASS 200 PVC
22.1 TO 31 GPM	1-1/2" CLASS 200 PVC

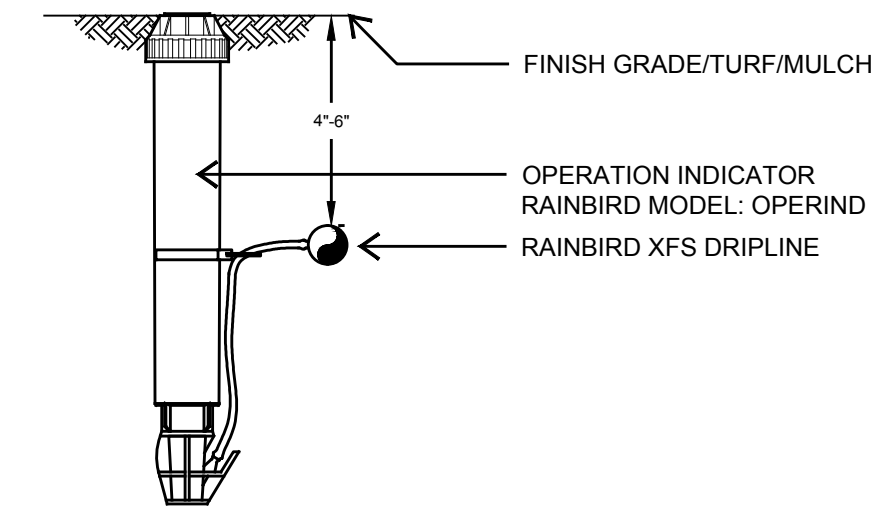
NOTE: A 45 PSI PRESSURE REGULATOR IS RECOMMENDED TO OBTAIN MAXIMUM RUN LENGTHS AND MAXIMIZE ZONE SIZE WHEN INSTALLING XFS SERIES DRIPLINE.

9 DRIP DESIGN NOTES

1. RAINBIRD EMITTER SCHEDULE
15 GAL. SHRUB - (2) RED 2.0 GPH XB-20-PC EMITTERS WITH XQ .25" DISTRIBUTION TUBING WITH DBC-025 BUG CAP AND PC-DIFF-PPL DIFFUSER CAP
2. 5 GAL. SHRUB - (2) BLACK 1.0 GPH XB-10-PC EMITTERS WITH XQ .25" DISTRIBUTION TUBING WITH DBC-025 BUG CAP AND PC-DIFF-PPL DIFFUSER CAP
3. 1 GAL. SHRUB - (1) BLACK 1.0 GPH XB-10-PC EMITTERS WITH XQ .25" DISTRIBUTION TUBING WITH DBC-025 BUG CAP AND PC-DIFF-PPL DIFFUSER CAP

