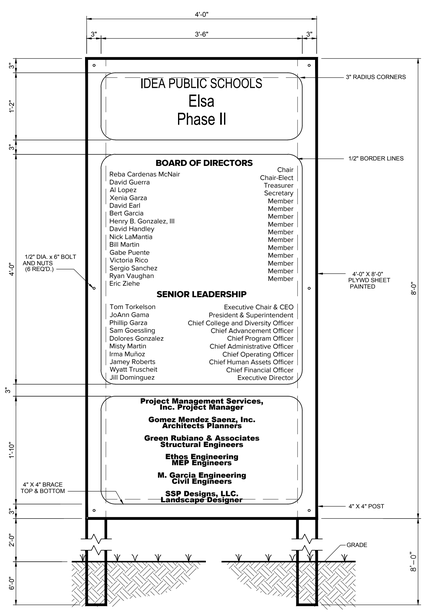
IDEA PUBLIC SCHOOLS

ELSA

Academy and College Prep- PHASE II





01 PROJECT SIGN
NOT TO SCALE

IDEA PUBLIC SCHOOLS BOARD OF DIRECTORS 2018

Reba Cardenas McNair	Chair
David Guerra	Chair-Elect
Al Lopez	Treasurer
Xenia Garza	Secretary
David Earl	Member
Bert Garcia	Member
Henry B. Gonzalez, III	Member
David Handley	Member
Nick LaMantia	Member
Bill Martin	Member
Gabe Puente	Member
Victoria Rico	Member
Sergio Sanchez	Member
Ryan Vaughan	Member
Eric Ziehe	Member

SENIOR LEADERSHIP

Tom Torkelson	Executive Chair & CEO
JoAnn Gama	President & Superintendent
Phillip Garza	Chief College and Diversity Officer
Sam Goessling	Chief Advancement Officer
Dolores Gonzalez	Chief Program Officer
Misty Martin	Chief Administrative Officer
Irma Muñoz	Chief Operating Officer
Jamey Roberts	Chief Human Assets Officer
Wyatt Truscheit	Chief Financial Officer
Jill Dominguez	Executive Director

D R A W I N G I N D E X

CIVIL DRAWINGS

C1.0 -	GENERAL NOTES
C2.0 -	EXISTING CONDITION
C3.0 -	UTILITY LAYOUT
C4.0 -	PAVING & GRADING LAYOUT
C4.1 -	UTILITY,PAVING, & GRADING DETAILS
C5.0 -	EROSION & SEDIMENT CONTROL PLAN
C5.1 -	EROSION & SEDIMENT CONTROL DETAILS

LANDSCAPE DRAWINGS:

L-1.01	IRRIGATION PLAN
L-1.02	IRRIGATION PLAN
L-1.03	IRRIGATION DETAILS
L-2.01	LANDSCAPE PLAN
L-2.02	LANDSCAPE PLAN
L-3.01	LANDSCAPE SCHEDULES & DETAILS

ARCHITECTURAL DRAWINGS:

ADA-1	TDLR GUIDELINES FOR ACCESSIBILITY
ADA-2	TDLR GUIDELINES FOR ACCESSIBILITY
A1.01	OVERALL SITE PLAN
A1.02	IMPROVED SITE PLAN
A1.03	SITE PLAN ENLARGEMENTS
A1.04	SITE PLAN & CANOPY DETAILS
CODE	CODE REVIEW
D1.01	DEMOLITION PLAN
A2.00	OVERALL FLOOR PLAN
A2.01	1ST FLOOR DIMENSION PLAN
A2.02	2ND FLOOR DIMENSION PLAN
A2.03	1ST & 2ND FLOOR FIXTURE PLAN
A2.04	1ST & 2ND FLOOR REFLECTIVE CEILING PLAN
A2.05	VCT PATTERN / ACCENT WALL PAINT
A2.06	ROOF PLAN
A2.07	ROOFING DETAILS
A2.08	PHASE I DEMOLITION & IMPROVEMENTS
A3.00	DOOR & WINDOW SCHEDULES
A3.01	TOILET ENLARGEMENTS / ELEVATIONS
A3.02	PLAN DETAILS
A3.03	SCIENCE LAB ENLARGEMENT/CASE WORK
A3.04	CASEWORK ELEVATIONS
A3.05	STAIR PLAN, SECTION AND DETAILS
A4.00	WALL SECTIONS
A4.01	WALL SECTIONS
A4.02	WALL SECTIONS
A4.03	WALL SECTIONS
A4.04	WALL SECTIONS
A4.05	INTERIOR PARTITIONS
A4.06	WALL SECTIONS
A5.01	BUILDING ELEVATIONS

STRUCTURAL DRAWINGS:

S1.1	GENERAL STRUCTURAL NOTES
S1.2	GENERAL STRUCTURAL NOTES
S1.3	GENERAL STRUCTURAL DETAILS
S2.1	FOUNDATION PLAN
S2.1C	CONTROL JOINT PLAN
S2.2	FOUNDATION DETAILS
S2.3	FOUNDATION DEMO PLAN
S3.1	SECOND FLOOR FRAMING PLAN
S3.2	ROOF FRAMING PLAN
S3.3	BRACE PROFILES
S3.4	STAIR FRAMING PLAN
S4.1	FRAMING DETAILS
S4.2	FRAMING DETAILS
S4.3	FRAMING DETAILS

MEP DRAWINGS

MECHANICAL:

MEP1.01	MEP SITE PLAN
M2.01	MECHANICAL GENERAL NOTES & ABBREVIATIONS
M3.01	1ST FLOOR MECHANICAL PLAN
M3.02	2ND FLOOR MECHANICAL PLAN
M3.03	DEMOLITION PLAN
M4.01	MECHANICAL ROOF PLAN
M5.01	MECHANICAL SCHEDULES
M6.01	MECHANICAL DETAILS

ELECTRICAL:

E2.01	ELECTRICAL SYMBOL LEGEND AND ABBREVIATION
E3.01	1st FLOOR LIGHTING PLAN
E3.02	2nd FLOOR LIGHTING PLAN
E3.03	CANOPY LIGHTING PLAN
E3.04	2ND FLOOR LIGHTING AND ELECTRICAL PHASE I RENOVATIONS
E4.01	1st FLOOR ELECTRICAL PLAN
E4.02	2nd FLOOR ELECTRICAL PLAN
E4.03	1st FLOOR PHASE I INTERCOM UPGRADE PLAN
E4.04	1st FLOOR PHASE I INTERCOM UPGRADE PLAN
E4.05	2nd FLOOR PHASE I INTERCOM UPGRADE PLAN
E4.06	2nd FLOOR PHASE I INTERCOM UPGRADE PLAN
E5.01	ELECTRICAL ROOF PLAN
E6.01	ELECTRICAL SCHEDULES
E6.02	LIGHTING IMAGES
E7.01	ELECTRICAL RISER DIAGRAM
E8.01	ELECTRICAL PANEL SCHEDULES
E8.02	SPORTS LIGHTING DETAILS
E9.01	ELECTRICAL DETAILS

PLUMBING:

P2.01	1ST FLOOR PLUMBING PLAN
P2.02	2ND FLOOR PLUMBING PLAN
P2.03	DEMOLITION PLAN
P3.01	PLUMBING ROOF PLAN
P4.01	PLUMBING SCHEDULES AND DETAILS
P4.02	PLUMBING DETAILS

LANDSCAPE

SSP LANDSCAPE DESIGN
802 EAST WASHINGTON BROWNSVILLE, TEXAS 78520
(956) 547-9788 FAX: (956) 547-9977

CIVIL ENGINEERS

M GARCIA ENGINEERING, LLC
400NOLANA SUITE D MCALLEN, TX 78504
(956) 687-9421 FAX: (956) 687-3211

MECHANICAL ENGINEERS

ETHOS ENGINEERING - M.E.P.
119 VAN BUREN, SUITE 101 HARLINGEN, TEXAS 78550
(956) 230-3435 FAX: (956) 720-0830

STRUCTURAL ENGINEERS

GREEN RUBIANO & ASSOCIATES
1220W. HARRISON HARLINGEN, TX 78550
PH. (956) 428-4461 FAX (956) 428-0281

ARCHITECTS

GOMEZ MENDEZ SAENZ, INC.
1150PAREDES LINE RD. BROWNSVILLE, TX. 78521
PH. (956) 546-0110 FAX. (956) 546-0196

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
19556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	COVER

SITE PLAN NOTES

GENERAL SITE NOTES:

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY, COUNTY, STATE, FEDERAL AND OSHA REGULATIONS.
2. ALL DIMENSIONS AND RADII ARE TO THE BACK OF CURB, EDGE OF PAVEMENT, CENTER OF STRIPE OR OBJECT, OR FACE OF BUILDING UNLESS OTHERWISE NOTED.
3. CONTRACTOR IS RESPONSIBLE FOR PROTECTION AND REPLACEMENT OF PROPERTY CORNERS.
4. CONTRACTOR SHALL MATCH EXISTING CURB & GUTTER IN GRADE, SIZE, TYPE AND ALIGNMENT WHERE APPLICABLE.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO DAMAGE OF ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING.

DEMOLITION PLAN NOTES

"CAUTION" - NOTICE TO CONTRACTOR:

THE CONTRACTOR IS PUT ON NOTICE THAT THERE ARE NUMEROUS UNDERGROUND UTILITIES IN THE LINE OF WORK, INCLUDING WATER, SEWER, GAS, TELEPHONE IRRIGATION (CONCRETE PIPE) AND ELECTRIC. THERE MAY BE OTHER UTILITIES INCLUDING CABLE TELEVISION, TELECOMMUNICATIONS AND OTHERS, SOME OF THESE UTILITIES MAY BE ABANDONED, WHILE MANY ARE ACTIVE.

THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN CONDUCTING EXCAVATION OPERATIONS, AND IF ANY EXISTING UTILITIES ARE DAMAGED, THEY SHALL BE REPAIRED IMMEDIATELY AT NO COST TO THE OWNER. THE CONTRACTOR IS TO BE AWARE THAT IF ANY EXISTING UTILITIES ARE SHOWN ON THE PLANS THEY ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY AND THAT THE EXISTING UTILITIES SHOWN REPRESENT ONLY A DILIGENT EFFORT TO SHOW THE APPROXIMATE LOCATION OF SOME OF THE UTILITIES.

THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST FILED LOCATION OF UTILITIES.

"NOTICE TO CONTRACTOR" - TEXAS ONE CALL SYSTEM:

AS REQUIRED BY THE "TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT" TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM.

GENERAL DEMOLITION NOTES:

1. NO EARTH DISTURBING ACTIVITIES SHALL COMMENCE UNTIL ALL PERIMETER EROSION CONTROL MEASURES ARE IN PLACE IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN.
2. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH ALL REGULATIONS GOVERNING THE DEMOLITION, REMOVAL, TRANSPORTATION AND DISPOSAL OF ALL DEMOLITION DEBRIS.
3. THE CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY PIPING, IRRIGATION PIPING, AND CONDUIT ON EXISTING SITE AS PART OF THE BASE BID, UP TO A DEPTH OF 24 INCHES BELOW EXISTING GRADES.
4. CONTRACTOR SHALL LOCATE AND REMOVE ALL UNDERGROUND UTILITY CABLES (ELECTRIC, TELEPHONE, ETC.) ON THIS SITE UP TO A DEPTH OF 24 INCHES BELOW EXISTING GRADES AS PART OF BASE BID.
5. CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS FOR EXCAVATING AND TRENCHING PROCEDURES. CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, ETC. AS NECESSARY FOR THESE OPERATIONS, AND SHALL COMPLY WITH ALL OSHA PERFORMANCE CRITERIA.
6. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR THE PROTECTION OF ALL PROPERTY CORNER MONUMENTS, AND SHALL HAVE, AT HIS EXPENSE, ALL CORNER MONUMENTS REPLACED WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES.
7. NOTES SHOWN HERE ON REGARDING SPECIFIC ITEMS OF DEMOLITION ARE GENERAL IN NATURE, AND ARE NOT INTENDED TO BE WHOLLY INCLUSIVE. THE CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING IMPROVEMENTS TO THE EXTENT AS NOTED IN THE SPECIFICATIONS, TO THE SATISFACTION OF THE OWNER.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING DISCONNECTION OF ALL UTILITIES SERVING THE EXISTING SITE WITH THE APPROPRIATE UTILITY COMPANY, AND SHALL OBTAIN APPROVAL FROM SAME TO COMMENCE DEMOLITION ACTIVITIES.

INSPECTIONS/CERTIFICATIONS NOTE:

ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

STORM SEWER PLAN NOTES

STORM SEWER NOTES:

1. IF THE CONTRACTOR RELOCATES BENCHMARK WITH A NEW BENCHMARK, IT SHALL BE LOCATED WITHIN A TOLERANCE OF 0.10'.
2. CONSTRUCTION SHALL COMPLY WITH ALL GOVERNING CODES AND BE CONSTRUCTED TO SAME.
3. SEE SPECIFICATIONS FOR BACKFILLING AND COMPACTION REQUIREMENTS OF STORM SEWER TRENCHES.
4. ALL PIPES ENTERING STORM SEWER STRUCTURES SHALL BE GROUTED WITH NON-SHRINK GROUT TO ASSURE A WATERTIGHT FIT.
5. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT AND SHALL HAVE TRAFFIC BEARING LIDS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISHED GRADE. LIDS SHALL BE LABELED "STORM SEWER".
6. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS OUTLINED IN THE T.P.D.E.S. PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING SWPPP AND REQUIRED PERMITS.
7. CONTRACTOR SHALL UTILIZE PREFABRICATED BENDS, FIELD FABRICATED BENDS OR RADIUS PIPE TO ACCOUNT FOR DEFLECTIONS IN STORM SEWER PIPE WHERE SHOWN HEREON.
8. PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
9. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED TO REMOVE ALL SILT AND DEBRIS.
10. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
11. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR FROM INVERT IN TO INVERT OUT.
12. REINFORCED CONCRETE PIPE SHALL BE CLIII RUBBER GASKET

GRADING PLAN NOTES

GENERAL GRADING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
2. ALL CUT OR FILL SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL ADJUST AND/OR SAW CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE SMOOTH FIT AND CONTINUOUS GRADE.
4. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
5. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPED 3:1 OR STEEPER. REFER TO LANDSCAPE & IRRIGATION PLANS.
6. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
7. STRIP THE TOP 6" OF TOPSOIL AND VEGETATION FROM PROPOSED PAVING AND SIDEWALKS. STRIPPED TOPSOIL MAY BE STOCKPILED AND USED FOR FILL IN LANDSCAPE AND LAWN AREAS PROVIDED IT IS FREE OF ROCKS AND TRASH.
8. FILL BELOW PROPOSED PAVEMENT AREAS MAY BE SELECT FILL WITH PLASTICITY INDEX RANGING FROM 5-17%.
9. ALL SIDEWALKS SHALL HAVE A MINIMUM SLOPE OF 1/4" PER FOOT, ELEVATIONS OF TOP OF CURB NEAR BUILDING ASSUME 1/4" PER FOOT SLOPE ACROSS COVERED ENTRY AND SIDEWALK.
10. EXPANSION JOINTS TO BE PLACED WHERE BUILDING FOUNDATION MEETS CONCRETE PAVEMENT OR SIDEWALK.
11. ALL REQUIRED SELECT FILL TO BE PLACED IN 6" LIFTS WITH COMPACTION TO 95% PROCTOR.
12. ALL CURB AND GUTTER TO BE BACKFILLED AND STABILIZED AS REQUIRED.
13. ALL GRADING TO BE ESTABLISHED TO PROVIDE SURFACE TO DRAINAGE.
14. ALL OBSTRUCTIONS BUILDINGS, POLES, WIRES, SLABS, FENCING, OR GUARD RAILS CONFLICTING WITH THE PROPOSED IMPROVEMENTS TO BE REMOVED, RELOCATED AND OR DISPOSED OF BY CONTRACTOR AS PER ENGINEERS WRITTEN INSTRUCTIONS.
15. HANDICAP SIGNAGE TO CONFORM WITH FEDERAL REGULATIONS (A.D.A.).
16. CONTRACTOR TO INCLUDE ALL STRIPING FOR PARKING LOTS, STREETS & ROADWAYS, INCLUDING FANIN STREET & MILE 16 NORTH ROAD.
17. CIVIL ENGINEER WILL NOT PROVIDE CONSTRUCTION STAKING ON (ON-SITE) IMPROVEMENTS.
18. CONTRACTOR TO GRADE SWALES AS REQUIRED FROM SIDEWALK DRAINAGE OPENINGS, FIRE LANES, CULVERTS AND CURB SLOTS TO INLETS.
19. CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL THROUGHOUT THE DURATION OF THE CONSTRUCTION.
20. CONTRACTOR SHALL PROVIDE SWPPP AS PART OF PERMITTING PROCESS.

TRAFFIC CONTROL NOTE:

GUIDELINES SET FORTH IN PART IV "STANDARDS AND GUIDES FOR TRAFFIC CONTROLS FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE, UTILITY, AND INCIDENT MANAGEMENT OPERATIONS" OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MOST RECENT EDITION AS REVISED) SHALL BE OBSERVED.

UTILITY PLAN NOTES

GENERAL UTILITY NOTES:

1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATER LINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED, THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING, THE WATER LINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE, MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50). CONTRACTOR SHALL BE RESPONSIBLE FOR ADDING 45° BENDS WHERE NECESSARY TO ROUTE PROPOSED WATER LINES AROUND PROPOSED STORM SEWER.
4. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE CITY UTILITY DEPARTMENT AS TO LOCATION AND SCHEDULING OF TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
5. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
6. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING.
7. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
8. DRAWINGS TO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
9. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
10. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
11. CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURE. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE BUT NOT LIMITED FOR ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS OUTLINED BY OSHA.
12. ALL STEEL ENCASEMENT PIPE SHALL HAVE A WALL THICKNESS OF 0.25 INCHES.
13. ALL SANITARY SEWER AND WATER LINES SHALL COMPLY WITH THE REQUIREMENTS AS SPECIFIED IN THE SPECIFICATIONS.
14. DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING, TO CENTERLINE OF MANHOLE, FACE OF BUILDING, OR BACK OF CURB UNLESS OTHERWISE NOTED.
15. IN THE EVENT OF DAMAGE TO UNDERGROUND FACILITIES, WHETHER SHOWN OR NOT SHOWN IN THE DRAWINGS, THE CONTRACTOR SHALL MAKE THE NECESSARY REPAIRS TO PLACE THE FACILITIES BACK IN SERVICE AT NO INCREASE IN THE CONTRACTOR'S PRICE, AND ALL SUCH REPAIRS SHALL CONFORM TO THE REQUIREMENTS OF THE COMPANY OR AGENCY SERVICING THE FACILITY.
16. 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.
17. UNTIL ACCEPTANCE BY THE ENGINEER OF ANY PART OR ALL OF THE CONSTRUCTION, AS PROVIDED FOR IN THE PLANS AND SPECIFICATIONS, IT SHALL BE UNDER THE CHARGE AND CARE OF THE CONTRACTOR, AND HE SHALL TAKE EVERY NECESSARY PRECAUTION AGAINST INJURY OR DAMAGE TO ANY PART OF THE WORK. THE CONTRACTOR SHALL REBUILD REPAIRS, RESTORE AND MAKE GOOD, AT HIS OWN EXPENSE, ALL INJURIES OR DAMAGE TO ANY PORTION OF THE WORK BEFORE ITS COMPLETION AND ACCEPTANCE.
18. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FROM THE CITY FOR ANY CONSTRUCTION DONE ON PUBLIC R.O.W. AND SHALL INCLUDE TRAFFIC CONTROL AS REQUIRED.
19. NOTICE TO CONTRACTOR: TEXAS ONE CALL SYSTEM AS REQUIRED BY "THE TEXAS UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT" TEXAS ONE CALL SYSTEM MUST BE CONTACTED (800-245-4545) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM.
20. CONTRACTOR SHALL VISIT EXISTING CONDITIONS OF THE SITE.
21. CONTRACTOR SHALL IDENTIFY ALL UNDERGROUND LINES BEFORE COMMENCING WORK.CONTRACTOR SHALL ADJUST ANY ELECTRICAL LINES THAT CONFLICT WITH CONSTRUCTION OF THESE IMPROVEMENTS.

UTILITY PLAN DETAIL NOTES

GENERAL NOTES FOR WATER CONSTRUCTION:

1. DISINFECTION OF NEW WATER MAINS SHALL BE IN CONFORMANCE WITH AWWA C601 & C651. ALL NEW WATER MAINS SHALL BE DISINFECTED BEFORE THEY ARE PLACED IN SERVICE. ALL WATER MAINS TAKEN OUT OF SERVICE FOR INSPECTING, REPAIRING OR OTHER ACTIVITY WHICH MIGHT LEAD TO CONTAMINATION OF WATER SHALL BE DISINFECTED BEFORE THEY ARE RETURNED TO SERVICE.
2. ALL WATER LINE PIPE FURNISHED SHALL MEET THE REQUIREMENTS OF AWWA C900. LATEST REVISION. HYDROSTATIC TEST SPEC. SHALL BE 150 P.S.I FOR 8 HOURS OR 180 P.S.I. FOR 4 HOURS.
3. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C110 STANDARDS..
4. CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND THRUST PRESSURE. NO SEPARATE PAY.
5. WATER LINE TRENCHES INSIDE STREET RIGHT OF WAY SHALL HAVE SAND BEDDING TO THE SPRINGLINE OF THE PIPE AND THEN BACKFILLED WITH SELECT FILL IN MAX 8" LIFTS AND COMPACTED TO A MINIMUM OF 95% STD. DENSITY, AT +/-3% OF OPTIMUM MOISTURE CONTENT.
6. MAINTAIN A MINIMUM OF 18 INCHES VERTICAL CLEARANCE BETWEEN WATER LINES AND ALL OTHER UTILITIES.
7. UNLESS OTHERWISE APPROVED, ALL WATER MAINS SHALL BE PLACED A MINIMUM DEPTH OF 4'-6' BELOW TOP OF PROPOSED STREET CURBS OR 48" OF COVER ABOVE PIPE LOCATED IN STREET RIGHT OF WAY OR EASEMENTS.
8. ALL CONCRETE BLOCKING SHALL CONSIST OF 3000-P.S.I. CONCRETE.
9. ALL WORK AND MATERIAL SHALL BE SUBJECT TO CITY ENGINEERS APPROVAL DURING CONSTRUCTION AND UPON COMPLETION.
10. ALL WATER SERVICE LINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING REGULATIONS.
11. TRACER WIRE SHALL BE INSTALLED ON ALL PUBLIC WATER LINES.

MANHOLE TESTING:

MANHOLES SHALL BE TESTED FOR LEAKAGE SEPARATELY AND INDEPENDENTLY OF THE WASTEWATER LINES BY HYDROSTATIC EXFILTRATION TESTING, VACUUM TESTING OR OTHER METHODS ACCEPTABLE TO THE COMMISSION. IF A MANHOLE FAILS A LEAK TEST, THE MANHOLE MUST BE MADE WATER TIGHT AND RETESTED. THE MAXIMUM LEAKAGE FOR HYDROSTATIC TESTING SHALL BE 0.025 GALLONS PER FOOT DIAMETER PER FOOT ON MANHOLE DEPTH PER HOUR.

SEWER PIPE TESTING:

EXFILTRATION TESTS SHALL BE PERFORMED ON ALL SEWER PIPE USING LOW PRESSURE AIR TEST. THE PROCEDURE FOR THE LOW PRESSURE AIR TEST SHALL CONFORM TO THE PROCEDURE DESCRIBED IN ASTM C-924, ASTM F-1417, OR OTHER APPROPRIATE PROCEDURES.

DEFLECTION TESTING:

DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE PIPES. FOR PIPE WITH INSIDE DIAMETERS LESS THAN 27 INCHES, A RIGID MANDREL SHALL BE USED TO MEASURE DEFLECTION. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%.

GENERAL NOTES FOR SEWER CONSTRUCTION:

1. THE TOP ELEVATION OF MANHOLES AND CLEANOUTS CONSTRUCTED IN PAVED AREAS SHALL MATCHED FINISHED PAVEMENT GRADE. THE TOP ELEVATION OF MANHOLES CONSTRUCTED IN GRASSED AREAS SHALL BE SIX (6) INCHES ABOVE FINISHED GRADE (UNLESS OTHERWISE NOTED).
2. SEWER PIPE DIAMETERS AND MATERIAL SHALL BE AS INDICATED ON PLANS AND SPECIFICATIONS.
3. CONTRACTOR MUST BE LICENSED AND BONDED.
4. PIPE SHALL BE BURIED A MINIMUM OF 4'.
5. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE.
6. REPAIR OF ALL EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
7. CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO MINIMIZE THE DISTURBANCE OF ALL EXISTING SHRUBS, LAWNS, AND OTHER LANDSCAPING FEATURES AND SHALL COORDINATE REMOVAL OF TREES WITH OWNERS OR ENGINEER.
8. PLUGS BETWEEN THE EXISTING AND PROPOSED SYSTEM SHALL BE REMOVED ONLY WHEN THE PROPOSED SANITARY SEWERS HAVE BEEN COMPLETED, TESTED AND ACCEPTED. NO PLUG SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
9. SEWER SERVICE SHALL BE MAINTAINED TO ALL RESIDENCES AT ALL TIMES. IF FOR ANY REASON, THE CONTRACTOR NEEDS TO INTERRUPT SERVICE, HE SHALL FIRST OBTAIN APPROVAL FROM ENGINEER.
10. ALL CUT & PLUG OF SEWER LINES SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS. NO SEPARATE PAY WILL BE ALLOWED.
11. WHENEVER SANITARY SEWER CROSSES WITHIN 10 FEET ABOVE OR BELOW A WATER LINE, THE SANITARY SEWER SHALL BE CONSTRUCTED OF D.I., CLASS 50, PRESSURE PIPE OR AWWA C900 PVC FOR A MINIMUM DISTANCE OF 10 FEET ON EITHER SIDE OF THE WATER LINE.
12. ALL SANITARY SEWER MAINS SHALL BE SDR-26 PVC WITH 4' MINIMUM BURY, PIPE PER THE CITY REQUIREMENTS.
13. P.V.C. PIPE SHALL HAVE BELL AND SPIGOT JOINTS. NO CHEMICALLY WELDED JOINTS SHALL BE PERMITTED.
14. GRADES FOR SEWER MAINS MAY BE VARIED FROM ELEVATIONS INDICATED ON THE PLANS ONLY ON THE DIRECTION AND APPROVAL OF THE OWNER OR HIS AUTHORIZED REPRESENTATIVE.
15. ALL UTILITIES MAY BE OPEN-CUT UNLESS SPECIFICALLY NOTED OTHERWISE. REPAIR OF ALL EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
16. ALL DUCTILE IRON PIPE SHALL BE POLYETHYLENE LINED.

GENERAL NOTES

SCALE: NTS

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com

STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED PROFESSIONAL ENGINEER
06/13/19
P.E.

No.	REVISIONS	BY

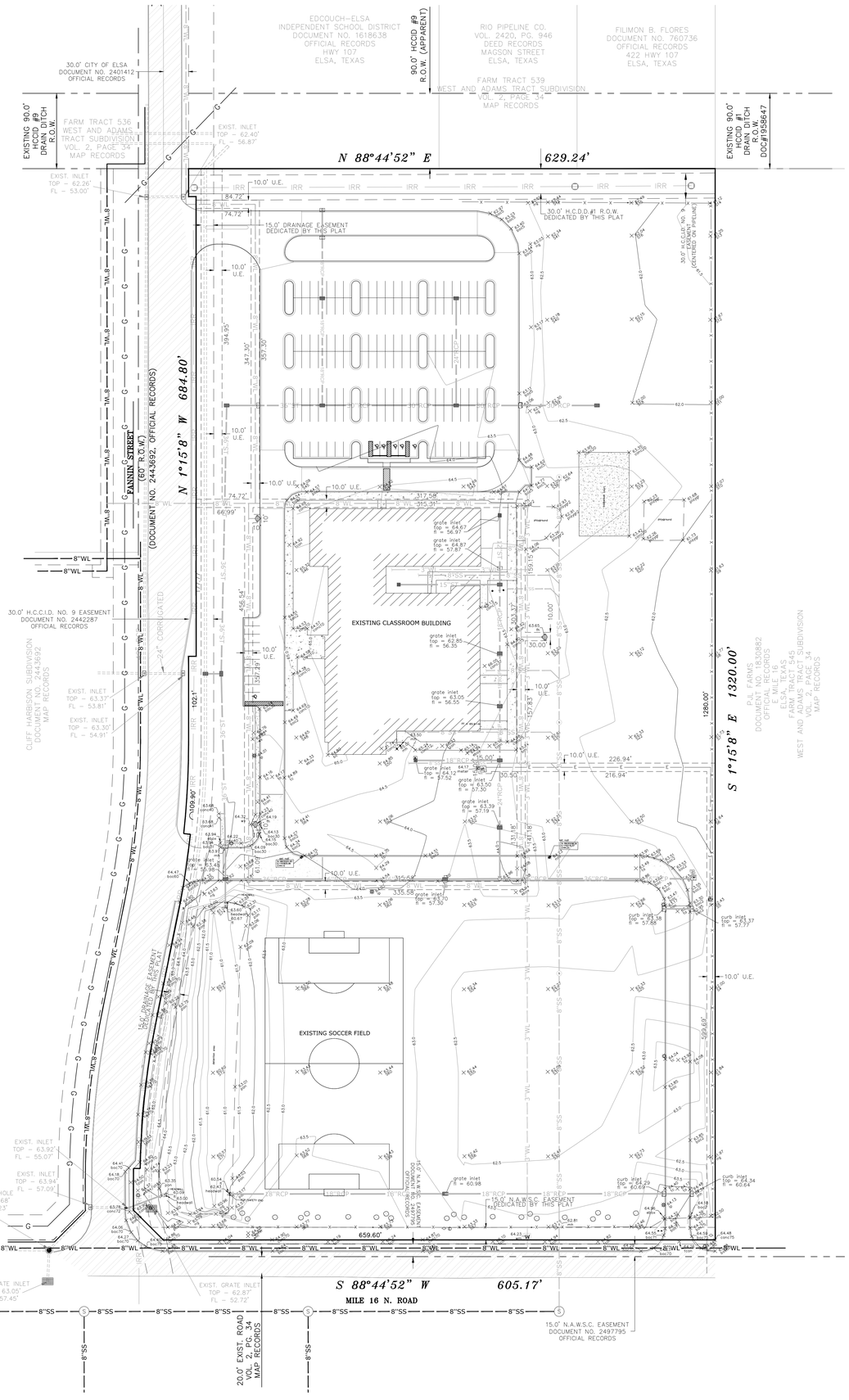
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: A. Garcia
Job No. IDEA ELSA
Sheet: C1.0



BENCHMARK INFORMATION

SQUARE CUT ON EXISTING INLET LOCATED AT THE NORTHEAST CORNER OF FANNIN STREET AND MILE 16 N. ROAD.

N: 16629778.27
E: 1151620.32
ELEV: 63.92

LEGEND

- EXISTING CONCRETE PAVEMENT
- SIGN
- FENCE POST
- TREE
- HEADWALL
- UTILITY MANHOLE
- LIGHT POLE
- POWER POLE
- ELEC METER
- ELEC TRANSFORMER
- GRATE INLET
- SET NAIL
- FIRE HYDRANT

EXISTING CONDITION

SCALE: 1"=60'

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com

STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED
PROFESSIONAL ENGINEER
06/13/19
P.E.

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

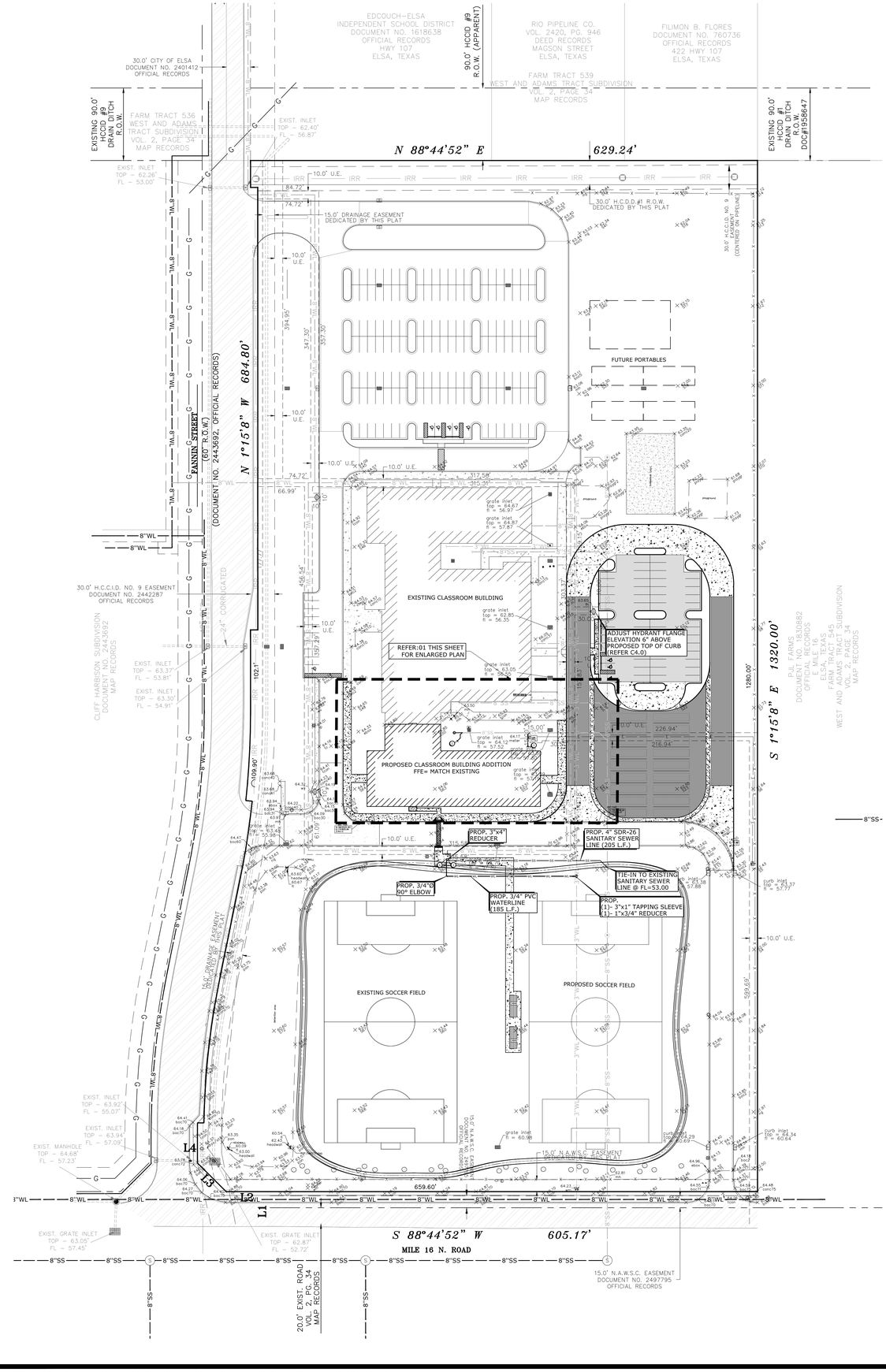
No.	REVISIONS	BY

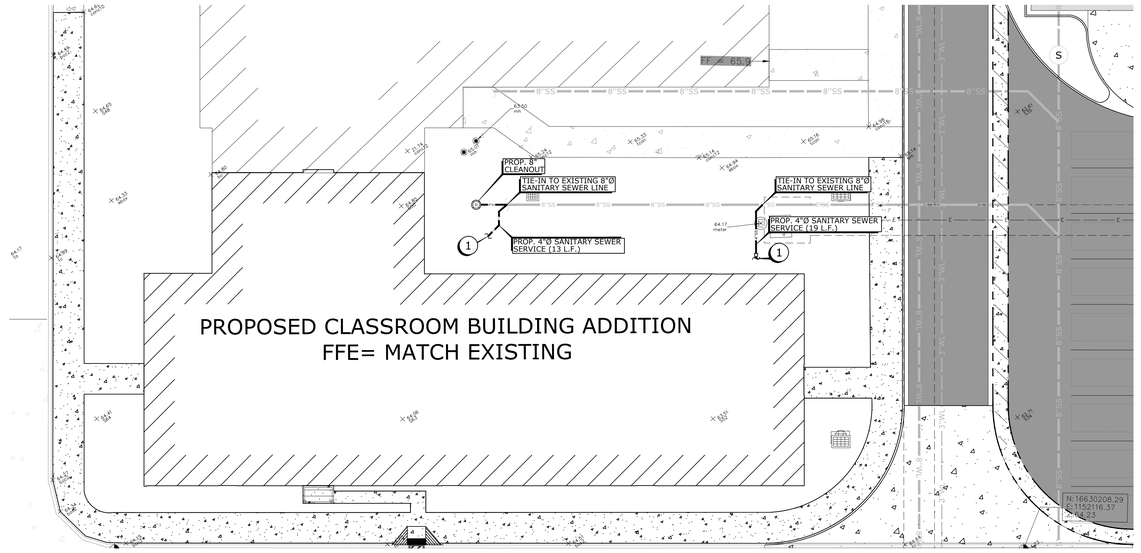
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: A. Garcia
Job No. IDEA ELSA
Sheet: C2.0





01 : PARTIAL ENLARGED UTILITY LAYOUT
SCALE: 1"=20'

KEYED NOTES	
1	REFER TO PLUMBING PLANS FOR CONTINUATION
—SS—	PROPOSED SANITARY SEWER LINE

LEGEND	
	EXISTING CONCRETE PAVEMENT
	SIGN
	FENCE POST
	TREE
	HEADWALL
	UTILITY MANHOLE
	LIGHT POLE
	POWER POLE
	ELEC METER
	ELEC TRANSFORMER
	GRATE INLET
	SET NAIL
	FIRE HYDRANT

UTILITY LAYOUT
SCALE: 1"=60'

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com
STATE OF TEXAS MARIANO GARCIA 90956 REGISTERED PROFESSIONAL ENGINEER
06/13/19 P.E.
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

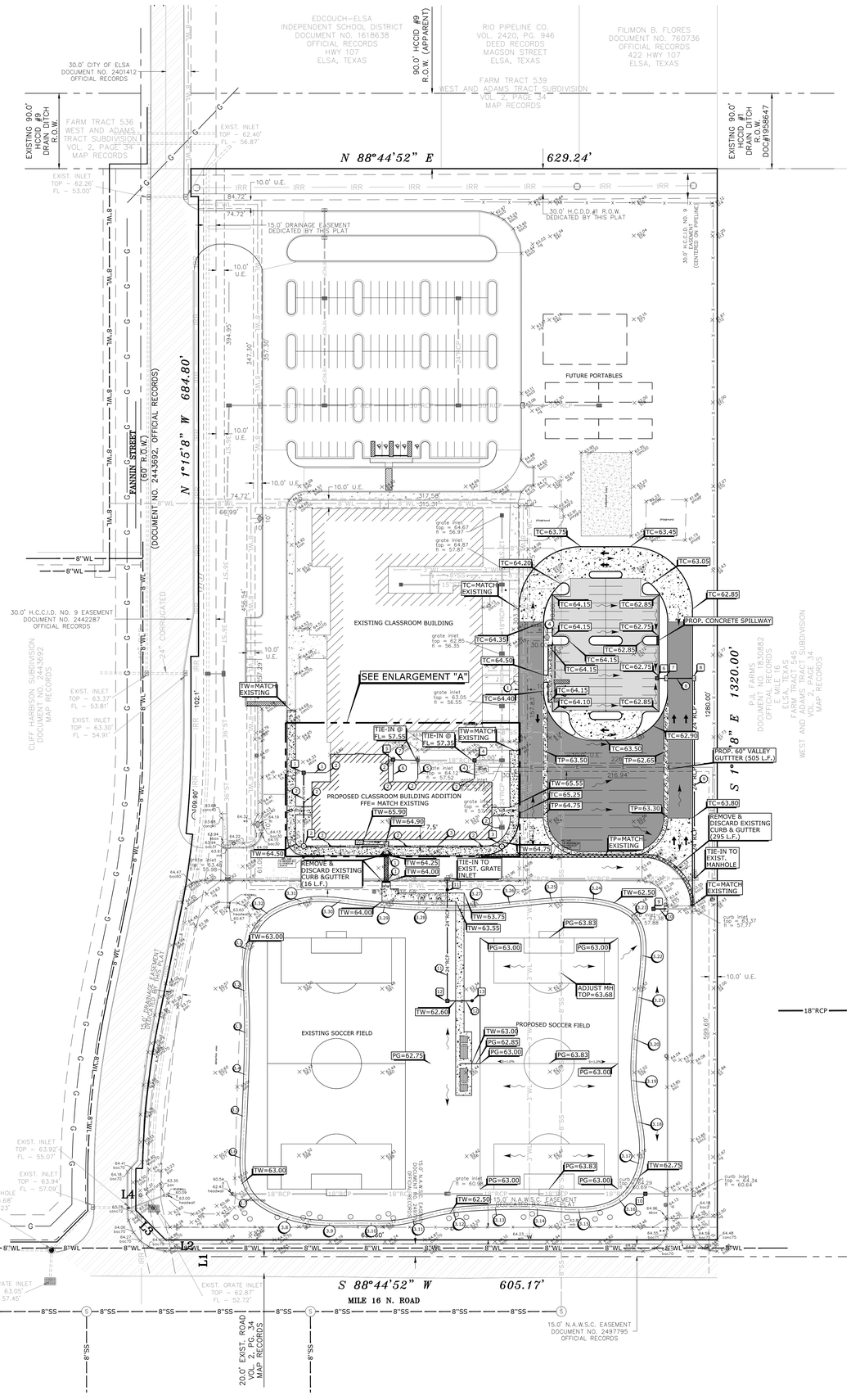
No.	REVISIONS	BY

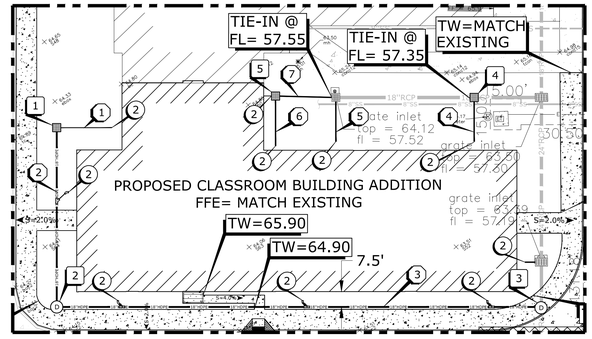
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	A. Garcia
Job No.	IDEA ELSA
Sheet:	C3.0





ENLARGEMENT "A"
SCALE: 1"=30'

WALKING TRAIL MARKER LOCATIONS

PT. #	NORTHING	EASTING	PT. #	NORTHING	EASTING
1	16630090.46	1151754.20	17	16629844.61	1152228.92
2	16630040.63	1151752.99	18	16629894.26	1152226.14
3	16629990.68	1151755.22	19	16629943.61	1152218.40
4	16629940.68	1151755.16	20	16629993.57	1152218.77
5	16629890.69	1151754.17	21	16630043.37	1152223.20
6	16629840.72	1151752.72	22	16630093.22	1152226.95
7	16629794.24	1151767.26	23	16630139.73	1152213.34
8	16629771.21	1151811.04	24	16630156.57	1152167.07
9	16629765.21	1151860.50	25	16630156.33	1152117.15
10	16629766.22	1151910.48	26	16630150.47	1152067.50
11	16629772.30	1151959.90	27	16630146.67	1152017.68
12	16629784.20	1152008.41	28	16630144.70	1151968.98
13	16629788.55	1152058.21	29	16630146.47	1151918.13
14	16629789.31	1152108.18	30	16630151.15	1151865.43
15	16629787.33	1152158.14	31	16630148.59	1151818.30
16	16629801.82	1152205.18	32	16630133.07	1151778.45

PROPOSED STORM SEWER STRUCTURE SCHEDULE

#	TYPE	TOP ELEV.	FL ELEV.
1	TY. 'C' INLET	64.60	57.40
2	MANHOLE	64.50	57.40
3	MANHOLE	64.65	57.15
4	TY. 'C' INLET	64.00	57.37
5	TY. 'C' INLET	65.00	57.58
6	TY. 'C' INLET	62.25	58.18
7	TY. 'A' INLET	61.95	58.15
8	TY. 'A' INLET	61.95	58.00
9	TY. 'C' INLET	62.25	57.90
10	TY. 'C' INLET	65.60	60.65
11	18" ADS DRAIN BASIN	62.50	57.35
12	TY. 'C' INLET	62.15	57.50
13	12" ADS DRAIN BASIN	62.15	57.56

PROPOSED STORM SEWER PIPE SCHEDULE

#	MATERIAL / DIA.	SLOPE (%)	LENGTH (FT)
1	HDPE 18"	0.10	26.9
2	HDPE 18"	0.10	85.1
3	HDPE 18"	0.10	236.8
4	HDPE 18"	0.10	21.6
5	HDPE 18"	0.10	19.6
6	HDPE 18"	0.10	24.4
7	HDPE 18"	0.10	30.3
8	RCP 24"	0.15	42.5
9	RCP 24"	0.15	239.5
10	RCP 24"	0.15	15.0
11	RCP 24"	0.15	69.6
12	RCP 12"	0.20	29.6

KEYED NOTES

1	PROPOSED ADA RAMP
2	REFER TO PLUMBING PLANS FOR CONTINUATION
3.X	PROVIDE TRAIL CHASER PLASTIC WHISKERS AND HD. GALV. METAL STAKE
4	REFER TO SHEET C3.0 FOR FIRE HYDRANT FLANGE ELEVATION ADJUSTMENT
#	PROPOSED STORM SEWER STRUCTURE
#	PROPOSED STORM SEWER PIPE

PAVING & GRADING LEGEND

	NEW HEAVY DUTY ASPHALT PAVEMENT
	NEW LIGHT DUTY ASPHALT PAVEMENT
	REMOVE & DISCARD EXIST. CURB & GUTTER
	NEW CONCRETE PAVEMENT
TC=100.00	NEW TOP OF CURB ELEVATION
TW=100.00	NEW TOP OF WALK ELEVATION
TP=100.00	NEW TOP OF PAVEMENT ELEVATION
TOP=100.00	NEW TOP OF INLET ELEVATION
FL=100.00	NEW FLOW LINE ELEVATION
PG=100.00	NEW PROPOSED GRADE ELEVATION
	NEW DIRECTION OF RUN-OFF
ST	PROPOSED STORM SEWER LINE
	PROPOSED LAYDOWN CURB

LEGEND

	EXISTING CONCRETE PAVEMENT
	SIGN
	FENCE POST
	TREE
	HEADWALL
	UTILITY MANHOLE
	LIGHT POLE
	POWER POLE
	ELEC METER
	ELEC TRANSFORMER
	GRATE INLET
	SET NAIL
	FIRE HYDRANT

PAVING & GRADING LAYOUT
SCALE: 1"=60'

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com
STATE OF TEXAS MARIANO GARCIA 90956 REGISTERED PROFESSIONAL ENGINEER
06/13/19 P.E.
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

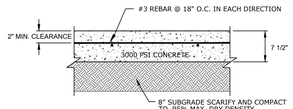
No.	REVISIONS	BY

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: A. Garcia
Job No. IDEA ELSA
Sheet: C4.0



HEAVY DUTY

REFER TO GEOTECHNICAL REPORT
RABA KISTNER-PROJECT NO. AMA17-010-00

NOTE:
1. WELDED WIRE MATS MAY BE USED IN LIEU OF BAR MATS. THE WELDED WIRE MATS SHOULD BE 6" x 6", W4.0 x W4.0

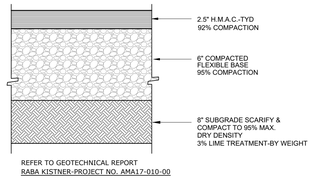
CONCRETE PAVEMENT | 19



REFER TO GEOTECHNICAL REPORT
RABA KISTNER-PROJECT NO. AMA17-010-00

NOTE:
1. HMAC SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 340, DENSE-GRADED HOT-MIX ASPHALT (METHOD), TYPE D.
2. FLEXIBLE BASE MATERIAL SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247, TYPES A, B, OR C, GRADES 1 THROUGH 3. TYPE E, GRADE 4 IS ACCEPTABLE ONLY IF MIXED WITH 2% LIME BY WEIGHT.
3. LIME TREATMENT OF SUBGRADE SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 260, LIME TREATMENT (ROAD MIXED).

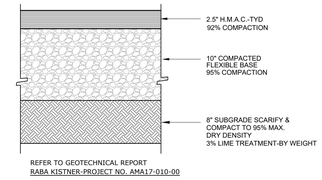
HMAC PAVEMENT - LIGHT DUTY (OPTION I) | 15



REFER TO GEOTECHNICAL REPORT
RABA KISTNER-PROJECT NO. AMA17-010-00

NOTE:
1. HMAC SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 340, DENSE-GRADED HOT-MIX ASPHALT (METHOD), TYPE D.
2. FLEXIBLE BASE MATERIAL SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247, TYPES A, B, OR C, GRADES 1 THROUGH 3. TYPE E, GRADE 4 IS ACCEPTABLE ONLY IF MIXED WITH 2% LIME BY WEIGHT.
3. LIME TREATMENT OF SUBGRADE SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 260, LIME TREATMENT (ROAD MIXED).

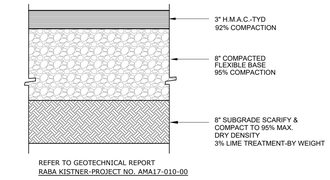
HMAC PAVEMENT - LIGHT DUTY (OPTION II) | 11



REFER TO GEOTECHNICAL REPORT
RABA KISTNER-PROJECT NO. AMA17-010-00

NOTE:
1. HMAC SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 340, DENSE-GRADED HOT-MIX ASPHALT (METHOD), TYPE D.
2. FLEXIBLE BASE MATERIAL SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247, TYPES A, B, OR C, GRADES 1 THROUGH 3. TYPE E, GRADE 4 IS ACCEPTABLE ONLY IF MIXED WITH 2% LIME BY WEIGHT.
3. LIME TREATMENT OF SUBGRADE SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 260, LIME TREATMENT (ROAD MIXED).

HMAC PAVEMENT - HEAVY DUTY (OPTION I) | 7

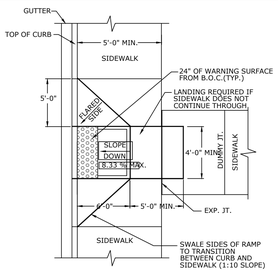


REFER TO GEOTECHNICAL REPORT
RABA KISTNER-PROJECT NO. AMA17-010-00

NOTE:
1. HMAC SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 340, DENSE-GRADED HOT-MIX ASPHALT (METHOD), TYPE D.
2. FLEXIBLE BASE MATERIAL SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 247, TYPES A, B, OR C, GRADES 1 THROUGH 3. TYPE E, GRADE 4 IS ACCEPTABLE ONLY IF MIXED WITH 2% LIME BY WEIGHT.
3. LIME TREATMENT OF SUBGRADE SHALL CONFORM TO TXDOT 2004 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ITEM 260, LIME TREATMENT (ROAD MIXED).

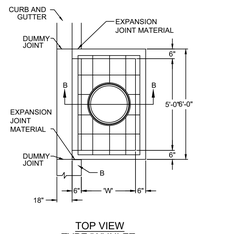
HMAC PAVEMENT - HEAVY DUTY (OPTION II) | 2

NOT USED



TYPICAL HANDICAP RAMP BUILT INTO SIDEWALK

HANDICAP RAMP DETAIL | 20



TOP VIEW
TYPE "A" INLET

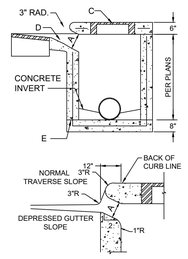
GENERAL NOTES:

1. TRANSITION NORMAL GUTTER TO INLET FLOW SLOPE APPROX. 3".
2. INLETS SHALL BE COMPOSED OF PRE-CAST SECTIONS, CAST IN PLACE OR A COMBINATION OF BOTH.
3. 6" GRAVEL BEDDING IS REQUIRED IF UNSTABLE SOIL OR GROUND WATER IS FOUND.

CONSTRUCTION NOTES:

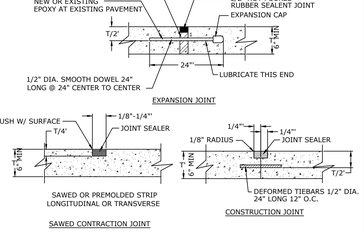
A. 5" CLEAR OPENINGS.
B. CURB & GUTTER SECTION.
C. C.I. MANHOLE RING & COVER SHALL BE ALAMO 860-22 OR EQUAL 20, 3/8"
D. DEPRESS 2" BELOW NORMAL GUTTER.
E. ALL REINFORCING NO. 4 BARS 12" O.C.E.W.

INLET TYPE	W	MAX. PIPE SIZE ALLOW (DIA.)
A	3'-0"	24"
A-1	4'-0"	36"
A-2	5'-0"	48"
A-3	6'-0"	60"



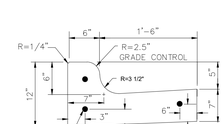
THROAT DETAIL

TYPE 'A' INLET | 12



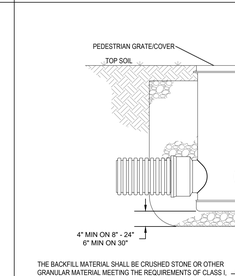
REFER TO GEOTECHNICAL REPORT
RABA KISTNER-PROJECT NO. AMA17-010-00

TYPICAL CONCRETE JOINT DETAILS | 8



NOTES:
1. 1/2" PREFORMED EXPANSION JOINTS SHALL BE PLACED ON 70' CENTERS. DUMMY JOINTS SHALL BE PLACED AT 10' SPACING, CENTERED FROM EACH EXPANSION JOINT.
2. TACK COAT SHALL BE APPLIED TO ANY SURFACE OF CONCRETE IN CONTACT WITH ASPHALT.
3. 3000 PSI CONCRETE SHALL BE USED.

CURB & GUTTER | 3



THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

DRAIN BASIN | 1

NOTES:
1. 1/2" PREFORMED EXPANSION JOINTS SHALL BE PLACED ON 70' CENTERS. DUMMY JOINTS SHALL BE PLACED AT 10' SPACING. CENTERED FROM EACH EXPANSION JOINT.
2. TACK COAT SHALL BE APPLIED TO ANY SURFACE OF CONCRETE IN CONTACT WITH ASPHALT.
3. 4000 PSI CONCRETE SHALL BE USED.

60" VALLEY GUTTER | 21

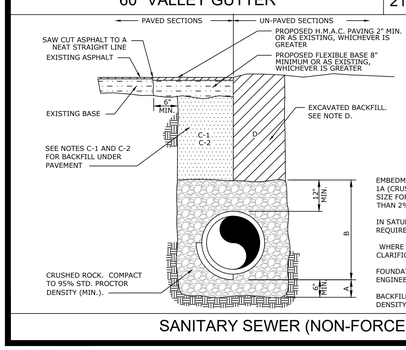
STORM SEWER PRE-CAST CONCRETE MANHOLE | 17

SPILLWAY DETAIL | 13

A. GRAVEL BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE (MIN. THICKNESS=6") PIT RUN GRAVEL 3/4" MAX SIZE.
B. GRAVEL PLACED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO THE SPRING LINE. PIT RUN GRAVEL 3/4" MAX. SIZE OR APPROVED SUBSTITUTE.
C. CITY STREETS PARKING AREA, DRIVEWAYS: SELECT EXCAVATED BACK FILL COMPACTED 95% STD, 8" LIFTS, MECHANICAL COMPACTION. 8" FLEXIBLE BASE MINIMUM OR AS EXISTING.
D. STATE MAINTAINED ROADWAYS: COMPACTED SAND/CEMENT STABILIZED BACK FILL 7% PORTLAND CEMENT COMPACTED AS PER ASTM D-4253 AND ASTM D-698.
E. SELECT EARTH BACKFILL COMPACTED TO 95% STD. PROCTOR DENSITY (12" LIFTS, MECHANICAL COMPACTION) FOUNDATION PREPARATION (WELLPOINTS, GRAVEL OR CEMENT 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% STD. PROCTOR DENSITY (USE RELATIVE DENSITY TEST PER ASTM D-4253 & ASTM D-698). THE THICKNESS OF EACH LOOSE LAYER SHALL NOT EXCEED 8". STRUCTURE BACK FILL MATERIAL SHALL BE SAND, EXCAVATED MATERIAL, OR OTHER APPROVED SUBSTITUTE.

TYPICAL STORM SEWER PIPE BEDDING DETAIL | 5

NOT USED



GENERAL NOTES:

A. CRUSHED ROCK BEDDING PLACED, HAND LEVELED, AND COMPACTED BEFORE PIPE IS LAID, UP TO BOTTOM OF PIPE (MIN. THICKNESS = 6").
B. CRUSHED ROCK BACKFILL PLACED AND COMPACTED AFTER PIPE IS LAID, FROM BOTTOM OF PIPE TO 12" ABOVE THE TOP OF PIPE. WORK IN UNDER PIPE HAUNCHES AND COMPACT BY HAND TO SPRING LINE. USE VIBRATORY-TYPE COMPACTORS FOR LIFTS ABOVE THE SPRING LINE. MAXIMUM 6" LIFTS.
Bd. MINIMUM TRENCH WIDTH: PIPE O.D. + 16" (FOR 16" PIPE AND SMALLER); PIPE O.D. X 1.25 + 12" (FOR 18" PIPE AND LARGER)
C-1. (CITY STREETS, PARKING AREA, AND DRIVEWAYS) SELECT EXCAVATED BACKFILL MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 8" MAX. LIFTS.
C-2 (STATE MAINTAINED ROADWAY) SAND/CEMENT STABILIZED BACKFILL WITH 7% PORTLAND CEMENT COMPACTED TO 95% STANDARD PROCTOR DENSITY.
D. EXCAVATED EARTH BACKFILL MECHANICALLY COMPACTED IN 12" MAX. LIFTS. MINIMUM STANDARD PROCTOR DENSITY: 90% OUTSIDE RIGHT OF WAY; 95% INSIDE RIGHT OF WAY

EMBEDMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM D 2321. EMBEDMENT MATERIAL SHALL BE CLASS 1A (CRUSHED ROCK) OR 1B (CRUSHED ROCK-SAND MIXTURE) WITH LESS THAN 50% PASSING A No. 4 SIEVE. MAXIMUM 3/4 SIZE FOR PIPE SIZE ≤ 15". GREATER THAN 90% OF CRUSHED ROCK SHALL HAVE AT LEAST THREE BROKEN FACES. NO MORE THAN 2% UNBROKEN FRACTION ALLOWED.

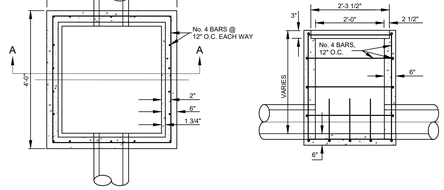
IN SATURATED OR UNSTABLE SOILS, EMBEDMENT SHALL BE CLASS 1B ONLY (SEE SPECIFICATIONS FOR GRADATION REQUIREMENTS).

WHERE THIS STANDARD CONFLICTS WITH THE RECOMMENDATION OF ANY GEOTECHNICAL REPORT, OBTAIN WRITTEN CLARIFICATION FROM THE UTILITY ENGINEER PRIOR TO CONSTRUCTION.

FOUNDATION PREPARATION USING COBBLES, GRAVEL, CEMENT STABILIZATION, OR OTHER METHODS AS APPROVED BY THE ENGINEER SHALL BE REQUIRED WHEN TRENCH BOTTOM IS UNSTABLE.

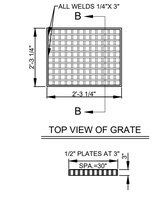
BACKFILLING AT STRUCTURES SHALL BE PLACED IN UNIFORM LAYERS, AND COMPACTED TO 95% STANDARD PROCTOR DENSITY IN 6" MAXIMUM LIFTS. STRUCTURE BACKFILL MATERIAL SHALL BE SAND.

SANITARY SEWER (NON-FORCEMAIN) PIPE BEDDING DETAIL | 18



TOP VIEW OF INLET

SECTION "A-A"



TOP VIEW OF GRATE

SECTION "B-B"

TYPE "C" GRATE INLET | 16

GENERAL NOTES:

1. WHEELCHAIR RAMPS ARE TO BE LOCATED AT CROSSWALK AREAS DESIGNATED ON THE PLAN.
2. SURFACE TEXTURE OF WHEELCHAIR RAMP SHALL BE OBTAINED BY TOOL FINISH TRAVERSE TO THE SLOPE OF THE RAMP.
3. SLOPES SHALL BE UNIFORM WITH NO ABRUPT CHANGES IN GRADES. NORMAL GUTTER LINE PROFILE SHOULD BE MAINTAINED THROUGH THE AREA OF THE RAMP.
4. WHEELCHAIR RAMPS SHALL BE MEASURED AND PAINTED AS CONCRETE SIDEWALK AND CONCRETE CURB AND GUTTER, AS APPLICABLE.
5. CONCRETE RAMP SHALL BE 5 SACK MIX AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I.
6. ALL CONCRETE WORK SHALL BE TREATED WITH THE MEMBRANECURING COMPOUND AFTER SURFACE TEXTURE HAS BEEN COMPLETED.
7. 6" X 6" NO. 6 WIRE MESH SHALL BE USED FOR REINFORCING.
8. ALL RAMPS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, DARK VERSUS LIGHT. THE MATERIAL USED TO PROVIDE THE CONTRAST SHALL BE AN INTEGRAL PART OF THE RAMP.

PARALLEL CURB RAMP
(USE ONLY WHERE WATER WILL NOT POND IN THE LANDING.)

SIDEWALK RAMP | 9

GENERAL NOTES:
1.DEVIATIONSN FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
2. SIDEWALK SHALL BE CONSTRUCTED WITHIN STREET R.O.W.
3. PROVIDE 5' X 5' PASSING SPACE AT A MAXIMUM 200' INTERVALS, IF SIDEWALK IS LESS THAN 5' ON WIDTH (DRIVEWAY IS CONSIDERED A PASSING SPACE)

CONSTRUCTION NOTES:
A. CROSS-SLOPE AT 1.5% USUAL AND 2.0% MAX.
B. SIDEWALK, WIDTH VARIES. 4 FT MINIMUM WHEN SETBACK 5 FT FROM THE CURB. 5 FT. MINIMUM WHEN ADJACENT TO THE CURB.
C. SEE DRIVEWAY APRON DETAIL.
D. CONTRACTION JOINTS EVERY 6 FT.; EXPANSION JOINT EVERY 30 FT. AND ALONG CURB AND GUTTER WHEN SIDEWALK ADJACENT TO CURB AND ALONG ANY STRUCTURE EXISTING.
E. 1/2" EXPANSION JOINT.

SIDEWALK DETAILS | 4

NOT USED

STANDARD SERVICE CONNECTION | 14

WATER LINE CROSSING DETAIL | 10

SPILLWAY DETAIL | 6

NOT USED

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com
STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED PROFESSIONAL ENGINEER
06/13/19
P.E.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

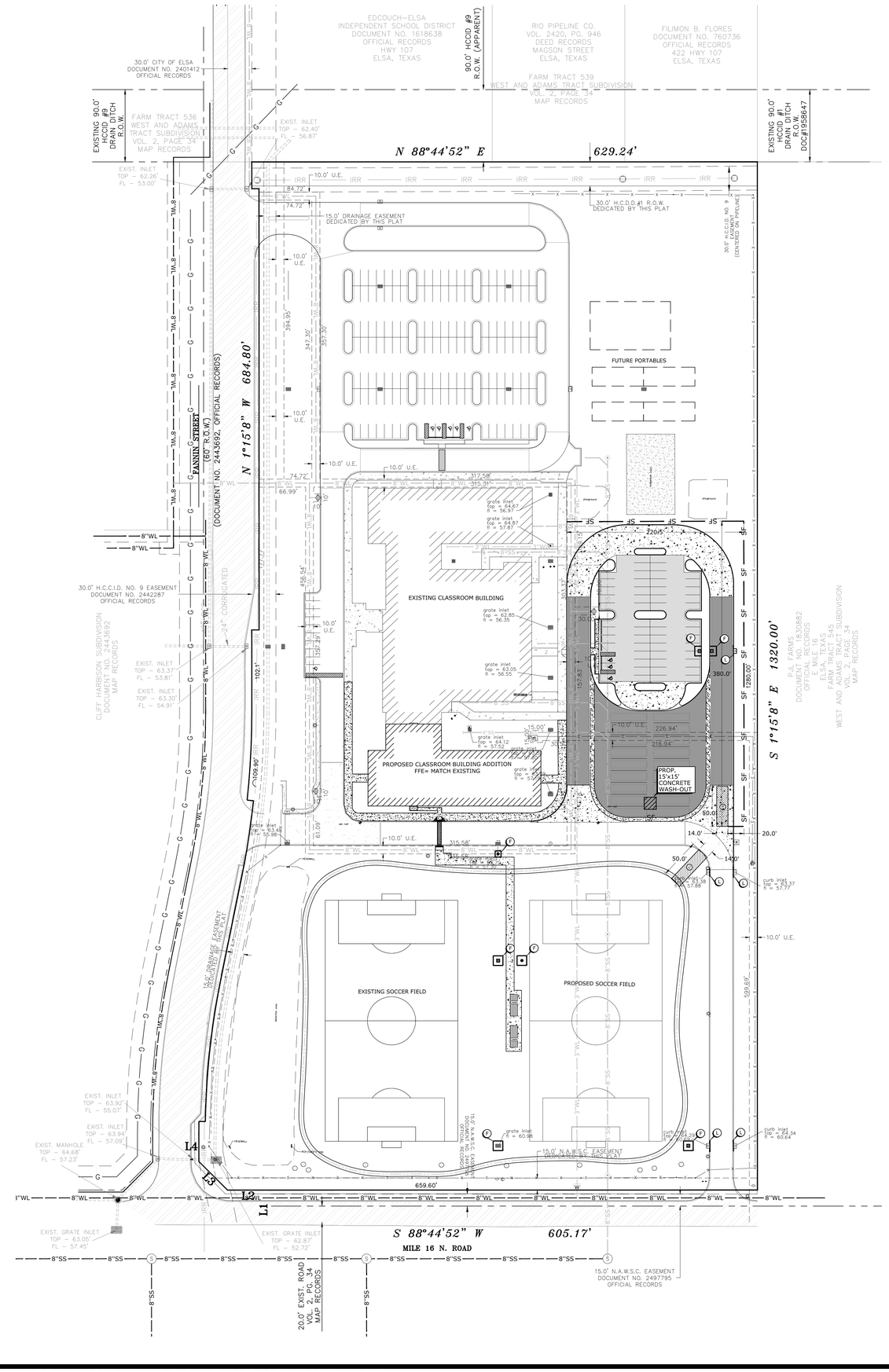
IDEA Public Schools

©Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: A. Garcia
Job No.: IDEA ELSA
Sheet: C4.1

UTILITY, PAVING, & GRADING DETAILS

SCALE: NTS



LEGEND

- SF — NEW SEDIMENT CONTROL FENCE
- CE — NEW CONSTRUCTION ENTRANCE
- L — NEW EROSION CONTROL LOG
- F — NEW INLET SEDIMENT CONTROL FENCE
- NEW CONCRETE WASHOUT

EROSION & SEDIMENT CONTROL PLAN

SCALE: 1"=60'

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com

STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED PROFESSIONAL ENGINEER
06/13/19 P.E.

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

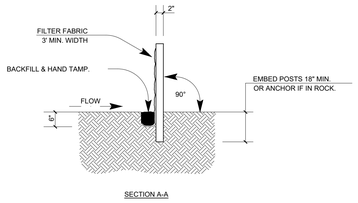
No.	REVISIONS	BY

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	A. Garcia
Job No.	IDEA ELSA
Sheet:	C5.0



SECTION A-A

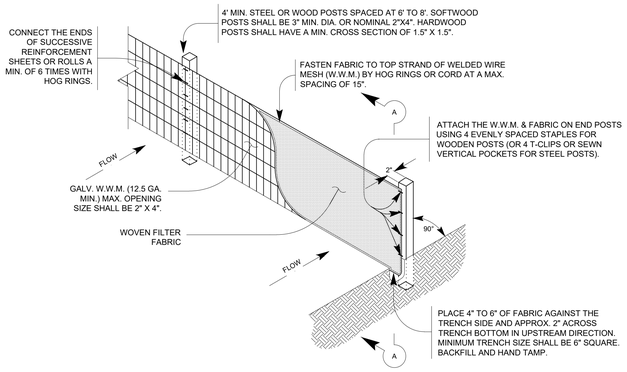
SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A 2-YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

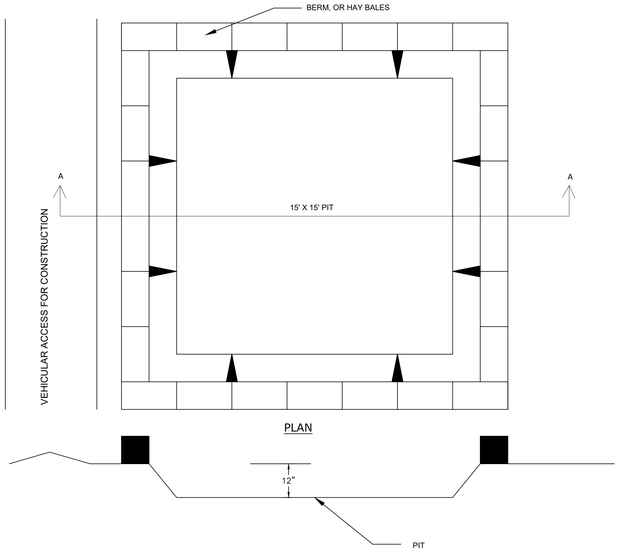
SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAX. FLOW THROUGH RATE OF 100 GPM/FT . SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN TWO ACRES.

GENERAL NOTES :

1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



TEMPORARY SEDIMENT CONTROL FENCE | 1



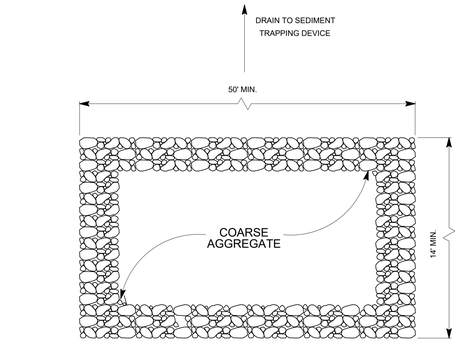
PLAN

SECTION A-A

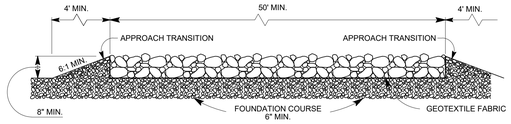
GENERAL NOTES

1. DETAIL ABOVE ILLUSTRATES MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
2. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
3. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INDUNATION FROM STORM WATER RUNOFF.

CONCRETE TRUCK WASHOUT PIT | 2



PLAN

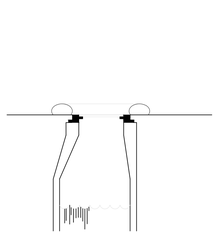


PROFILE

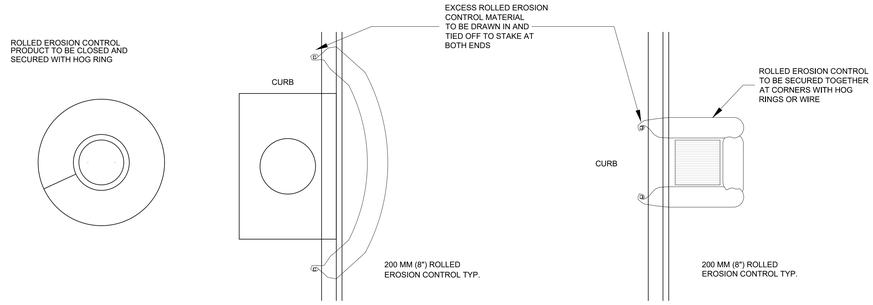
GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT (TYPE 1) | 3



SECTION



MANHOLE | CATCHBASIN OPTION "A" | CATCHBASIN OPTION "B" (FOR USE IN TIGHTER AREAS, NARROW ROADS, ETC.)

PLAN

NOTES:
1. DO NOT SCALE DRAWINGS.
2. SECURE ROLLED EROSION CONTROL PRODUCT TO GROUND AT EACH END.

EROSION CONTROL LOGS | 4

EROSION & SEDIMENT DETAILS

SCALE: NTS

M GARCIA ENGINEERING LLC
CIVIL ENGINEERING
400 W. Nolana Suite H,2
McAllen, Texas 78504
Bus. 956.687.9421
Fax 956.687.3211
www.mgarciaengineering.com

STATE OF TEXAS
MARIANO GARCIA
90956
REGISTERED PROFESSIONAL ENGINEER
06/13/19 P.E.

No.	REVISIONS	BY

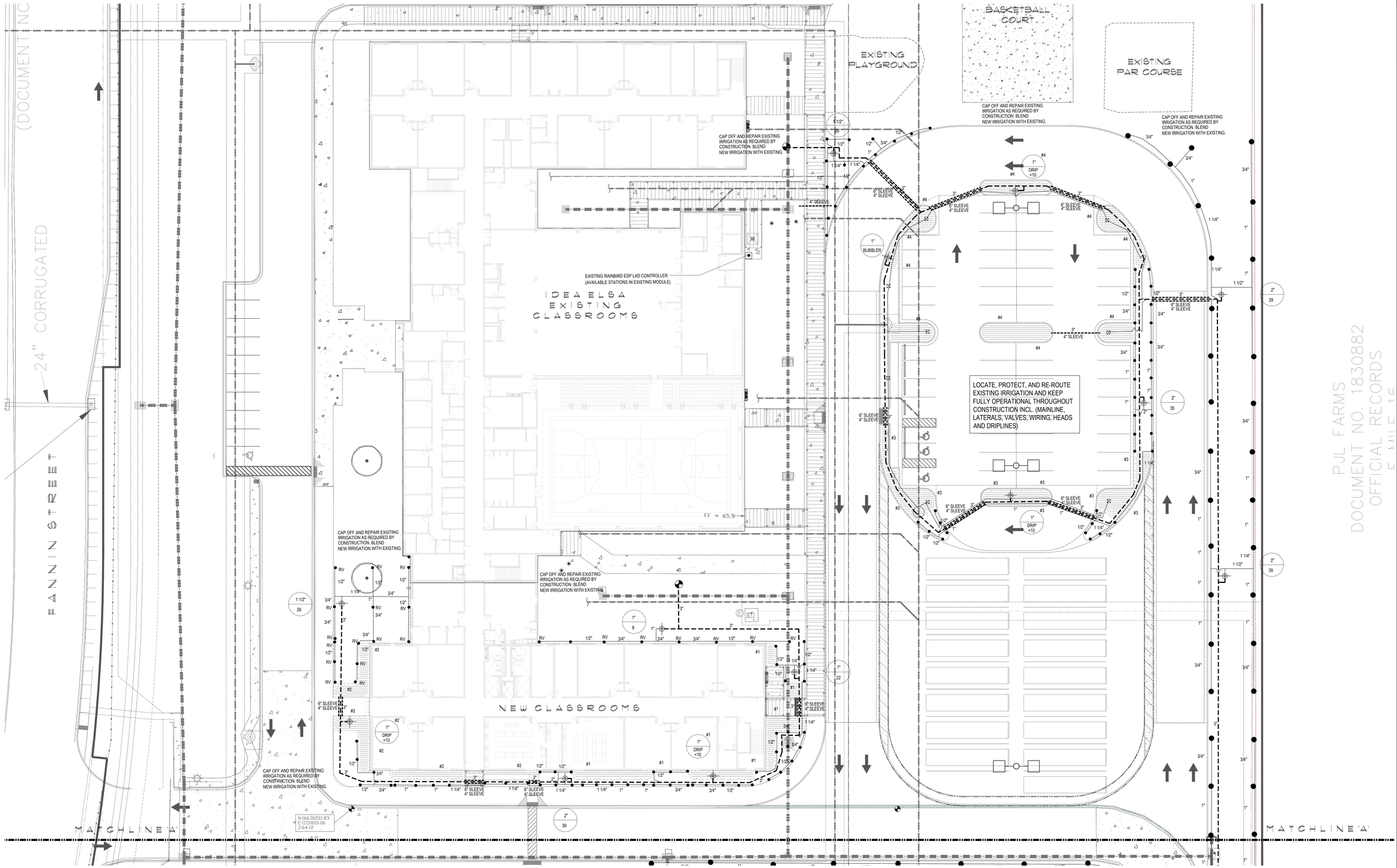
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: A. Garcia
Job No. IDEA ELSA
Sheet: C5.1



1 IRRIGATION PLAN

SCALE: 1"=20'-0"

- ● R□ RAINBIRD R-□AN SERIES ROTARY NO□□LE
- ⊠ RAINBIRD 1404 BUBBLER HEAD
- ● RAINBIRD 5000 PC - ROTORS
- ○ RAINBIRD 5000 □C - ROTORS
- ▲ RAINBIRD QUIC□ COUPLER □AL□E (33-DLRC) QUIC□ COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE □ONE THAT ACTI□ATES MASTER □AL□E AND ACTI□ATES THE QUIC□ COUPLERS, LABEL ON COLORED □ONING DIAGRAM
- RAINBIRD PEB SERIES ELECTRIC □AL□E
- CONTROLLER (EXISTING ESP-LXD WITH A□AILABLE STATIONS IN EXISTING MODULE)
- ISOLATION □AL□E
- WATER METER (AS SI□ED)
- BAC□□LOW PRE□ENTER (AS SI□ED)
- CLASS 200 P□C LATERAL PIPING
- CLASS 200 P□C MAINLINE
- SCH. 40 P□C SLEE□ING (AS SI□ED)
- □AL□E SI□E
- GPM

DRIPLINE (BED)

DRIPLINE (LAWN)

RAINBIRD DRIPLINE X□S
(18" LATERAL SPACING, 12" EMITER SPACING)
X□ SERIES TIE DOWN STA□ES (TDS-050) □ 36" O.C. & TWO ON EACH
TEE/ELBOW P□C LATERAL PIPING SI□ED AS REQUIRED
RAINBIRD DRIP CONTROL □ONE □IT XC□-100-PRB-COM (EACH DRIP □ONE)
1" BALL □AL□E WITH REGULATED PRESSURE AND 200 MESH □ILTRATION
(1) DRIP SYSTEM OPERATION INDICATOR (OPERIND) PER IRRIGATION □ONE
ALL □AL□E BOXES SHALL BE RAINBIRD □B-STD OR APPRO□ED EQUAL
ALL □AL□E BOXES SHALL HA□E □ILTER □ABRIC AND 4" O□ GRA□EL AT BASE

INSTALL ALL EQUIPMENT ACCORDING TO MANU□ACTURERS SPECI□ICATIONS

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	SI□E O□ 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 P□C caps.
4. All sleeves shall be Schedule 40 P□C pipe.

No.	REVISIONS	BY

GMS ARCHITECT
1150 paredes line rd.
brownsville
texas 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

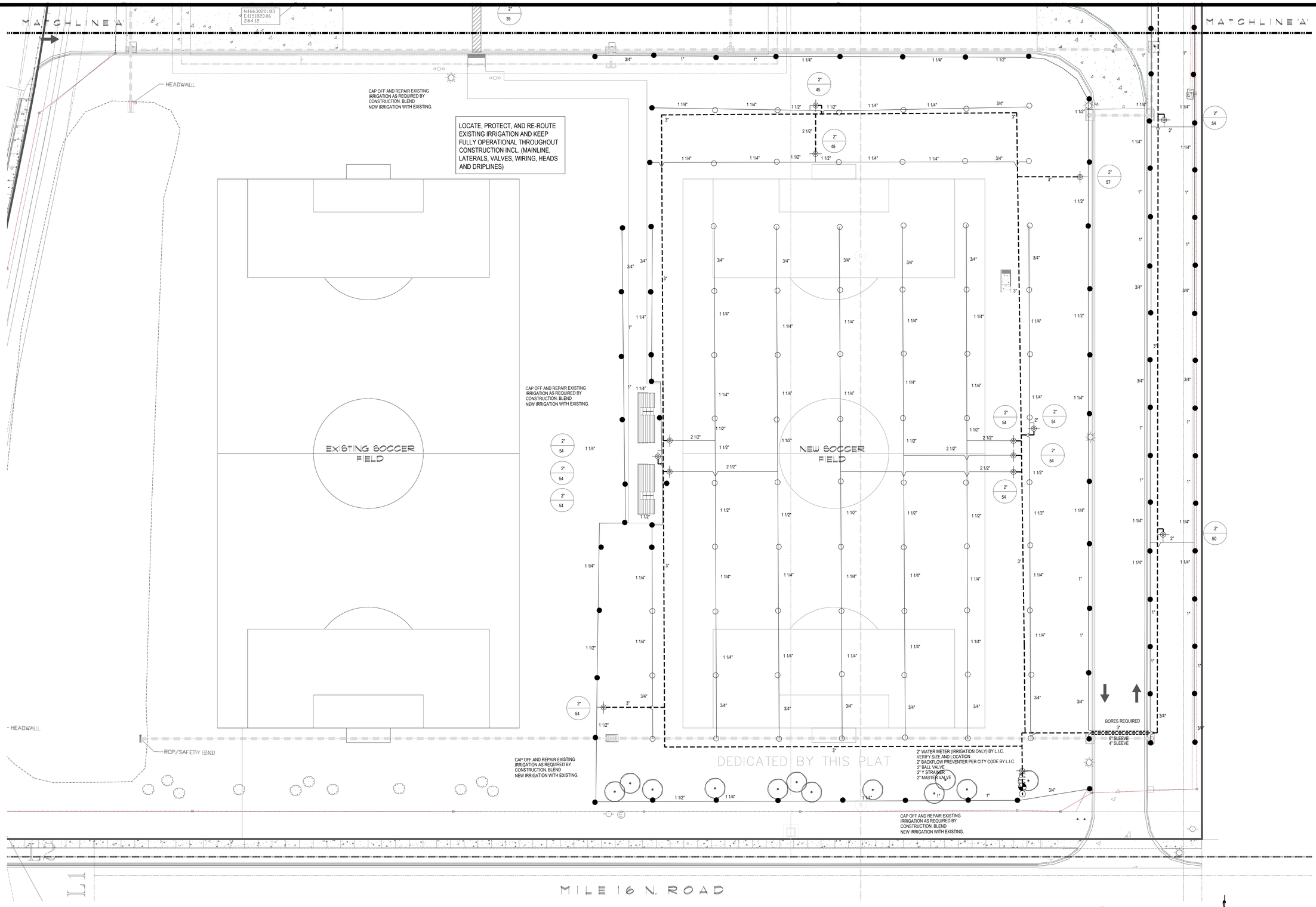
PJL FARMS
DOCUMENT NO. 1830882
OFFICIAL RECORDS

STATE OF TEXAS
JOHN JAY WINGFIELD
851
LICENSED IRRIGATOR
6/13/19

© Copyright 2017
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13 ,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: PLM
Job No. IDEA ELSA
Sheet: L1.01

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
789 E. WASHINGTON ST.
BROWNSVILLE, TX 78575
TEL (956) 547-3788
FAX (956) 547-9977
www.sspdesign.com



IRRIGATION LEGEND

- ● R□ RAINBIRD R-□AN SERIES ROTARY NO□□LE
- ⊠ RAINBIRD 1404 BUBBLER HEAD
- ● RAINBIRD 5000 PC - ROTORS
- ○ RAINBIRD 5000 □C - ROTORS
- ▲ RAINBIRD QUIC□ COUPLER □AL□E (33-DLRC) QUIC□ COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE □ONE THAT ACTI□ATES MASTER □AL□E AND ACTI□ATES THE QUIC□ COUPLERS, LABEL ON COLORED □ONING DIAGRAM
- RAINBIRD PEB SERIES ELECTRIC □AL□E
- CONTROLLER (EXISTING ESP-LXD WITH A□AILABLE STATIONS IN EXISTING MODULE)
- ISOLATION □AL□E
- WATER METER (AS SI□ED)
- BAC□□LOW PRE□ENTER (AS SI□ED)
- CLASS 200 P□C LATERAL PIPING
- CLASS 200 P□C MAINLINE
- SCH. 40 P□C SLEE□ING (AS SI□ED)
- □AL□E SI□E
- GPM

DRIPLINE (BED)

DRIPLINE (LAWN)

RAINBIRD DRIPLINE X□S
(18" LATERAL SPACING, 12" EMITER SPACING)
X□ SERIES TIE DOWN STA□ES (TDS-050) □ 36" O.C. & TWO ON EACH
TEE/ELBOW P□C LATERAL PIPING SI□ED AS REQUIRED
RAINBIRD DRIP CONTROL □ONE □IT XC□-100-PRB-COM (EACH DRIP □ONE)
1" BALL □AL□E WITH REGULATED PRESSURE AND 200 MESH □ILTRATION
(1) DRIP SYSTEM OPERATION INDICATOR (OPERIND) PER IRRIGATION □ONE
ALL □AL□E BOXES SHALL BE RAINBIRD □B-STD OR APPRO□ED EQUAL
ALL □AL□E BOXES SHALL HA□E □ILTER □ABRIC AND 4" O□ GRA□EL AT BASE

INSTALL ALL EQUIPMENT ACCORDING TO MANU□ACTURERS SPECI□ICATIONS

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	SI□E O□ 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 P□C caps.
4. All sleeves shall be Schedule 40 P□C pipe.

1 IRRIGATION PLAN

SCALE: 1"=20'-0"

W — E

No.	REVISIONS	BY

GMS ARCHITECT
1150 paredes line rd.
brownsville
texas 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
JOHN JAY WINGFIELD
851
LICENSED IRRIGATOR

6/13/19

© Copyright 2017
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: PLM
Job No. IDEA ELSA
Sheet: L1.02

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
789 E. WASHINGTON ST.
BROWNSVILLE, TX 78575
TEL (956) 547-9788
FAX (956) 547-9977
www.sspdesign.com

IRRIGATION LEGEND

Symbol	Description
● R□	RAINBIRD R-□AN SERIES ROTARY NO□□LE
⊠	RAINBIRD 1404 BUBBLER HEAD
●	RAINBIRD 5000 PC - ROTORS
○	RAINBIRD 5000 □C - ROTORS
◐	ISOLATION □AL□E
▲	RAINBIRD QUIC□ COUPLER □AL□E (33-DLRC) QUIC□ COUPLERS SHALL BE CONNECTED TO MAINLINE ADD ONE □ONE THAT ACTI□ATES MASTER □AL□E AND ACTI□ATES THE QUIC□ COUPLERS, LABEL ON COLORED □ONING DIAGRAM - LOCATED ALONG MAINLINE 200' SPACING
⊕	RAINBIRD PEB SERIES ELECTRIC □AL□E
▣	CONTROLLER (EXISTING ESP-LXD WITH A□AILABLE STATIONS IN EXISTING MODULE)
	WATER METER (AS SI□ED)
	BAC□□LOW PRE□ENTER (AS SI□ED)
———	CLASS 200 P□C LATERAL PIPING
— — —	CLASS 200 P□C MAINLINE
- - - - - -	SCH. 40 P□C SLEE□ING (AS SI□ED)
⊖	□AL□E SI□E GPM

DRIPLINE (BED)

DRIPLINE (LAWN)

RAINBIRD DRIP XFS-P (.049" THICKNESS) SUBSURFACE DRIPLINE WITH COPPER SHIELD
(18" LATERAL SPACING, 12" EMIITER SPACING) ALL DRIPLINE TO BE BURIED 2" DEPTH MIN.
6" SOIL STAPLE (TDS-050 BEND) @ 36" O.C. & TWO ON EACH TEE/ELBOW
PVC LATERAL PIPING SIZED AS REQUIRED
15 GPM (PURPLE ID)
RAINBIRD DRIP CONTROL ZONE KIT XCZ-100-PRB-R-COM (EACH DRIP ZONE)
1" BALL VALVE WITH REGULATED PRESSURE AND 200 MESH FILTRATION (75 MICRON SS)
INSTALL ALL EQUIPMENT ACCORDING TO
MANUFACTURERS SPECIFICATIONS
OR APPROVED EQUAL

(1) DRIP SYSTEM OPERATION INDICATOR (OPERIND) PER IRRIGATION ZONE

DESIGN PRESSURE 60 PSI

ELECTRICAL SPLICES AT EACH VALVE AND CONTROLLER ONLY.

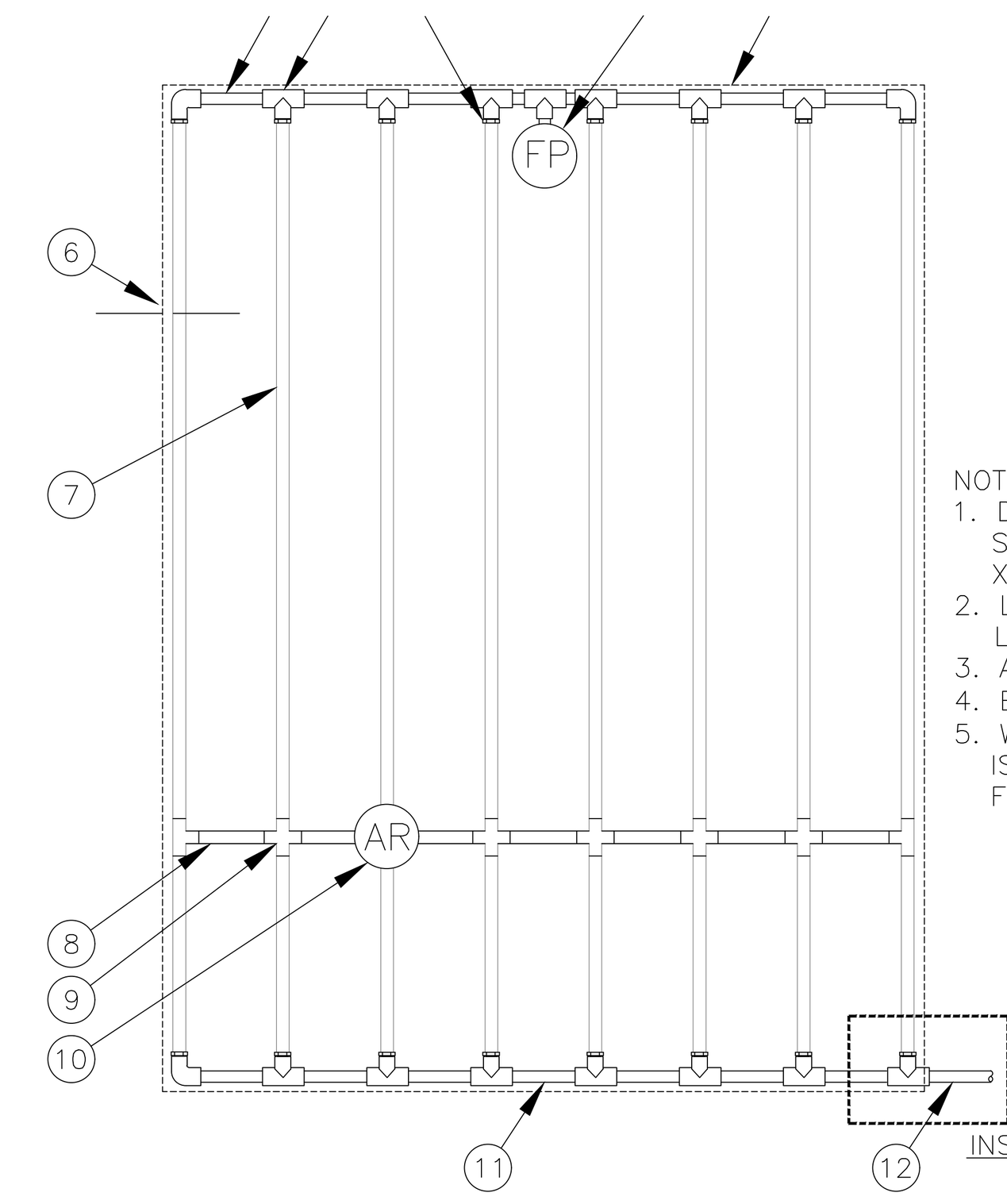
IRRIGATION IN TEXAS IS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) MC-178/ P.O.BOX 13087, AUSTIN, TX 78711-3087. TECQ'S WEBSITE IS: www.tceq.state.tx.us

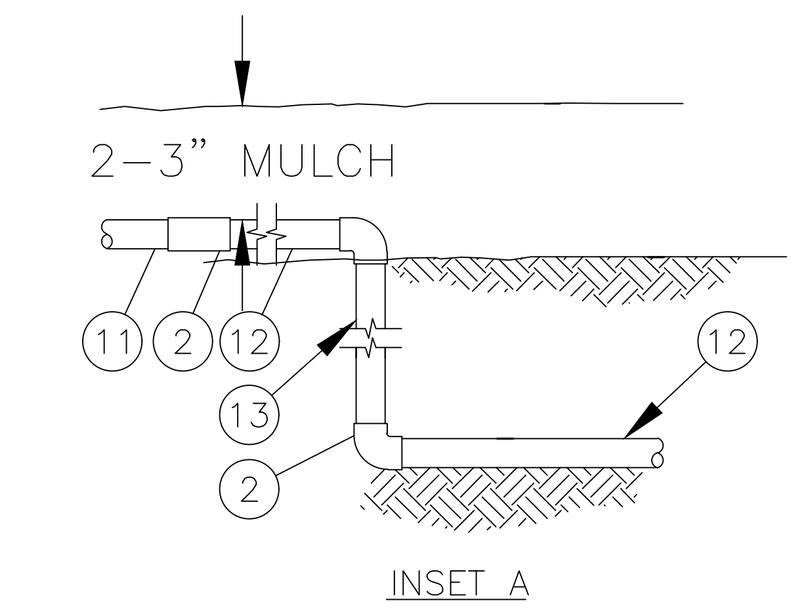
BUBBLER PIPING CHART

NUMBER OF BUBBLERS	SI□E O□ PIPE
1 - 5	½"
6 - 10	¾"
11 - 20	1"
21 - 30	1 ¼"
31 - 40	1 ½"

IRRIGATION NOTES

1. All e□uipment numbers reference Rainbird e□uipment catalog unless otherwise indicated.
2. LAWN SPRAY HEADS are R□AN installed as per detail.
3. SHRUB SPRAY HEADS are R□AN installed as per detail.
4. ELECTRIC CONTROL □AL□ES shall be PEB installed as per detail shown. Size valves as shown on plans. □alves shall be installed in valve boxes large enough to permit manual operation, removal of solenoid and/or valve cover without any earth excavation. (Refer to Specifications)
5. AUTOMATIC CONTROLLER shall be installed at location shown. Power (120□) shall be located in a junction box within five feet (5') of controller location. Power supply and junction box to be provided by General Contractor.
6. All 24 volt valve wiring is to be U□ 14 single conductor. All wire splices are to be permanent and waterproof. (Refer to Specifications)
7. SLEE□ES shall be supplied and installed by Irrigation Contractor. Sleeve material shall be Schedule 40. Bore under existing pavement as re□uired. Sizes as indicated on plans.
8. Ten days prior to start of construction, contractor shall verify static water pressure. If static pressure is less than 50 PSI, do not start wor□until notified to do so by SSP Design.
9. All mainline and lateral piping shall have a minimum of 12 inches of cover. All piping under paving shall have a minimum of 18 inches of cover. (Refer to Specifications).
10. The irrigation contractor shall coordinate installation of the system with the landscape contractor so that all plant material will be watered in accordance with the intent of the plans and specifications.
11. The irrigation contractor shall select the proper arc and radius for each nozzle to insure 100□ and proper coverage of all lawn areas and plant material. All nozzles in par□ing lots and planting beds shall be low angle to minimize overspray on pavement surfaces. No water will be allowed to spray on building.
12. The irrigation contractor shall warranty all system coR□onents for a period of one year plus 20 days. (Refer to Specifications).
13. See specifications for further instructions and project re□uirements. Contractor shall follow specification section 328000 - Site Irrigation for any discrepancies between plans and specifications.



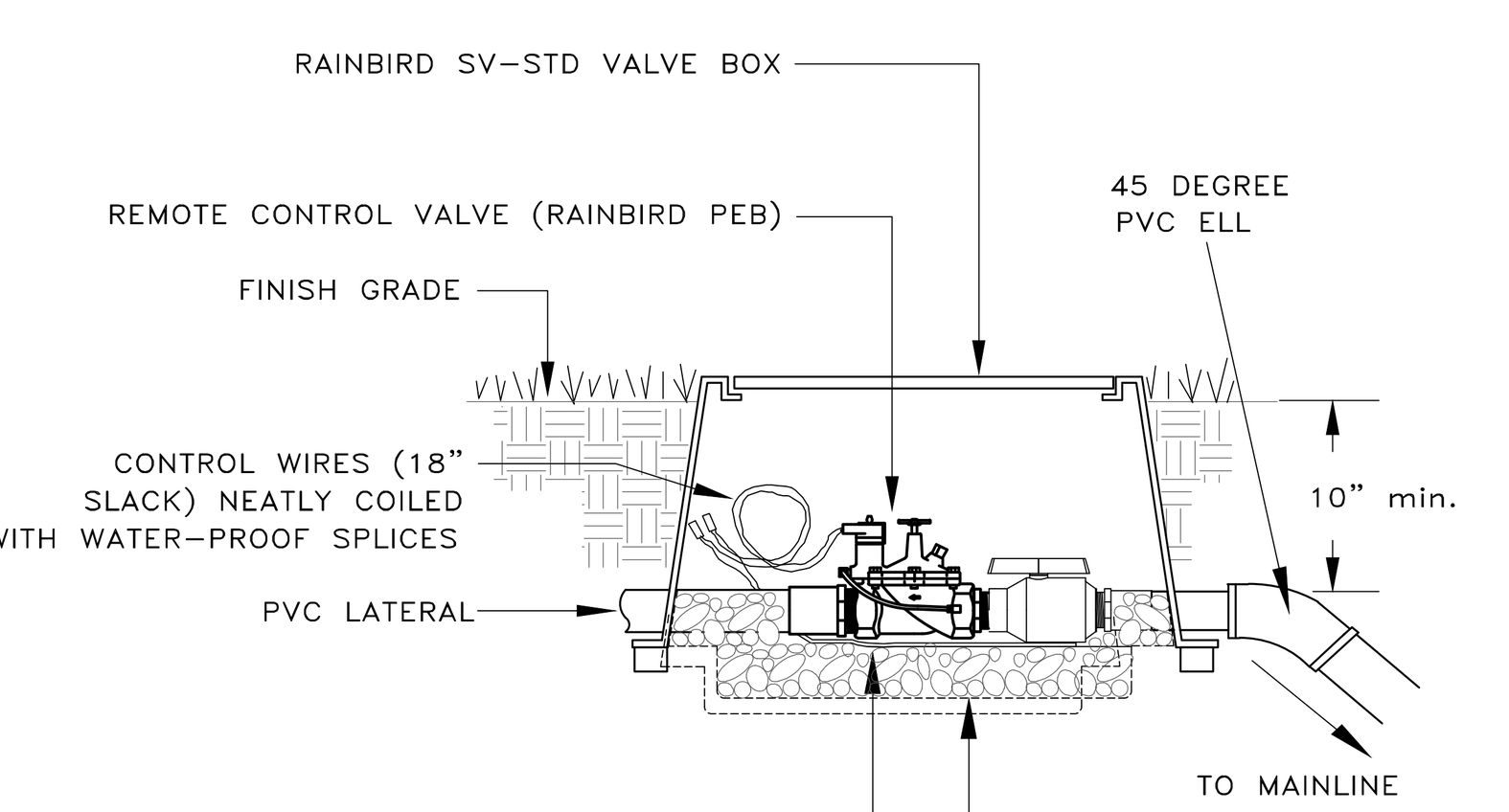


NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XFS DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCORVANYING TABLE.
3. AIR RELIEF VALVE TO BE INSTALLED AT HIGH POINT OF AREA.
4. BURY DRIP LINE MIN. 1" BELOW SOIL LEVEL THAN ADD 2" MULCH.
5. WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLARVS BE INSTALLED ON EACH FITTING

X□S Dripline Maximum Lateral Lengths (□eet)						
Inlet Pressure	12" Spacing		18" Spacing		24" Spacing	
	Nominal Flow (GPH)		Nominal Flow (GPH)		Nominal Flow (GPH)	
psi	0.6	0.9	0.6	0.9	0.6	0.9
15	255	194	357	273	448	343
20	291	220	408	313	514	394
30	350	266	494	378	622	478
40	396	302	560	428	705	541
50	434	333	614	470	775	594

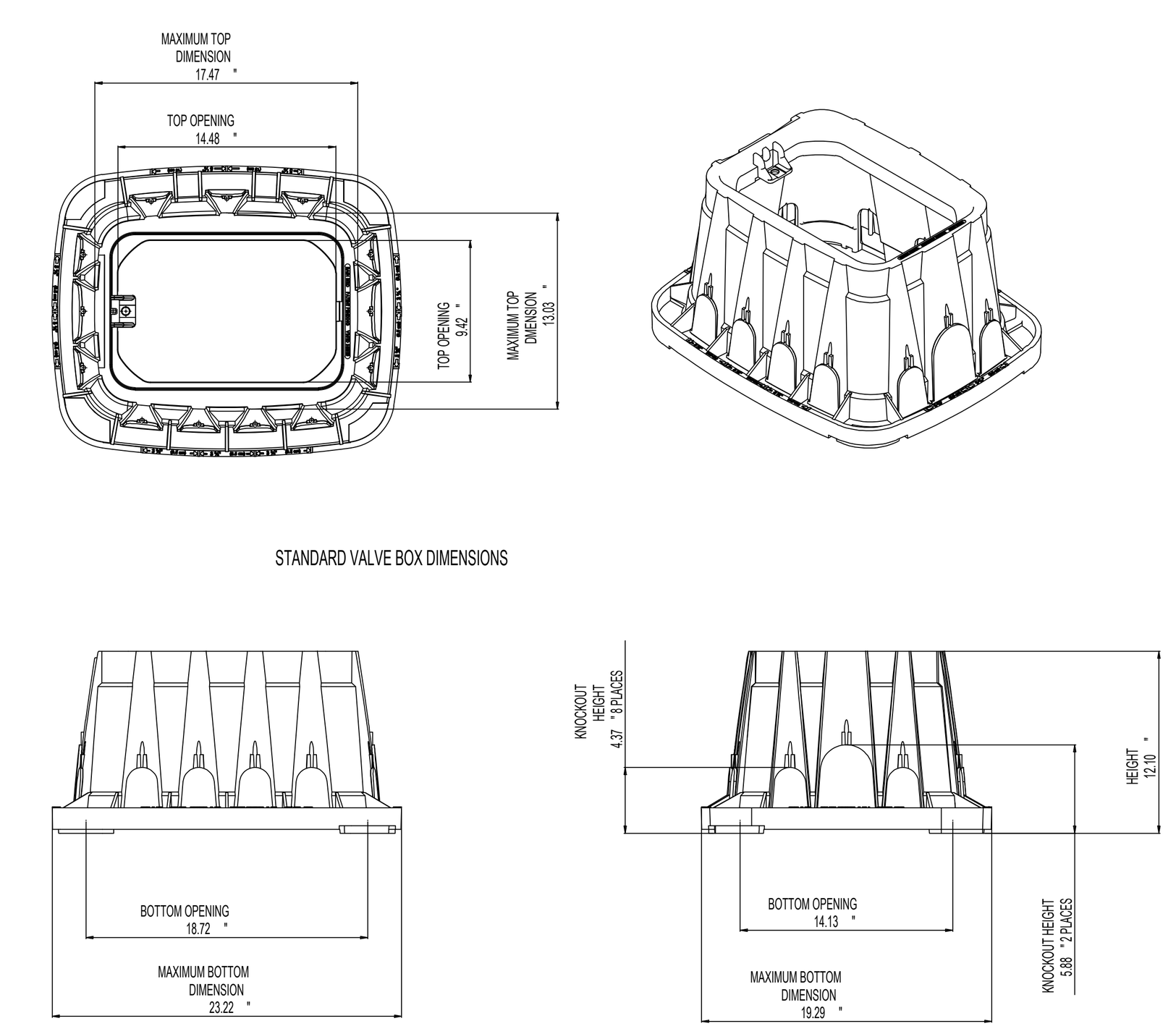
1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING: RAIN BIRD XFF–MA FITTING (TYPICAL)
4. FLUSH POINT (TYPICAL) SEE RAIN BIRD DETAIL "XFS FLUSH POINT" OR "XFS FLUSH POINT WITH BALL VALVE"
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"–4" FROM PERIMETER OF AREA
7. SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFS DRIPLINE NON–POTABLE: XFSP DRIPLINE
8. RAIN BIRD XF SERIES BLANK TUBING
9. BARB X BARB INSERT TEE OR CROSS: RAIN BIRD XFF–TEE OR RAIN BIRD XFD–CROSS (TYPICAL)
10. ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARV050 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION
11. PVC SUPPLY HEADER
12. PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
13. PVC SCH 40 RISER PIPE

4 XFS SUB-SURFACE DRIPLINE
END FEED LAYOUT INST. N.T.S.



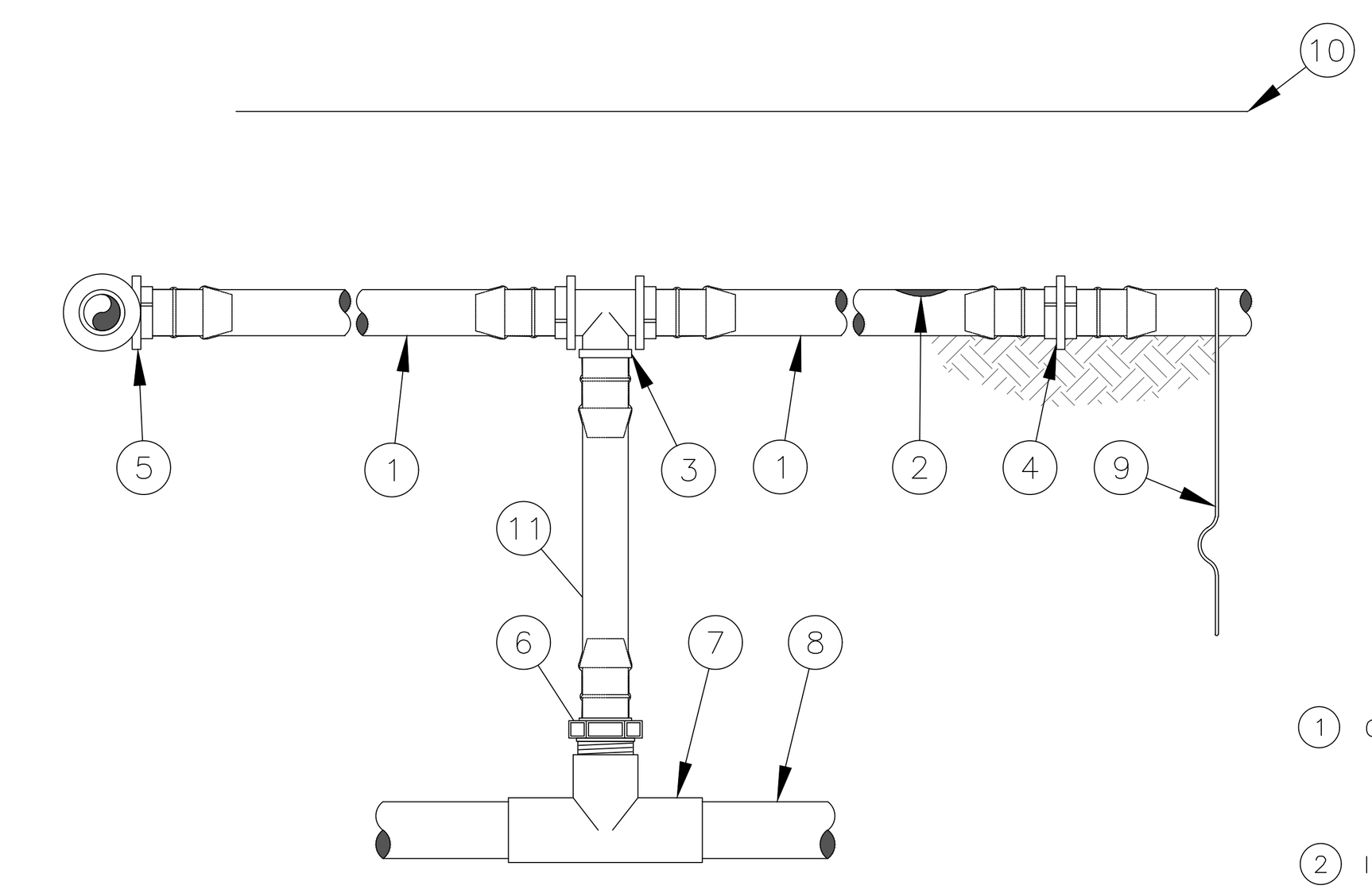
ALL □AL□E BOXES SHALL HA□E □ILTER □ABRIC AND 4" O□ GRA□EL AT BASE

3 REMOTE CONTROL VALVE
NOT TO SCALE



ALL □AL□E BOXES SHALL BE RAINBIRD □B-STD OR APPRO□ED EQUAL
ALL □AL□E BOXES SHALL HA□E □ILTER □ABRIC AND 4" O□ GRA□EL AT BASE

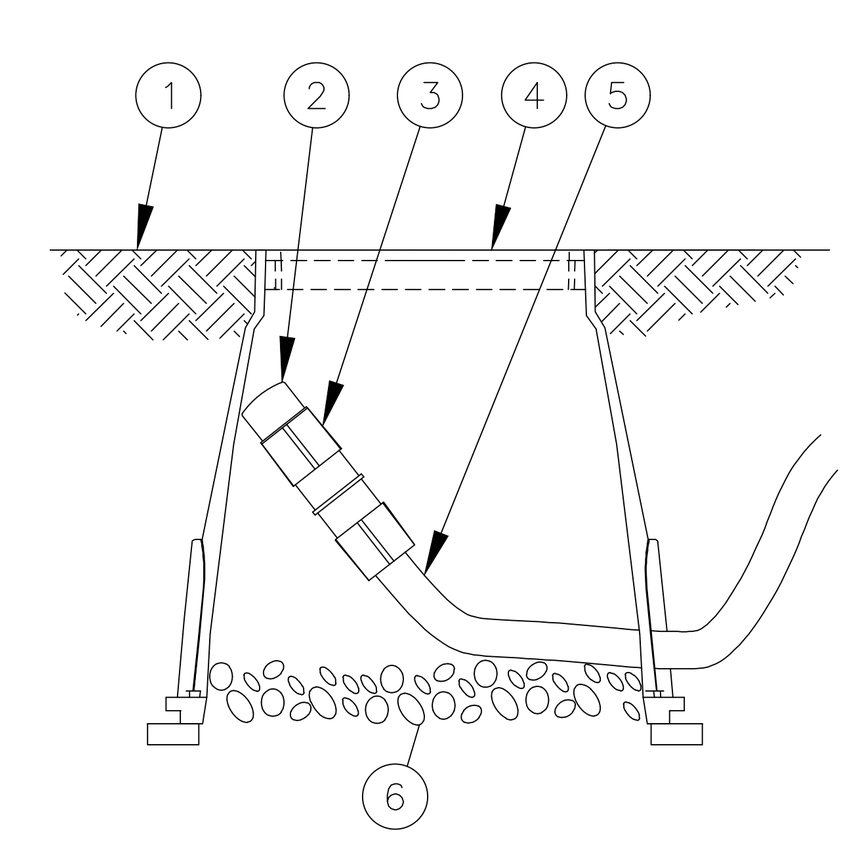
5 VALVE BOX (VB-STD)
NOT TO SCALE



NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE–DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. SAVE YOUR HANDS. USE THE RAIN BIRD FITTINS–TOOL XF INSERTION TOOL FOR FITTING ASSEMBLY.

