June 4, 2019
IDEA PUBLIC SCHOOLS – IDEA Palmview Phase I

GOMEZ MENDEZ SAENZ, INC.
1150 PAREDES LINE RD.
BROWNSVILLE, TEXAS 78526
(956) 546-0110



ADDENDUM NO. 1

A. PURPOSE AND INTENT
This addendum is issued for the purpose of modifying the plans and specifications for the IDEA PUBLIC SCHOOLS – IDEA Palmview Phase I

This addendum shall become part of the contract and all CONTRACTORS shall be bound by its content. All aspects of the specifications and drawings not covered herein shall remain the same.

The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this Addendum.

B. SCOPE

I. CLARIFICATIONS:

1. Pre-Proposal conference Agenda and Sign-In Sheet INCLUDED within this addendum.

II. SPECIFICATIONS:

1. Front End Specification, Bid Proposal Form
   ADD *Alternate #6 and Alternate #7 to Bid Proposal Form.* Bid Proposal Form included in this addendum will become part of the Contract Documents.

2. Section 07520 – Modified Bituminous Sheet Roofing
   Subject to compliance with this section: *Polyglass Q – Mapei Group (Polyfresko G SBS FR Type II, Elastoflex SA V Plus FR), shall be an approved manufacturer and product.*

3. Section 07724 – Roof Hatch
   Subject to compliance with this section: *Babcock Davis – Hurricane Roof Hatch BRHHG shall be an approved manufacturer and product.*

4. Section 09642 – Gymnasium Wood Flooring
   Subject to compliance with this section: *Horner Flooring Company, Inc. – SAFE 2 DIN, shall be an approved manufacturer and product.*

5. Section 10260 – Clear Corner Guards
   Subject to compliance with this section: *Pawling – Pro Tek Model CG-18, shall be an approved manufacturer and product.*

6. Section 10500 – Metal Lockers
   Subject to compliance with this section: *Scranton Products – Tufftec Lockers, shall be an approved manufacturer and product.*

7. Section 11480 – Recreational Equipment
   Subject to compliance with this section: *ADP Lemco & Gared Recreational Equipment, shall be an approved manufacturer and product.*

   Subject to compliance with this section: *Draper, Inc – EZ Fold, Steeleco shall be an approved manufacturer and product.*

III. PLANS:

1. Sheet A1.01 – Campus Overall Plan
   a. ADD *Aluminum Bleachers on concrete pad and concrete walk to Soccer Field.* Replace Sheet A1.01 previously issued with Sheet A1.01 included in this addendum.
2. Sheet A1.02 – Site Details
   b. REVISE *Dimensions on Detail 1/A1.02 Canopy Plan*. Replace Sheet A1.02 previously issued with Sheet A1.02 included in this addendum.
3. Sheet CODE – Code Sheet
   a. Replace sheet CODE previously issued with sheet CODE included in this addendum.
   b. Revised IBC code edition to be 2015
2. Sheet A2.10 – Reflected ceiling plan
   a. Replace sheet A2.10 previously issued with sheet A2.10 included in this addendum.
   b. Delete gyp/brd furr down and extend SAC @ room 421.
3. Sheet A2.11 – Roof plan
   a. Replace sheet A2.11 previously issued with sheet A2.11 included in this addendum.
   b. Reissued sheet shows edge of parapet (exterior building outline).
4. Sheet 03/A4.02 – Wall section
   a. Replace sheet A4.02 previously issued with sheet A4.02 included in this addendum.
   b. Include prefinished aluminum trim flashing at exterior and interior to extend full length of aluminum canopy by canopy installer /mfg.
5. Sheet 01/A4.09 – Wall Section

a. Replace sheet A4.09 previously issued with sheet A4.09 included in this addendum.
b. Include prefinished aluminum trim flashing at exterior and interior to extend full length of aluminum canopy by canopy installer /mfg.
c. Include double flashing note
d. Include cantilevered canopy note

Landscape Addendum Items: See Attached Information (4 Pages)
Civil Addendum Items: See Attached Information (11 Pages)
Structural Addendum Items: See Attached Information (3 Pages)
MEP Addendum Items: See Attached Information (51 Pages)

End of Addendum 1

GMS ARCHITECTS

Pre-Proposal Conference
IDEA PUBLIC SCHOOLS – Palmview and Harlingen

May 28, 2019

- **Sign-In Sheet**

- **Owners Representative and Design Team**
  - Owners Representative – PMSI
  - Design Team – GMS Architects, GRA Engineering, Ethos Engineering, SSP Design, Mejia and Rose (Harlingen), Melden & Hunt (Palmview)

- **Construction Proposal Documents**
  - Electronic Copies available thru Gomez Mendez Saenz, David Monreal, dmonreal@gmsarchitects.com Must sign electronic file release form.

- **Bidding Questions**
  - Project questions regarding the project shall be submitted in writing for a formal response via email to: David Monreal, dmonreal@gmsarchitects.com Written questions will be accepted until:
    - IDEA Palmview - 12:00pm (Noon) Monday June 3, 2019.
    - IDEA Harlingen – 12:00pm (Noon) Monday June 10, 2019.
  - Written question should be clear and concise. Include page number or detail reference.
  - Changes to the Bid Documents will only be issued thru an Addendum.
  - No Addendums have been issued as of today.

- **Bidding Information**
  - IDEA Palmview
    - Sealed Proposals are due no later than **4:00pm, on Thursday June 6, 2019 @ IDEA Headquarters**. Properly identified Proposals will be opened and read aloud.
  - IDEA Harlingen
    - Sealed Proposals are due no later than **4:00pm, on Thursday June 13, 2019 @ IDEA Headquarters**. Properly identified Proposals will be opened and read aloud.
  - A 5% Bid Bond must accompany the proposal. Must be Original.

- Project Allowances are noted in Section 01010 Summary of Work General Requirements.
- Bid Items
  - There are (5) Alternate for this project. Listed in Section 01010 Summary of Work General Requirements.
- Review Ranking Evaluation and Ranking Criteria.
  - Provide (3) copies of your Proposal
  - Firm Experience/Key Personnel
  - Proposed Subcontractor Team (No later than 48 Hours after bid). Email to David Monreal dmonreal@gmsarchitects.com
  - Other required information (No Point Value)
  - Respond to every question
- Product Substitutions – Bidding Requirements
  - Must be submitted (10) days before receipt of bids.
    - Approvals will be issued via Addendum only.
  - Current Specs list a Basis of Design and approved manufactures.

- **Project Overview**

  Site and Utilities
  - Project Estimated Budget is $11.5 Million
  - IDEA Palmview – Located On N. Shuerbach Rd. /Mile 3 - Project site was annexed into the City of Mission.
    - Permitting and Inspections are thru City of Mission.
    - Mission Sewer – There are some offsite sewer extension as part of project.
    - Sharyland Water Supply Corporation – Utility Subcontractor must be on their approved list.
    - AEP will service the site.
  - IDEA Harlingen – Located on Chester Park Rd/Wilson Rd. Site is not within Harlingen city limits.
    - Permitting and Inspections are thru Cameron County.
    - Harlingen Water Works – Water and Sewer
      - Sewer – Offsite sewer extension from intersection of Chester Park Rd. and Lafayette.
    - Irrigation Lines – Harlingen Irrigation District #1
    - Drainage (Road side ditches) Re-grading and adding storm line at intersection of Chester Park Rd. and Lafayette – City of Harlingen
    - AEP will service the site.

  Building
  - Building is approximately 80,000 sf
  - Project consists of the following:
    - Two Story Building - Classroom Wings, Cafeteria/Kitchen, Gymnasium and Administration Area
    - Asphalt/Concrete Parking Lot and Bus Parking Area
    - Landscaping and Irrigation throughout campus. Irrigated Soccer Field

        - Steel Walkway Canopies
        - Perimeter Fencing and Entry Gates
    - Kitchen Equipment and Walk-In Cooler/Freezer – By Owner
        - Copy of RFP included in specifications for “Reference Only” – Section 11400 and 11410
    - IDEA Harlingen – Windstorm Certified
        - Refer to Roof Components, Exterior Cladding and Fenestration Design Wind Pressures – Listed in front end documents after Geotech report.

- **Questions?**

GMS ARCHITECTS

IDEA PUBLIC SCHOOLS
Pre-Bid Conference - Palmview and Harlingen
May 28, 2018

Name	Company	Phone Number	E-Mail
David Monreal	GMS Architects	956-546-0110	dmonreal@gmsarchitects.com
Ernie Villarreal	PMSI	512-989-7045	evillarreal@pmsitx.com
Roger V. Gonzales	Cemex	956-534-6542	rogerv.gonzales@cemex.com
Robert Gonzalez	Morganti	956-212-4434	[illegible]R.Gonzalez@Morganti.com
Norma Salinas	Morganti	956-960-3522	nsalinas@morganti.com
Ernest Travinto	Dwilson	956-686-9573	Ernest@dwilson construction.com
DAVID CRAMER	WILCON	956-781-9781	airika@wilcon.com
Sammy Cadena	ECON	956-259-8005	estimator@econgroup.us
JAIME ENRIQUEZ	ECON GROUP	259.8005	jenriquez@econgroup.us
CHRIS A. LOPEZ	NMC	792-9769	clopez@nmcontracting.us

BID PROPOSAL FORM
(GENERAL CONTRACT)

Project: Idea Public Schools Palmview Academy and College Prep Phase I
Place: Idea Public Schools, 2115 W. Pike Blvd., Weslaco, Texas 78596
Date: June 6, 2019
Time: 4:00 p.m.

1. Pursuant to and in compliance with the Invitation to Bid and the proposed Contract Documents, prepared by Gomez Mendez Saenz, Inc. relating to the above referenced project, the undersigned, having become thoroughly familiar with the terms and conditions of the proposed Contract Documents and with local conditions affecting the performance and costs of the work at the place where the work is to be completed, and having fully inspected the site in all particulars, hereby proposes and agrees to fully perform the work within the time stated and in strict accordance with the proposed Contract Documents, and addenda, thereto, including furnishing of any and all labor and materials for all General Construction and Site Work, for the following sum of money:

A: BID:
All labor, materials, services and equipment, necessary for completion of the work shown on the drawings and described in the specifications for the **IDEA Palmview Academy and College Prep Phase I** _____
_____ DOLLARS ($)

B. ALTERNATES:
1. Alternate #1 (Deductive): Remove restrooms at Pre-K classrooms and associated finishes as indicated in Architectural and MEP Drawings. _____
_____ DOLLARS ($)

2. Alternate #2: Provide Domestic Water Booster Pumps as indicated on Plumbing Drawings. ___
_____ DOLLARS ($)

3. Alternate #3 (Deductive): Provide Aluminum Feeders in lieu of Copper as indicated in Electrical Drawings. _____
_____ DOLLARS ($)

4. Alternate #4: Provide Operable Partition (Door #27) at Cafeteria 136. Reference Specification 10650 Operable Partitions. _____
_____ DOLLARS ($)

5. Alternate #5: Provide Operable Partition (Door #26) at Second Grade Classroom 168A/168B. Provide painted gyp bd wall extension from furr down at ceiling to floor. Provide additional wall base. Reference Specification 10650 Operable Partitions. _____
_____ DOLLARS ($)

6. Alternate #6: Provide Voice Data Communication Cabling Equipment including cabling for the multimedia and projector(s) outlets (rapid run). _____
_____ DOLLARS ($)

7. Alternate #7: Provide a voluntary VE credit using acceptable Direct Expansion Rooftop Packaged Units (including DOAS) when these do not completely meet performance, efficiency and/or construction requirements shown in the schedules and specifications. Contractor shall provide a compliance statement clearly documenting all exceptions taken. _____
_____ DOLLARS ($)

C. UNIT PRICES: N/A

2. If awarded this Contract the undersigned will execute a satisfactory Construction Contract, Performance Bond, Labor and Material Payment Bond and proof of insurance coverage, with the Owner for the entire work as per the Contract Documents within 10 days after notice of award. It is agreed that this proposal is subjected to the Owner's acceptance for a period of Thirty (30) calendar days from the above date.

3. This building must be completed by **June 1, 2020**. Time extensions shall be submitted for review on a monthly basis.
4. Enclosed is a Certified Check or Bidders Bond in the amount of $_____ in compliance with the specification requirements. (5% of the highest amount bid).

The above check or Bidders Bond is to become the property of the Owner in the event the Construction Contract (when offered by the Owner) and the bonds and proof of insurance coverage are not executed within the time set forth above.

5. The undersigned agrees to the following:
- To furnish all materials as shown and specified in the plans and specifications.
- To start work 5 days after notice of award of contract.
- To work _____ working days per week.

6. The full amount of all allowances as specified in the General Requirements, Division 1, of the specifications, in the Base Proposal price shown. By signing, bidder acknowledges that **ALL ALLOWANCES** have been included in the Base Bid.

7. Receipt is acknowledged of the following addendas:

No.	Dated	No.	Dated	No.	Dated
No.	Dated	No.	Dated	No.	Dated

8. Bidder agrees that the Owner has the right to accept or reject any or all bids and to waive all informalities.

9. A list of Sub-Contractors and Material Suppliers which are proposed to be used on this project is included with this proposal in a separate envelope. Upon acceptance of proposal, substitution of Sub-Contractors or Suppliers listed may be made only with approval by the Owner.

Respectfully submitted,

_____
CONTRACTOR

(SEAL: - if Bid is by a Corporation)

By: _____

Title: _____

Address: _____
Street or Box City State Zip

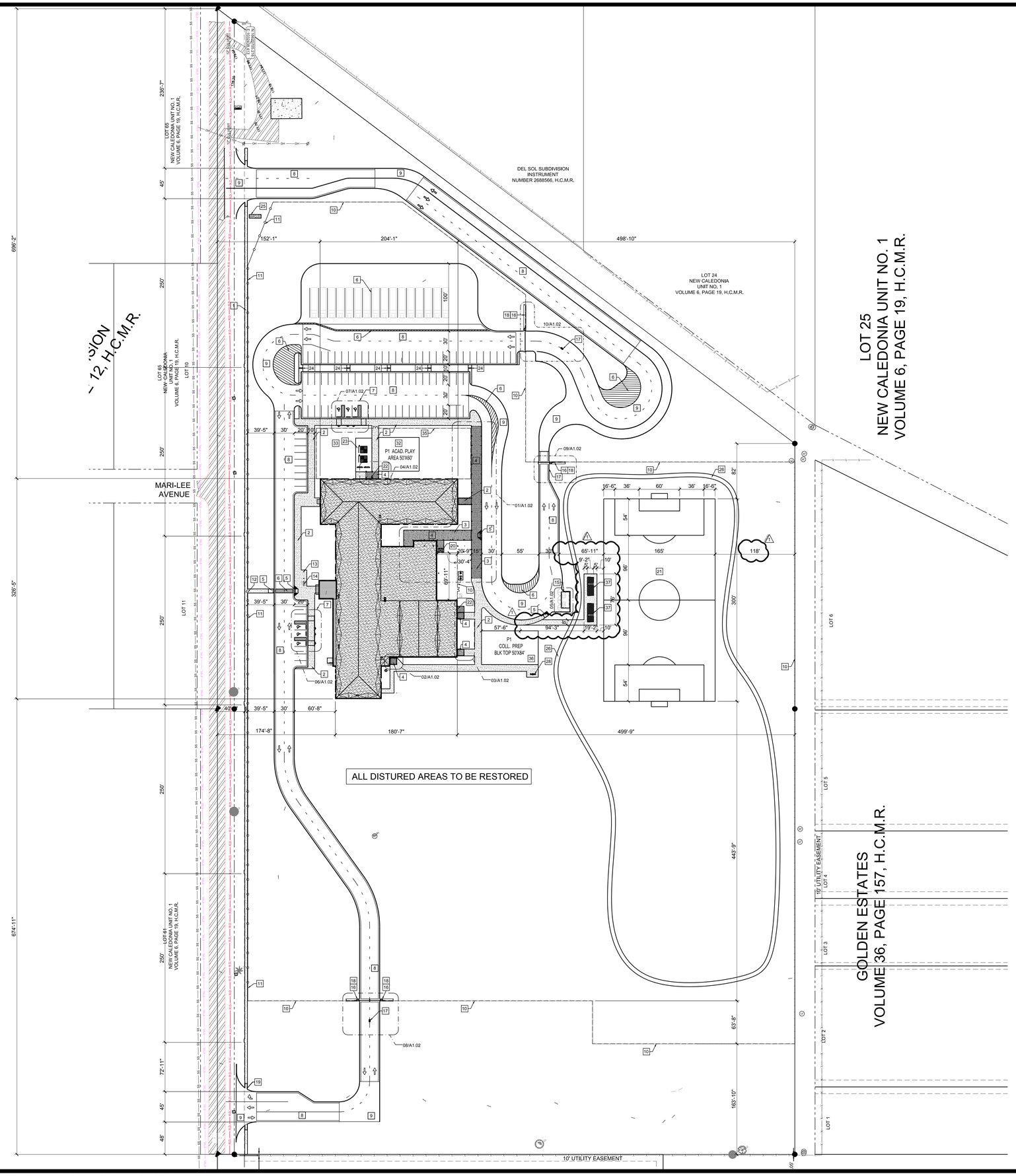
Telephone (____) _____
Fax: (____) _____

FILL IN APPLICABLE INFORMATION:

A CORPORATION, Chartered in the STATE of _____, authorized to do business in the State of TEXAS

A PARTNERSHIP composed of: _____

AN INDIVIDUAL, operating under the name of: _____



SITE PLAN KEYED NOTES

1. 4'-0" WIDE CONCRETE WALK W/ 5' TURN AROUNDS @ 250' MAX REFER TO DTL'S 01,02,04/A1.03
2. 10'-0" WIDE CONCRETE WALK REFER TO DTL'S 01,02,03,04/A1.03
3. 15'-0" WIDE CONCRETE WALK REFER TO DTL'S 01,02,04/A1.03
4. PREFINISHED METAL WALKWAY CANOPIES. REFER TO SHEET 19/A1.03
5. ACCESSIBLE CURB RAMPS WITH DETECTABLE WARNING STRIPS. REFER TO 13/A1.03 TYPICAL
6. TRAFFIC STRIPING FOR PEDESTRIAN CROSSWALKS, LOADING ZONE, AND TRAFFIC CONTROL AS SHOWN.
7. HANDICAP ACCESSIBLE PARKING SPACES WITH POLE MOUNTED HANDICAP SIGN. REFER TO 12/A1.03.
8. ASPHALT PAVING WITH CONCRETE CURB AND GUTTER. REFER TO CIVIL FOR ADDITIONAL INFORMATION.
9. CONCRETE PAVING WITH CONCRETE CURB AND GUTTER. REFER TO CIVIL FOR ADDITIONAL INFORMATION.
10. 7'-0" VINYL COATED CHAIN LINK FENCE REF. 08/A1.03
11. 7'-0" HIGH ALUMINUM FENCING AS SPECIFIED. REFER TO 06/A1.03
12. 3'-0" WIDE ALUMINUM ENTRY SWING GATES WITH HYDRAULIC HINGES AND KEYPAD LOCKSET AS SPECIFIED. REFER TO 05/A1.03.
13. (2) 30'-0" FLAGPOLES AS SPECIFIED. REFER TO DTL 11/A1.03
14. HD GALV WAVE IN GROUND MOUNT BIKE RACKS MODEL 116-1004 WWW.THEPARKCATALOG.COM
15. 6'-0" TALL CEDAR FENCING WITH DOUBLE SWINGING GATE REFER TO 09/A1.02
16. VINYL COATED CHAIN LINK EXIT SLIDING GATE AS SPECIFIED. WITH STEEL ANGLE GUIDE SET IN 12" WIDE CONCRETE APRON. REFER TO 15,16/A1.03
17. PEDESTAL MOUNTED KEYPAD CONTROL AND CALL SWITCH AS SPECIFIED.
18. MOTORIZED SLIDING GATE OPERATORS AS SPECIFIED.
19. POLE MOUNTED TRAFFIC SIGN - "STOP SIGN" REFER TO 12/A1.03.
20. CAN WASH AREA WITH METAL CANOPY PROVIDE CONC. CATCH BASIN GRATE COVER SET ONTO R-6670-O SERIES SQ. NEENAH FOUNDRY CO. REFER TO MEP FOR PLUMBING REQUIREMENTS
21. PRACTICE SOCCER FIELD WITH PAINTED STRIPPING AND TRAIL CHASER PLASTIC WHISKERS MARKING ALL CORNERS (GOALS AS SPECIFIED).
22. EXTERIOR DRINKING FOUNTAIN AS SPECIFIED. REFER TO MEP.
23. 50'X24' ASPHALT MULTI SPORT AREA WITH PAINTED LINES REF CIVIL FOR ADDITIONAL INFORMATION REF 11/A1.02
24. METAL TRENCH COVERS REFER TO DTL. 03/A1.03 FOR RECOMMENDED LOCATIONS REFER TO CIVIL DWGS (1'-0" WIDE)
25. BUILDING MARQUEE SIGN REF. 17, 18/A1.03.
26. PROVIDE TRAIL CHASER PLASTIC WHISKERS AND HD GALV. METAL STAKES TO MARK JOGGING TRAIL @ 50' O.C. REF CIVIL FOR MORE INFORMATION
27. DRAIN COVER EQUAL TO NEENAHR-6660-GP
28. BOTTLE FILLING STATION TRI-LEVEL PEDESTAL MODEL # LK4430BF1M
29. TEN (10) BENCHES MODEL #B6PERFSM BY T.F. HARPER & ASSOCIATES LP PROVIDED BY OWNER INSTALLED BY CONTRACTOR LOCATIONS TBD AT A LATER DATE
30. SIX (6) TRASH RECEPT. MODEL #TR32PERF BY T.F. HARPER & ASSOCIATES LP GROUND MOUNTED PROVIDED BY OWNER INSTALLED BY CONTRACTOR LOCATIONS TBD AT A LATER DATE
31. NOT USED
32. PLAYGROUND AREA BY OWNER
33. FUTURE PAR COURSE BY OWNER
34. FIRE LANE STRIPPING - ALL CURBS - COORDINATE STENCILING WITH FIRE MARSHALL
35. 4'-0" VINYL COATED CHAIN LINK FENCE REF. 08/A1.03
36. 50'X84' ASPHALT MULTI SPORT AREA REF CIVIL FOR ADDITIONAL INFORMATION
37. PROVIDE (2) -27' X 5 ROW PICKET GUARD RAIL ALUMINUM BLEACHERS, FASTEN TO CONCRETE FOUNDATION. MODEL # BGS-122 BY BELSON OUTDOORS 1-800-323-5664, WWW.BELSON.COM

01 CAMPUS SITE PLAN

SCALE: 1" = 60'-0"

TRUE NORTH PLAN NORTH

REFER TO SHEET A1.02 FOR SITE PLAN ENLARGEMENTS

SITE NOTES:

1.) FINISH GRADE TO BE 6" BELOW FINISH FLOOR ELEVATION SLOPE AWAY FROM ALL IMPROVEMENTS AT A RATE OF 1/4" PER FOOT FOR THE FIRST 10'-0", THEN AT A RATE OF 1/8" PER FOOT FOR THE NEXT 20'-0"

2.) SIDE WALK SLOPE IS NOT TO EXCEED 1:20 WITH A CROSS SLOPE OF 1:50 AT ANY INSTANCE.

3.) REFER TO CIVIL, LANDSCAPE AND MECHANICAL DRAWINGS FOR ADDITIONAL WORK TO BE PERFORMED UNDER THIS CONTRACT.

4.) PLAY FIELDS, TRAFFIC STRIPPING & TRAFFIC SIGNS NOT SHOWN FOR CLARITY. REFER TO ARCHITECTURAL SHEETS A1.09 THRU A1.13 FOR NOTATION AND REQUIREMENTS

5.) AT ALL ENTRIES OF NEW BUILDINGS WARP CONCRETE SIDEWALKS SO AS TO PROVIDE A FLAT SURFACE WITH FINISHED FLOOR

No.	REVISIONS	BY
1	ADDENDUM #1	J.A

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA PUBLIC SCHOOLS PHASE 1

IDEA PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
83555
STATE OF TEXAS
5/16/2019

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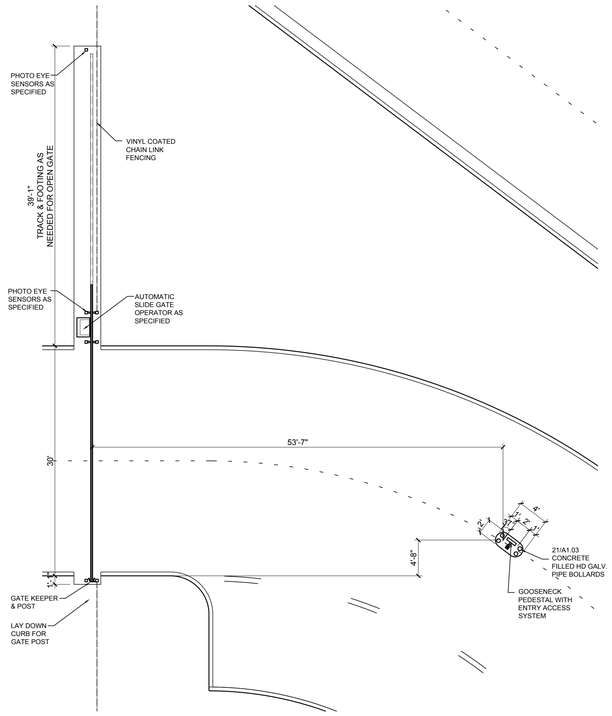
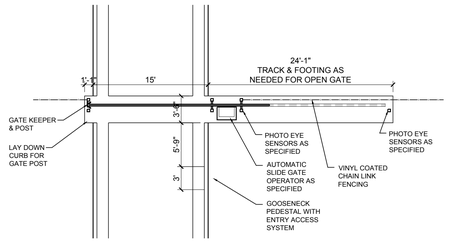
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

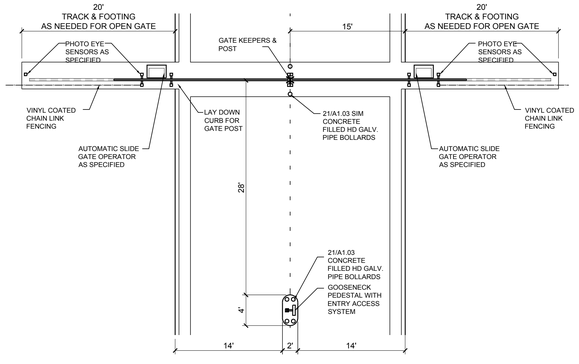
Date:	2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	RB, JA
Job No.	IDEA 2020 Phase I
Sheet:	A1.01



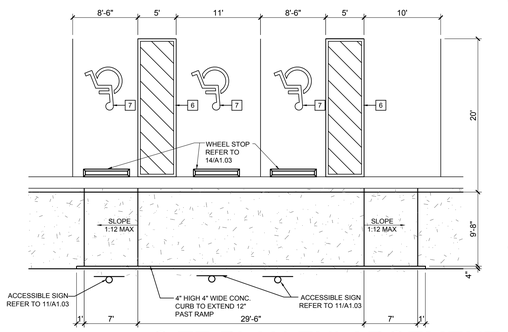
10 SITE PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



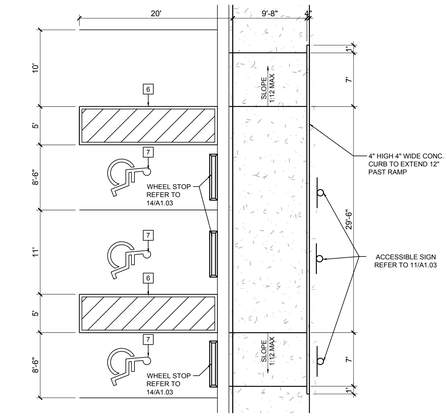
09 SITE PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



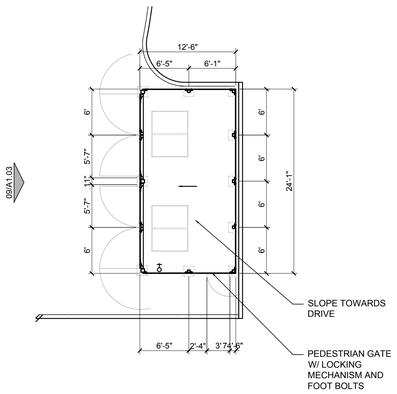
08 SITE PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



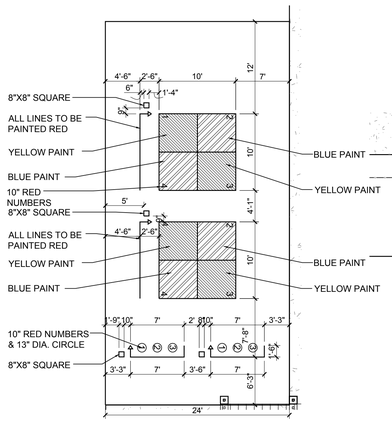
07 SITE PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



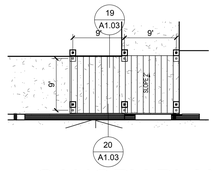
06 SITE PLAN ENLARGEMENT
SCALE: 1/8" = 1'-0"



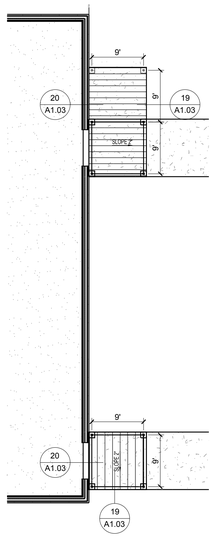
05 DUMPSTER PLAN
SCALE: 1/8" = 1'-0"



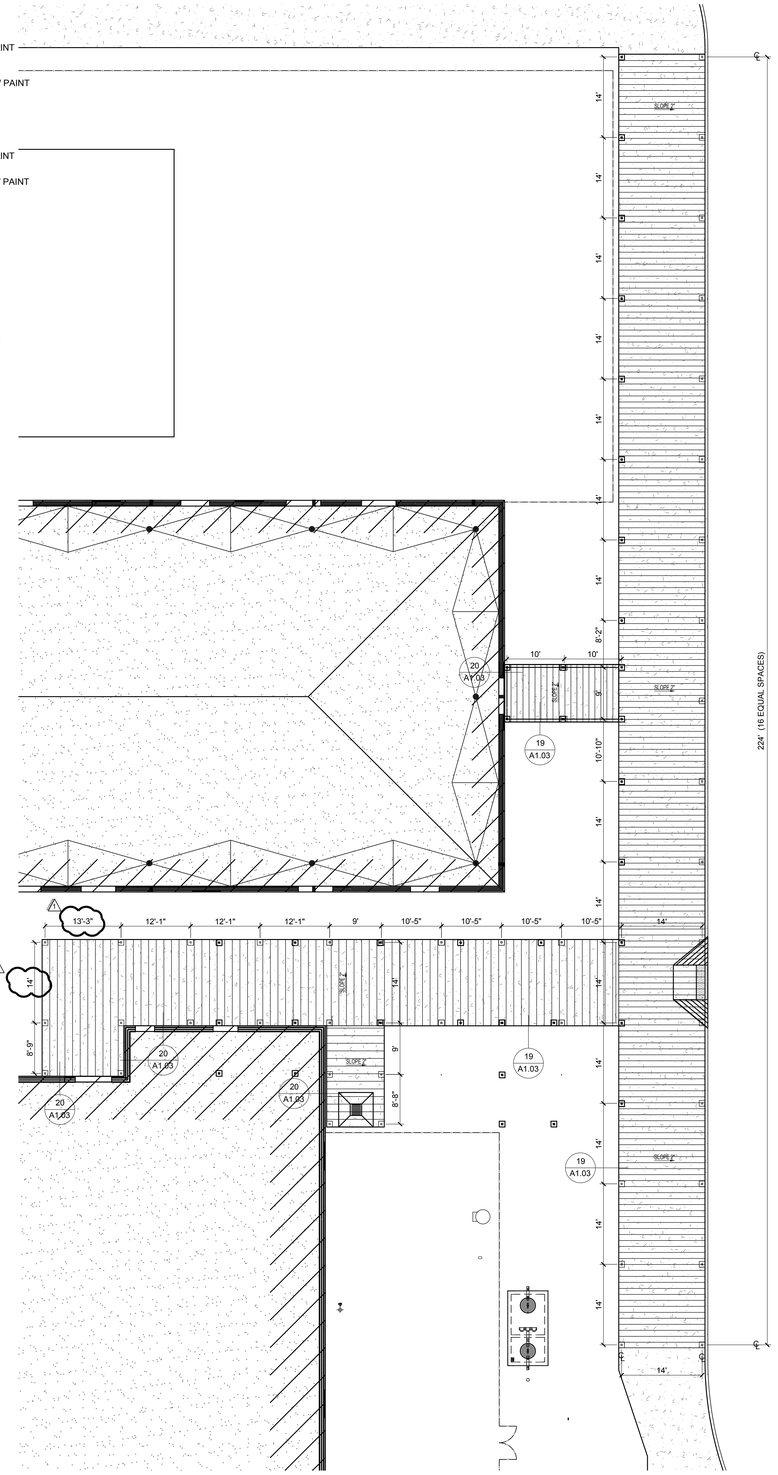
11 PLAYCOURT STRIPPING
SCALE: 1/8" = 1'-0"
NOTE: 10'X10' SQUARES PAINT SOLID FILL
CHECKER PATTERN BLUE AND YELLOW



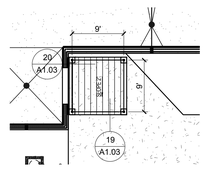
04 CANOPY PLAN
SCALE: 3/32" = 1'-0"



03 CANOPY PLAN
SCALE: 3/32" = 1'-0"



01 CANOPY PLAN
SCALE: 3/32" = 1'-0"



02 CANOPY PLAN
SCALE: 3/32" = 1'-0"

No.	REVISIONS	BY

GMS ARCHITECTS
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Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19555 STATE OF TEXAS
5/16/2019

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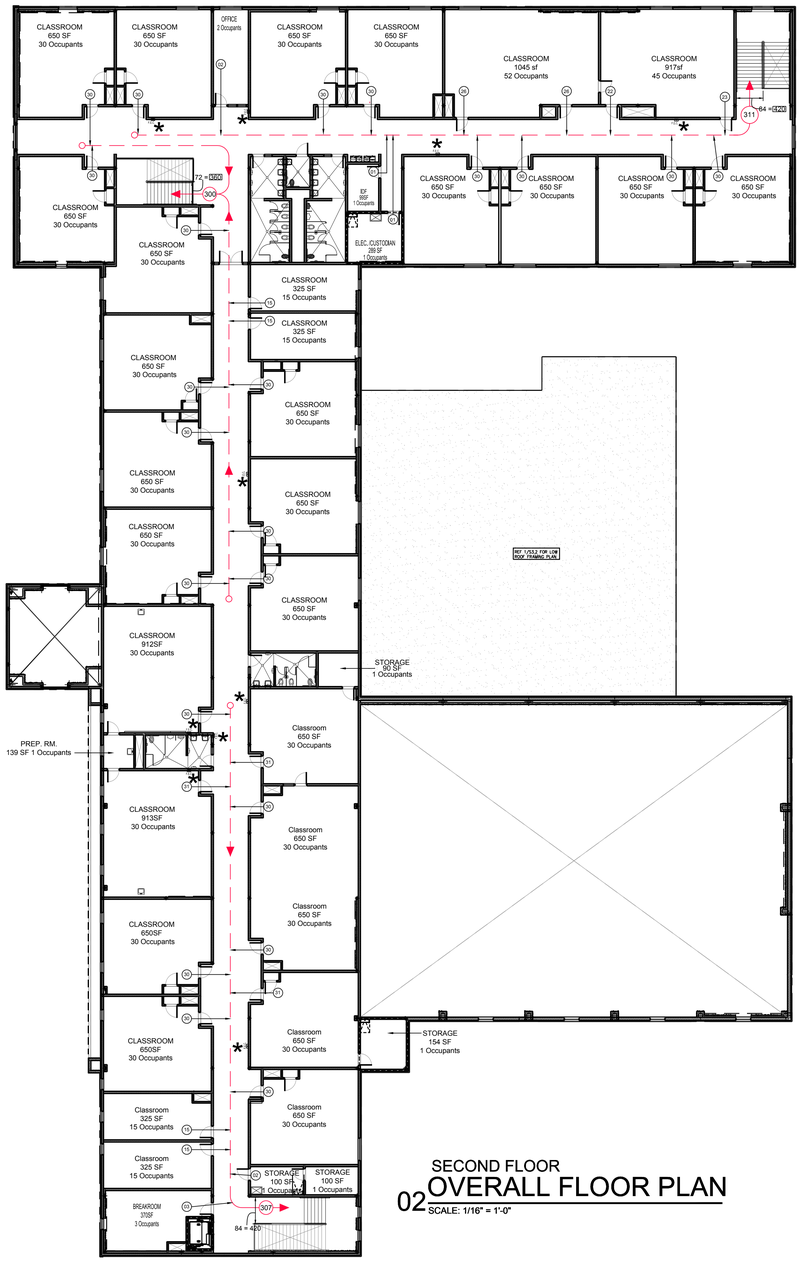
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: RB, JA
Job No.: IDEA 2020 Phase I
Sheet: A1.02



SECOND FLOOR
02 OVERALL FLOOR PLAN
SCALE: 1/16" = 1'-0"

IDEA Public Schools
Code Analysis
2 Story Educational campus
International Building Code (IBC) 2015 Edition

Building Use and Occupancy Classification
- Educational Use - (E)
- Assembly - (A)
- Business - (B)
- Building will have an automatic sprinkler system.

General Area - Square Footages
- 1st Floor - 49,181 SF
- 2nd Floor - 29,865 SF
  - Total Building Square Footage - 79,046 SF

Construction Type for this building will be Type II-B
Fire Resistance Requirements - Type II-B
- 0 Structural Frame supporting floor/roof
- 0 Exterior non-load bearing walls
- 0 Interior non-load bearing walls
- 0 Floor construction
- 0 Roof construction

Allowable Building Heights and Areas
- Type II-B - Education Occupancy Sprinklered
  - 14,500 SF per story
  - 55 feet max - 2 story max
- Type II-B - Assembly Occupancy Sprinklered
  - 9,500 SF per story
  - 55 feet max - 2 story max
- Type II-B - Business Occupancy Sprinklered
  - 23,000 SF per story
  - 55 feet max - 3 story max

Area and Frontage Increase - Section 506 (Equation 5-1 and Equation 5-2)
- Educational Occupancy (Type II-B)
  - 14,500 + [14,500 x .75] + (14,500 x2)
  - 54,375 SF per story
- Assembly Occupancy (Type II-B)
  - 9,500 + [9,500 x .75] + (9,500 x 2)
  - 35,625 SF per story
- Business Occupancy (Type II-B)
  - 23,000 + [23,000 x .75] + (23,000 x 2)
  - 86,250 SF per story

Maximum Floor area Allowances per Occupant - Table 1004.1.2
Occupant Load - 1st Floor Classroom Wings / Admin Offices

• Classrooms	494 persons + 60
• Storage	9 persons
• Office	26 persons + 3
• Gymnasium	475 persons
• Cafeteria	367 persons
• Kitchen	9 persons
Total	1,525 persons

Occupant Load - 2nd Floor Classroom Wings

• Classrooms	746 persons + 60
• Office	5 persons
• Staff	2 persons
Total	792 persons

Means of Egress Sizing - Section 1005
Stairway Width - Section 1005.3.1 (Exception)
2nd Floor Egress
Occupancy 792 x .2 = 158.4 required
Stairways provided = 240.0 provided

Door Egress Width - Section 1005.3.2 (Exception)
1st Floor Egress
Total Occupancy 2,317 x .15 = 347.55 required
9 Sets of Double Doors (6'-0" Wide) = 648.00 provided

Plumbing Fixtures - Table 2902.1
Educational Occupancy 2,317 Occupants
Total Fixtures required 47 wc/47 lav/24 df/ 1 service sink

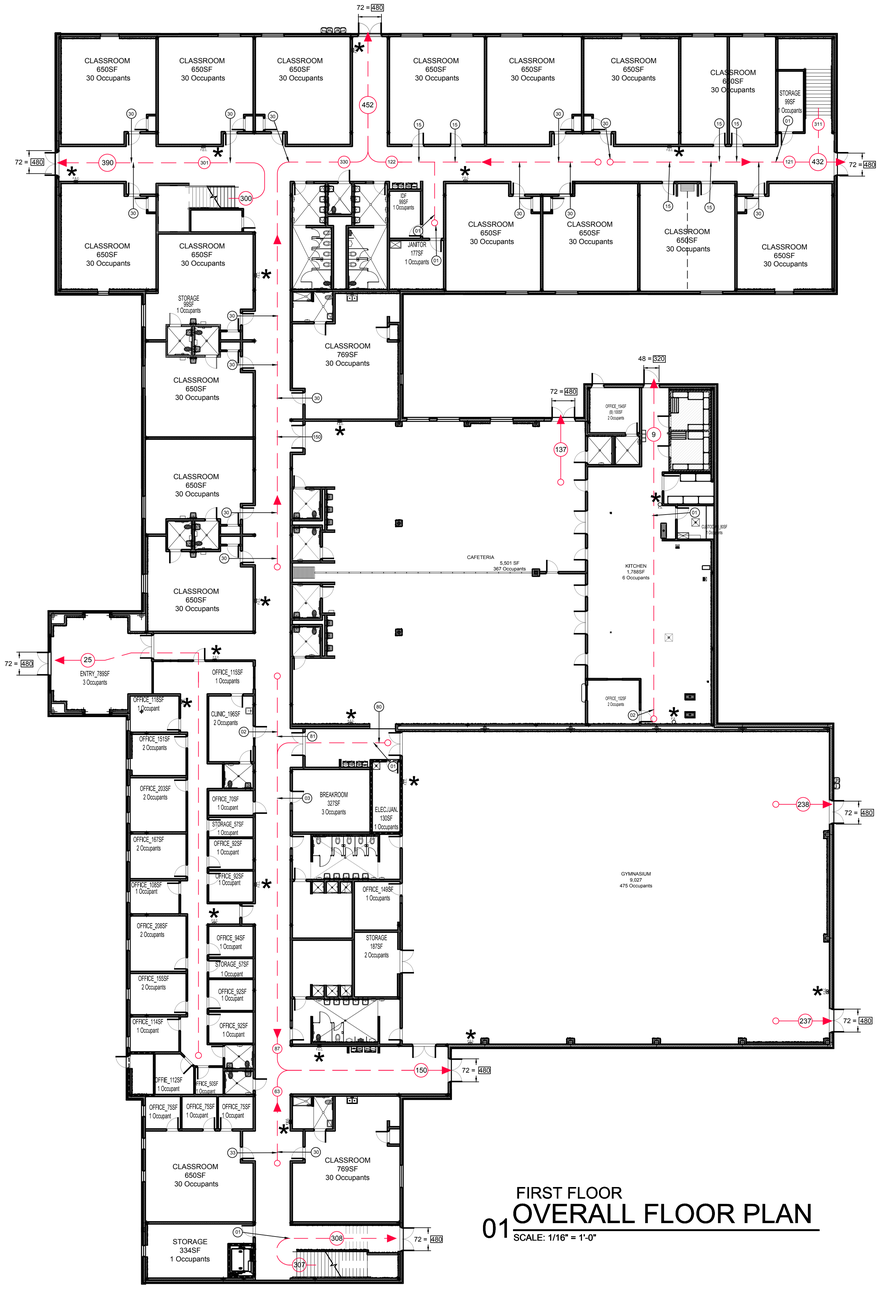
Total Fixtures provided 47 wc/47 lav/26 df/3 service sinks

PLAN LEGEND

WIDTH OF EGRESS IN INCHES — 72 = 480 — MAX OCCUPANT LOAD FOR EGRESS
DIRECTION OF EGRESS
OCCUPANT COUNT — 25
FIRE EXTINGUISHER W/ CABINET — F.E.C. *
FIRE EXTINGUISHER TYPE X — F.X. *

ROOM TAG

ROOM # & TYPE — ############ — SQUARE FOOTAGE
TOTAL OCCUPANTS — 650SF — 30 Occupants



FIRST FLOOR
01 OVERALL FLOOR PLAN
SCALE: 1/16" = 1'-0"

EGRESS PLAN

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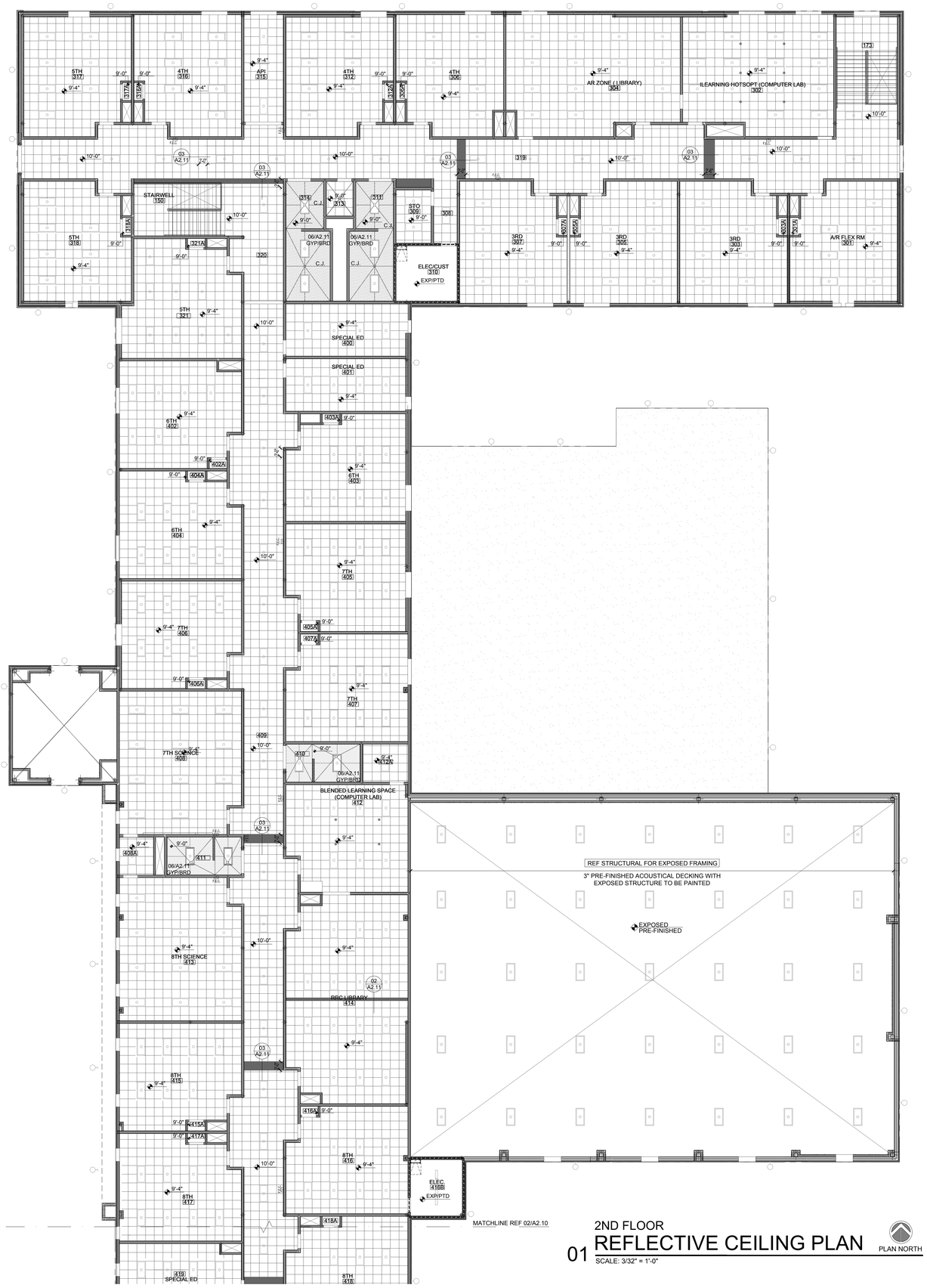
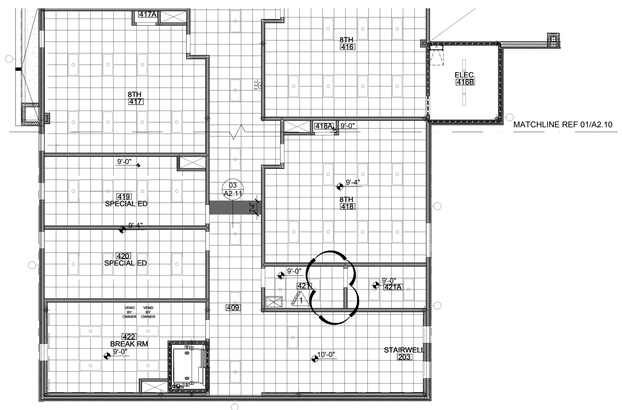


01 2ND FLOOR REFLECTIVE CEILING PLAN

SCALE: 3/32" = 1'-0"

PLAN NORTH



02 2ND FLOOR REFLECTIVE CEILING PLAN

SCALE: 3/32" = 1'-0"

PLAN NORTH

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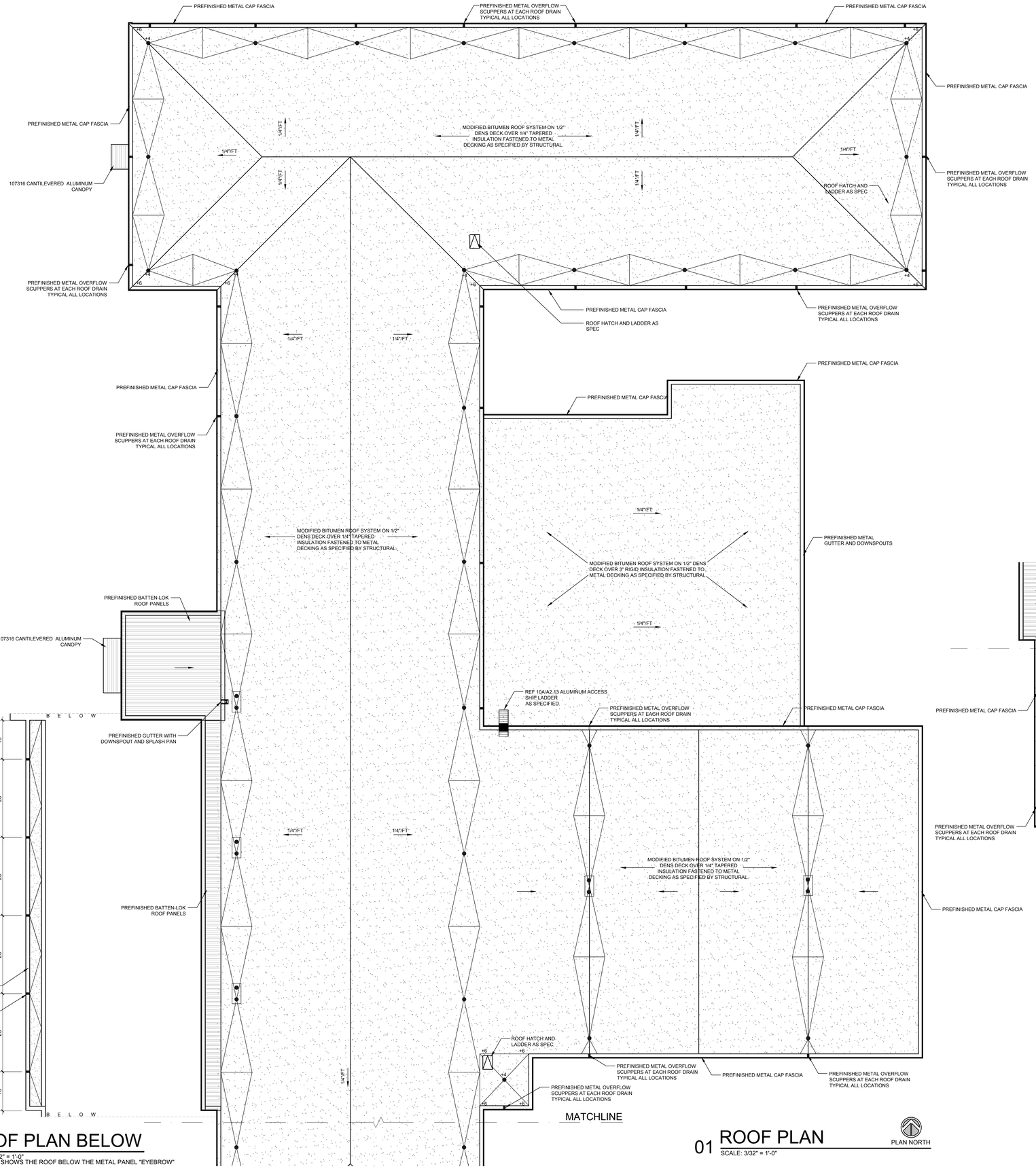

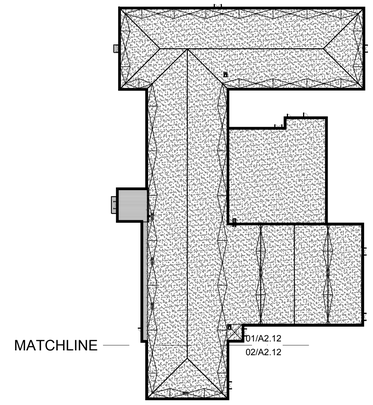

KEY PLAN

03 ROOF PLAN BELOW

SCALE: 3/32" = 1'-0"
THIS PLAN SHOWS THE ROOF BELOW THE METAL PANEL "EYEBROW"

01 ROOF PLAN

SCALE: 3/32" = 1'-0"

PLAN NORTH

02 ROOF PLAN

SCALE: 3/32" = 1'-0"

PLAN NORTH

GENERAL ROOF NOTES:

1.) ALL PENETRATIONS SHALL BE COORDINATED WITH MECHANICAL SUBCONTRACTOR AND SHALL BE PERFORMED BY THE ROOFING CONTRACTOR

2.) PROVIDE WALKWAY SYSTEM AT ALL ROOF TOP EQUIPMENT

3.) PROVIDE POSITIVE DRAINAGE IN AND AROUND ALL ROOF TOP EQUIPMENT SO AS TO DRAIN INTO AREA ROOF DRAINS

4.) PROVIDE POSITIVE DRAINAGE TOWARDS DRAINS BY USE OF CRICKETS

5.) ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH MECHANICAL / ELECTRICAL SUBCONTRACTOR AND THE ROOFING SUBCONTRACTOR

6.) PROVIDE PRE-MANUFACTURED CONCRETE SPLASH BLOCKS AT EACH ROOF DOWN SPOUT LOCATION AND OR AT EACH ROOF DRAIN NOZZLE OUTLET. SECURE SPLASH BLOCKS TO EITHER GROUND OR BUILDING

7.) REFER TO WALL SECTIONS (4.00 SERIES) FOR ADDITIONAL ROOF NOTES

8.) COORDINATE ALL DOWN SPOUT LOCATIONS SO AS TO ASSURE THAT NO DOWN SPOUTS ARE LOCATED OVER DOOR / WINDOW OPENINGS OR OTHER KEY BUILDING ELEMENTS

9.) CONTRACTOR TO PROVIDE AND COORDINATE ALL PIPING & ACCESSORIES WITH MEP ENGINEERS PRIOR TO COMMENCING ANY ROOF DRAINAGE PIPING

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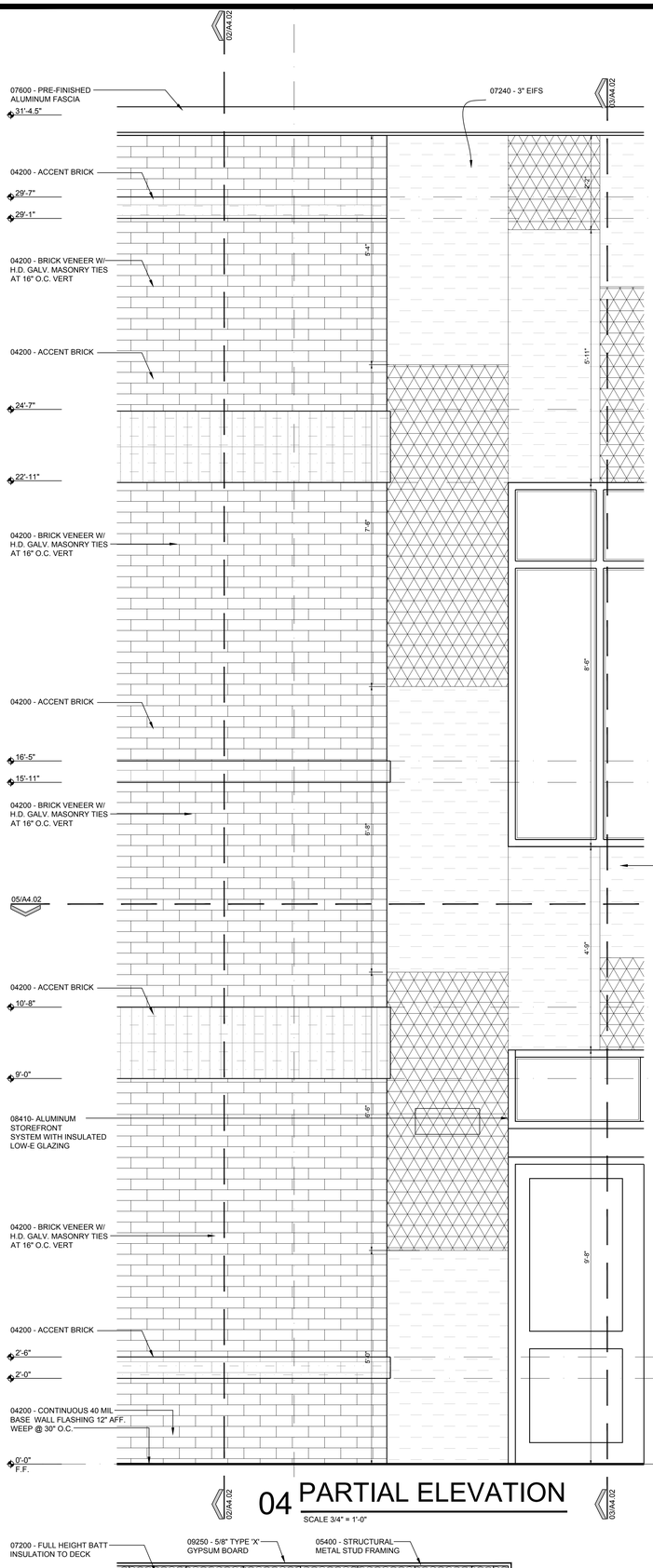
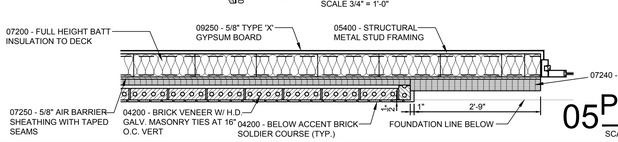


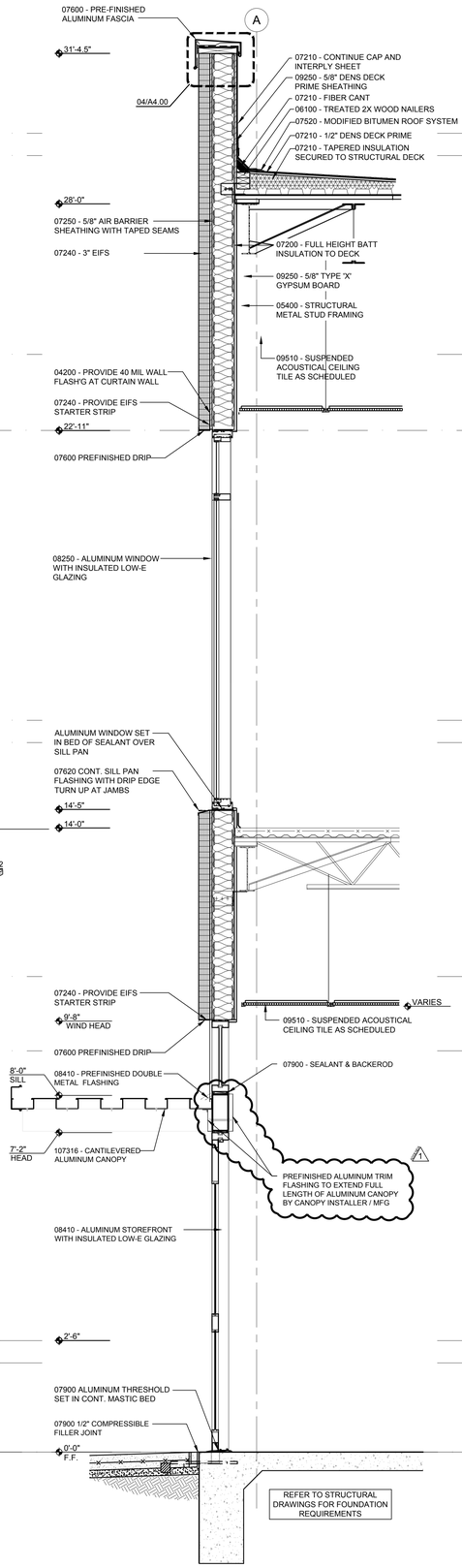
04 PARTIAL ELEVATION

SCALE 3/4" = 1'-0"



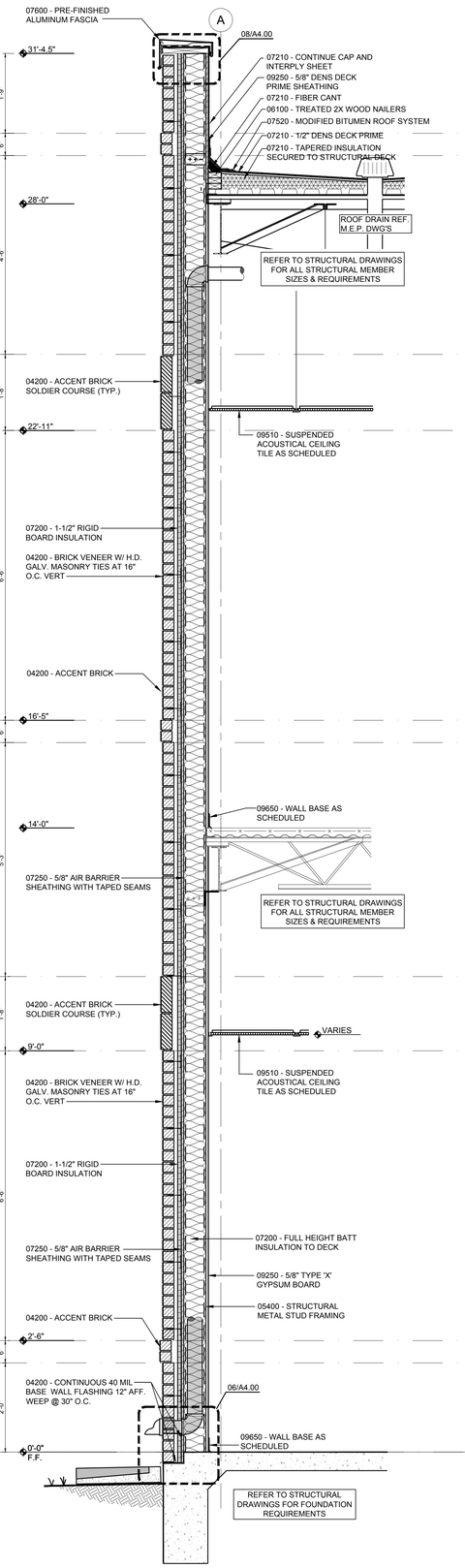
05 PLAN DETAIL

SCALE 3/4" = 1'-0"



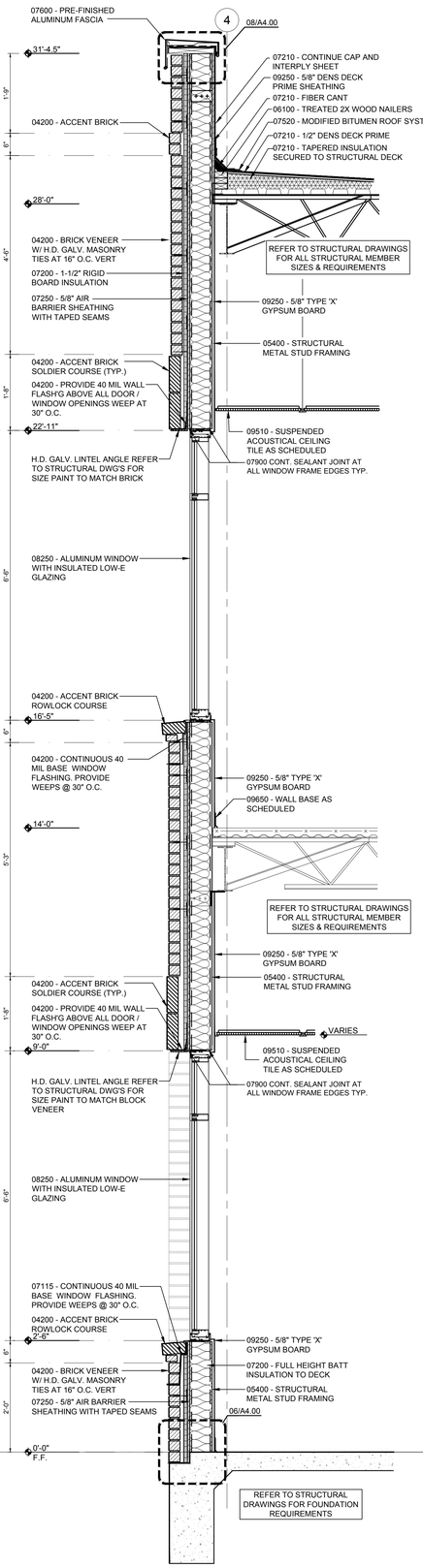
03 WALL SECTION

SCALE 3/4" = 1'-0"



02 WALL SECTION

SCALE 3/4" = 1'-0"



01 WALL SECTION

SCALE 3/4" = 1'-0"

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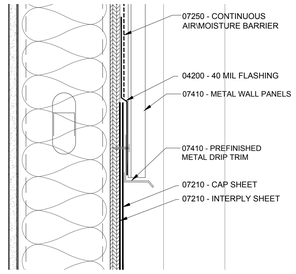
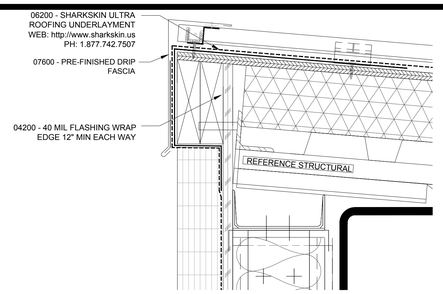


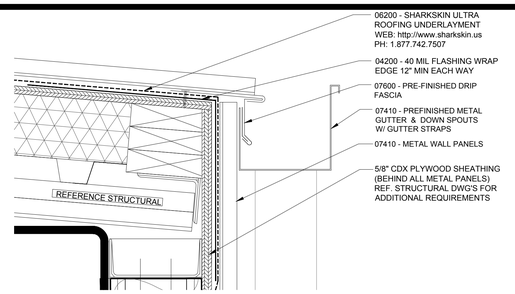
06 HIGH EAVE DETAIL

SCALE : 3"=1'



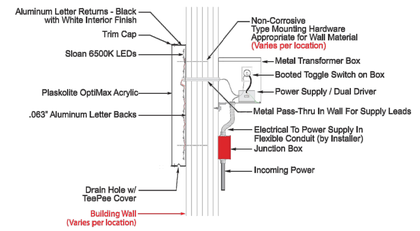
05 HIGH EAVE DETAIL

SCALE : 3"=1'



04 GUTTER DETAIL

SCALE : 3"=1'

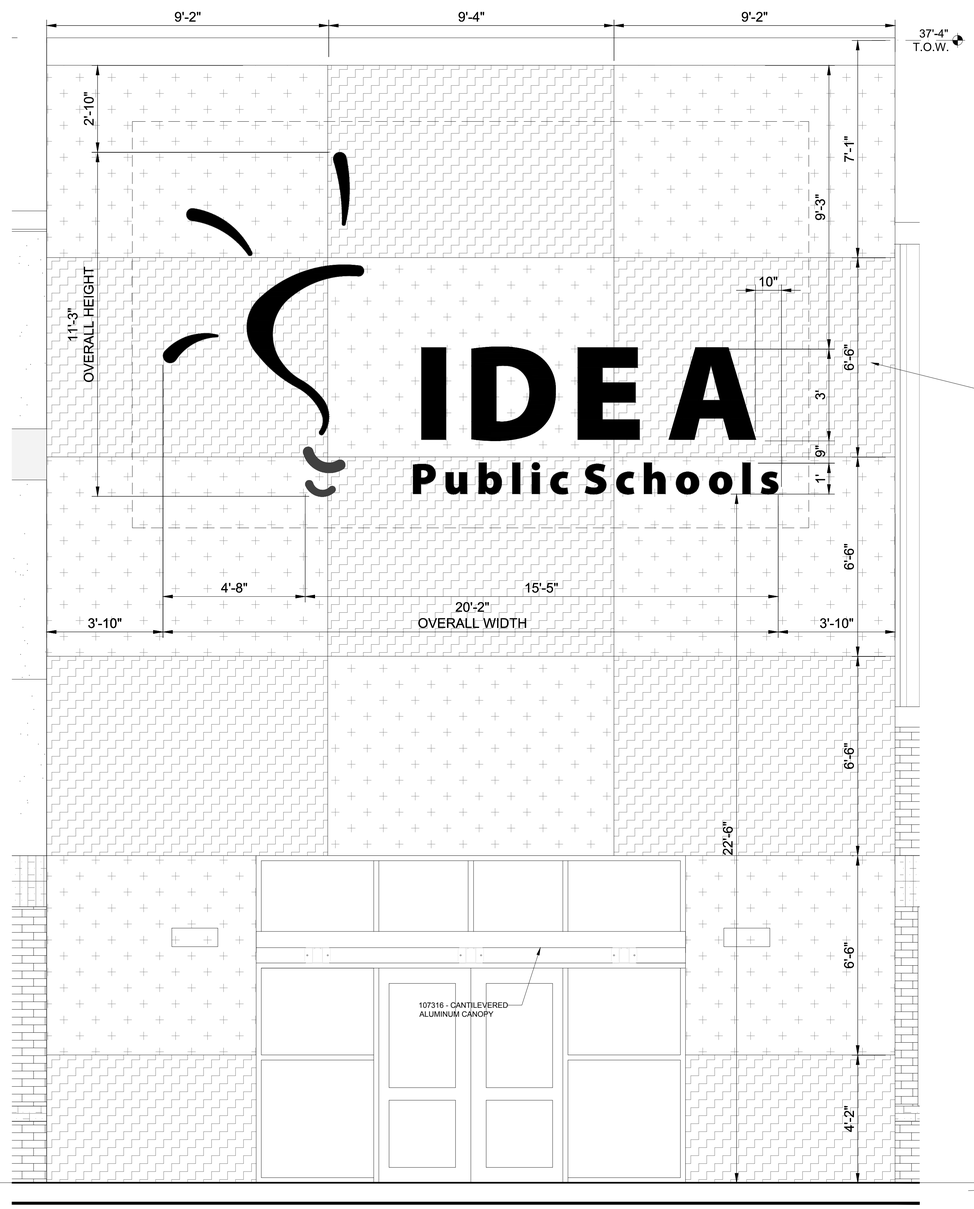


03 ILLUMINATED CHANNEL LETTERS

NOT TO SCALE

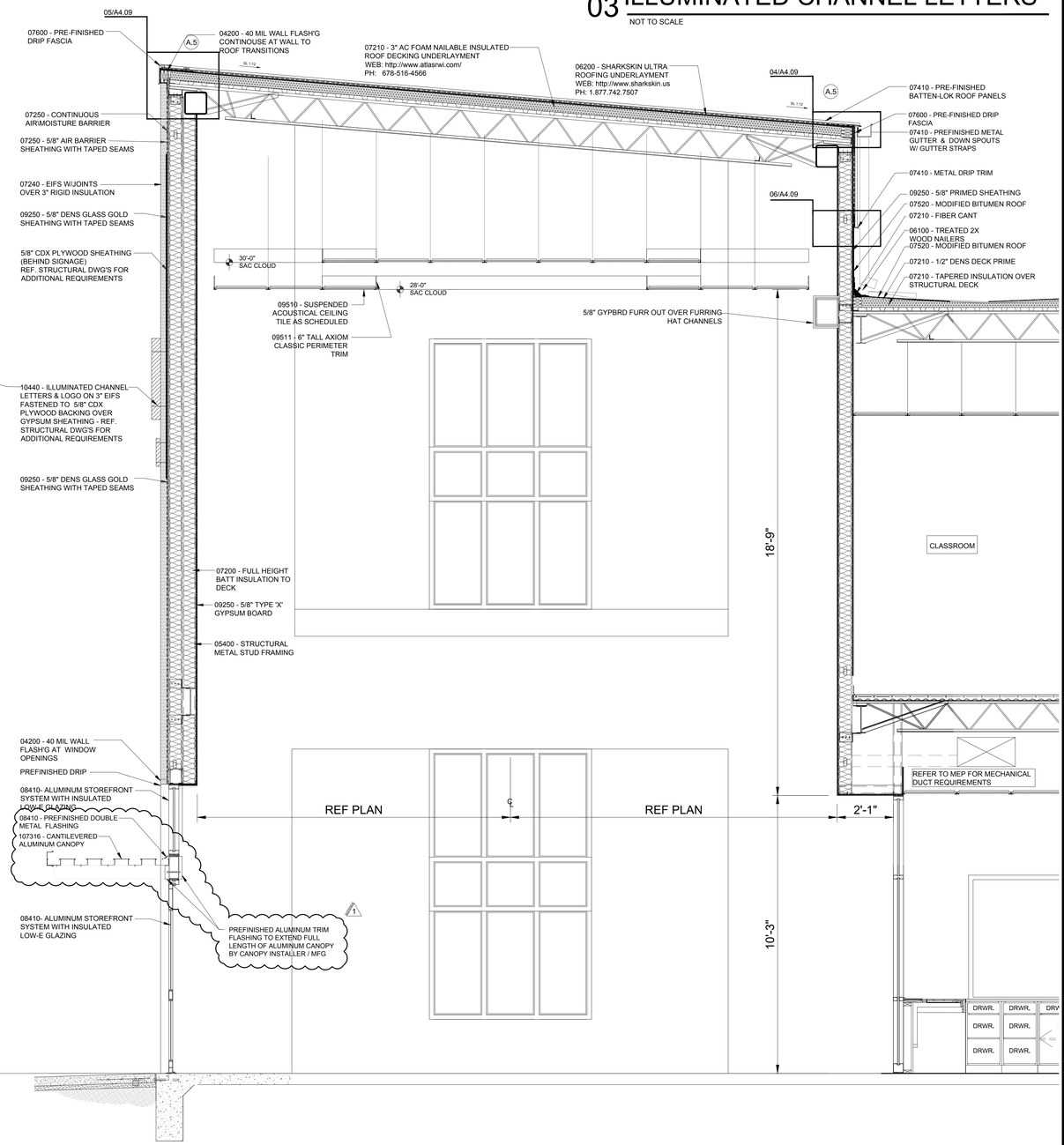
SIGNS & MORE
2108 CENTRAL BOULEVARD
BROWNSVILLE, TX. 78520

SALES REP: EDUARDO MONTEMAYOR
EMAIL: guayo86@hotmail.com
WEB: signsandmore.us
PHONE: (956)561-7283



02 ELEVATION ENLARGEMENT

SCALE 1/2" = 1'-0"



01 PARTIAL BUILDING SECTION

SCALE 1/2" = 1'-0"

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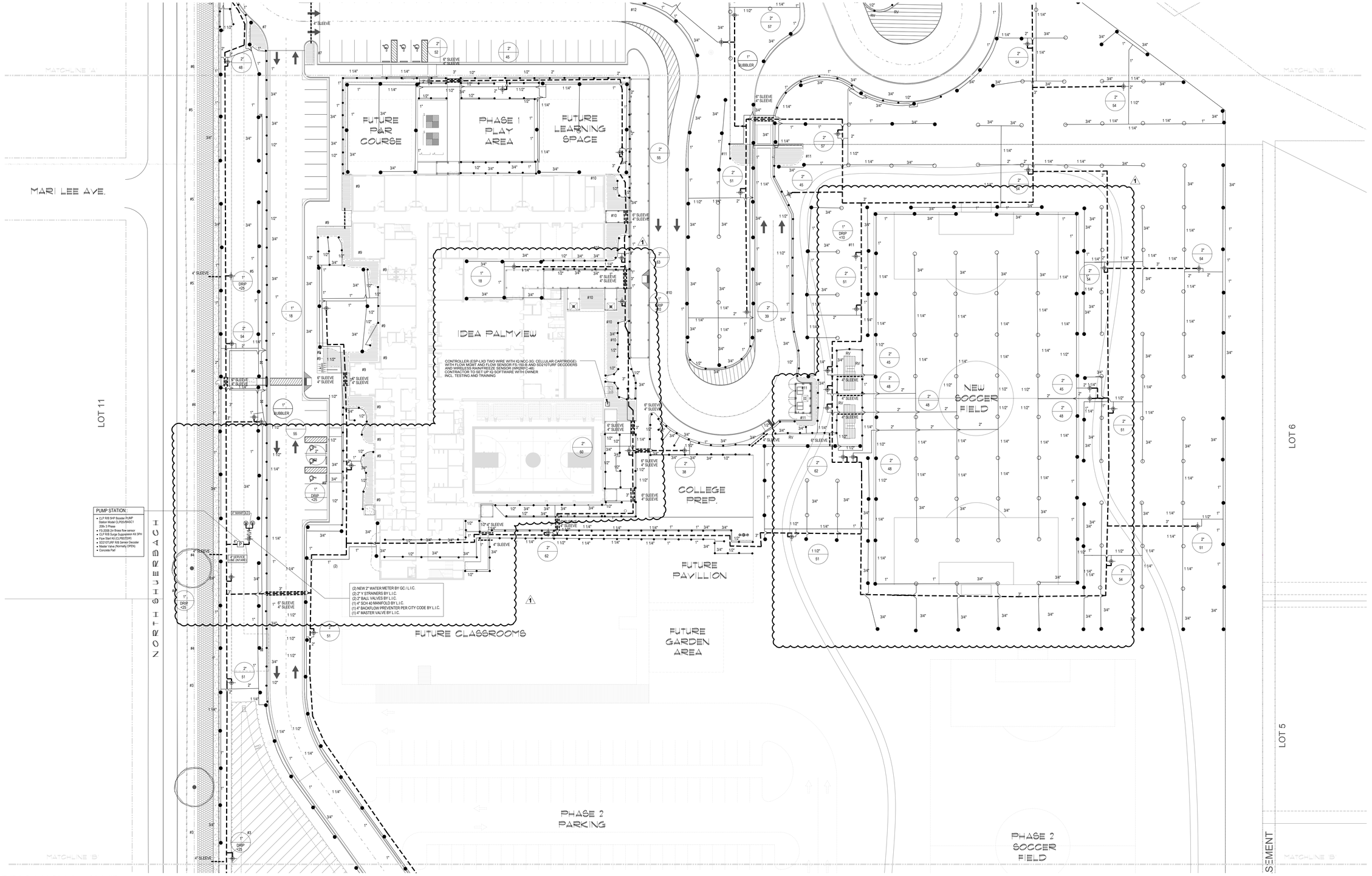

IRRIGATION LEGEND

- ● RV — RAINBIRD R-VAN SERIES ROTARY NOZZLE
- ⊠ — RAINBIRD 1404 BUBBLER HEAD
- ● — RAINBIRD 5000 PC - ROTORS
- ○ — RAINBIRD 5000 FC - ROTORS
- ▲ — RAINBIRD QUICK COUPLER VALVE (33-DLRC) QUICK COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE ZONE THAT ACTIVATES MASTER VALVE AND ACTIVATES THE QUICK COUPLERS, LABEL ON COLORED ZONING DIAGRAM
- RAINBIRD PEB SERIES ELECTRIC VALVE
- ● CONTROLLER (ESP-LXD TWO WIRE WITH IQ NCC-3G: CELLULAR CARTRIDGE) WITH FLOW MGMT AND FLOW SENSOR FS-150-B AND SD210TURF DECODERS AND WIRELESS RAIN/FREEZE SENSOR (WR2RFC-48) CONTRACTOR TO SET UP IQ SOFTWARE WITH OWNER INCL. TESTING AND TRAINING
- WATER METER (AS SIZED)
- BACKFLOW PREVENTER (AS SIZED)
- CLASS 200 PVC LATERAL PIPING
- CLASS 200 PVC MAINLINE
- SCH. 40 PVC SLEEVING (AS SIZED)
- VALVE SIZE
- GPM

DRIPLINE (BED)

DRIPLINE (LAWN)

RAINBIRD DRIPLINE XFS
(18" LATERAL SPACING, 12" EMITER SPACING)
XF SERIES TIE DOWN STAKES (TDS-050) @ 36" O.C. & TWO ON EACH
TEE/ELBOW PVC LATERAL PIPING SIZED AS REQUIRED
RAINBIRD DRIP CONTROL ZONE KIT XCZ-100-PRB-COM (EACH DRIP ZONE)
1" BALL VALVE WITH REGULATED PRESSURE AND 200 MESH FILTRATION
(1) DRIP SYSTEM OPERATION INDICATOR (OPERIND) PER IRRIGATION ZONE
ALL VALVE BOXES SHALL BE RAINBIRD VB-STD OR APPROVED EQUAL
ALL VALVE BOXES SHALL HAVE FILTER FABRIC AND 4" OF GRAVEL AT BASE

INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS

NOTE:

Irrigation Contractor to coordinate with Landscape Contractor on layout of all beds. Adjust drip line location per installed edging.

BUBBLER PIPING CHART

NUMBER OF BUBBLERS	SIZE OF PIPE
1 - 5	½"
6 - 10	¾"
11 - 20	1"
21 - 30	1 ¼"
31 - 40	1 ½"

SLEEVING NOTES:

1. Irrigation Contractor shall supply and install sleeves and conduits at twenty-four (24") inches below finish grade of the top of pavement. Bore as re .uired.
2. Irrigation Contractor shall extend sleeves one (1') foot beyond edge of all pavement.
3. Irrigation Contractor shall cap pipe ends using PVC caps.
4. All sleeves shall be Schedule 40 PVC pipe.

1 IRRIGATION PLAN
SCALE: 1"=30'-0"

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STATE OF TEXAS
GUILLERMO J. MENDEZ
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851
5/16/19

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IDEA PUBLIC SCHOOLS PHASE 1
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MATCHLINE 'A'

MARI LEE AVE.

LOT 11

NORTH SHUERBACH

DECO (TYP. SYM.)

2-VITX
130-CORL
45-PURP
1-ASH

300-WEDL

HYDRO (TYP. SYM.)

5-CEDR
1-LIVE

FUTURE PAR COURSE

PHASE 1 PLAY AREA

FUTURE LEARNING SPACE

1-LAUR
140-BLUE
155-BLUE
3-PERS
1-LAUR
160-CORL
1-CAES
2-SYCA
4-VITX
15-ZEXM
1-VITX
1-CAES
210-BLUE
1-MYRT
1-JATR
2-MED
1-JATR
30-BULB
1-MYRT
2-LIVE
220-BLUE
2-CAES
4-VITX
165-CORL
1-LAUR
1-CAES
1-CAES
1-LAUR
3-SYCA
100-BLUE

1-TABB
IDEA PALMVIEW
1-TABB
220-BLUE
1-PERS
48-CONF
1-PERS
245-FROG
280-FROG
1-LAUR
1-ANAC
COLLEGE PREP.

5-ANAC
1-LAUR
2-PERS
75-GREE
75-GREE
1-LAUR
1-LAUR

180-CORL
180-CORL
2-SABL
2-ASH
3-ASH
HYDRO (TYP. SYM.)
20-DURA
CONCRETE EDGE (TYP. SYM.)

SOD (TYP. SYM.)
SOD LIMITS
3-SYCA
FIELD MARKERS (ALL CORNERS-TYP. SYM.)
FUTURE TRAIL
HYDRO-3 (TYP. SYM.)
FIELD STRIPING (ALL LINES AS SHOWN-TYP. SYM.)
NEW SOCCER FIELD.

SOD (TYP. SYM.)
SOD LIMITS
FUTURE CLASSROOMS
FUTURE PAVILLION
FUTURE GARDEN AREA
SOD (TYP. SYM.)
HYDRO-3 (TYP. SYM.)
HYDRO (TYP. SYM.)

1-LIVE
2-ASH
TREE RING (TYP. SYM.)
SOD LIMITS
SOD (TYP. SYM.)
PHASE 2 PARKING
PHASE 2 SOCCER FIELD

MATCHLINE 'B'

LOT 6

LOT 5

TY EASEMENT

MATCHLINE 'B'

1 LANDSCAPE PLAN
SCALE: 1"=30'-0"

W — E

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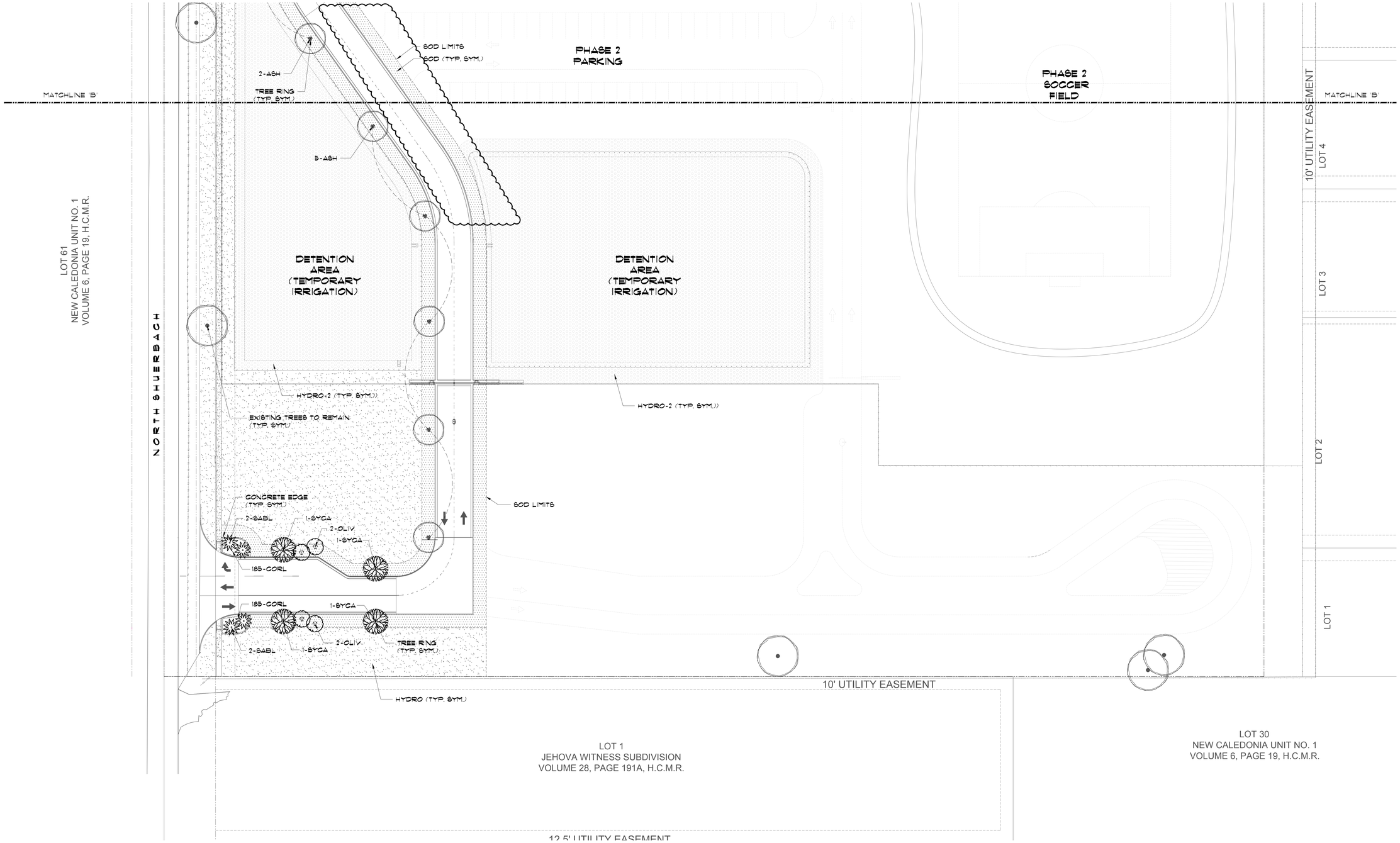

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IDEA PUBLIC SCHOOLS PHASE 1
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1 LANDSCAPE PLAN

SCALE: 1"=30'-0"

W — E

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Drawn By: PLM
Job No. IDEA PALMVIEW PHASE 1
Sheet: L2.03

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
MED	CHAMAEROPS HUMILIS	MED. FAN PALM (MULTI)	B/B	72" TRUNK HT.	AS.	2
SABL	SABAL TEXANA	TEXAS SABAL PALM	B/B	6-8' TRUNK HT.	AS.	9
	TREES					
ASH	FRAXINUS S. 'FAN TEX'	'FAN TEX' ASH	B/B	3" CAL - 10'H X 6'W	AS.	20
ANAC	EHRETIA ANACUA	ANACUA	B/B	3" CAL 12' HT X 6' W	AS.	9
CEDR	ULMUS CRASSIFOLIA	CEDAR ELM (CONT. GROWN)	24" BOX	2-3" CAL 10' H X 6' W	AS.	11
LAUR	SOPHORA SECUNDIFLORA	MOUNTAIN LAUREL (CONT. GRN)	24" BOX	MULTI-TRUNK - 6'-0" HT	AS.	9
LIVE	QUERCUS VIRGINIANA	LIVE OAK (CONTAINER GROWN)	24" BOX	2-3" CAL 10'H X 6' W	AS.	8
OLIV	CORDIA BOISSIERI	WILD OLIVE	B/B	2-3" CAL 8' HT X 4' W	AS.	10
MYRT	LAGERSTROEMIA X ' NATCHEZ'	'NATCHEZ' CRAPE MYRTLE	45 GAL	'MULTI' 12' HT. X 6' W	AS.	4
PERS	DIOSPYROS TEXANA	TEXAS PERSIMMON	B/B	2-3" CAL	AS.	9
SYCA	PLATANUS MEXICANA	MEXICAN SYCAMORE	65 GAL	2-3" CAL 12' HT X 6' W	AS.	21
TABB	TABEBUIA IMPETIGINOSA	PURPLE TABEBUIA	30 GAL	3-4" CAL 10'H X 6' W	AS.	2
VITX	VITEX AGNUS-CASTUS	CHASTE TREE	15 GAL	2-3" CAL 6' HT	AS.	11
	SHRUBS					
CAES	CAESALPINIA PULCHERRIMA	PRIDE OF BARBADOS	5 GAL	36"HT-BUSHY	AS.	5
DURA	DURANTA SP.	DWARF SAPPHIRE SHOWERS'	3 GAL	18"HT-BUSHY	AS.	20
IRIS	DIETES IRIDIOIDES	WHITE AFRICAN IRIS	3 GAL	18"HT-BUSHY	AS.	7
JATR	JATROPHA INTEGERRIMA	COMPACT JATROPHA	3 GAL	24"HT-BUSHY	AS.	2
SAGE	LEUCOPHYLLUM FRUTESCENS	'GREEN CLOUD' CENIZO	3 GAL	24"HT-BUSHY	AS.	18
	GROUND COVERS					
BLUE	RUELLIA SQUARROSA	BLUE SHADE RUELLIA	1 GAL	6"HT-BUSHY	12" O.C.	1045
BULB	BULBINE FRUTESCENS	ORANGE BULBINE	1 GAL	12"HT-BUSHY	18" O.C.	30
CONF	TRACH. JASMINOIDES	CONFEDERATE JASMINE	1 GAL	36"HT-STAKED	AS.	49
CORL	BARLERIA REPENS	CORAL CREEPER	1 GAL		12" O.C.	1205
FROG	PHYLA INCISA	TEXAS FROG FRUIT	QTS.		12" O.C.	240
GREE	FICUS MICROCARPA	GREEN ISLAND FICUS	3 GAL	12"HT-BUSHY	AS.	150
LANT	LANTANA CAMARA	'RED SPREAD' LANTANA	1 GAL		18" O.C.	580
PURP	LANTANA MONTEVIDENSIS	PURPLE TRAILING LANTANA	1 GAL		18" O.C.	45
WEDL	WEDELIA TRILOBATA	WEDELIA	4" POTS		12" O.C.	480
WOOL	STEMODIA LANATA	WOOLY STEMODIA	4" POTS		12" O.C.	525
ZEXM	WEDELIA TEXANA	ORANGE ZEXMENIA	1 GAL		12" O.C.	115
	GRASS					
HYDRO	CYNODON DACTYLON	COMMON BERMUDA HYDROMULCH				218,700 SF.
HYDRO(2)	CYNODON DACTYLON	COMMON BERMUDA HYDROMULCH WITH TACKIFIER				84,500 SF.
SOD	CYNODON DACTYLON	# 1 CERTIFIED '419' HYBRID BERMUDA SOD				9675 SY

NOTE: CONTAINER GROWN MATERIAL SHALL BE GLEN FLORA FARMS OR APPROVED EQUAL.

MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
PREMIUM COMPOST	2" LAYER PREMIUM COMPOST (9 KIDS COMPOST MIX)	80 C.Y.
SCREENED TOP SOIL	8" DEPTH FOR ALL PLANTING BEDS	218 C.Y.
MULCH (HARDWOOD)	2" LAYER MIN. FOR ALL PLANTING BEDS AND WATERING BASINS (TEXAS NATIVES HARDWOOD)	809 BAGS (2 C.F.)
HERBICIDE	ALL PLANTING BED AREAS AS SPECIFIED	8,950 SF.
FERTILIZER	ALL PLANT MATERIAL PER DETAILS / SPECIFICATIONS	--
PLANTING TABLETS	PER DETAILS / AS SPECIFIED	--
PRE-EMERGENT	ALL PLANTING BED AREAS AS SPECIFIED	8,950 SF.
GUYING / STAKING	ALL TREES/PALMS PER DETAILS	--
CONCRETE EDGE	6" EXTRUDED COLORED CONCRETE EDGING 'TEXAS BUFF' COLOR PER PLANS/DETAILS	950 L.F.
DECO	4" COMPACTED DECOMPOSED GRANITE 1/4" MINUS FINES' PER PLANS / DETAILS	2275 SF.
FIELD STRIPING	SHERWIN-WILLIAMS 'SHERSTRIPE' FIELD STRIPING AS PER PLANS	--
FIELD MARKERS	PIONEER ATHLETICS 'FLEEFIX' FIELD MARKER AS PER PLANS	4
TREE RINGS	(36" DIA.) 6"X4" EXTRUDED COLORED CONCRETE EDGING PER PLANS/DETAILS	84
IRRIGATION SYSTEM	COMPLETE AUTOMATIC IRRIGATION SYSTEM PER PLANS/DETAILS BY LICENSED CONTR.	--

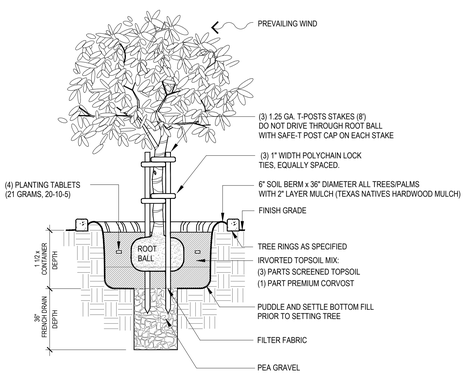
MATERIAL SCHEDULE - SOCCER FIELD

DESCRIPTION	NOTES	QUANTITY
HERBICIDE	ALL LANDSCAPE AREAS (ROUNDUP OR APPROVED EQUAL	57,200 SF.
CLEAR/GRUB/SITE PREP	CLEAR ALL DEBRIS FROM TOP LAYER OF EXISTING SITE (BY SITE CONTRACTOR)	57,200 SF.
GRADING	GRADING & LASER LEVELING OF ALL SITE PER PLANS	57,200 SF.
SCREENED TOP SOIL	SCREENED TOPSOIL FOR SOCCER FIELDS (35% of 4" MIX - ADD TO FINISHED GRADES PER CIVIL PLANS)	247 C.Y.
SAND*	MASONRY SAND FOR SOCCER FIELDS (50% OF 4" MIX - ADD TO FINISHED GRADES PER CIVIL PLANS)	353 C.Y.
COMPOST**	PREMIUM COMPOST (9 KIDS COMPOST MIX (15% OF 4" MIX - ADD TO FINISHED GRADES PER CIVIL PLANS)	106 C.Y.
HYDRO (2)	'PAN-AM' HYBRID BERMUDA HYDROMULCH	57,200 SF.
MAINTENANCE	90 DAY MAINTENANCE OF FIELDS WITH REEL MOWERS & FERTILIZATION	1

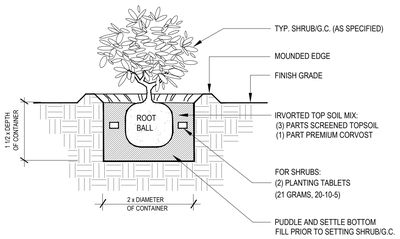
* MASONRY SAND - WRIGHT MATERIALS PLANT 3 (361) 387-0293
** NINE KIDS COMPOST (956) 432-4983 OR CITY OF MCALLEN COMPOST (956) 681-4000

LANDSCAPE CONSTRUCTION NOTES

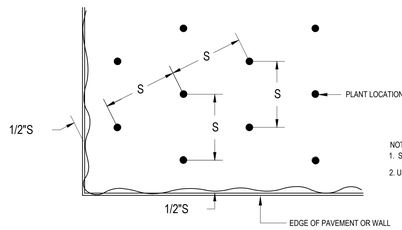
1. WORK UNDER THIS CONTRACT INCLUDES SITE REVIEW AND COORDINATION WITH EXISTING CONDITIONS, SITE CLEANUP, EXCAVATION, BED PREP, TILLING, EDGING, TREE/PALM, SPORTS FIELD, LASER GRADING, DECOMPOSED GRANITE, PLANTING, STAKING, MAINTENANCE, AND GUARANTEE.
2. LANDSCAPE CONTRACTOR SHALL FIELD VERIFY ALL QUANTITIES AND DIMENSIONS PRIOR TO BIDDING. QUANTITIES SHOWN IN SCHEDULE ARE FOR CONVENIENCE ONLY.
3. NOTIFY SSP DESIGN PRIOR TO BID OR ANY DISCREPANCIES IN DRAWINGS/DETAILS OR INSUFFICIENT QUANTITIES DUE TO DIFFERENCES IN PLAN AND ACTUAL FIELD CONDITIONS.
4. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. SPOTTING OF ALL UTILITIES IS REQUIRED.
5. NOTIFY AND MEET WITH SSP DESIGN PRIOR TO ANY CONSTRUCTION FOR VERIFICATION/INTERPRETATION OF PLANS.
6. LANDSCAPE CONTRACTOR SHALL VERIFY ALL PROPERTY BOUNDARIES AND LIMITS OF WORK WITH GENERAL CONTRACTOR/CIVIL ENGINEER. DO NOT BEGIN LANDSCAPE CONSTRUCTION UNTIL ALL BOUNDARIES, EASEMENTS AND RIGHTS-OF-WAY HAVE BEEN VERIFIED IN THE FIELD.
7. LANDSCAPE CONTRACTOR SHALL STAKE OUT ALL BEDS, TREES, PALM LOCATIONS PRIOR TO INSTALLATION FOR APPROVAL BY SSP DESIGN.
8. LANDSCAPE CONTRACTOR TO COORDINATE WITH SSP DESIGN TO ENSURE PROPER PLACEMENT OF PLANT MATERIAL AND IRRIGATION EQUIPMENT.
9. LANDSCAPE CONTRACTOR TO INSTALL EXTRUDED CONCRETE EDGING AS SHOWN ON PLANS.
10. LANDSCAPE CONTRACTOR TO SUPPLY/INSTALL 36" DIA. TREE RINGS AS SHOWN ON PLANS/DETAILS.
11. NOTIFY SSP DESIGN PRIOR TO PLANTING OPERATIONS FOR APPROVAL OF ALL PLANT MATERIAL ON SITE. ANY PLANT MATERIAL NOT APPROVED BY SSP DESIGN WILL BE SUBJECT TO REJECTION.
12. IRRIGATION CONTRACTOR SHALL SUPPLY AND INSTALL CORVLETE AUTOMATIC IRRIGATION SYSTEM MAINLINE, SLEEVING, LATERALS, AND POP-UP HEADS AND ADJUSTMENTS, TO COVER ALL LANDSCAPE AREAS AS PER PLANS/DETAILS. IRRIGATION SYSTEM SHALL BE INSTALLED BY A TEXAS LICENSED IRRIGATOR ONLY.
13. LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS/WEEDS BY HERBICIDING PRIOR TO BED PREP AND SOIL REPLACEMENT.
14. LANDSCAPE CONTRACTOR SHALL REMOVE 12" OF EXSTG SOIL WITHIN ALL BED AREAS AND REPLACE WITH IRVORTED TOP SOIL/PREMIUM CORVOST MIX.
15. LANDSCAPE CONTRACTOR SHALL CONSTRUCT 6"X36" WATERING BASINS AROUND ALL TREES/PALMS WITH A MIN. 2" LAYER OF CYPRESS MULCH.
16. LANDSCAPE CONTRACTOR SHALL LOOSEN / GRADE ALL LAWN AREAS PRIOR TO HYDRO-MULCHING/SODDING TO ENSURE PROPER DRAINAGE AND UNIFORM SURFACE.
17. LANDSCAPE CONTRACTOR SHALL REMOVE ALL EXISTING GRASS AND WEEDS BY HERBICIDING, DISKING, FLOATING AND LIGHT GRADING OF ENTIRE PROJECT AREA PRIOR TO SODDING/HYDROMULCHING.
18. LANDSCAPE CONTRACTOR SHALL ESTABLISH AND MAINTAIN ALL PLANT MATERIAL FOR 90 DAYS AFTER SUBSTANTIAL COMPLETION AND SHALL GUARANTEE ALL TREES/PALMS FOR A PERIOD OF ONE YEAR.
19. IRRIGATION CONTRACTOR SHALL GUARANTEE ALL SYSTEM COMPONENTS FOR A PERIOD OF ONE YEAR.
20. SEE SPECIFICATIONS FOR FURTHER INSTRUCTIONS/REQUIREMENTS.



1 TREE PLANTING DETAIL
NOT TO SCALE

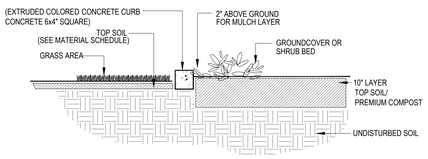


3 SHRUB/G.C. PLANTING DETAIL
NOT TO SCALE



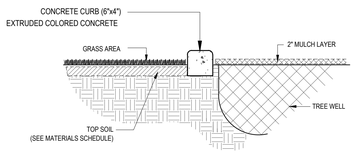
NOTE:
1. 'S' = SPACING, (REFER PLANT LIST FOR AMOUNT OF SPACING.)
2. USE SPACING LAYOUT FOR SHRUBS, GROUNDCOVERS AND ANNUALS.

4 TRIANGULAR PLANT SPACING DIAGRAM
NOT TO SCALE



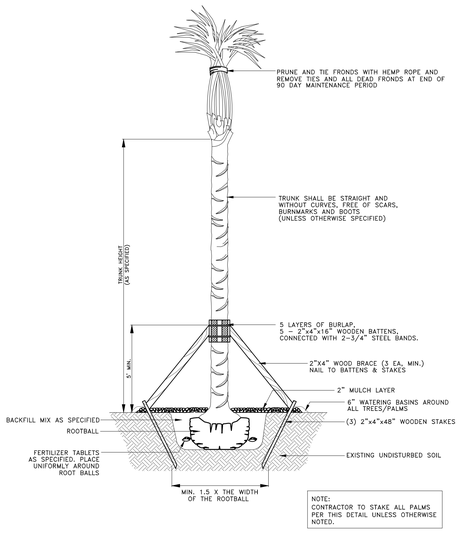
NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2.CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.
3. 2500-3000 PSI COMPRESSIVE STRENGTH, 490 PSI FLEXURAL STRENGTH.
4.USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.
5. SMOOTH NATURAL FINISH, COLOR TO MATCH BUILDING.
6.EQUAL TO 'CURB APPEAL' EDGING (956-867-8350).

2 CONCRETE EDGE DETAIL
NOT TO SCALE



NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2. CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.
3. 2500-3000 PSI CORVRESSIVE STRENGTH, 490 PSI FLEXURAL STRENGTH.
4. USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.
5. NATURAL FINISH AND TEXAS BUFF COLOR.
6. EQUAL TO 'CURB APPEAL' EDGING (956-867-8350).

5 TREE RING DETAIL
NOT TO SCALE



6 PALM PLANTING DETAIL
NOT TO SCALE

SPORTS FIELD NOTES

1. APPLY HERBICIDE/ROUNDUP TO ENTIRE FIELD AREA UNTIL ALL VEGETATED MATTER IS ERADICATED
2. CLEAR AND GRUB (REMOVE ALL DEBRIS) FROM FIELD AREA
3. RIP/TILL SOIL WITH AN AGRICULTURAL CULTIVATOR TO A DEPTH OF 3" ON FIELD
4. ROUGH GRADE FIELDS TO PREPARE FOR SAND/TOPSOIL/COMPOSTT
5. APPLY SAND/TOPSOIL/COMPOST MIX TO AND FINE GRADE TO FINISHED ELEVATIONS
6. CONTRACTOR TO GRADE FIELD WITH SPECIFIED CROWN/SLOPES UTILIZING FULLY AUTOMATED COMPUTERIZED DUAL GPS SYSTEM WITH LASER AUGMENTATION TO ACHIEVE GRADES WITHIN 1/4" TOLERANCE. FIELD MUST DRAIN SMOOTHLY WITH NO BIRD BATHS OR LOW SPOTS
7. INSTALL IRRIGATION PER PLANS/SPECS. THOROUGHLY WATER IN WITH MULTIPLE WATERINGS
8. FIELD DRAINAGE WILL BE TESTED AND REVIEWED BY SSP PRIOR TO HYDROMULCH.
9. INSTALL HYDROMULCH AS PER PLANS AND SPECIFICATIONS
10. ROLL FIELDS WITH 2 TON MECHANICAL ROLLER/VIBRATOR. TOP DRESS WITH CLEAN SAND ALL LOW SPOTS OR DIVOTS
11. MONITOR WATERING FOR CONTINUOUS MOISTURE ON HYDROMULCH UNTIL FULL GERMINATION.
12. COMMENCE MOWING USING A REEL TYPE MOWER ONLY. MOWING SHALL BE AT LEAST ONCE PER WEEK AND MUST BE REVIEWED, CHECKED AND APPROVED BY SSP. 45 DAYS AFTER INSTALLATION/GERMINATION, FERTILIZE WITH HJ 25-0-0 WITH WOLFTRAX OR APPROVED EQUAL AT MANUFACTURERS RATES

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No.	REVISIONS	BY
1	ADD. # 1 (6-03-19)	

GMS ARCHITECT
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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW

IDEA Public Schools

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By:
Job No. IDEA PALMVIEW PHASE 1
Sheet: L3.01

June 3, 2019
IDEA Palmview Phase I – Civil Changes

ADDENDUM NO. 1

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KELLEY A. HELLER-VELA P.E. 97421

ALTERATION OF A SEALED DOCUMENT WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS AN OFFENSE UNDER THE TEXAS ENGINEERING PRACTICE LAW

A. PURPOSE AND INTENT:

This addendum is to modify the plans for the project referenced above.

B. SCOPE:

I. Drawings:

a. Sheet #1 – Cover
   i. Revised note #32 to include “with both the City of Mission and S.W.S.C. before construction can begin”.
   ii. Revised note #37 to reflect HCWID#6 contact info.
   iii. Added note #38: “Contractor to hire licensed surveyor to located building corners and property pins.”

b. Sheet #2 – Existing Conditions
   i. Added drainage easement note

c. Sheet #3 – Site
   i. Added school signs
   ii. Revised dimensions from property line to proposed building
   iii. Added dimensions to bleachers
   iv. Added note: “All curbs have fire lane striping”

d. Sheet #4 – Proposed Water & Sanitary Sewer Layout
   i. Revised 6” main line to 8”; update flowlines to 0.33%;
   ii. Revised from 6” connections to 8” connections
   iii. Added size to irrigation meter and water meter

e. Sheet #5 – Grading
   i. Added elevations to field
   ii. Added elevations around building
   iii. Revised elevations at sidewalk close to building on the east side
   iv. Added pavement section

f. Sheet #6 – Drainage
   i. Added elevations to pond
   ii. Added detention pond cross sections
   iii. Added discharge to Existing Type “F” Inlet detail
   iv. Added Type “C-C” Inlets around building and at soccer field
   v. Shifted some Type “C-C” Inlets to accommodate connections to roof drains

g. Sheet #8 – Water details
   i. Added double check assembly detail

h. Sheet #10 – Grading details
    i. Added Fire lane striping detail
i. Added Sheet #10A – Lift Station details

II. Specifications:
a. Added Section 11313 Self Priming Centrifugal Pump

SECTION 11313

SELF-PRIMING CENTRIFUGAL PUMPS

PART 1: GENERAL

1.01 SCOPE OF WORK

A. These specifications shall be the basis for furnishing all labor, materials, equipment and incidentals required to install, test and place into initial operation two (2) electric motor driven self-priming centrifugal pumps complete with all mounts, piping, valves, supports, gauges, and control panel as shown on the plans.

B. The Plans show the general location, arrangement, and basic dimensions of equipment to furnished and installed by the Contractor. The Contractor shall carefully check all dimensions on shop drawings furnished by the manufacturer and shall install all items in strict accordance with the manufacturer's recommendations. The full scope of work includes not only the pumps, but the installation of the concrete top, piping/valves, electrical and site improvements.

1.02 Related Work Specified Elsewhere

A.	Concrete	Division 3
B.	Painting	Division 9
C.	Pipe	Division 15
D.	Electrical	Division 16

1.03 Submittals

A. Submit complete shop drawings and manufactures' data covering weights, detail specifications, materials, parts, pump curves, and other information required to verify compliance with these specifications.

1.04 Operation and Maintenance Manuals

A. Operation and maintenance manuals shall be provided by the equipment manufacturer at least two weeks prior to the shipment of all major equipment components. Each manual shall be an index binder prepared specifically for this project and as required.

B. As a minimum the manual shall contain:

1. General arrangement drawings
2. General arrangement detail drawings
3. A complete bill of materials for the equipment
4. Installation and maintenance instructions for the specific equipment including erection sequence and maintenance and trouble-shooting guide.
5. Cut sheets for all items of equipment purchased from other manufacturers.
6. A list of the pump manufacturer's recommended spare parts specifically denoting wear items, long delivery items, and all items convenient for stocking as optional replacement items.
7. Lubrication schedule including recommended winter and summer grades of lubrication.

1.05 Delivery

A. Store and temporarily support equipment prior to installation in strict accordance with the manufacturer's recommendations and instructions. Protect all exposed surfaces.

PART 2: PRODUCTS

2.01 Unit Base

A. The unit base shall comprise a base plate, perimeter flange, and reinforcements. Base plate shall be fabricated of steel not less than 1/4 inch thick, and shall incorporate openings for access to all integral cavities to permit complete grouting of the unit base after installation. Perimeter flange and reinforcements shall be designed to prevent flexing or warping under operating conditions. Base plate and/or flange shall be drilled for hardware used to secure unit base

to concrete pad as shown on the contract drawings. Unit base shall contain provisions for lifting the complete pump unit during shipping and installation.

2.02 Pumps

A. Pumps shall be horizontal, self-priming sewage trash pumps, specifically designed for pumping raw, unscreened, domestic sanitary sewage. Pumps shall be Barmesa Trash Pump Series: SH3U or approved equal.

B. The pump manufacturer shall demonstrate to the engineer's satisfaction that due consideration has been given to reducing maintenance costs by incorporating the following features.

1. DISCHARGE: 3" x 3" NPT, 125 lbs., female flange.
2. SPHERICAL SLD HNDLG: 2½"
3. LIQUID TEMPERATURE: 160° F (71° C)
4. CASING: Cast iron ASTM A-48 class 30. Maximum operating pressure 87 psi (600 KPa).
5. IMPELLER: 2 vane, open. Ductile iron no. 65-45-12.
6. SHAFT: Alloy steel no. 4140.
7. SHAFT SLEEVE: 316 series stainless steel.
8. WEAR PLATE: Carbon steel no. 1015. Replaceable.
9. COVER PLATE: Cast iron ASTM A-48 class 30, weight 30 lbs. Removable/adjustable.
10. FLAP VALVE: Neoprene with steel reinforcing.
11. BEARING HOUSING: Cast iron ASTM A-48 class 30.
12. SEAL PLATE: Cast iron ASTM A-48 class 30.
13. BEARING - PUMP END: Open single ball, radial load.
14. BEARING - DRIVE END: Open double ball, thrust load.
15. SEAL CAVITY AND BEARING LUBRICATION: SAE no. 30 non detergent oil, pump includes oil level sight gauges.
16. GASKETS: Buna-N, compressed synthetic fibers, PTFE, vegetable fiber, cork and rubber.
17. O-RINGS: Buna-N.
18. HARDWARE: Standard plated steel.
19. PAINT: Air dry enamel, water based.
20. PRESSURE RELIEF VALVE: Brass.
21. SEAL: Type 21, mechanical, oil lubricated, double floating, self aligning. Silicon carbide rotating and stationary faces, fluorocarbon elastomers (Viton® or equivalent). 316 stainless steel cage and spring.
22. EQUIPMENT: Flexible coupled assy, with base OSHA guard and electric motor.

C. Warranty shall be free of defects in material and workmanship under normal use and service for 18 months from date of manufacture or 12 months from installation date whichever occurs first

2.03 Drive

A. Each pump motor shall be horizontal, weather-proof, induction type, with normal starting torque and low starting current characteristics, suitable for 3 phase, 60 hertz, 460 volt, AC electric current. The motor shall not be overloaded at the design condition or at any head in the operating range as specified. The motor shall have a service factor of at least 1.15. Motor space heaters shall be provided and shall be 120 volt, 1 phase, and adequately sized to raise the temperature inside the motor to a minimum of 6 degrees above ambient.

B. Guards shall be manufactured to permit complete removal from the pump unit without interference with any unit component, and shall be securely fastened to the unit base.

PART 3: EXECUTION

3.01 Installation:

A. The pump shall be assembled as a unit and set in place. Piping shall then be brought up to the pump and the pump and piping shall be aligned, so that no strains from the piping will be transferred to the pump.

B. Installation shall be in strict accordance with the respective Manufacturer's instructions and recommendations. Anchor bolts shall be furnished and installed by the Contractor in accordance with the Manufacturer's recommendations.

3.02 Service:

A. Service of a qualified factory representative shall be furnished to inspect the waste lift pumps after field installation, to perform initial start-up and to instruct the plant operators on the operation and routine maintenance required. A minimum of one (1) trip and one (1) eight-hour day shall be provided.

END OF SECTION

IDEA - PALMVIEW PHASE I

MISSION, TEXAS

GENERAL NOTES

1. THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF UNDERGROUND UTILITIES AND ELECTRICAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE LOCATIONS AND SIZES HAVE BEEN TAKEN FROM EXISTING RECORDS AND THE BEST AS-BUILT INFORMATION AVAILABLE; HOWEVER, IT IS EXPECTED THAT THERE MAY BE SOME DISCREPANCIES AND OMISSIONS IN THE LOCATIONS, QUALITIES AND SIZES SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE, SIZE AND LOCATION OF ALL UTILITIES AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL ARRANGE FOR THE REPAIR AND RESTORATION OF CONTRACTOR DAMAGED UTILITIES. THE COST OF ANY REPAIR OR REPLACEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CURRENT LINE SPOTTING TOLL FREE NUMBER AND COORDINATE WITH ALL THE UTILITY COMPANIES FOR ACTUAL LOCATING AND UNCOVERING OF EXISTING LINES PRIOR TO EXCAVATION OPERATIONS.

2. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY UNREPORTED OBSTACLES THAT MAY IMPEDE OR PREVENT THE PROPER CONSTRUCTION OF THIS PROJECT.

3. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPLICABLE STATE STATUES AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (OSHA). COPIES OF THE O.S.H.A. STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM O.S.H.A. AT 611 EAST 6TH STREET, ROOM 303, AUSTIN, TEXAS.

4. THE CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT AND WORKMAN LIKE MANNER AT ALL TIMES. JOB SAFETY SHALL NOT BE COMPROMISED. ANY UNSAFE OR UNATTRACTIVE NUISANCE SHALL BE REMOVED OR OTHERWISE TAKEN CARE OF BY THE CONTRACTOR WHEN DIRECTED BY THE OWNER OR PROJECT ENGINEER.

5. EXCAVATIONS, TRENCHES AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS AND/OR OTHER PROTECTIVE DEVICES AT ALL TIMES.

6. CONSTRUCTION OF THIS PROJECT WILL BE SUBJECT TO INSPECTIONS AND TESTING AS DEEMED NECESSARY OR APPROPRIATE BY THE ENGINEER AND/OR THE CITY OF MISSION. THE CONTRACTOR SHALL FURNISH INCIDENTAL LABOR AND EQUIPMENT TO ALLOW FOR THE TESTING, PERSONAL ACCESS TO THE WORK, AND WILL COOPERATE FULLY WITH THE PERSONS CONDUCTING THE TESTING AND INSPECTION PROGRAM.

7. A PART OF THE WORK THAT IS NECESSARY OR REQUIRED TO MAKE EACH SYSTEM OR INSTALLATION SATISFACTORY AND OPERABLE FOR ITS INTENDED PURPOSE, EVEN THOUGH IT IS NOT SPECIFICALLY INCLUDED IN THE SPECIFICATIONS OR DRAWINGS, SHALL BE PERFORMED AS INCIDENTAL WORK AS IF IT WERE DESCRIBED IN THE SPECIFICATIONS AND SHOWN ON THE DRAWINGS.

8. THE DRAWINGS DO NOT ALWAYS INDICATE ALL VERTICAL BENDS AND TRANSITIONS. WHEN NECESSARY, MAKE VERTICAL TRANSITIONS BY A DEFLECTION AT THE JOINTS OR THE INSTALLATION OF FITTINGS. DO NOT DEFLECT PIPE JOINTS MORE THAN 80% OF THE MANUFACTURER'S RECOMMENDATION.

9. ALL PIPING MUST BE INSTALLED WITH A MINIMUM OF 36-INCHES OF COVER UNLESS OTHERWISE NOTED ON THE PLANS.

10. ALL EXCAVATION FOR THIS PROJECT SHALL BE UNCLASSIFIED.

11. ALL UTILITIES WHICH ARE TO REMAIN AND WHICH ARE DAMAGED OR REMOVED WILL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

12. PIPE SHALL BE BACKFILLED WITH JOINTS EXPOSED FOR TESTING, BEFORE NEW JOINTS ARE COVERED. PRESSURE LINES ARE TO BE HYDROSTATICALLY TESTED AT NOT LESS THAN 150 PSIG FOR A PERIOD OF TWO HOURS. THE OWNER SHALL OBSERVE AND APPROVE OR REJECT THE TEST. REPAIRS, IF REQUIRED, SHALL BE MADE AND THE LINE SHALL BE RETESTED UNTIL APPROVED. TEST SHALL NOT BEGIN UNTIL THRUST BLOCKS HAVE AGED A MINIMUM OF 24 HOURS.

13. AS SOON AS PRACTICAL, ALL PORTIONS OF EXCAVATIONS NOT OCCUPIED BY THE PERMANENT STRUCTURE SHALL BE BACKFILLED.

14. WHERE WATER LINE INTERSECTS SANITARY SEWER SYSTEM MAINS AT LESS THAN 9.0 FEET SEPARATION, THE CONTRACTOR SHALL INSTALL A 20 FOOT SECTION OF C-900 PVC PRESSURE PIPE CENTERED ON THE POINT OF INTERSECTION, PER TCEQ REQUIREMENTS.

15. CONTRACTOR SHALL REMOVE AND REINSTALL ALL SIGNS, MAILBOXES, FENCES, CULVERTS AND OTHER ITEMS IN WAY OF THE WORK.

16. CONTRACTOR SHALL REPAIR ALL OPEN CUTS OF PAVED AREAS BACK TO BETTER THAN ''AS-IS'' CONDITION WITH LIKE MATERIALS.

17. PROVIDE INTERIM DRAINAGE DURING CONSTRUCTION AS REQUIRED. USE PUMPS, TEMPORARY DITCHES, ETC. TO MAINTAIN A WELL DRAINED SITE FREE OF STANDING WATER AND WATER SOFTENED SOILS.

18. ANCHOR ALL UNDERGROUND PRESSURE PIPING AS NECESSARY TO PREVENT MOVEMENT UNDER PRESSURE TEST AND SERVICES.

19. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A-165, GRADE 60. ALL BARS SHALL CONFORM TO ASTM SPECIFICATION A-305.

20. ALL CONCRETE AND FORM WORK SHALL CONFORM TO CURRENT ACI CODE REQUIREMENTS.

21. THE CONTRACTOR SHALL EXERCISE EXTRA CARE TO PREVENT DAMAGE TO ALL OTHER STRUCTURES IN THE AREA INCLUDING BUILDINGS, FENCES, ROADS, PIPELINES, UTILITIES, ETC., WHETHER PUBLICLY OR PRIVATELY OWNED.

22. UNTIL ACCEPTANCE BY THE ENGINEER OF ANY OR ALL OF THE CONSTRUCTION, AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS, AND ACCEPTANCE BY THE PROPER UTILITY PROVIDER, IT SHALL BE UNDER THE CHARGE AND CARE OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE EVERY NECESSARY PRECAUTION AGAINST TO ANY PART OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD, AT HIS OWN EXPENSE, OF ALL THE DAMAGE TO ANY PORTION OF THE WORK BEFORE ITS ACCEPTANCE.

23. NO OPEN TRENCHES OR EXCAVATION SHALL BE LEFT OPEN OVERNIGHT.

24. ALL WATERLINE TAPS AND WATER METERS SHALL BE INSTALLED BY CONTRACTOR. IN THE CASE THE CONTRACTOR WILL NOT BE INSTALLING SUCH IMPROVEMENTS, THE CONTRACTOR IS TO COORDINATE WITH THE CITY OF MISSION BEFORE COMMENCING ANY UTILITY WORK.

25. COORDINATE ALL UTILITY WORK WITH THE PLUMBING PLANS BEFORE COMMENCING ANY UTILITY WORK. REFER TO PLUMBING PLANS FOR CONTINUATION.

26. COORDINATE WITH GRADING PLANS FOR WATER LINE, STORM AND SANITARY SEWER LINES INSTALLATION.

27. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INCLUDING THOSE FROM THE CITY OF MISSION AND TXDOT PRIOR TO THE START OF CONSTRUCTION.

28. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN PAVED AREAS SHALL MATCH FINISHED PAVEMENT GRADE. THE TOP ELEVATIONS OF MANHOLES AND CLEANOUTS CONSTRUCTED IN GRASSED AREAS SHALL BE SIX INCHES ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED ON PLANS).

29. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO VERIFY EXISTING CONDITIONS.

30. CONTRACTOR TO LEAVE OPENINGS IN CURB AT SIDEWALK RAMPS LOCATIONS.

31. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS (LOCATIONS & ELEVATIONS) PRIOR TO START OF CONSTRUCTION.

32. PERMIT NEEDED FROM THE CITY OF MISSION BUILDING DEPARTMENT AND PRE-CONSTRUCTION CONFERENCE NEEDED WITH BOTH THE CITY OF MISSION AND S.W.S.C. BEFORE CONSTRUCTION CAN BEGIN. ⚠

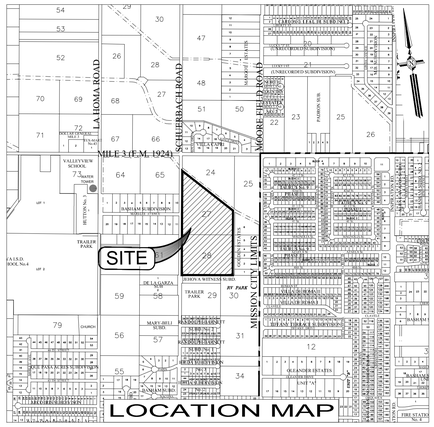
33. CONSULT WITH PROPERTY OWNER BEFORE RELOCATING EXISTING FENCES THAT MIGHT BE IN THE WAY OF THE CONSTRUCTION AREA AND/OR CONSTRUCTION PLANS.

34. BOTH SITE AND BUILDING CONTRACTORS TO VERIFY EXISTING SITE ELEVATIONS PRIOR TO POURING CONCRETE TO VERIFY ACCESIBILITY.

35. ALL PROPOSED STORM R.C.P. TO BE INSTALLED AT PLACES OTHER THAN EXISTING OR PROPOSED STRUCTURES SHALL INCLUDE SAFETY ENDS TREATMENT.

36. ALL STRIPING AND SIGNAGE SHALL BE IN ACCORDANCE WITH *TEXAS MUTCD REVISION 2, OCTOBER 2014*, PART 3 OF THE MANUAL AND/OR TXDOT STANDARDS FOR SPACING OF BROKEN LINES, RPM'S, ARROWS, AND ONLY'S. *TEXAS DEPARTMENT OF TRANSPORTATION, TRAFFIC OPERATIONS DIVISION, TYPICAL STANDARD PAVEMENT MARKINGS, PM (1)-12.*

37. COORDINATE ALL WORK WITHIN HIDALGO COUNTY WATER IMPROVEMENT DISTRICT NO. 6 (HCWID No. 6) RIGHT OF WAY INCLUDING NECESSARY SHUTDOWNS WITH DISTRICT PERSONNEL. ALL OF THE CONSTRUCTION OF IRRIGATION FACILITIES AND CROSSINGS OF IRRIGATION FACILITIES SHALL NOT BE PERFORMED WITHOUT THE KNOWLEDGE OF THE DISTRICT PERSONNEL. THE DISTRICT OFFICE PHONE NUMBER IS 956-580-8780. ⚠



1" = 1000'

2019

SHEET INDEX

1 ..... COVER SHEET
2 ..... EXISTING CONDITIONS
3 ..... DIMENSIONAL CONTROL SITE PLAN
4 ..... PROPOSED WATER & SANITARY SEWER LAYOUT
5 ..... PROPOSED GRADING PLAN
6 ..... PROPOSED DRAINAGE PLAN
7 ..... TEMPORARY SEDIMENTARY CONTROL PLAN & DETAILS
8 ..... WATER DETAILS
9 ..... SANITARY SEWER DETAILS
10 ..... PAVING & DRAINAGE DETAILS
⚠ 10A ..... LIFT STATION DETAILS

BENCHMARK INFO:
#1: SET MHI DISK LOCATED EAST OF WEST PROPERTY LINE.
NORTHING: 16619377.508, EASTING: 1032232.394, ELEVATION: 173.84
#2: SET MHI DISK LOCATED EAST OF WEST PROPERTY LINE.
NORTHING: 16620082.150, EASTING: 1032341.674, ELEVATION: 176.75

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TBPE FIRM # F-1435
MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
KELLEY A. HELLER-VELA
97421
LICENSED PROFESSIONAL ENGINEER

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SHEET 1 OF 10

JOB No. 18088.00

SET No.

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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

5/16/2019

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Architects-Planners
Interior Designers

Date: 2019
Scale: As Noted
Project Architect:
Drawn By: David Montreal, AIA
Job No.: RB, JA
Sheet: IDEA_N200 Phase 1

JOB No. 18088.00

ADDENDUM #	REVISION	DATE	BY
		06/03/19	S.A.

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AS NOTED

SCALE:	
3. RELEASE DATE:	
2. RELEASE DATE:	
1. RELEASE DATE:	
T-BOOK: 1059, PG. 46-47	
PROJECT ENG.: K.A.H-V.	
ENG. TECH.: S.A.	

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EXISTING CONDITIONS

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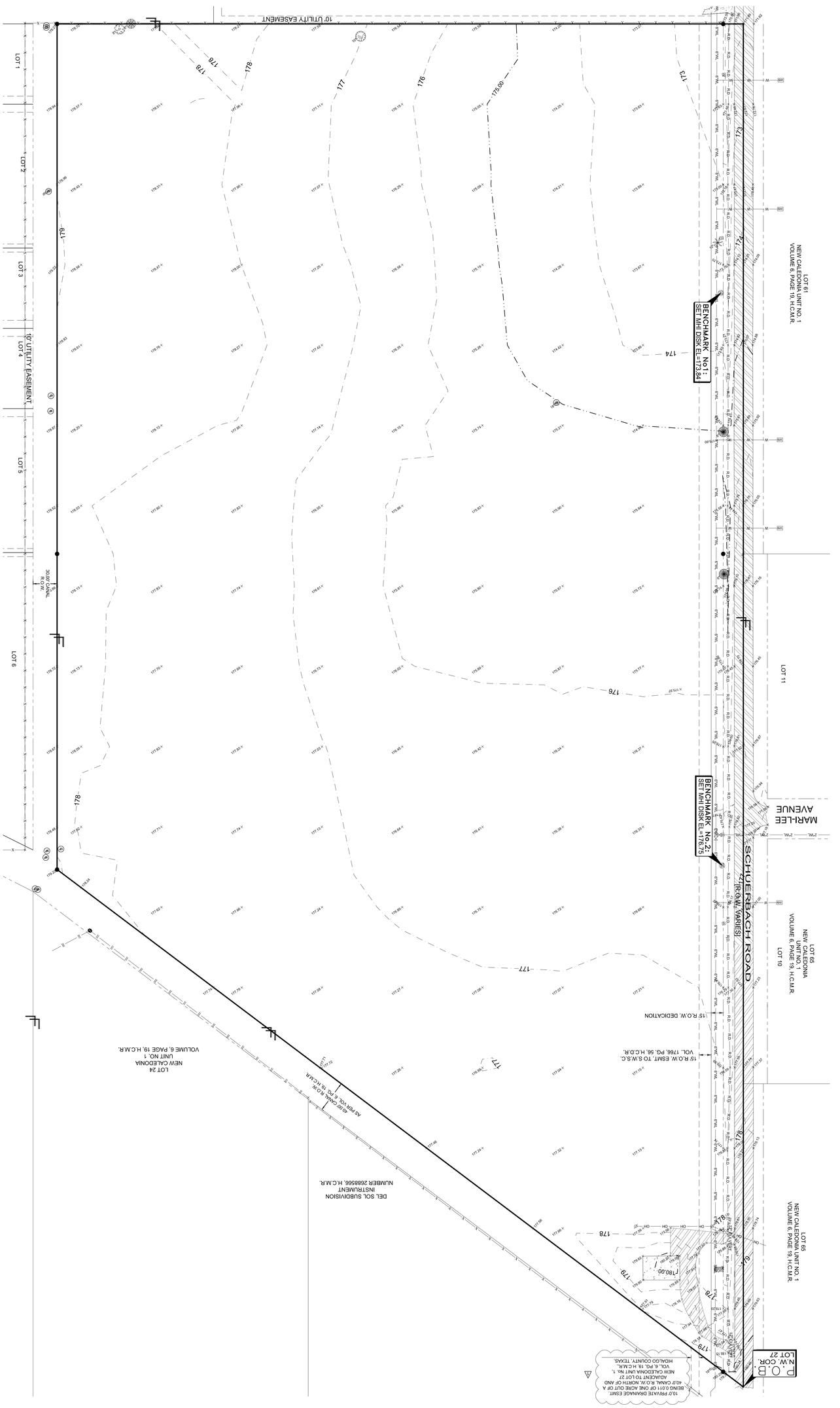
SHEET 2 OF 10

SCALE: 1" = 50'

BEARINGS BASED ON THE TEXAS COORDINATE SYSTEM, SOUTH ZONE (4205), NAD 83 (2011) EPOCH 2010.00. COORDINATES ARE GRID VALUES EXPRESSED IN U.S. SURVEY FEET

LEGEND

- FOUND No.4 REBAR
- SET MHI DISK
- SET NAIL
- POWER POLE
- SINGLE POST SIGN
- UNDERGROUND CABLE MARKER
- FIRE HYDRANT
- IRRIGATION VALVE
- WATER VALVE
- IRRIGATION STAND PIPE (SIZE AS NOTED)
- GATE POST
- HOG WIRE FENCE
- CHAIN LINK FENCE
- WOOD FENCE
- OVERHEAD POWER LINE
- ROAD DITCH
- CONCRETE AREA
- ASPHALT AREA
- EDGE OF ASPHALT TO EDGE OF ASPHALT
- R.O.W. - RIGHT OF WAY
- N.W. COR. - NORTHWEST CORNER
- N.E. COR. - NORTHEAST CORNER
- H.C.M.R. - HIDALGO COUNTY MAP RECORDS
- S.E. COR. - SOUTHEAST CORNER
- Sq. Ft. - SQUARE FEET
- LOT LINE
- HACKBERRY TREE (SIZE AS NOTED)
- HUISACHE (SIZE AS NOTED)
- MESQUITE TREE (SIZE AS NOTED)
- PALM TREE (SIZE AS NOTED)
- TREE (SIZE AS NOTED)



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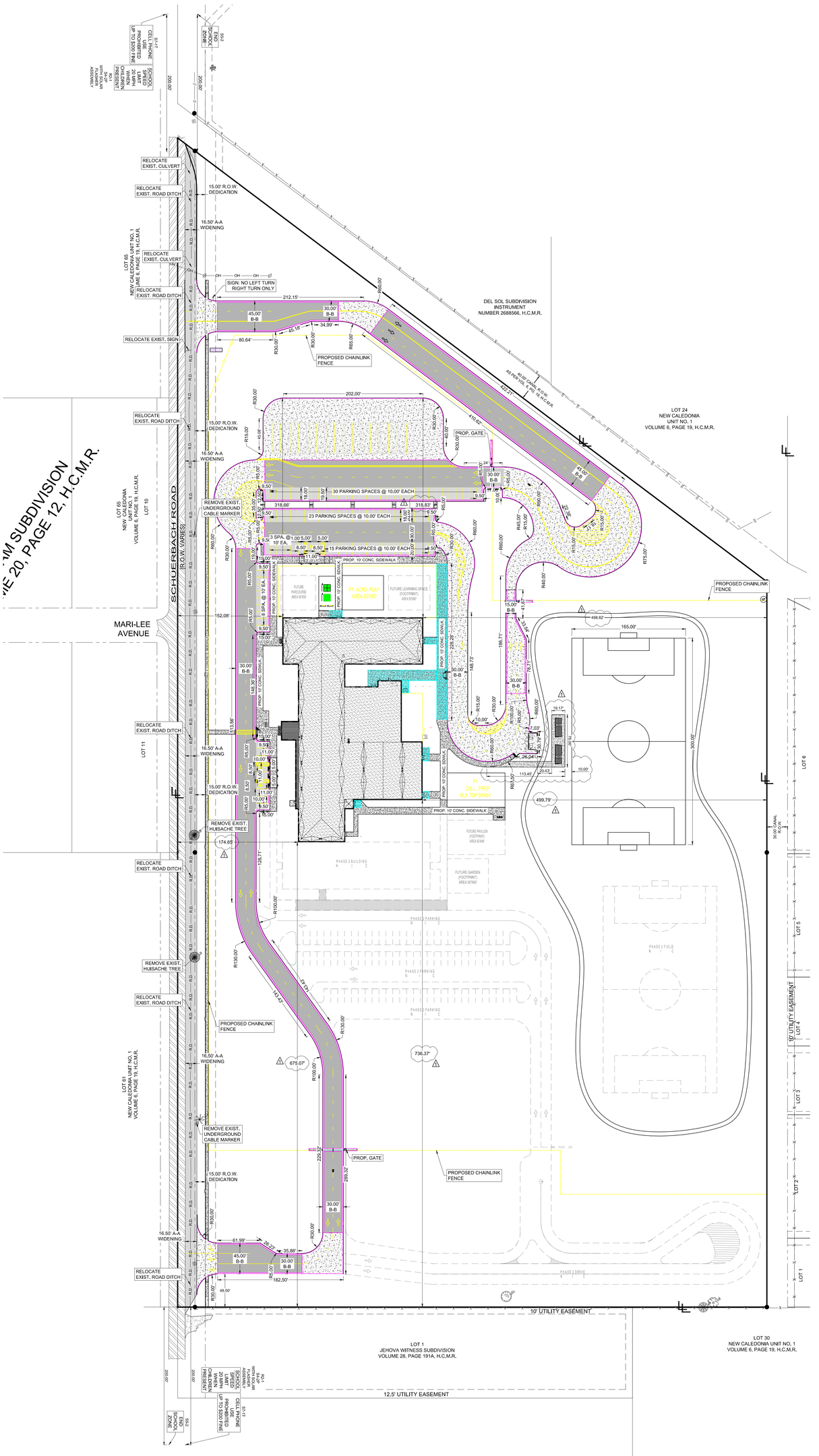
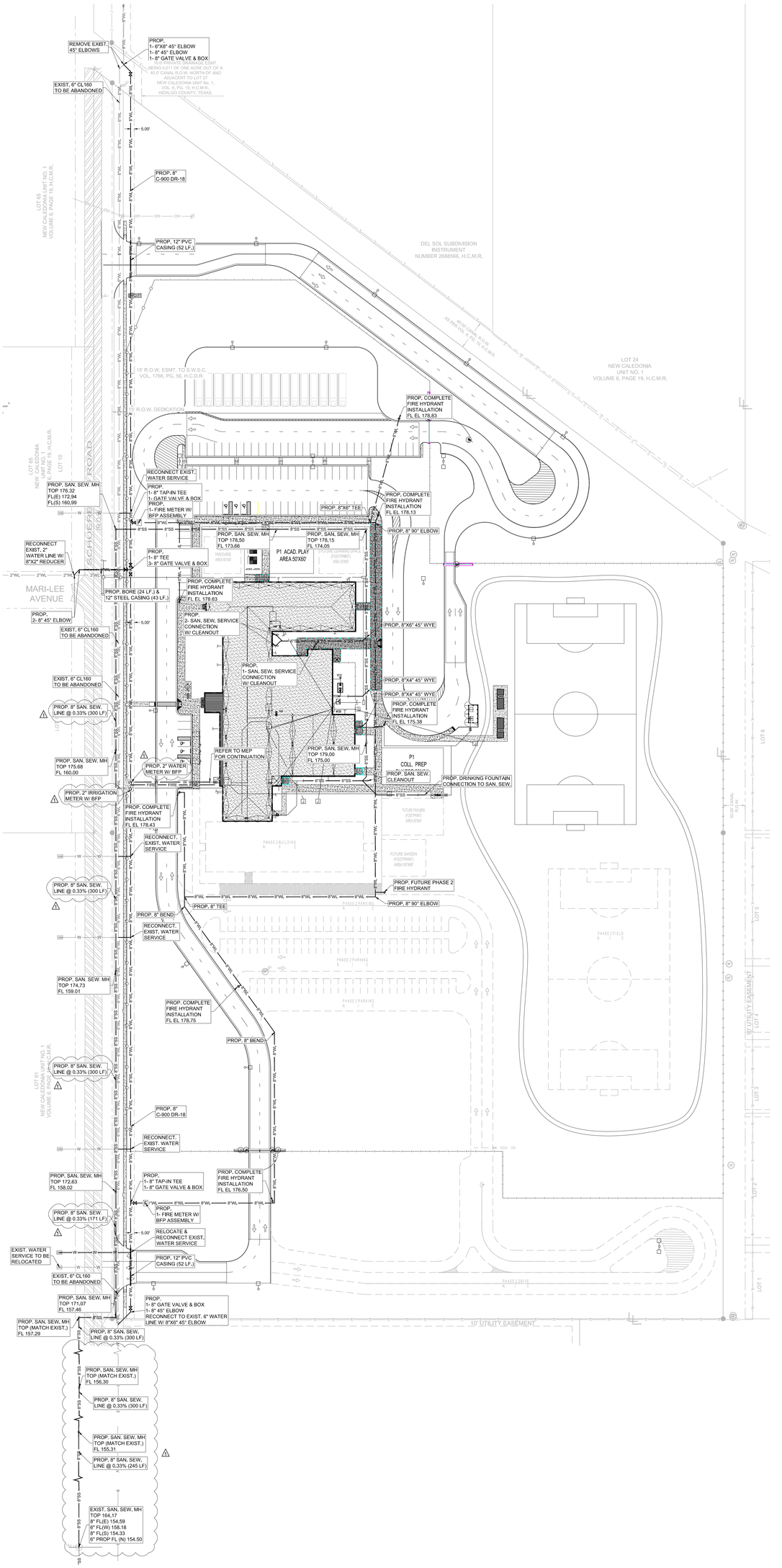

SCHUERBACH ROAD
(R.O.W. VARIES)
MARI-LEE AVENUE
DEL SOL SUBDIVISION
INSTRUMENT
NUMBER 2688566, H.C.M.R.
LOT 24
NEW CALEDONIA
UNIT NO. 1
VOLUME 6, PAGE 19, H.C.M.R.
LOT 65
NEW CALEDONIA UNIT NO. 1
VOLUME 6, PAGE 19, H.C.M.R.
LOT 10
LOT 11
LOT 64
LOT 1
LOT 30
NEW CALEDONIA UNIT NO. 1
VOLUME 6, PAGE 19, H.C.M.R.
LOT 1
JEHOVA WITNESS SUBDIVISION
VOLUME 28, PAGE 191A, H.C.M.R.
LOT 6
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1
10' UTILITY EASEMENT
12.5' UTILITY EASEMENT
30.00' ROW
RELOCATE EXIST. CULVERT
RELOCATE EXIST. ROAD DITCH
15.00' R.O.W. DEDICATION
16.50' A-A WIDENING
RELOCATE EXIST. SIGN
SIGN: NO LEFT TURN RIGHT TURN ONLY
PROPOSED CHAINLINK FENCE
PROP. GATE
REMOVE EXIST. UNDERGROUND CABLE MARKER
REMOVE EXIST. HUISACHE TREE
30 PARKING SPACES @ 10.00' EACH
23 PARKING SPACES @ 10.00' EACH
3 SPA. @ 10.00' EA.
15 PARKING SPACES @ 10.00' EACH
PROP. 10' CONC. SIDEWALK
P1: ACAD. PLAY AREA 60X90'
FUTURE PARCOURSE AREA 50'X50'
FUTURE LEARNING SPACE (FOOTPRINT) AREA 50'X90'
P1: COLL. PREP BLK TOP 50'X64'
FUTURE PAVILION (FOOTPRINT) AREA 50'X64'
FUTURE GARDEN (FOOTPRINT) AREA 50'X90'
PHASE 2 BUILDING
PHASE 2 PARKING
PHASE 2 FIELD
PHASE 2 DRIVE
SCHOOL ZONE
END SCHOOL ZONE
CELL PHONE USE PROHIBITED WHILE DRIVING IN SCHOOL ZONE
SCHOOL SPEED LIMIT 20 MPH WHEN CHILDREN PRESENT
STATE LAW
CITY ORDINANCE
FIRE LANE
NO PARKING ANYTIME
NO PARKING ANYTIME
NO PARKING ANYTIME



LEGEND

- POWER POLE
- FIRE HYDRANT
- IRRIGATION VALVE
- IRRIGATION STAND PIPE (SIZE AS NOTED)
- SANITARY SEWER MANHOLE
- OH — OH — OVERHEAD POWER LINE
- R.O. — R.O. — ROAD DITCH
- SS — SS — EXISTING SANITARY SEWER LINE
- 6"WL — EXISTING WATER LINE
- 6"SS — PROPOSED SANITARY SEWER LINE
- 6"WL — PROPOSED WATER LINE
- EL - ELEVATION
- EXIST. - EXISTING
- FL - FLANGE
- PROP. - PROPOSED
- MH - MANHOLE
- PROP. - PROPOSED
- SAN. SEW. - SANITARY SEWER
- W/ - WITH

COORDINATES ARE BASED ON THE TEXAS COORDINATE SYSTEM OF 1983, SOUTH ZONE (4205) NAD 83 (2007) ELEVATION DATUM IS NAVD 88

SCALE:1" = 60'

PROPOSED WATER & SANITARY SEWER LAYOUT

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SHEET 4 OF 10

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KELLEY A. HELLEN-VELA 97421 LICENSED PROFESSIONAL ENGINEER STATE OF TEXAS

TEXAS REGISTRATION F-1435

ENG. TECH: S.A.		
PROJECT ENG: K.A.H-V.		
T-BOOK: 1059, PG. 46-47	ADDENDUM #1	06/03/19 S.A.
1. RELEASE DATE:	REVISION	DATE BY
2. RELEASE DATE:		
3. RELEASE DATE:		
SCALE: AS NOTED		

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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

GMS ARCHITECTS
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Brownsville TX 78526
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SHEET VIEW
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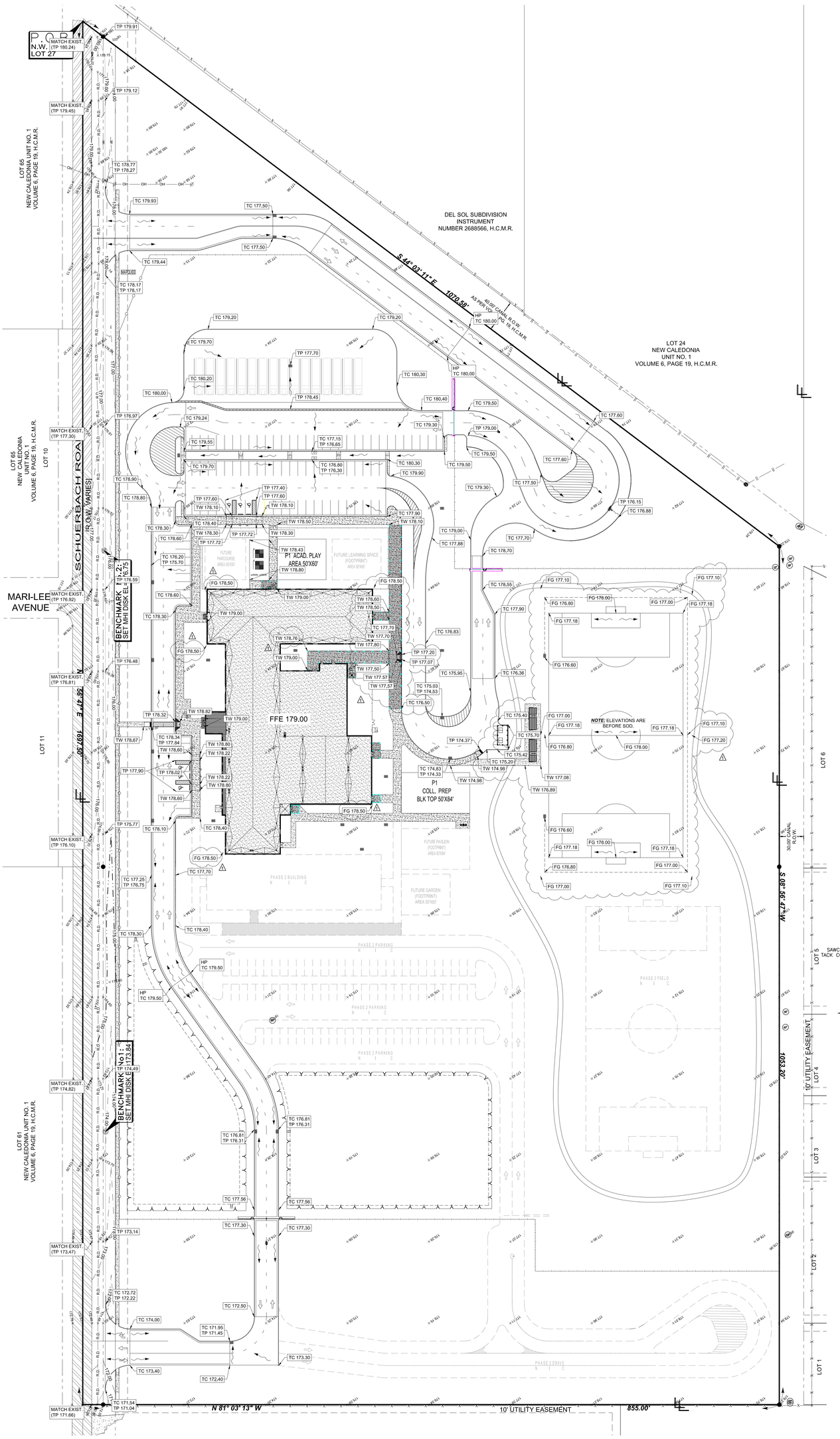
Date: 2019
Scale: As Noted
Project Architect: Daniel Monreal, AIA
Drawn By: RB, JA
Job No:
Sheet: IDEA 2020 Phase 1



NEW ASPHALT MEETING EXISTING PAVEMENT
SCALE: N.T.S.

SCHUERBACH 16.5' ROAD WIDENING DETAIL
SCALE: 1" = 10'

LEGEND

- STORM SEWER MANHOLE
- TYPE "A" INLET
- TYPE "C" INLET
- EL - ELEVATION
- EXIST. - EXISTING
- FG XXX.XX — FINISHED GRADE ELEVATION
- HP XXX.XX — HIGH POINT ELEVATION
- TC XXX.XX — TOP OF CURB ELEVATION
- TP XXX.XX — TOP OF PAVEMENT ELEVATION
- TW XXX.XX — TOP OF WALK ELEVATION
- STORM RUNOFF ARROW

BENCHMARK No.1: EL=175.59 SET MHI DISK ON TOP OF CURB AT THE NORTHWEST CORNER OF SCHUERBACH ROAD AND MARI-LEE AVENUE, 60' NORTH OF THE CENTERLINE OF MARI-LEE AVENUE AND 30' WEST OF THE CENTERLINE OF SCHUERBACH ROAD

SCALE:1" = 50'

PROPOSED GRADING PLAN

SHEET 5 OF 10

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ENG. TECH: S.A.
PROJECT ENG: K.A.H-V.
T-BOOK: 1059, PG. 46-47
1. RELEASE DATE:
2. RELEASE DATE:
3. RELEASE DATE:
SCALE: AS NOTED

REVISION	DATE	BY
ADDENDUM #1	06/03/19	S.A.

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5/16/2019

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Architects-Planners
Interior Designers

Date: 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: RB, JA
Job No.: IDEA 20/20 Phase I
Sheet:

IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
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fax (956) 546-0186

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P.O.B. N.W. COR. LOT 27

BENCHMARK No1: SET MAG NAIL ELEV.=175.75

BENCHMARK No2: SET MH DISK ELEV.=173.84

SCHUERBACH ROAD (ROW VARIES)

MARI-LEE AVENUE

FFE 179.00

P1 ACAD. PLAY AREA 50'X60'

P1 COLL. PREP BLK TOP 50'X84'

FUTURE PARCOURSE AREA 50'X50'

FUTURE LEARNING SPACE (FOOTPRINT) AREA 50'X60'

FUTURE GARDEN (FOOTPRINT) AREA 50'X50'

PROPOSED DETENTION POND @ 2:1 4' DEEP

PROPOSED DETENTION POND @ 2:1 2' DEEP

DEL SOL SUBDIVISION INSTRUMENT NUMBER 2688566, H.C.M.R.

LOT 24 NEW CALEDONIA UNIT NO. 1 VOLUME 6, PAGE 19, H.C.M.R.

LOT 65 NEW CALEDONIA UNIT NO. 1 VOLUME 6, PAGE 19, H.C.M.R.

LOT 10

LOT 11

LOT 61 NEW CALEDONIA UNIT NO. 1 VOLUME 6, PAGE 19, H.C.M.R.

LOT 6

LOT 5

LOT 4

LOT 3

LOT 2

LOT 1

10' UTILITY EASEMENT

40.00' CANAL R.O.W. AS PER VOL. 6, PG. 19, H.C.M.R.

30.00' CANAL R.O.W.

10.00' PRIVATE DRAINAGE ESMT. BEING 0.091 OF ONE ACRE OUT OF LOTS 1 & 2, DEL SOL SUBDIVISON, INSTRUMENT No. 2688566, H.C.M.R., HIDALGO COUNTY, TEXAS

10.00' DRAINAGE EASEMENT

PROP. 8" BLEEDER LINE CONNECTION TO EXIST. STORM SYSTEM

EXIST. TY "F" INLET TOP 180.10 FL 175.33

PROP. STORM MANHOLE TOP 180.45 FL 175.60

PROP. 4" FORCE MAIN (1484 LF.)

PROP. ROAD DITCH RELOCATION TO CONNECT W/ EXIST. ROAD DITCH

PROP. ROAD DITCH RELOCATION

PROP. SAFETY END TREATMENT FL 177.50

PROP. CULVERT (104 LF.)

PROP. SAFETY END TREATMENT FL 177.33

PROP. TY "C-C" INLET TOP 177.00 FL 169.93

PROP. TY "C-C" INLET TOP 177.00 FL 169.89

PROP. TY "C-C" INLET TOP 177.70 FL 169.62

PROP. TY "C-C" INLET TOP 177.70 FL 169.09

PROP. TY "A" INLET TOP 176.65 FL (N)(S) 169.43 FL (W) 169.30

PROP. TY "A" INLET TOP 176.30 FL 169.44

PROP. TY "C-C" INLET TOP 178,20 FL 169,72

PROP. TY "C-C" INLET TOP 176,15 FL 170.25

PROP. TY "C-C" INLET TOP 176,00 FL 168.89

PROP. TY "C-C" INLET TOP 178,20 FL 173.00

PROP. TY "C-C" INLET TOP 175,70 FL 168,77

PROP. TY "C-C" INLET TOP 178,90 FL 173.00

PROP. TY "C-C" INLET TOP 177,67 FL 168,61

PROP. TY "C-C" INLET TOP 178,00 FL 173.00

PROP. TY "C-C" INLET TOP 177,17 FL 168.51

PROP. TY "C-C" INLET TOP 177,90 FL

PROP. TY "C-C" INLET TOP 177,80 FL 170.44

PROP. TY "C-C" INLET TOP 174,83 FL 170.24

PROP. TY "C-C" INLET TOP 176,20 FL170,02

PROP. TY "C-C" INLET TOP 176,60 FL 170,52

PROP. TY "C-C" INLET TOP 174,60 FL 170.16

PROP. TY "C-C" INLET TOP 176,60 FL 170,58

PROP. TY "C-C" INLET TOP 178,20 FL 170,43

PROP. TY "C-C" INLET TOP 178.20 FL 170,52

PROP. DRAIN CONNECTION REFER TO MEP FOR CONTINUATION

PROP. STORM LIFT STATION

PG 170.00

PROP. DISCHARGE STRUCTURE FL 166.00

PROP. STM. MH TOP 178.90 FL 168.30

PROP. DISCHARGE STRUCTURE FL 168.29

PROP. DISCHARGE STRUCTURE FL 173,06

PROP. DISCHARGE STRUCTURE FL 173.23

PROP. TY "C-C" INLET TOP 176.31 FL 173.20

PROP. TY "C-C" INLET TOP 176,31 FL 173.10

PROP. DISCHARGE STRUCTURE FL 167,08

PROP. SAFETY END TREATMENT FL 171.45

PROP. TY "C-C" INLET TOP 171.45 FL 167.50

PROP. CULVERT (104 LF.)

PROP. ROAD DITCH RELOCATION TO CONNECT W/ EXIST. ROAD DITCH

PROP. SAFETY END TREATMENT FL 170,27

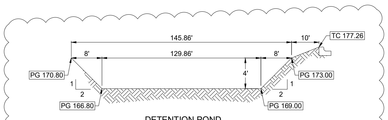
PG 172,00 PG 174.00 PG 176.00 PG 178.00 PG 167.00 PG 171,00

DETENTION VOLUMES:

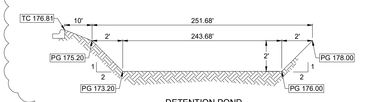
REQUIRED DETENTION: 173,489 C.F.

PROVIDED DETENTION: 204,164 C.F.

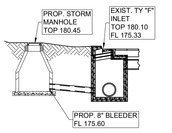
DETENTION POND CROSS SECTION "A-A"
SCALE: N.T.S.



DETENTION POND CROSS SECTION "B-B"
SCALE: N.T.S.



PROPOSED 8" BLEEDER CONNECTION TO EXISTING TYPE "F" INLET
SCALE: N.T.S.



LEGEND

- Ⓢ STORM SEWER MANHOLE
- TYPE "A" INLET
- TYPE "C" INLET
- FL XXX.XX FLOW LINE FUTURE ELEVATION
- MH. - MANHOLE
- PG. - PROPOSED GROUND
- PROP. - PROPOSED
- STM. - STORM
- TY. - TYPE

SCALE:1" = 50'

PROPOSED DRAINAGE PLAN

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SHEET 6 OF 10

File Name: 18088.00

ENG. TECH: S.A.
PROJECT ENG: K.A.H-V.
T-BOOK: 1059, PG. 46-47
1. RELEASE DATE:
2. RELEASE DATE:
3. RELEASE DATE:
SCALE: AS NOTED

REVISION	DATE	BY
1 ADDENDUM #1	06/03/19	S.A.

JOB No. 18088.00

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KELLEY A. HELLER-VELA, P.E. 97421

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5/16/2019

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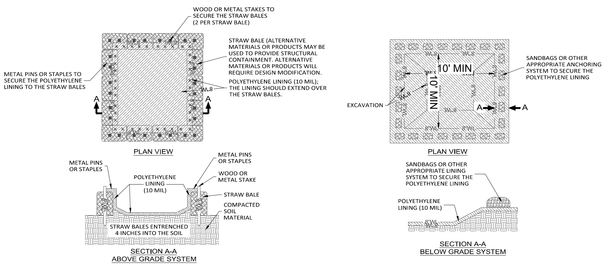
Date: 2019
Scale: As Noted
Project Manager: David Monreal, AIA
Drawn By: RB, JA
Job No.: IDEA 2009 Phase I
Sheet:

IDEA Public Schools

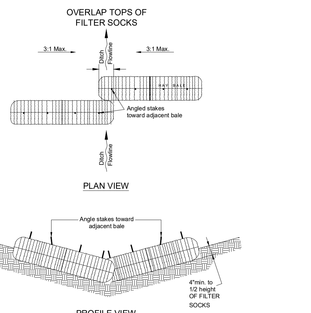
IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

1150 Paredes Line Rd.
Brownsville TX 78526
(956) 542-0110
fax (956) 546-3196
GMS ARCHITECTS

No.	REVISIONS	BY

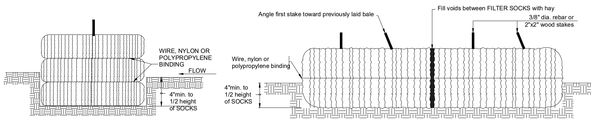


CONCRETE WASHOUT
N.T.S.

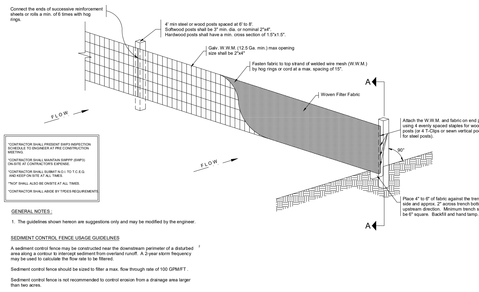


GENERAL NOTES :

1. Filter socks shall be a minimum of 8" diameter.
2. Filter shall be bound by either wire nylo or polypropylene string, the filter socks shall be composed entirely of vegetable matter.
3. Filter socks shall be embedded in the soil a minimum of 4" and where possible height of the hay sock.
4. Filter socks shall be placed in a row with ends tightly abutting the adjacent socks. the socks shall be placed with bindings parallel to the ground.
5. Filter socks shall be securely anchored in place with 3/8" dia. rebar or 2"x2" wood stakes, driven through the filter socks. The first stake shall be angled towards the previously laid sock to force the hay socks together.
6. The guidelines shown hereon are suggestion only any may be modified by the engineer.
7. No hay bales are allowed.



BALED HAY FOR EROSION CONTROL
N.T.S.



GENERAL NOTES:

1. The guidelines shown hereon are suggestions only and may be modified by the engineer.

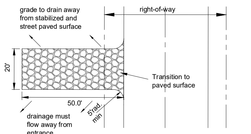
SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area to filter out sediment in sheet flow runoff. A 2-year storm frequency may be used to calculate the flow rate to be filtered.

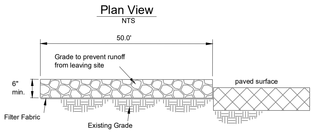
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT.

Sediment control fence is not recommended to control erosion from a drainage area larger than two acres.

TEMPORARY SEDIMENTARY CONTROL FENCE
N.T.S.



Plan View
NTS



Profile View
NTS

Notes :

1. Construction entrance(s) shall be located at the time of pre-contruction meeting.
2. Stone shall be 4 to 8 inch diameter crushed rock or acceptable crushed Portland Cement Concrete.
3. When necessary, vehicles shall be cleaned to remove sediment prior to entrance onto a public roadway. When washing is required, it shall be done on a area stabilized with crushed stone with drainage flowing away form both the street and the stabilized entrance. All sediment shall be prevented from entering any storm drain, ditch or watercourse using approved methods.
4. The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto paved surfaces. This may require periodic top dressing with additional stone as conditions demand. All sediment spilled, dropped, washed or tracked onto paved surfaces, must be removed immediately.
5. The entrance must be properly graded or incorporate a drainage swale to prevent runoff from leaving the construction site.

STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

LEGEND

BALED HAY

SF SILT FENCE

SCALE:1" = 50'

TEMPORARY SEDIMENTARY CONTROL PLAN & DETAILS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KELLEY A. HELLEN-VELA, P.E. 97421
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ENG. TECH:	S.A.
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JOB No. 18088.00

SHEET 7 OF 10

File Name: 18088.00

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Date: 2019
Scale: As Noted
Project Manager: David Monreal, AIA
Drawn By: RB, JA
Job No: IDEA-2000 Phase I
Sheet:

IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

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Brownsville TX 78526
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fax (956) 546-3196
GMS ARCHITECTS

No.	REVISIONS	BY

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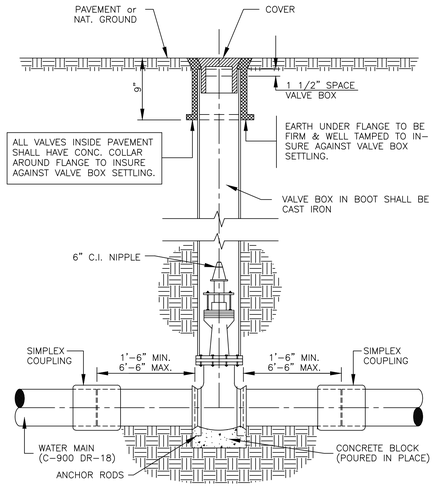
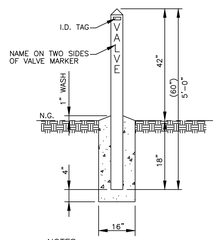


VALVE and VALVE BOX INSTALLATION

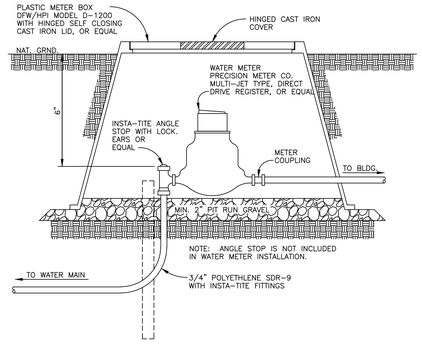
NOTE:
VALVE BOX FOR RE-USE WATER VALVES SHALL BE PURPLE



NOTES:
1. 4"x4"x9'-0" TREATED WOOD POST, TOP POINTED AT 45° ANGLE. PRIME AND PAINT WITH TWO COATS OF YELLOW SEMI-GLOSS ENAMEL. LETTERS TO BE 3" IN HEIGHT AND PAINTED WITH BLACK SEMI-GLOSS ENAMEL.
2. VALVE MARKERS SHALL BE INSTALLED AT EACH LINE VALVE AND FLUSH VALVE.

VALVE MARKER DETAIL

N.T.S.



TYPICAL WATER METER INSTALLATION

N.T.S.

NOTES AS PER TEXAS DEPT. OF HEALTH MANUAL

A. WATER LINE\NEW SEWER LINE SEPARATION.

WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATERLINES THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATERLINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY:

(1) WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.

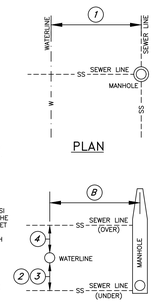
(2) WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF 6 INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.

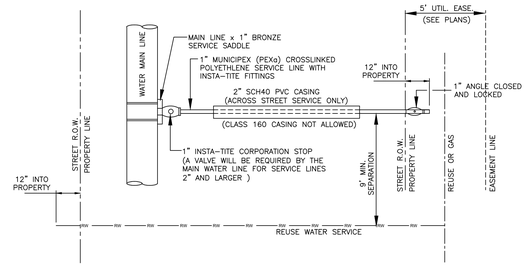
(3) WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SMALAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF WATERLINE. THIS INITIAL BACKFILL SHALL BE FROM ONE QUARTER DIAMETER BELOW THE CENTERLINE OF THE PIPE TO ONE PIPE DIAMETER (BUT NOT LESS THAN 12 INCHES) ABOVE TOP OF PIPE.

(4) WHERE A SEWER CROSSES OVER A WATERLINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING BY AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT 5 FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEALED.

B. WATER LINE\MANHOLE SEPARATION.

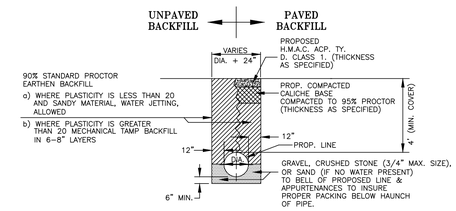
UNLESS SANITARY SEWER MANHOLES AND THE CONNECTING SEWER CAN BE MADE WATERTIGHT AND TESTED FOR LEAKAGE, THEY MUST BE INSTALLED SO AS TO PROVIDE A MINIMUM OF NINE FEET OF HORIZONTAL CLEARANCE FROM AN EXISTING OR PROPOSED WATERLINE. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, A CARRIER PIPE AS DESCRIBED IN SUBSECTION A(4) OF THIS SECTION MAY BE USED WHERE APPROPRIATE.





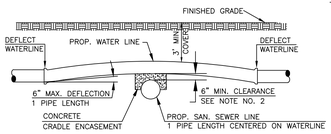
SINGLE WATER SERVICE CONNECTION

N.T.S.



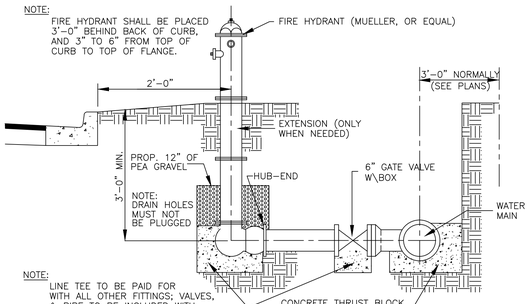
PIPE BEDDING DETAIL FOR S.W.S.C. DOMESTIC WATER LINE

N.T.S.

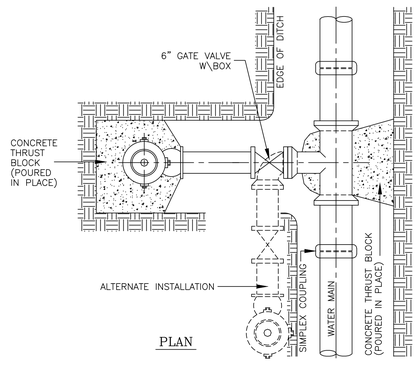


WATERLINE CROSSING OVER SANITARY SEWER MAIN

N.T.S.



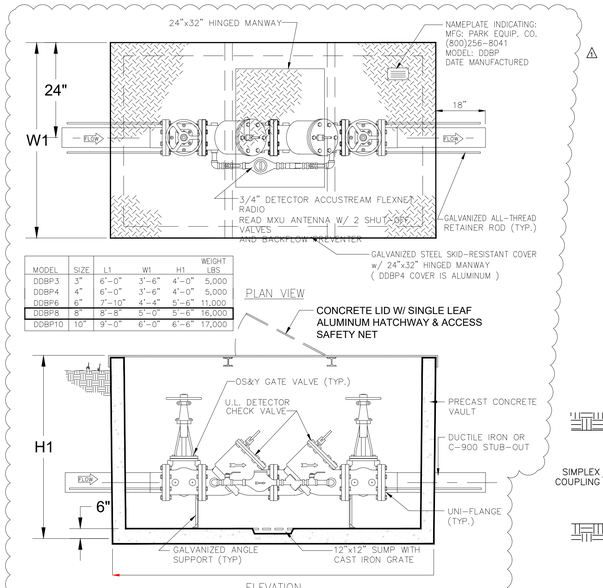
SECTION



PLAN

TYPICAL FIRE HYDRANT INSTALLATION

N.T.S.



MODEL	SIZE	L1	W1	H1	WEIGHT LBS
DDBP3	3"	6'-0"	3'-6"	4'-0"	5,000
DDBP4	4"	6'-0"	3'-6"	4'-0"	5,000
DDBP6	6"	7'-10"	4'-4"	5'-6"	11,000
DDBP8	8"	8'-8"	5'-0"	5'-6"	16,000
DDBP10	10"	9'-0"	6'-0"	6'-6"	17,000

PLAN VIEW

ELEVATION

Specifications

CONCRETE : Class 1 concrete with design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth.

REINFORCEMENT: Grade 60 reinforced. Steel rebar conforming to ASTM A615 on required centers or equal.

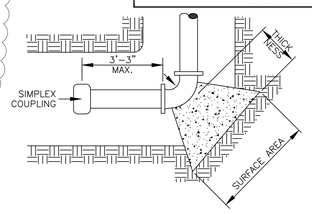
STEEL COVER: 1/4" steel skid-resistant floor plate welded to 3" angle frame with (2) 3"x2-3/8" I beam supports (300 PSF).

Engineering Data

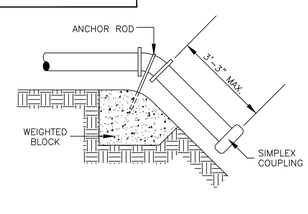
The backflow assembly shall be factory assembled in vault & hydrostatically tested prior to delivery. Field excavation & preparation shall be complete prior to delivery. Pipe, valves and fittings of the assembly shall be approved by one or more of the following associations:

AWWA UL FCCC AMERICAN SOCIETY OF SANITARY ENGINEERING FM

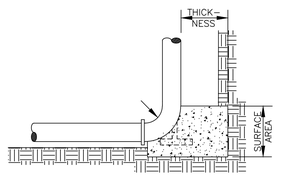
MEGA LUGS ARE REQUIRED FOR THE MJ FITTINGS ON THE SWSC DOMESTIC WATER LINE. A FLANGED OUTLET IS REQUIRED ON TEE OUTLETS.



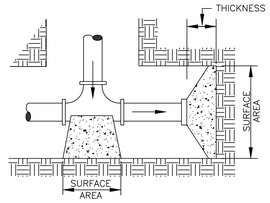
HORIZONTAL BENDS



VERTICAL BENDS



HYDRANT BURYS



TEES & DEAD ENDS

THRUST BLOCK DETAILS

N.T.S.

GENERAL NOTES FOR THRUST BLOCK:

1. ALL VALVES SHOWN ARE MINIMUM FOR A HYDROSTATIC PRESSURE OF 150 P.S.I. AND A SOIL RESISTANCE OF 2,000 LBS./SQ.FT WITH PIPELINE HAVING A MINIMUM OF 30" OF COVER.
2. THE CONTRACTOR SHALL CONSIDER REDUCTIONS OF THRUST BLOCK SURFACE AREA UPON SUBMITTAL OF APPROVED SOIL RESISTANT TEST RESULTS GREATER THAN 2000 LBS./SQ.FT.
3. THE LOCATION OF THRUST BLOCKS DEPENDS UPON THE DIRECTION OF THRUST AND TYPE OF FITTINGS.
4. MECHANICAL JOINTS ARE REQUIRED FOR ALL FITTINGS
5. PLASTIC WRAP ON ALL FITTINGS

THRUST BLOCK SIZE

DIAMETER OF PIPE INCHES	HORIZONTAL BEND SURFACE AREA SQ. FT.	HORIZONTAL BEND THICKNESS INCHES	WEIGHT AT VERTICAL BENDS – lbs.
22°1/2 BENDS			
6 OR LESS	2	8	1,700
8	3	12	3,000
10	3.5	12	4,500
12	4	14	6,600
14	5	18	9,000
16	6	18	11,800
45° BENDS			
6 OR LESS	4	12	3,200
8	5	14	5,800
10	6	18	9,000
12	7	18	13,000
14	8	24	17,000
16	11.5	24	23,200
90° BENDS			
6 OR LESS	6	12	6,000
8	8	15	10,700
10	10	18	16,700
12	12	18	24,000
14	18	24	32,600
16	21	24	42,700
TEES & DEAD ENDS			
6 OR LESS	3	12	----
8	4	15	----
10	6	18	----
12	8.5	18	----
14	11.5	24	----
16	15	24	----

GENERAL NOTES FOR ELECTRICAL CONDUIT:

1. CONTRACTOR TO INSTALL CONDUIT WITH PULL STRING IN SPECIFIED STREET CROSSING LOCATIONS. EXTEND CONDUIT 5 FT. PAST RIGHT OF WAY WITH TEMPORARY 4" ELBOW.
2. WHEN GAS LINE EASEMENTS CROSS ELECTRICAL EASEMENTS, ENCASE CONDUIT IN CONCRETE (- 1 FT. COVERING). EXTEND CONDUIT 3 FT. BEYOND EASEMENTS.
3. USE PVC TO LOCATE CONDUIT. THE PVC UTILITY MARKERS ARE A MINIMUM OF 2 FEET ABOVE FINAL GRADE.

JOB No. 18088.00

No.	REVISIONS	BY

ADDENDUM #1 — 06/03/19 — S.A.

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TBPE FIRM # F-1435

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ENG. TECH: S.A.
PROJECT ENG: KAH-V
T-BOOK: 1059, PG. 46-47
1. RELEASE DATE:
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SCALE: AS NOTED

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS — KELLEY A. HELLER-VELA — 97421 — LICENSED PROFESSIONAL ENGINEER

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5/16/19

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA PALMVIEW
IDEA Public Schools — PALMVIEW, TEXAS

WATER DETAILS - SHARYLAND WATER SUPPLY CORPORATION

5/16/2019

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Date: 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: RB, JA
Job No. IDEA 2020 Phase I
Sheet:

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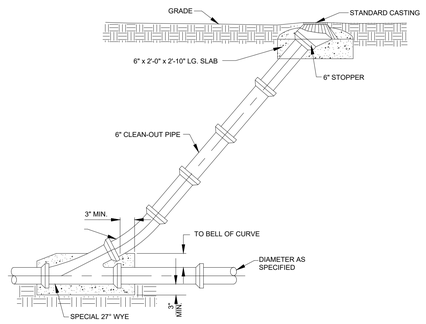
SHEET 8 OF 10

Jul 02, 2019 - I:\Projects\Miscellaneous Engineering\Educational Institutions\IDEA Academy\18088 - IDEA Palmview (Schuerbach)\18088.00 - Plat DevReportGen\Autocad Files\DWG\IDEA Palmview PHI_1_.dwg



STANDARD CLEANOUT
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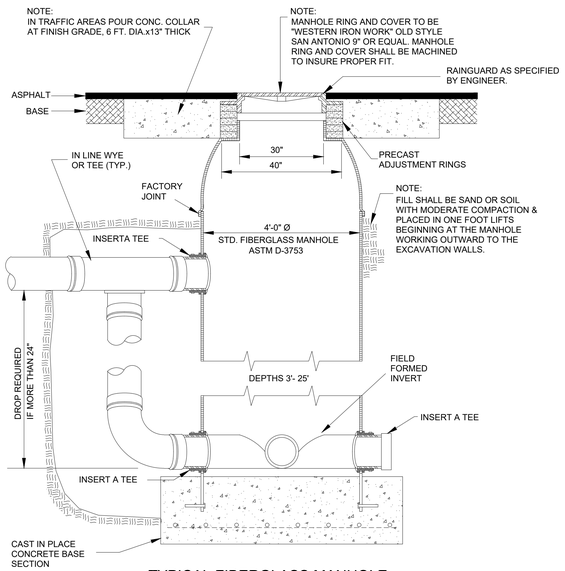
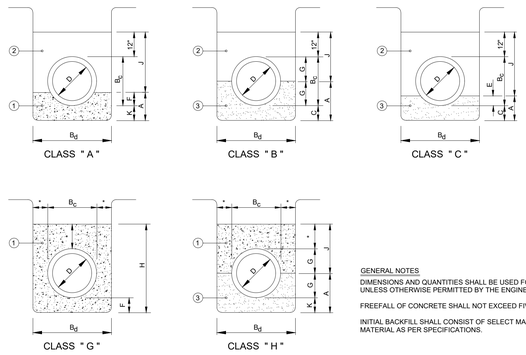


TYPICAL FIBERGLASS MANHOLE
N.T.S.



LEGEND (ALL CLASSES)

1 2500 PSI CONCRETE
2 INITIAL BACKFILL
3 GRAVEL OR CRUSHED STONE
D NOMINAL PIPE SIZE (I.D.)
B_C PIPE O.D. AT BELLS
B_d TRENCH WIDTH
A SEE TABLE
C 1/8 B_C (EXCEPT AS NOTED)
E 1/6 B_C
F 1/4 B_C (EXCEPT AS NOTED)
G 1/2 B_C
H DEPTH OF CONCRETE
J SEE TABLE
K 1/4 B (EXCEPT AS NOTED)
* 4" MINIMUM

GENERAL NOTES

DIMENSIONS AND QUANTITIES SHALL BE USED FOR MEASUREMENT AND PAYMENT UNLESS OTHERWISE PERMITTED BY THE ENGINEER.