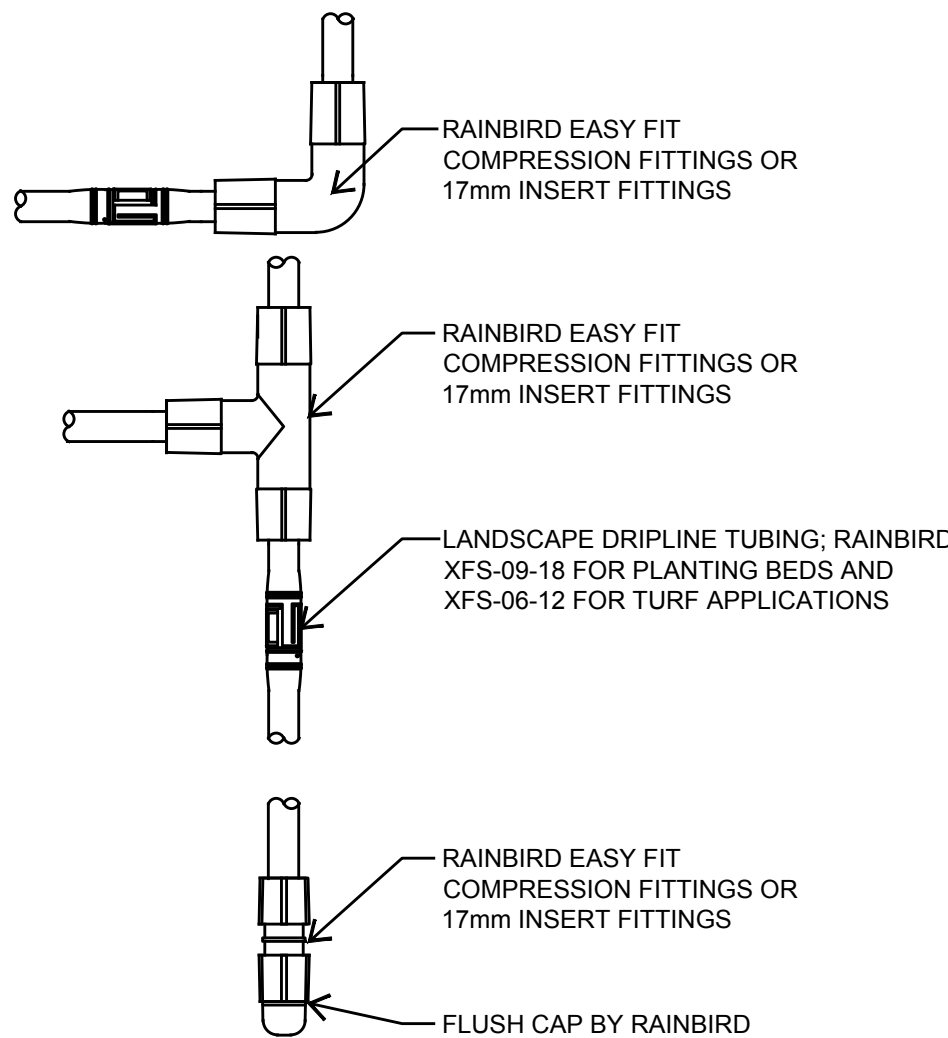


8 INDIVIDUAL EMITTERS

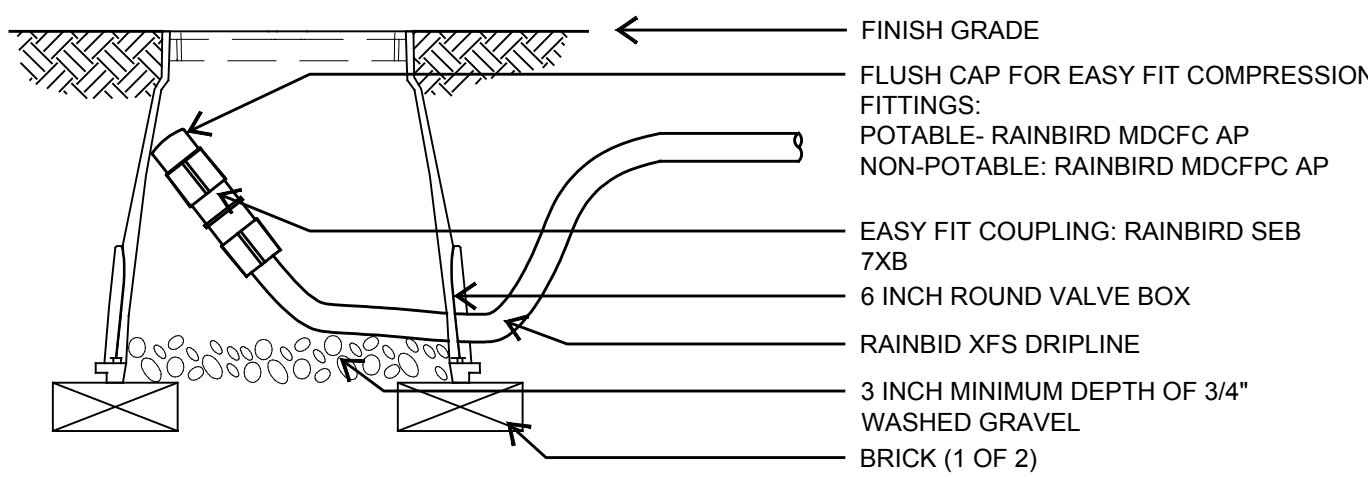


NOTE:
1. INSERT BARB TRANSFER FITTING DIRECTLY INTO DRIPLINE TUBING.
2. VAN NOZZLE MAY BE SET TO CLOSED, OR IF IT IS DESIRED TO SEE SPRAY FROM THE NOZZLE, SET THE ARC TO 1/4 PATTERN. THE FLOW FROM THE NOZZLE, 0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