1. ON–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON–POTABLE: XFSP DRIPLINE
2. INLINE DRIP EMITTER OUTLET, SEE PLANS FOR DRIPLINE OUTLET SPACING.
3. BARB TEE 17x17x17mm RAIN BIRD XFF–TEE
4. BARB COUPLING 17x17mm RAIN BIRD XFF–COUP
5. BARB ELBOW 17x17mm RAIN BIRD XFF–ELBOW
6. BARB MALE ADAPTER 17mm X 1/2" RVT RAIN BIRD XFF–MA–050 17mm X 3/4" RVT RAIN BIRD XFF–MA–075
7. PVC TEE SxSxT
8. PVC LATERAL SUPPLY HEADER
9. TIE DOWN STAKE: RAIN BIRD TDS–050 WITH BEND (TYPICAL)
10. MULCH
11. RAIN BIRD XF SERIES BLANK TUBING LENGTH AS REQUIRED

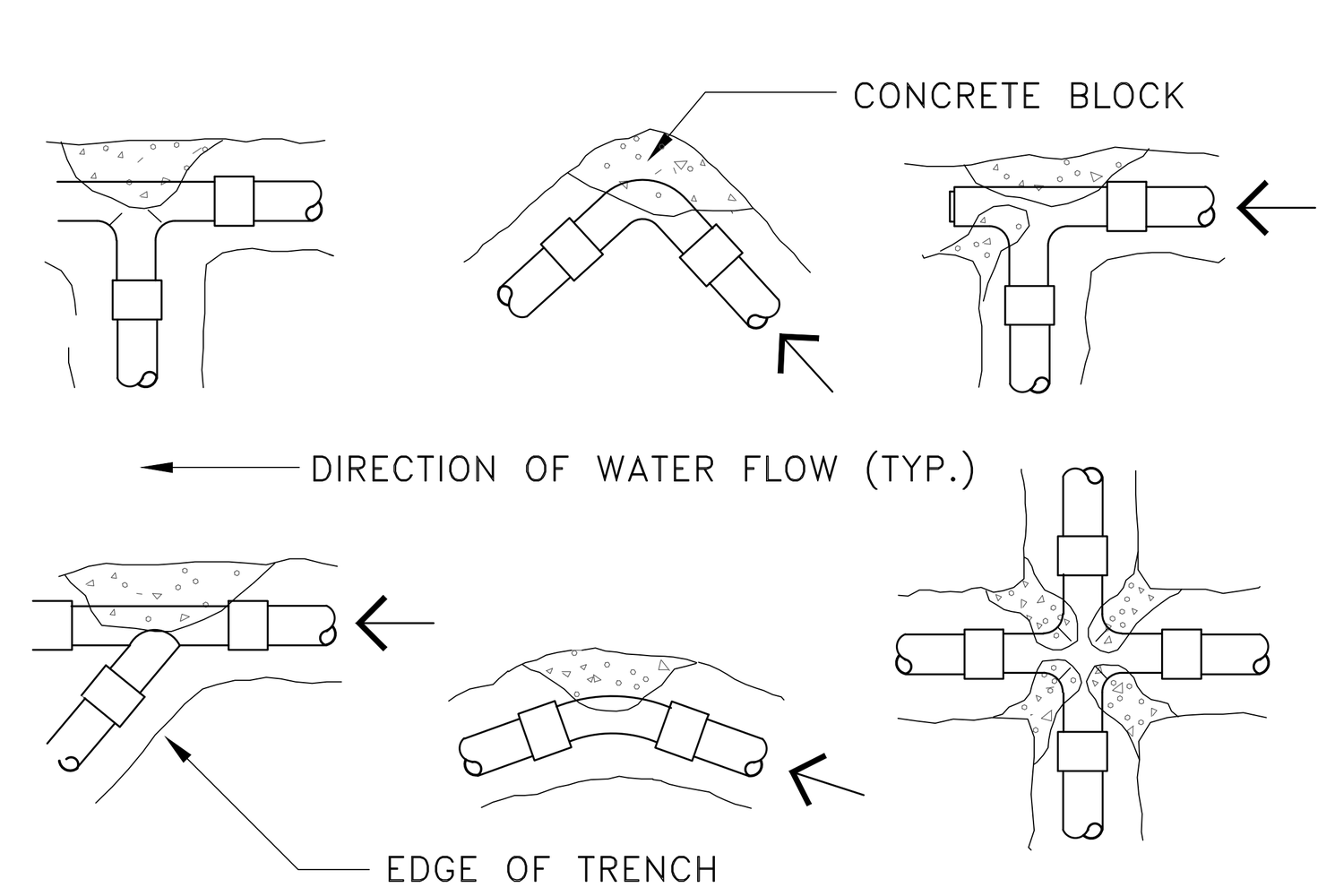
6 IRRIGATION SYSTEMS
SUB-HEADER INST. N.T.S.



1. FINISH GRADE
2. FLUSH CAP FOR EASY FIT CORVRESSION FITTINGS: POTABLE:RAIN BIRD MDCFCAP NON–POTABLE: RAIN BIRD MDCFPCAP
3. EASY FIT COUPLING: RAIN BIRD MDCFCOUP
4. SUBTERRANEAN EMITTER BOX: RAIN BIRD SEB 7XB
5. SUB–SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE POTABLE: XFS DRIPLINE NON–POTABLE: XFSP DRIPLINE
6. 3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL WITH FILTER FABRICK AT BASE

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

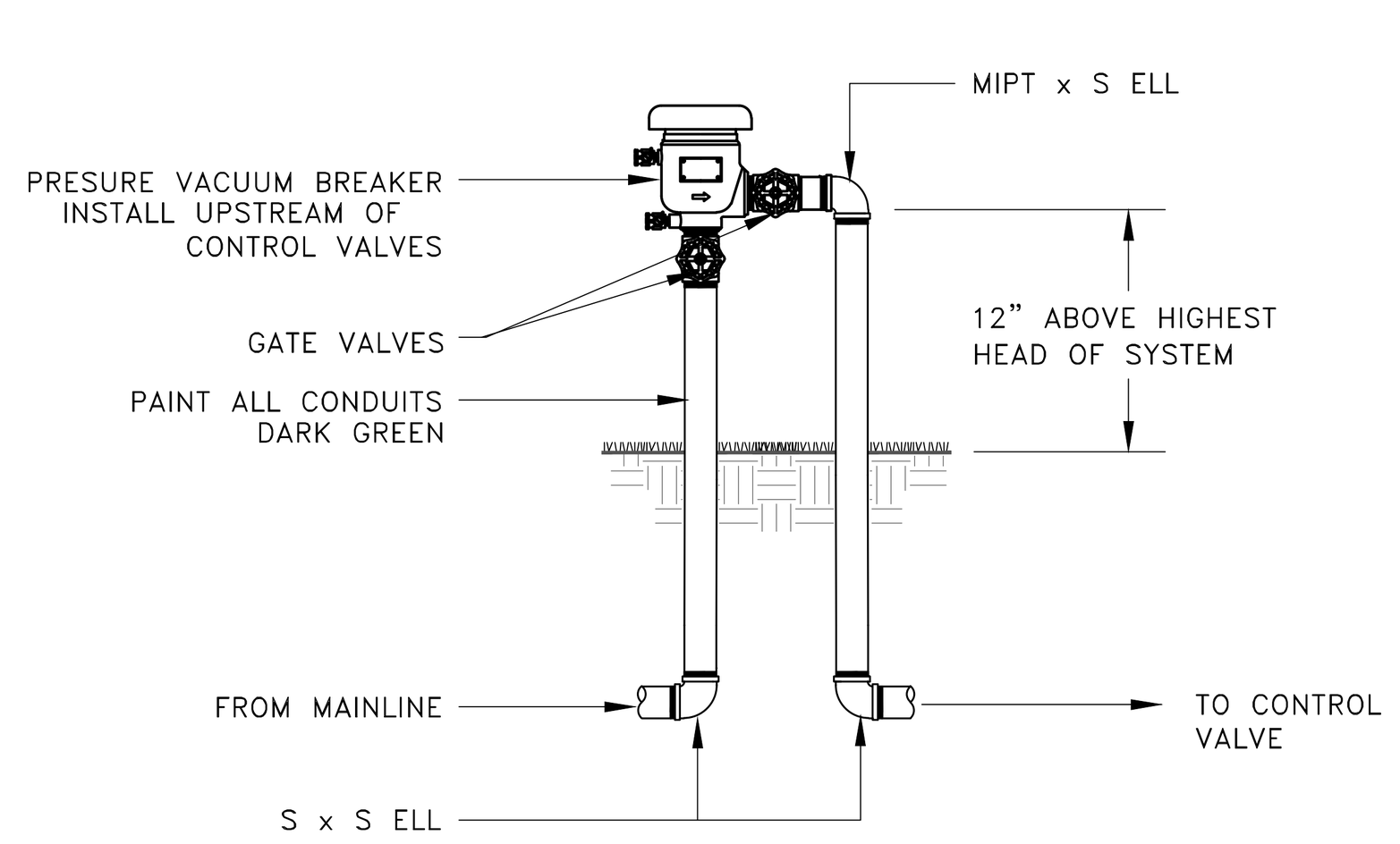
1 DRIPLINE
NOT TO SCALE



THRUST BLOCK BEARING AREA (SQ. FT.)				
PIPE SIZE	1 1/4" – 2 1/2"	3"	4"	
TEES/ELLS	1.00	1.00	1.25	3.2"
90 BENDS	1.00	1.25	2.00	4.5
45 BENDS	1.00	1.00	1.00	2.4

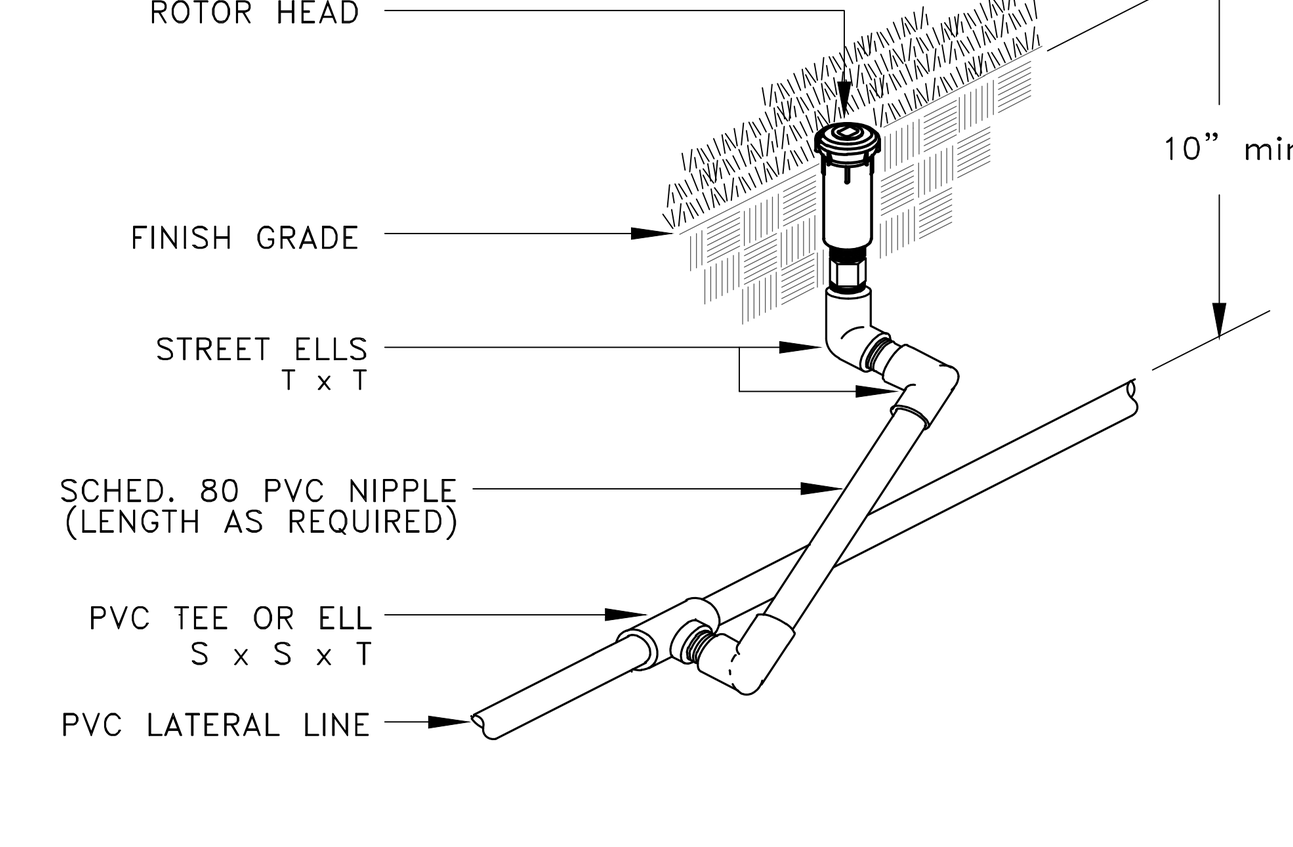
NOTE:
INSTALL THRUST BLOCK AT ALL MAINLINE BENDS, TEES OR ELLS AS SHOWN BELOW. THRUST BLOCKS SHALL BE MINIMUM OF (1) CU. FT. REDI–MIX CONCRETE OR 2500 PSI 28 DAY CONCRETE.

2 THRUST BLOCK DETAIL
NOT TO SCALE



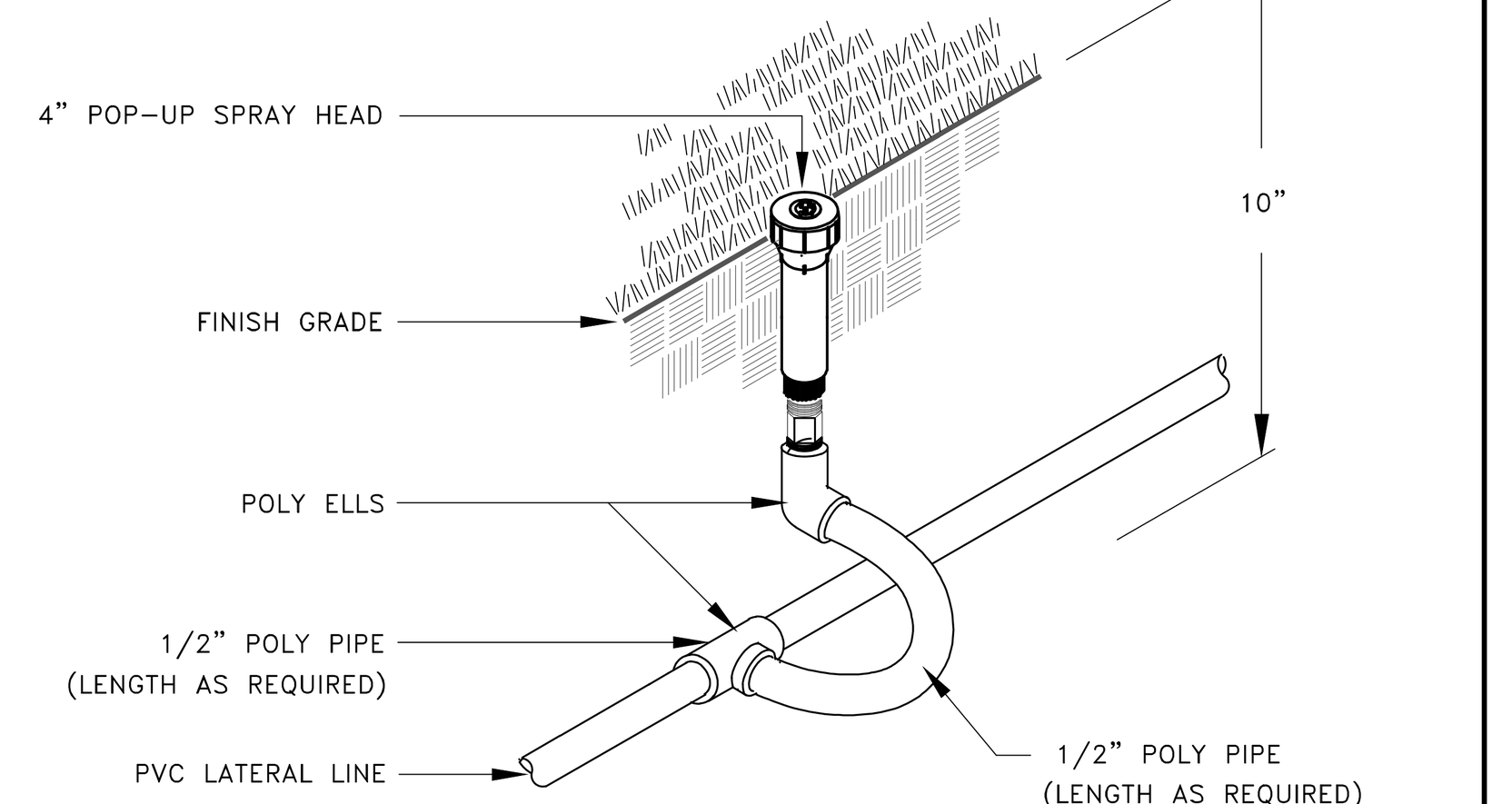
7 PRESSURE VACUUM BREAKER
NOT TO SCALE

NOTE: 1. KBI OR LASSCO SWING JOINT
2. INSTALL PART CIRCLE POP–UP HEADS 6" FROM EDGE OF PAVED AREAS.



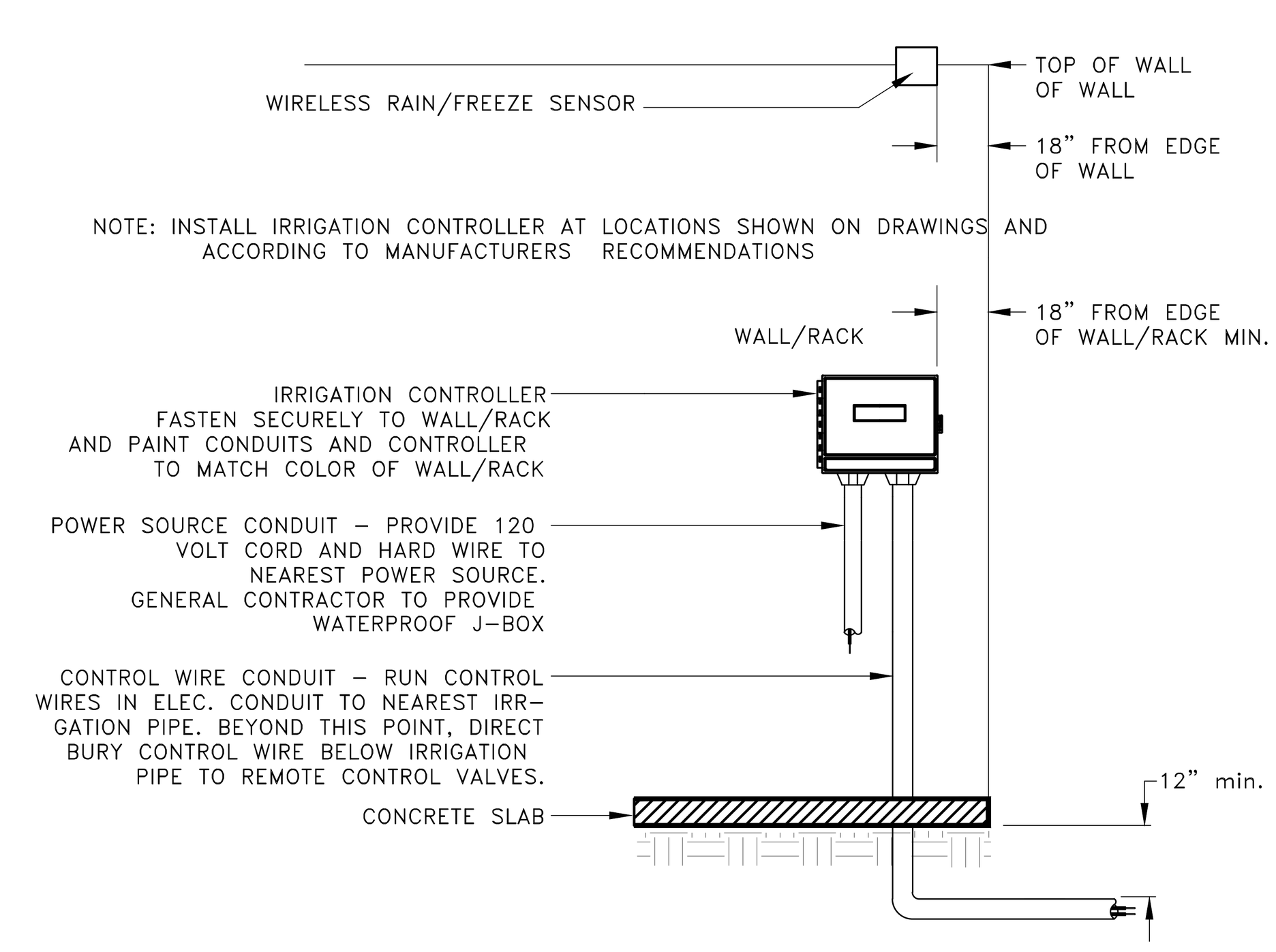
8 ROTOR POP-UP
NOT TO SCALE

NOTE 1. INSTALL PART CIRCLE POP–UP HEADS 6" FROM EDGE OF PAVED AREAS, UNLESS OTHERWISE NOTED.



9 LAWN POP-UP HEAD
NOT TO SCALE

NOTE: INSTALL IRRIGATION CONTROLLER AT LOCATIONS SHOWN ON DRAWINGS AND ACCORDING TO MANUFACTURERS RECOMMENDATIONS



10 WALL/RACK MOUNTED CONTROLLER
NOT TO SCALE

SSP Design
SITE PLANNING LANDSCAPE DESIGN
789 E. WASHINGTON ST. BROWNSVILLE, TX 78575
TEL (956) 547-9788
FAX (956) 547-9977
www.sspdesign.com

No.	REVISIONS	BY

GMS ARCHITECT
1150 paredes line rd. brownsville texas 78526
(956) 546-0110
fax (956) 546-0196

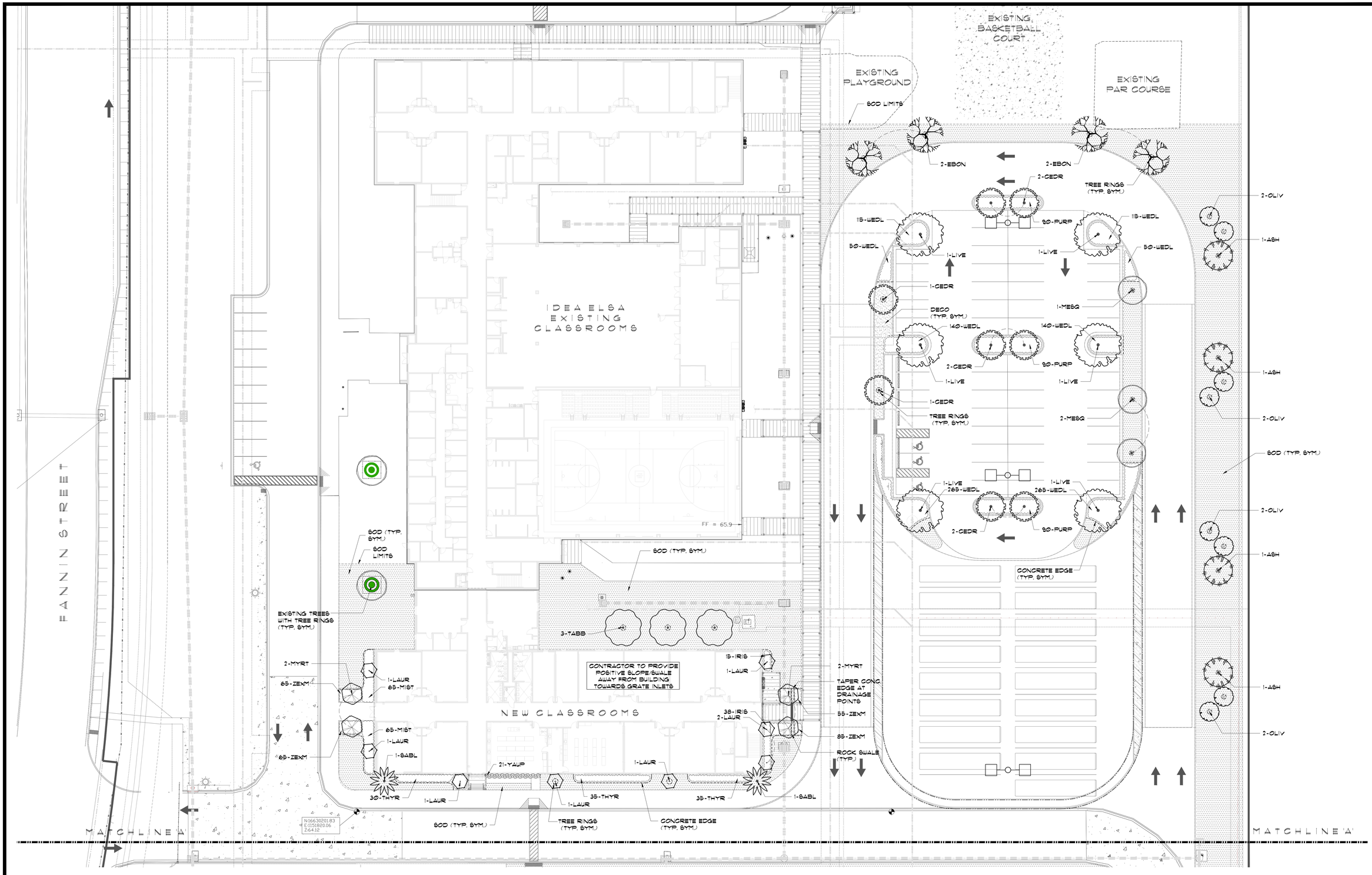
IDEA-ELSA
ACADEMY AND COLLEGE PREP PHASE II

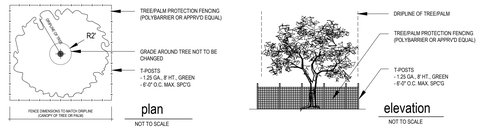
IDEA Public Schools

STATE OF TEXAS JOHN JAY WINGFIELD 851 LICENSED IRRIGATOR
6/13/19

© Copyright 2017 Gomez Mendez Saenz Inc. Architects-Planners Interior Designers

Date: June 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: PLM
Job No. IDEA ELSA
Sheet: L1.03





1 TREE/PALM PROTECTION FENCING
NOT TO SCALE

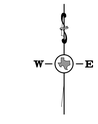
ROCK SWALES:
CONTRACTOR TO ADD ROCK SWALES AS PER DETAIL TO AS BUILT DOWNSPOUT LOCATIONS NOT SHOWN ON PLANS. ROCK SWALES REQUIRED FOR ALL DOWN SPOUT LOCATIONS IN PLANTING BEDS.

NOTE:
CONTRACTOR SHALL PROTECT EXISTING LANDSCAPE, IRRIGATION AND LAWNS. ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITY, LAY-DOWN/STORAGE AREAS, ETC. SHALL BE REPAIRED TO MATCH CONDITIONS PRIOR TO CONSTRUCTION. THIS MAY INCLUDE IRRIGATION REPAIRS, SODDING, SEEDING, PLANTING AND CLEANUP.

LEGEND

	EXISTING TREES TO REMAIN WITH PROTECTION FENCE

2 LANDSCAPE PLAN
SCALE: 1"=20'-0"



No.	REVISIONS	BY

GMS ARCHITECT
1150 poredes line rd.
brownsville
texas 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2017
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: PLM
Job No. IDEA ELSA
Sheet: L2.01

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
781 E. WASHINGTON ST.
BROWNSVILLE, TX 78575
TEL (956) 547-9700
FAX (956) 547-9977
www.sspdesign.com

MATCHLINE 'A'

MATCHLINE 'A'

30-THYR

1-LAUR

N:16630201.83
E:1151820.06
Z:64.12

SOD (TYP. SYM.)

35-THYR

1-LAUR

TREE RINGS
(TYP. SYM.)

35-THYR

1-SABL

CONCRETE EDGE
(TYP. SYM.)

HEADWALL

SOD LIMITS
SOD (TYP. SYM.)

SOD LIMITS
SOD (TYP. SYM.)

HYDRO (TYP. SYM.)

HYDRO LIMITS

HYDRO (2)
(TYP. SYM.)

EXISTING SOCCER
FIELD

NEW SOCCER
FIELD

1-ASH

2-OLIV

SOD (TYP. SYM.)

2-OLIV

1-ASH

TREE RINGS
(TYP. SYM.)

1-ASH

2-OLIV

2-OLIV

1-ASH

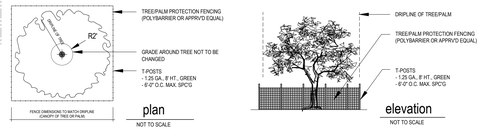
HEADWALL

RCP/SAFETY END

EXISTING TREES
(TYP. SYM.)

HYDRO (2)
(TYP. SYM.)

MILE 16 N. ROAD



1 TREE/PALM PROTECTION FENCING
NOT TO SCALE

LEGEND

EXISTING TREES
TO REMAIN WITH
PROTECTION FENCE

2 LANDSCAPE PLAN
SCALE: 1"=20'-0"

W — E

No.	REVISIONS	BY

GMS ARCHITECT
1150 poredes line rd.
brownsville
texas 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2017
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	PLM
Job No.	IDEA ELSA
Sheet:	L2.02

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
789 E. WASHINGTON ST.
BROWNSVILLE, TX 78575
TEL (956) 547-9788
FAX (956) 547-9977
www.sspdesign.com

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	TYPE	SIZE	SPACING	QTY
	PALMS					
SABL	SABAL TEXANA	TEXAS SABAL PALM	B/B	6-8' TRUNK HT.	AS.	2
	TREES					
ASH	FRAXINUS S. 'RAY TEX'	'RAY TEX' ASH	45 GAL	3-4" CAL.	AS.	8
CEDR	ULMUS CRASSIFOLIA	CEDAR ELM (CONT. GROWN)	24" BOX	2-3" CAL. 10' H X 6' W	AS.	8
EBON	PITHECELLOBIUM EBANO	TEXAS EBONY	B/B	2-3" CAL.	AS.	4
LAUR	SOPHORA SECUNDIFLORA	MOUNTAIN LAUREL (CONT. GRN)	24" BOX	MULTI-TRUNK - 6' HT	AS.	8
LIVE	QUERCUS VIRGINIANA	LIVE OAK (CONTAINER GROWN)	24" BOX	2-3" CAL. 11' HT X 6' W	AS.	6
MESQ	PROSOPIS GLANDULOSA	HONEY MESQUITE	B/B	4-5" CAL.	AS.	3
MYRT	LAGERSTROEMIA X 'NATCHEZ'	'NATCHEZ' CRAPE MYRTLE	45 GAL	10' H X 6' W MULTI	AS.	4
OLIV	CORDIA BOISSIERI	WILD OLIVE	B/B	2-3" CAL.	AS.	16
TABB	TABEBUIA IMPETIGINOSA	PURPLE TRUMPET TREE	30 GAL	2-3" CAL. 10'H X 5' W	AS.	3
	SHRUBS					
IRIS	DIETES IRIDIOIDES	WHITE AFRICAN IRIS	3 GAL	15"HT-BUSHY	AS.	53
MIST	EUPATORIUM BETONICIFOLIUM	PADRE ISLAND MIST FLOWER	1 GAL	15"HT-BUSHY	18" O.C.	130
THYR	GALPHIMIA GLAUCA	GOLDEN THYRALLIS	3 GAL	15"HT-BUSHY	AS.	100
YAUP	ILEX VOMITORIA 'NANA'	DWARF YAUPON HOLLY	3 GAL	12"HT-BUSHY	AS.	21
	GROUND COVERS					
PURP	LANTANA MONTEVIDENSIS	PURPLE TRAILING LANTANA	1 GAL	12"HT-BUSHY	18" O.C.	270
ZEXM	WEDELIA TEXANA	ORANGE ZEXMENIA	1 GAL	12"HT-BUSHY	12" O.C.	270
WEDL	WEDELIA TRILOBATA	WEDELIA	4" POTS		12" O.C.	1140
	GRASS					
SOD	CYNODON DACTYLON	# 1 CERTIFIED 419 HYBRID BERMUDA SOD				4,880 S.Y.
HYDRO	CYNODON DACTYLON	COMMON BERMUDA HYDROMULCH				57,600 S.F.

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

MATERIAL SCHEDULE

DESCRIPTION	NOTES	QUANTITY
PREMIUM CORVOST	2" LAYER PREMIUM CORVOST (EARTHWISE ORGANICS MIX)	26 C.Y.
SCREENED TOP SOIL	8" FOR ALL PLANTING BEDS	116 C.Y.
MULCH (HARDWOOD)	2" MIN. FOR ALL PLANTING BEDS AND WATERING BASINS (TEXAS NATIVES HARDWOOD)	430 (2 CF BAGS)
HERBICIDE	ALL PLANTING BED AREAS AS SPECIFIED	4,750 S.F.
FERTILIZER	ALL PLANT MATERIAL PER DETAILS	-
PLANTING TABLETS	PER DETAILS / AS SPECIFIED	-
PRE-EMERGENT	ALL PLANTING BED AREAS AS SPECIFIED	4,750 S.F.
DECO	4" COMPACTED DECOMPOSED GRANITE 'FINES' 1/4" MINUS PER PLANS/DETAILS	550 S.F.
FIELD STRIPING	SHERWIN-WILLIAMS 'SHERSTRIPE' FIELD STRIPING AS PER PLANS	--
FIELD MARKERS	PIONEER ATHLETICS 'FLEEFIX' FIELD MARKER AS PER PLANS	4
GUYING / STAKING	ALL TREES/PALMS PER DETAILS	-
ROCK SWALE	18" WIDE WASHED GRAVEL (1" - 1 1/2") SWALE PER DETAILS AT RAIN GUTTER LOCATIONS	-
CONCRETE EDGE	6" X 4" EXTRUDED COLORED CONCRETE EDGING 'TEXAS BUFF' COLOR PER PLANS/DETAILS	275 L.F.
TREE RINGS	(36" DIA.) 4x6" EXTRUDED CONCRETE EDGING PER PLANS/DETAILS	35
TREE TRIM/PRUNE	TREE TRIMMING / PRUNING BY ISA CERTIFIED ARBORIST	-
TREE PROTECTION	TREE PROTECTION FENCING AS PER PLANS/DETAILS	-
IRRIGATION SYSTEM	COMPLETE AUTOMATIC IRRIGATION SYSTEM/ADJUSTMENTS BY LICENSED CONTR.	-

NOTE: CONTRACTORS MUST REVIEW TECHNICAL SPECIFICATIONS FOR ADDITIONAL PRODUCT INFORMATION AND PROJECT REQUIREMENTS.

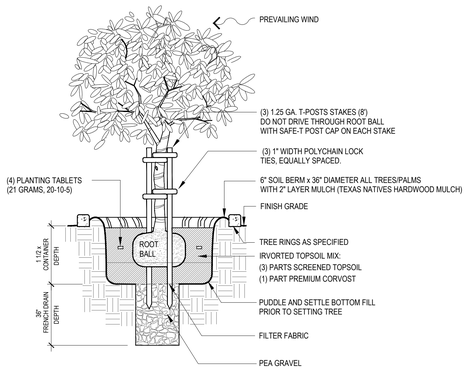
MATERIAL SCHEDULE - SOCCER FIELD

DESCRIPTION	NOTES	QUANTITY
HERBICIDE	ALL LANDSCAPE AREAS (ROUNDUP OR APPROVED EQUAL	57,200 S.F.
CLEAR/GRUB/SITE PREP	CLEAR ALL DEBRIS FROM TOP LAYER OF EXISTING SITE (BY SITE CONTRACTOR)	57,200 S.F.
GRADING	GRADING & LASER LEVELING OF ALL SITE PER PLANS	57,200 S.F.
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 S.F.
MAINTENANCE	90 DAY MAINTENANCE OF FIELDS WITH REEL MOWERS & FERTILIZATION	1

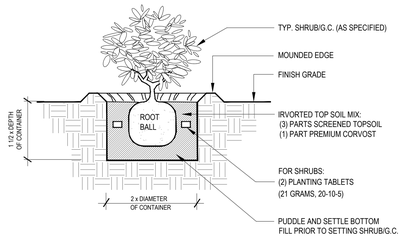
* MASONRY SAND - WRIGHT MATERIALS PLANT 3 (361) 387-2293
** NINE KIDS COMPOST (865) 432-4983 OR CITY OF MCALLEN COMPOST (956) 681-4000

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, RELOCATION, 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 COMPLETE 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.

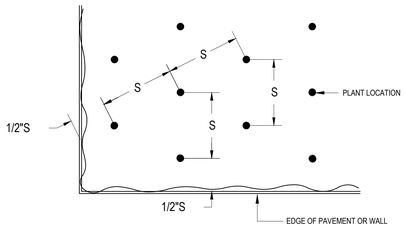


1 TREE PLANTING DETAIL
NOT TO SCALE

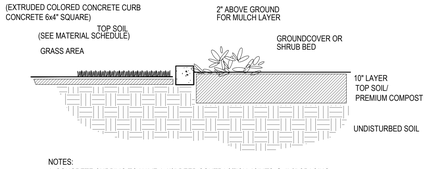


2 SHRUB/G.C. PLANTING DETAIL
NOT TO SCALE

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

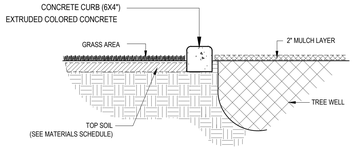


3 TRIANGULAR PLANT SPACING DIAGRAM
NOT TO SCALE



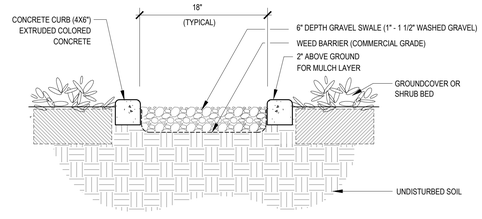
NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2.CONCRETE CURBING TO HAVE TAPERED DRAINAGE POINTS AT 10' O.C.
3. 2500-3000 PSI COMPRESSIVE STRENGTH, 490 PSI FLEXURAL STRENGTH.
4.USE HALF-INCH POLYPROPYLENE FIBER REINFORCEMENT.
5. SMOOTH NATURAL FINISH, COLOR TO MATCH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

4 CONCRETE EDGE DETAIL
NOT TO SCALE



NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2. CONCRTE 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. NATURAL FINISH AND TEXAS BUFF COLOR.
6. EQUAL TO 'CURB APPEAL' EDGING (956-867-8350).

5 TREE RING DETAIL
NOT TO SCALE



NOTES:
1. CONCRETE CURBING TO HAVE 1 1/2" DEEP CONTRACTION JOINTS @ 5'-0" SPACING.
2. CONCRTE 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. NATURAL FINISH AND TEXAS BUFF COLOR.
6. EQUAL TO 'CURB APPEAL' EDGING (956-867-8350).

6 ROCK SWALE 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/CORVOST
5. APPLY SAND/TOPSOIL/CORVOST MIX TO AND FINE GRADE TO FINISHED ELEVATIONS
6. CONTRACTOR TO GRADE FIELD WITH SPECIFIED CROWN/SLOPES UTILIZING FULLY AUTOMATED CORVUTERIZED 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 SOD OR HYDROMULCH.
9. INSTALL SOD ROLLS OR 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 ON OR ABOUT 45 DAYS AFTER INSTALLATION/GERMINATION. FERTILIZE WITH HJ 25-0-0 WITH WOLFTRAX OR APPROVED EQUAL AT MANUFACTURERS RATES

SSP Design
SITE PLANNING
LANDSCAPE DESIGN
789 E. WASHINGTON ST.
BROWNSVILLE, TX. 78520
TEL. (956) 547-9788
FAX. (956) 547-9977
www.sspdesign.com

No.	REVISIONS	BY

GMS ARCHITECT
1150 paredes line rd.
brownsville
texas 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

© Copyright 2017
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: PLM
Job No. IDEA ELSA
Sheet: L3.01

303.2 Vertical. Changes in level of 1/4 inch (6.4 mm) high maximum shall be permitted to be vertical.

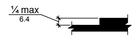


Figure 303.2
Vertical Change in Level

Figure 303.2 Vertical Change in Level

303.3 Beveled. Changes in level between 1/4 inch (6.4 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

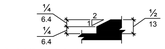


Figure 303.3 Beveled Change in Level

Figure 303.3
Beveled Change in Level

304 Turning Space

304.3.1 Circular Space. The turning space shall be a space of 60 inches (1525 mm) diameter minimum. The space shall be permitted to include knee and toe clearance complying with 306.

304.3.2 T-Shaped Space. The turning space shall be a T-shaped space within a 60 inch (1525 mm) square minimum with arms and base 36 inches (915 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with 306 only at the end of either the base or one arm.

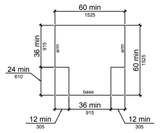


Figure 304.3.2
T-Shaped Turning Space

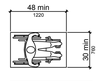


Figure 305.3
Clear Floor or Ground Space

Figure 305.3 Clear Floor or Ground Space

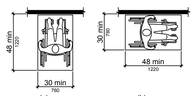


Figure 305.5
Position of Clear Floor or Ground Space

Figure 305.5 Position of Clear Floor or Ground Space

305.7.1 Forward Approach. Alcoves shall be 36 inches (915 mm)wide minimum where the depth exceeds 24 inches (610 mm).



Figure 305.7.1
Maneuvering Clearance in an Alcove, Forward Approach

Figure 305.7.1 Maneuvering Clearance in an Alcove, Forward Approach

305.7.2 Parallel Approach. Alcoves shall be 60 inches (1525 mm) wide minimum where the depth exceeds 15 inches (380 mm).

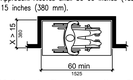


Figure 305.7.2 Maneuvering Clearance in an Alcove, Parallel Approach

306 Knee and Toe Clearance

306.2 Toe Clearance.

306.2.1 General. Space under an element between the finish floor or ground and 9 inches (230 mm) above the finish floor or ground shall be considered toe clearance and shall comply with 306.2.

306.2.2 Maximum Depth. Toe clearance shall extend 25 inches (635 mm) maximum under an element.

306.2.3 Minimum Required Depth. Where toe clearance is required at an element as part of a clear floor space, the toe clearance shall extend 17 inches (430 mm) minimum under the element.

306.2.4 Additional Clearance. Space extending greater than 6 inches (150 mm) beyond the available knee clearance at 9 inches (230 mm) above the finish floor or ground shall not be considered toe clearance.

306.2.5 Width. Toe clearance shall be 30 inches (760 mm) wide minimum.

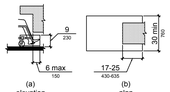


Figure 306.2 Toe Clearance

306.3 Knee Clearance.

306.3.1 General. Space under an element between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground shall be considered knee clearance and shall comply with 306.3.

306.3.2 Maximum Depth. Knee clearance shall extend 25 inches (635 mm) maximum under an element at 9 inches (230 mm) above the finish floor or ground.

306.3.3 Minimum Required Depth. Where knee clearance is required under an element as part of a clear floor space, the knee clearance shall be 11 inches (280 mm) deep minimum at 9 inches (230 mm) above the finish floor or ground, and 8 inches (205 mm) deep minimum at 27 inches (685 mm) above the finish floor or ground.

306.3.4 Clearance Reduction. Between 9 inches (230 mm) and 27 inches (685 mm) above the finish floor or ground, the knee clearance shall be permitted to reduce at a rate of 1 inch (25 mm) in depth for each 6 inches (150 mm) in height.

306.3.5 Width. Knee clearance shall be 30 inches (760 mm) wide minimum.

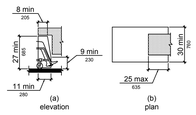


Figure 306.3 Knee Clearance

307 Protruding Objects

307.2 Protrusion Limits. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finish floor or ground shall protrude 4 inches (100 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (115 mm) maximum.

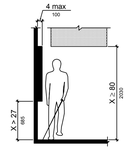


Figure 307.2 Limits of Protruding Objects

308 Reach Ranges

Children's Reach Ranges

Forward or Side Reach	High (maximum)	Low (minimum)
Ages 3 and 4	36 in (915 mm)	20 in (510 mm)
Ages 5 through 8	40 in (1015. mm)	18 in (455 mm)
Ages 9 through 12	44 in (1120 mm)	16 in (405 mm)

308.2 Forward Reach.

308.2.1 Unobstructed. Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the finish floor or ground.

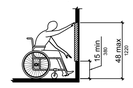


Figure 308.2.2 Obstructed High Forward Reach

308.2.2 Obstructed High Reach. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches (1220 mm) maximum where the reach depth is 20 inches (510 mm) maximum. Where the reach depth exceeds 20 inches (510 mm), the high forward reach shall be 44 inches (1120 mm) maximum and the reach depth shall be 25 inches (635 mm) maximum.

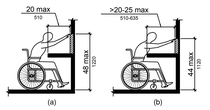
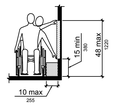


Figure 308.3.1 Unobstructed Side Reach

308.3 Side Reach.

308.3.1 Unobstructed. Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the finish floor or ground.



308.3.2 Obstructed High Reach. Where a clear floor or ground space allows a parallel approach to an element and the high side reach is over an obstruction, the height of the obstruction shall be 34 inches (865 mm) maximum and the depth of the obstruction shall be 24 inches (610 mm) maximum. The high side reach shall be 48 inches (1220 mm) maximum for a reach depth of 10 inches (255 mm) maximum. Where the reach depth exceeds 10 inches (255 mm), the high side reach shall be 46 inches (1170 mm) maximum for a reach depth of 24 inches (610 mm) maximum.

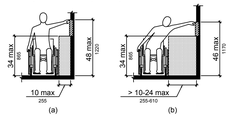


Figure 308.3.2 Obstructed High Side Reach

309 Operable Parts

309.2 Clear Floor Space. A clear floor or ground space complying with 305 shall be provided.

309.3 Height. Operable parts shall be placed within one or more of the reach ranges specified in 308.

309.4 Operation. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N) maximum.

CHAPTER 4: ACCESSIBLE ROUTES

402.2 Components. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 1:20, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. All components of an accessible route shall comply with the applicable requirements of Chapter 4.

Advisory 402.2 Components. Walking surfaces must have running slopes not steeper than 1:20; see 403.3. Other components of accessible routes, such as ramps (405) and curb ramps (406), are permitted to be more steeply sloped.

403 Walking Surfaces

403.1 General. Walking surfaces that are a part of an accessible route shall comply with 403.

403.2 Floor or Ground Surface. Floor or ground surfaces shall comply with 302.

403.3 Slope. The running slope of walking surfaces shall not be steeper than 1:20. The cross slope of walking surfaces shall not be steeper than 1:48.

403.4 Changes in Level. Changes in level shall comply with 303.

403.5 Clearances. Walking surfaces shall provide clearances complying with 403.5.

EXCEPTION: Within employee work areas, clearances on common use circulation paths shall be permitted to be decreased by work area equipment provided that the decrease is essential to the function of the work being performed.

403.5.1 Clear Width. Except as provided in 403.5.2 and 403.5.3, the clear width of walking surfaces shall be 36 inches (915 mm) minimum.

EXCEPTION: The clear width shall be permitted to be reduced to 32 inches (815 mm) minimum for a length of 24 inches (610 mm) maximum provided that reduced width segments are separated by segments that are 48 inches (1220 mm) long minimum and 36 inches (915 mm) wide minimum.

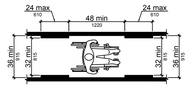


Figure 403.5.1 Clear Width of an Accessible Route

403.5.2 Clear Width at Turn. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches (1220 mm) wide, clear width shall be 42 inches (1065 mm) minimum approaching the turn, 48 inches (1220 mm) minimum at the turn and 42 inches (1065 mm) minimum leaving the turn.

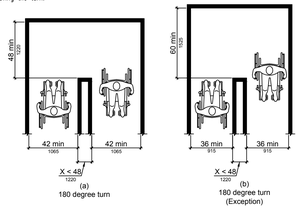


Figure 403.5.2 Clear Width at Turn

403.5.3 Passing Spaces. An accessible route with a clear width less than 60 inches (1525 mm) shall provide passing spaces at intervals of 200 feet (61 m) maximum.

404 Doors, Doorways, and Gates

404.2.3 Clear Width. Door openings shall provide a clear width of 32 inches (815 mm) minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches (610 mm) deep shall provide a clear opening of 36 inches (915 mm) minimum. There shall be no projections into the required clear opening width lower than 34 inches (865 mm) above the finish floor or ground. Projections into the clear opening width between 34 inches (865 mm) and 80 inches (2030 mm) above the finish floor or ground shall not exceed 4 inches (100 mm).

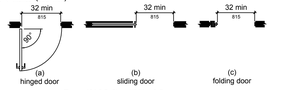


Figure 404.2.3 Clear Width of Doorways

404.2.4 Maneuvering Clearances. Minimum maneuvering clearances at doors and gates shall comply with 404.2.4. Maneuvering clearances shall extend the full width of the doorway and the required latch side or hinge side clearance.

404.2.4.3 Recessed Doors and Gates. Maneuvering clearances for forward approach shall be provided when any obstruction within 18 inches (455 mm) of the latch side of a doorway projects more than 8 inches (205 mm) beyond the face of the door, measured perpendicular to the face of the door or gate.

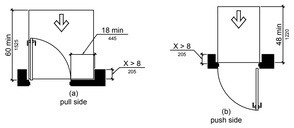


Figure 404.2.4.3 Maneuvering Clearances at Recessed Doors and Gates

404.2.7 Door and Gate Hardware. Handles, pulls, latches, locks, and other operable parts on doors and gates shall comply with 309.4. Operable parts of such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the finish floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides.

404.2.8.1 Door Closers and Gate Closers. Door closers and gate closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.

404.2.8.2 Spring Hinges. Door and gate spring hinges shall be adjusted so that from the open position of 70 degrees, the door or gate shall move to the closed position in 1.5 seconds minimum.

404.2.9 Door and Gate Opening Force. Fire doors shall have a minimum opening force allowable by the appropriate administrative authority. The force for pushing or pulling open a door or gate other than fire doors shall be as follows:

1. Interior hinged doors and gates: 5 pounds (22.2 N) maximum.

2. Sliding or folding doors: 5 pounds (22.2 N) maximum.

These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door or gate in a closed position.

404.2.10 Door and Gate Surfaces. Swinging door and gate surfaces within 10 inches (255 mm) of the finish floor or ground measured vertically shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16 inch (1.6 mm) of the same plane as the other. Cavities created by added kick plates shall be capped.

404.2.11 Vision Lights. Doors, gates, and side lights adjacent to doors or gates, containing one or more glazing panels that permit viewing through the panels shall have the bottom of at least one glazed panel located 43 inches (1090 mm) maximum above the finish floor.

404.3 Automatic and Power-Assisted Doors and Gates. Automatic doors and automatic gates shall comply with 404.3. Full-powered automatic doors shall comply with ANSI/BHMA A156.10 (incorporated by reference, see "Referenced Standards" in Chapter 1). Low-energy and power-assisted doors shall comply with ANSI/BHMA A156.19 (1997 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1).

404.3.2 Maneuvering Clearance. Clearances at power-assisted doors and gates shall comply with 404.2.4. Clearances at automatic doors and gates without standby power and serving an accessible means of egress shall comply with 404.2.4.

404.3.7 Revolving Doors, Revolving Gates, and Turnstiles. Revolving doors, revolving gates, and turnstiles shall not be part of an accessible route.

405 Ramps

405.2 Slope. Ramp runs shall have a running slope not steeper than 1:12.

405.3 Cross Slope. Cross slope of ramp runs shall not be steeper than 1:48.

405.5 Clear Width. The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 36 inches (915 mm) minimum.

405.6 Rise. The rise for any ramp run shall be 30 inches (760 mm) maximum.

405.7 Landings. Ramps shall have landings at the top and the bottom of each ramp run. Landings shall comply with 405.7.

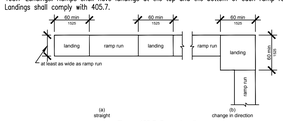


Figure 405.7 Ramp Landings

501 General

501.1 Scope. The provisions of Chapter 5 shall apply where required by Chapter 2 or where referenced by a requirement in this document.

502 Parking Spaces

502.1 General. Car and van parking spaces shall comply with 502. Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings.

EXCEPTION: Where parking spaces or access aisles are not adjacent to another parking space or access aisle, measurements shall be permitted to include the full width of the line defining the parking space or access aisle.

502.2 Vehicle Spaces. Car parking spaces shall be 96 inches (2440 mm) wide minimum and van parking spaces shall be 132 inches (3350 mm) wide minimum, shall be marked to define the width, and shall have an adjacent access aisle complying with 502.3.

EXCEPTION: Van parking spaces shall be permitted to be 96 inches (2440 mm) wide minimum where the access aisle is 96 inches (2440 mm) wide minimum.

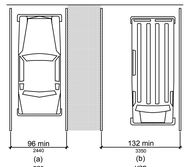


Figure 502.2 Vehicle Parking Spaces

502.3 Access Aisle. Access aisles serving parking spaces shall comply with 502.3. Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle.

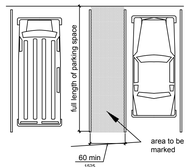


Figure 502.3 Parking Space Access Aisle

502.3.1 Width. Access aisles serving car and van parking spaces shall be 60 inches (1525 mm) wide minimum.

502.3.2 Length. Access aisles shall extend the full length of the parking spaces they serve.

502.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

502.3.4 Location. Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces.

502.4 Floor or Ground Surfaces. Parking spaces and access aisles serving them shall comply with 302. Access aisles shall be at the same level as the parking spaces they serve. Changes in level are not permitted. EXCEPTION: Slopes not steeper than 1:48 shall be permitted.

502.5 Vertical Clearance. Parking spaces for vans and access aisles and vehicular routes serving them shall provide a vertical clearance of 98 inches (2490 mm) minimum.

502.6 Identification. Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. Signs identifying van parking spaces shall contain the designation "van accessible." Signs shall be 60 inches (1525 mm) minimum above the finish floor or ground surface measured to the bottom of the sign.

502.7 Relationship to Accessible Routes. Parking spaces and access aisles shall be designed so that cars and vans, when parked, cannot obstruct the required clear width of adjacent accessible routes.

503 Passenger Loading Zones

503.2 Vehicle Pull-Up Space. Passenger loading zones shall provide a vehicular pull-up space 96 inches (2440 mm) wide minimum and 20 feet (6100 mm) long minimum.

503.3 Access Aisle. Passenger loading zones shall provide access aisles complying with 503 adjacent to the vehicle pull-up space. Access aisles shall adjoin an accessible route and shall not overlap the vehicular way.

503.3.1 Width. Access aisles serving vehicle pull-up spaces shall be 60 inches (1525 mm) wide minimum.

503.3.2 Length. Access aisles shall extend the full length of the vehicle pull-up spaces they serve.

503.3.3 Marking. Access aisles shall be marked so as to discourage parking in them.

CHAPTER 6: PLUMBING ELEMENTS AND FACILITIES

602 Drinking Fountains

602.2 Clear Floor Space. Units shall have a clear floor or ground space complying with 305 positioned for a forward approach and centered on the unit. Knee and toe clearance complying with 306 shall be provided.

EXCEPTION: A parallel approach complying with 305 shall be permitted at units for children's use where the spout is 30 inches (760 mm) maximum above the finish floor or ground and is 3 1/2 inches (90 mm) maximum from the front edge of the unit, including bumpers.

602.3 Operable Parts. Operable parts shall comply with 309.

602.4 Spout Height. Spout outlets shall be 36 inches (915 mm) maximum above the finish floor or ground.

602.5 Spout Location. The spout shall be located 15 inches (380 mm) minimum from the vertical support and 5 inches (125 mm) maximum from the front edge of the unit, including bumpers.



Figure 602.5 Drinking Fountain Spout Location

602.6 Water Flow. The spout shall provide a flow of water 4 inches (100 mm) high minimum and shall be located 5 inches (125 mm) maximum from the front of the unit. The angle of the water stream shall be measured horizontally relative to the front face of the unit. Where spouts are located less than 3 inches (75 mm) of the front of the unit, the angle of the water stream shall be 30 degrees maximum. Where spouts are located between 3 inches (75 mm) and 5 inches (125 mm) maximum from the front of the unit, the angle of the water stream shall be 15 degrees maximum.

602.7 Drinking Fountains for Standing Persons. Spout outlets of drinking fountains for standing persons shall be 38 inches (965 mm) minimum and 43 inches (1090 mm) maximum above the finish floor or ground.

603 Toilet and Bathing Rooms

603.2 Clearances. Clearances shall comply with 603.2.

603.2.1 Turning Space. Turning space complying with 304 shall be provided within the room.

603.2.2 Overlap. Required clear floor spaces, clearance at fixtures, and turning space shall be permitted to overlap.

603.2.3 Door Swing. Doors shall not swing into the clear floor space or clearance required for any fixture. Doors shall be permitted to swing into the required turning space.

603.3 Mirrors. Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground. Mirrors not located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 35 inches (890 mm) maximum above the finish floor or ground.

603.4 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604 Water Closets and Toilet Compartments

604.2 Location. The water closet shall be positioned with a wall or partition to the rear and to one side. The centerline of the water closet shall be 16 inches (405 mm) minimum to 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Water closets shall be arranged for a left-hand or right-hand approach.

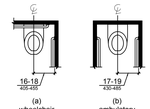


Figure 604.2 Water Closet Location

604.3.1 Size. Clearance around a water closet shall be 60 inches (1525 mm) minimum measured perpendicular from the side wall and 56 inches (1420 mm) minimum measured perpendicular from the rear wall.



Figure 604.3.1 Size of Clearance at Water Closets

604.3.2 Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, dispensers, sanitary napkin disposal units, coat hooks, shelves, accessible routes, clear floor space and clearances required at other fixtures, and the turning space. No other fixtures or obstructions shall be located within the required water closet clearance.

604.4 Seats. The seat height of a water closet above the finish floor shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.5 Grab Bars. Grab bars for water closets shall comply with 609. Grab bars shall be provided on the side wall closest to the water closet and on the rear wall.

604.5.1 Side Wall. The side wall grab bar shall be 42 inches (1065 mm) long minimum, located 12 inches (305 mm) maximum from the rear wall and extending 54 inches (1370 mm) minimum from the rear wall.

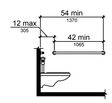


Figure 604.5.1 Side Wall Grab Bar at Water Closets

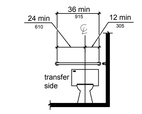


Figure 604.5.2 Rear Wall Grab Bar at Water Closets

604.5.2 Rear Wall. The rear wall grab bar shall be 36 inches (915 mm) long minimum and extend from the centerline of the water closet 12 inches (305 mm) minimum on one side and 24 inches (610 mm) minimum on the other side.

604.6 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.7 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 15 inches (380 mm) minimum and 48 inches (1220 mm) maximum above the finish floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

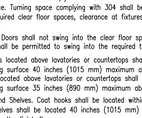


Figure 604.7 Dispenser Outlet Location

604.8 Toilet Compartments. Wheelchair accessible toilet compartments shall meet the requirements of 604.8.1 and 604.8.3. Compartments containing more than one plumbing fixture shall comply with 603. Ambulatory accessible compartments shall comply with 604.8.2 and 604.8.3.

604.8.1 Wheelchair Accessible Compartments. Wheelchair accessible compartments shall comply with 604.8.1.

604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1420 mm) deep minimum for wall hung water closets and 59 inches (1500 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. Wheelchair accessible compartments for children's use shall be 60 inches (1525 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1500 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

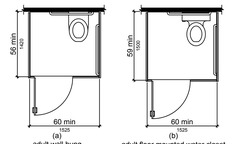


Figure 604.8.1.1 Size of Wheelchair Accessible Toilet Compartment

604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404 except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be 4 inches (100 mm) maximum from the side wall or partition farthest from the water closet. Where located in the side wall or partition, the door opening shall be 4 inches (100 mm) maximum from the front partition. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

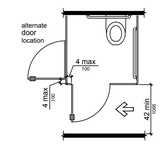


Figure 604.8.1.2 Wheelchair Accessible Toilet Compartment Doors

604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.8.1.4 Toe Clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (230 mm) minimum above the finish floor and 6 inches (150 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

EXCEPTION: Toe clearance at the front partition is not required in a compartment greater than 62 inches (1575 mm) deep with a wall-hung water closet or 65 inches (1650 mm) deep with a floor-mounted water closet. Toe clearance at the side partition is not required in a compartment greater than 66 inches (1675 mm) wide. Toe clearance at the front partition is not required in a compartment for children's use that is greater than 65 inches (1650 mm)deep

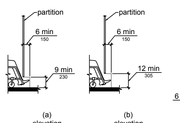


Figure 604.8.1.4 Wheelchair Accessible Toilet Compartment Toe Clearance

604.8.1.5 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with 604.5.2 shall be provided.

604.8.2 Ambulatory Accessible Compartments. Ambulatory accessible compartments shall comply with 604.8.2.

604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1525 mm) minimum and a width of 35 inches (890 mm) minimum and 37 inches (940 mm) maximum.

604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with 404, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 42 inches (1065 mm) minimum. The door shall be self-closing. A door pull complying with 404.2.7 shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

604.8.2.3 Grab Bars. Grab bars shall comply with 609. A side-wall grab bar complying with 604.5.1 shall be provided on both sides of the compartment.

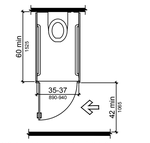


Figure 604.8.2 Ambulatory Accessible Toilet Compartment

604.8.3 Coat Hooks and Shelves. Coat hooks shall be located within one of the reach ranges specified in 308. Shelves shall be located 40 inches (1015 mm) minimum and 48 inches (1220 mm) maximum above the finish floor.

604.9 Water Closets and Toilet Compartments for Children's Use. Water closets and toilet compartments for children's use shall comply with 604.9.

604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (455 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in 604.8.2. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

604.9.2 Clearance. Clearance around a water closet shall comply with 604.3.

604.9.3 Height. The height of water closets shall be 11 inches (280 mm) minimum and 17 inches (430 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

604.9.4 Grab Bars. Grab bars for water closets shall comply with 604.5.

604.9.5 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.2 and 309.4 and shall be installed 36 inches (915 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with 604.8.2.

604.9.6 Dispensers. Toilet paper dispensers shall comply with 309.4 and shall be 7 inches (180 mm) minimum and 9 inches (230 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (355 mm) minimum and 19 inches (485 mm) maximum above the finish floor. There shall be a clearance of 1 1/2 inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

604.9.7 Toilet Compartments. Toilet compartments shall comply with 604.8.

605 Urinals

605.2 Height and Depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (430 mm) maximum above the finish floor or ground. Urinals shall be 13 1/2 inches (345 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

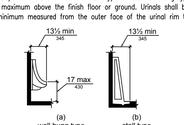


Figure 605.2 Height and Depth of Urinals

605.3 Clear Floor Space. A clear floor or ground space complying with 305 positioned for forward approach shall be provided.

605.4 Flush Controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with 309.

606 Lavatories and Sinks

606.2 Clear Floor Space. A clear floor space complying with 305, positioned for a forward approach, and knee and toe clearance complying with 306 shall be provided.

606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (865 mm) maximum above the finish floor or ground.

606.4 Faucets. Controls for faucets shall comply with 309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

606.5 Exposed Pipes and Surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

607 Bathtubs

607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 30 inches (760 mm) wide minimum. A lavatory complying with 606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

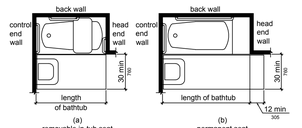


Figure 607.2 Clearance for Bathtubs

607.3 Seat. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with 610.

607.4 Grab Bars. Grab bars for bathtubs shall comply with 609 and shall be provided in accordance with 607.4.1 or 607.4.2.

607.4.1 Bathtubs With Permanent Seats. For bathtubs with permanent seats, grab bars shall be provided in accordance with 607.4.1.

No.	REVISIONS	BY

GMS ARCHITECTS

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

COLLEGE PREP PHASE II

IDEA-ELSA ACADEMY AND COLLEGE

IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
79556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: ADA-1

607.4.1.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and the other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (380 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.1.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

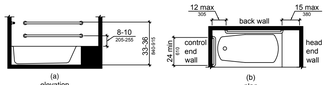


Figure 607.4.1 Grab Bars for Bathtubs with Permanent Seats

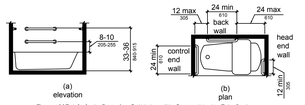


Figure 607.4.2 Grab Bars for Bathtubs with Removable In-Tub Seats

607.4.2 Bathtubs Without Permanent Seats. For bathtubs without permanent seats, grab bars shall comply with 607.4.2.

607.4.2.1 Back Wall. Two grab bars shall be installed on the back wall, one located in accordance with 609.4 and other located 8 inches (205 mm) minimum and 10 inches (255 mm) maximum above the rim of the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

607.4.2.2 Control End Wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

607.4.2.3 Head End Wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.

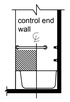


Figure 607.5 Bathtub Control Location

607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with 309.4.

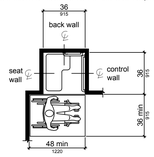
607.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120F (49C) maximum.

607.7 Bathtub Enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtubs or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

608 Shower Compartments

608.2 Size and Clearances for Shower Compartments. Shower compartments shall have sizes and clearances complying with 608.2.

608.2.1 Transfer Type Shower Compartments. Transfer type shower compartments shall be 36 inches (915 mm) by 36 inches (915 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36 inch (915 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (915 mm) wide minimum by 48 inches (1220 mm) long minimum measured from the control wall shall be provided.



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.1 Transfer Type Shower Compartment Size and Clearance

608.2.2 Standard Roll-In Type Shower Compartments. Standard roll-in type shower compartments shall be 30 inches (760 mm) wide minimum by 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides and shall have a 60 inches (1525 mm) wide minimum entry on the face of the shower compartment.

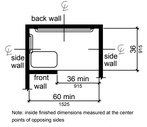
608.2.2.1 Clearance. A 30 inch (760 mm) wide minimum by 60 inch (1525 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.2 Standard Roll-In Type Shower Compartment Size and Clearance

608.2.3 Alternate Roll-In Type Shower Compartments. Alternate roll-in type shower compartments shall be 36 inches (915 mm) wide and 60 inches (1525 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (915 mm) wide minimum entry shall be provided at one end of the long side of the compartment.



Note: inside finished dimensions measured at the center points of opposing sides

Figure 608.2.3 Alternate Roll-In Type Shower Compartment Size and Clearance

608.3 Grab Bars. Grab bars shall comply with 609 and shall be provided in accordance with 608.3. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor.

608.3.1 Transfer Type Shower Compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (455 mm) from the control wall.

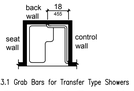


Figure 608.3.1 Grab Bars for Transfer Type Showers

608.3.2 Standard Roll-In Type Shower Compartments. Where a seat is provided in standard roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Where a seat is not provided in standard roll-in type shower compartments, grab bars shall be provided on three walls. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

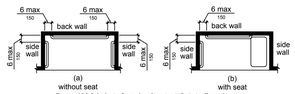


Figure 608.3.2 Grab Bars for Standard Roll-In Type Showers

608.3.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (150 mm) maximum from adjacent walls.

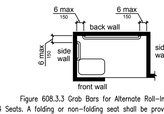


Figure 608.3.3 Grab Bars for Alternate Roll-In Type Showers

608.4 Seats. A folding or non-folding seat shall be provided in transfer type shower compartments. A folding seat shall be provided in roll-in type showers required in transient lodging guest rooms with mobility features complying with 806.2. Seats shall comply with 610.

608.5 Controls. Controls, faucets, and shower spray units shall comply with 309.4.

608.5.1 Transfer Type Shower Compartments. In transfer type shower compartments, the controls, faucets, and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm) maximum from the centerline of the seat toward the shower opening.

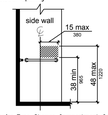


Figure 608.5.1 Transfer Type Shower Compartment Control Location

608.5.2 Standard Roll-In Type Shower Compartments. In standard roll-in type shower compartments, the controls, faucets, and shower spray unit shall be located above the grab bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be installed on the back wall adjacent to the seat wall and shall be located 27 inches (685 mm) maximum from the seat wall.

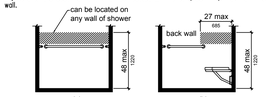


Figure 608.5.2 Standard Roll-In Type Shower Compartment Control Location

608.5.3 Alternate Roll-In Type Shower Compartments. In alternate roll-in type shower

bar, but no higher than 48 inches (1220 mm) above the shower floor. Where a seat is provided, the controls, faucets, and shower spray unit shall be located on the side wall

shower spray unit shall be installed on the side wall farthest from the compartment entry.

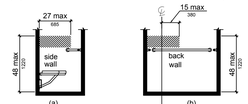


Figure 608.5.3 Alternate Roll-In Type Shower Compartment Control Location

608.6 Shower Spray Unit and Water. A shower spray unit with a hose 59 inches (1500 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Shower spray units shall deliver water that is 120F (49C) maximum.

608.7 Thresholds. Thresholds in roll-in type shower compartments shall be 1/2 inch (13 mm) high maximum in accordance with 303. In transfer type shower compartments, thresholds 1/2 inch (13 mm) high maximum shall be beveled, rounded, or vertical.

608.8 Shower Enclosures. Enclosures for shower compartments shall not obstruct controls, faucets, and shower spray units or obstruct transfer from wheelchairs onto shower seats.

609 Grab Bars

609.1 General. Grab bars in toilet facilities and bathing facilities shall comply with 609.

609.2 Cross Section. Grab bars shall have a cross section complying with 609.2.1 or 609.2.2.

609.2.1 Circular Cross Section. Grab bars with circular cross sections shall have an outside diameter of 1 1/4 inches (32 mm) minimum and 2 inches (51 mm) maximum.

609.2.2 Non-Circular Cross Section. Grab bars with non-circular cross sections shall have a cross-section dimension of 2 inches (51 mm) maximum and a perimeter dimension of 4 inches (100 mm) minimum and 4.8 inches (120 mm) maximum.

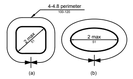


Figure 609.2.2 Grab Bar Non-Circular Cross Section

609.3 Spacing. The space between the wall and the grab bar shall be 1 1/2 inches (38 mm). The space between the grab bar and projecting objects below and at the ends shall be 1 1/2 inches (38 mm) minimum. The space between the grab bar and projecting objects above shall be 12 inches (305 mm) minimum.

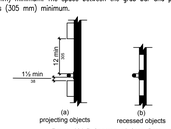


Figure 609.3 Spacing of Grab Bars

609.4 Position of Grab Bars. Grab bars shall be installed in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the finish floor measured to the top of the gripping surface, except that at water closets for children's use complying with 604.9, grab bars shall be installed in a horizontal position 18 inches (455 mm) minimum and 27 inches (685 mm) maximum above the finish floor measured to the top of the gripping surface. The height of the lower grab bar on the back wall of a bathtub shall comply with 607.4.1.1 or 607.4.2.1.

609.5 Surface Hazards. Grab bars and any wall or other surfaces adjacent to grab bars shall be free of sharp or abrasive elements and shall have rounded edges.

609.6 Fittings. Grab bars shall not rotate within their fittings.

609.7 Installation. Grab bars shall be installed in any manner that provides a gripping surface at the specified locations and that does not obstruct the required clear floor space.

609.8 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the grab bar, fastener, mounting device, or supporting structure.

610 Seats

610.2 Bathtub Seats. The top of bathtub seats shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. The depth of a removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) maximum. The seat shall be capable of secure placement. Permanent seats at the head end of the bathtub shall be 15 inches (380 mm) deep minimum and shall extend from the back wall to or beyond the outer edge of the bathtub.

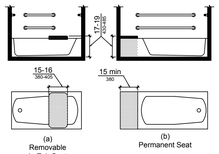


Figure 610.2 Bathtub Seats

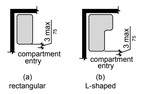


Figure 610.3 Extent of Seat

610.3 Shower Compartment Seats. Where a seat is provided in a standard roll-in shower compartment, it shall be a folding type, shall be installed on the side wall adjacent to the controls, and shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. Where a seat is provided in an alternate roll-in type shower compartment, it shall be a folding type, shall be installed on the front wall opposite the back wall, and shall extend from the adjacent side wall to a point within 3 inches (75 mm) of the compartment entry. In transfer-type showers, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom finish floor. Seats shall comply with 610.3.1 or 610.3.2.

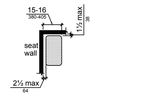


Figure 610.3.1 Rectangular Shaper Seat

610.3.1 Rectangular Seats. The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The side edge of the seat shall be 1 1/2 inches (38 mm) maximum from the adjacent wall.

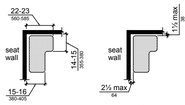


Figure 610.3.2 L-Shaped Shower Seat

610.3.2 L-Shaped Seats. The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches maximum (585 mm) from the main seat wall.

610.4 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

611 Washing Machines and Clothes Dryers

611.2 Clear Floor Space. A clear floor or ground space complying with 305 positioned for parallel approach shall be provided. The clear floor or ground space shall be centered on the appliance.

611.3 Operable Parts. Operable parts, including doors, lint screens, and detergent and bleach compartments shall comply with 309.

611.4 Height. Top loading machines shall have the door to the laundry compartment located 36 inches (915 mm) maximum above the finish floor. Front loading machines shall have the bottom of the opening to the laundry compartment located 15 inches (380 mm) minimum and 36 inches (915 mm) maximum above the finish floor.

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4–3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4–3 and 4–4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".



Figure 703.2.5 Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

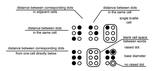


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

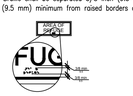


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

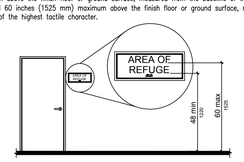


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

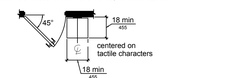


Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.



Figure 703.6.1 Pictogram Field
dark-on-light.

703.6.2 Finish and Contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

703.6.3 Text Descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of accessibility shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of accessibility and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

705 Detectable Warnings

705.1 General. Detectable warnings shall consist of a surface of truncated domes and shall comply with

705.1.1 Dome Size. Truncated domes in a detectable warning surface shall have a base diameter of 0.9 inch (23 mm) minimum and 1.4 inches (36 mm) maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of 0.2 inch (5.1 mm).

705.1.2 Dome Spacing. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1.6 inches (41 mm) minimum and 2.4 inches (61 mm) maximum, and a base-to-base spacing of 0.65 inch (17 mm) minimum, measured between the most adjacent domes on a square grid.

705.1.3 Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

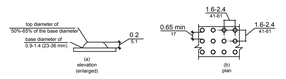


Figure 705.1 Size and Spacing of Truncated Domes

705.2 Platform Edges. Detectable warning surfaces at platform boarding edges shall be 24 inches (610 mm) wide and shall extend the full length of the public use areas of the platform.

CHAPTER 9: BUILT-IN ELEMENTS

902 Dining Surfaces and Work Surfaces

902.2 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for a forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided.

902.3 Height. The tops of dining surfaces and work surfaces shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

902.4 Dining Surfaces and Work Surfaces for Children's Use. Accessible dining surfaces and work surfaces for children's use shall comply with 902.4.

902.4.1 Clear Floor or Ground Space. A clear floor space complying with 305 positioned for forward approach shall be provided. Knee and toe clearance complying with 306 shall be provided, except that knee clearance 24 inches (610 mm) minimum above the finish floor or ground shall be permitted.

902.4.2 Height. The tops of tables and counters shall be 26 inches (660 mm) minimum and 30 inches (760 mm) maximum above the finish floor or ground.

903 Benches

903.2 Clear Floor or Ground Space. Clear floor or ground space complying with 305 shall be provided and shall be positioned at the end of the bench seat and parallel to the short axis of the bench.

903.3 Size. Benches shall have seats that are 42 inches (1065 mm) long minimum and 20 inches (510 mm) deep minimum and 24 inches (610 mm) deep maximum.

903.4 Back Support. The bench shall provide for back support or shall be affixed to a wall. Back support shall be 42 inches (1065 mm) long minimum and shall extend from a point 2 inches (51 mm) maximum above the seat surface to a point 18 inches (455 mm) minimum above the seat surface. Back support shall be 2 1/2 inches (64 mm) maximum from the rear edge of the seat measured horizontally.

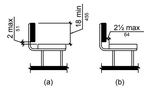


Figure 903.4 Bench Back Support

903.5 Height. The top of the bench seat surface shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the finish floor or ground.

903.6 Structural Strength. Allowable stresses shall not be exceeded for materials used when a vertical or horizontal force of 250 pounds (1112 N) is applied at any point on the seat, fastener, mounting device, or supporting structure.

903.7 Wet Locations. Where installed in wet locations, the surface of the seat shall be slip resistant and shall not accumulate water.

904 Check-Out Aisles and Sales and Service Counters

904.1 General. Check-out aisles and sales and service counters shall comply with the applicable requirements of 904.

904.2 Approach. All portions of counters required to comply with 904 shall be located adjacent to a walking surface complying with 403.

904.3 Check-Out Aisles. Check-out aisles shall comply with 904.3.

904.3.1 Aisle. Aisles shall comply with 403.

904.3.2 Counter. The counter surface height shall be 38 inches (965 mm) maximum above the finish floor or ground. The top of the counter edge protection shall be 2 inches (51 mm) maximum above the top of the counter surface on the aisle side of the check-out counter.



Figure 904.3.2 Check-Out Aisle Counters

904.3.3 Check Writing Surfaces. Where provided, check writing surfaces shall comply with 902.3.

904.4 Sales and Service Counters. Sales counters and service counters shall comply with 904.4.1 or 904.4.2. The accessible portion of the counter top shall extend the same depth as the sales or service counter top.

904.4.1 Parallel Approach. A portion of the counter surface that is 36 inches (915 mm) long minimum and 36 inches (915 mm) high maximum above the finish floor shall be provided. A clear floor or ground space complying with 305 shall be positioned for a parallel approach adjacent to the 36 inch (915 mm) minimum length of counter.

904.4.2 Forward Approach. A portion of the counter surface that is 30 inches (760 mm) long minimum and 36 inches (915 mm) high maximum shall be provided. Knee and toe space complying with 306 shall be provided under the counter. A clear floor or ground space complying with 305 shall be positioned for a forward approach to the counter.

904.5 Food Service Lines. Counters in food service lines shall comply with 904.5.

904.5.1 Self-Service Shelves and Dispensing Devices. Self-service shelves and dispensing devices for tableware, dishware, condiments, food and beverages shall comply with 308.

904.5.2 Tray Slides. The tops of tray slides shall be 28 inches (710 mm) minimum and 34 inches (865 mm) maximum above the finish floor or ground.

904.6 Security Glazing. Where counters or teller windows have security glazing to separate personnel from the public, a method to facilitate voice communication shall be provided. Telephone handset devices, if provided, shall comply with 704.3.

MOUNTING HEIGHT LEGEND

(ACCESSIBLE)

ELEMENT	GRADES: PRE-K AGES 3-4	GRADES: K-5 AGES 5-8	GRADES: 6-9 AGES 9-12	ADULTS
RAMPS AND STAIRS (EXCLUDING GUARDRAILS) TOP OF HANDRAIL GRIPPING SURFACE	31"	31"	32"	34"
DRINKING FOUNTAIN AND ELEC. WATER COOLERS (DIM. FROM FLOOR TO SPOUT) KNEE CLEARANCE	32" MAX. AFF 26" MIN. AFF	32" MAX. AFF 26" MIN. AFF	34" MAX. AFF 27" MIN. AFF	34" MAX. AFF 27" MIN. AFF
WATER CLOSET TOP OF SEAT WC FLUSH CONTROL	11"-12" AFF 42" AFF	12-15" AFF 42" AFF	15-17" AFF 44" AFF	18" AFF 44" AFF
HANDICAPPED GRAB BARS (DIM. FROM FLR. TO CENTERLINE OF BAR)	18-20" AFF	20-25" AFF	25-27" AFF	34" AFF
URINALS (DIM. FROM FLR. TO RIM OF BASIN) URINAL FLUSH CONTROL	14" AFF 42" AFF	15" AFF 42" AFF	16" AFF 44" AFF	17" AFF 44" AFF
LAVATORIES AND SINKS (DIM. FROM FLR. TO RIM OR COUNTER SURFACE) LAV./SINK KNEE CLEARANCE LAV./SINK TO FAUCETS FROM FRONT EDGE	30" AFF 26" AFF 18"	30" AFF 26" AFF 18"	32" AFF 27" AFF 19"	34" AFF 27" AFF 19"
MIRRORS (DIM. FROM FLR. TO BOTTOM OF REFLECTIVE SURFACE	34" AFF	34" AFF	37" AFF	40" AFF
BATHTUBS/SHOWER STALLS TOP OF SEAT GRAB BAR (DIM. FROM FLR. TO CENTERLINE OF BAR) HAND SHOWER HEAD FRONT APPROACH HAND SHOWER HEAD SIDE APPROACH	15" AFF 18-20" AFF 20" MIN -36" MAX 48" AFF	15" AFF 20-25" AFF 18" MIN-40" MAX 48" AFF	16" AFF 25-27" AFF 18" MIN-44" MAX 51" AFF	17" AFF 34" AFF 48" MAX 54" AFF
TOILET PAPER DISPENSERS (DIM. FROM FLR. TO CENTERLINE)	14" AFF	14"-17" AFF	17"-19" AFF	19" AFF
ALL OPERABLE PARTS	20" MIN -36" MAX	18" MIN-40" MAX	18" MIN-44" MAX	48" MAX
LIGHT SWITCHES ELEC. OUTLET (UNLESS NOTED OTHERWISE) THERMOSTATS FIRE ALARM PULL STATION PAPER TOWEL DISP. TO CONTROL FIRE EXTINGUISHERS (DIM. FROM FLR. TO CENTER OF HANDLE) HAND DRYERS(TO PUSH BUTTON) SOAP DISPENSERS	48" AFF 18" AFF 42" AFF 42" AFF 20" MIN -36" MAX 42"AFF 20" MIN -36" MAX	48" AFF 18" AFF 42" AFF 42" AFF 18" MIN-40" MAX 42"AFF 18" MIN-40" MAX	48" AFF 18" AFF 45" AFF 45" AFF 18" MIN-44" MAX 45" AFF 18" MIN-44" MAX	48" AFF 18" AFF 48" AFF 48" AFF 48" MAX 48" AFF 48" MAX
CHALKBD. AND TACKBD. (DIM. FROM FLR. CHALK TROUGH) *UNLESS NOTED OTHER WISE*	24" AFF	24" AFF	30" AFF	30" AFF
FEMININE NAPKIN DISPOSAL (DIM. FROM FLR. TO TOP)	20" MIN -36" MAX	18" MIN-40" MAX	18" MIN-44" MAX	48" MAX
WASTE RECEPTACLE (DIM. FROM FLR. TO TOP)	20" MIN -36" MAX	18" MIN-40" MAX	18" MIN-44" MAX	48" MAX
ROBE HOOKS AT TOILETS	20" MIN -36" MAX	18" MIN-40" MAX	18" MIN-44" MAX	48" MAX

MOUNTING HEIGHT LEGEND

(STANDARD)

ELEMENT	GRADES: PRE-K THRU 6	GRADES: 6 THRU 8 OR 9	ADULTS
WATER CLOSET TOP OF SEAT	PRE-K 10" 15" AFF	15" AFF	15" AFF
DRINKING FOUNTAIN AND ELEC. WATER COOLERS (DIM. FROM FLOOR TO SPOUT)	36" MAX. AFF	40" MAX. AFF	40" MAX. AFF
URINALS (DIM. FROM FLR. TO RIM OF BASIN)	21" AFF	24" AFF	24" AFF
MIRRORS (DIM. FROM FLR. TO BOTTOM OF REFLECTIVE SURFACE	42" AFF	45" AFF	48" AFF
LAVATORIES AND SINKS (DIM. FROM FLR. TO RIM OR COUNTER SURFACE)	30" AFF	31" AFF	31" AFF
MOP HOLDER (DIM. FROM FLR. TO CENTERLINE OF SHELF)	66" AFF	66" AFF	66" AFF
BATHTUBS/SHOWER STALLS SHOWER HEAD W/NO FIBERGLASS WALLS	70" AFF	74" AFF	74" AFF
TOILET PAPER DISPENSERS (DIM. FROM FLR. TO CENTERLINE)	19" AFF	24" AFF	24" AFF

No.	REVISIONS	BY

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

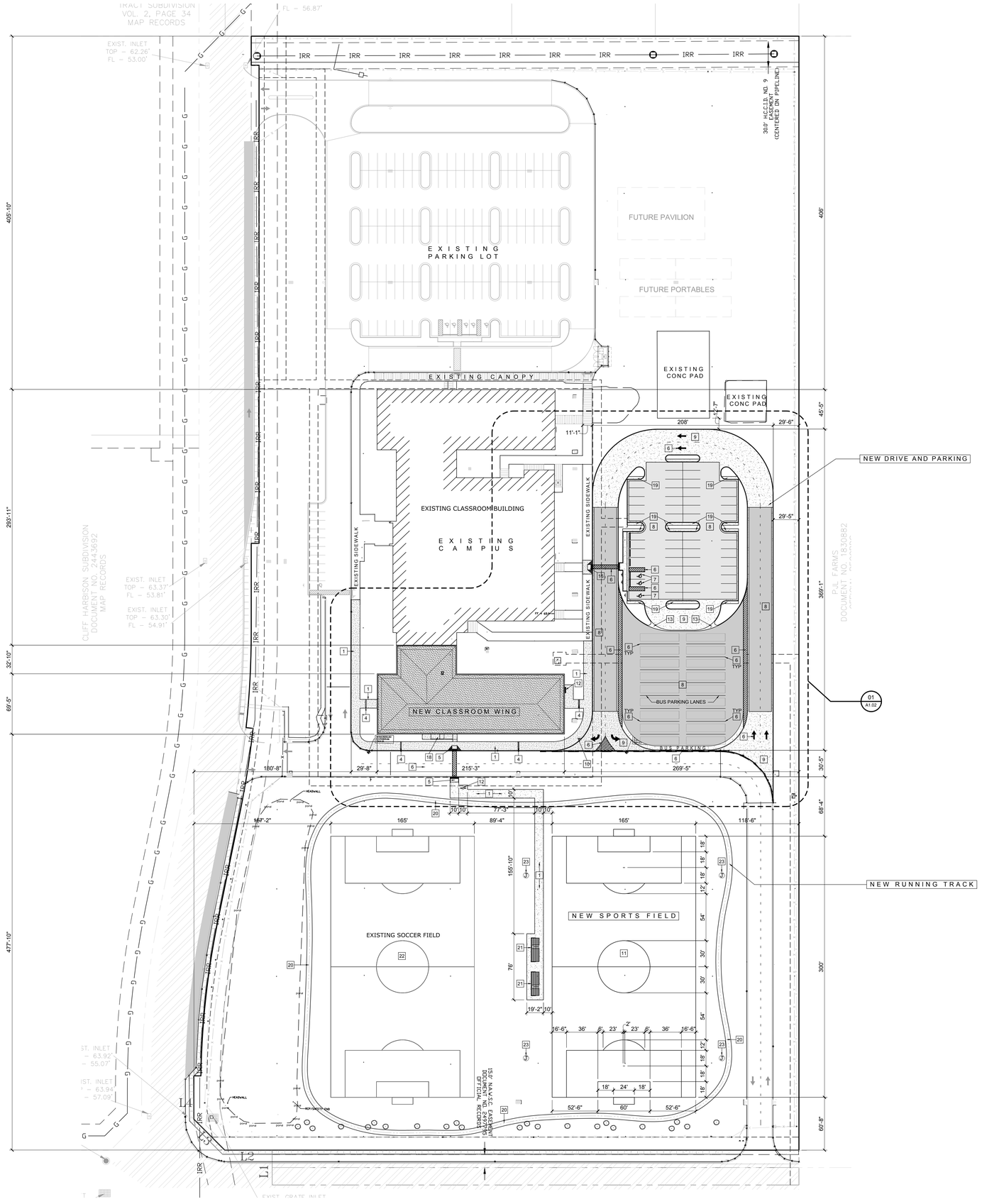
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: ADA-2



01 OVERALL SITE PLAN **PHASE I**

SCALE : 1=50

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 MEP DRAWINGS FOR ADDITIONAL INFORMATION.

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

N

50 0 25 50 100 200

(IN FEET)
1 INCH = 50 FT.

KEYED NOTES

1. 10'-0" WIDE CONCRETE WALK REFER TO DTL'S 01,02,04/A1.04
2. 10'-0" WIDE PREFINISHED METAL WALKWAY CANOPIES. REFER TO SHEET 05/A1.04
3. CORE EXISTING SIDEWALK TO INSTALL NEW CANOPY FOOTINGS REF 06/A1.04
4. METAL TRENCH COVERS. REFER TO DTL. 03/A1.04 (1'-0" WIDE)
5. ACCESSIBLE CURB RAMPS WITH DETECTABLE WARNING STRIPS. REFER TO 14/A1.04.
6. TRAFFIC STRIPING FOR PEDESTRIAN CROSSWALKS, LOADING ZONE AND TRAFFIC CONTROL.
7. HANDICAP PARKING SPACES WITH POLE MOUNTED HANDICAP SIGN. REFER TO 10/A1.04.
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. POLE MOUNTED TRAFFIC SIGN - "STOP SIGN" REFER TO 10/A1.04.
11. PRACTICE SOCCER FIELD WITH GOALS AS SPECIFIED.
12. EXTERIOR DRINKING FOUNTAIN AS SPECIFIED. REFER TO MEP
13. RAISED CONCRETE CURB
14. CONCRETE WHEEL STOP REF 11/A1.04
15. SAWCUT AND DEMO EXISTING CONCRETE CURB
16. SAWCUT AND DEMO CONCRETE WALK TO INSTALL ACCESSIBLE RAMP AS SHOWN
17. NOT USED
18. 6" WIDE CONCRETE WALK MAX SLOPE EQUAL TO OR GREATER THAN 1:20 PROVIDE 4" CONCRETE CURB EDGE PROTECTIONS REFER TO 15/A1.04.
19. 3' WIDE CONCRETE WALK AT PARKING STALL REFER TO DTL'S 01,02,04/A1.04
20. PROVIDE TRAIL CHASER PLASTIC WHISKERS AND HD GALV. METAL STAKES TO MARK JOGGING TRAIL @ 50' O.C. REF CIVIL FOR MORE INFORMATION
21. 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
22. EXISTING SOCCER FIELD TO BE RE-STRIPED
23. SOCCER FIELD LIGHTING REFER TO MEP DRAWINGS FOR ADDITIONAL REQUIREMENTS.

No.	REVISIONS	BY
2	ADDENDUM #2	J.A

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
18556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A1.01

01 IMPROVED SITE PLAN **ENLARGEMENT**

SCALE : 1=20

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

EXISTING CLASSROOM BUILDING

EXISTING SIDEWALK

NEW CONCRETE & RAMP

NEW CONCRETE

FF = 65.9

BUS PARKING

HEADWALL

pond

01 A1.03

02 A1.03

15 A1.04

No.	REVISIONS	BY

GMS ARCHITECTS

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

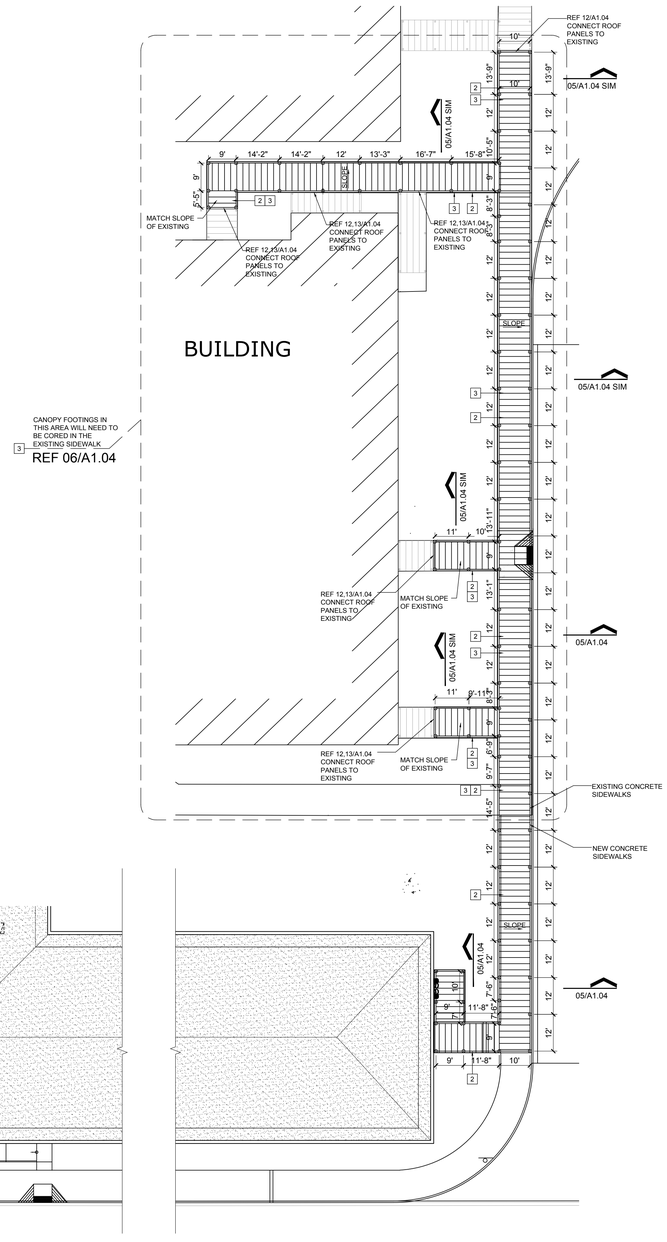
IDEA-ELSA
ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

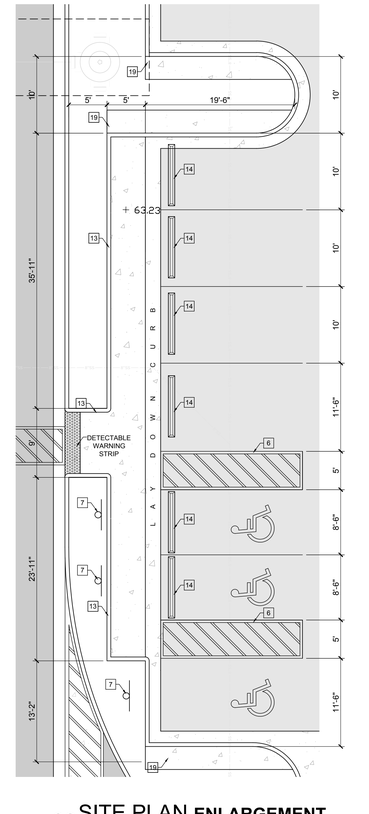
REGISTERED ARCHITECT
DAVID A. MONREAL
79556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A1.02



01 CANOPY ENLARGEMENT
SCALE : 1/8"=1'-0"



02 SITE PLAN ENLARGEMENT
SCALE : 1 = 10

No.	REVISIONS	BY
		J.A

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

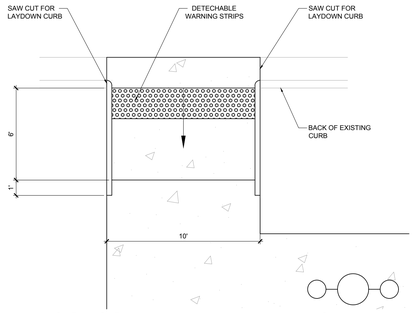
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

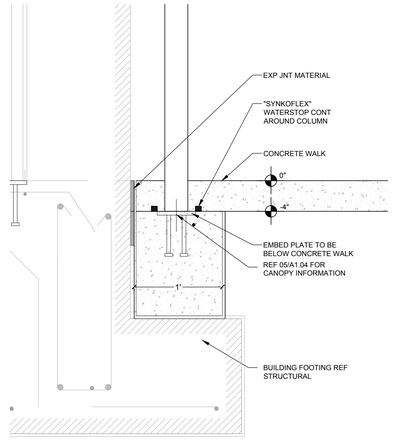
REGISTERED ARCHITECT
DAVID A. MONREAL
79556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

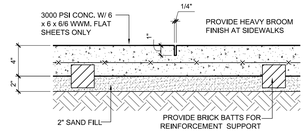
Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A1.03



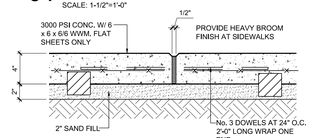
14 ACCESSIBLE RAMP ENLARGEMENT
SCALE: 1/4"=1'-0"



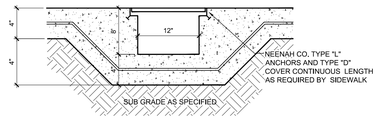
09 CANOPY @ BUILDING
SCALE : 1-1/2"=1-0"



01 SIDEWALK CONTROL JT.
SCALE: 1-1/2"=1'-0"



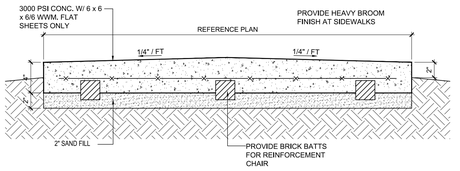
02 SIDEWALK EXP. JT. DETAIL
SCALE: 1-1/2"=1'-0"



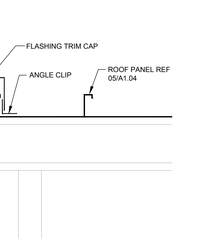
03 TRENCH DETAIL
SCALE 1 1/2" = 1'-0"

1.) CONTRACTOR TO VERIFY ALL BUILDING ROOF DRAINS & DOWN SPOUTS THAT WILL SPILL ONTO A SIDEWALK AND PROVIDE A TRENCH GUTTER AT THAT LOCATION TO ALLOW FOR RAIN WATER TO DRAIN THRU GUTTER AND NOT OVER SIDEWALK (WHICH COULD CAUSE A TRIPPING HAZARD). CONTRACTOR TO VERIFY TRENCH GUTTERS NEEDED PRIOR TO ANY POURING OF SIDEWALKS AROUND PERIMETER OF BUILDING, TYPICAL AT ALL BUILDINGS.