FREEFALL OF CONCRETE SHALL NOT EXCEED FIVE (5) FEET.

INITIAL BACKFILL SHALL CONSIST OF SELECT MATERIAL OR FINE GRANULAR MATERIAL AS PER SPECIFICATIONS.

CLASS	D	B_C	B_d	DIMENSIONS (INCHES) A In Earth	A In Rock	C e	C r	E	F	G	H	J	K In Earth	K In Rock	QUAN. (C.Y. per 100 L.F.) ①	②	③ In Earth	③ In Rock
A	6	7.75	24		5.94				1.94			17.82		4.00	3.4	10.0		
	8	10.25	26		6.56				2.56			19.69		4.00	4.0	11.5		
	10	13.00	29		7.25				3.25			21.75		4.00	4.7	13.5		
	12	16.00	32		8.00				4.00			24.00		4.00	5.6	15.6		
	15	19.50	36		9.76				4.88			26.63		4.88	7.5	18.5		
	18	23.00	39		11.50				5.75			29.25		5.75	9.4	20.7		
	21	26.50	43		13.26				6.63			31.88		6.63	11.9	23.8		
B	6	7.75	24	7.88	9.88	4	6			3.88		15.88				9.2	4.3	5.5
	8	10.25	26	9.13	11.13	4	6			5.13		17.13				10.4	5.0	6.4
	10	13.00	29	10.50	12.50	4	6			6.50		18.50				12.1	6.1	7.6
	12	16.00	32	12.00	14.00	4	6			8.00		20.00				13.9	7.3	8.9
	15	19.50	36	13.75	15.75	4	6			9.75		21.75				16.3	8.9	10.7
	18	23.00	39	15.50	17.50	4	6			11.50		23.50				18.2	10.2	12.2
	21	26.50	43	17.25	19.25	4	6			13.25		25.25				20.8	12.0	14.2
C	6	7.75	24	5.29	7.29	4	6		1.29			18.46				10.3	3.1	4.4
	8	10.25	26	5.71	7.71	4	6		1.71			20.55				11.8	3.6	4.9
	10	13.00	29	6.17	8.17	4	6		2.17			22.83				14.0	4.2	5.7
	12	16.00	32	6.67	8.67	4	6		2.67			25.33				16.2	4.9	6.6
	15	19.50	36	7.25	9.25	4	6		3.25			28.25				19.3	5.9	7.7
	18	23.00	39	7.83	9.83	4	6		3.83			31.17				21.8	6.7	8.7
	21	26.50	43	8.42	10.42	4	6		4.42			34.08				25.1	7.8	10.0
G	6	7.75	24							4.00	16.0					8.7		
	8	10.25	24							4.00	18.0					9.0		
	10	13.00	24							4.00	21.0					9.5		
	12	16.00	24							4.00	24.0					9.6		
	15	19.50	28							4.88	28.5					12.8		
	18	23.00	32							5.75	33.0					16.5		
	21	26.50	36							6.63	37.0					20.1		
H	6	7.75	24	7.88	9.88					3.88		8.12	4.00	6.00	4.4		4.3	5.5
	8	10.25	24	9.13	11.13					5.13		8.87	4.00	6.00	4.4		4.6	5.8
	10	13.00	24	10.50	12.50					6.50		10.50	4.00	6.00	4.8		4.8	6.0
	12	16.00	24	12.00	14.00					8.00		12.00	4.00	6.00	4.8		4.8	6.1
	15	19.50	28	14.63	15.75					9.75		13.87	4.88	6.00	6.1		6.7	7.5
	18	23.00	32	17.25	17.50					11.50		15.75	5.75	6.00	7.6		8.9	9.1
	21	26.50	36	19.88	19.88					13.25		17.12	6.63	6.63	8.8		11.3	11.3

PIPE BEDDING REQUIREMENTS
N.T.S.

SANITARY SEWER SERVICE CONNECTION
N.T.S.

TYPICAL FIBERGLASS MANHOLE BASE
N.T.S.

NOTES AS PER TEXAS DEPT. OF HEALTH MANUAL

A. WATER LINE/NEW SEWER LINE SEPARATION.

WHEN NEW SANITARY SEWERS ARE INSTALLED, THEY SHALL BE INSTALLED NO CLOSER TO WATERLINES THAN NINE FEET IN ALL DIRECTIONS. SEWERS THAT PARALLEL WATERLINES MUST BE INSTALLED IN SEPARATE TRENCHES. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, THE FOLLOWING GUIDELINES WILL APPLY:

(1) WHERE A SANITARY SEWER PARALLELS A WATERLINE, THE SEWER SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC MEETING ASTM SPECIFICATIONS WITH A PRESSURE RATING FOR BOTH THE PIPE AND JOINTS OF 150 PSI. THE VERTICAL SEPARATION SHALL BE A MINIMUM OF TWO FEET BETWEEN OUTSIDE DIAMETERS AND THE HORIZONTAL SEPARATION SHALL BE A MINIMUM OF FOUR FEET BETWEEN OUTSIDE DIAMETERS. THE SEWER SHALL BE LOCATED BELOW THE WATERLINE.

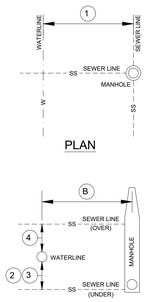
(2) WHERE A SANITARY SEWER CROSSES A WATERLINE AND THE SEWER IS CONSTRUCTED OF CAST IRON, DUCTILE IRON OR PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI, AN ABSOLUTE MINIMUM DISTANCE OF 6 INCHES BETWEEN OUTSIDE DIAMETERS SHALL BE MAINTAINED. IN ADDITION THE SEWER SHALL BE LOCATED BELOW THE WATERLINE WHERE POSSIBLE AND ONE LENGTH OF THE SEWER PIPE MUST BE CENTERED ON THE WATERLINE.

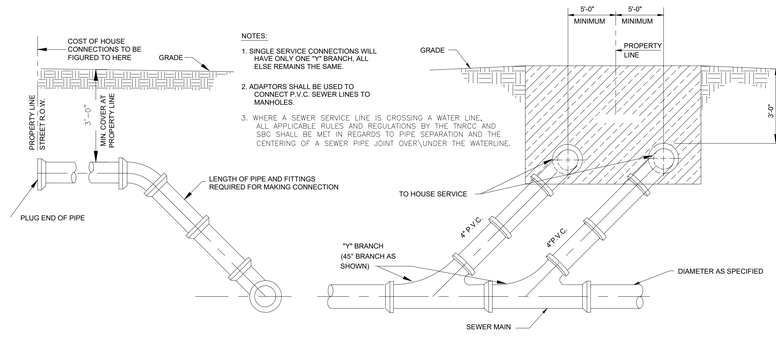
(3) WHERE A SEWER CROSSES UNDER A WATERLINE AND THE SEWER IS CONSTRUCTED OF ABS TRUSS PIPE, SIMILAR SEMI-RIGID PLASTIC COMPOSITE PIPE, CLAY PIPE OR CONCRETE PIPE WITH GASKETED JOINTS, A MINIMUM TWO FOOT SEPARATION DISTANCE SHALL BE MAINTAINED. THE INITIAL BACKFILL SHALL BE CEMENT STABILIZED SAND (TWO OR MORE BAGS OF CEMENT PER CUBIC YARD OF SAND) FOR ALL SECTIONS OF SEWER WITHIN NINE FEET OF WATERLINE. THIS INITIAL BACKFILL SHALL BE FROM ONE QUARTER DIAMETER BELOW THE CENTERLINE OF THE PIPE TO ONE PIPE DIAMETER (BUT NOT LESS THAN 12 INCHES) ABOVE TOP OF PIPE.

(4) WHERE A SEWER CROSSES OVER A WATERLINE ALL PORTIONS OF THE SEWER WITHIN NINE FEET OF THE WATERLINE SHALL BE CONSTRUCTED OF CAST IRON, DUCTILE IRON, OR PVC PIPE WITH A PRESSURE RATING OF AT LEAST 150 PSI USING APPROPRIATE ADAPTERS. IN LIEU OF THIS PROCEDURE THE NEW CONVEYANCE MAY BE ENCASED IN A JOINT OF 150 PSI PRESSURE CLASS PIPE AT LEAST 18 FEET LONG AND TWO NOMINAL SIZES LARGER THAN THE NEW CONVEYANCE. THE SPACE AROUND THE CARRIER PIPE SHALL BE SUPPORTED AT 5 FEET INTERVALS WITH SPACERS OR BE FILLED TO THE SPRINGLINE WITH WASHED SAND. THE ENCASEMENT PIPE SHOULD BE CENTERED ON THE CROSSING AND BOTH ENDS SEALED WITH CEMENT GROUT OR MANUFACTURED SEAL.

B. WATER LINE/MANHOLE SEPARATION.

UNLESS SANITARY SEWER MANHOLES AND THE CONNECTING SEWER CAN BE MADE WATERTIGHT AND TESTED FOR LEAKAGE, THEY MUST BE INSTALLED SO AS TO PROVIDE A MINIMUM OF NINE FEET OF HORIZONTAL CLEARANCE FROM AN EXISTING OR PROPOSED WATERLINE. WHERE THE NINE FOOT SEPARATION DISTANCE CANNOT BE ACHIEVED, A CARRIER PIPE AS DESCRIBED IN SUBSECTION A.(4) OF THIS SECTION MAY BE USED WHERE APPROPRIATE.





SANITARY SEWER SERVICE CONNECTION
N.T.S.

JOB No.
18088.00

No.	REVISIONS	BY

MELDEN & HUNT INC
CONSULTANTS • ENGINEERS • SURVEYORS
115 W. McINTYRE - EDINBURG, TX. 78541
P.O. BOX 1749 - EDINBURG, TX. 78540
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TBPE FIRM # F-1435

DATE	BY	REVISION
06/03/19	S.A.	ADDENDUM #1

GMS ARCHITECTS
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Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

ENG. TECH: S.A.
PROJECT ENG: K.A.H-V.
T-BOOK: 1059, PG. 46-47
1. RELEASE DATE:
2. RELEASE DATE:
3. RELEASE DATE:
SCALE: AS NOTED

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
KELLEY A. HELLER-VELA
97421
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KELLEY A. HELLER-VELA, P.E. 97421

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SANITARY SEWER DETAILS

IDEA PUBLIC SCHOOLS PHASE 1

IDEA PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

5/16/2019

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: RB, JA
Job No. IDEA 2020 Phase I
Sheet:

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File Name: 18088.00

SHEET 9 OF 10

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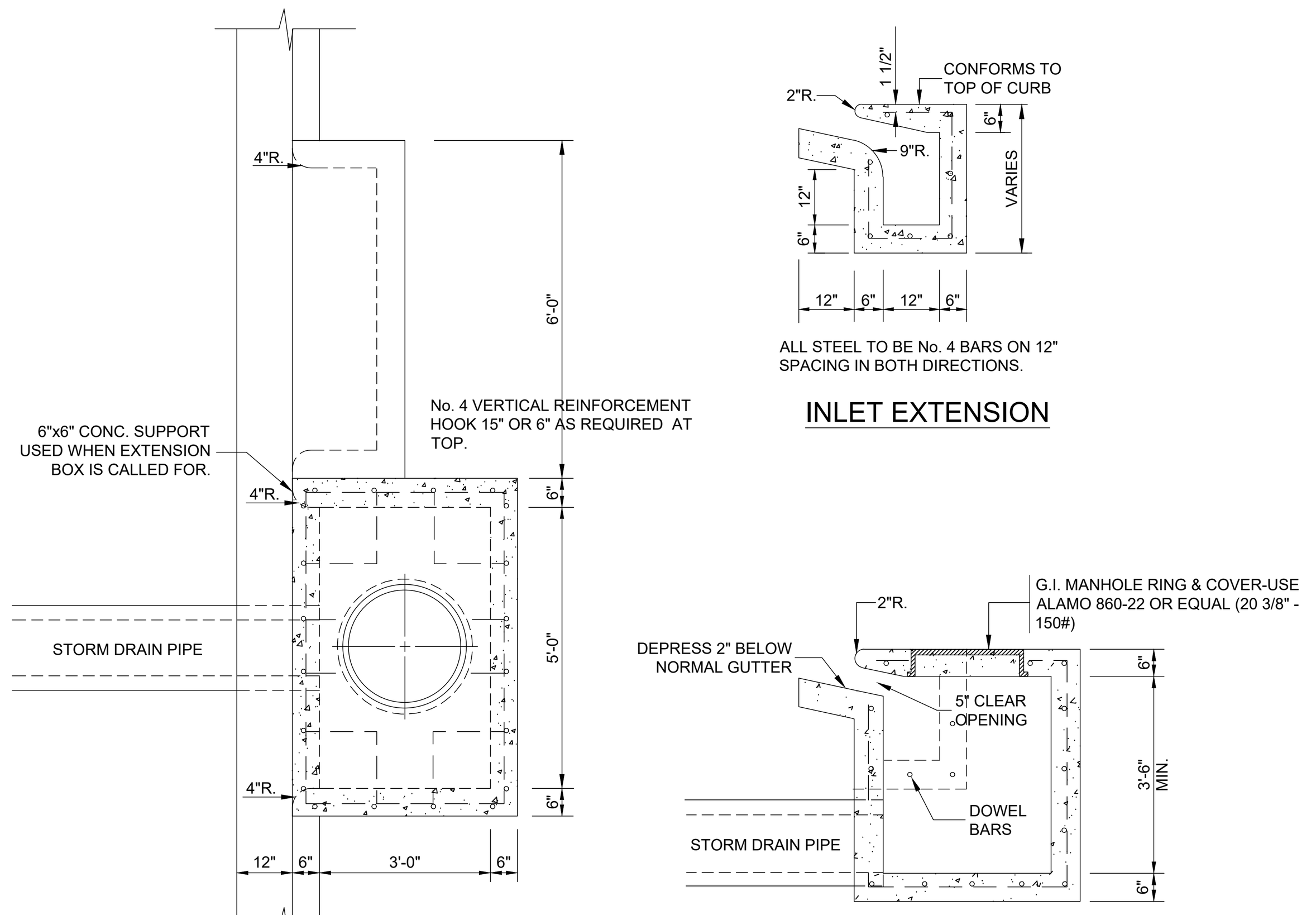


ALL STEEL TO BE No. 4 BARS ON 12" SPACING IN BOTH DIRECTIONS.

INLET EXTENSION

SLOPE BOTTOM OF INLET EXTENSION 1/2" / 1'-0" TOWARD INLET EXTENSION TO INLET TO BE MADE IN INCREMENTS OF 3'-0" OR 6'-0" ONLY. TRANSITION NORMAL GUTTER TO INLET SLOPE APPROXIMATELY 3'-0".

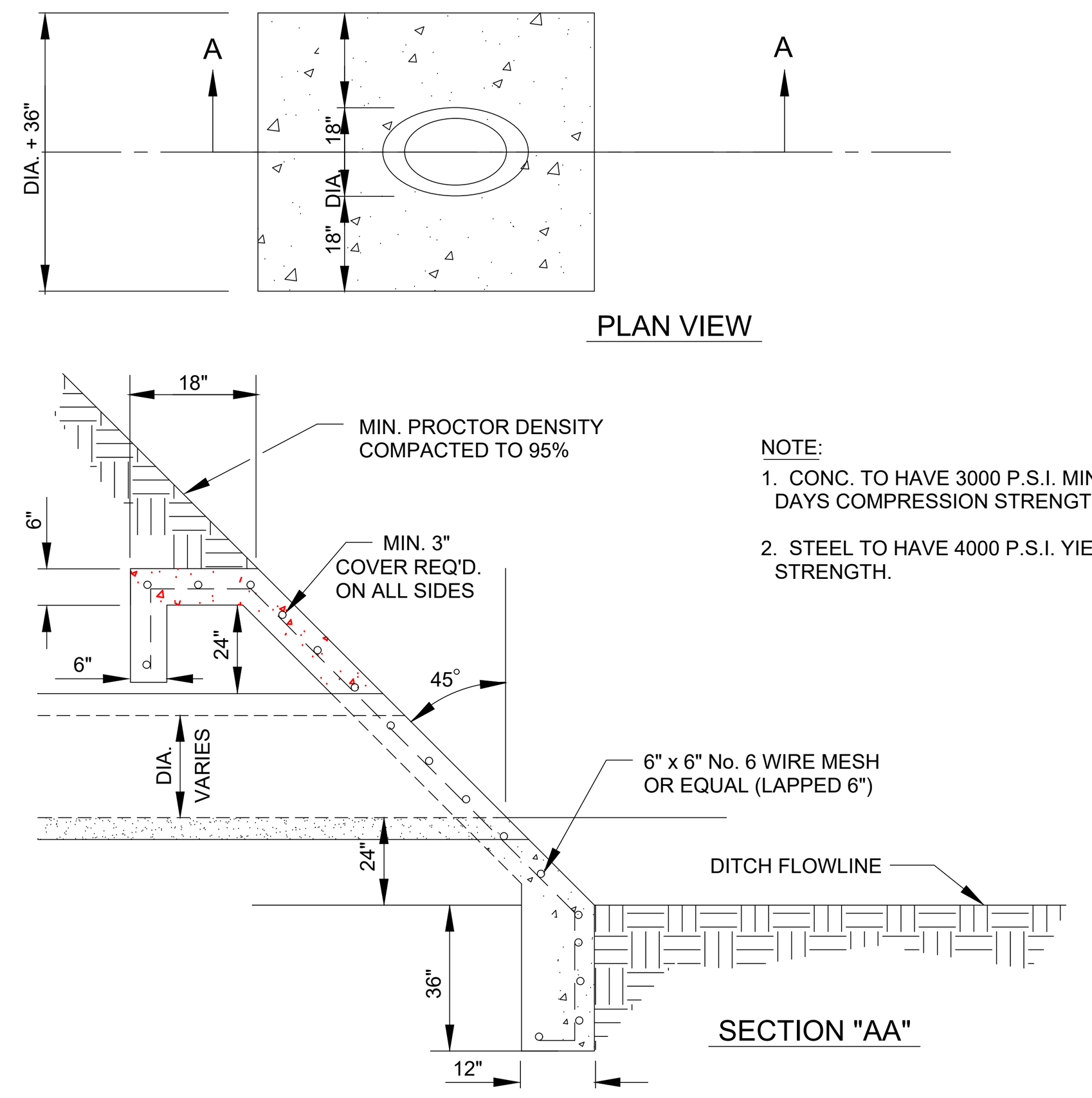
ALL STEEL TO BE No. 4 BARS 12" SPACING IN BOTH DIRECTIONS.

PLAN

SECTION

TYPE "A" INLET

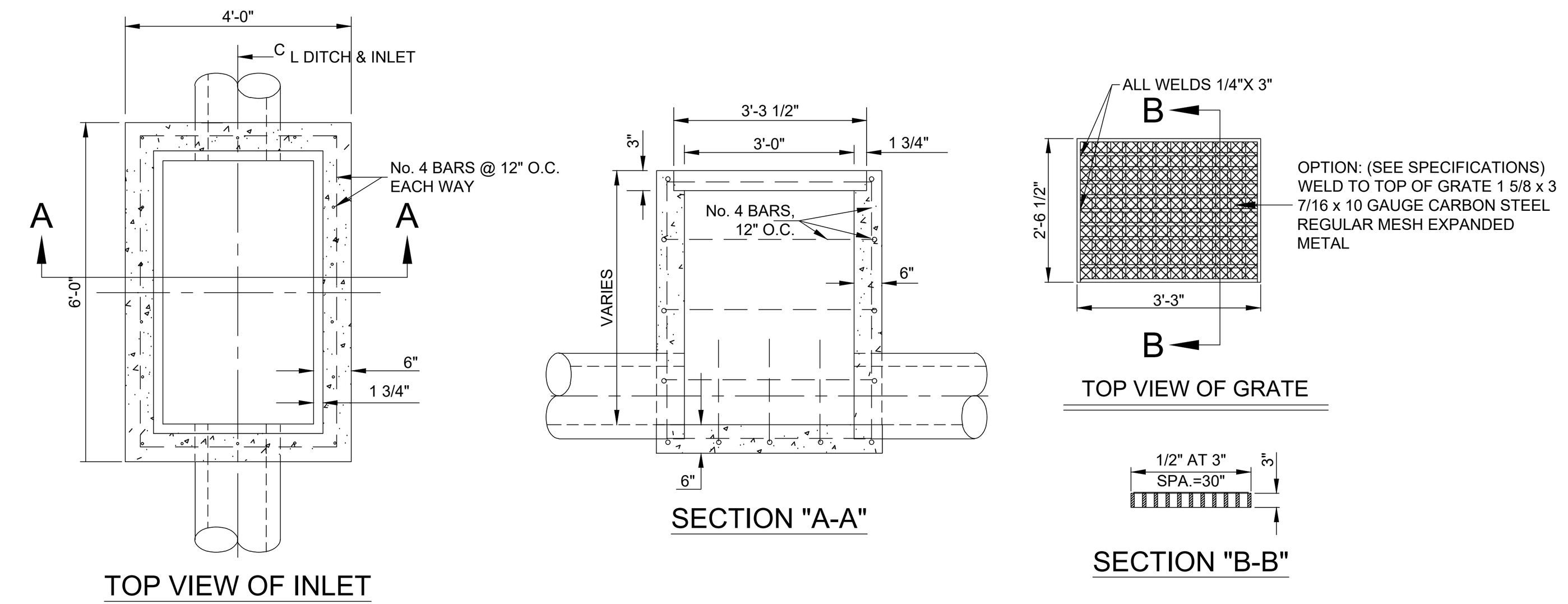
N.T.S.



NOTE:
1. CONC. TO HAVE 3000 P.S.I. MIN. 28 DAYS COMPRESSION STRENGTH.
2. STEEL TO HAVE 4000 P.S.I. YIELD STRENGTH.

STORM DISCHARGE STRUCTURE

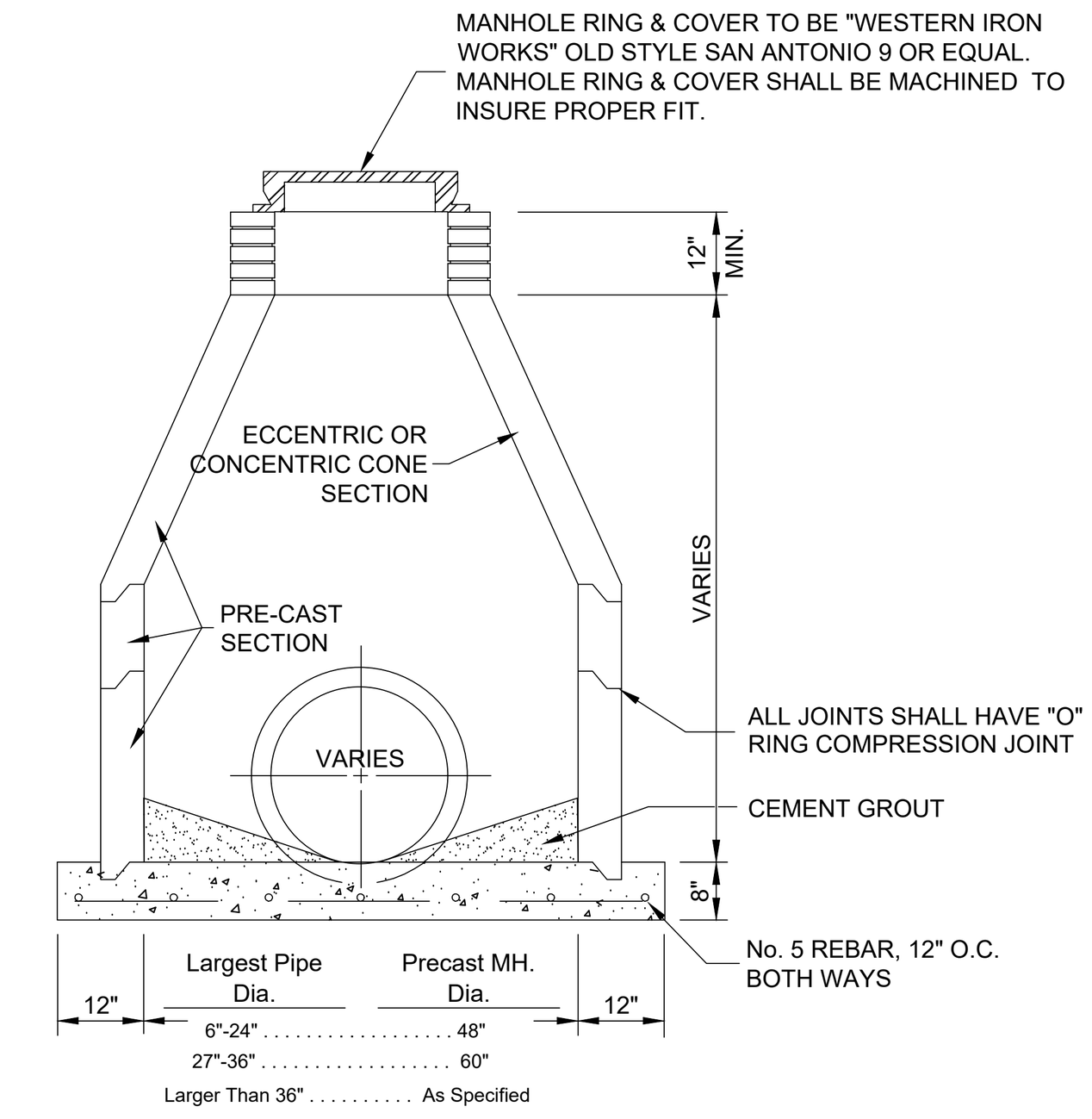
N.T.S.



TYPE "C-C" GRATED INLET

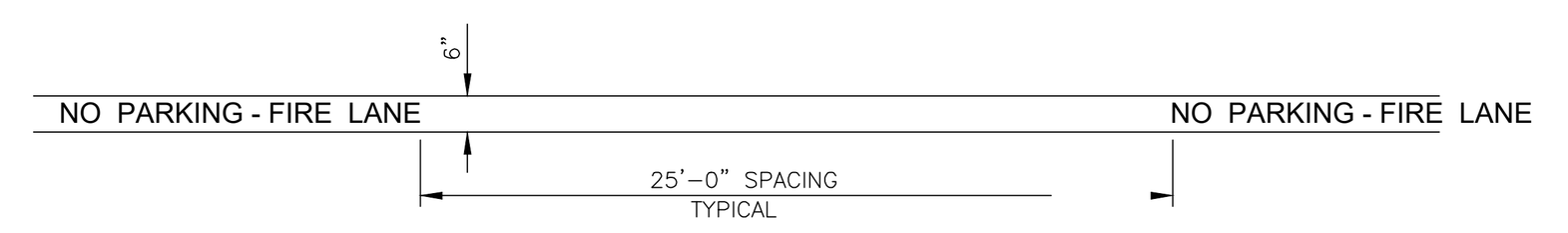
(TWO GRATES PER INLET)

N.T.S.



STANDARD STORM SEWER PRE-CAST CONCRETE MANHOLE

N.T.S.



FIRE LANE STRIPING NOTES:

1. THE STRIPING MUST BE PLACED ALONG THE ENTIRE LENGTH OF THE FIRE LANE. WHEN NO CURB IS AVAILABLE, THE RED STRIPE IS PLACED DIRECTLY ON THE ROADWAY. WHEN CURBING IS AVAILABLE, THE RED STRIPE IS PLACED ON THE CURB TOP AND CURB FACE.

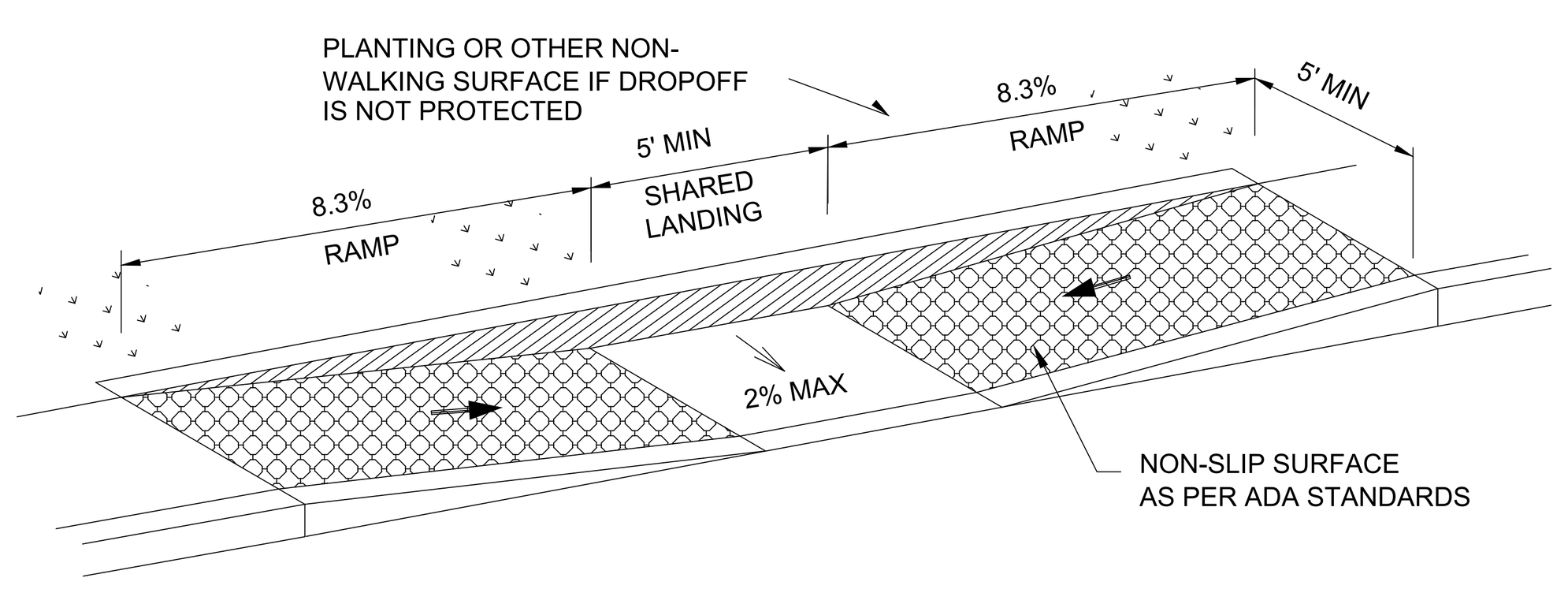
2. WHEN STRIPING WITH THE REQUIRED LETTERING IS PROVIDED, SIGNAGE IS NOT REQUIRED.

3. PAINT:
 a. STRIPE SHALL BE SIX (6) INCHES WIDE PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT, COLOR SHALL BE "TRAFFIC RED" GLIDDEN No. 63251 OR EQUAL.
 b. LETTERS SHALL BE FOUR (4) INCHES HIGH PAINTED WITH AN EXTERIOR ACRYLIC LATEX PAINT, LETTERS SHALL BE ONE (1) INCH STROKE. COLOR SHALL BE "TRAFFIC WHITE" GLIDDEN No. 563245 OR EQUAL.

4. APPLICATION:
 a. STRIPE MAY BE BRUSHED OR SPRAYED, ONE COAT TO FINISH.
 b. LETTERS SHALL BE STENCIL FORMED, BRUSH APPLIED AND SPACED AS PER DETAIL.

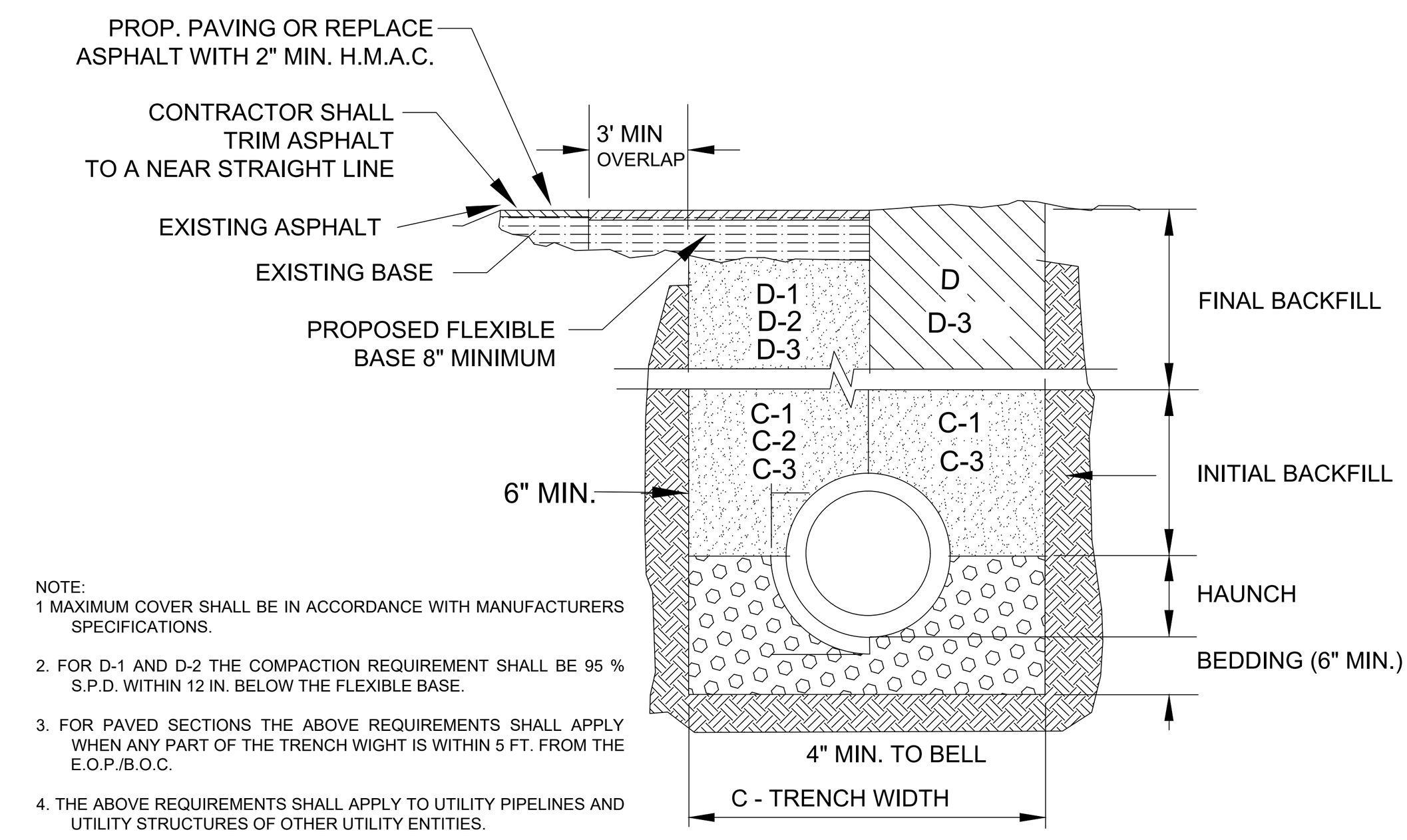
FIRE LANE STRIPING DETAIL

N.T.S.



PARALLEL CURB RAMP BUILT ON SIDEWALK

N.T.S.



NOTE:
1 MAXIMUM COVER SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. FOR D-1 AND D-2 THE COMPACTION REQUIREMENT SHALL BE 95 % S.P.D. WITHIN 12 IN. BELOW THE FLEXIBLE BASE.
3. FOR PAVED SECTIONS THE ABOVE REQUIREMENTS SHALL APPLY WHEN ANY PART OF THE TRENCH WIGHT IS WITHIN 5 FT. FROM THE E.O.P./B.O.C.
4. THE ABOVE REQUIREMENTS SHALL APPLY TO UTILITY PIPELINES AND UTILITY STRUCTURES OF OTHER UTILITY ENTITIES.

STORM TRENCH BEDDING AND BACKFILL DETAILS

N.T.S.

A. BEDDING FOR RCP CLASS III HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SAND AND/OR GRAVEL MIX BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW OF PIPE (MIN. COMPACTED THICKNESS = 6") - PIT RUN GRAVEL ¾" MIX SIZE.

B. HAUNCH FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS 1 OR CLASS II (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

C. TRENCH WIDTH - SHALL BE BELL O.D. X 1.5 + 12". MINIMUM TRENCH WIDTH SHALL EQUAL STRUCTURE WIDTH + 4FT. THROUGHOUT THE HEIGHT OF THE STRUCTURE.

C-1 INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON CITY STREET, PARKING AREAS, DRIVEWAYS, COUNTY ROADS & UNPAVED AREAS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (AASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

C-2 INITIAL BACKFILL FOR RCP CLASS III STORM DRAIN PIPE ON STATE MAINTAINED ROADWAY - COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D., AS PER ASTM D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.

C-3 INITIAL BACKFILL FOR HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE - SHALL BE CLASS I OR CLASS II WITH A MAXIMUM P.I. OF 19 (ASTM D2321) BACKFILL MATERIAL COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

D. FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE UNDER UNPAVED SECTIONS - SHALL BE CLASS I, II, III, OR IV, COMPACTED TO 92% S.P.D., (12" LOOSE LIFTS, MECHANICAL COMPACTION).

D-1 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON CITY STREETS, PARKING AREAS, DRIVEWAYS AND COUNTY ROADS - SHALL BE SOIL TYPE A1, A2, A3 WITH A MAXIMUM P.I. OF 19 (AASHTO M145) COMPACTED TO 92% S.P.D., 8" LOOSE LIFTS, MECHANICAL COMPACTION.

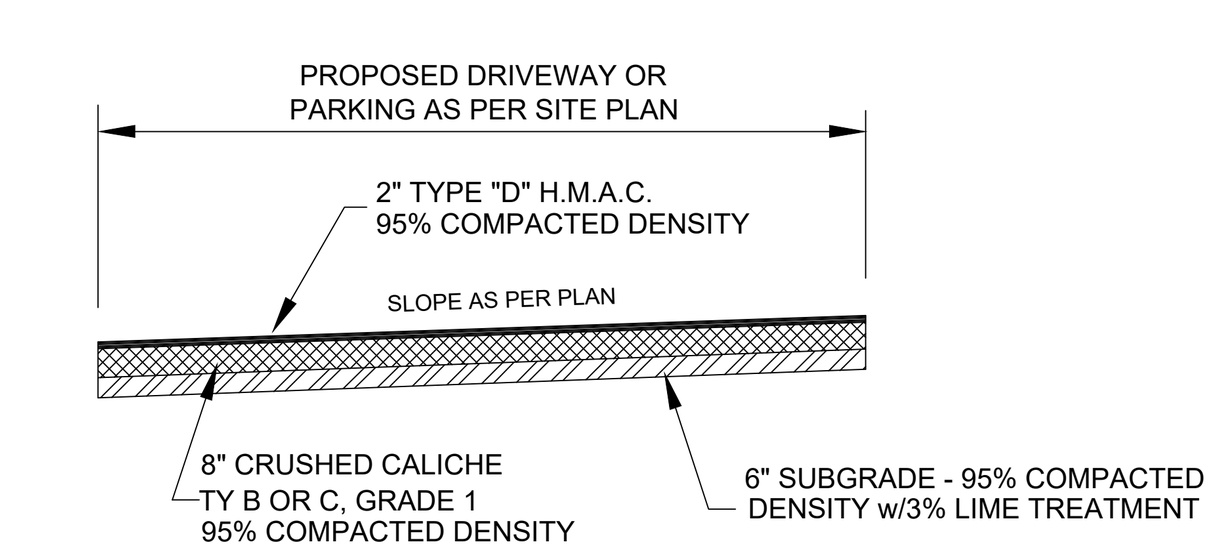
D-2 FINAL BACKFILL FOR RCP CLASS III, HIGH PERFORMANCE POLYPROPYLENE OR CORRUGATED PVC STORM DRAIN PIPE ON STATE MAINTAINED ROADWAY - COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT, COMPACTED TO 92% S.P.D., AS PER ASTM D4253 AND ASTM D698, 8" LOOSE LIFTS, MECHANICAL COMPACTION.

D-3 FINAL BACKFILL OR STRUCTURES (INLETS, MANHOLES, ETC.) - STRUCTURES UNDER THE ROADWAY AND UP TO 5 FT BEYOND THE EDGE OF PAVEMNTT/BACK OF CURB SHALL HAVE CLASS 1 OR CLASS II (ASTM D2321 OR SOIL TYPE 1A, A2, OR A3 (AASHTO M145) WITH A MAXIMUM P.I. OF 19 BACKFILL MATERIAL STRUCTURES BEYOND 5 FT FROM THE E.O.P/B.O.C. SHALL HAVE CLASS I, II, III OR IV (ASTM D2321) BACKFILL MATERIAL. FOUNDATION PREPARATION (WILLPOINTS, MINIMUM 4" GRAVEL OR CEMENTS STABILIZATION, OR APPROVED SUBSTITUTE) SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE. BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, MOISTENED AS REQUIRED TO APPROXIMATE OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% S.P.D (USE RELATIVE DENSITY TEST PER ASTM D4253 & ASTM D698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 8".

FLEXIBLE PAVEMENT NOTES:

1. REFER TO GEOTECH REPORT FOR PREPARATION ACTIVITIES.

2. HMAC SHALL BE APPLIED IN TWO COURSES.
 A.) FIRST COURSE THICKNESS SHALL BE 1" FOR (TY DI-1) & 1 1/2" FOR (TY DI-2) AND PLACED AT TIME OF BASE AND SUBGRADE.
 B.) FINAL 1" COURSE WILL BE PLACED TOWARDS COMPLETION OF PROJECT.



FLEXIBLE PAVEMENT SYSTEM (AUTOMOBILE PARKING AREAS)

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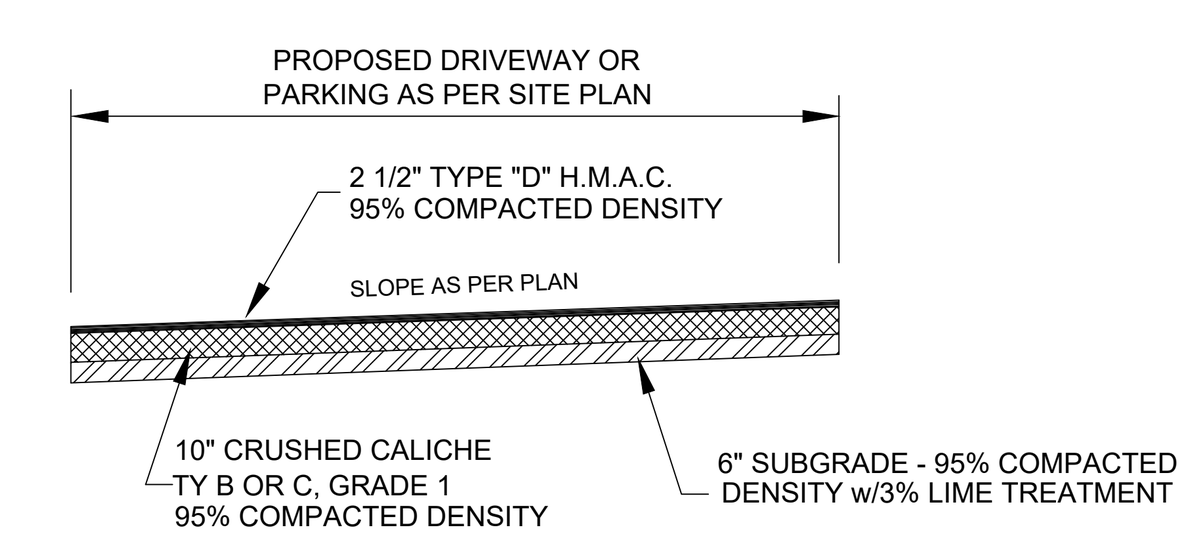

FLEXIBLE PAVEMENT SYSTEM (DRIVEWAYS & BUS LANES)

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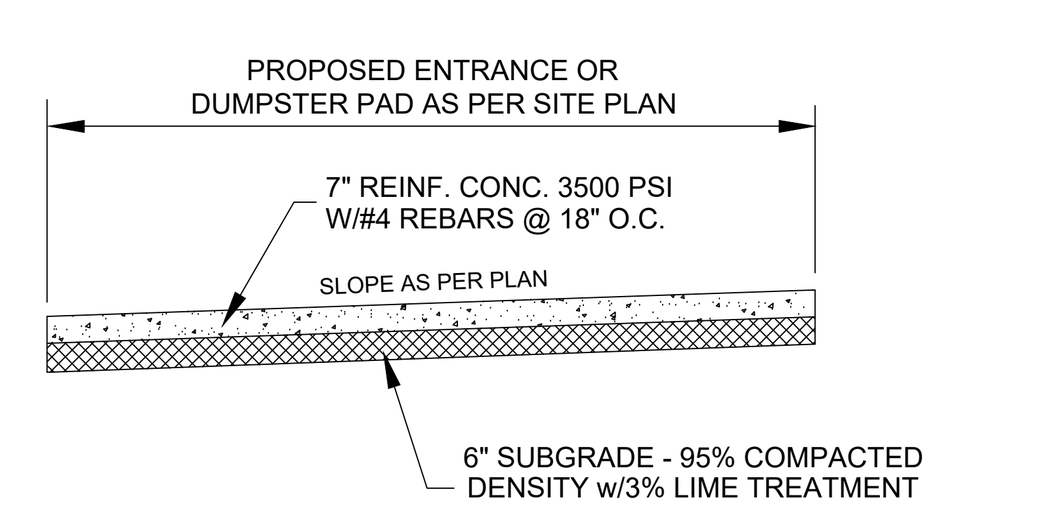

RIGID PAVEMENT SYSTEM (ENTRANCES; DUMPSTER TURNS)

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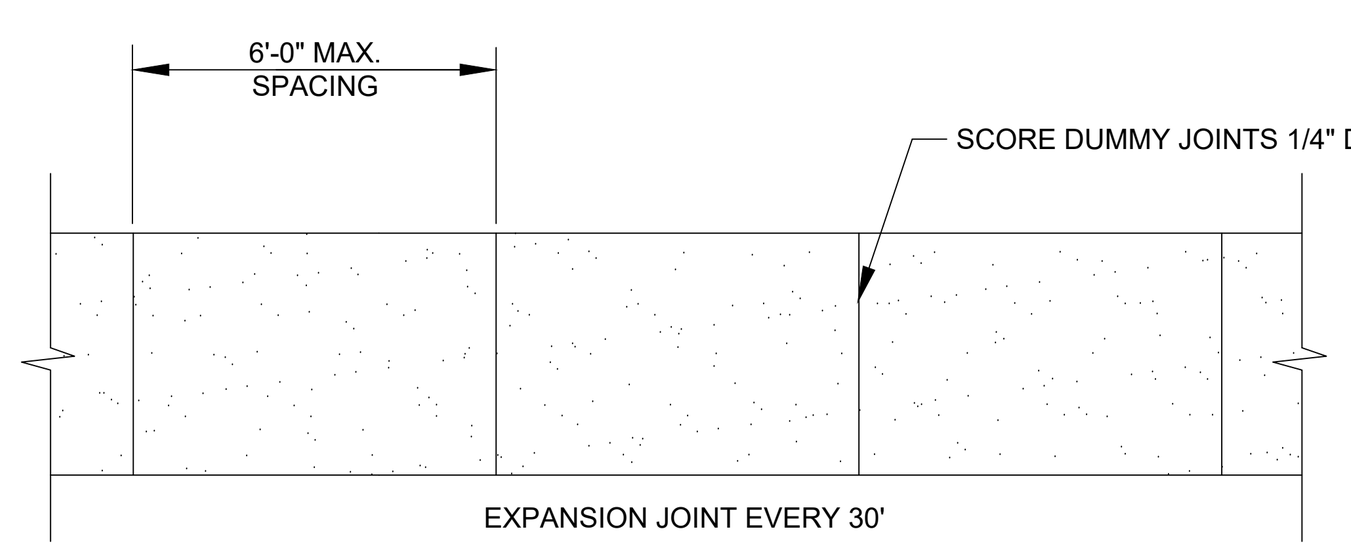
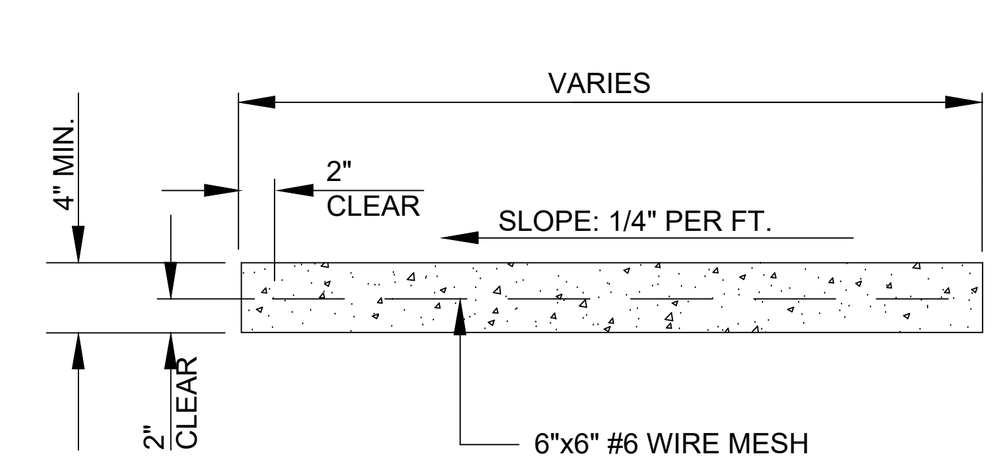


PLAN



SECTION

SIDEWALK NOTES:

MINIMUM 4'-0" WIDE SIDEWALK.

SIDEWALK GRADIENT SHALL NOT EXCEED 1:20.

SIDEWALK CONCRETE SHALL BE 5 SACK CEMENT MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 psi.

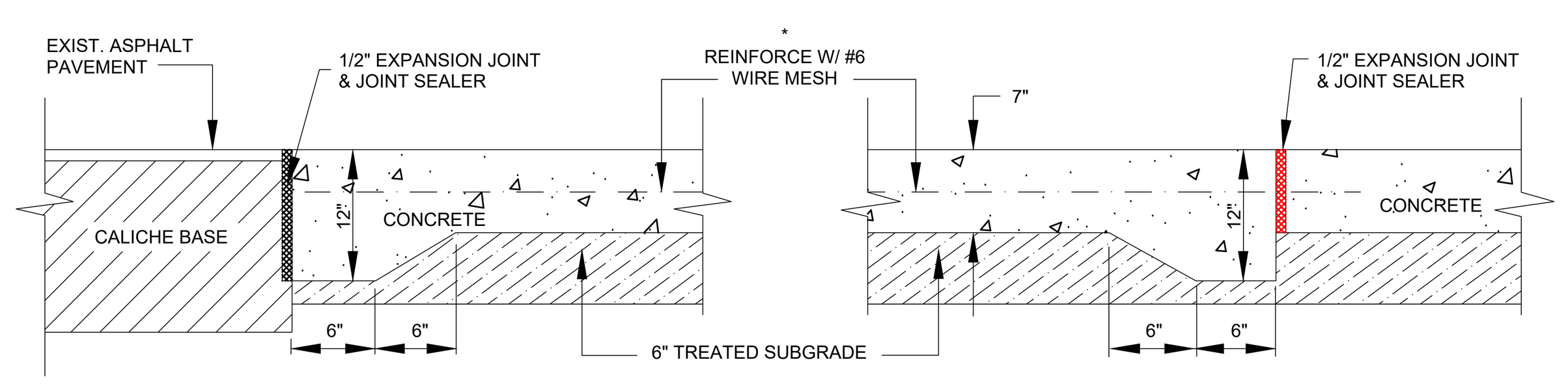
CONTRACTOR SHALL VERIFY EXISTENCE AND LOCATION OF EXISTING UTILITY LINES WITH APPROPRIATE COMPANIES TO AVOID PLACING SIDEWALKS ON TOP OF LINES.

PROVIDE DROP CURBS AT INTERSECTIONS.

CONTRACTOR SHALL COMPLY WITH LATEST REGULATIONS AS SET FORTH IN AMERICANS WITH DISABILITIES ACT (ADA).

SIDEWALK DETAILS

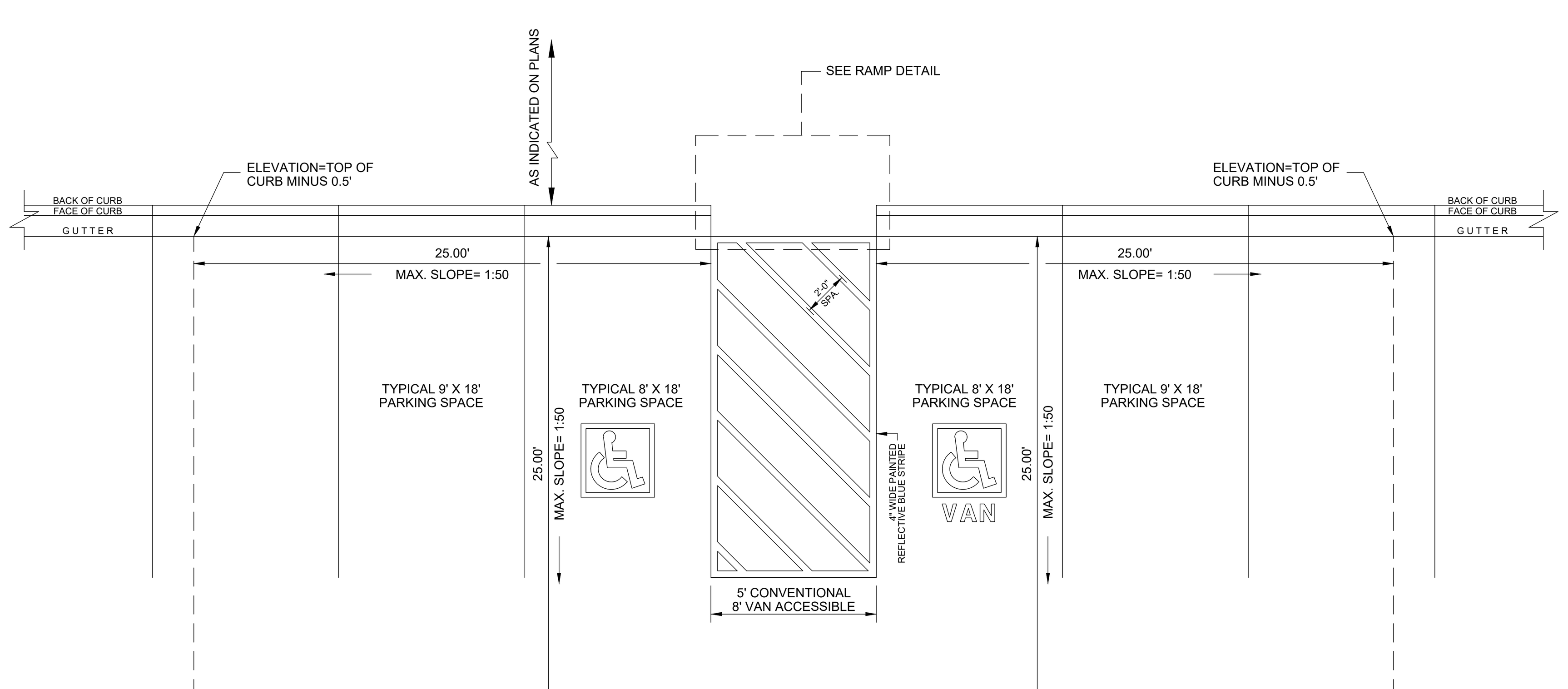
N.T.S.



SECTION

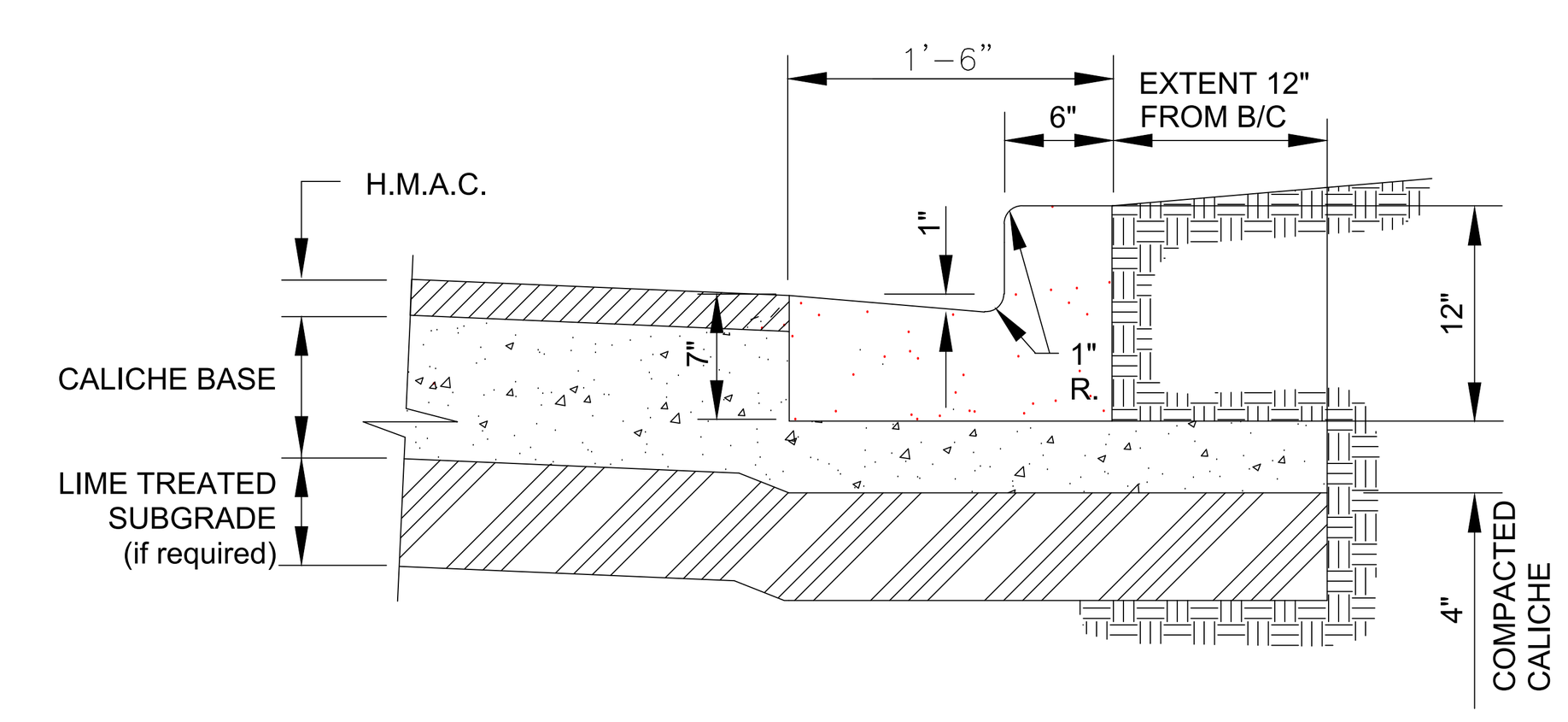
CONCRETE PAVING DETAIL

N.T.S.



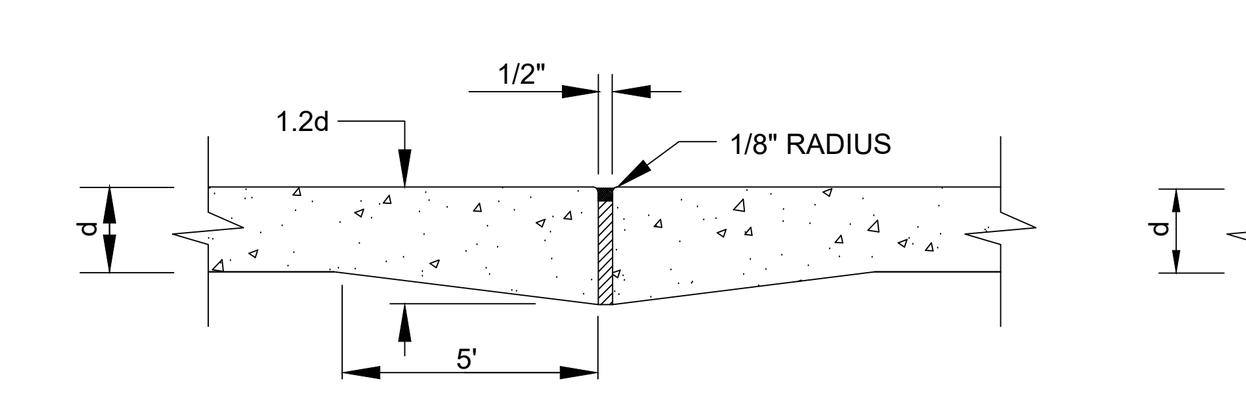
TYPICAL PARKING LOT GRADING FOR HANDICAP AREA

N.T.S.



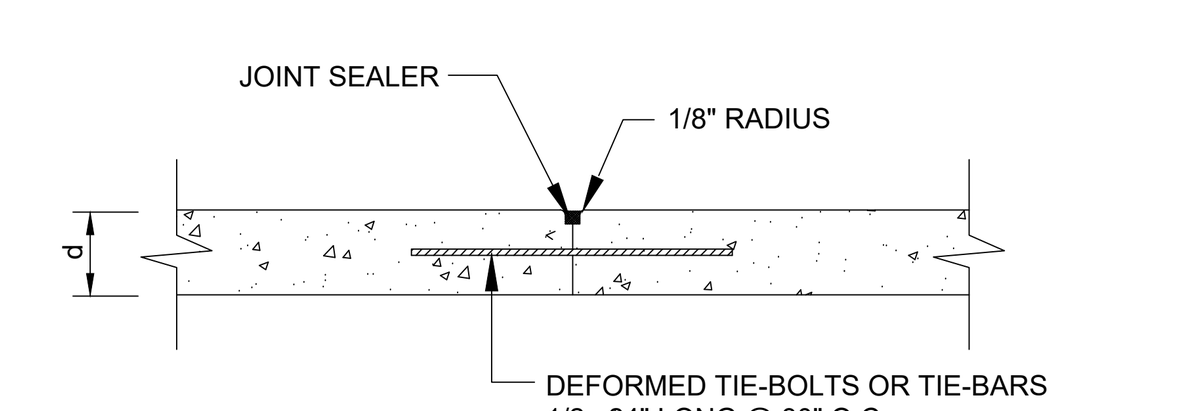
CONCRETE CURB & GUTTER

N.T.S.



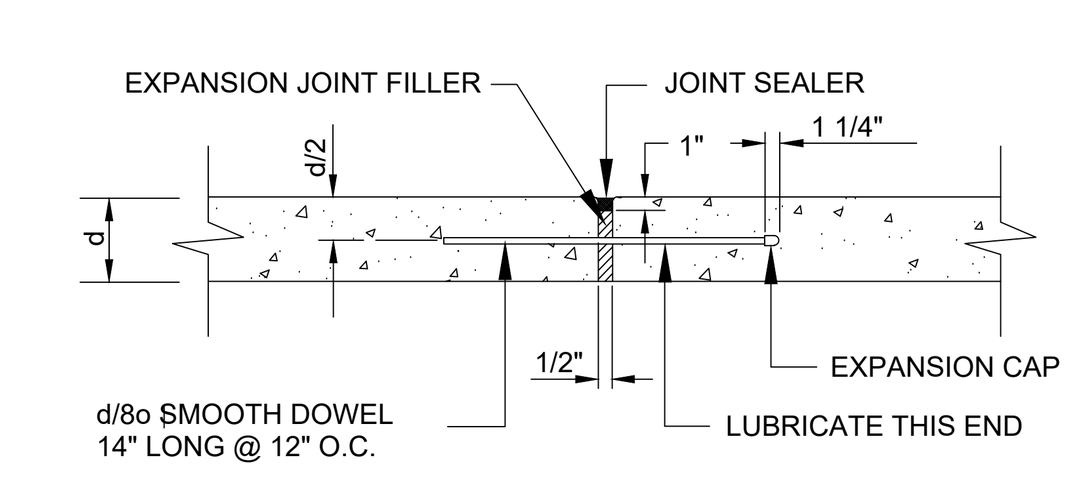
TYPE "A"

EXPANSION JOINT



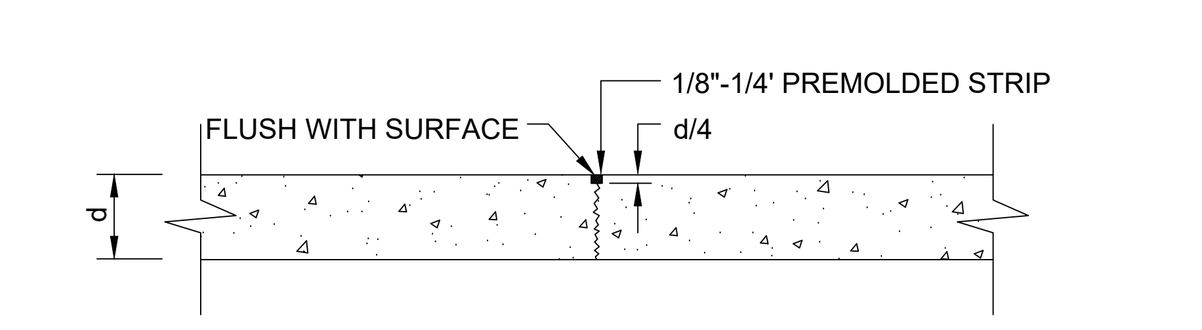
TYPE "C"

TIED BUTT LONGITUDINAL CONSTRUCTION JOINT



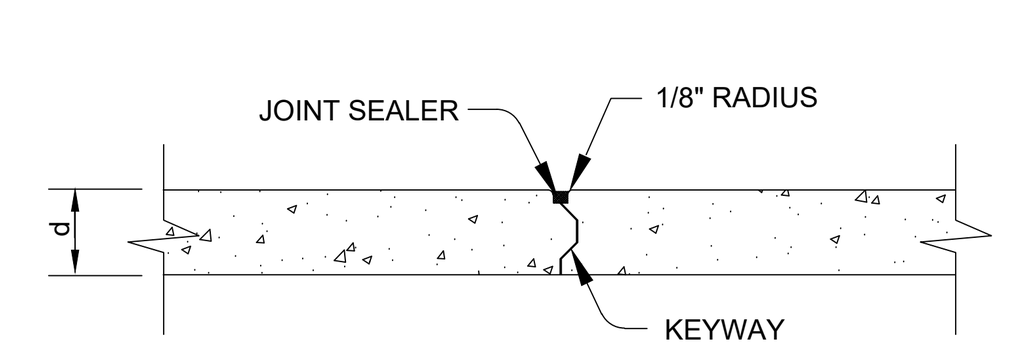
TYPE "A"

ALTERNATE EXPANSION JOINT



TYPE "D"

SAWED OR PREMOLDED STRIP LONGITUDINAL OR TRAVERSE



TYPE "B"

LONGITUDINAL CONSTRUCTION JOINT

CONCRETE JOINT DETAILS

N.T.S.

NOTE:

TYPE "D" JOINTS SHALL BE PERPENDICULAR TO TRAFFIC FLOW.

TYPE "B" & "C" JOINTS SHALL BE PARALLEL TO TRAFFIC FLOW.

JOB No. 18088.00

ADDENDUM #1	06/03/19	S.A.
REVISION	DATE	BY

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PH: (956) 381-0981 - FAX: (956) 381-1839
ESTABLISHED 1947 - www.meldenandhunt.com
TBPE FIRM # F-1435

ENG. TECH: S.A.
PROJECT ENG: K.A.H-V.
T-BOOK: 1059, PG. 46-47
1. RELEASE DATE:
2. RELEASE DATE:
3. RELEASE DATE:
SCALE: AS NOTED

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
KELLEY A. HELLER-VELA
97421
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KELLEY A. HELLER-VELA, P.E. 97421

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PAVING & DRAINAGE DETAILS

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File Name: 18088.00

SHEET 10 OF 10

No.	REVISIONS	BY

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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS

IDEA Public Schools

5/16/2019

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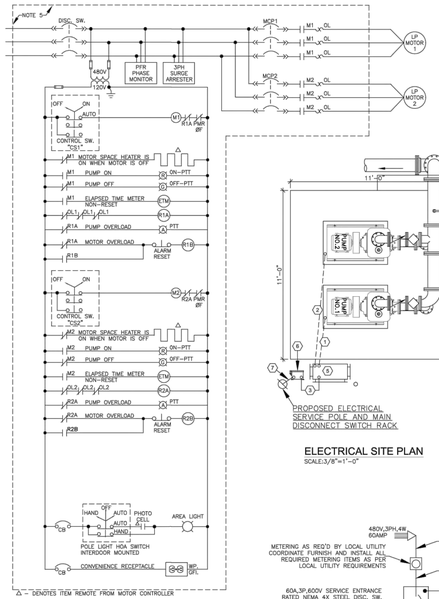
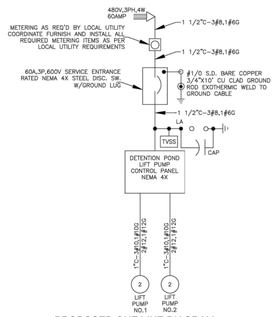
Date: 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: RB, JA
Job No. IDEA 2020 Phase I
Sheet:

Jun 03, 2019 - 6:22pm Y:\Miscellaneous Engineering\Educational Institutions\IDEA Academy\18088 - IDEA Palmview (Schuerbach)\18088.00 - Plat DevReportGen\Autocad Files\DWG\IDEA Palmview PHI_1_.dwg



ELECTRICAL SITE PLAN
SCALE:3/8"=1'-0"



NOTES:
1. STARTER IS FULL VOLTAGE NON-REVERSING
2. NOT USED
3. CONTRACTOR TO INSTALL ALL DEVICES REQ'D BY PUMP AND PANEL MANUFACTURER
4. STAGGER TIME DELAY SETTING SUCH THAT ONLY ONE LIFT STATION PUMP WILL BE IN START SEQUENCE AT ONE TIME
5. PUMP CONTROL PANEL NEMA 4X, ENCL. WITH 3-POINT LATCH, INNER DOORS AND BACK PANEL PAD LOCKING HANDLES SUN SHIELDS OVERSIZED FOR COOLING OF FULL VOLTAGE NON-REVERSING STARTERS CONTRACTOR TO VERIFY WITH EQUIPMENT VENDOR ALL REQUIRED EQUIPMENT, LOCATIONS AND FURNISH ALL WIRING REQUIREMENTS.

CONTROL PANEL SCHEMATIC
SCALE: NTS

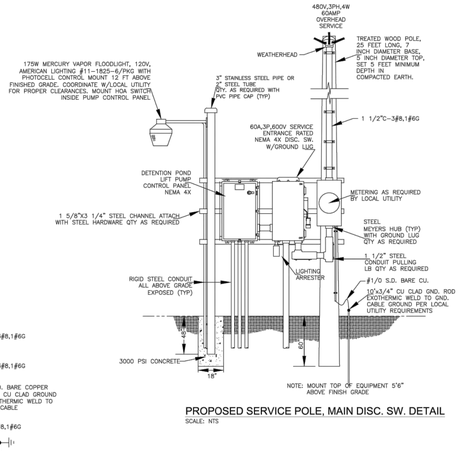
PROPOSED ONE LINE DIAGRAM
SCALE: NTS

CONTRACTOR SHALL COORDINATE WITH ALL EQUIPMENT VENDORS/MANUFACTURERS AND FURNISH AND INSTALL ALL REQUIRED ITEMS FOR A COMPLETE OPERATING SYSTEM, NOT ALL CABLES AND CONDUITS MAY BE SHOWN. COORDINATE LOCATION OF EQUIPMENT WITH ALL VENDORS/MANUFACTURERS ALL TRADES, AND ALL OTHER ELECTRICAL AND MECHANICAL DRAWINGS.

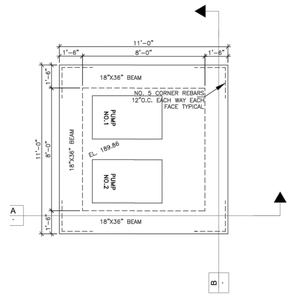
GENERAL NOTES:
1. AREA LIGHT RUN THRU HOA SWITCH WITH PHOTOCELL
2. ALL RECEPTACLES/SWITCHES TO BE WEATHER PROOF, GFI.
3. CONTRACTOR SHALL COORDINATE EXACT REQUIREMENTS OF ALL CONDUIT AND CABLE RUNS WITH THIS DRAWINGS AND ALL OTHER ELECTRICAL, MECHANICAL DRAWINGS, PANEL SCHEDULES AND VENDOR DRAWINGS AND INSTRUCTIONS WITH ALL EQUIPMENT VENDORS/MANUFACTURERS AND FURNISH AND INSTALL ALL REQUIRED ITEMS FOR A COMPLETE OPERATING SYSTEM, NOT ALL CABLES AND CONDUITS MAY BE SHOWN. COORDINATE LOCATION OF EQUIPMENT WITH ALL VENDORS/MANUFACTURERS AND ALL TRADES.

KEYED NOTES:
1. 1"C-3#10,1#10G (FROM DETENTION POND LIFT PUMP CONTROL PANEL TO PUMP 1 MOTOR POWER) 2#12,1#12G (FROM DETENTION POND LIFT PUMP CONTROL PANEL TO PUMP 1 MOTOR SPACE HEATER)
2. 1"C-3#10,1#10G (FROM DETENTION POND LIFT PUMP CONTROL PANEL TO PUMP 2 MOTOR POWER) 2#12,1#12G (FROM DETENTION POND LIFT PUMP CONTROL PANEL TO PUMP 2 MOTOR SPACE HEATER)
3. 1 1/2"C-3#8,1#6G (FROM 60A MAIN DISCONNECT SWITCH TO POWER DETENTION POND PUMP CONTROL PANEL)
4. NOT USED
5. DETENTION POND PUMP CONTROL PANEL NEMA 4X, ENCL. WITH 3-POINT LATCH, INNER DOORS AND BACK PANEL PAD LOCKING HANDLES SUN SHIELDS W/QUICK RELEASE LATCHES OVERSIZED FOR COOLING OF FULL VOLTAGE NON-REVERSING STARTERS CONTRACTOR TO VERIFY WITH EQUIPMENT VENDOR ALL REQUIRED EQUIPMENT, LOCATIONS AND FURNISH ALL WIRING REQUIREMENTS.
6. RACK MOUNTED 60A,3P,600V HEAVY DUTY SINGLE THROW NEMA 4X SERVICE ENTRANCE RATED MAIN DISCONNECT SWITCH. WITH GROUND LUG.
7. 1 1/2"C-3#8,1#6G (FROM POWER POLE TO 60A MAIN DISCONNECT SWITCH)

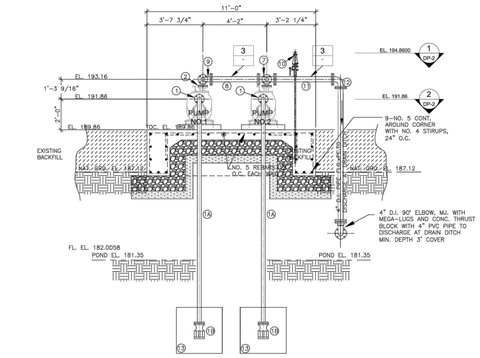
——— CONDUIT RUN UNDERGROUND OR CONCEALED IN WALLS OR SLAB
– – – – – CONDUIT RUN EXPOSED



PROPOSED SERVICE POLE, MAIN DISC. SW. DETAIL
SCALE: NTS

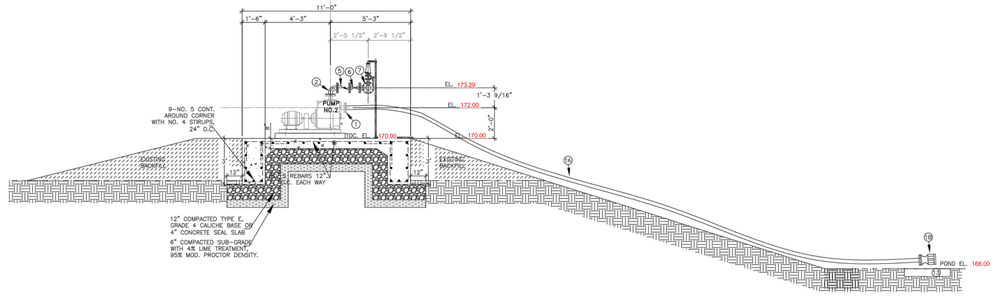


FOUNDATION PLAN-VIEW 1
SCALE: 3/8"=1'-0"



SECTION "B"
SCALE: 3/8"=1'-0"

PIPING LEGEND
1. 3" FLANGE TREADED WITH 3" PIN LOCK HOSE SHANK COUPLINGS NPSH AND STAINLESS STEEL HOSE CLAMPS
2. 40'x3" PVC SUCTION HOSE GREEN, FLEXIBLE, ABRASION-RESISTANT PVC WITH RIGID PVC REINFORCEMENT FOR FULL VACUMM SMOOTH BORE
3. KOCHEK BOTTOM GUARD STRAINER 3" NST STEEL SUCTION STRAINER STOCK#52494 WITH 3" PIN LOCK HOSE SHANK COUPLINGS NPSH AND STAINLESS STEEL HOSE CLAMPS
4. 3" D.I. 90° ELBOW, FLG.xFLG.
5. NOT USED
6. NOT USED
7. 3" D.I. NIBCO SWING CHECK VALVE, FLG.xFLG.
8. 3" D.I. NIBCO GATE VALVE W/HAND ACTUATOR FLG.xFLG.
9. 4"x3" D.I. TEE, FLG.xFLG.
10. 4"x3"-1" DI. PIPE, FLG.xFLG.
11. 4"x3" D.I. 90° ELBOW, FLG.xFLG.
12. AIR AND VACCUUM RELEASE VALVE SEE SPECIFICATIONS. ROUTE 1" GALV. STEEL LINE FOR AIR AND VACCUUM RELEASE VALVE DISCHARGE W/REQ'D STAINLESS STEEL PIPE SUPPORT BRACKETS
13. 4"x3'-9" DI. PIPE, FLGxPE. W/TAP FOR AIR VALVE
14. 4" D.I. 90° ELBOW, FLG.xFLG.
15. 3'x3'x6" DEEP CONCRETE SLAB WITH 4" STAINLESS STEEL PIPE CLAMPS TO HOLD DOWN GUARD STRAINER



SECTION "A"
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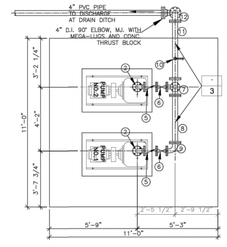
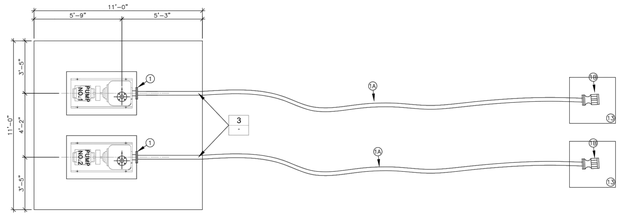
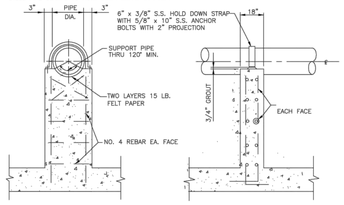


MECHANICAL PLAN-VIEW AT EL. 175.00
SCALE: 3/8"=1'-0"



MECHANICAL PLAN-VIEW AT EL. 173.70
SCALE:3/8"=1'-0"



CONCRETE PIPE SUPPORT DETAIL 3
SCALE: NTS

JOB No.
18088.00

No.	REVISIONS	BY	DATE
1	ADDENDUM #1	S.A.	06/03/19

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TBPE FIRM # 1435

ENG. TECH: S.A.
PROJECT ENG: K.A.H-V.
T-BOOK: 1059, PG. 46-47
1. RELEASE DATE:
2. RELEASE DATE:
3. RELEASE DATE:
SCALE: AS NOTED

MELDEN & HUNT, INC.
TEXAS REGISTRATION F-1435

STATE OF TEXAS
KELLEY A. HELLER-VELA
97421
LICENSED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY KELLEY A. HELLER-VELA, P.E. 97421

5/16/2019

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IDEA PUBLIC SCHOOLS
PALMVIEW
PALMVIEW, TEXAS
IDEA Public Schools

LIFT STATION DETAILS

5/16/2019

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Architects-Planners
Interior Designers

Date: 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: RB, JA
Job No. IDEA 2020 Phase I
Sheet:

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File Name: 18088.00

SHEET 10A OF 10

MATCHLINE
REF. 1/S3.1

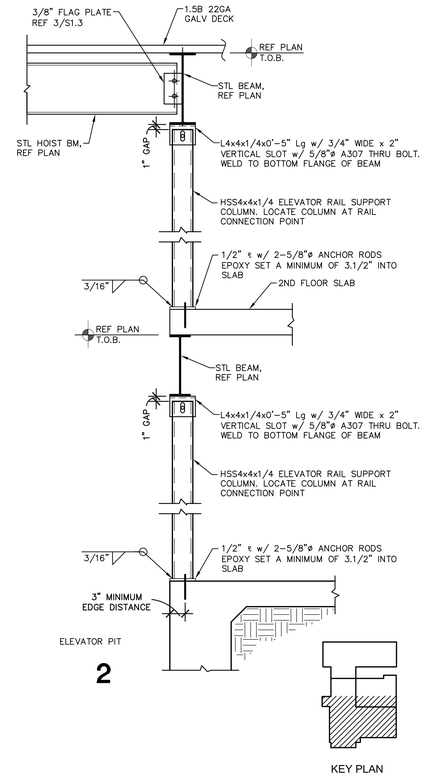
MATCHLINE
REF. 1/S3.1

1 SECOND FLOOR FRAMING PLAN
1/8" = 1'-0"

N
PLAN NORTH

NOTES:

1. 2ND FLOOR DECK SHALL BE 0.6C 28GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.012 IN⁴/FT; Sp=0.035 IN³/FT; SN=0.036 IN³/FT; Fy=60KSI). ATTACH DECK TO SUPPORTERS USING 5/8" PUDDLE WELDS ON 30/4 PATTERN, AND 3-#10 TEK SCREW SIDE LAP FASTENERS WELD WASHERS REQUIRED.
2. ROOF DECK AT DINNING SHALL BE 3NA 20GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.848 IN⁴/FT; In=1.079 IN⁴/FT; SP=0.501 IN³/FT; Sn=0.552 IN³/FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 24/4 PATTERN AND 11-#10 TEK SCREW SIDE LAP FASTENERS. DECK FINISH SHALL BE G60 AND WHITE PRIMED ON BOTTOM SIDE.
3. ROOF DECK AT MAIN ENTRY SHALL BE 1.5B 22GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.155 IN⁴/FT; In= 0.183 IN⁴/FT; Sp=0.186 IN³/FT; Sn=0.192 IN³/FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 36/7 PATTERN AND 2-#-10 TEK SCREW SIDE EAP FASTENERS.
4. TOP OF BEAM SHALL BE 13'-7" UNLESS NOTED OTHERWISE.
5. ALL STEEL BEAM TO COLUMN CONNECTIONS AT SECOND FLOOR SHALL BE THRU PLATE CONNECTIONS, REFERENCE DETAIL 1/S1.3.
6. REFERENCE SHEETS S3.5-S3.7 FOR BRACE AND FRAME PROFILES.
7. FLOOR PENETRATIONS THROUGH SECOND FLOOR ARE BASED ON M.E.P. & ARCHITECTURAL DRAWINGS. CONTRACTOR SHOULD CONTACT ENGINEER IF THERE IS A CONFLICT BETWEEN FLOOR PENETRATIONS & FRAMING.
8. ALL COLUMNS SHALL BE HSS6x6x1/4 UNLESS NOTED OTHERWISE.
9. REFERENCE 9/S1.2 FOR TYPICAL LOUVER OPENING DETAIL AT 1st FLOOR. COORDINATE LOCATIONS WITH M.E.P. AND ARCHITECTURAL.
10. EXTERIOR METAL STUDS ARE SPACED AT 16" o/c MAXIMUM AND ADDITIONALLY AS REQUIRED AT EDGE OF EXTERIOR SHEATHING UNLESS NOTED OTHERWISE.
11. REFERENCE 1/S1.2 FOR TYPICAL STUD FRAMING AT EXTERIOR OUTSIDE BUILDING CORNER AND 2/S1.2 FOR TYPICAL STUD FRAMING AT EXTERIOR INSIDE BUILDING CORNER.
12. PROVIDE AN HSS4x4x1/4 COLUMN FOR SUPPORT OF ELEVATOR RAIL. COORDINATE LOCATION w/ ELEVATOR MANUFACTURER. REFERENCE DETAIL 2/S3.2.
13. SPECIAL JOIST SHALL BE DESIGNED TO THE FOLLOWING CRITERIA.
    A. SPECIAL JOIST SHALL BE LIMITED TO DEFLECTION LIMIT OF L/240 FOR TOTAL LOAD AND L/360 FOR LIVE LOAD.
    B. WDL=200 PLF; WLL=200 PLF AND CONCENTRATED LOADS SHOWN ON PLAN. INDICATE DEAD LOAD AND LIVE LOAD ON STEEL JOIST RESPECTIVELY.
    C. SPECIAL JOIST SHALL BE DESIGNED FOR A NET UPLIFT OF 25 PSF.
14. REFERENCE 12/S3.7 FOR 44LHSP1 SPECIAL JOIST PROFILE.
15. ▶ MC DENOTES MOMENT CONNECTION REFERENCE DETAILS 9/S3.7 & 13/S3.7.