7 DRIP OPERATION INDICATOR

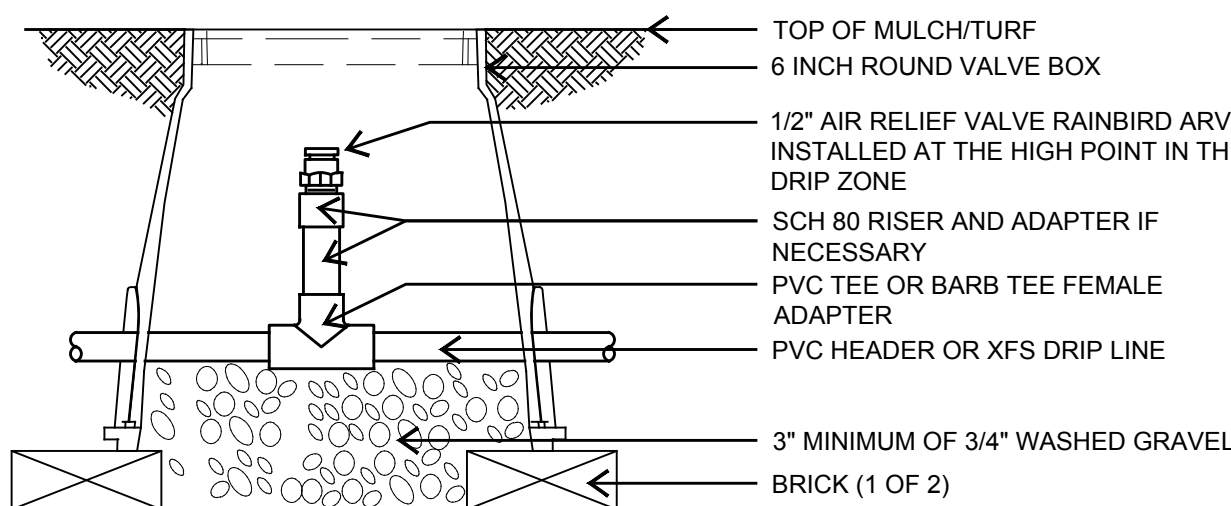


6 DRIPLINE FITTINGS

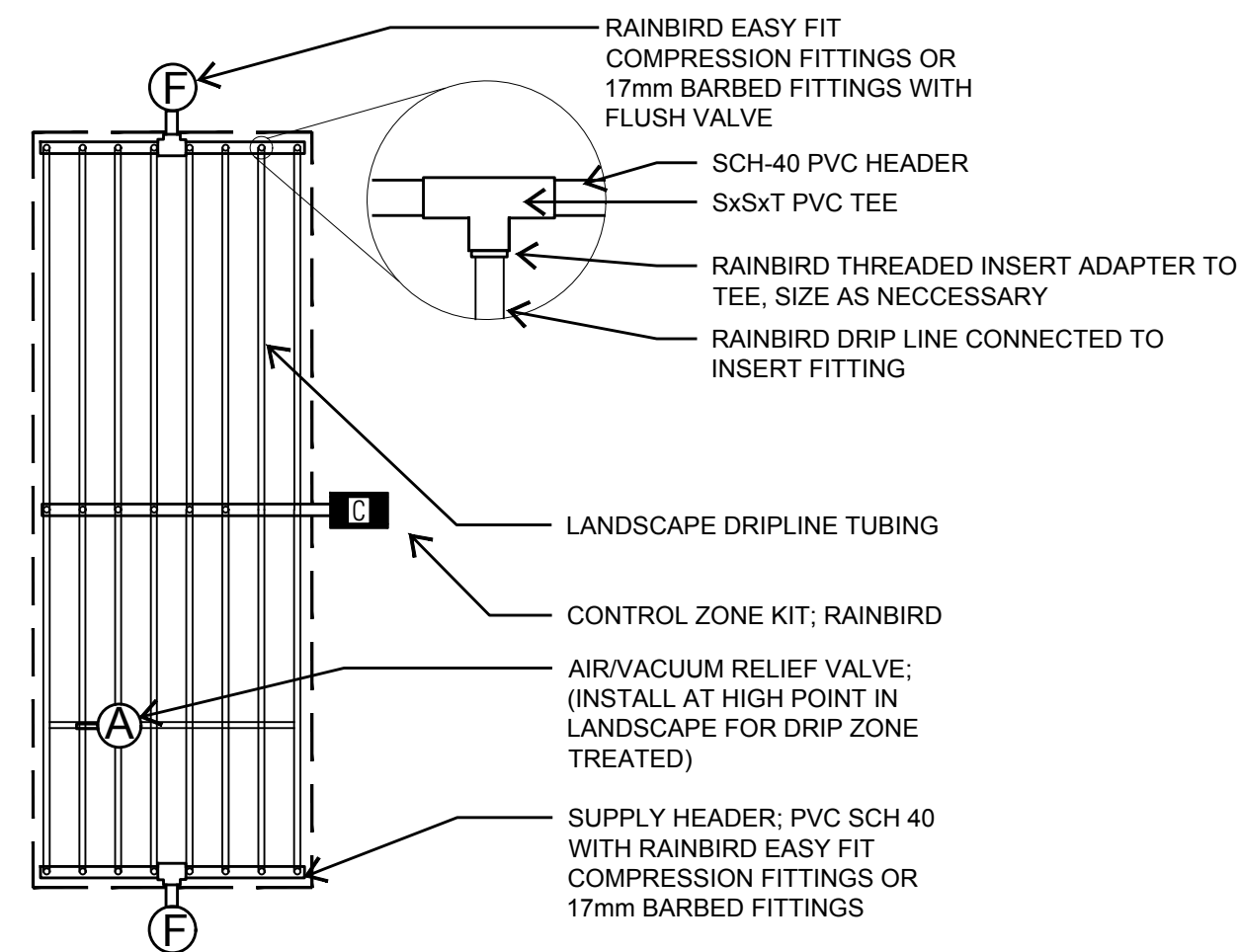


NOTE:
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