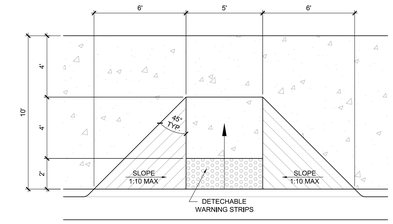
2.) REFER TO CIVIL DRAWINGS FOR ALL OTHER LOCATIONS OF TRENCH GUTTERS



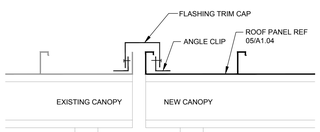
04 SIDEWALK DETAIL
SCALE: 1-1/2" = 1'-0"



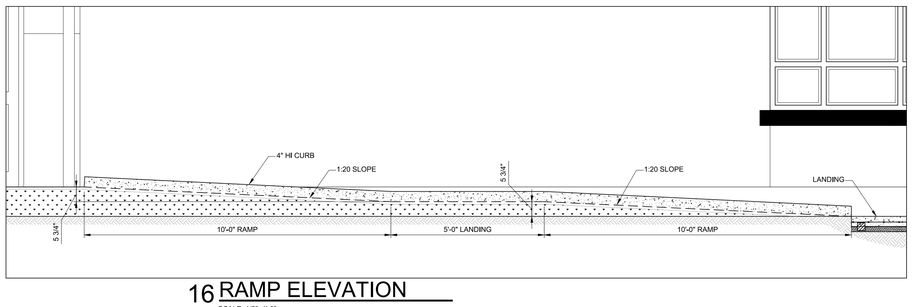
13 CANOPY TO CANOPY DETAIL
SCALE : 1-1/2"=1-0"



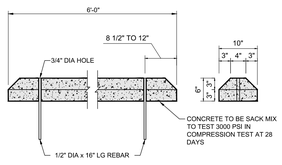
08 ACCESSIBLE RAMP ENLARGEMENT
SCALE: 1/4"=1'-0"



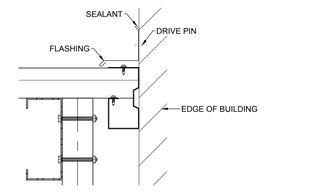
12 CANOPY TO CANOPY DETAIL
SCALE : 1-1/2"=1-0"



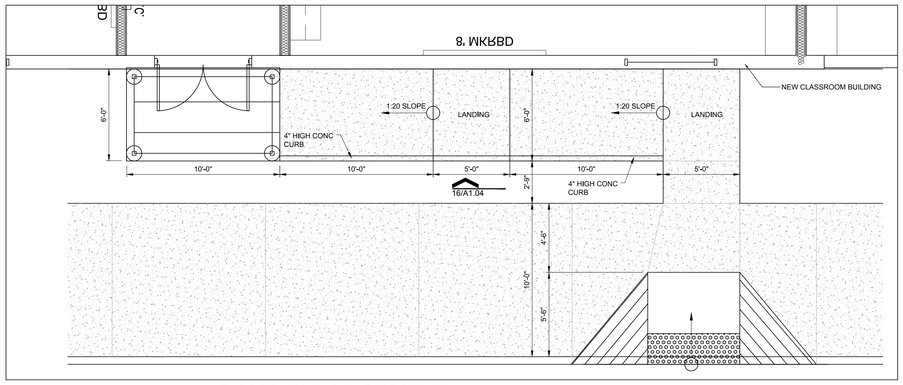
16 RAMP ELEVATION
SCALE: 1/2"=1'-0"



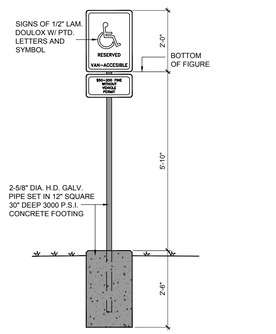
11 CONCRETE TIRE STOP
SCALE: 1-1/2" = 1'-0"



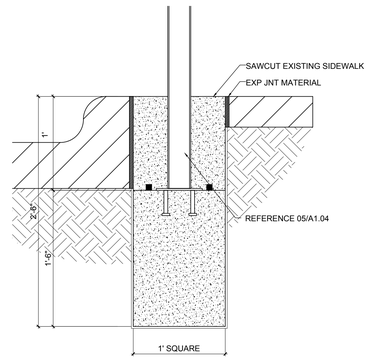
07 TRANSITION @ ENTRY DOOR
SCALE : NTS



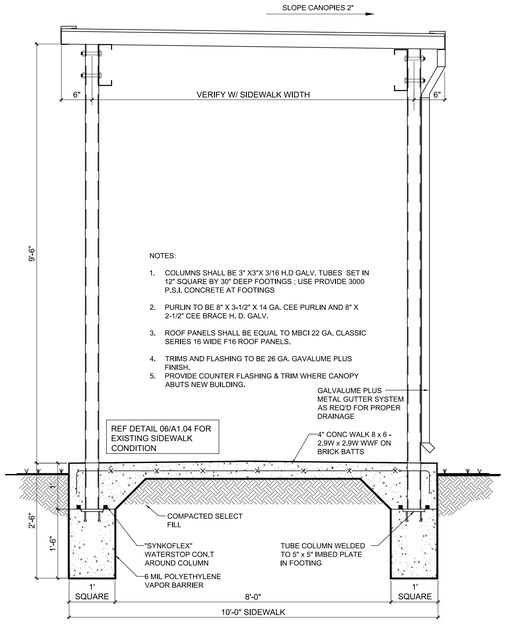
15 RAMP ENLARGEMENT
SCALE: 1/4"=1'-0"



10 SIGN / ANCHOR DETAIL
SCALE : 3"=1-0"



06 CANOPY @ EXISTING SIDEWALK
SCALE : 3"=1'-0"



05 CANOPY SECTION
SCALE : 3/4"=1-0"

No.	REVISIONS	BY

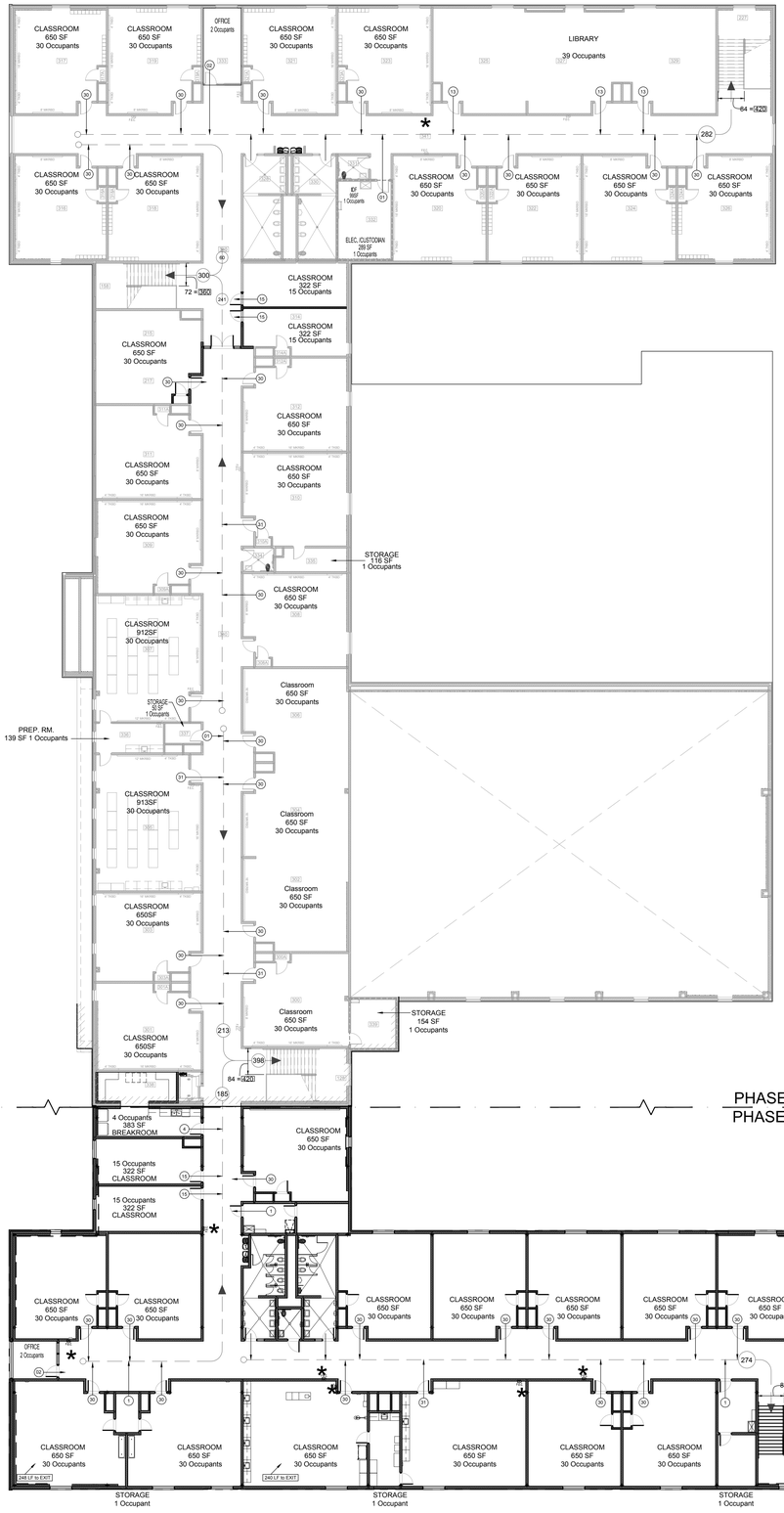
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA
IDEA ACADEMY AND COLLEGE PREP PHASE II
IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A1.04



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

IDEA Public Schools - Elsa Campus
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 (Phase 1) + 17,162 SF (Phase 2)
- 2nd Floor - 29,011 SF (Phase 1) + 16,868 SF (Phase 2)
- Total Building Gross Footage - 66,343 SF + 45,879 SF = 112,222 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 - Table 503
- Type II-B - Education Occupancy Sprinklered
  - 43,500 SF per story
  - 55 feet max - 2 story max
- Type II-B - Assembly Occupancy Sprinklered
  - 38,000 SF per story
  - 55 feet max - 2 story max
- Type II-B - Business Occupancy Sprinklered
  - 92,000 SF per story
  - 55 feet max - 3 story max

Area and Frontage Increase - Section 506.3 Frontage Increase
- Educational Occupancy (Type II-B)
  43,500 + [14,500 x .75]
  54,375 SF per story
- Assembly Occupancy (Type II-B)
  38,000 + [9,500 x .75]
  45,125 SF per story
- Business Occupancy (Type II-B)
  92,000 + [23,000 x .75] + (23,000 x 2)
  109,250 SF per story

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

Classrooms	960 persons
Storage	11 persons
Office	29 persons
Gymnasium	475 persons
Cafeteria	512 persons
Kitchen	9 persons
Total	**1,996 persons**

Occupant Load - 2nd Floor Classroom Wings

Classrooms	1,200 persons
Library	39 persons
Office	9 persons
Storage	4 persons
Staff	4 persons
Total	**1,256 persons**

Means of Egress Sizing - Section 1005
Stairway Width - Section 1005.3.1 (Exception)
2nd Floor Egress
Occupancy 1,256 x .2 = 251.2 required
Stairways provided = 324.0 provided

Door Egress Width - Section 1005.3.2 (Exception)
1st Floor Egress
Total Occupancy 3,252 x .15 = 487.80 required
11 Sets of Double Doors (6'-0" Wide) = 792.00 provided

Plumbing Fixtures - Table 2902.1
Educational Occupancy 3,252 Occupants
Total Fixtures required 65 wc/65 lav/32 df/ 1 service sink

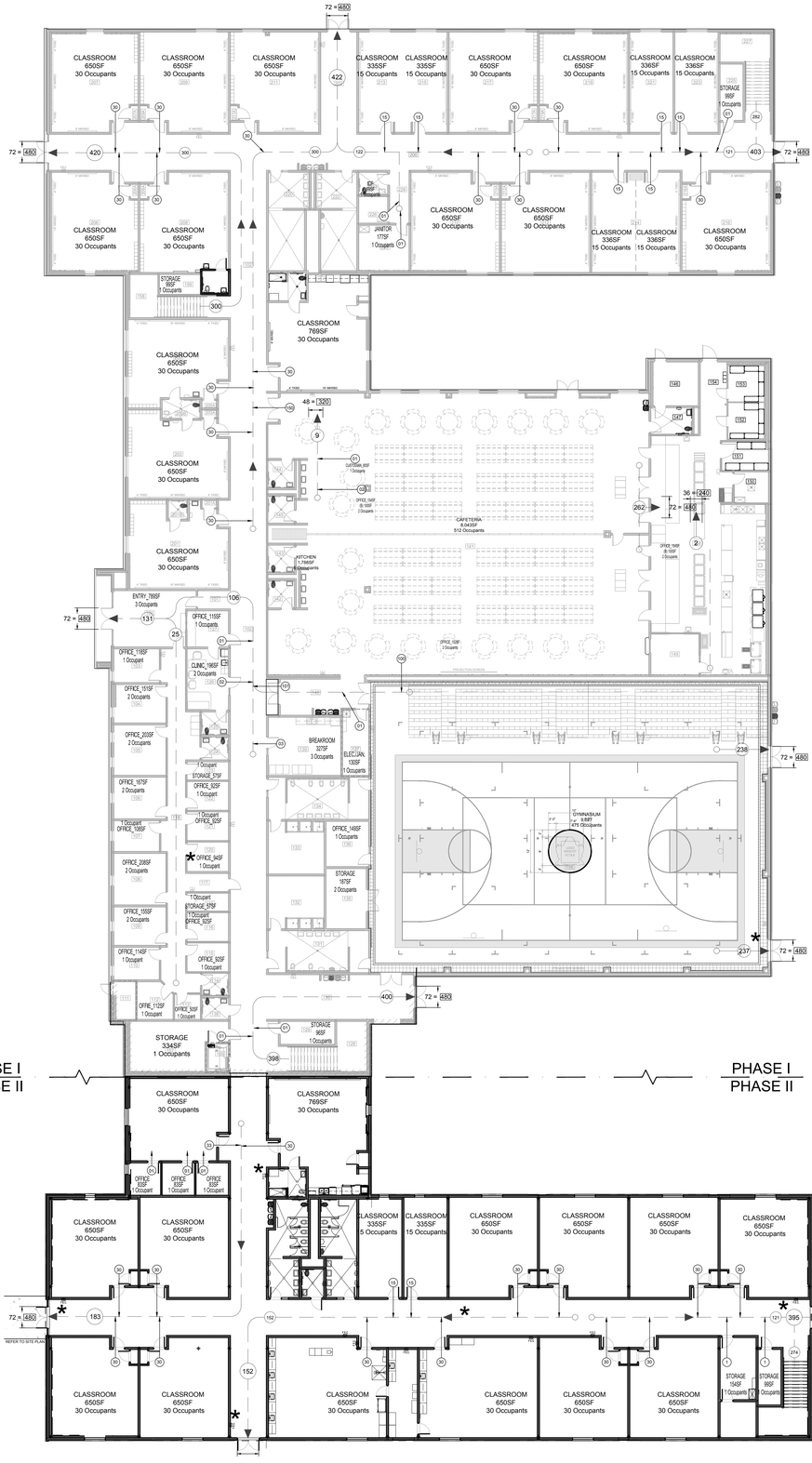
Total Fixtures provided 69 wc/65 lav/34 df/7 service sinks

PLAN LEGEND

- WIDTH OF EGRESS IN INCHES — 72 = 480 — MAX OCCUPANT LOAD FOR EGREES
- 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

No.	REVISIONS	BY

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

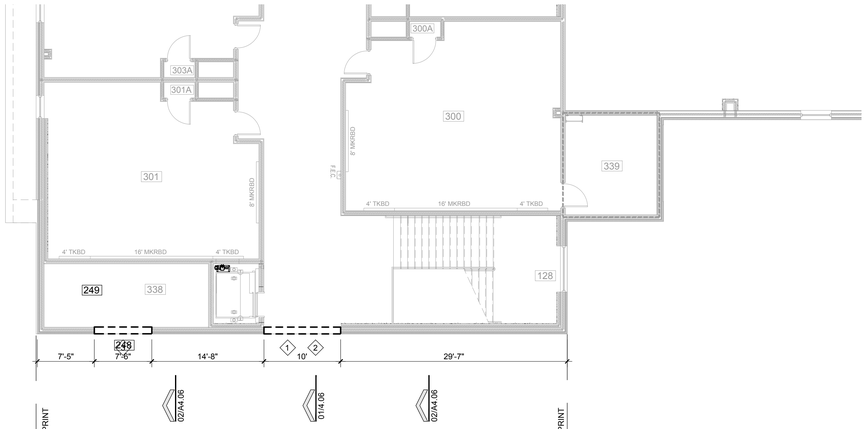
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

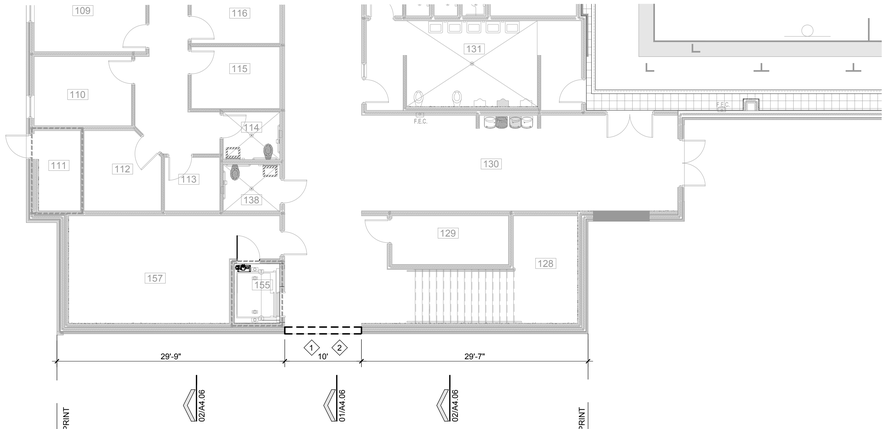
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: CODE



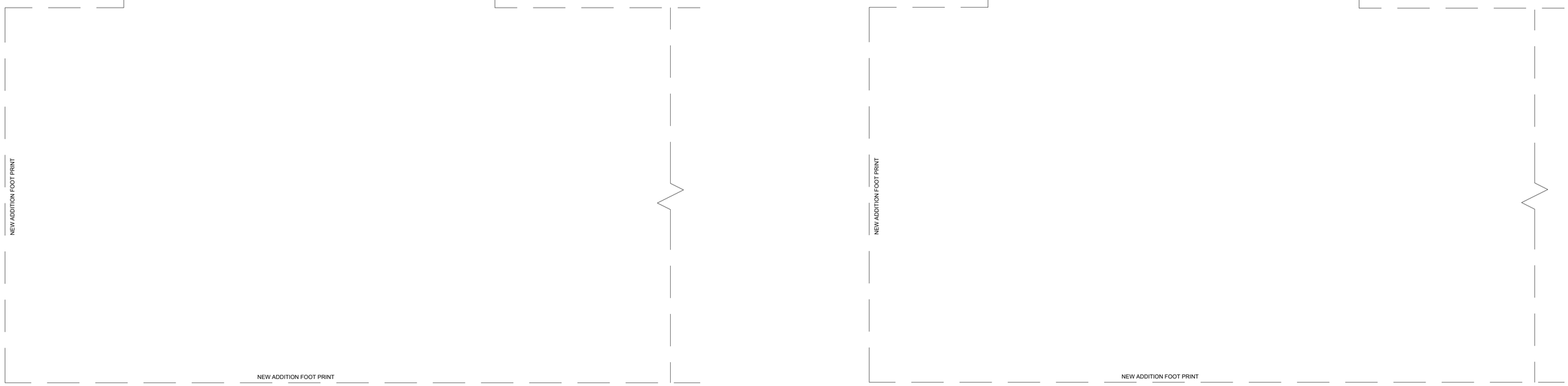
2ND FLOOR
02 DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

PLAN NORTH



1ST FLOOR
01 DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

PLAN NORTH



PATCH TO MATCH ALL FINISHES DISTURBED BY THE DEMOLITION AND IMPROVEMENTS.

REFER TO STRUCTURAL AND MEP DOCUMENTS FOR ADDITIONAL WORK TO BE PREFORMED IN THIS AREA.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING DEBRIS & MATERIAL AWAY FROM SITE ACCORDING TO LOCAL & STATE REGULATIONS.

GENERAL CONTRACTOR TO TAKE CARE NOT TO DAMAGE EXISTING FOUNDATION, STRUCTURAL STEEL BEAMS / COLUMNS, SURROUNDING BUILDINGS AND VARIOUS SURFACES OUTSIDE OF DEMOLITION AREA. SHOULD ANY DAMAGE OCCUR OUTSIDE OF DEMOLITION AREA, THE GENERAL CONTRACTOR WILL BE RESPONSIBLE TO REPAIR OR REPLACE DAMAGED ITEMS.

GENERAL DEMOLITION NOTES:

3 PROVIDE NEW CASED OPENING IN METAL STUD PARTITION.

2 REMOVE EXISTING CEILING GRID TILES AS NEEDED TO ACCOMMODATE NEW FURR DOWN. REFER TO DETAIL 03/A2.04

1 DEMOLISH EXISTING WALL. SAW CUT AS REQUIRED

KEYED DEMOLITION NOTES:

INDICATES ITEMS TO BE DEMOLISHED AS SHOWN REF DEMOLITION NOTES

LEGEND

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

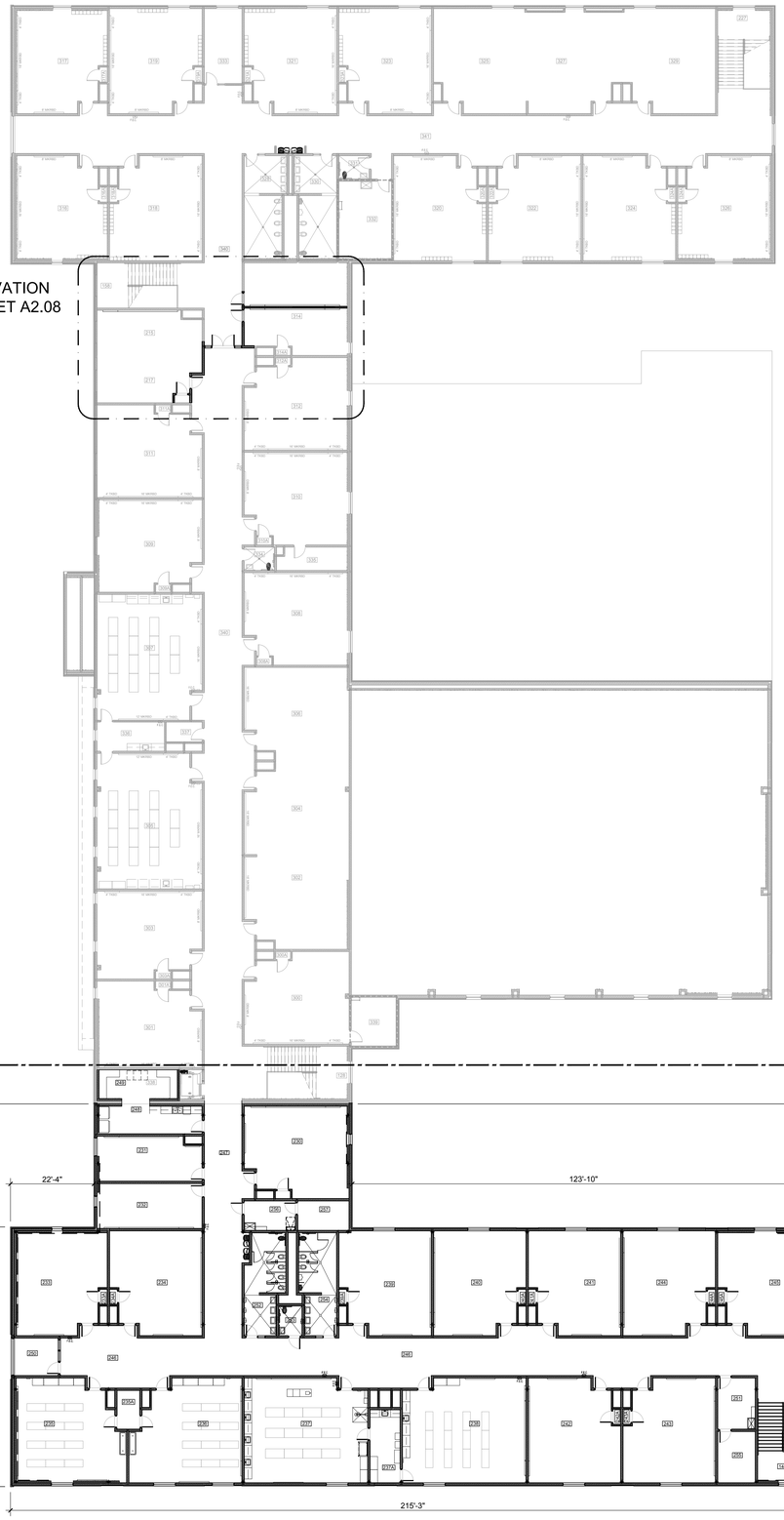
IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
19556
STATE OF TEXAS
6-12-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: D1.01

PHASE I RENOVATION
REFER TO SHEET A2.08



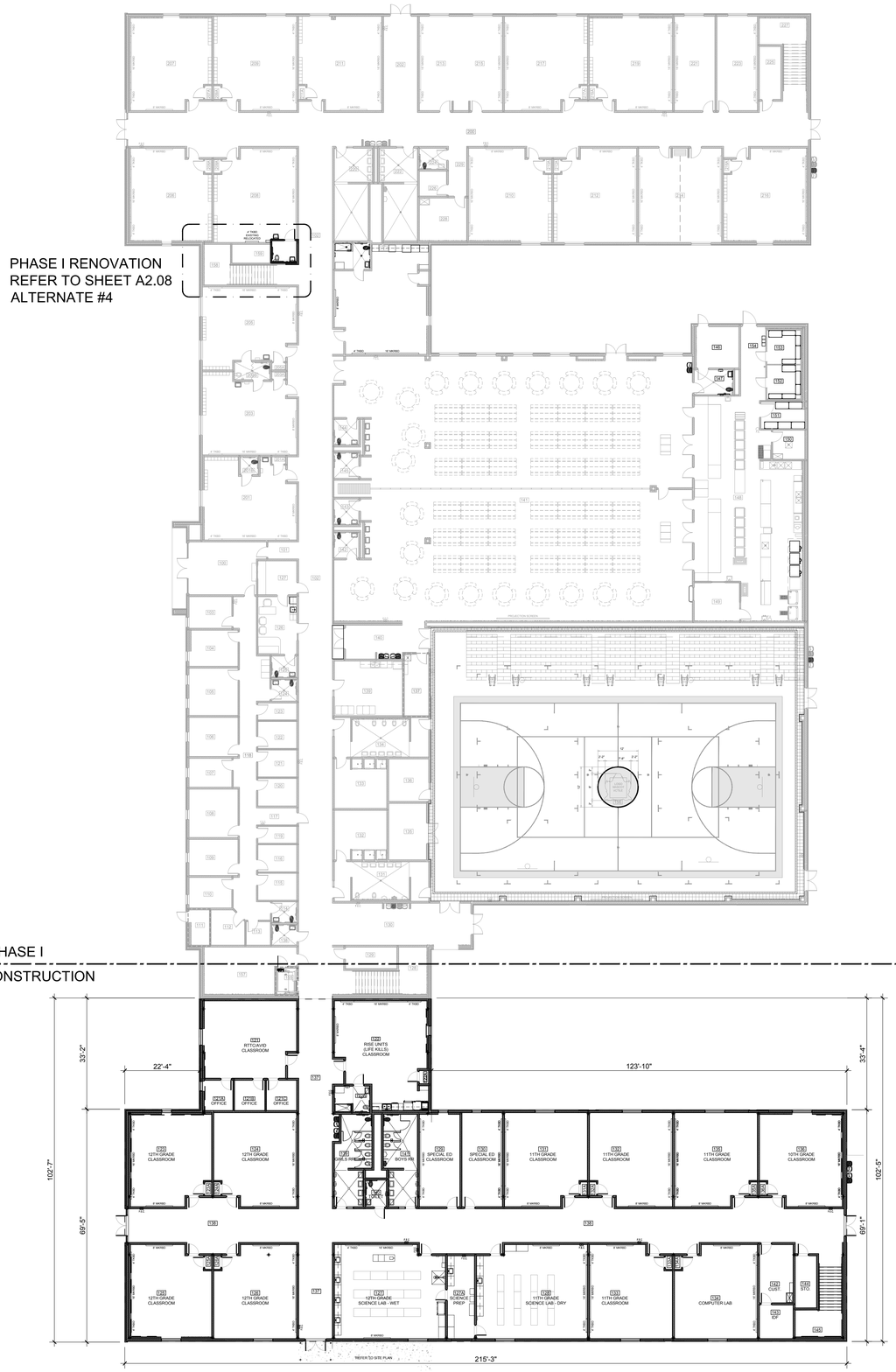
PLAN NORTH

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

PHASE I RENOVATION
REFER TO SHEET A2.08
ALTERNATE #4

EXISTING PHASE I

PHASE II CONSTRUCTION



PLAN NORTH

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

No.	REVISIONS	BY

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

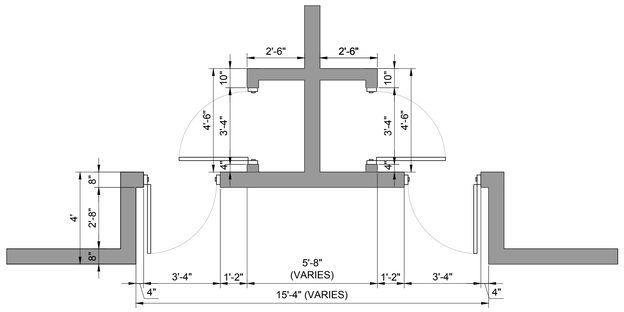
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

DAVID A. MONREAL 19556 REGISTERED ARCHITECT STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A2.00

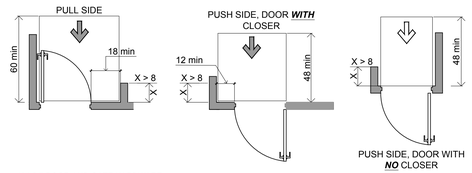


02 FLOOR PLAN ENLARGEMENT
NOT TO SCALE

FIGURE 404.2.4.3

WHEN WALL NEXT TO DOOR STRIKE IS MORE THAN 8", THE FOLLOWING MANEUVERING CLEARANCES ARE REQUIRED

AT RECESSED DOORS AND GATES



404.2.7 DOOR AND GATE HARDWARE.

HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS AND GATES SHALL BE 34 INCHES MINIMUM AND 48 INCHES MAXIMUM ABOVE THE FINISH FLOOR

03 ADA DETAILS
NOT TO SCALE

LEGEND

FINISH LEGEND:

CONC.	SEALED CONCRETE
C.T.	CERAMIC TILE
GB/PTD	GYPSUM BOARD PAINTED
PTD.	PAINTED
RUBBER	RUBBER BASE
V.C.T.	VINYL COMPOSITE TILE
R.T.	RADIAL TILE
WD.	WOOD
EXP/PTD	EXPOSED PAINTED
SUS/GYP	SUSPENDED 1/2" MOISTURE RESISTANT GYP BOARD - PAINTED
S.A.C.	SUSPENDED ACOUSTICAL CEILING REFERENCE SPECIFICATIONS FOR TYPES

WALL HATCH LEGEND:

1 HR — INDICATES THAT THIS WALL SHALL BE FIRE RATED AND SHALL BE EXTENDED TO UNDERSIDE OF ROOF DECK.

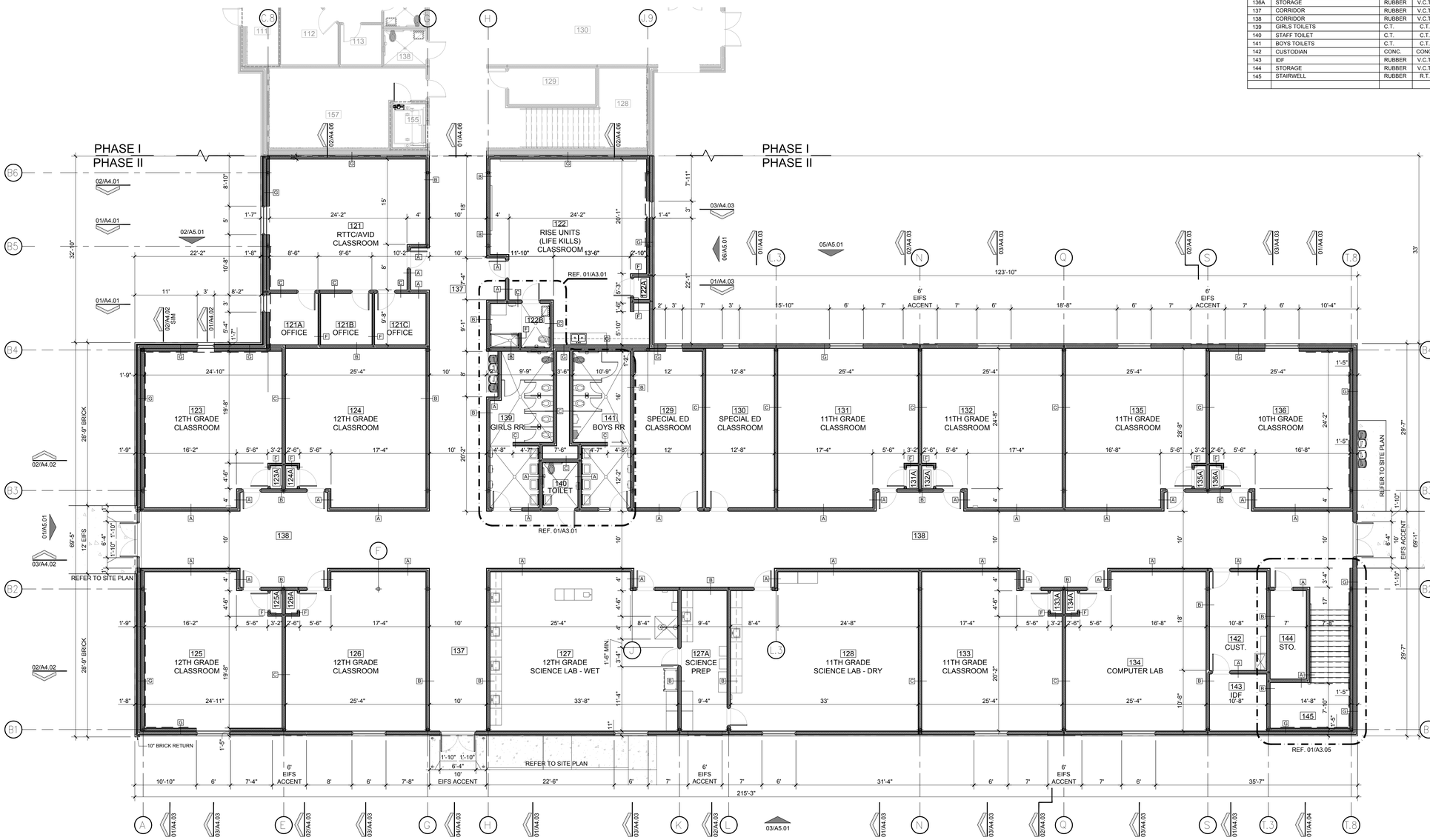
INDICATES METAL STUD W/ GYP/BRD WALL AS REQUIRED REFERENCE INTERIOR PARTITION SECTIONS

NOTE
ALL GYPSUM BOARD TO BE **PAINTED** WHETHER NOTED OR NOT

ROOM FINISH SCHEDULE

THIS SCHEDULE BASED ON PLAN NORTH ORIENTATION

ROOM	ROOM NAME	BASE	FLR.	WALLS N	WALLS S	WALLS E	WALLS W	CLG.	CLG. HEIGHTS	REMARKS
121	RTTC/AVID CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
121A	COUNSELORS OFFICE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-4"	
121B	COUNSELORS OFFICE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-4"	
121C	COUNSELORS OFFICE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-4"	
122	RISE UNIT (LIFE SKILLS) CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
122A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
122B	TOILET	C.T.	C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC III	9'-0"	6'-0" C.T. WAINSCOT
123	12TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
123A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
124	12TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
124A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
125	12TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
125A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
126	12TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
126A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
127	12TH GRADE SCIENCE LAB - WET	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
127A	SCIENCE PREP ROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-4"	
128	11TH GRADE SCIENCE LAB - DRY	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
129	SPECIAL ED CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
130	SPECIAL ED CLASSROOM	**RUBBER**	**V.C.T.**	**GB/PTD**	**GB/PTD**	**GB/PTD**	**GB/PTD**	**SAC I**	**9'-8"**	
131	11TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
131A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
132	11TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
132A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
133	11TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
133A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
134	COMPUTER LAB	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
134A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
135	11TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
135A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
136	10TH GRADE CLASSROOM	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-8"	
136A	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC I	9'-0"	
137	CORRIDOR	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC II	10'-4"	
138	CORRIDOR	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC II	10'-4"	
139	GIRLS TOILETS	C.T.	C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SUS/GYP	9'-0"	6'-0" C.T. WAINSCOT
140	STAFF TOILET	C.T.	C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC III	9'-0"	6'-0" C.T. WAINSCOT
141	BOYS TOILETS	C.T.	C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SUS/GYP	9'-0"	6'-0" C.T. WAINSCOT
142	CUSTODIAN	CONC.	CONC.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	EXP/PTD		4'-0" C.T. WAINSCOT @ MOP SINK
143	IDF	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	SAC IV	9'-4"	
144	STORAGE	RUBBER	V.C.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD	EXP/PTD		
145	STAIRWELL	RUBBER	R.T.	GB/PTD	GB/PTD	GB/PTD	GB/PTD			CLG @ 2ND LVL | R.T. TREADS



01 FLOOR PLAN
1ST FLOOR

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

PLAN NORTH

GENERAL NOTES:

1. REFERENCE SERIES A4.05 FOR TYPICAL INTERIOR WALL SECTIONS NOTED ON THIS PLAN BY THE FOLLOWING DESIGNATION —X
2. PROVIDE DRYWALL CONTROL JOINTS AT ALL STRUCTURAL STEEL COLUMN CONDITIONS AND WALL OPENINGS, REFER TO SHEET A4.05
3. PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS
4. REFERENCE FIXTURE PLANS SHEET FOR FIXTURE, ACCESSORY REQUIREMENTS AND FLOOR TILE PATTERN LAYOUT
5. TYPICAL CORRIDOR WALLS TO BE EXTENDED TO UNDERSIDE OF DECK
6. REFERENCE SHEET A3.01 FOR TOILET ENLARGEMENTS
7. PROVIDE HORIZONTAL MINI BLINDS AT ALL EXTERIOR WINDOWS TYPICAL. (EXCEPTION HALLWAYS AND STAIRWELLS WINDOWS.)
8. ALL EXPOSED DRYWALL CORNERS TO RECEIVE PLASTIC CORNER GUARDS, AS SPECIFIED.
9. ALL EXPOSED COLUMNS ARE TO BE FURRED WITH METAL STUDS AND DRYWALL. REFER TO SHEET A3.02 FOR DETAILS.
10. PROVIDE DOUBLE 6" METAL STUD PARTITION AT ALL STRUCTURAL BRACING LOCATIONS. REFER TO 15/A3.02 FOR DETAILS AND STRUCTURAL FOR LOCATIONS.
11. REFERENCE A3.02 FOR TYPICAL PLAN DETAILS
12. PROVIDE MTL. STUD BLOCKING FOR ALL WALL MOUNTED BOARDS & ACCESSORIES.
13. PROVIDE WOOD BLOCKING AT ALL CABINETS, PROJECTOR & RAILING LOCATIONS.
14. PROVIDE SCHULTER KERDI SHOWER PANS AT ALL LOCATIONS RECEIVING CERAMIC AND QUARRY TILE FLOORING.

No.	REVISIONS	BY

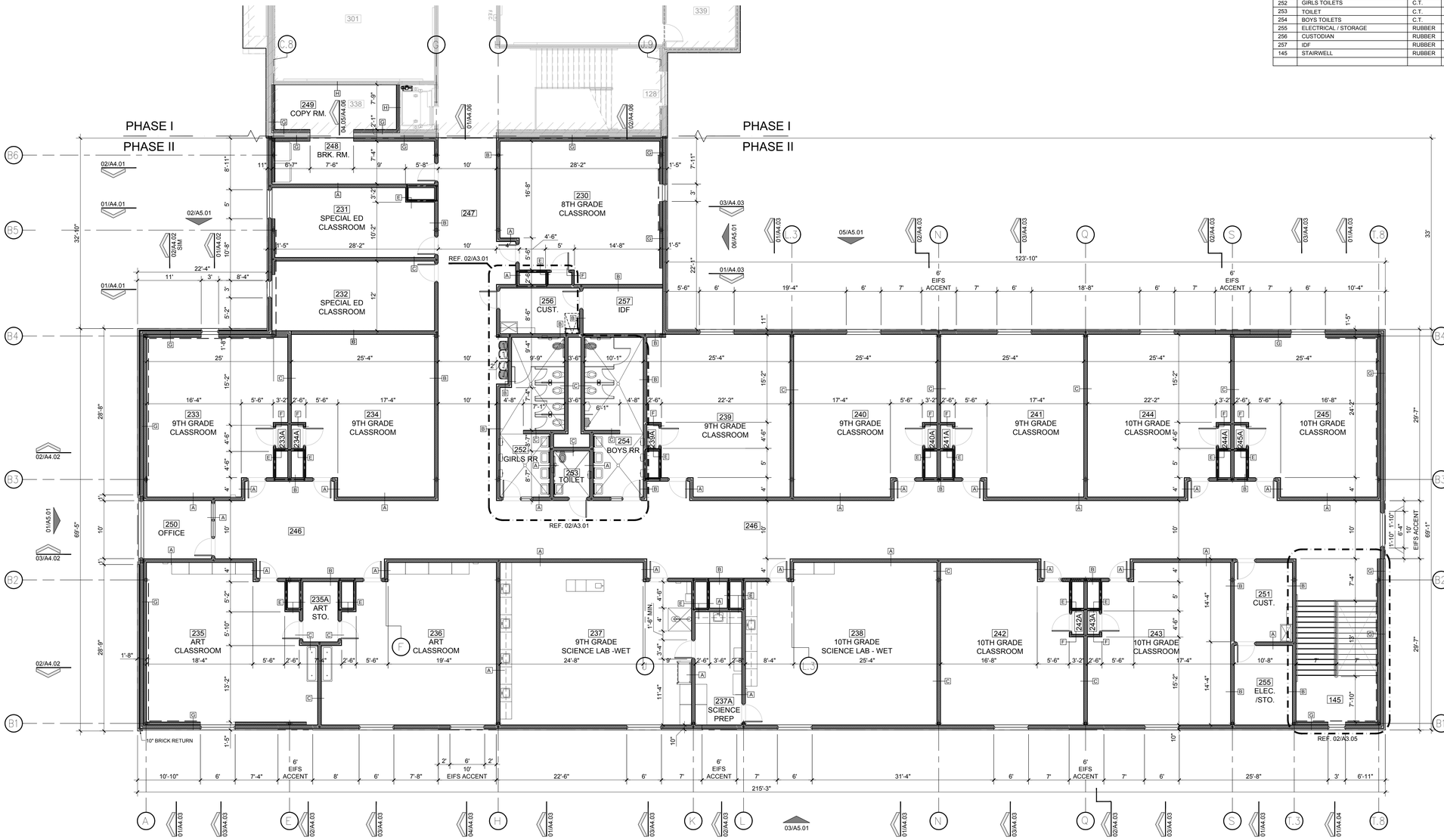
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA
IDEA Public Schools
ACADEMY AND COLLEGE PREP PHASE II

REGISTERED ARCHITECT
DAVID A. MONREAL
19556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A2.01



LEGEND

FINISH LEGEND:

CONC.	SEALED CONCRETE
C.T.	CERAMIC TILE
GB/PTD	GYPSUM BOARD PAINTED
PTD.	PAINTED
RUBBER	RUBBER BASE
V.C.T.	VINYL COMPOSITE TILE
R.T.	RADIAL TILE
WD.	WOOD
EXP/PTD	EXPOSED PAINTED
SUS\GYP	SUSPENDED 1/2" MOISTURE RESISTANT GYP BOARD - PAINTED
S.A.C.	SUSPENDED ACOUSTICAL CEILING REFERENCE SPECIFICATIONS FOR TYPES

WALL HATCH LEGEND:

1 HR — INDICATES THAT THIS WALL SHALL BE FIRE RATED AND SHALL BE EXTENDED TO UNDERSIDE OF ROOF DECK.

INDICATES METAL STUD W/ GYP/BRD WALL AS REQUIRED REFERENCE INTERIOR PARTITION SECTIONS

NOTE:
ALL GYPSUM BOARD TO BE **PAINTED** WHETHER NOTED OR NOT

ROOM FINISH SCHEDULE

THIS SCHEDULE BASED ON PLAN NORTH ORIENTATION

ROOM	ROOM NAME	BASE	FLR.	WALLS N	WALLS S	WALLS E	WALLS W	CLG.	CLG. HEIGHTS	REMARKS
230	8TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
230A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
231	SPECIAL ED CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
232	SPECIAL ED CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
233	9TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
233A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
234	9TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
234A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
235	ART CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
235A	ART STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-4"	
236	ART CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
237	9TH GRADE SCIENCE LAB - WET	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
237A	SCIENCE PREP ROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-4"	
238	10TH GRADE SCIENCE LAB - WET	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
239	9TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
239A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
240	9TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
240A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
241	9TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
241A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
242	10TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
242A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
243	10TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
243A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
244	10TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
244A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
245	10TH GRADE CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
245A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-0"	
246	CORRIDOR	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC II	10'-4"	
247	CORRIDOR	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC II	10'-4"	
248	BREAKROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
249	COPY ROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
250	OFFICE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC II	9'-8"	CLG ABOVE CURTAIN WALL
251	CUSTODIAN	RUBBER	CONC.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	EXP/PTD		4'-0" C.T. WAINSCOT @ MOP SINK
252	GIRLS TOILETS	C.T.	C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SUS/GYP	9'-0"	6'-0" C.T. WAINSCOT
253	TOILET	C.T.	C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC III	9'-0"	6'-0" C.T. WAINSCOT
254	BOYS TOILETS	C.T.	C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SUS/GYP	9'-0"	6'-0" C.T. WAINSCOT
255	ELECTRICAL / STORAGE	RUBBER	CONC.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	EXP/PTD		
256	CUSTODIAN	RUBBER	CONC.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	EXP/PTD		4'-0" C.T. WAINSCOT @ MOP SINK
257	IDF	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC IV	9'-4"	
145	STAIRWELL	RUBBER	RT	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC II	10'-4"	RADIAL TILE TREADS

2ND FLOOR

01 FLOOR PLAN

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

PLAN NORTH

GENERAL NOTES:

1. REFERENCE SERIES A4.07 FOR TYPICAL INTERIOR WALL SECTIONS NOTED ON THIS PLAN BY THE FOLLOWING DESIGNATION —X
2. PROVIDE DRYWALL CONTROL JOINTS AT ALL STRUCTURAL STEEL COLUMN CONDITIONS AND WALL OPENINGS, REFER TO SHEET A4.05
3. PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS
4. REFERENCE FIXTURE PLANS SHEET FOR FIXTURE, ACCESSORY REQUIREMENTS AND FLOOR TILE PATTERN LAYOUT
5. TYPICAL CORRIDOR WALLS TO BE EXTENDED TO UNDERSIDE OF DECK
6. REFERENCE SHEET A3.01 FOR TOILET ENLARGEMENTS
7. PROVIDE HORIZONTAL MINI BLINDS AT ALL EXTERIOR WINDOWS TYPICAL.
(EXCEPTION HALLWAYS AND STAIRWELLS WINDOWS.)
8. ALL EXPOSED DRYWALL CORNERS TO RECEIVE PLASTIC CORNER GUARDS, AS SPECIFIED.
9. ALL EXPOSED COLUMNS ARE TO BE FURRED WITH METAL STUDS AND DRYWALL. REFER TO SHEET A3.02 FOR DETAILS.
10. PROVIDE DOUBLE 6" METAL STUD PARTITION AT ALL STRUCTURAL BRACING LOCATIONS. REFER TO 15/A3.02 FOR DETAILS AND STRUCTURAL FOR LOCATIONS.
11. REFERENCE A3.02 FOR TYPICAL PLAN DETAILS
12. PROVIDE MTL. STUD BLOCKING FOR ALL WALL MOUNTED BOARDS & ACCESSORIES.
13. PROVIDE WOOD BLOCKING AT ALL CABINETS, PROJECTOR & RAILING LOCATIONS.
14. PROVIDE SCHULTER KERDI SHOWER PANS AT ALL LOCATIONS RECEIVING CERAMIC AND QUARRY TILE FLOORING.

No.	REVISIONS	BY

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

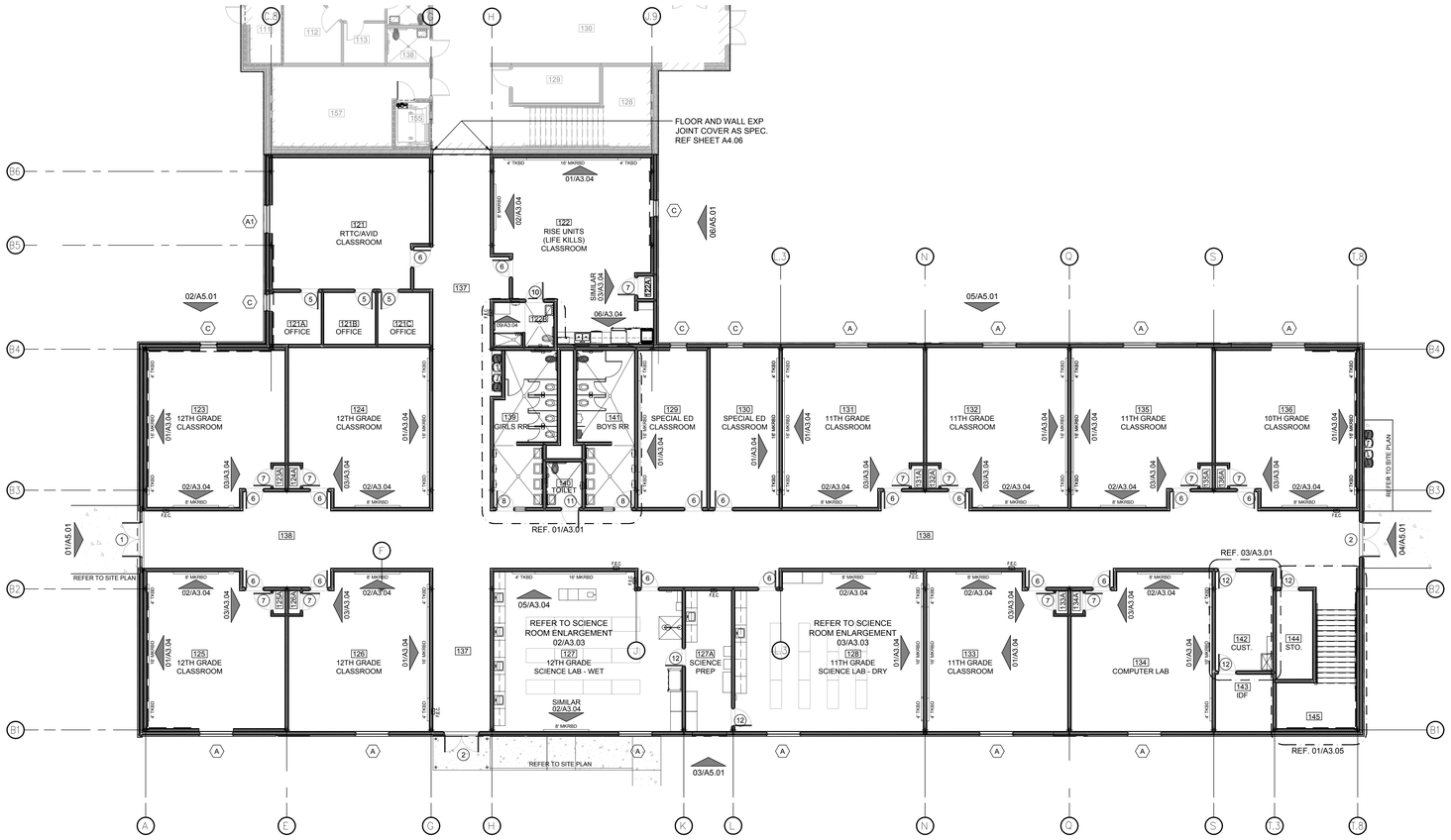
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A2.02



1ST FLOOR
01 FIXTURE PLAN
PLAN NORTH

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

GENERAL NOTES:

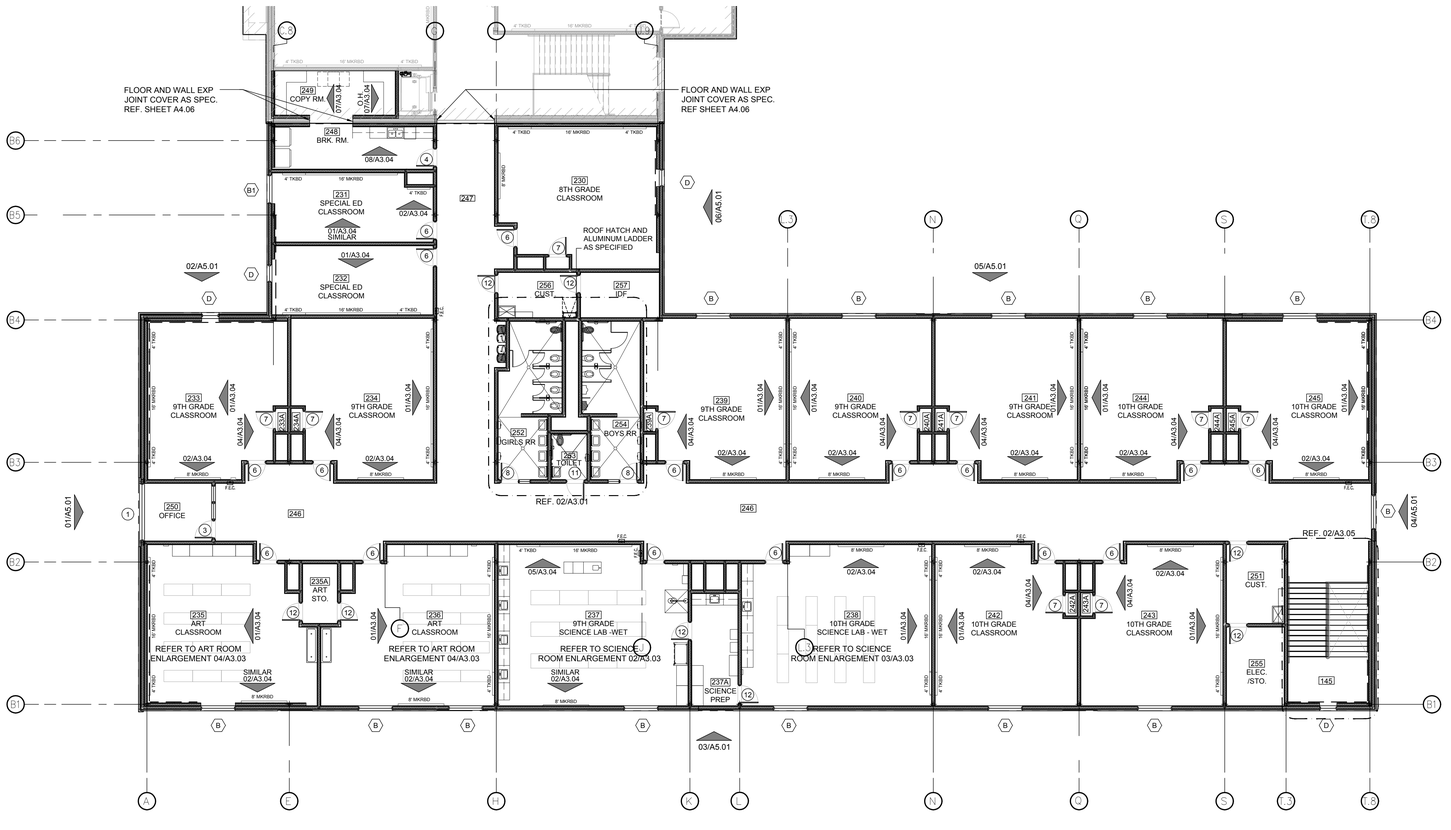
1.) GENERAL CONTRACTOR TO CONTACT ARCHITECTS OFFICE IF ANY FLOOR TILE DESIGN IS UNCLEAR REGARDING SIZE, COLOR, OR LOCATION

2.) PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS

3.) REFERENCE ROOM FINISH SCHEDULE ON SHEET A2.01 FOR ROOM FINISH INFORMATION

4.) PROVIDE FOR UP TO THREE VCT COLORS IN CORRIDORS AND WAITING.

5.) ALLOW FOR ONE ACCENT WALL IN EACH CLASSROOM, LAB, AND OFFICES



2ND FLOOR
02 FIXTURE PLAN
PLAN NORTH

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

GENERAL NOTES:

1.) GENERAL CONTRACTOR TO CONTACT ARCHITECTS OFFICE IF ANY FLOOR TILE DESIGN IS UNCLEAR REGARDING SIZE, COLOR, OR LOCATION

2.) PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS

3.) REFERENCE ROOM FINISH SCHEDULE ON SHEET A2.01 FOR ROOM FINISH INFORMATION

4.) PROVIDE FOR UP TO THREE VCT COLORS IN CORRIDORS AND WAITING.

5.) ALLOW FOR ONE ACCENT WALL IN EACH CLASSROOM, LAB, AND OFFICES

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

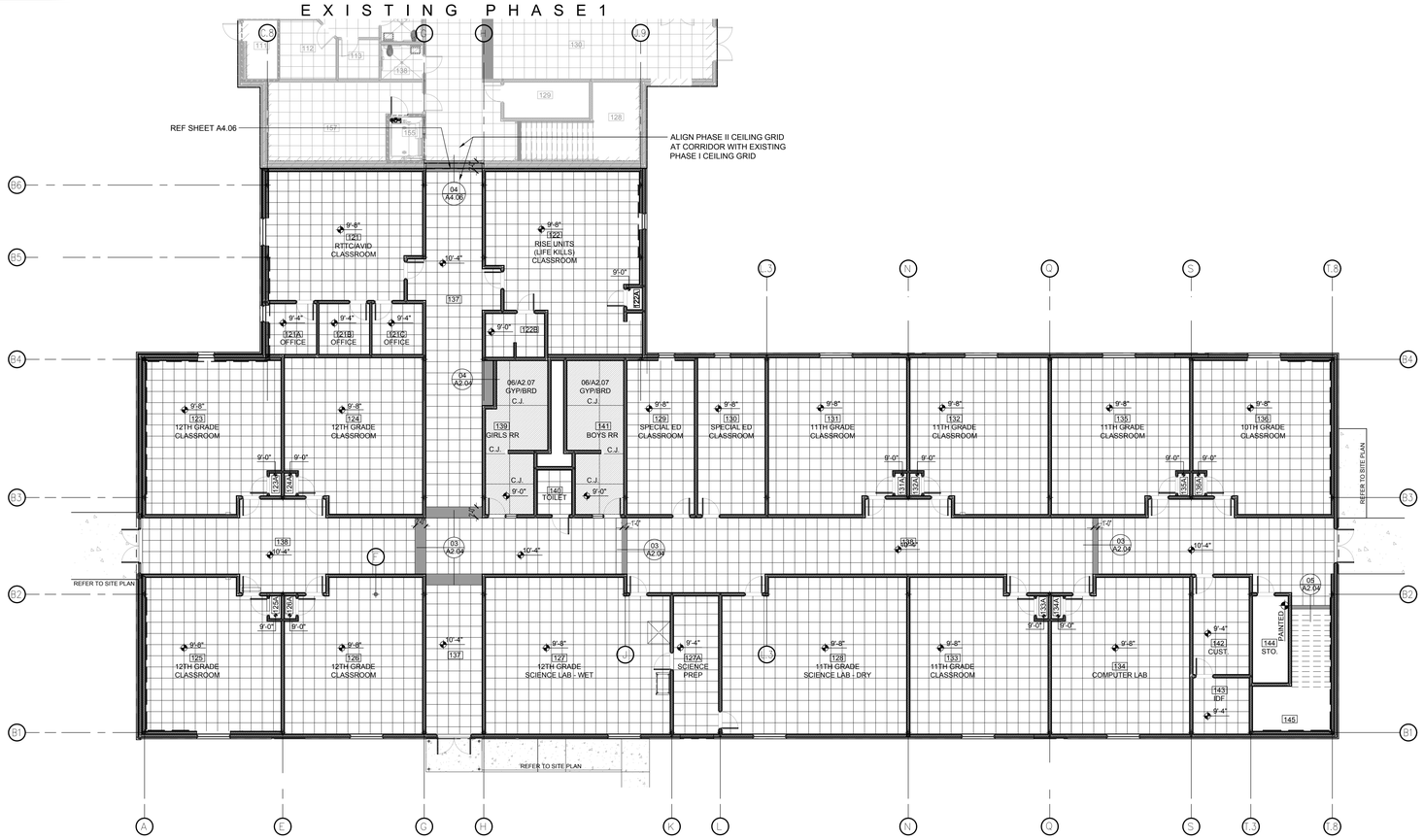
IDEA Public Schools

DAVID A. MONREAL 19556 REGISTERED ARCHITECT STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A2.03

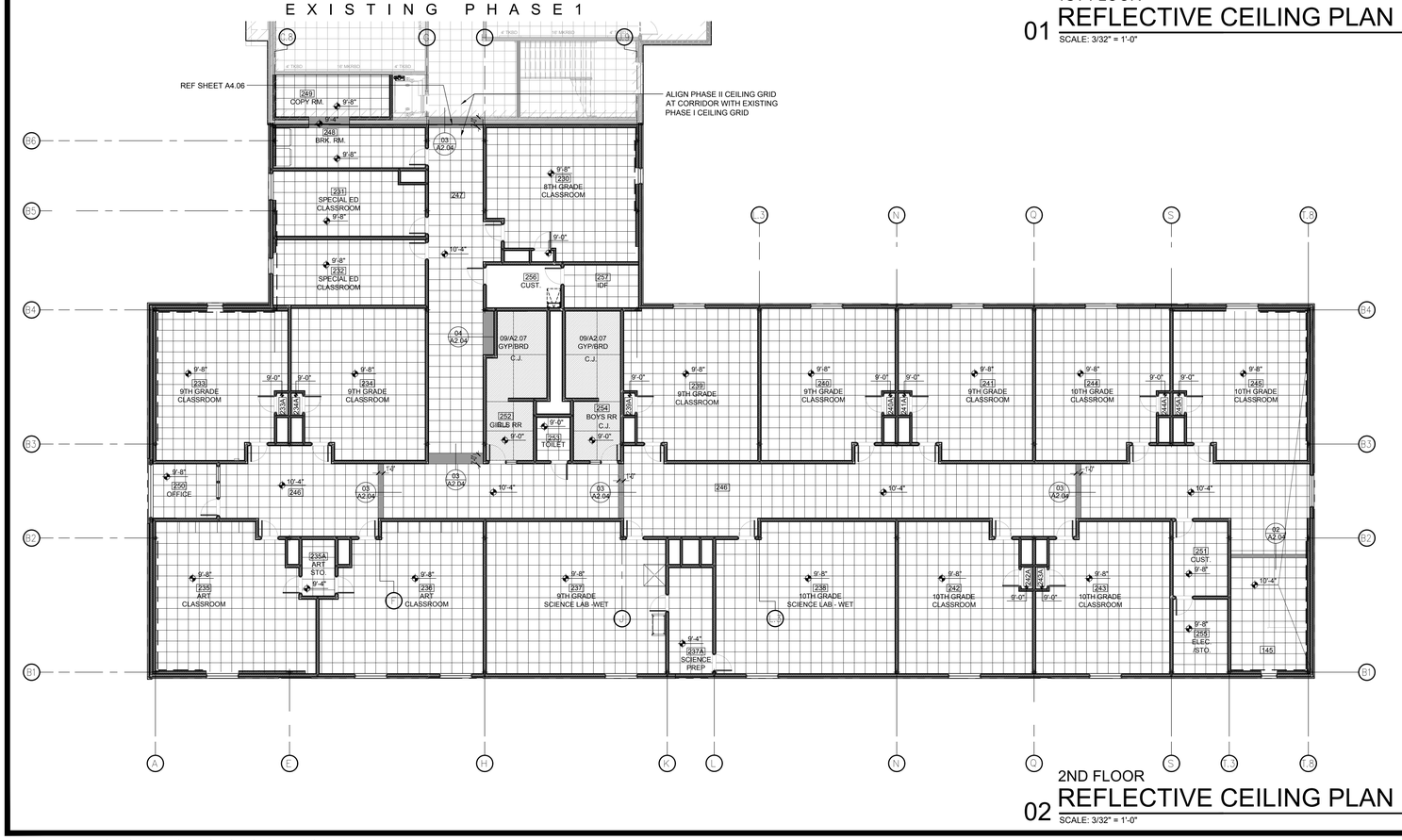
EXISTING PHASE 1



1ST FLOOR
01 REFLECTIVE CEILING PLAN
SCALE: 3/32" = 1'-0"

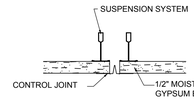
PLAN NORTH

EXISTING PHASE 1

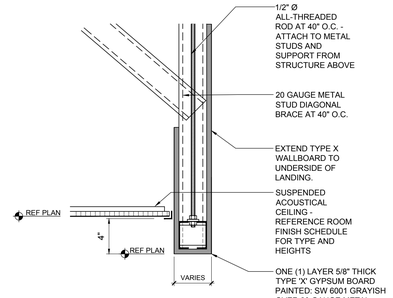


2ND FLOOR
02 REFLECTIVE CEILING PLAN
SCALE: 3/32" = 1'-0"

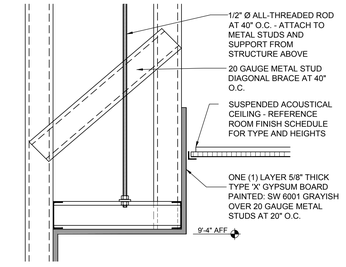
PLAN NORTH



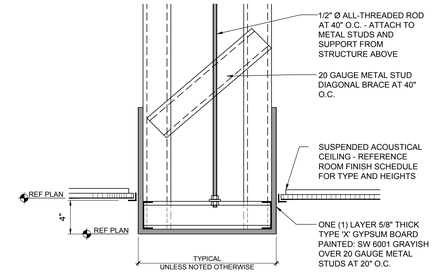
06 GYP BRD CTRL JNT



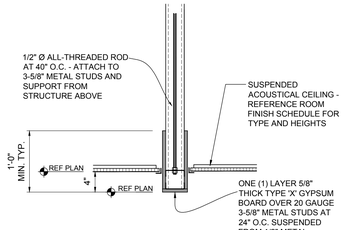
05 SECTION DETAIL
SCALE 1" = 1'-0"
NOTE- AT COOLER/FREZZER PROVIDE FURRDOWN DEPTH AS PER MFG. REQUIREMENTS



04 SECTION DETAIL
SCALE 1" = 1'-0"



03 SECTION DETAIL
SCALE 1" = 1'-0"



02 SECTION DETAIL
SCALE 1" = 1'-0"

No.	REVISIONS	BY

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

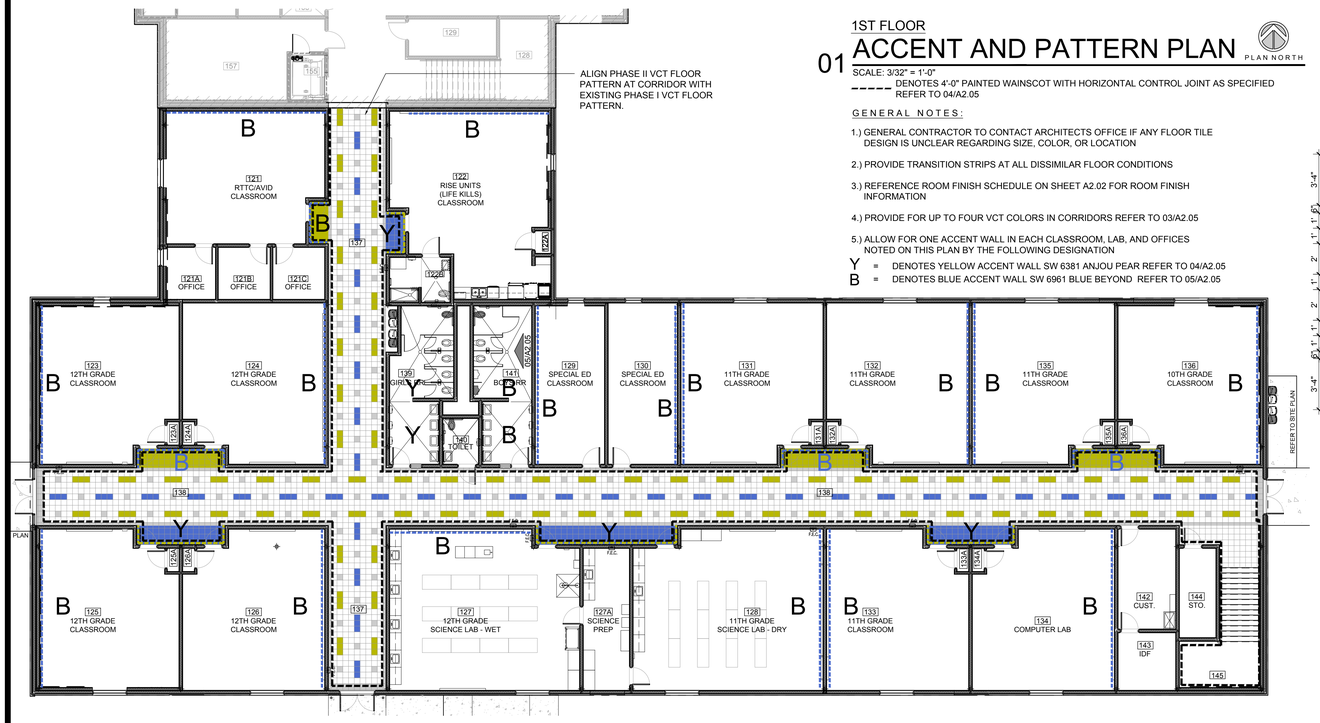
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A2.04



1ST FLOOR

01 ACCENT AND PATTERN PLAN

PLAN NORTH

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

_____ DENOTES 4'-0" PAINTED WAINSCOT WITH HORIZONTAL CONTROL JOINT AS SPECIFIED REFER TO 04/A2.05

GENERAL NOTES:

1.) GENERAL CONTRACTOR TO CONTACT ARCHITECTS OFFICE IF ANY FLOOR TILE DESIGN IS UNCLEAR REGARDING SIZE, COLOR, OR LOCATION

2.) PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS

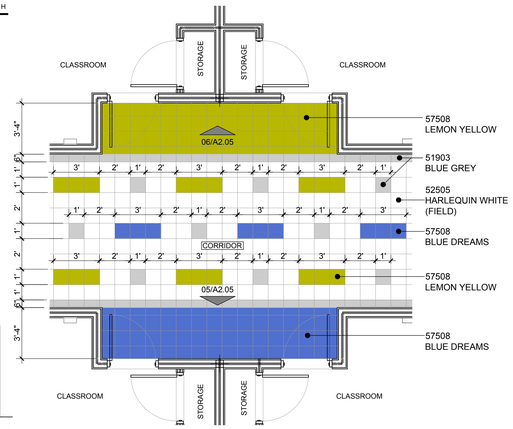
3.) REFERENCE ROOM FINISH SCHEDULE ON SHEET A2.02 FOR ROOM FINISH INFORMATION

4.) PROVIDE FOR UP TO FOUR VCT COLORS IN CORRIDORS REFER TO 03/A2.05

5.) ALLOW FOR ONE ACCENT WALL IN EACH CLASSROOM, LAB, AND OFFICES NOTED ON THIS PLAN BY THE FOLLOWING DESIGNATION

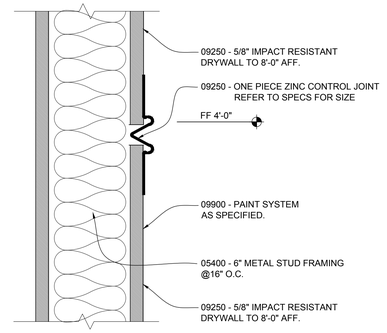
Y = DENOTES YELLOW ACCENT WALL SW 6381 ANJOU PEAR REFER TO 04/A2.05

B = DENOTES BLUE ACCENT WALL SW 6961 BLUE BEYOND REFER TO 05/A2.05



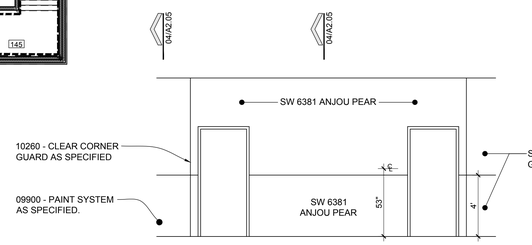
03 TYPICAL VCT PATTERN

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



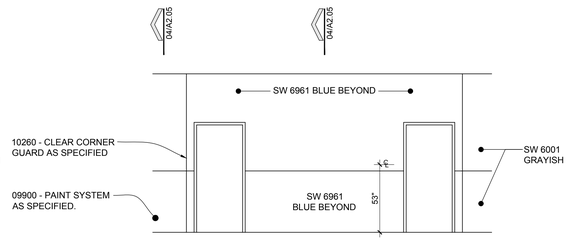
04 DUROPLEX TERMINATION DETAIL

NOT TO SCALE



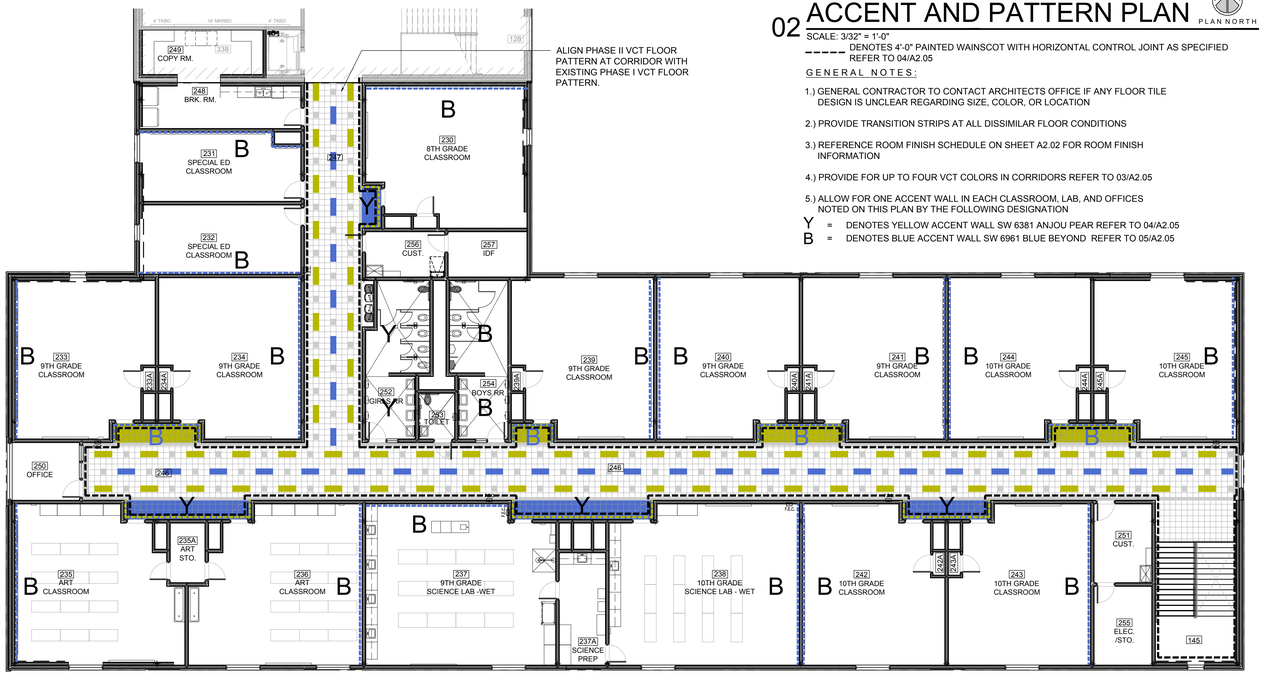
05 TYPICAL WALL ELEVATION

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



06 TYPICAL WALL ELEVATION

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



2ND FLOOR

02 ACCENT AND PATTERN PLAN

PLAN NORTH

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

_____ DENOTES 4'-0" PAINTED WAINSCOT WITH HORIZONTAL CONTROL JOINT AS SPECIFIED REFER TO 04/A2.05

GENERAL NOTES:

1.) GENERAL CONTRACTOR TO CONTACT ARCHITECTS OFFICE IF ANY FLOOR TILE DESIGN IS UNCLEAR REGARDING SIZE, COLOR, OR LOCATION

2.) PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS

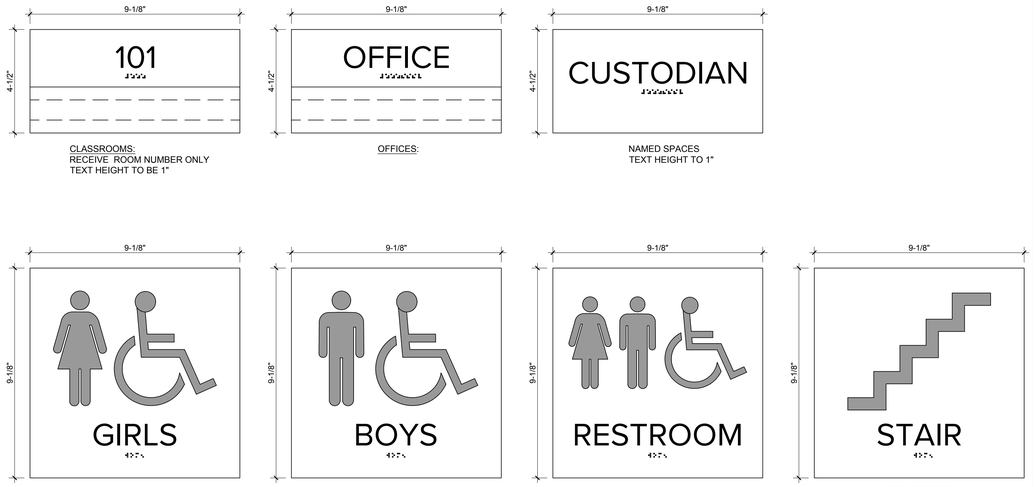
3.) REFERENCE ROOM FINISH SCHEDULE ON SHEET A2.02 FOR ROOM FINISH INFORMATION

4.) PROVIDE FOR UP TO FOUR VCT COLORS IN CORRIDORS REFER TO 03/A2.05

5.) ALLOW FOR ONE ACCENT WALL IN EACH CLASSROOM, LAB, AND OFFICES NOTED ON THIS PLAN BY THE FOLLOWING DESIGNATION

Y = DENOTES YELLOW ACCENT WALL SW 6381 ANJOU PEAR REFER TO 04/A2.05

B = DENOTES BLUE ACCENT WALL SW 6961 BLUE BEYOND REFER TO 05/A2.05



07 ROOM SIGNAGE TEMPLATE

NOT TO SCALE

No.	REVISIONS	BY

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

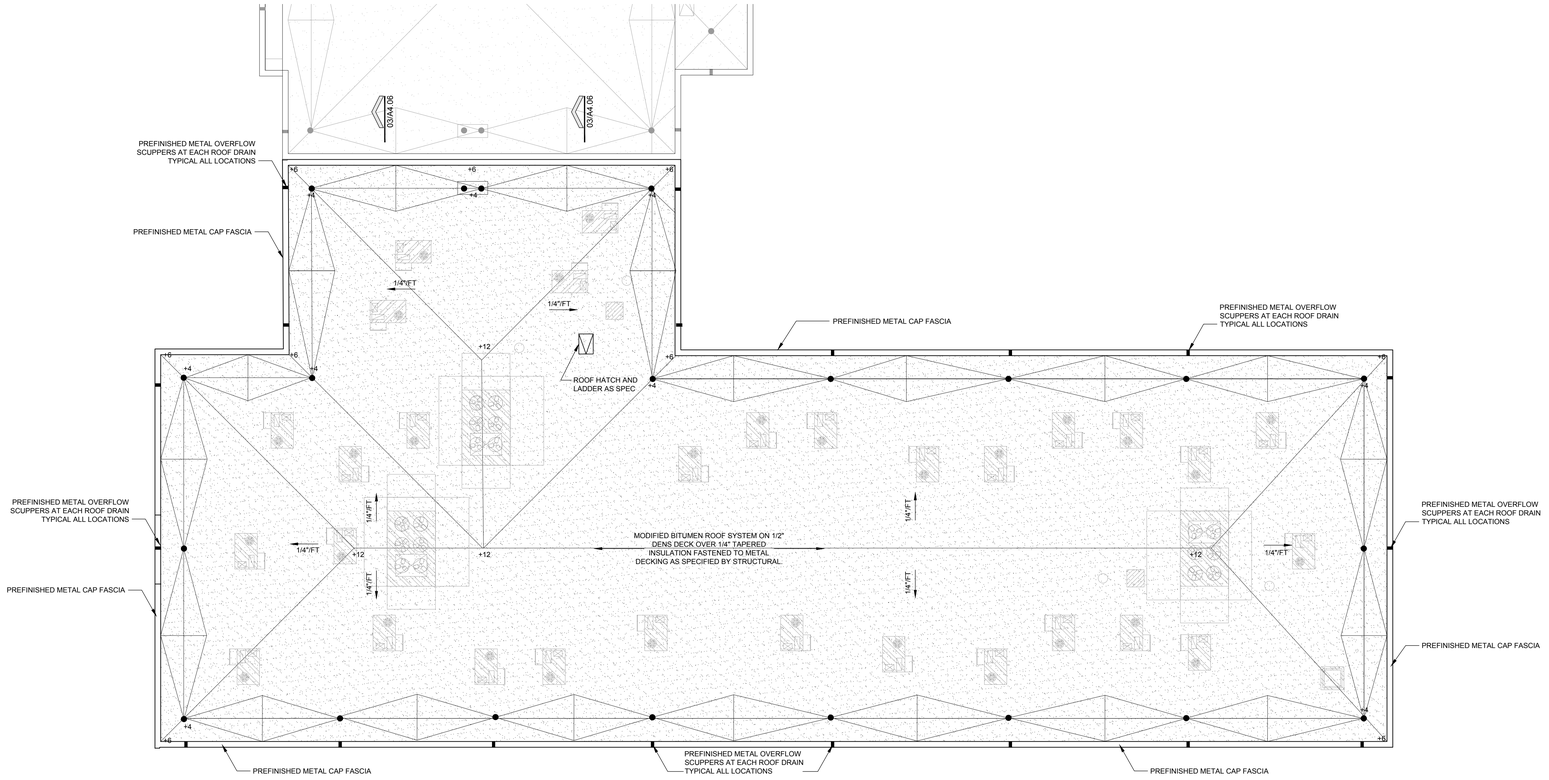
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19555 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A2.05



01 ROOF PLAN

PLAN NORTH

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

GENERAL ROOF NOTES:

1.) ALL PENETRATIONS SHALL BE COORDINATED WITH MECHANICAL / ELECTRICAL 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.) 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

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

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

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

9.) REFER TO MEP AND STRUCTURAL DRAWINGS ALL GAS PIPING, ROUTUNG, SUPPORTS & ACCESSORIES.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

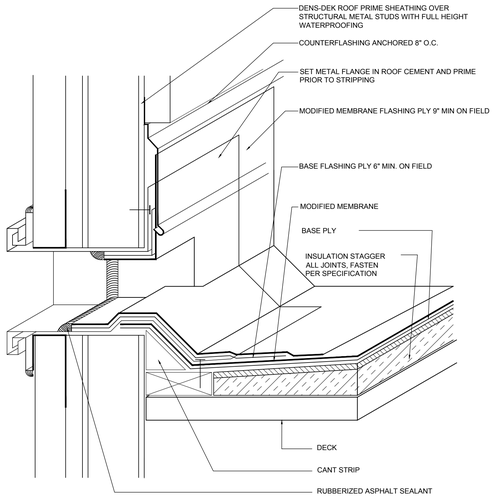
IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS

6-13-19

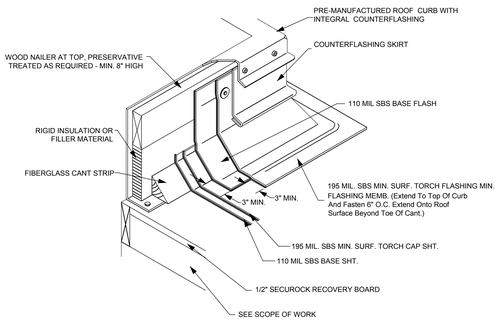
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A2.06



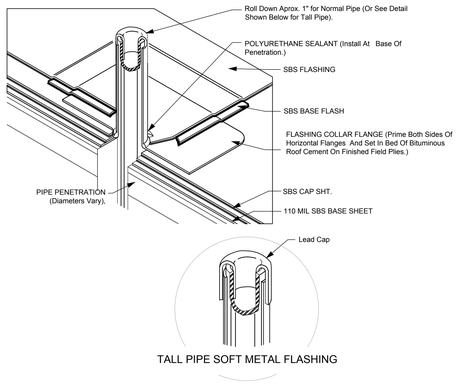
01 SCUPPER DETAIL

NOT TO SCALE
PROVIDE AT EACH ROOF DRAIN LOCATION. TYPICAL



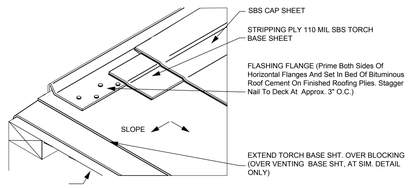
02 TYP. A/C CURB DETAIL

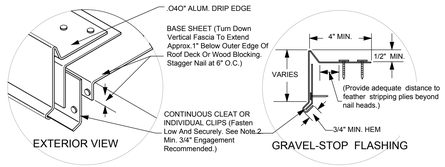
NOT TO SCALE



03 TYP. VENT PIPE DETAIL

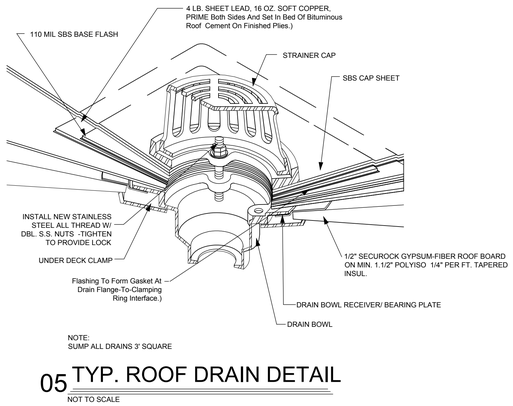
NOT TO SCALE





04 EDGE DETAIL

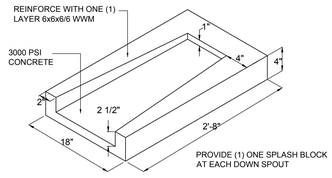
NOT TO SCALE



NOTE:
SUMP ALL DRAINS 3' SQUARE

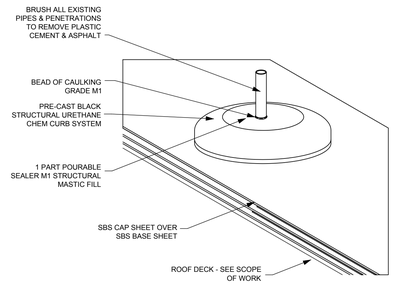
05 TYP. ROOF DRAIN DETAIL

NOT TO SCALE



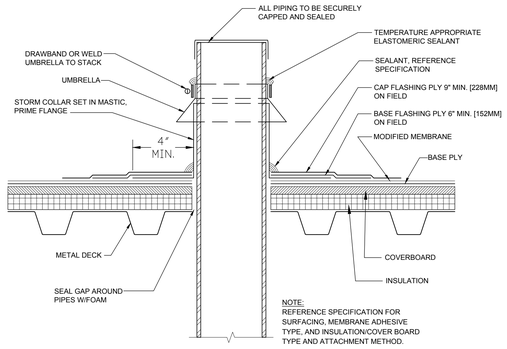
06 SPLASH BLOCK DTL

SCALE 1-1/2" = 1'-0"



08 TYP. CHEM CURB DETAIL

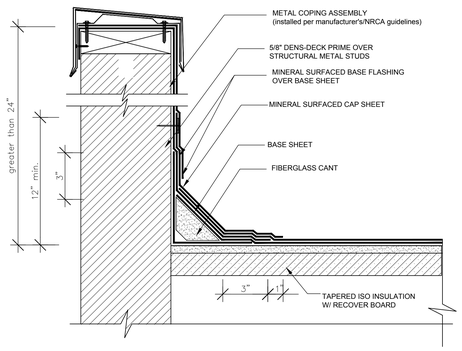
NOT TO SCALE



NOTE:
REFERENCE SPECIFICATION FOR SURFACING, MEMBRANE ADHESIVE TYPE, AND INSULATION/COVER BOARD TYPE AND ATTACHMENT METHOD.

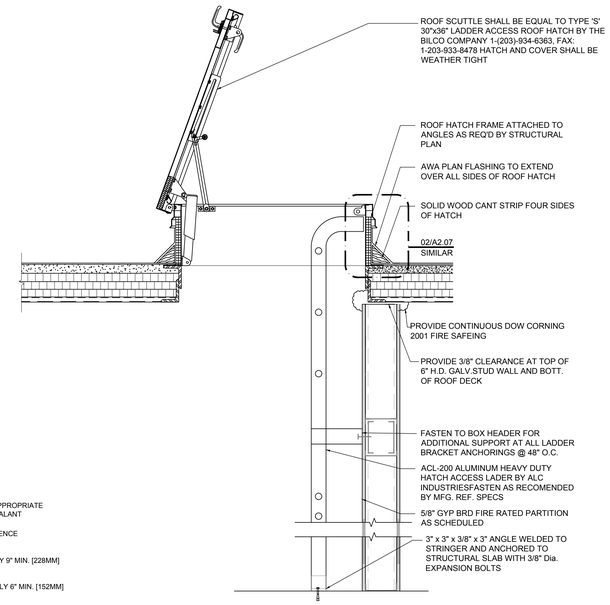
09 PIPE SUPPORT FLASHING DETAIL

NOT TO SCALE



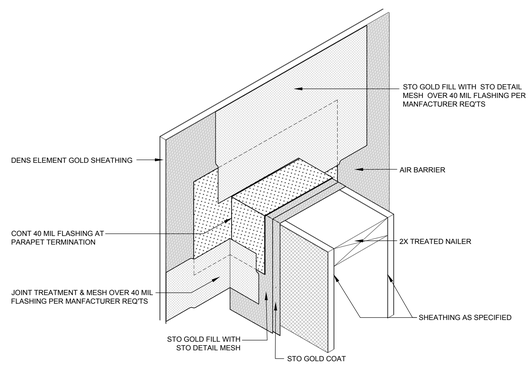
10 PARAPET DETAIL

NOT TO SCALE



11 HATCH & LADDER DETAIL

NOT TO SCALE



12 PARAPET TERMINATION ISO

SCALE : NONE

No.	REVISIONS	BY

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

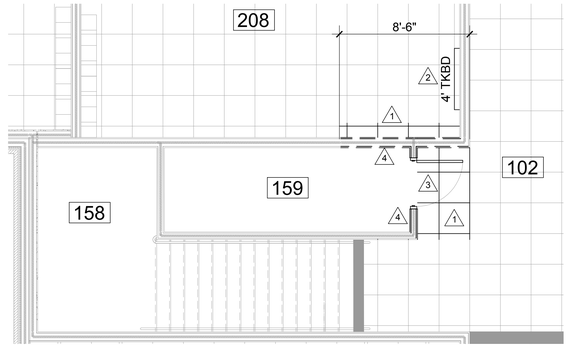
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS
6-12-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A2.07



1ST FLOOR DEMOLITION PLAN

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

01 PHASE I DEMOLITION PLAN

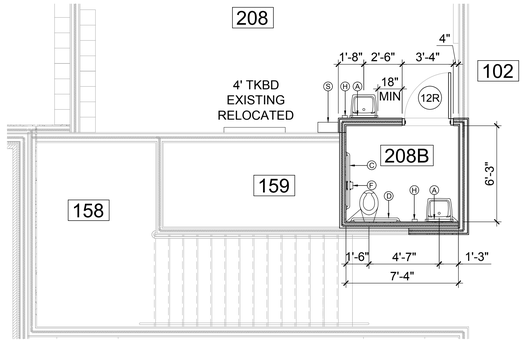
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1.) REFER TO SHEET A2.00 FOR PHASE I OVERALL FLOOR PLAN.

2.) PATCH TO MATCH ALL FLOOR, WALL AND CEILING FINISHES TO MATCH EXISTING. MAKE ADJUSTMENT TO CORRIDOR PATTERN AND CLASSROOM TILE TO CORRESPOND TO WALL MODIFICATIONS.

1. REMOVE EXISTING SUSPENDED ACOUSTICAL CEILING TILES AND GRID. SECURE AND PROTECT EXISTING ELECTRICAL AND MECHANICAL FIXTURES TO BE REINSTALLED.
2. REMOVE AND RELOCATE EXISTING MARKERBOARDS AND TACKBOARDS. REFER TO FLOOR PLAN FOR NEW LOCATIONS.
3. REMOVE AND RELOCATE EXISTING WOOD DOORS AND HM FRAMES. REFER TO FLOOR PLAN FOR NEW LOCATIONS. PROVIDE NEW WALL OPENINGS WHERE DOORS AND FRAMES ARE TO BE RELOCATED.
4. REMOVE EXISTING METAL STUD AND DRYWALL PARTITIONS.
5. REMOVE AND DISCARD WOOD DOOR AND METAL FRAME - EXISTING HARDWARE TO BE GIVEN BACK TO OWNER.



1ST FLOOR PLAN

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

02 FLOOR PLAN

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

GENERAL NOTES:

1.) GENERAL CONTRACTOR TO CONTACT ARCHITECTS OFFICE IF ANY FLOOR TILE DESIGN IS UNCLEAR REGARDING SIZE, COLOR, OR LOCATION

2.) PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS

3.) PROVIDE FOR UP TO THREE VCT COLORS IN CORRIDORS AND WAITING.

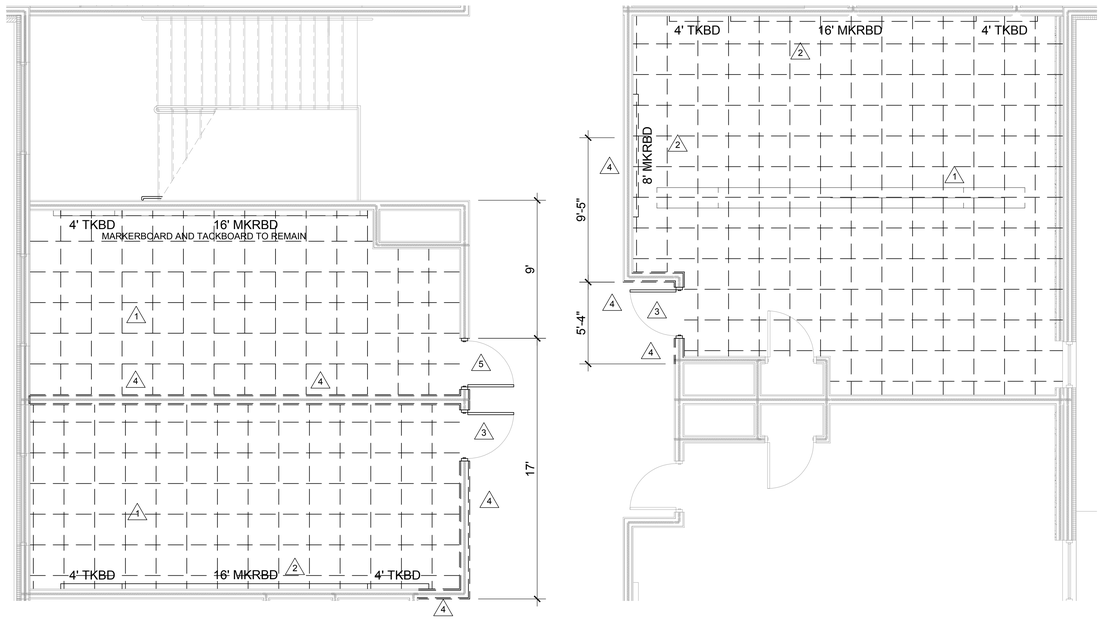
4.) ALLOW FOR ONE ACCENT WALL IN EACH CLASSROOM, LAB, AND OFFICES

6R RELOCATED EXISTING DOOR AND HARDWARE.

12R RELOCATED EXISTING STORAGE RM. 159 DOOR. PROVIDE NEW HARDWARE, EXISTING HARDWARE TO BE GIVEN BACK TO OWNER.

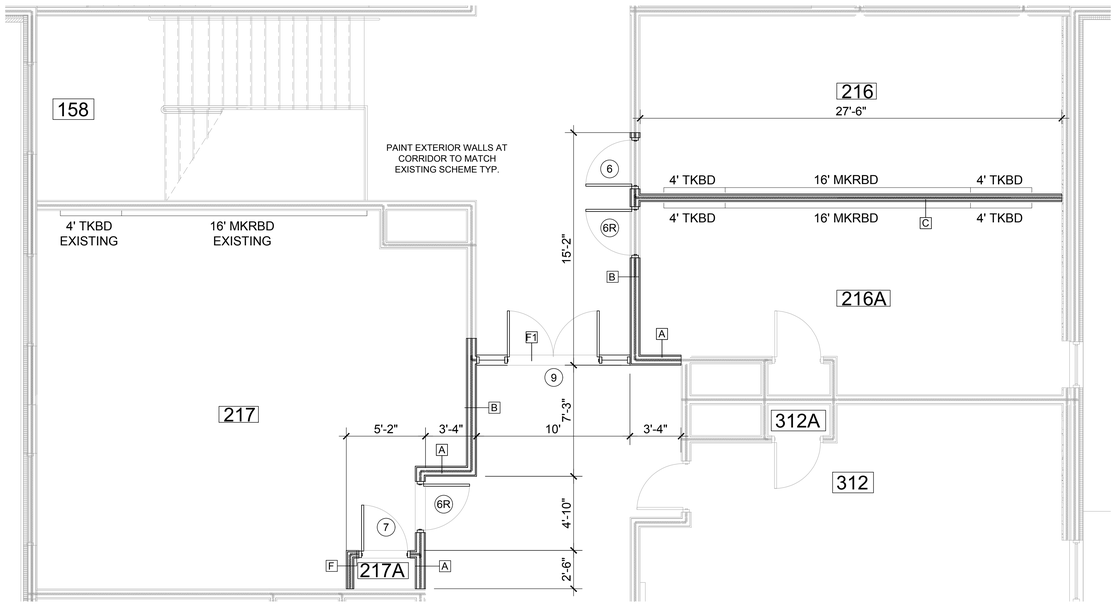
ACCESSORY LEGEND	
No.	NAME
A	SS CHANNEL FRAME MIRROR
C	42" LONG GRAB BAR
D	36" LONG GRAB BAR
F	TOILET TISSUE DISPENSER (Provided by owner installed by contractor)
H	LIQUID SOAP DISPENSER (Provided by owner installed by contractor)
S	PAPER TOWEL DISPENSER (Provided by owner installed by contractor)
	ALL MODEL NUMBERS SHOWN ARE FROM BOBRICK WASHROOM ACCESSORIES

GENERAL NOTES - TOILETS
PROVIDE CERAMIC TILE WAINSCOT BEHIND ALL MIRRORS, INCLUDING HANDICAP MIRRORS WHICH EXTEND BEYOND TILE WAINSCOT.
PROVIDE TILE BORDER AROUND ALL ELECTRICAL OUTLETS WHICH EXTEND BEYOND TILE WAINSCOT.
CONTRACTOR TO INSTALL OWNER PROVIDED SURFACE MOUNTED PAPER TOWEL, SOAP AND TOILET TISSUE DISPENSERS.
PROVIDE: SCHULTER KERDI MEMBRANE WATERPROOFING AT ALL TOILETS ROOMS AND SHOWERS AS SPECIFIED. (SECTION 07115)



2ND FLOOR DEMOLITION PLAN

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



2ND FLOOR PLAN

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

NOTE:
ALL GYPSUM BOARD TO BE **PAINTED** WHETHER NOTED OR NOT

ROOM FINISH SCHEDULE

THIS SCHEDULE BASED ON PLAN NORTH ORIENTATION

ROOM	ROOM NAME	BASE	FLR.	N	S	E	W	CLG.	CLG. HEIGHTS	REMARKS
216	CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
216A	CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
217	CLASSROOM	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
217A	STORAGE	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC I	9'-8"	
243	CORRIDOR	RUBBER	V.C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC II	10'-4"	
208B	TOILET	C.T.	C.T.	GB\PTD	GB\PTD	GB\PTD	GB\PTD	SAC II	9'-0"	6'-0" C.T. WAINSCOT REF. 06,07/A3.01

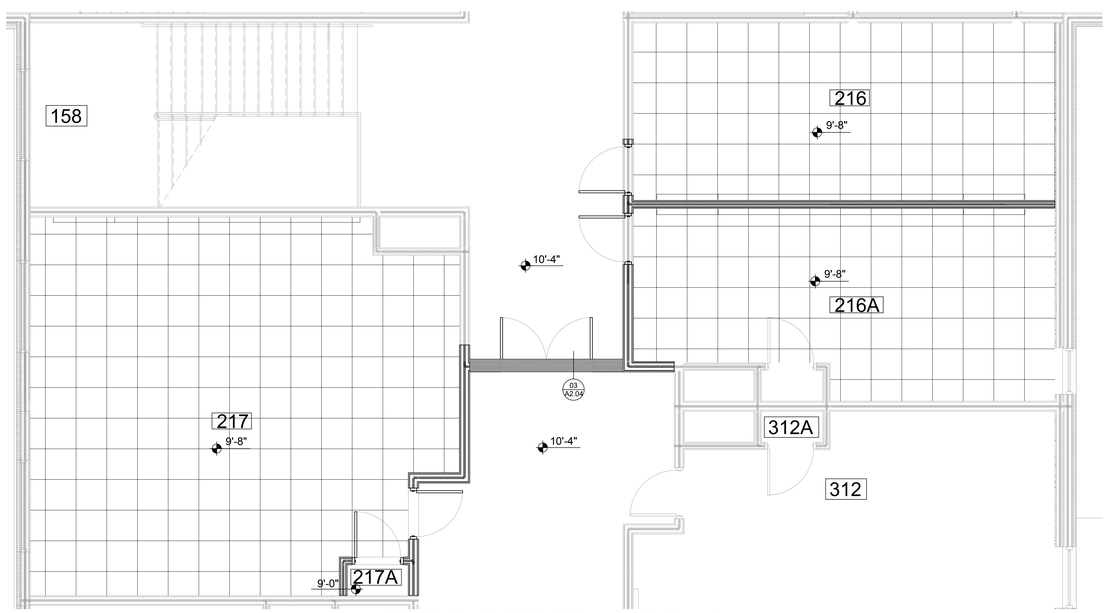
FINISH LEGEND:

CONC.	SEALED CONCRETE
C.T.	CERAMIC TILE
GB/PTD	GYPSUM BOARD PAINTED
PTD.	PAINTED
RUBBER	RUBBER BASE
V.C.T.	VINYL COMPOSITE TILE
R.T.	RADIAL TILE
WD.	WOOD
EXP/PTD	EXPOSED PAINTED
SUS\GYP.	SUSPENDED 1/2" MOISTURE RESISTANT GYP BOARD - PAINTED
S.A.C.	SUSPENDED ACOUSTICAL CEILING REFERENCE SPECIFICATIONS FOR TYPES

WALL HATCH LEGEND:

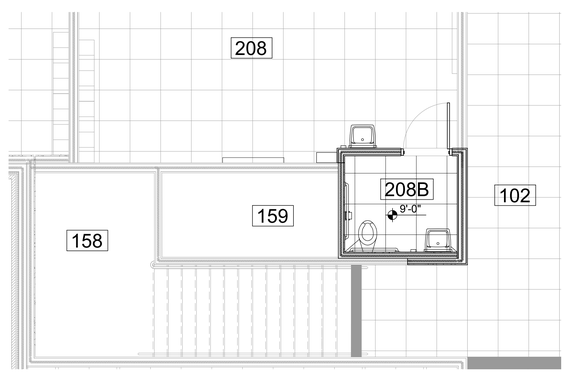
1 HR INDICATES THAT THIS WALL SHALL BE FIRE RATED AND SHALL BE EXTENDED TO UNDERSIDE OF ROOF DECK.