2

KEY PLAN

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No.	REVISIONS	BY
1	6-03-19	

IDEA PUBLIC SCHOOLS PHASE 1
IDEA Public Schools
PALMVIEW, PALMVIEW, TEXAS

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Interior Designers

Date:	May 16, 2019
Scale:	As Noted
DRAWN BY	IG, JJ
CHECKED BY:	BD, JS
Job No.	192-520
Sheet:	S3.2-R1

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FIRM REGISTRATION # F-4145

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1 ROOF FRAMING PLAN

1/8" = 1'-0"

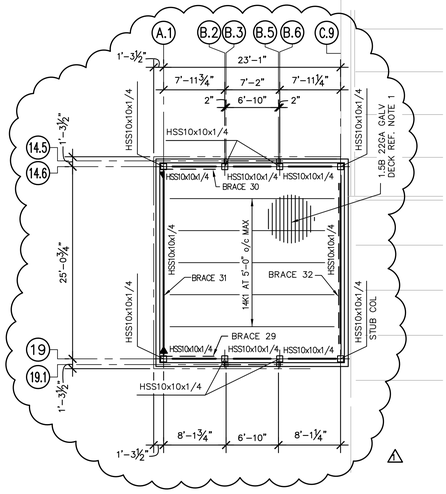
N

PLAN NORTH

NOTES:

1. ROOF DECK SHALL BE 1.5B 22GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.155 IN⁴/FT; In=0.183 IN⁴/FT; SP=0.186 IN⁴/FT; Sn=0.192 IN⁴/FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 36/5 PATTERN AND 7–#10 TEK SCREW SIDE LAP FASTENERS.
2. ROOF DECK AT GYMNASIUM SHALL BE 3NA 20GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.848 IN⁴/FT;In=1.079 IN⁴/FT; SP=0.501 IN⁴/FT; Sn=0.552 IN⁴/FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 24/4 PATTERN AND 11–#10 TEK SIDE LAP FASTENERS. DECK FINISH SHALL BE G60 AND WHITE PRIMED ON BOTTOM SIDE.
3. ALL COLUMNS SHALL BE HSS6x6x1/4 UNLESS NOTED OTHERWISE.
4. TOP OF BEAMS SHALL BE 28'–0" UNLESS NOTED OTHERWISE.
5. REFERENCE SHEETS S3.5–S3.7 FOR BRACE AND FRAME PROFILES.
6. REFERENCE 5/S1.3 FOR ROOF HATCH & RTU FRAME DETAILS.
7. REFERENCE 9/S1.2 FOR TYPICAL LOUVER OPENING DETAIL AT 2nd FLOOR. COORDINATE LOCATIONS WITH MEP AND ARCHITECTURAL.
8. EXTERIOR METAL STUDS ARE SPACED AT 16" o/c MAXIMUM AND ADDITIONALLY AS REQUIRED AT EDGE OF EXTERIOR SHEATHING UNLESS NOTED OTHERWISE.
9. REFERENCE 1/S1.2 FOR TYPICAL STUD FRAMING AT EXTERIOR OUTSIDE BUILDING CORNER AND 2/S1.2 FOR TYPICAL STUD FRAMING AT EXTERIOR INSIDE BUILDING CORNER.
10. REFERENCE 8/S1.3 FOR TYPICAL CONDENSER SUPPORT FRAME PLAN AND 9/S1.3 FOR TYPICAL CONDENSER SUPPORT FRAMING DETAIL.
11. WALL SHEATHING SHALL BE 5/8" THK APA RATED EXPOSURE 1, SPAN RATED 24/16 AT LOCATIONS WITH METAL WALL PANELS OR SIGNAGE.
12. PROVIDE AN HSS4x4x1/4 COLUMN FOR SUPPORT OF ELEVATOR RAIL. COORDINATE LOCATION w/ ELEVATOR MANUFACTURER. REFERENCE DETAIL 2/S3.2.
13. SPECIAL JOIST SHALL BE DESIGNED TO THE FOLLOWING CRITERIA:
    A. SPECIAL JOIST SHALL BE LIMITED TO DEFLECTION LIMIT OF L/240 FOR TOTAL LOAD AND L/360 FOR LIVE LOAD.
    B. WDL= 200 PLF; WLL= 200 PLF AND CONCENTRATED LOADS SHOWN ON PLAN. INDICATE DEAD LOAD AND LIVE LOAD ON STEEL JOIST RESPECTIVELY.
    C. SPECIAL JOIST SHALL BE DESIGNED FOR A NET UPLIFT OF 25 PSF.
14. ▶ MC DENOTES MOMENT CONNECTION. REFERENCE DETAILS 9/S3.7 & 13/S3.7

WALL SHEATHING NAILING SCHEDULE AT LOCATIONS WITH METAL WALL PANELS OR SIGNAGE
FASTEN TO METAL STUDS WITH #10–16x1.1/4" LG SELF TAPPING FLAT HEAD SCREWS AT 6" o/c ALONG EDGE OF SHEET AND 12" o/c AT INTERIOR SUPPORTS



2 HIGH TOWER FRAMING PLAN

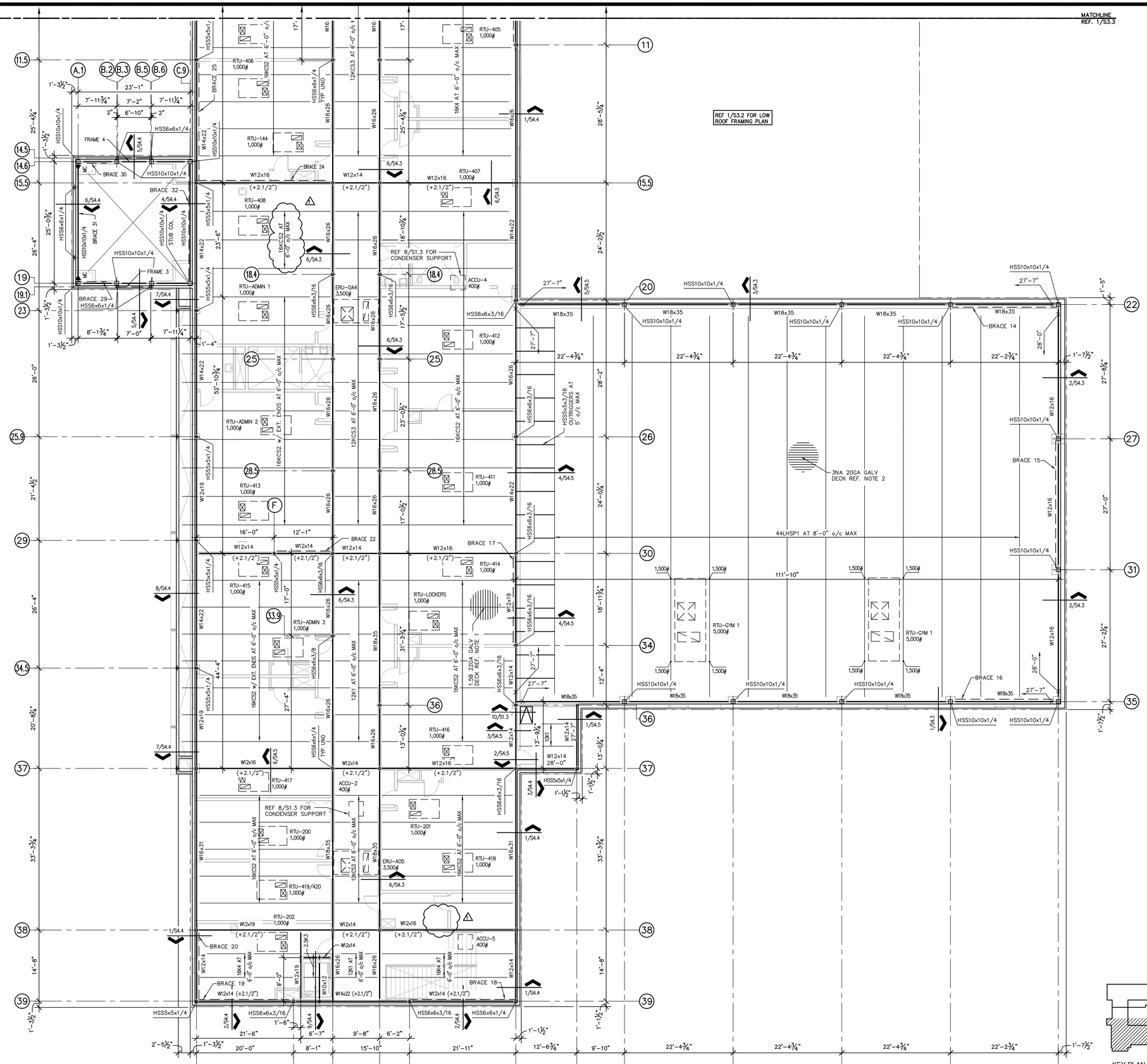
1/8" = 1'–0"

N

PLAN NORTH

NOTES:

1. ROOF DECK SHALL BE 1.5B 22GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (Ip=0.155 IN⁴/FT; In=0.183 IN⁴/FT; SP=0.186 IN⁴/FT; Sn=0.192 IN⁴/FT; Fy=33KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON A 36/5 PATTERN AND 2–#10 TEK SCREW SIDE LAP FASTENERS.
2. ▶ MC DENOTES MOMENT CONNECTION REFERENCE DETAILS 9/S3.7 & 13/S3.7.



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No.	REVISIONS	BY
1	6–03–19	

IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW

PALMVIEW, TEXAS

STATE OF TEXAS — RICARDO R. RUBIANO — 86369 — LICENSED — 6.3.19

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Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
DRAWN BY	IG, JJ
CHECKED BY:	BD, JS
Job No.	192-520
Sheet:	S3.4-R1

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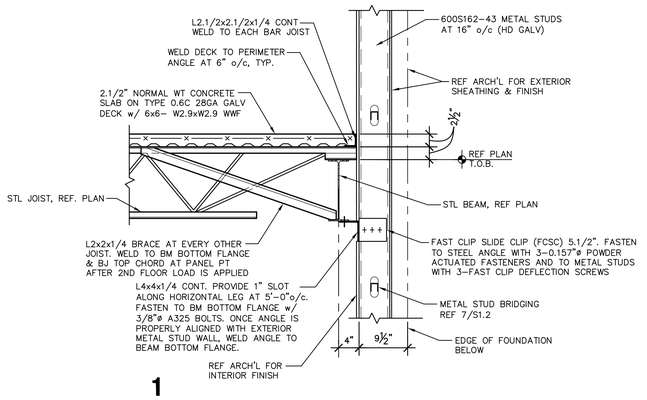

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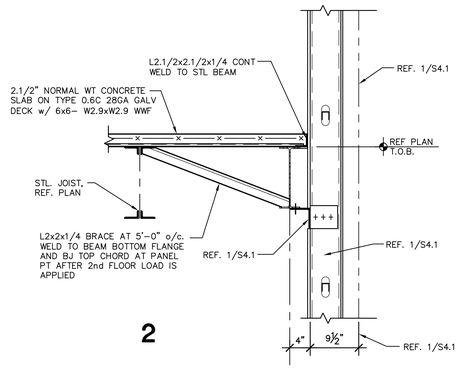

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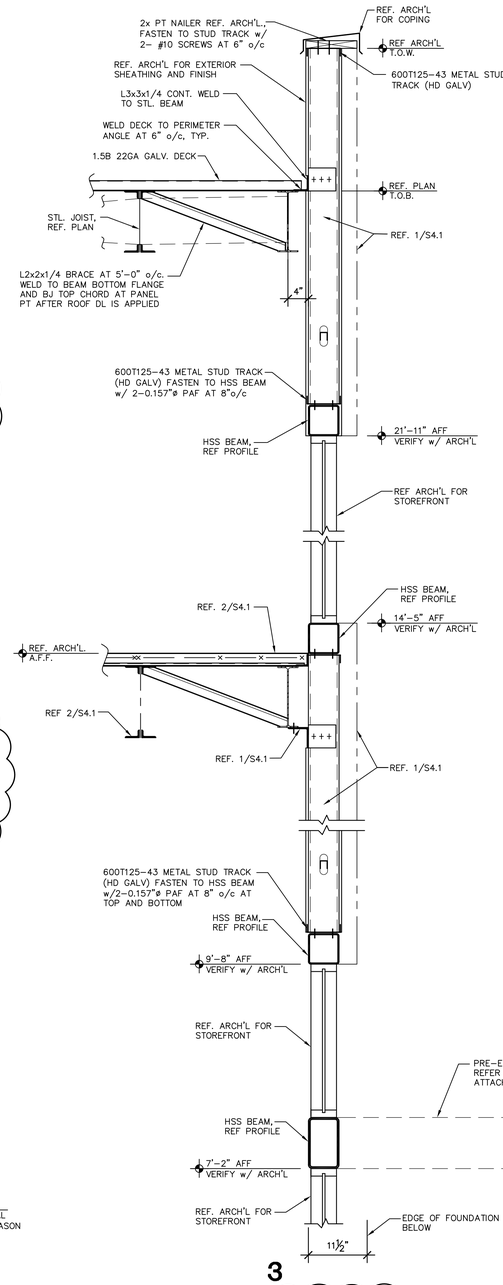

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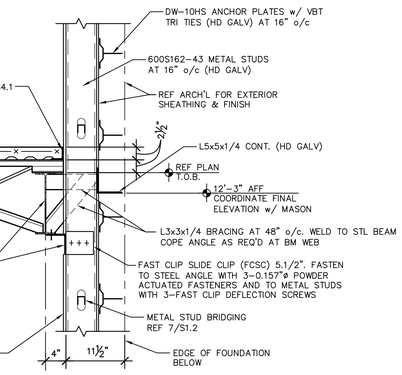

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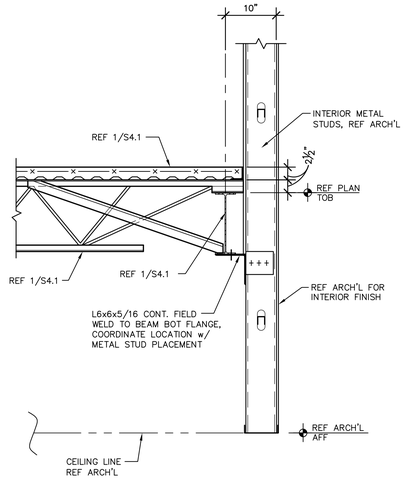

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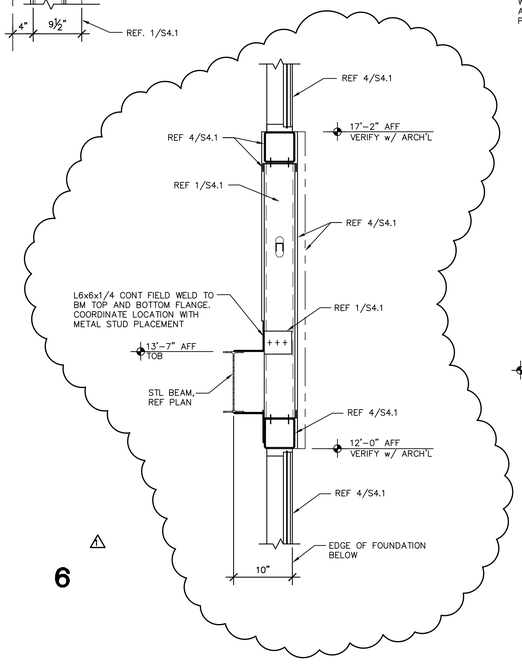

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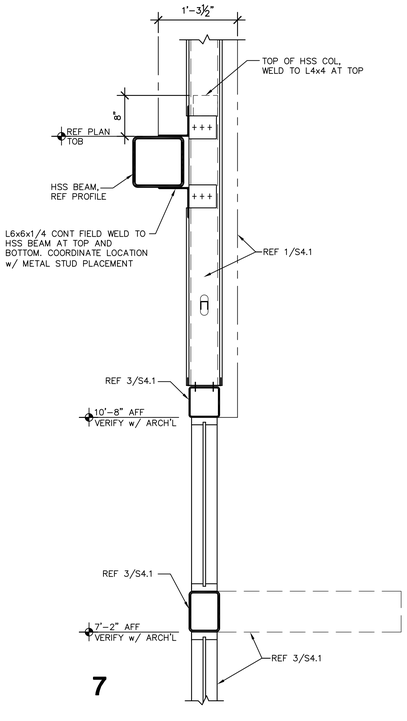

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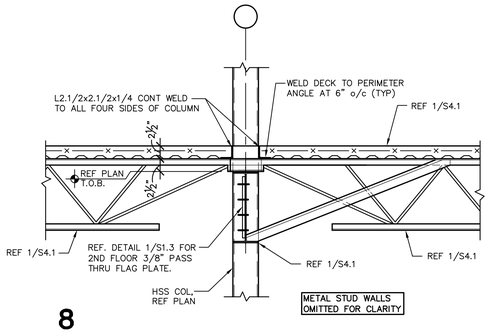

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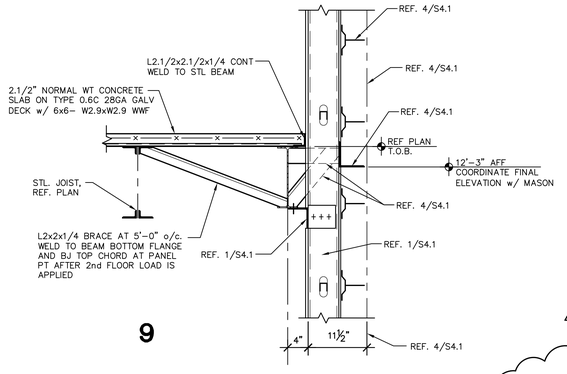

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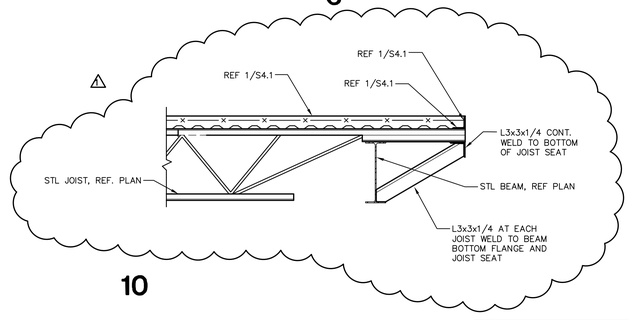

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW, TEXAS

STATE OF TEXAS
ROLANDO R. RUBIANO
86369
REGISTERED
PROFESSIONAL
ENGINEER
6-3-19

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Date:	May 16, 2019
Scale:	As Noted
DRAWN BY	KG, JJ
CHECKED BY:	BD, JS
Job No.	192-520
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June 3, 2019
IDEA Public Schools Phase I Palmview

ADDENDUM NO. 1

A. PURPOSE AND INTENT

This addendum is issued for the purpose of modifying the plans and specifications for the project referenced above.
This addendum shall become part of the contract and all contractors shall be bound by its content.
All aspects of the specifications and drawings not covered herein shall remain the same.
The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this addendum.

B. SCOPE

I. Specifications:

1) Section 220519 – Meters and Gauges for Plumbing Piping
   a) Item 2.1.A.3: Replace 9-inch size, with 7-inch nominal size.

2) Section 230900 – Instrumentation and Controls:
   a) Item 2.16 DDC Controllers:
      i) It is not acceptable to name a controller using simply names and numbers that do not identify the school.
      ii) Each controller must be given a name such that the campus / school being served is clearly and unambiguously evident in the name. For example, for Harlingen campus, use letters such as 'HRL' in the name of the controller so that it is clearly associated with Harlingen.
   b) Item 3.7.B DDC Checkout: Replace with the following:
      i) Sensor Check and Calibration: Testing, adjusting, and balancing (TAB) firm will calibrate all sensors and provide report of findings. All sensors not accurate within range specified and submitted are to be replaced. Add an offset to those sensors which are inaccurate, but are within specified and submitted range, so that they read accurately.

3) Section 230993 – Sequence of Operation:
   a) Item 1.10: RTUs without DOAS
      i) Modify E.1 as follows: System cycles compressor stages to maintain space or return air (for Admin Units) air temperature setpoint.
      ii) Modify E.2 as follows: Should space or return air (for Admin units) RH as measured by system surpass setpoint of 55% RH, activate dehumidification mode.
      iii) Item 1.10.F: Delete item F.2.
      iv) Item 1.10.I: Modify item I.2 as follows: RTUs serve thermostatic diffusers. Bypass "Pressure Relief Damper" (ultra-low leakage type) shall be normally closed, and will modulate only to relieve high duct static pressure (setpoint 1.25").
      v) Item 1.10.J:
         (1) Replace Item #15 with the following: Effective Occupied Cooling Stpt, Effective Unoccupied Cooling Stpt, Effective Occupied Heating Stpt, Effective Unoccupied Heating Stpt.
         (2) Replace Item #23 with the following: Bi-polar Ionization On/Off status; Alarm status.
         (3) Remove Item #25: "Additional graphics…."
         (4) Replace Item # 27 with the following: Duct high static pressure relief setpoint and indication (Admin).
   b) Item 1.11:RTUs with DOAS
      i) Replace Item H.4 with: When DOAS is enabled, OA dampers serving RTUs shall have a minimum open position of 10% (adj.). Coordinate minimum position with DOAS manufacturer, and with TAB to document CFM.
      ii) Item I # 10: Delete.
   c) Item 1.12: DOAS
      i) Coordinate identification of equipment tags with schedules for consistency.
      ii) Item F:
         (1) Add # 26: Main Cooling Coil saturated suction temperature setpoint
         (2) Add # 27: Main Cooling Coil saturated suction temperature
         (3) Add # 28: Alarm status and description / code (codes and descriptions may be placed on a separate dedicated BAS graphic page).
   d) Item 1.13: FCUs: Replace Item D with the following:
      i) System graphic.
      ii) Unit commanded state.
      iii) Fan status (on/off)
      iv) Compressor Status (on/off)
      v) Space Temperature.
      vi) Space Temperature Cooling setpoint.
      vii) Discharge Air Temperature.
   e) Item 1.14: Exhaust Fans
      i) Replace item D#3w with: Fan on-off command or Off/Enable command, as applicable.
   f) Item 1.15: Electric Meter Monitoring

i) Replace “Applies to Main Distribution Panels for facility” with “Applies to main switchboard MSB and distribution panel MK.”.
ii) Replace Item A with: BACnet compatible meters will be provided by Electrical contractor as part of switchboard or panel. Confirm with Electrical contractor prior to their ordering of equipment for verification of communications protocol. Coordinate with Electrical for points names, addresses, and installation assistance.
iii) Replace items D, E, F with the following:
D. Operator Station Display and Points List: Indicate the following on operator workstation display terminal:
1. kWh:
    a. Cumulative kWh for current day.
    b. Cumulative kWh for month.
    c. Cumulative kWh, year to date.
2. Demand kW, kVA.
    a. Present value.
    b. Peak value in current month.
    c. Peak value, year to date.
3. Demand KVAR.
    a. Present value.
4. Voltage
    a. Line A-B.
    b. Line B-C.
    c. Line C-A.
5. Current
    a. Amps, average.
    b. Amps, leg A.
    c. Amps, leg B.
    d. Amps, leg C.
    e. Amps, neutral.
6. Power Factor

E. Trend and store the following measured and calculated parameters on a 15-minute basis, for minimum 4 days period:
1. Demand kW.
2. Demand KVA.
3. Amps, each leg and neutral.
4. Power Factor.

g) 1.16: Other Sequences: Add the following items:
i) F: Monitor Alarm status of elevator sump pump control panel. Coordinate with Plumbing Contractor.
ii) G: Provide controls and graphics for Domestic Water Heaters.
(1) Provide time schedules and optimal start/stop function and status for water heaters and related recirculation pumps, and heat trace, if applicable.

4) Sections 237413, 237413.2 & 237433 – All DX RTUs:

   a) Under Alternate #7: provide a voluntary VE credit using acceptable Direct Expansion Rooftop Packaged Units (including DOAS) when these do not completely meet performance, efficiency and/or construction requirements shown in the schedules and specifications. Contractor shall provide a compliance statement clearly documenting all exceptions taken. The alternate bid will be evaluated later.

5) Section 237413.2 – Packaged, Outdoor, Central-Station Large AHUs:

   a) Item 2.1A: Add Greenheck to list of acceptable manufacturers.

   b) Add item 2.1B: Acceptable manufacturers that do not completely meet performance, efficiency, or construction requirements shown in schedules and specifications may provide a 'Voluntary Alternate VE credit', and a compliance statement, clearly documenting exceptions taken. The credit and exceptions will be evaluated later.

5) Section 262413 – Switchboards:
   a) Add Installation 2.3/C as follows: Verify accuracy of all digital meter readings. Cooperate fully with controls contractor to provide all necessary information and assistance to allow control system to read all data from meter.

6) Section 260923 – Lighting Control Devices:
   a) Add Manufacturers 2.01/B: nLight is an acceptable manufacturer. It shall meet or exceed the specified.

7) Section 267210 – Fire Alarm:
   a) Clarification Manufacturers 2.1.1.1/A: No substitutions.

8) Section 267230 – School Intercom and Program Equipment:
   a) Revise Summary 1.2/C as follows: Provide speakers and call-in switches in classrooms and offices. Hallways and building exterior walls with speakers to transmit general announcements.

9) Section 267240 – Access Control:
   a) Clarification Manufacturers 2.1/A: No substitutions.

10) Section 267260 – Gymnasium Sound System:
   a) Clarification Manufacturers 2.01/A: No substitutions.

11) Section 267265 – Cafetorium Reinforcement System:

a) Clarification Manufacturers 2.01/A: No substitutions.

12) Section 268050 – Hand Dryers:
    a) Revise Manufacturers 2.1 as follows:
        a. Bobrick B-750
        b. World Dryer A-Series XRA5-Q974.
        c. Dyson Airblade V

13) Section 269750 – Voice Data Communication Cabling Equipment:
    a) Clarification: This work to be provided as part of Alternate Bid #6. Rough-ins to remain in base bid.

II. Drawings:

1) Sheet MEP1.01:
    a) Revised MEP Site Plan. See attached sheet.

2) Sheet MEP2.01 Site Plan. See attached sheet.

3) Sheet M3.01:
    a) Revised 1st Floor Mechanical Plan. See attached sheet.

4) Sheet M3.02:
    a) Revised 1st Floor Mechanical Plan. See attached sheet.

5) Sheet M3.03:
    a) Revised 2nd Floor Mechanical Plan. See attached sheet.

6) Sheet M3.04:
    a) Revised 2nd Floor Mechanical Plan. See attached sheet.

7) Sheet M4.01:
    a) Revised Mechanical Roof Plan. See attached sheet.

8) Sheet M4.02:
    a) Revised Mechanical Roof Plan. See attached sheet.

9) Sheet M6.01:
    a) Revised Mechanical Schedules. See attached sheet.

10) Sheet M7.01:

a) Revised Mechanical Details. See attached sheet.

11) Sheet E2.01:
   a) Revised Symbol Legends. See attached sheet.

12) Sheet E3.01:
   a) Revised 1st Floor Lighting Plan. See attached sheet.
   b) Keyed Note #1: If Lutron controls are used connect to nearest ESN panel for time schedule control.

13) Sheet E3.02:
   a) Revised 1st Floor Lighting Plan. See attached sheet.
   b) Keyed Note #6: If Lutron controls are used connect to nearest ESN panel for time schedule control.

14) Sheet E3.03:
   a) Revised 2nd Floor Lighting Plan. See attached sheet.
   b) Keyed Note #1: If Lutron controls are used connect to nearest ESN panel for time schedule control.

15) Sheet E3.04:
   a) Revised 2nd Floor Electrical Plan. See attached sheet.
   b) Keyed Note #5: If Lutron controls are used connect to nearest ESN panel for time schedule control.

16) Sheet E3.05:
   a) Revised Canopy Lighting Plan. See attached sheet.

17) Sheet E4.01:
   a) Revised 1st Floor Electrical Plan. See attached sheet.

18) Sheet E4.02:
   a) Revised 1st Floor Electrical Plan. See attached sheet.

19) Sheet E4.03:
   a) Revised 2nd Floor Electrical Plan. See attached sheet.

20) Sheet E4.04:
   a) Revised 2nd Floor Electrical Plan. See attached sheet.

21) Sheet E4.05:
   a) Revised Enlarged Kitchen Electrical Plan. See attached sheet.

22) Sheet E5.01:
    a) Revised Roof Electrical Plan. See attached sheet.

23) Sheet E5.02:
    a) Revised Rood Electrical Plan. See attached sheet.

24) Sheet E6.01:
    a) Revised Schedules. See attached sheet.

25) Sheet E7.01:
    a) Revised Electrical Riser Diagram and Feeder Schedules. See attached sheet.

26) Sheet E8.01:
    a) Revised Electrical Panels. See attached sheet.

27) Sheet E8.02:
    a) Revised Electrical Panels. See attached sheet.

28) Sheet E8.03:
    a) Revised Electrical Panels. See attached sheet.

29) Sheet E8.04:
    a) Revised Electrical Panels. See attached sheet.

30) Sheet E8.05:
    a) Revised relay panel schedules. See attached sheet.
    b) Lighting Management System:
        i) If Lutron controls are used provide a 120V, 6-pole, mechanically held lighting contactor in NEMA 1 enclosure in lieu of for each “RPA” and RPB”. Connect each contactor to nearest ESN panel for time schedule control.
        ii) If Lutron controls are used provide a Lutron QSWS2-2BI-WH in lieu of Acuity digital switch. Connect each to Lutron QS link.

31) Sheet E9.01:
    a) Deleted Electrical Detail. See attached sheet.
    b) Clarification Multi Media Outlet Detail #5: Keyed Note #4 Rapid Run and data cabling to be provided under alternate bid #6.
    c) Clarification Typical Classroom Wall Projector Rough-in Detail #13: Rapid Run cabling to be provided under alternate bid #6.

32) Sheet E9.03:
    a) Revised Electrical Detail. See attached sheet.

33) Sheet P2.01
    a) Revised 1st Floor Plumbing Plan. See attached sheet.

34) Sheet P2.02
    a) Revised 1st Floor Plumbing Plan. See attached sheet.

35) Sheet P2.03
    a) Revised 2nd Floor Plumbing Plan. See attached sheet.

36) Sheet P2.04
    a) Revised 2nd Floor Plumbing Plan. See attached sheet.

37) Sheet P3.01
    a) Revised 1st Floor Waste and Vent Plan. See attached sheet.

38) Sheet P3.02
    a) Revised 2nd Floor Waste and Vent Plan. See attached sheet.

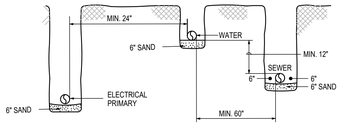
39) Sheet P4.01
    a) Revised Kitchen Plumbing, Waste & Vent Plan. See attached sheet.

40) Sheet P5.01
    a) Revised Roof Plumbing Plan. See attached sheet.

41) Sheet P5.02
    a) Revised Roof Plumbing Plan. See attached sheet.

42) Sheet P6.01
    a) Revised Schedule & Details. See attached sheet.

43) Sheet P6.02
    a) Revised Details Plan. See attached Sheet.



CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.

03 TRENCHING DETAIL
SCALE : NONE

GENERAL NOTES:

1. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
2. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
3. COORDINATE ELECTRICAL AND PLUMBING WITH GENERAL CONSTRUCTION.
4. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
5. FIELD VERIFY/SPOT EXACT LOCATIONS AND EXISTING CONDITIONS OF EXISTING PLUMBING, AND ELECTRICAL. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE AND WORKABLE SYSTEMS. SHOULD BIDDER FIND OMISSIONS OR DISCREPANCIES IN THE PLANS, BIDDER SHALL NOTIFY THE ENGINEER PRIOR TO THE BID DATE AND A WRITTEN CLARIFICATION WILL BE ISSUED.
6. DAMAGED ITEMS SHALL BE REPAIRED AT NO ADDITIONAL COST TO OWNER. CONTRACTORS ARE REQUIRED TO SEARCH AND INVESTIGATE FOR EXISTING UTILITIES BEFORE EXCAVATING.
7. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
8. PROVIDE J-BOXES (POLYMER CONCRETE) AS REQUIRED FOR PULL WIRING.
9. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
10. PERFORM ALL WORK PER LATEST VERSION OF NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
11. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
12. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
13. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
14. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
15. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.

GENERAL NOTES:

16. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING PHASE.
17. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
18. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
19. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
20. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
21. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
22. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
23. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
24. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.
25. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
26. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.

ELECTRICAL KEYED NOTES:

1. EXISTING ELECTRIC 3ø UTILITY OVERHEAD SERVICE LINES.
2. EXISTING ELECTRIC UTILITY POWER POLE.
3. PROVIDE NEW OVERHEAD UTILITY POWER LINE.
4. PROVIDE NEW ELECTRIC UTILITY POWER POLE WITH RISER DIP POLE.
5. PROVIDE NEW UNDERGROUND PRIMARY ELECTRIC CONDUITS WITH 2" RED CONCRETE. CONDUCTORS BY ELECTRICAL UTILITY.
6. PROVIDE NEW ELECTRIC UTILITY PAD MOUNT TRANSFORMER CONCRETE PAD.
7. PROVIDE NEW UNDERGROUND SECONDARY ELECTRIC LINE AND WITH 2" RED CONCRETE TOPPING.
8. PROVIDE NEW ELECTRIC UTILITY SERVICE METER.
9. PROVIDE NEW FEEDER TO NEW PANELBOARDS.
10. PROVIDE 4" TELEPHONE RACEWAY WITH PULLWIRE TO EXISTING TELEPHONE PEDESTAL. ROUTE TO BUILDING & TERMINATE IN M.D.F. ROOM. PRIOR TO TRENCHING COORDINATE TERMINATION POINT WITH AT&T.
11. PROVIDE 4" CCTV RACEWAY WITH PULLWIRE. CAP BELOW GRADE AT PROPERTY LINE, & ROUTE TO BUILDING & TERMINATE IN M.D.F. ROOM. PRIOR TO TRENCHING COORDINATE TERMINATION POINT WITH SPECTRUM.
12. SWITCH EXTERIOR POLE LIGHTS THROUGH LIGHTING CONTROL RELAY PANEL. BRANCH CIRCUIT: 1" – 2#8 & #10G. SEE CORRESPONDING PANEL SCHEDULE.
13. PROVIDE 1–1" RACEWAY WITH PULLWIRE – (ELEVATOR SERVICE ALERT PANEL)
14. RISE UP AT NEAREST WALL CAVITY UP TO PANELBOARDS.
15. RACEWAYS TO RISE AT MDF WIREWAY. SEE ENLARGED IDF ELECTRICAL PLANS ON SHEETS E4.02.
16. PROVIDE 2–4" RACEWAYS WITH PULLWIRE FROM SWITCHBOARD "MSB" FOR FUTURE USE.
17. PROVIDE NEW 36"X36" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "ELECTRICAL" COVER LOGO – SEE DETAIL.
18. CONNECT ELECTRIC PUMP/DRIVE UNIT (208V, 1ø); BRANCH CIRCUIT: 2" – 2#4 & #8G (208V). PROVIDE 3/4" X 10' COPPER CLAD GROUND ROD WITHIN 3'-0" OF GATE OPERATOR. COORDINATE EXACT LOCATION OF COMPONENTS WITH ARCHITECT PRIOR TO ANY ROUGH-IN. GATE CONTRACTOR SHALL PROVIDE ALL INTERNAL WIRING INCLUDING SAFETY LOOPS & PHOTO EYES. SEE DETAIL ON SHEET E9.03.
19. CONNECT ELECTRIC DRIVE UNIT (208V, 1ø); BRANCH CIRCUIT: 2" – 2#4 & #8G. PROVIDE 3/4" X 10' COPPER CLAD GROUND ROD WITHIN 3'-0" OF GATE OPERATOR. COORDINATE EXACT LOCATION OF COMPONENTS WITH ARCHITECT PRIOR TO ANY ROUGH-IN. GATE CONTRACTOR SHALL PROVIDE ALL INTERNAL WIRING INCLUDING SAFETY LOOPS & PHOTO EYES. SEE DETAIL ON SHEET E9.03.
20. ACCESS CONTROL PEDESTAL. SEE DETAIL ON SHEET E9.03.
21. PROVIDE VIDEO DOOR STATION. SEE DETAIL ON SHEET E9.03.

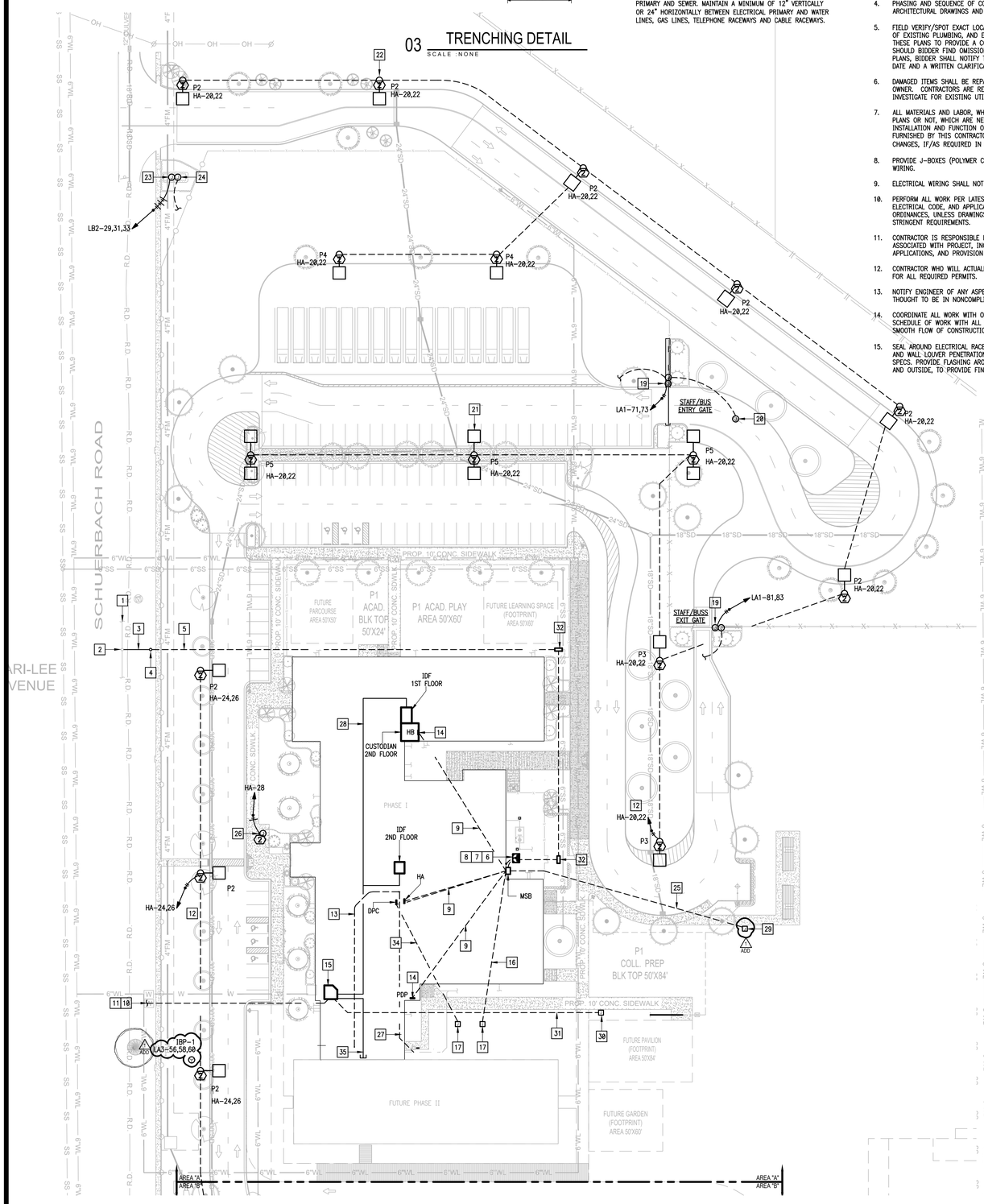
ELECTRICAL KEYED NOTES:

22. PROVIDE POLE LIGHTS AS SCHEDULED – TYPICAL. SEE DETAIL.
23. CONNECT MARQUEE SIGN; BRANCH CIRCUIT: 2"–6 #4 & #8G; 3 BRANCH CIRCUITS.
24. PROVIDE 1" RACEWAY WITH PULLWIRE AND J-BOX (SIGN CONTROLS). STUB-UP 6" AFF AT MDF WIREWAY.
25. PROVIDE 2–4" RACEWAYS WITH PULLWIRE FROM SWITCHBOARD "MSB" FOR FUTURE USE.
26. PROVIDE FLAG POLE LIGHTING – SEE DETAIL. SWITCH LIGHTS THROUGH THE LIGHTING CONTROL RELAY PANEL; BRANCH CIRCUIT: 1" – 2#10 & #10G.
27. PROVIDE 1–1" RACEWAY WITH PULLWIRE – (INTERCEPTOR SERVICE ALERT PANEL)
28. PROVIDE NEW FEEDER TO NEW PANELBOARDS.
29. PROVIDE 4" RACEWAY WITH PULLWIRE (FIBER OPTIC CABLE). ROUTE ABOVE ACCESSIBLE CEILING SPACE. PROVIDE TO EACH IDF ROOM 1ST AND SECOND FLOOR. SEE DETAIL.
30. PROVIDE NEW 24"X24" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "ELECTRICAL" COVER LOGO – SEE DETAIL.
31. PROVIDE NEW 36"X36" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "COMMUNICATIONS" COVER LOGO – SEE DETAIL.
32. 1–2" RACEWAY WITH PULLWIRE – (F.A. RACEWAYS)
    1–2" RACEWAY WITH PULLWIRE – (INTERCOM)
    1–2" RACEWAY WITH PULLWIRE – (INTRUSION)
    1–4" RACEWAY WITH PULLWIRE – (DATA)
33. PROVIDE NEW ELECTRIC UTILITY PAD MOUNT SECTIONALIZER CONCRETE PAD.
34. PROVIDE 1–1/4" ELECTRICAL CONDUIT FOR FUTURE LIGHTING.
35. PROVIDE 1'–4" WITH PULLWIRE FROM PANEL DPC.
36. PROVIDE 4" DATA RACEWAY ABOVE CEILING (FUTURE PHASE II). SEE SHEET E4.02.

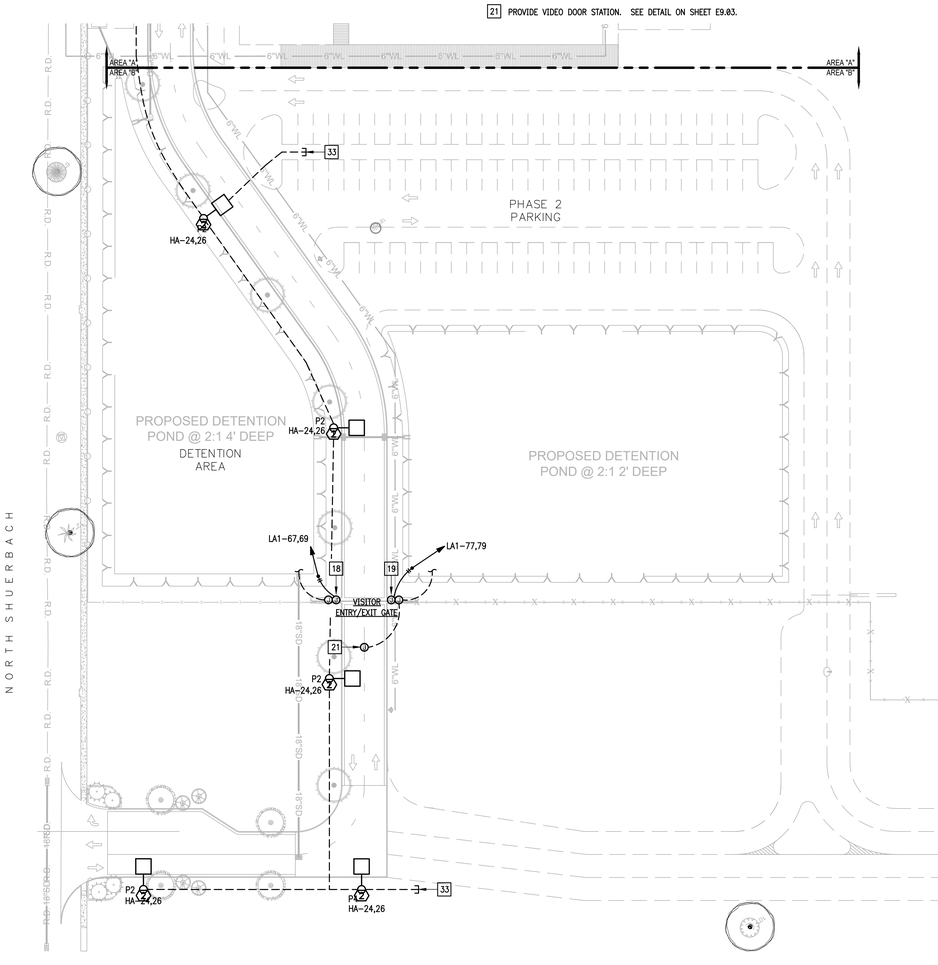
RACEWAYS EMBEDDED IN FOUNDATION GENERAL NOTES:

RACEWAYS EMBEDDED WITHIN THE SLAB SHALL COMPLY WITH THE FOLLOWING:

1. SHALL HAVE A MINIMUM SPACING OF 2".
2. SHALL NOT BE LARGER THAN 1".
3. SHALL NOT BE RUN THROUGH THE SURFACE AREA OF THE FOOTING.
4. SHALL NOT BE CROSSED OVER/UNDER EACH OTHER WITH THE SLAB.
5. SHALL NOT BE TIED TO THE REBAR.
6. SHALL BE A MINIMUM OF 1.5" AWAY FROM SLAB REBAR. IF SPACING CANNOT BE ACCOMPLISHED; IT SHALL BE PROVIDED BELOW GRADE.



01 M.E.P SITE PLAN
SCALE: 1"=40'-0"



02 M.E.P SITE PLAN
SCALE: 1"=40'-0"

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1 ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

IDEA PALMVIEW
PALMVIEW, TEXAS

STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
5/16/2019

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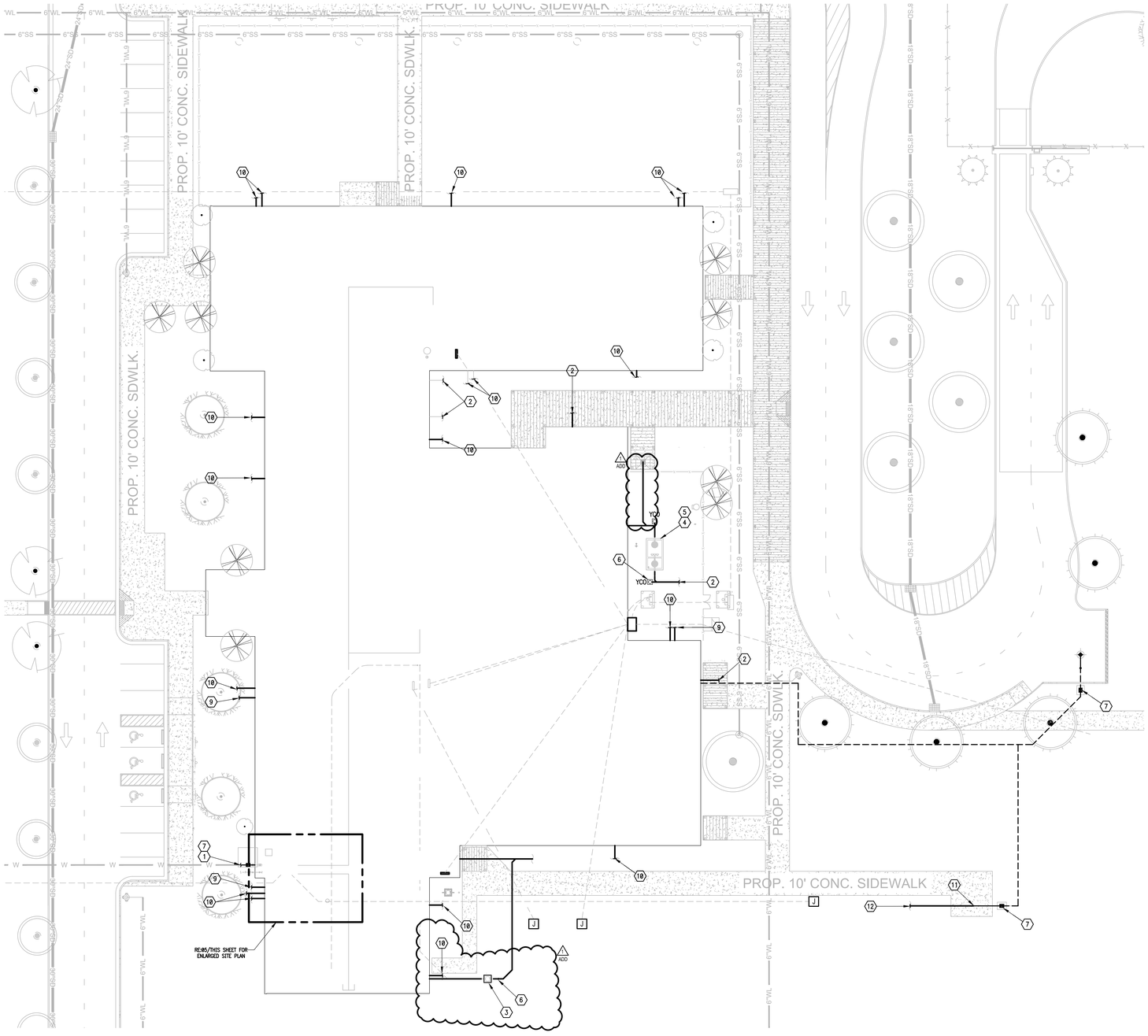
Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	MEP1.01



01 M.E.P. PLUMBING SITE PLAN

SCALE: 1"=20'-0"

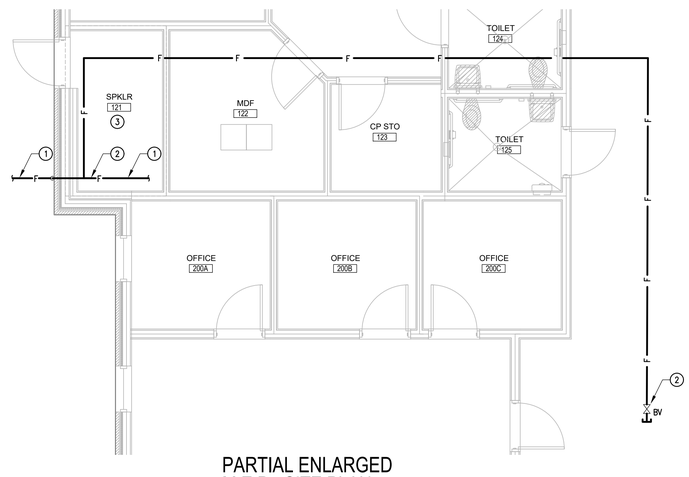
NORTH

PLUMBING KEYED NOTES:

1. PROVIDE 3" DOMESTIC WATER LINE. SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
2. PROVIDE 4" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
3. APPROXIMATE LOCATION OF OIL/WATER SEPARATOR. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
4. APPROXIMATE LOCATION OF GREASE INTERCEPTOR. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
5. PROVIDE GREASE INTERCEPTOR (GT-1). PROVIDE TIGHT-SEAL COVERS. PRIOR TO INSTALLATION COORDINATE PIPING SLOPE, TRENCHING AND BACKFILLING WITH CIVIL. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR TO AVOID CONFLICT WITH CURBS AND SIDEWALKS. SEE ASSOCIATED DETAIL ON DETAIL SHEET FOR MODEL No. & MANUFACTURER.
6. PROVIDE SAMPLE WELL AS PER DETAIL.
7. PROVIDE LINE SIZE VALVE IN QUAZITE BOX.
8. PROVIDE PEDESTAL HOSE BIBB AT DUMPSTER AREA. REFER TO DETAIL SHEET FOR MODEL NUMBER. COORDINATE COLOR OF PEDESTAL WITH OWNER AND ARCHITECT. SERVE PEDESTAL HOSE BIBB WITH 3" WATER LINE. PROVIDE TRANSITION FITTINGS AS NECESSARY. PRIOR INSTALLATION, COORDINATE EXACT LOCATION OF PEDESTAL WITH OWNER.
9. SPLASH BLOCK DISCHARGING SECONDARY STORM DRAIN AT THIS APPROXIMATE LOCATION. REFER TO PLUMBING PLAN FOR MORE INFORMATION.
10. CONNECT PRIMARY DROP STORM PIPING DISCHARGING AT THIS APPROXIMATE LOCATION TO STORM DRAIN SYSTEM. REFER TO PLUMBING PLAN FOR MORE DETAIL AND CIVIL PLAN FOR CONNECTION AND CONTINUATION.
11. PROVIDE PEDESTAL TYPE DRINKING FOUNTAIN WITH BOTTLE FILLING STATION AT SOCCER FIELDS MODEL NUMBER ELKAY OUTDOOR EZH20/LK4430BF1M OR APPROVED EQUAL. COORDINATE COLOR OF PEDESTAL WITH OWNER AND ARCHITECT. SERVE PEDESTAL TYPE DRINKING FOUNTAIN WITH 3/4" WATER LINE. REFER TO CIVIL DRAWINGS FOR WATER LINE ROUTING. PROVIDE TRANSITION FITTINGS AS NECESSARY. PRIOR INSTALLATION, COORDINATE EXACT LOCATION OF PEDESTAL WITH OWNER. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR TO AVOID CONFLICT WITH CURBS AND SIDEWALKS.
12. PROVIDE 2" UNDERGROUND SANITARY SEWER LINE TO SERVE DRINKING FOUNTAIN. CONNECT TO SANITARY SEWER DISTRIBUTION SYSTEM AT THIS LOCATION. COORDINATE WITH UTILITY CONTRACTOR.

FIRE SUPPRESSION KEYED NOTES:

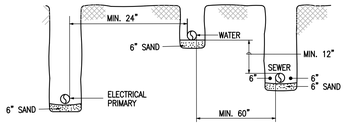
1. PROVIDE NEW 6" FIRE SPRINKLER LINE. REFER TO CIVIL DRAWING FOR FIRE LINE CONTINUATION. VERIFY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR. COORDINATE FREE STANDING FDC AND PROVESION OF BACKFLOW PREVENTER WITH CIVIL. REFER TO PLUMBING SHEETS AND SPECIFICATIONS FOR MORE INFORMATION. FIRE SPRINKLER SYSTEM SHALL BE SIZED TO SERVE BUILDINGS UNDER THIS CONTRACT AND A FUTURE TWO STORY CLASSROOM WING OF AN APPROXIMATE 35,000 SQ.FT AREA. PROVIDE HEADERS, VALVES, BRANCHES, ETC. AS NECESSARY TO ACCOMMODATE FUTURE ADDITION.
2. PROVIDE DEDICATED FIRE SPRINKLER LINE FROM FIRE RISER ROOM TO END OF HALLWAY. FIRE SPRINKLER LINE SHALL BE SIZED TO SERVE FUTURE TWO STORY CLASSROOM WING OF AN APPROXIMATE 15,000 SQ.FT AREA. PROVIDE HEADERS, VALVES, BRANCHES, ETC. AS NECESSARY TO ACCOMMODATE FUTURE ADDITION. COORDINATE WITH A/E TEAM DURING SHOP DRAWING SUBMITTAL PHASE.
3. FIRE SUPPRESSION SYSTEM SHALL COMPLY WITH INTERNATIONAL FIRE CODE 2015.



05 PARTIAL ENLARGED M.E.P. SITE PLAN

SCALE: 1/4"=1'-0"

NORTH



CLEAR TRENCH OF ALL ROCKS AND DEBRIS BEFORE ADDING SAND CUSHION.

COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

MAINTAIN A MINIMUM OF 60 INCHES UNDISTURBED EARTH BETWEEN PARALLEL WATER AND SEWER LINES OR SUPPORT WATER LINE ON SEPARATE SHELF A MINIMUM OF 12" ABOVE SEWER LINE.

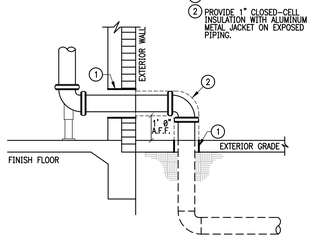
MAINTAIN A MINIMUM OF 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND SEWER. MAINTAIN A MINIMUM OF 12" VERTICALLY OR 24" HORIZONTALLY BETWEEN ELECTRICAL PRIMARY AND WATER LINES, GAS LINES, TELEPHONE RACEWAYS AND CABLE RACEWAYS.

02 TRENCHING DETAIL

SCALE : NONE

KEYED NOTES

1. SLEEVE.
2. PROVIDE 1" CLOSED-CELL INSULATION WITH ALUMINUM METAL JACKET ON EXPOSED PIPING.



03 FIRE RISER ENTRANCE DETAIL

SCALE : NOT TO SCALE

ADD

No.	REVISIONS	BY
1 ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW

PALMVIEW, TEXAS

CESAR A. GONZALEZ
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LICENSED PROFESSIONAL ENGINEER
5.16.2019

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	MEP1.02

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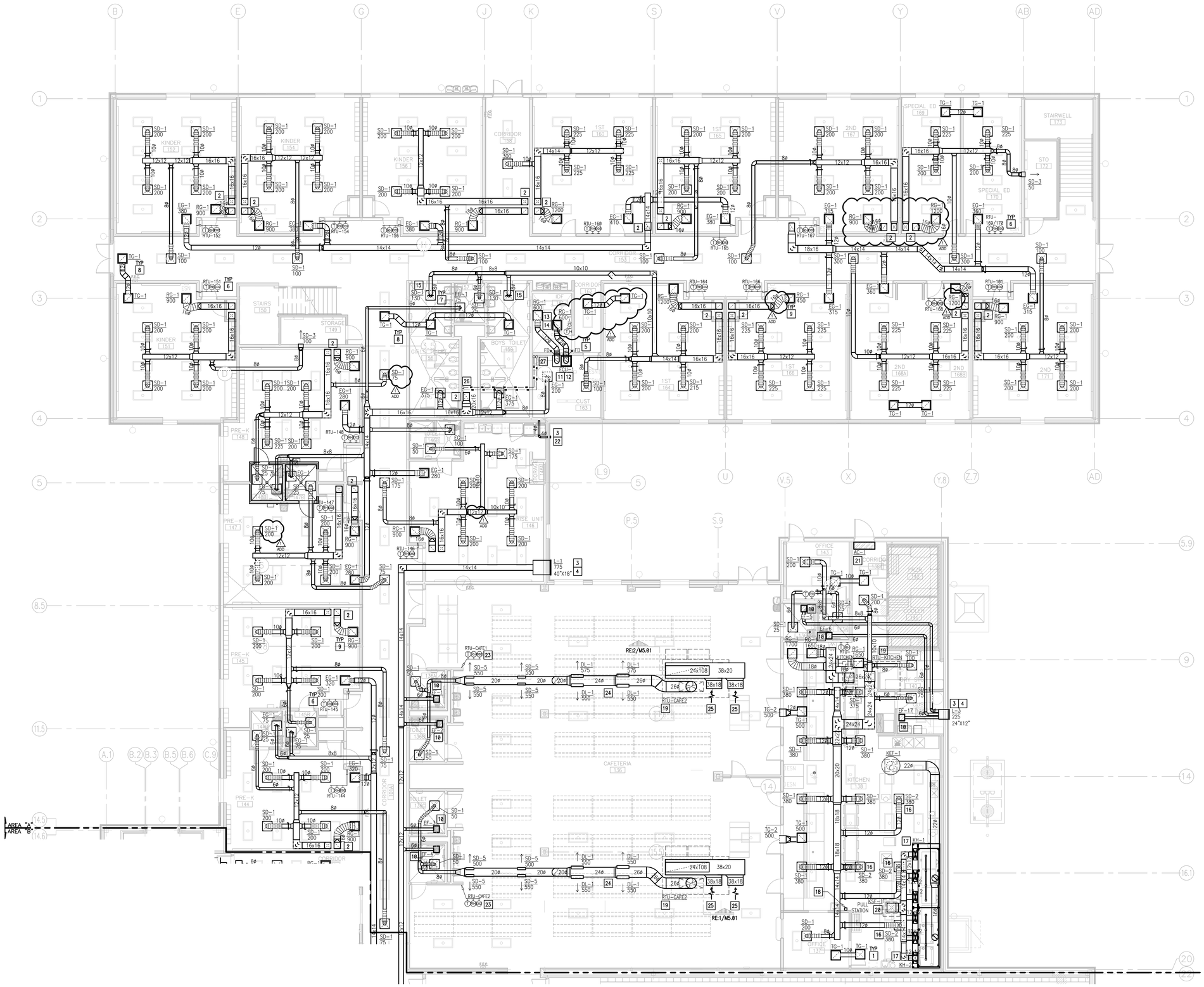

01 MECHANICAL PLAN (FIRST FLOOR)

SCALE : 1/8" = 1'-0"

NORTH

02 DEDUCTIVE ALTERNATE

SCALE : 1/8" = 1'-0"

NORTH

KEYPLAN

AREA 'A'

AREA 'B'

FUTURE PHASE II

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. DUCTWORK UP TO RTU ON ROOF. REFER TO SECOND FLOOR MECHANICAL PLAN FOR CONTINUATION.
3. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
4. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
5. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. (TYPICAL). PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN.: ACCESS PANEL SHALL BE IN CEILING SPACE. (TYPICAL)
6. PROVIDE THERMOSTAT, RH, AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
7. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. (TYPICAL)
8. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
9. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
10. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
11. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2009 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO PLUMBING RECEPTACLE AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
12. PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. PROVIDE 1" THICK MOISTURE RESISTANT GRADE PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM. BOLT MOISTURE RESISTANT PLYWOOD AROUND THE FRAMING TO CREATE AN AIRTIGHT PLENUM BOX.
13. PROVIDE PLENUM BOX ON TOP OF AIR DEVICE FOR SIDE FLEX CONNECTION. ENSURE S/A DEVICE DROPS AIR IN FRONT OF RACKS. COORDINATE EXACT LOCATION WITH OWNER AND ENGINEER PRIOR INSTALLATION. RG-1 TO BE USED AS SUPPLY AIR DEVICE.
14. PRIOR TO INSTALLATION OF FCU AND RELATED DUCTWORK, COORDINATE LOCATION OF COMMUNICATION AND DATA EQUIPMENT TO ENSURE RACKS ARE POSITIONED IN A PROPER MANNER CLEARLY IDENTIFYING THE COLD AND HOT ISLES. SUPPLY AIR DEVICES SHALL THROW AIR IN FRONT OF RACKS AND RETURN AIR DEVICES SHALL BE LOCATED ON BACK SIDE OF RACKS. DOCUMENT COORDINATION WITH OWNER, I.T. DEPARTMENT, AND ARCHITECT/ENGINEER PRIOR INSTALLATION.
15. PROVIDE ROUND NECK OPPOSED BLADE BALANCING DAMPER TITUS MODEL AG-75 OR APPROVED EQUAL FOR VOLUME CONTROL IN ROUND NECK DIFFUSER. DAMPER SHALL BE OPERABLE THRU THE FACE OF THE DIFFUSER. TYPICAL ON SQUARE DIFFUSERS LOCATED IN HARD CEILING AREAS.
16. REMOVE PATTERN DIFFUSER.
17. PROVIDE KITCHEN HOOD SYSTEM AS PER SPECIFICATIONS AND SCHEDULES. REFER TO ELEVATIONS AND DETAILS SHEET FOR MORE INFORMATION.
18. MOUNT MANUAL PULL STATION FOR KITCHEN HOOD CHEMICAL SUPPRESSION SYSTEM AT THIS LOCATION. COORDINATE WITH ARCHITECTURAL.
19. PROVIDE RTU ON ROOF CURB AS SCHEDULED. REFER TO MECHANICAL ROOF PLAN FOR MORE INFORMATION.
20. PROVIDE SUPPLY FAN AS SCHEDULED. REFER TO MECHANICAL SCHEDULES FOR FOR MORE INFORMATION.
21. PROVIDE AIR CURTAIN (AC-1) EQUAL TO 'POWERED AIRE' MODEL BCE 1-48 WITH MOTORS, 0.5 HP, 120/1/60, 7.3 AMP DRAW. UNIT WEIGHS 164 LBS. INTERLOCK FAN WITH DOOR USING MICROSWITCH. FURNISH TOGGLE SWITCH AS MEANS OF DISCONNECT.
22. PROVIDE 4"Ø SHEET METAL VENT PIPE FOR DRYER AND TERMINATE TO OUTSIDE THROUGH WALL WITH HOOD AS RECOMMENDED BY DRYER MANUFACTURER. INSTALL AS PER CODE REQUIREMENTS AND DRYER MANUFACTURER'S INSTRUCTIONS. COORDINATE MODEL NUMBER FOR WALL CAP WITH DRYER MANUFACTURER.
23. PROVIDE EXTRA HEAVY DUTY LOCKABLE COVERS TO PROTECT WALL MOUNTED THERMOSTAT, CO2, AND RH SENSORS LOCATED IN THE CAFETERIA AND GYMNASIUM.
24. PROVIDE DOUBLE WALL EXPOSED-PAINTED ROUND DUCT AS PER SPECIFICATIONS WITH DIFFUSERS AS SCHEDULED. PROVIDE HIGH PERFORMANCE PAINT AND COORDINATE FINAL COLOR OF DUCTS AND DIFFUSERS WITH ARCHITECT BEFORE ORDERING AND INSTALLING. ALL EXPOSED DUCTS SHALL BE PAINTED. COORDINATE FINISH AND COLOR WITH ARCHITECT.
25. PROVIDE FULL SIZE OPENING AT THE END OF THE RETURN AIR DUCT COVER OPENING WITH PAINTED WIRE MESH.
26. ROUTE CONDENSATE PIPING DOWN FROM 2ND FLOOR INSIDE CHASE AT THIS APPROXIMATE LOCATION.
27. SECURE PIPING TO WALL AND DISCHARGE CONDENSATE PIPING INTO FLOOR SINK. REFER TO PLUMBING PLANS FOR EXACT LOCATION OF FLOOR SINK.
28. CAP AND SEAL DUCT FOR FUTURE RESTROOM ADDITION.

No.	REVISIONS	BY
1	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
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LICENSED
ARCHITECT
5.16.2019

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Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.:	IDEA Palmview Phase I
Sheet:	M3.01

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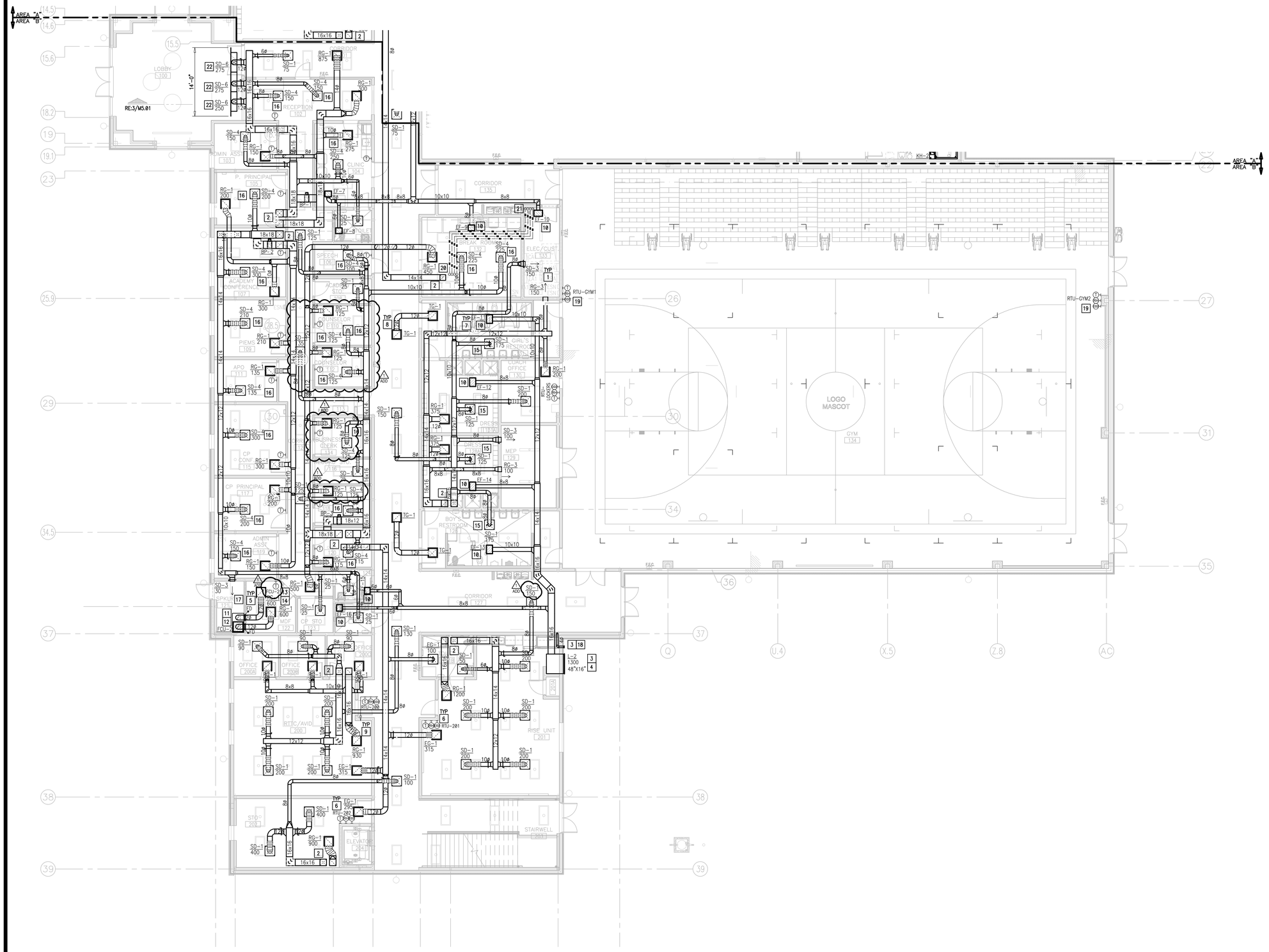

01 MECHANICAL PLAN (FIRST FLOOR)

SCALE : 1/8" = 1'-0"

NORTH

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. DUCTWORK UP TO RTU ON ROOF. REFER TO SECOND FLOOR MECHANICAL PLAN FOR CONTINUATION.
3. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
4. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
5. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. (TYPICAL). PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN.: ACCESS PANEL SHALL BE IN CEILING SPACE.
6. PROVIDE THERMOSTAT, RH, AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
7. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. (TYPICAL)
8. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
9. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
10. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
11. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2009 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO PLUMBING RECEPTACLE AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
12. PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. PROVIDE 1" THICK MOISTURE RESISTANT GRADE PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM. BOLT MOISTURE RESISTANT PLYWOOD AROUND THE FRAMING TO CREATE AN AIRTIGHT PLENUM BOX.
13. PROVIDE PLENUM BOX ON TOP OF AIR DEVICE FOR SIDE FLEX CONNECTION. ENSURE S/A DEVICE DROPS AIR IN FRONT OF RACKS. COORDINATE EXACT LOCATION WITH OWNER AND ENGINEER PRIOR INSTALLATION. RG-1 TO BE USED AS SUPPLY AIR DEVICE.
14. PRIOR TO INSTALLATION OF FCU AND RELATED DUCTWORK, COORDINATE LOCATION OF COMMUNICATION AND DATA EQUIPMENT TO ENSURE RACKS ARE POSITIONED IN A PROPER MANNER CLEARLY IDENTIFYING THE COLD AND HOT ISLES. SUPPLY AIR DEVICES SHALL THROW AIR IN FRONT OF RACKS AND RETURN AIR DEVICES SHALL BE LOCATED ON BACK SIDE OF RACKS. DOCUMENT COORDINATION WITH OWNER, I.T. DEPARTMENT, AND ARCHITECT/ENGINEER PRIOR INSTALLATION.
15. PROVIDE ROUND NECK OPPOSED BLADE BALANCING DAMPER TITUS MODEL AG-7S OR APPROVED EQUAL FOR VOLUME CONTROL IN ROUND NECK DIFFUSER. DAMPER SHALL BE OPERABLE THRU THE FACE OF THE DIFFUSER. TYPICAL ON SQUARE DIFFUSERS LOCATED IN HARD CEILING AREAS.
16. PROVIDE VAV ELECTRONIC DIFFUSER SPECIFIED CONTROLS MODEL SC-BN-XXC OR APPROVED EQUAL. PROVIDE WITH BACNET THERMOSTAT TO INTERFACE WITH BAS. FOR EACH THERMOSTAT, BAS GRAPHICS SHALL INDICATE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT. COORDINATE WITH CONTROLS CONTRACTOR. PROVIDE 120V/24V TRANSFORMER ABOVE CEILING TO POWER THERMOSTAT, VAV DIFFUSER AND BYPASS DAMPER (AS APPLICABLE). COORDINATE WITH ELECTRICAL. REFER TO ASSOCIATED DETAIL ON DETAIL SHEET.
17. FIRE SPRINKLER RISER LOCATION. DO NOT INSTALL ANY PIPING OR OTHER ITEMS OVER FIRE SPRINKLER PIPING IN THIS AREA.
18. PROVIDE 4"Ø SHEET METAL VENT PIPE FOR DRYER AND TERMINATE TO OUTSIDE THROUGH WALL WITH HOOD AS RECOMMENDED BY DRYER MANUFACTURER. INSTALL AS PER CODE REQUIREMENTS AND DRYER MANUFACTURER'S INSTRUCTIONS. COORDINATE MODEL NUMBER FOR WALL CAP WITH DRYER MANUFACTURER.
19. PROVIDE EXTRA HEAVY DUTY LOCKABLE COVERS TO PROTECT WALL MOUNTED THERMOSTAT, CO2, AND RH SENSORS LOCATED IN THE CAFETERIA AND GYMNASIUM.
20. ROUTE CONDENSATE PIPING DOWN FROM 2ND FLOOR INSIDE CHASE AT THIS APPROXIMATE LOCATION.
21. SECURE PIPING TO WALL AND DISCHARGE CONDENSATE PIPING INTO FLOOR SINK. REFER TO PLUMBING PLANS FOR EXACT LOCATION OF FLOOR SINK.
22. PROVIDE LINEAR DIFFUSER AS SCHEDULED. DIFFUSER SHALL HAVE CONTINUOUS LOOK WITH LENGTH AS SHOWN FOR AESTHETICS PURPOSES. PROVIDE FIELD FABRICATED PLENUM BOX BEHIND AIR DEVICE.

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1	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

IDEA PALMVIEW

PALMVIEW, TEXAS

AREA 'A'

AREA 'B'

FUTURE PHASE II

KEYPLAN

STATE OF TEXAS
CESAR A. GONZALEZ
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PROFESSIONAL ENGINEER
5.16.2019

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Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.:	IDEA Palmview Phase I
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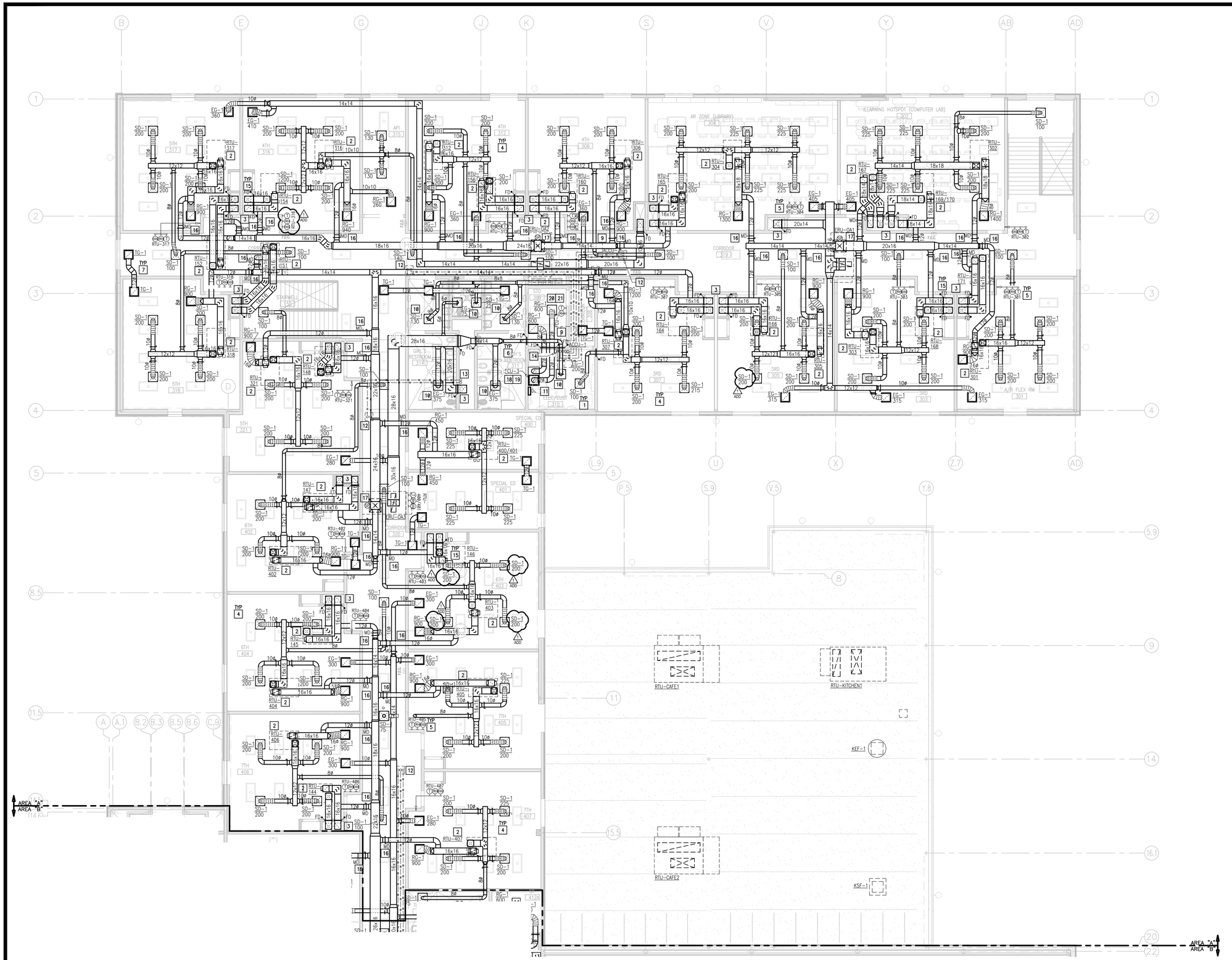

01 MECHANICAL PLAN (SECOND FLOOR)
SCALE : 1/8" = 1'-0"

NORTH

GENERAL NOTES:

1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. PROVIDE RTU ON ROOF CURB AS SCHEDULED. REFER TO MECHANICAL ROOF PLAN FOR MORE INFORMATION.
3. DUCTWORK DOWN TO FIRST FLOOR. REFER TO FIRST FLOOR MECHANICAL PLAN FOR CONTINUATION.
4. DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS. (TYPICAL)
5. PROVIDE THERMOSTAT, RH, AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
6. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. (TYPICAL)
7. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
8. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
9. PROVIDE AIR COOLED CONDENSING UNIT ON ROOF AS SCHEDULED. REFER TO MECHANICAL ROOF PLAN FOR MORE INFORMATION.
10. PROVIDE ROUND NECK OPPOSED BLADE BALANCING DAMPER TITUS MODEL AC-7S OR APPROVED EQUAL FOR VOLUME CONTROL IN ROUND NECK DIFFUSER. DAMPER SHALL BE OPERABLE THRU THE FACE OF THE DIFFUSER. TYPICAL ON SQUARE DIFFUSERS LOCATED IN HARD CEILING AREAS.
11. REFER TO SPECIFICATION FOR DDC CONTROLS AND SEQUENCES OF OPERATION.
12. ROUTE CONDENSATE PIPING DOWN FROM ROOF AT THIS APPROXIMATE LOCATION.
13. ROUTE PIPING DOWN TO FIRST FLOOR CEILING SPACE. REFER TO FIRST FLOOR MECHANICAL PLAN FOR CONTINUATION.
14. SECURE PIPING TO WALL AND DISCHARGE CONDENSATE PIPING INTO FLOOR SINK. REFER TO PLUMBING PLANS FOR EXACT LOCATION OF FLOOR SINK.
15. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. (TYPICAL). PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN.: ACCESS PANEL SHALL BE IN CEILING SPACE.
16. PROVIDE MOTORIZED DUCT MOUNTED OUTSIDE AIR DAMPER AND ACTUATOR WITH CO2 SENSOR AS PER SPECIFICATIONS TO ACHIEVE DEMAND CONTROLLED VENTILATION SEQUENCE, REFER TO DDC CONTROLS SEQUENCES FOR MORE INFORMATION. CONTROLS CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY POWER, CONDUITS AND WIRING FOR A COMPLETE AND FUNCTIONAL DCV SYSTEM.
17. PROVIDE DUCT MOUNTED STATIC PRESSURE SENSOR DOWNSTREAM THE ERU ROOFTOP UNIT SUPPLY AIR DUCTWORK AND INTEGRATE WITH THE VAV OPERATION OF THE DOAS. COORDINATE WITH CONTROLS CONTRACTOR.
18. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2009 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO PLUMBING RECEPTACLE AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
19. PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. PROVIDE 1" THICK MOISTURE RESISTANT GRADE PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM. BOLT MOISTURE RESISTANT PLYWOOD AROUND THE FRAMING TO CREATE AN AIRTIGHT PLENUM BOX.
20. PROVIDE PLENUM BOX ON TOP OF AIR DEVICE FOR SIDE FLEX CONNECTION. REMOVE PATTERN DIFFUSER AND ENSURE S/A DEVICE DROPS AIR IN FRONT OF RACKS. COORDINATE EXACT LOCATION WITH OWNER AND ENGINEER PRIOR INSTALLATION. RG-1 TO BE USED AS SUPPLY AIR DEVICE.
21. PRIOR TO INSTALLATION OF FCU AND RELATED DUCTWORK, COORDINATE LOCATION OF COMMUNICATION AND DATA EQUIPMENT TO ENSURE RACKS ARE POSITIONED IN A PROPER MANNER CLEARLY IDENTIFYING THE COLD AND HOT ISLES. SUPPLY AIR DEVICES SHALL THROW AIR IN FRONT OF RACKS AND RETURN AIR DEVICES SHALL BE LOCATED ON BACK SIDE OF RACKS. DOCUMENT COORDINATION WITH OWNER, I.T. DEPARTMENT, AND ARCHITECT/ENGINEER PRIOR INSTALLATION.

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools
PALMVIEW, PALMVIEW, TEXAS

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FUTURE PHASE II
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STATE OF TEXAS
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Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	M3.03

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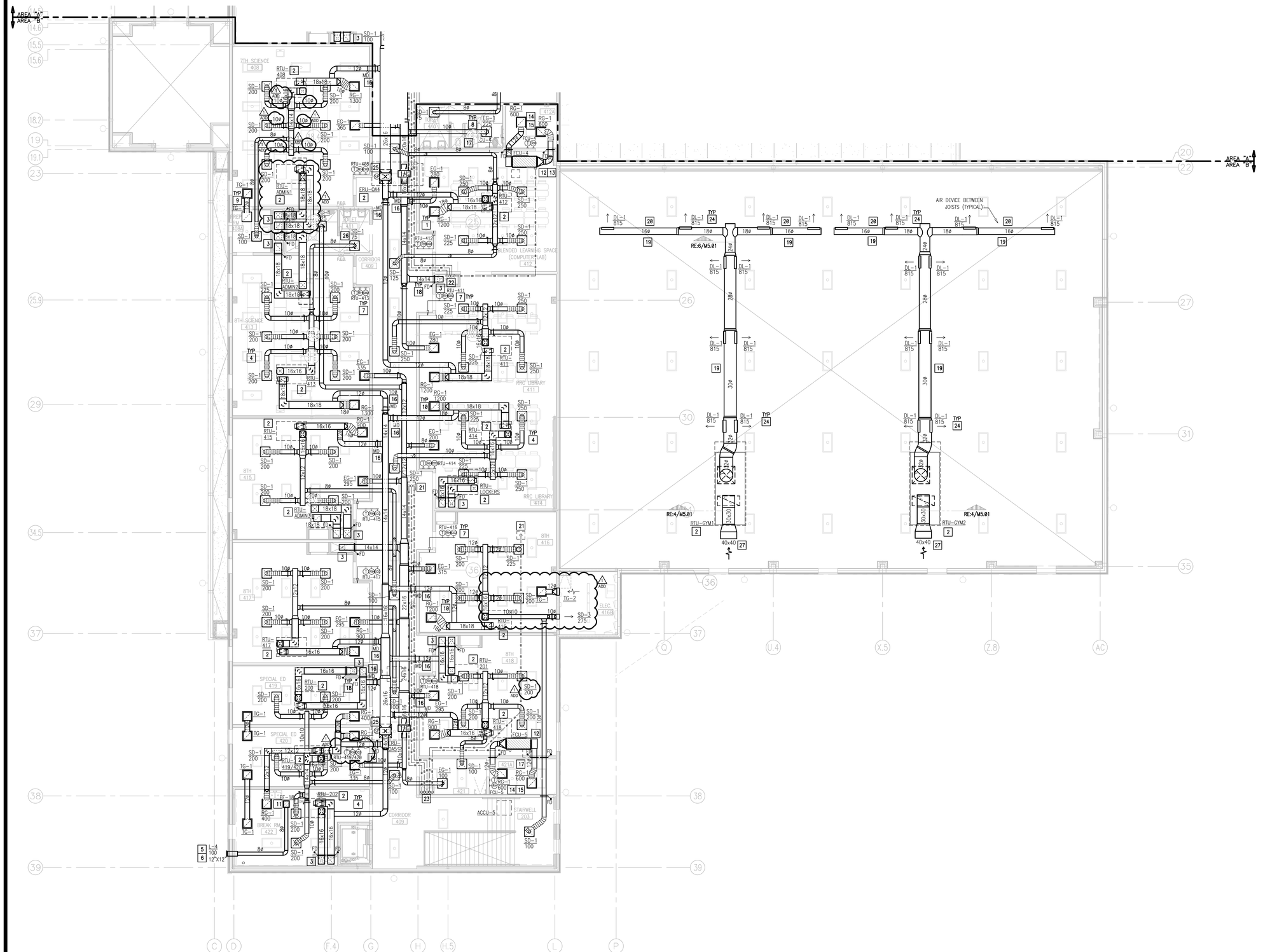


01 MECHANICAL PLAN (SECOND FLOOR)
SCALE : 1/8" = 1'-0"

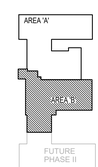
NORTH

GENERAL NOTES:

1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.

KEYED NOTES:

1. CODE AND WORKING CLEARANCE FOR ELECTRICAL PANELS. DO NOT ROUTE DUCT OR PIPING DIRECTLY ABOVE ELECTRICAL EQUIPMENT FOOTPRINT. SEE ELECTRICAL PLANS FOR EXACT LOCATION. (TYPICAL)
2. PROVIDE RTU ON ROOF CURB AS SCHEDULED. REFER TO MECHANICAL ROOF PLAN FOR MORE INFORMATION.
3. DUCTWORK DOWN TO FIRST FLOOR. REFER TO FIRST FLOOR MECHANICAL PLAN FOR CONTINUATION.
4. DUCTWORK ROUTING SHOWN IS DIAGRAMMATIC IN NATURE. FIELD-VERIFY STRUCTURE AND SPACE AVAILABILITY PRIOR TO SUBMITTING SHOP DRAWINGS. COORDINATE WITH ARCHITECT AND ENGINEER IN CASE OF CONFLICTS.
5. SLEEVE ALL WALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND DUCTS & PIPING AT ALL WALLS, AC ROOMS AND WALL LOUVER PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISH LOOK. (TYPICAL)
6. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
7. PROVIDE THERMOSTAT, RH, AND CO2 SENSORS WHERE INDICATED. INSTALL 48" A.F.F. COORDINATE WITH ARCHITECT AND OWNER TO MEET ADA REQUIREMENTS. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS. (TYPICAL)
8. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. (TYPICAL)
9. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
10. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL
11. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
12. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2009 SECTION 307.2.3. SEE DETAIL SHEET. ROUTE COPPER CONDENSATE LINE TO PLUMBING RECEPTACLE AND INSULATE PER SPECIFICATIONS. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
13. SUSPEND FCU USING SPRING VIBRATION ISOLATORS AS PER MANUFACTURER'S RECOMMENDATIONS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES. PROVIDE AUXILIARY DRAIN PAN WITH FLOAT SWITCH TO DISABLE FAN WHEN MOISTURE IS DETECTED. PROVIDE INSULATED COPPER CONDENSATE PIPING. ROUTE INSULATED CONDENSATE PIPING DOWN TO FIRST FLOOR INSIDE CHASE. TERMINATE CONDENSATE PIPING AT FLOOR SINK IN THE FIRST FLOOR ELECTRICAL/CUSTODIAN ROOM 138.
14. PROVIDE PLENUM BOX ON TOP OF AIR DEVICE FOR SIDE FLEX CONNECTION. REMOVE PATTERN DIFFUSER AND ENSURE S/A DEVICE DROPS AIR IN FRONT OF RACKS. COORDINATE EXACT LOCATION WITH OWNER AND ENGINEER PRIOR INSTALLATION. RG-1 TO BE USED AS SUPPLY AIR DEVICE.
15. PRIOR TO INSTALLATION OF FCU AND RELATED DUCTWORK, COORDINATE LOCATION OF COMMUNICATION AND DATA EQUIPMENT TO ENSURE RACKS ARE POSITIONED IN A PROPER MANNER CLEARLY IDENTIFYING THE COLD AND HOT ISLES. SUPPLY AIR DEVICES SHALL THROW AIR IN FRONT OF RACKS AND RETURN AIR DEVICES SHALL BE LOCATED ON BACK SIDE OF RACKS. DOCUMENT COORDINATION WITH OWNER, I.T. DEPARTMENT, AND ARCHITECT/ENGINEER PRIOR INSTALLATION.
16. PROVIDE MOTORIZED DUCT MOUNTED OUTSIDE AIR DAMPER AND ACTUATOR WITH CO2 SENSOR AS PER SPECIFICATIONS TO ACHIEVE DEMAND CONTROLLED VENTILATION SEQUENCE, REFER TO DDC CONTROLS SEQUENCES FOR MORE INFORMATION. CONTROLS CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY POWER, CONDUITS AND WIRING FOR A COMPLETE AND FUNCTIONAL DCV SYSTEM.
17. PROVIDE AIR COOLED CONDENSING UNIT ON ROOF AS SCHEDULED. REFER TO MECHANICAL ROOF PLAN FOR MORE INFORMATION.
18. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. (TYPICAL). PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN.: ACCESS PANEL SHALL BE IN CEILING SPACE.
19. PROVIDE DOUBLE WALL EXPOSED-PAINTED ROUND DUCT AS PER SPECIFICATIONS WITH DIFFUSERS AS SCHEDULED. PROVIDE HIGH PERFORMANCE PAINT AND COORDINATE FINAL COLOR OF DUCTS AND DIFFUSERS WITH ARCHITECT BEFORE ORDERING AND INSTALLING. ALL EXPOSED DUCTS SHALL BE PAINTED. COORDINATE FINISH AND COLOR WITH ARCHITECT.
20. DOUBLE WALL DUCTWORK RUNNING PERPENDICULAR TO THE JOIST GIRDERS SHALL BE ROUTED THROUGH THE JOIST GIRDER WEBBING. COORDINATE WITH GENERAL CONTRACTOR.
21. ROUTE CONDENSATE PIPING DOWN FROM ROOF AT THIS APPROXIMATE LOCATION.
22. ROUTE PIPING DOWN TO FIRST FLOOR CEILING SPACE. REFER TO FIRST FLOOR MECHANICAL PLAN FOR CONTINUATION.
23. SECURE PIPING TO WALL AND DISCHARGE CONDENSATE PIPING INTO FLOOR SINK. REFER TO PLUMBING PLANS FOR EXACT LOCATION OF FLOOR SINK.
24. COORDINATE DUCTWORK ROUTING AND AIR DEVICE PLACEMENT WITH STRUCTURAL JOISTS, CROSS BRACING, AND BRIDGING. COORDINATE WITH GENERAL CONTRACTOR. (TYPICAL)
25. PROVIDE DUCT MOUNTED STATIC PRESSURE SENSOR DOWNSTREAM THE DOAS ROOFTOP UNIT SUPPLY AIR DUCTWORK AND INTEGRATE WITH THE VAV OPERATION OF THE DOAS. COORDINATE WITH CONTROLS CONTRACTOR.
26. PROVIDE ROUND NECK OPPOSED BLADE BALANCING DAMPER TITUS MODEL AG-75 OR APPROVED EQUAL FOR VOLUME CONTROL IN ROUND NECK DIFFUSER. DAMPER SHALL BE OPERABLE THRU THE FACE OF THE DIFFUSER. TYPICAL ON SQUARE DIFFUSERS LOCATED IN HARD CEILING AREAS.
27. PROVIDE FULL SIZE OPENING AT THE END OF THE RETURN AIR DUCT COVER OPENING WITH PAINTED WIRE MESH.