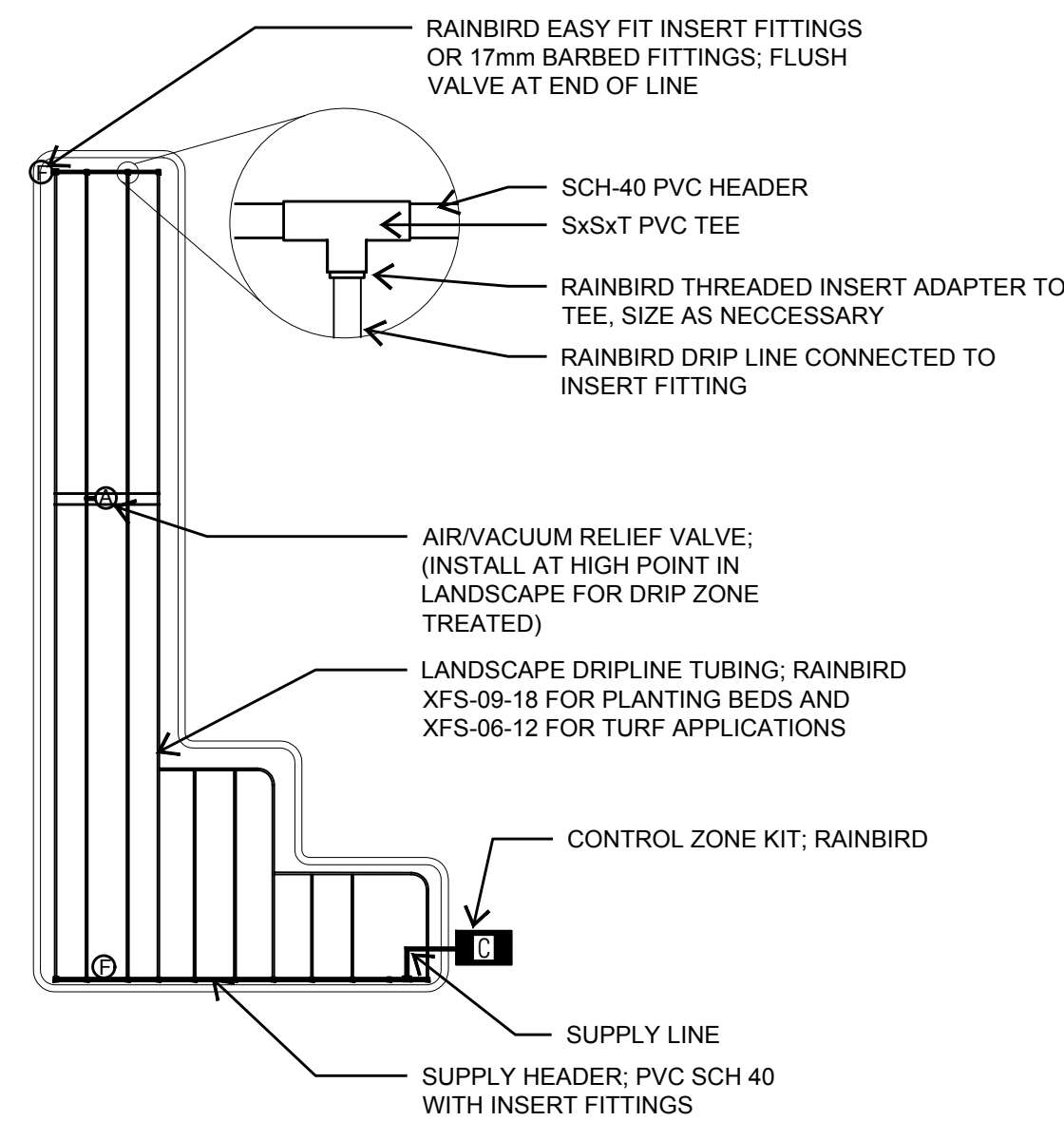
5 DRIPLINE FLUSH VALVE



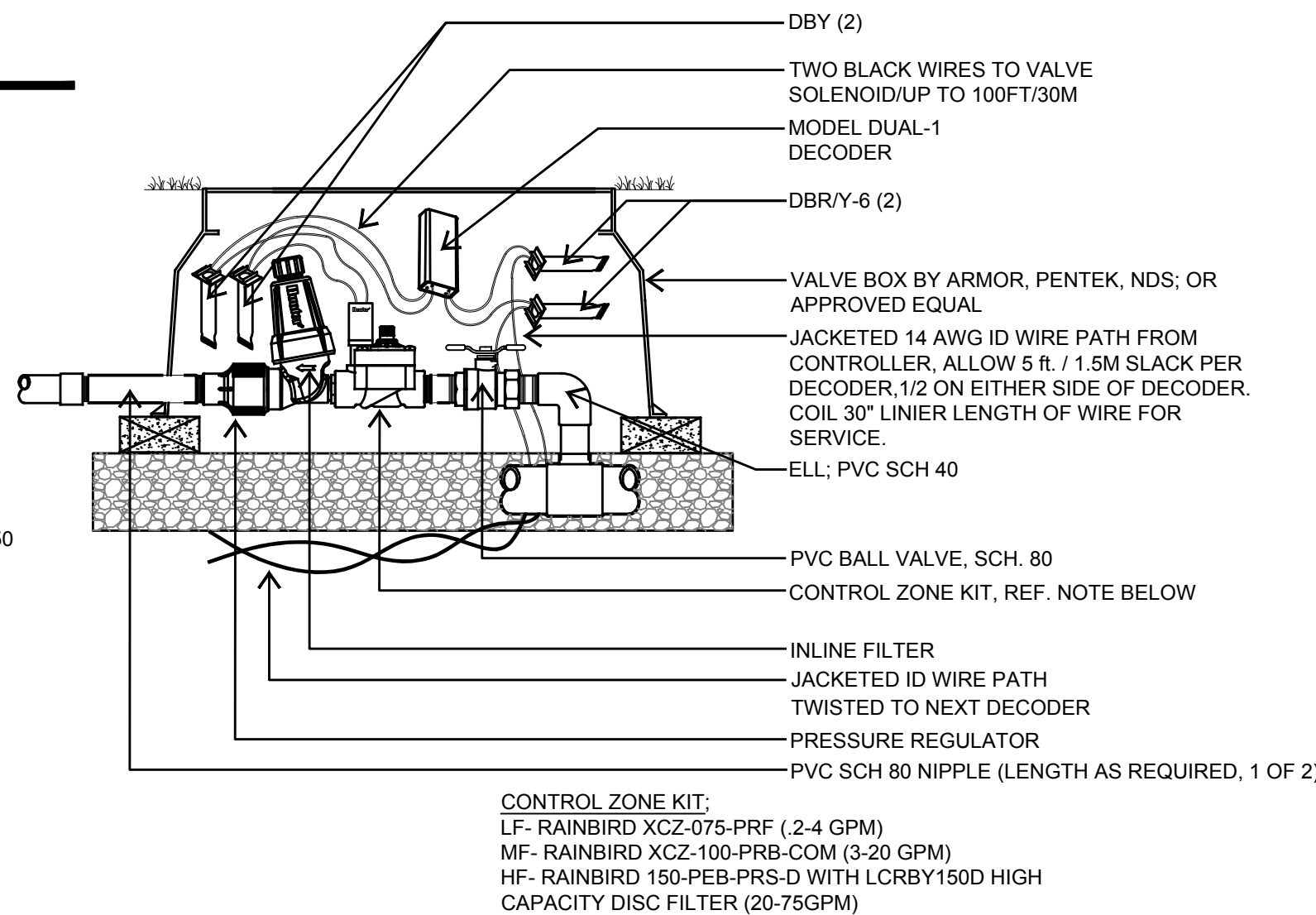
4 AIR RELIEF VALVE



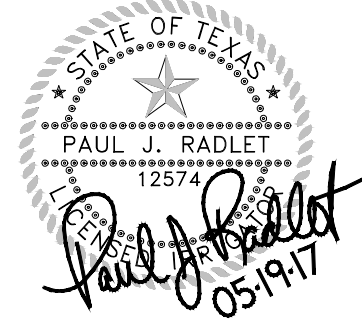
3 DRIPLINE INSTALLATION (CENTER FEED)



2 DRIPLINE INSTALLATION (END FEED)



1 CONTROL ZONE KIT



OWNER

**SAN ANTONIO
I.S.D FOUNDATION
c/o KATE ROGERS**

153 Treeline Park
San Antonio, TX 78209

PROJECT

CAST High School

637 N. Main Avenue
San Antonio, Texas 78205

REVISIONS

PROJECT NUMBER

2017-089

Drawn By: pjr, wor

Checked By: jr

Sheet Title:

**IRRIGATION
DETAILS**

Sheet Number:

L4.5

Issue Date:

May 19, 2017