INDICATES METAL STUD W/ GYP/BRD WALL AS REQUIRED REFERENCE INTERIOR PARTITION SECTIONS



03 2ND FLOOR CEILING PLAN

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



04 1ST FLOOR CEILING PLAN

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

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

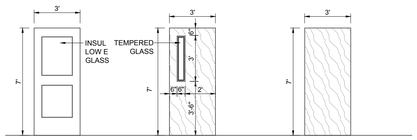
Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A2.08

DOOR SCHEDULE

DOOR NO.	DOOR MATL.	DOOR W	DOOR H	DOOR T	FRAME MATL.	FRAME W	FRAME H	FRAME T	HDWR	DETAIL JAMB	DETAIL HEAD	DETAIL SILL	REMARKS
1	ALUM.	PR - 3'-0"	7'-0"	1 3/4"	ALUM.	10'-0"	24'-8"	VERIFY		11/A3.02	12/A3.02	01/A3.02	
2	ALUM.	PR - 3'-0"	7'-0"	1 3/4"	ALUM.	6'-4"	7'-2"	VERIFY		11/A3.02	12/A3.02	01/A3.02	
3	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	9'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
4	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
5	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
6	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
7	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
8	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
9	ALUM.	PR - 3'-0"	7'-0"	1 3/4"	ALUM.	10'-0"	9'-8"	VERIFY		11/A3.02	12/A3.02	01/A3.02	SHEET A2.08
10	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
11	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		
12	S.C.	3'-0"	7'-0"	1 3/4"	H.M.	3'-4"	7'-2"	VERIFY		09/A3.02	08/A3.02		

NOTE : PROVIDE LABELED DOORS AND HARDWARE AT ALL FIRE RATED PARTITIONS
NOTE : ALL EXTERIOR HOLLOW METAL DOORS & FRAMES TO BE HOT DIPPED Galv. - TYP.
NOTE : ALL GIVEN DIMENSIONS OF DOOR LITES ARE VISIBLE GLASS AREA - ACTUAL LIGHT OPENING TO VARY BY MANUFACTURE'S REQUIREMENTS

NOTE : REFER TO FIXTURE PLANS FOR CORRESPONDING DOOR HARDWARE SETS
NOTE : ALL GLAZING SHALL BE 1/4" WIRE GLASS U.N.O.
NOTE : PROVIDE CYLINDERS OF ALL LOCKSETS TO BE KEYED TO EXISTING GRANDMASTER SYSTEM.
NOTE : CONTRACTOR MUST PROVIDE TRANSITION STRIPS AT ALL DISSIMILAR FLOOR CONDITIONS BETWEEN ROOMS AT DOOR SILLS

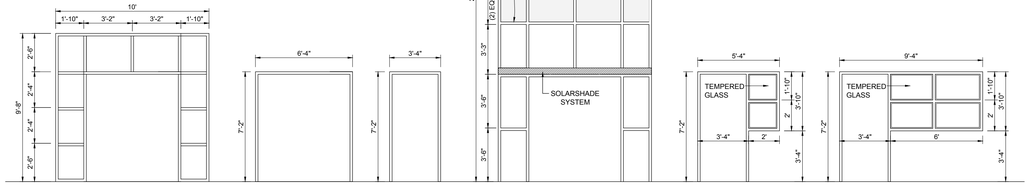


1,2,9 ALUMINUM | 4,5,6 SOLID CORE | 3,7,8,10,11,12 SOLID CORE

DOOR ELEVATIONS

SCALE 1/4" = 1'-0"

NOTE: 1. ALL EXTERIOR DOORS TO BE HOT DIPPED GALVANIZED REGARDLESS WHETHER NOTED OR NOT NOTED (DOES NOT APPLY FOR ALUMINUM DOORS)
2. ALL EXTERIOR DOORS TO MEET HURRICANE AND HIGH IMPACT RESISTANCE REQUIREMENTS WHETHER NOTED OR NOT NOTED



9 ALUMINUM STOREFRONT | 2 ALUMINUM STOREFRONT | 4,5,6,7,10,11,12 HOLLOW METAL | 1 ALUMINUM CURTAIN WALL | 8 HOLLOW METAL | 3 HOLLOW METAL

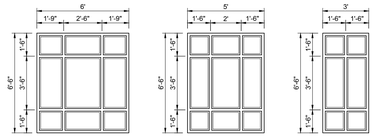
DOOR FRAME ELEVATIONS

SCALE 1/4" = 1'-0"

NOTE:
ALL EXTERIOR DOOR FRAMES TO BE GALVANIZED REGARDLESS WHETHER NOTE OR NOT NOTED (DOES NOT APPLY FOR ALUMINUM FRAMES)

WINDOW SCHEDULE

WDW NO.	MATL	SIZE W	SIZE H	ELEVATION HEAD	ELEVATION SILL	GLASS	DETAIL JAMB	DETAIL HEAD	DETAIL SILL	REMARKS
A	ALUM	6'-0"	6'-6"	9'-0"	2'-6"	LOW- E INSUL	02/A3.02	03/A3.02	04/A3.02	REF. TO DTLS A,B,10,11,12/A3.02 AT EIFS ELEVATION
B	ALUM	6'-0"	6'-6"	23'-8"	17'-2"	LOW- E INSUL	10/A3.02	12/A3.02	11/A3.02	REF. TO DTLS 02,03,04/A3.02 AT BRICK ELEVATION
A1	ALUM	5'-0"	6'-6"	9'-0"	2'-6"	LOW- E INSUL	02/A3.02	03/A3.02	04/A3.02	REF. TO DTLS A,B,10,11,12/A3.02 AT EIFS ELEVATION
B1	ALUM	5'-0"	6'-6"	23'-8"	17'-2"	LOW- E INSUL	10/A3.02	12/A3.02	11/A3.02	REF. TO DTLS 02,03,04/A3.02 AT BRICK ELEVATION
C	ALUM	3'-0"	6'-6"	9'-0"	2'-6"	LOW- E INSUL	02/A3.02	03/A3.02	04/A3.02	REF. TO DTLS A,B,10,11,12/A3.02 AT EIFS ELEVATION
D	ALUM	3'-0"	6'-6"	23'-8"	17'-2"	LOW- E INSUL	02/A3.02	03/A3.02	04/A3.02	REF. TO DTLS A,B,10,11,12/A3.02 AT EIFS ELEVATION



A B — ALUMINUM WINDOW FRAME SYSTEM INSUL LOW E GLASS

A1 B1 — ALUMINUM WINDOW FRAME SYSTEM INSUL LOW E GLASS

C D — ALUMINUM WINDOW FRAME SYSTEM INSUL LOW E GLASS

WINDOW ELEVATIONS

SCALE 1/4" = 1'-0"

No.	REVISIONS	BY

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

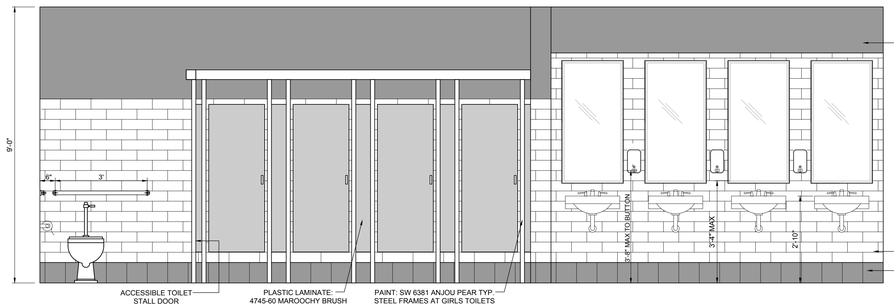
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

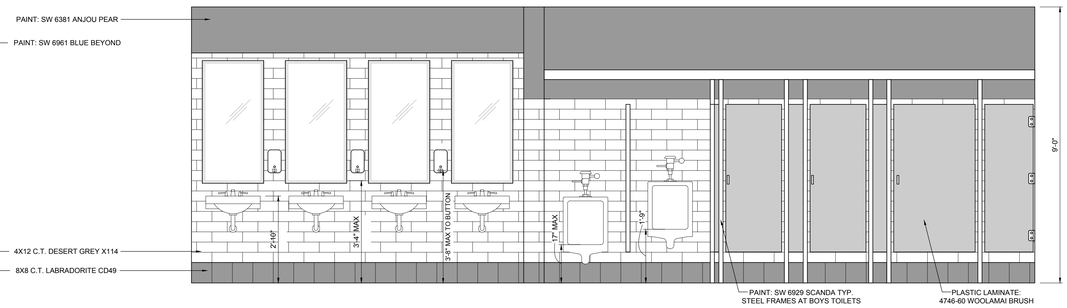
REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

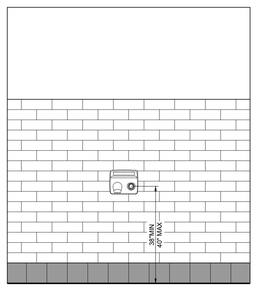
Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A3.00



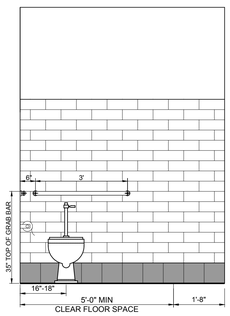
07 GIRLS TOILET ELEVATION
SCALE: 1/4" = 1'-0"



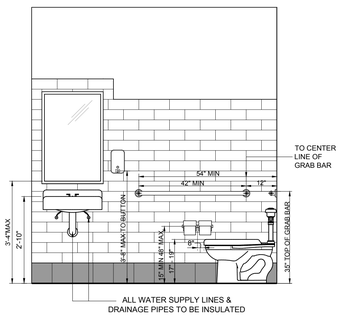
12 BOYS TOILET ELEVATION
SCALE: 1/4" = 1'-0"



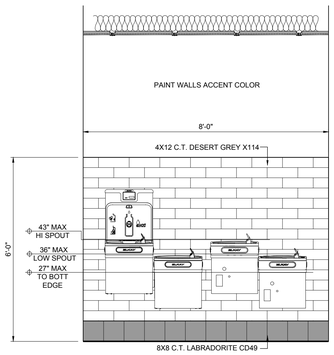
11 TOILET ELEVATION
SCALE: 1/2" = 1'-0"



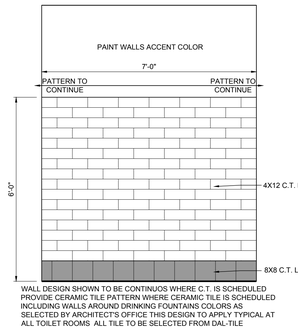
10 TOILET ELEVATION
SCALE: 1/2" = 1'-0"



10 TOILET ELEVATION
SCALE: 1/2" = 1'-0"

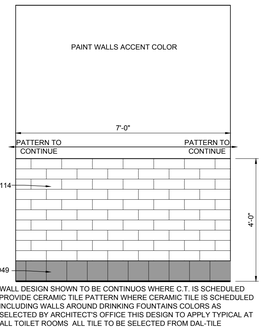


09 WALL C.T. @ D.F's
SCALE: 1/2" = 1'-0"



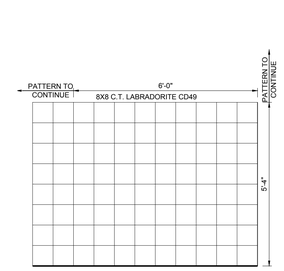
WALL DESIGN SHOWN TO BE CONTINUOS WHERE C.T. IS SCHEDULED PROVIDE CERAMIC TILE PATTERN WHERE CERAMIC TILE IS SCHEDULED INCLUDING WALLS AROUND DRINKING FOUNTAINS COLORS AS SELECTED BY ARCHITECT'S OFFICE THIS DESIGN TO APPLY TYPICAL AT ALL TOILET ROOMS ALL TILE TO BE SELECTED FROM DAL-TILE

08 WALL C.T. DESIGN
SCALE: 1/2" = 1'-0"



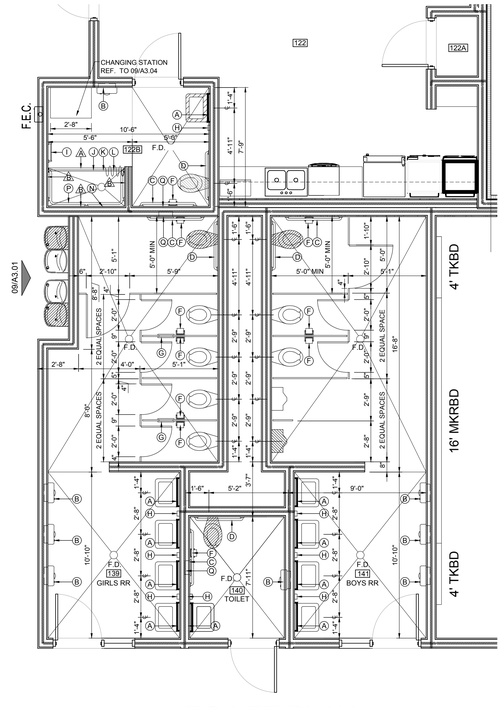
WALL DESIGN SHOWN TO BE CONTINUOS WHERE C.T. IS SCHEDULED PROVIDE CERAMIC TILE PATTERN WHERE CERAMIC TILE IS SCHEDULED INCLUDING WALLS AROUND DRINKING FOUNTAINS COLORS AS SELECTED BY ARCHITECT'S OFFICE THIS DESIGN TO APPLY TYPICAL AT ALL TOILET ROOMS ALL TILE TO BE SELECTED FROM DAL-TILE

07 WALL C.T. DESIGN
SCALE: 1/2" = 1'-0"

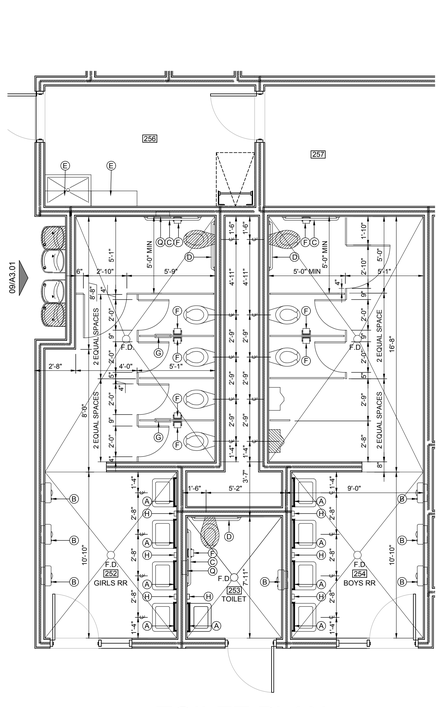


PROVIDE CERAMIC TILE AS SCHEDULED COLORS TO BE SELECTED BY ARCHITECT'S OFFICE THIS DESIGN TO APPLY TYPICAL AT ALL TOILET ROOMS ALL TILE TO BE SELECTED FROM DAL-TILE

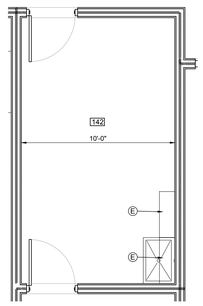
06 FLOOR C.T. DESIGN
SCALE: 1/2" = 1'-0"



01 TOILET PLAN
SCALE: 1/4" = 1'-0"



02 TOILET PLAN
SCALE: 1/4" = 1'-0"



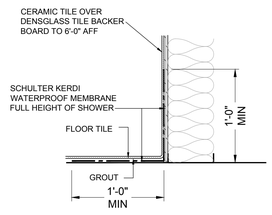
03 MOP SINK PLAN
SCALE: 1/4" = 1'-0"
SIMILAR AT ROOM 251, 256

GENERAL NOTES - TOILETS

PROVIDE CERAMIC TILE WAINSCOT BEHIND ALL MIRRORS, INCLUDING HANDICAP MIRRORS WHICH EXTEND BEYOND TILE WAINSCOT.
PROVIDE TILE BORDER AROUND ALL ELECTRICAL OUTLETS WHICH EXTEND BEYOND TILE WAINSCOT.
CONTRACTOR TO INSTALL OWNER PROVIDED SURFACE MOUNTED PAPER TOWEL, SOAP AND TOILET TISSUE DISPENSERS.
PROVIDE SCHULTER KERDI MEMBRANE WATERPROOFING AT ALL TOILETS ROOMS AND SHOWERS AS SPECIFIED. (SECTION 07115)

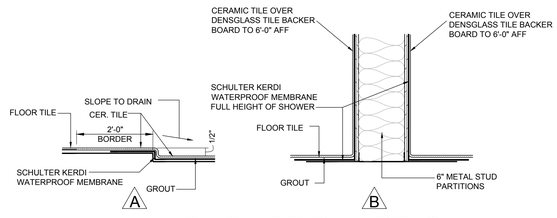
ACCESSORY LEGEND

No.	NAME
(A)	SS CHANNEL FRAME MIRROR
(B)	HOT AIR DRYER (REFER TO M.E.P.)
(C)	42" LONG GRAB BAR
(D)	36" LONG GRAB BAR
(E)	MOP AND BROOM HOLDER
(F)	TOILET TISSUE DISPENSER (Provided by owner installed by contractor)
(G)	PARTITION MOUNTED SANITARY NAPKIN DISPOSAL
(H)	LIQUID SOAP DISPENSER (Provided by owner installed by contractor)
(I)	TOWEL BAR 18"
(J)	SHOWER CURTAIN MOD # 204-2
(K)	SHOWER ROD MOD # B-6047
(L)	SHOWER HOOKS MOD # 204-1
(M)	SHOWER SEAT
(N)	SOAP DISH
(P)	CONTINUOS GRAB BAR MOD # B-6806 SERIES
(Q)	WALL MOUNTED SANITARY NAPKIN DISPOSAL
(R)	TOWEL HOOK
	PAPER TOWEL DISPENSER (Provided by owner installed by contractor)
	ALL MODEL NUMBERS SHOWN ARE FROM BOBRICK WASHROOM ACCESSORIES



05 TOILET WALL BASE DTL
SCALE: 1-1/2" = 1'-0"

PROVIDE SCHULTER KERDI WALL PAN ALL AREAS WHERE CERAMIC AND QUARRY TILE ARE SCHEDULED.



04 SHOWER PAN DTLS
SCALE: 1-1/2" = 1'-0"

ALL SHOWER AREAS TO RECEIVE SCHULTER KERDI SHOWER PAN

No.	REVISIONS	BY

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

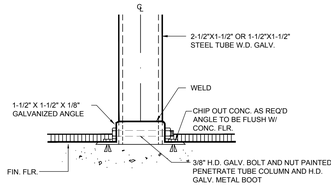
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

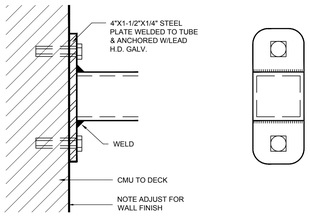
REGISTERED ARCHITECT DAVID A. MONREAL 79556 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13.2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A3.01

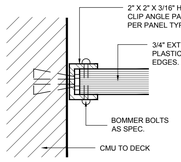


25 TOILET PARTITION DETAIL
SCALE 3" = 1'-0"

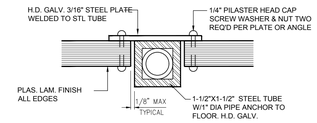


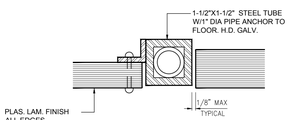
NOTE: GROUND SMOOTH ALL WELDS

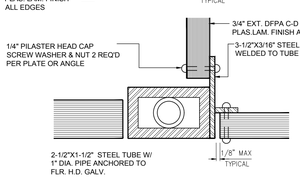
24 TOILET PARTITION DETAIL
SCALE 1-1/2" = 1'-0"



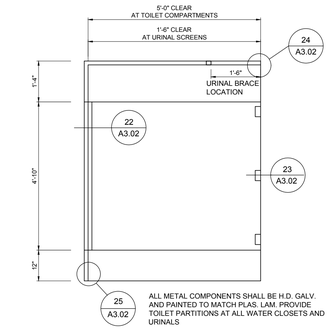
23 TOILET PARTITION DETAIL
SCALE 1-1/2" = 1'-0"





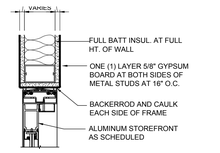


22 TOILET PARTITION DETAIL
SCALE 1-1/2" = 1'-0"
NOTES:
1. GROUND SMOOTH ALL WELDS
2. PROVIDE NO SPLICES AT TOP RAIL.

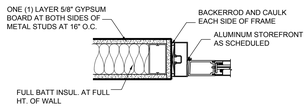


ALL METAL COMPONENTS SHALL BE H.D. GALV. AND PAINTED TO MATCH PLAS. LAM. PROVIDE TOILET PARTITIONS AT ALL WATER CLOSETS AND URINALS

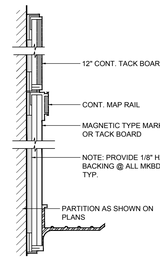
21 TOILET PARTITION DETAIL
SCALE 1-1/2" = 1'-0"



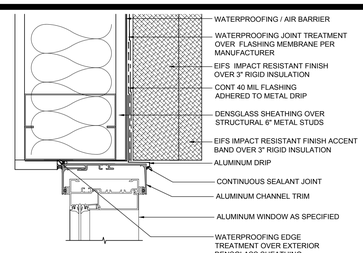
21 DOOR HEAD DETAIL
SCALE 1-1/2" = 1'-0"



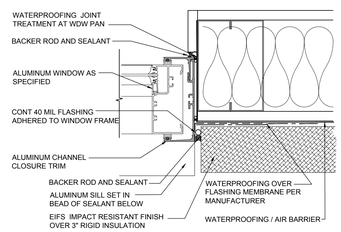
22 DOOR JAMB DETAIL
SCALE 1-1/2" = 1'-0"



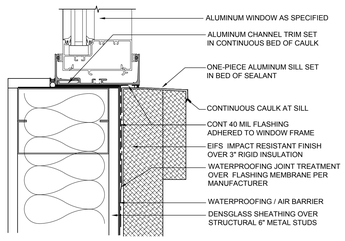
26 MARKER BD TRAY DETAIL
NOT TO SCALE
TACKBOARD SIMILAR CONDITION
DO NOT GLUE BOARDS TO WALL



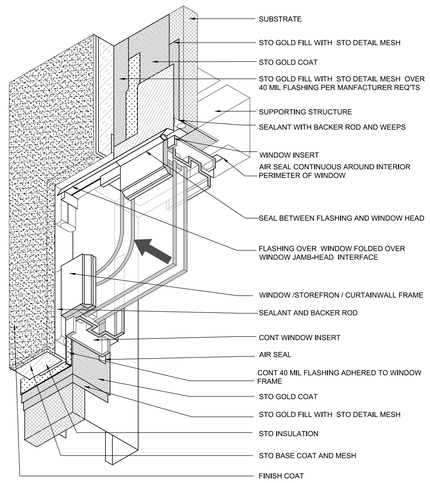
12 EIFS HEAD DTL
NOT TO SCALE
STOREFRONT DOORS SIMILAR



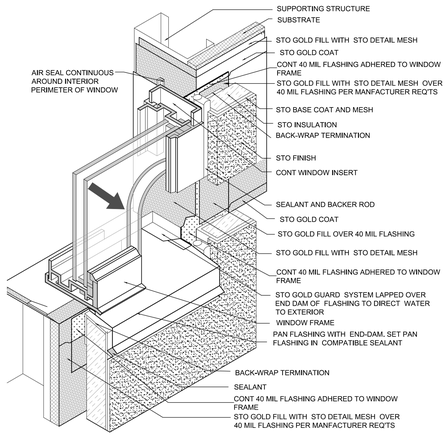
11 EIFS JAMB DTL
NOT TO SCALE
STOREFRONT DOORS SIMILAR



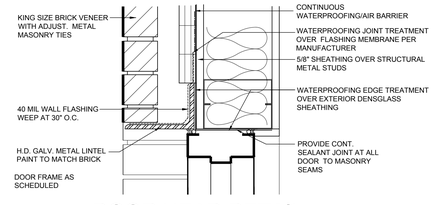
10 EIFS SILL DTL
NOT TO SCALE



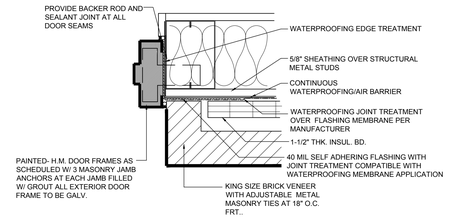
A EIFS HEAD/JAMB ISO
SCALE : NONE



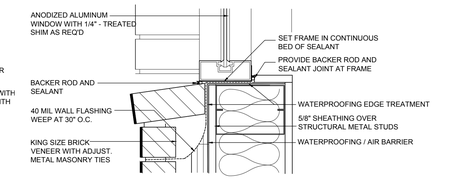
B EIFS JAMB/SILL ISO
SCALE : NONE



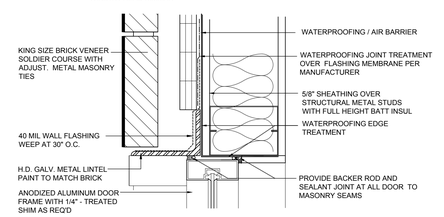
07 DOOR HEAD DETAIL
NOT TO SCALE



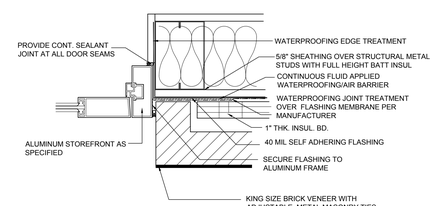
06 DOOR JAMB DETAIL
NOT TO SCALE



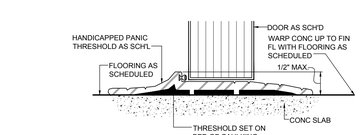
SILL DETAIL
04 NOT TO SCALE
WINDOW HEAD SIMILAR



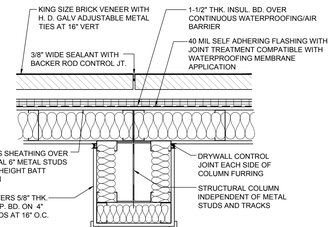
03 WINDOW HEAD DETAIL
NOT TO SCALE
WINDOW HEAD SIMILAR



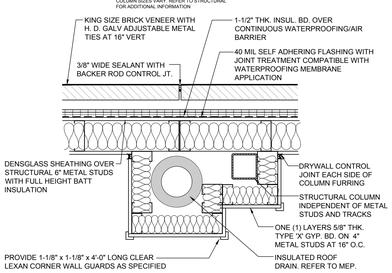
02 WINDOW JAMB DETAIL
NOT TO SCALE
WINDOW JAMB SIMILAR



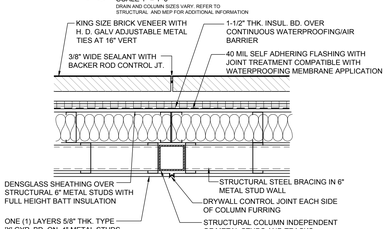
01 THRESHOLD DETAIL
SCALE : NONE



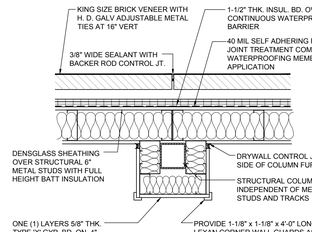
20 PLAN DETAIL
SCALE 1" = 1'-0"
COLUMN SIZES VARY. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION



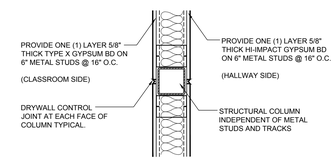
19 PLAN DETAIL
SCALE 1" = 1'-0"
DRAIN AND COLUMN SIZES VARY. REFER TO STRUCTURAL AND MEP FOR ADDITIONAL INFORMATION



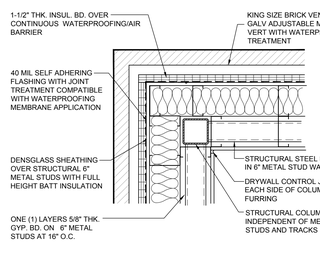
18 PLAN DETAIL
SCALE 1" = 1'-0"
TYPICAL AT ALL DIAGONAL BRACING LOCATIONS. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION



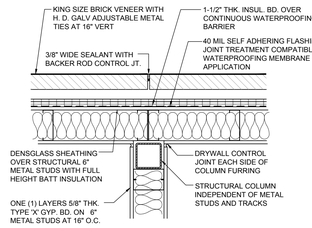
17 PLAN DETAIL
SCALE 1" = 1'-0"



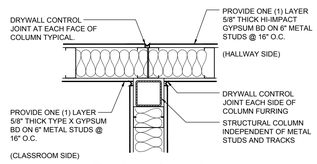
16 PLAN DETAIL
SCALE 1" = 1'-0"



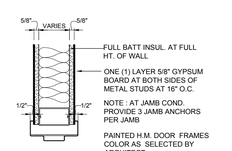
15 PLAN DETAIL
SCALE 1" = 1'-0"
TYPICAL AT ALL DIAGONAL BRACING LOCATIONS. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION



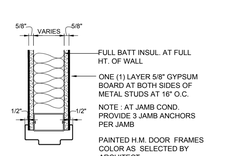
14 PLAN DETAIL
SCALE 1" = 1'-0"



13 PLAN DETAIL
SCALE 1" = 1'-0"



09 DOOR JAMB DETAIL
SCALE 1-1/2" = 1'-0"



08 DOOR HEAD DETAIL
SCALE 1-1/2" = 1'-0"

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools



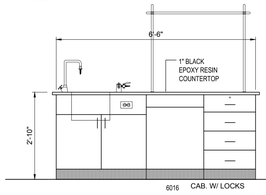
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No.: IDEA ELSA
Sheet: A3.02

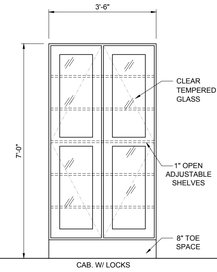
CASE WORK

CABINET ELEVATION

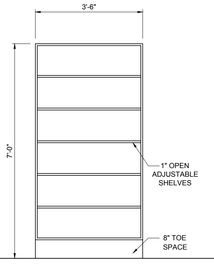
SCALE 1/2" = 1'-0"



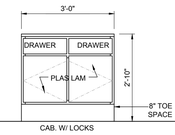
ITEM A - ELEVATION



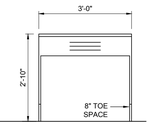
ITEM B - ELEVATION



ITEM C - ELEVATION



ITEM D - ELEVATION



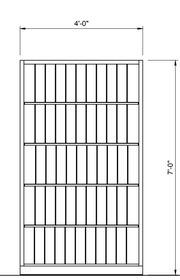
ITEM F - ELEVATION

NOTES:

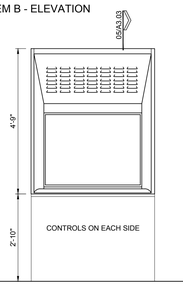
1. 34" HEIGHT FOR ALL STUDENT BASE CABINETS INCLUDES 1" BLACK EPOXY RESIN TOP - ACTUAL UNIT HEIGHT SHALL BE 33".
1. 34" HEIGHT FOR ALL INSTRUCTOR BASE CABINETS INCLUDES 1" BLACK EPOXY RESIN TOP - ACTUAL UNIT HEIGHT SHALL BE 33".
3. MODIFY KNEESPACE LEGS TO BE FLUSH W/ CABINETS.
4. ALL CHEMISTRY TOPS TO BE 1" BLACK EPOXY RESIN TOP
5. ALL CABINETS, DRAWERS, AND DOORS TO RECEIVE LOCKS AS SPEC.
6. PROVIDE GYPBD FURRDOWNS WITH ACCESS PANELS AT ALL FUME CABINETS TYPICAL.
7. PROVIDE 120V FAN MOTOR AND DUCT TRANSITIONS WITH ALL FUME HOODS.
8. PREP ROOM AND INSTRUCTOR CABINET TOPS TO BE 34" AFF.
9. ALL CABINETS, DRAWERS, AND DOORS TO BE PLASTIC LAMINATE CLAD. ALL SIDES AND FACES, INTERIOR AND EXTERIOR OVER PLYWOOD CORE. TYPICAL

CABINET SCHEDULE

NO.	DESCRIPTION	H X D X L	MODEL NO.	REMARKS
A	INSTRUCTORS DESK			INSTRUCTORS TABLE
B	TALL BOOKCASE	84 X 22 X 42		W/ 1" ADJUSTABLE SHELVES
C	TALL BOOKCASE	84 X 22 X 42		W/ 1" ADJUSTABLE SHELVES
D	BASE CABINET	33 x 24 x 36		COUNTER TOP AT 34" A.F.F.
E				
F	SINK BASE CABINET	33 x 24 x 36		COUNTER TOP AT 34" A.F.F.
G	CUPBOARD STORAGE			
H	ART CABINET	84 X 24 X 48		
I	FUME HOOD	57 x 30 x 48	EH-211-48	AIR MASTER SYSTEMS MILLENIUM PROVIDE 2-SIDED CONTROLS.
J	BASE CABINET	34 x 30 x 48		FUME HOOD BASE CABINET
K	TALL BOOKCASE	84 X 22 X 36		W/ 1" ADJUSTABLE SHELVES
L	BASE CABINET	34 x 24 x 48		
M	FUME CABINET	84 X 22 X 48	5690	W/ 1" SHELVES AND EXHAUST SERVICE
N	FLAMMABLE CABINET	62 X 15 X 20	1923	EAGLE MANUFACTURING
O	CORROSION CABINET	62 X 15 X 20	CRA-1923	EAGLE MANUFACTURING
P	SAFETY GOGGLES CASE	VERIFY W/ MANUF.	6784	
Q	FIRE BLANKET CASE	VERIFY W/ MANUF.	9960	
R	FIRST AID CASE	VERIFY W/ MANUF.	9962	
S	CUPBOARD STORAGE	30 X 12 X 36		
T	CUPBOARD STORAGE	30 X 12 X 36		
U				
V				

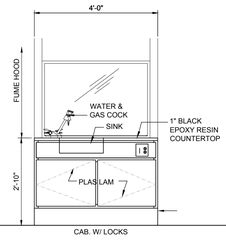


ITEM H - ELEVATION



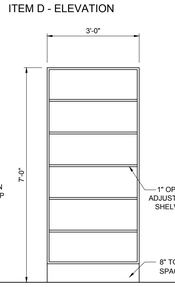
ITEM I - ELEVATION

REFER TO 06/A3.03

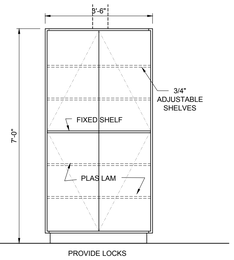


ITEM J - ELEVATION

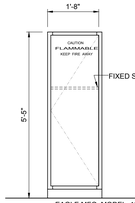
REFER TO 06/A3.03



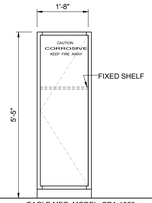
ITEM K - ELEVATION



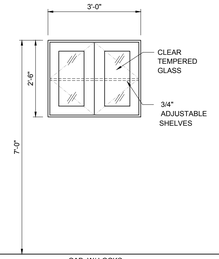
ITEM M - ELEVATION



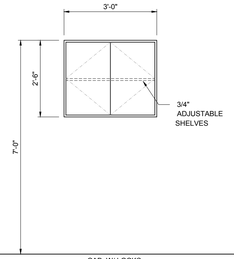
ITEM N - ELEVATION



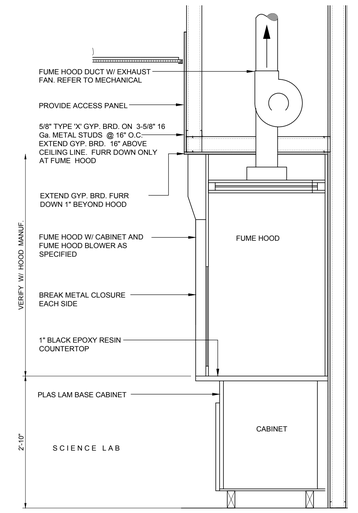
ITEM O - ELEVATION



ITEM S - ELEVATION

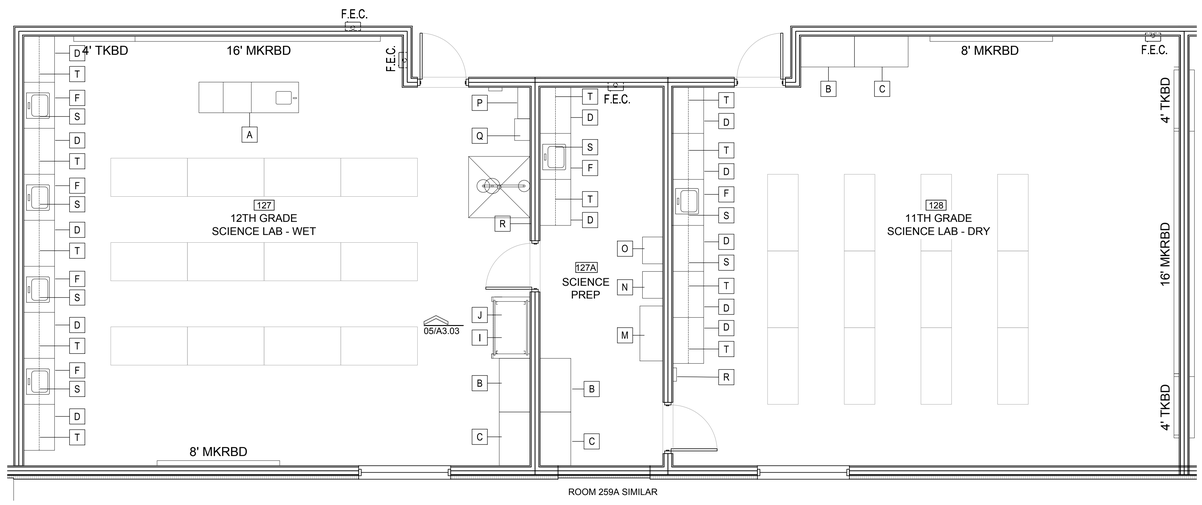


ITEM T - ELEVATION



05 FUME HOOD SECTION

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

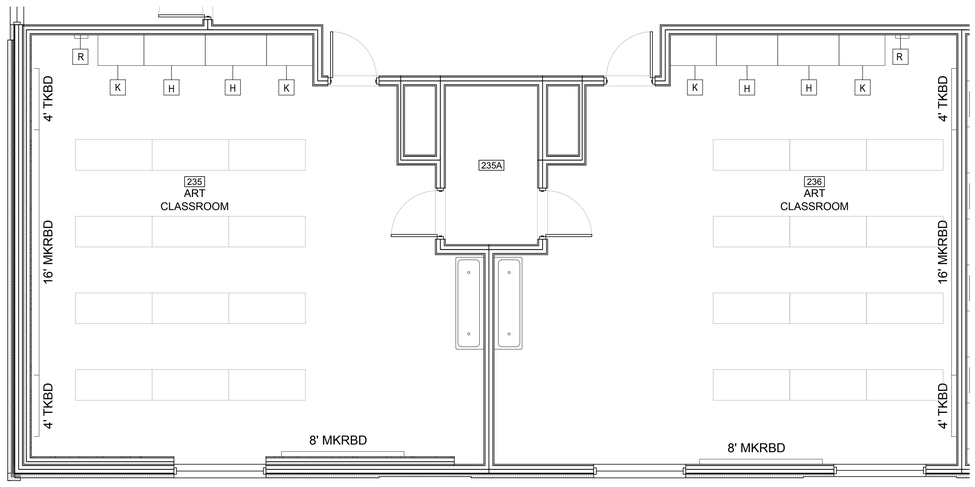


02 CHEMISTRY CLASSROOM LAYOUT

SCALE: 1/4" = 1'-0"
ROOM 259 SIMILAR

03 PHYSICS CLASSROOM LAYOUT

SCALE: 1/4" = 1'-0"
ROOM 261 SIMILAR



04 ART CLASSROOM LAYOUT

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

No.	REVISIONS	BY

GMS ARCHITECTS

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

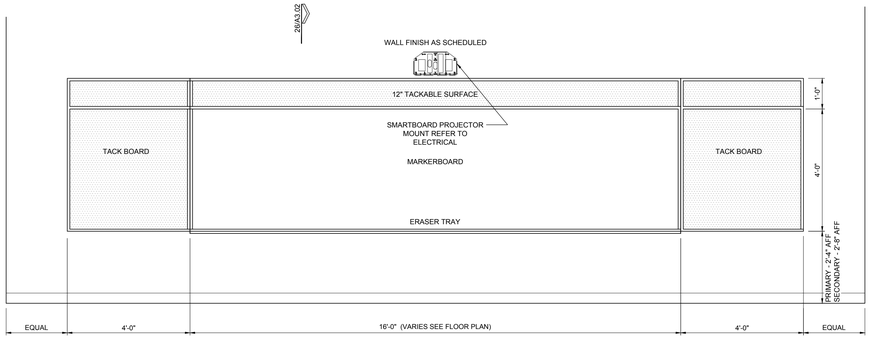
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

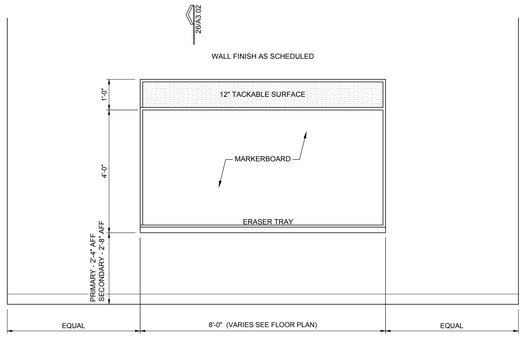
REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

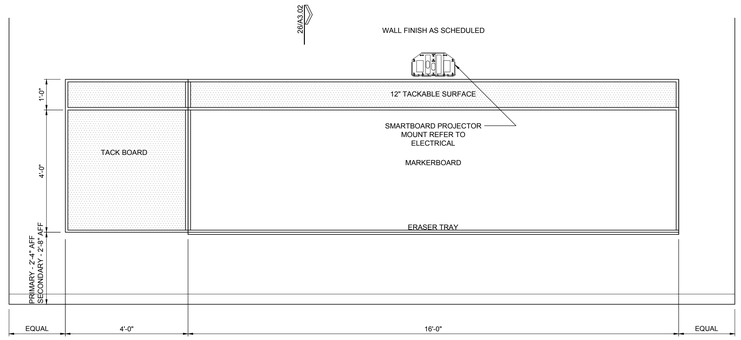
Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A3.03



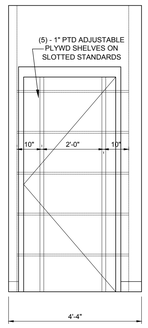
01 TYPICAL CLASSROOM ELEVATION
SCALE 1/2" = 1'-0"
PROVIDE WOOD BLOCKING BEHIND PROJECTOR LOCATION



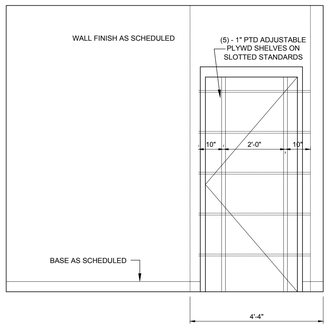
02 TYPICAL CLASSROOM ELEVATION
SCALE 1/2" = 1'-0"



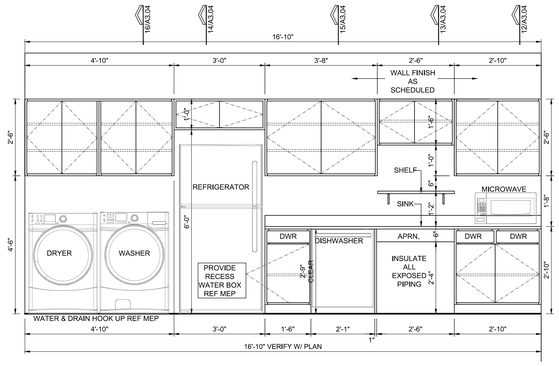
05 TYPICAL CLASSROOM ELEVATION
SCALE 1/2" = 1'-0"
PROVIDE WOOD BLOCKING BEHIND PROJECTOR LOCATION



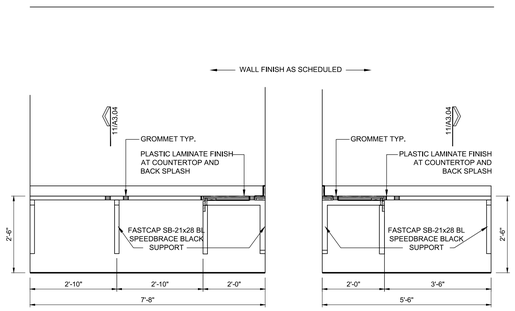
03 TYPICAL CLASSROOM ELEVATION
SCALE 1/2" = 1'-0"



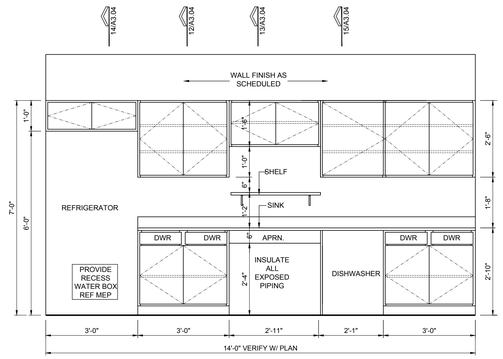
04 TYPICAL CLASSROOM ELEVATION
SCALE 1/2" = 1'-0"



06 CABINET ELEVATION
SCALE 1/2" = 1'-0"

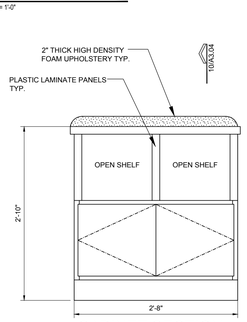


07 TYPICAL CLASSROOM ELEVATION
SCALE 1/2" = 1'-0"

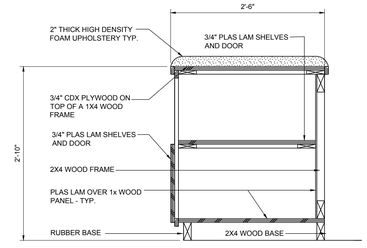


08 CABINET ELEVATION
SCALE 1/2" = 1'-0"

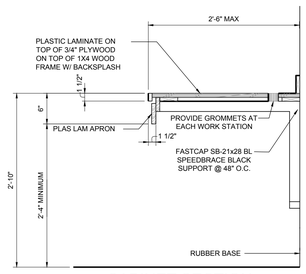
ALL MILLWORK FACES, DOORS AND SHELVES TO HAVE PLYWOOD CORES



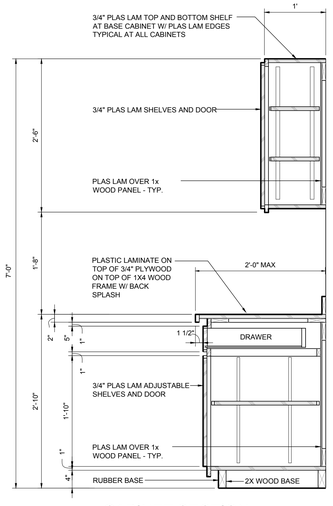
09 CABINET SECTION
SCALE 1" = 1'-0"
* PROVIDE CYLINDER LOCKS AT CABINET DRAWERS AND DOORS
* EACH CUSHIONED BENCH TO BE RATED UP TO 450 LBS.



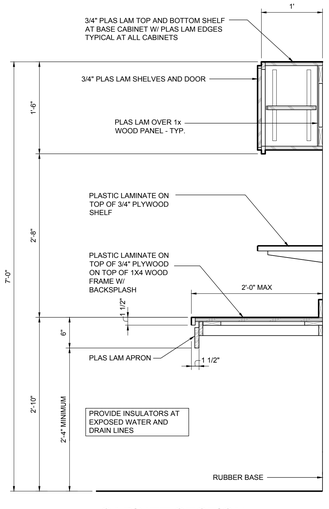
10 CABINET SECTION
SCALE 1" = 1'-0"



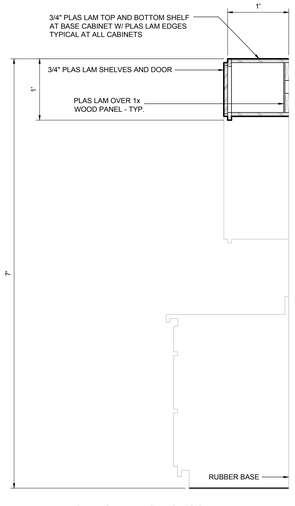
11 CABINET SECTION
SCALE 1" = 1'-0"



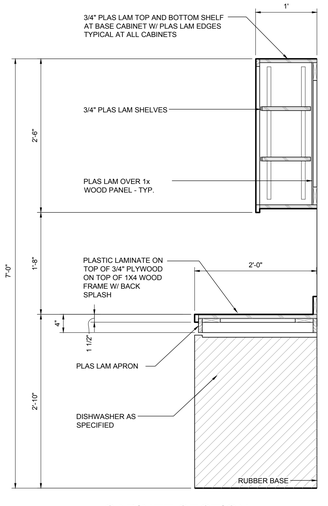
12 CABINET SECTION
SCALE 1" = 1'-0"



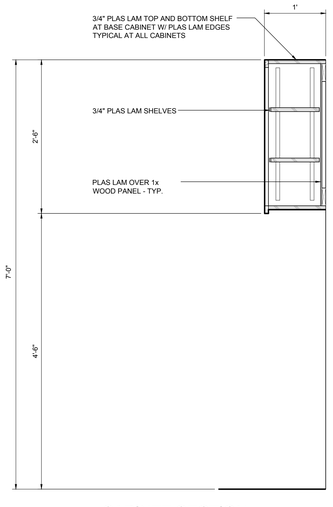
13 CABINET SECTION
SCALE 1" = 1'-0"



14 CABINET SECTION
SCALE 1" = 1'-0"



15 CABINET SECTION
SCALE 1" = 1'-0"



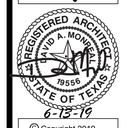
16 CABINET SECTION
SCALE 1" = 1'-0"

No.	REVISIONS	BY

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

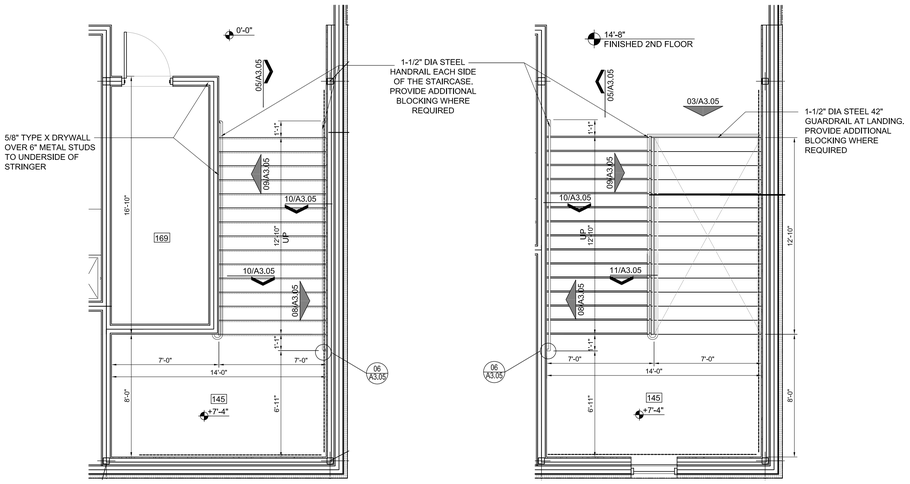
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools



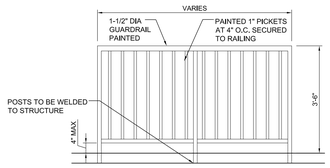
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A3.04

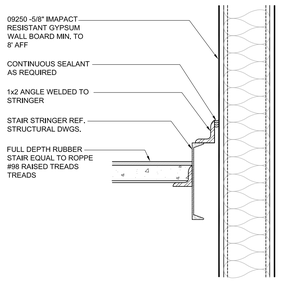


SOUTH - 1ST FLOOR
01 STAIRWELL PLAN
SCALE: 1/4" = 1'-0"

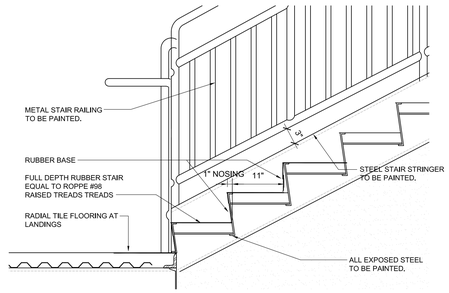
SOUTH - 2ND FLOOR
02 STAIRWELL PLAN
SCALE: 1/4" = 1'-0"



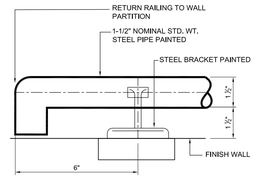
03 GUARDRAIL ELEV.
SCALE: 1/2" = 1'-0"
AT SECOND FLOOR LANDING. TYPICAL



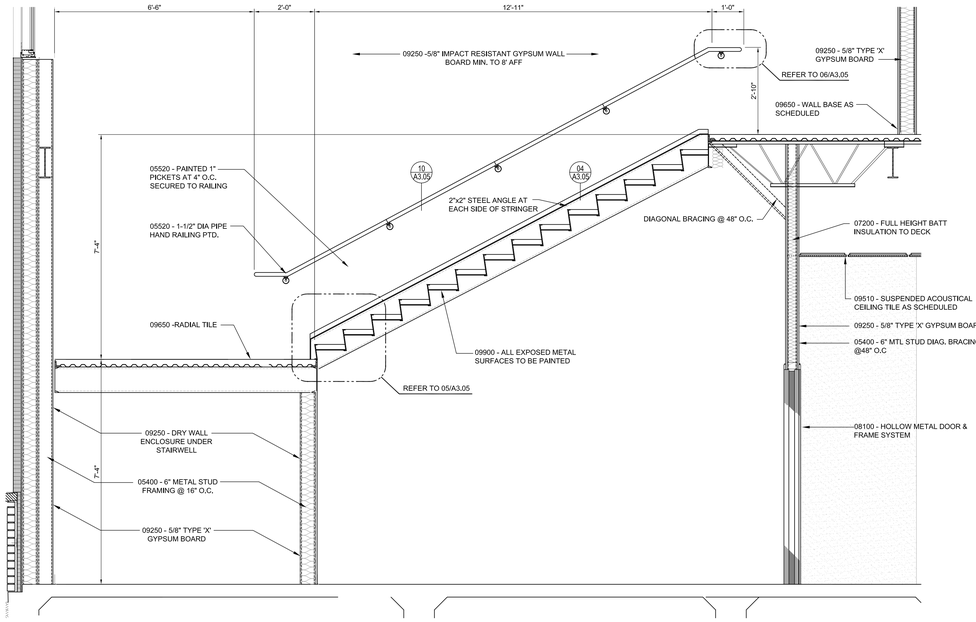
04 JOINT AT WALL
SCALE: 1-1/2" = 1'-0"
TYPICAL AT BOTH SIDES OF STAIRS



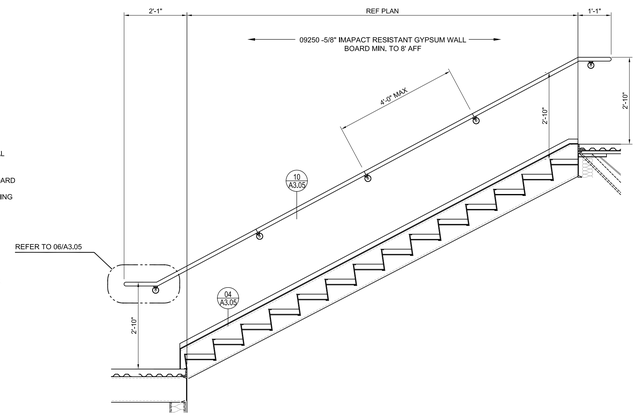
05 STAIRTREAD SECTION
SCALE: 1" = 1'-0"



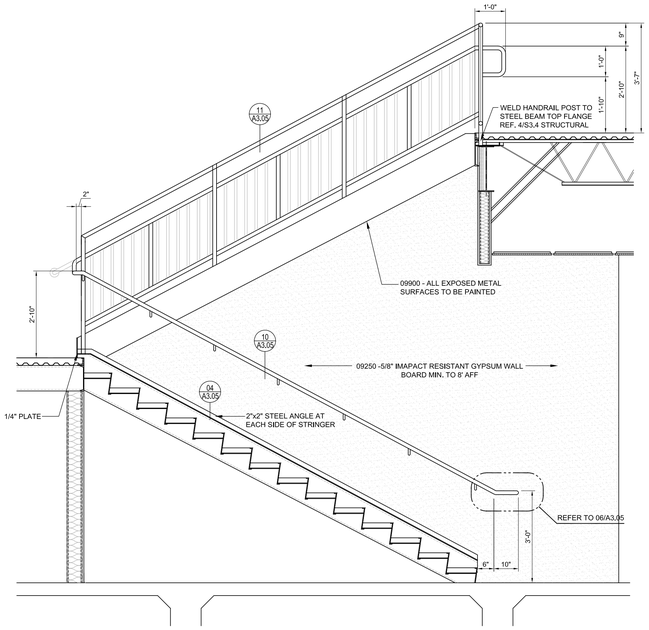
06 HANDRAIL DETAIL
SCALE: 3" = 1'-0"



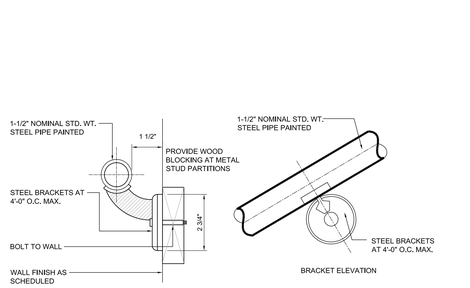
07 STAIRWELL SECTION
SCALE: 1/2" = 1'-0"



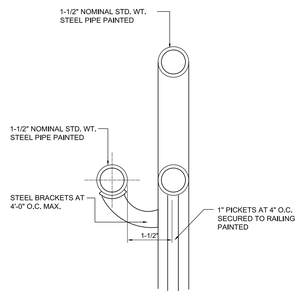
08 HANDRAIL ELEVATION
SCALE: 1/2" = 1'-0"



09 HANDRAIL /GUARD ELEVATION
SCALE: 1/2" = 1'-0"



10 HANDRAIL DETAIL
SCALE: 3" = 1'-0"



11 GUARDRAIL DETAIL
SCALE: 3" = 1'-0"

No.	REVISIONS	BY

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

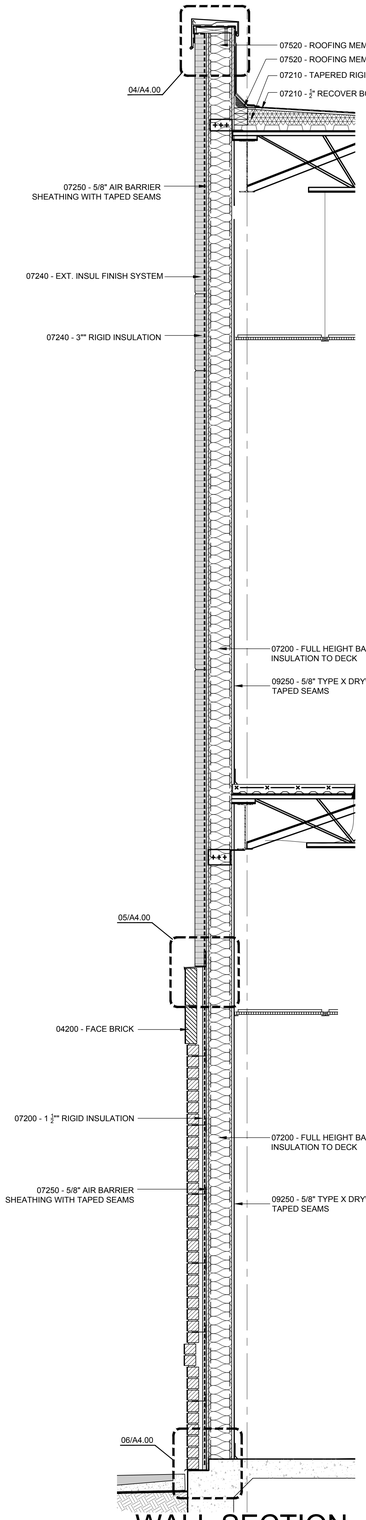
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools



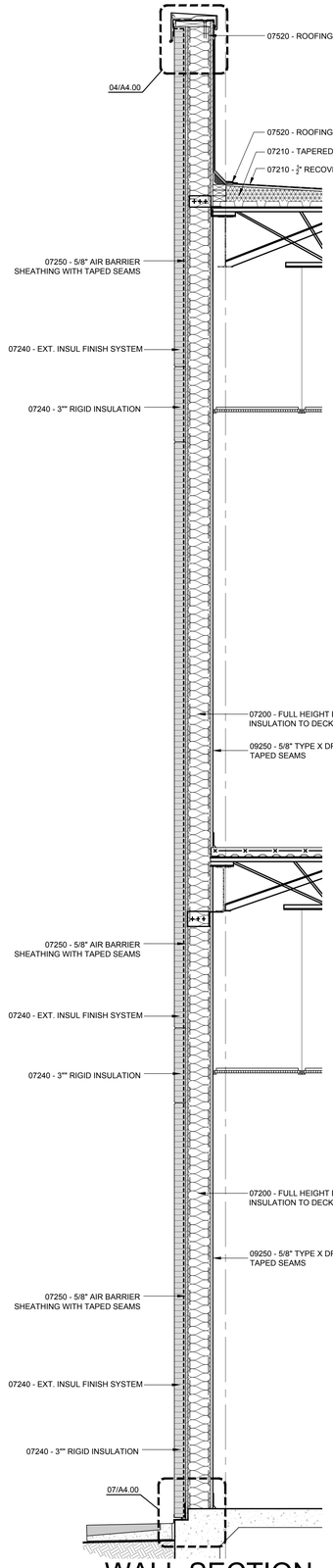
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A3.05



01 WALL SECTION

SCALE 3/4" = 1'-0"



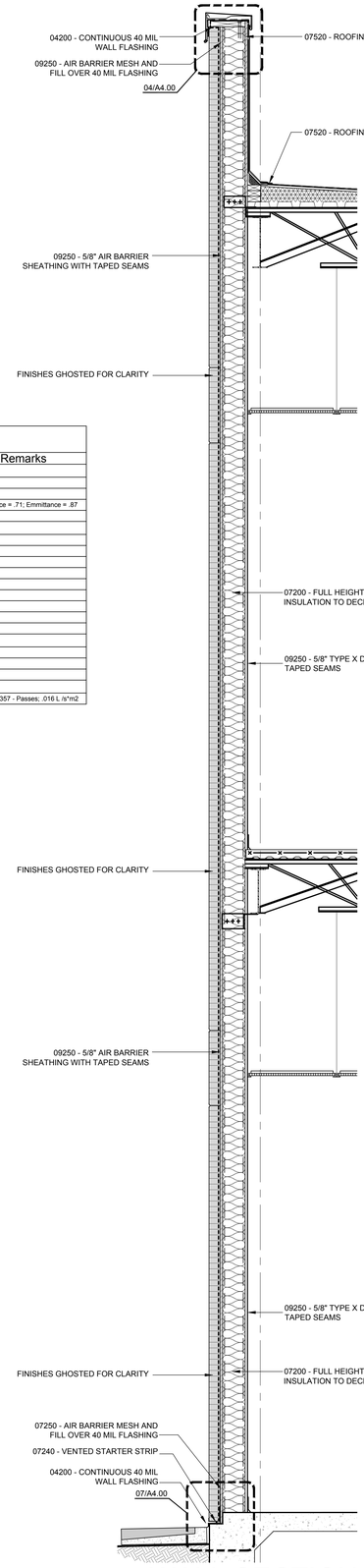
02 WALL SECTION

SCALE 3/4" = 1'-0"

IECC COMPONENT WALL SECTIONS

IECC Component Schedule - Prescriptive

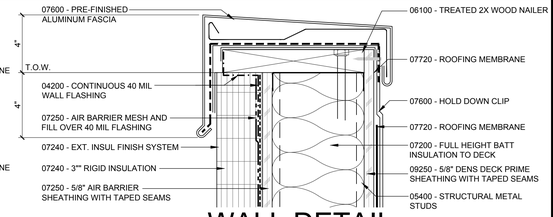
	Component Name	Design Material	Thermal Value				Remarks
	Roof						
07210	Tapered Rigid Insulation - Average	Jones Manville - Enrgy 3	Average R-Value = 34.2				
07210	1/2" Recover Board	GP DensDek Prime	R-Value = .56				
07520	Modified Bitumen Cap Sheet	Firestone Premium FR Ultra White					Reflectance = .71; Emmittance = .87
	Wall			A	B	C	
09250	5/8" Type X Drywall	GP 5/8" Type X Drywall	R-Value = .48	0.48	0.48	0.48	
07200	6" Batt Insulation	Owens Corning	R-Value = 19	19	19	19	
09250	5/8" Gyp Sheathing	GP Dens Glass Gold	R-Value = .56	0.56	0.56	0.56	
07200	1.5 Rigid Insulation	Owens Corning Foamular CW	R-Value = 7.5	7.5	7.5		
04200	1" Airspace	1" Airspace	R-Value = 1	1			
04200	3" King Size Face Brick	Acme Brick	R-Value = .33	0.33			
07240	3" Rigid Insulation - EIFS	ICSA-Lite EPS	R-Value = 14.4			14.4	
07410	Metal Wall Panel	MBCI PBU Wall Panel	R-Value = .61		0.61		
	Doors / Windows						
08410	Aluminum Storefront w/ Insulated Glazing	YKK Series YES w/ Solarban 70XL	U-Factor = .0.32 / SHGC = .25				
08520	Aluminum Window w/ Insulated Glazing	YKK Series YES w/ Solarban 70XL	U-Factor = .0.32 / SHGC = .25				
	Air Barrier						
07240	Fluid Applied Vapor Permeable Air Barrier	STO Corp. - StoGuard Gold Coat					ASTM E-2357 - Passes; .016 L /s*m2



03 WALL SECTION

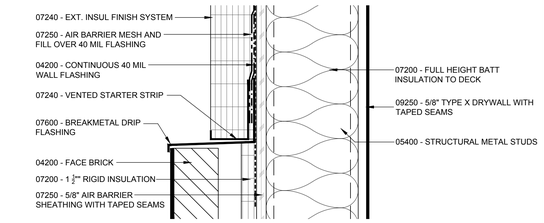
SCALE 3/4" = 1'-0"

THERMAL BARRIER SECTION



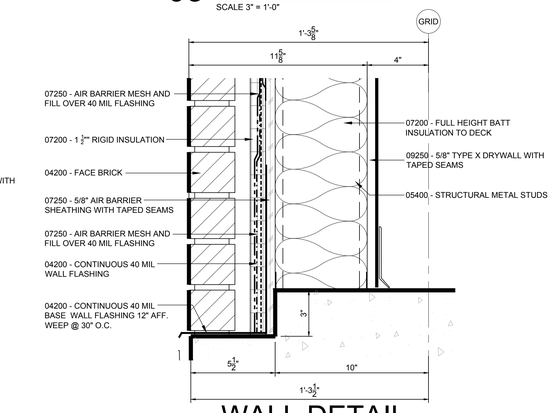
04 WALL DETAIL

SCALE 3" = 1'-0"



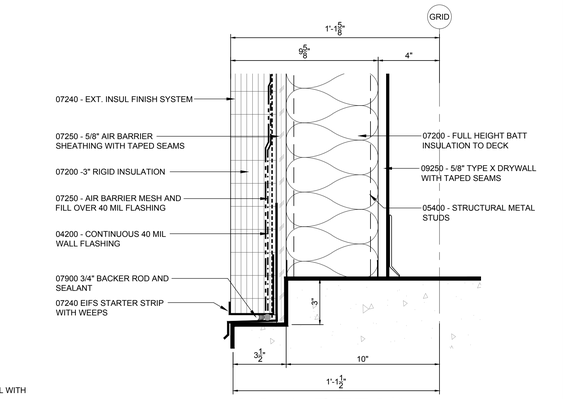
05 WALL DETAIL

SCALE 3" = 1'-0"



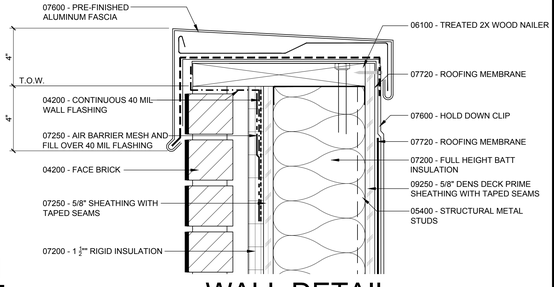
06 WALL DETAIL

SCALE 3" = 1'-0"



07 WALL DETAIL

SCALE 3" = 1'-0"



08 WALL DETAIL

SCALE 3" = 1'-0"

No.	REVISIONS	BY

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

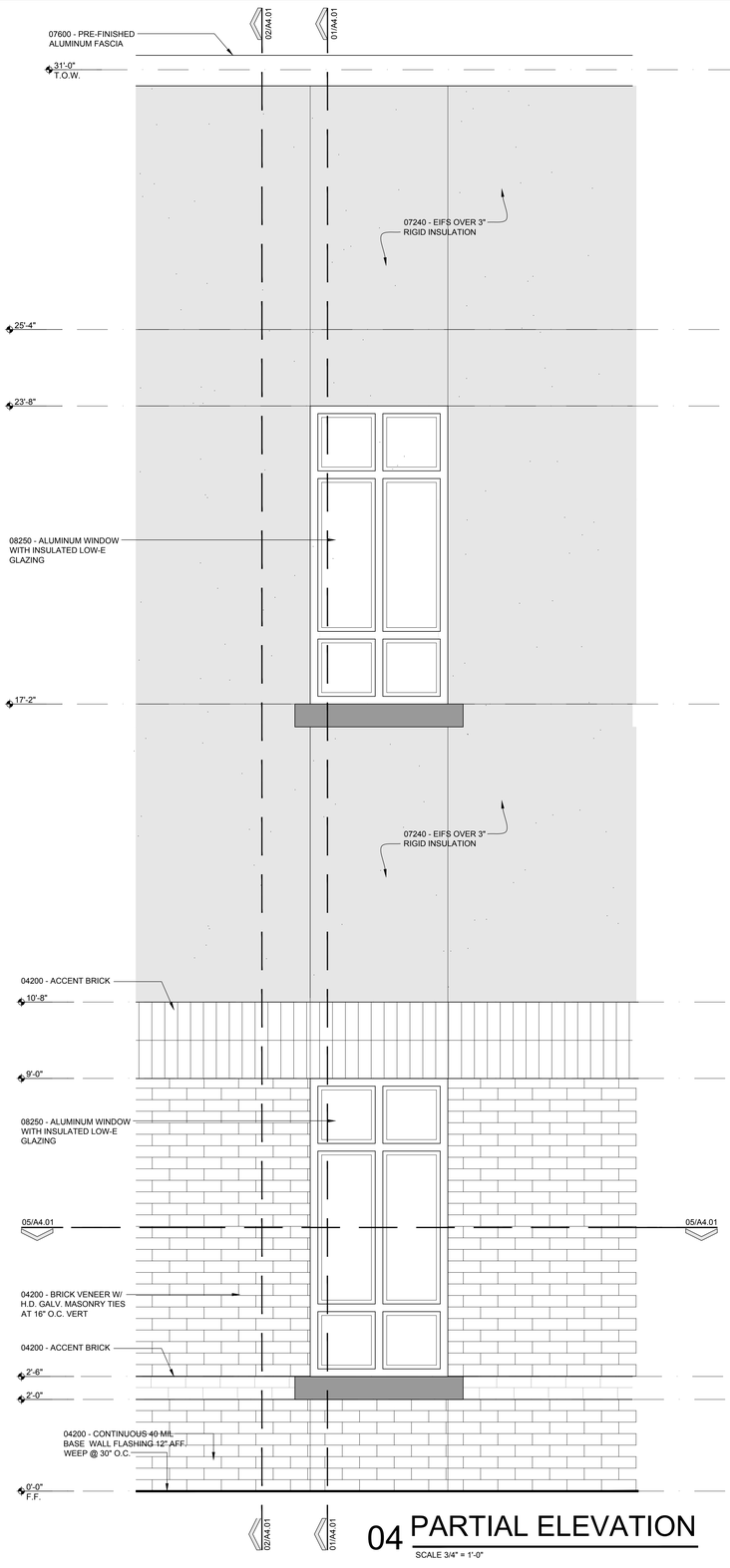
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
78556
STATE OF TEXAS
6-13-19

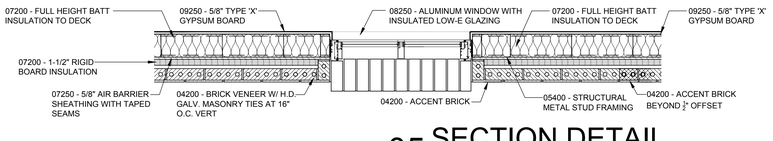
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A4.00



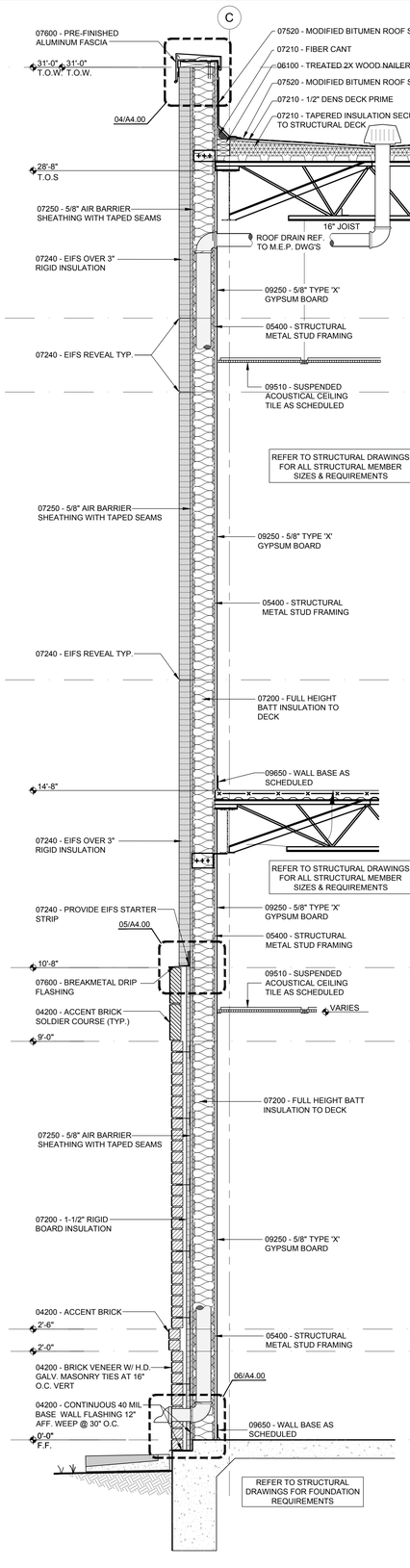
04 PARTIAL ELEVATION

SCALE 3/4" = 1'-0"



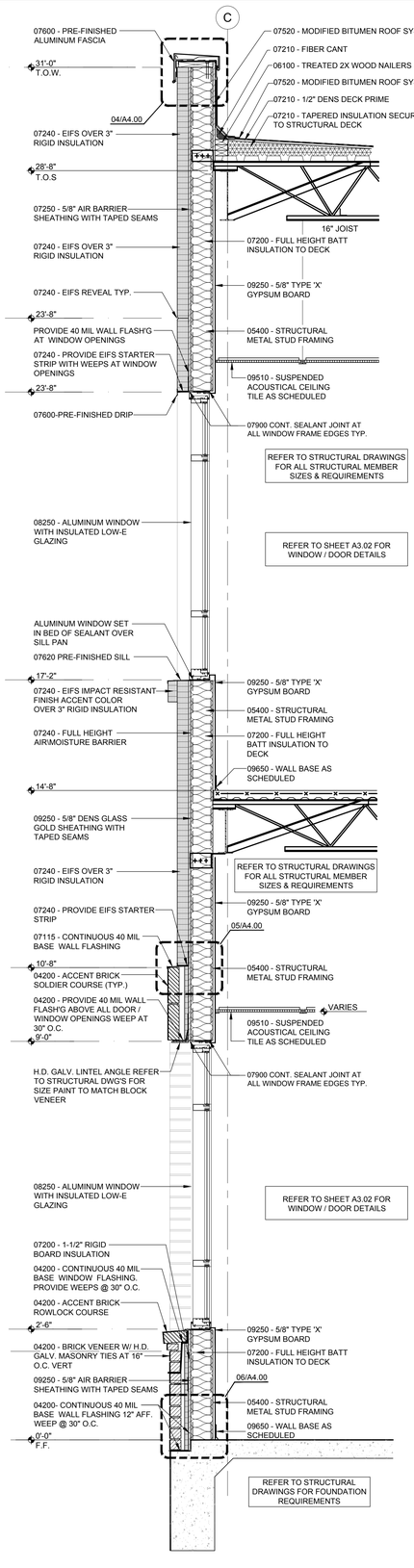
05 SECTION DETAIL

SCALE 3/4" = 1'-0"



02 WALL SECTION

SCALE 3/4" = 1'-0"



01 WALL SECTION

SCALE 3/4" = 1'-0"

No.	REVISIONS	BY

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

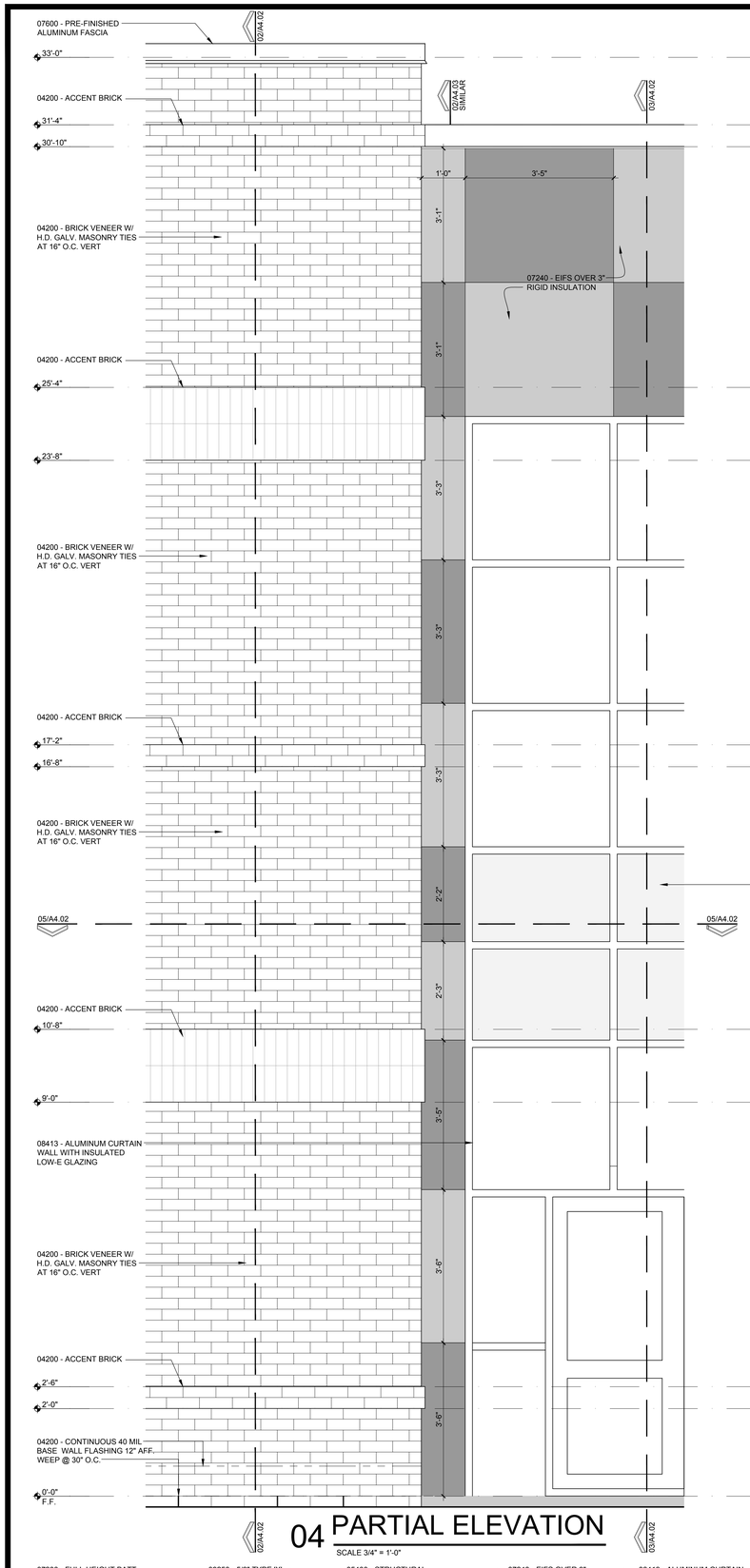
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS
6-12-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A4.01

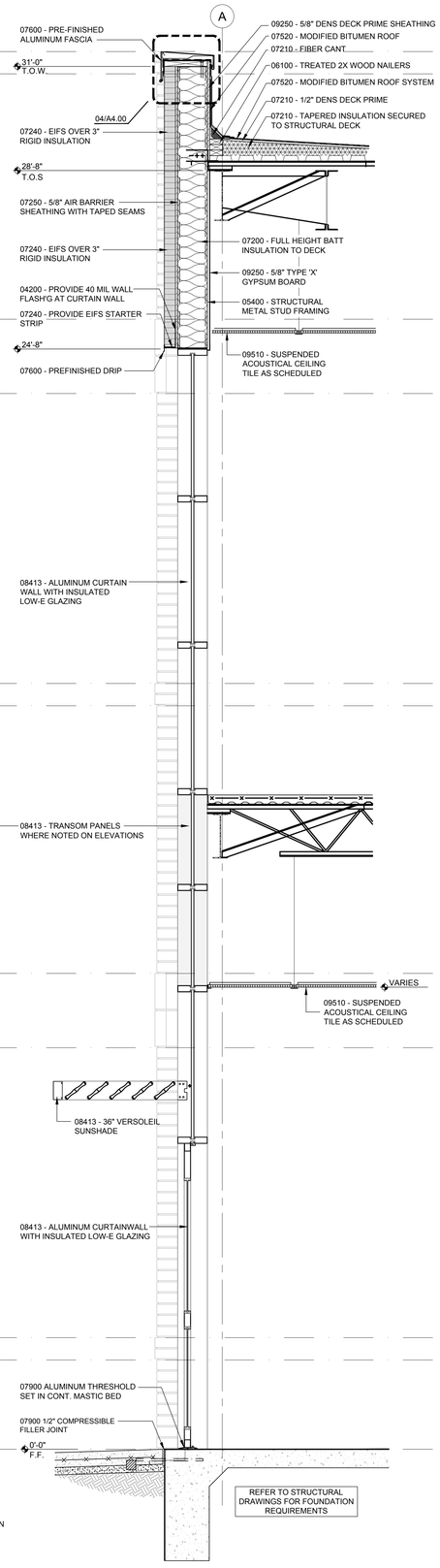


04 PARTIAL ELEVATION

SCALE 3/4" = 1'-0"

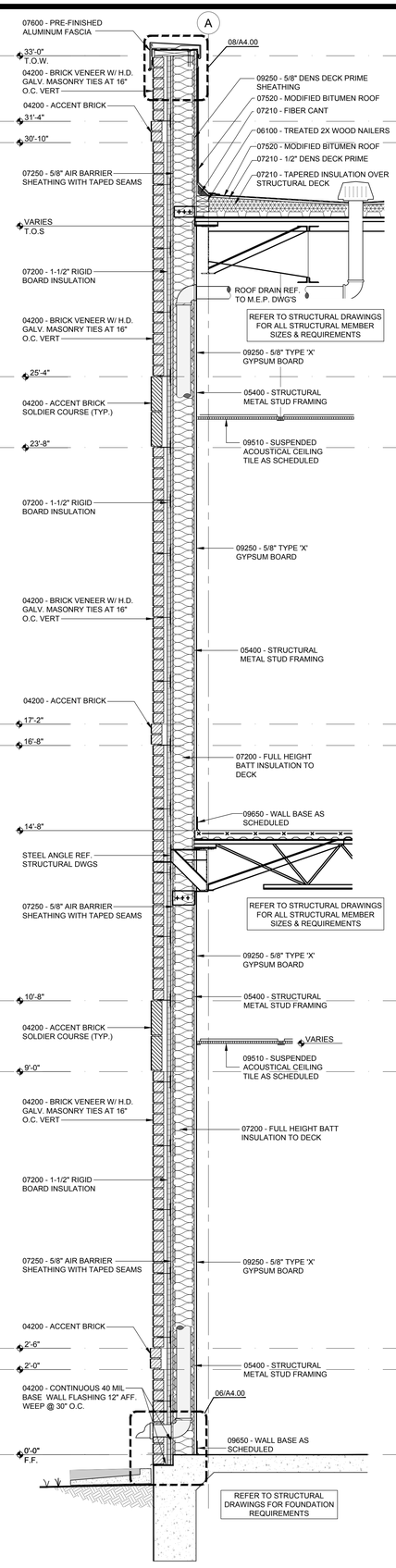
05 SECTION DTL

SCALE 3/4" = 1'-0"



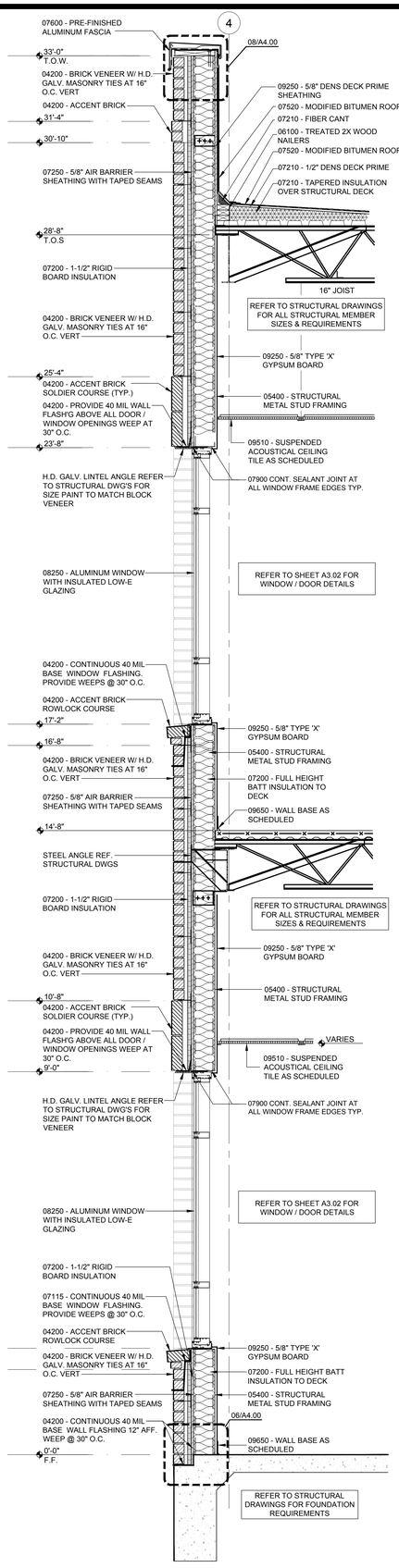
03 WALL SECTION

SCALE 3/4" = 1'-0"



02 WALL SECTION

SCALE 3/4" = 1'-0"



01 WALL SECTION

SCALE 3/4" = 1'-0"

No.	REVISIONS	BY

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

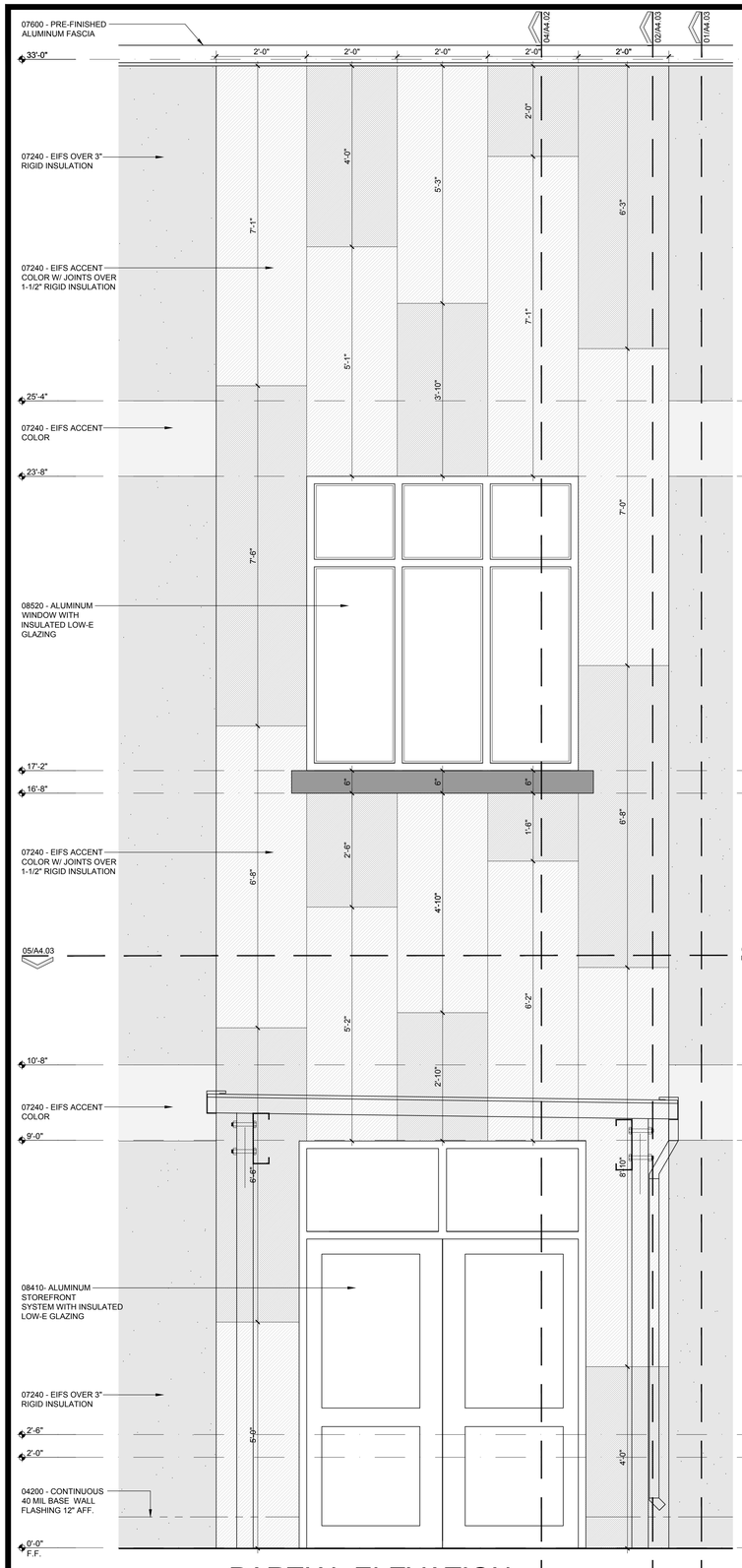
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

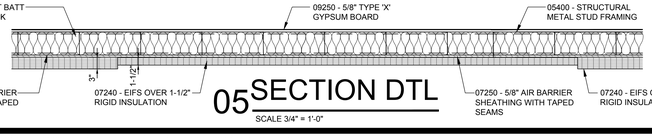
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A4.02



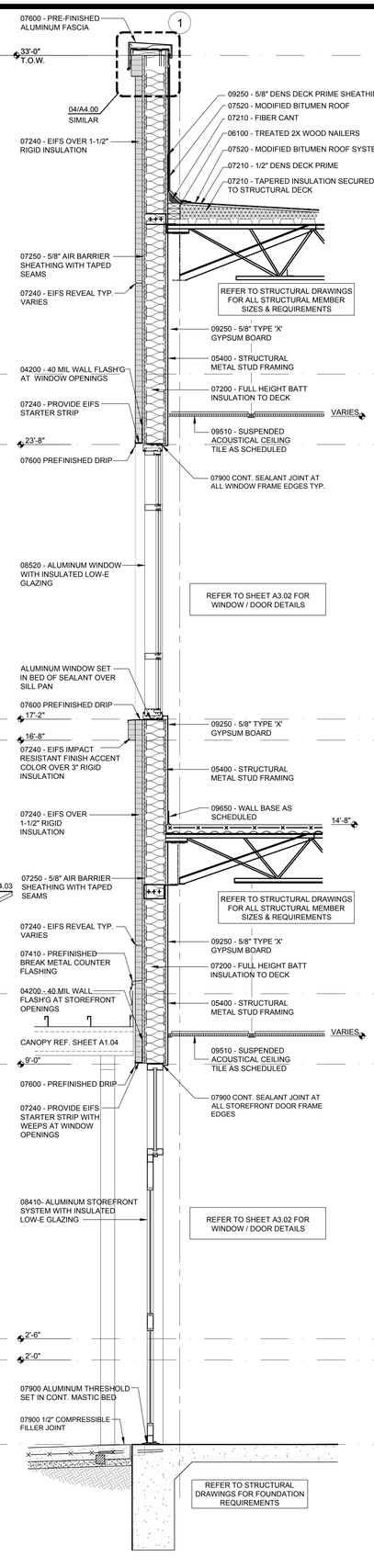
06 PARTIAL ELEVATION

SCALE 3/4" = 1'-0"



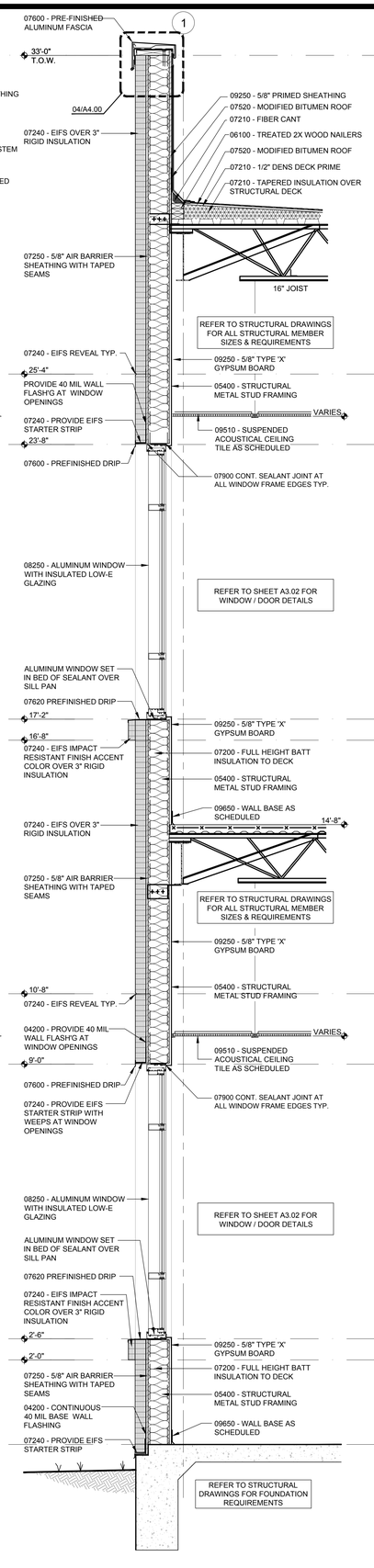
05 SECTION DTL

SCALE 3/4" = 1'-0"



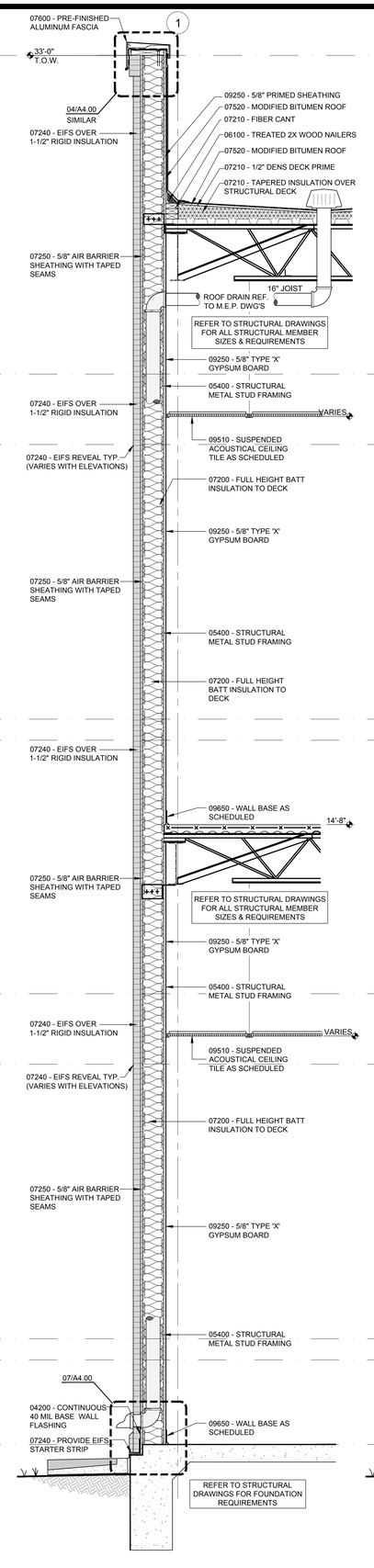
04 WALL SECTION

SCALE 3/4" = 1'-0"



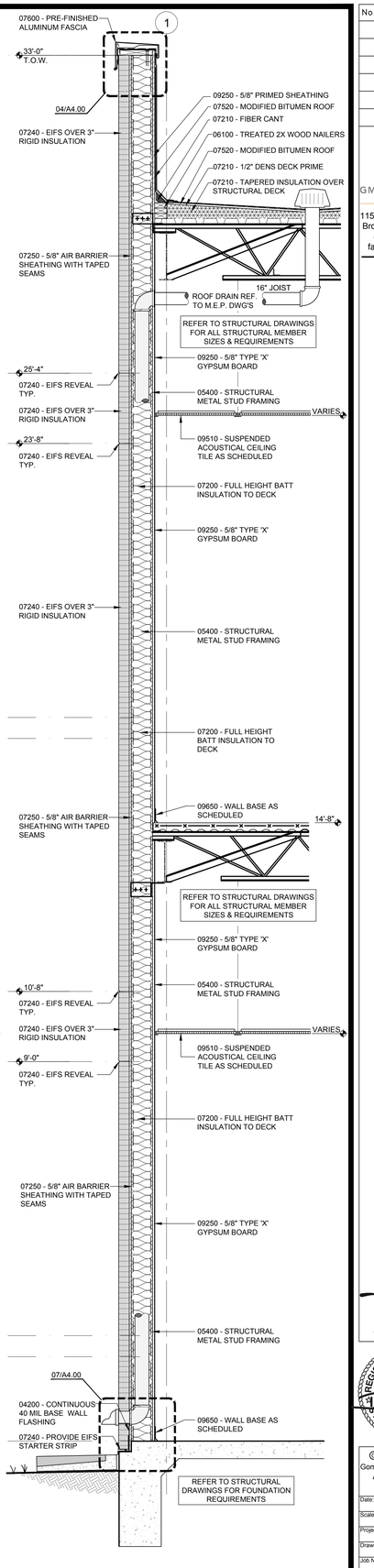
03 WALL SECTION

SCALE 3/4" = 1'-0"



02 WALL SECTION

SCALE 3/4" = 1'-0"



01 WALL SECTION

SCALE 3/4" = 1'-0"

No.	REVISIONS	BY

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

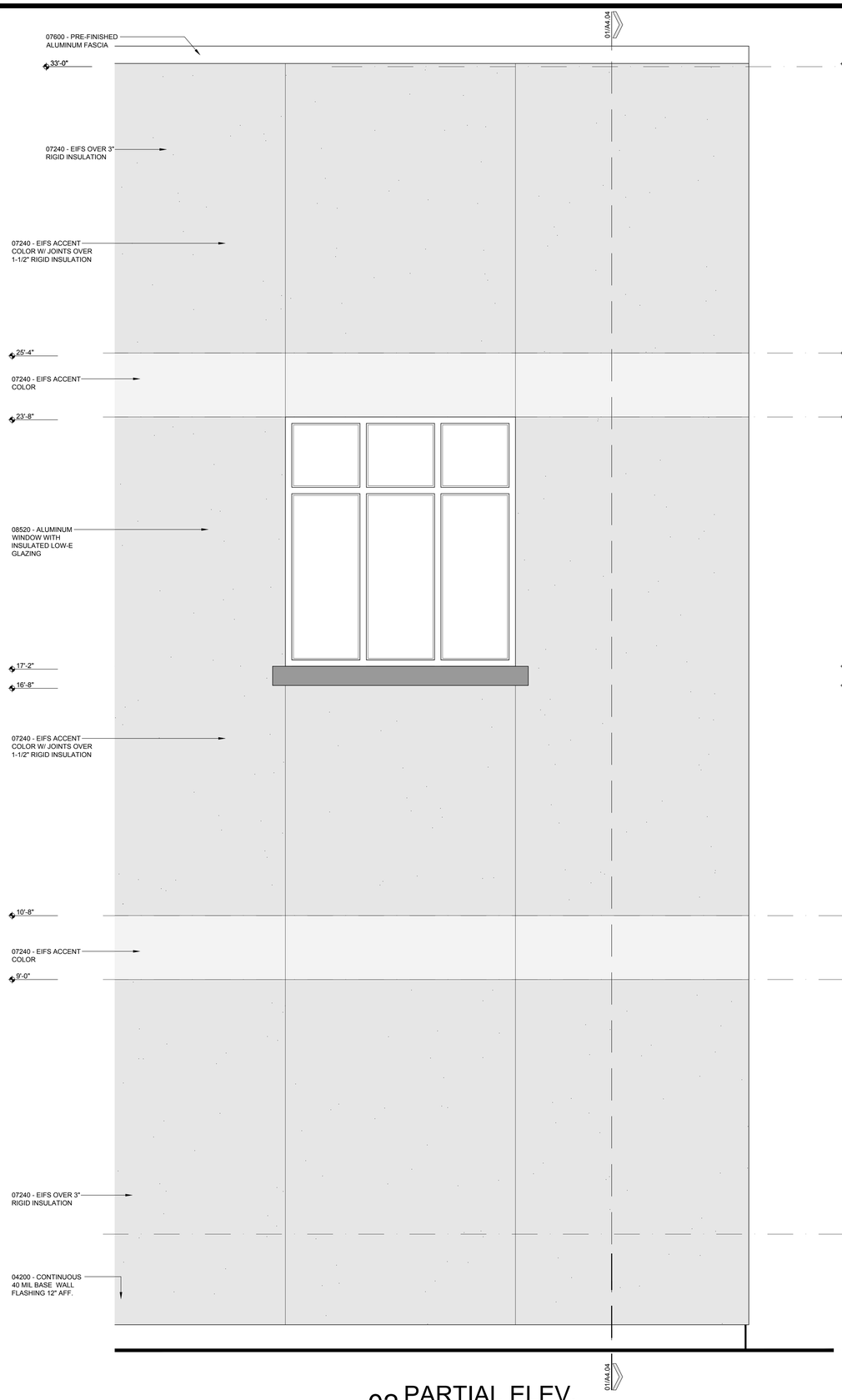
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

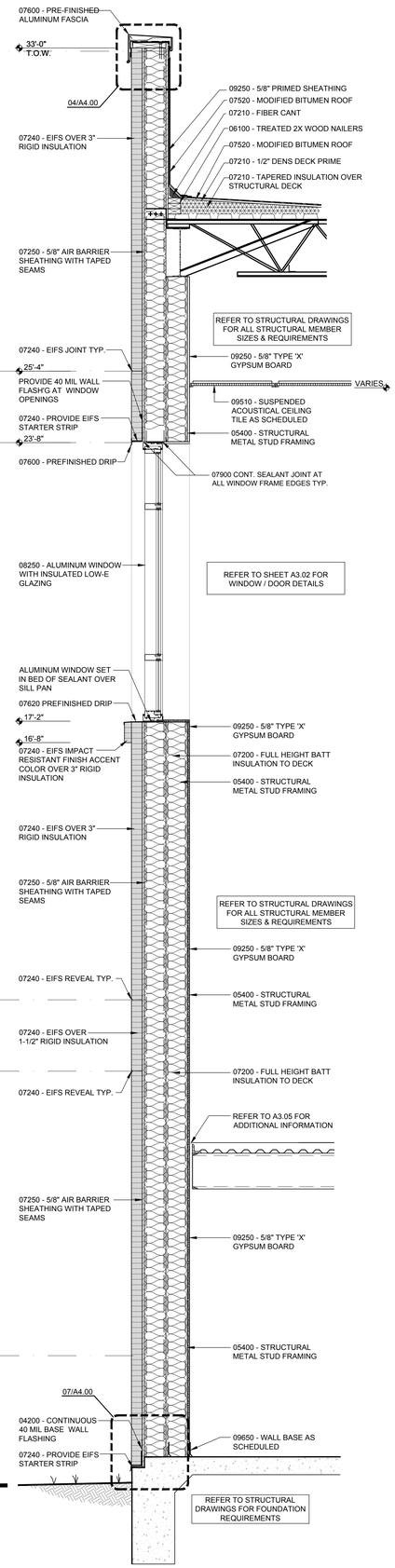
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A4.03



02 PARTIAL ELEV.

SCALE 3/4" = 1'-0"



01 WALL SECTION

SCALE 3/4" = 1'-0"

No.	REVISIONS	BY

GMS ARCHITECTS

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

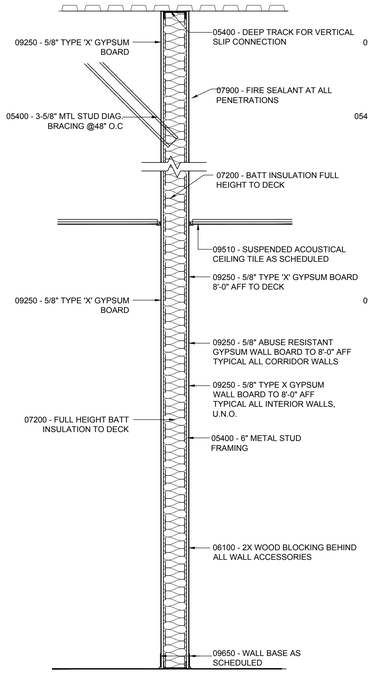
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT
DAVID A. MONREAL
19556
STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

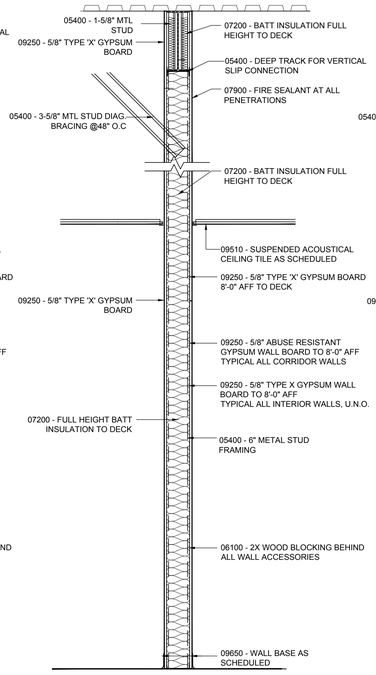
Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A4.04



WALL SECTION A

SCALE 3/4" = 1'-0" A1- 3 5/8" STUD

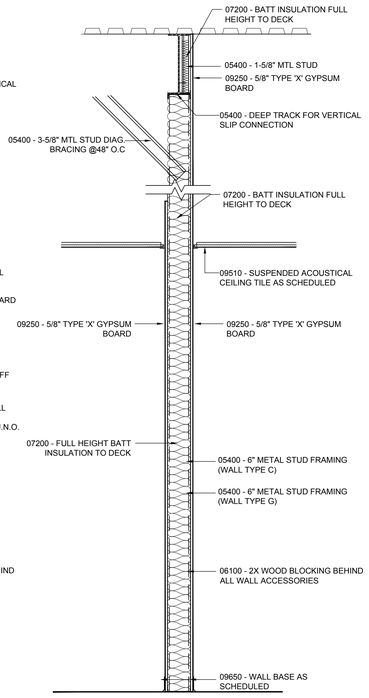
AT INTERIOR CLASS ROOM WALLS, WITH THIS WALL TYPE, PROVIDE TYPE "X" DRYWALL AT EACH FACE - TYPICAL ALL LOCATIONS



WALL SECTION B

SCALE 3/4" = 1'-0"

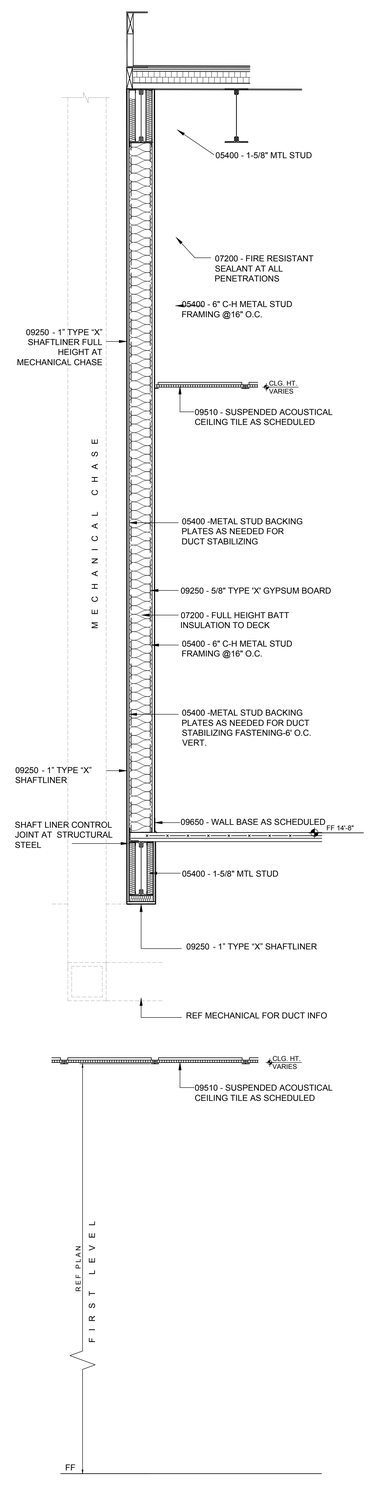
AT INTERIOR CLASS ROOM WALLS, WITH THIS WALL TYPE, PROVIDE TYPE "X" DRYWALL AT EACH FACE - TYPICAL ALL LOCATIONS



WALL SECTION C

SCALE 3/4" = 1'-0" C1- 3-5/8" STUD

WHERE NO BEAM IS PRESENT, EXTEND TO UNDERSIDE OF DECK



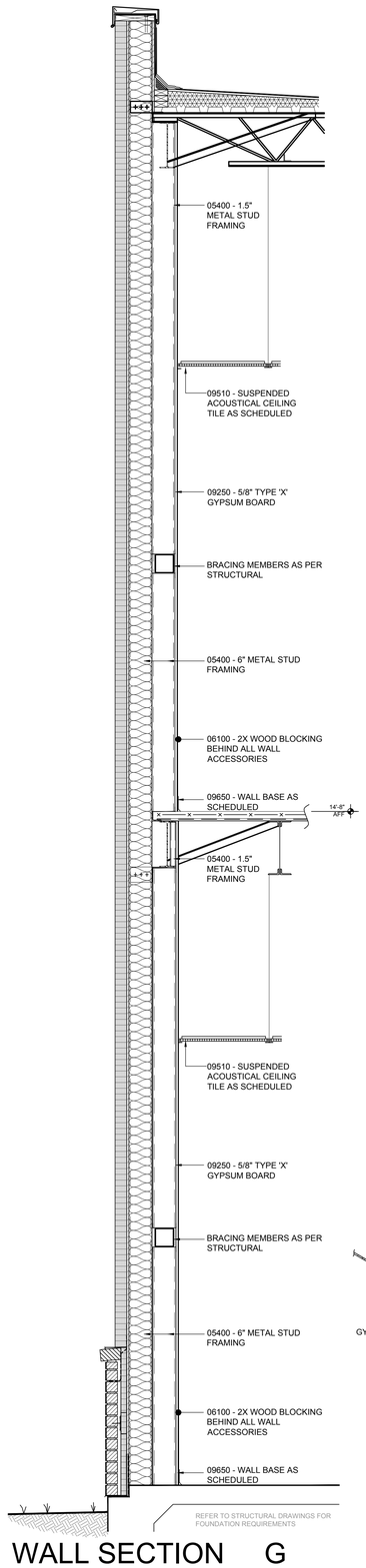
WALL SECTION E

SCALE 3/4" = 1'-0"

UL FIRE RESISTANT RATINGS:

INTERIOR PARTITION STEEL STUD (NON-LOAD BEARING) - UL DESIGN U425 1-HR

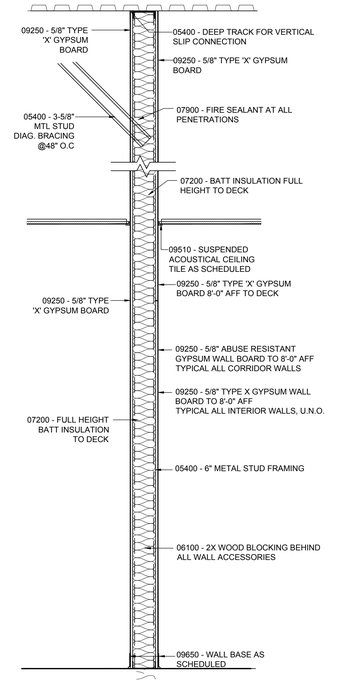
FIRE BARRIER RATING (REQUIRED) 1-HR



WALL SECTION G

SCALE 3/4" = 1'-0"

TYPICAL AT ALL DIAGONAL BRACING NOTED ON STRUCTURAL SHEETS



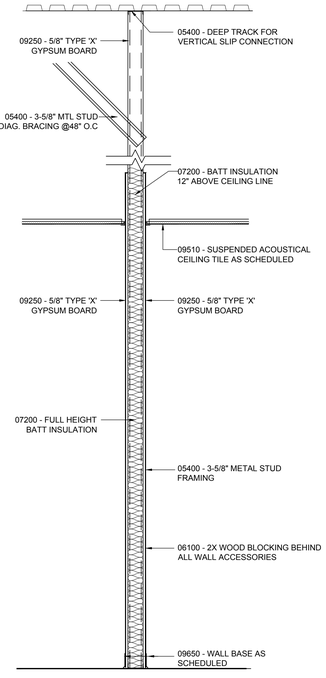
WALL SECTION D

SCALE 3/4" = 1'-0" D1-3-5/8" STUD

UL FIRE RESISTANT RATINGS:

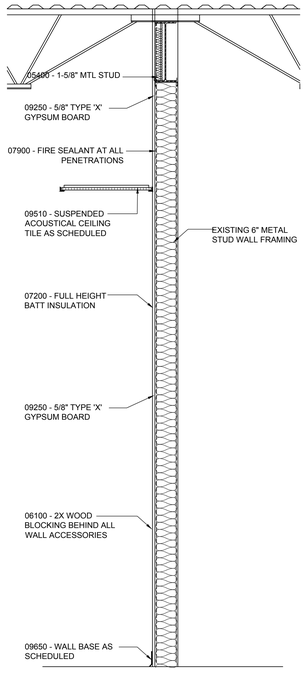
INTERIOR PARTITION STEEL STUD (NON-LOAD BEARING) - UL DESIGN U465 1-HR

FIRE BARRIER RATING (REQUIRED) 1-HR



WALL SECTION F

SCALE 3/4" = 1'-0" F1-6" STUD

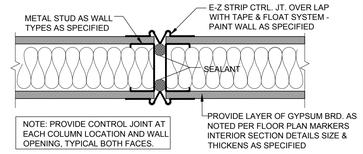


WALL SECTION H

SCALE 3/4" = 1'-0"

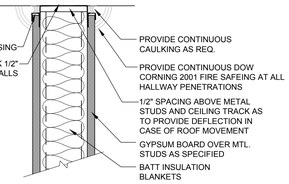
PARTITION TYPES GENERAL NOTES

1. REFER TO FLOOR PLANS FOR LOCATION OF PARTITION TYPES.
2. REFER TO SCHEDULES & DETAILS FOR FINISHES,
3. REFER TO STRUCTURAL FOR METAL STUD FRAMING DESIGN REQUIREMENTS.
4. ALL GYPSUM WALLBOARD SHALL BE 5/8", TYPE "X", UNLESS NOTED OTHERWISE.
5. PROVIDE MOISTURE RESISTANT GYPSUM WALLBOARD AT TOILET/SHOWER WALLS AND THROUGHOUT KITCHEN, UNLESS NOTED OTHERWISE.
6. PROVIDE CEMENT TILE BACKER BOARD BEHIND ALL WALL TILE WAINSCOTS, IN LIEU OF M.R. WALLBOARD.
7. PROVIDE HI-IMPACT GYPSUM WALLBOARD AT ALL INTERIOR HALLWAYS, CORRIDORS, ETC., UNLESS NOTED OTHERWISE. PROVIDE HI-IMPACT BOARD TO A HEIGHT OF 8'-0" AFF AND THEN CONTINUE THE REMAINDER OF THE WALL WITH TYPE 'X' WALLBOARD TO DECK.
8. APPROPRIATE SUBMITTAL INFORMATION MUST BE PROVIDED TO SUBSTANTIATE THAT THE MATERIALS AND ASSEMBLY USED BY THE CONTRACTOR HAVE BEEN TESTED BY A RECOGNIZED TESTING AGENCY TO MEET THE FIRE RESISTANCE RATING SCHEDULED ON THESE PARTITION TYPES. SEE SPECIFICATION SECTION 08250.
9. REVIEW PLANS AND PROVIDE BACKING AND BRACING IN PARTITIONS AS REQUIRED FOR CASEWORK, WALL MOUNTED BOARDS, VERTICAL DUCT WORK AND ANY EQUIPMENT ETC. IF WOOD BLOCKING IS REQUIRED PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING.
10. SOUND ATTENUATION BLANKETS SHALL EXTEND FULL HEIGHT OF PARTITIONS TO DECK.
11. ALL DOOR/WINDOW JAMBS & HEADERS IN MTL. STUD WALLS SHALL BE DOUBLE STUDDED.
12. PROVIDE WALLBOARD CONTROL JOINTS AT EACH COLUMN LOCATION AND WALL OPENINGS, TYPICAL BOTH FACES. PROVIDE CONTROL JOINTS AT WALL MIDPOINTS IN CONTINUOUS WALL LENGTHS OVER 30'-0".
13. ALL EXPOSED OUTSIDE CORNERS TO RECEIVE CORNER GUARDS AS SPECIFIED.
14. ALTHOUGH ALL INTERIOR PARTITIONS ON THIS SHEET ARE DRAWN TO SIMILAR HEIGHT IT IS RESPONSIBILITY OF THE CONTRACTOR TO RESEARCH ALL INTERIOR PARTITION WALL HEIGHTS FROM FINISHED FLOOR TO UNDERSIDE OF ROOF DECK.
15. PROVIDE WOOD BLOCKING AT ALL PROJECTOR, HANDRAIL, GRAB BAR AND CABINET LOCATIONS. 12" WIDE, 16 GAUGE STRAP SUPPORTS ARE ACCEPTABLE AT ALL OTHER BLOCKING LOCATIONS.