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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
PALMVIEW, TEXAS
IDEA Public Schools

STATE OF TEXAS
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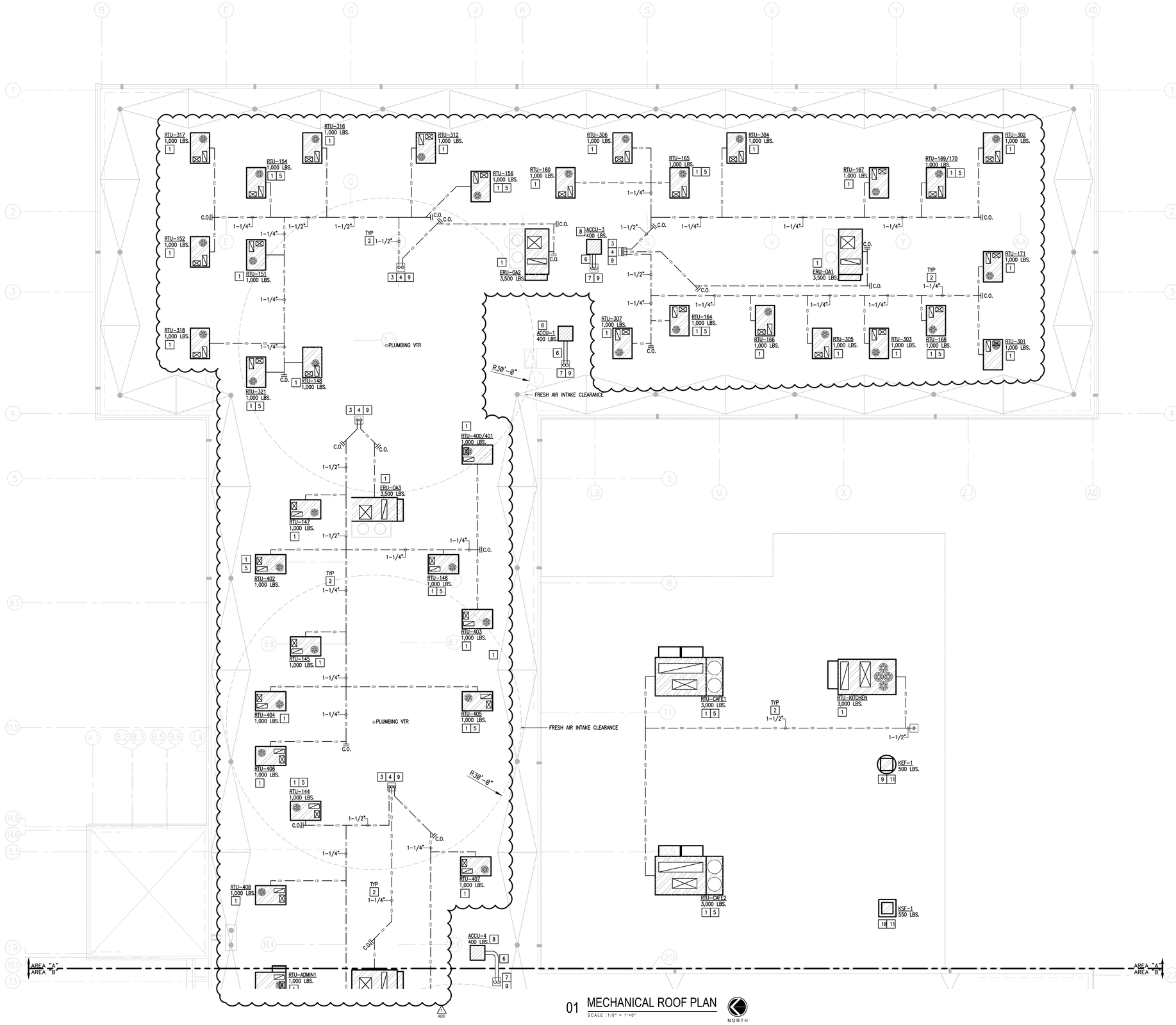
Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No:	IDEA Palmview Phase I
Sheet:	M3.04



01 MECHANICAL ROOF PLAN

SCALE : 1/8" = 1'-0"

NORTH

KEYED NOTES:

1. PROVIDE RTU ON ROOF CURB AS SCHEDULED. ORIENT RTUS TO OPTIMIZE DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING IN PIPING SUPPORTS AS DETAILED. PROVIDE ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
2. PROVIDE COPPER CONDENSATE PIPING ON ROOF AND PROVIDE SUPPORTS AS PER DETAIL. REFER TO DETAIL SHEET. (TYPICAL)
3. ROUTE CONDENSATE LINES DOWN TO CEILING SPACE BELOW AT THE APPROXIMATE LOCATION. REFER TO PLUMBING DRAWINGS.
4. PROVIDE ROOF PENETRATION SYSTEM FOR CONDENSATE PIPING. SEE ASSOCIATED DETAIL ON DETAIL SHEET. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.
5. PROVIDE FACTORY INSTALLED CONVENIENCE ELECTRICAL OUTLET AT INDICATED RTUS. COORDINATE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
6. PROVIDE 1" INSULATION & ALUMINUM METAL JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS SUITABLE FOR ROOF APPLICATION.
7. PROVIDE ROOF PENETRATION SYSTEM FOR REFRIGERANT PIPING, HVAC CONTROL WIRING AND ELECTRICAL POWER CONDUITS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. COORDINATE INSTALLATION WITH ELECTRICAL AND PLUMBING CONTRACTORS.
8. SECURE CONDENSING UNIT TO ROOF SUPPORT. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. REFER TO DIV. 7 FOR MORE INFORMATION.
9. SLEEVE ALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND PIPING WITH FIRE PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK.
10. PROVIDE EXHAUST FAN ON ROOF CURB AS SCHEDULED. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT.
11. PROVIDE SUPPLY FAN ON ROOF CURB AS SCHEDULED. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT.

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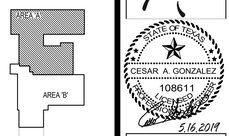
IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW

PALMVIEW, TEXAS



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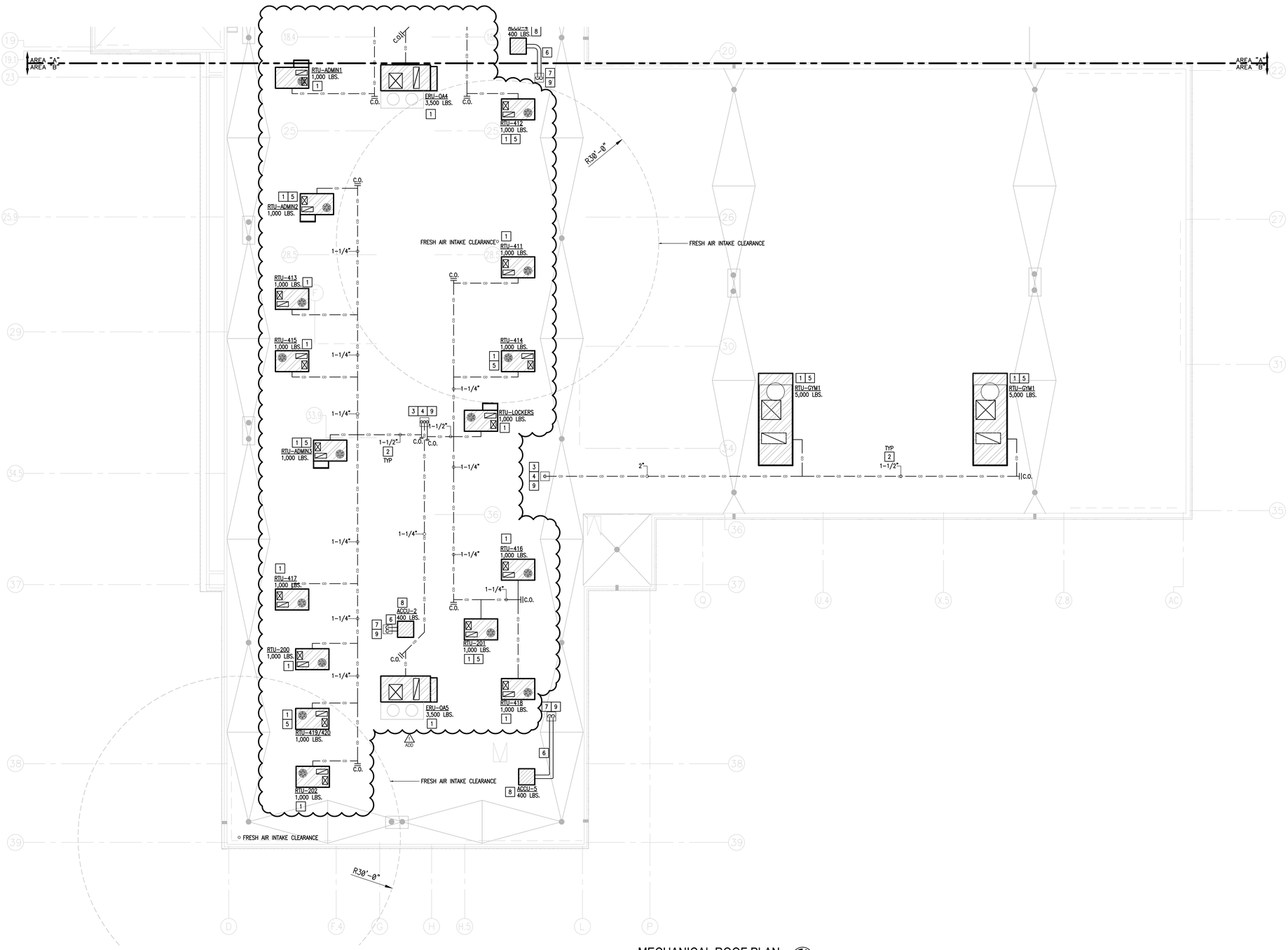
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	M4.01



01 MECHANICAL ROOF PLAN

SCALE : 1/8" = 1'-0"

NORTH

KEYED NOTES:

1. PROVIDE RTU ON ROOF CURB AS SCHEDULED. ORIENT RTUS TO OPTIMIZE DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE COPPER CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING IN PIPING SUPPORTS AS DETAILED. PROVIDE ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
2. PROVIDE COPPER CONDENSATE PIPING ON ROOF AND PROVIDE SUPPORTS AS PER DETAIL. REFER TO DETAIL SHEET. (TYPICAL)
3. ROUTE CONDENSATE LINES DOWN TO CEILING SPACE BELOW AT THE APPROXIMATE LOCATION. REFER TO PLUMBING DRAWINGS.
4. PROVIDE ROOF PENETRATION SYSTEM FOR CONDENSATE PIPING. SEE ASSOCIATED DETAIL ON DETAIL SHEET. COORDINATE INSTALLATION WITH PLUMBING CONTRACTOR.
5. PROVIDE FACTORY INSTALLED CONVENIENCE ELECTRICAL OUTLET AT INDICATED RTUS. COORDINATE WITH EQUIPMENT MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR.
6. PROVIDE 1" INSULATION & ALUMINUM METAL JACKET ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS. PROVIDE REFRIGERANT LINE SUPPORTS SUITABLE FOR ROOF APPLICATION.
7. PROVIDE ROOF PENETRATION SYSTEM FOR REFRIGERANT PIPING, HVAC CONTROL WIRING AND ELECTRICAL POWER CONDUITS. SEE ASSOCIATED DETAIL ON DETAIL SHEET. COORDINATE INSTALLATION WITH ELECTRICAL AND PLUMBING CONTRACTORS.
8. SECURE CONDENSING UNIT TO ROOF SUPPORT. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. REFER TO DIV. 7 FOR MORE INFORMATION.
9. SLEEVE ALL PENETRATIONS PER SPECIFICATIONS. SEAL AROUND PIPING WITH FIRE PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION BOTH INSIDE AND OUTSIDE TO PROVIDE FINISHED LOOK.

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DEDICATED OUTSIDE AIR SYSTEM (ENERGY RECOVERY UNIT) SCHEDULE

MARK	OUTSIDE/ SUPPLY AIR CFM	EXHAUST AIR CFM	MIN SUPPLY AIR 0.5" CFM	ESP SF/EF (in. water)	ELECT. V-PH-HZ	MOCP	MCA	SUPPLY FAN HP/BHP	EXHAUST FAN HP/BHP	EER	AHRI V-2011 CEF CLG/DEHUM	IEER	RETURN AIR DEHUM MODE DBDT/WBT	ENERGY RECOVERY WITH EAT 83.3F/79.4F EFFECTIVENESS TOTAL	EFFECTIVENESS SENSIBLE	DAT DBDT/WBT	RECOVERY BTU/H	HEATING MODE WITH EAT 40F EFFECTIVENESS TOTAL	DAT DBT	RECOVERY BTU/H	COOLING CONDITION UNDER DEHUMIDIFICATION MODE CONDENSING DBT F	COIL EAT DBT/WBT	LAT (DB/WB)	TCAP BTU/H	SENS. BTU/H	UNDER COOLING MODE WITH OAT 100.4/76.46F CONDENSING DBT F	COIL EAT DBT/WBT	LAT (DB/WB)	TCAP BTU/H	SENS. BTU/H	COMPRESSORS QTY	STAGES	ELECTRIC HEATING KW	ENTERING OAT DBT	SIZE KW	STAGES	LAT DBT	MANUFACTURER MODEL DAIKIN	WEIGHT LBS	NOTES
ERU-OA1 to OA5	3800	3420	1160	0.5/0.5	460/3/60	45	37.1	4	4	11.0	14.7/19.5	18	75/62.5	0.62	0.65	78.3/70.5	139	0.65	53.4	113	83.3	78.3/70.5	55.1/55.1	191	96	100.4	84.9/68.8	54.7/54.7	169	125	2	INFINITE	11	54	18	SCR	68.3	DPS015A	3000	ALL

NOTES:

1. PROVIDE AHRI CERTIFIED ROOF-MOUNTED PACKAGED UNITS WITH DESICCANT DEHUMIDIFICATION ENERGY RECOVERY, INTEGRAL AIR COOLED CONDENSERS DESIGNED FOR 100% OUTSIDE AIR APPLICATION.
2. PROVIDE MODULATING HOT GAS REHEAT VALVES AND DEHUMIDIFICATION CONTROLS TO ACHIEVE SCHEDULED LEAVING AIR CONDITIONS. RESET AS HIGH AS 70F.
3. PROVIDE INVERTER COMPRESSORS FOR FULL MODULATION OF CAPACITY. COMPRESSORS SHALL MODULATE FROM 10 TO 100% OF CAPACITY, AND MAINTAIN CONSTANT LEAVING AIR TEMPERATURE.
4. FURNISH DIRECT DRIVE SUPPLY FANS WITH VFDS OR ECM, NON-OVERLOADING MOTORS. PROVIDE VAV AIRFLOW CONTROL BY DUCT STATIC PRESSURE SENSOR.
5. PROVIDE GALVANIZED FILTER FRAMES AND 304 STAINLESS STEEL DRAIN PANS.
6. PROVIDE CABINET WITH 1" R-7 (3-15 TONS) OR 2" R-13 (16+ TONS) DOUBLE WALL CONSTRUCTION WITH FOAM INSULATION.
7. FURNISH DIRECT DRIVE SUPPLY FANS WITH VFDS OR ECM MOTORS AND NON-OVERLOADING MOTORS.
8. E-COATED EVAPORATOR, HOT GAS REHEAT AND CONDENSER COILS TO MEET ASTM B117-90, ASTM D2247-92, AND ASTMD870-92 FOR 6,000 HRS SALT SPRAY, 1,000 HRS HUMIDITY IMMERSION RESISTANCE, AND 250 HRS WATER IMMERSION RESISTANCE.
9. ESP IS STRICTLY EXTERNAL STATIC PRESSURE AND IS IN ADDITION TO ANY FILTERS, COILS OR OTHER ACCESSORIES INCLUDED WITH THE DOAS
10. PROVIDE SINGLE POINT OF ELECTRICAL CONNECTION AND FACTORY INSTALLED PHASE VOLTAGE MONITORS. DISCONNECT BY DIV. 26.
11. PROVIDE HEAD PRESSURE CONTROL FOR LOW AMBIENT OPERATION TO 30°F.
12. PROVIDE FACTORY INSTALLED UNITARY CONTROLLER CAPABLE OF
    1) 100% OUTSIDE AIR CONTROL
    2) CAV AND VAV SUPPLY AIR FLOW CONTROL. VAV AIRFLOW CONTROL BY DUCT STATIC PRESSURE SENSOR.
    3) BACNET INTERFACE
    4) DEHUMIDIFICATION CONTROL
13. PROVIDE IBC 2012 COMPLIANT CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:
    1) ATTACHMENT OF EQUIPMENT TO CURB.
    2) CURB TO STRUCTURE.
    3) CURB AND ATTACHMENT HARDWARE STRENGTH.
    REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.
    EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.
    BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED AND SEALED BY A TEXAS LICENSED ENGINEER.
    SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.

EXHAUST FAN SCHEDULE

MARK	ROOM NUMBER SERVING	TYPE	ELECTR. V/H/P	CFM	INPUT WATTS	MOTOR HP	E.S.P. IN. H20	SOUND IN SONES	MANUFACTURER & MODEL NUMBER	WEIGHT (LBS)	CONTROL NOTES	NOTES
First Floor												
EF-1	173A TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-2	173B TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-3	173C TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-4	173D TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-5	173F TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-6	181A TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-7	136 CLINIC	CEILING MOUNTED	120/60/1	100	54.5	–	0.4	1.5	LOREN COOK GC-186	13	B	1-6
EF-8	136A TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-9	139 BREAKROOM	CEILING MOUNTED	120/60/1	100	54.5	–	0.4	1.5	LOREN COOK GC-186	13	B	1-6
EF-10	138 STORAGE/CUSTODIAN	CEILING MOUNTED	120/60/1	200	75.0	–	0.4	1.3	LOREN COOK GC-622	35	B	1-6
EF-11	141 GIRLS RESTROOM	CEILING MOUNTED	120/60/1	375	195.0	–	0.4	2.0	LOREN COOK GC-740	29	A	1-6
EF-12	141A GIRLS DRESSING	CEILING MOUNTED	120/60/1	200	75.0	–	0.4	1.3	LOREN COOK GC-622	35	B	1-6
EF-13	144 BOYS RESTROOM	CEILING MOUNTED	120/60/1	375	195.0	–	0.4	2.0	LOREN COOK GC-740	29	A	1-6
EF-14	144A BOYS DRESSING	CEILING MOUNTED	120/60/1	200	75.0	–	0.4	1.3	LOREN COOK GC-622	35	B	1-6
EF-15	157 TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-16	151 TOILET	CEILING MOUNTED	120/60/1	75	34.4	–	0.4	1.5	LOREN COOK GC-166	12	B	1-6
EF-17	176 CUST.	CEILING MOUNTED	120/60/1	100	54.5	–	0.4	1.5	LOREN COOK GC-186	13	B	1-6
Second Floor												
EF-18	420 BREAKROOM	CEILING MOUNTED	120/60/1	100	54.5	–	0.4	1.5	LOREN COOK GC-186	13	B	1-6

NOTES:

1. PROVIDE FACTORY MOUNTED DISCONNECT.
2. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL." REFER TO SPECIFICATIONS.
3. PROVIDE FIELD-INSTALLED FAN SPEED CONTROLLER. COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.
4. PROVIDE FAN WITH ALL ALUMINUM BACKDRAFT DAMPER.
5. PROVIDE DELUXE ALUMINUM GRILLE.
6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FROM MANUFACTURER.

CONTROL NOTES:

A. PROVIDE DDC START/STOP POINTS. REFER TO SEQUENCES OF OPERATIONS.
B. FAN SHALL BE OPERATED BY A WALL SWITCH VIA THE OCCUPANCY SENSOR PROVIDED BY DIV.26 COORDINATE WITH ELECTRICAL.

FAN COIL UNIT SCHEDULE

MARK	TYPE	AREA SERVED	TOTAL CFM	ESP (IN.)	MIN. HP	ELECT. V/P/H	MCA	MOCP	COOLING TOTAL	COOLING SENSIBLE BTU/H	COOLING EAT DB/WB	COOLING LAT DB/WB	WT. LBS.	KEYED NOTES	MANUFACTURER & MODEL
FCU-1	VERTICAL MOUNTED	126 IDF ROOM	600	0.5	1/2	208/1/60	5.0	15.0	18,290	14,952	75.0/62.55	51.5/51.5	148	ALL	LENNOX CBX27UH
FCU-2	VERTICAL MOUNTED	159 MDF ROOM	600	0.5	1/2	208/1/60	5.0	15.0	18,290	14,952	75.0/62.55	51.5/51.5	148	ALL	LENNOX CBX27UH
FCU-3	VERTICAL MOUNTED	316 IDF ROOM	600	0.5	1/2	208/1/60	5.0	15.0	18,290	14,952	75.0/62.55	51.5/51.5	148	ALL	LENNOX CBX27UH
FCU-4	HORIZONTAL MOUNTED	409A IDF ROOM	600	0.5	1/2	208/1/60	5.0	15.0	18,290	14,952	75.0/62.55	51.5/51.5	148	ALL	LENNOX CBX27UH
FCU-5	HORIZONTAL MOUNTED	421 IDF ROOM	600	0.5	1/2	208/1/60	5.0	15.0	18,290	14,952	75.0/62.55	51.5/51.5	148	ALL	LENNOX CBX27UH

NOTES:

1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL". SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS AND SUBSTITUTION PROCEDURES.
2. ESP IS STRICTLY EXTERNAL STATIC PRESSURE AND IS IN ADDITION TO ANY FILTERS, COILS OR OTHER ACCESSORIES INCLUDED WITH THE FCU.
3. FURNISH FANS WITH NON-OVERLOADING MOTORS.
4. PROVIDE SINGLE POINT OF ELECTRICAL CONNECTION. DISCONNECT BY DIV. 26.
5. PROVIDE CABINET MODULAR 1" THICK INSULATION
6. ELECTRIC HEAT COIL IS NOT REQUIRED.
7. PROVIDE FAN COIL FILTER CABINET AND FILTER KIT.

BIPOLAR ION GENERATOR SCHEDULE

MARK	AREA SUPPLIED	MAX. TREATED AIRFLOW CFM	QTY	DRY CONTACTS	POWER (W)	VARIABLE OUTPUT W/ AIRFLOW	MFR GPS MODEL NO.
RTU-CAFÉ 1	CAFÉ	4500	1	INCLUDED	10	INTEGRAL	GPS-FC48-AC
RTU-CAFÉ 2	CAFÉ	4500	1	INCLUDED	10	INTEGRAL	GPS-FC48-AC
RTU-GYM1	GYM	8000	2	INCLUDED	10	INTEGRAL	GPS-FC48-AC
RTU-GYM2	GYM	8000	2	INCLUDED	10	INTEGRAL	GPS-FC48-AC

NOTES:

1. INSTALL ION GENERATORS AT ENTERING SIDE OF COOLING COIL.
2. ION GENERATORS SHALL BE POWERED FROM 24V FAN CONTROL POWER OR 115V CONVENIENCE OUTLET.
3. PROVIDE A SELF-CLEANING, MAINTENANCE FREE DESIGN.
4. PROVIDE ALARM CONTACTS. FACTORY REPRESENTATIVE TO COORDINATE WITH RTU MANUFACTURER AND CONTROLS CONTRACTOR FOR PROPER WIRING AND INSTALLATION.
5. IONIZER SHALL BE UL LISTED.

AIR COOLED CONDENSING UNIT SCHEDULE

MARK	SERVES	TOTAL BTU/H	COND DB	ELECTRIC V/P/H	SEER at ARI	MCA	MOCP	WEIGHT (LBS)	NOTES	MANUFACTURER & MODEL NUMBER
ACCU-1	FCU-1	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX
ACCU-2	FCU-2	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX
ACCU-3	FCU-3	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX
ACCU-4	FCU-4	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX
ACCU-5	FCU-5	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX

NOTES:

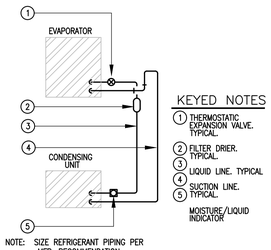
1. MANUFACTURER AND MODEL NUMBER LISTED ARE "OR APPROVED EQUAL".
2. INSULATE REFRIGERANT LINES AS PER SPECIFICATIONS AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES.
3. PROVIDE HAIL GUARD, LOW AMBIENT KIT, 5 YR COMPRESSOR WARRANTY, SIGHT GLASS, SERVICE VALVES, FILTER DRYER, TXVS, ANTI-SHORT CYCLE TIMER.
4. MOUNT CONDENSING UNIT ON ROOF. REFER TO STRUCTURAL FOR ROOF SUPPORT.
5. PROVIDE E-COATED COILS.

ROOFTOP UNIT SCHEDULE (LENNOX)

MARK	NOMINAL TONNAGE	SUPPLY CFM	OA CFM	OA FROM	ESP (INCHES)	MIN. HP	MCA A	MOCP A	ELECT. V-PH-HZ	AIR ON COND.	COOLING TOTAL BTUH	COOLING SENSIBLE BTUH	COOLING EAT DB/WB	COOLING LAT DB/WB	HEATING KW	HEATING STG.	HEATING ELECT. V-PH-HZ	MIN. S(EER)/IEER	WEIGHT LB	NOTES	LENNOX MODEL NUMBER
RTU-169/170	3	1200	400	ERU-OA1	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-166	3	900	350	ERU-OA1	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-167	3	900	350	ERU-OA1	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-168	3	1200	400	ERU-OA1	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-171	3	900	350	ERU-OA1	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-301	3	900	350	ERU-OA1	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-302	4	1400	450	ERU-OA1	0.8	0.75	27	30	460/3/60	100	45,472	33,757	76/64	53.3/52.6	15	1	460/3/60	17.0 (12.8)	620	ALL	LCH048H4E
RTU-303	3	900	350	ERU-OA1	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-304	4	1300	450	ERU-OA1	0.8	0.75	27	30	460/3/60	100	44,839	32,489	76/64	52.4/51.8	15	1	460/3/60	17.0 (12.8)	620	ALL	LCH048H4E
RTU-305	3	900	350	ERU-OA1	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-152	3	900	425	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-154	3	900	425	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-156	3	900	425	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-160	3	1200	450	ERU-OA2	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-165	3	900	425	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-306	3	900	400	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-312	3	900	400	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-316	3	1200	450	ERU-OA2	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-317	3	900	400	ERU-OA2	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-146	3	1200	375	ERU-OA3	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-147	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-148	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-151	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-164	3	1200	400	ERU-OA3	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-307	3	1200	400	ERU-OA3	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-318	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-321	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-400/401	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-402	3	900	375	ERU-OA3	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-144	3	900	400	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-145	3	900	400	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-403	3	900	375	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-404	3	900	375	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-405	3	900	375	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-406	3	900	375	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-407	3	900	350	ERU-OA4	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-408	4	1300	450	ERU-OA4	0.8	0.75	27	30	460/3/60	100	44,839	32,489	76/64	52.4/51.8	15	1	460/3/60	17.0 (12.8)	620	ALL	LCH048H4E
RTU-411	3	1200	350	ERU-OA4	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-412	3	1200	350	ERU-OA4	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-200	3	1200	400	ERU-OA5	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-201	3	1200	400	ERU-OA5	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-202	3	900	375	ERU-OA5	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-413	4	1300	425	ERU-OA5	0.8	0.75	27	30	460/3/60	100	44,839	32,489	76/64	52.4/51.8	15	1	460/3/60	17.0 (12.8)	620	ALL	LCH048H4E
RTU-415	3	900	375	ERU-OA5	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-414	3	1200	250	ERU-OA5	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-417	3	900	375	ERU-OA5	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-416	4	1300	400	ERU-OA5	0.8	0.5	26	30	460/3/60	100	33,625	26,791	76/64	55.0/54.3	15	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-419/420	4	1300	425	ERU-OA5	0.8	0.75	27	30	460/3/60	100	44,839	32,489	76/64	52.4/51.8	15	1	460/3/60	17.0 (12.8)	620	ALL	LCH048H4E
RTU-418	3	900	375	ERU-OA5	0.8	0.5	15	15	460/3/60	100	31,656	22,967	76/64	51.9/51.5	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-LOCKERS	3	1200	120	NA	0.8	0.5	15	15	460/3/60	100	33,795	25,966	75.7/64.4	55.3/54.7	7.5	1	460/3/60	17.0 (12.5)	590	ALL	LCH036H4E
RTU-ADMIN 1	5	1600	225	NA	0.8	1	28	30	460/3/60	100	57,283	38,542	75.9/65.1	53.2/52.7	15	1	460/3/60	17.0 (12.7)	841	ALL	LCH060H4E
RTU-ADMIN 2	5	1600	225	NA	0.8	1	28	30	460/3/60	100	57,283	38,542	75.9/65.1	53.2/52.7	15	1	460/3/60	17.0 (12.7)	841	ALL	LCH060H4E
RTU-ADMIN 3	5	1600	225	NA	0.8	1	28	30	460/3/60	100	57,283	38,542	75.9/65.1	53.2/52.7	15	1	460/3/60	17.0 (12.7)	841	ALL	LCH060H4E
RTU-CAFÉ 1	15	4500	1250	NA	0.8	3	74	80	460/3/60	100	169,483	103,118	77.4/67.8	55.7/55.4	45	2	460/3/60	13.7 (12.0)	2,206	ALL	LCH180H4M
RTU-CAFÉ 2	15	4500	1250	NA	0.8	3	74	80	460/3/60	100	169,483	103,118	77.4/67.8	55.7/55.4	45	2	460/3/60	13.7 (12.0)	2,206	ALL	LCH180H4M
RTU-KITCHEN	15	5000	600	NA	0.8	3	74	80	480-3-60	100	165,793	116,246	75.8/64.8	53.9/53.3	45	2	480-3-60	13.7 (12.0)	2,327	ALL	LCH180H4M

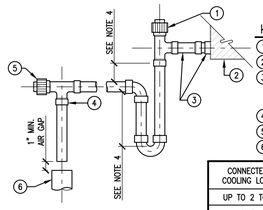
NOTES:

1. PROVIDE ROOF CURBS WITH VERTICAL DUCT CONNECTION, COPPER CONDENSATE TRAP, TXV AND FREEZE-STAT OPTIONS.
2. PROVIDE STAINLESS STEEL OR CORROSION RESISTANT POLYCARBONATE DRAIN PANS, GALVANIZED FILTER FRAMES, E-COATED COILS, AND HAIL GUARDS.
3. FOR RTUs- LOCKERS, ADMIN, KITCHEN: PROVIDE HOT GAS REHEAT, OA HOOD, MOTORIZED DAMPERS, ACTUATORS FOR 100% COMPARATIVE ENTHALPY ECONOMIZER. DO NOT PROVIDE EXHAUST OR RELIEF AIR OPENINGS, OR SEAL THEM CLOSED.
4. FOR RTUs- CAFE: PROVIDE SAV UNIT WITH FAN VFD, HGRH, OA HOOD, MOTORIZED DAMPERS, ACTUATORS FOR 100% COMPARATIVE ENTHALPY ECONOMIZER. DO NOT PROVIDE EXHAUST OR RELIEF AIR OPENINGS.
5. PROVIDE UNIT MOUNTED UNITARY CONTROLLERS, BACNET/LONTALK INTERFACE CARD TO TIE TO DDC SYSTEM
6. HEATING KW IN RTU SCHEDULE IS RATED HEATING CAPACITY, NOT NOMINAL KW. FAN HP SHALL BE PER MFR'S RECOMMENDATION.
7. ELECTRICAL DISCONNECT BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
8. PROVIDE WALL MOUNTED THERMOSTAT/TEMPERATURE SENSOR AND HUMIDITY SENSOR.
9. EQUIPMENT MANUFACTURER, MECH. CONTRACTOR AND HVAC CONTRO



01 REFRIGERANT PIPING DIAGRAM

SCALE : NOT TO SCALE



NOTES:

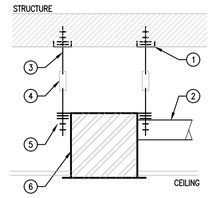
1. MANUALLY PRIME TRAP BEFORE START UP.
2. SUPPORT DRAIN LINES TO PREVENT SAG.
3. ALLOW SUFFICIENT SPACE BELOW PAN FOR TRAP AND PITCH TO DRAIN.
4. COORDINATE WITH MANUFACTURER OF AHU.

CONNECTED COOLING LOAD	MIN. * PIPE SIZE
UP TO 2 TON	3/4"
2-5	1"
5-30	1-1/4"
30-50	1-1/2"
50-160	2"
160-300	3"
300-430	4"

* NOT SMALLER THAN OUTLET SIZE.

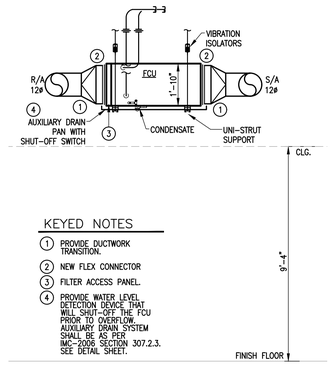
02 CONDENSATE DRAIN TRAP PIPE

SCALE : NOT TO SCALE



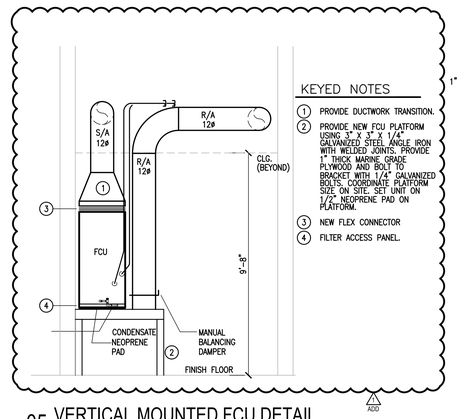
03 CEILING EXHAUST FAN FAN MOUNTING DETAIL

SCALE : NOT TO SCALE



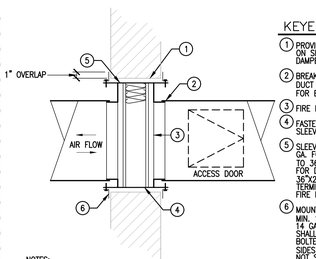
04 HORIZONTAL MOUNTED FCU DETAIL

SCALE : NOT TO SCALE



05 VERTICAL MOUNTED FCU DETAIL

SCALE : NOT TO SCALE

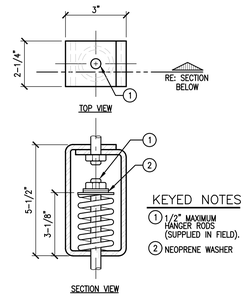


NOTES:

1. FIRE DAMPER TO BE LABELED IN ACCORDANCE WITH UL STANDARDS, AND STATE FIRE MARSHALL APPROVED.
2. INSTALLATION DETAILS SHALL MEET NFPA 90A & B REQUIREMENTS.
3. LOCATE ACCESS DOOR FOR BEST ACCESS TO LINK.
4. FUSIBLE LINK TO BE RATED FOR 50% ABOVE MAXIMUM OPERATING TEMPERATURE OF SYSTEM.
5. FOR STAINLESS STEEL FIRE DAMPER METAL GAUGE, REFER TO MANUFACTURER RECOMMENDATIONS.
6. FIRE DAMPER SHALL BE RATED FOR DYNAMIC DUTY.
7. SLEEVE SHALL TERMINATE FLUSH WITH FIRE RATED WALL.
8. PROVIDE LABEL FOR FIRE DAMPER ACCESS DOOR.

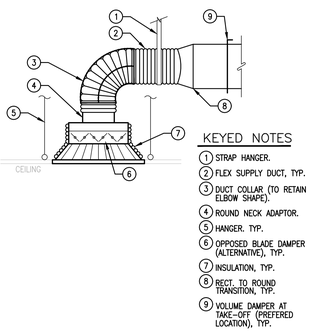
06 FIRE DAMPER WITH ACCESS PANEL

SCALE : NOT TO SCALE



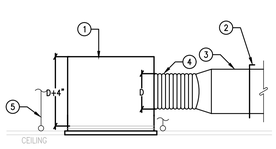
07 SPRING ISOLATION HANGER

SCALE : NOT TO SCALE



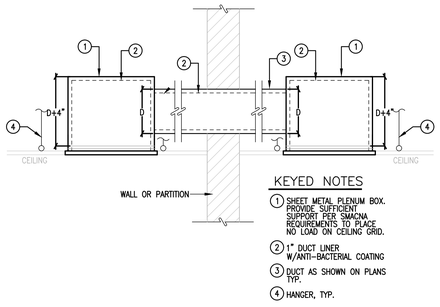
08 CEILING DIFFUSER SUPPORT

SCALE : NOT TO SCALE



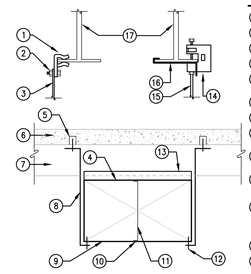
09 CEILING RETURN GRILLE DETAIL

SCALE : NOT TO SCALE



10 CEILING TRANSFER GRILLE DETAIL

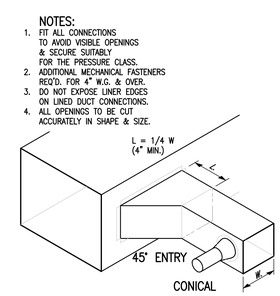
SCALE : NOT TO SCALE



NOTE:
FOLLOW SMACNA GUIDELINES FOR DUCT SUPPORT.

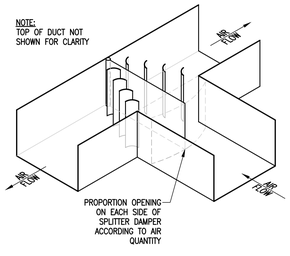
11 DUCT SUPPORT

SCALE : NOT TO SCALE



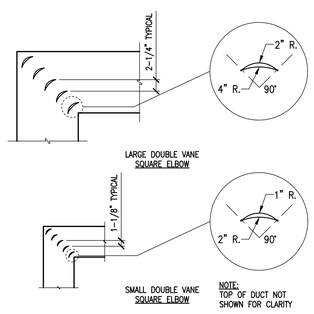
12 BRANCH CONNECTION DETAILS

SCALE : NOT TO SCALE



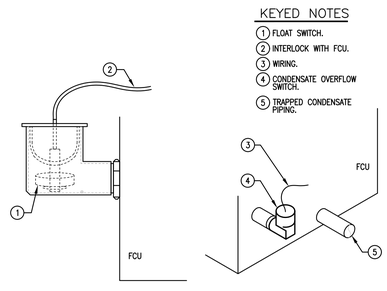
13 TYPICAL SPLITTER DAMPER

SCALE : NOT TO SCALE



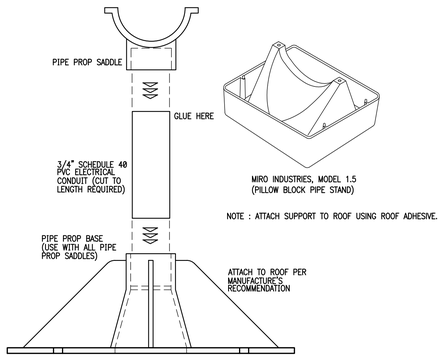
14 TYPICAL VANED DUCT ELBOWS

SCALE : NOT TO SCALE



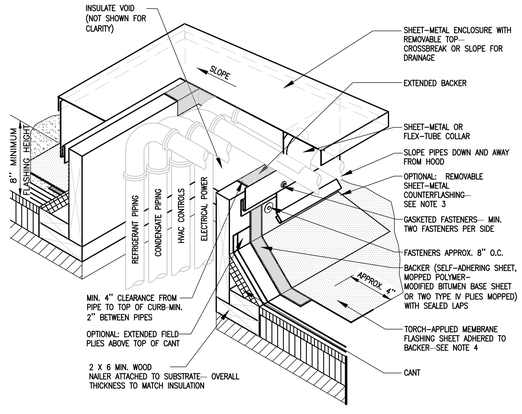
15 CONDENSATE OVERFLOW SWITCH DETAIL

SCALE : NOT TO SCALE



14 CONDENSATE PIPE SUPPORT DETAIL

SCALE : NOT TO SCALE



NOTES:

1. THIS DETAIL ILLUSTRATES ANOTHER METHOD OF ELIMINATING PITCH POCKETS AND AN OPTIONAL METHOD OF GROUPING PIPING THAT MUST PENETRATE THE ROOF.
2. MANY MANUFACTURERS OFFER PREFABRICATED BOOTS AND OTHER MATERIALS FOR THIS PURPOSE. SPECIFICS ABOUT THESE PROPRIETARY DESIGNS VARY GREATLY, AND INDIVIDUAL MANUFACTURERS' SPECIFICATIONS SHOULD BE CONSULTED FOR THEIR USE.
3. WHERE THE SHEET–METAL ENCLOSURE OVERLAPS THE BASE FLASHING AT LEAST 3 INCHES, THE REMOVABLE SHEET–METAL COUNTERFLASHING IS NOT REQUIRED.
4. WHEN POTENTIAL FIRE HAZARDS CAN BE MITIGATED, NRCA CONSIDERS IT ACCEPTABLE TO INSTALL TORCH–APPLIED POLYMER–MODIFIED BITUMEN SHEET OVER THE SPECIFIED BACKER FLASHING USING THE DIRECT TORCHING METHOD PROVIDED LOW OUTPUT (50,000 BTU OUTPUT OR LESS) TORCHING EQUIPMENT IS USED. WHEN POTENTIAL FIRE HAZARDS CANNOT BE ADEQUATELY MITIGATED, TORCH–APPLIED POLYMER–MODIFIED BITUMEN SHEET SHALL BE INSTALLED USING INDIRECT TORCHING METHODS, SUCH AS THE TORCH–AND–FLOP APPLICATION METHOD.
5. FOR ROOF SYSTEMS WITH FACTORY–APPLIED GRANULE SURFACING, PROPERLY PREPARE CAP SHEET TO RECEIVE FLASHING.
6. REFER TO THE INTRODUCTION OF THE CONSTRUCTION DETAILS CHAPTER FOR ADDITIONAL INFORMATION.

15 ACCUs PIPING ROOF PENETRATION DETAIL

SCALE : NOT TO SCALE

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TEXAS REGISTERED ENGINEERING FIRM
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ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW
PALMVIEW, TEXAS

STATE OF TEXAS
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5.16.2019

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	M7.01

SCOPE OF WORK

1. GENERAL: THE "IDEA PALMVIEW PHASE I" CONSISTS OF NEW TWO-STORY BUILDING, APPROXIMATE 79,000 S.F. THIS BUILDING WILL GENERALLY BE OPERATED FROM 7:00AM TO 6:00PM. (MONDAY THROUGH FRIDAY) WITH OCCASIONAL AFTER HOURS AND WEEKENDS USE.

2. ELECTRICAL: PROVIDE ALL MATERIALS AND LABOR ASSOCIATED WITH COMPLETE OPERATIONAL ELECTRICAL DISTRIBUTION SYSTEM. MAJOR ITEMS OF WORK INCLUDE, BUT ARE NOT LIMITED TO:

(A) ELECTRICAL SERVICE:
- (I) PROVIDE A NEW UNDERGROUND ELECTRICAL SERVICE; IT SHALL CONSIST OF UNDERGROUND ELECTRICAL RACEWAYS AND CONCRETE PAD FOR UTILITY FURNISHED TRANSFORMER.
- (II) UTILITY COMPANY SHALL PROVIDE MEDIUM VOLTAGE CONDUCTORS AND PAD TRANSFORMER.
- (III) PROVIDE PAD MOUNT SWITCHBOARD OUTDOOR RATED WITH INTEGRAL METER AND SINGLE-PHASE PROTECTION – SEE ELECTRICAL SCHEDULE.

(B) LIGHTING SYSTEMS: INTERIOR AND EXTERIOR LIGHTING SYSTEM SHALL CONSIST OF LED TYPE.

(C) LIGHTING CONTROLS (SWITCHES, OCCUPANCY SENSORS, DAYLIGHT SENSORS, ETC.): PROVIDE AS NOTED ON PLANS SPECIFICATIONS. IN SOME CASES, THEY WILL BE CEILING MOUNTED AND OTHERS WALL MOUNTED. IT'S THE INTENT FOR THEM TO BE WIRED TO AUTOMATICALLY CONTROL THE LUMINAIRES IN THEIR RESPECTIVE AREAS.

(D) COMMISSIONING: PROVIDE FOR THE LIGHTING EQUIPMENT AND LIGHTING CONTROLS AS REQUIRED PER IECC 2018.

(E) POWER SYSTEMS: PROVIDE MISCELLANEOUS DUPLEX RECEPTACLES, ISOLATED GROUND RECEPTACLES FOR COMPUTER TERMINALS, DUPLEX RECEPTACLES FOR FLAT SCREENS CONNECTIONS, AND POWER FOR MARQUEE/BUILDING SIGNS, BANKING, H.V.A.C. AND PLUMBING EQUIPMENT.

(F) FIRE ALARM SYSTEM:
- (I) PROVIDE AN ADDRESSABLE CONTROL PANEL WITH VOICE EVACUATION, MANUAL AND AUTOMATIC INITIATION DEVICES. MONITORING AND INTERFACING WITH ELEVATOR, FIRE SPRINKLE TAMPER AND FLOW SWITCHES. INDICATING DEVICES SHALL ALSO BE PROVIDED TO COMPLY WITH TDLR.
- (II) FULLY COORDINATE WITH THE ELEVATOR CONTRACTOR FOR THE FIRE ALARM INTERFACING.
- (III) FULLY COORDINATE WITH THE FOOD SERVICE CONTRACTOR FOR THE KITCHEN HOOD FIRE SUPPRESSION INTERFACING.

(G) COMMUNICATION AND DATA PROCESSING EQUIPMENT: PROVIDE CABLING, CONNECTORS, PATCH PANELS, RACKS, ETC.

(H) MULTIMEDIA SYSTEM: PROVIDE MULTIMEDIA OUTLET FOR WALL MOUNT PROJECTORS AND FLAT SCREENS, INCLUDING CONNECTORS, WIRING, ETC.

(I) SCHOOL INTERCOM SYSTEM: PROVIDE SPEAKERS AND CALL-IN SWITCHES IN CLASSROOMS AND OFFICES. HALLWAYS AND BUILDING EXTERIOR WALLS WITH SPEAKERS TO TRANSMIT GENERAL ANNOUNCEMENTS.

(J) GYMNASIUM SOUND SYSTEM: PROVIDE SPEAKERS, MICROPHONE OUTLETS, MICROPHONE, MICROPHONE STANDS, AND WIRING. SEE SPECIFICATIONS.

(K) CAFETERIA SOUND SYSTEM: PROVIDE PENDANT MOUNTED SPEAKERS, MICROPHONE OUTLETS, MICROPHONE, MICROPHONE STANDS, AND WIRING. SEE SPECIFICATIONS.

(L) ACCESS CONTROL:
- (I) CAMPUS ACCESS: PROVIDE POWER TO VEHICLE AND PEDESTRIAN GATES, RECEPTION AREA ENTRANCE DOOR MAGNETIC STRIKES AND INTERCOM AND CAMERA AT VEHICLE GATES ENTRANCES.
- (II) LOBBY ACCESS: PROVIDE CARD READERS, RELEASE BUTTONS, SOFTWARE PROGRAMMING AND EQUIPMENT INCLUDING POWER TO SECURED DOORS, POWER SUPPLIES AND RACEWAYS FOR WIRING. ELECTRIC STRIKES AND ELECTRIFIED HARDWARE PROVIDE BY DOOR HARDWARE SUB-CONTRACTOR.
- (III) BUILDING INTRUSION DETECTION SYSTEM: IT SHALL CONSIST OF A CONTROL PANEL, KEYPADS, GLASS BREAK SENSORS, MOTION DETECTORS AND MAGNETIC CONTACTS AS NOTED ON DRAWINGS.

(M) CCTV: PROVIDE DATA CONNECTORS FOR CAMERAS. CAMERAS AND EQUIPMENT BY OWNER.

ABBREVIATIONS:

A	AMPS	EMS	ENERGY MANAGEMENT SYSTEM	MOCP	MAX. OVERCURRENT PROTECTION
ABC	ABOVE CEILING LINE	EXT.	EXTERNAL OR EXTERIOR	NTS	NOT TO SCALE
AC	ABOVE COUNTER BACKSPLASH	FACP	FIRE ALARM CONTROL PANEL	OA	OUTSIDE AIR
ACCU	AIR COOLED CONDENSING UNIT	FCU	FAN COIL UNIT	OAU	OUTSIDE AIR UNIT
AHU	AIR HANDLING UNIT	FD	FIRE DAMPER	P	POLE(S)
AFF	ABOVE FINISHED FLOOR	FS	FLAT SCREEN	PA	PUBLIC ADDRESS
B.	BOTTOM	G.	GROUND	PH	PHASE
BLC.	BELOW CEILING LINE	GA.	GAGE	RM.	ROOM
C.	CONDUIT OR COMMON	GALV.	GALVANIZED	SS	STAINLESS STEEL
CLG.	CEILING	GRND.	GROUND	TSTAT	THERMOSTAT
COMB.	COMBINATION	HP	HORSEPOWER	UG	UNDERGROUND
COND.	CONDUIT	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	UNO	UNLESS OTHERWISE NOTED
CU.	COPPER			V	VOLTS
DDC	DIRECT DIGITAL CONTROLS	IG	ISOLATED GROUND	VAV	VARIABLE AIR VOLUME
DISC.	DISCONNECT	INT.	INTRUSION DETECTION	VFD	VARIABLE FREQUENCY DRIVE
EDH	ELECTRIC DUCT HEATER	MECH	MECHANICAL	WACU	WALL AIR CONDITIONING UNIT.
EF	EXHAUST FAN	MS	MOTOR STARTER	W	WIRE

KITCHEN BELL SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	KITCHEN DOOR BELL PUSH BUTTON – EDWARDS MODEL #852 W/ STAINLESS STELL WALL PLATE. PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED TO TRANSFORMER ABOVE ACCESSIBLE CLG.	48"AFF
T	KITCHEN DOOR BELL TRANSFORMER – EDWARDS MODEL #592 (120V-24V).	12" ABC
B	KITCHEN DOOR BELL CHIME – EDWARDS MODEL #340A-C5 (24V). PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED TO TRANSFORMER ABOVE ACCESSIBLE CLG.	12" BLC

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DISCONNECT SWITCH – NON FUSED	AS REQUIRED
	DISCONNECT SWITCH – FUSED	AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH	AS REQUIRED
	EQUIPMENT CONNECTION	AS REQUIRED
	MOTOR CONNECTION	AS REQUIRED
	ELECTRICAL PANELBOARD – SURFACE MOUNTED	AS REQUIRED
	ELECTRICAL PANELBOARD – RECESSED/FLUSH MOUNTED	AS REQUIRED
	UNDERGROUND RACEWAY	AS REQUIRED
	CONCEALED RACEWAY	AS REQUIRED
	CONDUIT OR EMT HOMERUN TO PANELBOARD CONCEALED IN WALLS OR ABOVE CEILING. LONG CROSSMARKS DENOTE NUMBER OF "HOT" CONDUCTORS SHORT CROSSMARKS INDICATE NEUTRALS AND DOTS INDICATE NUMBER OF GROUND CONDUCTORS. ARROW INDICATES HOME RUN TO ELECTRICAL PANEL.	AS REQUIRED
SPD	SURGE PROTECTION DEVICE	– – – –

DOOR ACCESS SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
P	DOOR POWER SUPPLY – CONNECT TO NEAREST 120V NON-GFCI CIRCUIT.	12" ABC
ES	CONNECT DOOR ELECTRIC STRIKE – PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED TO POWER SUPPLY ABOVE ACCESSIBLE CLG.	12" ABC
RB	CONNECT DOOR RELEASE BUTTON – BOSCH MODEL #47107). PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED TO POWER SUPPLY ABOVE ACCESSIBLE CLG.	4" ACB
MS	CONNECT SLIDE GATE AUDIO/MASTER MASTER STATION – PROVIDE BACK BOX WITH 1/2" RACEWAY STUBBED INTO ACCESSIBLE CLG. SEE DETAIL	4" ACB

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
REFER TO DOOR ACCESS SYSTEM DETAIL.

LUTRON CONTROL SYMBOLS:

	DIMMING WALLSTATION – LUTRON PX-2BRL-GWH-I01	48"AFF
	WALLSTATION – LUTRON QSWS2-3BRLI-WH	48"AFF
	WALLSTATION – LUTRON QSWS2-5BRLI-WH	48"AFF
	KEYED WALLSTATION – LUTRON QSWS2-KSI3MOC-WH	48"AFF
	VACANCY SENSOR – LUTRON LUT-WSPSM24V-360-CPN6111	CLG.
TC	TIME CLOCK – LUTRON QSGR-TC-3S-WH-CPN5825	---
INTERFACE	CONTROLLER INTERFACE – LUTRON QSE-CI-AP-D	ABV. CLG.
ESN	ENERGI SAVR NODE – LUTRON QSN-X, REFER TO LUTRON ONE-LINE DIAGRAM TYPE.	AS REQUIRED
	ENERGI SAVR NODE – LUTRON QSN-4T16-S	AS REQUIRED
KIT	KIT – LUTRON C-ESN-SETUP	AS REQUIRED
	CONTROL INTERFACE – LUTRON QSE-IO	12" BLC
	WALLSTATION – LUTRON QSWS2-7BI-WH	48"AFF
IR	INFRARED TRANSMITTER/RECIEVER – LUTRON GRX-IRPS-WH	ABV. CLG.

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE; ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE. REFERENCE LIGHTING CONTROL SCHEMATIC DETAILS FOR ALL LUTRON CONTROLS WIRING REQUIREMENTS.

LIGHTING SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	2'X4' LIGHT FIXTURE – TYPE AS NOTED	– – – –
	EMERGENCY 2'X4' LIGHT FIXTURE–TYPE AS NOTED CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	– – – –
	SURFACE/WRAPAROUND LIGHT FIXTURE	– – – –
	SURFACE/WRAPAROUND EMERGENCY LIGHT FIXTURE CONNECT BATTERY PACK TO BE ON AT ALL TIMES (UNSWITCHED)	– – – –
	SINGLE FACE EXIT SIGN CEILING OR WALL MOUNTING (DIRECTIONAL ARROWS WHERE INDICATED)	12" ABV. EGRESS OPENING
	DOUBLE FACE EXIT SIGN CEILING OR WALL MOUNTING (DIRECTIONAL ARROWS WHERE INDICATED)	12" ABV. EGRESS OPENING
	EMERGENCY LIGHTING UNIT	8'-0"AFF
	WALL MOUNT LIGHT FIXTURE – TYPE AS NOTED	– – – –

NOTES:
1.) REFERENCE LIGHT FIXTURE SCHEDULE FOR ALL MOUNTING HEIGHTS.

WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
S	SINGLE POLE TOGGLE SWITCH – HUBBELL MODEL #HBL1221X	48"AFF
S_3	THREE WAY TOGGLE SWITCH – HUBBELL MODEL #HBL1223X	48"AFF
S_4	FOUR WAY TOGGLE SWITCH – HUBBELL MODEL #HBL1224X	48"AFF
S_K	KEYED TOGGLE SWITCH CORBIN TYPE – HUBBELL MODEL #HBL1221RKLX	48"AFF
S_{VS}	VACANCY DIMMING WALL SENSOR SWITCH – LUTRON MODEL #MS-OPS6M2-DV-WH. PROVIDE 0-10V SIGNAL WIRE IN RACEWAY FROM SWITCH TO EACH CONTROLLED LIGHT FIXTURE.	48"AFF
S_{2PB}	2 QTY. 2 – BUTTON CONTROL STATION – LUTRON MODEL #PX-2B-GWH-101(CW-1-WH). REFER TO LUTRON ONE-LINE DIAGRAM	48"AFF
S_T	1P TOGGLE SWITCH–THERMAL TYPE – SQUARE "D" CLASS 2510 W/ RED PILOT LIGHT & HANDLE GUARD/LOCK OFF	AS REQUIRED
S_{DS}	DIGITAL SWITCH – ACUITY MODEL #CH1 X X PWH	48"AFF
S_{EF}	EXHAUST FAN TIMER SWITCH – SENSOR SWITCH MODEL #PTS 720 X	48"AFF
PC	DIGITAL OUTDOOR PHOTO CELL WALL MOUNTED – LC&D SEE DETAIL	12' AFF
OS_C	STANDARD RANGE LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-CDT-2000-WH.	CLG.
OS_L	EXTENDED RANGE LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-CDT-2000-WH.	CLG.
PP	POWER PACK FOR EXISTING FAN – LUTRON MODEL #PP-DV. INTERFACE WITH ROOM OCCUPANCY SENSOR.	ABV. CLG.

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

WIRING DEVICES SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DUPLEX TAMPER RESISTANT RECEPTACLE – HUBBELL MODEL #BR20XTR	18"AFF
GFCI	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GCFTRST20X	18"AFF
GFCI WCP	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTWRST20X AND WHILE IN USE WEATHERPROOF COVER – HUBBELL MODEL #WP26EH	18"AFF
AC	DUPLEX RECEPTACLE TAMPER RESISTANT – HUBBELL MODEL #BR20XTR MOUNT @ +4" HORIZONTALLY ABOVE COUNTER BACKSPLASH (U.N.O.) (ADD)	4"ACB
IG	DUPLEX RECEPTACLE ISOLATED GROUND TYPE – HUBBELL MODEL #IG5352TR	18"AFF
FS	DUPLEX RECEPTACLE FOR FLAT SCREEN – HUBBELL MODEL #CR5352X	84"AFF
	SPECIAL RECEPTACLE – TYPE AS NOTED	18"AFF
	JUNCTION BOX W/ BLANK STAINLESS STEEL COVERPLATE	AS REQUIRED
USB	DUPLEX TAMPER RESISTANT RECEPTACLE AND USB RECEPTACLE COMBINATION – HUBBELL MODEL #USB20X2X	18"AFF
WB	DUPLEX RECEPTACLE FOR WHITE BOARD PROJECTOR – HUBBELL MODEL #CR5352X	AS REQUIRED
	POLYMER CONCRETE PULL BOX W/ LOGO COVER – SEE DETAIL	AS REQUIRED
PP	TELE-POWER POLE W/ WIRING DEVICES AS NOTED	– – – –
	CLOCK HANGER FOR SINGLE FACE CLOCK – HUBBELL MODEL #HBL5235 ("2" INDICATES DUAL SIDED CLOCK)	9'-0"AFF
CR	DUPLEX RECEPTACLE W/ CORD REEL – SEE DETAIL	CLG.

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
AC INDICATES 4" ABOVE COUNTER TO BOTTOM OF DEVICE.
U.N.O. INDICATES UNLESS NOTED OTHERWISE.

FLOOR BOX SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	FLOOR BOX W/ COVER PLATES FOR WIRING DEVICES AS INDICATED. PROVIDE SPECIAL SYSTEMS RACEWAYS, TWO – 1.5" OR AS NOTED ON ELECTRICAL DRAWINGS. PROVIDE BLANK COVERS FOR UNUSED COMPARTMENTS – HUBBELL MODEL # CFB6G30/61OGCCVRBRZC.	FLOOR
	FLOOR BOX W/ COVER PLATES FOR WIRING DEVICES AS INDICATED. PROVIDE SPECIAL SYSTEMS RACEWAYS, 1 – 1.5" (DATA). PROVIDE BLANK COVERS FOR UNUSED COMPARTMENTS – HUBBELL MODEL #CFB4G30/24GCCVRALUC.	FLOOR

NOTES:
1.) TOP OF FLOOR BOX TO BE FLUSH WITH FINISHED FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FLOOR TYPES.

FIRE ALARM SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
PS	FIRE ALARM MANUAL PULLSTATION – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	48"AFF
AV AV	FIRE ALARM STROBE HORN CEILING OR WALL MOUNTED – PROVIDE 15/75 CANDELA U.N.O. – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	80"AFF
SS WG	FIRE ALARM SPEAKER STROBE CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE. PROVIDE WIREGUARD "WG" WHERE DESIGNATED.	80"AFF
SS WP	FIRE SPRINKLER RISER ALARM SPEAKER STROBE (WEATHER PROOF) – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	80"AFF
V V	FIRE ALARM STROBE LIGHT CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	80"AFF
SD H SD	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	CLG.
HD H HD	FIRE ALARM HEAT DETECTOR CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	CLG.
DH	FIRE ALARM H.V.A.C. DUCT SMOKE DETECTOR W/ SHUNT TRIP RELAY – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE. PROVIDE A REMOTE TEST SWITCH.	– – – –
F	FIRE SPRINKLER FLOW SWITCH	– – – –
TS	FIRE SPRINKLER TAMPER SWITCH – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	– – – –
	FIRE ALARM CONTROL/VOICE EVACUATION PANEL (FLUSH MOUNTED)	– – – –
	FIRE ALARM ANNUNCIATOR PANEL (SURFACE MOUNTED)	– – – –

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

SPECIAL SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
HDMI	3-GANG FLAT SCREEN OUTLET – PROVIDE LARGE CAPACITY WALL BOX HUBBEL MODEL NO. HBL263 WITH 1.5" RACEWAY STUBBED INTO ACCESSIBLE CLG., PULL WIRE, MUD RING AND HBL981 LOW VOLTAGE DIVIDER.	72"AFF
HDMI #	MULTIMEDIA OUTLET – PROVIDE 2-GANG MUD RING SECURED TO METAL STUDS WITH METAL STRAP WITH 1.5" RACEWAY STUBBED INTO ACCESSIBLE CLG. W/ PULL WIRE AND MUD RING – SEE DETAIL. NUMBER INDICATES AMOUNT OF DATA DROPS.	18"AFF
	DATA OUTLET/VOICE OVER IP – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE – SEE DETAIL. NUMBER INDICATES AMOUNT OF DATA DROPS.	18"AFF
WAP	WIRELESS ACCESS POINT – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE – SEE DETAIL. NUMBER INDICATES AMOUNT OF DATA DROPS.	CLG.

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

BUILDING ACCESS/INTRUSION DETECTION SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
MD	INTRUSION DETECTION MOTION DETECTOR FULL COVERAGE TYPE – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	9'-0"AFF
MD H	INTRUSION DETECTION MOTION DETECTOR HALLWAY COVERAGE TYPE – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	9'-0"AFF
GB	INTRUSION DETECTION GLASS BREAK SENSOR	ABV. CLG.
KP	INTRUSION DETECTION KEYPAD PROVIDE WITH STI COVER – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	48"AFF
DC	INTRUSION DETECTION DOOR MAGNETIC CONTACT – PROVIDE WITH 1/2"C AND PULLWIRE.	– – – –
S	INTRUSION DETECTION INDOOR SIREN – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	80"AFF
S WP	INTRUSION DETECTION OUTDOOR SIREN – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	10'-0" AFF
	SECURITY CAMERA – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE. NUMBER INDICATES AMOUNT OF DATA DROPS. (ADD)	AS REQUIRED

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

INTERCOM SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
S	INTERCOM OUTDOOR HORN WEATHER PROOF – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	9'-6"AFF
IC	INTERCOM BUTTON – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE .	48"AFF
S	INTERCOM SPEAKER CEILING MOUNT	CLG.
IA	INTERCOM ADMINISTRATION CONTROL STATION HANDSET – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE STUBBED INTO ACCESSIBLE CLG.	18"AFF

NOTES:
1.) 48" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

CAFETERIA & GYMNASIUM SOUND SYSTEMS SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
S	SPEAKER – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE.	– – – –
HM	MICROPHONE OUTLET – PROVIDE BACK BOX WITH 1" RACEWAY STUBBED INTO ACCESSIBLE CLG. WITH PULL WIRE.	18"AFF
AT	ASSISTIVE LISTENING TRANSMITTER	24"BLC
	AMPLIFIER (FLUSH MOUNTED)	– – – –
SC	CAFETERIA SPEAKER	CLG.

NOTES:
1.) 18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.

No.	REVISIONS	BY
1 ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
IDEA PALMVIEW
PALMVIEW, TEXAS
IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
5.16.2019

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Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA Palmview Phase I
Sheet: E2.01

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GENERAL NOTES:

1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" - 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE BY VACANCY SENSORS.
3. MULTIPLE VACANCY SENSORS CONTROLLING A SINGLE OR MULTIPLE SWITCH SCHEME AND POWER PACKS SHALL BE CONNECTED WITH CLASS II #18 WIRING IN 1/2" RACEWAY.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.
5. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
7. UTILIZE J-HOOKS FOR LIGHTING LOW VOLTAGE CABLING.

KEYED NOTES:

1. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
2. CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH - TYPICAL.
3. MOUNT FIXTURE TYPE "L2E" AT 24" ABOVE MIRROR-TYPICAL.
4. MOUNT LIGHT FIXTURE TYPE "ME" AT 8'-0"AFF TO CENTER OF FIXTURE - TYPICAL.
5. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES - TYPICAL.
6. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING. SEE DETAIL 02/E8.05. CONNECT TO NEAREST 277V CIRCUIT - TYPICAL.
7. WALL MOUNT LIGHT FIXTURE AT 7'-0" AFF.
8. SEE DETAIL 02/E9.03 FOR MOUNTING.
9. SURFACE MOUNT TO STRUCTURE STEEL JOIST - TYPICAL FOR THIS ROOM.

REFER TO ENLARGED LIGHTING PLAN ON E3.01/02.

AREA "A"
AREA "E"

AREA "A"
AREA "B"

01 LIGHTING PLAN (1ST FLOOR)
SCALE: 1/8" = 1'-0"

02 DEDUCTIVE ALTERNATE ENLARGED LIGHTING PLAN
SCALE: 1/4" = 1'-0"

AREA 'A'
AREA 'B'
FUTURE PHASE II
KEYPLAN

No.	REVISIONS	BY
ADD1	JUNE 3, 2019	

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STATE OF TEXAS
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5.16.2019

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Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E3.01

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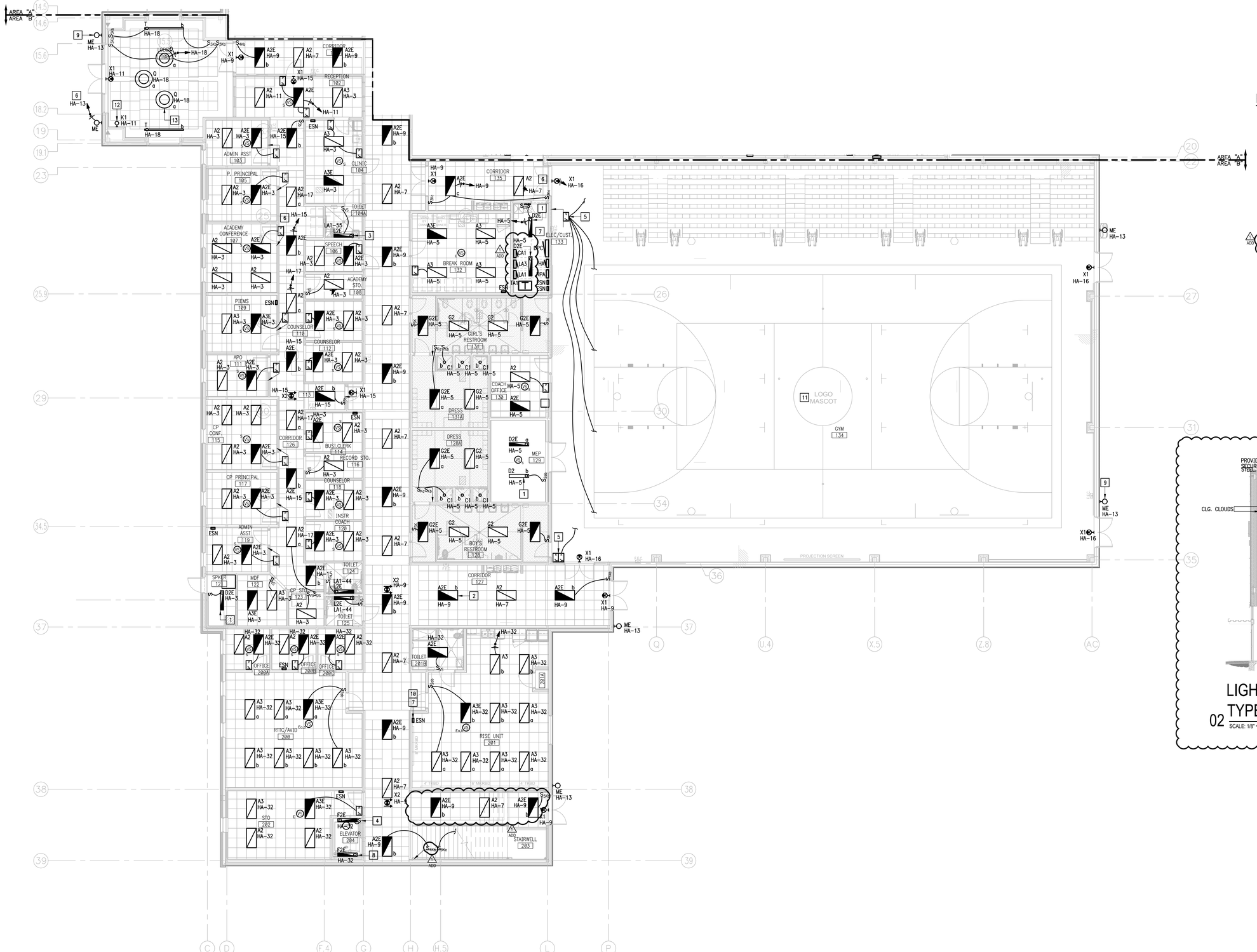


01 LIGHTING PLAN (1ST FLOOR)

SCALE: 1/8" = 1'- 0"

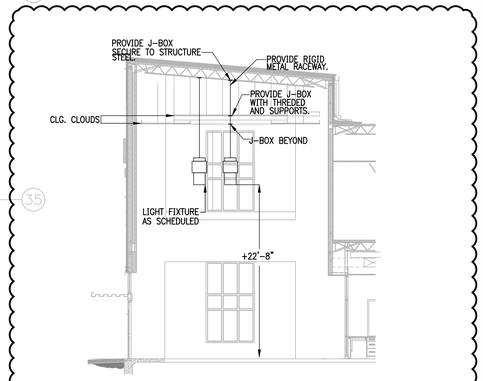
NORTH

GENERAL NOTES:

1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE BY VACANCY SENSORS.
3. MULTIPLE VACANCY SENSORS CONTROLLING A SINGLE OR MULTIPLE SWITCH SCHEME AND POWER PACKS SHALL BE CONNECTED WITH CLASS II #18 WIRING IN 1/2" RACEWAY.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.
5. PROVIDE 0–10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
7. UTILIZE J-HOOKS FOR LIGHTING LOW VOLTAGE CABLING.

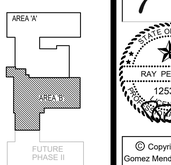
KEYED NOTES:

1. PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'–0"AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
2. CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH – TYPICAL.
3. MOUNT FIXTURE TYPE "L2E" AT 24" ABOVE MIRROR – TYPICAL.
4. PROVIDE 3–WAY LIGHT SWITCH LOCATED 4'–0" ABOVE BOTTOM LANDING NEXT TO TOP RUNG OF LADDER AND 3–WAY LIGHT SWITCH LOCATED 4'–0" ABOVE THE CONTROLLER LANDING FLOOR.
5. PROVIDE CLEAR LOCKING COVER.
6. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
7. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
8. COORDINATE WITH ELEVATOR CONTRACTOR FOR EXACT LOCATION PRIOR TO ROUGH–IN – TYPICAL. (ADD)
9. MOUNT LIGHT FIXTURE TYPE "ME" AT 8'–0"AFF TO CENTER OF FIXTURE – TYPICAL.
10. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING. SEE DETAIL 02/E3.05. CONNECT TO NEAREST 277V CIRCUIT – TYPICAL.
11. SEE SHEET E3.04 FOR LIGHTING.
12. PROVIDE EMERGENCY LIGHT FIXTURE WALL MOUNTED AT 8'–5" AFF.
13. SUSPEND LIGHT FIXTURES TYPE "Q" REFER TO DETAIL.
14. WALL MOUNT LIGHT FIXTURE AT 7'–0" AFF.



02 LIGHT FIXTURE TYPE "Q" (MOUNTING DETAIL)

SCALE: 1/8" = 1'- 0"



KEYPLAN

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1 (ADD)	JUNE 3, 2019	

IDEA PUBLIC SCHOOLS PHASE 1
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Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA Palmview Phase I
Sheet: E3.02

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GENERAL NOTES:

1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE BY OCCUPANCY SENSORS.
3. MULTIPLE OCCUPANCY SENSORS CONTROLLING A SINGLE OR MULTIPLE SWITCH SCHEME AND POWER PACKS SHALL BE CONNECTED WITH CLASS II #18 WIRING IN 1/2" RACEWAY.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.
5. PROVIDE 0–10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
2. CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH – TYPICAL.
3. MOUNT FIXTURE TYPE "J2E" AT 15'-4" A.F.F. TO CENTER OF FIXTURE – TYPICAL.
4. MOUNT FIXTURE TYPE "L2E" AT 24" ABOVE MIRROR – TYPICAL.
5. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
6. MOUNT LIGHT FIXTURE TYPE "N" AT 20'-9"AFF TO CENTER OF FIXTURE – TYPICAL (U.N.O.).
7. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING. SEE DETAIL 02/E8.05. CONNECT TO NEAREST 277V CIRCUIT – TYPICAL.

01 LIGHTING PLAN (2ND FLOOR)
SCALE: 1/8" = 1'- 0"

AREA "A"
AREA "B"
FUTURE PHASE II
KEYPLAN

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Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E3.03

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GENERAL NOTES:

1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE BY OCCUPANCY SENSORS.
3. MULTIPLE OCCUPANCY SENSORS CONTROLLING A SINGLE OR MULTIPLE SWITCH SCHEME AND POWER PACKS SHALL BE CONNECTED WITH CLASS II #18 WIRING IN 1/2" RACEWAY.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.
5. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. CONNECT EMERGENCY BATTERY PACK TO BE CHARGING AT ALL TIMES (UNSWITCHED). LIGHT FIXTURE SHALL BE OPERATED BY THE CORRESPONDING SWITCH – TYPICAL.
2. PROVIDE J-BOX AND 3/4" RACEWAY ROUTED ABOVE CEILING BACK TO LOGO SIGN POWER SUPPLIES LOCATION. COORDINATE EXACT LOCATIONS WITH SIGN CONTRACTOR PRIOR TO ANY ROUGH-IN. INDICATED HEIGHT IS APPROXIMATE – TYPICAL OF 3.
3. PROVIDE UNISTRUT AND THREADED ROD TO SUSPEND LIGHT FIXTURE AT 9'-0" AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
4. MOUNT FIXTURE TYPE "J2E" AT 15'-4" A.F.F. TO CENTER OF FIXTURE – TYPICAL.
5. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
6. CONNECT LOGO SIGN POWER SUPPLIES ABOVE CEILING. COORDINATE EXACT LOCATION WITH SIGN CONTRACTOR.
7. MOUNT LIGHT FIXTURE TYPE "N" AT 20'-9" AFF TO CENTER OF FIXTURE (U.N.O.) – TYPICAL.
8. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
9. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING. SEE DETAIL 02/E8.05. CONNECT TO NEAREST 277V CIRCUIT – TYPICAL.
10. NIGHT LIGHT TO REMAIN UNSWITCHED.
11. MOUNT FIXTURE TYPE "E1" AT 80" ABOVE TOP OF BLEACHERS.
12. MOUNT FIXTURE TYPE "E1" AT 12'-0" A.F.F. (U.N.O.) TO TOP OF FIXTURE.
13. SEE DETAIL 01/E9.03 FOR MOUNTING.
14. PROVIDE CLASS II #18 WIRING IN 1/2" RACEWAY TO BETWEEN VACANCY SENSORS AND POWER PACKS AS PER MANUFACTURER INSTRUCTION TO OBTAIN SWITCHING SCHEMES AS NOTED.
15. MOUNT LIGHT FIXTURE TYPE "M" AT 13'-4" AFF TO CENTER OF FIXTURE (U.N.O.) – TYPICAL.
16. MOUNT LIGHT FIXTURE TYPE "ME" AT 13'-4" AFF TO CENTER OF FIXTURE (U.N.O.).

01 LIGHTING PLAN (2ND FLOOR)
SCALE: 1/8" = 1'-0"

NORTH

AREA 'A'
AREA 'B'
FUTURE PHASE II
KEYPLAN

No.	REVISIONS	BY
ADD 1	JUNE 3, 2019	

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STATE OF TEXAS
RAY PEYNADO
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LICENSED PROFESSIONAL ENGINEER
5/16/2019

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Architects-Planners
Interior Designers

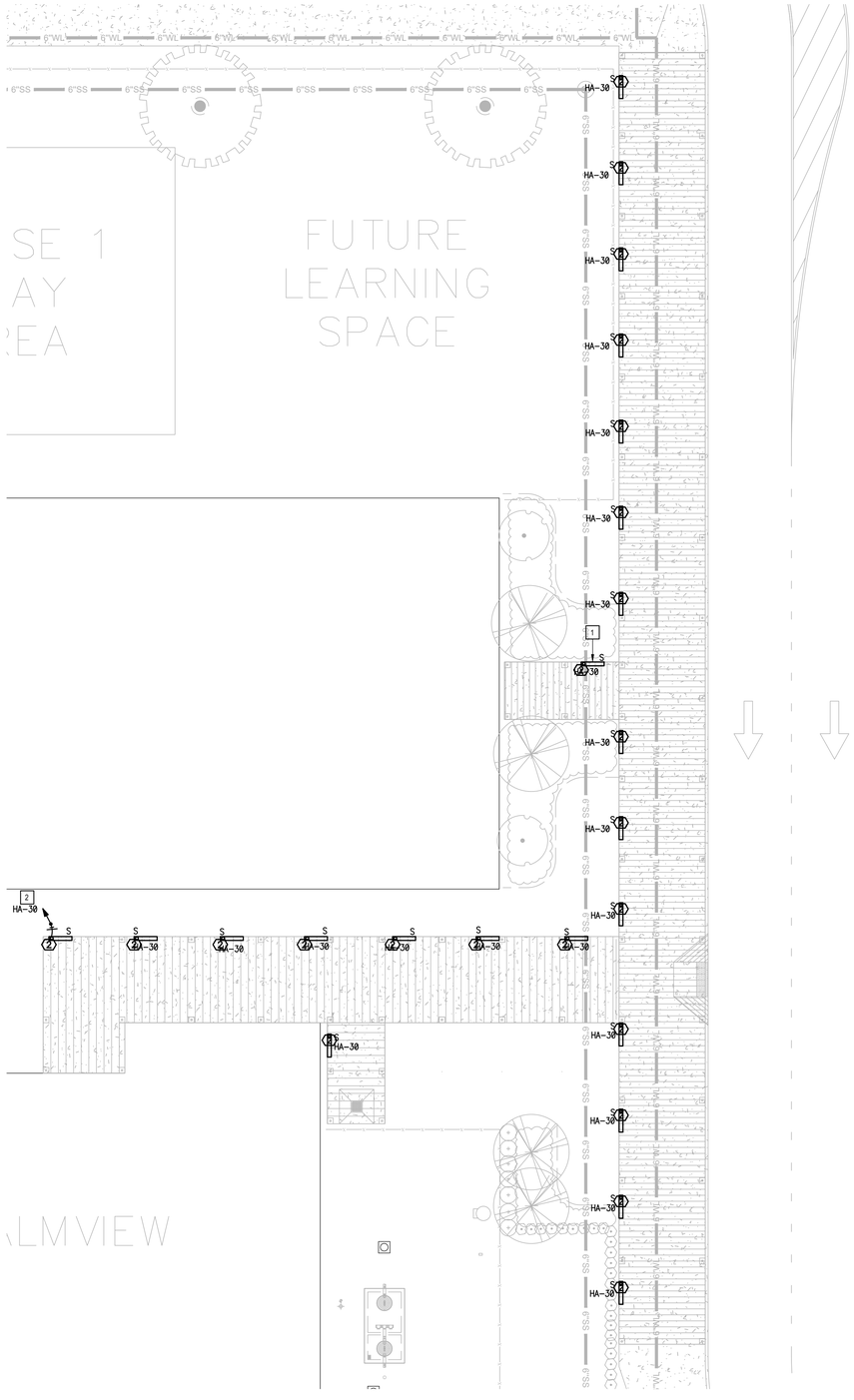
Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E3.04

GENERAL NOTES:

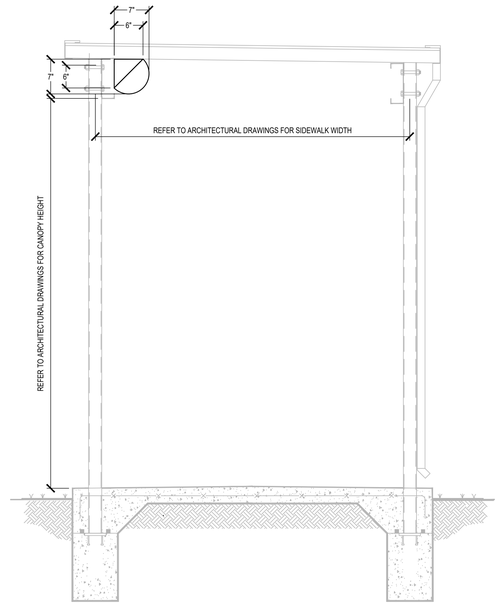
1. LIGHTING BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/277V HOMERUNS EXCEEDING 200FT THE WIRE SIZE SHALL BE #10 & #8 FOR 275'.
2. INTERIOR LIGHTING CONTROLS SHALL BE BY OCCUPANCY SENSORS.
3. MULTIPLE OCCUPANCY SENSORS CONTROLLING A SINGLE OR MULTIPLE SWITCH SCHEME AND POWER PACKS SHALL BE CONNECTED WITH CLASS II #18 WIRING IN 1/2" RACEWAY.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.
5. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT FIXTURE DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. SECURE TO CANOPY HORIZONTAL STRUCTURAL STEEL – SEE DETAIL – TYPICAL.
2. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.



01 CANOPY LIGHTING PLAN (1ST FLOOR)
SCALE: 3/32" = 1'- 0"



02 CANOPY LIGHT FIXTURE MOUNTING DETAIL (1ST FLOOR)
SCALE: 1" = 1'- 0"

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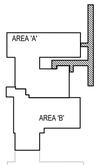

KEYPLAN

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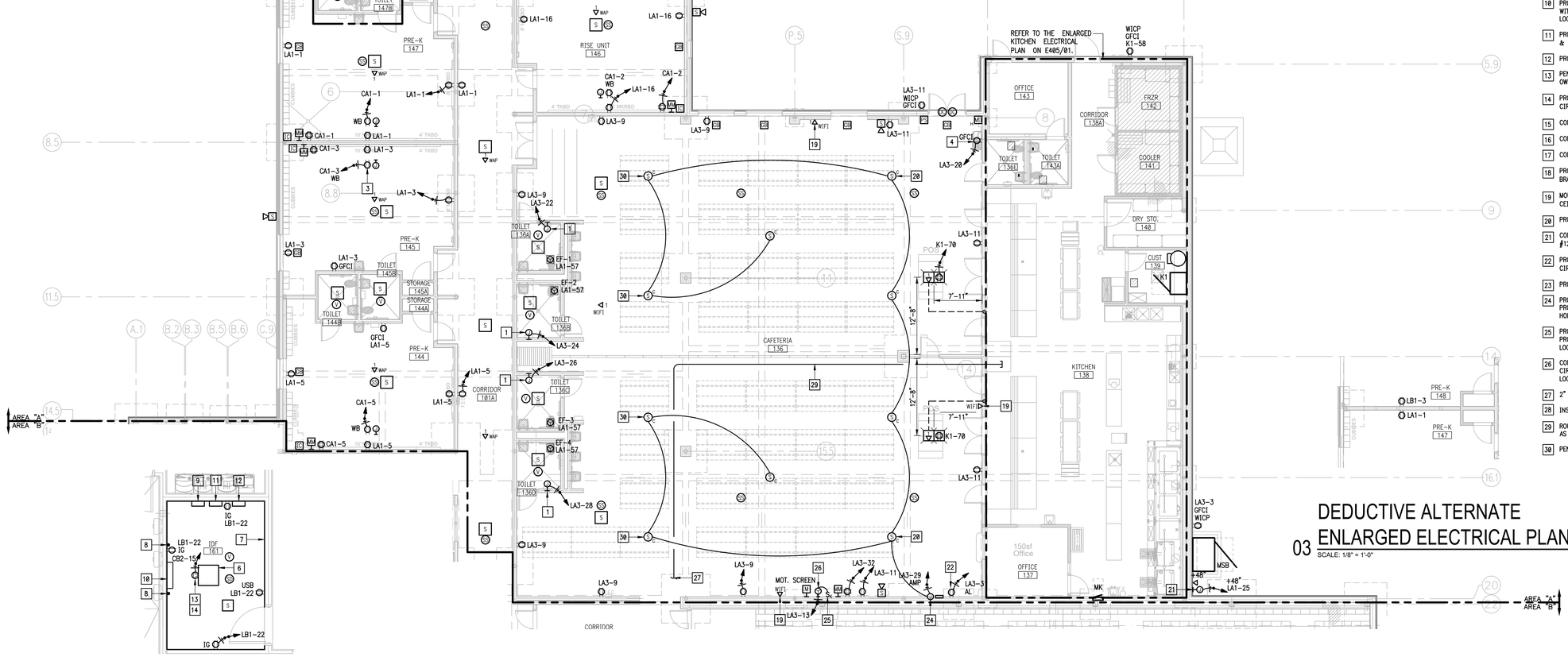
Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E3.05

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
2. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
3. PROVIDE ELECTRICAL RECEPTACLE FLUSH MOUNTED TO THE WALL ABOVE WHITE BOARD FOR PROJECTOR – TYPICAL. INSTALL OUTLET AND SPECIAL SYSTEMS J-BOX PER MANUFACTURERS PUBLISHED TEMPLATES – SEE DETAILS.
4. CONNECT ELECTRIC DRINKING FOUNTAIN; BRANCH CIRCUIT: 1/2" – 2#12 & #12G. ROUGH-IN AT 17-7/16" TO CENTER OF J-BOX – TYPICAL. COORDINATE WITH PLUMBING CONTRACTOR.
5. CONNECT CIRCUITING PUMP. (ADD)
6. PROVIDED DATA RACK – SEE SPECIFICATIONS.
7. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT AT 24" AFF.
8. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
9. PROVIDE INTRUSION DETECTION SYSTEM POWER SUPPLY; BRANCH CIRCUIT: 1/2 – 2#12 & #12G.
10. PROVIDE 6"H X 6"D (WIDTH AS REQUIRED) SURFACE MOUNTED WIREWAY WITH HINGED COVER. ROUTE SPECIAL SYSTEMS RACEWAYS TO THIS LOCATION – SEE SITE PLAN AND DETAIL.
11. PROVIDE FIRE ALARM POWER SUPPLY, BRANCH CIRCUIT: 1/2" – 2–#12 & #12G.
12. PROVIDE INTERCOM SYSTEM SWITCHING MODULES WALL MOUNTED.
13. PENDANT MOUNTED SEE DETAIL, FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
14. PROVIDE SPECIAL RECEPTACLE FOR IDF-UPS (NEMA L5-30P); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.
15. CONNECT DISH WASHER; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
16. CONNECT REFRIGERATOR; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
17. CONNECT CLOTHES WASHER; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
18. PROVIDE SPECIAL RECEPTACLE FOR CLOTHES DRYER (NEMA 10-30R); BRANCH CIRCUIT: 3#10 & #10G.
19. MOUNT AT 15' AFF. STUB-OUT CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE TO ALLOW FOR CABLING TO MDF/IDF ROOM – TYPICAL.
20. PROVIDE PENDANT MOUNTED CAFETERIA SPEAKER – TYPICAL.
21. CONNECT IRRIGATION CONTROLLER; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
22. PROVIDE ASSISTIVE LISTENING TRANSMITTER; MOUNT AT 16' AFF. SHARE CIRCUIT WITH AMPLIFIER. PROVIDE DUPLEX RECEPTACLE 16' AFF.
23. PROVIDE 2" RACEWAY TO TERMINATE AT 2ND FLOOR IDF ROOM.
24. PROVIDE FLUSH MOUNTED AMPLIFIER FACING CAFETERIA ROOM SIDE. PROVIDE SINGLE CHANNEL PASSIVE LAPTOP DIRECT BOX, RAPCO HORIZON # LTIBLOX.
25. PROVIDE BACK BOX FOR MOTORIZED PROJECTION SCREEN SWITCH. PROVIDE 1/2" RACEWAY WITH PULLWIRE TO MOTORIZED SCREEN LOCATION.
26. CONNECT MOTORIZED PROJECTION SCREEN BELOW BEAM; BRANCH CIRCUIT: 1/2" – 2#12 & #12G. SEE ARCHITECT DRAWINGS FOR EXACT LOCATION.
27. 2" RACEWAY TO TERMINATE AT 2ND FLOOR IDF ROOM.
28. INSTALL ALONG ROOF DRAIN PIPING.
29. ROUTE RACEWAY CONCEALING IN FURR DOWN/ABOVE CEILING AS MUCH AS POSSIBLE.
30. PENDANT TO BE FLUSH WITH CLOUD CEILING.