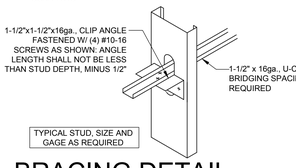
01 PARTITION DETAILS

SCALE: NTS



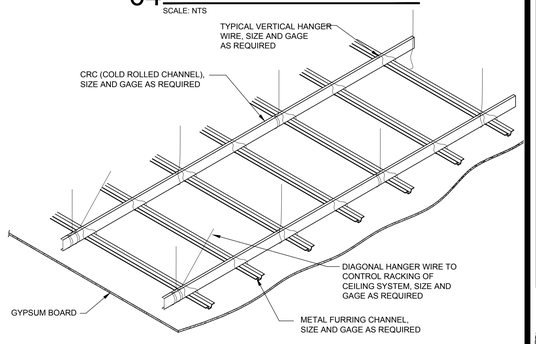
02 PARTITION DETAILS

SCALE: NTS



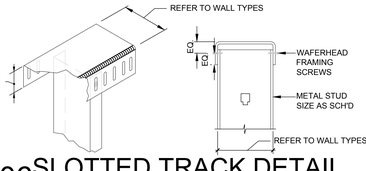
04 BRACING DETAIL

SCALE: NTS



05 CEILING DETAIL

SCALE: NTS



06 SLOTTED TRACK DETAIL

SCALE: NTS

No.	REVISIONS	BY

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

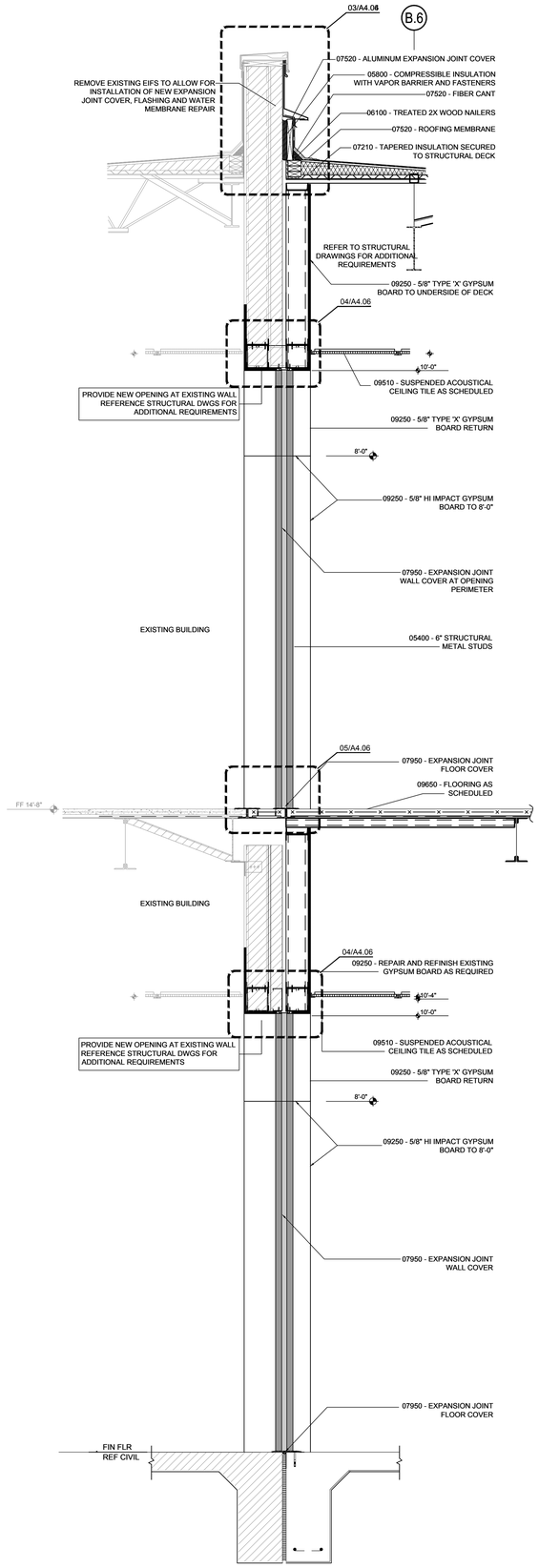
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 79556 STATE OF TEXAS 6-18-19

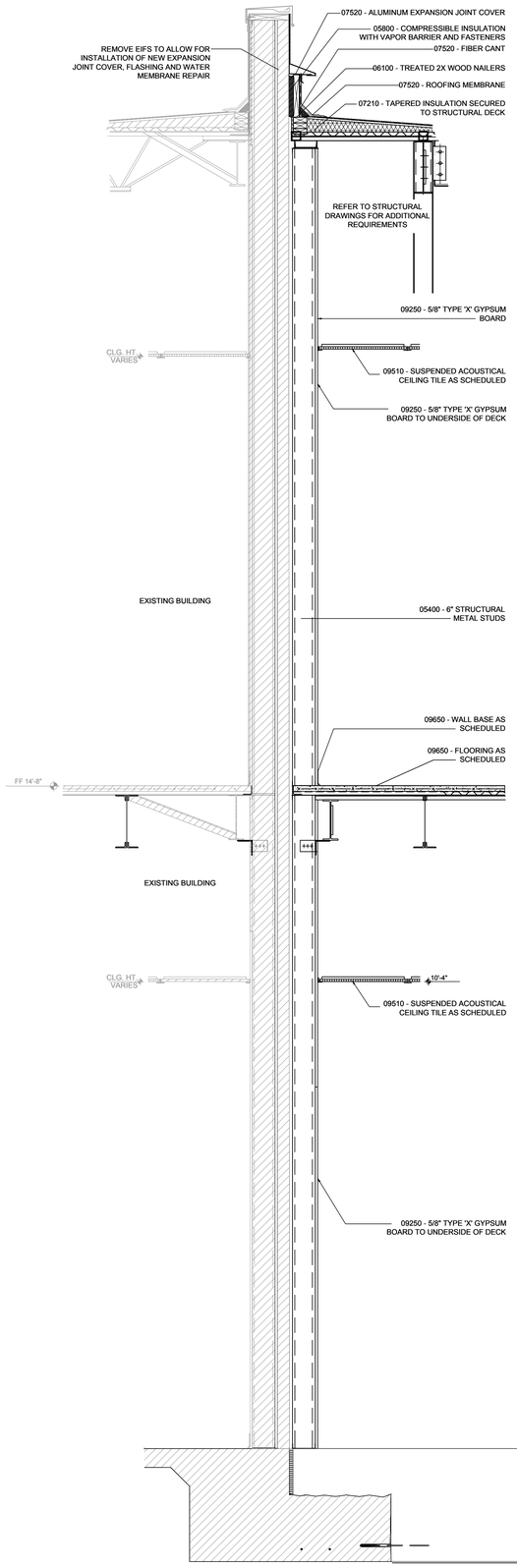
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A4.05



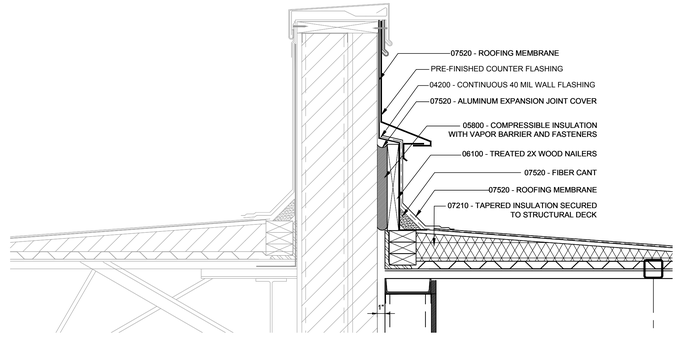
01 WALL SECTION

SCALE 3/4" = 1'-0"



02 WALL SECTION

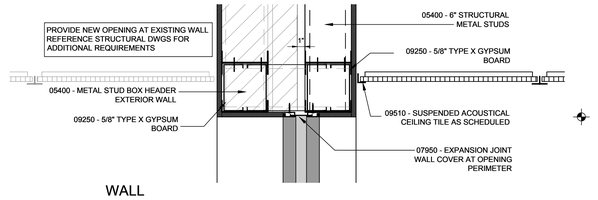
SCALE 3/4" = 1'-0"



ROOF

03 EXPANSION JOINT DTL

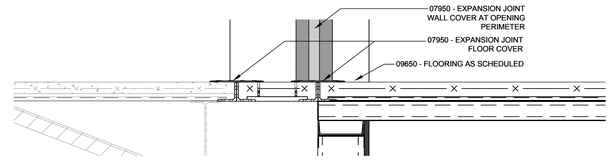
SCALE 1-1/2" = 1'-0"



WALL

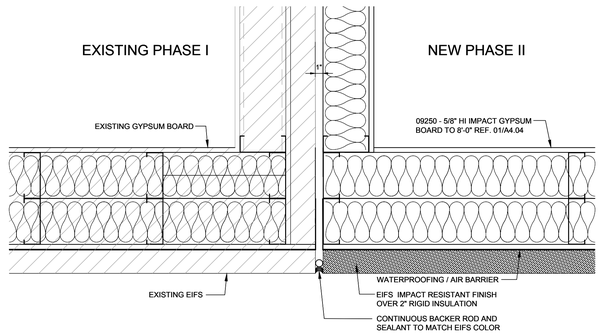
04 EXPANSION JOINT DTL

SCALE 1-1/2" = 1'-0"



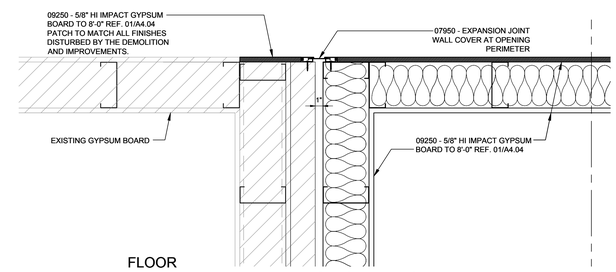
FLOOR

05 EXPANSION JOINT DTL



06 EXPANSION JOINT DTL

SCALE 1-1/2" = 1'-0"



FLOOR

07 WALL EXPANSION JOINT DTL

SCALE 1-1/2" = 1'-0"

No.	REVISIONS	BY

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

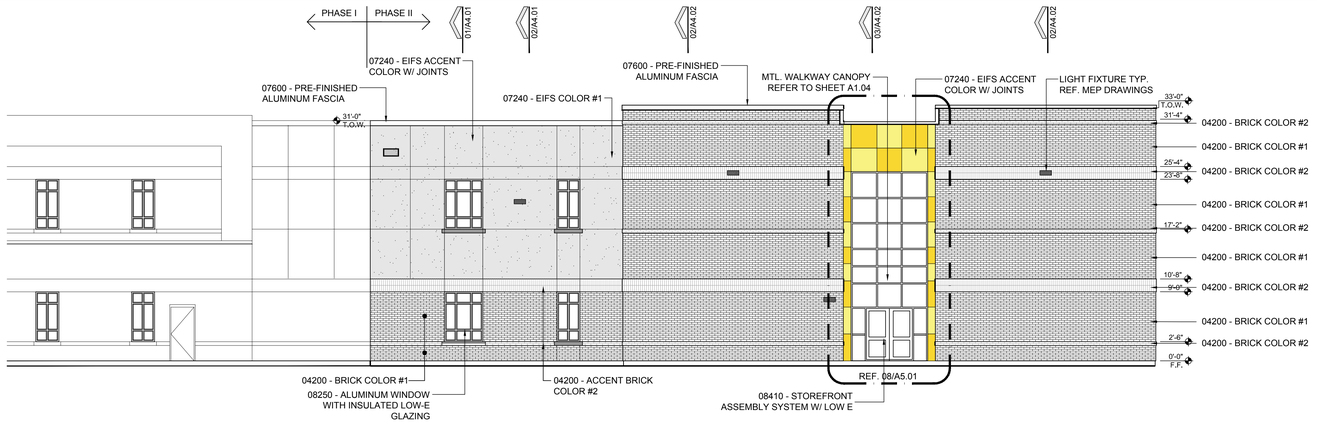
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

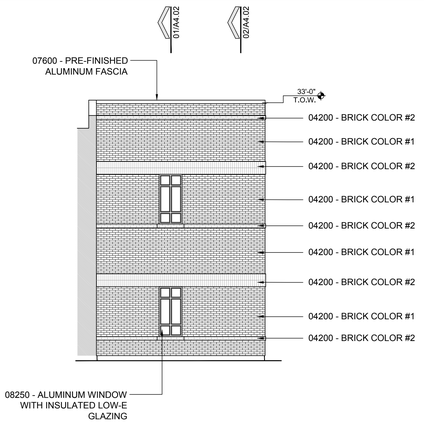
REGISTERED ARCHITECT DAVID A. MONREAL 19556 STATE OF TEXAS 6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

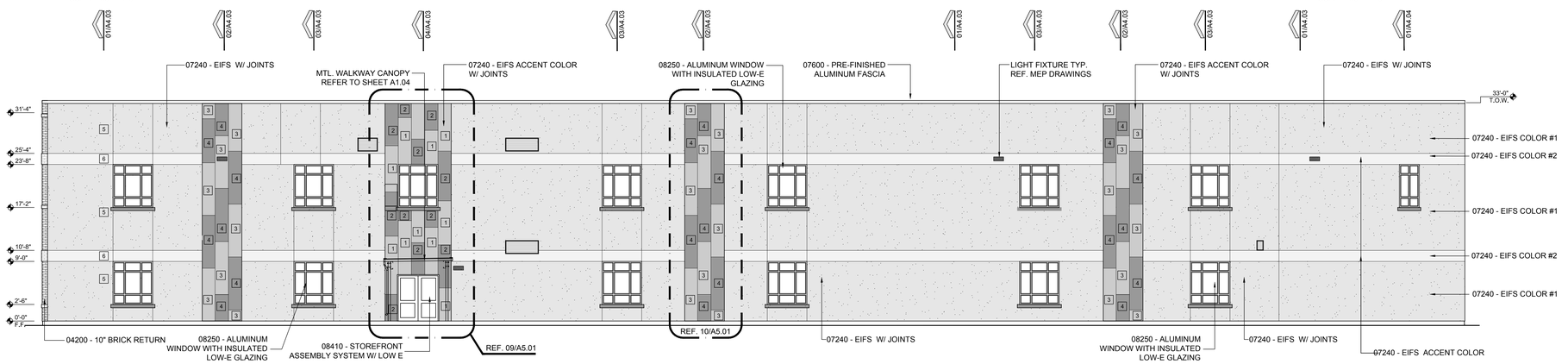
Date:	June 13,2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	J. Alvarado
Job No.	IDEA ELSA
Sheet:	A4.06



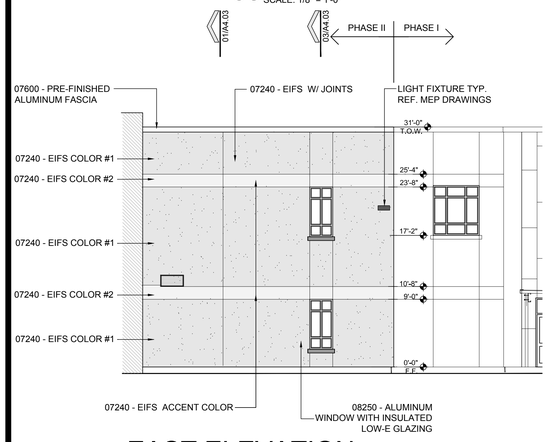
01 WEST ELEVATION
SCALE: 1/8" = 1'-0"



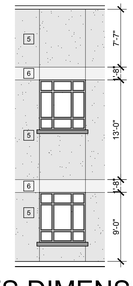
02 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



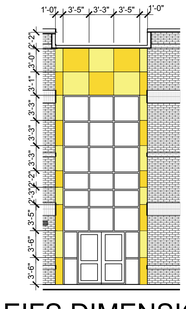
03 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



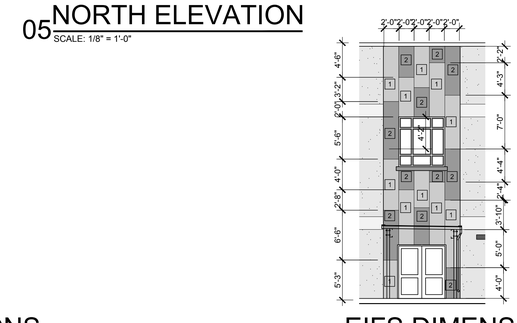
06 EAST ELEVATION
SCALE: 1/8" = 1'-0"



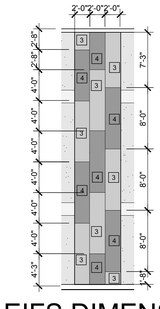
07 EIFS DIMENSIONS
SCALE: 1/8" = 1'-0" (TYPICAL)



08 EIFS DIMENSIONS
SCALE: 1/8" = 1'-0"
EIFS FIELD COLORS 1 AND 2



05 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



09 EIFS DIMENSIONS
SCALE: 1/8" = 1'-0"
EIFS FIELD COLORS 1 AND 2

10 EIFS DIMENSIONS
SCALE: 1/8" = 1'-0" (TYPICAL)

04 EAST ELEVATION
SCALE: 1/8" = 1'-0"

EIFS COLOR LEGEND

1. EIFS LIGHT YELLOW COLOR: 31303 80130 TSW
2. EIFS DARK YELLOW COLOR: 31301 130 TSW
3. EIFS LIGHT BLUE COLOR: 35210 80130 TSW
4. EIFS DARK BLUE COLOR: 35220 80130 B1

EIFS FIELD COLOR #1: SUNSET YELLOW #107 (LIGHT COLOR)
EIFS ACCENT COLOR #2: SUEDE #105 (DARK COLOR)

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

REGISTERED ARCHITECT DAVID A. MONREAL 19555 STATE OF TEXAS
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: June 13,2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: J. Alvarado
Job No. IDEA ELSA
Sheet: A5.01

GENERAL STRUCTURAL NOTES

THESE GENERAL NOTES SHALL APPLY UNLESS OTHERWISE SPECIFICALLY NOTED ON PLANS OR DETAILS. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SHALL COORDINATE ALL STRUCTURAL PLANS AND DETAILS WITH ARCHITECTURAL & MECHANICAL DRAWINGS BEFORE STARTING WORK. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR CONTRACTOR MEANS AND METHODS OF CONSTRUCTION OR SITE SAFETY. DESIGN, CONSTRUCTION, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE CONTROLLING PROVISIONS OF THE 2003 EDITION OF THE **INTERNATIONAL BUILDING CODE (IBC)**

DESIGN CRITERIA

1. BASIS FOR DESIGN AND CODE COMPLIANCE

   A. GOVERNING BUILDING CODE.....IBC 2003 EDITION

2. GRAVITY DESIGN
   ROOF:
   DEAD LOAD.....SELF-WEIGHT OF STRUCTURE & ROOFING SYSTEM
   LIVE LOAD.....20 PSF (REDUCIBLE)
   ADDITIONAL POINT LOADS.....AS NOTED ON DRAWINGS

   SECOND FLOOR:
   CORRIDOR .....80 PSF
   STORAGE/OFFICE .....50 PSF
   CLASSROOMS .....40 PSF
   PARTITIONS .....15 PSF
   MECHANICAL .....100 PSF
   STAIRWELLS .....100 PSF

3. WIND DESIGN BASED ON:

   A. ASCE 7-05 REQUIREMENTS

   DESIGN WIND SPEED.....105 MPH
   OCCUPANCY CATEGORY.....III
   WIND EXPOSURE CATEGORY.....C
   IMPORTANCE FACTOR.....1.15
   INTERNAL PRESSURE COEFFICIENT (GCpi).....+/-0.18
   Kzt.....1.0
   Kd.....0.85

FOUNDATION DESIGN CRITERIA

1. FOUNDATION DESIGN IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, AND IS BASED ON THE GEOTECHNICAL REPORT PREPARED BY RABA KISTNER, INC, McALLEN, TEXAS, DATED APRIL 19, 2017.

   GRADE BEAMS, FOOTINGS, AND SLAB:

   BEARING CAPACITY (GRADE BEAMS) ..... 1.7 KSF

   BEARING CAPACITY (FOOTINGS) ..... 2.1 KSF

   SUBSURFACE WATER WAS ENCOUNTERED AT 13'-1/2" FT DURING OR AFTER TERMINATION OF DRILLING OPERATIONS (MAY FLUCTUATE WITH SEASON).

2. THE GEOTECHNICAL ENGINEER OF RECORD SHALL BE RETAINED TO PERFORM TESTING AND INSPECTIONS DURING SITE PREPARATION AND PLACEMENT OF BUILDING PAD FILL AS REQUIRED BY SPECIFICATIONS AND GENERAL STRUCTURAL NOTES.

FOUNDATION NOTES

1. REMOVE **AT LEAST 12" INCHES** (TO ELEVATION 61.5 FEET) OF THE EXISTING SITE SOIL, VEGETATION, DEBRIS, ETC., FROM THE PROPOSED BUILDING AREA TO A DISTANCE OF 5'-0" OUTSIDE THE BUILDING AREA (EXTERIOR OF THE FOUNDATION, INCLUDING ATTACHED IMPROVEMENTS SUCH AS SIDE WALKS AND CANOPIES). DEPTH OF REMOVAL SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER AT THE TIME OF CONSTRUCTION.

2. AFTER TOP SOIL HAS BEEN REMOVED, THE SUBGRADE SHALL BE PROOF-ROLLED WITH APPROPRIATE CONSTRUCTION EQUIPMENT WEIGHING AT LEAST 20 TONS UNTIL THE GRADE OFFERS A RELATIVELY UNYIELDING SURFACE. SOFT SOIL AND YIELDING AREAS SHALL BE OVER EXCAVATED AND REPLACED WITH COMPACTED SELECT FILL IN ACCORDANCE WITH THE REQUIREMENTS BELOW.

3. PROOFROLLING OPERATIONS AND EXCAVATION/BACKFILL ACTIVITIES SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER AND OBSERVED BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE TO DOCUMENT SUBGRADE CONDITIONS AND PREPARATION. IF SUBGRADE SOILS ARE ALLOWED TO BECOME WET OR SATURATED, REMOVAL AND REPLACEMENT OF SOFT SOILS OR LIME STABILIZATION PROCEDURES SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE. THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED FOR ADDITIONAL RECOMMENDATIONS, IF REQUIRED.

4. SCARIFY, MOISTURE CONDITION, AND COMPACT THE TOP 8" OF THE EXPOSED SUBGRADE TO 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY TO WITHIN ±3% OF OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH TEST METHOD ASTM D-698 STANDARD PROCTOR. MOISTURE CONTENT SHALL BE AS NOTED IMMEDIATELY PRIOR TO PLACING SELECT FILL.

5. RESTORE GRADE USING SELECT FILL OR RE-COMPACTED ON SITE SOIL MEETING THE REQUIREMENTS OF SELECT FILL MINIMUM OF 2.3 FT OR AS REQUIRED TO PROVIDE THE SPECIFIED FINISH FLOOR ELEVATION OF 65.3 FT, WHICHEVER IS GREATER, AND PROPER SITE DRAINAGE, COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS BELOW. FINISH FLOOR SHALL BE VERIFIED WITH ARCHITECT AND CIVIL ENGINEER.

6. SELECT FILL SHALL BE COMPACTED IN THE FIELD IN LIFTS NOT TO EXCEED 8" LOOSE MEASURE (6" COMPACTED LIFT) TO A MINIMUM OF 98% OF STANDARD PROCTOR MAXIMUM DRY DENSITY FROM -2% OF OPTIMUM TO +2% ABOVE OPTIMUM MOISTURE CONTENT AS EVALUATED BY ASTM D-698 STANDARD PROCTOR.

7. SELECT FILL SHALL HAVE A PLASTICITY INDEX (PI) OF 7-18% AND NO CLAY BALLS LARGER THAN 2" IN DIAMETER.

8. FOUNDATION CONCRETE SHALL NOT BE PLACED ON SELECT FILL SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR WATER SEEPAGE. IF BEARING SOILS ARE SOFTENED BY WATER INTRUSION, OR BY DESICCATION, THE UNSUITABLE SOILS SHALL BE REMOVED FROM THE FOUNDATION EXCAVATION AND BE REPLACED WITH PROPERLY COMPACTED SELECT FILL PRIOR TO PLACEMENT OF FOUNDATION CONCRETE. ALL SOIL REMOVAL AND REPLACEMENT COSTS, INCLUDING ASSOCIATED COSTS TO REMOVE AND REINSTALL REINFORCEMENT AND VAPOR RETARDER MATERIALS, SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR. DEPTH OF SOIL REMOVAL AND RECOMPACTION REQUIREMENTS SHALL BE COORDINATED WITH THE GEOTECHNICAL ENGINEER.

9. SAMPLES OF PROPOSED SELECT FILL SHALL BE FURNISHED TO THE TESTING LABORATORY 7 DAYS PRIOR TO INSTALLATION TO PERMIT TIME FOR SPECIFICATION COMPLIANCE INSPECTION AND REVIEW BY THE GEOTECHNICAL ENGINEER.

10. LABORATORY MOISTURE-DENSITY CURVES SHALL BE DEVELOPED FOR SUBGRADE AND FILL. PROCTOR CURVES AND FIELD DENSITY TESTS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. A MINIMUM OF ONE (1) IN PLACE DENSITY TEST PER 5,000 SQUARE FEET OF SLAB AREA SHALL BE TAKEN ON EACH LIFT DURING PLACEMENT OF SELECT FILL. DENSITY REPORTS SHALL BE TRANSMITTED TO ENGINEER WITHIN 3 DAYS AFTER TESTS ARE MADE.

11. GRAIN SIZE ANALYSIS AND ATTERBERG LIMITS TESTS SHALL BE PERFORMED DURING FILL PLACEMENT AT A RATE OF ONE TEST PER 2,000 CUBIC YARDS OF FILL BROUGHT TO THE SITE. SAMPLES FOR TEST SHALL BE TAKEN FROM JOBSITE MATERIALS.

12. SITE SHALL BE GRADED SO THAT WATER DOES NOT POND WITHIN 10 FEET OF THE PERIMETER FOUNDATION BEAM DURING OR AFTER CONSTRUCTION. THE SLOPE OF THE GROUND SURFACE AWAY FROM THE STRUCTURE SHOULD BE A MINIMUM OF FIVE (5%) PERCENT FOR A DISTANCE OF AT LEAST TEN (10') FEET. ELEVATION OF GROUND SURFACE ADJACENT TO THE FOUNDATION SHOULD BE AT LEAST 6 INCHES BELOW FINISH FLOOR.

13. FINAL DRAINAGE IS VERY IMPORTANT TO THE PERFORMANCE OF THE FOUNDATION. LANDSCAPING, PLUMBING, AND DOWNSPOUT DRAINAGE ARE ALSO VERY IMPORTANT. IT IS VITAL THAT ALL ROOF DRAINAGE BE TRANSPORTED AWAY FROM BUILDINGS SO THAT NO AREAS OF WATER POND AROUND BUILDINGS, WHICH CAN RESULT IN SOIL VOLUME CHANGE UNDER THE FOUNDATION. PLUMBING LEAKS SHOULD BE REPAIRED AS SOON AS POSSIBLE IN ORDER TO MINIMIZE THE MAGNITUDE OF MOISTURE CHANGE UNDER THE SLAB. LARGE TREES AND SHRUBS SHOULD NOT BE PLANTED IN THE IMMEDIATE VICINITY OF THE STRUCTURE, SINCE THE ROOT SYSTEMS CAN CAUSE A SUBSTANTIAL REDUCTION IN SOIL VOLUME IN THE VICINITY OF THE TREE DURING DRY PERIODS. BUSHES AND TREES SHOULD BE PLANTED A REASONABLE DISTANCE AWAY FROM THE STRUCTURE SO THAT THEIR CANOPY OR "DRIP LINE" DOES NOT EXTEND BEYOND THE PERIMETER OF THE FOUNDATION. WATERING OF VEGETATION SHOULD BE PERFORMED IN A TIMELY AND CONTROLLED MANNER. PROLONGED WATERING SHOULD BE AVOIDED.

CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. #301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.

2. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE A.C.I. "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE", A.C.I. #315, LATEST EDITION.

3. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 3,000 PSI AT 28 DAYS.

4. A MAXIMUM OF 25% FLYASH MAY BE USED AS A CEMENT SUBSTITUTE AND SHALL CONFORM TO ASTM C618, CLASS C. THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.6 AND SLUMPS SHALL BE 5 INCHES (±1 INCH). CONCRETE FOR PIERS SHALL BE DESIGNED TO ACHIEVE SPECIFIED STRENGTH WHEN PLACED WITH A SEVEN (7) INCH (±1) SLUMP. AGGREGATE SHALL BE WELL-GRADED, 1" MAXIMUM FOR THE SLAB ON GRADE, 1" MAXIMUM FOR CAST-IN-PLACE BEAMS AND ABOVE GRADE SLABS. COARSE AGGREGATE SHALL MEET ASTM C33, GRADATION #57. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO FURNISH MIX DESIGNS FOR ALL CLASSES OF CONCRETE. A SAMPLE OF FOUR CYLINDERS SHALL BE TAKEN NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE FOR EACH 100 YD3 OF CONCRETE. ONE CYLINDER SHALL BE TESTED AT 7 DAYS AND TWO AT 28 DAYS. THE FOURTH CYLINDER MAY BE DISPOSED OF AFTER 45 DAYS IF NOT USED.

CONCRETE (CONTINUED):

5. ADMIXTURES CONTAINING WATER SOLUBLE CHLORIDE IONS GREATER THAN 0.06% BY WEIGHT OF CEMENT SHALL NOT BE USED.

6. REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A-615, GRADE 60. #3 BARS MAY BE GRADE 40.

7. STANDARD PROTECTIVE COVER OF REINFORCING BARS UNLESS OTHERWISE NOTED SHALL BE:

   WHERE CAST AGAINST DIRT OR FILL ..... 3 IN.
   EXPOSED TO EARTH OR WEATHER ..... 2 IN.
   SLABS AND WALLS ..... 1 IN.
   OTHER ..... 1-1/2 IN.

8. WELDED WIRE FABRIC MATS SHALL BE ASTM A185.

9. ALL ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315, LATEST EDITION.

10. SLAB MAT TO BE SUPPORTED BY PLASTIC CHAIRS SPACED AT 4 FEET ON CENTER EACH WAY (MAX). BEAM CAGES SUPPORTED BY BATTS AT 4 FEET ON CENTER.

11. VERTICAL CONSTRUCTION JOINTS IN FLOOR SHALL BE COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO FORMING SLAB. CRACK CONTROL JOINTS SHALL BE PROVIDED AT LOCATIONS SHOWN ON THE PLANS. CONTROL JOINTS SHALL BE SAWCUT (IMMEDIATELY SUBSEQUENT TO FINISHING SLAB) WITH "SOFF-CUT" SYSTEM. JOINTS SHALL BE CLEANED AND FILLED WITH "SONOLASTIC SL1" WITHIN TWO (2) DAYS AFTER SAWCUTTING. NO HORIZONTAL JOINTS WILL BE PERMITTED IN SLABS OR BEAMS UNLESS APPROVED BY THE ENGINEER.

12. INCLUDE IN BID AN ALLOWANCE FOR **1.0 TON** OF REINFORCING BARS TO BE USED AS DIRECTED IN FIELD FOR SPECIAL CONDITIONS AT A COST OF **$2,000.00 PER TON** (LABOR FOR PLACING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

13. PROVIDE 2 TOP & BOTTOM CORNER BARS AT ALL DISCONTINUOUS GRADE BEAMS AND FOUNDATION CORNERS. CORNER BARS SHALL BE 4'-0" IN LENGTH (2'-0" LEGS). SIZE OF THE CORNER BARS SHALL MATCH THE SIZE OF THE GRADE BEAM REINFORCING AS SHOWN BY STRUCTURAL DRAWINGS.

14. MAINTAIN A MINIMUM OF ONE AND ONE-HALF (1-1/2) TIMES THE MAXIMUM COARSE AGGREGATE SIZE BETWEEN ALL REINFORCING BARS (EXCEPT AT LAPS).

15. BARS SCHEDULED OR DETAILED "CONT" SHALL BE LAPPED 40 BAR DIAMETERS (24 INCHES MINIMUM) UNLESS OTHERWISE NOTED.

16. WHERE CONCRETE IS TO HAVE UNEXPOSED SURFACES, THE FORMS MAY BE CONSTRUCTED OF #2 LUMBER OR BETTER. WHERE SURFACES ARE EXPOSED, SUCH AS FOR FINISH PAINTING OR STUCCO DASH, THE FORMS SHALL BE COMMERCIAL STANDARD DOUGLAS FIR, MOISTURE-RESISTANT CONCRETE FORM PLYWOOD; MINIMUM 5-PLY AND AT LEAST 9/16" THICK, OR FORMS LINED WITH COMMERCIAL STANDARD DOUGLAS FIR, CONCRETE FORM EXTERIOR, 3-PLY, NOT LESS THAN 1/4" THICK. WHERE CONCRETE IS EXPOSED, A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

17. EXPOSED SURFACES OF CONCRETE AT THE PERIMETER OF THE FOUNDATION SHALL BE FORMED WITH 2x10 #2 LUMBER OR BETTER. A SMOOTH SURFACE IS REQUIRED, FREE FROM FINS, HONEYCOMB, FORM MARKS OR OTHER DEFECTS.

18. CONSTRUCT FORMS SO THAT JOINTS ARE LEAKPROOF. MAINTAIN FORMS SUFFICIENTLY RIGID TO PREVENT DEFORMATION UNDER LOAD.

19. CONCRETE MAY BE PLACED WITH CHUTES UP TO 25' MAXIMUM. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

20. CONCRETE PLACED BY PUMPING SHALL MEET THE FOLLOWING REQUIREMENTS:

   A. COARSE AGGREGATE SHALL BE GRADED FROM A MAXIMUM OF 1" DOWN

   B. MAXIMUM ALLOWABLE INCREASE IN CEMENT FACTOR SHALL BE 1/2 SACK PER CUBIC YARD OVER NORMAL MIX DESIGN.

   C. MAXIMUM WATER CEMENT RATIO SHALL BE 7-1/2 GALLONS PER SACK OF CEMENT. IF MORE WORKABILITY IS REQUIRED, AN ADMIXTURE MAY BE USED.

   D. MAXIMUM WEIGHT RATIO OF FINE AGGREGATES TO COARSE AGGREGATES SHALL NOT EXCEED 2/3.

   E. REFER TO A.C.I. #301, LATEST EDITION, SECTION 800, FOR OTHER PUMPING REQUIREMENTS.

   F. IN NO CASE SHALL CONCRETE BE PUMPED THROUGH AN ALUMINUM TUBE.

   G. SLUMP SHALL NOT EXCEED 6" AT TRUCK DISCHARGE POINT.

21. FLOOR FINISH (TOLERANCES)

   A. STEEL TROWEL FINISH 1/8" IN 10'

   B. FLOAT FINISH 1/4" IN 10'

   C. SCRATCH FINISH 1/2" IN 10'

22. CONCRETE TO BE CURED IN ACCORDANCE WITH ACI RECOMMENDATIONS. PROPOSED METHOD OF CURING TO BE COORDINATED WITH ENGINEER PRIOR TO CONCRETE PLACEMENT.

23. SHOP DRAWINGS SHALL BE PREPARED FOR ALL REINFORCING STEEL AND SUBMITTED FOR REVIEW BY ENGINEER. SUBMITTALS SHALL INCLUDE ELECTRONIC (PDF) COPIES OF EACH DRAWING. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

24. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

25. ENGINEER TO BE NOTIFIED 48 HOURS PRIOR TO PLACEMENT OF FOUNDATION AND OF STRUCTURAL CONCRETE TO SCHEDULE REQUIRED OBSERVATIONS.

STRUCTURAL STEEL

1. TOP OF BEAM/PLATE (TOB OR TOP) IS USED INTERCHANGEABLY ON PLANS. REFERENCE APPLICABLE SECTION FOR CLARIFICATION.

2. STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATION A 572 AND/OR ASTM A 992 (Fy = 50 KSI) UNLESS OTHERWISE SHOWN OR NOTED. PLATE AND ANGLES MAY BE A36 (Fy = 36 KSI).

3. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM SPECIFICATION A-500, GRADE B (Fy = 46 KSI). STEEL PIPE SHALL COMPLY WITH ASTM A53 TYPE E OR S (Fy = 35 KSI).

4. ALL STRUCTURAL STEEL SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST SPECIFICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, AND STEEL JOIST INSTITUTE.

5. ALL STEEL BAR JOISTS SHALL BE DESIGNED AND FABRICATED BY A MEMBER OF THE STEEL JOIST INSTITUTE. IF REQUESTED BY THE A/E, THE CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATE OF FABRICATOR'S MEMBERSHIP TO THE STEEL JOIST INSTITUTE AT TIME OF SHOP DRAWING SUBMITTAL.

6. BAR JOISTS SHALL BE BOLTED WHERE COLUMNS ARE FRAMED WITH STRUCTURAL STEEL MEMBERS IN ONLY ONE DIRECTION TO PROVIDE LATERAL STABILITY DURING CONSTRUCTION/ERECTION AS REQUIRED BY OSHA.

7. TOTAL LOAD DEFLECTION OF SPECIAL BAR JOIST SHALL NOT EXCEED L/240.

8. JOIST MANUFACTURER SHALL PROVIDE BRIDGING AS REQUIRED TO ADEQUATELY BRACE JOISTS AGAINST LATERAL MOVEMENT AND NET UPLIFT OF 30 PSF.

9. ALL BOLTS SHALL BE 3/4 DIAMETER ASTM A325. WASHERS SHALL BE PROVIDED AT OVERSIZED HOLES AND AT SLOTTED CONNECTIONS AT EXPANSION JOINTS. A325 CONNECTIONS SHALL BE BEARING TYPE CONNECTIONS UNLESS NOTED OTHERWISE. ANCHOR BOLTS MAY BE ASTM A307 UNLESS NOTED OTHERWISE.

10. REFER TO ARCHITECTURAL & MECHANICAL PLANS FOR VERIFICATION OF ALL BOLTS, BLOCKING ANCHORS, ETC., FOR THE ANCHORAGE OF THEIR RESPECTIVE ITEMS.

11. ALL BEAMS AND COLUMNS SHALL BE FULL LENGTH WITHOUT SPLICES UNLESS INDICATED ON PLANS OR APPROVED BY THE ENGINEER IN WRITING.

12. ALL SHOP AND FIELD WELDS SHALL BE MADE BY WELDERS WHO HAVE BEEN QUALIFIED AND CERTIFIED TO MAKE THE REQUIRED WELDS IN ACCORDANCE WITH THE LATEST AMERICAN WELDING SOCIETY SPECIFICATIONS (A.W.S. D-1.1).

13. WELDS SHALL BE MADE WITH COVERED MILD STEEL ELECTRODES COMPLYING WITH AWS D1 CODE AND SERIES E 70XX.

14. ERECTION CONNECTORS SHALL BE PROVIDED IN ORDER TO PROPERLY ALIGN AND BE TRUE AND PLUMB WHEN WELDS ARE MADE.

15. ALL COMPLETE PENETRATION WELDS, BOTH SHOP AND FIELD, SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY UTILIZING ULTRA SONIC TESTING PROCEDURES IN ACCORDANCE WITH AWSD1.1 ANY WELDS FOUND DEFECTIVE SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER. ALL X-RAYED WELDS SHALL BE GROUND SMOOTH.

16. THE FABRICATOR SHALL SUPPLY BACK-UP PLATES AND EXTENSION TABS FOR ALL COMPLETE PENETRATION WELDS.

17. INCLUDE IN BID AN ALLOWANCE FOR **1.0 TON** OF FABRICATED AND PRIMED STRUCTURAL STEEL TO BE USED AS DIRECTED IN THE FIELD FOR SPECIAL CONDITIONS AT A COST OF **$4,000.00 PER TON** (LABOR FOR ERECTING SAME TO BE INCLUDED). ANY UNUSED ALLOWANCE WILL BE CREDITED TO THE OWNER AT THE END OF THE PROJECT.

18. ALL STEEL MEMBERS, INCLUDING BAR JOISTS, UNLESS NOTED OTHERWISE, SHALL BE PAINTED W/ ONE COAT OF SHOP PRIMER. DO NOT PRIME ITEMS TO BE EMBEDDED IN CONCRETE OR FIRE PROOFED W/ SPRAY ON MATERIAL WITHOUT COORDINATION W/ THE ARCHITECT. GALVANIZED DECK SHALL BE CONFORM TO ASTM A525, G60 (MINIMUM).

STRUCTURAL STEEL (CONTINUED):

19. REINFORCE STEEL DECK OPENINGS (FLOOR & ROOF) FROM 6" TO 18" WITH 2 x 2 x 1/4 STEEL ANGLES. PLACE ANGLES PERPENDICULAR TO FLUTES, EXTEND MINIMUM OF TWO FLUTES BEYOND EACH SIDE OF OPENING AND WELD DECK AT EACH FLUTE. OPENINGS LARGER THAN 18" SHALL BE REINFORCED WITH 3 x 3 x 1/4 STEEL ANGLES WELDED TO TOP CHORD OF BAR JOISTS UNLESS SHOWN OTHERWISE ON PLANS. WELD DECK TO ANGLE AT 6" O/C AT PERIMETER OF OPENINGS.

20. STEEL LINTELS SUPPORTING BRICK VENEER AT EXTERIOR WALLS SHALL BE ONE HOT-DIPPED GALVANIZED 5 x 5 x 1/4 ANGLE, UNLESS NOTED OTHERWISE.

21. CONTRACTOR SHALL PROVIDE MISCELLANEOUS STEEL AS REQUIRED AT ELEVATOR RAIL SUPPORT POINTS. COORDINATE REQUIREMENTS WITH ELEVATOR MANUFACTURER.

22. WELDED HEADED STUDS (WHS) SHALL BE "NELSON ANCHORS", OR EQUAL, Fs = 60 KSI, DIAMETER AND LENGTH AS SHOWN ON PLANS. STUDS TO BE WELDED & SHOP TESTED IN ACCORDANCE W/ THE MANUFACTURER'S RECOMMENDATIONS.

23. AFTER ERECTION, PRIME WELDS, ABRASIONS AND SURFACES NOT PRIMED. USE PRIMER CONSISTENT WITH SHOP COAT. GALVANIZED SURFACES (HOT DIPPED OR COLD) SHALL BE CLEANED AND PAINTED WITH "ZRC". ROOF DECK WELDS TO BE CLEANED AND PAINTED PRIOR TO INSTALLING ROOF INSULATION.

24. FIELD WELDS AND BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED BY A QUALIFIED INDEPENDENT INSPECTOR. THE INSPECTOR SHALL PROVIDE A WRITTEN REPORT TO THE STRUCTURAL ENGINEER.

25. ELECTRONIC (PDF) SHOP DRAWINGS SHALL BE PREPARED FOR ALL STRUCTURAL STEEL COMPONENTS AND SUBMITTED FOR REVIEW BY ENGINEER. ENGINEERING DRAWINGS SHALL NOT BE REPRODUCED AND USED AS SHOP DRAWINGS.

26. THE CONTRACTOR SHALL REVIEW AND ANNOTATE SHOP DRAWINGS BEFORE SUBMITTING THEM TO THE ARCHITECT/ENGINEER FOR REVIEW. THE CONTRACTOR SHALL ALLOW ARCHITECT/ENGINEER 10 WORKING DAYS FOR REVIEW OF SHOP DRAWINGS.

27. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED FOR A FRAMING OBSERVATIONS IMMEDIATELY AFTER ROOF DECK IS INSTALLED AND BEFORE INSTALLATION OF THE CEILING.

FASTENERS

1. CAST-IN-PLACE AND POST-INSTALLED ANCHORS SHALL BE PER ANCHOR DIAMETER AND EMBEDMENT DEPTH NOTED ON THE DRAWINGS. POST-INSTALLED ANCHORS SHALL BE UTILIZED ONLY WHERE SPECIFIED.

2. ALL ANCHORS NOTED BELOW SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS, AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY.

3. SPECIAL INSPECTIONS SHALL BE PROVIDED FOR ALL MECHANICAL AND ADHESIVE ANCHORS PER THE APPLICABLE EVALUATION REPORT NOTED BELOW. SPECIAL INSPECTIONS SHALL BE PERFORMED BY INDEPENDENT TESTING LABORATORY PERFORMING QA/QC SERVICES ON PROJECT.

4. EXPANSION BOLTS (EB) IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. KWIK BOLT III (ICC-ES ESR-2302) BY HILTI (CONCRETE)

   B. KWIK BOLT III (ICC-ES-ESR-1385) BY HILTI (MASONRY)

   C. STRONG-BOLT 2 (ICC-ES ESR-3037) BY SIMPSON STRONG-TIE (CONCRETE)

   D. WEDGE-ALL ANCHOR (ICC-ES ESR-1396) BY SIMPSON STRONG-TIE (MASONRY)

5. HEAVY DUTY SLEEVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED OR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. EXPANSION BOLTS (EB) SHALL NOT BE SUBSTITUTED FOR SLEEVE ANCHORS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER. ACCEPTABLE PRODUCTS:

   A. HSL-3 (ICC-ES ESR-1545) BY HILTI (CONCRETE)

6. SCREW ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI (CONCRETE)

   B. KWIK HUS-EZ (ICC-ES ESR-3056) BY HILTI (MASONRY)

   C. TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE (CONCRETE)

   D. TAPCON ANCHORS (ICC-ES ESR-1671) (MASONRY)

   E. POWERS WEDGE BOLT (ICC-ES ESR-1678) (MASONRY)

7. UNDERCUT ANCHORS IN CONCRETE SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. HDA (ICC-ES ESR-1546) BY HILTI (CONCRETE)

   B. TORQ-CUT (ICC-ES ESR-2705) BY SIMPSON STRONG-TIE (CONCRETE)

8. POWDER ACTUATED FASTENERS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC193. ACCEPTABLE PRODUCTS:

   A. X-U (ICC-ES ESR-2269) BY HILTI (CONCRETE/MASONRY/STEEL)

   B. POWDER ACTUATED FASTENERS (ICC-ES ESR-2138) BY SIMPSON STRONG TIE (CONCRETE/MASONRY)

9. ADHESIVE ANCHORS IN CONCRETE/CMU SHALL BE TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308. ACCEPTABLE PRODUCTS:

   A. HIT-RE 500-V3 (ICC-ES ESR-3814) BY HILTI (CONCRETE)

   B. HIT-HY 70 (ICC-ES ESR-2682) BY HILTI (MASONRY)

   C. SET-XP (ICC-ES ESR-2508) BY SIMPSON STRONG-TIE (CONCRETE)

   D. SET (ICC-ES ESR-1772) BY SIMPSON STRONG-TIE (MASONRY)

10. J-BOLTS SHALL BE FABRICATED FROM ASTM A36/A307 ROD. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. EXPANSION BOLTS/SLEEVE ANCHORS SHALL NOT BE SUBSTITUTED FOR J-BOLTS WITHOUT PRIOR WRITTEN APPROVAL BY STRUCTURAL ENGINEER.

11. HEADED ANCHOR RODS SHALL BE FABRICATED FROM ASTM F1554 MATERIAL, FY=36 KSI

12. SUBSTITUTION REQUESTS FOR PRODUCTS LISTED ABOVE SHALL BE SUBMITTED BY THE CONTRACTOR TO THE STRUCTURAL ENGINEER ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARDS. SUBSTITUTED ANCHORS SHALL HAVE A VALID CURRENT EVALUATION (ICC-ES OR IAPMO-ES) REPORT.

13. REFERENCE STRUCTURAL STEEL NOTES FOR BOLTS CONNECTING STRUCTURAL STEEL COMPONENTS.

LIGHTWEIGHT STEEL FRAMING (STEEL STUDS)

1. THE **GENERAL CONTRACTOR, PROJECT SUPERINTENDENT AND THE LIGHTWEIGHT STEEL FRAMING FOREMAN** SHALL MEET WITH THE STRUCTURAL ENGINEER PRIOR TO THE START OF LIGHTWEIGHT STEEL FRAMING WORK TO REVIEW PROJECT REQUIREMENTS AND PROCEDURES.

2. ALL STUDS AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, GAUGE AND SPACING SHOWN ON THE DRAWINGS. STUD MANUFACTUREING OF ALL MEMBERS AND ACCESSORIES SHALL COMPLY W/ ASTM C 955.

3. ALL STUDS AND JOIST MEMBERS 16 GAUGE AND HEAVIER SHALL BE FORMED FROM STEEL CORRESPONDING TO A TYPE LISTED IN THE A.I.S.I. "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", WITH A MINIMUM YIELD STRENGTH OF 50 KSI UNLESS SPECIFICALLY NOTED OTHERWISE.

4. ALL 18 GAUGE AND LIGHTER MEMBERS, TRACK, BRIDGING, AND ACCESSORY ITEMS SHALL BE FORMED FROM STEEL "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", WITH A MINIMUM YIELD STRENGTH OF 33 KSI UNLESS SPECIFICALLY NOTED OTHERWISE.

5. ALL FRAMING PRODUCTS SHALL BE FORMED FROM STEEL POSSESSING A COATING CORRESPONDING TO THE MINIMUM REQUIREMENTS OF ASTM 653, G60.

6. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY FOR ATTACHMENT TO PERPENDICULAR EMBERS, OR, AS REQUIRED, FOR AN ANGULAR FIT AGAINST ABUTTING MEMBERS.

7. ALL FIELD CUTTING OF STUDS MUST BE DONE BY SAWING OR SHEARING. TORCH CUTTING OF COLD FORMED MEMBERS IS UNACCEPTABLE.

LIGHTWEIGHT STEEL FRAMING (STEEL STUDS) CONTINUED

8. WHEN REQUIRED FOR BRIDGING PURPOSES, THE FRAMING FABRICATOR IS TO ENSURE PUNCH OUT ALIGNMENT WHEN ASSEMBLING FRAMING AND FIELD CUTTING STUDS TO LENGTH. REFER TO TYPICAL STUD/TRACK CONNECTION AND INDEXING DETAILS.

9. NO SPLICES

GENERAL STRUCTURAL NOTES

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS INDEPENDENT OF THE CONTRACTOR, THE ARCHITECT, OR THE ENGINEER, SHALL BE PROVIDED BY A SPECIAL INSPECTOR EMPLOYED BY THE OWNER ACCORDING TO CHAPTER 17 OF THE IBC 2003. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS. THE SPECIAL INSPECTOR SHALL SEND WRITTEN REPORTS TO THE OWNER, THE ARCHITECT, THE ENGINEER AND THE CONTRACTOR. THE REPORTS SHALL INDICATE IF WORK INSPECTED WAS DONE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE SPECIAL INSPECTOR SHALL BRING THE DISCREPANCIES TO THE ATTENTION OF THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS, TO THE BEST OF THEIR KNOWLEDGE, IN OR NOT IN CONFORMANCE WITH THE DRAWINGS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC 2003.

CONTINUOUS OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
VERIFY SOILS BELOW SHALLOW FOUNDATIONS ARE SUITABLE TO ACHEIVE THE BEARING CAPACITY FOR WHICH THEY WERE DESIGNED		X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED SELECT FILL MATERIALS		X
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF SELECT FILL	X	
PRIOR TO PLACEMENT OF COMPACTED SELECT FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		X

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT		X
INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE	X	
VERIFY USE OF REQUIRED DESIGN MIX		X
PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE AT THE TIME OF SAMPLING FRESH CONCRETE FOR MAKING SPECIMENS FOR STRENGTH TESTS PER ACI 318	X	
INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	
INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES		X
INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES AND GROUTING OF BONDED PRESTRESSING TENDONS	X	
VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS		X
ERECTION OF PRECAST CONCRETE MEMBERS		X
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X

REQUIRED VERIFICATION AND INSPECTION OF ANCHORS

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
CAST-IN-PLACE, POST-INSTALLED, MECHANICAL AND EPOXY SET ANCHORS: AS APPLICABLE, THE INSPECTION PROGRAM SHALL VERIFY THE ANCHOR TYPE, EMBEDMENT, TIGHTENING TORQUE, DIMENSIONS, HOLE DEPTH & DIAMETER AND CLEANOUT, EPOXY MIXING AND PLACEMENT PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE CURRENT ICC-ES EVALUATION REPORT	FREQUENCY OF INSPECTION SHALL BE IN ACCORDANCE WITH THE CURRENT ICC-ES EVALUATION REPORT, OR PER THE SPECIAL INSPECTION REQUIREMENTS OF THE ANCHOR SUBSTRATE AND ORIENTATION, WHICHEVER IS MORE STRINGENT	

REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

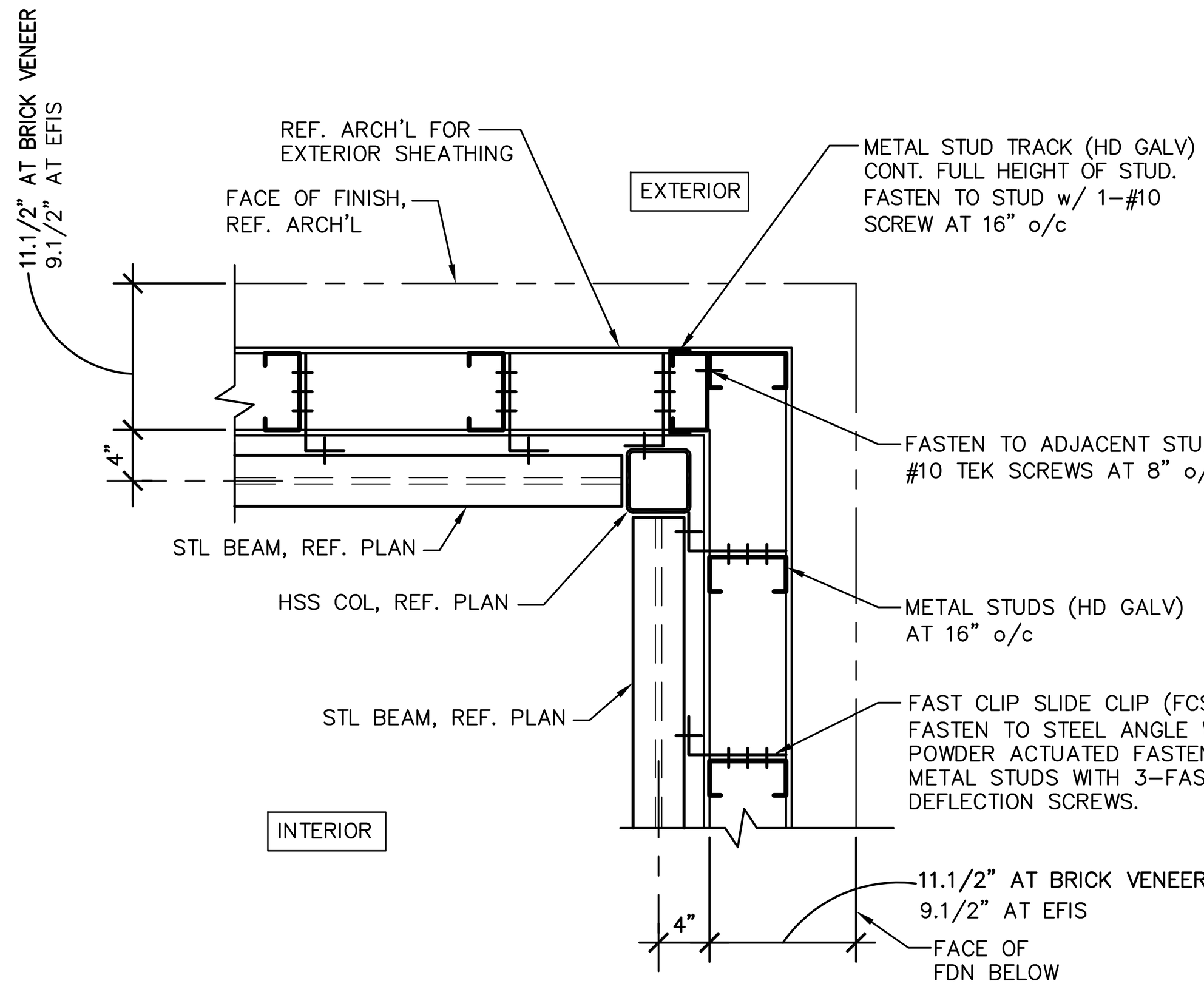
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS		X
INSPECTION OF HIGH STRENGTH BOLTING		X
INSPECTION OF WELDING:		
COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTIPASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS		X
FLOOR AND ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS		X

REQUIRED VERIFICATION AND INSPECTION OF COLD-FORMED LIGHTWEIGHT STEEL FRAME CONSTRUCTION (EXTERIOR METAL STUDS)

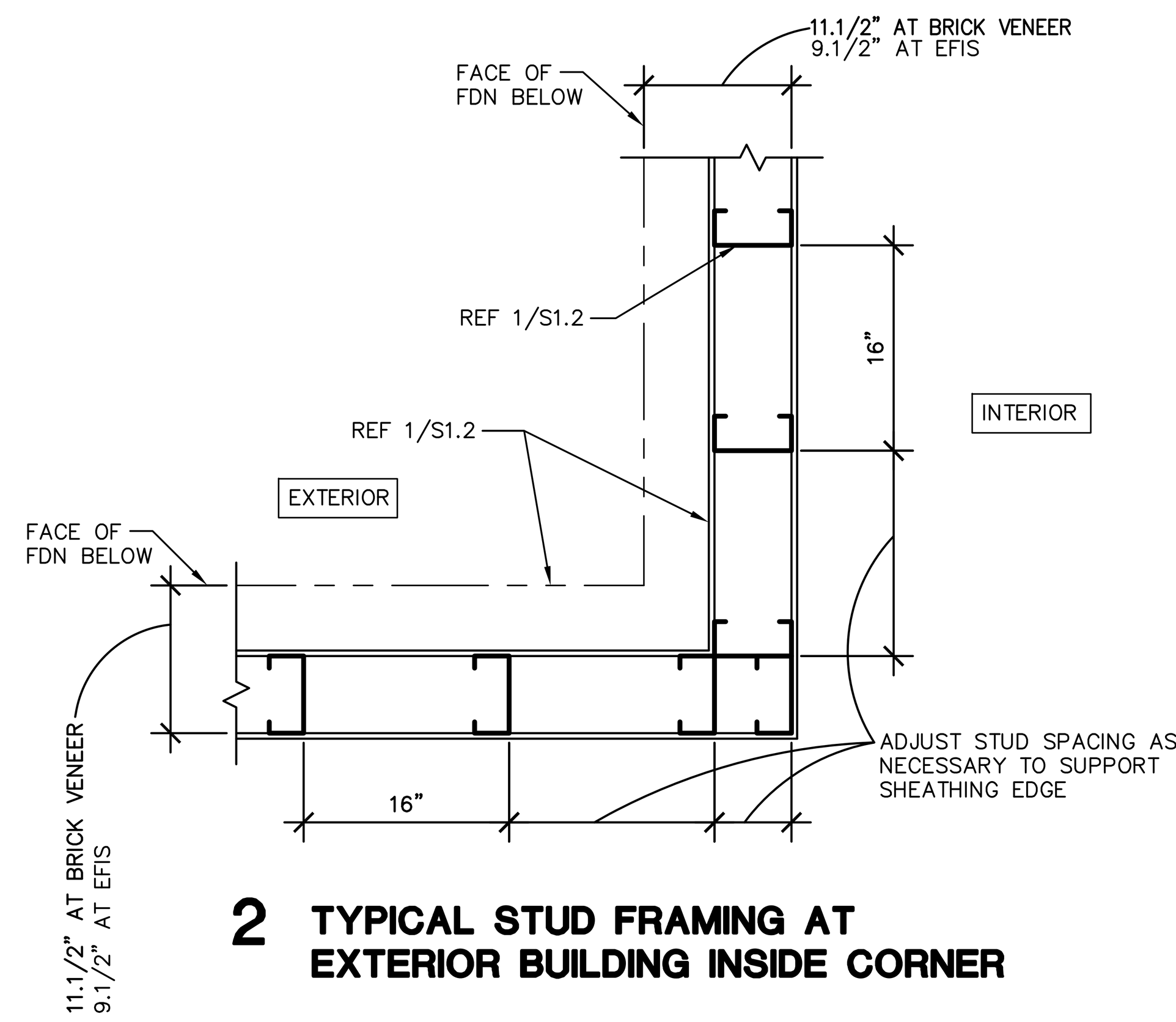
VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
MATERIAL VERIFICATION OF COLD-FORMED LIGHTWEIGHT FRAMING MEMBERS AND ACCESSORIES		X
TYPE, SIZE AND GAGE OF FRAMING MEMBERS AND ACCESSORIES (AS PER SHOP DRAWINGS)		X
SPACING OF FRAMING MEMBERS, BRACING, BLOCKING, AND BRIDGING (AS PER SHOP DRAWINGS)		X
INSPECTION OF WELDING; TYPE, LENGTH, SPACING (AS PER SHOP DRAWINGS)		X
INSPECTION OF FASTENER ATTACHMENT: BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS.		X

REQUIRED VERIFICATION AND INSPECTIONS OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

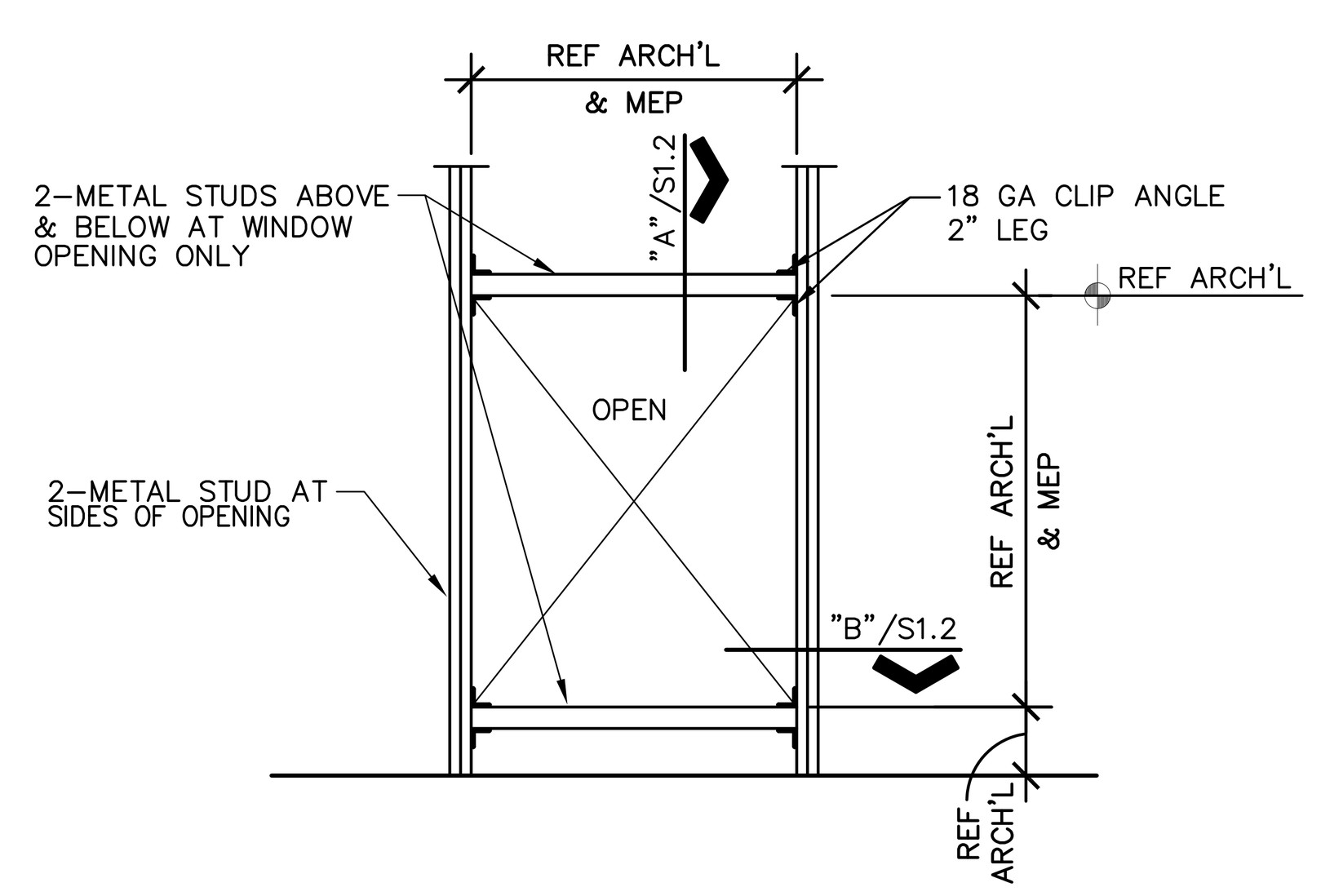
VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
INSPECT THE INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS		X
INSPECT WELDED OR BOLTED END CONNECTIONS		X
INSPECT HORIZONTAL OR DIAGONAL STANDARD BRIDGING AND BRIDGING THAT DIFFERS FROM SJI SPECIFICATIONS		X



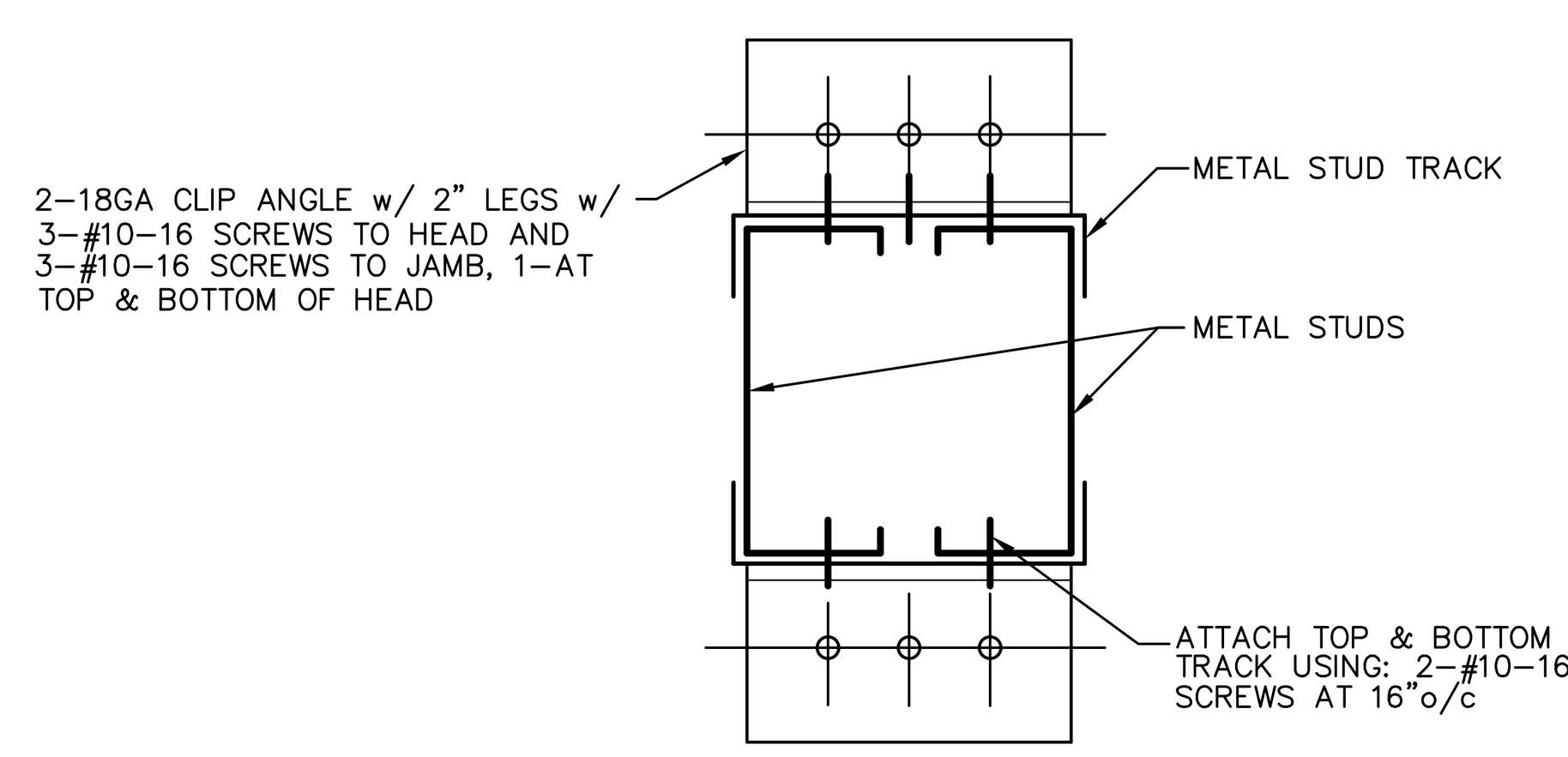
1 TYPICAL STUD FRAMING AT EXTERIOR BUILDING OUTSIDE CORNER



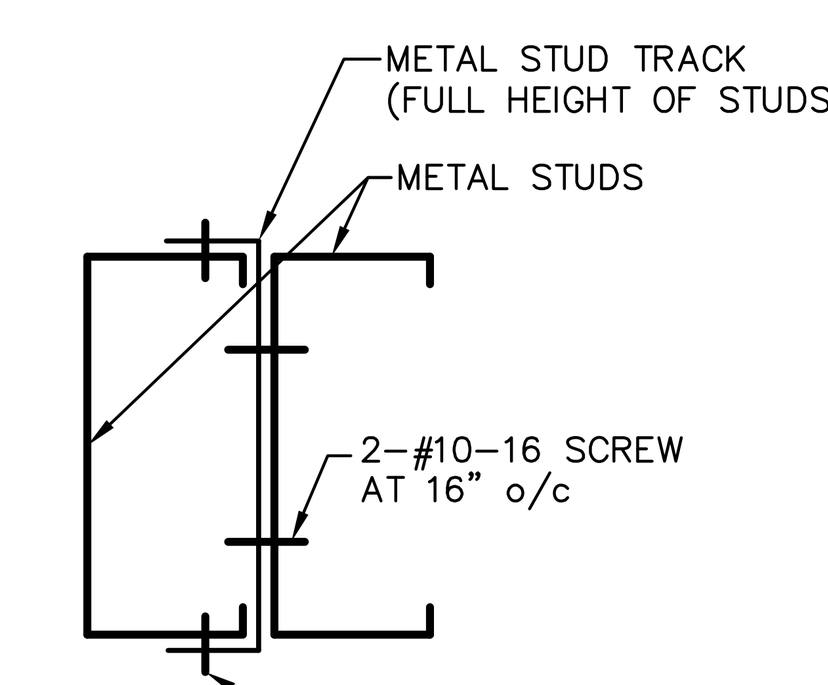
2 TYPICAL STUD FRAMING AT EXTERIOR BUILDING INSIDE CORNER



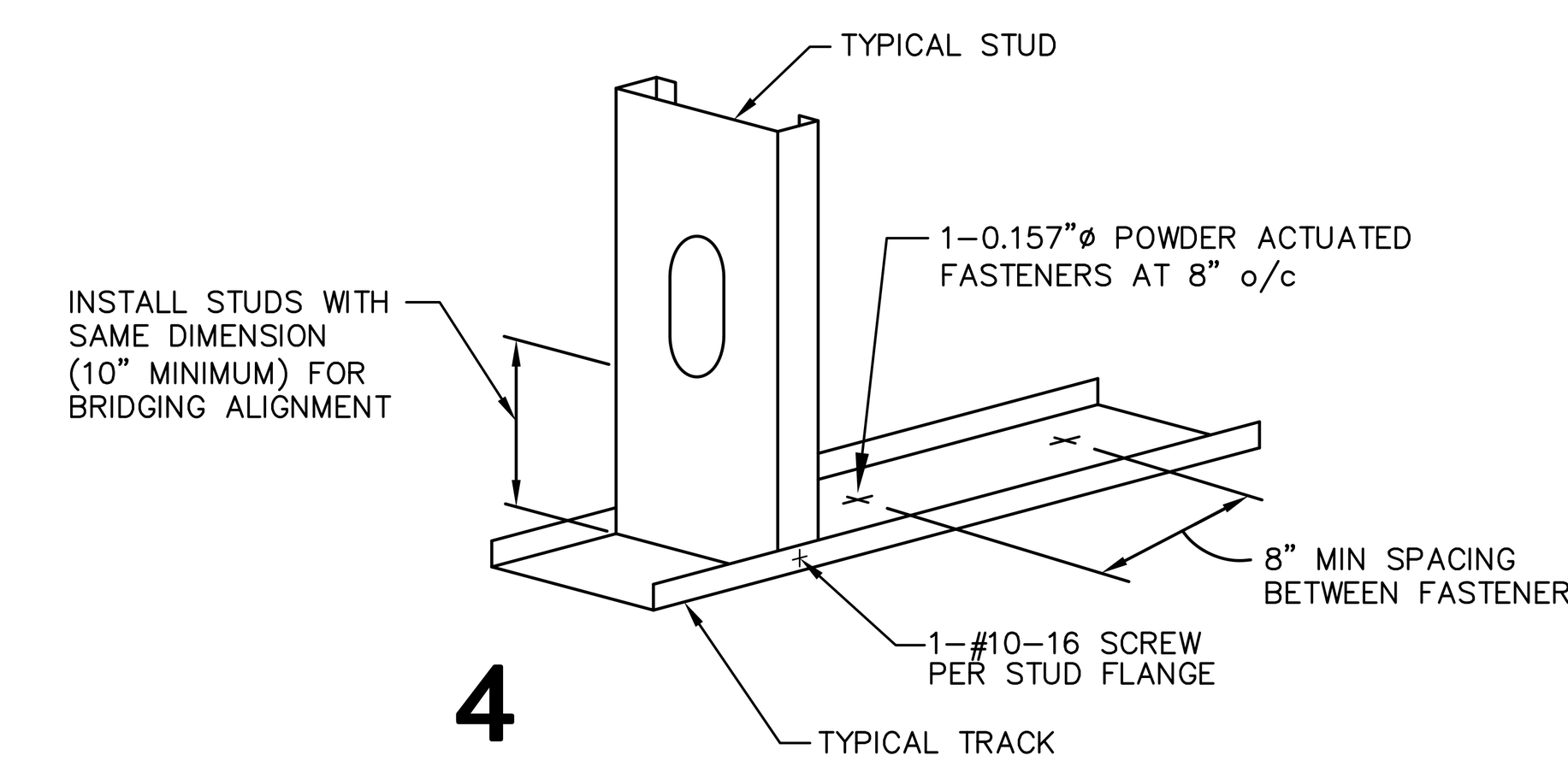
3 TYPICAL WINDOW/DOOR/LOUVER OPENING



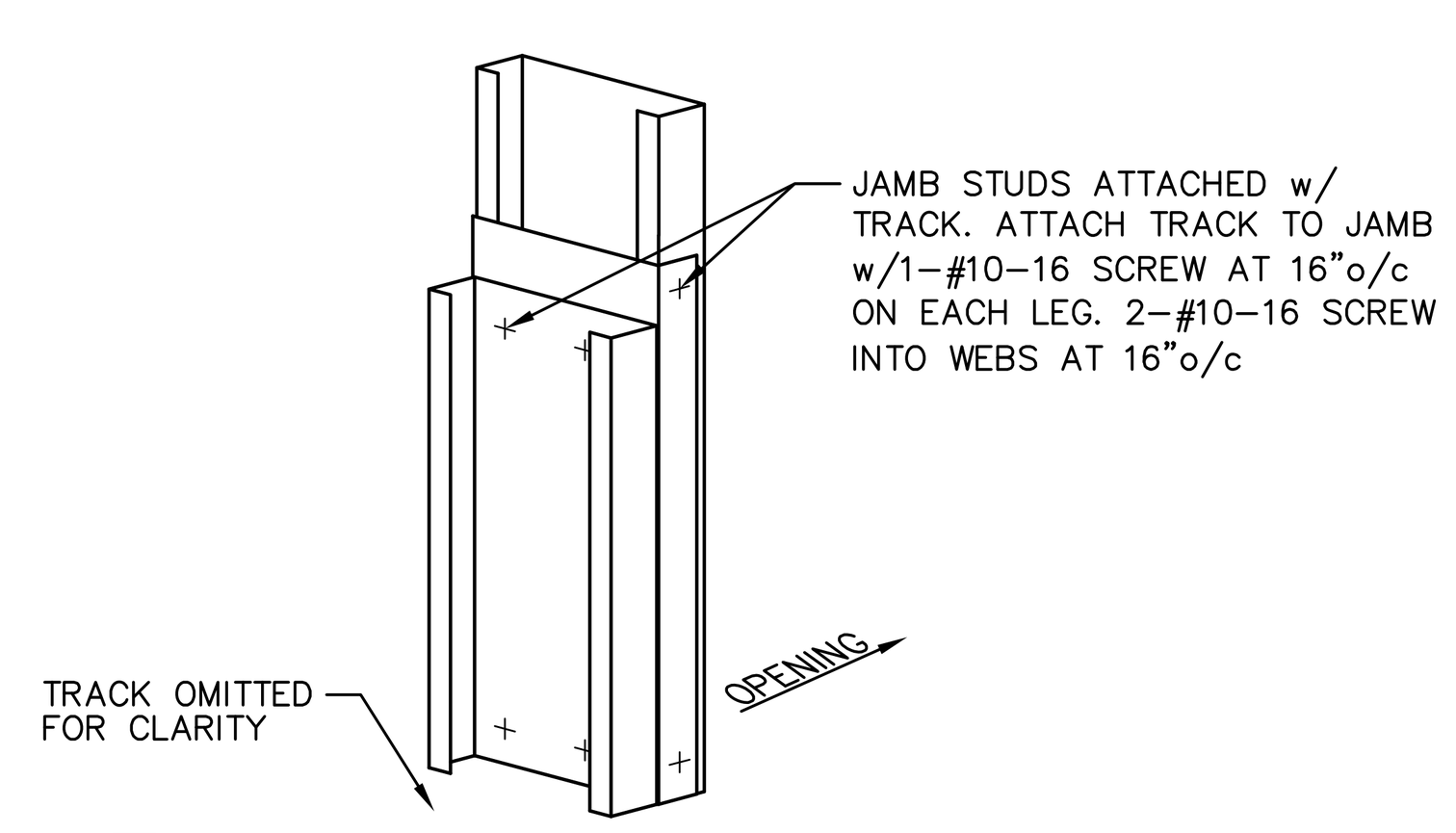
"A"



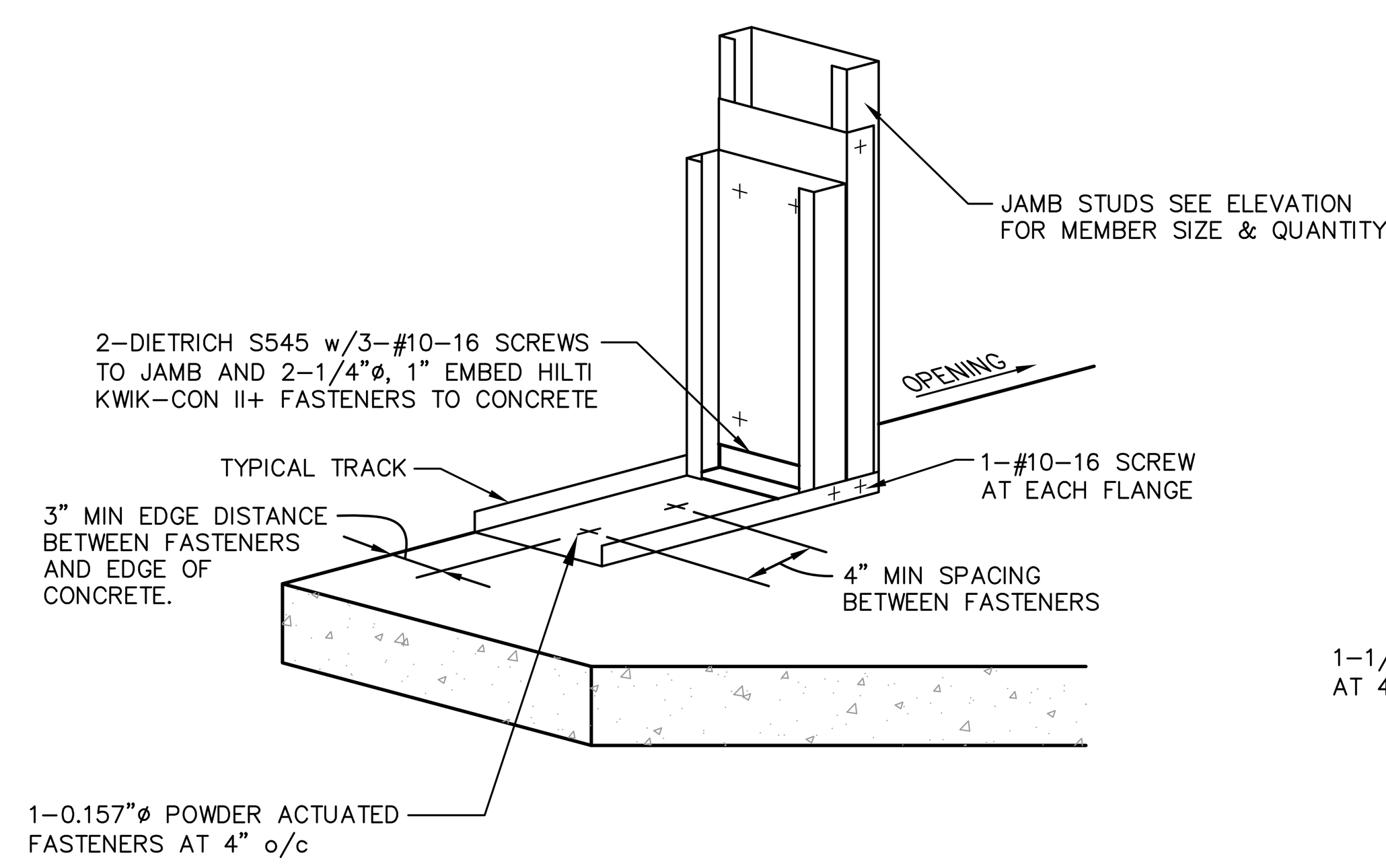
"B"



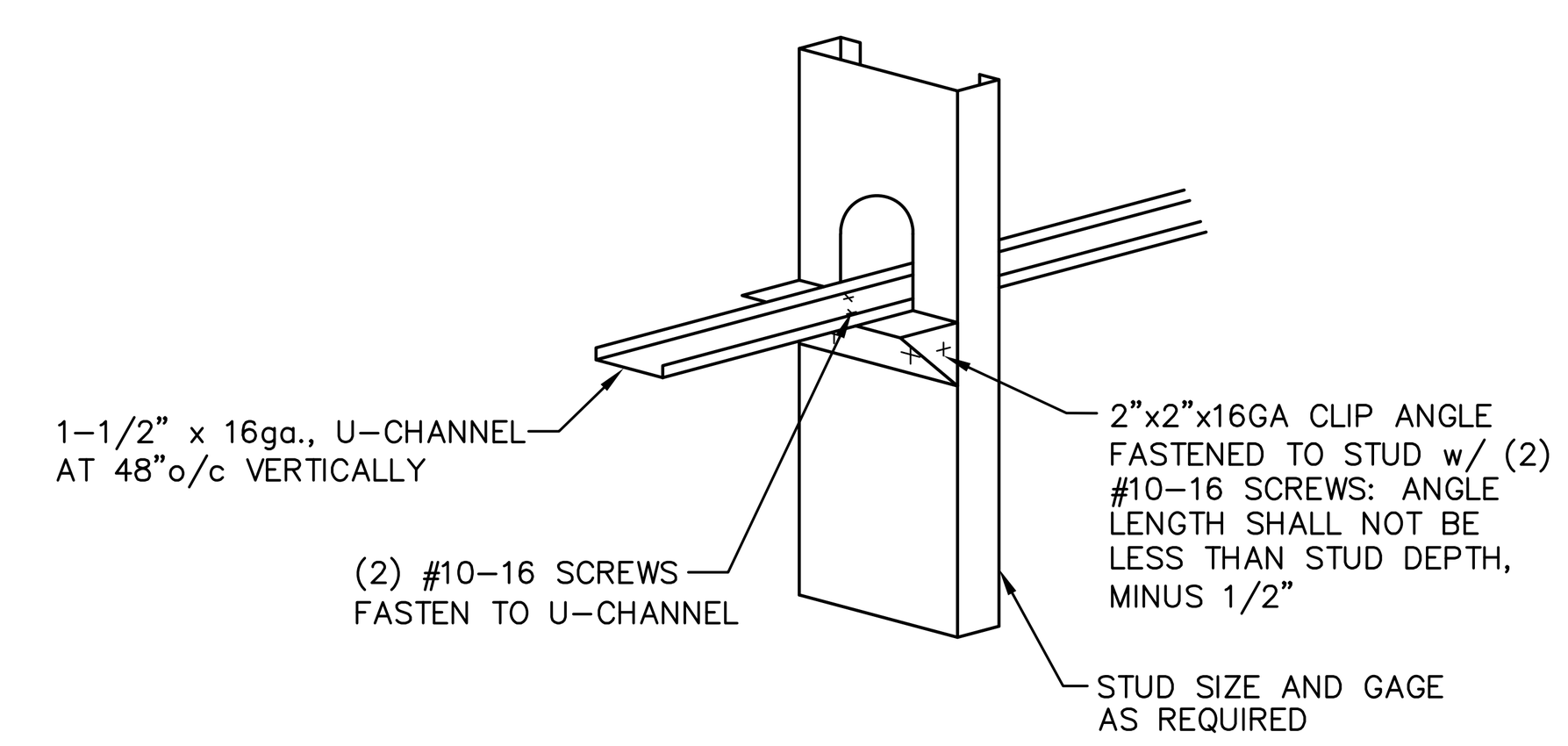
4



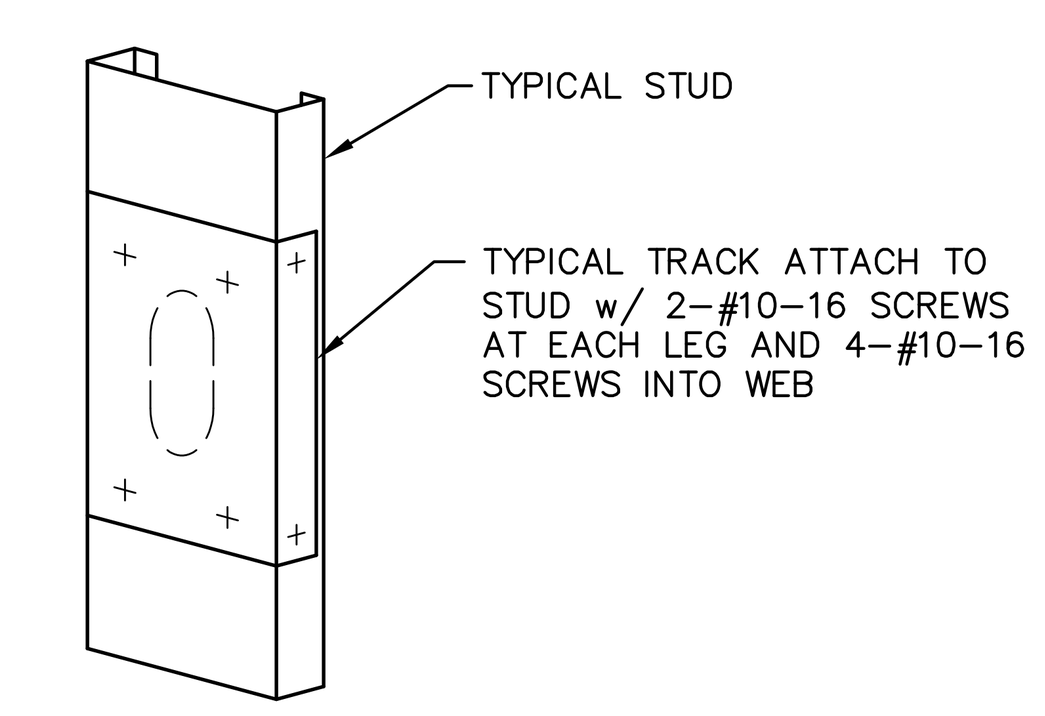
5



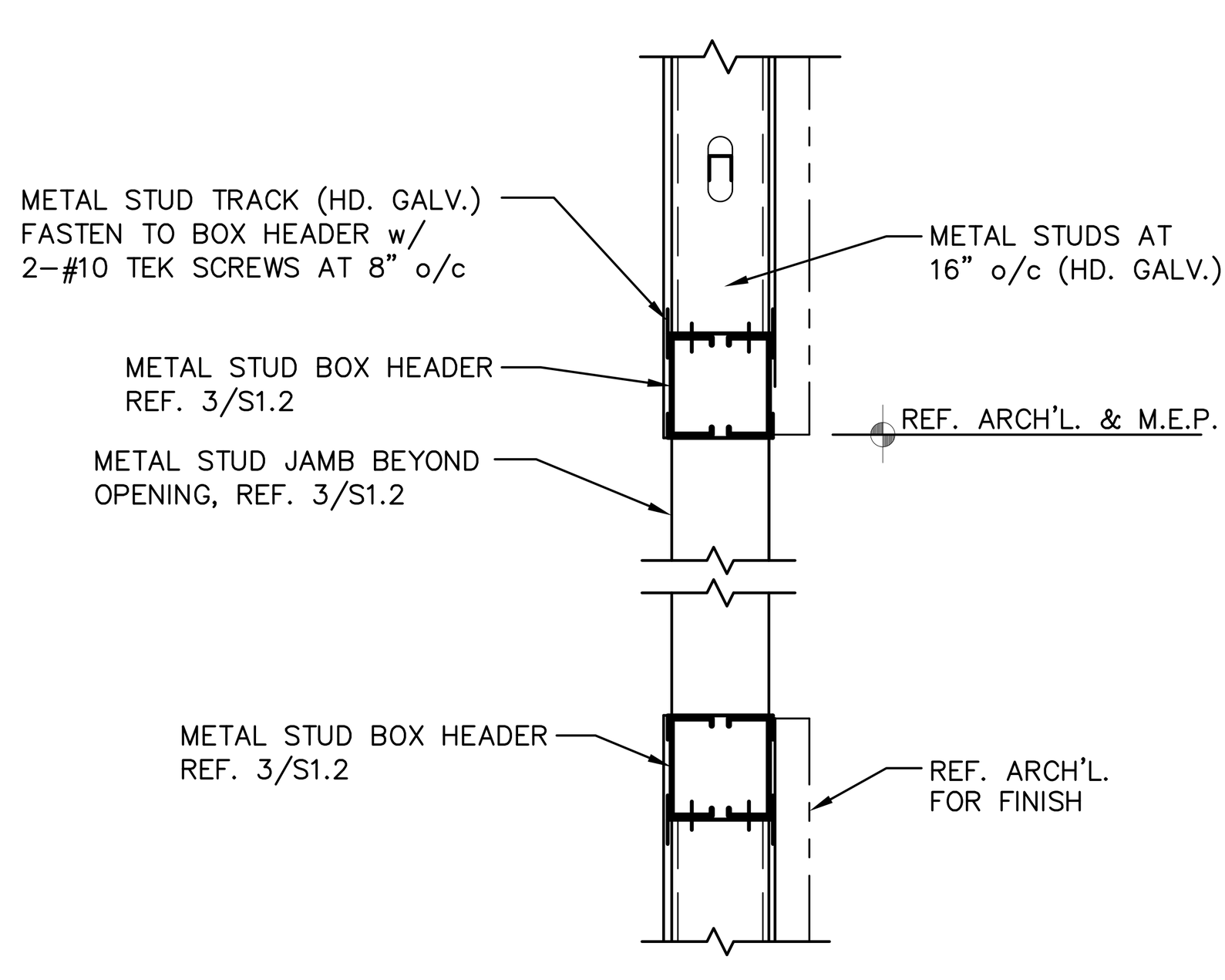
6



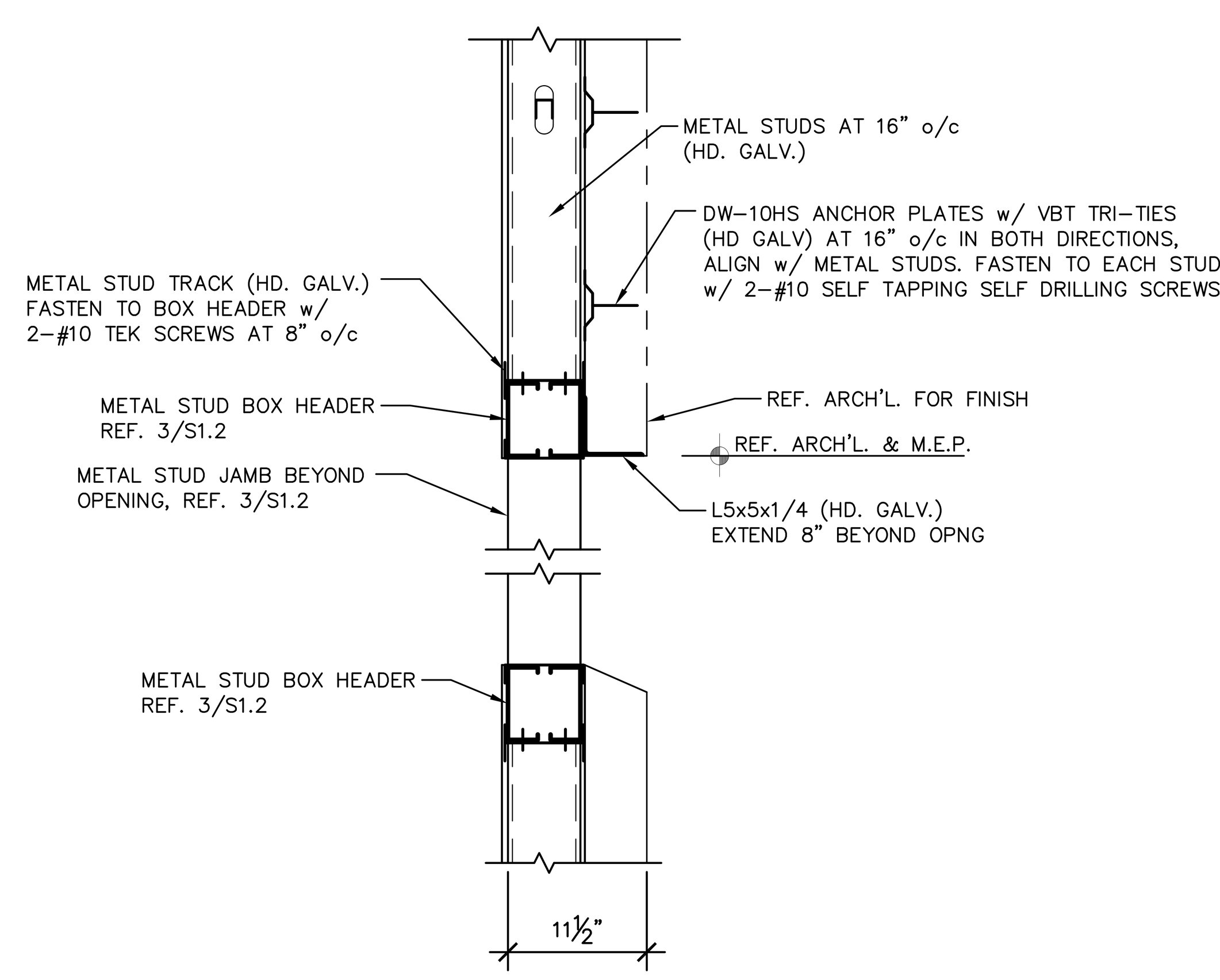
7 METAL STUD BRIDGING



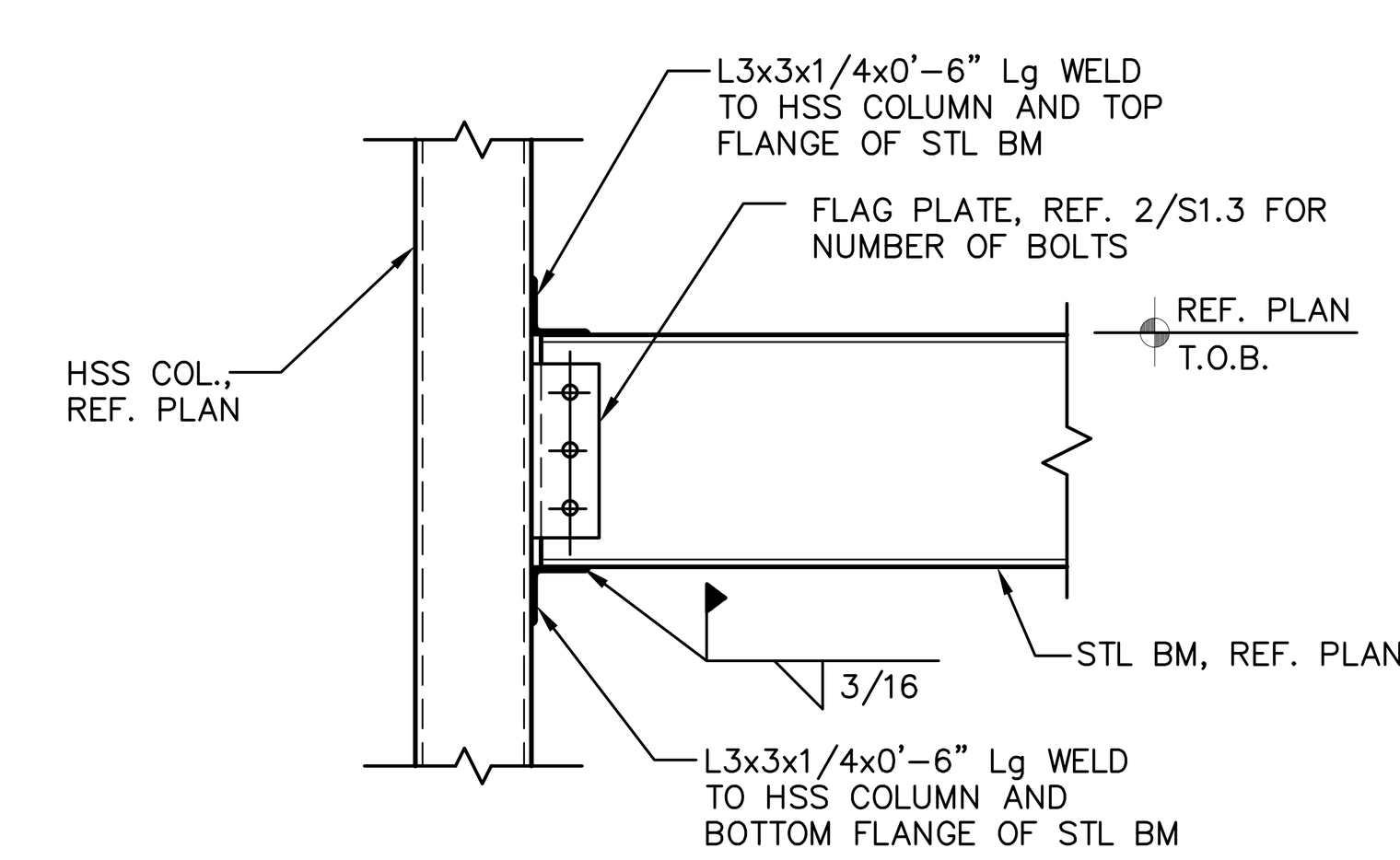
8 TYPICAL PUNCH-OUT REINFORCMENT DETAIL



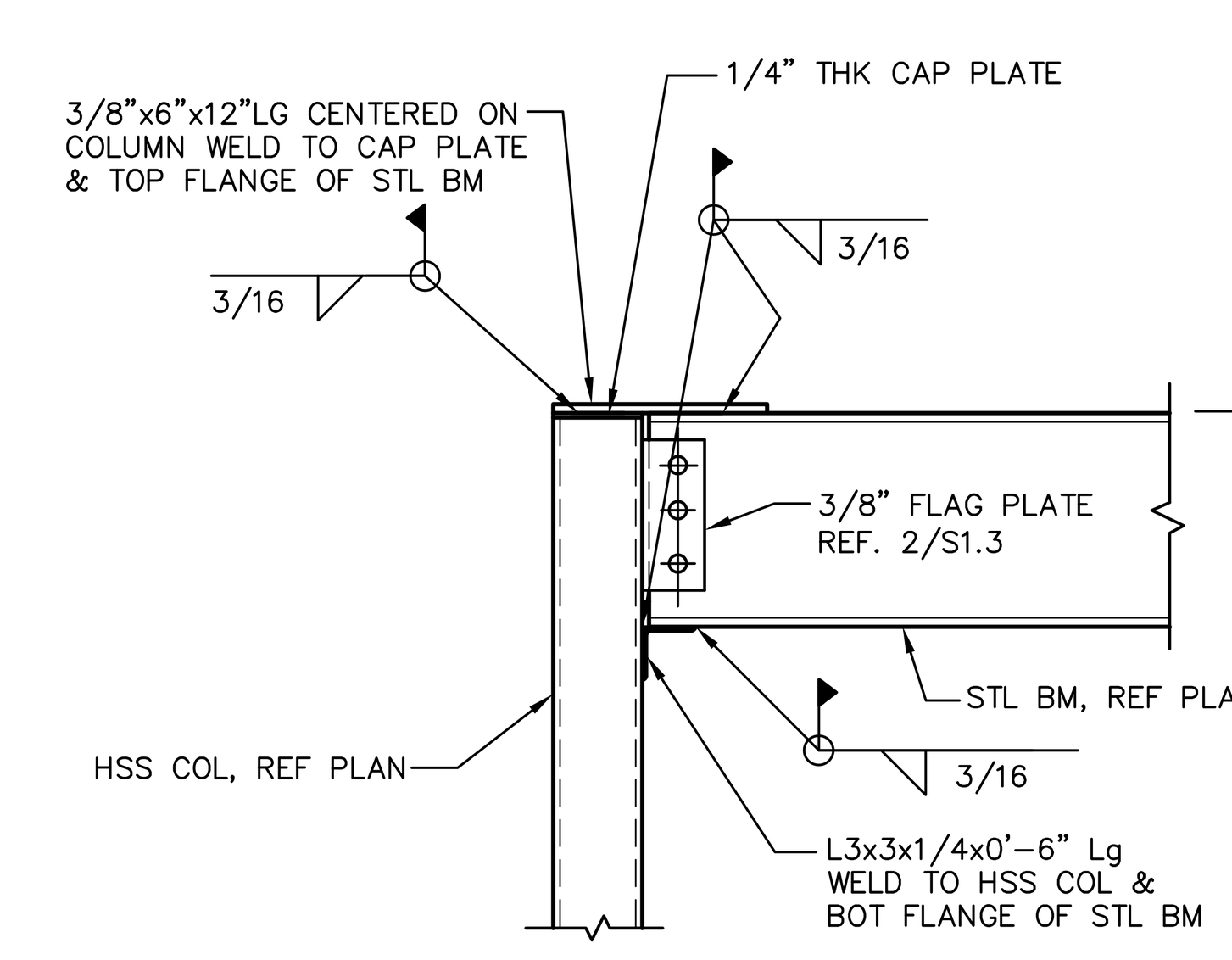
9 TYPICAL WINDOW/DOOR/LOUVER OPENING HEADER AND SILL DETAIL



10 TYPICAL WINDOW/DOOR/LOUVER OPENING HEADER AND SILL DETAIL WITH BRICK VENEER



11 TYP WF BEAM-TO-HSS COLUMN MOMENT CONNECTION



12 TYP WF BEAM-TO-HSS COLUMN MOMENT CONNECTION DETAIL AT TOP OF COLUMN

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1220 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4461 (956)428-0287 FAX
FIRM REGISTRATION # F-4145

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES

No.	REVISIONS	BY

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

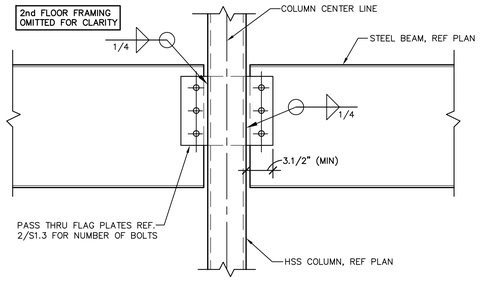
IDEA-ELSA
COLLEGE PREP PHASE II

IDEA Public Schools

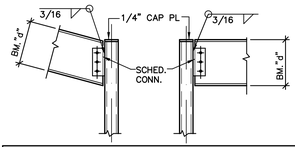
STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED
PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Drawn By: SP, JJ, JA
Checked By: JS
Job: 192-522
Sheet: S1.2



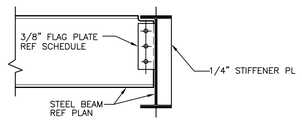
1 2nd FLOOR PASS THRU FLAG PLATE DETAIL



BEAM TO TUBE COLUMN CONNECTION SCHEDULE

BEAM SIZE	PL SIZE	BOLTS
W8 & W10	PL 3/8x3.1/2x0'-6"	2-3/4"DIA.
W12 & W14	PL 3/8x3.1/2x0'-9"	3-3/4"DIA.
W16	PL 3/8x3.1/2x1'-0"	4-3/4"DIA.
W18	PL 3/8x3.1/2x1'-3"	5-3/4"DIA.
W21	PL 3/8x3.1/2x1'-6"	6-3/4"DIA.
W24	PL 3/8x3.1/2x1'-9"	7-3/4"DIA.