02 ENLARGED IDF ROOM 128 ELECTRICAL PLAN

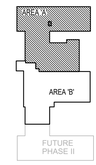
SCALE: 1/4" = 1'-0"

01 ELECTRICAL PLAN (1ST FLOOR)

SCALE: 1/8" = 1'-0"

03 DEDUCTIVE ALTERNATE ENLARGED ELECTRICAL PLAN

SCALE: 1/8" = 1'-0"



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IDEA PUBLIC SCHOOLS PHASE 1

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IDEA PALMVIEW
PALMVIEW, TEXAS

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LICENSED PROFESSIONAL ENGINEER
5/16/2019

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Project Architect:	David Monreal, AIA
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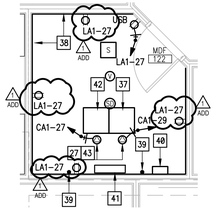
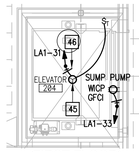
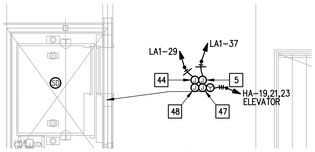


02 ENLARGED MDF 159 ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"



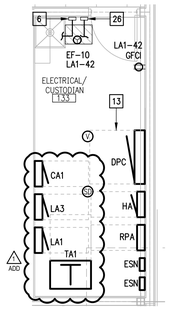
(FIRST FLOOR)



(SECOND FLOOR)

03 ENLARGED ELEVATOR ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"



04 ENLARGED ELEC/CUST ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM, LIGHTING LOW VOLTAGE CABLING AND DATA CABLING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS; "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

40 PROVIDE INTRUSION DETECTION SYSTEM CONTROL PANEL; BRANCH CIRCUIT: 1/2 – 2#12 & #12G, CA1–42. PROVIDE A WIRELESS COMMUNICATOR.

41 PROVIDE 6"H X 6"D (WIDTH AS REQUIRED) SURFACE MOUNTED WIREWAY WITH HINGED COVER. ROUTE SPECIAL SYSTEMS RACEWAYS TO THIS LOCATION – SEE SITE PLAN AND DETAIL.

42 INSTALL AND CONNECT INTERCOM SYSTEM CARD CAGE ON RACK. RACK PROVIDED BY CONTRACTOR.

43 PROVIDE SPECIAL RECEP FOR IDF–UPS(NEMA L5–30P); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.

44 ELEVATOR CONTROLS CONNECTION; BRANCH CIRCUIT: 1/2" RACEWAY – 2#12 & #12G. COORDINATE THE J–BOX EXACT LOCATION WITH THE ELEVATOR SUPPLIER.

45 SEE ARCHITECTURAL DRAWINGS OF THE ELEVATOR PIT/SHAFT FOR THE EXACT LOCATION.

46 CONNECT ELEVATOR SUMP PUMP. COORDINATE SWITCH LOCATION WITH ELEVATOR EQUIPMENT SUPPLIER.

47 ELEVATOR TELEPHONE ROUGH–IN. PROVIDE A J–BOX WITH A 3/4" RACEWAY & PULL WIRE STUBBED NEAR THE TELECOM ROOM. COORDINATE THE J–BOX EXACT LOCATION WITH THE ELEVATOR SUPPLIER.

48 ELEVATOR FIRE ALARM ROUGH–IN. PROVIDE A J–BOX WITH A 3/4" RACEWAY & PULL WIRE STUBBED NEAR THE ELECTRICAL ROOM. COORDINATE THE J–BOX EXACT LOCATION WITH THE ELEVATOR SUPPLIER.

49 PROVIDE GROMMETS THROUGH COUNTERTOP TO ACCESS RECEPTACLES BELOW COUNTER INSIDE KNEE SPACE, CONCEAL RACEWAYS WITHIN MILLWORK BACK TO WALL.

KEYED NOTES:

1 PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B–750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" C 2#10 & #10G. MOUNT @ +40" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.

2 PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B–750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" CC 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.

3 PROVIDE ELECTRICAL OUTLET FLUSH MOUNTED TO THE WALL ABOVE WHITE BOARD FOR PROJECTOR – TYPICAL. INSTALL OUTLET AND SPECIAL SYSTEMS J–BOX PER MANUFACTURERS PUBLISHED TEMPLATES – SEE DETAILS.

4 CONNECT ELECTRIC DRINKING FOUNTAIN; BRANCH CIRCUIT: 1/2" C 2#12 & #12G. ROUGH–IN AT 17–7/16" TO CENTER OF J–BOX. COORDINATE WITH PLUMBING CONTRACTOR. – TYPICAL

5 ELEVATOR LIGHTING CONNECTION. PROVIDE A 30A, 2PNF, 240 V NEMA 1 DISCONNECT; BRANCH CIRCUIT: 1/2" RACEWAY – 2#12 & #12G.

6 CONNECT INTERCEPTOR SERVICE ALERT PANEL PROVIDED BY PLUMBING CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, LA3–59. PROVIDE A 1/2" RACEWAY FROM SERVICE ALERT PANEL TO SOLID INTERCEPTOR FOR WIRING. COORDINATE EXACT LOCATIONS WITH PLUMBER.

7 CONNECT REFRIGERATOR; BRANCH CIRCUIT: 1/2 C 2#12 & #12G.

8 CONNECT DISH WASHER; BRANCH CIRCUIT: 1/2" C 2#12 & #12G.

9 CONNECT COPY MACHINE; BRANCH CIRCUIT: 1/2" C 2#2 & 12G.

10 PROVIDE SPECIAL RECEPTACLE FOR CLOTHES DRYER (NEMA 10–30R); BRANCH CIRCUIT: 3#10 & #10G.

11 CONNECT CLOTHES WASHER; BRANCH CIRCUIT: 1/2" C 2#12 & #12G.

12 CONNECT FLOW SWITCH; BRANCH CIRCUIT: 1/2" C 2#2 & 12G.

13 NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES – TYPICAL.

14 3/4" RACEWAY W/ PULLWIRE (SCOREBOARD CONTROLS RACEWAY).

15 1–1/4" RACEWAY W/ PULLWIRE (P.A. SYSTEM RACEWAY).

16 INSTALL DEVICES INSIDE FLUSH MOUNTED FLOORBOX. COORDINATE THE SCORE KEEPERS TABLE EXACT LOCATION PRIOR TO ROUGH–IN (COVER PLATE FLUSH MOUNTED).

17 ATTACH RECEPTACLE FLUSH TO THE CEILING & CONNECT MOTORIZED BACKSTOP. VERIFY POINT OF CONNECTION W/ BACKSTOP SUPPLIER PRIOR TO ROUGH–IN.

18 MOUNT AT 80" ABOVE TOP OF BLEACHERS.

19 TO MOTORIZED BACKBOARD KEYED SWITCH – SEE DETAIL. FURNISHED BY BACKSTOP SUPPLIER; INSTALLED & CONNECTED BY ELECTRICAL CONTRACTOR.

20 TO CONTROL MOTORIZED BACKBOARDS.

21 PROVIDE BACK BOX FOR MOTORIZED PROJECTION SCREEN SWITCH. PROVIDE 1/2" RACEWAY WITH PULLWIRE TO MOTORIZED SCREEN LOCATION.

22 CONNECT MOTORIZED PROJECTION SCREEN BELOW BEAM; BRANCH CIRCUIT: 1/2" C 2#12 & #12G. SEE ARCHITECT DRAWINGS FOR EXACT LOCATION.

23 PROVIDE AN EXTENSION RING ON WIRING DEVICES LOCATED ON THIS WALL TO INSTALL FLUSH MOUNTED WITH PROTECTIVE PADDING.

24 PROVIDE 1–1/4" RACEWAY W/ PULLWIRE (DATA). TERNIMATE AT MDF WIREWAY IN ROOM.

25 CONNECT MOTORIZED TELESCOPIC BLEACHERS. COORDINATE EXACT POINT OF CONNECTION AND LOCATION OF SAFETY SWITCH BELOW BLEACHERS WITH EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH–IN. SEE CONNECTION SCHEDULE.

26 CONNECT ELEVATOR SERVICE ALERT PANEL PROVIDED BY PLUMBING CONTRACTOR INSTALLED BY ELECTRICAL CONTRACTOR; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, LA3–57. SIGNAL WIRING TERMINATIONS AND INSTALLATIONS SHALL BE BY ELECTRICAL CONTRACTOR. PROVIDE A 6"X6"X6" NEMA 6XP SUBMERSIBLE J–BOX FOR WIRING IN ELEVATOR PIT. COORDINATE EXACT LOCATION OF ALL COMPONENTS WITH PLUMBER & ELEVATOR EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH–IN.

27 PENDANT MOUNTED SEE DETAIL, FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.

28 PROVIDE FIRE ALARM CONTROL PANEL WITH EMERGENCY VOICE SYSTEM; BRANCH CIRCUIT: 1/2" C 2#12 & #12G, LA3–55. PROVIDE TWO TELEPHONE CONNECTIONS.

29 PROVIDE SLIDE GATES GANGABLE BOXES BELOW KNEE SPACE – SEE DETAIL @5/E9.03.

30 PROVIDE RACK MOUNTED AMPLIFIER AND ASSISTIVE LISTENING TRANSMITTER; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.

31 MOUNT TO STRUCTURAL STEEL. STUB–OUT CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE TO ALLOW FOR CABLING TO MDF/IDF ROOM – TYPICAL.

32 CONNECT SCOREBOARD ABOVE BEAM; BRANCH CIRCUIT: 1/2" – 2#12 & #12G. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH–IN.

33 MOUNT AT 15' AFF. STUB–OUT CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE TO ALLOW FOR CABLING TO MDF/IDF ROOM – TYPICAL.

34 MOUNT AT 80" ABOVE TOP OF BLEACHERS. STUB–OUT CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE TO ALLOW FOR CABLING TO MDF/IDF ROOM.

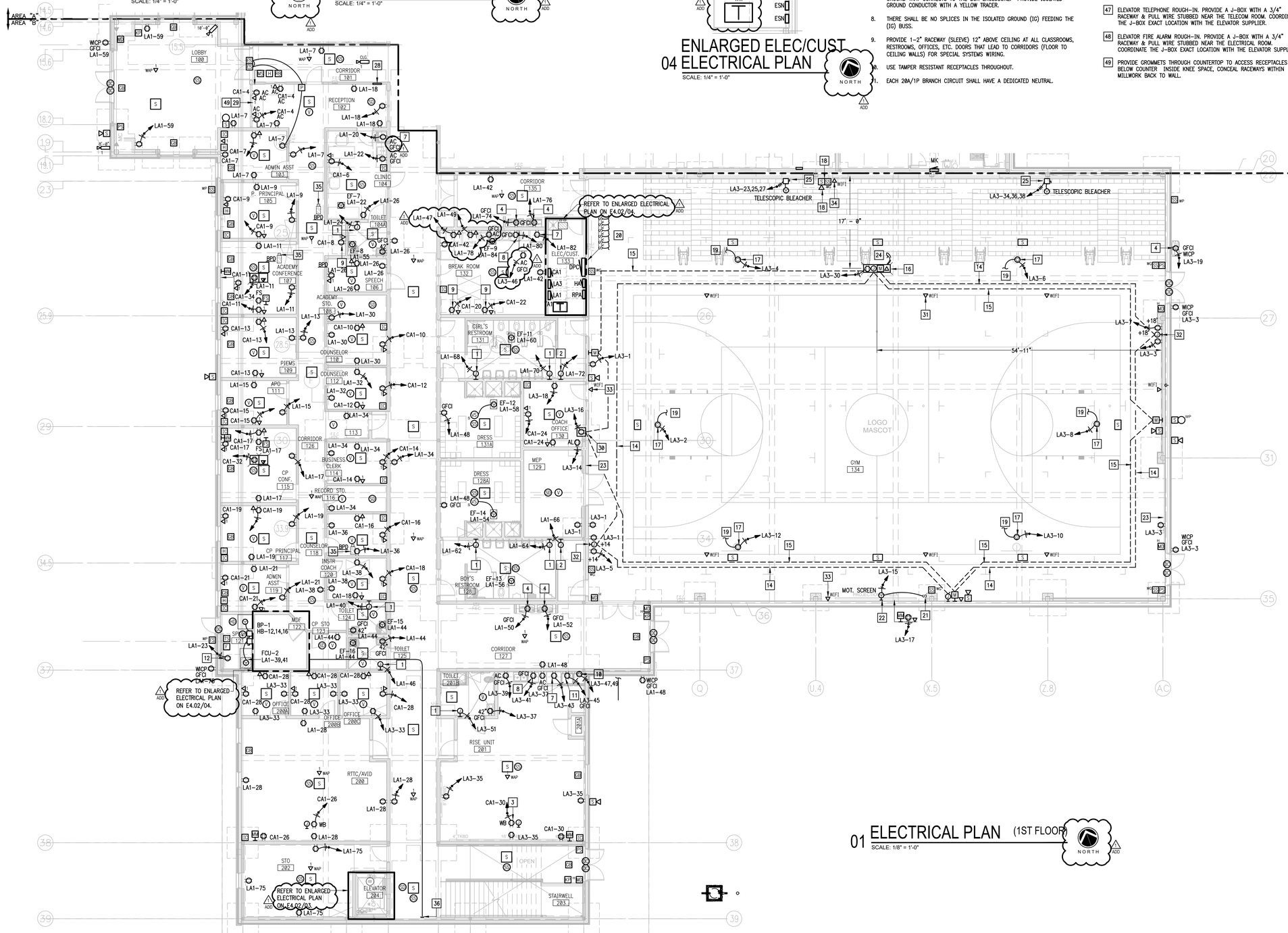
35 CONNECT BYPASS DAMPER (LABELED "BPD") STEP–DOWN TRANSFORMER TO NEAREST 120V NON–GFCI CIRCUIT. BRANCH CIRCUIT: 1/2" – 2#12 & #12G. BYPASS DAMPER TO BE CONNECTED BY HVAC CONTROLS CONTRACTOR – TYPICAL.

36 PROVIDE 4" DATA RACEWAY ABOVE CEILING (FOR FUTURE PHASE II).

37 PROVIDE DATA RACK – SEE SPECIFICATIONS..

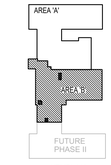
38 PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A–D INT–APA). MOUNT AT 24" AFF.

39 PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.



01 ELECTRICAL PLAN (1ST FLOOR)

SCALE: 1/8" = 1'-0"



KEYPLAN

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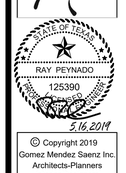
IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW, TEXAS



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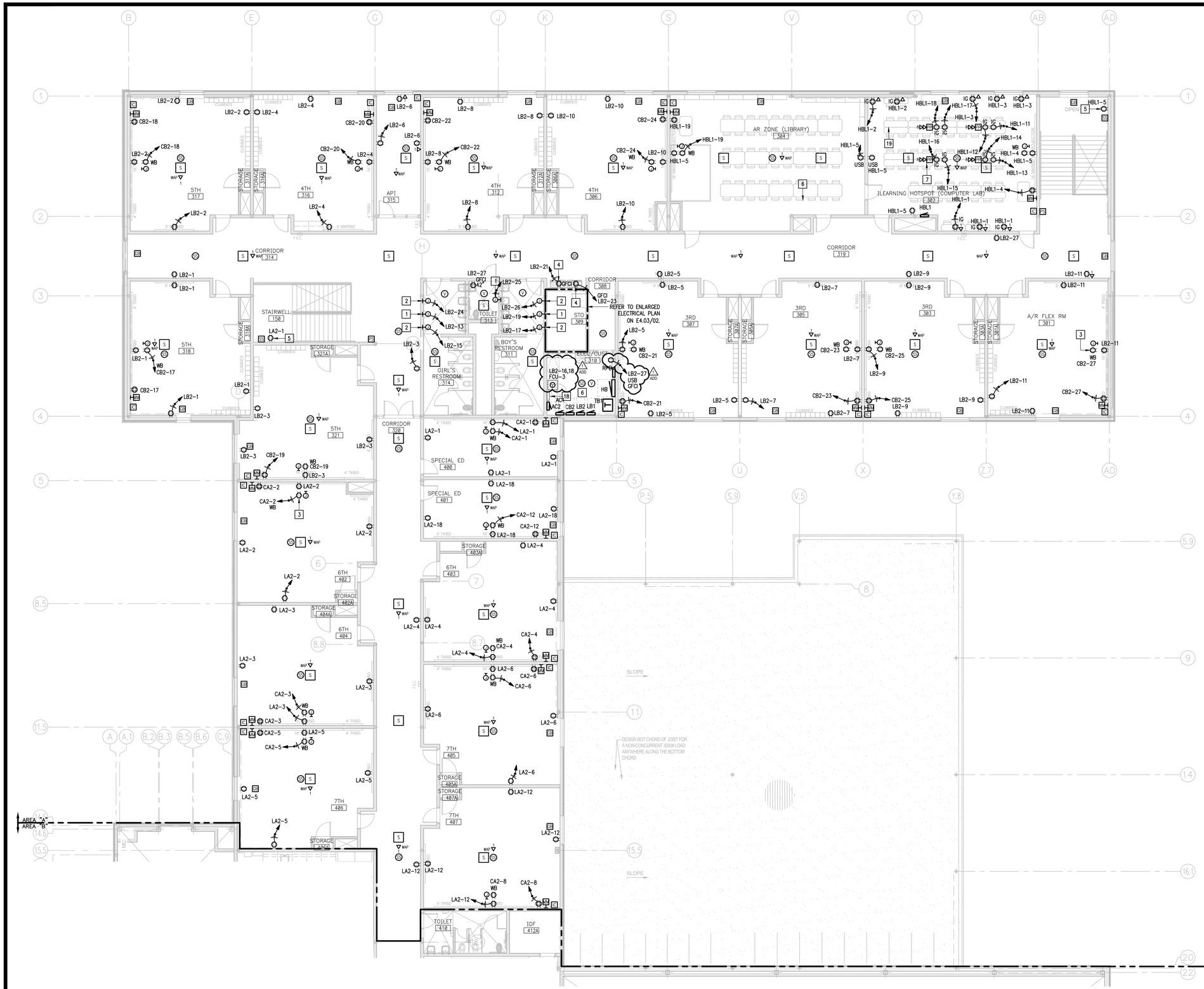
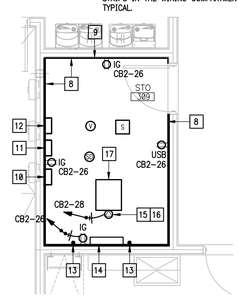
Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E4.02



01 ELECTRICAL PLAN (2ND FLOOR)

SCALE: 1/8" = 1'- 0"



02 ENLARGED STO ROOM ELECTRICAL PLAN

SCALE: 1/8" = 1'- 0"



KEYPLAN

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
2. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
3. PROVIDE ELECTRICAL OUTLET FLUSH MOUNTED TO THE WALL ABOVE WHITE BOARD FOR PROJECTOR – TYPICAL. INSTALL OUTLET AND SPECIAL SYSTEMS J-BOX PER MANUFACTURERS PUBLISHED TEMPLATES – SEE DETAILS.
4. CONNECT ELECTRIC DRINKING FOUNTAIN; BRANCH CIRCUIT: 1/2" – 2#12 & #12G. ROUGH-IN AT 17-7/16" TO CENTER OF J-BOX. COORDINATE WITH PLUMBING CONTRACTOR.
5. MOUNTING HEIGHT TO BE FROM TOP OF LANDING.
6. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES – TYPICAL.
7. CONNECT TELE-POWER POLE. TELE-POWER POLE SHALL BE HUBBELL DUAL COMPARTMENT MODEL #SP11001CCXBI. FURNISH WITH (2) IG DUPLEX RECEPTACLES AND (2) OUTLET SPACES FOR COMMUNICATIONS CONNECTORS – TYPICAL.
8. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT @ 24" AFF.
9. PROVIDE (4)– 4" RACEWAYS ABOVE CEILING(PENETRATE FIRE RATED WALL)FOR SPECIAL SYSTEMS WIRING.
10. PROVIDE INTERCOM SYSTEM SWITCHING MODULES WALL MOUNTED.
11. PROVIDE FIRE ALARM POWER SUPPLY; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, LB2-42.
12. PROVIDE INTRUSION DETECTION SYSTEM POWER SUPPLY; BRANCH CIRCUIT: 1/2 – 2#12 & #12G, LB2-40.
13. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
14. PROVIDE 6"H X 6"D (WIDTH AS REQUIRED) SURFACE MOUNTED WIREWAY WITH HINGED COVER. ROUTE RACEWAYS THROUGH FLOOR DOWN TO 1ST FLOOR MDF ROOM. TERMINATE RACEWAYS AT 1ST FLOOR MDF WIREWAY. WALL MOUNT WIREWAY – SEE DETAIL.
15. PENDANT MOUNTED SEE DETAIL, FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
16. PROVIDE SPECIAL RECEP FOR IDF-UPS (NEMA L5-30P); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.
17. PROVIDE DATA RACK – SEE SPECIFICATIONS.
18. CONNECT HVAC CONTROL PANEL TO NEAREST 120V NON-GFCI CIRCUIT.
19. OWNER TO PROVIDE THE NECESSARY EXTENSION CORDS AND POWER STRIPS IN THE WIRING COMPARTMENT TRAY TO CONNECT COMPUTERS – TYPICAL.

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ADD 1	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW, TEXAS

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED ARCHITECT
5/16/2019

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Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E4.03

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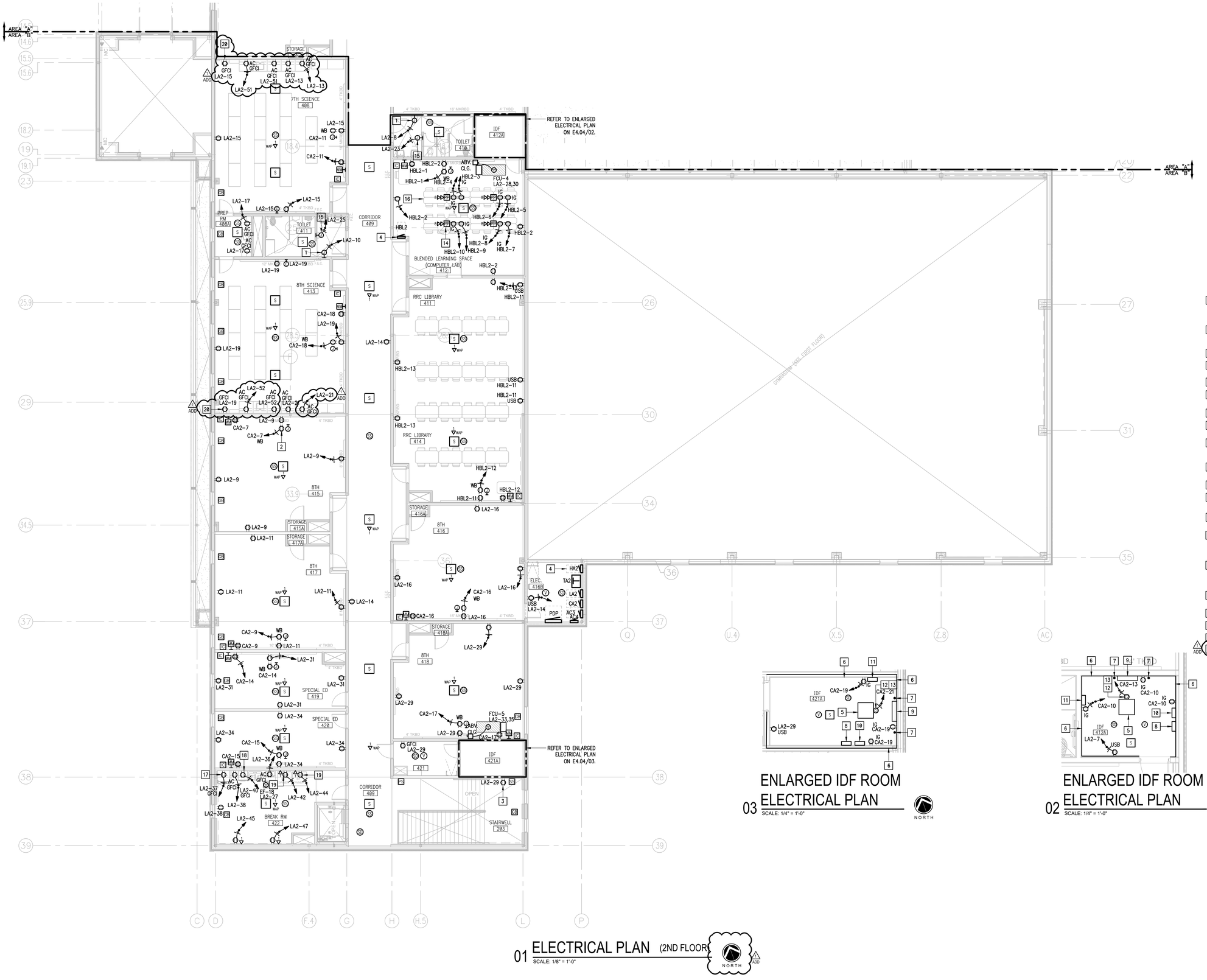


01 ELECTRICAL PLAN (2ND FLOOR)
SCALE: 1/8" = 1'-0"

03 ENLARGED IDF ROOM ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

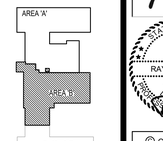
02 ENLARGED IDF ROOM ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" C 2#10 & #10G. MOUNT @ +40" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
2. PROVIDE ELECTRICAL OUTLET FLUSH MOUNTED TO THE WALL ABOVE WHITE BOARD FOR PROJECTOR – TYPICAL. INSTALL OUTLET AND SPECIAL SYSTEMS J-BOX PER MANUFACTURERS PUBLISHED TEMPLATES – SEE DETAILS.
3. MOUNTING HEIGHT TO BE FROM TOP OF LANDING.
4. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES – TYPICAL.
5. PROVIDE DATA RACK – SEE SPECIFICATIONS.
6. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT AT 24" AFF.
7. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
8. PROVIDE INTRUSION DETECTION SYSTEM POWER SUPPLY; BRANCH CIRCUIT: 1/2 – 2#12 & #12G, LA2-39.
9. PROVIDE 6"H X 6"D (WIDTH AS REQUIRED) SURFACE MOUNTED WIREWAY WITH HINGED COVER. ROUTE SPECIAL SYSTEMS RACEWAYS TO THIS LOCATION – SEE SITE PLAN AND DETAIL.
10. PROVIDE FIRE ALARM POWER SUPPLY, BRANCH CIRCUIT: 1/2" – 2–#12 & #12G, LA2-41.
11. PROVIDE INTERCOM SYSTEM SWITCHING MODULES WALL MOUNTED.
12. PROVIDE SPECIAL RECEPTACLE FOR IDF-UPS (NEMA L5-30P); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.
13. PENDANT MOUNTED SEE DETAIL, FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
14. CONNECT TELE-POWER POLE. TELE-POWER POLE SHALL BE HUBBELL DUAL COMPARTMENT MODEL #SP11001CCXCI. FURNISH WITH (2) IG DUPLEX RECEPTACLES AND (2) OUTLET SPACES FOR COMMUNICATIONS CONNECTORS – TYPICAL.
15. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (NO SUBSTITUTION). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +44" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
16. OWNER TO PROVIDE THE NECESSARY EXTENSION CORDS AND POWER STRIPS IN THE WIRING COMPARTMENT TRAY TO CONNECT COMPUTERS – TYPICAL.
17. CONNECT REFRIGERATOR; BRANCH CIRCUIT: 1/2" C 2#12 & #12G.
18. CONNECT DISH WASHER; BRANCH CIRCUIT: 1/2" C 2#12 & #12G.
19. CONNECT VENDING MACHINE.
20. CONNECT SAFETY GOGGLES CABINET. (ADD)



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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools
PALMVIEW, TEXAS

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED PROFESSIONAL ENGINEER
5/16/2019

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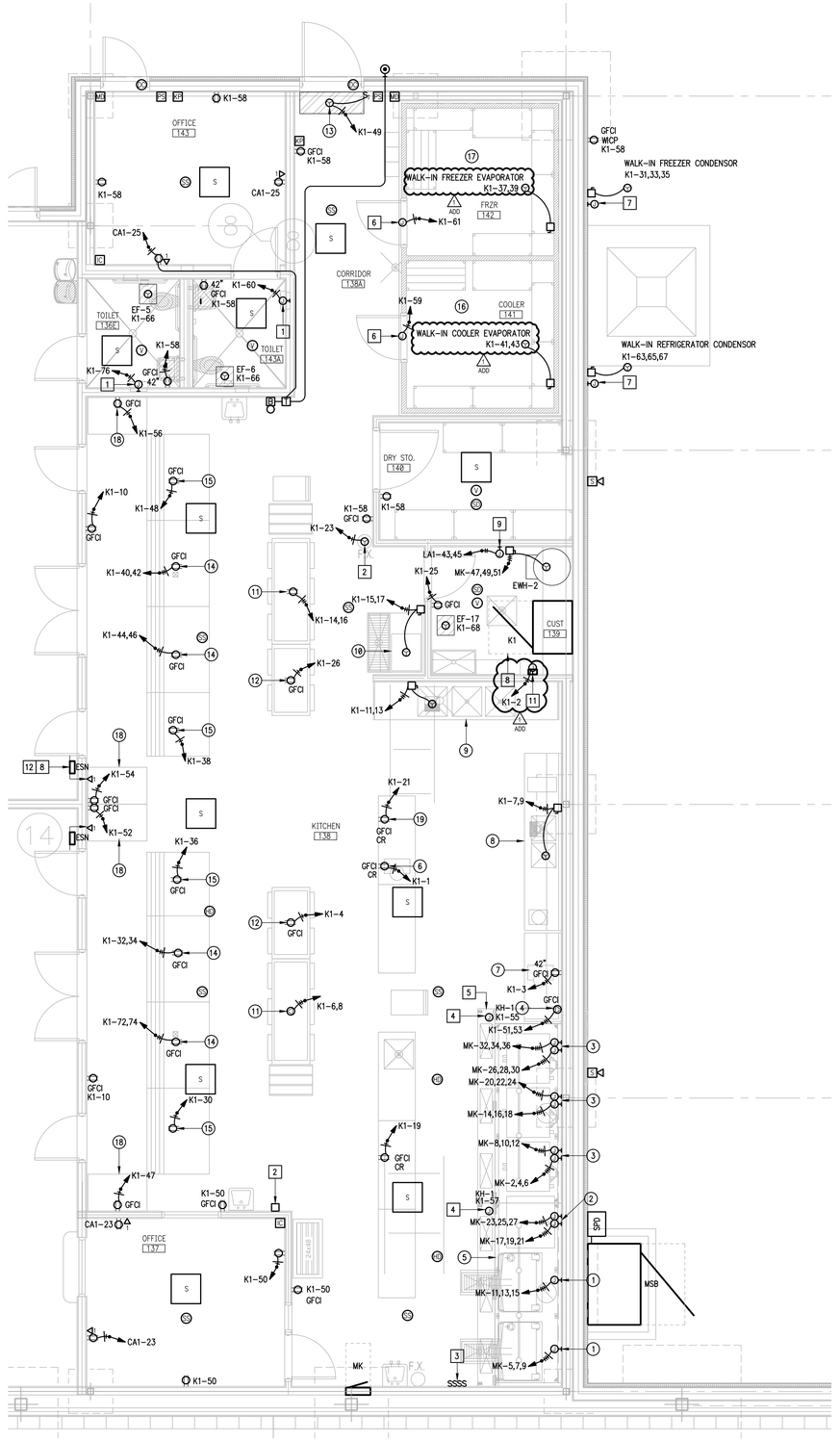
Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E4.04

FOOD SERVICE EQUIPMENT CONNECTION SCHEDULE:

ITEM #	ITEM DESCRIPTION	LOAD	VOLTAGE	CONNECTION REQUIRED	BRANCH CIRCUIT
1	40 GAL. BRAISER (2)	12 KW	480V/3PH/60HZ	PROVIDE A HARDWIRE CONNECTION. INSTALL WALL MOUNTED AT 24"AFF.	3/4" – 4#12 & #12G
2	COMBI OVEN/STEAMER (1)	24 KW	480V/3PH/60HZ	PROVIDE J-BOX IN WALL AT 18"AFF BRANCH TO CONNECTION ON EQUIPMENT. FIELD COORDINATE MOUNTING HEIGHT.	3/4" – 4#8 & #10G
3	DBL. DECK CONV. OVEN (3)	12.5KW EA.	480V/3PH/60HZ TWO CONNECTIONS	PROVIDE (2) J-BOXES IN WALL AT (1)– 18"AFF & (1)– 36"AFF BRANCH TO CONNECTION ON EQUIPMENT. FIELD COORDINATE MOUNTING HEIGHT.	3/4" – 4#12 & #12G EACH
4	HOT WATER DISPENSER (1)	5KW	208V/1PH/60HZ	PROVIDE A L6-30R RECEPTACLE. INSTALL WALL MOUNTED.	3/4" – 3#10 & #10G
5	KITCHEN EXHAUST HOOD (1)	5HP KEF-1	480V/3PH/60HZ	KEF-1 CONNECT TO INTEGRAL DISCONNECT	3/4" – 3#12 & #12G
		2HP KSF-1	480V/3PH/60HZ	KSF-1 CONNECT TO INTEGRAL DISCONNECT PROVIDE INTERLOCK WIRING BETWEEN FANS AND SUPPLY FAN AND CONTROLS PANELS. MAGNETIC STARTERS FURNISHED BY DIV. 23.	3/4" – 3#12 & #12G
6	MEAT SLICER (1)	.6 KW	120V/1PH/60HZ	PROVIDE A 20A DUPLEX RECEPTACLE WALL MOUNTED.	3/4" – 3#12 & #12G
7	VEGGIE ROBOT COUPE (1)	.9 KW	120V/1PH/60HZ	PROVIDE A 20A DUPLEX RECEPTACLE WITH CORD REEL. INSTALL CEILING MOUNTED. SEE DETAIL.	3/4" – 2#12 & #12G
8	2-COMPARTMENT SINK W/DISPOSAL (1)	1.5HP	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL AT 18"AFF. CONNECT SOLENOID VALVE AND CONTROL SWITCH.	3/4" – 3#12 & #12G
9	3-COMPARTMENT SINK W/DISPOSAL (1)	1.5HP	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL AT 18"AFF. CONNECT SOLENOID VALVE AND CONTROL SWITCH.	3/4" – 3#12 & #12G
10	ICE MACHINE (1)	2.5KW	208V/1PH/60HZ	PROVIDE A 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL WALL MOUNTED AT +48" A.F.F.	3/4" – 3#12 & #12G
11	HOT FOOD PASS THRU CABINET (2)	1.5KW	208V/1PH/60HZ	PROVIDE A L14-20R RECEPTACLE. INSTALL PENDANT MOUNTED. SEE DETAIL.	3/4" – 3#12 & #12G
12	PASS THRU REFRIGERATOR (2)	1.3KW	120V/1PH/60HZ	PROVIDE A 20A DUPLEX RECEPTACLE. INSTALL PENDANT MOUNTED. SEE DETAIL.	3/4" – 2#12 & #12G
13	AIR CURTAIN (3)	1.2KW	120V/1PH/60HZ	PROVIDE THERMAL SWITCH AT 8'–0"AFF.	3/4" – 2#12 & #12G
14	HOT FOOD SERVING UNIT (4)	.9KW	120V/1PH/60HZ	PROVIDE A 30A SPECIAL RECEPTACLE. INSTALL PEDESTAL MOUNTED. SEE DETAIL.	3/4" – 3#10 & #10G
15	FROST TOP SERVING UNIT (4)	6.7A	208V/1PH/60HZ	PROVIDE A 20A DUPLEX RECEPTACLE. INSTALL PEDESTAL MOUNTED. SEE DETAIL.	3/4" – 2#12 & #12G
16	WALK-IN REFRIGERATOR EVAPORATOR (1)	1.0A	208V/1PH/60HZ	PROVIDE A 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. COORDINATE LOCATION WITH SUPPLIER. POWER AND CONTROL CIRCUIT OBTAINED FROM CONDENSER.	3/4" – 2#12 & #12G
	WALK-IN REFRIGERATOR CONDENSER (1)	8.3A	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL WALL MOUNTED. PROVIDE POWER AND CONTROL CIRCUIT TO EVAPORATOR.	3/4" – 3#12 & #12G
17	WALK-IN FREEZER EVAPORATOR (1)	8.2A	208V/1PH/60HZ	PROVIDE A 30A, 2PNF, 240V, NEMA 4X SS DISCONNECT. COORDINATE LOCATION WITH SUPPLIER. POWER AND CONTROL CIRCUIT OBTAINED FROM CONDENSER.	3/4" – 2#12 & #12G
	WALK-IN FREEZER CONDENSER (1)	14.8A	208V/3PH/60HZ	PROVIDE A 30A, 3PNF, 240V, NEMA 4X SS DISCONNECT. INSTALL WALL MOUNTED. PROVIDE POWER AND CONTROL CIRCUIT TO EVAPORATOR.	3/4" – 3#12 & #12G
18	MILK COOLER (2)	.6KW	120V/1PH/60HZ	PROVIDE 20A DUPLEX RECEPTACLE. INSTALL WALL MOUNTED. SEE DETAIL.	3/4" – 2#12 & #12G
19	CAN OPENER (2)	.2KW	120V/1PH/60HZ	PROVIDE 20A DUPLEX RECEPTACLE. INSTALL PENDANT MOUNTED. SEE DETAIL.	3/4" – 2#12 & #12G

NOTES:

1.) 48" AFF INDICATES TO TOP OF DEVICE;
18" AFF INDICATES TO TOP OF DEVICE;
ALL OTHER MOUNTING HEIGHTS REFER TO CENTERLINE OF DEVICE.
NOTE: VERIFY ELECTRICAL REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.



01 ENLARGED KITCHEN ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

NORTH

GENERAL NOTES:

1. ELECTRICAL BRANCH CIRCUIT HOMERUNS SHALL BE 3/4" – 2#12 & #12G. 20A/120V HOMERUNS EXCEEDING 100FT, THE WIRE SIZE SHALL BE #10 & #8 FOR 175'.
2. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS). 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
3. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITION.
4. PROVIDE J-HOOKS TO SUPPORT THE FIRE ALARM, INTRUSION DETECTION, VOICE, INTERCOM AND DATA CABLING.
5. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
6. PROVIDE EACH ISOLATED GROUND CIRCUIT HOMERUN WITH A "HOT", DEDICATED NEUTRAL, ISOLATED GROUND (IG) AND A SHARED MECHANICAL GROUND.
7. PROVIDE ISOLATED GROUND (IG) RECEPTACLES WITH 4 INSULATED CONDUCTORS, "HOT", NEUTRAL, ISOLATED GROUND (IG) AND EQUIPMENT GROUND THAT CONNECTS TO THE BOX ENCLOSURE. PROVIDE ISOLATED GROUND CONDUCTOR WITH A YELLOW TRACER.
8. THERE SHALL BE NO SPLICES IN THE ISOLATED GROUND (IG) FEEDING THE (IG) BUSS.
9. PROVIDE 1–2" RACEWAY (SLEEVE) 12" ABOVE CEILING AT ALL CLASSROOMS, RESTROOMS, OFFICES, ETC. DOORS THAT LEAD TO CORRIDORS (FLOOR TO CEILING WALLS) FOR SPECIAL SYSTEMS WIRING.
10. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
11. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK: B-750 (NO SUBSTITUTIONS). BRANCH CIRCUIT: 3/4" RACEWAY – 2#10 & #10G. MOUNT AT +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
2. PROVIDE JUNCTION BOX FOR FIRE SUPPRESSION SYSTEM 120/10/10A ABOVE CEILING. BRANCH CIRCUIT: 3/4" – 2#12 & #12G. COORDINATE WITH FIRE SUPPRESSION SYSTEM CONTRACTOR FOR ALL REQUIREMENTS AND FINAL LOCATIONS. PROVIDE RECESSED MOUNTED OCTAGON J-BOX AND 3/4" RACEWAY FOR PULL STATION AT 48"AFF. FIRE SUPPRESSION SYSTEM IS TO BE INTERCONNECTED TO BUILDING FIRE ALARM SYSTEM.
3. TO CONTROL KITCHEN HOODS FANS AND LIGHTS.
4. CONNECT KITCHEN HOOD LIGHTS; BRANCH CIRCUIT: 3/4" – 2#12 & #12G.
5. CONNECT KITCHEN HOOD CONTROL PANEL.
6. CONNECT COOLER/FREEZER LIGHTS, DOOR HEATER AND PRESSURE RELIEF PORT; BRANCH CIRCUIT: 3/4" – 2#12 & #12G.
7. PROVIDE WEATHERPROOF J-BOX AND 3/4" RACEWAY WITH PULLWIRE BACK TO THE COOLER & FREEZER LOCATION. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXACT LOCATION.
8. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE ELECTRICAL GEAR. COORDINATE WITH OTHER TRADES – TYPICAL.
9. CONNECT HEAT TRACE CABLE. ADD
10. NOT USED.
11. CONNECT ELECTRONIC PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
12. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING. SEE DETAIL 02/E8.05. CONNECT TO NEAREST 277V CIRCUIT – TYPICAL.

No.	REVISIONS	BY
ADD1	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
IDEA Public Schools
PALMVIEW
PALMVIEW, TEXAS

AREA 'A'
AREA 'B'
FUTURE PHASE II
KEYPLAN

RAY PEYNADO
125390
LICENSED PROFESSIONAL ENGINEER
5.16.2019

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA Palmview Phase I
Sheet: E4.05

ethos engineering
119 W. VAN BUREN AVE. STE 101
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PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
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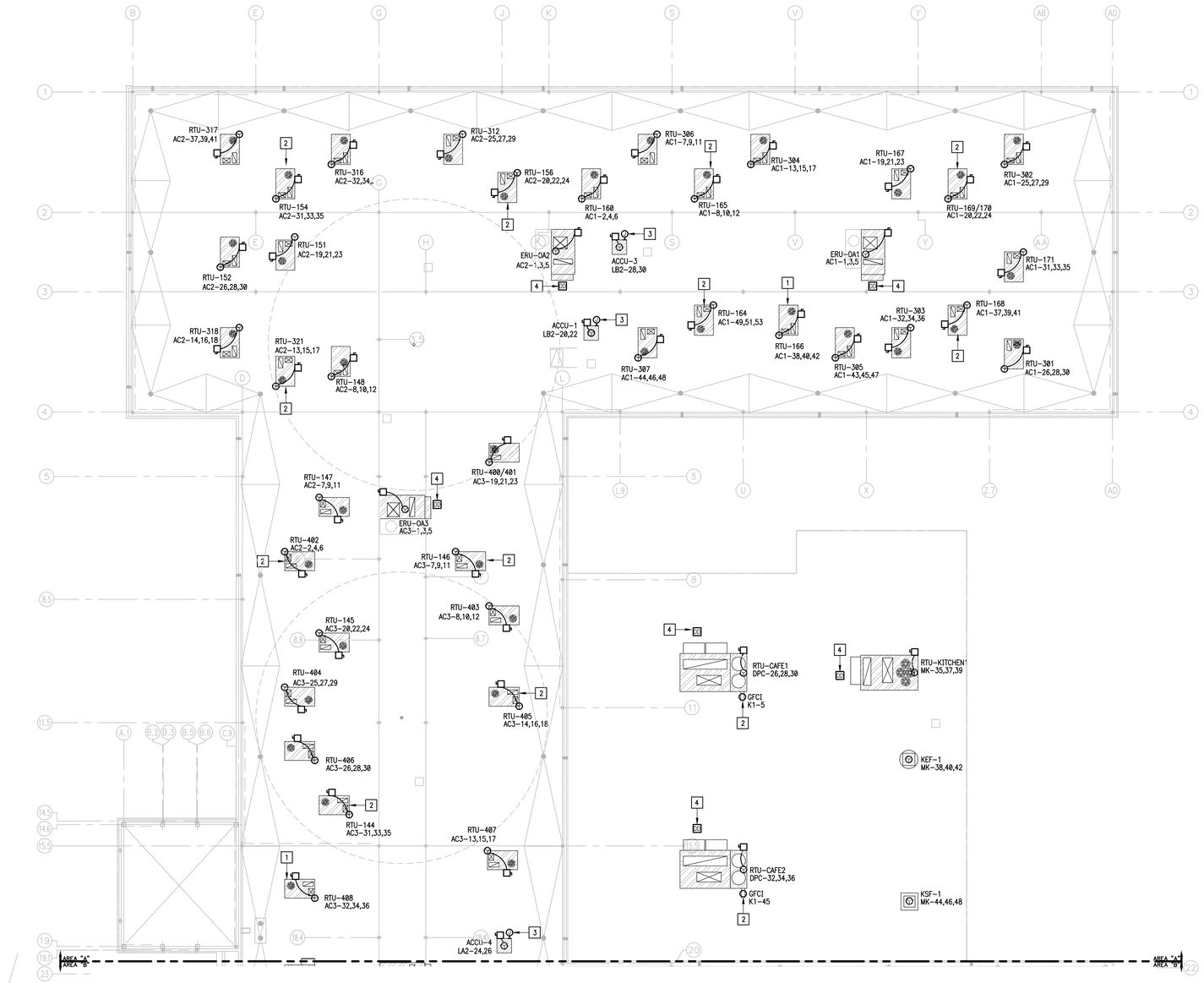
GENERAL NOTES:

1. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY(INCLUDING LIGHTING BRANCH CIRCUITS).
2. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITING.
3. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
4. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
5. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

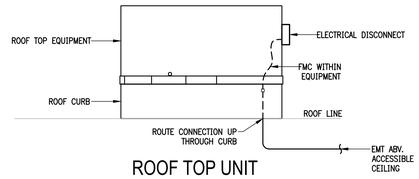
KEYED NOTES:

1. CONNECT ROOF TOP UNIT. ROUTE CONNECTION THROUGH ROOF CURB AND SECURE DISCONNECT TO EQUIPMENT. COORDINATE DISCONNECT LOCATION WITH HVAC CONTRACTOR TO ENSURE NOT TO OBSTRUCT ACCESSIBLE PANELS – TYPICAL.
2. CONNECT INTEGRAL GFCI RECEPTACLE TO NEAREST 120V NON-GFCI CIRCUIT.
3. PROVIDE WEATHERPROOF J-BOX ON ROOF AND 3/4" RACEWAY WITH PULLWIRE BACK TO THE ROOF FLASHING ROOF PENETRATION AND CONTINUE TO THE FCU LOCATION – TYPICAL
4. PROVIDE ABOVE CEILING/BELOW ROOF – TYPICAL.



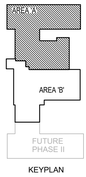
01 ELECTRICAL ROOF PLAN

SCALE: 3/32" = 1'-0"



02 ROOF TOP UNIT CONNECTION DETAIL

SCALE : NOT TO SCALE



KEYPLAN

No.	REVISIONS	BY
ADD 1	JUNE 3, 2019	

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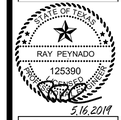
IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW

PALMVIEW, TEXAS



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Date:	May. 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E5.01

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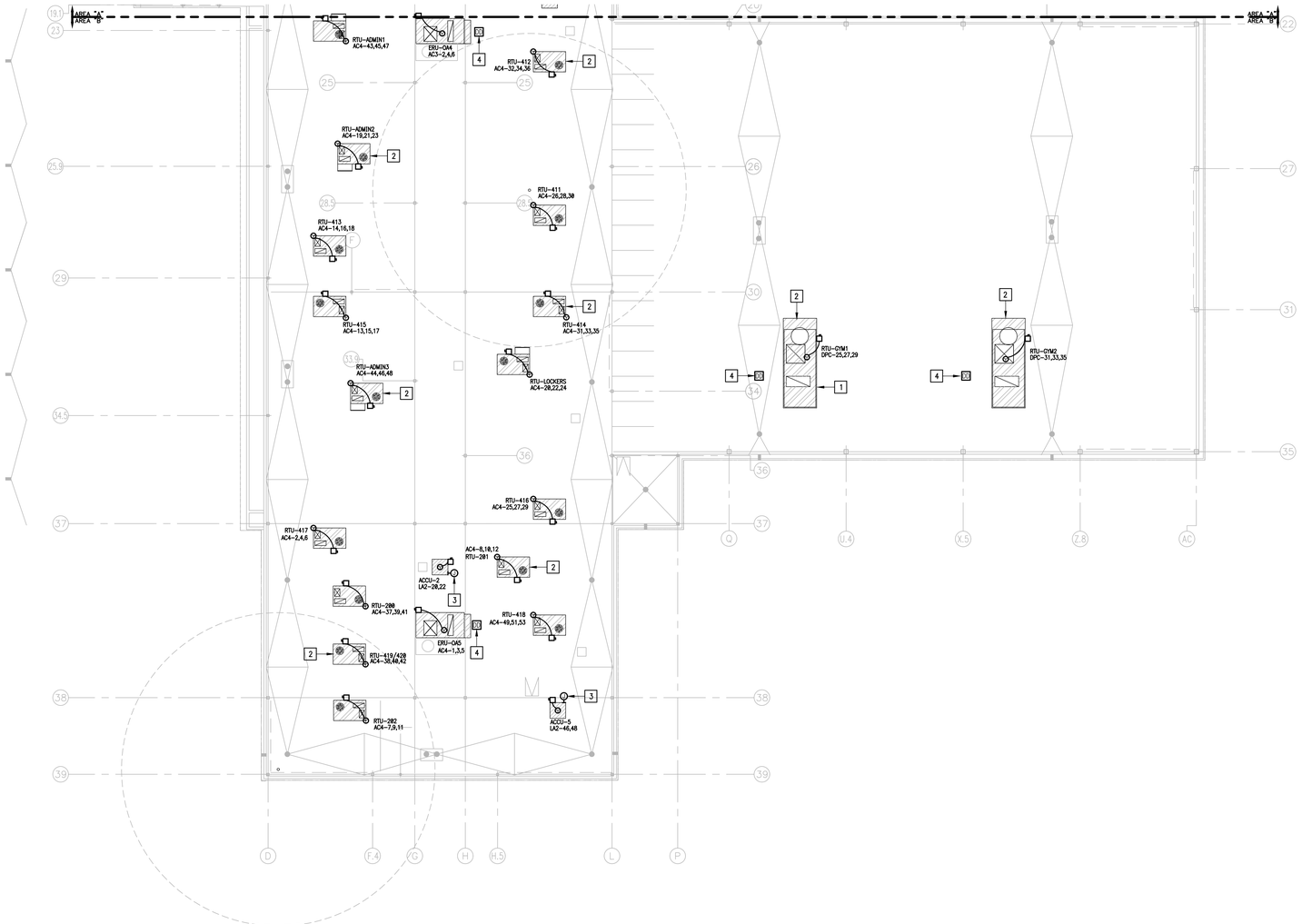

01 ELECTRICAL ROOF PLAN
SCALE: 3/32" = 1'- 0"

NORTH

ADD

GENERAL NOTES:

1. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY(INCLUDING LIGHTING BRANCH CIRCUITS).
2. PROVIDE ALL ELECTRICAL RECEPTACLES INSTALLED WITH THE GROUND OPENING IN THE "UP" POSITING.
3. PROVIDE FIRE STOPPING AT ALL FIRE WALL PENETRATIONS; PROVIDE EXPANSION PLATES & BONDING JUMPERS AT BUILDING EXPANSION JOINTS.
4. USE TAMPER RESISTANT RECEPTACLES THROUGHOUT.
5. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. CONNECT ROOF TOP UNIT. ROUTE CONNECTION THROUGH ROOF CURB AND SECURE DISCONNECT TO EQUIPMENT. COORDINATE DISCONNECT LOCATION WITH HVAC CONTRACTOR TO ENSURE NOT TO OBSTRUCT ACCESSIBLE PANELS – TYPICAL.
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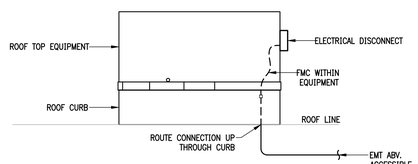

ROOF TOP UNIT
02 CONNECTION DETAIL
SCALE : NOT TO SCALE

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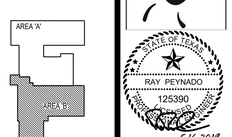
ADD	JUNE 3, 2019	

IDEA PUBLIC SCHOOLS PHASE 1
IDEA Public Schools
PALMVIEW
PALMVIEW, TEXAS



KEYPLAN

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Interior Designers

Date:	May. 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E5.02

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	HP/KW	FLA	MCA	MOCP	VOLTAGE	DISCONNECT	BRANCH CIRCUIT
RTU-166,167,171,301,303,305,152,154,156,165,306,312, 317,147,148,151,318,321,400/401,402,144,145,403, 404,405,406,407,202,415,417,LOCKERS,418. ADD 1	–	–	15	15	480V/3PHASE	30A, 3PNF, 600V, NEMA 3R.	1/2" – 3#12 & #12G
RTU-169,170,168,160,316,146,164,307,411,412,200,201, 414,416. ADD 2	–	–	26	30	480V/3PHASE	30A, 3PNF, 600V, NEMA 3R.	3/4" – 3#10 & #10G
RTU-302,304,408,413,419/420.	–	–	27	30	480V/3PHASE	30A, 3PNF, 600V, NEMA 3R.	3/4" – 3#10 & #10G
RTU-ADMIN1,ADMIN2,ADMIN3	–	–	28	30	480V/3PHASE	30A, 3PNF, 600V, NEMA 3R.	3/4" – 3#10 & #10G
RTU-CAFE1,CAFE2,KITCHEN	–	–	74	80	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R.	1" – 3#4 & #8G
ADD 3 RTU-GYM1,GYM2	–	–	98.7	110	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R.	1.25" – 3#3 & #8G
ERU-0A1	–	–	37.1	45	480V/3PHASE	60A, 3PNF, 600V, NEMA 3R.	3/4" – 3#8 & #10G
ERU-0A2	–	–	37.1	45	480V/3PHASE	60A, 3PNF, 600V, NEMA 3R.	3/4" – 3#8 & #10G
ERU-0A3	–	–	37.1	45	480V/3PHASE	60A, 3PNF, 600V, NEMA 3R.	3/4" – 3#8 & #10G
ERU-0A4	–	–	37.1	45	480V/3PHASE	60A, 3PNF, 600V, NEMA 3R.	3/4" – 3#8 & #10G
ERU-0A5	–	–	37.1	45	480V/3PHASE	60A, 3PNF, 600V, NEMA 3R.	3/4" – 3#8 & #10G
FCU-1	1/2 HP	–	5	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 2#12 & #12G
ACCU-1	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
FCU-2	1/2 HP	–	5	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 2#12 & #12G
ACCU-2	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
FCU-3	1/2 HP	–	5	15	208V/1PHASE	1) NONE. ADD 4	1/2" – 2#12 & #12G
ACCU-3	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
FCU-4	1/2 HP	–	5	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 2#12 & #12G
ACCU-4	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
FCU-5	1/2 HP	–	5	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1.	1/2" – 2#12 & #12G
ACCU-5	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R.	1/2" – 2#12 & #12G
EWH-1	24 KW	28.9	–	40	480V/3PHASE	60A, 3PNF, 600V, NEMA 1.	3/4" – 3#8 & #10G
EWH-2	54 KW	64.9	–	90	480V/3PHASE	100A, 3PNF, 600V, NEMA 1.	1.25" – 3#3 & #8G
CP-1	1/12 HP	–	–	20	120V/1PHASE	(3) THERMAL SWITCH.	1/2" – 2#12 & #12G
TELESCOPIC BLEACHER	2-1/2 HP	5.4	–	20	208V/3PHASE	30A, 3PNF, 240V, S/N, NEMA 1.	1/2" – 4#12 & #12G
SUMP PUMP	1/3HP	7.2	–	20	120V/1PHASE	(3) THERMAL SWITCH.	1/2" – 2#12 & #12G
ELEVATOR	30 HP	41.0	50	100	480V/3PHASE	(2) BUSSMANN POWER MODULE SWITCH.	1.25" – 4#3 & #3G
ADD 5 IBP-1 (IRRIGATION BOOSTER PUMP)	5 HP	16.7	–	45	208V/3PHASE	INTEGRAL DISCONNECT	1" – 3#8 & #10G
ALTERNATE #2							
BP-1 (BOOSTER PUMP)	3 HP	9.6	–	30	480V/3PHASE	30A, 3PNF, 600V, NEMA 1.	3/4" – 3#10 & #10G

(1) MEANS OF DISCONNECT IS THE CIRCUIT BREAKER (WITHIN SIGHT).

(2) BUSSMAN: PS1, RATED FOR 100A, SHUNT TRIP, CONTROL POWER TRANSFORMER, FIRE SAFETY INTERFACE, KEY TO TEST SWITCH, PILOT LIGHT, MECHANICAL INTERLOCK AUXILIARY CONTACT, PHASE FAILURE/UNDER VOLTAGE RELAY, NEMA 1 ENCLOSURE.

(3) EATON MANUAL STARTER "MS" SERIES.

NOTE: LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL ON EQUIPMENT, BELOW DUCTWORK OR PLUMBING LINES.

EXHAUST FAN CONNECTION SCHEDULE:

DESIGNATION	HP/WATTS	FLA	VOLTAGE	CONNECTION FOR EACH	BRANCH CIRCUIT
EF-1	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-2	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-3	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-4	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-5	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-6	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-7	54.5 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-8	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-9	54.5 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-10	75.0 W	0.7	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-11	195 W	1.8	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-12	75.0 W	0.7	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-13	195 W	1.8	120V/1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-14	75.0 W	0.7	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-15	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-16	34.4 W	0.3	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-17	54.5 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G
EF-18	54.5 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR.	1/2" – 2#12 & #12G

LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTES	LUMENS
A2	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 40L EZ1 LP840 WILLIAMS: LT24 L40 AF DIM UNV	34	277V 1P 2W		4032
A2E	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 40L EZ1 LP840 EL14L WILLIAMS: LT24 L40 AF DIM UNV EM/10W	34	120V 1P 2W 277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4032
A3	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 48L EZ1 LP840 WILLIAMS: LT24 L52 AF DIM UNV	45	277V 1P 2W		5234
A3E	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 48L EZ1 LP840 EL14L WILLIAMS: LT24 L52 AF DIM UNV EM/10W	45	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5234
B2	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 40L EZ1 LP840 WILLIAMS: LT24 L40 AF DIM UNV	34	277V 1P 2W	PROVIDE LAMPS CENTER MOUNTED.	4032
B2E	LED	2'X4' LAY-IN INDIRECT TROFFER	0-10V	RECESSED	LITHONIA: 2BLT4 40L EZ1 LP840 EL14L WILLIAMS: LT24 L40 AF DIM UNV EM/10W	34	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4032
C1	LED	6" LENSED DOWN LIGHT	0-10V	CEILING	LITHONIA: LDN6 40/05 L06AR MVOLT WILLIAMS: 6CR-TL-L10 8 40K DIM UNV	12	120V 1P 2W 277V 1P 2W		662
D2	LED	4' WRAPAROUND	0-10V	CHAIN/SURFACE	LITHONIA: SBL 40L EZ1 LP840 LSI: WNA10 LED SS NW UE	32	277V 1P 2W		3994
D2E	LED	4' WRAPAROUND	0-10V	CHAIN/SURFACE	LITHONIA: SBL4 40L EZ1 EL14L LP840 LSI: WNA10 LED SS NW UE EM	32	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	3994
E1	INC.	EMERGENCY LIGHTING UNIT		WALL	LITHONIA: IND12100 W H5012S SEL ELA WG2M MULE: WLPCL-BU	20	277V 1P 2W	PROVIDE WITH A WIRECUARD, SELF-DIAGNOSTICS, LOAD DISCONNECT, & TIME DELAY.	2950
F2E	LED	4' WRAPAROUND	0-10V	SURFACE	KENALL: MLHA8 4B F MW PP 45L40K DV LEL LUMINAIRE LED: VPF84-50W-4000K-120-277-CP-GRY-DIM-EMB310ST	45	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5072
F3	LED	24" X 48" SEALED LAY-IN TROFFER	0-10V	RECESSED	LITHONIA: 2GTL F4 48L FN PCL12187 SWL EZ1 ABC LP840 LSI: 2T GA24 LED SS NW UE TG PC187	47	277V 1P 2W	PROVIDE WITH .187" POLYCARBONATE DIFFUSER AND WITH AN ALUMINUM DOOR & ADDITIONAL GASKETING.	2950
F3E	LED	24" X 48" SEALED LAY-IN TROFFER	0-10V	RECESSED	LITHONIA: 2GTL F4 48L FN PCL12187 SWL EZ1 EL14L ABC LP840 LSI: 2T GA24 LED SS NW UE TG EM PC187	47	277V 1P 2W	PROVIDE WITH .187" POLYCARBONATE DIFFUSER AND WITH AN ALUMINUM DOOR & ADDITIONAL GASKETING.	2950
G2	LED	2'X4' FLANGED TROFFER	0-10V	RECESSED	LITHONIA: 2GTL F 4 40L A125125 GZ10 LP840 WILLIAMS: LPT-24-L45/840-S-AF12125-DIM ADD 6	39	277V 1P 2W		4290
G2E	LED	2'X4' FLANGED TROFFER	0-10V	RECESSED	LITHONIA: 2GTL F 4 40L A12125 GZ10 LP840 EL14L WILLIAMS: LPT-24-L45/840-S-AF12125-DIM-EM	39	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4290
H3	LED	24" X 48" HIGH BAY	0-10V	SURFACE	LITHONIA: IBH 15000LM SEF PFL GND MVOLT OZ10 40K 80CRI DWH LSI: CHB LED 18L DA UNV DIM 40	137	277V 1P 2W	PROVIDE WITH A .125 POLYCARB LENS.	14218
H3E	LED	24" X 48" HIGH BAY	0-10V	SURFACE	LITHONIA: IBH 15000LM SEF PFL GND MVOLT OZ10 40K 80CRI PS10250 DWH LSI: CHB LED 18L DA UNV DIM 40 EM10	137	277V 1P 2W	PROVIDE WITH A .125 POLYCARB LENS.	14218
H4	LED	24" X 48" HIGH BAY	0-10V	SURFACE	LITHONIA: IBH 15000LM SEF PFL GND MVOLT OZ10 40K 80CRI DWH WGIBG24 LSI: CHB LED 18L DA UNV DIM 40 WG	137	277V 1P 2W	PROVIDE WITH A .125 POLYCARB LENS AND A WIRE GUARD.	14218
H6	LED	24" X 48" HIGH BAY	0-10V	SURFACE	LITHONIA: IBH 24000LM SEF PFL GND MVOLT OZ10 40K 80CRI DWH WGIBG24 LSI: CHB LED 24L DA UNV DIM 40 WG	137	277V 1P 2W	PROVIDE WITH A .125 POLYCARB LENS AND A WIRE GUARD.	23643
J2E	LED	8' LINEAR	0-10V	RECESSED	FINELITE: HP4R-H-80-40-F-277V-SC-VF LUX: EOS 4.0R G 750 840K 80 1 UNV S1 EB	56	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5808
K1	(2) XENON	EMERGENCY LIGHTING UNIT		WALL	LITHONIA: AFN _ X PREM MULE LIGHTING: MAKO-3 X SD	2	277V 1P 2W	PROVIDE WITH A NI-CAD BATTERY PACK & SELF DIAGNOSTICS. STANDARD FINISH TO BE SELECTED AT A LATER DATE.	0
L2	LED	WALL BRACKET	0-10V	WALL	LITHONIA, WL4 40L MVOLT SLD LP840 LSI: W44 4 HO NW UE	40	277V 1P 2W		2950
L2E	LED	WALL BRACKET	0-10V	WALL	LITHONIA, WL4 40L MVOLT SLD LP840 EL14L LSI: W44 4 HO NW UE EM	40	120V 1P 2W 277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	2950
M	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 1 10A700/40K SR4 MVOLT X RAYON: T650LED DL 30 UN112 40 WT	22	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS.	2655
ME	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 1 10A700/40K SR4 MVOLT ELCW X RAYON: T650LED DL 30 UN112 40 WT EM	22	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS AND WITH AN EMERGENCY BATTERY PACK. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	2655
N	LED	WALLPACK	0-10V	SURFACE	LITHONIA: WSR LED 2 10A700/40K SR4 MVOLT X RAYON: T650LED DL 45 UN112 40 WT MTO	45	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	3404
P2	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX1 LED 60C 1000 40K T3M 480V LSI: MRM LED 24L SIL 3 UNV DIM 40 70CRI XX	209	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 30 FOOT ROUND TAPERED ALUMINUM (CUT TO 27') & RATED FOR 120MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	21909
P3	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX1 LED 60C 1000 40K T5W 480V LSI: MRM LED 24L SIL 5 UNV DIM 40 70CRI XX	209	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 30 FOOT ROUND TAPERED ALUMINUM (CUT TO 27') & RATED FOR 120MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	22977
P4	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	LITHONIA: DSX1 LED 60C 1000 40K TFTM 480V	209	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 30 FOOT ROUND TAPERED ALUMINUM (CUT TO 27') & RATED FOR 120MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	21875
P5	LED	ARCHITECTURAL AREA LUMINAIRE	0-10V	POLE	(2) LITHONIA: DSX1 LED 60C 1000 40K T5W 480V LSI: MRM LED 24L SIL 5 UNV DIM 40 70CRI XX	418	480V 2P 2W	PROVIDE FIXTURE UL LISTED FOR WET LOCATIONS AND WITH A MOTION SENSOR. POLE SHALL BE 30 FOOT ROUND TAPERED ALUMINUM (CUT TO 27') & RATED FOR 120MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. STANDARD COLOR FINISH TO BE SELECTED AT A LATER DATE.	45954
Q	LED	DECORATIVE PENDANT	0-10V	PENDANT	LUMETTA:P5542-F7-D65MT/D24WASHI-L413-277V-CXX3 CHAM Custom 5542	55	277V 1P 2W		4260
R	LED	4" LINEAR LUMINAIRE	0-10V	RECESSED	FINELITE: HP-4 R-4'-B-840-F-MVOLT-SC-VF LUX: EOS 4.0R G 350 840K 80 1 UNV S1 EB	19	120V 1P 2W		1916
S	LED	SURFACE CORNER MOUNT	DRIVER	SURFACE	KENALL: MLHA8-4B-R-LG-PP-45L40K-DCC-277-CMB LUNIMAIRE: VPF44 50W 4000K DIM 120-277 CP X	45	277V 1P 2W	PROVIDE CORNER MOUNT BRACKET.	5072
T	LED	8' LINEAR LUMINAIRE	0-10V	RECESSED	FINELITE: HP-4 R-8'-S-840-F-277-SC-VF LUX: EOS 4.0R G 500 840K 80 1 UNV S1 EB	28.8	277V 1P 2W		1525
X1	LED	SINGLE SIDED EXIT SIGN		WALL/CEILING	BEGHELLI: FTZ-SA-LR1-UWW MULE LIGHTING: WLCX-1-R-W-U-SD	3	277V 1P 2W	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0
X2	LED	DOUBLE SIDED EXIT SIGN		WALL/CEILING	BEGHELLI: FTZ-SA-LR2-UWW MULE LIGHTING: WLCX-2-R-W-U-SD	5	277V 1P 2W	PROVIDE WITH A UNIVERSAL MOUNTING CANOPY, LIGHT EMITTING DIODES, & A NI-CAD BATTERY PACK.	0

GENERAL NOTES:
1. LIGHT FIXTURE EQUALS MANUFACTURED BY COLUMBIA AND METALUX ARE ACCEPTABLE, PROVIDED THEY MEET OR EXCEED SPECIFICATIONS.
2. EXTRA MATERIALS: SEE SPECIFICATIONS.
3. EMERGENCY BATTERY PACKS SHALL BE COMPLETE FACTORY INSTALLED WITH NI-CAD BATTERY, CHARGER INDICATING LIGHT, ELECTRONIC CIRCUITRY, 1400 LUMENS OUTPUT, 90 MINUTES DURATION & FIVE FULL YEARS WARRANTY.
4. FURNISH ALL 2' X 4' LAY-IN LIGHT FIXTURES WITH INTEGRAL CEILING CLIPS.

No.	REVISIONS	BY
ADD 7	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
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IDEA Public Schools
PALMVIEW, TEXAS

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PROFESSIONAL ENGINEER
5/16/2019

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
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Sheet: E6.01

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MSB

ROOM
MOUNTING FLOOR
FED FROM UTILITY
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

VOLTS 480Y/277V 3P 4W
BUS AMPS 2500
NEUTRAL 100%

AIC 100,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	800/3	PANEL DPC	186			2	300/3	PANEL HA	91.8		
3	|			187		4	|			86.9	
5	|				185	6	|				84.8
7	250/3	PANEL HB	49.5			8	1000/3	PANEL PDP	260		
9	|			51.8		10	|			260	
11	|				49.1	12	|				260
13	800/3	*SPARE (ADD)	0			14	400/3	SPARE	0		
15	|			0		16	|			0	
17	|				0	18	|				0
								TOTAL CONNECTED KVA BY PHASE	587	585	579

	CONN KVA	CALC KVA	
LIGHTING	42.8	53.4	(125%)
LARGEST MOTOR	33.3	41.6	(125%)
OTHER MOTORS	91.2	91.2	(100%)
RECEPTACLES	200	105	(50%>10)
KITCHEN EQUIP	210	136	(65%)

	CONN KVA	CALC KVA	
CONTINUOUS	45.9	57.4	(125%)
HEATING	1,030	1,030	(100%)
COOLING	162	0	(0%)
NONCONTINUOUS	95.7	95.7	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	1,750	1,610	
BALANCED 3-PHASE AMPS		1,940	

1. PROVIDE NEMA 3R (304 STAINLESS STEEL) ENCLOSURE.
2. PROVIDE MULTI-METERING PACKAGE.
3. PROVIDE SERVICE ENTRANCE RATED.
4. PROVIDE ALL BREAKERS 100% RATED.

*PROVIDE MULTI-METERING PACKAGE FOR TEMPORARY POWER READINGS OF PHASE II CONSTRUCTION. (ADD)

FEEDER SCHEDULE - BASE BID:

FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
60	1" – 4#6, #10G & #10IG (ADD)	HBL2
80	1.25" – 4#4, #8G & #8IG	CA1, HBL1
100	1.25" – 4#3 & #8G	LB1, LB2
100	1.25" – 4#3, #8G & #8IG	CA2
125	1.5" – 4#1 & #6G	LA2, LA3
150	2" – 4#1/0, #6G & #6IG	CB2
175	2" – 4#2/0 & #6G	LA1
200	2" – 4#3/0 & #6G	HA2, AC2
250	3" – 4#250KCMIL & #4G	HB, AC3
300	3" – 4#350KCMIL & #4G	AC1, HA
350	3" – 4#500KCMIL & #3G	AC4, MK
800	(2-RUNS) 4" – 4#600KCMIL & #1/0G	DPC
1000	(3-RUNS) 4" – 4#400KCMIL & #2/0G	PDP
2500	(6-RUNS) 4" – 4#600KCMIL	MSB

SIZING METHOD: COPPER 75°C

FEEDER SCHEDULE - ALT. BID #3:

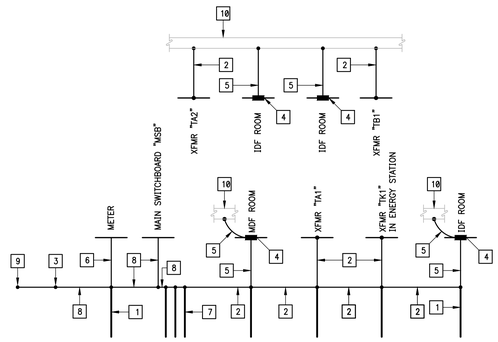
FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
60	1" – 4#4 #8G & #8IG (ADD)	HBL2
80	1.5" – 4#2 #6G & #6IG	CA1, HBL1
100	1.5" – 4#1 & #6G	LB1, LB2
100	2" – 4#1, #6G & #6IG	CA2
125	2" – 4#2/0 & #4G	LA2, LA3
150	2.5" – 4#3/0 #4G & #4IG	CB2
175	2.5" – 4#4/0 & #4G	LA1
200	3" – 4#250KCMIL & #4G	HA2, AC2
250	3" – 4#350KCMIL & #2G	HB, AC3
300	3" – 4#500KCMIL & #2G	AC1, HA
350	(2-RUNS) 2.5" – 4#4/0 & #1G	AC4, MK
800	(3-RUNS) 3" – 4#400KCMIL & #3/0G	DPC
1000	(4-RUNS) 3" – 4#400KCMIL & #4/0G	PDP
2500	(8-RUNS) 4" – 4#600KCMIL	MSB

SIZING METHOD: ALUMINUM 75°C

TRANSFORMER SCHEDULE:

DESIGN	KVA	PV	SV	DEGREE RISE	CONNECTION	FREQ HZ	SERVES PANELS	CAT. NO.	PRIMARY FEEDER (75°C COPPER)
TA1	112.5	480	120/208	115	DELTA Y	60	LA1, LA3, CA1	POWER SMITHS: Esaver20M-112.5-480-208-HD-T115-F60	2" – 3#3/0 & #6G
TA2	75	480	120/208	115	DELTA Y	60	LA2, CA2, CL1	POWER SMITHS: Esaver20M-75-480-208-HD-T115-F60	2" – 3#1/0 & #6G
TB1	112.5	480	120/208	115	DELTA Y	60	LB1, LB2, CB2	POWER SMITHS: Esaver20M-112.5-480-208-HD-T115-F60	2" – 3#3/0 & #6G
*TK1	75	480	120/208	115	DELTA Y	60	K1	POWER SMITHS: ES-IPF466-75-E20M-480-208-BCMB	2" – 3#1/0 & #6G

* ENERGY STATION



02 GROUNDING RISER DIAGRAM
SCALE : NONE

GROUNDING RISER KEYED NOTES:

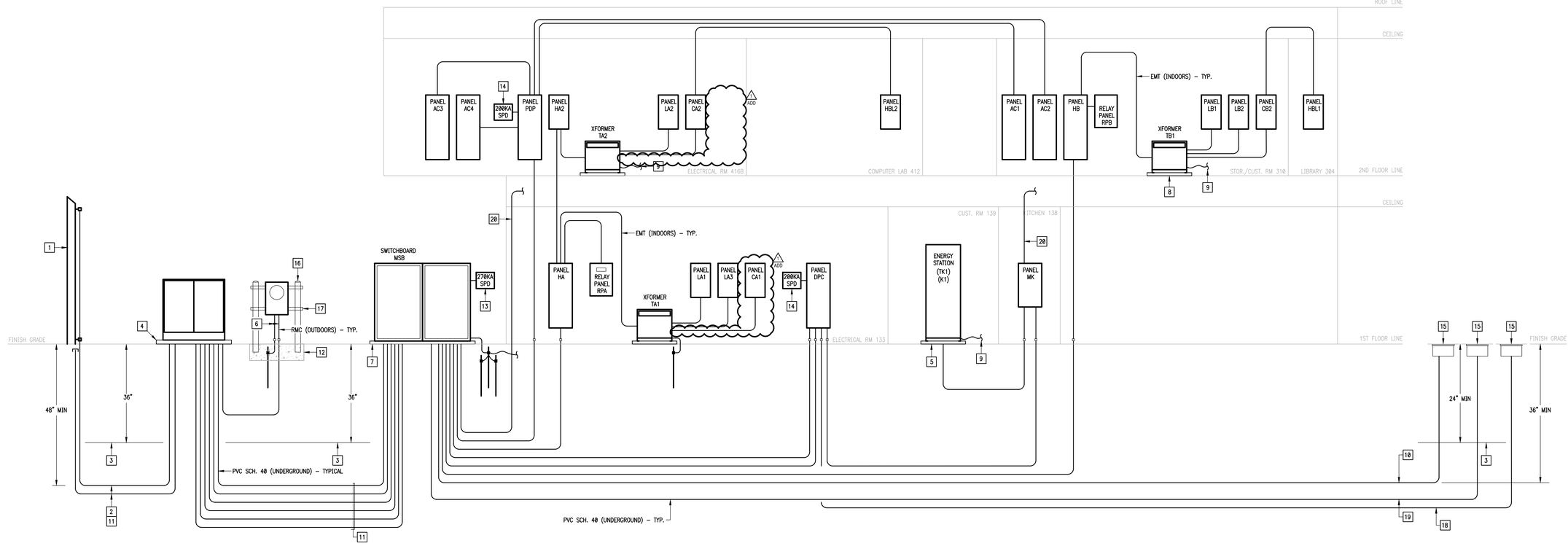
1. 3/4"X 10' COPPER CLAD GROUND RODS – TYPICAL.
2. #1/0 BARE COPPER GROUND ELECTRODE CONDUCTOR.
3. CADWELD CONNECT TO BUILDING REBAR STRUCTURE STEEL AND COPPER WATER LINE.
4. GROUNDING BUS BAR – TYPICAL.
5. #4 BARE COPPER GROUND CONDUCTOR.
6. #6 BARE COPPER GROUND CONDUCTOR.
7. INSTALL IN A TRIANGULAR PATTERN. MIN. 6' SPACING.
8. #500KCMIL BARE COPPER GROUND ELECTRODE CONDUCTOR.
9. CADWELD CONNECT TO REBAR AND STRUCTURE STEEL.
10. CADWELD TO BUILDING STRUCTURE STEEL.

RACEWAYS EMBEDDED IN FOUNDATION GENERAL NOTES:

RACEWAYS EMBEDED WITHIN THE SLAB SHALL COMPLY WITH THE FOLLOWING:
1. SHALL HAVE A MINIMUM SPACING OF 2".
2. SHALL NOT BE LARGER THAN 1".
3. SHALL NOT BE RUN THROUGH THE SURFACE AREA OF THE FOOTING.
4. SHALL NOT BE CROSSED OVER/UNDER EACH OTHER WITH THE SLAB.
5. SHALL NOT BE TIED TO THE REBAR.
6. SHALL BE A MINIMUM OF 1.5" AWAY FROM SLAB REBAR. IF SPACING CANNOT BE ACCOMPLISHED; IT SHALL BE PROVIDED BELOW GRADE.

ELECTRICAL RISER DIAGRAM KEYED NOTES:

1. ELECTRIC UTILITY DIP POLE.
2. PROVIDE (2)4" PVC CONDUITS. PROVIDE LONG SWEEP RADIUS ELBOWS.
3. PROVIDE CONTINUOUS DETECTABLE UNDERGROUND WARNING TAPE.
4. PROVIDE UTILITY TRANSFORMER CONCRETE PAD – SEE DETAIL.
5. PROVIDE STEP-DOWN TRANSFORMER AND 4" CONCRETE HOUSEKEEPING PAD.
6. PROVIDE 1-1/4" – #6.
7. PROVIDE SWITCHBOARD HOUSEKEEPING PAD – SEE STRUCTURAL DRAWINGS.
8. PROVIDE 4" HOUSEKEEPING CONCRETE PAD – TYPICAL.
9. SEE GROUNDING RISER DIAGRAM – TYPICAL.
10. PROVIDE (2)4" RACEWAYS WITH PULLWIRE FOR SPARES AND FUTURE BUILDING. STUB-OUT FROM MAIN SWITCHBOARD "MSB" AND TERMINATE AT PULLBOX. SEE SITE PLAN FOR TERMINATION POINTS.
11. PROVIDE 2" RED CONCRETE TOPPING.
12. 24" WIDE X 24" LONG X 24" DEEP (4" ABOVE GRADE) CONCRETE FOOTING WITH #4 REBAR WELDED ON TO 4" DIA. STEEL PIPE.
13. PROVIDE 270KA EXTERNALLY MOUNTED SPD ACT COMMUNICATIONS # ACT471-277Y-270-SEL-F-D-C1-SNM ***
14. PROVIDE 200KA EXTERNALLY MOUNTED SPD ACT COMMUNICATIONS # ACT471-120Y-200-F-C1-SNM ***
15. PROVIDE POLYMER CONCRETE PULLBOX – SEE SITE PLAN.
16. 4" DIA. X 6' (ABOVE GROUND) HOT DIP GALVD. STEEL PIPE WITH CAP.
17. 3-1/4" X 1-5/8", 12 GAUGE UNISTRUT, HOT DIP GALVD. AFTER FABRICATION.
18. PROVIDE 1-4" RACEWAY WITH PULLWIRE FOR SPARES AND FUTURE BUILDING. STUB-OUT FROM DISTRIBUTION PANEL "DPC" AND TERMINATE AT PULLBOX. SEE SITE PLAN FOR TERMINATION POINTS.
19. PROVIDE 1-4" RACEWAY WITH PULLWIRE FOR SPARES AND FUTURE BUILDING. STUB-OUT FROM MAIN SWITCHBOARD "MSB" AND TERMINATE AT PULLBOX. SEE SITE PLAN FOR TERMINATION POINTS.
20. PROVIDE 1-1/2" RACEWAY WITH PULLWIRE FOR BACNET COMMUNICATION. STUB UP ABOVE ACCESSIBLE CEILING SPACE.



01 ELECTRICAL RISER DIAGRAM
SCALE : NONE

No.	REVISIONS	BY
1 (ADD)	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
IDEA PALMVIEW
IDEA Public Schools
PALMVIEW, TEXAS



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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA Palmview Phase I
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HA

ROOM ELECTRICAL RM. 133 — VOLTS 480Y/277V 3P 4W — AIC 14,000
MOUNTING SURFACE — BUS AMPS 400 — MAIN BKR 300
FED FROM MSB — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LIGHTING	1.43			2	20/1	LIGHTING	1.28		
3	20/1	|		0		4	20/1	LIGHTING		0.917	
5	20/1	LIGHTING			0.916	6	20/1	LIGHTING			0.959
7	20/1	LIGHTING	0.544			8	20/1	LIGHTING	0.959		
9	20/1	LIGHTING		0.681		10	20/1	LIGHTING		0.959	
11	20/1	LIGHTING			0.073	12	20/1	LIGHTING			0.959
13	20/1	LIGHTING	1.01			14	20/1	LIGHTING	0.959		
15	20/1	LIGHTING		0.215		16	20/1	LIGHTING		0.132	
17	20/1	LIGHTING			0.136	18	20/1	LIGHTING			0.333
19	100/3	ELEVATOR	11.1			20	20/2	LIGHTING	1.67		
21	|	|		11.1		22	|	|		1.67	
23	|	|			11.1	24	20/2	LIGHTING			0.836
25	200/3	PANEL HA2	26.3			26	|	|	0.836		
27	|	|		26.4		28	20/1	LIGHTING		0.036	
29	|	|			24.8	30	20/1	LIGHTING			1.04
31	20/1	SPACE	0			32	20/1	LIGHTING	1.22		
33	20/1	SPACE		0		34	20/1	SPARE		0	
35	20/1	SPACE			0	36	20/1	SPARE			0
37	200/3	*XFMR TA1 (112.5KVA)	41.5			38	20/1	SPARE	0		
39	|	|		45		40	20/1	SPARE		0	
41	|	|			43.9	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	88.8	87.1	85.1

	CONN KVA	CALC KVA	
LIGHTING	27.6	34.5	(125%)
LARGEST MOTOR	33.3	41.6	(125%)
OTHER MOTORS	36.1	36.1	(100%)
RECEPTACLES	120	65.1	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	26.3	32.9	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	17.7	17.7	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	261	228	
BALANCED 3-PHASE AMPS		274	

* PROVIDE ELECTRONIC TYPE WITH L.S.I. DIALS.

DPC

ROOM ELECTRICAL RM. 133 — VOLTS 480Y/277V 3P 4W — AIC 42,000
MOUNTING SURFACE — BUS AMPS 800 — MAIN BKR 800
FED FROM MSB — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	SPACE	0			2	20/1	SPACE	0		
3	20/1	SPACE		0		4	20/1	SPACE		0	
5	20/1	SPACE			0	6	20/1	SPACE			0
7	20/1	SPACE	0			8	20/1	SPACE	0		
9	20/1	SPACE		0		10	20/1	SPACE		0	
11	20/1	SPACE			0	12	20/1	SPACE			0
13	20/1	SPACE	0			14	20/1	SPACE	0		
15	20/1	SPACE		0		16	20/1	SPACE		0	
17	20/1	SPACE			0	18	20/1	SPACE			0
19	350/3	PANEL MK	106			20	20/1	SPACE	0		
21	|	|		107		22	20/1	SPACE		0	
23	|	|			107	24	20/1	SPACE			0
ADD 25	10/3	* RTU-GYM1	21.6			26	80/3	* RTU-CAFE1	16.3		
27	|	|		21.6		28	|	|		16.3	
ADD 29	10/3	* RTU-GYM2			21.6	30	|	|			16.3
31	|	|	21.6			32	80/3	* RTU-CAFE2	16.3		
33	|	|		21.6		34	|	|		16.3	
35	|	|			21.6	36	|	|			16.3
37	175/3	SPARE	0			38	20/1	SPARE	0		
39	|	|		0		40	20/1	SPARE		0	
41	|	|			0	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	182	183	183

	CONN KVA	CALC KVA	
LIGHTING	2.59	3.24	(125%)
LARGEST MOTOR	6.32	7.9	(125%)
OTHER MOTORS	1.88	1.88	(100%)
RECEPTACLES	7.32	7.32	(50%>10)
KITCHEN EQUIP	199	130	(65%)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	276	276	(100%)
COOLING	21.3	0	(0%)
NONCONTINUOUS	54	54	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	548	480	
BALANCED 3-PHASE AMPS		578	

1. PROVIDE WITH 100% RATED MAIN BREAKER.
2. PROVIDE TAYLOR PHASE GUARD PROTECTION TO PANEL "RTU" CIRCUIT BREAKER.

* PROVIDE SHUNT TRIP TYPE.

LA3

ROOM ELECTRICAL RM. 133 — VOLTS 208Y/120V 3P 4W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 225 — MAIN BKR 125
FED FROM TA1 — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPT.	0.72			2	20/1	MOT. BACKBOARD	0.8		
3	20/1	RECEPT.		0.9		4	20/1	MOT. BACKBOARD		0.8	
5	20/1	SCOREBOARD			1.4	6	20/1	MOT. BACKBOARD			0.8
7	20/1	SCOREBOARD	1.4			8	20/1	MOT. BACKBOARD	0.8		
9	20/1	RECEPT.		1.08		10	20/1	MOT. BACKBOARD		0.8	
11	20/1	RECEPT.			0.9	12	20/1	MOT. BACKBOARD			0.8
13	20/1	MOT. SCREEN	0.1			14	20/1	REC ASST LISTENING	0.18		
15	20/1	MOT. SCREEN		0.1		16	20/1	RECEPT.		0.18	
17	20/1	RECEPT.			0.36	18	20/1	RECEPT.			0.18
19	20/1	DRINKING FOUNTAIN	0.8			20	20/1	RECEPT.	0.8		
21	20/1	SPACE		0		22	20/1	HAND DRYER		1.5	
23	20/3	TELESCOPIC BLEACHER			0.305	24	20/1	HAND DRYER			1.5
25	|	|	0.305			26	20/1	HAND DRYER	1.5		
27	|	|		0.305		28	20/1	HAND DRYER		1.5	
29	20/1	AMPLIFIER			0.18	30	20/1	RECEPT.			0.18
31	20/1	REC ASST LISTENING	0.18			32	20/1	RECEPT.	0.36		
33	20/1	RECEPT.		1.08		34	20/3	TELESCOPIC BLEACHER		0.305	
35	20/1	RECEPT.			0.54	36	|	|			0.305
37	20/1	RECEPT.	0.36			38	|	|	0.305		
39	20/1	RECEPT.		0.18		40	20/1	SERVICE ALERT PANEL		0.1	
41	20/1	DISHWASHER			1.2	42	20/1	SERVICE ALERT PANEL			0.1
43	20/1	REFRIG	1.2			44	20/1	SPACE	0		
45	20/1	WASHER		1.2		46	20/1	SPACE		0	
47	30/2	DRYER			2.5	48	20/1	SPACE			0
49	|	|	2.5			50	20/1	SPARE	0		
51	20/1	HAND DRYER		1.5		52	20/1	SPARE		0	
53	20/1	AMPLIFIER			1	54	20/1	SPARE			0
55	20/1	FIRE ALARM CONTROL PANEL	1.2			56	45/3	(SHP) BOOSTER PUMP	2.11		
57	20/1	SERVICE ALERT PANEL		0.1		58	|	|		2.11	
59	20/1	SERVICE ALERT PANEL			0.1	60	|	|			2.11
								TOTAL CONNECTED KVA BY PHASE	15.6	13.7	14.5

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	6.32	7.9	(125%)
OTHER MOTORS	2.03	2.03	(100%)
RECEPTACLES	26.7	18.3	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	1.6	2	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	7.19	7.19	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	43.8	37.4	
BALANCED 3-PHASE AMPS		104	

K1

ROOM CUSTODIAN RM. 139 — VOLTS 208Y/120V 3P 4W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 400 — MAIN BKR 250
FED FROM TK1 — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	MEAT SLICER	0.6			2	20/1	TRAP PRIMER	0.01		
3	20/1	VEGGIE ROBOT		0.9		4	20/1	PASS THRU REFRIG.		1.39	
5	20/1	RECEPT.			0.18	6	20/2	HOT FOOD UNIT			0.75
7	20/2	(1.5HP) DISPOSAL	1.2			8	|	|	0.75		
9	|	|		1.2		10	20/1	RECEPT.		0.36	
11	20/2	(1.5HP) DISPOSAL			1.2	12	20/1	SPARE			0
13	|	|	1.2			14	20/2	HOT FOOD UNIT	0.75		
15	20/2	ICE MACHINE		0.05		16	|	|		0.75	
17	|	|			0.05	18	20/1	SPARE			0
19	20/1	RECEPT.	0.18			20	20/1	SPARE	0		
21	20/1	RECEPT.		0.18		22	20/1	SPARE		0	
23	20/1	FIRE SUPRESSION SYSTEM			1.2	24	20/1	SPARE			0
25	20/1	RECEPT.	0.18			26	20/1	PASS THRU REFRIG.	1.39		
27	20/1	SPARE		0		28	20/1	SPARE		0	
29	20/1	SPACE			0	30	20/1	FROST TOP UNIT			0.804
31	20/3	* WALK-IN FREEZER CONDENSOR	1.78			32	20/2	HOT FOOD UNIT	0.75		
33	|	|		1.78		34	|	|		0.75	
35	|	|			1.78	36	20/1	FROST TOP UNIT			0.804
37	30/2	WALK-IN FREEZER EVAPORATOR	2.67			38	20/1	FROST TOP UNIT	0.804		
ADD 39	|	|		2.67		40	20/2	HOT FOOD UNIT		0.75	
41	30/2	WALK-IN COOLER EVAPORATOR			2.67	42	|	|			0.75
43	|	|	2.67			44	20/2	HOT FOOD UNIT	0.75		
45	20/1	RECEPT.		0.18		46	|	|		0.75	
47	20/1	MILK COOLER			0.529	48	20/1	FROST TOP UNIT			0.804
49	20/1	AIR CURTAIN	1.18			50	20/1	RECEPT.	0.72		
51	30/2	HOT WATER DISPENSER		2.5		52	20/1	MILK COOLER		0.529	
53	|	|			2.5	54	20/1	MILK COOLER			0.529
55	20/1	KITCHEN HOOD LIGHTING	0.1			56	20/1	MILK COOLER	0.529		
57	20/1	KITCHEN HOOD LIGHTING		0.1		58	20/1	RECEPT.		1.62	
59	20/1	SPACE			0	60	20/1	HAND DRYER			1.5
61	20/1	SPACE	0			62	20/1	SPARE	0		
63	20/3	WALK-IN REFRIGERATOR CONDENSOR		0.997		64	20/1	SPARE		0	
65	|	|			0.997	66	20/1	EF-5, EF-6, LIGHTING			0.156
67	|	|	0.997			68	20/1	EF-17	0.06		
69	20/1	SPACE		0		70	20/1	RECEPT.		0.72	
71	20/1	SPACE			0	72	20/2	HOT FOOD UNIT			0.75
73	20/1	SPACE	0			74	|	|	0.75		
75	20/1	SPACE		0		76	20/1	HAND DRYER		1.5	
77	20/1	SPACE			0	78	20/1	SPARE			0
79	20/1	SPACE	0			80	20/1	SPARE	0		
81	20/1	SPACE		0		82	20/1	SPARE		0	
83	20/1	SPACE			0	84	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	20	19.7	17.9

	CONN KVA	CALC KVA	
LIGHTING	1.48	1.85	(125%)
LARGEST MOTOR	0.06	0.075	(125%)
OTHER MOTORS	0.076	0.076	(100%)
RECEPTACLES	7.33	7.33	(50%>10)
KITCHEN EQUIP	48.7	31.6	(65%)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	57.6	41	
BALANCED 3-PHASE AMPS		114	

1. ENERGY STATION

* PROVIDE H.A.C.R. TYPE.

MK

ROOM KITCHEN 138 — VOLTS 480Y/277V 3P 4W — AIC 42,000
MOUNTING SURFACE — BUS AMPS 400 — MAIN BKR 350
FED FROM DPC — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LIGHTING	0.392			2	20/3	* DBL. STACK CONV. OVEN	4.17		
3	20/1	LIGHTING		0.799		4	|	|		4.17	
5	30/3	* 40 GAL. BRAISER			6.37	6	|	|			4.17
7	|	|	6.37			8	20/3	* DBL. STACK CONV. OVEN	4.17		
9	|	|		6.37		10	|	|		4.17	
11	30/3	* 40 GAL. BRAISER			6.37	12	|	|			4.17
13	|	|	6.37			14	20/3	* DBL. STACK CONV. OVEN	4.17		
15	|	|		6.37		16	|	|		4.17	
17	40/3	* COMBI OVEN			8	18	|	|			4.17
19	|	|	8			20	20/3	* DBL. STACK CONV. OVEN	4.17		
21	|	|		8		22	|	|		4.17	
23	40/3	* COMBI OVEN			8	24	|	|			4.17
25	|	|	8			26	20/3	* DBL. STACK CONV. OVEN	4.17		
27	|	|		8		28	|	|		4.17	
29	30/3	SPARE			0	30	|	|			4.17
31	|	|	0			32	20/3	* DBL. STACK CONV. OVEN	4.17		
33	|	|		0		34	|	|		4.17	
35	80/3	* RTU-KITCHEN1			16.3	36	|	|			4.17
37	|	|	16.3			38	20/3	(5HP) KEF-1	2.11		
39	|	|		16.3		40	|	|		2.11	
41	20/3	SPARE			0	42	|	|			2.11
43	|	|	0			44	20/3	(2HP) KSF-1	0.582		
45	|	|		0		46	|	|		0.582	
47	90/3	EWH-2			18	48	|	|			0.582
49	|	|	18			50	150/3	** XFMR TK1 (75KVA)	14.9		
51	|	|		18		52	|	|		15.8	
53	20/1	SPACE			0	54	|	|			16.1
55	20/3	SPACE	0			56	20/3	SPACE	0		
57	|	|		0		58	|	|	0		
59	|	|			0	60	|	|			0
								TOTAL CONNECTED KVA BY PHASE	106	107	107

	CONN KVA	CALC KVA	
LIGHTING	2.59	3.24	(125%)
LARGEST MOTOR	6.32	7.9	(125%)
OTHER MOTORS	1.88	1.88	(100%)
RECEPTACLES	7.32	7.32	(50%>10)
KITCHEN EQUIP	199	130	(65%)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	49	49	(100%)
COOLING	3.99	0	(0%)
NONCONTINUOUS	54	54	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	320	253	
BALANCED 3-PHASE AMPS		304	

1. PROVIDE WITH 100% RATED MAIN BREAKER.
2. PROVIDE TAYLOR PHASE GUARD PROTECTION TO PANEL "RTU" CIRCUIT BREAKER.
3. PROVIDE WITH MULTI-METERING PACKAGE. INTERFACE WITH BUILDING AUTOMATION SYSTEM (BAS). COORDINATE WITH DIV. 23.
4. INTERLOCK OVENS AND BRAISERS SHUNT TRIP BREAKERS WITH KITCHEN HOOD FIRE SUPPRESSION SYSTEM.
5. PROVIDE NEMA 3R (304 STAINLESS STEEL) ENCLOSURE.

* PROVIDE SHUNT TRIP TYPE.
** PROVIDE ELECTRONIC TYPE WITH L.S.I. DIALS.

LA1

ROOM ELECTRICAL RM. 133 — VOLTS 208Y/120V 3P 4W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 225 — MAIN BKR 175
FED FROM TA1 — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LIGHTING, RECEPT.	0.94			2	20/1	LIGHTING, RECEPT.	0.214		
3	20/1	LIGHTING, RECEPT.		0.76		4	20/1	REFRIG		1.2	
5	20/1	RECEPT.			0.9	6	20/1	DISHWASHER			1.2
7	20/1	RECEPT.	1.08			8	20/1	WASHER	1.2		
9	20/1	RECEPT.		0.36		10	30/2	DRYER		2.5	
11	20/1	FLAT SCREEN, RECEPT.			0.468	12	|	|			2.5
13	20/1	RECEPT.	0.36			14	20/1	RECEPT.	0.18		
15	20/1	RECEPT.		0.36		16	20/1	RECEPT.		0.54	
17	20/1	FLAT SCREEN, RECEPT.			0.468	18	20/1	RECEPT.			0.54
19	20/1	RECEPT.	0.36			20	20/1	REFRIG	1.2		
21	20/1	RECEPT.		0.36		22	20/1	EF-7, RECEPT.		0.24	
23	20/1	RECEPT.			0.18	24	20/1	HAND DRYER			1.5
25	20/1	LRR CONTROLLER	0.18			26	20/1	RECEPT.	1.26		
27	20/1	RECEPT, USB RECEPT.		0.9		28	20/1	RECEPT.		0.9	
29	20/1	ELEVATOR CONTROLS			0.1	30	20/1	RECEPT.			0.54
31	20/1	SUMP PUMP ADD	0.1			32	20/1	RECEPT.	0.36		
33	20/1	RECEPT.		0.18		34	20/1	RECEPT.		0.9	
35	20/1	FIRE ALARM CONTROL PANEL			1.2	36	20/1	RECEPT.			0.36
37	20/1	ELEVATOR CONTROLS	0.1			38	20/1	RECEPT.	0.54		
39	15/2	FCU-2		0.9		40	20/1	HAND DRYER		1.5	
41	|	|			0.9	42	20/1	EF-10, RECEPT.			0.803
43	20/2	* HEAT TRACE CABLE	1.56			44	20/1	EF-15, EF-16, LIGHTING, RECEPT.	0.786		
45	|	|		1.56		46	20/1	HAND DRYER		1.5	
47	20/1	VENDING MACHINE			1	48	20/1	RECEPT.			0.72
ADD 49	20/1	VENDING MACHINE	1			50	20/1	DRINKING FOUNTAIN	0.8		
51	20/1	SPACE		0		52	20/1	DRINKING FOUNTAIN		0.8	
53	20/1	SPACE			0	54	20/1	EF-14			0.083
55	20/1	EF-8, LIGHTING	0.078			56	20/1	EF-13	0.216		
57	20/1	EF-1, EF-2, EF-3, EF-4, LIGHTING		0.374		58	20/1	EF-12		0.083	
59	20/1	RECEPT.			0.54	60	20/1	EF-11			0.216
61	20/1	HAND DRYER	1.5			62	20/1	HAND DRYER	1.5		
63	20/1	SPARE		0		64	20/1	HAND DRYER		1.5	
65	20/1	SPARE			0	66	20/1	HAND DRYER			1.5
67	20/2	* GATE OPERATOR	0.96			68	20/1	HAND DRYER	1.5		
69	|	|		0.96		70	20/1	HAND DRYER		1.5	
71	20/2	* GATE OPERATOR			0.96	72	20/1	HAND DRYER			1.5
73	|	|	0.96			74	20/1	RECEPT.	0.18		
75	20/1	RECEPT.		0.72		76	20/1	RECEPT.		0.18	
77	20/2	* GATE OPERATOR			0.96	78	20/1	RECEPT.			0.18
79	|	|	0.96			80	20/1	DISHWASHER	1.2		
81	20/2	* GATE OPERATOR		0.96		82	20/1	REFRIG		1.2	
83	|	|			0.96	84	20/1	EF-9			0.06
								TOTAL CONNECTED KVA BY PHASE	21.3	22.9	20.3

	CONN KVA	CALC KVA	
LIGHTING	0.456	0.57	(125%)
LARGEST MOTOR	1.92	2.4	(125%)
OTHER MOTORS	8.82	8.82	(100%)
RECEPTACLES	42.6	26.3	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	1.4	1.75	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	9.31	9.31	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	64.5	49.2	
BALANCED 3-PHASE AMPS		136	

* PROVIDE GFCI TYPE.

No.	REVISIONS	BY
ADD 1	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
IDEA Public Schools
PALMVIEW
PALMVIEW, TEXAS



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Scale: As Noted
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HA2

ROOM ELECTRICAL RM. 416B — VOLTS 480Y/277V 3P 4W — AIC 14,000
MOUNTING SURFACE — BUS AMPS 225 — MAIN BKR 200
FED FROM HA — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LIGHTING	0.63			2	20/1	LIGHTING	1.31		
3	20/1	LIGHTING		1.11		4	20/1	LIGHTING		1.7	
5	20/1	LIGHTING			0.63	6	20/1	LIGHTING			0.064
7	20/1	LIGHTING	0.34			8	20/1	LIGHTING	0.493		
9	20/1	LIGHTING		0.991		10	20/1	SPARE		0	
11	150/3	*XFMR TA2 (75KVA)			24.1	12	20/1	SPARE			0
13	|		23.6			14	20/1	SPARE	0		
15	|			22.6		16	20/1	SPARE		0	
17	20/1	SPACE			0	18	20/1	SPARE			0
19	20/1	SPACE	0			20	20/1	SPARE	0		
21	20/1	SPACE		0		22	20/1	SPARE		0	
23	20/1	SPACE			0	24	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	26.3	26.4	24.8

	CONN KVA	CALC KVA	
LIGHTING	7.36	9.2	(125%)
LARGEST MOTOR	4.45	5.56	(125%)
OTHER MOTORS	12.6	12.6	(100%)
RECEPTACLES	37.6	23.8	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	14.4	18	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	1.2	1.2	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	77.6	70.3	
BALANCED 3-PHASE AMPS		84.6	

* PROVIDE ELECTRONIC TYPE WITH L.S.I. DIALS.

LA2

ROOM ELECTRICAL RM. 416B — VOLTS 208Y/120V 3P 4W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 225 — MAIN BKR 125
FED FROM TA2 — NEUTRAL 100% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPT.	0.9			2	20/1	RECEPT.	0.72		
3	20/1	RECEPT.		0.72		4	20/1	RECEPT.		0.9	
5	20/1	RECEPT.			0.72	6	20/1	RECEPT.			0.72
7	20/1	USB RECEPT.	0.18			8	20/1	HAND DRYER	1.5		
9	20/1	RECEPT.		0.72		10	20/1	HAND DRYER		1.5	
11	20/1	RECEPT.			0.72	12	20/1	RECEPT.			0.9
13	20/1	RECEPT.	0.72			14	20/1	RECEPT., USB RECEPT.	0.54		
15	20/1	RECEPT.		0.54		16	20/1	RECEPT.		0.72	
17	20/1	RECEPT.			0.36	18	20/1	RECEPT.			0.72
19	20/1	RECEPT.	0.54			20	20/2	* ACCU-2	2.23		
21	20/1	RECEPT.		0.72		22	|			2.23	
23	20/1	HAND DRYER			1.5	24	20/2	* ACCU-4			2.23
25	20/1	HAND DRYER	1.5			26	|		2.23		
27	20/1	EF-18		0.06		28	15/2	FCU-4		0.9	
29	20/1	RECEPT.			1.26	30	|				0.9
31	20/1	RECEPT.	0.72			32	20/1	LOGO SIGN	0.1		
33	20/2	FCU-5		0.9		34	20/1	RECEPT.		0.72	
35	|				0.9	36	20/1	RECEPT.			0.18
37	20/1	REFRIG	1.2			38	20/1	RECEPT.	0.36		
39	20/1	INTRUSION DET. POWER SUPPLY		0.1		40	20/1	WASHER		1.2	
41	20/1	FIRE ALARM POWER SUPPLY			1.2	42	20/1	VENDING MACHINE			1
43	20/1	SPACE	0			44	20/1	VENDING MACHINE	1		
45	20/1	RECEPT.		0.18		46	30/2	ACCU-5		2.23	
47	20/1	RECEPT.			0.18	48	|				2.23
49	20/1	SPACE	0			50	20/1	SPACE	0		
51	20/1	SPACE		0		52	20/1	SPACE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	14.4	14.3	15.7

	CONN KVA	CALC KVA	
LIGHTING	0.1	0.125	(125%)
LARGEST MOTOR	4.45	5.56	(125%)
OTHER MOTORS	12.6	12.6	(100%)
RECEPTACLES	24.9	17.4	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	1.3	1.63	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	1.2	1.2	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	44.5	38.5	
BALANCED 3-PHASE AMPS		107	

* PROVIDE GFCI TYPE.

CA2

ROOM ELECTRICAL RM. 133 — VOLTS 208Y/120V 3P 4W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 100 — MAIN BKR 100
FED FROM TA2 — NEUTRAL 200% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS. — ISO GND BUS

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPT., WHITE BOARD	0.595			2	20/1	RECEPT., WHITE BOARD	0.595		
3	20/1	RECEPT., WHITE BOARD		0.595		4	20/1	RECEPT., WHITE BOARD		0.595	
5	20/1	RECEPT., WHITE BOARD			0.595	6	20/1	RECEPT., WHITE BOARD			0.595
7	20/1	RECEPT., WHITE BOARD	0.595			8	20/1	RECEPT., WHITE BOARD	0.595		
9	20/1	RECEPT., WHITE BOARD		0.595		10	20/1	IG DUPLEX		0.54 (REC)	
11	20/1	RECEPT., WHITE BOARD			0.595	12	20/1	RECEPT., WHITE BOARD			0.595
13	30/1	IDF – UPS	2.88			14	20/1	RECEPT., WHITE BOARD	0.595		
15	20/1	RECEPT., WHITE BOARD		0.595		16	20/1	RECEPT., WHITE BOARD		0.595	
17	20/1	RECEPT., WHITE BOARD			0.595	18	20/1	RECEPT., WHITE BOARD			0.595
19	20/1	IG DUPLEX	0.54 (REC)			20	60/3	PANEL HBL2	3.86		
21	30/1	IDF – UPS		2.88		22	|			4	
23	20/1	SPARE			0	24	|				3.32
25	20/1	SPARE	0			26	20/1	SPACE	0		
27	20/1	SPARE		0		28	20/1	SPACE		0	
29	20/1	SPARE			0	30	20/1	SPACE			0
31	20/1	SPARE	0			32	20/1	SPACE	0		
33	20/1	SPARE		0		34	20/1	SPACE		0	
35	20/1	SPARE			0	36	20/1	SPACE			0
37	20/1	SPARE	0			38	20/1	SPACE	0		
39	20/1	SPARE		0		40	20/1	SPACE		0	
41	20/1	SPARE			0	42	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	10.3	10.4	6.89

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	12.7	11.3	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	14.8	18.6	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	27.5	29.9	
BALANCED 3-PHASE AMPS		83	

CA1

ROOM ELECTRICAL RM. 137 — VOLTS 208Y/120V 3P 4W — AIC 10,000
MOUNTING SURFACE — BUS AMPS 100 — MAIN BKR 80
FED FROM TA1 — NEUTRAL 200% — LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS. — ISO GND BUS

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPT., WHITE BOARD	0.595			2	20/1	RECEPT., WHITE BOARD	0.595		
3	20/1	RECEPT., WHITE BOARD		0.595		4	20/1	RECEPT.		0.54	
5	20/1	RECEPT., WHITE BOARD			0.595	6	20/1	RECEPT.			0.18
7	20/1	RECEPT.	0.36			8	20/1	COPIER	1.2		
9	20/1	RECEPT.		0.36		10	20/1	RECEPT.		0.36	
11	20/1	RECEPT.			0.36	12	20/1	RECEPT.			0.36
13	20/1	RECEPT.	0.54			14	20/1	RECEPT.	0.36		
15	20/1	RECEPT.		0.36		16	20/1	RECEPT.		0.36	
17	20/1	RECEPT.			0.36	18	20/1	RECEPT.			0.36
19	20/1	RECEPT.	0.36			20	20/1	COPIER	1.2		
21	20/1	RECEPT.		0.36		22	20/1	COPIER		1.2	
23	20/1	RECEPT.			0.36	24	20/1	RECEPT.			0.36
25	20/1	RECEPT.	0.36			26	20/1	RECEPT., WHITE BOARD	0.595		
27	30/1	MDF-UPS		2.88		28	20/1	RECEPT.		1.08	
29	30/1	MDF-UPS			2.88	30	20/1	RECEPT., WHITE BOARD			0.595
31	20/1	SPARE	0			32	20/1	RECEPT.	0.36		
33	20/1	SPARE		0		34	20/1	RECEPT.		0.36	
35	20/1	SPARE			0	36	20/1	SPACE			0
37	20/1	SPARE	0			38	20/1	SPACE	0		
39	20/1	SPARE		0		40	20/1	SPACE		0	
41	20/1	SPARE			0	42	20/1	INTRUSION DET. PANEL			0.1
								TOTAL CONNECTED KVA BY PHASE	6.53	8.46	6.51

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	15.6	12.8	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	5.86	7.33	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	21.5	20.1	
BALANCED 3-PHASE AMPS		55.9	

No.	REVISIONS	BY
1	JUNE 3, 2019	

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PALMVIEW
PALMVIEW, TEXAS
IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED PROFESSIONAL ENGINEER
5/16/2019

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
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HB

ROOM CUSTODIAN RM. 310 | VOLTS 480Y/277V 3P 4W | AIC 14,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 250
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	LIGHTING	2.29			2	20/1	LIGHTING	2.62		
3	20/1	LIGHTING		2.06		4	20/1	LIGHTING		1.98	
5	20/1	LIGHTING			0.508	6	20/1	LIGHTING			0.41
7	20/1	SPACE	0			8	20/1	LIGHTING	0.306		
9	20/1	SPACE		0		10	20/1	LIGHTING		0.55	
11	20/1	LIGHTING			0.561	12	30/3	(3HP) BP-1			1.33
13	200/3	*XFMR TB1 (112.5KVA)	34.9			14	|		1.33		
15	|			37.9		16	|			1.33	
17	|				38.3	18	40/3	EWH-1			8
19	20/1	SPARE	0			20	|		8		
21	20/1	SPARE		0		22	|			8	
23	20/1	SPARE			0	24	20/1	SPARE (ADD)			0
25	20/1	SUMP PUMP (ADD)	0.1			26	20/1	SPARE (ADD)	0		
27	20/1	SPARE		0		28	20/1	SPARE		0	
29	20/1	SPARE			0	30	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	49.5	51.8	49.1

	CONN KVA	CALC KVA	
LIGHTING	11.9	14.9	(125%)
LARGEST MOTOR	4.45	5.56	(125%)
OTHER MOTORS	19.9	19.9	(100%)
RECEPTACLES	69.3	39.6	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	20.9	26.2	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	24	24	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	150	130	
BALANCED 3-PHASE AMPS		157	

* PROVIDE ELECTRONIC TYPE WITH L.S.I. DIALS.

CB2

ROOM CUSTODIAN RM. 310 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 150
FED FROM TB1 | NEUTRAL 200% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS. | ISO GND BUS

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT., WHITE BOARD	0.595			2	20/1	RECEPT., WHITE BOARD	0.595		
3	20/1	RECEPT., WHITE BOARD		0.595		4	20/1	RECEPT., WHITE BOARD		0.595	
5	20/1	LOGO SIGN, RECEPT., WHITE BOARD			0.695	6	20/1	RECEPT., WHITE BOARD			0.595
7	20/1	RECEPT., WHITE BOARD	0.595			8	20/1	RECEPT., WHITE BOARD	0.595		
9	20/1	RECEPT., WHITE BOARD		0.595		10	20/1	RECEPT., WHITE BOARD		0.595	
11	20/1	RECEPT., WHITE BOARD			0.595	12	20/1	RECEPT., WHITE BOARD			0.595
13	20/1	RECEPT., WHITE BOARD	0.595			14	20/1	RECEPT., WHITE BOARD	0.595		
15	30/1	IDF - UPS		2.88		16	20/1	RECEPT., WHITE BOARD		0.595	
17	20/1	RECEPT., WHITE BOARD			0.595	18	20/1	RECEPT., WHITE BOARD			0.595
19	20/1	RECEPT., WHITE BOARD	0.595			20	20/1	RECEPT., WHITE BOARD	0.595		
21	20/1	RECEPT., WHITE BOARD		0.595		22	20/1	RECEPT., WHITE BOARD		0.595	
23	20/1	RECEPT., WHITE BOARD			0.595	24	20/1	RECEPT., WHITE BOARD			0.595
25	20/1	RECEPT., WHITE BOARD	0.595			26	20/1	IG DUPLEX, USB RECEPT. (ADD)	0.72		
27	20/1	RECEPT., WHITE BOARD		0.595		28	30/1	UPS - OPS		2.88	
29	20/1	SPACE			0	30	20/1	SPACE			0
31	80/3	PANEL HBL1	6.3			32	20/1	SPACE	0		
33	|			5.3		34	20/1	RECEPT., WHITE BOARD		0.595	
35	|				7.48	36	20/1	SPARE			0
37	20/1	SPARE (ADD)	0			38	20/1	SPARE (ADD)	0		
39	20/1	SPARE		0		40	20/1	SPARE		0	
41	20/1	SPARE			0	42	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	12.4	16.4	12.3

	CONN KVA	CALC KVA	
LIGHTING	0.1	0.125	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	21.9	16	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	19.1	23.9	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	41.1	40	
BALANCED 3-PHASE AMPS		111	

* PROVIDE ELECTRONIC TYPE WITH L.S.I. DIALS.

LB1

ROOM CUSTODIAN RM. 310 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 100
FED FROM TB1 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT.	0.9			2	20/1	RECEPT.	0.72		
3	20/1	RECEPT.		1.08		4	20/1	GATE OPERATOR, RECEPT.		1.5	
5	20/1	RECEPT.			0.9	6	20/1	GATE OPERATOR, RECEPT.			1.5
7	20/1	RECEPT.	0.72			8	20/1	GATE OPERATOR, RECEPT.	1.5		
9	20/1	RECEPT.		0.54		10	20/1	GATE OPERATOR, RECEPT.		1.32	
11	20/1	RECEPT.			0.54	12	20/1	RECEPT.			0.72
13	20/1	RECEPT.	0.72			14	20/1	RECEPT.	0.72		
15	20/1	HAND DRYER		1.5		16	20/1	RECEPT.		0.9	
17	20/1	HAND DRYER			1.5	18	20/2	FCU-1			0.9
19	20/1	HAND DRYER	1.5			20	|		0.9		
21	20/1	HAND DRYER		1.5		22	20/1	IG DUPLEX, USB RECEPT. (ADD)		0.72	
23	20/1	HAND DRYER			1.5	24	20/1	RECEPT.			0.18
25	20/1	RECEPT.	0.54			26	20/1	RECEPT.	0.18		
27	20/1	DRINKING FOUNTAIN		0.8		28	20/1	HAND DRYER		1.5	
29	20/1	DRINKING FOUNTAIN			0.8	30	20/1	HAND DRYER			1.5
31	20/1	CB-2	0.1			32	20/1	RECEPT.	0.9		
33	20/1	SPARE		0		34	20/1	RECEPT.		0.54	
35	20/1	SPARE (ADD)			0	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE (ADD)	0		
39	20/1	SPARE		0		40	20/2	SPARE		0	
41	20/1	SPARE			0	42	|				0
								TOTAL CONNECTED KVA BY PHASE	10.4	12.9	12

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	1.92	2.4	(125%)
OTHER MOTORS	7.66	7.66	(100%)
RECEPTACLES	25.1	17.5	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0.54	0.675	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	35.2	28.3	
BALANCED 3-PHASE AMPS		78.5	

LB2

ROOM CUSTODIAN RM. 310 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 100
FED FROM TB1 | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT.	0.9			2	20/1	RECEPT.	0.72		
3	20/1	RECEPT.		0.9		4	20/1	RECEPT.		0.72	
5	20/1	RECEPT.			0.9	6	20/1	RECEPT.			0.54
7	20/1	RECEPT.	0.72			8	20/1	RECEPT.	0.72		
9	20/1	RECEPT.		0.9		10	20/1	RECEPT.		0.72	
11	20/1	RECEPT.			0.9	12	20/1	SPACE			0
13	20/1	HAND DRYER	1.5			14	20/1	SPACE	0		
15	20/1	HAND DRYER		1.5		16	15/2	FCU-3		0.9	
17	20/1	HAND DRYER			1.5	18	|				0.9
19	20/1	HAND DRYER	1.5			20	20/2	* ACCU-1	2.23		
21	20/1	DRINKING FOUNTAIN		0.8		22	|			2.23	
23	20/1	DRINKING FOUNTAIN			0.8	24	20/1	HAND DRYER			1.5
25	20/1	HAND DRYER	1.5			26	20/1	HAND DRYER	1.5		
27	20/1	RECEPT., USB RECEPT.		0.54		28	20/2	* ACCU-3		2.23	
29	20/1	MARQUEE SIGN			0.5	30	|				2.23
31	20/1	MARQUEE SIGN	0.5			32	20/1	SPARE (ADD)	0		
33	20/1	MARQUEE SIGN		0.5		34	20/1	SPARE		0	
35	20/1	SPARE			0	36	20/1	SPARE			0
37	20/1	SPARE	0			38	20/1	SPARE	0		
39	20/1	SPARE		0		40	20/1	INTRUSION DET. POWER SUPPLY		0.1	
41	20/1	SPARE			0	42	20/1	FIRE ALARM POWER SUPPLY			1.2
								TOTAL CONNECTED KVA BY PHASE	11.8	12	11

	CONN KVA	CALC KVA	
LIGHTING	0.5	0.625	(125%)
LARGEST MOTOR	4.45	5.56	(125%)
OTHER MOTORS	6.25	6.25	(100%)
RECEPTACLES	22.3	16.1	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	1.3	1.63	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	34.8	30.2	
BALANCED 3-PHASE AMPS		83.8	

* PROVIDE HACR TYPE.

HBL1

ROOM LIBRARY 304 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING FLUSH | BUS AMPS 100 | MAIN BKR 80
FED FROM CB2 | NEUTRAL 200% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS. | ISO GND BUS

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	COMP. RECEPT.	1.5			2	20/1	COMP. RECEPT.	1		
3	20/1	COMP. RECEPT.		1.5		4	20/1	RECEPT., WHITE BOARD		0.595	
5	20/1	RECEPT., USB RECEPT.			1.08	6	20/1	SPACE			0
7	20/1	SPACE	0			8	20/1	SPACE	0		
9	20/1	SPACE		0		10	20/1	SPACE		0	
11	20/1	IG DUPLEX			1.6	12	20/1	IG DUPLEX			1.6
13	20/1	IG DUPLEX	1.6			14	20/1	IG DUPLEX	1.6		
15	20/1	IG DUPLEX		1.6		16	20/1	IG DUPLEX		1.6	
17	20/1	IG DUPLEX			1.6	18	20/1	IG DUPLEX			1.6
19	20/1	RECEPT., WHITE BOARD	0.595			20	20/1	SPARE	0		
21	20/1	SPACE		0		22	20/1	SPARE		0	
23	20/1	SPARE			0	24	20/1	SPARE			0
25	20/1	SPARE	0			26	20/1	SPARE	0		
27	20/1	SPARE		0		28	20/1	SPARE		0	
29	20/1	SPARE			0	30	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	6.3	5.3	7.48

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	6.27	6.27	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	12.8	16	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	19.1	22.3	
BALANCED 3-PHASE AMPS		61.8	

HBL2

ROOM COMPUTER LAB 412 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING FLUSH | BUS AMPS 100 | MAIN BKR 60
FED FROM CA2 | NEUTRAL 200% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS. | ISO GND BUS

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	B	C
1	20/1	RECEPT., WHITE BOARD	0.595			2	20/1	RECEPT.	0.72		
3	20/1	IG DUPLEX		1		4	20/1	IG DUPLEX		1	
5	20/1	IG DUPLEX			1	6	20/1	IG DUPLEX			1
7	20/1	IG DUPLEX	1			8	20/1	IG DUPLEX	1		
9	20/1	IG DUPLEX		1		10	20/1	IG DUPLEX		1	
11	20/1	RECEPT., USB RECEPT.			0.72	12	20/1	RECEPT., WHITE BOARD			0.595
13	20/1	RECEPT.	0.54			14	20/1	SPACE	0		
15	20/1	SPACE		0		16	20/1	SPACE		0	
17	20/1	SPACE			0	18	20/1	SPACE			0
19	20/1	SPACE	0			20	20/1	SPACE	0		
21	20/1	SPACE		0		22	20/1	SPACE		0	
23	20/1	SPACE			0	24	20/1	SPACE			0
25	20/1	SPARE	0			26	20/1	SPARE	0		
27	20/1	SPARE		0		28	20/1	SPARE		0	
29	20/1	SPARE			0	30	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	3.86	4	3.32

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	3.17	3.17	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	8	10	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	11.2	13.2	
BALANCED 3-PHASE AMPS		36.6	

No.	REVISIONS	BY
1 (ADD)	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
IDEA PALMVIEW
IDEA Public Schools
PALMVIEW, TEXAS

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Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA Palmview Phase I
Sheet: E8.03

AC3

ROOM ELECTRTICAL RM. 416B | VOLTS 480Y/277V 3P 4W | AIC 35,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR MLO
FED FROM PDP | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	45/3	ERU-OA3	8.45			2	45/3	ERU-OA4	8.45		
3	|			8.45		4	|			8.45	
5	|				8.45	6	|				8.45
7	30/3	RTU-146	5.61			8	15/3	RTU-403	3.11		
9	|			5.61		10	|			3.11	
11	|				5.61	12	|				3.11
13	15/3	RTU-407	3.11			14	15/3	RTU-405	3.11		
15	|			3.11		16	|			3.11	
17	|				3.11	18	|				3.11
19	15/3	RTU-400/401	3.11			20	15/3	RTU-145	3.11		
21	|			3.11		22	|			3.11	
23	|				3.11	24	|				3.11
25	15/3	RTU-404	3.11			26	30/3	RTU-406	3.11		
27	|			3.11		28	|			3.11	
29	|				3.11	30	|				3.11
31	15/3	RTU-144	3.11			32	30/3	RTU-408	5.86		
33	|			3.11		34	|			5.86	
35	|				3.11	36	|				5.86
37	20/3	SPACE	0			38	20/3	SPACE	0		
39	|			0		40	|			0	
41	|				0	42	|				0
43	20/1	SPARE	0			44	20/1	SPARE	0		
45	20/1	SPARE		0		46	20/1	SPARE		0	
47	20/1	SPARE			0	48	20/1	SPARE			0
49	20/1	SPARE	0			50	20/1	SPARE	0		
51	20/1	SPARE		0		52	20/1	SPARE		0	
53	20/1	SPARE			0	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	53.3	53.3	53.3

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	7.32	1.83	(25%)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	160	160	(100%)
COOLING	33.7	0	(0%)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	160	162	
BALANCED 3-PHASE AMPS		194	

1. PROVIDE ALL BREAKERS H.A.C.R. TYPE.

AC2

ROOM ELECTRICAL RM. 310 | VOLTS 480Y/277V 3P 4W | AIC 35,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 200
FED FROM PDP | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	45/3	ERU-OA2	8.45			2	15/3	RTU-402	3.11		
3	|			8.45		4	|			3.11	
5	|				8.45	6	|				3.11
7	15/3	RTU-147	3.11			8	15/3	RTU-148	3.11		
9	|			3.11		10	|			3.11	
11	|				3.11	12	|				3.11
13	15/3	RTU-321	3.11			14	15/3	RTU-318	3.11		
15	|			3.11		16	|			3.11	
17	|				3.11	18	|				3.11
19	15/3	RTU-151	3.11			20	15/3	RTU-156	3.11		
21	|			3.11		22	|			3.11	
23	|				3.11	24	|				3.11
25	15/3	RTU-312	3.11			26	15/3	RTU-152	3.11		
27	|			3.11		28	|			3.11	
29	|				3.11	30	|				3.11
31	15/3	RTU-154	3.11			32	30/3	RTU-316	5.61		
33	|			3.11		34	|			5.61	
35	|				3.11	36	|				5.61
37	15/3	RTU-317	3.11			38	20/3	SPACE	0		
39	|			3.11		40	|			0	
41	|				3.11	42	|				0
43	20/3	SPACE	0			44	20/3	SPACE	0		
45	|			0		46	|			0	
47	|				0	48	|				0
49	20/3	SPACE	0			50	20/1	SPACE	0		
51	|			0		52	20/1	SPACE		0	
53	|				0	54	20/1	SPACE			0
55	20/1	SPACE	0			56	20/1	SPACE	0		
57	20/1	SPACE		0		58	20/1	SPACE		0	
59	20/1	SPACE			0	60	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	48.3	48.3	48.3

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	7.32	1.83	(25%)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	143	143	(100%)
COOLING	29.3	0	(0%)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	145	145	
BALANCED 3-PHASE AMPS		174	

1. PROVIDE ALL BREAKERS H.A.C.R. TYPE.

AC1

ROOM ELECTRICAL RM. 310 | VOLTS 480Y/277V 3P 4W | AIC 35,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 300
FED FROM PDP | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	45/3	ERU-OA1	8.45			2	30/3	RTU-160	5.61		
3	|			8.45		4	|			5.61	
5	|				8.45	6	|				5.61
7	15/3	RTU-306	3.11			8	15/3	RTU-165	3.11		
9	|			3.11		10	|			3.11	
11	|				3.11	12	|				3.11
13	30/3	RTU-304	5.86			14	20/3	SPACE	0		
15	|			5.86		16	|			0	
17	|				5.86	18	|				0
19	15/3	RTU-167	3.11			20	30/3	RTU-169/170	5.61		
21	|			3.11		22	|			5.61	
23	|				3.11	24	|				5.61
25	30/3	RTU-302	5.86			26	15/3	RTU-301	3.11		
27	|			5.86		28	|			3.11	
29	|				5.86	30	|				3.11
31	15/3	RTU-171	3.11			32	15/3	RTU-303	3.11		
33	|			3.11		34	|			3.11	
35	|				3.11	36	|				3.11
37	30/3	RTU-168	5.61			38	15/3	RTU-166	3.11		
39	|			5.61		40	|			3.11	
41	|				5.61	42	|				3.11
43	15/3	RTU-305	3.11			44	30/3	RTU-307	3.11		
45	|			3.11		46	|			3.11	
47	|				3.11	48	|				3.11
49	30/3	RTU-164	5.61			50	20/3	SPACE	0		
51	|			5.61		52	|			0	
53	|				5.61	54	|				0
55	20/3	SPACE	0			56	20/1	SPACE	0		
57	|			0		58	20/1	SPACE		0	
59	|				0	60	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	70.6	70.6	70.6

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	7.32	1.83	(25%)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	212	212	(100%)
COOLING	36.2	0	(0%)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	212	214	
BALANCED 3-PHASE AMPS		257	

1. PROVIDE ALL BREAKERS H.A.C.R. TYPE.

AC4

ROOM ELECTRICAL RM. 416B | VOLTS 480Y/277V 3P 4W | AIC 35,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR MLO
FED FROM PDP | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	45/3	ERU-OA5	8.45			2	15/3	RTU-417	3.11		
3	|			8.45		4	|			3.11	
5	|				8.45	6	|				3.11
7	15/3	RTU-202	3.11			8	30/3	RTU-201	5.61		
9	|			3.11		10	|			5.61	
11	|				3.11	12	|				5.61
13	15/3	RTU-415	3.11			14	30/3	RTU-413	5.86		
15	|			3.11		16	|			5.86	
17	|				3.11	18	|				5.86
19	30/3	RTU-ADMIN2	6.03			20	15/3	RTU-LOCKERS	3.11		
21	|			6.03		22	|			3.11	
23	|				6.03	24	|				3.11
25	30/3	RTU-416	5.61			26	30/3	RTU-411	5.61		
27	|			5.61		28	|			5.61	
29	|				5.61	30	|				5.61
31	30/3	RTU-414	5.61			32	30/3	RTU-412	5.61		
33	|			5.61		34	|			5.61	
35	|				5.61	36	|				5.61
37	30/3	RTU-200	5.61			38	30/3	RTU-419/420	5.86		
39	|			5.61		40	|			5.86	
41	|				5.61	42	|				5.86
43	30/3	RTU-ADMIN1	6.03			44	30/3	RTU-ADMIN3	6.03		
45	|			6.03		46	|			6.03	
47	|				6.03	48	|				6.03
49	15/3	RTU-418	3.11			50	20/1	SPARE	0		
51	|			3.11		52	20/1	SPARE		0	
53	|				3.11	54	20/1	SPARE			0
55	20/1	SPARE	0			56	20/1	SPARE	0		
57	20/1	SPARE		0		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	87.5	87.5	87.5

ADD

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	7.5	9.38	(125%)
OTHER MOTORS	15	15	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	240	240	(100%)
COOLING	41.8	0	(0%)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	262	264	
BALANCED 3-PHASE AMPS		318	

1. PROVIDE ALL BREAKERS H.A.C.R. TYPE.

PDP

ROOM ELECTRICAL RM. 416B | VOLTS 480Y/277V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 1200 | MAIN BKR 1000
FED FROM MSB | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY THAT INCLUDES ROOM NUMBERS.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	300/3	PANEL AC1	70.6			2	200/3	PANEL AC2	48.3		
3	|			70.6		4	|			48.3	
5	|				70.6	6	|				48.3
7	250/3	PANEL AC3	53.3			8	350/3	PANEL AC4	90.2		
9	|			53.3		10	|			90.2	
11	|				53.3	12	|				90.2
13	20/3	SPACE	0			14	20/3	SPACE	0		
15	|			0		16	|			0	
17	|				0	18	|				0
19	20/3	SPACE	0			20	20/3	SPACE	0		
21	|			0		22	|			0	
23	|				0	24	|				0
								TOTAL CONNECTED KVA BY PHASE	262	262	262

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	7.5	9.38	(125%)
OTHER MOTORS	15	15	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	763	763	(100%)
COOLING	142	0	(0%)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	787	787	
BALANCED 3-PHASE AMPS		947	

1. PROVIDE TAYLOR PHASE GUARD PROTECTION TO MAIN BREAKER.
2. PROVIDE SHUNT TRIP MAIN BREAKER.

No.	REVISIONS	BY
ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
IDEA Public Schools
PALMVIEW, TEXAS



5.16.2019

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Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA Palmview Phase I
Sheet: E8.04

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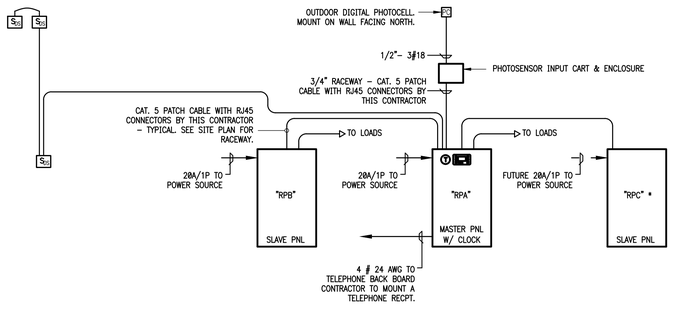

*DELIVER TO OWNER FOR FUTURE PHASE II

LIGHTING MANAGEMENT SYSTEM RISER DETAIL

01 SCALE : NOT TO SCALE

GENERAL NOTES:

1. FURNISH ALL COMPONENTS AND HARDWARE AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM - SEE SPECIFICATIONS "NETWORK LIGHTING CONTROLS".
2. REFER TO SCHEDULES FOR RELAY PANEL MODEL NUMBERS.
3. MASTER RELAY PANEL WITH CLOCK AND PHOTO CELL TO CONTROL SLAVE RELAY PANELS.
4. RELAY PANEL CONTROLS CIRCULATING PUMP, EXTERIOR, AREA AND CORRIDOR LIGHTING (SWEEPER SWITCHES) WHERE NOTED.

PANEL NAME: "RPB" (ACUITY) (ADD)
PANEL DESCRIPTION: 277/480V - Relays
CATALOG NUMBER (INTERIOR): GR1408 LTD INT 8CFR DV (ADD)
CATALOG NUMBER (ENCLOSURE): GR1408 LTD ENC HL SMNE1
PANEL ID: GR1400 Series
MOUNTING: Surface

RELAY NO.	CONTROL TYPE	CONTROL SOURCE	LOAD VAC	LOAD W/VA	LOAD CIRCUIT DESCRIPTION	LOAD FIXTURE TYPE
1	NC	NORMAL	277V	---	CORRIDOR LIGHTING (HB-7)	LED
2	NC	NORMAL	277V	---	CORRIDOR LIGHTING (HB-8)	LED
3	NC	NORMAL	277V	---	EXT. LIGHTING (HB-11)	LED
4	NC	NORMAL	120V	---	CIRCULATING PUMP (LB1-35)	---
5	NC	NORMAL	277V	---	SPARE	---
6	NC	NORMAL	277V	---	SPARE	---
7	NC	NORMAL	277V	---	SPARE	---
8	NC	NORMAL	277V	---	SPARE	---

(ADD)

PANEL NAME: "RPA" (ACUITY) (ADD)
PANEL DESCRIPTION: 277/480V - Relays
CATALOG NUMBER (INTERIOR): GR1416 LTD INT 16CFR DTCMOD DV
CATALOG NUMBER (ENCLOSURE): GR1416 LTD ENC HL SMNE1
PANEL ID: GR1400 Series
MOUNTING: Surface

RELAY NO.	CONTROL TYPE	CONTROL SOURCE	LOAD VAC	LOAD W/VA	LOAD CIRCUIT DESCRIPTION	LOAD FIXTURE TYPE
1	NC	NORMAL	277V	---	CORRIDOR LIGHTING (HA2-7)	LED
2	NC	NORMAL	277V	---	EXTERIOR LIGHTING (HA-13)	LED
3	NC	NORMAL	480V	---	AREA LIGHTING (HA-20)	LED
4				---	AREA LIGHTING (HA-22)	
5	NC	NORMAL	480V	---	AREA LIGHTING (HA-24)	LED
6				---	AREA LIGHTING (HA-26)	
7	NC	NORMAL	277V	---	FLAG LIGHTING (HA-28)	LED
8	NC	NORMAL	277V	---	CANOPY LIGHTING (HA-30)	LED
9	NC	NORMAL	277V	---	CORRIDOR LIGHTING (HA-7) (ADD)	LED
10	NC	NORMAL	277V	---	SIGN LIGHTING (LA2-32) (ADD)	LED
11	NC	NORMAL	120V	---	SPARE	---
12	NC	NORMAL	120V	---	SPARE	---
13	NC	NORMAL	120V	---	SPARE	---
14	NC	NORMAL	120V	---	SPARE	---
15	NC	NORMAL	120V	---	SPARE	---
16	NC	NORMAL	120V	---	SPARE	---

(ADD)

PANEL NAME: "RPC" (ACUITY) (ADD)
PANEL DESCRIPTION: 277/480V - Relays
CATALOG NUMBER (INTERIOR): GR1408 LTD INT 8CFR DV (ADD)
CATALOG NUMBER (ENCLOSURE): GR1408 LTD ENC HL SMNE1
PANEL ID: GR1400 Series
MOUNTING: Surface

RELAY NO.	CONTROL TYPE	CONTROL SOURCE	LOAD VAC	LOAD W/VA	LOAD CIRCUIT DESCRIPTION	LOAD FIXTURE TYPE
1	NC	NORMAL	277V	---	SPARE	---
2	NC	NORMAL	277V	---	SPARE	---
3	NC	NORMAL	277V	---	SPARE	---
4	NC	NORMAL	277V	---	SPARE	---
5	NC	NORMAL	277V	---	SPARE	---
6	NC	NORMAL	277V	---	SPARE	---
7	NC	NORMAL	277V	---	SPARE	---
8	NC	NORMAL	277V	---	SPARE	---

(ADD)

No.	REVISIONS	BY
1 (ADD)	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
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PALMVIEW, TEXAS

STATE OF TEXAS
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Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA Palmview Phase I
Sheet: E8.05

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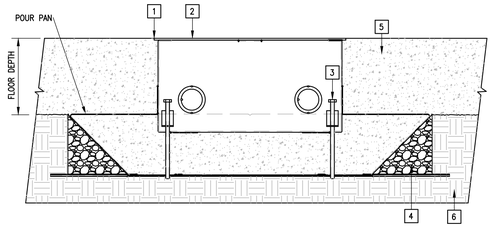
NOTE: ATTACH NAMEPLATES TO ALL ELECTRICAL GEAR AS NOTED ON SECTION 260553.

01 EQUIPMENT IDENTIFICATION LABEL DETAIL

SCALE : NOT TO SCALE

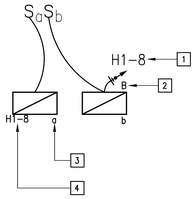


KEYED NOTES:

1. ENCLOSURE TOP IS TO BE PLUMB, LEVEL AND FLUSH WITH THE FINISHED SURFACE.
2. TEMPORARY CONSTRUCTION COVER TO BE REPLACED BY FINISH COVER PRIOR TO CARPET/TILE/WOOD INSTALLATION.
3. ADJUSTMENT SCREWS PROVIDED IN THE PAN KIT.
4. NEW 3/4" - DIA. GRAVEL FILL.
5. CONCRETE SLAB.
6. GRADE.

02 FLOOR BOX WITH POUR PAN DETAIL

SCALE : NOT TO SCALE

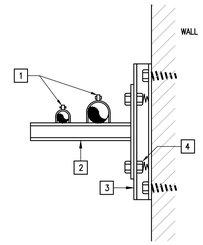


KEYED NOTES:

1. CIRCUIT HOMERUN
2. FIXTURE TYPE - REFER TO LIGHT FIXTURE SCHEDULE
3. INDICATES SWITCH CONTROLLING LIGHT FIXTURE.
4. INDICATES BRANCH CIRCUIT LIGHT FIXTURE IS CONNECTED TO

03 LIGHTING LEGEND DETAIL

SCALE : NOT TO SCALE

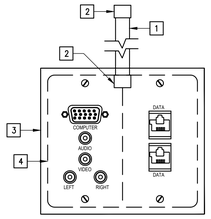


KEYED NOTES:

1. PROVIDE CONDUIT CLAMPS.
2. PROVIDE GALVANIZED UNISTRUT WALL BRACKET.
3. PROVIDE RANSET OR BOLT GALVANIZED UNISTRUT TO WALL.
4. PROVIDE SELF HOLDING CLAMPING NUT WITH SPRING.

04 RACEWAY RUNS SUPPORT DETAIL

SCALE : NOT TO SCALE

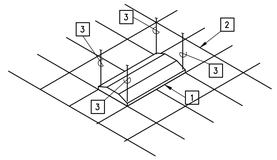


KEYED NOTES:

1. PROVIDE 1.5" EMT STUBBED ABOVE CLG.
2. PROVIDE INSULATING BUSHING.
3. PROVIDE 2-GANG MUD RING.
4. PROVIDE MULTI-MEDIA OUTLET RAPID RUN MODEL NO. 2212-60028-001, INCLUDING DATA CONNECTOR AND CAT6 WIRING

05 MULTI MEDIA OUTLET DETAIL

SCALE : NOT TO SCALE

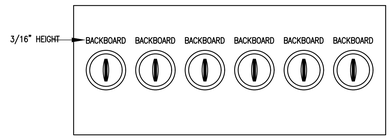


KEYED NOTES:

1. PROVIDE 2'x 4' LAY-IN LIGHT FIXTURE
2. SUSPENDED CEILING
3. PROVIDE TIE WIRE, CONNECT TO ALL FOUR CORNERS OF FIXTURE TO STRUCTURE ABOVE, INDEPENDENT OF CEILING SUPPORTS.

06 TYPICAL LAY-IN FIXTURE SUPPORT

SCALE : NOT TO SCALE



07 LABELED GYM KEYED SWITCH COVERPLATE DETAIL

SCALE : NOT TO SCALE

KEYED NOTES:

1. PROVIDE 1" EMT STUBBED ABOVE CLG.
2. PROVIDE INSULATING BUSHING
3. PROVIDE 4"X4"X2-5/8" DEEP BOX
4. PROVIDE COVERPLATE
5. PROVIDE STEEL MUD RING
6. PROVIDE CATEGORY SIX JACK

08 TYPICAL DATA OUTLET DETAIL

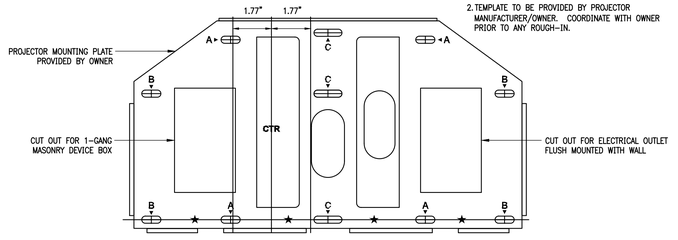
SCALE : NOT TO SCALE

KEYED NOTES:

1. PROVIDE 1" EMT STUBBED ABOVE CLG.
2. PROVIDE INSULATING BUSHING
3. PROVIDE BLANK FILLER COVER
4. PROVIDE COVERPLATE
5. PROVIDE STEEL MUD RING
6. PROVIDE CATEGORY SIX JACK
7. PROVIDE 4"X4"X2-5/8" DEEP BOX

09 TYPICAL DATA/TELEPHONE OUTLET DETAIL

SCALE : NOT TO SCALE

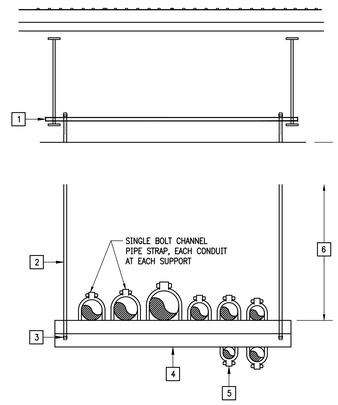


NOTES:

1. INSTALL ALL ROUGH-INS IN STRICT ACCORDANCE WITH MANUFACTURER PUBLISHED TEMPLATES. PROVIDE MOCK-UP FOR OWNER REPRESENTATIVE APPROVAL.
2. TEMPLATE TO BE PROVIDED BY PROJECTOR MANUFACTURER/OWNER. COORDINATE WITH OWNER PRIOR TO ANY ROUGH-IN.

10 WALL PROJECTOR MOUNTING BRACKET DETAIL

SCALE : NOT TO SCALE



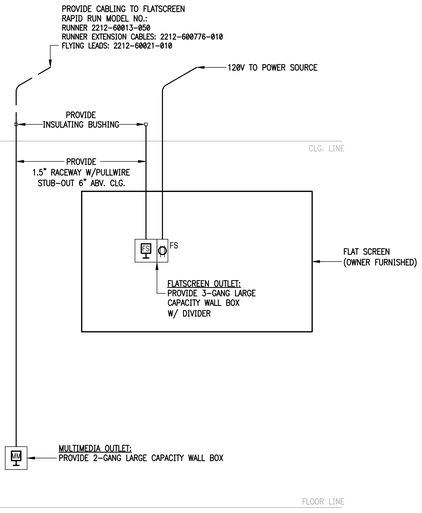
KEYED NOTES:

1.
2. PROVIDE UNISTRUT STRUCTURAL CHANNEL SECURED TO TO JOIST AT BOTH ENDS.

   PROVIDE 1/2" GALVANIZED ROD MINIMUM.
3. PROVIDE LOCKNUT.
4. PROVIDE GALVANIZED UNISTRUT 8'-0" O/C MAXIMUM.
5. PROVIDE 8'-1" MAXIMUM SIZE ON BOTTOM OF UNISTRUT.
6. VARIES.

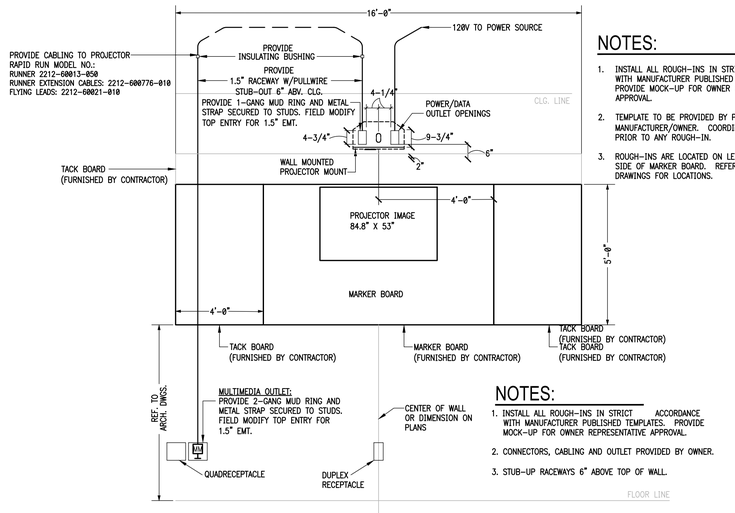
11 HORIZONTAL RACEWAYS SUPPORT DETAIL

SCALE : NOT TO SCALE



12 TYPICAL FLAT SCREEN DETAIL

SCALE : NOT TO SCALE



NOTES:

1. INSTALL ALL ROUGH-INS IN STRICT ACCORDANCE WITH MANUFACTURER PUBLISHED TEMPLATES. PROVIDE MOCK-UP FOR OWNER REPRESENTATIVE APPROVAL.
2. TEMPLATE TO BE PROVIDED BY PROJECTOR MANUFACTURER/OWNER. COORDINATE WITH OWNER PRIOR TO ANY ROUGH-IN.
3. ROUGH-INS ARE LOCATED ON LEFT OR RIGHT HAND SIDE OF MARKER BOARD. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS.

13 TYPICAL CLASSROOM WALL PROJECTOR ROUGH-IN

SCALE : NOT TO SCALE

NOTES:

1. INSTALL ALL ROUGH-INS IN STRICT ACCORDANCE WITH MANUFACTURER PUBLISHED TEMPLATES. PROVIDE MOCK-UP FOR OWNER REPRESENTATIVE APPROVAL.
2. CONNECTORS, CABLING AND OUTLET PROVIDED BY OWNER.
3. STUB-UP RACEWAYS 6" ABOVE TOP OF WALL.

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

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PALMVIEW, TEXAS

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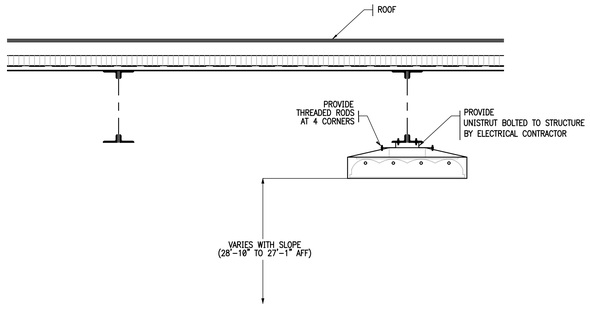
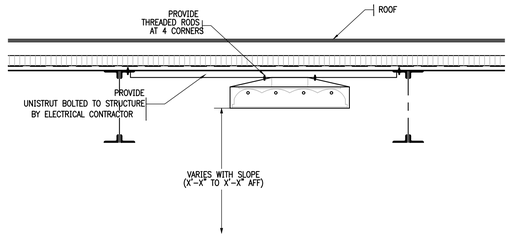
Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	E9.01



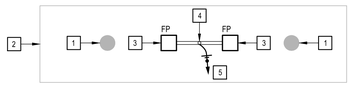
01 GYMNASIUM LIGHT FIXTURE MOUNTING DETAIL

SCALE : NOT TO SCALE

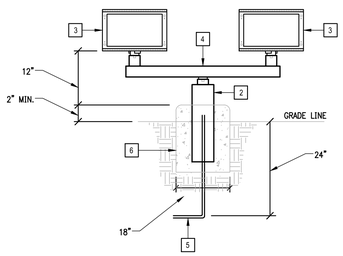


02 CAFETERIA LIGHT FIXTURE MOUNTING DETAIL

SCALE : NOT TO SCALE



PLAN VIEW



03 FLAG POLE LIGHTING DETAIL

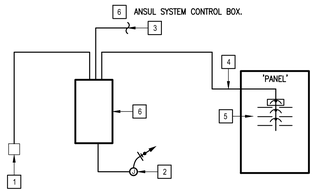
SCALE : NOT TO SCALE

KEYED NOTES:

1. FLAG POLE.
2. FLAG POLE CONCRETE PAD.
3. PROVIDE FLOOD LIGHT TYPE "FP" – SEE LIGHT FIXTURE SCHEDULE.
4. PROVIDE SQUARE BULL HORN FOR MOUNTING TWO LIGHT FIXTURES IN LINE.
5. PROVIDE HOMERUN TO POWER SOURCE.
6. PROVIDE CONCRETE FOOTING. COORDINATE WITH ARCHITECTURAL/STRUCTURAL. TOP OF FOOTING TO BE 2" MINIMUM ABOVE GRADE.
7. PROVIDE STANCHION.

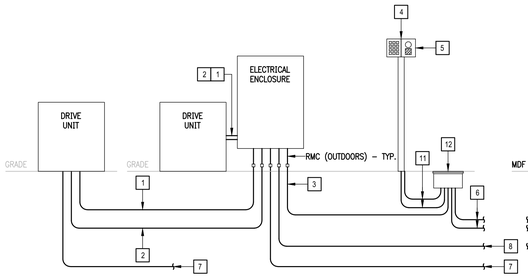
KEYED NOTES:

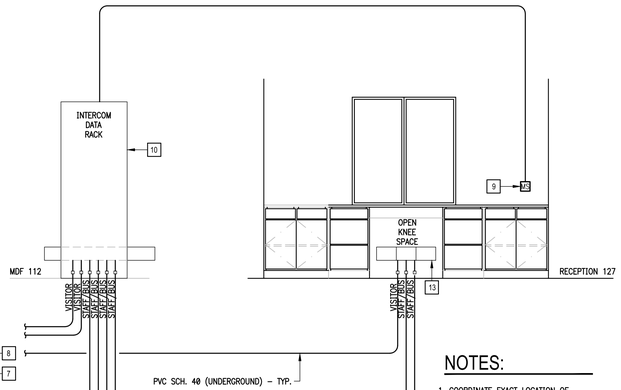
1. PROVIDE PULL STATION (FLUSH MOUNTED).
2. PROVIDE J-BOX FOR ANSUL SYSTEM POWER.
3. CONTRACTOR SHALL COORDINATE SIGNAL SYSTEM REQUIREMENTS WITH KITCHEN EQUIPMENT SUPPLIER.
4. PROVIDE CONTROL SIGNAL TO SHUNT-TRIP BREAKERS.
5. PROVIDE SHUNT-TRIP BREAKERS AS NOTED ON PANELBOARD SCHEDULES.
6. ANSUL SYSTEM CONTROL BOX.



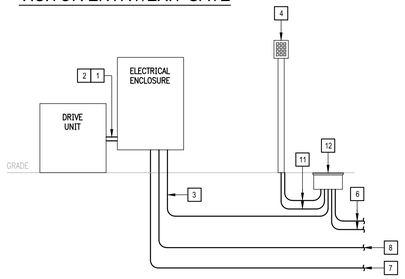
04 ANSUL SYSTEM DIAGRAM

SCALE : NONE

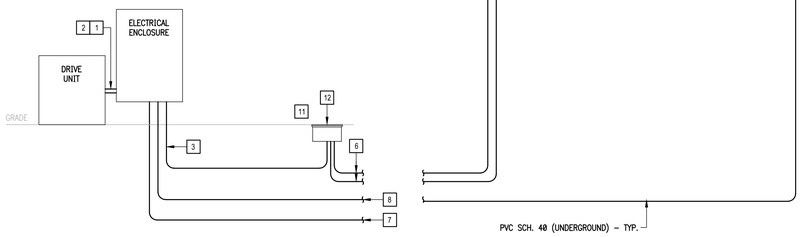




VISITOR ENTRY/EXIT GATE



STAFF/BUS ENTRY GATE



STAFF/BUS EXIT GATE

05 SLIDE GATE OPERATOR DETAIL

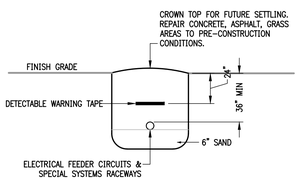
SCALE : NOT TO SCALE

NOTES:

1. COORDINATE EXACT LOCATION OF COMPONENTS WITH GATE EQUIPMENT SUPPLIER PRIOR TO ANY ROUGH-IN.
2. INTERCOM/VIDEO CAMERA AND CAT5 WIRING BY THIS CONTRACTOR. PROVIDE NEW AIPHONE SYSTEM.
3. ALL COMMUNICATIONS WIRING SHALL BE "AQUASEAL" WEATHER RESISTANT TYPE.
4. ALL GATES CONTROL WIRING SHALL BE PROVIDED BY GATE EQUIPMENT SUB-CONTRACTOR.
5. INTERFACE AIPHONE EQUIPMENT WITH BUILDING ACCESS SYSTEM.

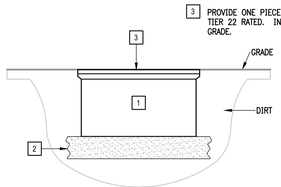
KEYED NOTES:

1. PROVIDE 1-2" RACEWAY-(POWER).
2. PROVIDE 1-2" RACEWAY-(CONTROL WIRING).
3. PROVIDE 1-2" – CONTROL WIRING.
4. ACCESS CONTROL: PEDESTAL PROVIDED BY SLIDE GATE SUPPLIER.
5. PROVIDE VIDEO DOOR STATION AIPHONE MODEL #JK-DVF WALL MOUNTED (FLUSH) ADJACENT TO MAIN ENTRY DOOR.
6. PROVIDE 1-2" RACEWAY WITH CAT5 CABLE FOR VIDEO DOOR STATION INTERCOM & VIDEO CAMERA AND 1-2" RACEWAY FOR SPARE. TERMINATE AT MDF ROOM WIREWAY.
7. PROVIDE 1-2" RACEWAY TO POWER SOURCE. SEE MEP SITE PLAN.
8. PROVIDE 1-2" RACEWAY TO RECEPTION 116 FOR CONTROLS. TERMINATE AT WIREWAY BELOW DESK.
9. PROVIDE AIPHONE MODEL #AX-8MV-W MASTER STATION.
10. PROVIDE AIPHONE MODEL #AX-084C-SS CENTRAL EXCHANGE UNIT MOUNTED ON RACK.
11. PROVIDE 2-1.25" RACEWAYS FOR PEDESTAL AND AIPHONE WIRING/SPARE.
12. PROVIDE NEW 15"X17" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "COMMUNICATIONS" COVER LOGO – SEE DETAIL.
13. PROVIDE 3 – 2-GANG GANGABLE LARGE CAPACITY WALL BOXES HUBBEL MODEL # HBL985 FLUSH MOUNTED IN WALL. PROVIDE A BLANK COVER PLATE.



06 BURIAL DETAIL FOR ELECTRICAL RACEWAYS

SCALE : NONE

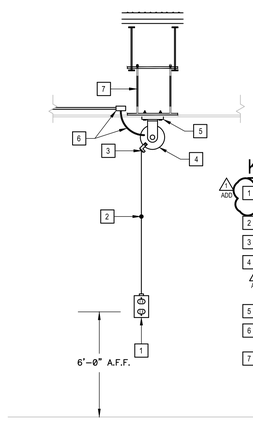


KEYED NOTES:

1. PROVIDE POLYMER CONCRETE PULL BOX TIER 22 RATED. COMPLYING WITH ANSI/SCTE 77 AND NEC 314.30.
2. PROVIDE 8" OF GRAVEL OR CRUSHED ROCK.
3. PROVIDE ONE PIECE LOCKING COVER WITH LOGO TIER 22 RATED. INSTALL COVER LEVEL WITH GRADE.

07 POLYMER CONCRETE PULLBOX DETAIL

SCALE : NONE



KEYED NOTES:

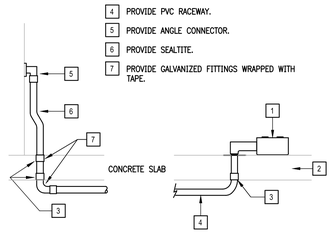
1. PROVIDE TWO DUPLEX RECEPTACLES IN CAST "BELL BOX" & STAINLESS STEEL PLATE.
2. PROVIDE BALL STOP.
3. PROVIDE FOUR ROLLER OUTLET.
4. PROVIDE CORD REEL HUBBELL MODEL NO. HBL145123GF22WM1 WITH 340' CONTINUOUS SINGLE GANG RAIL STOP, 45FT. OF NO. 12 CABLE, CABLE LOCKING RATCHET.
5. PROVIDE BOLT TO UNISTRUT – SPANNING JOIST.
6. PROVIDE JUNCTION BOX WITH FLEX CONNECTION TO REEL.
7. PROVIDE THREADED ROD AND UNISTRUT SUPPORT.

08 CORD REEL MOUNTING DETAIL

SCALE : NOT TO SCALE

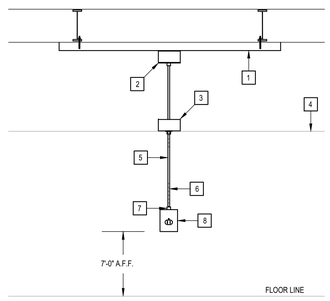
KEYED NOTES:

1. PROVIDE CROUSE-HINDS SINGLE GANG CAST DEVICE BOX (FS). LAY FLAT ON FLOOR WITH WEATHERPROOF COVER.
2. PROVIDE RIGID GALVANIZED WRAPPED WITH TAPE.
3. PROVIDE COUPLING.
4. PROVIDE PVC RACEWAY.
5. PROVIDE ANGLE CONNECTOR.
6. PROVIDE SEALTITE.
7. PROVIDE GALVANIZED FITTINGS WRAPPED WITH TAPE.



09 KITCHEN EQUIPMENT CONNECTION DETAIL

SCALE : NONE



KEYED NOTES:

1. PROVIDE UNISTRUT BOLTED TO BUILDING STRUCTURE STEEL.
2. PROVIDE J-BOX ATTACHED TO UNISTRUT.
3. PROVIDE J-BOX SECURE TO BUILDING STRUCTURE STEEL.
4. SUSPENDED CEILING LINE.
5. PROVIDE 3#12 "SO" CORD.
6. PROVIDE STAINLESS STEEL MESH BY KELLEMS AT BOTH ENDS.
7. PROVIDE ALUMINUM BODY STRAIGHT MALE THREADED CONNECTOR BY KELLEMS.
8. PROVIDE CAST ALUMINUM BOX WITH GFCI RECEPTACLE AS NOTED.

10 PENDANT MOUNTED RECEPTACLE DETAIL

SCALE : NONE

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1	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

PALMVIEW

IDEA Public Schools

PALMVIEW, TEXAS

RAY PEYNADO
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LICENSED PROFESSIONAL ENGINEER
5/16/2019

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Architects-Planners
Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
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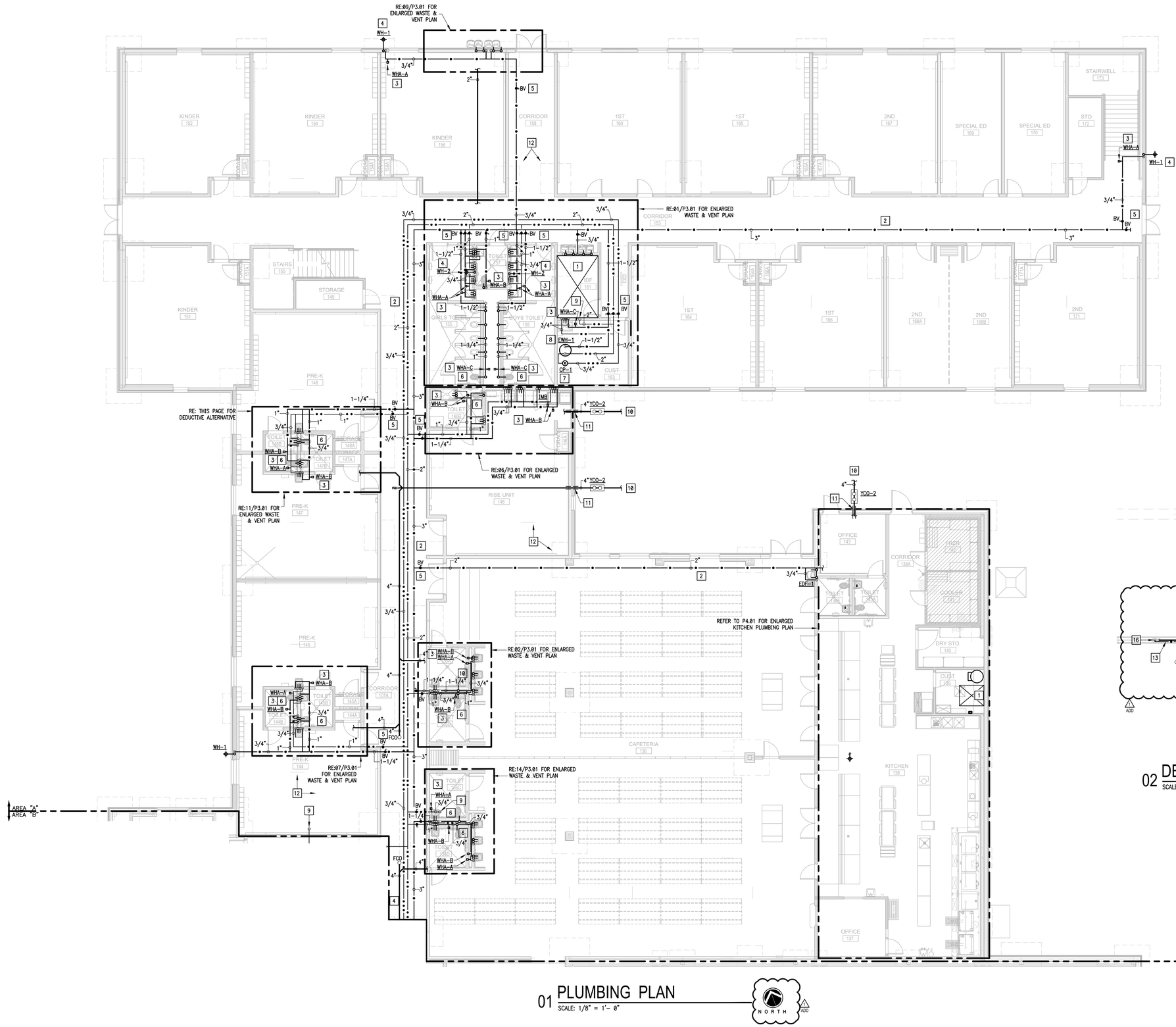
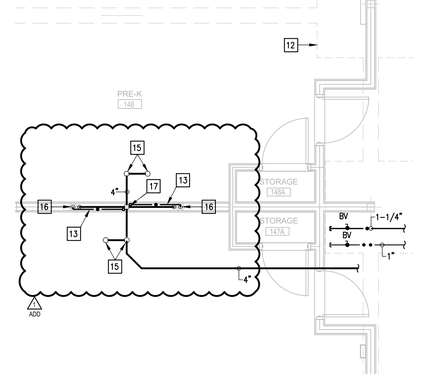
PLUMBING KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
3. PROVIDE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
4. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
5. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
6. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR. (TYPICAL)
7. PROVIDE CIRCULATING PUMP CP-1 AS SCHEDULED. REFER TO SCHEDULES SHEET AND DETAILS FOR MORE INFORMATION.
8. PROVIDE ELECTRIC WATER HEATER AS SCHEDULED.
9. RUN HOT WATER PIPING UP TO 2ND FLOOR AT THIS APPROXIMATE LOCATION.
10. REFER TO MEP SITE PLAN FOR CONTINUATION.
11. SLEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
12. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL).
13. PROVIDE 1/2" SOFT DRAWN COPPER UNDER CONCRETE FLOOR SLAB. ROUTE PIPING UNDERNEATH THE POLYETHYLENE VAPOR BARRIER. PIPING SHALL NOT BE EMBEDDED IN THE CONCRETE FLOOR SLAB. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL (TYPICAL). AT ONE END, CAP PIPING AT P-TRAP UNDER CONCRETE FLOOR SLAB. AT OPPOSITE END, RISE UP AND CAP PIPING APPROXIMATELY ONE (1) FOOT ABOVE FINISHED CONCRETE FLOOR SLAB INSIDE WALL CAVITY.
14. 2" SANITARY SEWER PIPING DOWN FROM 2ND FLOOR.
15. PROVIDE 4" ROUGH-IN FOR WATER CLOSET. CAP PIPING FLUSH WITH FINISHED CONCRETE FLOOR SLAB.
16. PROVIDE 3" P-TRAP ROUGH-IN FOR 3" FLOOR DRAIN. CAP PIPING FLUSH WITH FINISHED CONCRETE FLOOR SLAB.
17. PROVIDE A 3" VENT ROUGH-IN. CAP PIPING APPROXIMATELY 1FT ABOVE FINISHED CONCRETE SLAB INSIDE WALL CAVITY.



01 PLUMBING PLAN
SCALE: 1/8" = 1'- 0"



02 DEDUCTIVE ALTERNATE
SCALE: 1/4" = 1'- 0"

No.	REVISIONS	BY
1 ADD	JUNE 3, 2019	

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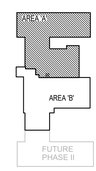
IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools
PALMVIEW
PALMVIEW, TEXAS



KEYPLAN

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PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
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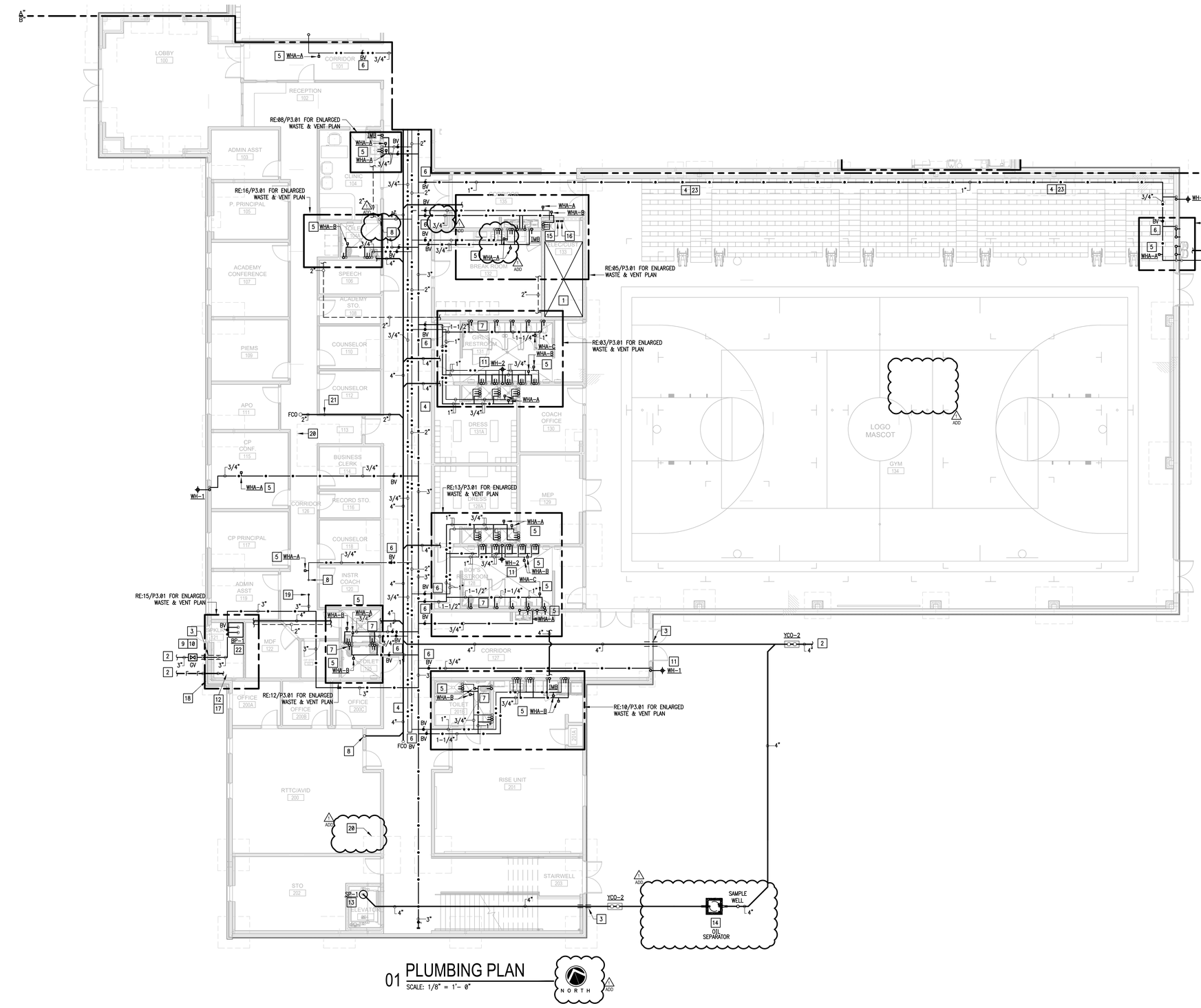
Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	P2.01



01 PLUMBING PLAN
SCALE: 1/8" = 1'- 0"

PLUMBING KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. REFER TO MEP SITE PLAN FOR CONTINUATION.
3. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
4. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
5. PROVIDE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
6. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
7. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR. (TYPICAL)
8. RUN HOT WATER PIPING UP TO 2ND FLOOR AT THIS APPROXIMATE LOCATION.
9. PROVIDE GATE VALVE IN QUAZITE BOX. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
10. PROVIDE 1" CLOSED-CELL INSULATION WITH METAL JACKET ON EXPOSED PIPING. PENETRATE EXTERIOR WALL AS LOW AS POSSIBLE. TURN DOWN TO UNDERGROUND.
11. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. (TYPICAL)
12. FIRE SPRINKLER RISER LOCATION. SEE SPECIFICATION FOR ADDITIONAL INFORMATION.
13. PROVIDE SUMP PUMP SP-1 FOR ELEVATOR PIT. SEE ASSOCIATED DETAIL ON DETAIL SHEET. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS AND STRICTLY IN ACCORDANCE WITH TDLR AND IPC REQUIREMENTS.
14. PROVIDE OIL/WATER SEPARATOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
15. PROVIDE OIL/WATER SEPARATOR HIGH OIL ALARM PANEL.. FURNISHED BY PLUMBING CONTRACTOR AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
16. PROVIDE SUMP PUMP ALARM PANEL. FURNISHED BY PLUMBING CONTRACTOR AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. COORDINATE WITH ELECTRICAL CONTRACTOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
17. PROVIDE FIRE SPRINKLER LINE WITH BACK FLOW PREVENTER ON RISER. REFER TO CIVIL DRAWING FOR FIRE LINE CONTINUATION. VERIFY SIZE OF FIRE SPRINKLER LINE BY MEANS OF CALCULATION AND COORDINATE WITH GENERAL CONTRACTOR.
18. COORDINATE FREE STANDING FDC AND PROVISION OF BACK FLOW PREVENTER WITH CIVIL.
19. RUN COLD WATER PIPING UP TO 2ND. FLOOR AT THIS APPROXIMATE LOCATION
20. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL).
21. 2" SANITARY SEWER PIPING DOWN FROM 2ND FLOOR.
22. PROVIDE BOOSTER PUMP BP-1 AS SCHEDULED (ALTERNATE #2).
23. PAINT ALL EXPOSED PIPING TO MATCH ARCHITECTURAL FINISHES. COORDINATE COLOR WITH ARCHITECT.

No.	REVISIONS	BY
1 ADD	JUNE 3, 2019	

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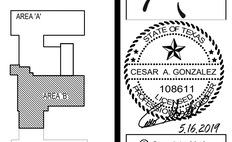
IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools
PALMVIEW, PALMVIEW, TEXAS



KEYPLAN

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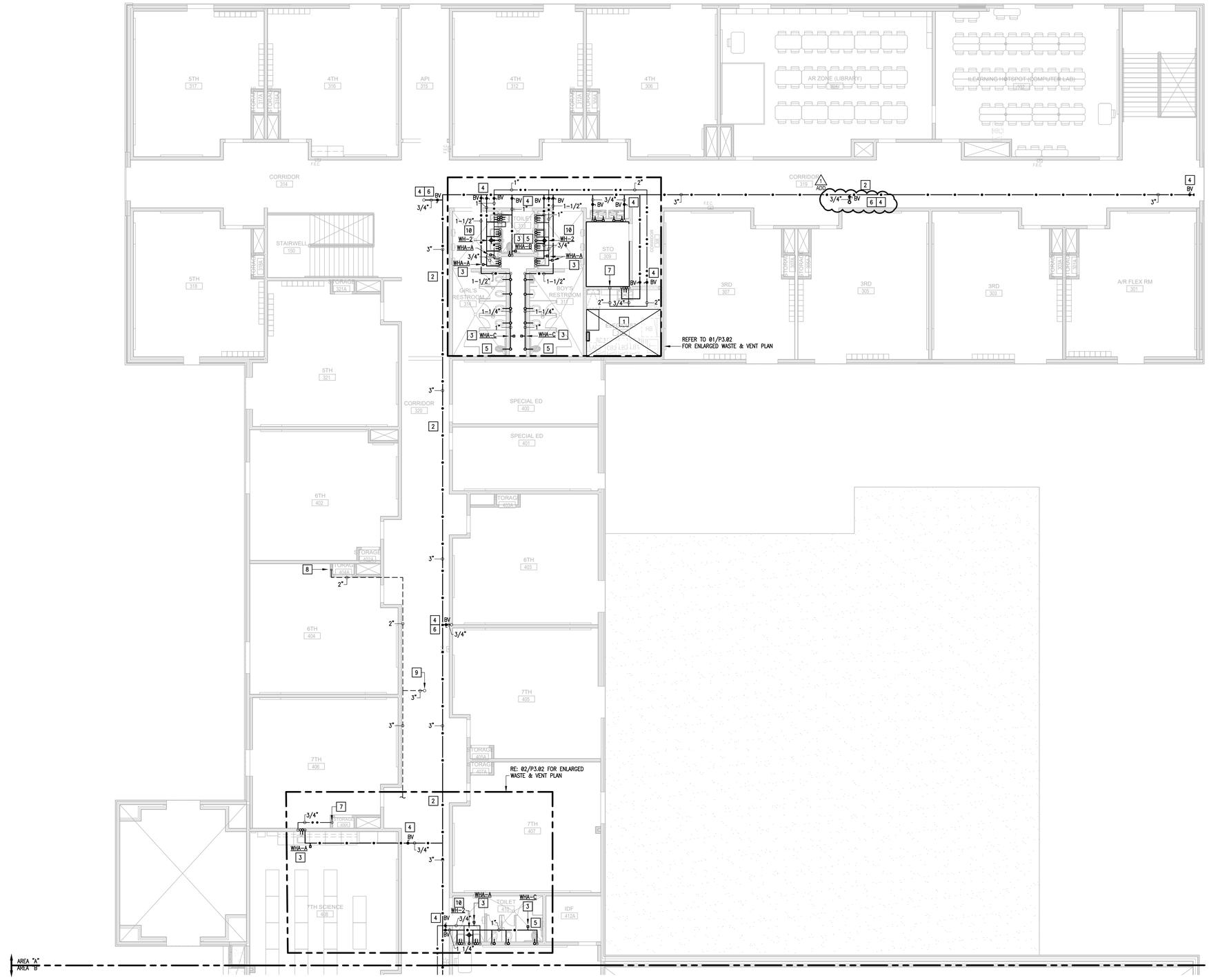
Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	P2.02

PLUMBING KEYED NOTES:

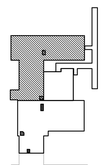
1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
3. PROVIDE A BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
4. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
5. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR.
6. PROVIDE DOMESTIC WATER PIPING TO ROOF AND CONNECT WATER HOSE BIBB. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
7. HOT WATER PIPING FROM 1ST. FLOOR AT THIS APPROXIMATE LOCATION
8. 2" VENT UP FROM 1ST. FLOOR AT THIS APPROXIMATE LOCATION.
9. 4" VENT THRU ROOF.
10. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA – TYPICAL.