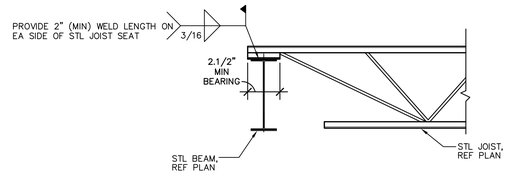
2



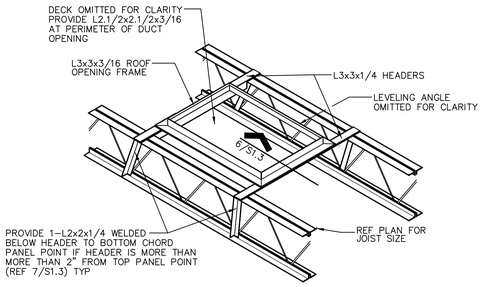
BEAM TO BEAM CONNECTION SCHEDULE

BEAM SIZE	PL SIZE	BOLTS
W8 & W10	PL 3/8x3.1/2x0'-6"	2-3/4"DIA.
W12 & W14	PL 3/8x3.1/2x0'-9"	3-3/4"DIA.
W16	PL 3/8x3.1/2x1'-0"	4-3/4"DIA.
W18	PL 3/8x3.1/2x1'-3"	5-3/4"DIA.
W21	PL 3/8x3.1/2x1'-6"	6-3/4"DIA.

3 TYPICAL BEAM TO BEAM CONNECTION

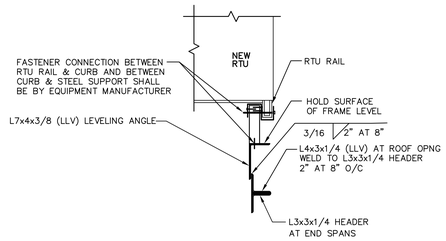


4 TYPICAL WELD LENGTH ON STL JOIST TO STL BEAM/STL PLATE CONNECTION

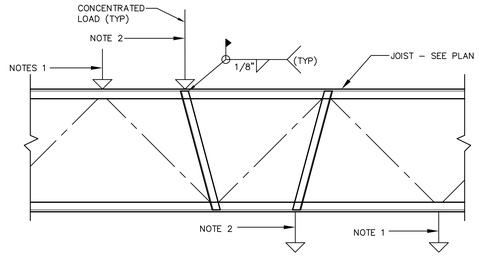


REF MECH'L OR ARCH'L
FOR OPENING SIZE & LOCATION

5 ROOF OPENING FRAME DETAIL



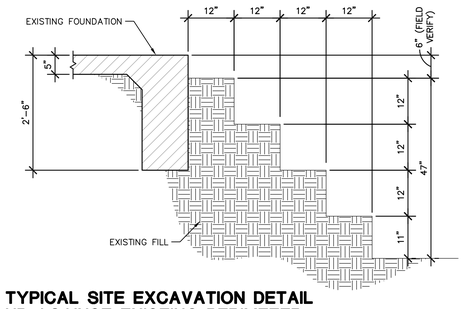
6 ROOF OPENING FRAME DETAIL (TYPICAL)



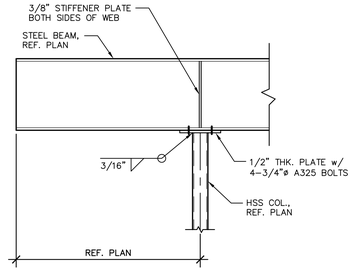
7 TYP. CONCENTRATED LOAD DETAIL

NOTES:

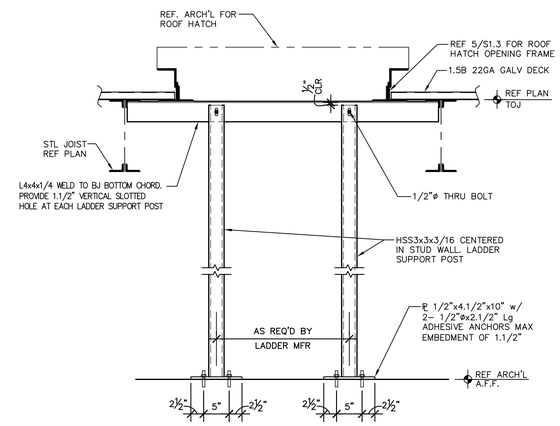
1. CONCENTRATED LOAD LOCATED AT JOIST PANEL POINT LOCATION - NO ADDTIONAL ANGLES REQUIRED.
2. CONCENTRATED LOAD (100 LBS. OR HEAVIER) NOT LOCATED AT JOIST PANEL POINT LOCATION - PROVIDE L2x2x1/4 TO PANEL POINT AS SHOWN.



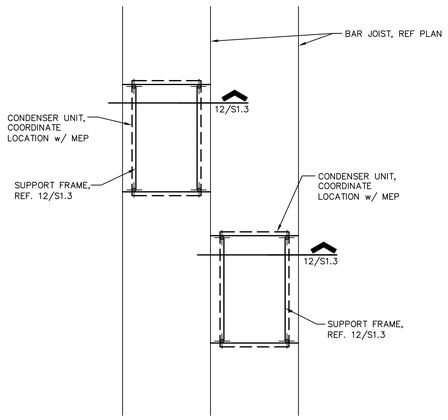
8 TYPICAL SITE EXCAVATION DETAIL UP AGAINST EXISTING PERIMETER GRADE BEAM OF PHASE 1



9 TYPICAL BEAM CANTILEVER DETAIL



10 TYPICAL ROOF HATCH LADDER SUPPORT FRAMING

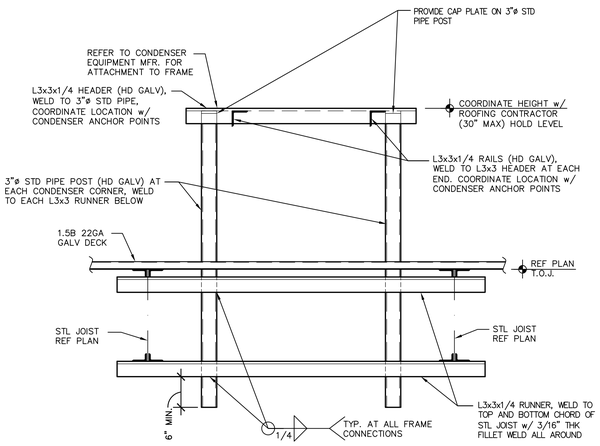


11 TYPICAL ROOF MOUNTED CONDENSER SUPPORT FRAMING PLAN

1/4" = 1'-0"

NOTES:

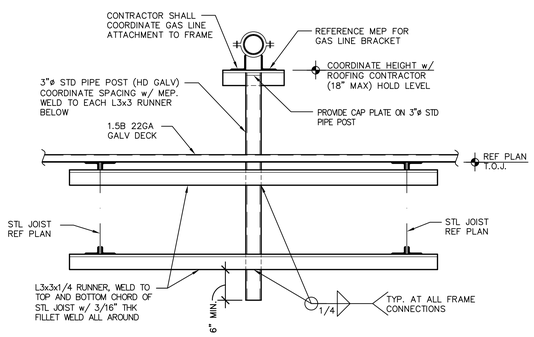
1. COORDINATE LOCATION AND ORIENTATION WITH MEP AND ARCHITECTURAL.



12

NOTE:

1. COORDINATE LOCATION OF SUPPORT FRAME WITH MEP & EQUIPMENT MANUFACTURER.
2. REFERENCE 11/S1.3 FOR TYPICAL CONDENSER UNIT SUPPORT FRAMING PLAN.



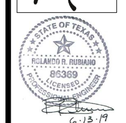
13 TYPICAL ROOF MOUNTED GAS PIPE SUPPORT

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

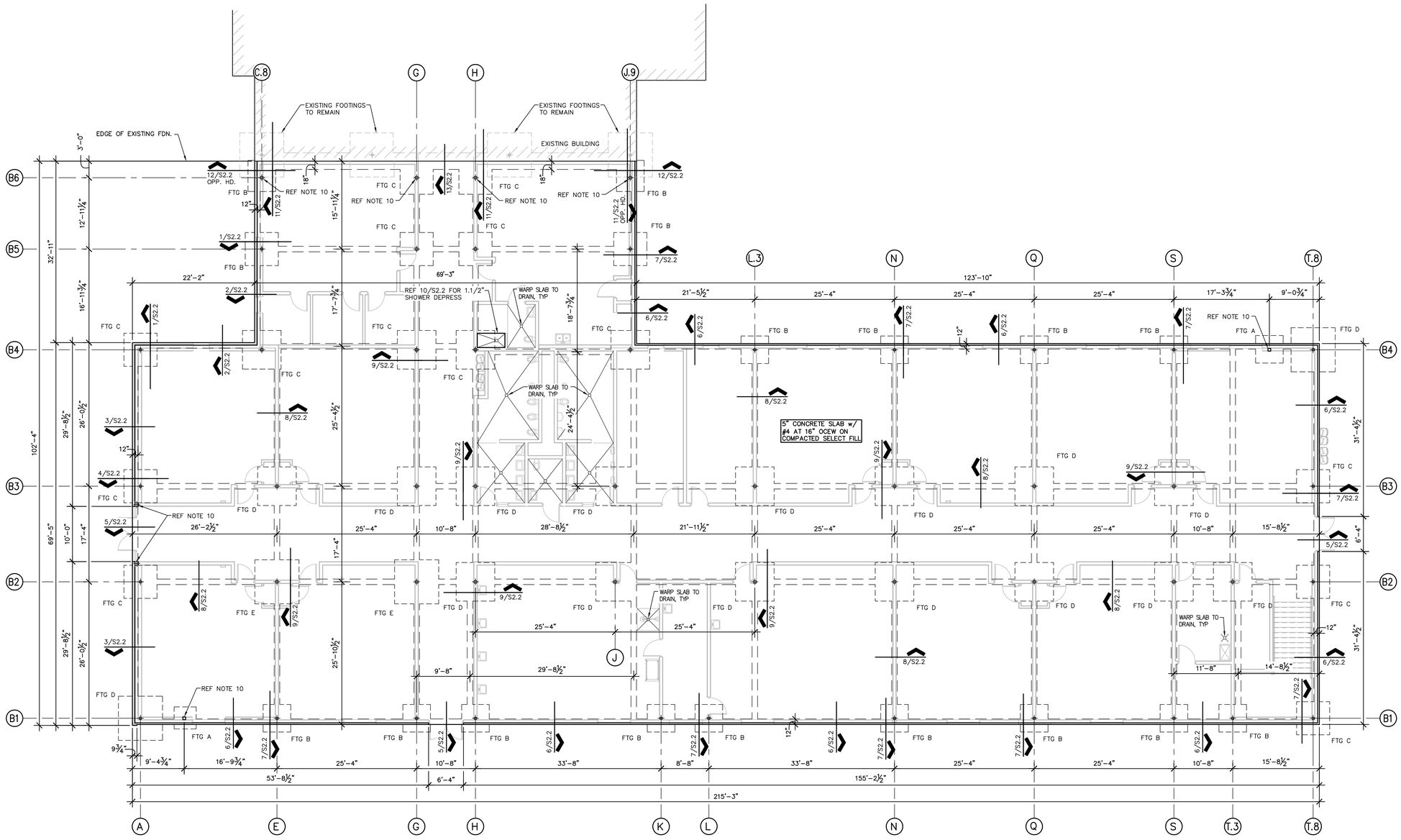


© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S1.3

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1220 WEST HARRISON
HARLINGEN, TEXAS 78501
(956)428-4461 (956)428-0287 FAX
FIRM REGISTRATION # F-4140

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES



1 FOUNDATION PLAN

1/8" = 1'-0"

N

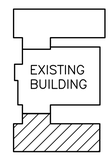
PLAN NORTH

NOTES:

1. REFERENCE ROOF FRAMING PLAN FOR COLUMN ANCHOR BOLT/ BASEPLATE LOCATIONS. FOUNDATION PLAN DIMENSIONS GENERALLY DENOTE GRADE BEAM CENTERLINE AND OUTSIDE FACE OF CONCRETE.
2. ALL CONDUIT GREATER THAN 1" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.
4. A SINGLE CONDUIT (MAX 3" O.D.) MAY BE PLACED WITHIN THE BEAM CAGE. ALL CONDUIT IN BEAM CAGES TO BE TIED TO STIRRUPS MINIMUM OF 4" FROM HORIZONTAL BARS.
5. CRACK CONTROL JOINTS ARE NOTED ON THE PLANS. CONTRACTOR TO COORDINATE CHANGES WITH THE ENGINEER PRIOR TO FORMING FOUNDATION.
6. PLUMBING LINES SHALL NOT BE PLACED IN BOTTOM OF GRADE BEAM TRENCHES.
7. PLUMBING LINES PASSING THROUGH GRADE BEAMS SHALL BE SLEEVED. BEAMS SHALL BE DEEPENED AND BENT REBAR PROVIDED IF LOCATION OF DRAIN LINES REQUIRES CUTTING BOTTOM BARS. REFERENCE 16/S2.2.
8. ALL JOINTS TO BE CLEANED AND FILLED w/ SONOLASTIC SL1 (SONNEBORN). REFERENCE DETAIL 15/S2.2.
9. REFERENCE 1/S2.1C FOR CONTROL JOINT PLAN.
10. PLACE BASEPLATES AT INDICATED LOCATIONS FOR COLUMNS, WIND COLUMNS, AND DIAGONAL BRACES FLUSH w/ FINISH FLOOR.

FOOTING SCHEDULE		
MARK	SIZE	REINFORCEMENT
FTG A	4'-0" x 4'-0"	#5 AT 12" O.C.E.W.
FTG B	5'-0" x 5'-0"	#5 AT 12" O.C.E.W.
FTG C	6'-0" x 6'-0"	#5 AT 12" O.C.E.W.
FTG D	7'-0" x 7'-0"	#5 AT 12" O.C.E.W.
FTG E	8'-0" x 8'-0"	#5 AT 12" O.C.E.W.

BASEPLATE SCHEDULE		
COLUMN	PLATE TxWxL	ANCHORS
HSS5 x 5	3/4" x 9" x 9"	4-3/4" DIA x 8" WHS
HSS6 x 6	1" x 10" x 10"	4-3/4" DIA x 8" WHS



KEY PLAN

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1250 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4461 (956)428-0287 FAX
FIRM REGISTRATION # F-4146

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES

No.	REVISIONS	BY

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

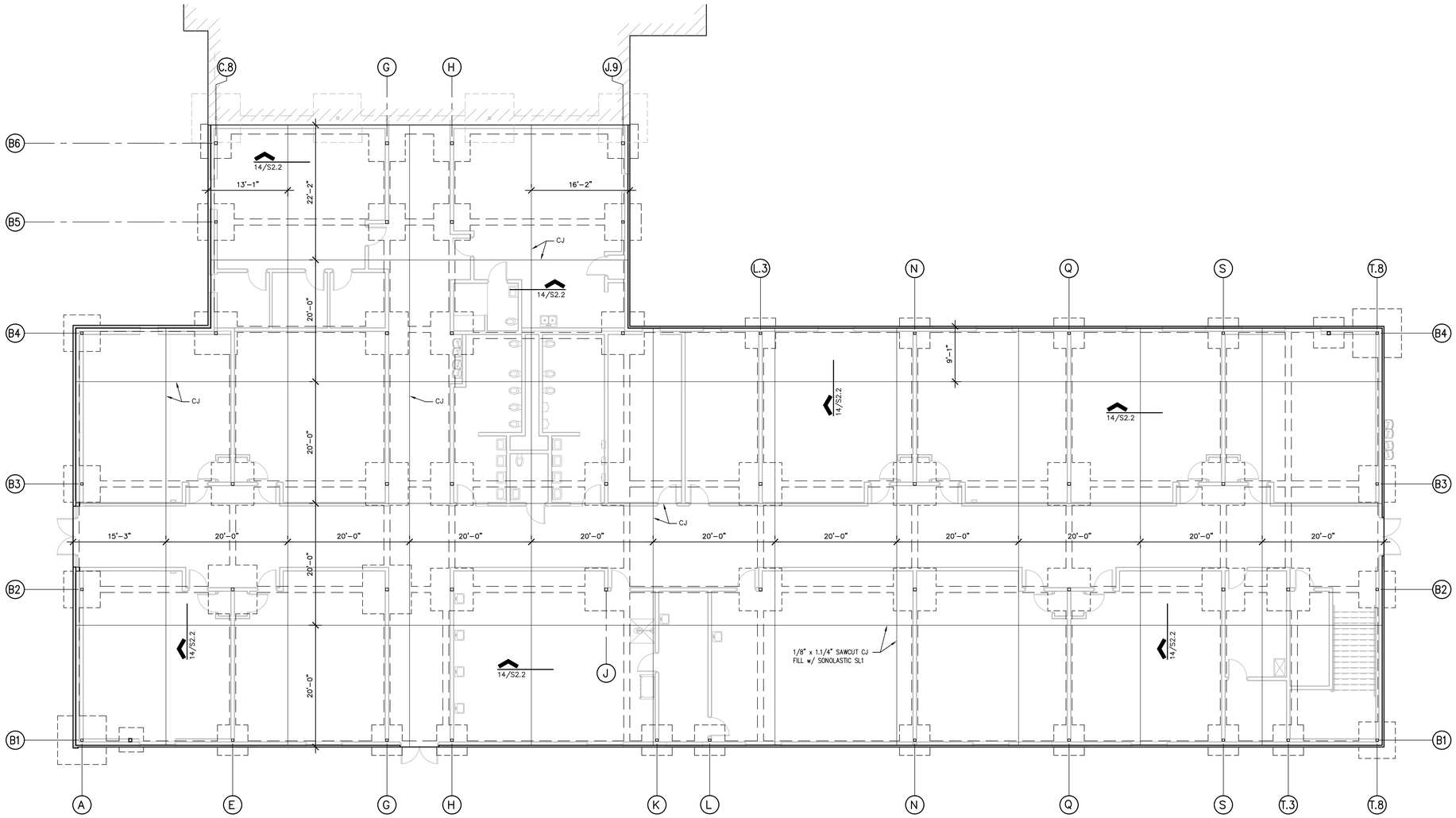
IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools



© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S2.1



1 CONTROL JOINT PLAN

1/8" = 1'-0"

N

PLAN NORTH

NOTES:

1. CRACK CONTROL JOINTS ARE NOTED ON THE PLANS. CONTRACTOR TO COORDINATE CHANGES WITH THE ENGINEER PRIOR TO FORMING FOUNDATION.
2. ALL JOINTS TO BE CLEANED AND FILLED w/ SONOLASTIC SL1 (SONNEBORN).
3. REFERENCE 1/S2.1 FOR ADDITIONAL FOUNDATION NOTES AND REFERENCES.

EXISTING BUILDING

KEY PLAN

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1320 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4481 (956)428-0287 FAX
FIRM REGISTRATION # F-4145

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES

No.	REVISIONS	BY

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

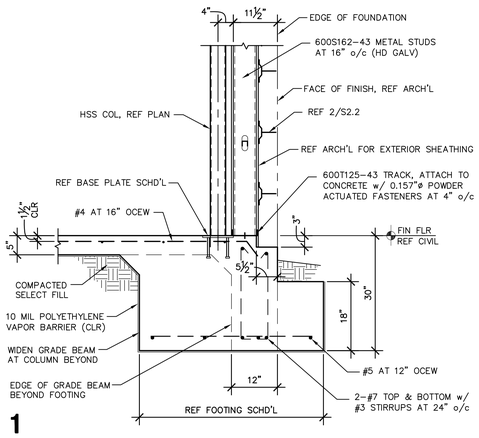
IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

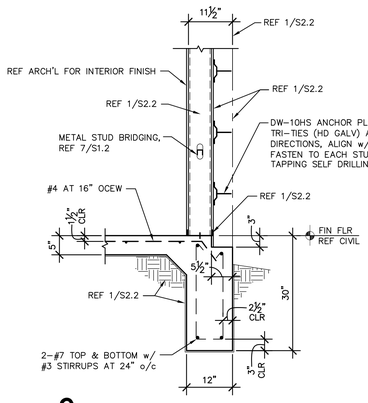
STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED
PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

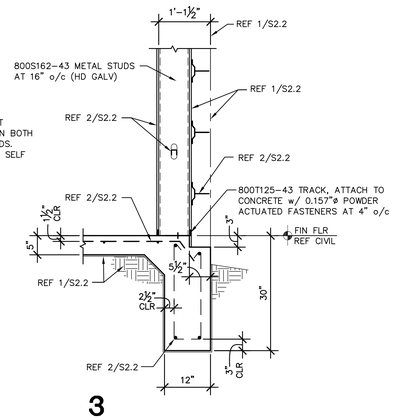
Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S2.1C



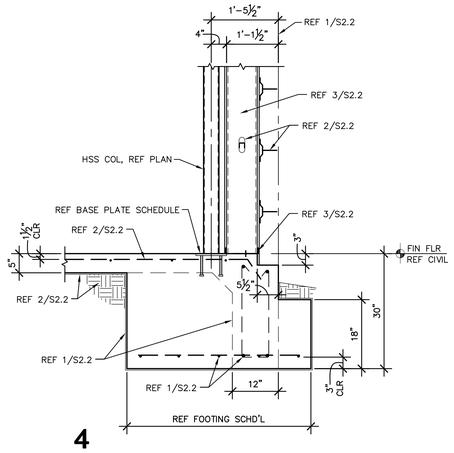
1



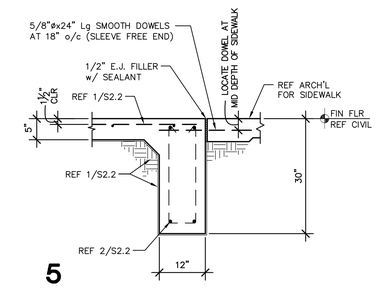
2



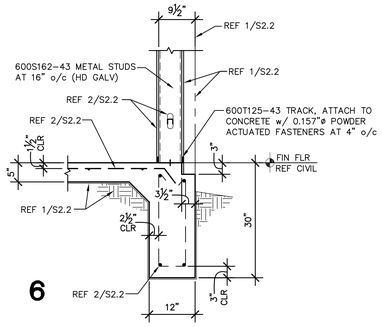
3



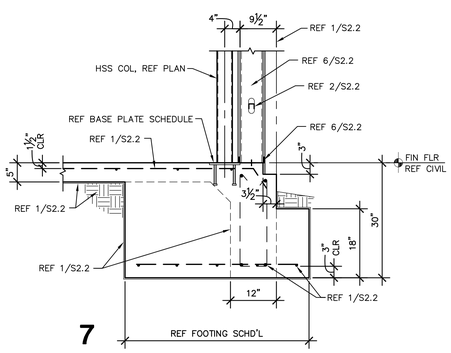
4



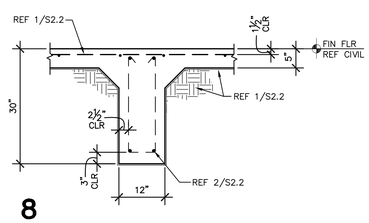
5



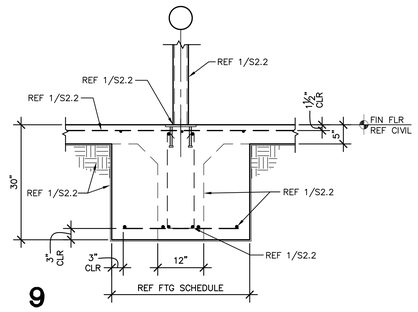
6



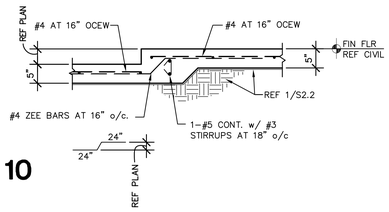
7



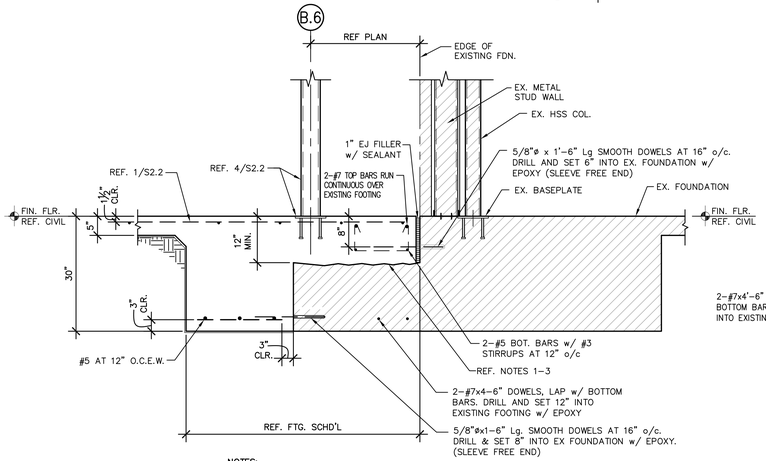
8



9



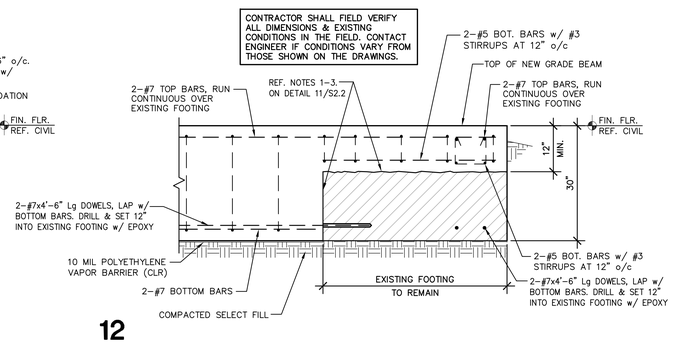
10



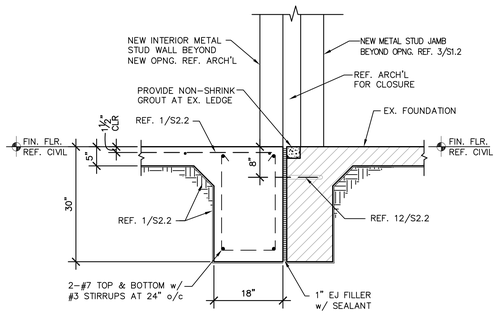
11

NOTES:

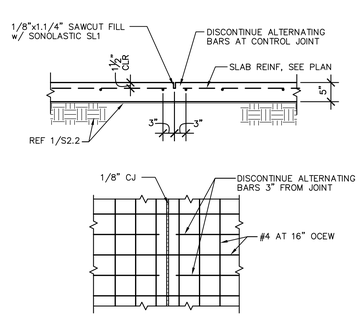
1. SCARIFY SURFACE OF EXISTING CONCRETE TO PROVIDE 1/8" DEEP GROOVED SURFACE.
2. CHIP AND REMOVE EXISTING CONCRETE AS REQUIRED TO PROVIDE 3" CLEARANCE AROUND NEW REINFORCEMENT.
3. SURFACE SHALL BE CLEANED OF DIRT AND LOOSE CONCRETE PRIOR TO POURING NEW CONCRETE.



12

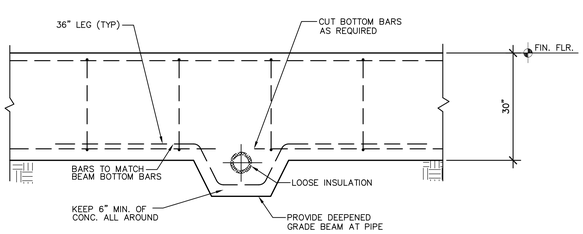


13



14 CONTROL JOINT

NOTE: ALL JOINTS ARE TO BE CLEANED AND FILLED WITH SONOLASTIC SL1 (SONNEBORN).



15 TOP OF SLEEVE INTERRUPTS REINFORCING

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

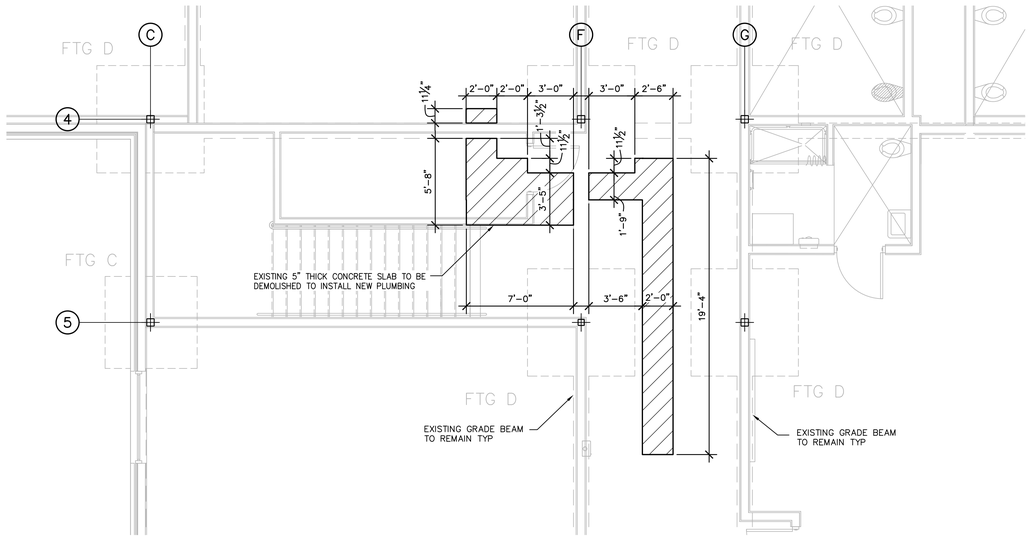
RUBANO G. RUBIANO 85369 LICENSED PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Drawn By: SP, JJ, JA
Checked By: JS
Job: 192-522
Sheet: S2.2

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1220 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4461 (956)428-0267 FAX
FIRM REGISTRATION # F-4145

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES



1 FOUNDATION DEMO PLAN

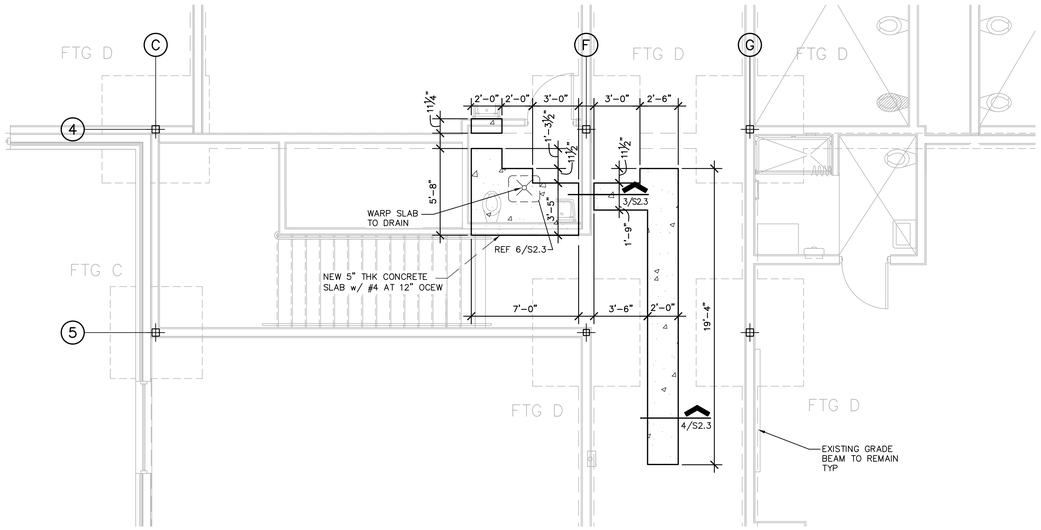
1/4" = 1'-0"

N

PLAN NORTH

NOTES:

1. ▨ INDICATES LOCATIONS WHERE EXISTING 5" THICK SLAB (FIELD VERIFY & COORDINATE WITH MEP) WILL BE DEMOLISHED TO INSTALL NEW PLUMBING. CONTRACTOR SHALL COORDINATE ADDITIONAL LOCATIONS OF SLAB OPENINGS WITH UNDER-SLAB UTILITY DRAWINGS. REFERENCE ARCHITECTURAL AND M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
2. REFER TO ARCHITECTURAL AND M.E.P. FOR ADDITIONAL DEMOLITION SCOPE.
3. EXISTING SLAB SHALL BE SAW CUT ALONG PERIMETER OF SLAB DEMOLITION AREAS. CONTRACTOR SHALL CUT A MINIMUM OF 1.1/2" DEEP CUT INTO EXISTING SLAB. CONTRACTOR SHALL USE APPROPRIATE SIZE DEMOLITION EQUIPMENT AND TOOLS TO AVOID EXCESSIVE VIBRATIONS IN EXISTING STRUCTURE.
4. CONTRACTOR SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT, TOOLS, AND SUPERVISION TO DEMOLISH EXISTING CONCRETE TO EXPOSE UNDER SLAB SUBGRADE. CONCRETE THICKNESS MAY VARY.

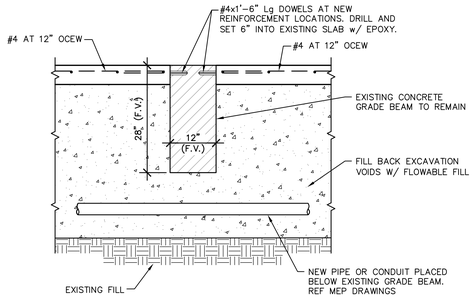


2 FOUNDATION RENOVATION PLAN

1/4" = 1'-0"

NOTES:

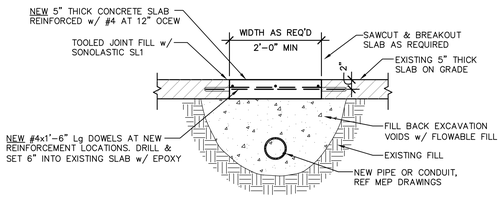
1. ▨ INDICATES LIMIT OF NEW 5" THICK SLAB ON GRADE FOUNDATION SLAB.
2. ALL CONDUIT GREATER THAN 1.1/2" IN DIAMETER SHALL BE RECESSED TO PROVIDE 1.1/2" CLEAR DISTANCE BETWEEN SLAB REBAR & CONDUIT.
3. MAINTAIN 2" MINIMUM CLEAR DISTANCE BETWEEN ALL CONDUIT IN SLAB.



3 NEW PLUMBING LINES RUN BELOW EXISTING GRADE BEAM

NOTES:

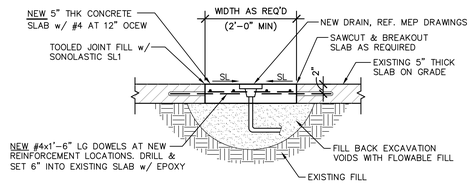
1. CONTRACTOR TO COORDINATE LOCATIONS OF INTERIOR GRADE BEAMS IN THE FIELD.
2. PROVIDE CONTROLLED LOW STRENGTH MATERIAL (CLSM), ALSO KNOWN AS FLOWABLE FILL, CONSISTING OF PORTLAND CEMENT, FLY ASH, SAND AND POTABLE WATER. THE FLOWABLE FILL SHALL OBTAIN A COMPRESSIVE STRENGTH BETWEEN 100 PSI AND 200 PSI AT 28 DAYS IN ACCORDANCE WITH ASTM D-4832 WITH A 12" SLUMP, 0.95 MAXIMUM WATER CEMENT RATIO, NO COARSE AGGREGATE, AND MAXIMUM 20% AIR BY VOLUME. THE MIX SHALL BE PUMPABLE USING A STANDARD GROUT PUMP WITHOUT MIXTURE SEGREGATION. THE FLOWABLE FILL SHALL BE PROVIDED BY A READY MIX CONCRETE SUPPLIER, DELIVERED TO THE PROJECT SITE USING A ROTATION DRUM TRUCK. THE MIX DESIGN PROPERTIES WILL NEED TO BE VERIFIED BY A MATERIALS TESTING LABORATORY.



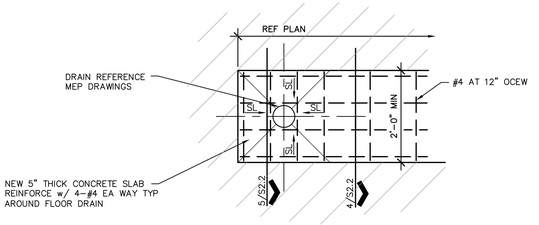
4 TYPICAL UTILITY TRENCH DETAIL

NOTES:

1. COORDINATE UTILITY TRENCH LOCATION WITH MEP DRAWINGS.
2. REF NOTE 2 ON 3/S2.1 FOR CONTROLLED LOW STRENGTH MATERIAL NOTE.



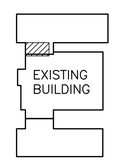
5



6 TYPICAL DRAIN DETAIL

NOTES:

1. COORDINATE LOCATION w/ MEP DRAWINGS.



KEY PLAN

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1320 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4481 (956)428-0287 FAX
FIRM REGISTRATION # F-4146

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES

No.	REVISIONS	BY

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

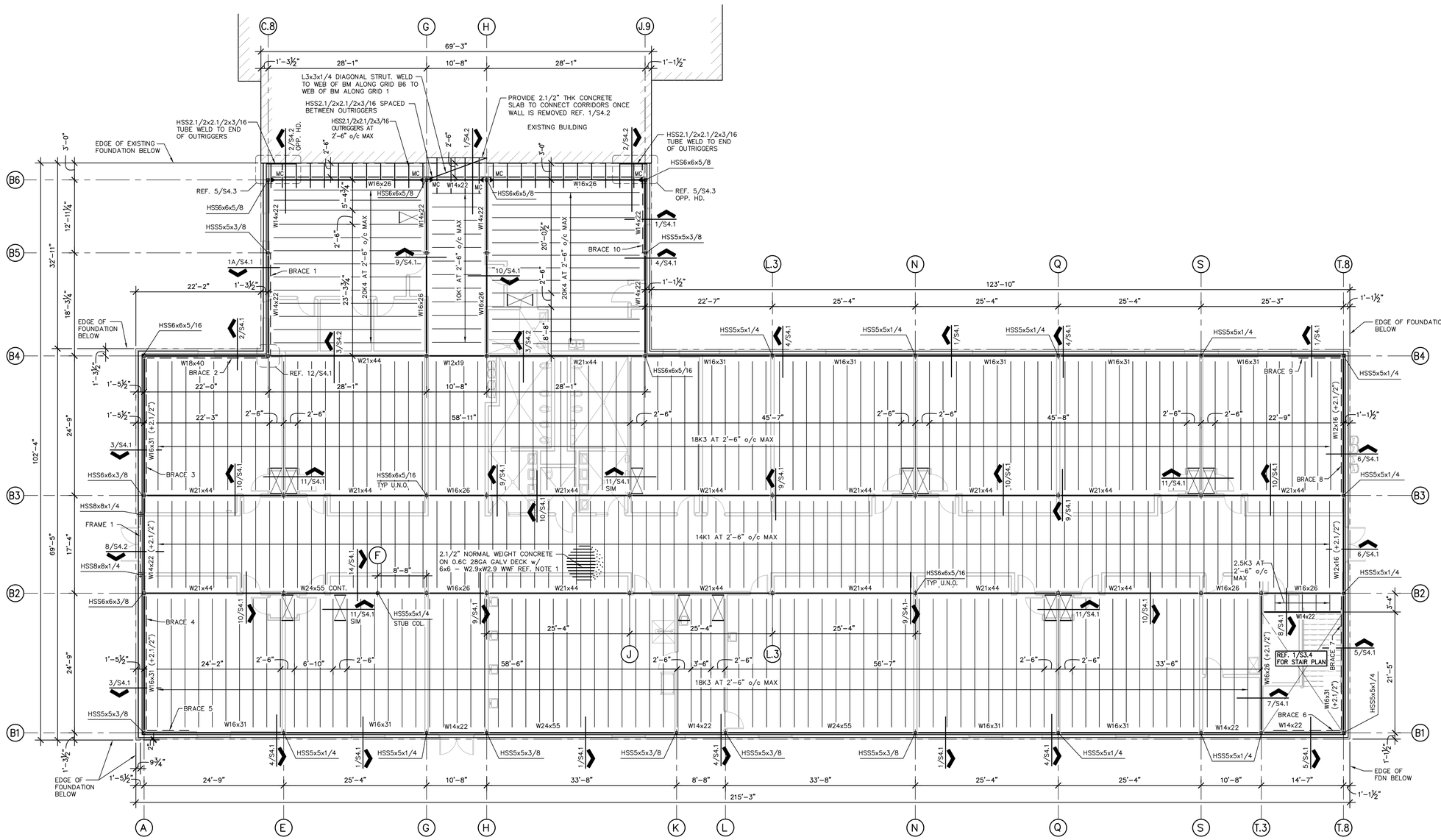
IDEA-ELSA COLLEGE PREP PHASE II

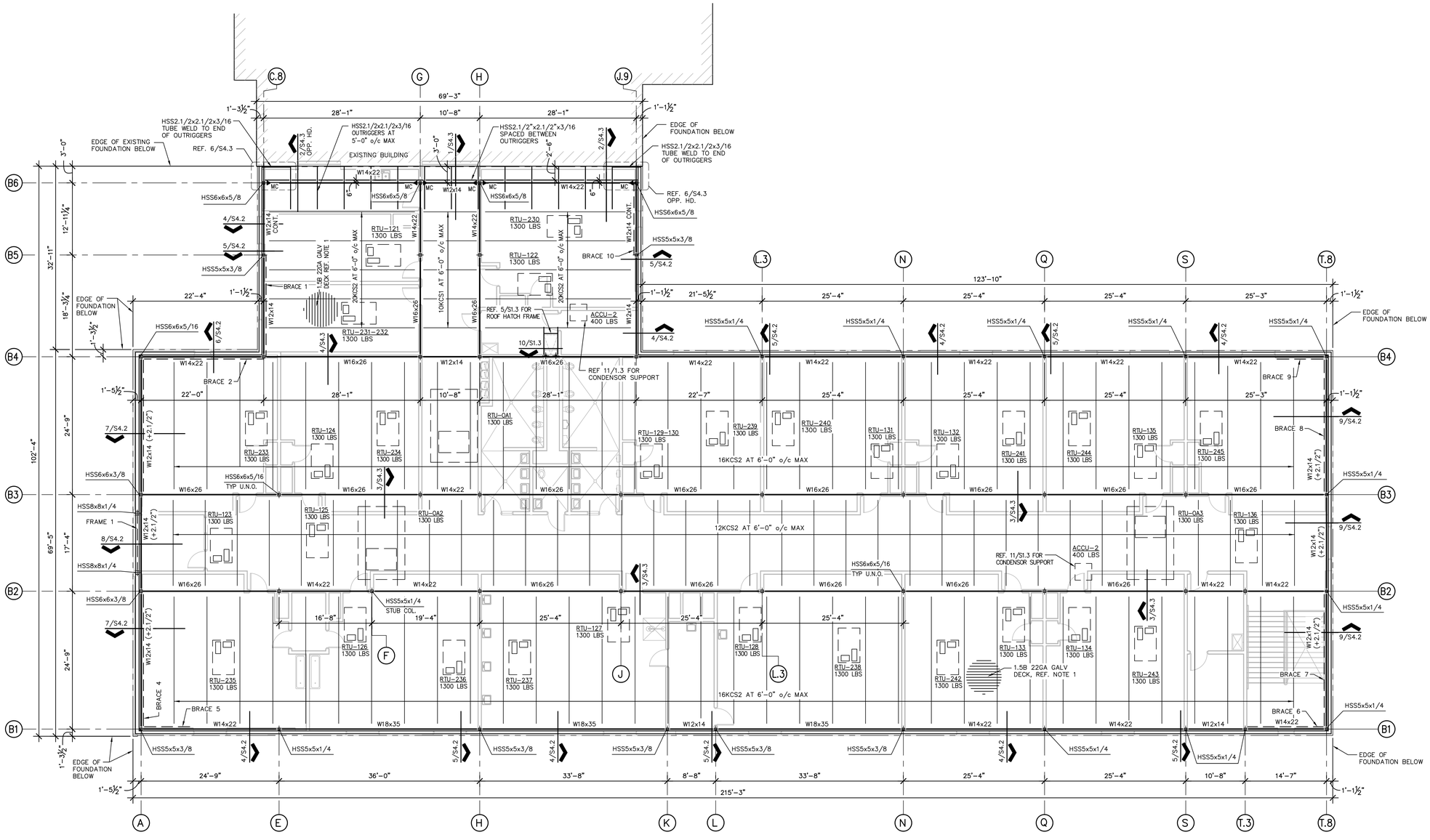
IDEA Public Schools

STATE OF TEXAS
ROLANDO R. RUBIANO
86389
LICENSED PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S2.3


C.8
G
H
J.9
69'-3"
1'-3½"
28'-1"
10'-8"
28'-1"
1'-1½"
L3x3x1/4 DIAGONAL STRUT. WELD TO WEB OF BM ALONG GRID B6 TO WEB OF BM ALONG GRID 1
HSS2.1/2x2.1/2x3/16 SPACED BETWEEN OUTRIGGERS
HSS2.1/2x2.1/2x3/16 TUBE WELD TO END OF OUTRIGGERS
HSS2.1/2x2.1/2x3/16 OUTRIGGERS AT 2'-6" o/c MAX
PROVIDE 2.1/2" THK CONCRETE SLAB TO CONNECT CORRIDORS ONCE WALL IS REMOVED REF. 1/S4.2
EXISTING BUILDING
EDGE OF EXISTING FOUNDATION BELOW
REF. 5/S4.3 OPP. HD.
HSS6x6x5/8
REF. 5/S4.3
HSS6x6x5/8
HSS5x5x3/8
BRACE 1
BRACE 10
W16x26
W14x22
W16x26
W14x22
W16x26
W14x22
W14x22
W16x26
W14x22
W14x22
W14x22
W16x26
W14x22
W14x22
W14x22
W16x26
W14x22



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 IN³/FT; Sn=0.192 IN³/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. ALL COLUMNS SHALL BE HSS6x6x5/16 UNLESS NOTED OTHERWISE.
3. TOP OF BEAMS SHALL BE 29'-8" UNLESS NOTED OTHERWISE.
4. REFERENCE 1/S3.3 FOR BRACE PROFILES.
5. REFERENCE 5/S1.3 FOR ROOF HATCH & RTU FRAME DETAILS.
6. REFERENCE 9 & 10/S1.2 FOR TYPICAL LOUVER OPENING DETAIL AT 2nd FLOOR. COORDINATE LOCATIONS AND HEIGHTS WITH MEP AND ARCHITECTURAL.
7. EXTERIOR METAL STUDS 600S162-43 ARE SPACED AT 16" o/c MAXIMUM AND ADDITIONALLY AS REQUIRED AT EDGE OF EXTERIOR SHEATHING UNLESS NOTED OTHERWISE.
8. 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.
9. ▶ MC DENOTES A MOMENT CONNECTION REFERENCE DETAIL 12/S1.2.

EXISTING BUILDING

KEY PLAN

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1220 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-5481 (956)428-5487 FAX
FIRM REGISTRATION # F-4148

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES

No.	REVISIONS	BY

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

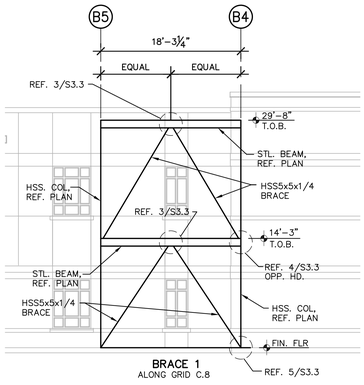
IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

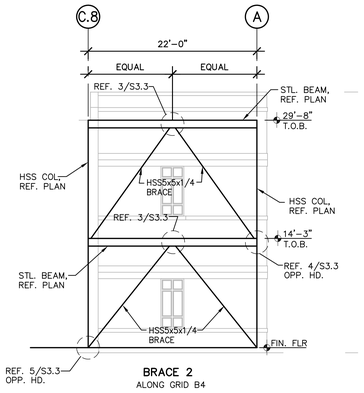
STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED
STRUCTURAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

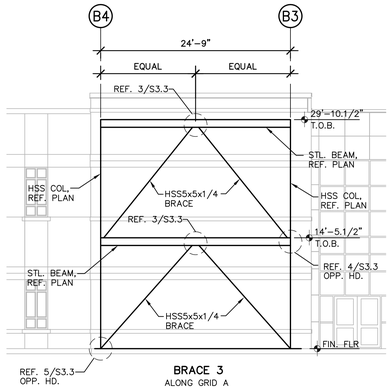
Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S3.2



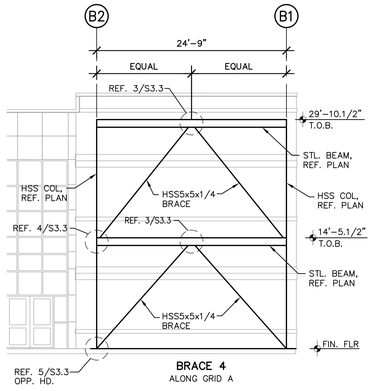
BRACE 1
ALONG GRID C.8



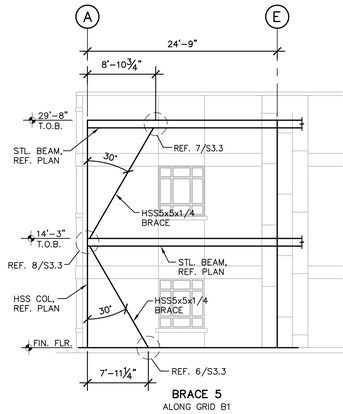
BRACE 2
ALONG GRID B4



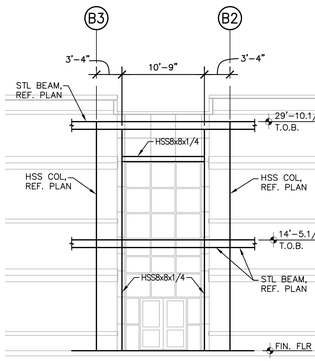
BRACE 3
ALONG GRID A



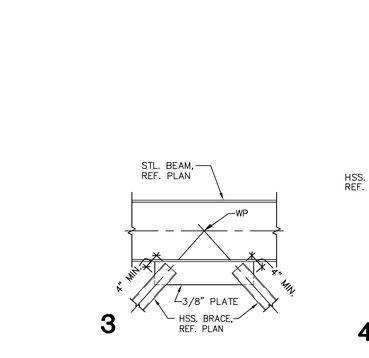
BRACE 4
ALONG GRID A



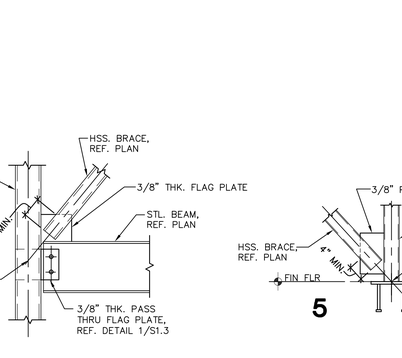
BRACE 5
ALONG GRID B1



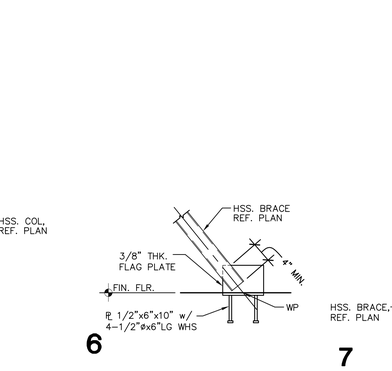
BRACE 6
ALONG GRID B1



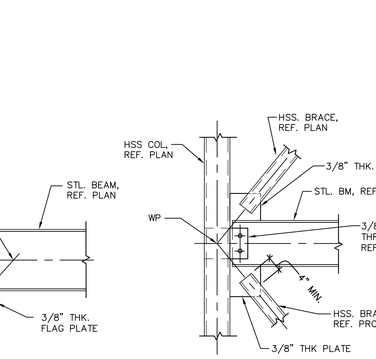
BRACE 7
ALONG GRID T.8



BRACE 8
ALONG GRID T.8



BRACE 9
ALONG GRID B4



BRACE 10
ALONG GRID J.9

1 BRACE PROFILES
1/8" = 1'-0"

FRAME 1
ALONG GRID A

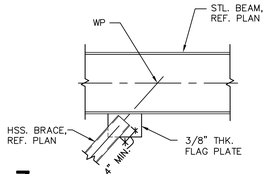
2 FRAME PROFILE
1/8" = 1'-0"

3

4

5

6



7

8

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

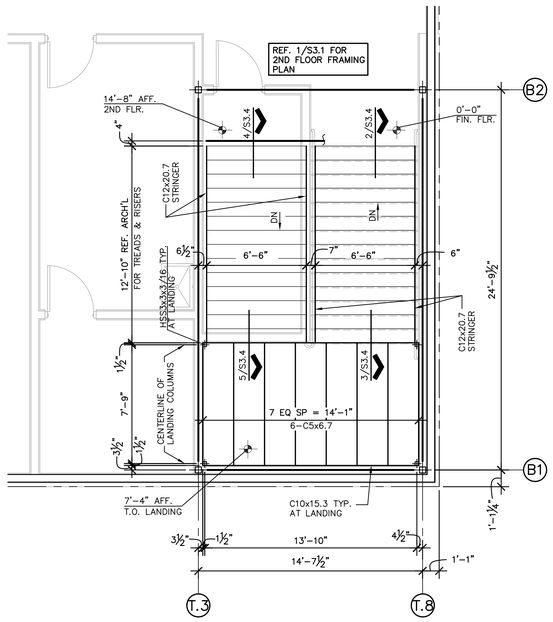
STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED
PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S3.3

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1220 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4481 (956)428-0287 FAX
FIRM REGISTRATION # F-4145

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES



1 STAIR FRAMING PLAN

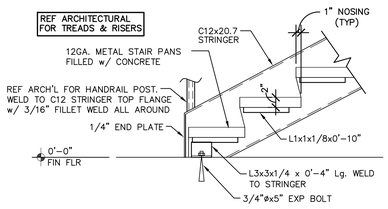
1/4" = 1'-0"

N

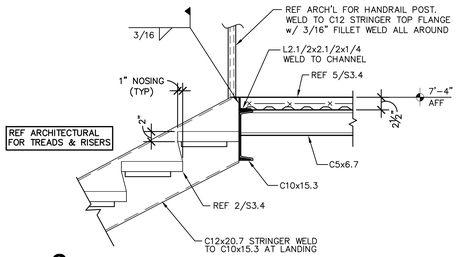
PLAN NORTH

NOTES:

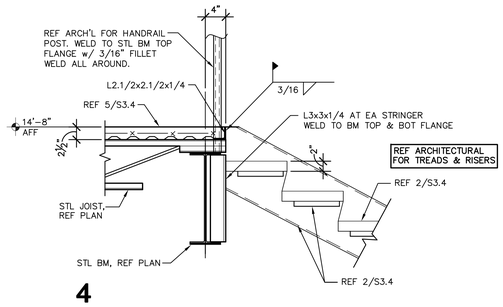
1. FLOOR DECK SHALL BE 0.6C 28GA GALV DECK BY VULCRAFT OR APPROVED EQUAL. (I=0.012 IN⁴/FT; Sp=0.035 IN³/FT; Sn=0.036 IN³/FT; Fy=60KSI). ATTACH DECK TO SUPPORTS USING 5/8" PUDDLE WELDS ON 30/4 PATTERN WELDING WASHERS REQUIRED, AND 2-#10 TEK SCREW SIDE LAP FASTENERS.



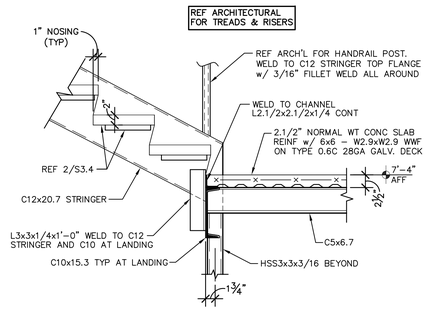
2 BASE OF STAIRWAY



3



4



5

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

No.	REVISIONS	BY

IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

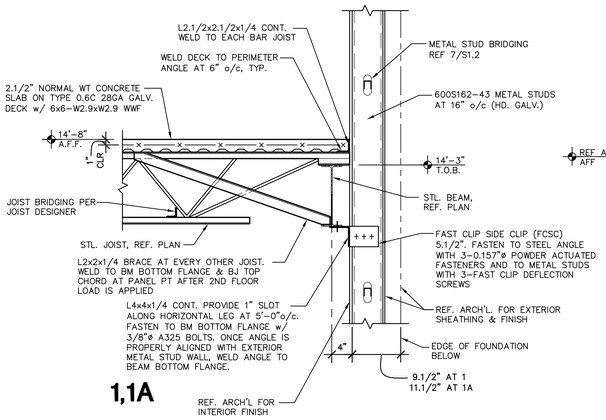
STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED
PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

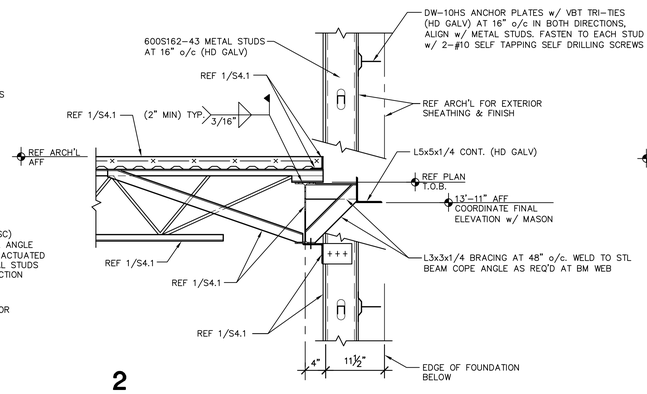
Date: JUNE 13, 2019
Scale: As Noted
Drawn By: SP, JJ, JA
Checked By: JS
Job: 192-522
Sheet: S3.4

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1220 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4481 (956)428-0287 FAX
FIRM REGISTRATION # F-4145

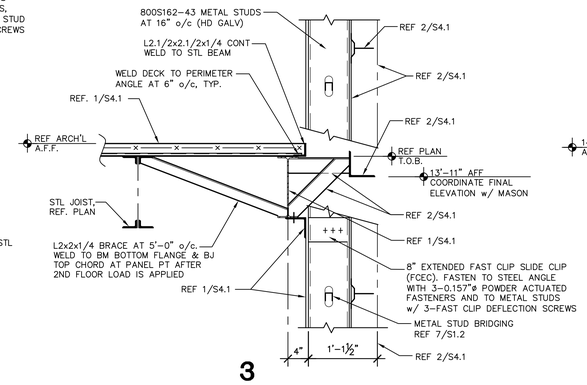
COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES



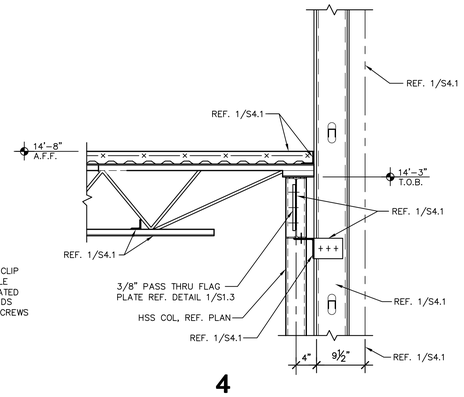
1,1A



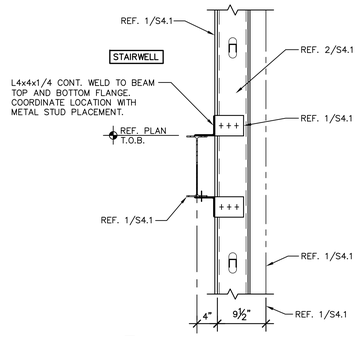
2



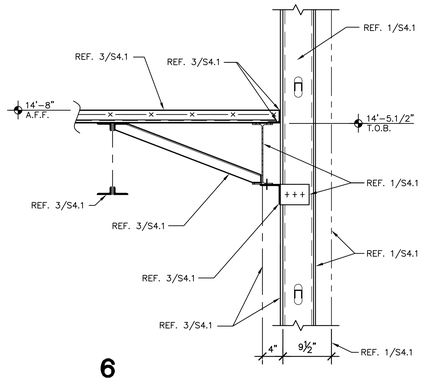
3



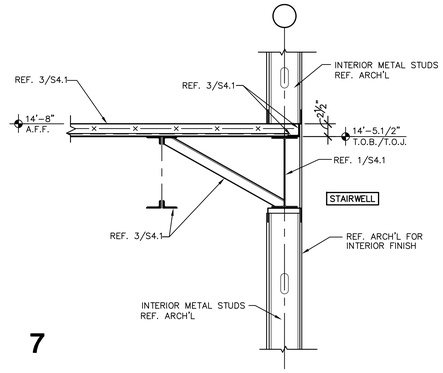
4



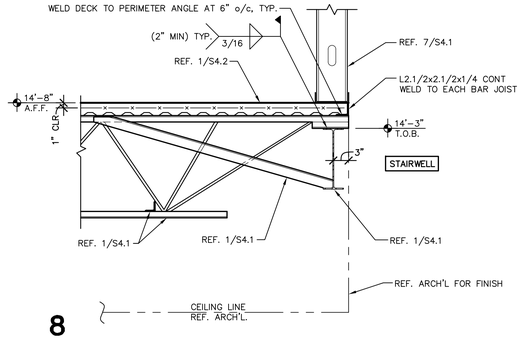
5



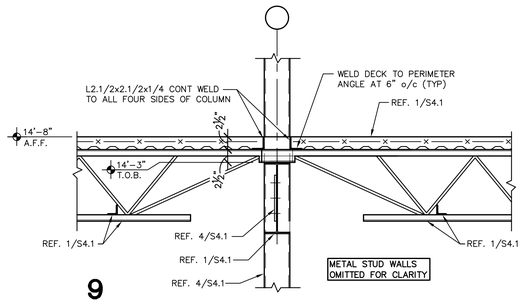
6



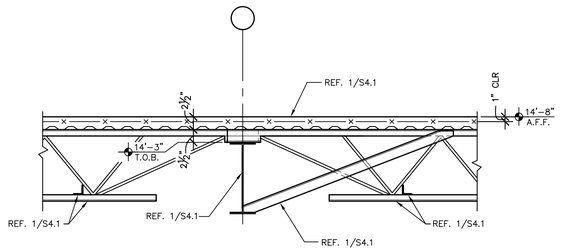
7



8

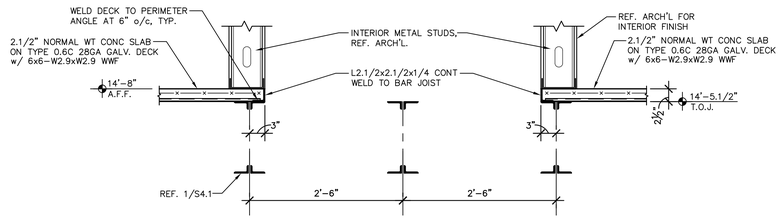


9

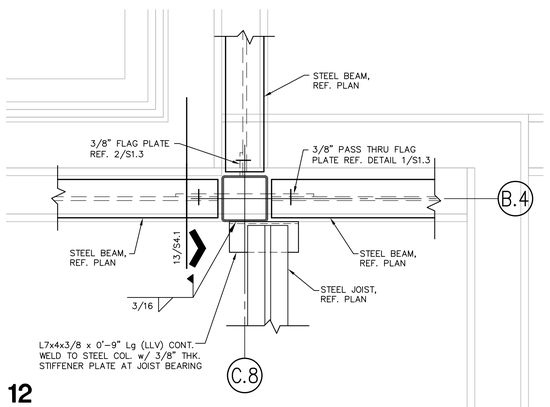


10

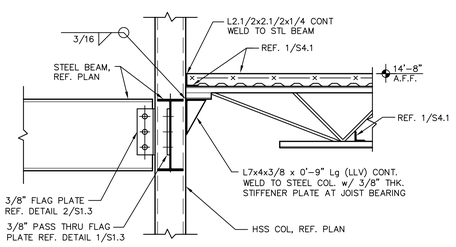
METAL STUD WALLS
OMITTED FOR CLARITY



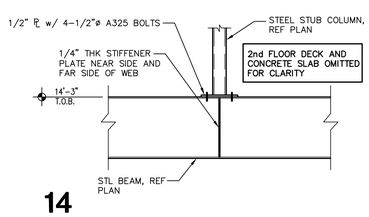
11 TYPICAL DUCT PENETRATION OPENING AT 2nd FLOOR



12



13



14

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

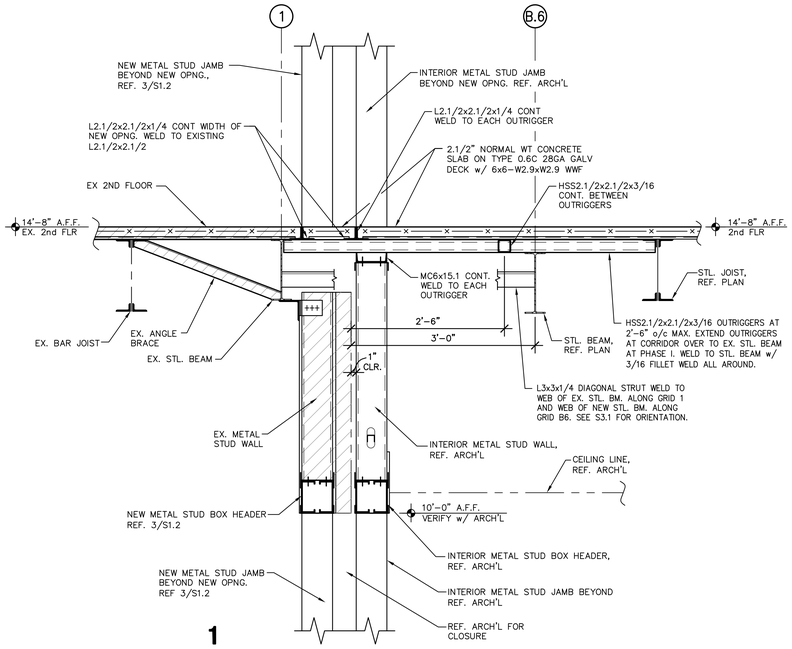
STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED
PROFESSIONAL ENGINEER
6-13-19

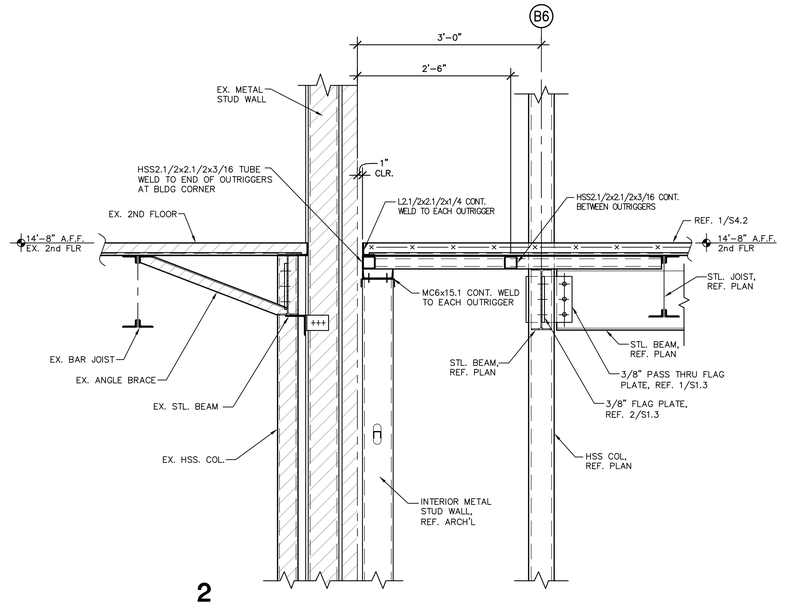
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

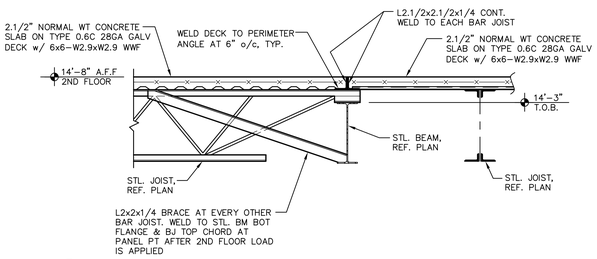
Date: JUNE 13, 2019
Scale: As Noted
Drawn By: SP, JJ, JA
Checked By: JS
Job: 192-522
Sheet: **S4.1**

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1520 NOLTE AVENUE
MISSION, TEXAS 78501
(956)428-4481 (956)428-4287 FAX
FIRM REGISTRATION # F-4145

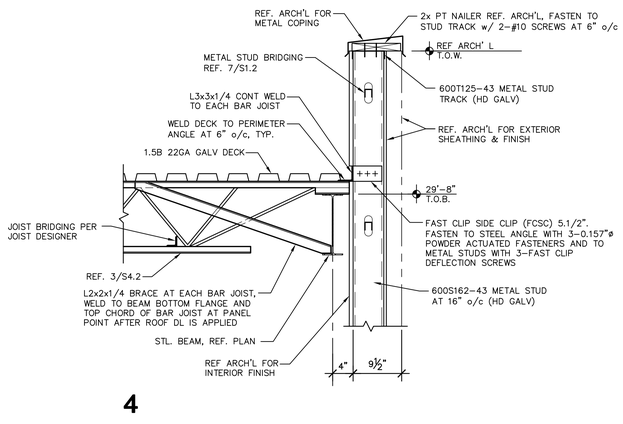
COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES



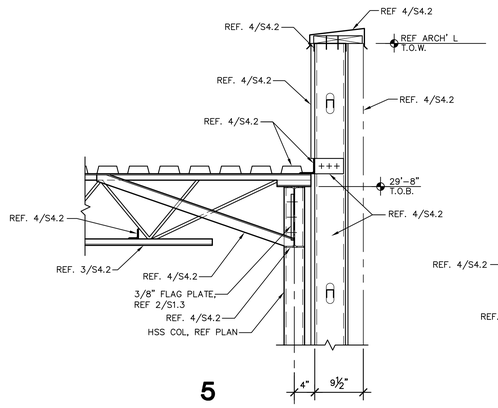




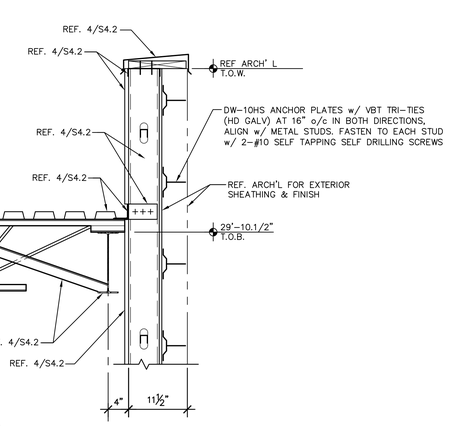
3



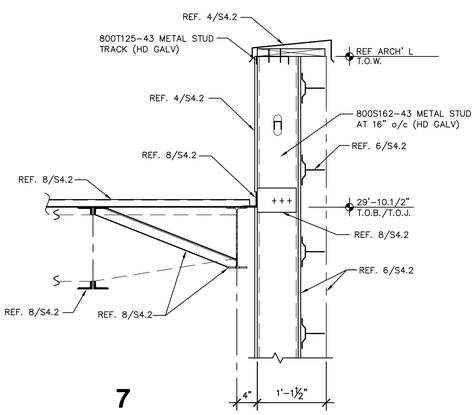
4



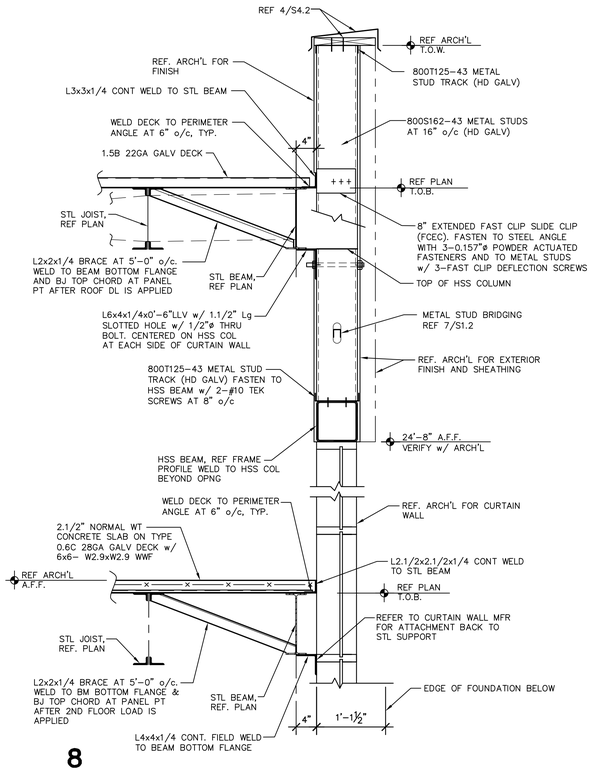
5



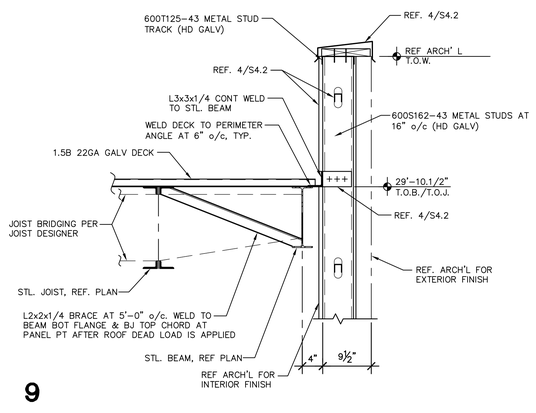
6



7



8



9

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

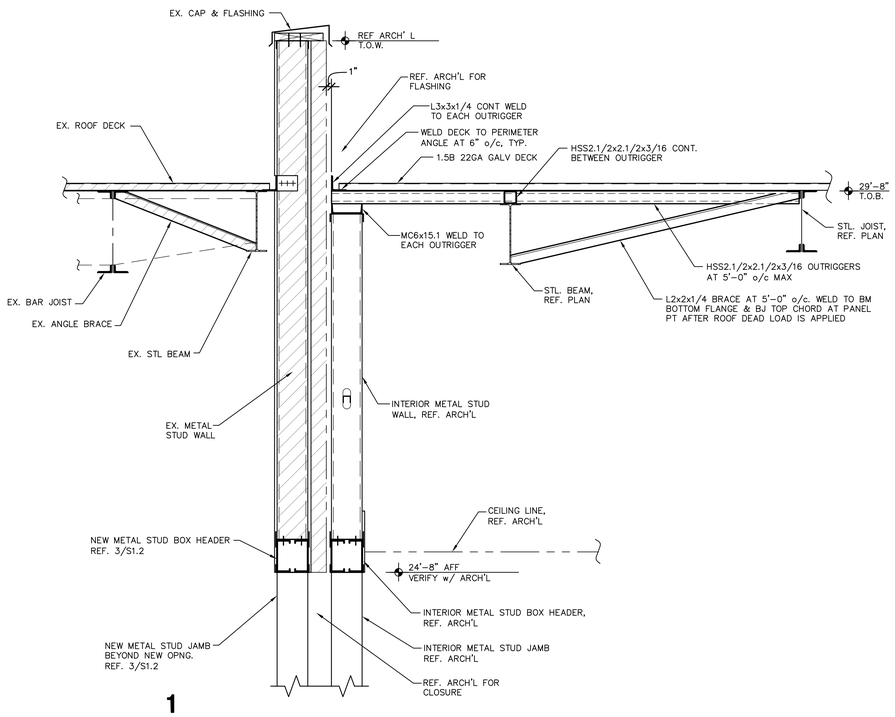
IDEA Public Schools

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1250 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4461 (956)428-0287 FAX
FIRM REGISTRATION # F-4145

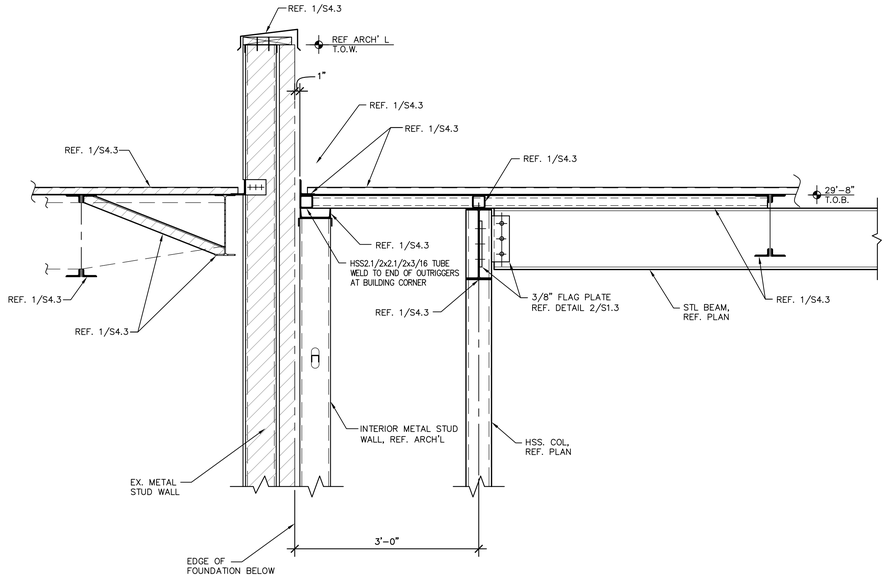
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Drawn By:	SP, JJ, JA
Checked By:	JS
Job:	192-522
Sheet:	S4.2

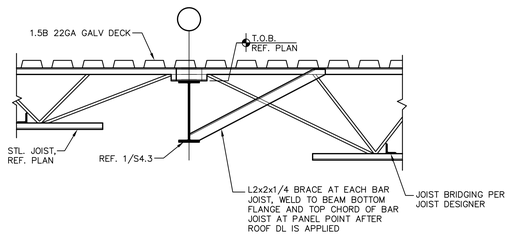
COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES



1

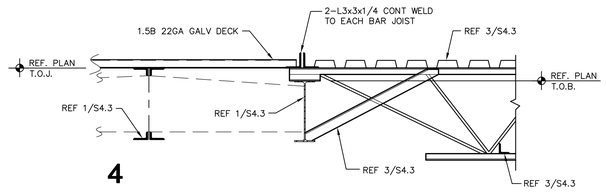


2

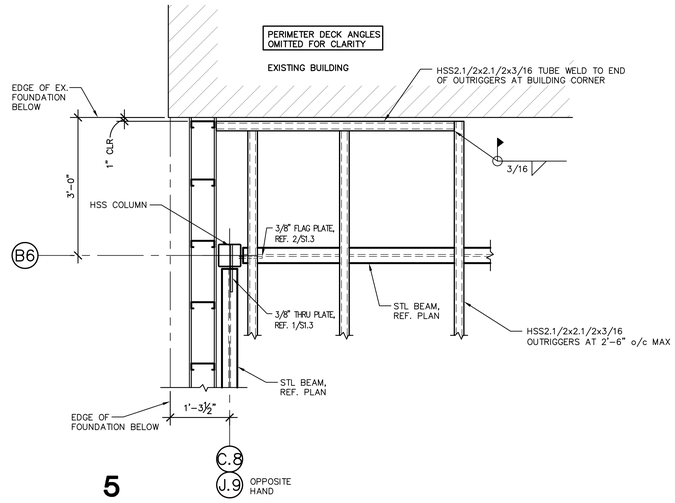


3 TYPICAL INTERIOR BEAM

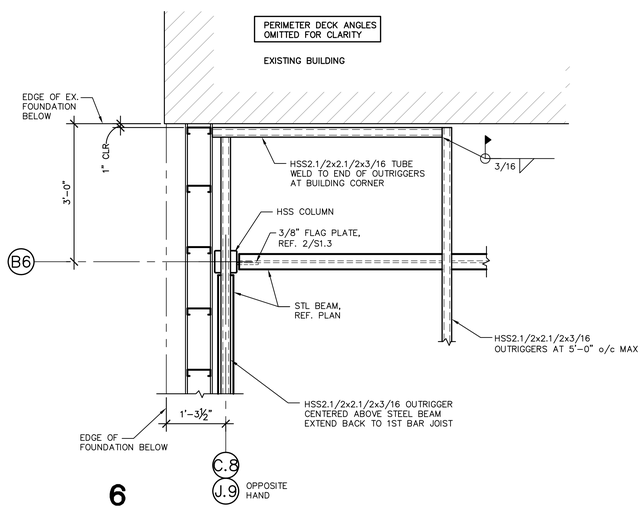
NOTE: REFER TO PLAN NOTES FOR ROOF DECK ATTACHMENT.



4



5



6

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
ROLANDO R. RUBIANO
86369
LICENSED PROFESSIONAL ENGINEER
6-13-19

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Drawn By: SP, JJ, JA
Checked By: JS
Job: 192-522
Sheet: **S4.3**

GREEN, RUBIANO & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1230 WEST HARRISON
HARLINGEN, TEXAS 78551
(956)428-4481 (956)428-4557 FAX
FIRM REGISTRATION # F-4145

COPYRIGHT 2019 BY GREEN, RUBIANO & ASSOCIATES

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.
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:

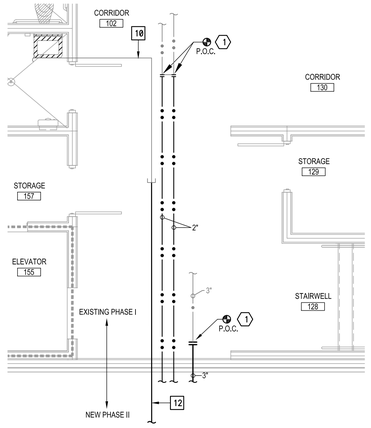
1. EXISTING POLE LIGHT – TYPICAL.
2. APPROXIMATE LOCATION OF EXISTING SWITCHBOARD.
3. EXISTING (2)–4" RACEWAYS. FIELD VERIFY EXACT LOCATION.
4. EXISTING 36"X36" POWER "ELECTRICAL" POLYMER CONCRETE PULL BOX. FIELD VERIFY EXACT LOCATION.
5. PROVIDE NEW FEEDER TO NEW PANELBOARD – SEE RISER DIAGRAM AND FEEDER SHCEDULE.
6. APPROXIMATE LOCATION OF EXISTING MDF ROOM.
7. APPROXIMATE LOCATION OF EXISTING FIRE ALARM CONTROL PANEL.
8. APPROXIMATE LOCATION OF EXISTING INTRUSION DETECTION SYSTEM CONTROL PANEL.
9. APPROXIMATE LOCATION OF EXISTING INTERCOM AND PROGRAM EQUIPMENT.
10. EXISTING (4)–4" COMMUNICATIONS RACEWAYS ABOVE CEILING. FIELD VERIFY EXACT LOCATION.
11. PROVIDE 4" RACEWAY WITH PULLWIRE (FIBER OPTIC CABLE). ROUTE ABOVE ACCESSIBLE CEILING SPACE. TERMINATE AT SECOND FLOOR IDF WIREWAY.
12. PROVIDE 4" RACEWAY WITH PULLWIRE (FIBER OPTIC CABLE). ROUTE ABOVE ACCESSIBLE CEILING SPACE. PROVIDE TO EACH IDF ROOM 1ST AND SECOND FLOOR. SEE DETAIL.
13. PROVIDE POLE LIGHTS AS SCHEDULED. SEE DETAIL.
14. APPROXIMATE LOCATION OF EXISTING LIGHTING CONTROL PANEL AND PANELBOARD. CONNECT NEW LIGHTING VIA AN EXISTING 20A/277V SPARE RELAY AND CIRCUIT BREAKER.
15. CONNECT SPORTS LIGHTING POLE AND SWITCH VIA SPORTS LIGHTING CONTROLS CABINET – TYPICAL.
16. PROVIDE SPECIAL SYSTEMS RACEWAY. REFER TO SPORTS FIELDS FEEDER SCHEDULE.
17. DIMENSIONS SHOWN ARE PERPENDICULAR TO CENTERLINE OF FIELD IN BOTH DIRECTIONS PASSING THROUGH CENTER POINT – TYPICAL. DO NOT TRENCH WITHIN THE FOOTPRINT OF THE EXISTING FIELD.
18. PROVIDE NEW 36"X36" TIER 22 RATED POLYMER CONCRETE PULL BOX WITH "COMMUNICATIONS" COVER LOGO – SEE DETAIL.
19. BORE UNDER EXISTING DRIVE/SIDEWALK.
20. PROVIDE THE FOLLOWING:
    1–2" RACEWAY WITH PULLWIRE – (INTERCOM)
    1–3" RACEWAY WITH PULLWIRE – (DATA)

PLUMBING KEYED NOTES:

1. CONNECT NEW 3" DOMESTIC COLD WATER PIPING INTO EXISTING 3" COLD WATER PIPING AND NEW 2" DOMESTIC HOT WATER PIPING INTO EXISTING 2" HOT WATER PIPING INSIDE THE BUILDING AT THESE APPROXIMATE LOCATIONS. SEE PLUMBING DRAWINGS FOR MORE INFORMATION.
2. 4" SANITARY SEWER LINE. SEE PLUMBING PLAN FOR MORE DETAILS AND CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
3. SPLASH BLOCK STORM SEWER DISCHARGING AT THIS APPROXIMATE LOCATION. REFER TO PLUMBING PLAN FOR MORE INFORMATION.
4. ACID DILUTION TANK AT THIS APPROXIMATE LOCATION. REFER TO PLUMBING PLAN FOR MORE INFORMATION AND CIVIL PLAN FOR CONNECTION AND CONTINUATION.
5. 4" SANITARY SEWER LINE. PROVIDE TWO WAY YARD CLEANOUT (NOT SHOWN FOR CLARITY). SEE PLUMBING PLAN FOR MORE DETAILS AND CIVIL DRAWING FOR CONNECTION AND CONTINUATION.
6. CONNECT PRIMARY STORM SEWER PIPING DISCHARGING AT THIS APPROXIMATE LOCATION TO STORM DRAIN SYSTEM. REFER TO PLUMBING PLAN FOR MORE DETAIL AND CIVIL DRAWINGS FOR CONNECTION AND CONTINUATION.
7. PROVIDE 3" UNDERGROUND SANITARY SEWER LINE AND YARD CLEANOUT AND 3/4" COLD WATER LINE TO SERVE DRINKING FOUNTAIN. CONNECT TO SANITARY SEWER AND WATER DISTRIBUTION SYSTEM AT THIS APPROXIMATE LOCATION. SEE CIVIL DRAWING FOR CONNECTION AND CONTINUATION. COORDINATE WITH UTILITY CONTRACTOR.
8. PROVIDE PEDESTAL TYPE DRINKING FOUNTAIN (DF-1) 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 WHERE SHOWN. 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.
9. PROVIDE LINE SIZE VALVE IN QUAZITE BOX.

FIRE SUPPRESSION KEYED NOTES:

1. PROVIDE FIRE SUPPRESSION SYSTEM FOR NEW ADDITION. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
2. EXISTING FIRE RISER ROOM AT THIS LOCATION.
3. EXTEND EXISTING FIRE SPRINKLER SYSTEM TO SERVE NEW BUILDING ADDITION.
4. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND MODIFY EXISTING SYSTEM AS REQUIRED TO SERVE NEW BUILDING. DISRUPTION OF ADMINISTRATION AREA SHALL BE MINIMIZED OR AVOIDED ALL TOGETHER. REMOVE AND REPLACE CEILING TILES AS NECESSARY TO ACCOMMODATE NEW PIPING. COORDINATE WITH GENERAL CONTRACTOR.



02 PARTIAL ENLARGED M.E.P. SITE PLAN
SCALE : 1/4" = 1'- 0"

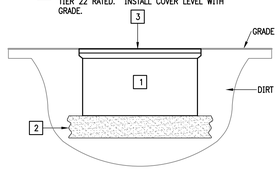
NORTH

GRID SUMMARY
Name; Soccer
Size; 300' x 165'
Spacing; 30.0' x 30.0'
Height; 3.0' above grade

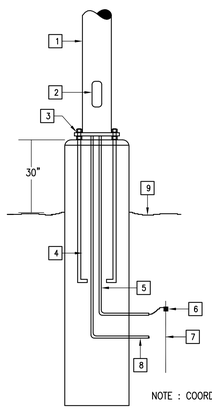
ILLUMINATION SUMMARY
MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid
Guaranteed Average: 30
Max/Min Ratio: 2.5:1
No. of Points: 60
LUMINAIRE INFORMATION
Color / CRI: 5700K - 75 CRI
No. of Luminaires: 16

KEYED NOTES:

1. 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.



03 POLYMER CONCRETE PULLBOX DETAIL
SCALE : NONE

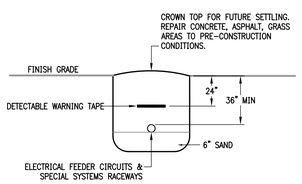


KEYED NOTES:

1. LIGHTING POLE – SEE SCHEDULE.
2. HANDHOLE COVER.
3. DOUBLE NUTS FOR ADJUSTMENT OF POLE VERTICAL ALIGNMENT.
4. ANCHOR BOLTS AS REQUIRED BY POLE MANUFACTURER FURNISHING POLE. (MAX. 24" DIAM. BOLT CIRCLE).
5. 1/2" PVC – #8G.
6. CONNECTOR.
7. 3/4" X 10' COPPER CLAD GROUND ROD.
8. CONDUIT 36" BELOW GRADE.
9. GRADE LINE OR PARKING LOT SURFACE.

NOTE : COORDINATE WITH GENERAL CONTRACTOR.

04 LIGHT POLE FOUNDATION DETAIL
SCALE : NOT TO SCALE



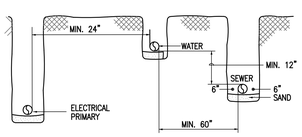
05 BURIAL DETAIL FOR ELECTRICAL RACEWAYS
SCALE : NONE

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

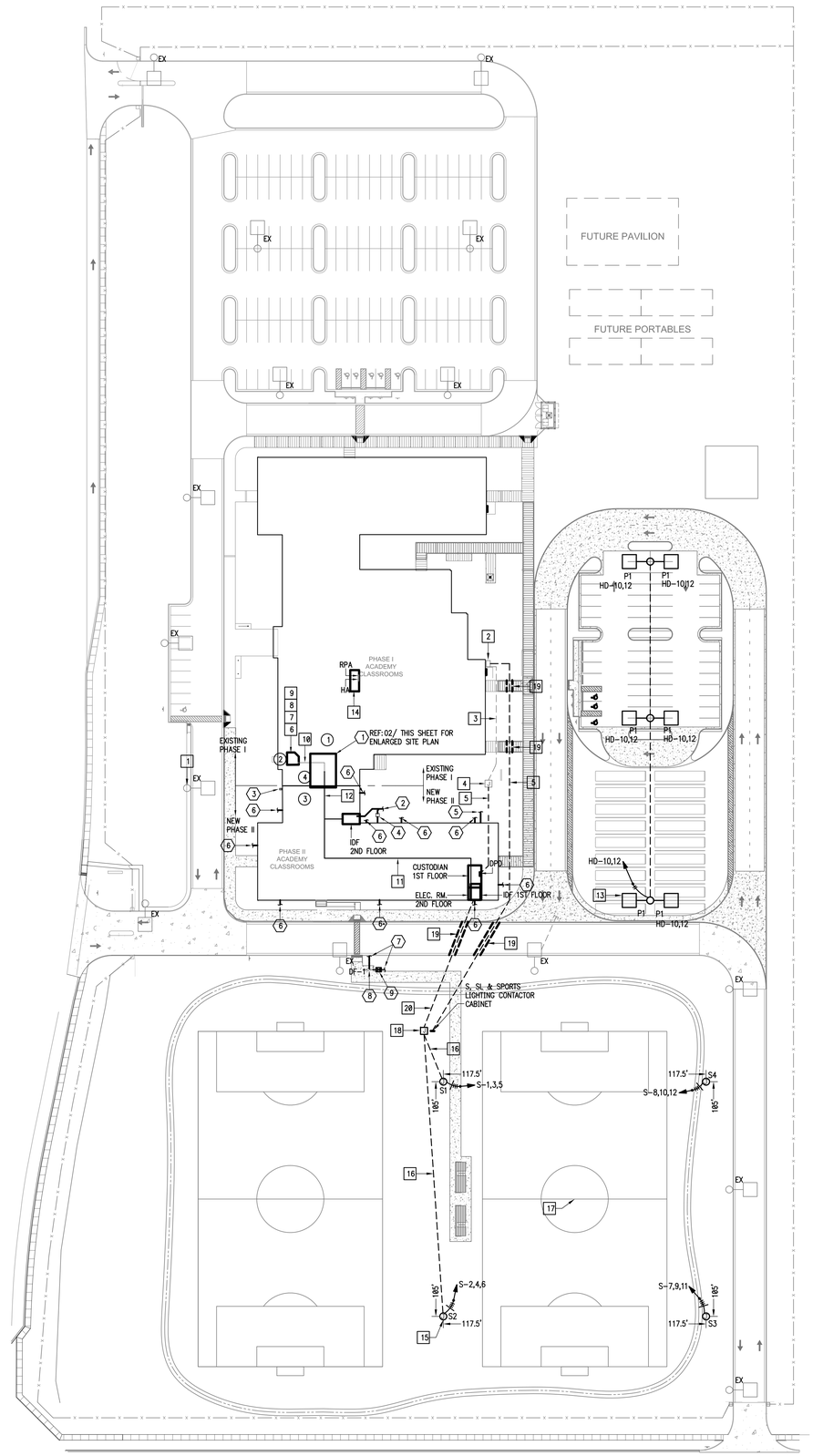
COMPACT TRENCH FILL TO 95% PROCTOR DENSITY.

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.



06 TRENCHING DETAIL
SCALE : NONE



01 M.E.P. SITE PLAN
SCALE : 1" = 50'-0"

NORTH

No.	REVISIONS	BY

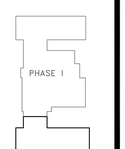
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED PROFESSIONAL ENGINEER
6.13.2019

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
6.13.2019



KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED ENGINEERING FIRM
F-15996

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	MEP1.01

CODES & ORDINANCES:

1. GENERAL:
   a. UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS, PERFORM ALL WORK PER APPLICABLE VERSION OF INTERNATIONAL BUILDING CODES, AND LOCAL CODES AND ORDINANCES.

   b. PRIOR TO SUBMITTING PROPOSAL, NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.

2. PERMITS:
   a. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.

   b. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.

4. APPROVALS AND INSPECTIONS:
   a. OBTAIN APPROVAL FROM CITY FIRE DEPARTMENT AND BUILDING AND SAFETY DEPARTMENT PRIOR TO INSTALLATION OF ANY FIRE RELATED ITEMS.

   b. COORDINATE PRESSURE TESTS, INSPECTIONS AND APPROVAL FOR ALL SYSTEMS WITH PERMITTING OFFICER, OWNER AND ENGINEER.

GENERAL NOTES:

1. CONTRACT RELATED:
   a. 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.

   b. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE PROJECT AND RESPONSIBILITY OF CONTRACTOR ONCE ALLOWANCE IS APPROVED.

   c. 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.

2. TEST & BALANCE:
   a. TEST & BALANCE SHALL BE PERFORMED UNDER GENERAL CONTRACTOR, SEPARATE FROM MECHANICAL CONTRACT. DURING BIDDING, CONTRACTOR SHALL SUBMIT A COPY OF EVIDENCE THAT TAB AGENT MEETS THE QUALIFICATIONS SPECIFIED UNDER DIV. 23 SECTION 230593 TO PRIME CONTRACTOR.

   b. TEST & BALANCE TO COORDINATE MINIMUM AND MAXIMUM OUTSIDE AIR DAMPER SETTINGS WITH DDC CONTROLS AND ENGINEER. PROVIDE TIME ALLOTMENT FOR MULTIPLE DAMPER SETTINGS IN SOME CASES.

   c. CONTRACTOR SHALL COORDINATE TAB ACTIVITIES WITH TAB CONTRACTOR.

COORDINATION:

1. GENERAL:
   a. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE. WORK BY OTHERS, AND MECHANICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.

   b. 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. COORDINATE MECHANICAL WITH OTHER TRADES SUCH AS PLUMBING, ELECTRICAL AND STRUCTURAL WORK. COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.

   c. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.

   d. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.

2. SITE:
   a. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE UTILITY CONFLICTS THAT CAN BE REASONABLY RESOLVED BY COORDINATION DURING SHOP DRAWING STAGE.

3. ARCHITECTURAL AND STRUCTURAL:
   a. REFER TO ARCHITECTURAL AND STRUCTURAL PLANS FOR DETAILS OF CONSTRUCTION, INCLUDING BEAMS, FLOOR AND WALL PENETRATIONS, CHASES, AND REFLECTED CEILING PLANS. VERIFY OPENING SIZES WITH EQUIPMENT FURNISHED.

   b. SLEEVE ALL EXTERIOR WALL AND GRADE BEAM PENETRATIONS. GRADE BEAM PENETRATIONS SHALL BE MADE WITHIN MIDDLE 1/3 OF VERTICAL SPAN OF BEAM.

   c. SEAL AROUND DUCTS AND PIPING AT ALL WALLS, A/C ROOMS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.

4. SPATIAL COORDINATION:
   a. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.

   b. SPACES ABOVE CEILING ARE CONGESTED. DESIGN INTENT IS THAT UTILITIES BE INSTALLED TIGHT AGAINST CEILING STRUCTURE TO EXTENT POSSIBLE, WHILE RETAINING ADEQUATE MAINTENANCE ACCESS PER CODES.

   c. IN CASE OF CONFLICTS, ITEMS SHALL BE ARRANGED ACCORDING TO THE FOLLOWING PRIORITIES: LIGHTING, FIRE PROTECTION, HVAC. PROVIDE OFFSETS/RISES/DROPS REQUIRED TO RESOLVE CONFLICTS WITH OTHER UTILITIES, AND TO ACCOMMODATE ALL UTILITIES ABOVE CEILINGS.

   d. IN GENERAL, REROUTE SMALLER DUCTS/PIPES THROUGH JOISTS TO RESOLVE CONFLICTS WITH LARGER. PERFORM REROUTING IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY STANDARDS.

   e. PROVIDE COORDINATION DRAWINGS OF REFLECTED CEILING PLAN AND SECTION ABOVE CEILING SHOWING WORK OF ALL AFFECTED TRADES. DO NOT PROCEED WITH FABRICATION WORK UNTIL COORDINATION DRAWINGS HAVE BEEN APPROVED BY A/E.

   f. IN GENERAL ROUTE DUCTS/PIPES IN MOST EFFICIENT MANNER POSSIBLE, AND IN ACCORDANCE WITH INDUSTRY STANDARDS.

   g. SEE ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL PANELS TO AVOID DUCTWORK AND PIPING RUNNING OVER THESE AREAS. COORDINATE WITH ELECTRICAL CONTRACTOR.

   h. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH OTHER TRADES TO AVOID CONFLICT AND ADJUST LOCATION IF NEEDED WITHOUT COMPROMISING AIR DEVICES PERFORMANCE.

5. CONTROLS:
   a. REFER TO SPECIFICATIONS FOR CONTROL COMPONENTS AND DEVICES TO BE COORDINATED WITH MECHANICAL WORK.

   b. CONTROLS CONTRACTOR SHALL PROVIDE BUILDING AUTOMATION SYSTEM (BAS) THAT CONTROLS EQUIPMENT SHOWN ON DRAWINGS. CONTROLS CONTRACTOR IS RESPONSIBLE FOR INSTALLING LOW VOLTAGE POWER AND COMMUNICATIONS. REFERENCE SPECIFICATIONS FOR CONTROL COMPONENTS AND SEQUENCING TO BE COORDINATED W/ MECH. WORK.

   c. DRAWINGS SHOW GENERAL LOCATION OF DDC SENSORS (T, RH, AND CO2). UNLESS NOTED OTHERWISE, INSTALL SENSORS AT 48" ABOVE FINISHED FLOOR. WIRING SHALL BE IN CONCEALED WALLS. IN CASE OF CONFLICTS WITH FURNITURE, WINDOWS, ETC., COORDINATE EXACT LOCATION WITH ARCHITECT AND ENGINEER.

EQUIPMENT:

1. EQUIPMENT INSPECTION:
   a. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.

   b. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY EQUIPMENT CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.

   c. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.

2. EQUIPMENT ACCESS:
   a. FOR EQUIPMENT WHICH MAY REQUIRE PERIODIC SERVICING AND WHICH IS LOCATED ABOVE A SUSPENDED CEILING, CONTRACTOR IS TO PROVIDE A MARKER ON CEILING GRID WHICH CLEARLY INDICATES WHICH CEILING TILE IS TO BE REMOVED TO MOST CONVENIENTLY ACCESS EQUIPMENT SIDE NEEDING SERVICING. THE MARKER IS TO BE ROUND DOT OF HEAVY DUTY COLORED PAPER, WITH DIRECTION INDICATION, WITH ADHESIVE BACKING. OBTAIN OWNER APPROVAL FOR COLOR, SIZE, AND TYPE PRIOR TO INSTALLATION.

   b. PROVIDE MANUFACTURER RECOMMENDED AND CODE ENFORCED CLEARANCES AROUND EQUIPMENT. MAINTAIN 36" CLEAR IN FRONT OF VAV BOX CONTROLLER, ELECTRIC HEATERS, ETC.

   c. INSTALL ALL VALVES, CONTROLS, DAMPERS, FANS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE ADEQUATELY SIZED ACCESS DOORS WHERE REQUIRED.

3. EQUIPMENT INSTALLATION:
   a. PROVIDE SPRING HANGER TYPE VIBRATION ISOLATORS TO SUPPORT SUSPENDED AHUS, FANS AND OTHER POWERED VIBRATING EQUIPMENT. PROVIDE FLEXIBLE DUCT CONNECTORS.

   b. FOR ALL AIR CONDITIONING UNITS WHICH ARE LOCATED ABOVE SUSPENDED CEILINGS, OR ABOVE HARDWOOD FLOORS, OR OTHER BUILDING SURFACES / MATERIALS WHICH COULD BE DAMAGED BY LEAKING WATER, PROVIDE A SECONDARY DRAIN PAN BENEATH THE UNIT, WITH EITHER: A) A SEPARATE CONDENSATE DRAIN LINE, COPPER, INSULATED WITH 1/2" ARMAFLEX, AND PIPED TO A SUITABLE DISPOSAL POINT (SUCH AS TO A LAVATORY DRAIN TAILPIECE, FLOOR DRAIN, ETC; DO NOT TERMINATE SECONDARY DRAIN PIPE THROUGH A SUSPENDED CEILING WHERE IT WILL DRIP INTO A SINK OR LAVATORY UNLESS APPROVED BY ENGINEER); OR B) A FLOAT SWITCH OR MOISTURE SENSING SWITCH, LOCATED IN SECONDARY DRAIN PAN, AND ELECTRICALLY INTERLOCKED WITH UNIT FAN TO TURN UNIT OFF WHEN MOISTURE IS SENSED.

   c. COMPLETELY WEATHERPROOF ALL EQUIPMENT, DUCTS, PIPES AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE THE BUILDING, IN PARKING AREA, OR OTHERWISE EXPOSED TO WEATHER. AS A MINIMUM, WEATHERPROOFING SHALL INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING: JACKETING FOR ALL PIPING INSULATION, VALVES AND ACCESSORIES RATED FOR OUTDOOR SERVICE, ELECTRICAL ENCLOSURES NEMA 4X-SS. PROVIDE ELECTRICAL HEAT TRACING FOR UTILITIES SUSCEPTIBLE TO FREEZING.

   d. AFFIX ID TAGS TO ALL MECHANICAL EQUIPMENT PER SPECIFICATIONS.

4. EQUIPMENT INSULATION:
   a. INSULATE ALL SURFACES THAT ARE CAPABLE OF BECOMING COLD AND COLLECTING CONDENSATE. THIS INCLUDES SUPPLY DIFFUSERS AND CONNECTING DUCTWORK / TRANSITION PIECES.

5. PLUMBING:
   a. PROVIDE CODE RECOMMENDED CLEARANCE OR MINIMUM 10' BETWEEN EXHAUST FANS DISCHARGES, PLUMBING VENTS AND AIR INTAKES. COORDINATE LOCATIONS WITH PLUMBING CONTRACTOR.

   b. PROVIDE INSULATED AND TRAPPED COPPER CONDENSATE DRAIN LINES FROM ALL AIR CONDITIONING EQUIPMENT AND TERMINATE TO NEAREST FLOOR DRAIN OR OTHER APPROVED RECEPTACLES. COORDINATE DRAINS WITH PLUMBING.

6. ELECTRICAL:
   a. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.

   b. DUE TO VARIATIONS IN EQUIPMENT CHARACTERISTICS BY DIFFERENT EQUIPMENT SUPPLIERS, MECHANICAL EQUIPMENT ULTIMATELY PROVIDED MAY DIFFER IN HORSEPOWER OR AMPERAGE REQUIREMENTS FROM THAT SPECIFIED IN THESE DRAWINGS. COORDINATE WITH GENERAL CONTRACTOR PRIOR TO BIDDING, AND PRIOR TO SUBMITTALS AND ORDERING EQUIPMENT, TO ENSURE THAT EQUIPMENT ELECTRICAL REQUIREMENTS ARE CONVEYED TO ELECTRICAL CONTRACTOR. IT IS SOLELY CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPATIBILITY ISSUES ARE COORDINATED.

CONTROLS:

1. CONTRACTOR SHALL COOPERATE AND COORDINATE WORK ACTIVITIES WITH DDC CONTROLS CONTRACTOR TO ENSURE SMOOTH TROUBLE-FREE INSTALLATION.

2. WHERE NOT SPECIFICALLY INDICATED ON PLANS, DDC CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL RELAYS AND CONTACTORS, POWER TO DDC PANELS, AND OTHER CONTROL ELEMENTS. ALTHOUGH DDC CONTRACTOR MAY COORDINATE WITH OTHER TRADES TO PROVIDE MISCELLANEOUS ELECTRICAL WORK, THE FINAL RESPONSIBILITY FOR ACHIEVEMENT OF CONTROL SEQUENCES LIES WITH DDC CONTRACTOR.

3. ON THE GRAPHIC PAGES FOR ALL EQUIPMENT AND/OR MONITORED DEVICES (SUCH AS SENSORS, METERS, DAMPERS, ETC.) GIVE A CLEAR, GRAPHICAL INDICATION AS TO WHETHER EQUIPMENT OR DEVICE HAS BEEN PLACED IN MANUAL OPERATION, OVERRIDING AUTOMATIC OPERATION. (FOR EXAMPLE, PLACE AN "M" NEXT TO EQUIPMENT HAS BEEN PLACED IN MANUAL OPERATION.)

4. REFER TO OPERATING SEQUENCE IN SPECIFICATIONS FOR ALARMS AND SEQUENCES REQUIRED.

5. PROVIDE FULL COLOR GRAPHICS OF NEW SYSTEMS.

6. INTERCONNECT NEW CONTROLS WITH OWNER'S EXISTING COS.

7. PROVIDE WEB-SERVER. SEE SPECIFICATIONS.

8. RECOMMENDED DIVISION OF RESPONSIBILITIES BETWEEN SUB-CONTRACTORS IS AS FOLLOWS:

   a. WITH OWNER COORDINATE ETHERNET CONNECTION FOR DDC SYSTEM.

   b. WITH ELECTRICAL SUB CONTRACTOR, CONTROL CONTRACTOR COORDINATES 120V POWER WIRING AND CONDUIT TO NEW CONTROLLERS (AND CIRCUIT BREAKERS, IF NO SPARES EXIST).

   c. CONTROLS CONTRACTOR SUPPLIES DAMPERS, ETC. TO MECHANICAL CONTRACTOR FOR INSTALLATION. COORDINATE OUTSIDE AND RETURN AIR DAMPERS WITH AHU MANUFACTURER.

   d. CONTROLS CONTRACTOR IS RESPONSIBLE FOR:

      * DAMPER ACTUATORS
      * GATEWAY INTERFACES AND ALL RELATED ACCESSORIES FOR FULL COMMUNICATION BETWEEN EQUIPMENT AND DDC SYSTEM
      * ADJUSTABLE RANGE/FLAT PLATE THERMOSTATS, RH, CO2 SENSING DEVICES
      * EQUIPMENT CONTROLLERS, SOFTWARE, PROGRAMMING.
      * ALL NETWORK CONTROL PANELS, DDC CONTROLLERS, SOFTWARE, AND PROGRAMMING.
      * WIRING AND CONDUIT FOR CONTROL AND MONITORING DEVICES
      * CONTROL RELAYS
      * SHOP DRAWINGS PER SPECIFICATIONS
      * SYSTEM CHECK OUT, OWNER TRAINING, DDC SYSTEM WARRANTY WORK

INSULATION:

1. FIBERGLASS INSULATION MAY NOT BE USED ON ANY COLD PIPING SURFACES; ONLY CLOSED CELL INSULATION IS ACCEPTABLE.

2. PROVIDE INSULATION ON ALL SURFACES CAPABLE OF CREATING CONDENSATION.

DUCTWORK:

1. DUCTWORK GENERAL:
   a. DRAWINGS ARE DIAGRAMMATIC IN NATURE. FOR CLARITY SAKE, MOST DUCT OFFSETS/RISES/DROPS ARE NOT SHOWN. WHERE DUCTS PENETRATE WALLS, INSTALL THEM PERPENDICULAR TO WALL.

   b. RECTANGULAR AND ROUND DUCTWORK SHALL BE GALVANIZED STEEL. SIZES SHOWN ARE INSIDE CLEAR DIMENSION, UNLESS NOTED OTHERWISE.

   c. VERIFY BOTTOM OF DUCT ELEVATION AND COORDINATE WITH OTHER TRADES.

   d. CONSTRUCT AND LEAKAGE TEST ALL DUCTWORK BASED ON SPECIFICATIONS AND SMACNA REQUIREMENTS, WHICHEVER IS MORE STRINGENT. COORDINATE PRESSURE CLASSES WITH EQUIPMENT SCHEDULES.

   e. FLEXIBLE DUCTS MAXIMUM LENGTH SHALL NOT EXCEED 6 FEET. USE OF FLEXIBLE DUCTWORK IS LIMITED TO AREAS WITH AN ACCESSIBLE SUSPENDED CEILING. PINCHED DUCT WILL HAVE TO BE REPLACED.

   f. IN AREAS WHERE DUCT CONFLICTS CANNOT BE AVOIDED, ROUTE SMALLER DUCTS THROUGH ROO JOISTS.

   g. LOCATE AIR DEVICES AS SHOWN. COORDINATE WITH ELECTRICAL, IF NEEDED. RELOCATE DIFFUSER TO ADJACENT TILE.

2. DUCTWORK INSULATION:
   a. WRAP ALL OUTSIDE AIR, SUPPLY AND RETURN DUCTWORK UNLESS NOTED OTHERWISE.

   b. IN ADDITION, FOR ACOUSTICAL PERFORMANCE INTERNALLY LINE FIRST 10' OF SUPPLY AND LAST 10' OF RETURN DUCTWORK.

   c. PROVIDE ACOUSTICAL LINING FOR ALL TRANSFER DUCTS AND RETURN AIR ELBOWS.

   d. INSULATION ON DUCT SHOULD TO BE PROPERLY TAPED AND MASTICS MUST BE APPLIED ON SEAMS AND JOINTS AND AT ENDS ADJACENT TO DUCT FLANGES AND FITTINGS. FOR DUCT SIDES WITH DIMENSIONS LARGER THAN 18 INCHES, APPLY ADDITIONAL PINS AND CLIPS TO HOLD INSULATION TIGHTLY AGAINST SURFACE AT CROSS BRACING.

   e. INSULATE ALL EXHAUST DUCTWORK 10 FEET FROM EXTERIOR OPENING.

3. DUCT FITTINGS:
   a. WHERE RECTANGULAR TEE FITTINGS ARE SHOWN, PROVIDE FITTING WITH ADJUSTABLE DIVIDER SHEET AND TURNING VANES.

   b. WHERE RECTANGULAR MAIN AND BRANCH CONNECTIONS ARE SHOWN, PROVIDE EXTRACTOR VANES. NOT APPLICABLE TO DUCTWORK DOWNSTREAM OF VAV BOXES.

   c. PROVIDE TURNING VANES IN ALL ELBOWS PER SPECS.

4. DAMPERS:
   a. IN AN ACCESSIBLE LOCATION, PROVIDE MANUAL-TYPE VOLUME BALANCING DUCT DAMPERS IN ALL SUPPLY, RETURN AND EXHAUST DUCT BRANCHES TO INDIVIDUAL GRILLES, REGISTERS AND DIFFUSERS (GRD). TO MINIMIZE NOISE INSTALL DAMPERS CLOSER TO THE BRANCH CONNECTION THAN TO THE GRD. IN DUCTWORK, PROVIDE ACCESS DOORS TO ALL DAMPERS.

   b. ABOVE INACCESSIBLE CEILINGS AND IN CASE DUCT CONFIGURATION DOES NOT ALLOW FOR INSTALLATION OF DAMPER IN DUCTWORK, PROVIDE REMOTE MANUAL DAMPER BY YOUNG REGULATOR OR EQUAL, (CABLE OPERATED SYSTEM) WITH ENGINEER'S PERMISSION CONTRACTOR MAY PROVIDE VOLUME DAMPER THAT IS INTEGRAL TO GRD.

   c. PROVIDE BALANCING DAMPERS ON ALL EXHAUST GRILLES TO ACHIEVE DESIRED AIRFLOW.

   d. PROVIDE DYNAMIC FIRE DAMPERS (RUSKIN DIDB20, TYPE B OR EQUAL) IN ACCORDANCE WITH CODE REQUIREMENT, IN ALL PENETRATIONS OF FIRE RATED WALLS, OCCUPANCY SEPARATION WALLS, BARRIERS AND PARTITIONS, AND EXIT CORRIDORS. REFER TO ARCHITECTURAL PLANS FOR RATED WALLS. PROVIDE ACCESS DOORS AS PER CODE REQUIREMENTS, EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. WHERE GRILLE ACCESS IS INDICATED, ADDITIONAL DUCT ACCESS DOOR IS NOT REQUIRED. WHERE THE CEILING IS FIRE RATED PROVIDE FIRE RATED AIR DEVICES FOR TRANSFER & RETURN AIR GRILLES AND SUPPLY AIR DIFFUSERS AS PER CODE REQUIRMENTS. REFER TO ARCHITECTURAL PLANS FOR RATED CEILINGS.

   e. PROVIDE ACCESS DOORS (NOT SHOWN IN DRAWINGS) FOR INSPECTION OF DUCT MOUNTED EQUIPMENT SUCH AS FIRE/SMOKE DAMPERS, MANUAL BALANCING DAMPERS AND TURNING VANES. IN AREAS WITH HARD CEILING COORDINATE ACCESS DOOR LOCATIONS AND CEILING ACCESS PANELS WITH OTHER TRADES.

ABBREVIATIONS

A	AMPS	ENT.	ENTERING	NO	NORMALLY OPEN
ACCU	AIR COOLED CONDENSING UNIT	EXT.	EXTERNAL OR EXTERIOR	NTS	NOT TO SCALE
ACT	ACTUATOR	FCU	FAN COIL UNIT	OA	OUTSIDE AIR
AFF	ABOVE FINISHED FLOOR	FD	FIRE DAMPER	PH	PHASE
AHU	AIR HANDLING UNIT	FM	FLOW METER	RA	RETURN AIR
B.	BOTTOM	FS	FLOW SWITCH	RAG/RG	RETURN AIR GRILLE
BAS	BUILDING AUTOMATION SYSTEM	FPI	FINS PER INCH	RD	ROOF DRAIN
BOP	BOTTOM OF PIPE	G.	GROUND	RM.	ROOM
BOTT.	BOTTOM	GA.	GAGE	RPZ	REDUCED PRESSURE ZONE
C.	CONDUIT OR COMMON	GALV.	GALVANIZED	SA	SUPPLY AIR
CHR	CHILLED WATER RETURN	GPM	GALLONS PER MINUTE	SD	SUPPLY AIR DIFFUSER
CHS	CHILLED WATER SUPPLY	GRND.	GROUND	SS	STAINLESS STEEL
CHW	CHILLED WATER	HB	HOSE BIBB	SZ	SINGLE ZONE
CHWP	CHILLED WATER PUMP	HP	HORSEPOWER	TAB	TESTING & BALANCING
CR	CONDENSER WATER RETURN	HS	HUMIDITY SENSOR	T.O.L.	TOP OF LOUVER
CS	CONDENSER WATER SUPPLY	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	TS	TEMPERATURE SENSOR
CLG.	CEILING OR COOLING			TSTAT	THERMOSTAT
COMB.	COMBINATION	LVG.	LEAVING	UG	UNDERGROUND
CONC.	CONCRETE	MECH	MECHANICAL	UNO	UNLESS OTHERWISE NOTED
COND.	CONDUIT	MOT. STRTR.	MOTOR STARTER	V	VOLTS
CT	COOLING TOWER	MS	MOTOR STARTER	VAV	VARIABLE AIR VOLUME
CU.	COPPER	MZ	MULTI-ZONE	VFD	VARIABLE FREQUENCY DRIVE
CW	CITY WATER	NC	NORMALLY CLOSED	W	WIRE
DDC	DIRECT DIGITAL CONTROLS				
DMPR.	DAMPER				
DISC.	DISCONNECT				
EAG/EG	EXHAUST AIR GRILLE				
EMS	ENERGY MANAGEMENT SYSTEM				

MECHANICAL SYMBOLS LEGEND

12x12	DUCT SIZE: FIRST FIGURE IS SIDE SHOWN	T	THERMOSTAT
(12x12)	BELOW DUCT SIZE: FIRST FIGURE IS SIDE SHOWN	SH	SPACE HUMIDITY SENSOR
	DIRECTION OF FLOW-RETURN	DH	DUCT HUMIDITY SENSOR
	DIRECTION OF FLOW-SUPPLY	C	SPACE CARBON DIOXIDE SENSOR
		SP	STATIC PRESSURE SENSOR
FD	FIRE DAMPER	C	DUCT CARBON DIOXIDE SENSOR
Ø13	FLEXIBLE DUCT	CHR	CHILLED WATER RETURN
EG-X / dim	EXHAUST AIR GRILLE	CHS	CHILLED WATER SUPPLY
		CD	CONDENSATE PIPING
RG/TG-X / dim	RETURN AIR/TRANSFER AIR GRILLE		BUTTERFLY VALVE
SD-X / dim	SUPPLY AIR DIFFUSER		MANUAL VALVE
	SIDE TAP WITH DAMPER		AUTOMATIC VALVE
	BACKDRAFT DAMPER		CHECK VALVE
AFR	AUTO-FLOW REGULATOR		PRESSURE GAUGE & COCK
	DRAIN VALVE	TS	TEMPERATURE SENSOR
	BALL VALVE	TW	THERMOMETER WELL

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

No.	REVISIONS	BY

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

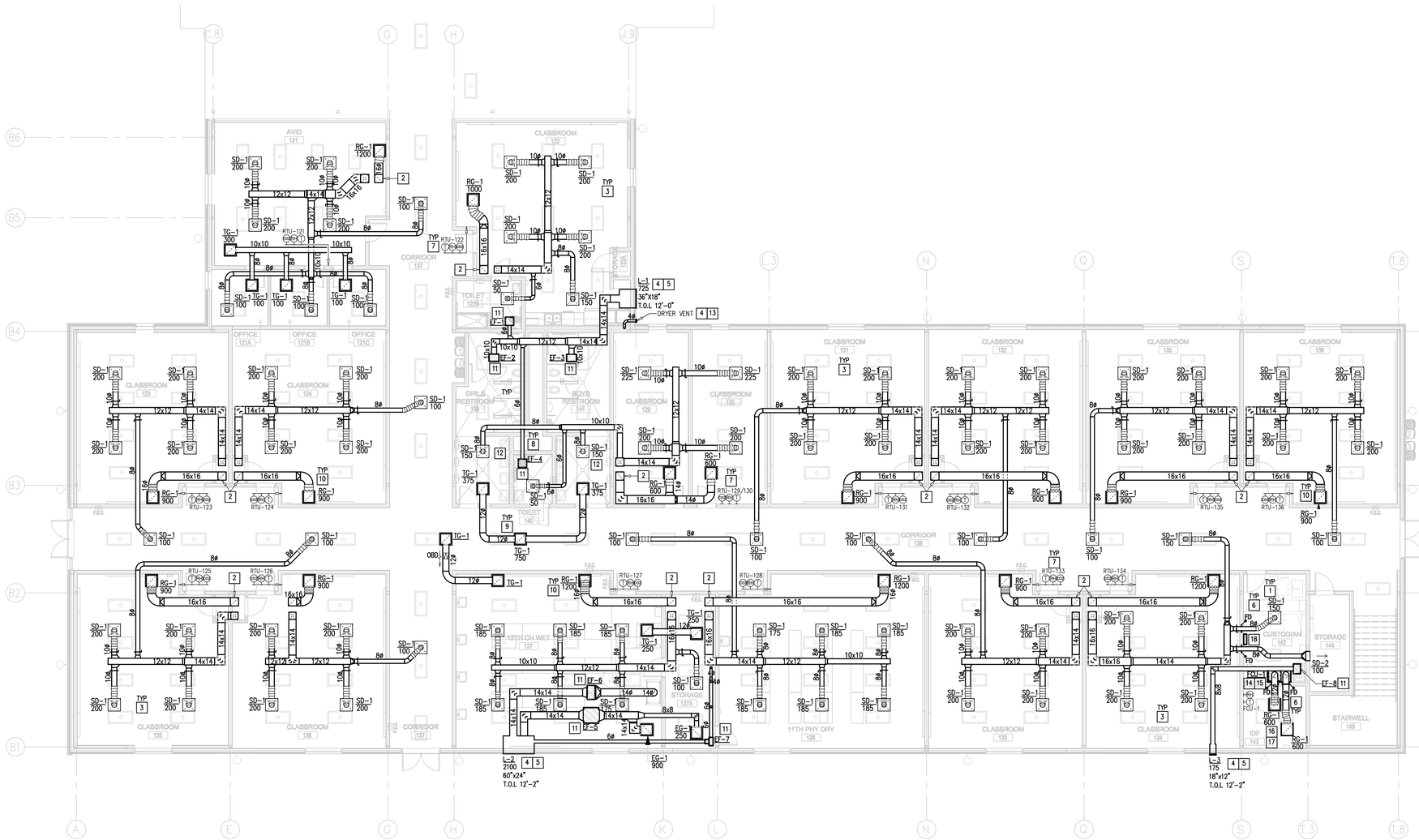
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
ARCHITECT
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: M2.01



1ST FLOOR

01 MECHANICAL FLOOR PLAN

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. DUCTWORK UP TO SECOND FLOOR IN CHASE. REFER TO SECOND FLOOR MECHANICAL FLOOR PLAN FOR CONTINUATION.
3. 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)
4. 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)
5. PROVIDE LOUVER AS SCHEDULED. COORDINATE FINAL FINISH, SIZE AND LOCATION WITH ARCHITECT PRIOR TO ORDERING. (TYPICAL)
6. 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. PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN. : ACCESS PANEL SHALL BE IN CEILING SPACE. (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 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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.
18. REFER TO SPECIFICATION FOR DDC CONTROLS AND SEQUENCES OF OPERATION.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
REGISTERED
ARCHITECT
6.13.2019

PHASE I
CLASSROOMS
& RESTROOM

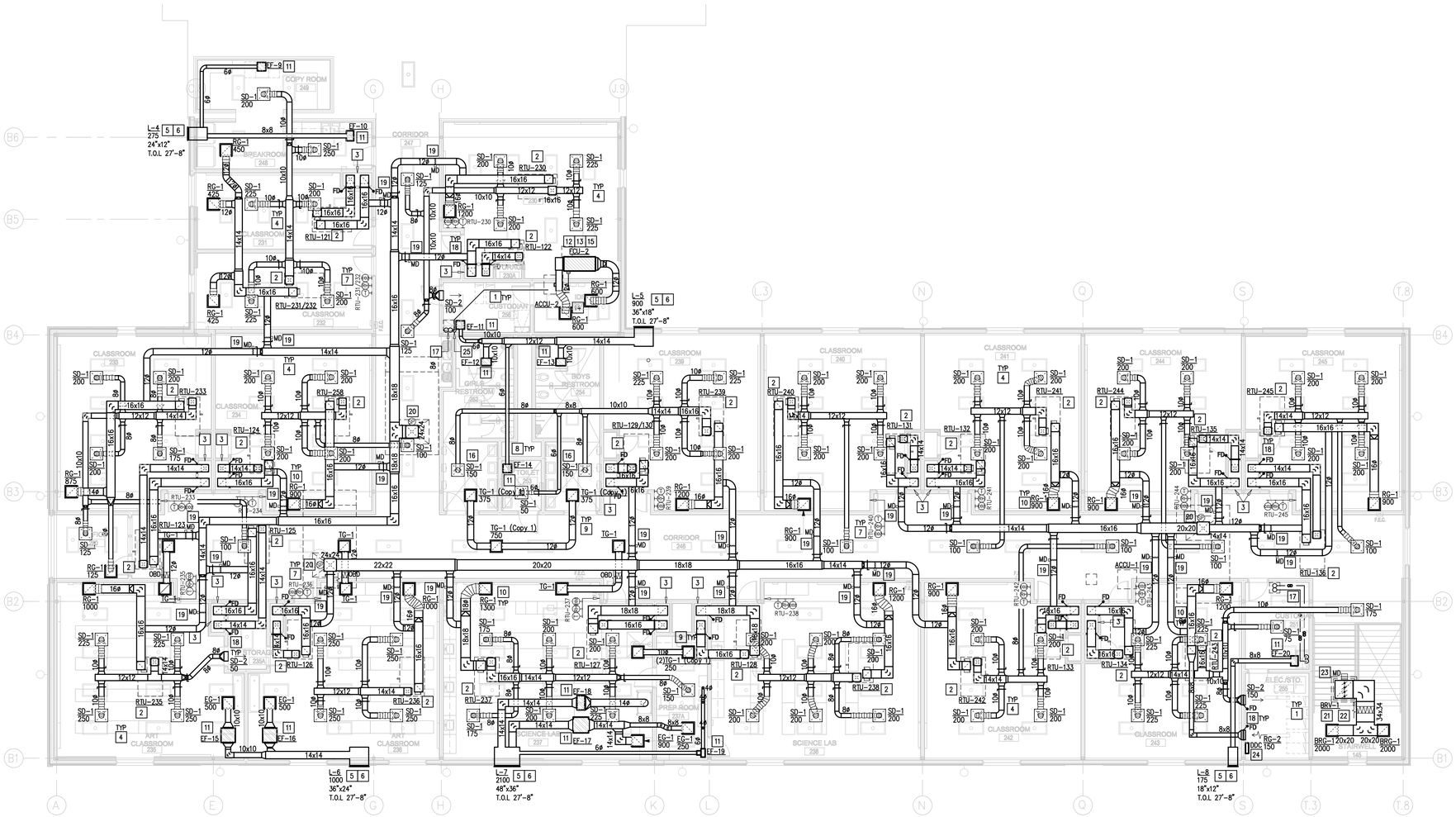
PHASE I

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3405
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	M3.01



2ND FLOOR

01 MECHANICAL FLOOR PLAN

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. 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 AND TERMINATE AT MOP SINK IN THE SECOND FLOOR CUSTODIAN ROOM.
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 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.
17. ROUTE CONDENSATE PIPING DOWN FROM ROOF AT THIS APPROXIMATE LOCATION. SECURE PIPING TO WALL AND ROUTE TO MOP SINK.
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. PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN. : ACCESS PANEL SHALL BE IN CEILING SPACE. (TYPICAL)
19. 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.
20. 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.
21. ROUTE DUCT UP TO BAROMETRIC RELIEF VENT ON ROOF.
22. PROVIDE DUCT MOUNTED BAROMETRIC RELIEF DAMPER EQUAL TO GREENHECK MODEL BR-10 (HORIZONTAL MOUNT) OR GREENHECK MODEL BR-30 VERTICAL MOUNT.
23. PROVIDE MOTORIZED DAMPER WITH STEP DOWN TRANSFORMER. INTERLOCK DAMPER OPERATION WITH DEDICATED OUTSIDE AIR UNITS.
24. REFER TO SPECIFICATION FOR DDC CONTROLS AND SEQUENCES OF OPERATION.
25. SECURE PIPING TO WALL AND DISCHARGE CONDENSATE PIPING INTO MOP SINK. REFER TO PLUMBING PLANS FOR EXACT LOCATION OF MOP SINK.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
ARCHITECT
6.13.2019

PHASE I CLASSROOMS & RESTROOM

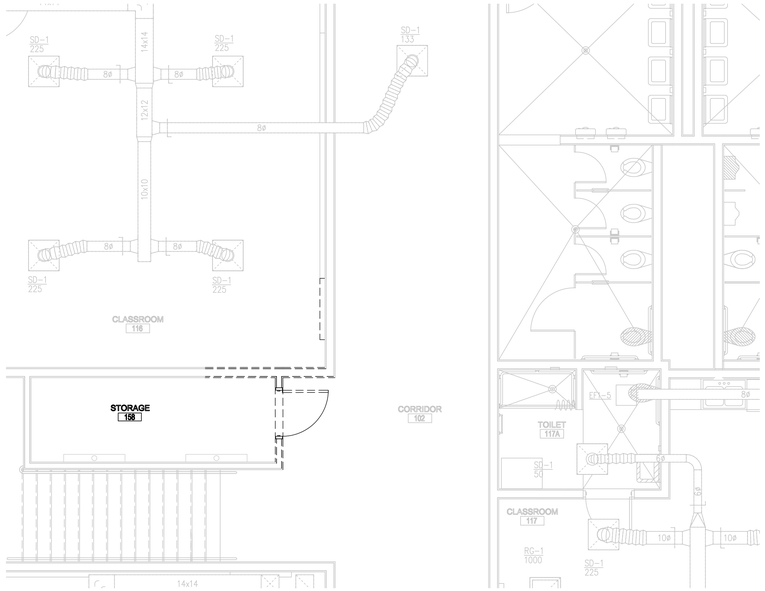
PHASE I

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA ELSA II
Sheet: M3.02

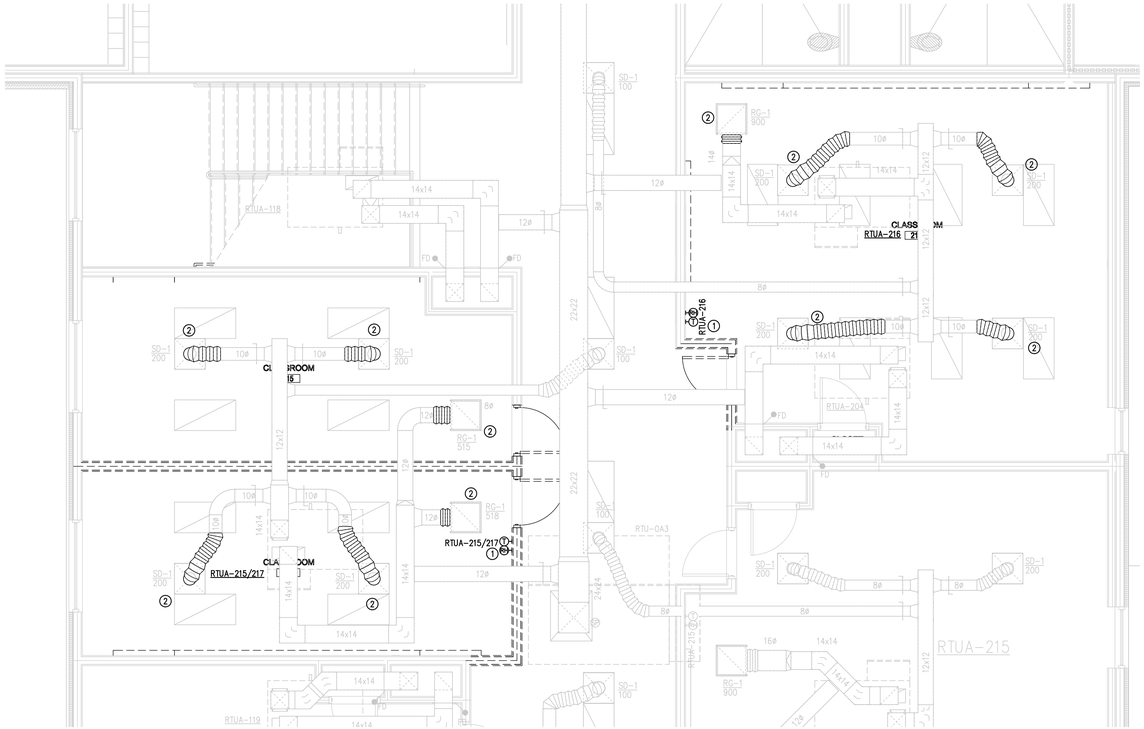


ALTERNATE NO. 4 - 1ST FLOOR

03 DEMOLITION FLOOR PLAN

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

PLAN NORTH



2ND FLOOR

01 DEMOLITION FLOOR PLAN

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

PLAN NORTH

GENERAL NOTES:

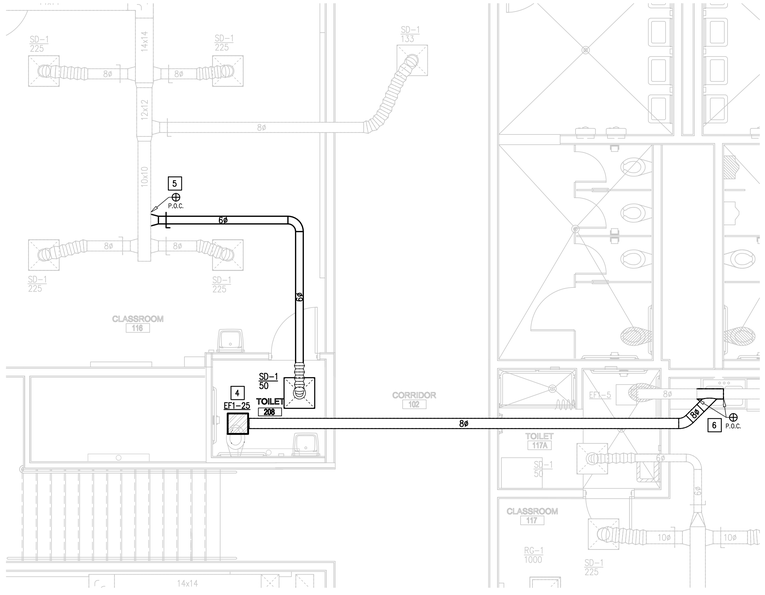
1. PRIOR TO LABELING EQUIPMENT, COORDINATE DESIGNATION AND IDENTIFICATION WITH OWNER AND BUILDING AUTOMATION SYSTEM.
2. OWNER MAY WISH TO KEEP DEMOLISHED EQUIPMENT AND MATERIALS. COORDINATE WITH OWNER, AND DISPOSE OF EQUIPMENT AND MATERIALS THAT OWNER DOES NOT RETAIN.
3. WHERE THE REMOVAL OF EQUIPMENT RENDERS EQUIPMENT DOWNSTREAM INOPERABLE, SERVICES SHALL BE EXTENDED TO DOWNSTREAM EQUIPMENT SO THAT THE EQUIPMENT IS LEFT IN OPERATING CONDITION.

DEMOLITION KEYED NOTES:

1. RETAIN AND RELOCATE EXISTING THERMOSTAT AND RH SENSOR. REFER TO NEW PLAN FOR NEW LOCATION.
2. RETAIN AND RELOCATE EXISTING AIR DEVICE. EXTEND FLEX DUCT AS NECESSARY. REFER TO NEW PLAN FOR NEW LOCATION.

MECHANICAL KEYED NOTES:

1. EXISTING RELOCATED THERMOSTAT AND RH 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)
2. PROVIDE FABRICATED PLENUM BOX ABOVE TRANSFER GRILLE FOR SIDE CONNECTION. INSTALL ACOUSTICAL LINING IN PLENUM BOX.
3. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
4. PROVIDE EXHAUST FAN AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
5. CONNECT NEW 6"ø SUPPLY AIR DUCT INTO EXISTING 10x10 DUCT AT THIS APPROXIMATE LOCATION.
6. CONNECT NEW 8"ø EXHAUST AIR DUCT INTO EXISTING 8"ø DUCT AT THIS APPROXIMATE LOCATION.

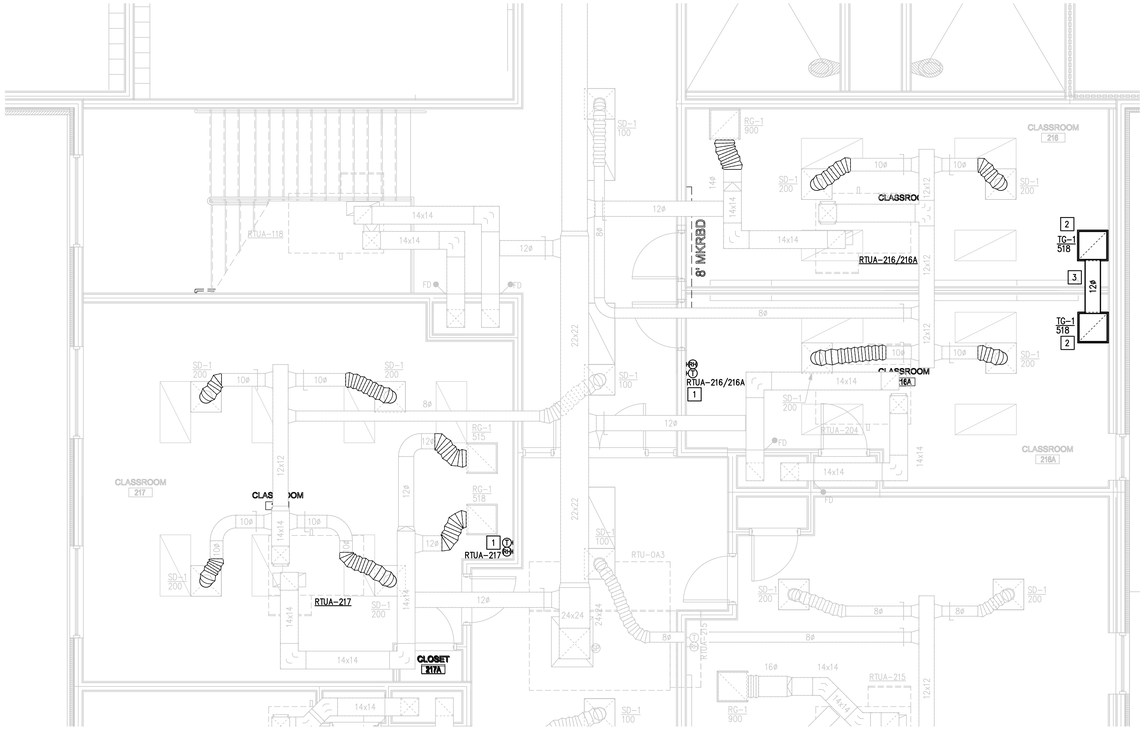


ALTERNATE NO. 4 - 1ST FLOOR

04 MECHANICAL PLAN

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

PLAN NORTH



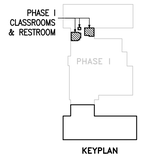
2ND FLOOR

02 MECHANICAL PLAN

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

PLAN NORTH

LEGEND	
	EXISTING UNIT TO BE DEMOLISHED
	EXISTING UNIT TO REMAIN
	NEW UNIT
8x6	EXISTING DUCTWORK TO REMAIN
6x6	EXISTING DUCTWORK TO BE DEMOLISHED
6x6	NEW DUCTWORK
T	T-STATTO REMAIN
T	T-STAT TO BE DEMOLISHED
T	NEW T-STAT
P.O.C.	POINT OF CONNECTION



KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

No.	REVISIONS	BY

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

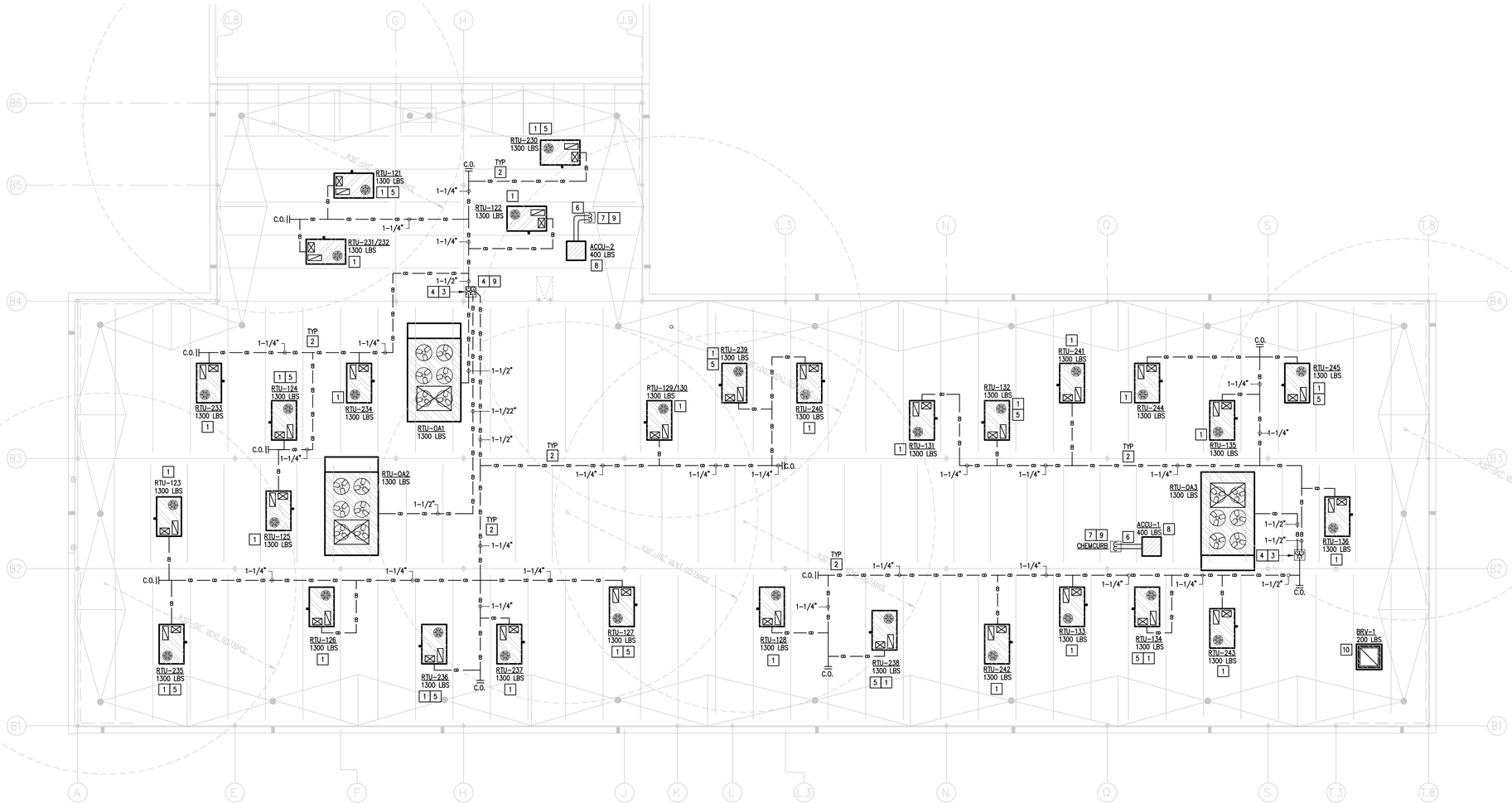
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
ARCHITECT
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	M3.03



01 MECHANICAL ROOF PLAN

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

PLAN 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 LINE DOWN TO CEILING SPACE BELOW AT THE APPROXIMATE LOCATION. TERMINATE CONDENSATE LINES AT MOP SINK/FLOOR DRAIN LOCATED INSIDE THE BUILDING. 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 BAROMETRIC RELIEF VENT AS SCHEDULED. SECURE VENT TO CURB AND CURB TO ROOF AS PER GREENHECK INSTALLATION INSTRUCTIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES. ROOF SUBSTRATE IS WOOD. REFER TO ARCHITECTURAL AND STRUCTURAL DETAILS FOR MORE INFORMATION ON ROOF SUBSTRATE. COORDINATE FLASHING OF CURB WITH ROOFING CONTRACTOR.

PHASE I CLASSROOMS & RESTROOM

PHASE I

KEYPLAN

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED ARCHITECT
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	M4.01

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

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	TOILET 150B	CEILING MOUNTED	120/60/1	100	52.7	–	0.4	2.0	LOREN COOK GC-186	25	B	1-6
EF-2	GIRLS RESTROOM 170	CEILING MOUNTED	120/60/1	375	188.0	–	0.4	2.0	LOREN COOK GC-740	40	A	1-6
EF-3	BOYS RESTROOM 171	CEILING MOUNTED	120/60/1	375	188.0	–	0.4	2.0	LOREN COOK GC-740	40	A	1-6
EF-4	TOILET 172	CEILING MOUNTED	120/60/1	75	47.2	–	0.4	1.3	LOREN COOK GC-186	25	B	1-6
EF-5	CHEMISTRY LAB, PREP 157 & 157A	SUSPENDED INLINE	208/3/60	725 / 1,100	–	1/2	0.402 / 0.920	9.9	LOREN COOK 165 SQN-HP	246	A, C	1, 2, 7-11
EF-6	FUME HOOD 157	SUSPENDED INLINE	120/60/1	900	263.0	1/3	0.45	2.7	LOREN COOK GN 862	74	A, E	1-4, 6
EF-7	ACID CABINETS 157A	SUSPENDED INLINE	120/60/1	50	–	1/3	0.5	–	PLASTEC Series 15	30	A	1,2,12,13
EF-8	CUSTODIAN 168	CEILING MOUNTED	120/60/1	175	67.6	–	0.4	2.0	LOREN COOK GC-542	40	B	1-6
Second Floor												
EF-9	COPY ROOM 239A	CEILING MOUNTED	120/60/1	100	52.7	–	0.4	2.0	LOREN COOK GC-186	25	D	1-6
EF-10	BREAKROOM 239	CEILING MOUNTED	120/60/1	175	67.6	–	0.4	2.0	LOREN COOK GC-542	40	D	1-6
EF-11	CUSTODIAN 252	CEILING MOUNTED	120/60/1	75	47.2	–	0.4	1.3	LOREN COOK GC-186	25	B	1-6
EF-12	GIRLS RESTROOM 271	CEILING MOUNTED	120/60/1	375	188.0	–	0.4	2.0	LOREN COOK GC-740	40	A	1-6
EF-13	BOYS RESTROOM 272	CEILING MOUNTED	120/60/1	375	188.0	–	0.4	2.0	LOREN COOK GC-740	40	A	1-6
EF-14	TOILET 273	CEILING MOUNTED	120/60/1	75	47.2	–	0.4	1.3	LOREN COOK GC-186	25	B	1-6
EF-15	ART 255	SUSPENDED INLINE	120/60/1	500	–	1/4	0.4	4.0	LOREN COOK 150 SQN-HP	200	A, D	1,2,7,8,11
EF-16	ART 257	SUSPENDED INLINE	120/60/1	500	–	1/4	0.4	4.0	LOREN COOK 150 SQN-HP	200	A, D	1,2,7,8,11
EF-17	CHEMISTRY LAB, PREP 259 & 259A	SUSPENDED INLINE	208/3/60	725 / 1,100	–	1/2	0.402 / 0.920	9.9	LOREN COOK 165 SQN-HP	246	A, C	1, 2, 7-11
EF-18	FUME HOOD 259	SUSPENDED INLINE	120/60/1	900	263.0	1/3	0.45	2.7	LOREN COOK GN 862	74	A, E	1-4, 6
EF-19	ACID CABINETS 259A	SUSPENDED INLINE	120/60/1	50	–	1/3	0.5	–	PLASTEC Series 15	30	A	1,2,12,13
EF-20	TOILET 251	CEILING MOUNTED	120/60/1	175	67.6	–	0.4	2.0	LOREN COOK GC-542	40	B	1-6
First Floor – Phase I Renovation – Alternate No. 4												
EF1-25	TOILET 208	CEILING MOUNTED	120/60/1	75	47.2	–	0.4	1.3	LOREN COOK GC-186	25	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 PAINTED WHITE DELUXE ALUMINUM GRILLE WHERE AVAILABLE. IF DELUXE ALUMINUM GRILLE IS NOT AVAILABLE, PROVIDE PAINTED WHITE STYRENE GRILLE.
6. PROVIDE SPRING TYPE VIBRATION ISOLATORS FOR SUSPENDED INLINE TYPE FANS. PROVIDE RUBBER BUSHING VIBRATION ISOLATORS FOR CEILING MOUNTED TYPE FANS.
7. PROVIDE OSHA MOTOR AND BELT GUARD.
8. PROVIDE AUTOMATIC BELT TENSIONER.
9. FIRST CFM AND STATIC PRESSURE LISTED ARE NORMAL OPERATION VALUES, SECOND CFM AND STATIC PRESSURE ARE PURGE OPERATION VALUES.
10. PROVIDE TWO SPEED MOTOR. COMBINATION TWO SPEED MOTOR STARTER BY DIV. 26.
11. PROVIDE INSULATED HOUSING FOR SOUND ATTENUATION.
12. PROVDE UV RESISTANT POLYPROPYLENE HOUSING, BLOWER WHEEL, ADJUSTABLE INLET DAMPER AND BACK DRAFT DAMPER.
13. PROVIDE TEFC MOTOR OUTSIDE OF AIRSTREAM. FAN SHALL BE EXPLOSION PROOF.

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
C. EXHAUST FAN SHALL BE OPERATED BY UTILITY CONTROLLER. PUSHBUTTON SWITCH FOR PURGE OPERATION AND TOGGLE SWITCH FOR NORMAL OPERATION. COORDINATE WITH ELECTRICAL.
D. FAN SHALL BE OPERATED BY TIMER SWITCH PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL.
E. FAN OPERATION SHALL BE INTERLOCKED WITH FUME HOOD LIGHT SWITCH. COORDINATE WITH ELECTRICAL CONTRACTOR.

AIR DEVICE & DIFFUSER SCHEDULE

SUPPLY AIR DIFFUSER (SD-1)

TITUS OMNI-AA NC < 20			DESCRIPTION: ALUMINUM SQUARE CEILING DIFFUSER, BORDER TYPE 3, COLOR WHITE WITH ROUND NECK AND FULL FACE		
CLG. MODULE SIZE INCHES	FACE SIZE INCHES	ROUND NECK SIZE	FLEX DUCT SIZE	DIFFUSER DIFFUSION PATTERN & CFM	NOTES
24 X 24	24 X 24	TO MATCH NC CRITERIA	SEE PLAN	SD1-CFM	1-4,6

SUPPLY AIR GRILLE (SD-2) SIDE WALL

TITUS 272FS NC < 20			DESCRIPTION: AEROBLADE, ALUMINUM, DOUBLE DEFLECTION DIFFUSER BORDER TYPE 1 (SURFACE MOUNT) STATIC PRESSURE: < 0.05" W.G.	
NOMINAL DUCT SIZE INCHES (INLET)	FACE SIZE INCHES (INCLUDING FRAME)		DIFFUSER DIFFUSION PATTERN & CFM	NOTES
18 X 10	INLET SIZE PLUS 1-3/4"		SD2-CFM	1-4,6-7

RETURN, EXHAUST, TRANSFER AND BAROMETRIC RELIEF AIR GRILLE (RG-1, EG-1, TG-1, BRG-1)

TITUS 50F NC < 20			DESCRIPTION: ALUMINUM GRID EGGCRATE RETURN GRILLE WITH BORDER TYPE 3 (LAY-IN).	
CFM RANGE	CLG. MODULE SIZE INCHES	NOMINAL DUCT SIZE INCHES (INLET)	DIFFUSER DIFFUSION PATTERN & CFM	NOTES
0 – 1600	24 X 24	18 X 18	RG1-CFM (RETURN AIR GRILLES ONLY)	1,4,6
0 – 1600	24 X 24	18 X 18	EG1-CFM (EXHAUST AIR GRILLES ONLY)	1,4,5,6
0 – 1600	24 X 24	18 X 18	TG1-CFM (TRANSFER AIR GRILLES ONLY)	1,4,6
0 – 2000	24 X 24	20 X 20	BRG1-CFM (BAROMETIC RELIEF AIR GRILLES ONLY)	1,4,6

RETURN AIR GRILLE (RG-2) SIDE WALL

TITUS 50F NC < 20		DESCRIPTION: ALUMINUM GRID EGGCRATE RETURN GRILLE WITH BORDER TYPE 1 (SURFACE).	
CFM RANGE	FACE SIZE (INCHES) LENGTH X WIDTH	DIFFUSER DIFFUSION PATTERN & CFM	NOTES
0-1000	18 X 10	RG2-CFM	1,4,6

NOTES:
1. PROVIDE MANUFACTURER'S STANDARD BAKED WHITE ENAMEL FINISH.
2. PROVIDE FULL SIZE BACK PAN WITH DUCT ADAPTER.
3. INSULATE BACK PAN ON ALL SUPPLY AIR DIFFUSERS AND GRILLES.
4. PROVIDE MOUNTING FRAME TYPE COMPATIBLE WITH SCHEDULED CEILING OR WALL (SURFACE OR LAY-IN).
5. PROVIDE BALANCING DAMPER ON ALL EXHAUST GRILLES.
6. AIR DEVICES SHALL MATCH ARCHITECTURAL FINISH. COORDINATE COLOR WITH ARCHITECT.
7. PROVIDE ALUMINUM OPPOSED BLADE DAMPER TITUS MODEL AC-15-AA, OPERABLE THRU FACE OF DIFFUSER.

LOUVER SCHEDULE

MARK	SERVES	CFM RANGE	FACE SIZE (W X H)	MIN. FREE AREA (FT2)	RUSKIN MODEL NUMBER	NOTES
FIRST FLOOR						
L-1	EF-1, EF-2, EF-3, EF-4	725	36 X 18	1.63	EME520MD	ALL
L-2	EF-5, EF-6, EF-7	2100	60 X 24	4.06	EME520MD	ALL
L-3	EF-8	175	18 X 12	0.41	EME520MD	ALL
SECOND FLOOR						
L-4	EF-9, EF-10	275	24 X 12	0.57	EME520MD	ALL
L-5	EF-11, EF-12, EF-13, EF-14	900	36 X 18	1.63	EME520MD	ALL
L-6	EF-15, EF-16	1000	36 X 24	2.37	EME520MD	ALL
L-7	EF-17, EF-18, EF-19	2100	48 X 36	4.98	EME520MD	ALL
L-8	EF-20	175	18 X 12	0.41	EME520MD	ALL

NOTES:
1. PRIOR TO ORDERING, COORDINATE LOUVER FINISH AND EXACT FACE SIZE WITH ARCHITECT.
2. PROVIDE STAINLESS STEEL BIRD SCREEN AND HARDWARE.
3. PROVIDE FACTORY APPLIED KYNAR 500 FINISH.
4. PROVIDE WITH TDI PRODUCT EVALUATION REPORT.

ROOFTOP UNIT SCHEDULE

MARK	NOMINAL	SUPPLY	OA CFM	OA FROM	ESP (INCHES)	MIN. HP	FLA A	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. SEER	WEIGHT LB	NOTES	MODEL NUMBER CARRIER
RTU-122	3T	1000	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	33,913	23,068	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-121	3T	1200	400	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-123	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-125	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-124	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-126	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-129 / 130	3T	1200	400	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-127	3T	1200	430	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-128	3T	1200	430	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-131	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-133	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-132	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-134	3T	1200	400	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-135	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-136	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-230	3T	1200	400	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-231 / 232	3T	1300	440	DOAS	0.8	0.5	16	18	20	460/3/60	100	35,125	29,988	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-235	3T	1000	350	DOAS	0.8	0.5	12	13	15	460/3/60	100	33,913	23,068	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-233	3T	1000	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	33,913	23,068	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-236	3T	1000	350	DOAS	0.8	0.5	12	13	15	460/3/60	100	33,913	23,068	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-234	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-237	3T	1300	430	DOAS	0.8	0.5	16	18	20	460/3/60	100	35,125	29,988	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-239	3T	1200	400	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-238	3T	1200	430	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-240	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-242	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-241	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-243	3T	1200	400	DOAS	0.8	0.5	16	18	20	460/3/60	100	32,423	27,681	76.0/64.0	55.0/55.0	8.1	1	460/3/60	17.1	621	ALL	50LCD004
RTU-244	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004
RTU-245	3T	900	400	DOAS	0.8	0.5	12	13	15	460/3/60	100	32,985	21,736	76.0/66.0	55.0/55.0	5.5	1	460/3/60	17.1	621	ALL	50LCD004

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. PROVIDE UNIT MOUNTED UNITARY CONTROLLERS, BACNET/LONTALK INTERFACE CARD TO TIE TO DDC SYSTEM
4. HEATING KW IN RTU SCHEDULE IS RATED HEATING CAPACITY, NOT NOMINAL KW. FAN HP SHALL BE PER MFR'S RECOMMENDATION.
5. ELECTRICAL DISCONNECT BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
6. PROVIDE WALL MOUNTED THERMOSTAT/TEMPERATURE SENSOR AND HUMIDITY SENSOR.
7. EQUIPMENT MANUFACTURER, MECH. CONTRACTOR AND HVAC CONTROLS CONTRACTOR SHALL COORDINATE THE PROVISION AND INSTALLATION OF SENSORS TO ENSURE THESE ARE ALL PROVIDED PROPERLY ON THE PROJECT.
8. PROVIDE MULTI STAGE AIR VOLUME ON ALL UNITS TO MATCH AIR FLOW TO COMPRESSOR STAGING
9. PROVIDE 2 STAGE COMPRESSORS ON UNITS 5 TONS AND UNDER.
10. PROVIDE FACTORY-INSTALLED CONVENIENCE ELECTRICAL OUTLETS AT INDICATED RTUS. SEE MECHANICAL ROOF PLANS FOR LOCATIONS. DIV. 26 TO PROVIDE WIRING AND POWER FOR THE OUTLETS. COORDINATE WITH ELECTRICAL CONTRACTOR.
11. PROVIDE IBC 2015 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.

ROOF MOUNTED DEDICATED OUTSIDE AIR UNIT SCHEDULE

MARK	O.A./ SUPPLY AIR CFM	MIN SUPPLY AIR 0.5" CFM	SERVING	ESP (in. water)	ELECT. V-PH-HZ	MOCP	MCA	BLOWER HP	COOLING CONDITION EAT (DB/WB)	COOLING CONDITION LAT (DB/WB)	COOLING CONDITION TCAP MBH	COOLING CONDITION SCAP MBH	DEHUMIDIFICATION CONDITION EAT (DB/WB)	DEHUMIDIFICATION CONDITION LAT (DB/WB)	DEHUMIDIFICATION CONDITION TCAP MBH	DEHUMIDIFICATION CONDITION SCAP MBH	CONDENSER REHEAT COIL– DEHUMID COND EAT (DB/WB)	CONDENSER REHEAT COIL– DEHUMID COND TCAP MBH	CONDENSER REHEAT COIL– DEHUMID COND LAT (DB/WB)	HEATING EAT (DB)	HEATING ELECTRIC TCAP KW	HEATING LAT (DB)	# COMP./ STAGES	UNIT EER/ IEER AHRI	WEIGHT LBS	MANUFACTURER MODEL# AAON	NOTES
RTU-OA1	4,000	1,600	SEE PLAN	0.50	480/3/60	80	64	2.0	98.8/77.8	52.1/52.0	324.90	190.20	83.7/80.3	54.9/54.7	349.70	121.50	54.9/54.7	65.00	70	40	40	71.6	2 / INF	11.0/12.0	2634	RN030	ALL
RTU-OA2	4,000	1,600	SEE PLAN	0.50	480/3/60	80	64	2.0	98.8/77.8	52.1/52.0	324.90	190.20	83.7/80.3	54.9/54.7	349.70	121.50	54.9/54.7	65.00	70	40	40	71.6	2 / INF	11.0/12.0	2634	RN030	ALL
RTU-OA3	4,000	1,600	SEE PLAN	0.50	480/3/60	80	64	2.0	98.8/77.8	52.1/52.0	324.90	190.20	83.7/80.3	54.9/54.7	349.70	121.50	54.9/54.7	65.0	70	40	40	71.6	2 / INF	11.0/12.0	2,634	RN030	ALL

NOTES:
1. PROVIDE ROOF-MOUNTED PACKAGED UNITS WITH INTEGRAL AIR COOLED CONDENSERS DESIGNED FOR 100% OUTSIDE AIR APPLICATION.
2. PROVIDE MODULATING HOT GAS REHEAT SYSTEM AND DEHUMIDIFICATION CONTROLS TO ACHIEVE SCHEDULED LEAVING AIR CONDITIONS.
3. PROVIDE WITH 1 VARIABLE CAPACITY SCROLL COMPRESSOR ON FIRST CIRCUIT AND 1 FIXED SCROLL COMPRESSOR ON SECOND CIRCUIT WITH HOT GAS BYPASS. VARIABLE CAPACITY COMPRESSORS SHALL MODULATE FROM 10 TO 100% OF CAPACITY.
4. PROVIDE ALUMINUM FIN COPPER TUBE OR MICROCHANNEL CONDENSER COIL.
5. PROVIDE GALVANIZED FILTER FRAMES AND 304 STAINLESS STEEL DRAIN PANS.
6. PROVIDE 2" THICK, R-13 FOAM INSULATION, DOUBLE WALL CONSTRUCTION WITH THERMAL BREAK, AND DAMPERS TO MEET CLASS-1 LEAKAGE SPECIFICATIONS IN ACCORDANCE WITH U.L. 555S AT 4" w.g. DIFFERENTIAL PRESSURE ACROSS THE DAMPER.
7. FURNISH DIRECT DRIVE SUPPLY FANS WITH VFDS, CLASSIC MANUAL BYPASS, AND NON-OVERLOADING MOTORS. PROVIDE TOTALLY ENCLOSED FAN MOTORS.
8. E-COATED EVAPORATOR, 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. PROVIDE INTERIOR CORROSION PROTECTION CAPABLE OF WITHSTANDING AT LEAST 2,500 HRS, WITH NO VISIBLE CORROSIVE EFFECTS, WHEN TESTED IN A SALT SPRAY AND FOG ATMOSPHERE IN ACCORDANCE WITH ASTM B 117-95 TEST PROCEDURE.
10. UNITS SHALL BE RATED IN ACCORDANCE TO AHRI 340/ 360.
11. ESP IS STRICTLY EXTERNAL STATIC PRESSURE AND IS IN ADDITION TO ANY FILTERS, COILS OR OTHER ACCESSORIES INCLUDED WITH THE DOAS
12. PROVIDE SINGLE POINT OF ELECTRICAL. SAFETY DISCONNECT PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
13. PROVIDE LOW AMBIENT CONTROL TO 35F.
14. 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) MODULATING REHEAT DEHUMIDIFICATION CONTROL
15. 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.

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	IDF ROOM	600	0.25	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	HORIZONTAL SUSPENDED	IDF ROOM	600	0.25	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 2" FILTER KIT.

AIR COOLED CONDENSING UNIT SCHEDULE

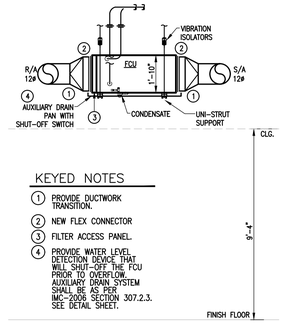
MARK	SERVES	TOTAL BTU/H	COND DB	ELECTRIC V/P/H	SEER at ARI	MCA	MOCP	WEIGHT (LBS)	NOTES	MANUFACTURER & MODEL NUMBER
ACCU-1	FCU-1	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX
ACCU-2	FCU-2	18,290	100	208/1/60	16	12.4	20	138	ALL	LENNOX 14ACX

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, 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.

BAROMETRIC RELIEF ROOF VENT SCHEDULE

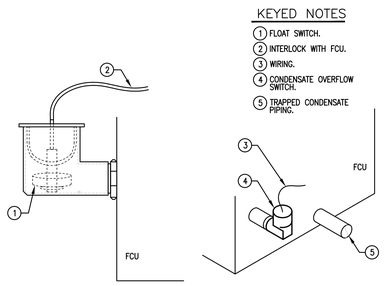
MARK	SERVING	RELIEF AIR (CFM)	THROAT AREA (SQ.FT.)	THROAT WIDTH & LENGTH (IN.)	WEIGHT (LBS.)	MANUFACTURER & MODEL NUMBER	NOTES
BRV-1	SEE PLANS	4000	8.03	34X34	172	GREENHECK FGR	ALL

NOTES:
1. PROVIDE GALVANIZED MATERIAL WITH FACTORY PRIMED FINISH, ROOF CURB AND TIE DOWNS.
2. PROVIDE VENT WITH STAINLESS STEEL BIRD-



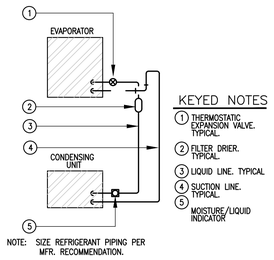
01 FCU DETAIL ELEVATION

SCALE : NOT TO SCALE



02 CONDENSATE OVERFLOW SWITCH DETAIL

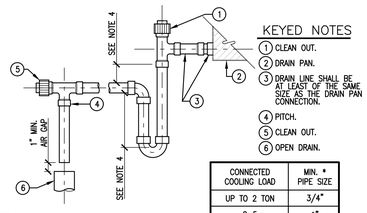
S C A L E : NOT TO SCALE



NOTE: SIZE REFRIGERANT PIPING PER MFR. RECOMMENDATION.

03 REFRIGERANT PIPING DETAIL

SCALE : NOT TO SCALE



NOTES:

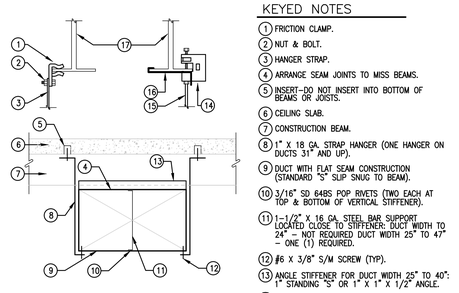
1. MANUALLY PRIME TRAP BEFORE START UP.
2. SUPPORT DRAIN LINES TO PREVENT SAG.
3. ALLOW SUFFICIENT SPACE BELOW PAN FOR TRAP AND PITCH TO DRAIN.
4. COORDINATE WITH MANUFACTURER OF AHU.

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.

04 CONDENSATE DRAIN TRAP PIPE DETAIL

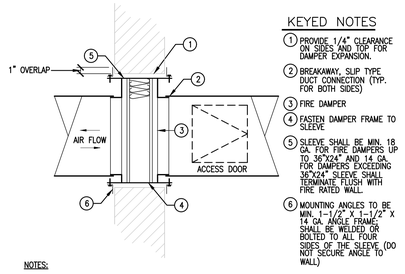
SCALE : NOT TO SCALE



NOTE:
FOLLOW SMACNA GUIDELINES FOR DUCT SUPPORT.

05 DUCT SUPPORT DETAIL

SCALE : NOT TO SCALE

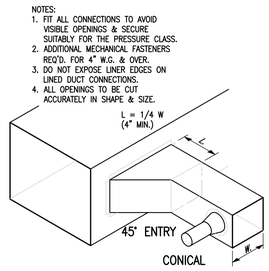


NOTES:

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 50ºF ABOVE MAXIMUM OPERATING TEMPERATURE OF SYSTEM.
5. FOR STAINLESS STEEL FIRE DAMPER MEDIA GAUGE, REFER TO MANUFACTURER RECOMMENDATIONS.
6. FIRE DAMPER SHALL BE RATED FOR DYNAMIC DUTY. SLEEVE SHALL TERMINATE FLUSH WITH FIRE RATED WALL.

06 FIRE DAMPER WITH ACCESS PANEL DETAIL

SCALE : NOT TO SCALE

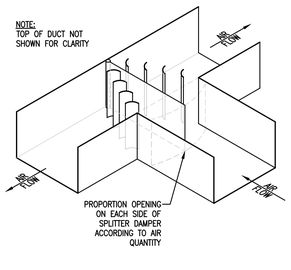


NOTES:

1. FIT ALL CONNECTIONS TO AVOID VISIBLE OPENINGS & SECURE SUITABLY FOR THE PRESSURE CLASS.
2. ADDITIONAL MECHANICAL FASTENERS REQ'D. FOR 4" W.G. & OVER.
3. DO NOT EXPOSE LINER EDGES ON LINED DUCT CONNECTIONS.
4. ALL OPENINGS TO BE CUT ACCURATELY IN SHAPE & SIZE.

07 BRANCH CONNECTION DETAIL

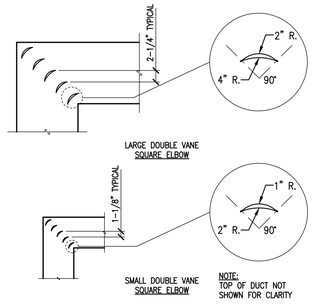
SCALE : NOT TO SCALE



NOTE:
TOP OF DUCT NOT SHOWN FOR CLARITY

08 TYPICAL SPLITTER DAMPER DETAIL

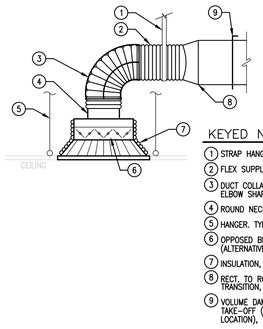
SCALE : NOT TO SCALE



NOTE:
TOP OF DUCT NOT SHOWN FOR CLARITY

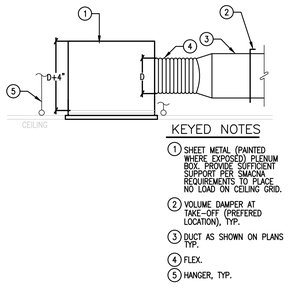
09 TYPICAL VANED DUCT ELBOWS DETAIL

SCALE : NOT TO SCALE



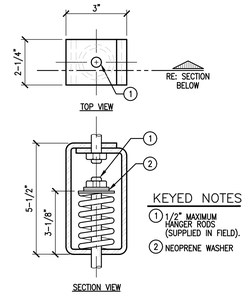
10 CEILING DIFFUSER SUPPORT DETAIL

SCALE : NOT TO SCALE



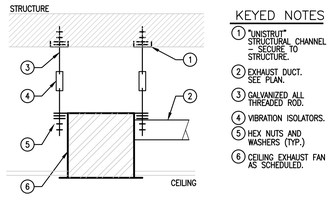
11 CEILING RETURN GRILLE DETAIL

SCALE : NOT TO SCALE



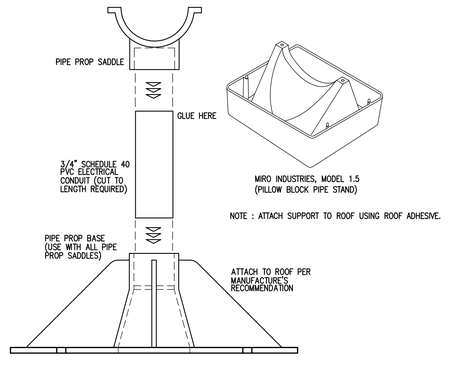
12 SPRING ISOLATION HANGER DETAIL

SCALE : NOT TO SCALE



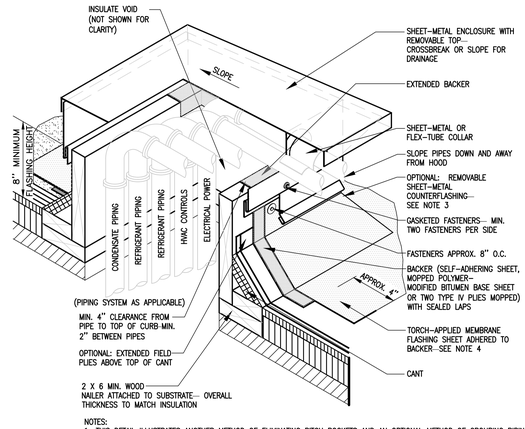
13 CEILING EXHAUST FAN FAN MOUNTING DETAIL

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. WHERE THE SHEET-METAL ENCLOSURE OVERLAPS THE BASE FLASHING AT LEAST 3 INCHES, THE REMOVABLE SHEET-METAL COUNTERFLASHING IS NOT REQUIRED.
3. 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.
4. FOR ROOF SYSTEMS WITH FACTORY-APPLIED GRANULE SURFACING, PROPERLY PREPARE CAP SHEET TO RECEIVE FLASHING.

15 HVAC PIPING ROOF PENETRATION DETAIL

SCALE : NOT TO SCALE

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools



© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	M6.01

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

ABBREVIATIONS:

A	AMPS	EF	EXHAUST FAN	INT.	INTRUSION DETECTION
ABC	ABØVE CEILING LINE	EXT.	EXTERNAL OR EXTERIOR	NTS	NOT TO SCALE
AC	ABOVE COUNTER BACKSPLASH	FACP	FIRE ALARM CONTROL PANEL	MECH	MECHANICAL
ACCU	AIR COOLED CONDENSING UNIT	FCU	FAN COIL UNIT	MS	MOTOR STARTER
AFF	ABOVE FINISHED FLOOR	FD	FIRE DAMPER	PA	PUBLIC ADDRESS
B.	BOTTOM	FS	FLAT SCREEN	PH	PHASE
BLC.	BELOW CEILING LINE	G.	GROUND	RM.	ROOM
C.	CONDUIT OR COMMON	GA.	GAGE	SPD	SURGE PROTECTION DEVICE
CLG.	CEILING	GALV.	GALVANIZED	SS	STAINLESS STEEL
COMB.	COMBINATION	GRND.	GROUND	TSTAT	THERMOSTAT
COND.	CONDUIT	HP	HORSEPOWER	UG	UNDERGROUND
CU.	COPPER	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	UNO	UNLESS OTHERWISE NOTED
DDC	DIRECT DIGITAL CONTROLS			V	VOLTS
DISC.	DISCONNECT	IG	ISOLATED GROUND	W	WIRE

SCOPE OF WORK:

WORK COVERED BY CONTRACT DOCUMENTS

B. THE FOLLOWING SUMMARY OF WORK IS INTENDED AS AN AID TO ACHIEVE AN UNDERSTANDING OF THE VARIOUS ELEMENTS OF WORK INCLUDED IN THE PROJECT, AS IS NOT INTENDED TO BE ALL-INCLUSIVE. DETAILED DESCRIPTIONS OF WORK AND REQUIREMENTS ARE GIVEN IN DRAWINGS AND SPECIFICATIONS.

1. GENERAL: THE 'IDEA ELSA PHASE II ADDITION CONSISTS OF NEW TWO STORY BUILDING, APPROXIMATE 31,126 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) CONNECT TO EXISTING SWITCHBOARD.
      (ii) SINGLE PHASE PROTECTION: PROVIDE AS NOTED ON PANELS SCHEDULES.
   (b) LIGHTING SYSTEMS: INTERIOR LIGHTING SYSTEM SHALL CONSIST OF LED LIGHT FIXTURES.
   (c) POWER SYSTEMS: PROVIDE MISCELLANEOUS DUPLEX RECEPTACLES, ISOLATED GROUND RECEPTACLES FOR COMPUTER TERMINALS, DUPLEX RECEPTACLES FOR FLAT SCREENS, CONNECTIONS FOR HVAC AND PLUMBING EQUIPMENT.
   (d) MULTIMEDIA SYSTEM: PROVIDE MULTIMEDIA OUTLETS FOR WALL MOUNT PROJECTORS AND FLAT SCREENS INCLUDING CONNECTORS, WIRING ETC.
   (e) FIRE ALARM SYSTEM: EXPAND EXISTING ADDRESSABLE CONTROL PANEL WITH VOICE EVACUATION CAPABILITIES TO ACCOMMODATE NEW BUILDING INDICATING AND INITIATING DEVICES. INDICATING DEVICES SHALL ALSO BE PROVIDED TO COMPLY WITH NFPA 2012.
   (f) SCHOOL INTERCOM SYSTEM:
      (i) PHASE II: PROVIDE NEW BUILDING SPEAKERS AND CALL-IN SWITCHES IN CLASSROOMS AND OFFICES. HALLWAYS AND BUILDING EXTERIOR WALLS WITH SPEAKERS TO TRANSMIT GENERAL ANNOUNCEMENTS.
      (ii) PHASE I: UPGRADE EXISTING CONTROL PANEL. IF EXISTING DEVICES AND CABLING ARE NOT COMPATIBLE WITH NEW CONTROL PANEL; REMOVE AND PROVIDE NEW.
   (g) INTRUSION DETECTION SYSTEM: EXPAND AS REQUIRED EXISTING CONTROL PANEL TO ACCOMMODATE NEW BUILDING KEYPADS, MOTION DETECTORS AND MAGNETIC CONTACTS AS NOTED ON DRAWINGS.
   (h) COMMUNICATION AND DATA PROCESSING EQUIPMENT: PROVIDE CABLING, CONNECTORS, PATCH PANELS, RACKS, ETC.
   (i) EXTERIOR ATHLETIC LIGHTING: PROVIDE SOCCER FIELD(S) WITH STEEL POLES AND LED POWERED LIGHT FIXTURES AND ASSOCIATED ELECTRICAL DISTRIBUTION SYSTEM.

SUBMITTALS -SPECIAL REQUIREMENTS

A. MANUFACTURER'S STANDARD DIMENSIONED DRAWINGS, PERFORMANCE AND PRODUCT DATA SHALL BE EDITED TO DELETE REFERENCE TO EQUIPMENT, FEATURES, OR INFORMATION, WHICH IS NOT APPLICABLE TO THE EQUIPMENT BEING SUPPLIED FOR THIS PROJECT. INCLUDING BILL OR LIST OF MATERIALS.

B. FAXES AND COPIES OF FAXES ARE NOT ACCEPTABLE.

C. ELECTRICAL SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY. PLEASE ORGANIZE THE FILES IN PACKAGES AS FOLLOWS (PDF FORMAT). FILES WOULD NEED TO BE PROPERLY IDENTIFIED (COVER LETTER, STAMPED, ETC.) FROM THE GENERAL CONTRACTOR.

1. MISCELLANEOUS ELECTRICAL
   a. 260519 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
   b. 260526 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
   c. 260529 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
   d. 260533 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
   e. 260553 IDENTIFICATION FOR ELECTRICAL SYSTEMS
   f. 260544 SLEEVES AND SLEEVE SEALS FOR ELECTRICAL RACEWAYS AND CABLING
   g. 262726 WIRING DEVICES
   h. 268050 HAND DRYER

2. ELECTRICAL GEAR
   a. 262200 LOW VOLTAGE TRANSFORMERS
   b. 262416 PANELBOARDS
   c. 262813 FUSES
   d. 262816 ENCLOSED SWITCHES AND CIRCUIT BREAKERS
   e. 262913 ENCLOSED CONTROLLERS
   f. 264313 SURGE PROTECTION FOR LOW-VOLTAGE ELECTRICAL POWER CIRCUIT

3. ELECTRICAL STUDIES
   a. 260572 OVERCURRENT PROTECTIVE DEVICE SHORT-CIRCUIT STUDY
   b. 260574 ARCH FLASH STUDY

4. LIGHT FIXTURES
   a. 265116 INTERIOR LIGHTING
   b. 265219 EMERGENCY AND EXIT LIGHTING
   c. 265621 EXTERIOR LIGHTING
   d. 260923 LIGHT CONTROL DEVICES
   e. 260943.23 RELAY BASED LIGHTING CONTROL
   f. 265668 EXTERIOR ATHLETIC LIGHTING

5. SPECIAL SYSTEMS:
   a. 267210 FIRE ALARM SYSTEM
   b. 267230 SCHOOL INTERCOM
   c. 267240 INTRUSION DETECTION SYSTEM
   d. 269750 VOICE AND DATA COMMUNICATIONS CABLING EQUIPMENT

6. COMMISSIONING:
   a. 260800 COMMISSIONING OF ELECTRICAL SYSTEMS

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_{DS}	DIGITAL SWITCH – MODEL #CH1 X X PWH	48"AFF

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 RECEPTACLE TAMPER RESISTANT – HUBBELL MODEL #8300XTR	18"AFF
GFCI	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GROUND FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTRST20X	18"AFF
GFCI WICP	DUPLEX RECEPTACLE TAMPER RESISTANT W/ GRND. FAULT INTERRUPTING TYPE – HUBBELL MODEL #GFTWRST20X & WHILE IN USE WEATHERPROOF COVER – HUBBELL MODEL #WP26EH	18"AFF
AC	DUPLEX RECEPTACLE TAMPER RESISTANT – HUBBELL MODEL #8300XTR MOUNT @ +4" HORIZONTALLY ABOVE COUNTER BACKSPLASH (U.N.O.)	4"ACB
IG	DUPLEX RECEPTACLE TAMPER RESISTANT 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 COVERPLATE	AS REQUIRED
USB	DUPLEX 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
	CLOCK HANGER FOR SINGLE FACE CLOCK – HUBBELL MODEL #HBL5235 ("2" INDICATES DUAL SIDED CLOCK)	9'-0"AFF

NOTES:
1.) U.N.O. INDICATES UNLESS NOTED OTHERWISE.
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.

GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO
	DISCONNECT SWITCH – NON FUSED	AS REQUIRED
	DISCONNECT SWITCH – FUSED	AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH	AS REQUIRED
	MOTOR CONNECTION	AS REQUIRED
	EQUIPMENT CONNECTION	AS REQUIRED
	ELECTRICAL PANELBOARD – SURFACE MOUNTED	AS REQUIRED
	ELECTRICAL PANELBOARD – RECESSED/FLUSH MOUNTED	AS REQUIRED
SPD	SURGE PROTECTION DEVICE	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

FIRE ALARM SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
FA	FIRE ALARM MANUAL PULLSTATION – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	48"AFF
FA 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
FA SS SSWG	FIRE ALARM SPEAKER STROBE CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE. PROVIDE WIREGUARD "WG" WHERE DESIGNATED.	80"AFF
FA V	FIRE ALARM STROBE LIGHT CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	80"AFF
FA SD HSD	FIRE ALARM SMOKE DETECTOR CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	CLG.
FA HD HHD	FIRE ALARM HEAT DETECTOR CEILING OR WALL MOUNTED – PROVIDE BACKBOX WITH 1/2"C AND PULLWIRE.	CLG.
FA	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 IN ACCESSIBLE LOCATION.	– – – –

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)
HCS #	3-GANG FLAT SCREEN OUTLET – PROVIDE LARGE CAPACITY WALL BOX HUBBELL MODEL NO. HBL263 WITH 1.5" RACEWAY STUBBED INTO ACCESSIBLE CLG., PULL WIRE, MUD RING AND HBL981 LOW VOLTAGE DIVIDER. NUMBER INDICATES AMOUNT OF DATA DROPS.	72"AFF
HMM #	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.
# WB	JUNCTION BOX FOR WHITE BOARD PROJECTOR – SEE DETAIL NUMBER INDICATES AMOUNT OF DATA DROPS.	AS REQUIRED

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

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.	– – – –

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 W/ 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.
IM	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.

LUTRON CONTROL SYMBOLS:

	DESCRIPTION	
#	DIMMING WALLSTATION – LUTRON PX-2BRL-GWH-I01	48"AFF
ESN	ENERGI SAVR NODE – LUTRON QSN-4T16-S	AS REQUIRED
S_{2B}	2-BUTTON CONTROL STATION – LUTRON MODEL #QSWS2-2BI-WH	48"AFF
S_{VS}	VACANCY DIMMING WALL SENSOR SWITCH – LUTRON MODEL #MS-Z101-V-WH. PROVIDE 0-10V SIGNAL WIRE IN RACEWAY FROM SWITCH TO EACH CONTROLLED LIGHT FIXTURE.	48"AFF
S_{AS3}	COMPANION 3-WAY SWITCH – LUTRON MODEL #MA-AS-WH. PROVIDE COMMUNICATION WIRE IN RACEWAY TO CORRESPONDING VACANCY WALL SWITCH SENSOR.	48"AFF
S_{ET}	EXHAUST FAN TIMER SWITCH – LUTRON MODEL #MA-T51 (CW-1-WH)	48"AFF
VS_C	STANDARD RANGE LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-CDT-2000-WH.	CLG.
VS_C	EXTENDED RANGE LOW VOLTAGE DUAL TECH CEILING VACANCY SENSOR – LUTRON MODEL #LOS-CDT-2000-WH.	CLG.
PP	POWER PACK FOR EXHAUST FAN – LUTRON MODEL #PP-DV. INTERFACE WITH ROOM VACANCY SENSOR.	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.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: E2.01

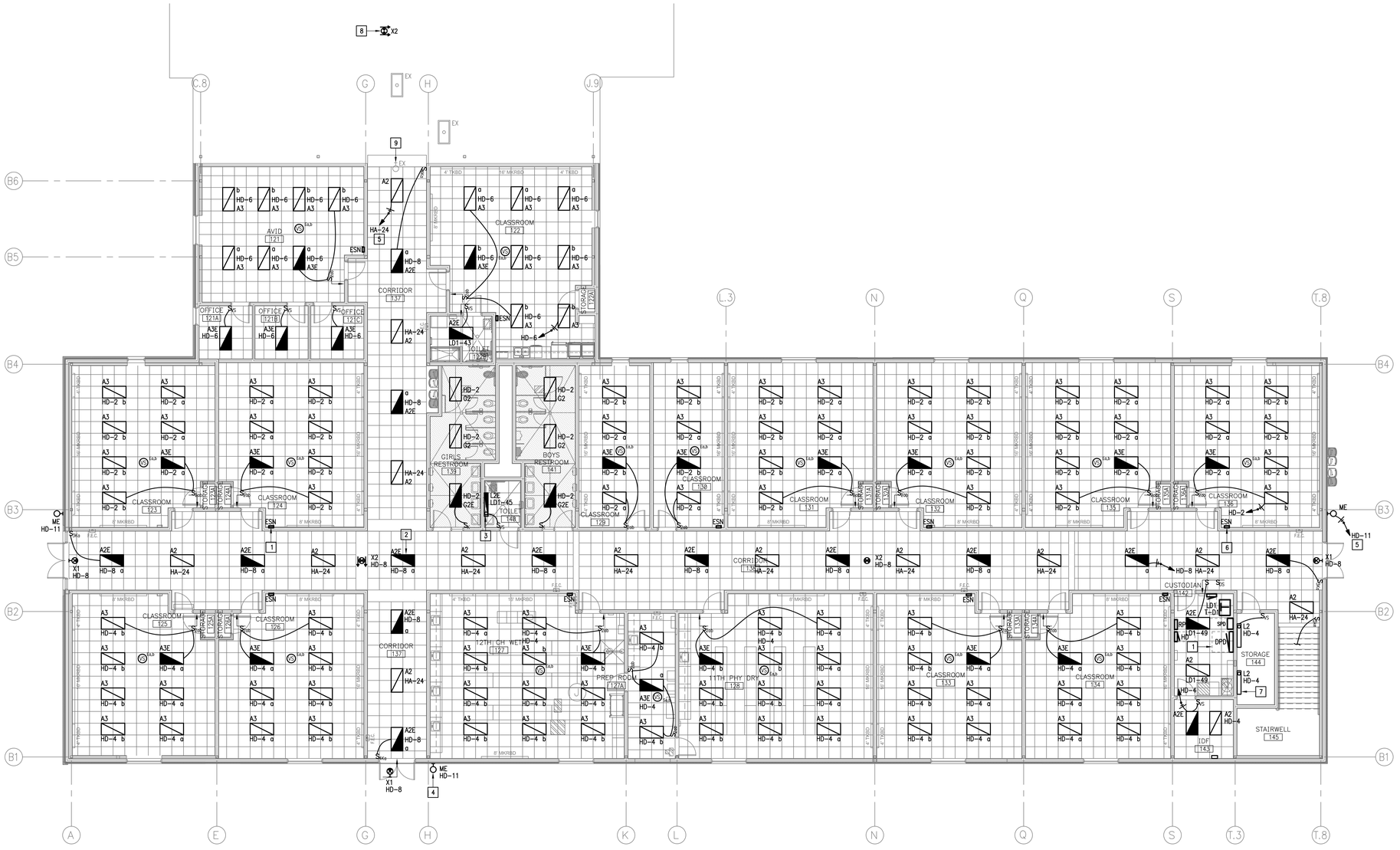
ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956.230.1436
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

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 EXISTING DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
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" 12" ABOVE MIRROR – TYPICAL.
4. MOUNT LIGHT FIXTURE TYPE "ME" AT 8'-0"AFF TO CENTER OF FIXTURE – TYPICAL.
5. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
6. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING – TYPICAL.SEE DETAIL 01/E6.01. CONNECT TO NEAREST 277V CIRCUIT.
7. WALL MOUNT LIGHT FIXTURES IN THIS ROOM AT 8'-0" AFF TO CENTER OF FIXTURE.
8. REMOVE EXISTING EXIT LIGHT FIXTURE AND PROVIDE NEW.
9. REMOVE EXISTING LIGHT FIXTURE AND DELIVER TO OWNER.



01 LIGHTING PLAN (FIRST FLOOR)

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

NORTH

No.	REVISIONS	BY

GMS ARCHITECTS

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

PHASE I

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA ELSA II
Sheet:

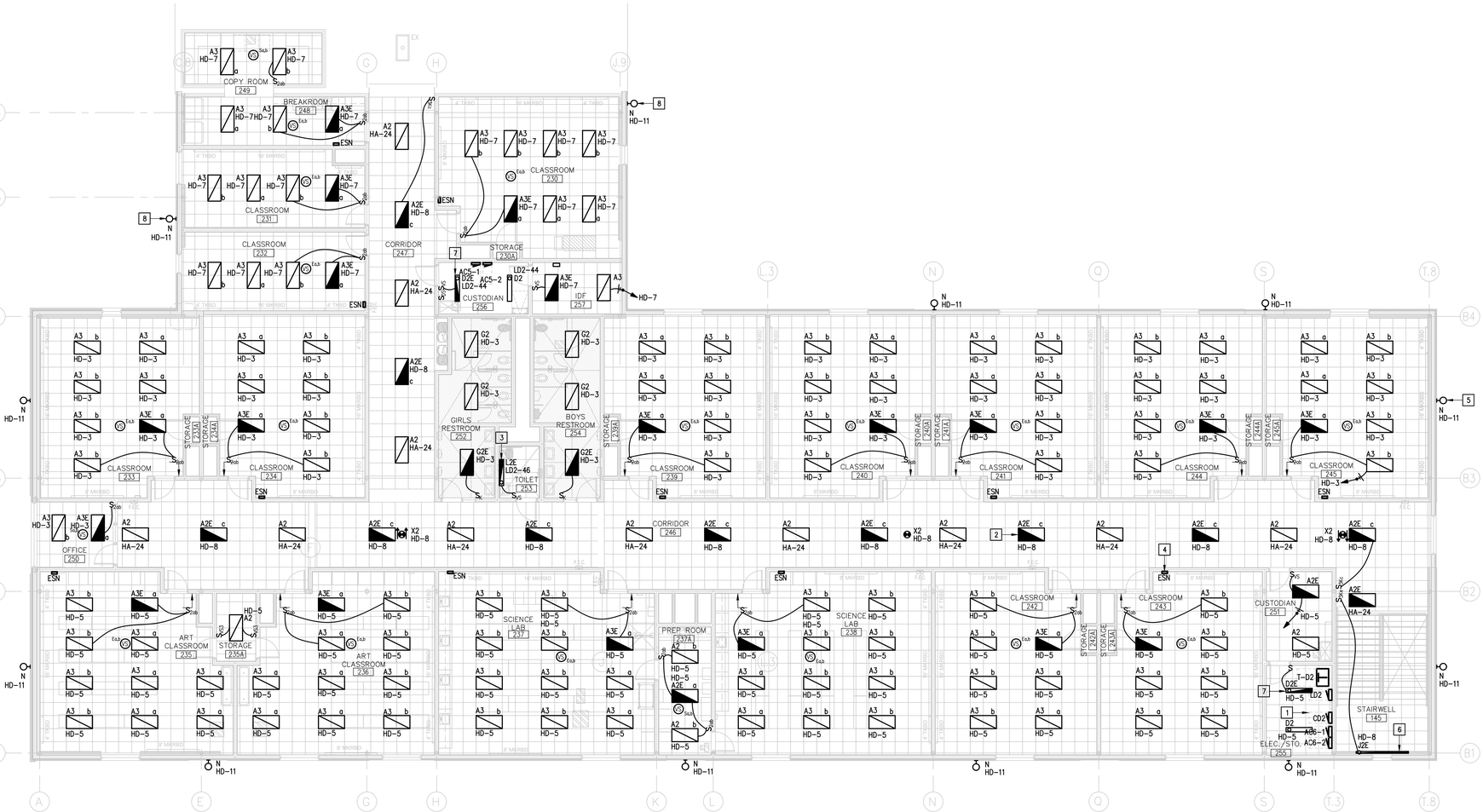
E3.01

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 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 EXISTING DRIVER AND WALL SWITCH.
6. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

KEYED NOTES:

1. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
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" 12" ABOVE MIRROR – TYPICAL.
4. PROVIDE LIGHTING CONTROL PANEL (ESN) 12" ABOVE CEILING – TYPICAL. SEE DETAIL 01/E6.01. CONNECT TO NEAREST 277V CIRCUIT.
5. MOUNT LIGHT FIXTURE TYPE "N" AT 24'-6"AFF TO CENTER OF FIXTURE – TYPICAL.
6. MOUNT FIXTURE TYPE "J2E" TO MATCH PHASE I.
7. PROVIDE UNISTRUT/THREADED ROD AND SUSPEND LIGHT FIXTURE AT 9'-0"AFF. COORDINATE INSTALLATION WITH HVAC DUCT WORK.
8. MOUNT LIGHT FIXTURE TYPE "N" AT 20'-9"AFF TO CENTER OF FIXTURE.



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

NORTH

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
ARCHITECT
6.13.2019

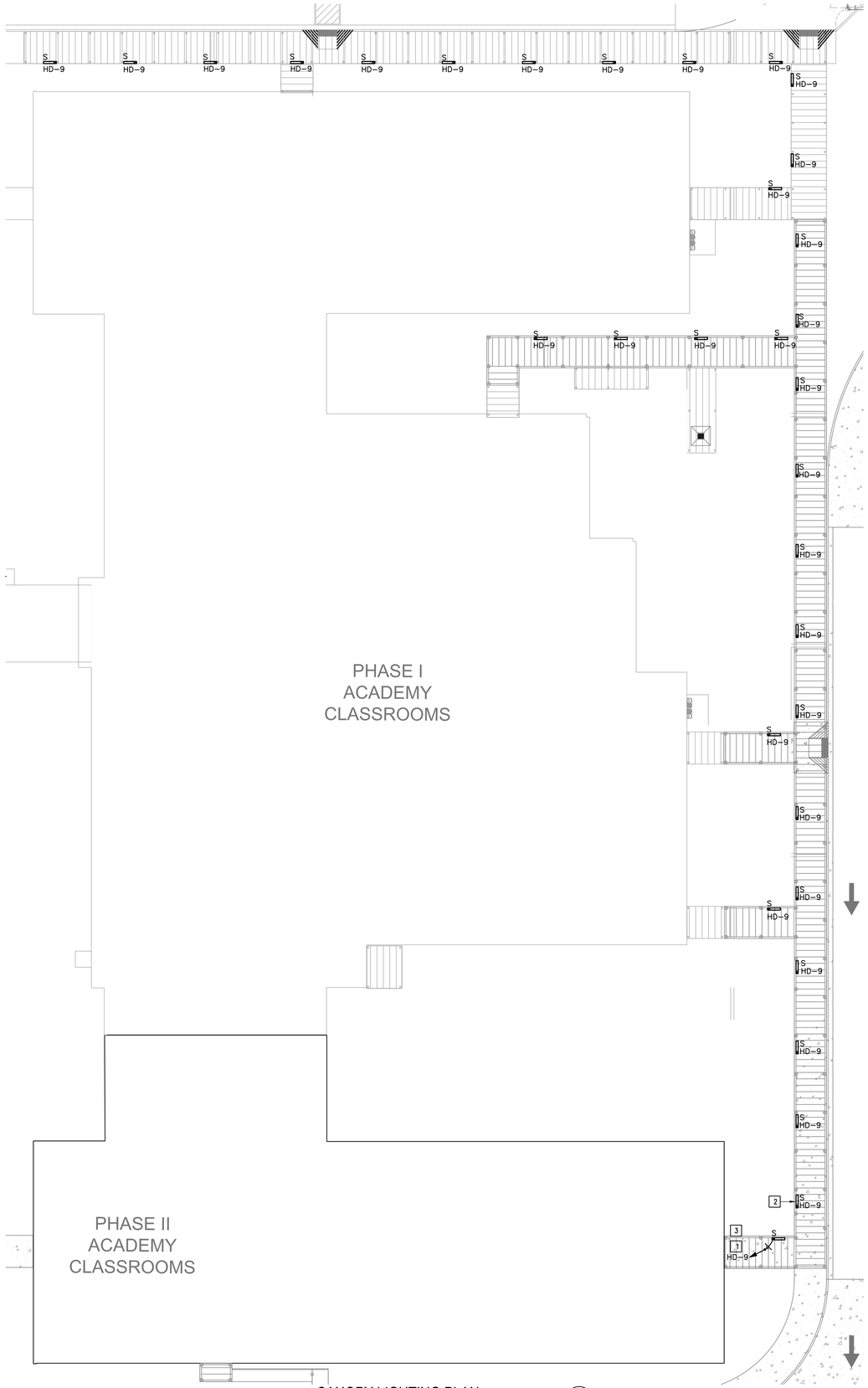
PHASE I

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: E3.02



01 CANOPY LIGHTING PLAN
SCALE : 1/16" = 1'-0"

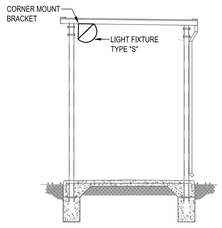
NORTH

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. PROVIDE 0-10V SIGNAL WIRING TO EACH DIMMED LIGHT EXISTING DRIVER AND WALL SWITCH.
3. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
4. EXTERIOR LIGHTING CONTROLS SHALL BE BY LIGHTING MANAGEMENT PANEL.

KEYED NOTES:

1. VIA CORRESPONDING LIGHTING CONTROL RELAY PANEL.
2. SECURE TO CANOPY HORIZONTAL STRUCTURAL STEEL – SEE DETAIL – TYPICAL.
3. FIELD COORDINATE EXISTING CONDITIONS FOR HOME RUN ROUTING.



02 CANOPY DETAIL
SCALE : NOT TO SCALE

No.	REVISIONS	BY

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

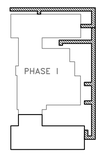
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

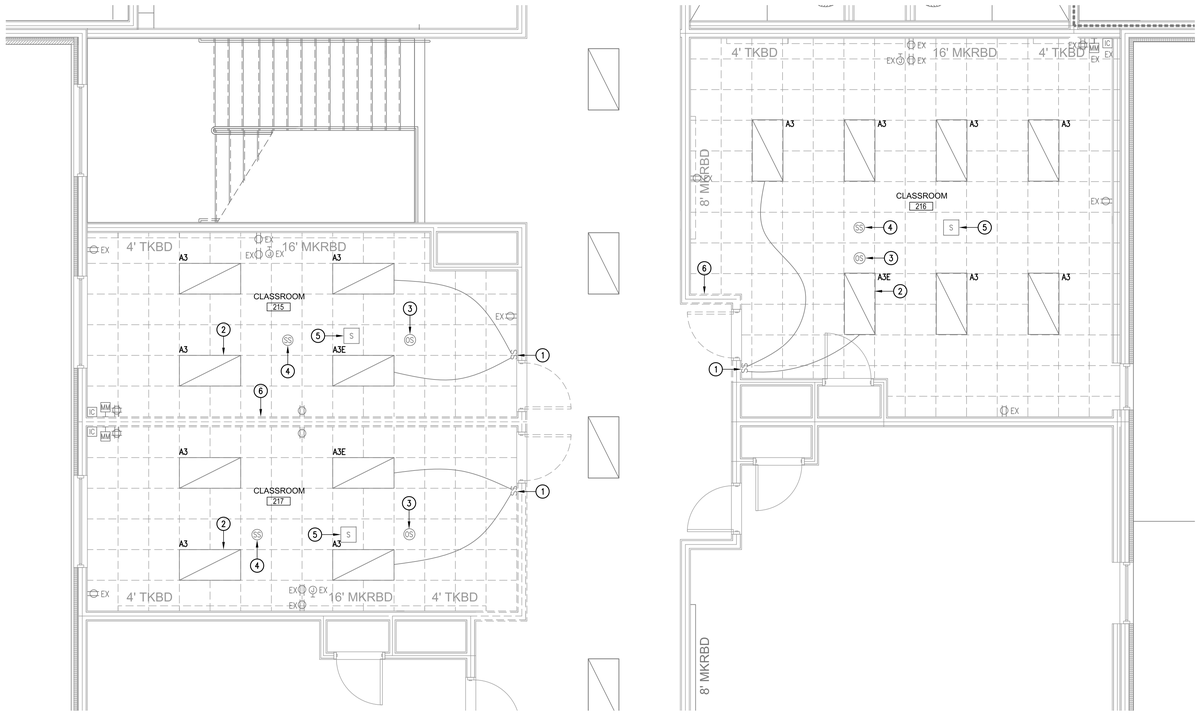
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E3.03



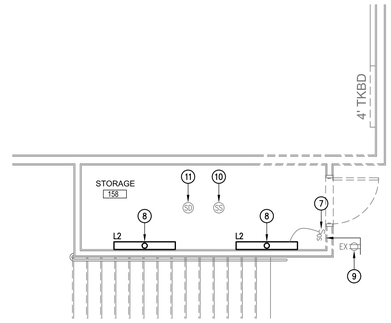
KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998



2ND FLOOR
01 LIGHTING AND ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH



ALTERNATE NO. 4 - 1ST FLOOR
02 LIGHTING AND ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

DEMOLITION GENERAL NOTES:

1. REFER TO ARCHITECTURAL SPECIFICATIONS FOR PHASING REQUIREMENTS.
2. THE EXTENT OF DEMOLITION WORK IS INDICATED ON THE ARCHITECTURAL DRAWINGS AND BY THE REQUIREMENTS OF THIS SECTION. A VISIT TO THE SITE IS REQUIRED TO PROPERLY BID THE DEMOLITION WORK.
3. REMOVED MATERIALS SHALL BELONG TO OWNER. DELIVER THEM TO OWNERS DESIGNATED LOCATION. IF OWNER DOES NOT WANT THE REMOVED MATERIALS THEN REMOVE THEM FROM SITE & PROPERLY DISPOSE OF THEM.
4. IF REMOVAL OF EXISTING ELECTRICAL SYSTEMS RENDERS EXISTING ELECTRICAL SYSTEMS DOWNSTREAM TO REMAIN INOPERABLE, PROVIDE J-BOXES, CONDUIT WIRING AND SPLICES ABOVE ACCESSIBLE CEILINGS IN ORDER TO CONTINUE OPERATION.
5. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR WALL AND CEILINGS TO BE REMOVED.
6. ITEMS DESIGNATED WITH AN "EX" ARE EXISTING TO REMAIN AS IS.
7. PRIOR TO DEMOLITION, IN CEILINGS SCHEDULED TO BE REMOVED AND (OR) REPLACED FOR NEW WORK, PREPARE REFLECTED CEILING PLAN SKETCH SHOWING LOCATIONS OF ALL CEILING COMPONENTS AND DEVICES TO BE RE-USED INCLUDING BUT NOT LIMITED TO:
   - LIGHT FIXTURES
   - SPEAKERS
   - WIRELESS ACCESS POINTS
   - FIRE ALARM DEVICES
   - ETC.

   IF ANY OF THE ABOVE ITEMS ARE IN NON-WORKING CONDITION, SUBMIT A WRITTEN REPORT TO OWNER/ARCHITECT. TEMPORARY SUPPORT AND OR REMOVAL OF THESE SYSTEMS SHALL BE PROVIDED FOR NEW WORK.