01 PLUMBING PLAN (2ND FLOOR)

SCALE: 1/8" = 1'- 0"

NORTH



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IDEA PUBLIC SCHOOLS PHASE 1
PALMVIEW
IDEA Public Schools
PALMVIEW, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
5.16.2019

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Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	P2.03

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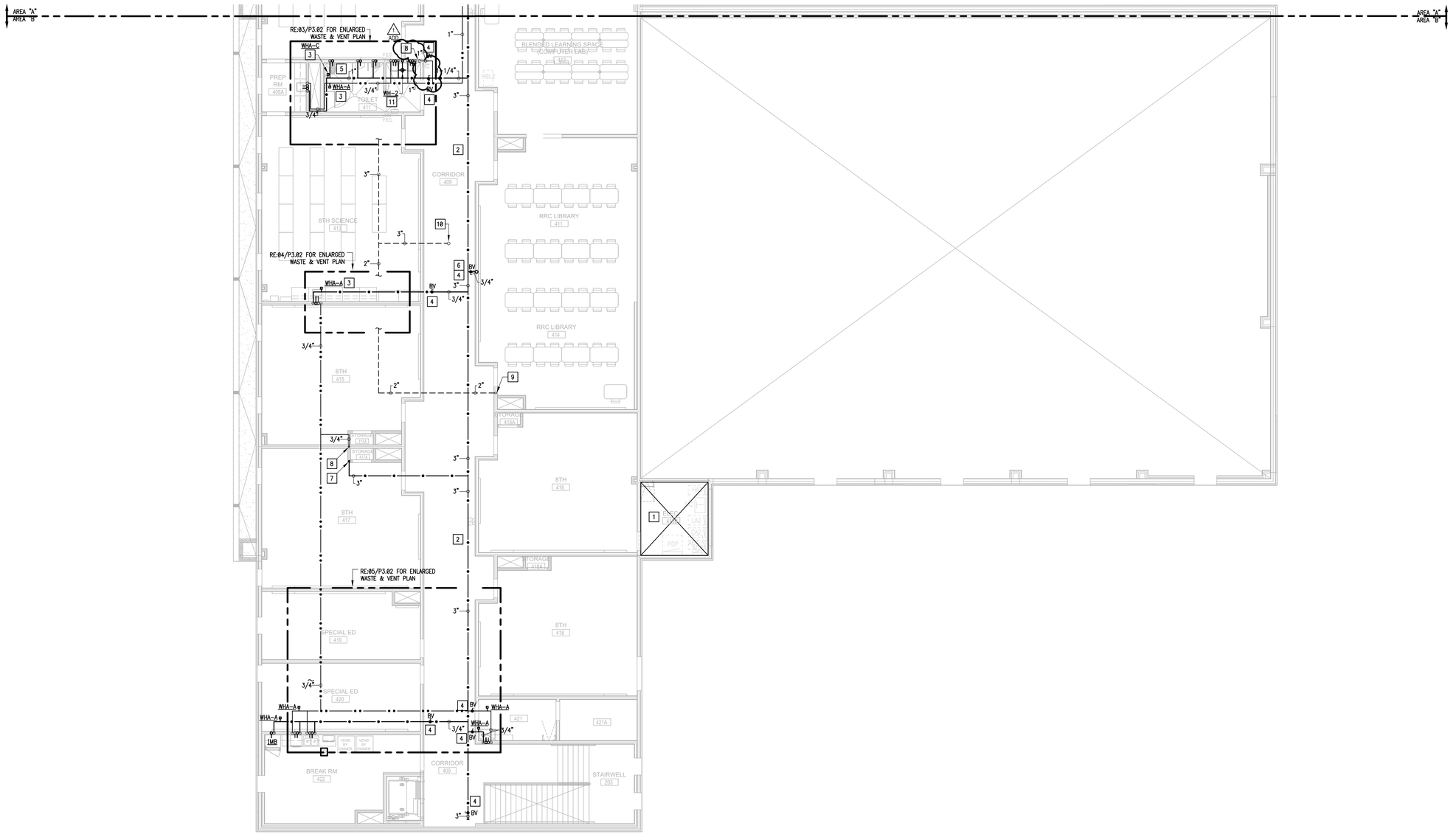
PLUMBING KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
3. PROVIDE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
4. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
5. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR.
6. PROVIDE DOMESTIC WATER PIPING UP TO ROOF TO SERVE ROOF HYDRANT. COORDINATE WITH GENERAL CONTRACTOR.
7. COLD WATER PIPING FROM 1ST. FLOOR AT THIS APPROXIMATE LOCATION.
8. HOT WATER PIPING FROM 1ST. FLOOR AT THIS APPROXIMATE LOCATION
9. 2" VENT UP FROM 1ST. FLOOR AT THIS APPROXIMATE LOCATION.
10. 4" VENT THRU ROOF.
11. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA. - TYPICAL

ADD 1



01 PLUMBING PLAN (2ND FLOOR)

SCALE: 1/8" = 1'- 0"

NORTH

ADD 1

No.	REVISIONS	BY
ADD 1	JUNE 3, 2019	

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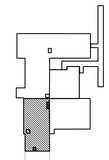
IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW, TEXAS



KEYPLAN



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Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.:	IDEA Palmview Phase I
Sheet:	P2.04

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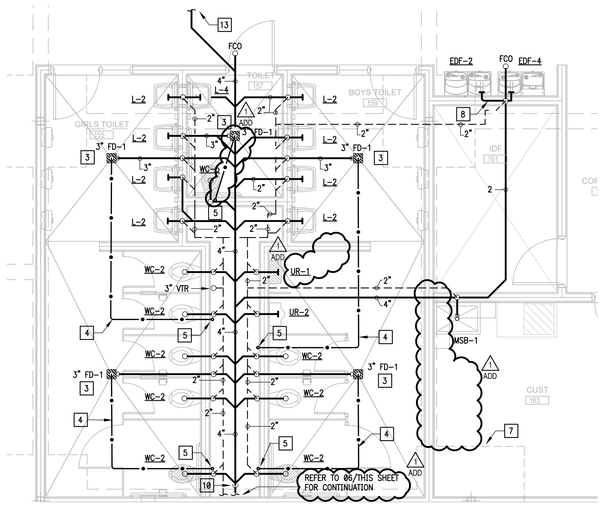
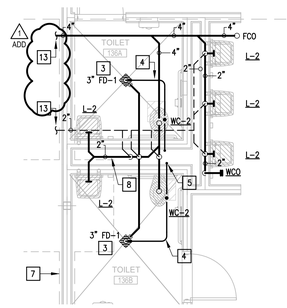
Xref ..\X18V64_TB.dwg

KEYED NOTES:

1. REFER TO MEP SITE PLAN FOR CONTINUATION.
2. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
3. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
4. PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP–PRIMER. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY–SLEEVE" OR EQUAL.
5. CONNECT TO FLUSH VALVE TRAP–PRIMER (WC). SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
6. DISHWASHING MACHINE MUST DISCHARGE BY MEANS OF AN AIR GAP TO PREVENT SEWAGE FROM BACKING UP INTO THE DISHWASHING COMPARTMENT IN THE EVENT OF A STOPPAGE IN THE DRAINAGE SYSTEM.
7. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL).
8. ROUTE ABOVEGROUND THROUGH METAL STUD WALL.
9. NOT USED
10. PROVIDE 4" SANITARY SEWER PIPING DOWN FROM 2ND FLOOR.
11. PROVIDE 2" VENT PIPING UP TO 2ND FLOOR.
12. PROVIDE FLOOR SINK TO COLLECT RTU CONDENSATE. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
13. REFER TO SHEET P2.01 FOR CONTINUATION
14. REFER TO SHEET P2.02 FOR CONTINUATION
15. CONNECT TO LAVATORY P–TRAP TRAP PRIMER ZURN Z1021 OR APPROVED EQUAL.



01 WASTE & VENT PLAN (1ST FLOOR)
SCALE: 1/4" = 1'– 0"



02 WASTE & VENT PLAN (1ST FLOOR)
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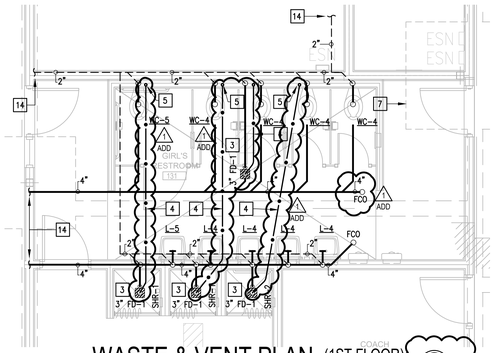
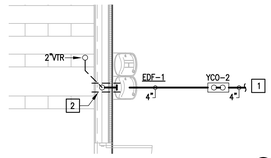


03 WASTE & VENT PLAN (1ST FLOOR)
SCALE: 1/4" = 1'– 0"



04 WASTE & VENT PLAN
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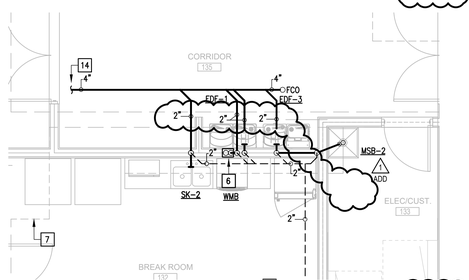

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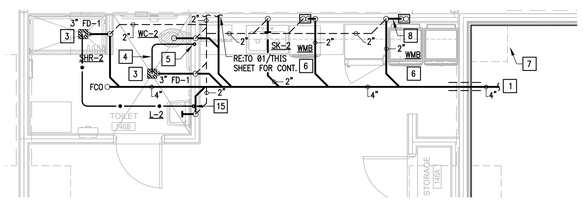

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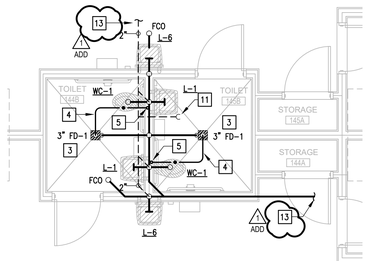
SCALE: 1/4" = 1'– 0"



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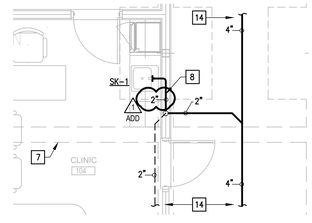

08 WASTE & VENT PLAN (1ST FLOOR)
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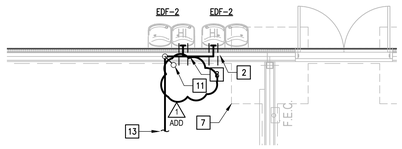

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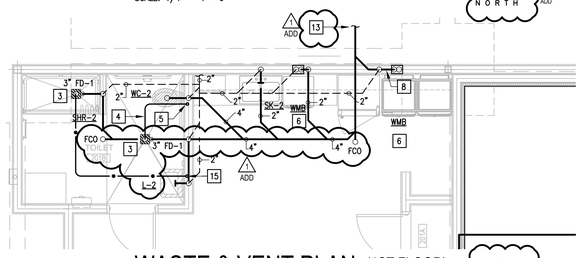
SCALE: 1/4" = 1'– 0"



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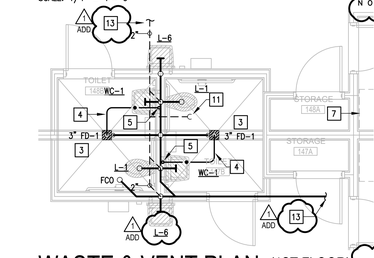

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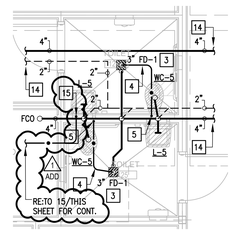

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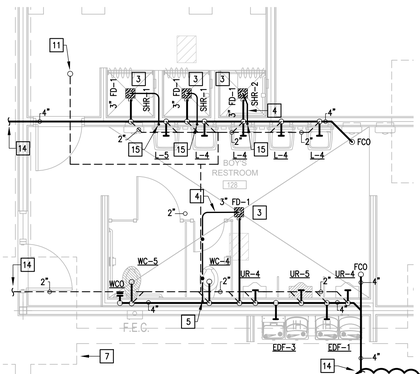
SCALE: 1/4" = 1'– 0"



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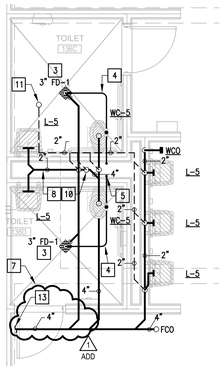
SCALE: 1/4" = 1'– 0"



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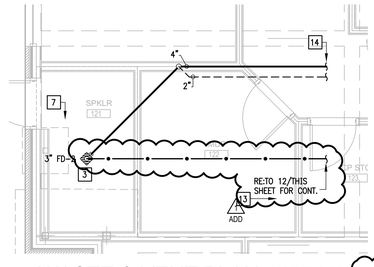

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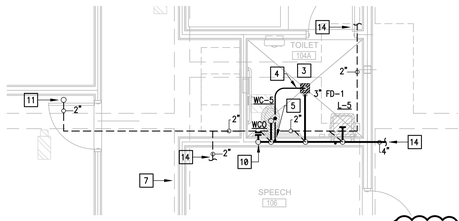
SCALE: 1/4" = 1'– 0"



16 WASTE & VENT PLAN (1ST FLOOR)
SCALE: 1/4" = 1'– 0"

No.	REVISIONS	BY
1 ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools
PALMVIEW
PALMVIEW, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED ARCHITECT
5.16.2019

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Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA Palmview Phase I
Sheet: P3.01

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119 W. VAN BUREN AVE. STE.101
HARLINGEN, TX
PHONE: 956-230-3435
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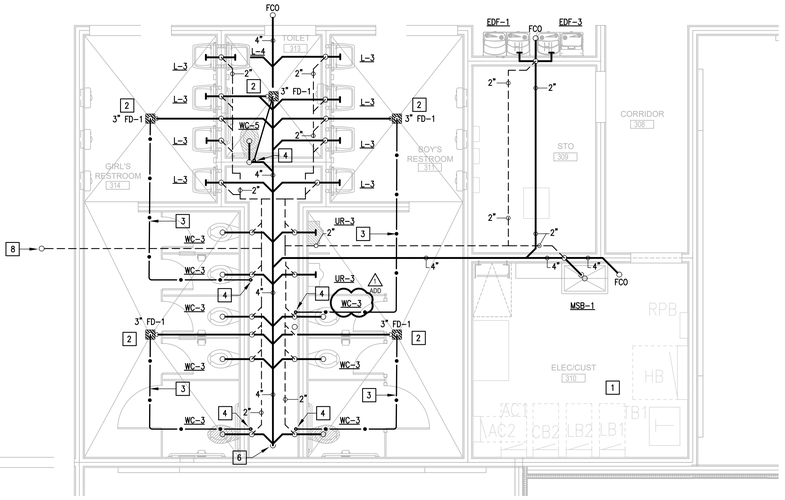
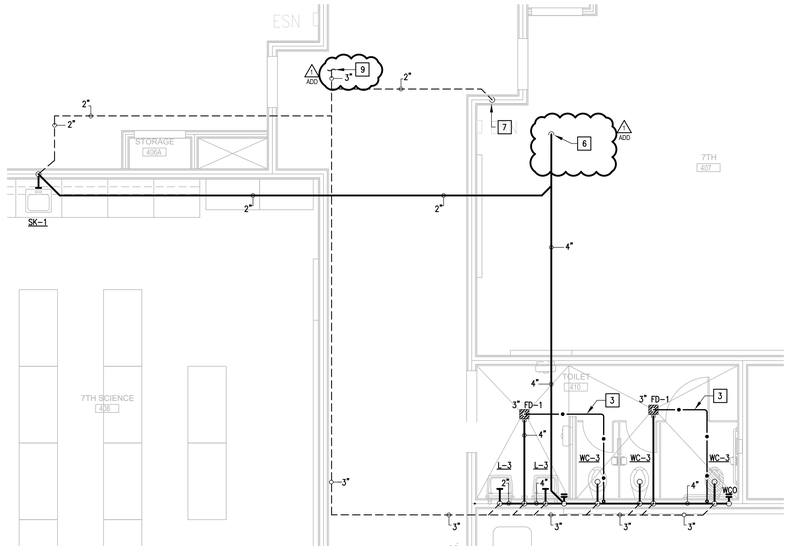
ENGINEERING FIRM
F-15968



01 WASTE & VENT PLAN (2ND FLOOR)

SCALE: 1/4" = 1'- 0"

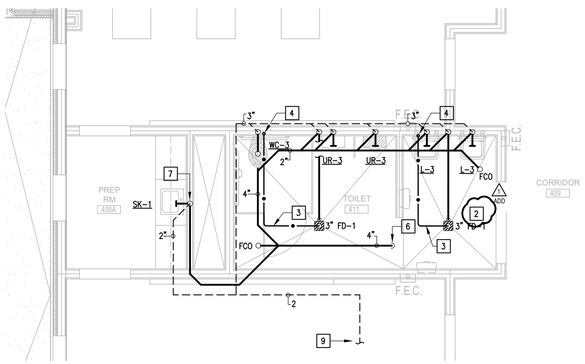


02 WASTE & VENT PLAN (2ND FLOOR)

SCALE: 1/4" = 1'- 0"

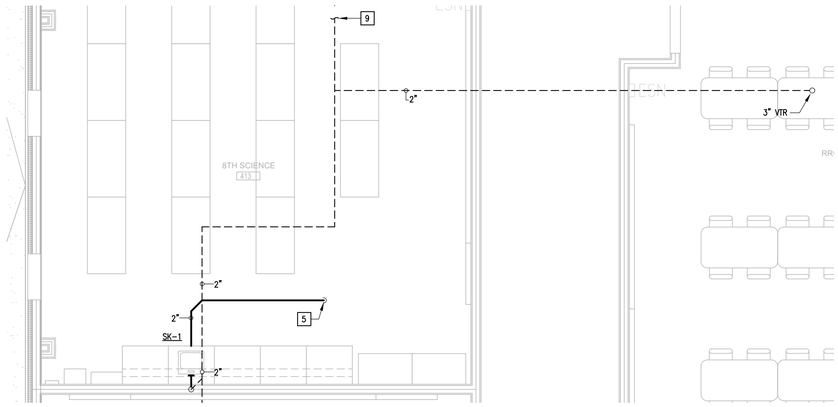
KEYED NOTES:

1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
3. PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.
4. CONNECT TO FLUSH VALVE TRAP-PRIMER (WC OR UR). SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL.)
5. PROVIDE 2" SANITARY SEWER PIPING DOWN TO FIRST FLOOR.
6. PROVIDE 4" SANITARY SEWER PIPING DOWN TO FIRST FLOOR.
7. PROVIDE 2" VENT UP FROM 1ST FLOOR
8. PROVIDE 4" VENT UP THRU ROOF.
9. REFER TO SHEET P2.04 FOR CONTINUATION.
10. DISHWASHING MACHINE MUST DISCHARGE BY MEANS OF AN AIR GAP TO PREVENT SEWAGE FROM BACKING UP INTO THE DISHWASHING COMPARTMENT IN THE EVENT OF A STOPPAGE IN THE DRAINAGE SYSTEM.



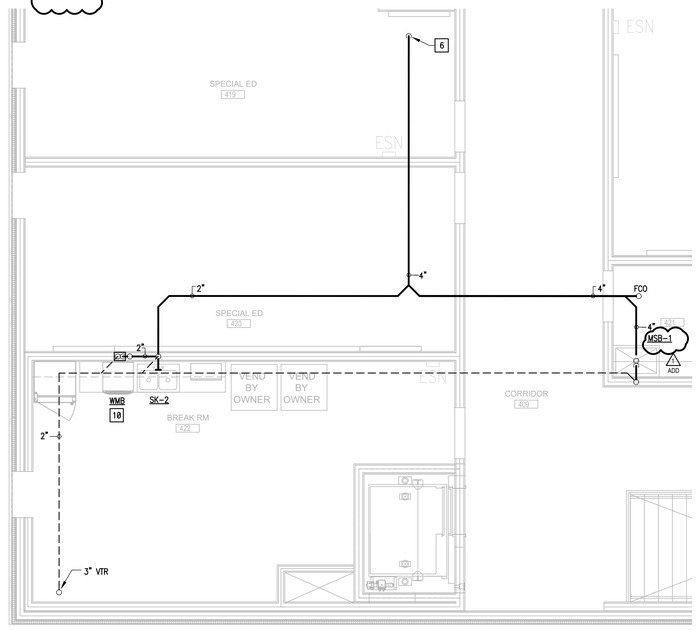
03 WASTE & VENT PLAN (2ND FLOOR)

SCALE: 1/4" = 1'- 0"



04 WASTE & VENT PLAN (2ND FLOOR)

SCALE: 1/4" = 1'- 0"



05 WASTE & VENT PLAN (2ND FLOOR)

SCALE: 1/4" = 1'- 0"

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No.	REVISIONS	BY
ADD	JUNE 3, 2019	

IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools

PALMVIEW, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED ARCHITECT
5.16.2019

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Interior Designers

Date:	May 16, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA Palmview Phase I
Sheet:	P3.02

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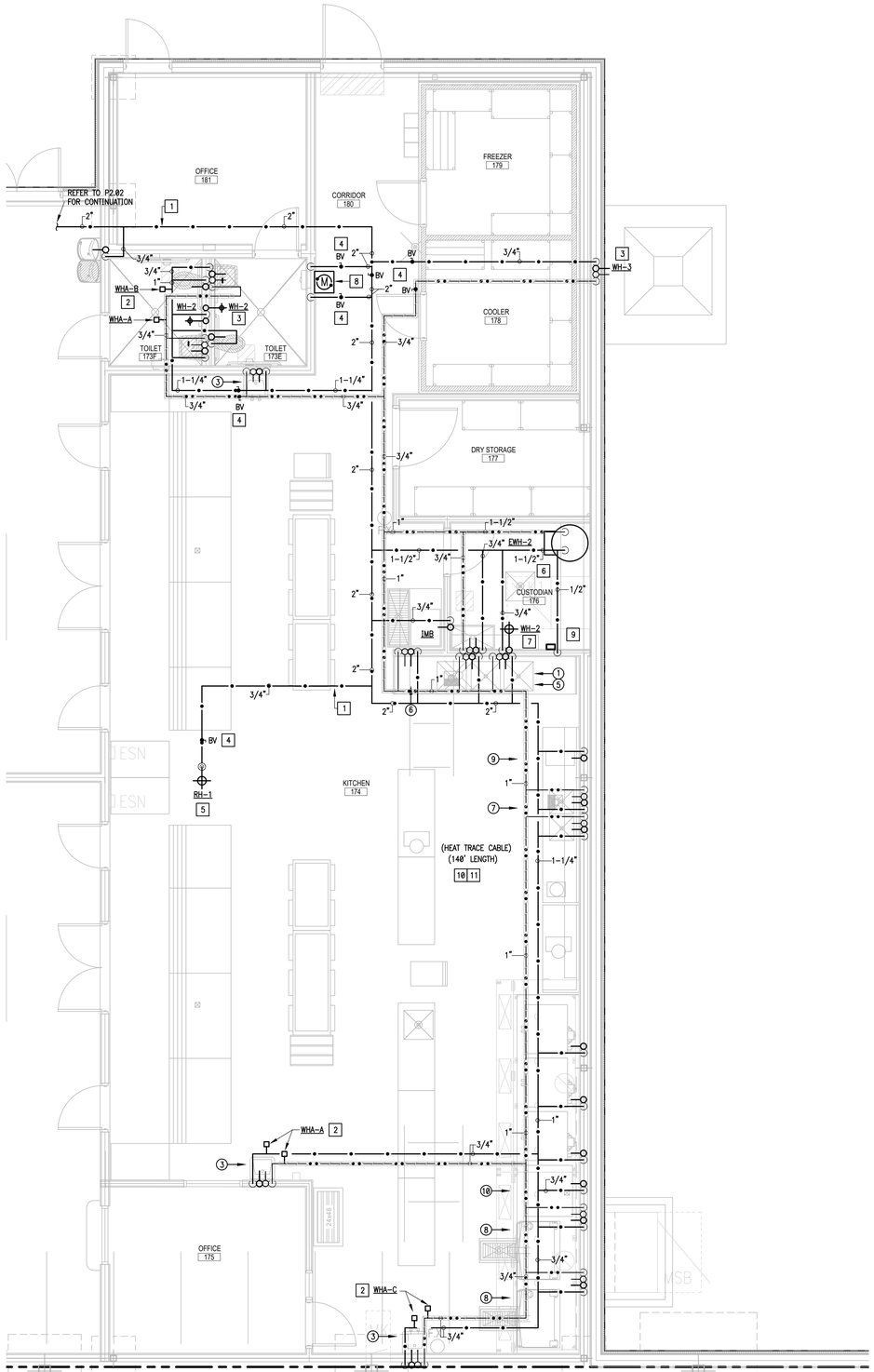
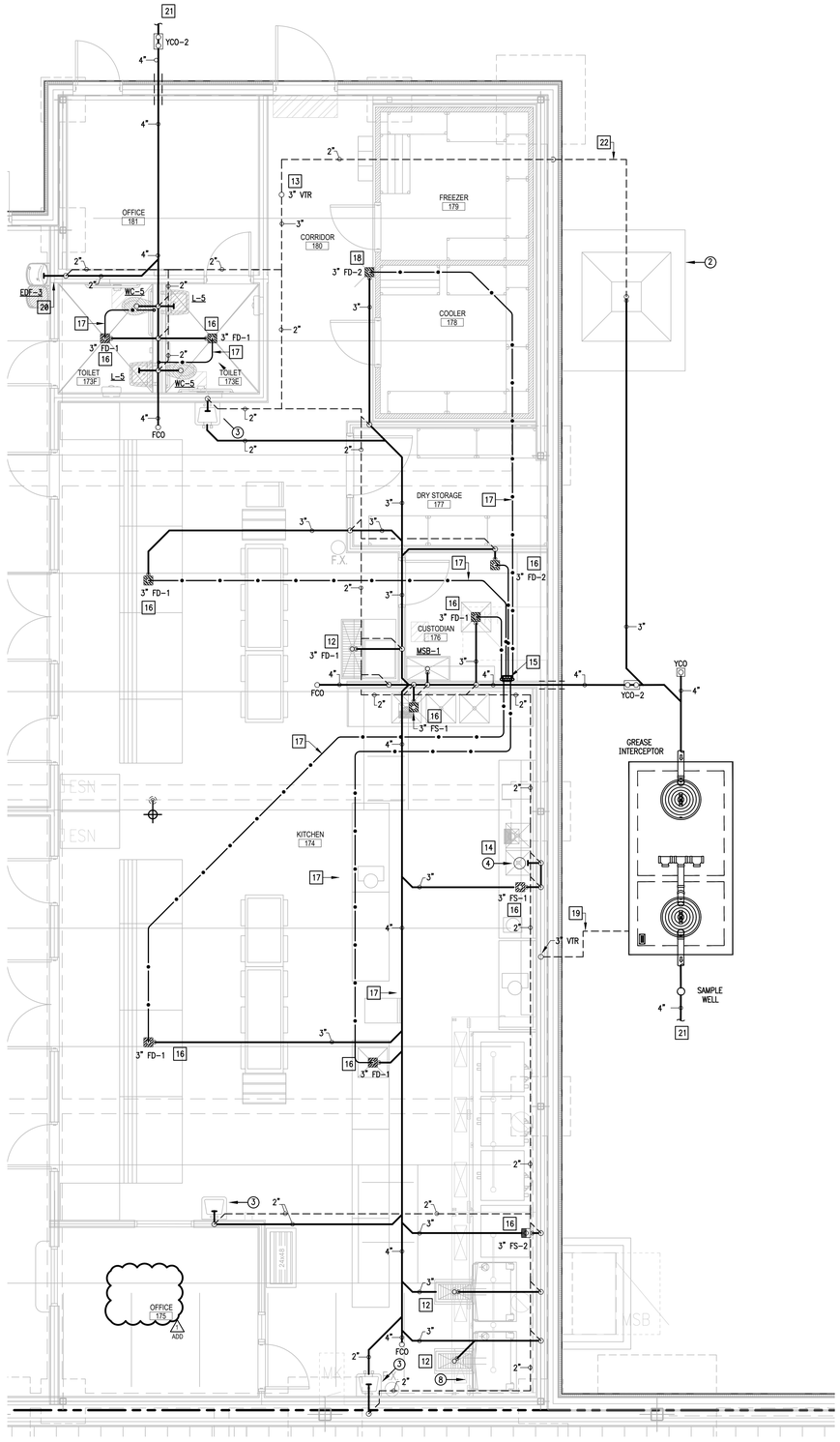


01 PLUMBING PLAN (KITCHEN)
SCALE: 1/4" = 1'-0"



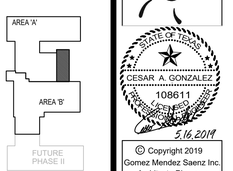
01 WASTE & VENT PLAN (KITCHEN)
SCALE: 1/4" = 1'-0"

PLUMBING KEYED NOTES:

1. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
2. PROVIDE WATER HAMMER ARRESTOR (WHA), MIFAB OR APPROVED EQUAL. INDICATED MODEL (A,B,C,D,E,F) AS PER MIFAB SIZING CHART. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. (TYPICAL)
3. PROVIDE WALL HYDRANT AS SCHEDULED. PROVIDE CLOSE COUPLED HYDRANT TO ENSURE PIPE TURNS UP INSIDE BLOCK WALL. COORDINATE WALL THICKNESS WITH WALL HYDRANT MANUFACTURER DATA – TYPICAL.
4. PROVIDE BRONZE ISOLATION BALL VALVE ABOVE CEILING OR BEHIND WALL. PROVIDE 12"X12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA. ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING. PROVIDE VALVE IDENTIFICATION TAGS AS PER SPECIFICATIONS. (TYPICAL)
5. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)
6. PROVIDE ELECTRIC WATER HEATER AS SCHEDULED AND AS SHOWN ON DETAIL. REFER TO PLUMBING SCHEDULES AND DETAILS SHEETS FOR MORE INFORMATION.
7. PROVIDE WALL HYDRANT IN JANITOR ROOM. COORDINATE MOUNTING HEIGHT WITH OWNER DURING CONSTRUCTION
8. PROVIDE 2" WATER METER MODEL DLJ–200 OR APPROVED EQUAL. INSTALL METER WITHIN THE WALL WITH AN ACCESS DOOR FACING THE KITCHEN. LABEL ACCESS DOOR "WATER SUB–METER". PROVIDE LINE SIZE ISOLATION VALVES AT THE INLET AND AT THE OUTLET OF METER. COORDINATE EXACT LOCATION WITH OWNER PRIOR INSTALLATION.
9. PROVIDE ELECTRONIC TRAP PRIMER SIOUX CHIEF 695–ES10 OR APPROVED EQUAL. PROVIDE SURFACE MOUNT CABINET WITH ACCESS DOOR. PROVIDE A COPPER DISTRIBUTION MANIFOLD WITH 5 OUTLETS, AND CAP UNUSED OUTLETS. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
10. PROVIDE HEAT MAINTENANCE SYSTEM AS INDICATED. HEAT TRACE SHALL BE THERMON MODEL HSX WARM TRACE OR APPROVED EQUAL. CONTACT RYAN MONTGOMERY WITH INDUSTRIAL SYSTEMS INC. AT 210–493–4200.
11. ESTIMATED HEAT TRACE CABLE LENGTH. CONTRACTOR TO FIELD VERIFY PRIOR ORDERING AND INSTALLATION OF HEAT TRACE CABLE SYSTEM. COORDINATE WITH HEAT TRACE CABLE MANUFACTURER.
12. TROUGH SPECIFIED BY ARCHITECT. COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT SUPPLIER AND GENERAL CONTRACTOR.
13. PROVIDE 3" VENT UP TO 3" VENT THRU ROOF.
14. PROVIDE SANITARY SEWER CONNECTION FOR DISPOSER.
15. CONNECT TO ELECTRONIC TRAP–PRIMER. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
16. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
17. 1/2" SOFT DRAWN COPPER FROM TRAP–PRIMER. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY–SLEEVE" OR EQUAL.
18. PROVIDE FLOOR DRAIN TO COLLECT WALK–IN COOLER/FREEZER CONDENSATION. COORDINATE WITH KITCHEN EQUIPMENT CONTRACTOR.
19. PROVIDE 2" VENT PIPING UNDERGROUND TO SERVE GT–1.
20. ROUTE ABOVEGROUND THROUGH METAL STUD.
21. REFER TO MEP SITE PLAN FOR CONTINUATION.
22. PROVIDE 2" VENT PIPING UNDERGROUND TO SERVE CATCH BASIN.

KITCHEN EQUIPMENT SCHEDULE

DESIG.	DESCRIPTION	WATER CONNECTIONS		
		HW	CW	ROUGH–IN
1	THREE COMPARTMENT SINK & FAUCETS. SPECIFIED BY ARCHITECT.	3/4"	3/4"	8" O.C. 16" A.F.F.
2	CATCH BASIN SPECIFIED BY ARCHITECT. RE: SEE DETAIL SHEET FOR MORE INFO.	--	--	--
3	HAND SINK. SPECIFIED BY ARCHITECT. PROVIDE POINT OF USE THERMOSTATIC VALVE LEONARD #270–LF–BRKT–BV OR EQUAL.	3/4"	3/4"	8" O.C. 16" A.F.F.
4	DISPOSER – CONNECT 1/2"CW THRU SOLENOID VALVE VACUUM BRKR. & FLOW CONTROL. CONNECT WASTE LINE.	--	--	--
5	PRE–RINSE UNIT SPECIFIED BY ARCHITECT. COORDINATE LOCATION WITH KITCHEN EQUIPMENT SUPPLIER.	--	--	--
6	HOSE REEL SPECIFIED BY ARCHITECT. INSTALL CONCEALED PIPING REEL INSTALLATION KIT FURNISHED BY KITCHEN EQUIPMENT SUPPLIER. CONNECT HOT AND COLD WATER AS PER MANUFACTURER'S RECOMMENDATIONS.	3/4"	3/4"	--
7	TWO COMPARTMENT SINK & FAUCETS. SPECIFIED BY ARCHITECT.	3/4"	3/4"	8" O.C. 16" A.F.F.
8	BRAISING PAN – CONNECT HOT AND COLD WATER TO DOUBLE PANTRY DECK MOUNTED FAUCET AS PER MANUFACTURER'S RECOMMENDATIONS.	3/4"	3/4"	8" O.C. 42" A.F.F.
9	HOT WATER DISPENSER – CONNECT WATER LINES AS PER MANUFACTURER'S RECOMMENDATIONS.	3/4"	3/4"	--
10	COMBI OVEN STEAMER – CONNECT WATER LINES AS PER MANUFACTURER'S RECOMMENDATIONS.	--	--	--



KEYPLAN

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No.	REVISIONS	BY
ADD	JUNE 3, 2019	

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IDEA PUBLIC SCHOOLS PHASE 1
IDEA Public Schools
PALMVIEW
PALMVIEW, TEXAS

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Date: May 16, 2019
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Drawn By: ETHOS
Job No.: IDEA Palmview Phase I
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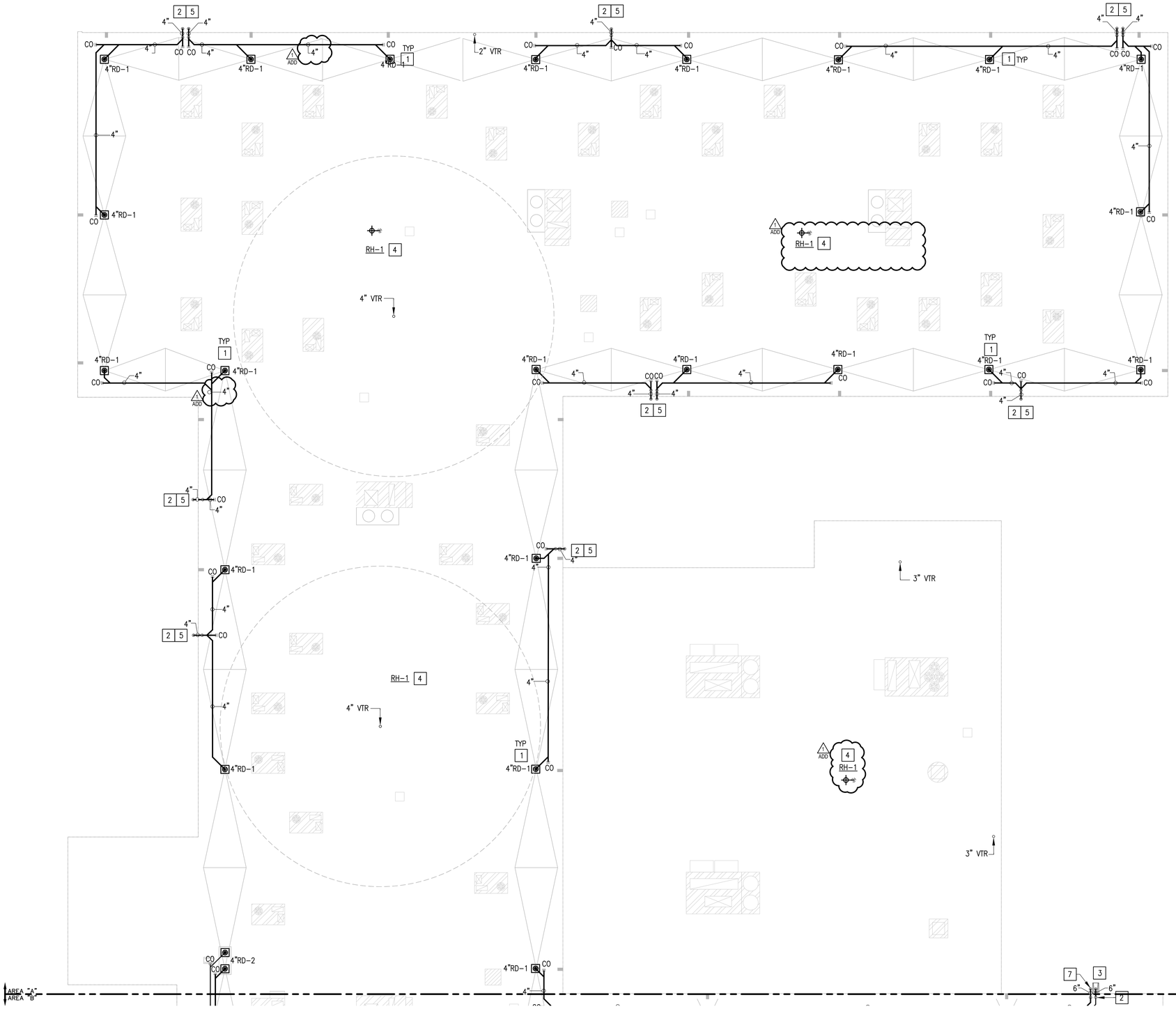

GENERAL NOTES:

1. ALL HORIZONTAL LEADERS TO BE A MINIMUM OF 1/8" PER FOOT SLOPE.
2. ALL VERTICAL LEADER LINES DOWN AND CONCEALED IN PLUMBING CHASE UNLESS OTHERWISE NOTED. REFER TO DRAWINGS.
3. COORDINATE ROOF DRAIN PIPING WITH GENERAL CONTRACTOR AND HVAC CONTRACTOR.
4. PROVIDE INSULATION ON ALL ABOVE GROUND STORM LINES. REFER TO SPECIFICATIONS FOR DETAILS.
5. STORM DRAIN PIPING AND SEWER PIPING SHOWN ON THIS PLAN TO BE INSTALLED UNDER THE ROOF AND ABOVE THE CEILING OF SECOND FLOOR.

KEYED NOTES:

1. PROVIDE ROOF DRAIN AS SCHEDULED. SEE ASSOCIATED DETAILS ON THIS SHEET. (TYPICAL)
2. DROP STORM PIPING IN PIPE WALL. REFER TO ARCHITECTURAL SHEET AND COORDINATE INSTALLATION WITH GENERAL CONTRACTOR. SEE ASSOCIATED DETAILS ON THIS SHEET. (TYPICAL)
3. PROVIDE SPLASH BLOCK AS SHOWN FOR SECONDARY ROOF DRAIN PIPE. (TYPICAL)
4. PROVIDE DOMESTIC WATER PIPING FROM 2ND FLOOR TO CONNECT ROOF HYDRANT. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)
5. PRIMARY ROOF DRAIN PIPING DISCHARGING AT THIS APPROXIMATE LOCATION. REFER TO PLUMBING PLAN FOR MORE DETAIL AND CIVIL PLAN FOR CONNECTION AND CONTINUATION. (TYPICAL)

01 ROOF PLAN
SCALE: 1/8" = 1'- 0"

NORTH

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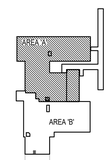

KEYPLAN

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Drawn By: ETHOS
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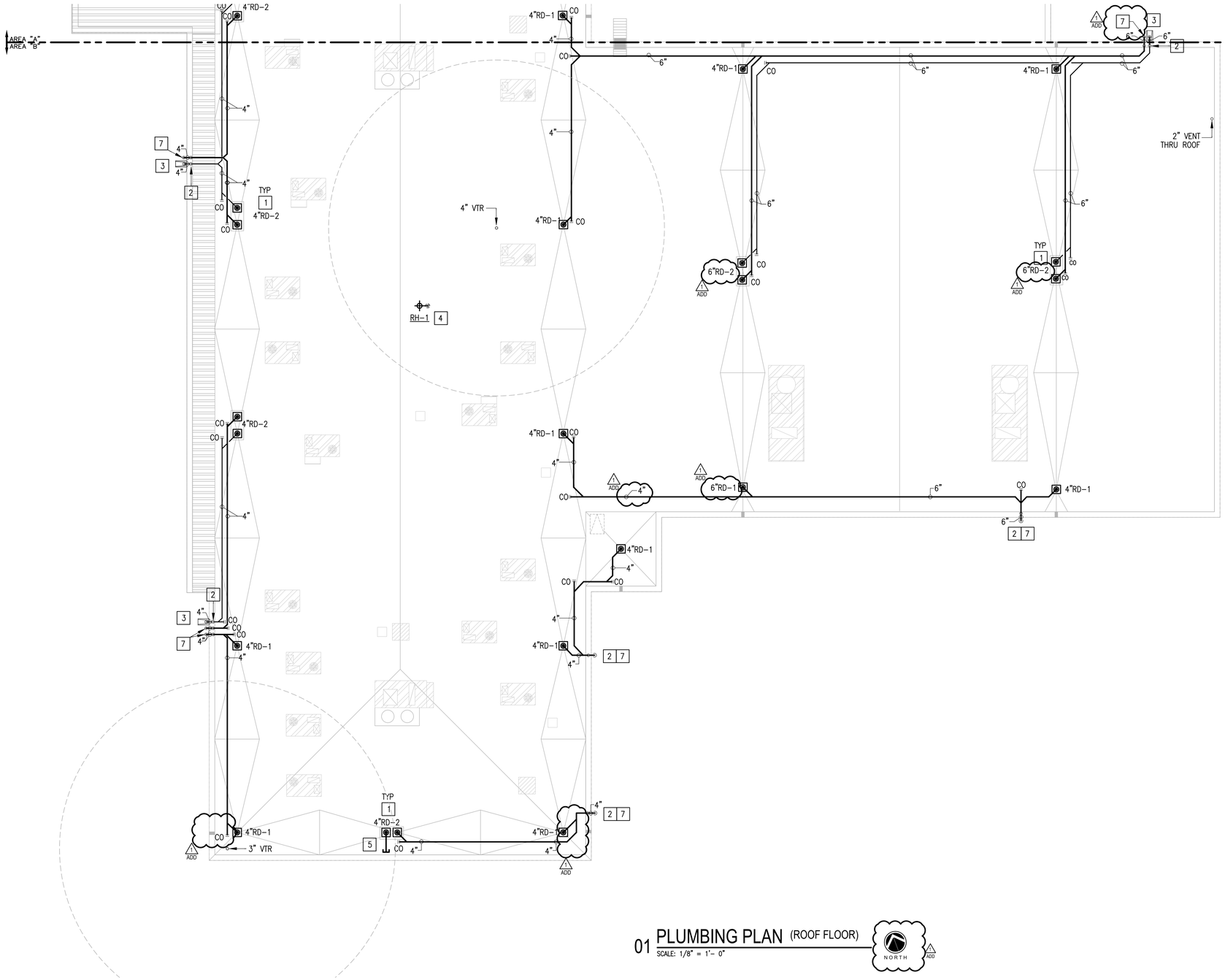

01 PLUMBING PLAN (ROOF FLOOR)
SCALE: 1/8" = 1'- 0"

NORTH

GENERAL NOTES:

1. ALL HORIZONTAL LEADERS TO BE A MINIMUM OF 1/8" PER FOOT SLOPE.
2. ALL VERTICAL LEADER LINES DOWN AND CONCEALED IN PLUMBING CHASE UNLESS OTHERWISE NOTED. REFER TO DRAWINGS.
3. COORDINATE ROOF DRAIN PIPING WITH GENERAL CONTRACTOR AND HVAC CONTRACTOR.
4. PROVIDE INSULATION ON ALL ABOVE GROUND STORM LINES. REFER TO SPECIFICATIONS FOR DETAILS.
5. STORM DRAIN PIPING AND SEWER PIPING SHOWN ON THIS PLAN TO BE INSTALLED UNDER THE ROOF AND ABOVE THE CEILING OF SECOND FLOOR.

KEYED NOTES:

1. PROVIDE ROOF DRAIN AS SCHEDULED. SEE ASSOCIATED DETAILS ON THIS SHEET. (TYPICAL)
2. DROP STORM PIPING IN WALL CAVITY. REFER TO ARCHITECTURAL SHEET AND COORDINATE INSTALLATION WITH GENERAL CONTRACTOR. SEE ASSOCIATED DETAILS ON THIS SHEET. (TYPICAL)
3. PROVIDE SPLASH BLOCK AS SHOWN FOR SECONDARY ROOF DRAIN PIPE.
4. PROVIDE DOMESTIC WATER PIPING TO CONNECT HOSE BIBB. PROVIDE HOSE BIBB AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)
5. CAP SECONDARY ROOF DRAIN FOR FUTURE ADDITION OF BUILDING WHICH WILL ELIMINATE THE GUTTER OVERFLOW SYSTEM INSTALLED ON THIS PHASE. REFER TO ARCHITECTURAL ROOF PLAN.
6. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAILS ON DETAIL SHEET (TYPICAL).
7. PRIMARY ROOF DRAIN PIPING DISCHARGING AT THIS APPROXIMATE LOCATION. REFER TO PLUMBING PLAN FOR MORE DETAIL AND CIVIL PLAN FOR CONNECTION AND CONTINUATION. (TYPICAL)

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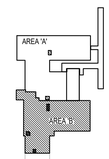

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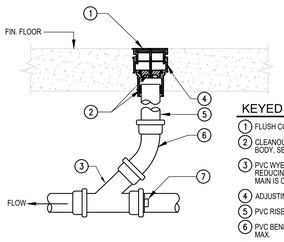
Job No.	IDEA Palmview Phase I
Sheet:	P5.02

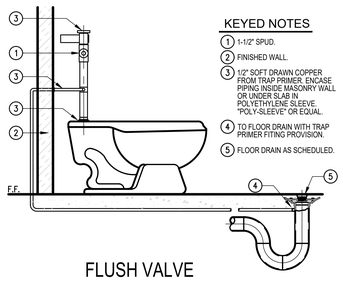


KEYED NOTES

1. FLUSH COVER
2. CLEANOUT PLUG AND BODY, SEE SPECS.
3. PVC WYE (WYE WITH REDUCING BRANCH IF MAIN IS OVER 4")
4. ADJUSTING COLLAR
5. PVC RISER
6. PVC BEND FULL SIZE, 4" MAX.
7. PLUG IF END OF LINE

01 FLOOR CLEANOUT DETAIL

SCALE : NOT TO SCALE

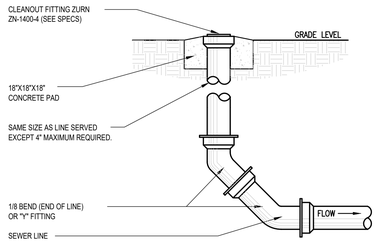


KEYED NOTES

1. 1-1/2" SPUD.
2. FINISHED WALL.
3. 1/2" SOFT DRAWN COPPER FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE "POLY-SLEEVE" OR EQUAL.
4. TO FLOOR DRAIN WITH TRAP PRIMER FITTING PROVISION.
5. FLOOR DRAIN AS SCHEDULED.

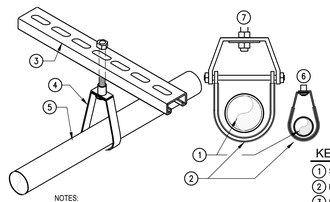
02 FLUSH VALVE TRAP PRIMER DETAIL

SCALE : NOT TO SCALE



03 YARD CLEANOUT DETAIL

SCALE : NOT TO SCALE



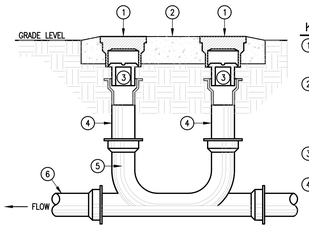
NOTES:
1. PROVIDE PLASTIC COATED HANGERS: COOPER B-LINE
2. MODEL: B3100C OR APPROVED EQUAL FOR CLEVIS
3. HANGERS. MODEL: B3172C OR APPROVED EQUAL FOR BAND HANGERS.

KEYED NOTES

1. SCHEDULED PIPE.
2. PLASTIC COATING.
3. UNI-STRUT.
4. PIPE HANGER.
5. DOMESTIC WATER LINE, COPPER DRAIN LINE FROM AHU'S.
6. BAND HANGER.
7. CLEVIS HANGER.

04 DOMESTIC WATER LINE PIPING SUPPORT DETAIL

SCALE : NOT TO SCALE

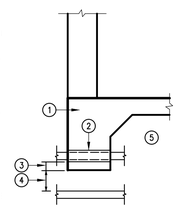


KEYED NOTES

1. PROVIDE "HEAVY DUTY" NICKLE BRONZE COVER FOR ALL EXTERIOR CLEANOUTS.
2. 46"X24"X8" DEEP CONCRETE CLEANOUT BOX (BOX IS INDEPENDANT OF PIPE AND THEREFORE IS FREE TO MOVE WITH THE SETTLEMENT OF GRADE)
3. CLEANOUT FITTING ZURN ZN-1400-4 (SEE SPECS).
4. SAME SIZE AS LINE SERVED EXCEPT 4" MAXIMUM REQUIRED. SHORT LENGTH OF C.I. PIPE FURNISHED WITH CLEANOUT BOX.
5. DOUBLE 2-WAY CLEANOUT.
6. SEWER LINE.

05 2-WAY YARD CLEANOUT DETAIL

SCALE : NOT TO SCALE



KEYED NOTES

1. GRADE BEAM.
2. GALV. SCH.40 STEEL SLEEVE. SIZE PER SPECS. CENTER PIPE IN SLEEVE.
3. PIPING PASSING HORIZ. THROUGH GRADE BEAM SHALL BE LOCATED NO LESS THAN 6" ABOVE BOTTOM OF BEAM.
4. PIPING PASSING HORIZ. UNDER GRADE BEAM SHALL BE LOCATED A MINIMUM OF 6" BELOW BEAM. PROVIDE A SLEEVE.
5. COORDINATE LOCATIONS OF PIPING IN 3,4,5, ABOVE AS RELIEVING ARCHES OR ADDITIONAL CONCRETE MAY BE REQUIRED TO MAINTAIN STRUCTURAL INTEGRITY OF BEAM.

06 GRADE BEAM SLEEVE DETAIL

SCALE : NOT TO SCALE

PUMP SCHEDULE (ALTERNATE # 2)

ADD 1

MARK	TYPE	LOCATION	GPM	HEAD FT WG	MOTOR HP (QTY)	MOTOR RPM	MIN. PUMP EFFICIENCY	ELECTRICAL V-PH-HZ	ELECTRICAL MOCP	ELECTRICAL AMPS	NOTES	MANUFACTURER AND MODEL
BP-1	DUPLEX END SUCTION	SPRKLR 121	175	70	3 (2)	3500	65%	460-3-60	30.0	9.6	ALL	BELL & GOSSETT AQUABOOST 2B384B-VS

NOTES:
1. PROVIDE TEFC, PREMIUM EFFICIENCY, NON-OVERLOADING MOTORS.
2. THE DOMESTIC BOOSTER SYSTEM SHALL BE NSF-61 APPROVED
3. THE SYSTEM WILL BE SUPPLIED WITH SINGLE POINT POWER CONNECTION POINT
4. DIV. 26 TO PROVIDE SAFETY DISCONNECT. COORDINATE WITH ELECTRICAL CONTRACTOR.
5. PROVIDE BLADDER TANK WESSELS MODEL FXA-85 OR APPROVED EQUAL.

CIRCULATING PUMP SCHEDULE

MARK	TYPE	SERVES	LOCATION	GPM	HEAD FT WG	MIN. HP	RPM	CONN. SIZE (IN.)	IMPELLER DIA. (IN.)	ELEC. V-PH-HZ	WEIGHT (LBS)	NOTES	MANUFACTURER AND MODEL
CP-1	CIRCULATING PUMP	EWH-1	CUST 163	5	20	1/12	3300	3/4	3	120-1-60	13	ALL	BELL & GOSSETT PL-30B

ADD 1

NOTES:
1. PROVIDE BRONZE BOOSTER BODY.
2. PUMPS SHALL BE OPERATED AND CONTROLLED THRU THE LIGHTING RELAY PANEL AND THRU AQUASTAT. COORDINATE WITH ELECTRICAL CONTRACTOR.
3. REFER TO DETAIL SHEET FOR MORE INFORMATION.

GENERAL NOTES:

1. ALL PLUMBING WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CODES AS ADAPTED AND AMENDED BY THE INSPECTING AUTHORITIES.
2. DRAWING IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF PIPING, DEVICES AND EQUIPMENT WITH BUILDING ELEMENTS AND THE WORK OF OTHER TRADES.
3. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID CONFLICT WITH THE WORK OF OTHER TRADES. COORDINATE WITH MECHANICAL, ELECTRICAL AND STRUCTURAL FOR PROPER CLEARANCES.
4. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PHASING AND SEQUENCE OF CONSTRUCTION WORK.
5. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR.
6. SLEEVE ALL OUTSIDE WALLS, FOUNDATION GRADE BEAMS, INTERIOR WALL PENETRATIONS, AND FIRE SEAL ALL PENETRATION THROUGH FIRE WALLS AND FLOORS WHETHER SHOWN ON PLANS OR NOT.
7. PROVIDE MINIMUM 15' OF SEPARATION BETWEEN HVAC INTAKES AND VENT THRU ROOFS.
8. RECORD INVERT ELEVATIONS OF ALL YARD CLEAN OUT (YCO) ON "AS-BUILT" DRAWINGS.
9. PROVIDE SHUT-OFF VALVES (STOPS) ON ALL ROUGH-INS TO FIXTURES AND EQUIPMENTS.
10. PROVIDE WATER HAMMER ARRESTORS AS INDICATED ON THE DRAWINGS. AIR CHAMBERS NOT AN APPROVED SUBSTITUTE.
11. PROVIDE ANY BACKFLOW PREVENTION DEVICE REQUIRED BY CODE OR LOCAL AUTHORITIES. CONTRACTOR SHALL VERIFY THIS WITH CITY AND LOCAL AGENCIES AND INCLUDE COST IN BID. CONTRACTOR TO HAVE BACK FLOWS CERTIFIED.
12. REFER TO PLUMBING FIXTURE ROUGH-IN SCHEDULE FOR INDIVIDUAL PIPE CONNECTIONS TO FIXTURES.
13. PRIOR TO POURING FOUNDATION AND ERECTING CMU WALLS, COORDINATE INSTALLATION OF PLUMBING FIXTURE CARRIERS WITH GENERAL CONTRACTOR.
14. METAL STUDS AT DRY WALLS SHALL NOT BE CUT THRU HORIZONTAL DIRECTION. COORDINATE WITH DRY WALL CONTRACTOR.

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS WASTE	VENT	CW	HW	NOTES	REMARKS
WH-1	ZURN # Z1300-SS-34UN HYDRANT	ENCASED NON-FREEZE ANTI-SIPHON WALL HYDRANT, BRONZE, NON-TURNING OPERATING ROD STOP VALVE IN SUPPLY, KEY OPERATED CONTROL VALVE, STAINLESS STEEL BOX WITH HINGED COVER.	–	–	3/4"	–		
WH-2	ZURN # Z1350 HYDRANT	ENCASED MODERATE CLIMATE WALL HYDRANT FOR NARROW WALL, CHROME, SCREWDRIVER OPERATED STOP VALVEIN SUPPLY, KEY OPERATED CONTROL			3/4"		ADD 1	
WH-3	WOODFORD # B22 WALL FAUCET	ENCASED FREEZELESS WALL FAUCET, CHROME, HANDLE OPERATED, STOP VALVE IN SUPPLY, VALVE OPERATED CONTROL, CHROME BOX WITH HINGED COVER.	–	–	3/4"	3/4"		
HB-1	WOODFORD 24	WALL FAUCET WITH ANTI-SIPHON VACUUM BREAKER,3/4" INLET AND 3/4" MALE HOSE THREAD, FLUSH MOUNTED, POLISHED BRASS, FOR MILD CLIMATE AREAS.	–	–	3/4"	–	ADD 1	
FD-1	ZURN # ZN415B-P	BODY ASSEMBLY WITH TYPE B STRAINER, DURA COATED CAST IRON BODY WITH BOTTOM OUTLET INVERTED MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH TRAP PRIMER CONNECTION.	3"	2"	–	–		
FD-2	ZURN # ZN415I	BODY ASSEMBLY WITH TYPE I STRAINER, DURA COATED CAST IRON BODY WITH BOTTOM OUTLET INVERTED MEMBRANE CLAMP AND ADJUSTABLE COLLAR WITH TRAP PRIMER CONNECTION.	3"	2"	–	–		
FS-1	MIFAB FS1730-FL-1. # Z1023 TRAP PRIMER CONNECTION DAPTER	BOTTOM OUTLET CAST IRON BODY, 12" SQUARE NICKEL BRONZE FULL GRATE AND RIM, ANCHOR FLANGE, 8" DEEP SUMP WITH A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER. PROVIDE CLAMPING DEVICE FOR DRAINS IN MEMBRANE FLOOR AREAS.	4"	2"	–	–		
FS-2	MIFAB FS1730-FL-150. # Z1023 TRAP PRIMER CONNECTION DAPTER	BOTTOM OUTLET CAST IRON BODY, 12" SQUARE NICKEL BRONZE HALF-GRATE AND RIM, ANCHOR FLANGE, 8" DEEP SUMP WITH A.R.E. INTERIOR, ALUMINUM DOME BOTTOM STRAINER. PROVIDE CLAMPING DEVICE FOR DRAINS IN MEMBRANE FLOOR AREAS.	4"	2"	–	–		
RD-1	MIFAB 1200-W	15" DIA. LARGE SUMP ROOF DRAIN, GALV. SUMP RECEIVER CAST IRON DRAIN BODY, C.I. WATERPROOFING MEMBRANE CLAMP RING WITH INTEGRAL GRAVEL STOP,OVERFLOW STANDPIPE, SELF-LOCKING POLYETHYLENE DOME STRAINER.	SEE PLANS					
RD-2	MIFAB 1270	15" DIA. COMBINED LARGE SUMP ROOF DRAIN W/ SECONDARY OVERFLOW, 24"X42" GALV. SUMP RECEIVER, CAST IRON DRAIN BODIES, C.I. WATERPROOFING MEMBRANE CLAMP RINGS WITH INTEGRAL GRAVEL STOP, OVERFLOW STANDPIPE, TWO SELF-LOCKING POLYETHYLENE DOME STRAINERS.	SEE PLANS					
WMB	GUY GRAY B200	GALVANIZED STEEL WASHING MACHINE BOX, FURNISHED WITH QUARTER TURN BALL VALVE AND TWO 1/2" MIP/SWEAT CONNECTON VALVE AND A 1-1/2" OR 2" THREADED DRAIN FITTING & LOCKNUT.	1-1/2" OR 2"	–	3/4"	3/4"		
EDF-1	ELKAY VRCTLBSC LKAPREZL APRON ZURN Z-1225 CARRIER	BI-LEVEL ELECTRIC DRINKING FOUNTAIN, FRONT AND SIDE TOUCH CONTROLS, 8.0 GPH, FLEXI GUARD SAFETY BUBBLERS, PVC P-TRAP, APRON AND CARRIER. FOR ADULT STANDARD & ADA MOUNTING. OUTDOOR RATED, VANDAL RESISTANT.PROVIDE WATER SENTRY FILTER 51300C	2"	2"	3/4"	–		SEE ARCHITECTURAL
EDF-2	ELKAY VRCTLBSC LKAPREZL APRON ZURN Z-1225 CARRIER	BI-LEVEL ELECTRIC DRINKING FOUNTAIN, FRONT AND SIDE TOUCH CONTROLS, 8.0 GPH, FLEXI GUARD SAFETY BUBBLERS, PVC P-TRAP, APRON AND CARRIER FOR ELEMENTARY MOUNTING. PROVIDE WATER SENTRY FILTER 51300C.	2"	2"	3/4"	–		SEE ARCHITECTURAL
EDF-3	ELKAY VRCTLBWSK LKAPREZL APRON ZURN Z-1225 CARRIER	BI-LEVEL ELECTRIC DRINKING FOUNTAIN W/ ELECTRONIC BOTTLE FILLER BUTTON MECHANICAL FRONT BUBBLER ACTIVATION. 8.0 GPH, FLEXI GUARD SAFETY BUBBLERS, PVC P-TRAP, APRON AND CARRIER. FOR ADULT STD & ADA MOUNTING. VANDAL RESISTANT. PROVIDE WATER SENTRY FILTER 51300C.	2"	2"	3/4"	–		SEE ARCHITECTURAL
EDF-4	ELKAY VRCTLBWSK LKAPREZL APRON ZURN Z-1225 CARRIER	BI-LEVEL ELECTRIC DRINKING FOUNTAIN W/ ELECTRONIC BOTTLE FILLER BUTTON MECHANICAL FRONT BUBBLER ACTIVATION. 8.0 GPH, FLEXI GUARD SAFETY BUBBLERS, PVC P-TRAP, APRON AND CARRIER. FOR ELEMENTARY STD & ADA MOUNTING. OUTDOOR RATED, VANDAL RESISTANT. PROVIDE WATER SENTRY FILTER 51300C.	2"	2"	3/4"	–		SEE ARCHITECTURAL
RH-1	JAY R. SMITH 5906	NON-FREEZE ROOF HYDRANT WITH GALV. CASING AND ADJUSTABLE FLOW WHEEL LOCK HANDLE WITH DECK FLANGE AND UNDER DECK CLAMP.	2"	–	3/4"	–		
MSB-1	FIAT TSB 3003 MOP BASIN #832-AA HOSE & BRACKET #830-AA FAUCET #889-CC MOP BRACKET #MSG 3624 WALL GUARD #1453-BB STRAINER	36X24X12 PRECAST TERRAZO MOP SERVICE BASIN WITH HOSE AND HOSE BRACKET, FAUCET, MOP BRACKET, WALL GUARD AND STRAINER.	3"	2"	3/4"	3/4"		
MSB-2	FIAT TSB 3000 MOP BASIN #832-AA HOSE & BRACKET #830-AA FAUCET #889-CC MOP BRACKET #MSG 2424 WALL GUARD #1453-BB STRAINER	24X24X12 PRECAST TERRAZO MOP SERVICE BASIN WITH HOSE AND HOSE BRACKET, FAUCET, MOP BRACKET, WALL GUARD AND STRAINER.	3"	2"	3/4"	3/4"		
SHR-1	LEONARD AQUATROL 4500-H-06-1.5GPM-VS 515P(G)-30-D2L ADA RATED SHOWER	CONCEALED MOUNTED PRESSURE BALANCING VALVE ASSE 1016 LISTED WITH LOW FLOW INSTITUTIONAL 1.5GPM SHOWERHEAD AND VANDAL RESISTANT SCREWS. HIGH SCHOOL STANDARD MOUNTING.	3"	2"	3/4"	3/4"		
SHR-2	LEONARD AQUATROL 4500-H-06-1.5GPM-VS 515P(G)-30-D2L ADA RATED SHOWER	CONCEALED MOUNTED PRESSURE BALANCING VALVE ASSE 1016 LISTED WITH LOW FLOW INSTITUTIONAL 1.5GPM SHOWERHEAD AND VANDAL RESISTANT SCREWS. PROVIDE HAND SHOWER, DIVERTER VALVE, STAINLESS STEEL SEAT AND GRAB BARS. HIGH SCHOOL ADA MOUNTING.	3"	2"	3/4"	3/4"		
IMB	GUY GRAY BIM875	VALVE, STAINLESS STEEL BOX WITH HINGED COVER GALVANIZED STEEL ICE MACHINE BOX, FURNISHED WITH 1/2" FIP INLET X 1/4" OD OUTLET COMPRESSION ANGLE VALVE.	–	–	3/4"	–		

ELECTRIC WATER HEATER SCHEDULE

MARK	LOCATION	ADD	SERVING	GALLON CAPACITY	KW	NUMBER OF ELEMENTS	RECOVERY IN GPH AT 120F RISE	ELECT. V/P/H	MANUFACTURER & MODEL	NOTES
EWH-1	CUST 163	1	SEE PLANS	100	24	6	83	480/3/60	RHEEM E100A-24-G	ALL
EWH-2	CUST 139		KITCHEN	120	54	9	186	480/3/60	RHEEM E120A-54-G	ALL

NOTES:
1. MANUFACTURER & MODEL NUMBER ARE "OR APPROVED EQUAL".
2. PROVIDE IMMERSION TYPE THERMOSTAT.
3. EWH-1: PROVIDE HOTWATER CIRCULATING PUMP. REFER TO PUMP SCHEDULE FOR MORE INFORMATION.
4. EWH-2: PROVIDE HEAT TRACE CABLE SYSTEM. REFER TO PLUMBING PLANS FOR MORE INFORMATION HEAT TRACE CABLE SHALL BE CONTROLLED THROUGH THE LIGHTING CONTROL SYSTEM. COORDINATE WITH ELECTRICAL CONTRACTOR.

PLUMBING SYMBOLS LEGEND

	COLD WATER SUPPLY	WCO	WALL CLEANOUT
	HOT WATER SUPPLY		*GATE VALVE (GV)
ADD 1	HOT WATER RE-CIRCULATION		*BALL VALVE
G	GAS LINE		VALVE IN RISER TYPE AS NOTED
	SOIL & WASTE LINE - ENLARGED PLANS	WC	WATER CLOSET
	VENT LINE - ENLARGED PLANS	UR	URINAL
AW	ACID WASTE LINE - ENLARGED PLANS	L	LAVATORY
GW	GREASE WASTE LINE - ENLARGED PLANS	SK	SINK
F	FIRE SPRINKLER LINE	EDF	ELECTRIC DRINKING FOUNTAIN
FCO	FLOOR CLEANOUT	MSB	MOP SERVICE BASIN
FCO-2	FLOOR CLEANOUT - 2 WAY	EESHR	EMERGENCY EYE/SHOWER
FD FD	FLOOR DRAIN (FD) WITH DEEP SEAL TRAP	TP	TRAP PRIMER
HDCC	HUB DRAIN WITH DEEP SEAL TRAP	EWH	ELECTRIC WATER HEATER
	FLOOR SINK	VTR	VENT THRU ROOF
YCO	YARD CLEANOUT	CO	CLEANOUT
YCO-2	YARD CLEANOUT - 2 WAY	A.F.F.	ABOVE FINISH FLOOR
WH	WALL HYDRANT	ADT	ACID DILUTION TANK
G	TRAP PRIMER	GT	GREASE TRAP
	*WATER HAMMER		

* PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS WASTE	VENT	CW	HW	NOTES	REMARKS
WC-1	AMERICAN STD. 2282.001 SLOAN ROYAL #111-1.28 SEAT 5081C.055	10-1/4" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.28GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR PRE-K ADA MOUNTING.	4"	2"	1"	–	1,2,3	12" TO TOP OF SEAT
WC-2	AMERICAN STD. 2599.001 SLOAN ROYAL #111-1.28 SEAT 5981.100	14" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.28GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR ELEMENTARY STANDARD AND ADA MOUNTING.	4"	2"	1"	–	1,2,3	14" TO TOP OF SEAT
WC-3	AMERICAN STD. 2599.001 SLOAN ROYAL #111-1.28 SEAT (1" THICK) 5981.100	14" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.28GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR JR. HIGH STANDARD AND ADA MOUNTING.	4"	2"	1"	–	1,2,3	15"-17" TO TOP OF SEAT
WC-4	AMERICAN STD. 3451.001 SLOAN ROYAL #111-1.28 SEAT 5981.100	15" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.28GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR ADULT STANDARD MOUNTING.	4"	2"	1"	–	1,3	15" TO TOP OF RIM
WC-5	AMERICAN STD. 3461.001 SLOAN ROYAL #111-1.28 SEAT 5981.100	16-1/2" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.28GPF TOP FLUSH VALVE, WHITE OPEN FRONT SEAT LESS COVER AND BOLT CAPS FOR ADULT ADA MOUNTING.	4"	2"	1"	–	1,2,3	17"-19" TO TOP OF SEAT
UR-1	AMERICAN STD. 6590.001 SLOAN ROYAL #186-0.5 ZURN #Z1222 CARRIER	WALL MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA LOW CONSUMPTION 0.5 GPF URINAL WITH 14" DEEP BOWL, 3/4" TOP SPOUT FLUSH VALVE AND CARRIER FOR ELEMENTARY STANDARD MOUNTING	3"	2"	3/4"	–	2,3	21" TO RIM OF BASIN
UR-2	AMERICAN STD. 6590.001 SLOAN ROYAL #186-0.5 ZURN #Z1222 CARRIER	WALL MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA LOW CONSUMPTION 0.5 GPF URINAL WITH 14" DEEP BOWL, 3/4" TOP SPOUT FLUSH VALVE AND CARRIER FOR ELEMENTARY ADA MOUNTING	3"	2"	3/4"	–	2,3	14" TO RIM OF BASIN
UR-3	AMERICAN STD. 6590.001 SLOAN ROYAL #186-0.5 ZURN # Z1222 CARRIER	WALL MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA LOW CONSUMPTION 0.5 GPF URINAL WITH 14" DEEP BOWL, 3/4" TOP SPOUT FLUSH VALVE AND CARRIER FOR JR HIGH STANDARD AND ADA MOUNTING	3"	2"	3/4"	–	2,3	16-21" TO RIM OF BASIN
UR-4	AMERICAN STD. 6590.001 SLOAN ROYAL #186-0.5 ZURN # Z1222 CARRIER	WALL MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA LOW CONSUMPTION 0.5 GPF URINAL WITH 14" DEEP BOWL, 3/4" TOP SPOUT FLUSH VALVE AND CARRIER FOR ADULT STANDARD MOUNTING	3"	2"	3/4"	–	3	22" TO RIM OF BASIN
UR-5	AMERICAN STD. 6590.001 SLOAN ROYAL #186-0.5 ZURN # Z1222 CARRIER	WALL MOUNTED FLUSH VALVE, WHITE VITREOUS CHINA LOW CONSUMPTION 0.5 GPF URINAL WITH 14" DEEP BOWL, 3/4" TOP SPOUT FLUSH VALVE AND CARRIER FOR ADULT ADA MOUNTING	3"	2"	3/4"	–	2,3	17" TO RIM OF BASIN
L-1	KOHLER K1729-0 K-15597-F-CP ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT 0.5GPM AERATOR LEONARD # 270-LF-BRKT-BV	19" X 17" WALL MOUNTED WHITE VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT, HOLES 4" ON CENTER FOR SINGLE LEVER FAUCET, CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE AND CARRIER FOR PRE-K ADA MOUNTING. THERMOSTATIC POINT OF USE MIXING VALVE, SET AT NO MORE THAN 110 DEGREES.	2"	2"	3/4"	3/4"	4	24" FROM FLOOR TO RIM
L-2	KOHLER K1729-0 K-15597-F-CP ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT 0.5GPM AERATOR LEONARD # 270-LF-BRKT-BV	19" X 17" WALL MOUNTED WHITE VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT, HOLES 4" ON CENTER FOR SINGLE LEVER FAUCET, CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE AND CARRIER FOR ELEMENTARY STANDARD AND ADA MOUNTING. THERMOSTATIC POINT OF USE MIXING VALVE, SET AT NO MORE THAN 110 DEGREES.	2"	2"	3/4"	3/4"	4	30" FROM FLOOR TO RIM
L-3	KOHLER K1729-0 K-15597-F-CP ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT LEONARD # 270-LF-BRKT-BV 0.5GPM AERATOR	19" X 17" WALL MOUNTED WHITE VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT, HOLES 4" ON CENTER FOR SINGLE LEVER FAUCET, THERMOSTATIC POINT OF USE MIXING VALVE, SET AT NO MORE THAN 110 DEGREES, WITH WALL MOUNTED BRACKET CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE AND CARRIER FOR JR HIGH ADA AND STANDARD MOUNTING	2"	2"	3/4"	3/4"	4	32" FROM FLOOR TO RIM
L-4	KOHLER K1729-0 K-15597-F-CP ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT LEONARD # 270-LF-BRKT-BV 0.5GPM AERATOR	19" X 17" WALL MOUNTED WHITE VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT, HOLES 4" ON CENTER FOR SINGLE LEVER FAUCET, THERMOSTATIC POINT OF USE MIXING VALVE, SET AT NO MORE THAN 110 DEGREES, WITH WALL MOUNTED BRACKET CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE AND CARRIER FOR ADULT STANDARD MOUNTING	2"	2"	3/4"	3/4"	4	32" FROM FLOOR TO RIM
L-5	KOHLER K1729-0 K-15597-F-CP ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT LEONARD # 270-LF-BRKT-BV 0.5GPM AERATOR	19" X 17" WALL MOUNTED WHITE VITREOUS CHINA LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT, HOLES 4" ON CENTER FOR SINGLE LEVER FAUCET, THERMOSTATIC POINT OF USE MIXING VALVE, SET AT NO MORE THAN 110 DEGREES, WITH WALL MOUNTED BRACKET CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE AND CARRIER FOR ADULT ADA MOUNTING	2"	2"	3/4"	3/4"	4	34" FROM FLOOR TO RIM
L-6	ELKAY LUSTERTONE DRKAD222055C FAUCET LKD2439C BUBBLER LK1141A STRAINER LK35 ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT 0.5GPM AERATOR LEONARD # 270-LF-BRKT-BV	22" X 19.5" TOP MOUNT, SINGLE BOWL CLASSROOM SINK WITH 2-HANDLE FAUCET, GOOSENECK AND BUBBLER. CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE AND CARRIER FOR PRE-K ADA MOUNTING. THERMOSTATIC POINT OF USE MIXING VALVE, SET AT NO MORE THAN 110 DEGREES. PROVIDE ALL NECESSARY MOUNTING HARDWARE.	2"	2"	3/4"	3/4"	4	24" FROM FLOOR TO RIM
SK-1	ELKAY LRAD-1919-60-1 SINK CHICAGO FAUCET .5 GPM # 1100-GN2AE3-317ABCP LK-335 DRAIN LEONARD # 270-LF-BRKT-BV 0.5GPM AERATOR	19" X 19" SINGLE COMPARTMENT, 18 GAUGE TYPE 302 STAINLESS STEEL, SELF-RIMMING SINK WITH 6"DEEP BOWL, FULLY COATED UNDERSIDE, TWO HANDLE DECK MOUNT GOOSE NECK FAUCET, 3.5" DRAIN WITH CUP STRAINER, 1-1/2" 17 GAUGE CHROME PLATED TAILPIECE AND P-TRAP WITH CLEANOUT AND CHROME PLATED SUPPLY STOPS WITH STAINLESS STEEL FLEXIBLE CONNECTORS AND POINT-OF-USE THERMOSTATIC VALVE.	2"	2"	3/4"	3/4"	4	SEE ARCHITECTURAL
SK-2	ELKAY SINK # LRAD-292260-3 CHICAGO FAUCET # 1100-GN2AE3-317ABCP 2.2 GPM AERATOR; ELKAY DRAIN # LK4018; P-TRAP W/CLEAN OUT; TRUEBRO KIT; LEONARD # 270-LF-BRKT-BV	29" X 22" DOUBLE COMPARTMENT SINK, #18 GAUGE, TYPE 304 NICKEL BEARING STAINLESS STEEL. 6" DEEP, TOP MOUNTED INSTALLATION ON 4" CENTER HOLES, OFF-CENTER DRAIN OPENINGS; DUAL HANDLE, TOP MOUNTED MIXING FAUCET; PROVIDE CHROME PLATED STOPS WITH STAINLESS STEEL ESCUTCHEON AND FLEXIBLE STAINLESS STEEL RISERS; CHROME PLATED DRAIN GRID & TAILPIECE.	2"	2"	3/4"	3/4"	4	SEE ARCHITECTURAL

ADD 1

NOTES:
1. INSTALL FLUSH VALVE ON THE WIDE SIDE OF STALL.
2. PROVIDE ADA APPROVED FLUSH VALVE HANDLE FOR ALL ADA PLUMBING FIXTURES.
3. REFER TO PLUMBING PLAN FOR FIXTURES THAT WILL REQUIRE TRAP PRIMER CONNECTIONS.
4. PROVIDE TRUEBRO LAVATORY GUARD MODEL #103 COLOR WHITE. COVER SHALL BE SECURED WITH SNAP-SLIP FLUSH REUSABLE FASTENERS.

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IDEA PUBLIC SCHOOLS PHASE 1

IDEA Public Schools
IDEA PALMVIEW
PALMVIEW, TEXAS

REGISTERED ARCHITECT
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5.16.2019

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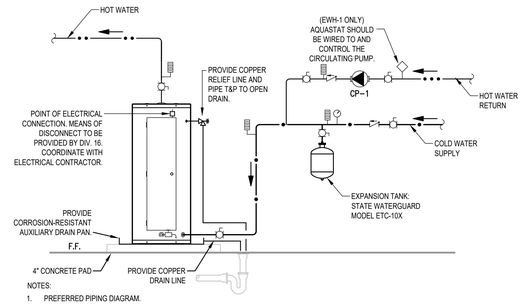
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: May 16, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA Palmview Phase I
Sheet: P6.01



NOTES:

1. PREFERRED PIPING DIAGRAM.
2. THE TEMPERATURE AND PRESSURE RELIEF VALVE SETTING SHALL NOT EXCEED PRESSURE RATING OF ANY COMPONENT IN THE SYSTEM.
3. PROVIDE HEAT TRAP DEVICE OR AN ARRANGEMENT OF TUBING AS PER IECC. INSULATE THE FIRST 8' OF OUTLET PIPING AND THE INLET PIPING BETWEEN THE STORAGE TANK AND HEAT TRAP (INCLUDE THE HEAT TRAP).

ADD 1 4. WHERE WATER HEATER IS INSTALLED IN A ROOM WITH SUSPENDED CEILING, SHUT OFF VALVES MUST BE LOCATED BELOW SUSPENDED CEILING.

LEGEND

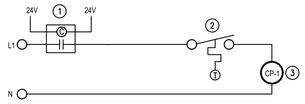
TEMPERATURE & PRESSURE RELIEF VALVE	CHECK VALVE	FULL PORT BALL VALVE	PRESSURE GAUGE
AQUASTAT	DRAIN	TEMPERATURE GAGE	CIRCULATING PUMP

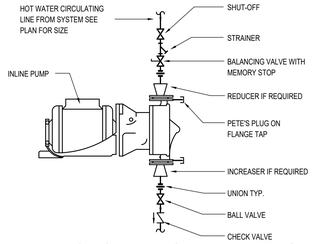
01 FLOOR MOUNTED EWH-1 & EWH-2 DETAIL

SCALE : NOT TO SCALE

NOTES:

1. POWER TO PUMP TO BE CONTROLLED BY LIGHTING RELAY PANEL. COORDINATE WITH ELECTRICAL CONTRACTOR.
2. LINE VOLTAGE AQUASTAT CONTROLLER FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. CONNECTED BY ELECTRICAL CONTRACTOR. AQUASTAT CLOSES WHEN DOMESTIC HOT WATER RETURN LINE TEMPERATURE DROPS BELOW 120°F. (ADJ.).
3. CIRCULATING PUMP FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR. CONNECTED BY DIV. 26.

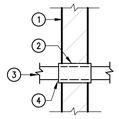




02 CIRCULATING PUMP WIRING SCHEMATIC & DETAIL

SCALE : NOT TO SCALE

ADD 1

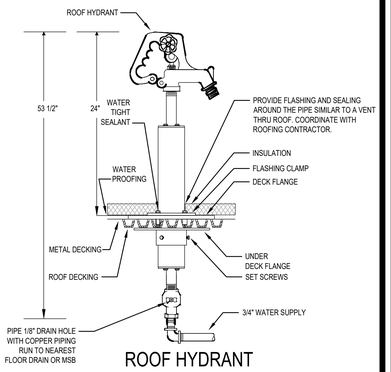


KEYED NOTES

1. MASONRY WALL.
2. GALVANIZED SCH.40 STEEL OR COPPER SLEEVE. SIZE TO BE MINIMUM 3/8" LARGER IN DIAMETER THAN PIPE AND INSULATION.
3. PLUMBING PIPE (RELIEF LINES DOMESTIC WATER, AIR, AND GAS PIPING.)
4. FILL VOID WITH MINERAL WOOL AND CAULK VERMIN TIGHT.

04 WALL SLEEVE DETAIL

SCALE : NOT TO SCALE



05 ROOF HYDRANT DETAIL

SCALE : NOT TO SCALE

KEYED NOTES

1. N.S. STRAINER.
2. ADJUSTABLE DRAIN HEAD.
3. CONCRETE.
4. MEMBRANE.
5. FLASHING COLLAR.
6. TRAP PRIMER FITTING PROVISION.
7. S.S. "NO-HUB" ASSEMBLY.
8. PIPE SIZE AS INDICATED ON PLAN.
9. DEEP SEAL P-TRAP.
10. 1/2" SOFT DRAWN COPPER FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.

NOTE:
PROVIDE T.S.P. CONNECTION WHERE INDICATED.

06 FD-1 FLOOR DRAIN WITH TRAP PRIMER DETAIL

SCALE : NOT TO SCALE

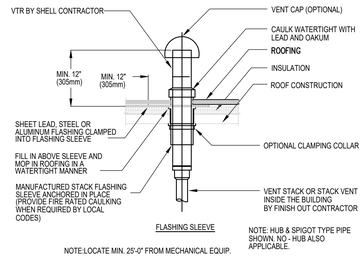
KEYED NOTES

1. STRAINER.
2. ADJUSTABLE DRAIN HEAD.
3. CONCRETE.
4. MEMBRANE.
5. FLASHING COLLAR.
6. TRAP PRIMER FITTING PROVISION.
7. S.S. "NO-HUB" ASSEMBLY.
8. PIPE SIZE AS INDICATED ON PLAN.
9. DEEP SEAL P-TRAP.
10. 1/2" SOFT DRAWN COPPER FROM TRAP PRIMER. ENCASE PIPING INSIDE MASONRY WALL OR UNDER SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.
11. SET EXTENEDED RIM FLUSH WITH FINISHED FLOOR.

NOTE:
PROVIDE T.S.P. CONNECTION WHERE INDICATED.

07 FD-2 FLOOR DRAIN WITH TRAP PRIMER DETAIL

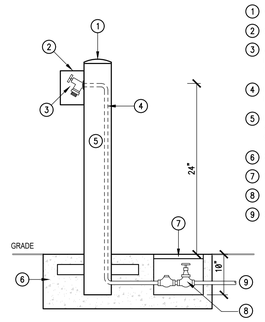
SCALE : NOT TO SCALE



NOTE:LOCATE MIN. 25'-0" FROM MECHANICAL EQUIP.

08 VENT THRU ROOF DETAIL

SCALE : NOT TO SCALE

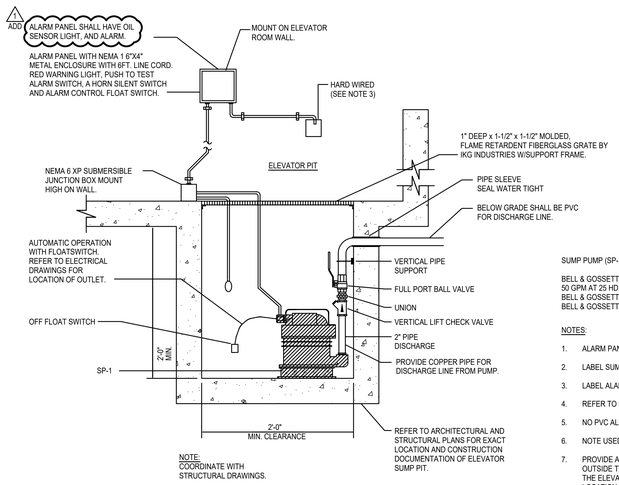


1. VANDAL PROOF, REMOVABLE CAP
2. COVER WITH LOCKABLE DOOR
3. ANTI-SIPHON, SELF-DRAINING, FROST-PROOF SILL COCK WITH REMOVABLE HANDLE
4. FREEZE-RESISTANT, 1/2" REINFORCED, NYLOBRAID TUBING
5. MOST DEPENDABLE FOUNTAINS, MODEL # MDF-24. PHONE: 1-800-552-6331 FAX: 901-794-4272
6. 2' X 3' X 1' DEEP CONCRETE FOOTING
7. 10" ACCESS BOX WITH COVER
8. TYPICAL HOOKUP (VALVE AND TEE)
9. SEE PLAN FOR SIZE AND CONTINUATION

09 PEDESTAL TYPE HOSE BIBB DETAIL

SCALE : NOT TO SCALE

ADD 1



NOTE:
COORDINATE WITH STRUCTURAL DRAWINGS.

SUMP PUMP (SP-1)

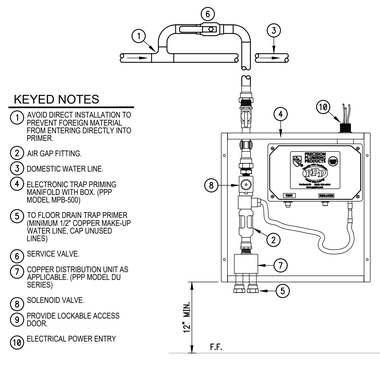
BELL & GOSSETT SERIES "2EC" MODEL "2EC0511", EFFLUENT SUMP PUMP
50 GPM AT 25 HD, 1/2 HP, 115 V, 1PH.
BELL & GOSSETT PN# A2T32U DOUBLE FLOAT SWITCH
BELL & GOSSETT PN# S10020N1 NEMA 1 SIMPLEX CONTROL PANEL.

NOTES:

1. ALARM PANEL MAY BE DIRECT WIRED.
2. LABEL SUMP PUMP DEDICATED RECEPTACLE "FOR SUMP PUMP ONLY".
3. LABEL ALARM PANEL "FOR ALARM PANEL ONLY".
4. REFER TO DETAIL DRAWINGS FOR BASIN REQUIREMENTS.
5. NO PVC ALLOWED FOR PUMP DISCHARGE PIPING.
6. NOTE USED
7. PROVIDE AND INSTALL A LOCAL VISUAL/AUDIBLE ALARM JUST OUTSIDE THE ELEVATOR IN ADDITION TO THE ALARM PANEL IN THE ELEVATOR WALL. COORDINATE WITH ARCHITECT FOR LOCATION.

SP-1 SUMP PUMP DETAIL

ADD 1 10 SCALE : NOT TO SCALE

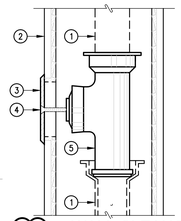


KEYED NOTES

1. AVOID DIRECT INSTALLATION TO PREVENT FOREIGN MATERIAL FROM ENTERING DIRECTLY INTO PRIMER.
2. AIR GAP FITTING.
3. DOMESTIC WATER LINE.
4. ELECTRONIC TRAP PRIMING MANIFOLD WITH BOX. (PPP MODEL MPB-500)
5. TO FLOOR DRAIN TRAP PRIMER (MINIMUM 1/2" COPPER MAKE-UP WATER LINE, CAP UNUSED LINES)
6. SERVICE VALVE.
7. COPPER DISTRIBUTION UNIT AS APPLICABLE. (PPP MODEL DU SERIES)
8. SOLENOID VALVE.
9. PROVIDE LOCKABLE ACCESS DOOR.
10. ELECTRICAL POWER ENTRY.

11 ELECTRONIC TRAP PRIMER CONNECTION DETAIL

ADD 1 SCALE : NOT TO SCALE

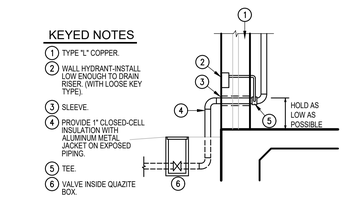


KEYED NOTES

1. PIPE SIZE AS INDICATED ON PLAN.
2. WALL.
3. S.S. SMOOTH ACCESS COVER.
4. SECURING SCREW.
5. NEW CLEANOUT.

12 WALL CLEANOUT DETAIL

ADD 1 SCALE : NOT TO SCALE



KEYED NOTES

1. TYPE "L" COPPER.
2. WALL HYDRANT-INSTALL LOW ENOUGH TO DRAIN RISER. (WITH LOOSE KEY TYPE).
3. SLEEVE.
4. PROVIDE 1" CLOSED-CELL INSULATION WITH ALUMINUM METAL JACKET ON EXPOSED PIPING.
5. TEE.
6. VALVE INSIDE QUAZITE BOX.

13 WATER ENTRANCE DETAIL

ADD 1 SCALE : NOT TO SCALE

No.	REVISIONS	BY
1 ADD	JUNE 3, 2019	

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IDEA PALMVIEW
PALMVIEW, TEXAS

STATE OF TEXAS
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5/16/2019

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Architects-Planners
Interior Designers

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Job No.	IDEA Palmview Phase I
Sheet:	P6.02

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