DEMOLITION KEYED NOTES:

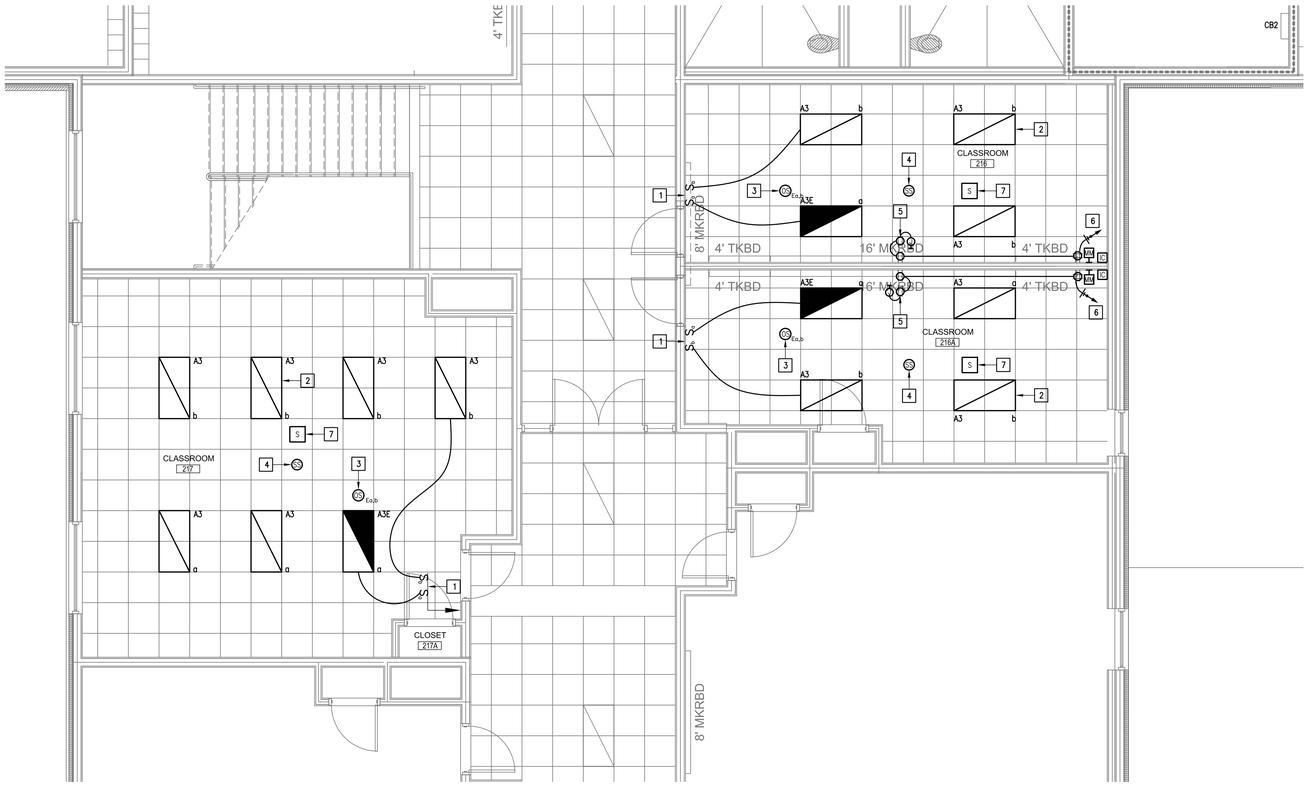
1. DISCONNECT AND REMOVE EXISTING LIGHTING SWITCHES FOR RELOCATION.
2. DISCONNECT AND REMVOE EXISTING LIGHTING FIXTURE FOR RELOCATION – TYPICAL.
3. DISCONNECT AND REMOVE EXISTING OCCUPANCY SENSOR AND ASSOCIATED POWER PACK FOR RELOCATION.
4. DISCONNECT AND REMOVE EXISTING FIRE ALARM SPEAKER STROBE FOR RELOCATION.
5. DISCONNECT AND REMOVE EXISTING INTERCOM SPEAKER FOR RELOCATION.
6. DISCONNECT AND REMOVE ANY AND ALL LIGHTING, ELECTRICAL AND SPECIAL SYSTEMS ALONG WITH RELATED RACEWAYS, WIRING AND SUPPORT HARDWARE LOCATED ON WALLS TO BE REMOVED – TYPICAL.
7. DISCONNECT EXISTING LIGHTING SWITCH FOR REMOVAL.
8. DISCONNECT EXISTING LIGHTING FIXTURE FOR REMOVAL.
9. DISCONNECT EXISTING RECEPTACLE FOR REMOVAL.
10. DISCONNECT EXISTING FIRE ALARM SPEAKER STROBE FOR REMOVAL.
11. DISCONNECT EXISTING FIRE ALARM SMOKE DETECTOR FOR REMOVAL.

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. EACH 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.
4. IF NEW DEVICES ARE TO BE INSTALLED ON EXISTING WALLS; PROVIDE SURFACE MOUNTED METAL RACEWAYS AND BOXES (WIREMOLD).

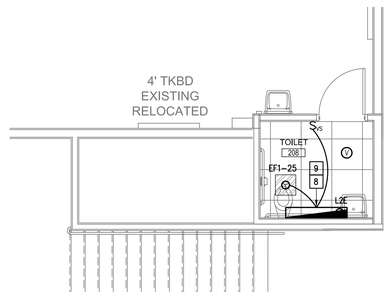
KEYED NOTES:

1. EXISTING LIGHTING SWITCHES AT NEW LOCATION.
2. EXISTING LIGHTING FIXTURE AT NEW LOCATION. CONNECT TO EXISTING ROOM LIGHTING CIRCUIT.
3. EXISTING OCCUPANCY SENSOR AND ASSOCIATED POWER PACK AT NEW LOCATION.
4. EXISTING FIRE ALARM SPEAKER STROBE AT NEW LOCATION. PROVIDE NEW WIRING.
5. 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.
6. CONNECT TO AN EXISTING 20A/1P SPARE BREAKER.
7. EXISTING CEILING SPEAKER AT NEW LOCATION.
8. MOUNT FIXTURE TYPE "L2E" 12" ABOVE MIRROR – TYPICAL.
9. CONNECT TO EXISTING 120V LIGHTING CIRCUIT.



2ND FLOOR
03 LIGHTING AND ELECTRICAL RENOVATION PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH



ALTERNATE NO. 4 - 1ST FLOOR
04 LIGHTING AND ELECTRICAL RENOVATION PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

PHASE I CLASSROOMS & RESTROOM

PHASE I

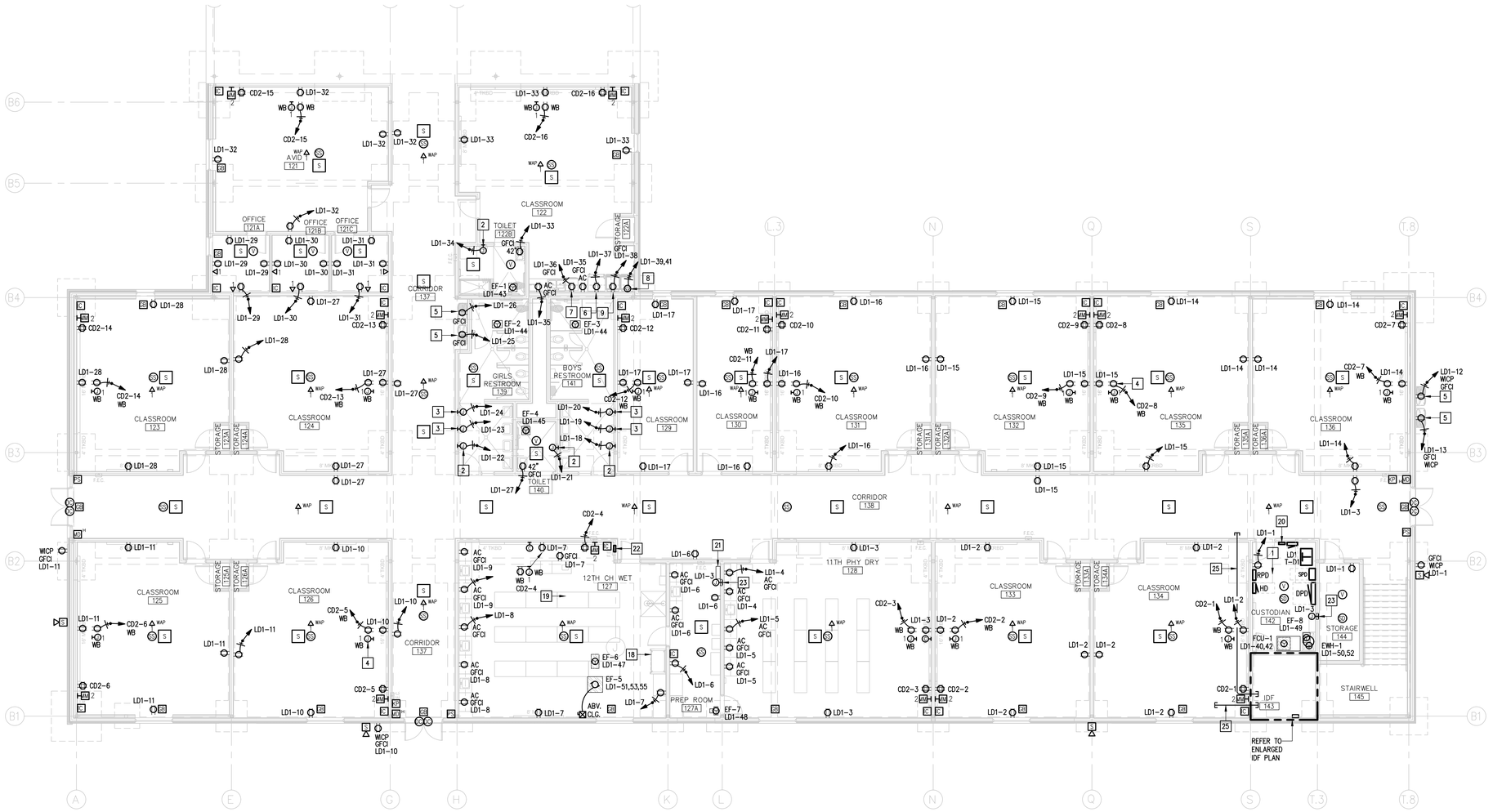
KEYPLAN

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA ELSA II
Sheet: E3.04

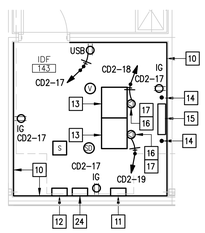
ethos engineering
119 W. VAN BUREN AVE, STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998



01 ELECTRICAL PLAN (FIRST FLOOR)

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

NORTH



02 ENLARGED IDF PLAN (FIRST FLOOR)

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. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
2. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (OR EQUAL). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +40" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
3. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (OR EQUAL). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
4. 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.
5. 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.
6. CONNECT REFRIGERATOR; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
7. CONNECT DISHWASHER; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
8. PROVIDE SPECIAL RECEPTACLE FOR CLOTHES DRYER (NEMA 10-30R); BRANCH CIRCUIT: 3/4" – #10 & #10G.
9. CONNECT CLOTHES WASHER; BRANCH CIRCUIT: 1/2" C 2#12 & #12G.
10. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT AT 24" AFF.
11. PROVIDE INTERCOM SYSTEM SWITCHING MODULES WALL MOUNTED.
12. PROVIDE INTRUSION DETECTION SYSTEM CONTROL PANEL; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, CD2-39.
13. PROVIDE DATA RACK – SEE SPECIFICATIONS.
14. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
15. 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.
16. PROVIDE SPECIAL RECEPTACLE FOR IDF-UPS (NEMA L5-30R); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.
17. PENDANT MOUNTED SEE DETAIL, FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
18. CONNECT FUMEHOOD. CONNECT BRANCH CIRCUIT TO THE MOTOR, LIGHT, & SWITCH, LD1-54. MOUNT THE THERMAL SWITCH ABOVE THE FUMEHOOD IN THE ACCESSIBLE CEILING SPACE.
19. CONNECT ALL RECEPTACLE CIRCUITS (EXCLUDING THE COMPUTER RECEPS) IN THIS ROOM THROUGH THE CORRESPONDING CONTACTOR ENCLOSURES FOR EMERGENCY SHUTOFF PURPOSED THEN THROUGH THE CORRESPONDING PANEL.
20. PROVIDE (SURFACE MOUNTED) CONTACTOR ENCLOSURE. ENCLOSURE SHALL BE ISIMET E-1-2-12-K-L-EX. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
21. PROVIDE (SURFACE MOUNTED) LOW VOLTAGE RELAYS FOR SOLENOID ENCLOSURE. ENCLOSURE SHALL BE ISIMET S-1-1-1-2-24VAC-1"(DW)-K-F-A. COORDINATE THE EXACT LOCATION W/ THE ARCHITECT. COORDINATE THE INSTALLATION W/ THE PLUMBING CONTRACTOR. MOUNT AT 48" A.F.F. TO CENTER OF THE BOX. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
22. PROVIDE (SEMI-RECESSED) EMERGENCY UTILITY CONTROLLER W/ PURGE FAN CIRCUIT & ADDITIONAL LOW SPEED CONTROL SWITCH FACING PREP ROOM. CONTROLLER SHALL BE ISIMET 1-3-X-3-K. BRANCH CIRCUIT: 1/2" RACEWAY – 2#12 & #12G. MOUNT AT 48" A.F.F. TO CENTER OF HIGHEST SWITCH. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
23. CONNECT ELECTRONIC PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
24. PROVIDE FIRE ALARM POWER SUPPLY; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, CD2-43.
25. 2–4" EMT STUB-OUT FOR COMMUNICATIONS WIRING.

No.	REVISIONS	BY

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

IDEA-ELSA COLLEGE PREP PHASE II

IDEA ACADEMY AND COLLEGE
IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED ARCHITECT
6.13.2019

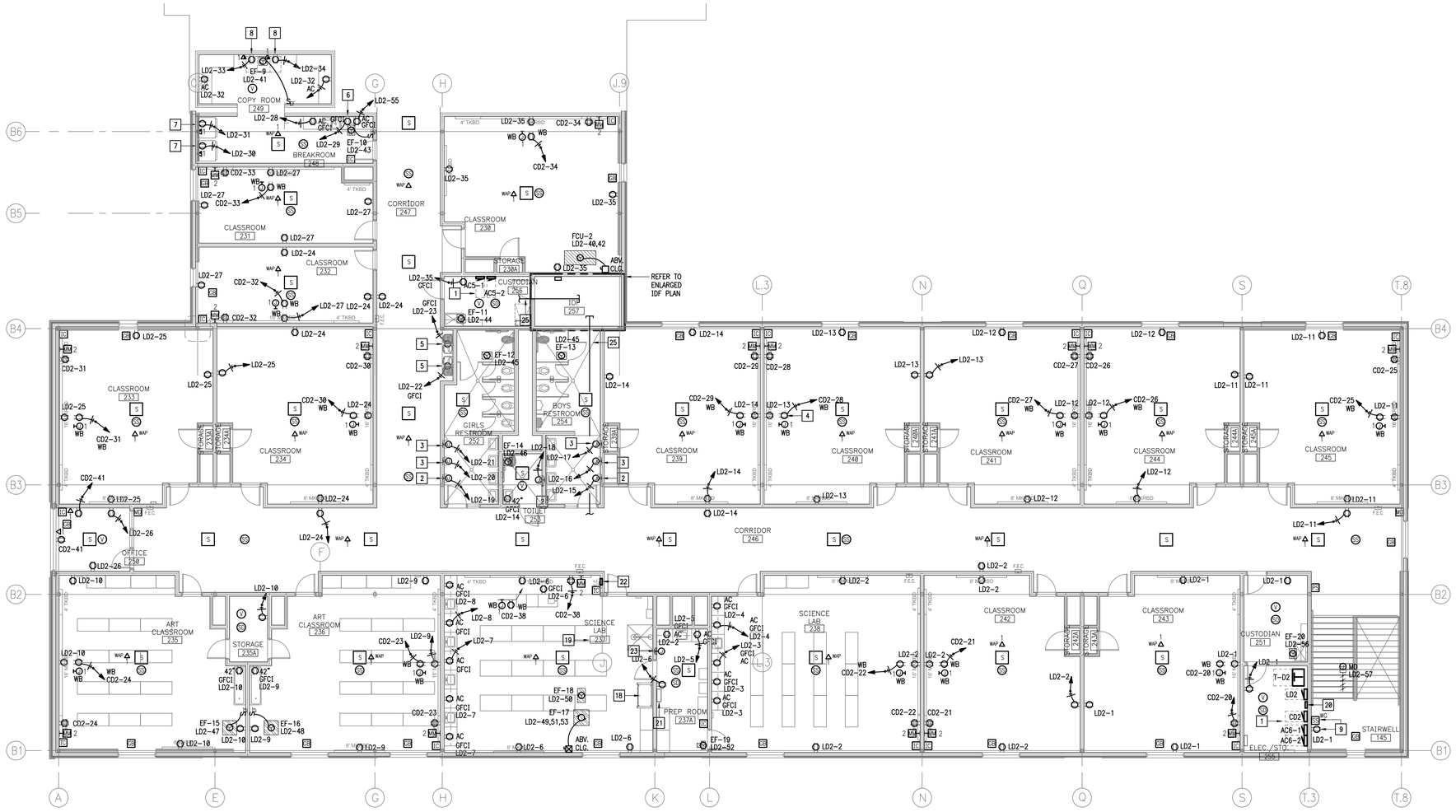
PHASE I

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

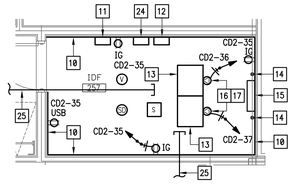
Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: E4.01



01 ELECTRICAL PLAN (SECOND FLOOR)

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

NORTH



02 ENLARGED IDF PLAN (SECOND FLOOR)

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. NO DUCTWORK OR PIPING TO BE ROUTED ABOVE PANELBOARDS. COORDINATE WITH OTHER TRADES – TYPICAL.
2. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (OR EQUAL). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +40" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
3. PROVIDE INFRARED RECESSED MOUNTED HAND DRYER. HAND DRYER SHALL BE BOBRICK B-750 (OR EQUAL). BRANCH CIRCUIT: 3/4" – 2#10 & #10G. MOUNT @ +48" A.F.F. (BOTTOM). VERIFY THE EXACT LOCATION WITH THE ARCHITECTURAL PLANS.
4. 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.
5. 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.
6. CONNECT DISHWASHER; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
7. CONNECT VENDING MACHINE; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
8. CONNECT COPY MACHINE; BRANCH CIRCUIT: 1/2" – 2#12 & #12G.
9. MOUNTING HEIGHT TO BE FROM TOP OF LANDING.
10. PROVIDE 3/4" X 4', PLYWOOD TELEPHONE/DATA BOARD ON ALL WALLS. FIRE RESISTIVE TREATED (A-D INT-APA). MOUNT AT 24" AFF.
11. PROVIDE INTERCOM SYSTEM SWITCHING MODULES WALL MOUNTED.
12. PROVIDE INTRUSION DETECTION SYSTEM CONTROL PANEL; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, CD2–40.
13. PROVIDE DATA RACK – SEE SPECIFICATIONS.
14. PROVIDE GROUND BUS BAR. REFER TO GROUNDING ELECTRICAL RISER DIAGRAM.
15. 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.
16. PROVIDE SPECIAL RECEPTACLE FOR IDF-UPS (NEMA L5-30P); BRANCH CIRCUIT: 3/4" – 2#10 & #10G.
17. PENDANT MOUNTED SEE DETAIL, FIELD CONFIRM EXACT LOCATION WITH OWNER/IT SUBCONTRACTOR.
18. CONNECT FUMEHOOD. CONNECT BRANCH CIRCUIT TO THE MOTOR, LIGHT, & SWITCH, LD2–54. MOUNT THE THERMAL SWITCH ABOVE THE FUMEHOOD IN THE ACCESSIBLE CEILING SPACE.
19. CONNECT ALL RECEPTACLE CIRCUITS (EXCLUDING THE COMPUTER RECEPS) IN THIS ROOM THROUGH THE CORRESPONDING CONTACTOR ENCLOSURES FOR EMERGENCY SHUTOFF PURPOSED THEN THROUGH THE CORRESPONDING PANEL.
20. PROVIDE (SURFACE MOUNTED) CONTACTOR ENCLOSURE. ENCLOSURE SHALL BE ISIMET E-1-2-12-K-L-EX. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
21. PROVIDE (SURFACE MOUNTED) LOW VOLTAGE RELAYS FOR SOLENOID ENCLOSURE. ENCLOSURE SHALL BE ISIMET S-1-1-1-2-24VAC-1"(DW)-K-F-A. COORDINATE THE EXACT LOCATION W/ THE ARCHITECT. COORDINATE THE INSTALLATION W/ THE PLUMBING CONTRACTOR. MOUNT AT 48" A.F.F. TO CENTER OF THE BOX. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
22. PROVIDE (SEMI-RECESSED) EMERGENCY UTILITY CONTROLLER W/PURGE FAN CIRCUIT & ADDITIONAL LOW SPEED CONTROL SWITCH FACING PREP ROOM. CONTROLLER SHALL BE ISIMET 1-3-X-3-K. BRANCH CIRCUIT: 1/2" RACEWAY – 2#12 & #12G. MOUNT AT 48" A.F.F. TO CENTER OF HIGHEST SWITCH. SEE SCIENCE LAB UTILITY CONTROLS DETAIL.
23. CONNECT ELECTRONIC PRIMER. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.
24. PROVIDE FIRE ALARM POWER SUPPLY; BRANCH CIRCUIT: 1/2" – 2#12 & #12G, CD2–42.
25. PROVIDE 4" RACEWAY ABOVE CEILING (PENETRATE FIRE RATED WALL) FOR SPECIAL SYSTEMS WIRING.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

PHASE I

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

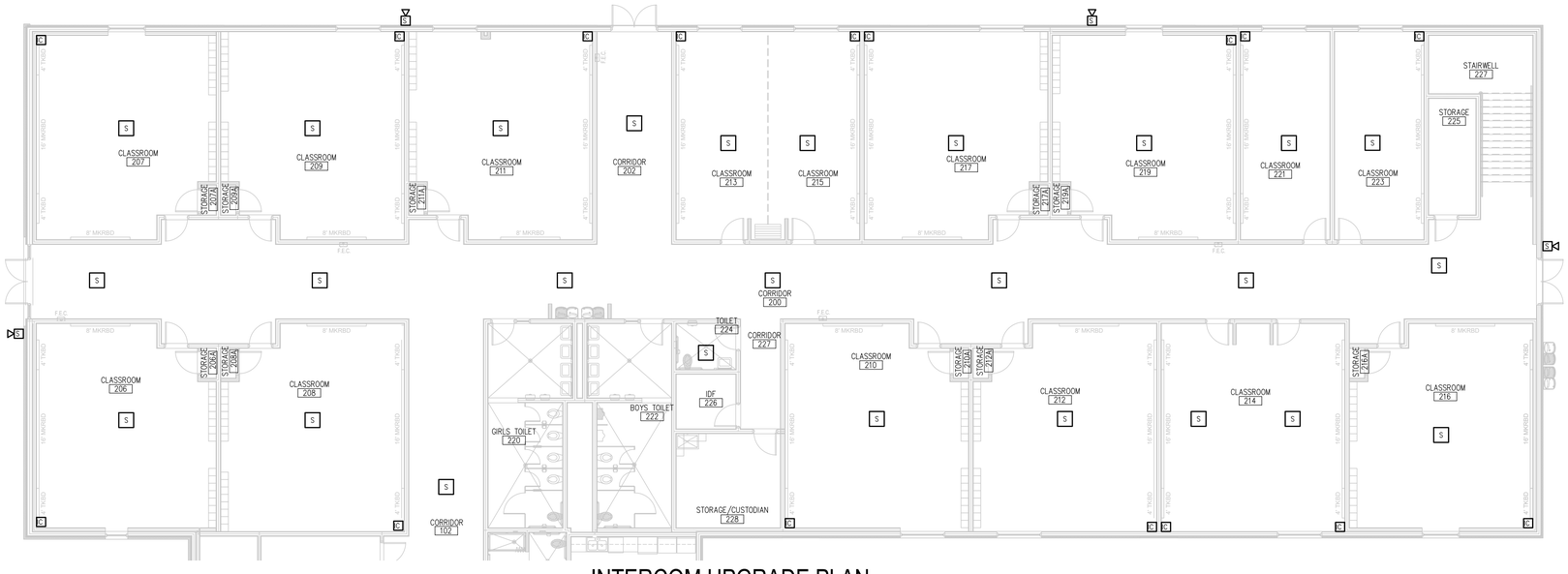
Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: E4.02

INTERCOM DEMOLITION GENERAL NOTES:

1. IF EXISTING DEVICES (CALL-IN SWITCHES, SPEAKERS, HORNS, ADMINISTRATIVE HAND SETS) ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW DEVICES.
2. IF EXISTING CABLING ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW CABLING.
3. REMOVED MATERIALS SHALL BELONG TO OWNER. DELIVER THEM TO OWNERS DESIGNATED LOCATION. IF OWNER DOES NOT WANT THE REMOVED MATERIALS THEN REMOVE THEM FROM SITE & PROPERLY DISPOSE OF THEM.
4. EXISTING RACEWAYS INTERCONNECTING BUILDINGS MAY BE REUSED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING RACEWAYS. IF NECESSARY CONTRACTOR TO PROVIDE NEW RACEWAYS.

GENERAL NOTES:

1. FIELD COORDINATE PRIOR TO BIDDING TO ASSESS EXISTING CONDITIONS.
2. ADJUST LOCATION OF NEW DEVICES IF NECESSARY DUE TO EXISTING CONDITIONS.
3. ALL WORK THAT COULD DISRUPT SCHOOL INSTRUCTION SHALL BE SCHEDULE FOR AFTER SCHOOL OR DURING HOLIDAY HOURS. COORDINATE SCHEDULING WITH SCHOOL PRINCIPAL.



INTERCOM UPGRADE PLAN
01 PHASE I (1ST FLOOR)

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

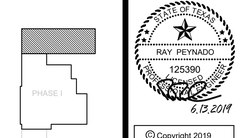
NORTH

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

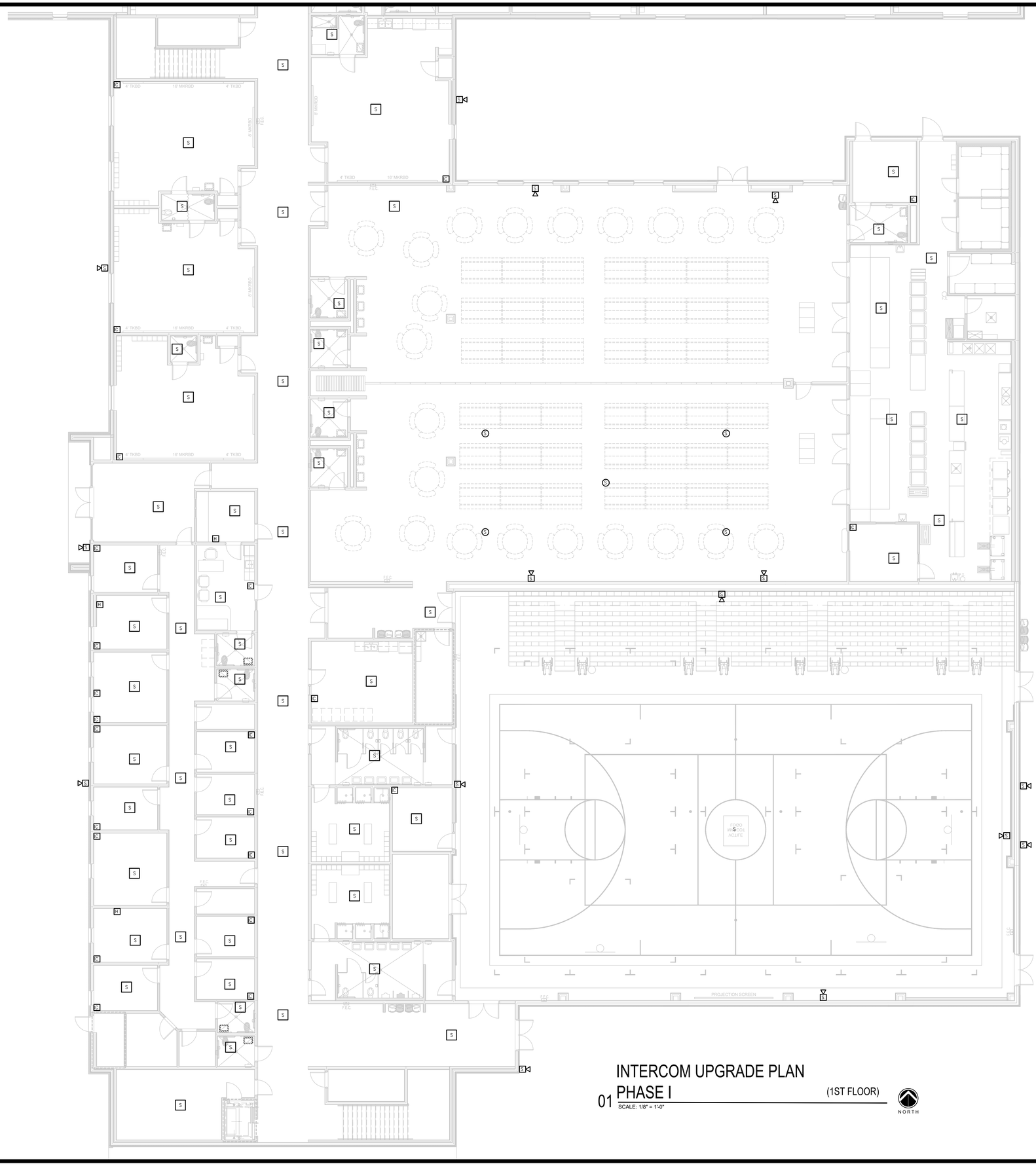


KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E4.03



01 INTERCOM UPGRADE PLAN
PHASE I (1ST FLOOR)
SCALE: 1/8" = 1'-0"

NORTH

INTERCOM DEMOLITION GENERAL NOTES:

1. IF EXISTING DEVICES (CALL-IN SWITCHES, SPEAKERS, HORNS, ADMINISTRATIVE HAND SETS) ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW DEVICES.
2. IF EXISTING CABLING ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW CABLING.
3. REMOVED MATERIALS SHALL BELONG TO OWNER. DELIVER THEM TO OWNERS DESIGNATED LOCATION. IF OWNER DOES NOT WANT THE REMOVED MATERIALS THEN REMOVE THEM FROM SITE & PROPERLY DISPOSE OF THEM.
4. EXISTING RACEWAYS INTERCONNECTING BUILDINGS MAY BE REUSED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING RACEWAYS. IF NECESSARY CONTRACTOR TO PROVIDE NEW RACEWAYS.

GENERAL NOTES:

1. FIELD COORDINATE PRIOR TO BIDDING TO ASSESS EXISTING CONDITIONS.
2. ADJUST LOCATION OF NEW DEVICES IF NECESSARY DUE TO EXISTING CONDITIONS.
3. ALL WORK THAT COULD DISRUPT SCHOOL INSTRUCTION SHALL BE SCHEDULE FOR AFTER SCHOOL OR DURING HOLIDAY HOURS. COORDINATE SCHEDULING WITH SCHOOL PRINCIPAL.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED ARCHITECT
6.13.2019

PHASE II

KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

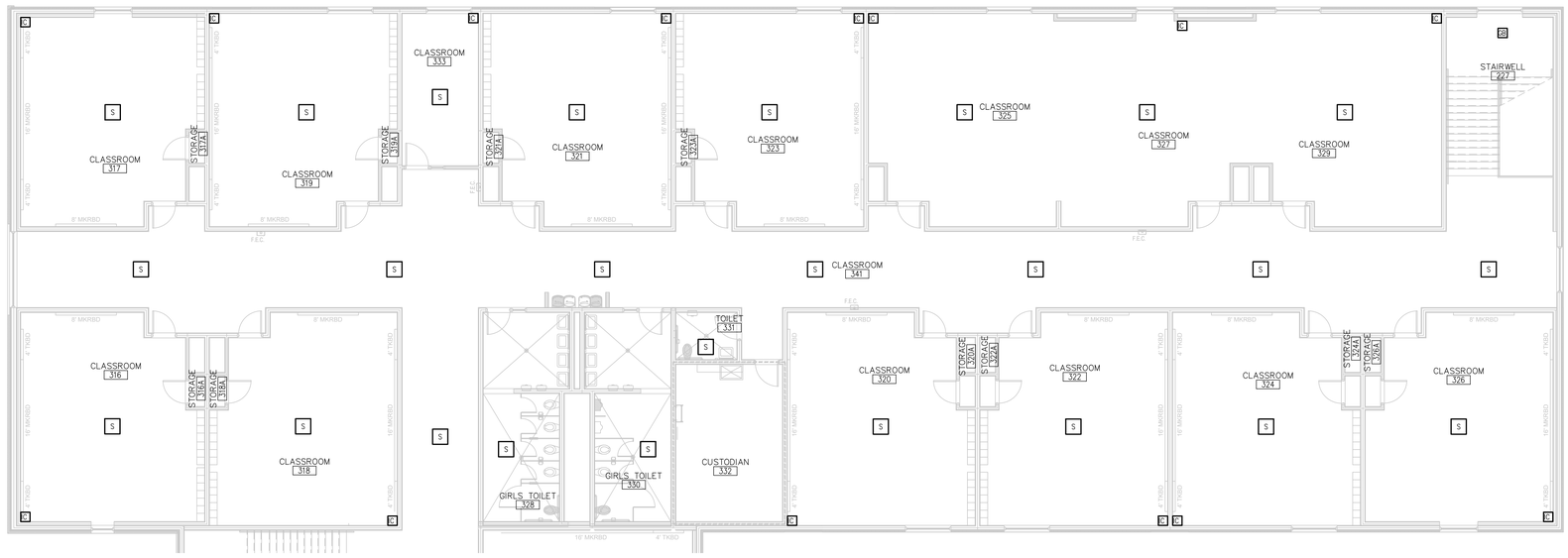
Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E4.04

INTERCOM DEMOLITION GENERAL NOTES:

1. IF EXISTING DEVICES (CALL-IN SWITCHES, SPEAKERS, HORNS, ADMINISTRATIVE HAND SETS) ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW DEVICES.
2. IF EXISTING CABLING ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW CABLING.
3. REMOVED MATERIALS SHALL BELONG TO OWNER. DELIVER THEM TO OWNERS DESIGNATED LOCATION. IF OWNER DOES NOT WANT THE REMOVED MATERIALS THEN REMOVE THEM FROM SITE & PROPERLY DISPOSE OF THEM.
4. EXISTING RACEWAYS INTERCONNECTING BUILDINGS MAY BE REUSED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING RACEWAYS. IF NECESSARY CONTRACTOR TO PROVIDE NEW RACEWAYS.

GENERAL NOTES:

1. FIELD COORDINATE PRIOR TO BIDDING TO ASSESS EXISTING CONDITIONS.
2. ADJUST LOCATION OF NEW DEVICES IF NECESSARY DUE TO EXISTING CONDITIONS.
3. ALL WORK THAT COULD DISRUPT SCHOOL INSTRUCTION SHALL BE SCHEDULE FOR AFTER SCHOOL OR DURING HOLIDAY HOURS. COORDINATE SCHEDULING WITH SCHOOL PRINCIPAL.



INTERCOM UPGRADE PLAN
01 PHASE I (2ND FLOOR)

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

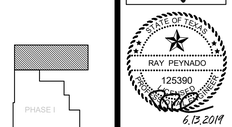
NORTH

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools



KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E4.05



INTERCOM DEMOLITION GENERAL NOTES:

1. IF EXISTING DEVICES (CALL-IN SWITCHES, SPEAKERS, HORNS, ADMINISTRATIVE HAND SETS) ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW DEVICES.
2. IF EXISTING CABLING ARE NOT COMPATIBLE WITH NEW SYSTEM, PLEASE REMOVE AND PROVIDE NEW CABLING.
3. REMOVED MATERIALS SHALL BELONG TO OWNER. DELIVER THEM TO OWNERS DESIGNATED LOCATION. IF OWNER DOES NOT WANT THE REMOVED MATERIALS THEN REMOVE THEM FROM SITE & PROPERLY DISPOSE OF THEM.
4. EXISTING RACEWAYS INTERCONNECTING BUILDINGS MAY BE REUSED. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING EXISTING RACEWAYS. IF NECESSARY CONTRACTOR TO PROVIDE NEW RACEWAYS.

GENERAL NOTES:

1. FIELD COORDINATE PRIOR TO BIDDING TO ASSESS EXISTING CONDITIONS.
2. ADJUST LOCATION OF NEW DEVICES IF NECESSARY DUE TO EXISTING CONDITIONS.
3. ALL WORK THAT COULD DISRUPT SCHOOL INSTRUCTION SHALL BE SCHEDULE FOR AFTER SCHOOL OR DURING HOLIDAY HOURS. COORDINATE SCHEDULING WITH SCHOOL PRINCIPAL.

INTERCOM UPGRADE PLAN

01 PHASE I (2ND FLOOR)

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

NORTH

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
REGISTERED
ARCHITECT
6.13.2019

PHASE I
PHASE II
KEYPLAN

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E4.06

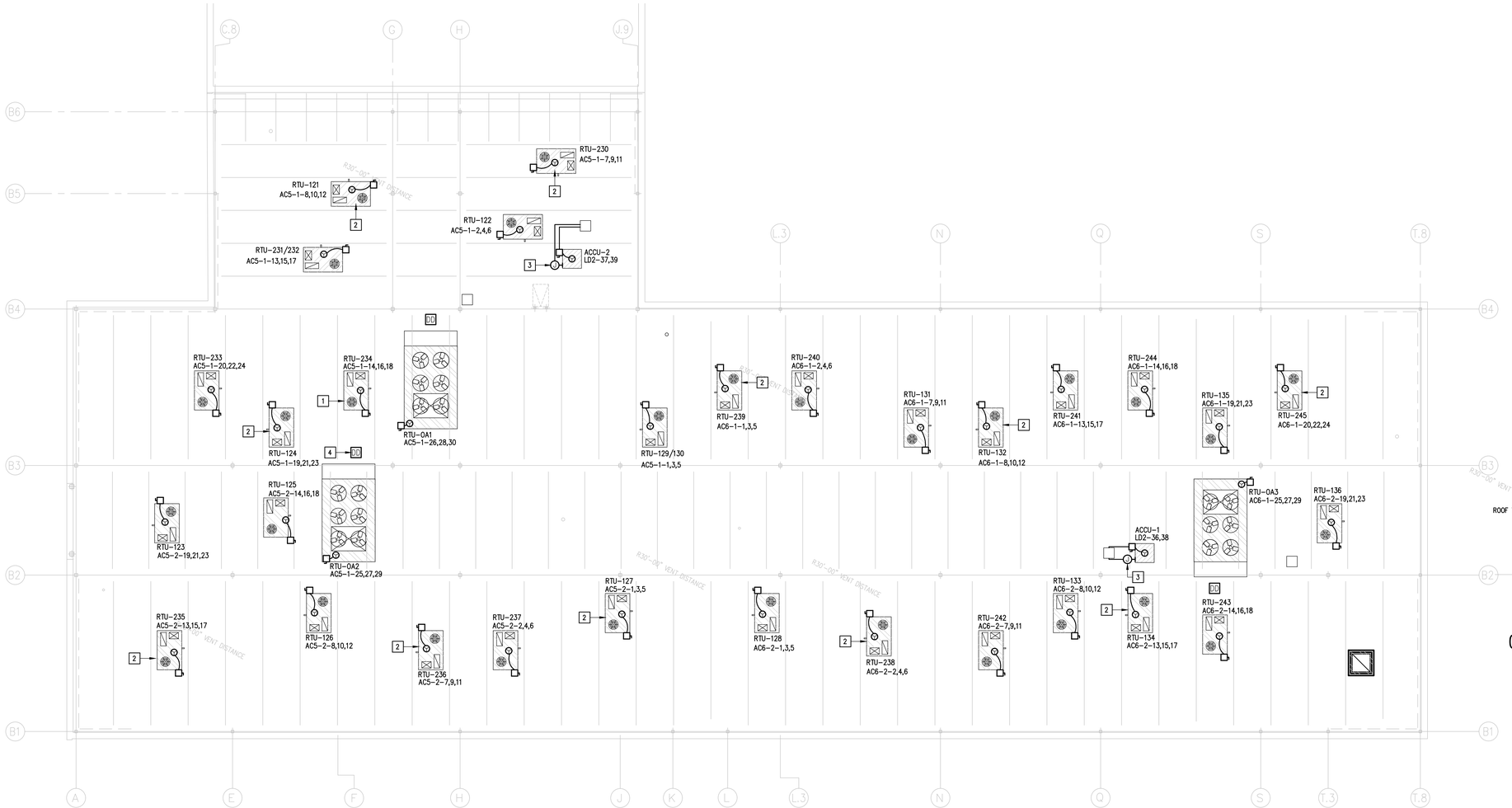
ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

GENERAL NOTES:

1. HOMERUNS – INSTALL NO MORE THAN THREE PER RACEWAY (INCLUDING LIGHTING BRANCH CIRCUITS); 3 INSULATED "HOT", 3 INSULATED "NEUTRAL AND 1 SHARED "GROUND".
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. PROVIDE 20A/1P BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL.

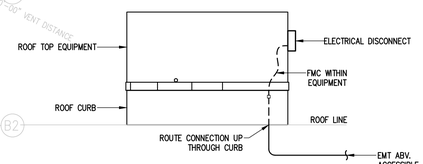
KEYED NOTES:

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 CHEMCURB ROOF PENETRATION AND CONTINUE TO THE FCU LOCATION – TYPICAL.
4. PROVIDE ABOVE CEILING/BELOW ROOF – TYPICAL.



01 ELECTRICAL PLAN (ROOF)
SCALE : 1/8" = 1'-0"

NORTH



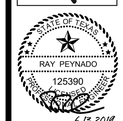
02 ROOF TOP UNIT CONNECTION DETAIL
SCALE : NOT TO SCALE

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools



KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E5.01

EQUIPMENT CONNECTION SCHEDULE:

DESIGN	HP/KW	FLA	MCA	MOCP	VOLTAGE	DISCONNECT	BRANCH CIRCUIT
RTU-121,129/130,127,128,134, 230,231/232,237,239,238,243	–	–	18	20	480V/3PHASE	30A, 3PNF, 600V, NEMA 3R (EACH)	1/2" – 3#12 & #12G (EACH)
RTU-122,123,124,125,126,131,132,133, 135,136,235,233,236,234,240,242,241, 244,245	–	–	13	15	480V/3PHASE	30A, 3PNF, 600V, NEMA 3R (EACH)	1/2" – 3#12 & #12G (EACH)
RTU-OA1,OA2,OA3	2 HP	–	64	80	480V/3PHASE	100A, 3PNF, 600V, NEMA 3R (EACH)	1.25" – 3#4 & #8G (EACH)
FCU-1	1/2 HP	–	5	15	208V/1PHASE	30A, 2PNF, 240V, NEMA 1	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-1	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R	1/2" – 2#12 & #12G
ACCU-2	–	–	12.4	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 3R	1/2" – 2#12 & #12G
EWH-1	3 KW	14.4	–	20	208V/1PHASE	30A, 2PNF, 240V, NEMA 1	1/2" – 2#12 & #12G

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

EXHAUST FAN CONNECTION SCHEDULE:

DESIGNATION	HP/WATTS	FLA	VOLTAGE	CONNECTION FOR EACH	BRANCH CIRCUIT
EF-1	52.7 W	0.5	120V/1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR SWITCH.	1/2" – 2#12 & #12G
EF-2	188 W	1.8	120V1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-3	188 W	1.8	120V1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-4	47.2 W	0.5	120V1PHASE	CONNECT AT CEILING. SWITCH VIA OCCUPANCY SENSOR SWITCH.	1/2" – 2#12 & #12G
EF-5	1/2 HP	2.4	208V3PHASE	CONNECT ABOVE CEILING. PROVIDE A 2-SPEED COMBINATION MOTOR STARTER NEMA SIZE 00. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO ISIMET CONTROL PANEL.	(1) 3/4" – 6#12 & #12G
EF-6	263 W	2.4	120V1PHASE	CONNECT ABOVE CEILING. SWITCH VIA FUME HOOD SWITCH. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-7	1/3 HP	7.2	120V1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-8	67.6 W	0.6	120V1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR SWITCH.	1/2" – 2#12 & #12G
EF-9	52.7 W	0.5	120V1PHASE	CONNECT AT CEILING. SWITCH VIA TIMER SWITCH.	1/2" – 2#12 & #12G
EF-10	67.6 W	0.6	120V1PHASE	CONNECT AT CEILING. SWITCH VIA TIMER SWITCH.	1/2" – 2#12 & #12G
EF-11	47.2	0.5	120V1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR SWITCH.	1/2" – 2#12 & #12G
EF-12	188 W	1.8	120V1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-13	188 W	1.8	120V1PHASE	CONNECT AT CEILING. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-14	47.2 W	0.5	120V1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR SWITCH.	1/2" – 2#12 & #12G
EF-15	1/4 HP	5.8	120V1PHASE	CONNECT ABOVE CEILING. SWITCH VIA TIMER SWITCH. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-16	1/4 HP	5.8	120V1PHASE	CONNECT ABOVE CEILING. SWITCH VIA TIMER SWITCH. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-17	1/2 HP	2.4	208V3PHASE	CONNECT ABOVE CEILING. PROVIDE A 2-SPEED COMBINATION MOTOR STARTER NEMA SIZE 00. INTERLOCKING BY HVAC CONTROLS CONTRACTOR TO ISIMET CONTROL PANEL.	(1) 3/4" – 6#12 & #12G
EF-18	1/3 HP	7.2	120V1PHASE	CONNECT ABOVE CEILING. SWITCH VIA FUME HOOD SWITCH. INTERLOCKING BY HVAC CONTROLS CONTR.	1/2" – 2#12 & #12G
EF-19	1/3 HP	7.2	120V1PHASE	CONNECT ABOVE CEILING. INTERLOCKING BY HVAC CONTROLS CONTRACTOR.	1/2" – 2#12 & #12G
EF-20	67.6 W	0.6	120V1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR SWITCH.	1/2" – 2#12 & #12G
ALTERNATE NO. 4					
EF1-25	67.6 W	0.6	120V1PHASE	CONNECT AT CEILING. SWITCH VIA VACANCY SENSOR SWITCH.	1/2" – 2#12 & #12G

1. PROVIDE HIGH AND LOW SPEED WIRING FROM STARTER TO MOTOR.

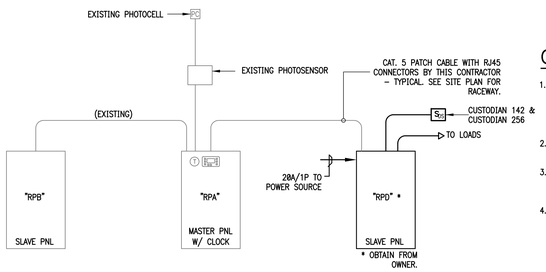
TRANSFORMER SCHEDULE:

DESIGN	KVA	PV	SV	DEGREE RISE	CONNECTION	FREQ HZ	SERVES PANELS	CAT. NO.	PRIMARY FEEDER (75°C COPPER)
T-D1	45	480	120/208	115	DELTA Y	60	LD1	POWER SMITHS: Esaver20M-45-480-208-HD-T115-F60	1.25" – 3#3 & #8G
T-D2	75	480	120/208	115	DELTA Y	60	LD2, CD2	POWER SMITHS: Esaver20M-75-480-208-HD-T115-F60	2" – 3#1/0 & #6G

LUMINAIRE SCHEDULE

CALLOUT	LAMP	DESCRIPTION	DRIVER	MOUNTING	MODEL	INPUT WATTS	VOLTS	NOTE	LUMENS
A2	LED	2'X4' LAY-IN INDIRECT LED TROFFER	0–10V	RECESSED	LITHONIA: 2BLT4 40L GZ1 LP840 WILLIAMS: LT24 L40 AF DIM UNV	34	120V 1P 2W 277V 1P 2W		4032
A2E	LED	2'X4' LAY-IN INDIRECT LED TROFFER	0–10V	RECESSED	LITHONIA: 2BLT4 40L GZ1 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 LED TROFFER	0–10V	RECESSED	LITHONIA: 2BLT4 48L GZ1 LP840 WILLIAMS: LT24 L52 AF DIM UNV	45	277V 1P 2W		5234
A3E	LED	2'X4' LAY-IN INDIRECT LED TROFFER	0–10V	RECESSED	LITHONIA: 2BLT4 48L GZ1 LP840 ELA TSPLP WILLIAMS: LT24 L52 AF DIM UNV EM/10W	45	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5234
D2	LED	4' WRAPAROUND	0–10V	CHAIN/SURFACE	LITHONIA: SBL 40L GZ1 LP840 LSI: NA10 LED SS NW UE	32	120V 1P 2W 277V 1P 2W		3994
D2E	LED	4' WRAPAROUND	0–10V	CHAIN/SURFACE	LITHONIA: SBL4 40L GZ1 EL14L LP840 LSI: NA10 LED SS NW UE EM	32	120V 1P 2W 277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	3994
G2	LED	2'X4' FLANGED LED TROFFER	0–10V	RECESSED	LITHONIA: 2GLT F 4 40L GZ1 LP840 WILLIAMS: LPT-24-L43/840-SAF12125-DFK-2448W-DIM-UNV	39	277V 1P 2W		4290
G2E	LED	2'X4' FLANGED LED TROFFER	0–10V	RECESSED	LITHONIA: 2GLT F 4 40L GZ1 LP840 ELA TSPLP WILLIAMS: LPT-24-L43/840-SAF12125-DFK-2448W-EM/10W-DIM-UNV	39	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	4290
J2E	LED	8' LED LINEAR	0–10V	RECESSED	FINELITE: HP4R-H-80-40-F-277V-SC-VF FORCAST: SRT-44-FG-95-40K-8-UNV-WH-EMLED	56	277V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	5808
L2	LED	LED WALL BRACKET	0–10V	WALL	LITHONIA, WL4 40L SLD LP840 LSI: W44 4 HO NW UE	40	277V 1P 2W		2950
L2E	LED	LED WALL BRACKET	0–10V	WALL	LITHONIA, WL4 40L SLD LP840 EL7L LSI: W44 4 HO NW UE EM	40	120V 1P 2W	PROVIDE WITH AN EMERGENCY BATTERY PACK.	2950
ME	LED	LED WALLPACK	0–10V	SURFACE	LITHONIA: WSR LED 1 10A700/40K SR4 MVOLT ELCW DNAXD RAYON: T650LED DL 30 UN112 40 T4 MTO EM	22	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS AND WITH AN EMERGENCY BATTERY PACK. PROVIDE NATURAL ALUMINUM COLOR FINISH TO MATCH PHASE I.	2655
N	LED	LED WALLPACK	0–10V	SURFACE	LITHONIA: WSR LED 2 10A700/40K SR4 MVOLT DNAXD RAYON: T650LED DL 40 UN112 40 T4 MTO	45	277V 1P 2W	PROVIDE UL LISTED FOR WET LOCATIONS. PROVIDE NATURAL ALUMINUM COLOR FINISH TO MATCH PHASE I.	3404
P1	LED	LED ARCHITECTURAL AREA LUMINAIRE	0–10V	POLE	LITHONIA: DSX1 LED 60C 1000 40K T5W 480 RPA PIRH DNAXD KW: RTAP30-7.0-9-X-DMX-VDP-NC PROVIDE A $2,500 ALLOWANCE FOR THE PURCHASE OF EACH POLE/FIXTURES SET UP	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 100MPH WINDS. PROVIDE POLE WITH A VIBRATION DAMPER. PROVIDE NATURAL ALUMINUM COLOR FINISH TO MATCH PHASE I.	23221
S	LED	SURFACE CORNER MOUNT	0–10V	SURFACE	KENALL: MLHA8-48-R-LG-PP-45L40K-DCC-277-CMB LUMINAIRE LED: VPF84 50W 4000K DIM 120-277 OP WHT	45	277V 1P 2W	PROVIDE CORNER MOUNT BRACKET.	5072
X1	LED	SINGLE SIDED LED EXIT SIGN		WALL/CEILING	LITHONIA: LV S W 1 R 120/277 UM EL N SD 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 LED EXIT SIGN		WALL/CEILING	LITHONIA: LV S W 2 R 120/277 UM EL N SD 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 SPECIFCATIONS.
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.



LIGHTING MANAGEMENT SYSTEM RISER DETAIL

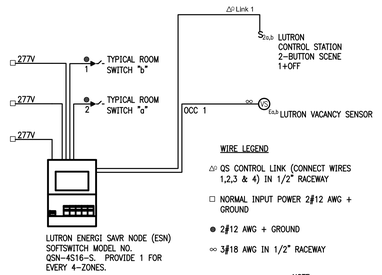
02 SCALE : NOT TO SCALE

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: "RPD" (LC & D)
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	LOAD SOURCE	LOAD VAC	LOAD W/VA	LOAD CIRCUIT DESCRIPTION	LOAD FIXTURE TYPE
1	NC	NORMAL	277V	---	EXISTING LIGHTING (HD-9)	LED
2	NC	NORMAL	277V	---	EXISTING LIGHTING (HD-11)	LED
3	NC	NORMAL	480V	---	AREA LIGHTING (HD-10)	LED
4	NC	NORMAL	480V	---	AREA LIGHTING (HD-12)	LED
5	NC	NORMAL	277V	---	SPARE	---
6	NC	NORMAL	277V	---	SPARE	---
7	NC	NORMAL	277V	---	SPARE	---
8	NC	NORMAL	277V	---	SPARE	---
9	NC	NORMAL	277V	---	SPARE	---
10	NC	NORMAL	277V	---	SPARE	---
11	NC	NORMAL	277V	---	SPARE	---
12	NC	NORMAL	277V	---	SPARE	---
13	NC	NORMAL	277V	---	SPARE	---
14	NC	NORMAL	277V	---	SPARE	---
15	NC	NORMAL	277V	---	SPARE	---
16	NC	NORMAL	277V	---	SPARE	---



NOTE:
1. REFER TO LIGHTING DRAWINGS FOR EXACT NUMBER OF SWITCHES AND OCCUPANCY SENSORS APPLICABLE TO BE PROVIDED AT EACH ROOM.

LIGHTING CONTROL WIRING DETAIL

01 SCALE : NOT TO SCALE

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: E6.01

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998



01 TYPE A2, A2E, A3, A3E
SCALE : NOT TO SCALE



02 TYPE D2, D2E
SCALE : NOT TO SCALE



03 TYPE G2, G2E
SCALE : NOT TO SCALE



04 TYPE J2E
SCALE : NOT TO SCALE



05 TYPE L2
SCALE : NOT TO SCALE



06 TYPE ME, N
SCALE : NOT TO SCALE



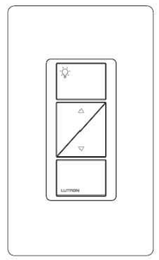
07 TYPE P1
SCALE : NOT TO SCALE



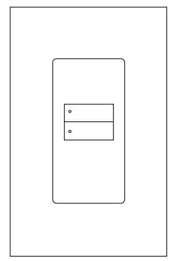
08 TYPE S
SCALE : NOT TO SCALE



09 TYPE X1, X2
SCALE : NOT TO SCALE



10 LUTRON PX-2BRL
DIMMING WALLSTATION
SCALE : NOT TO SCALE



11 LUTRON QSWS2-2BI
WALLSTATION
SCALE : NOT TO SCALE



12 ACUITY CH1
DIGITAL SWITCH
SCALE : NOT TO SCALE



13 KEYED SWITCH
HUBBELL HBL1221RKLX
SCALE : NOT TO SCALE



14 LUTRON MS-Z101-V-WH
WALL SWITCH
SCALE : NOT TO SCALE



15 LUTRON SENSOR
SCALE : NOT TO SCALE

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

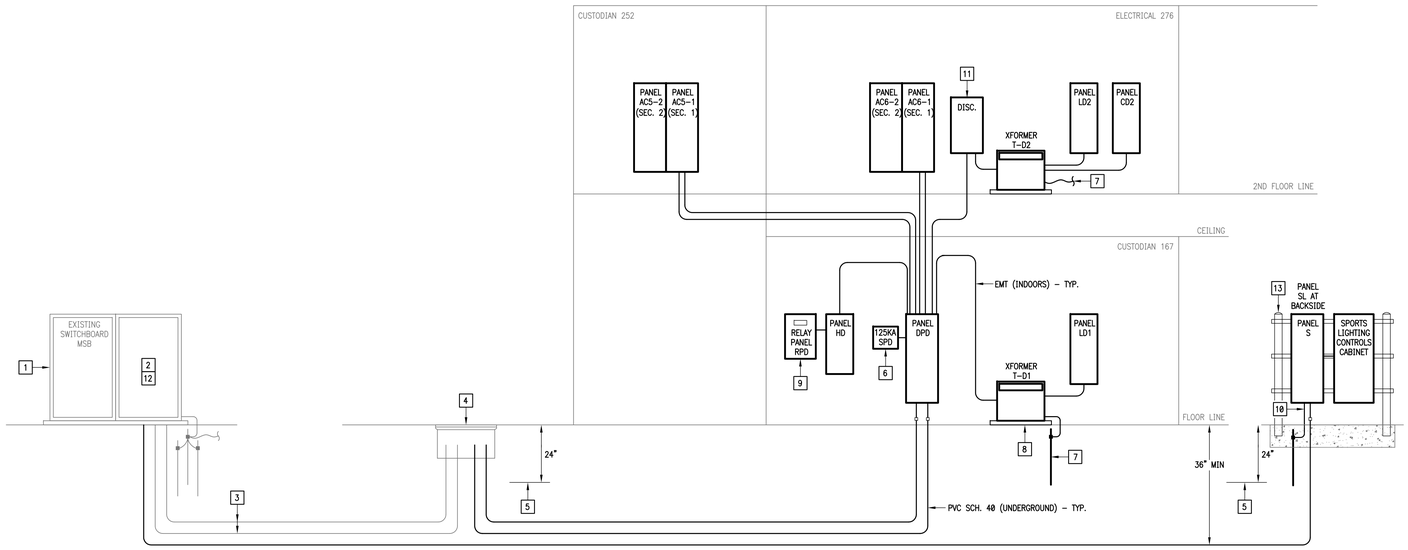
IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
REGISTERED
ARCHITECT
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA ELSA II
Sheet: E6.02

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998



01 ELECTRICAL RISER DIAGRAM
SCALE : NONE

KEYED NOTES:

1. EXISTING EATON POW-R-LINE C SWITCHBOARD 2500A, 277/480V, 3Ø,4W.
2. CONNECT NEW DISTRIBUTION PANELBOARD "DPD" TO EXISTING SPARE 800A/3P BREAKER IN "MSB".
3. EXISTING (2)-4" RACEWAYS. FIELD VERIFY EXACT LOCATION.
4. EXISTING "ELECTRICAL" POLYMER CONCRETE PULL BOX - SEE MEP SITE PLAN.
5. PROVIDE CONTINUOUS DETECTABLE UNDERGROUND WARNING TAPE.
6. PROVIDE 125KA EXTERNALLY MOUNTED SPD ACT COMMUNICATIONS MODEL #ACT471-277Y-160-F-C1-SWM.
7. SEE GROUNDING RISER DIAGRAM.
8. PROVIDE 4" HOUSEKEEPING CONCRETE PAD - TYPICAL.
9. INSTALL & CONNECT RELAY PANEL PROVIDED TO OWNER ON PHASE I.
10. PROVIDE 3/4"X 10' COPPER CLAD GROUND ROD AND 3/4" - #1/0 BARE COPPER GROUND ELECTRODE CONDUCTOR.
11. PROVIDE 200A, 3PNF, 600V, NEMA 1 DISCONNECT.
12. CONNECT NEW DISTRIBUTION PANELBOARD "S" TO EXISTING SPARE 400A/3P BREAKER IN "MSB".
13. PROVIDE A HOT-DIPPED RIGID GALVANIZED SUPPORT STRUCTURE WITH CONCRETE FOOTING AS REQUIRED.

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.

FEEDER SCHEDULE:

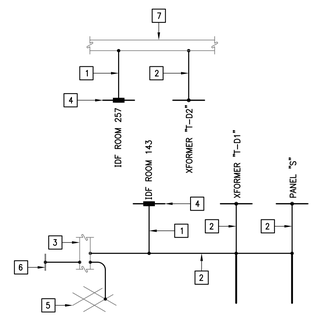
FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
30	1" - 3#10 & #10G	SL
60	1" - 4#6 & #10G	HD
125	1.5" - 4#1 & #6G	LD1, LD2
125	2" - 4#1, #6G & #6IG	CD2
400	4" - 4#600KCMIL & #3G	AC5-1, AC5-2 AC6-1, AC6-2, S
800	(2-RUNS) 4" - 4#600KCMIL & #1/0G	DPD

SIZING METHOD: COPPER 75°C

ALT. #1 FEEDER SCHEDULE:

FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
30	1" - 3#8 & #8G	SL
60	1" - 4#4 & #8G	HD
125	2" - 4#2/0 & #4G	LD1, LD2
125	2" - 4#2/0, #4G & #4IG	CD2
400	(2 RUNS) 2.5" - 4#250KCMIL & #1G	AC5-1, AC5-2 AC6-1, AC6-2, S
800	TO REMAIN AS NOTED ON BASE BID.	DPD

SIZING METHOD: ALUMINUM 75°C



02 GROUNDING RISER DIAGRAM
SCALE : NONE

GROUNDING RISER KEYED NOTES:

1. #4 BARE COPPER GROUND CONDUCTOR.
2. #1/0 BARE COPPER GROUND ELECTRODE CONDUCTOR.
3. CADWELD CONNECT TO BUILDING STRUCTURE STEEL.
4. GROUNDING BUS BAR - TYPICAL.
5. CADWELD CONNECT TO BUILDING REBAR.
6. BOND/CLAMP TO COPPER WATER LINE.
7. CADWELD TO BUILDING STRUCTURE STEEL.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA ELSA II
Sheet: E7.01

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

LD1

ROOM CUSTODIAN 142 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 125
FED FROM T-D1 | 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.	0.54			2	20/1	RECEPT.	1.44		
3	20/1	RECEPT., TRAP PRIMER		0.74		4	20/1	RECEPT.		0.36	
5	20/1	RECEPT.			0.54	6	20/1	RECEPT.			0.9
7	20/1	RECEPT.	0.72			8	20/1	RECEPT.	0.54		
9	20/1	RECEPT.		0.36		10	20/1	RECEPT.		0.9	
11	20/1	RECEPT.			1.08	12	20/1	DRINKING FOUNTAIN			0.8
13	20/1	DRINKING FOUNTAIN	0.8			14	20/1	RECEPT.	1.08		
15	20/1	RECEPT.		1.26		16	20/1	RECEPT.		1.08	
17	20/1	RECEPT.			1.08	18	20/1	HAND DRYER			1.5
19	20/1	HAND DRYER	1.5			20	20/1	HAND DRYER	1.5		
21	20/1	HAND DRYER		1.5		22	20/1	HAND DRYER		1.5	
23	20/1	HAND DRYER			1.5	24	20/1	HAND DRYER			1.5
25	20/1	DRINKING FOUNTAIN	0.8			26	20/1	DRINKING FOUNTAIN	0.8		
27	20/1	RECEPT.		1.08		28	20/1	RECEPT.		0.9	
29	20/1	RECEPT.			0.72	30	20/1	RECEPT.			0.72
31	20/1	RECEPT.	0.72			32	20/1	RECEPT.	0.9		
33	20/1	RECEPT.		0.72		34	20/1	HAND DRYER		1.5	
35	20/1	RECEPT.			0.36	36	20/1	DISHWASHER			1.2
37	20/1	REFRIG	1.2			38	20/1	WASHER	1.2		
39	30/2	DRYER		2.5		40	15/2	FCU-1		0.52	
41	|				2.5	42	|				0.52
43	20/1	EF-1, LIGHTING	0.092			44	20/1	EF-2, EF-3	0.416		
45	20/1	EF-4, LIGHTING		0.092		46	20/1	SPACE		0	
47	20/1	EF-6			0.292	48	20/1	EF-7			0.292
49	20/1	EF-8, LIGHTING	0.143			50	20/2	EWH-1	1.5		
51	20/3			0		52	|			1.5	
53	|				0	54	20/1	FUME HOOD			0.1
55	|		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
61	20/1	SPACE	0			62	20/1	SPACE	0		
63	20/1	SPACE		0		64	20/1	SPACE		0	
65	20/1	SPACE			0	66	20/1	SPACE			0
67	20/1	SPACE	0			68	20/1	SPACE	0		
69	20/1	SPACE		0		70	20/1	SPACE		0	
71	20/1	SPACE			0	72	20/1	SPACE			0
73	20/1	SPACE	0			74	20/1	SPACE	0		
75	20/1	SPARE		0		76	20/1	SPARE		0	
77	20/1	SPARE			0	78	20/1	SPARE			0
79	20/1	SPARE	0			80	20/1	SPARE	0		
81	20/1	SPARE		0		82	20/1	SPARE		0	
83	20/1	SPARE			0	84	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	15.9	16.5	15.6

	CONN KVA	CALC KVA	
LIGHTING	0.142	0.178	(125%)
LARGEST MOTOR	1.04	1.3	(125%)
OTHER MOTORS	1.19	1.19	(100%)
RECEPTACLES	36.3	23.2	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0.1	0.125	(125%)
HEATING	0	0	(N/A)
COOLING	0	0	(N/A)
NONCONTINUOUS	9.19	9.19	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	48	35.1	
BALANCED 3-PHASE AMPS		97.6	

LD2

ROOM ELECTRICAL 255 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | BUS AMPS 225 | MAIN BKR 125
FED FROM T-D2 | 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.	1.26			2	20/1	RECEPT., TRAP PRIMER	1.45		
3	20/1	RECEPT.		0.54		4	20/1	RECEPT.		0.36	
5	20/1	RECEPT.			0.36	6	20/1	RECEPT.			0.9
7	20/1	RECEPT.	0.54			8	20/1	RECEPT.	0.36		
9	20/1	RECEPT.		0.9		10	20/1	RECEPT.		1.08	
11	20/1	RECEPT.			1.08	12	20/1	RECEPT.			1.08
13	20/1	RECEPT.	0.9			14	20/1	RECEPT.	1.08		
15	20/1	HAND DRYER		1.5		16	20/1	HAND DRYER		1.5	
17	20/1	HAND DRYER			1.5	18	20/1	HAND DRYER			1.5
19	20/1	HAND DRYER	1.5			20	20/1	HAND DRYER	1.5		
21	20/1	HAND DRYER		1.5		22	20/1	DRINKING FOUNTAIN		0.8	
23	20/1	DRINKING FOUNTAIN			0.8	24	20/1	RECEPT.			1.26
25	20/1	RECEPT.	0.9			26	20/1	RECEPT.	0.36		
27	20/1	RECEPT.		1.08		28	20/1	RECEPT.		0.18	
29	20/1	DISHWASHER			1.2	30	20/1	VENDING MACHINE			1
31	20/1	VENDING MACHINE	1			32	20/1	RECEPT.	0.36		
33	20/1	COPIER		1.2		34	20/1	COPIER		1.2	
35	20/1	RECEPT.			0.9	36	20/2	* ACCU-1			2.08
37	20/2	* ACCU-2	2.08			38	|		2.08		
39	|			2.08		40	15/2	FCU-2		0.52	
41	20/1	EF-9			0.058	42	|				0.52
43	20/1	EF-10	0.075			44	20/1	EF-11, LIGHTING	0.116		
45	20/1	EF-12, EF-13		0.416		46	20/1	EF-14, LIGHTING		0.092	
47	20/1	EF-15			0.696	48	20/1	EF-16			0.696
49	20/3	EF-17	0.305			50	20/1	EF-18	0.292		
51	|			0.305		52	20/1	EF-19		0.864	
53	|				0.305	54	20/1	FUME HOOD			0.1
55	20/1	RECEPT.	0.18			56	20/1	EF-20	0.072		
57	20/1	MOT. DAMPER		0.01		58	20/1	SPARE		0	
59	20/1	SPARE			0	60	20/1	SPARE			0
61	20/1	SPACE	0			62	20/1	SPACE	0		
63	20/1	SPACE		0		64	20/1	SPACE		0	
65	20/1	SPACE			0	66	20/1	SPACE			0
67	20/1	SPACE	0			68	20/1	SPACE	0		
69	20/1	SPACE		0		70	20/1	SPACE		0	
71	20/1	SPACE			0	72	20/1	SPACE			0
73	20/1	SPACE	0			74	20/1	SPACE	0		
75	20/1	SPARE		0		76	20/1	SPARE		0	
77	20/1	SPARE			0	78	20/1	SPARE			0
79	20/1	SPARE	0			80	20/1	SPARE	0		
81	20/1	SPARE		0		82	20/1	SPARE		0	
83	20/1	SPARE			0	84	20/1	SPARE			0
								TOTAL CONNECTED KVA BY PHASE	16.4	16.1	16

	CONN KVA	CALC KVA	
LIGHTING	0.104	0.13	(125%)
LARGEST MOTOR	4.16	5.2	(125%)
OTHER MOTORS	9.39	9.39	(100%)
RECEPTACLES	34.8	22.4	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0.1	0.125	(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	48.6	37.3	
BALANCED 3-PHASE AMPS		103	

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

AC6-1

ROOM ELECTRICAL 255 | VOLTS 480Y/277V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 400
FED FROM DPD | NEUTRAL 100% | LUGS FEEDTHRU
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	20/3	RTU-239	3.82			2	15/3	RTU-240	2.85		
3	|			3.82		4	|			2.85	
5	|				3.82	6	|				2.85
7	15/3	RTU-131	2.85			8	15/3	RTU-132	2.85		
9	|			2.85		10	|			2.85	
11	|				2.85	12	|				2.85
13	15/3	RTU-241	2.85			14	15/3	RTU-244	2.85		
15	|			2.85		16	|			2.85	
17	|				2.85	18	|				2.85
19	15/3	RTU-135	2.85			20	15/3	RTU-245	2.85		
21	|			2.85		22	|			2.85	
23	|				2.85	24	|				2.85
25	80/3	RTU-0A3	14.8			26	20/3	SPACE	0		
27	|			14.8		28	|			0	
29	|				14.8	30	|				0
		LUG LOAD: PANEL AC6-2	23.9	23.9	23.9			TOTAL CONNECTED KVA BY PHASE	62.4	62.4	62.4

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	4.32	5.4	(125%)
OTHER MOTORS	39.9	39.9	(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	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	187	188	
BALANCED 3-PHASE AMPS		227	

1. PROVIDE FEED THRU LUGS TO SECTION 2.
2. PROVIDE ALL BREAKERS H.A.C.R. TYPE.
3. PROVIDE TAYLOR PHASE GUARD SHUNT TRIP PROTECTION TO MAIN BREAKER.

AC6-2

ROOM ELECTRICAL 255 | VOLTS 480Y/277V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR MLO
FED FROM AC6-1 | 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	20/3	RTU-128	3.82			2	20/3	RTU-238	3.82		
3	|			3.82		4	|			3.82	
5	|				3.82	6	|				3.82
7	15/3	RTU-242	2.85			8	15/3	RTU-133	2.85		
9	|			2.85		10	|			2.85	
11	|				2.85	12	|				2.85
13	20/3	RTU-134	3.82			14	20/3	RTU-243	3.82		
15	|			3.82		16	|			3.82	
17	|				3.82	18	|				3.82
19	15/3	RTU-136	2.85			20	20/3	SPACE	0		
21	|			2.85		22	|			0	
23	|				2.85	24	|				0
25	20/3	SPACE	0			26	20/3	SPACE	0		
27	|			0		28	|			0	
29	|				0	30	|				0
								TOTAL CONNECTED KVA BY PHASE	23.9	23.9	23.9

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	2.66	3.33	(125%)
OTHER MOTORS	16	16	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	52.9	52.9	(100%)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	71.6	72.2	
BALANCED 3-PHASE AMPS		86.9	

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

CD2

ROOM ELECTRICAL 255 | VOLTS 208Y/120V 3P 4W | AIC 10,000
MOUNTING SURFACE | | MAIN BKR 125
FED FROM T-D2 | NEUTRAL 100% | 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	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	20/1	RECEPT., WHITE BOARD		0.595		16	20/1	RECEPT., WHITE BOARD		0.595	
17	20/1	COMP. RECEPT., USB RECEPT.			0.93	18	30/1	IDF - UPS			2.88
19	30/1	IDF - UPS	2.88			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	RECEPT., WHITE BOARD	0.595		
27	20/1	RECEPT., WHITE BOARD		0.595		28	20/1	RECEPT., WHITE BOARD		0.595	
29	20/1	RECEPT., WHITE BOARD			0.595	30	20/1	RECEPT., WHITE BOARD			0.595
31	20/1	RECEPT., WHITE BOARD	0.595			32	20/1	RECEPT., WHITE BOARD	0.595		
33	20/1	RECEPT., WHITE BOARD		0.595		34	20/1	RECEPT., WHITE BOARD		0.595	
35	20/1	COMP. RECEPT., USB RECEPT.			0.93	36	30/1	IDF - UPS			2.88
37	20/1	IDF - UPS	2.88			38	20/1	RECEPT., WHITE BOARD	0.595		
39	20/1	INT. DETECTION SYSTEM		0.1		40	20/1	INT. DETECTION SYSTEM		0.1	
41	20/1	RECEPT.			0.36	42	20/1	FIRE ALARM CONTROL PANEL			1.2
43	20/1	FIRE ALARM CONTROL PANEL	1.2			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	SPACE		0		52	20/1	SPACE		0	
53	20/1	SPACE			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	14.1	7.34	13.9

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	19.8	14.9	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	15.6	19.5	(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	35.4	34.4	
BALANCED 3-PHASE AMPS		95.5	

AC5-1

ROOM CUSTODIAN 256 | VOLTS 480Y/277V 3P 4W | AIC 42,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 400
FED FROM DPD | NEUTRAL 100% | LUGS FEEDTHRU
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	20/3	RTU-129/130	3.82			2	15/3	RTU-122	2.85		
3	|			3.82		4	|			2.85	
5	|				3.82	6	|				2.85
7	20/3	RTU-230	3.82			8	20/3	RTU-121	3.82		
9	|			3.82		10	|			3.82	
11	|				3.82	12	|				3.82
13	20/3	RTU-231/232	3.82			14	15/3	RTU-234	2.85		
15	|			3.82		16	|			2.85	
17	|				3.82	18	|				2.85
19	15/3	RTU-124	2.85			20	15/3	RTU-233	2.85		
21	|			2.85		22	|			2.85	
23	|				2.85	24	|				2.85
25	80/3	RTU-0A2	14.8			26	80/3	RTU-0A1	14.8		
27	|			14.8		28	|			14.8	
29	|				14.8	30	|				14.8
		LUG LOAD: PANEL AC5-2	21.9	21.9	21.9			TOTAL CONNECTED KVA BY PHASE	78.2	78.2	78.2

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	4.32	5.4	(125%)
OTHER MOTORS	44.2	44.2	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	186	186	(100%)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	234	236	
BALANCED 3-PHASE AMPS		283	

1. PROVIDE FEED THRU LUGS TO SECTION 2.
2. PROVIDE ALL BREAKERS H.A.C.R. TYPE.
3. PROVIDE TAYLOR PHASE GUARD SHUNT TRIP PROTECTION TO MAIN BREAKER.

AC5-2

ROOM CUSTODIAN 256 | VOLTS 480Y/277V 3P 4W | AIC 22,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR MLO
FED FROM AC5-1 | 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	20/3	RTU-127	3.82			2	20/3	RTU-237	3.82		
3	|			3.82		4	|			3.82	
5	|				3.82	6	|				3.82
7	15/3	RTU-236	2.85			8	15/3	RTU-126	2.85		
9	|			2.85		10	|			2.85	
11	|				2.85	12	|				2.85
13	15/3	RTU-235	2.85			14	15/3	RTU-125	2.85		
15	|			2.85		16	|			2.85	
17	|				2.85	18	|				2.85
19	15/3	RTU-123	2.85			20	20/3	SPACE	0		
21	|			2.85		22	|			0	
23	|				2.85	24	|				0
25	20/3	SPACE	0			26	20/3	SPACE	0		
27	|			0		28	|			0	
29	|				0	30	|				0
								TOTAL CONNECTED KVA BY PHASE	21.9	21.9	21.9

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	2.66	3.33	(125%)
OTHER MOTORS	16	16	(100%)
RECEPTACLES	0	0	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	CONN KVA	CALC KVA	
CONTINUOUS	0	0	(125%)
HEATING	47.1	47.1	(100%)
COOLING	0	0	(N/A)
NONCONTINUOUS	0	0	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	65.7	66.4	
BALANCED 3-PHASE AMPS		79.8	

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

DPD

ROOM CUSTODIAN 142 | VOLTS 480Y/277V 3P 4W | AIC 65,000
MOUNTING SURFACE | BUS AMPS 800 | MAIN BKR 800
FED FROM EXISTING 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	400/3	PANEL AC5-1	78.2			2	90/3	*XFMR T-D1	15.9		
3	|			78.2		4	|		16.5	
5	|				78.2	6	|			15.6	
7	400/3	PANEL AC6-1	62.4			8	150/3	*XFMR T-D2	30.5		
9	|			62.4		10	|		23.5		
11	|				62.4	12	|				30
13	20/1	SPACE	0			14	60/3	PANEL HD	4.3		
15	20/1	SPACE		0		16	|		7.17		
17	20/1	SPACE			0	18	|				4.9
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	SPACE	0			26	20/1	SPACE	0		
27	20/1	SPACE		0		28	20/1	SPACE		0	
29	20/1	SPACE			0	30	20/1	SPACE			0
								TOTAL CONNECTED KVA BY PHASE	191	188	191

	CONN KVA	CALC KVA	
LIGHTING	16.6	20.8	(125%)
LARGEST MOTOR	4.32	5.4	(125%)
OTHER MOTORS	104	104	(100%)
RECEPTACLES	90.9	50.5	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

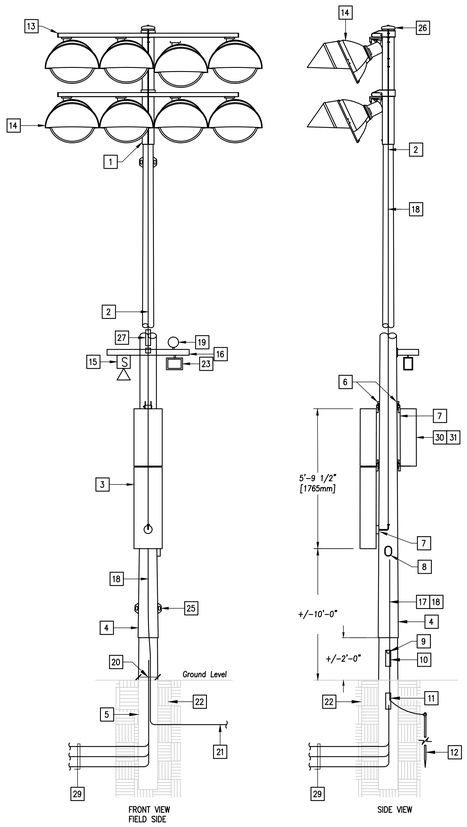
	CONN KVA	CALC KVA	
CONTINUOUS	15.8	19.8	(125%)
HEATING	329	329	(100%)
COOLING	0	0	(N/A)
NONCONTINUOUS	9.19	9.19	(100%)
DIVERSE	0	0	(N/A)
METERED DEMAND	0	0	(125%)
TOTAL KVA	570	539	
BALANCED 3-PHASE AMPS		648	

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

HD

ROOM CUSTODIAN 142 | VOLTS 480Y/277V 3P 4W | AIC 14,000
MOUNTING SURFACE | BUS AMPS 60 | MAIN BKR MLO
FED FROM DPD | 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	LIGHTING	2.44		
3	20/1	LIGHTING		2.53		4	20/1	LIGHTING		2.53	
5	20/1	LIGHTING			2.86	6	20/1	LIGHTING			0.81
7	20/1	LIGHTING	0.99			8	20/1	LIGHTING	0.872		
9	20/1	LIGHTING		1.49		10	20/2	LIGHTING		0.627	
11	20/1	LIGHTING			0.606	12	|				0.627
13	20/1	SPARE	0			14	20/1	SPARE	0		
15	20/1	SPARE		0		16	20/1	SPARE		0	
17	20/1	SPACE			0	18	20/1	SPACE			0



TYPICAL SPORTS LIGHTING
LIGHT POLE DETAIL

01 SCALE : NOT TO SCALE

LIGHT POLE DETAIL NOTES:

1. POLETOP LUMINAIRE ASSEMBLY.
2. WIRE HARNESS.
3. ELECTRICAL COMPONENTS ENCLOSURES
   a. DRIVERS
   b. CAPACITORS
   c. SMART LAMP CONTROL
   d. FUSING
   e. PRIMARY LANDING LUGS
   f. ONE DISCONNECT PER CIRCUIT
   g. PER LIGHT-STRUCTURE GREEN SYSTEM
   h. GROUNDING LUG
4. GALVANIZED STEEL POLE (1, 2, 3, OR 4 SECTIONS).
5. PRECAST CONCRETE BASE (CENTRIFUGALLY SPUN PRESTRESSED).
6. ATTACHMENT BRACKET.
7. WIRE ACCESS HUB.
8. HANDHOLE WITH GROUNDING LUG ACCESS.
9. LIFTING BAR HOLE.
10. ABOVE GROUND ACCESS HOLE.
11. UNDERGROUND ACCESS HOLE.
12. 3/4" X 10' GROUNDING ROD.
13. HOT DIP GALVANIZED CROSS ARM WITH CONCEALED WIRING.
14. EACH LIGHT FIXTURE SHALL BE INDIVIDUALLY FUSED. SEE POLE SCHEDULE FOR NUMBER OF LIGHT FIXTURES AT EACH POLE.
15. FUTURE OUTDOOR SPEAKER HORN.
16. THREE POINT BRACKET. SEE POLE SCHEDULE FOR MOUNTING HT.
17. #2 GROUND WIRE.
18. WIRING INSIDE POLE – TYP.
19. FUTURE CCTV CAMERA.
20. POLE DIAM. AT BASE. COORDINATE W/ SUPPLIER.
21. SPORTS LIGHTING ELECTRICAL RACEWAY SEE SHEET MEP1.01.
22. CONCRETE BACKFILL ALL AROUND POLE PER POLE MANUF. RECOMMENDATIONS.
23. FUTURE SPEAKER.
24. EXPANSION FITTING.
25. JACKING EAR.
26. REMOVABLE POLE CAP.
27. FUTURE WIFI TRANSMITTER.
28. TO POWER SOURCE.
29. COMMUNICATIONS RACEWAYS. SEE POLE FEEDER SCHEDULE.
30. PROVIDE 2 – 20A/GFI RECEPTACLES (2–20A, 120V CIRCUITS). 1" – 2#10 & #10G EACH. CONNECT CIRCUITS TO PANELBOARD SL.
31. ELECTRICAL COMPONENTS ENCLOSURE FOR FUTURE WIFI EQUIPMENT.

S

ROOM OUTDOORS | VOLTS 480Y/277V 3P 4W | AIC 35,000
MOUNTING SURFACE | BUS AMPS 400 | MAIN BKR 400
FED FROM EXISTING MSB | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY.

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	20/3	POLE S1	2.49			2	20/3	POLE S2	2.49		
3	|	|		2.49		4	|	|		2.49	
5	|	|			2.49	6	|	|			2.49
7	20/3	POLE S3	2.49			8	20/3	POLE S4	2.49		
9	|	|		2.49		10	|	|		2.49	
11	|	|			2.49	12	|	|			2.49
13	100/3	SPARE	0			14	100/3	SPARE	0		
15	|	|		0		16	|	|		0	
17	|	|			0	18	|	|			0
19	30/2	XFMR T-SL	0.18			20	50/3	SPARE	0		
21	|	|		0		22	|	|		0	
23	20/1	SPACE			0	24	|	|			0
		TOTAL CONNECTED KVA BY PHASE							10.2	9.98	9.98

	CONN KVA	CALC KVA	
LIGHTING	29.9	37.4	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	0.18	0.18	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	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	30.1	37.6	
BALANCED 3–PHASE AMPS		45.2	

1. PROVIDE NEMA 3R (304 STAINLESS STEEL) ENCLOSURE.

SL

ROOM OUTDOORS | VOLTS 240/120V 2P 3W | AIC 18,000
MOUNTING SURFACE | BUS AMPS 100 | MAIN BKR 40
FED FROM T–SL | NEUTRAL 100% | LUGS STANDARD
NOTE PROVIDE A TYPE WRITTEN AS BUILT DIRECTORY.

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B
1	20/1	POLE S1 RECEPT.	0.18		2	20/1	SPARE	0	
3	20/1	SPARE		0	4	20/1	SPARE		0
5	20/1	SPARE	0		6	20/1	SPARE	0	
7	20/1	SPARE		0	8	20/1	SPARE		0
		TOTAL CONNECTED KVA BY PHASE						0.18	0

	CONN KVA	CALC KVA	
LIGHTING	0	0	(125%)
LARGEST MOTOR	0	0	(N/A)
OTHER MOTORS	0	0	(100%)
RECEPTACLES	0.18	0.18	(50%>10)
KITCHEN EQUIP	0	0	(N/A)

	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	0.18	0.18	
BALANCED AMPS		0.75	

1. PROVIDE NEMA 3R ENCLOSURE.
2. PROVIDE PACKAGED POWER SUPPLY WITH INTEGRAL 7.5KVA TRANSFORMER, 30A/2P 480V PRIMARY MCB AND 40A/2P 240V SECONDARY MCB.

SPORTS LIGHTING - POLE SCHEDULE

DESIG	POLE HT.	NO. OF FIXTURES "SL"	NO. OF DRIVERS	MODEL	NOTES	CONTACTOR I.D./AMPS
S1	60 FT	4	4	MUSCO: TLC–LED–1200	1	C1/30
S2	60 FT	4	4	MUSCO: TLC–LED–1200	–	C2/30
S3	60 FT	4	4	MUSCO: TLC–LED–1200	–	C3/30
S4	60 FT	4	4	MUSCO: TLC–LED–1200	–	C4/30

NOTES:
1. PROVIDE ELECTRICAL ENCLOSURE AND RECEPTACLE FOR FUTURE FIBER MEDIA CONVERTER.

SPORTS FIELDS - FEEDER SCHEDULE

POLES	FLA	VOLTS	APPROX DIST	%VD	FEEDER	NOTES
S1	9.0	480	64'	0.3	1.5" – 4#10 & #12G	ALL
S2	9.0	480	264'	1.1	1.5" – 4#10 & #12G	ALL
S3	9.0	480	361'	1.5	1.5" – 4#10 & #12G	1–4
S4	9.0	480	257'	1.0	1.5" – 4#10 & #12G	1–4

NOTES:
1. FEEDER DISTANCES ARE FOR VOLTAGE DROP CALCULATIONS ONLY, NOT FOR BIDDING PURPOSES.
2. DONT SPLICE WIRING BELOW GRADE, PROVIDE ABOVE GRADE CAST ALUMINUM BOXES AT POLE BASE.
3. PROVIDE PULLBOXES AS REQUIRED, SIZE PER NEC
4. SIZE PULL AND SPLICE BOXES PER NEC. PROVIDE WHERE REQUIRED FOR PULLING NEEDS
5. PROVIDE 3–1" RACEWAYS WITH PULLWIRE (INTERCOM, DATA, SOUND). TERMINATE RACEWAYS AT PULLBOX.

ethos engineering
119 W. VAN BUREN AVE, STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

No.	REVISIONS	BY

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

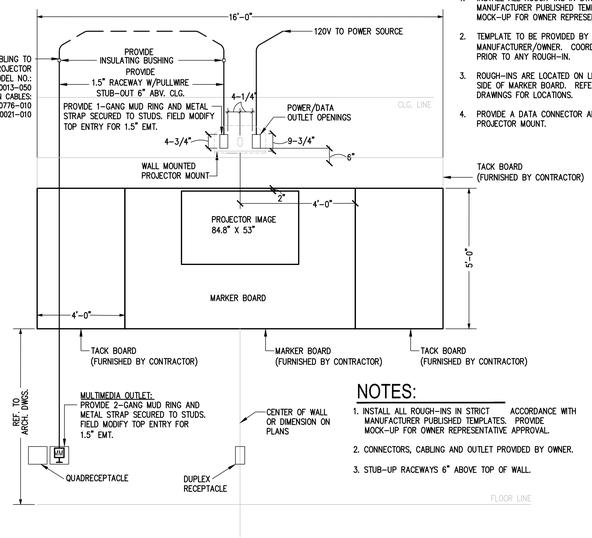
IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
LICENSED ARCHITECT
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No.: IDEA ELSA II
Sheet: E8.02



NOTES:

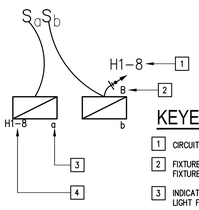
1. INSTALL ALL ROUGH-INS IN STRICT ACCORDANCE WITH MANUFACTURER PUBLISHED TEMPLATES. PROVIDE MOCK-UP FOR OWNER REPRESENTATIVE APPROVAL.
2. TEMPLATE TO BE PROVIDED BY PROJECTOR MANUFACTURER/OWNER. COORDINATE WITH OWNER PRIOR TO ANY ROUGH-IN.
3. ROUGH-INS ARE LOCATED ON LEFT OR RIGHT HAND SIDE OF MARKER BOARD. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS.
4. PROVIDE A DATA CONNECTOR AND CAT6 WIRING AT PROJECTOR MOUNT.

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.

01 TYPICAL CLASSROOM WALL PROJECTOR ROUGH-IN

SCALE : NOT TO SCALE

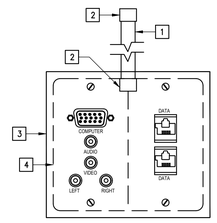


KEYED NOTES:

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

02 LIGHTING LEGEND DETAIL

SCALE : NOT TO SCALE



KEYED NOTES:

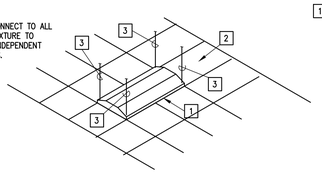
1. PROVIDE 1.5" EMT STUBBED ABOVE CLG.
2. PROVIDE INSULATING BUSHING.
3. PROVIDE 2-GANG MUD RING.
4. PROVIDE MULTI-MEDIA OUTLET RAPID RUN MODEL NO. 2212-60028-001, INCLUDING DATA CONNECTOR AND CAT6 WIRING

03 MULTI MEDIA OUTLET DETAIL

SCALE : NOT TO SCALE

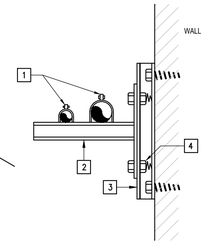
KEYED NOTES:

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



04 TYPICAL LAY-IN FIXTURE SUPPORT

SCALE : NOT TO SCALE

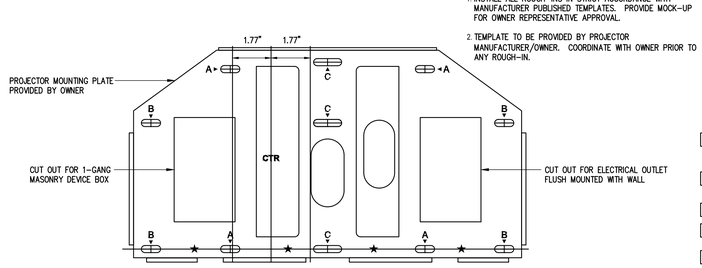


KEYED NOTES:

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

05 RACEWAY RUNS SUPPORT DETAIL

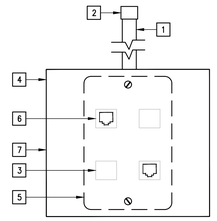
SCALE : NOT TO SCALE



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.

06 WALL PROJECTOR MOUNTING BRACKET 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

07 TYPICAL DATA/TELEPHONE OUTLET DETAIL

SCALE : NOT TO SCALE

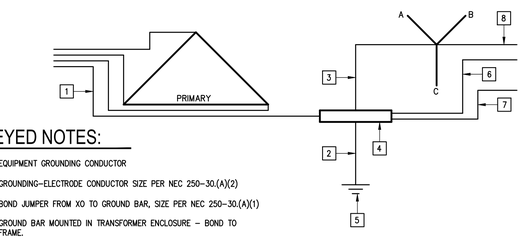
ENGRAVED BLACK LETTERING
MECHANICAL FASTENERS
LAMINATED ACRYLIC OR MELAMINE PLASTIC

PANEL "XXX"
FED FROM PANEL X
CKT : XX

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

08 EQUIPMENT IDENTIFICATION LABEL DETAIL

SCALE : NOT TO SCALE

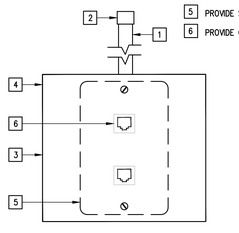


KEYED NOTES:

1. EQUIPMENT GROUNDING CONDUCTOR
2. GROUNDING-ELECTRODE CONDUCTOR SIZE PER NEC 250-30.(A)(2)
3. BOND JUMPER FROM XO TO GROUND BAR, SIZE PER NEC 250-30.(A)(1)
4. GROUND BAR MOUNTED IN TRANSFORMER ENCLOSURE – BOND TO FRAME.
5. GROUNDING ELECTRODES PER NEC 250-30. (A)(3)REBAR FOUNDATION.
6. GREEN/YELLOW IG GROUNDING CONDUCTOR, SIZE PER NEC 250-146, 250-146.(D)
7. GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZE PER NEC 250-122.
8. OUTPUT NEUTRAL – 200% SIZE FOR NONLINEAR LOADS.

09 TRANSFORMER WIRING DIAGRAM DETAIL

SCALE : NOT TO SCALE

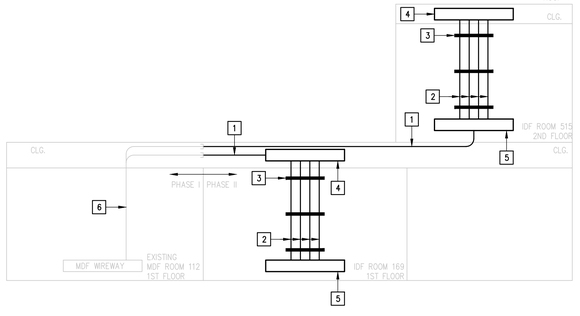


KEYED NOTES:

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

10 TYPICAL DATA OUTLET DETAIL

SCALE : NOT TO SCALE



KEYED NOTES:

1. PROVIDE 4" RACEWAY WITH PULLWIRE (FIBER OPTIC CABLE). ROUTE ABOVE ACCESSIBLE CEILING SPACE AND CONNECT TO EXISTING PHASE I 4" RACEWAYS. SEE SHEET MEP.01. PROVIDE 3 INNER DUCTS FOR BACKBONE CABLING.
2. PROVIDE (4) – 4" RACEWAYS.
3. PROVIDE UNISTRUT WALL BRACKET AS REQUIRED. SECURE RACEWAYS WITH "U" CLAMPS TYPICAL.
4. PROVIDE WIREWAY 12" ABOVE CEILING AS NOTED ON ELECTRICAL DRAWINGS.
5. PROVIDE WIREWAY AT FLOOR LEVEL.
6. EXISTING PHASE I 4" RACEWAYS.

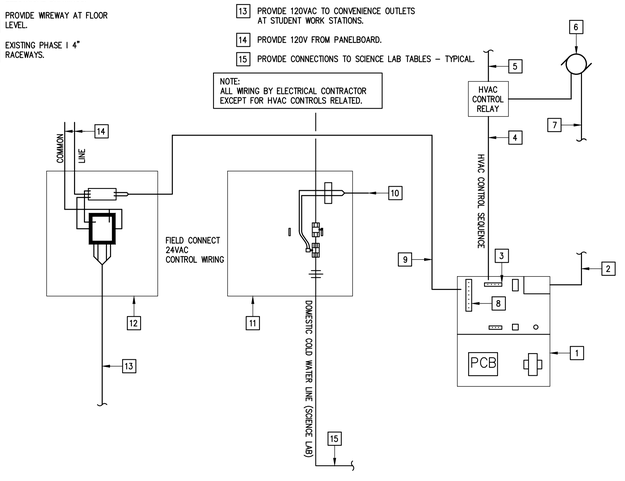
11 SPECIAL SYSTEMS RACEWAYS WIREWAY DETAIL

SCALE : NOT TO SCALE

KEYED NOTES:

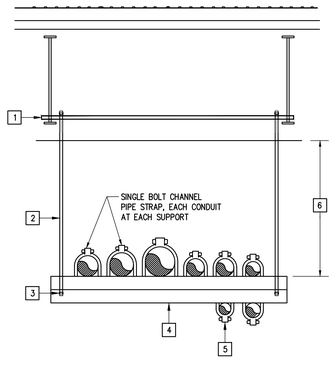
1. PROVIDE ISIMET UTILITY CONTROLER WITH PANIC BUTTON (PURGE), ADDITIONAL LOW SPEED SWITCH, FIELD CONFIGURE CONTROLS SYSTEM.
2. PROVIDE 120VAC POWER SUPPLY WIRING IN CONDUIT MAKE CONNECTION @ J-BOX.
3. PROVIDE ENERGY MANAGEMENT CONTROL CONTACTOR TO MAKE CONNECTIONS TO TERMINAL 1.
4. PROVIDE 1/2"EMT AND CONTROL WIRING FROM AIR HANDLING DEVICE.
5. TO HVAC CONTROL PANEL.
6. EXHAUST FAN BY MECHANICAL CONTRACTOR. EXHAUST FAN SHALL ACTIVATE HIGH SPEED TO PURGE MODE ON PANIC. PROVIDE ADDITIONAL LOW SPEED CONTROL SWITCH. SEE CONTROLS SEQUENCE.
7. PROVIDE 208V, 3Ø LINE & NEUTRAL FROM PANELBOARD.
8. CONNECT OUTPUT CIRCUIT WIRING TO TERMINAL 2.
9. PROVIDE 1/2" EMT FIELD INSTALLED. PROVIDE NEW 18AWG TO EACH SOLENOID AND RELAY.
10. TO ADJACENT LAB ISIMET UTILITY CONTROLLER.
11. PROVIDE SOLENOID ENCLOSURE.
12. PROVIDE CONTACTOR ENCLOSURE.
13. PROVIDE 120VAC TO CONVENIENCE OUTLETS AT STUDENT WORK STATIONS.
14. PROVIDE 120V FROM PANELBOARD.
15. PROVIDE CONNECTIONS TO SCIENCE LAB TABLES – TYPICAL.

NOTE:
ALL WIRING BY ELECTRICAL CONTRACTOR EXCEPT FOR HVAC CONTROLS RELATED.



15 TYPICAL SCIENCE LAB UTILITY CONTROLS DETAIL

SCALE : NOT TO SCALE

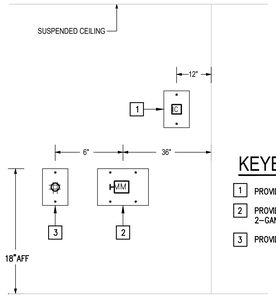


KEYED NOTES:

1. PROVIDE UNISTRUT STRUCTURAL CHANNEL SECURED TO TO JOIST AT BOTH ENDS.
2. PROVIDE 1/2" GALVANIZED ROD MINIMUM.
3. PROVIDE LOCKNUT.
4. PROVIDE GALVANIZED UNISTRUT 8'-0" O/C MAXIMUM.
5. 0'-1" MAXIMUM SIZE ON BOTTOM OF UNISTRUT.
6. VARIES.

12 HORIZONTAL RACEWAYS SUPPORT DETAIL

SCALE : NOT TO SCALE

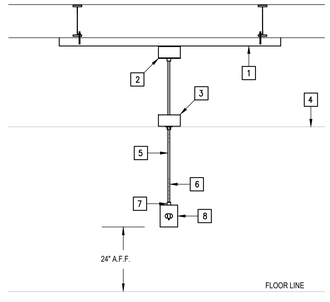


KEYED NOTES:

1. PROVIDE INTERCOM BUTTON.
2. PROVIDE MULTI MEDIA OUTLET AND 2-GANG MUD RING.
3. PROVIDE QUADPLEX RECEPTACLE.

13 TYPICAL TEACHER'S WORKSTATION DETAIL

SCALE : NOT TO SCALE



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 "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 – 2 GANG.

14 PENDANT MOUNTED IDF/MDF ROOM RECEPTACLE DETAIL

SCALE : NONE

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

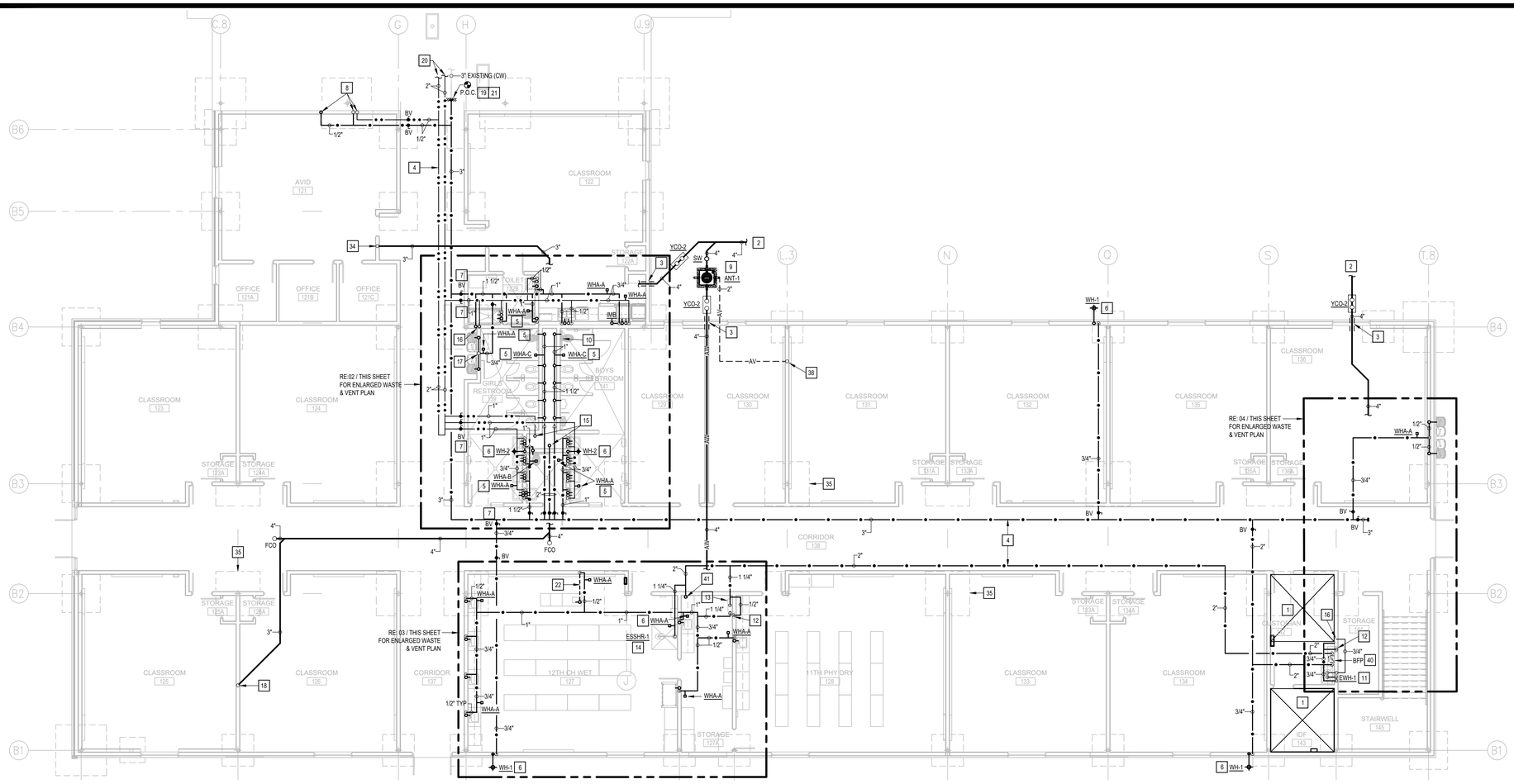
IDEA Public Schools

STATE OF TEXAS
RAY PEYNADO
125390
REGISTERED
ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	E9.01

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998



01 PLUMBING PLAN (FIRST FLOOR)

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

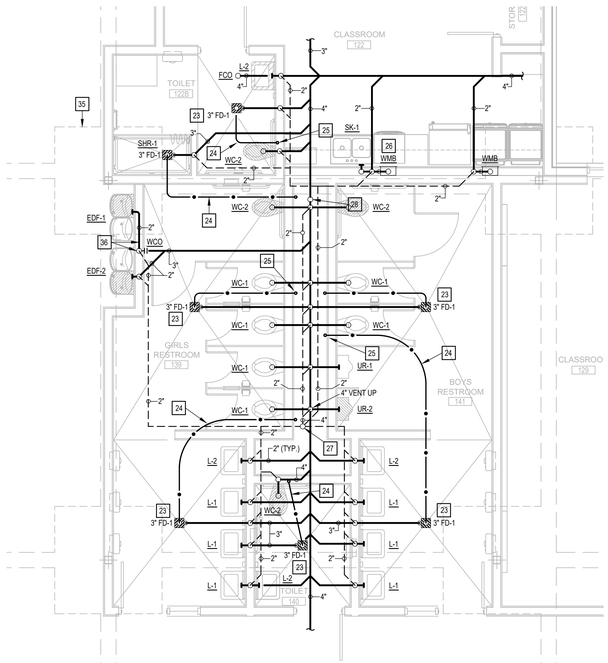
NORTH

GENERAL NOTES:

1. LAB SINKS (LS-1), FUME HOODS (FH-1) AND FAUCETS AT PREP ROOMS AND SCIENCE LABS ARE PART OF THE MILLWORK. (PROVIDED BY GENERAL CONTRACTOR). PLUMBING CONTRACTOR SHALL PROVIDE AND CONNECT ALL SERVICES AND ACCESSORIES SUCH AS WATER, SEWER, VENT, WATER STOPS, STAINLESS STEEL FLEXIBLE RISERS, P-TRAPS, ETC. COORDINATE WITH GENERAL CONTRACTOR

PLUMBING KEYED NOTES:

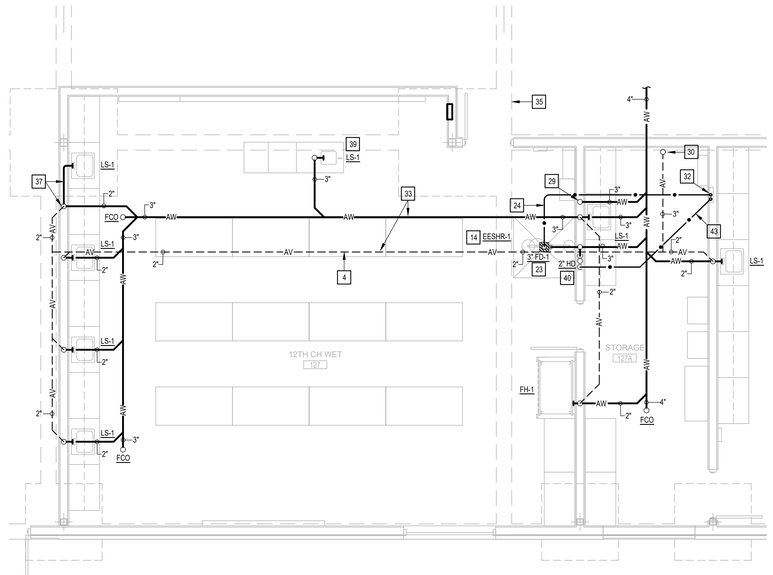
1. CLEARANCE FOR ELECTRICAL PANELS. ROUTE NO PIPING OVER THIS AREA. REFER TO ELECTRICAL PLANS FOR EXACT LOCATION OF ELECTRICAL ROOMS.
2. REFER TO CIVIL PLAN FOR CONTINUATION.
3. SLEEVE ALL GRADE BEAMS, FLOOR SLABS AND MASONRY WALL PENETRATIONS PER DETAIL WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT.
4. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
5. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB (WHB SERIES) 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 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)
7. 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)
8. RUN 1/2" CW AND 1/2" HW UP TO 2ND FLOOR TO SERVE SINK (SK-2), DISHWASHER AND ICE MACHINE BOX. (IMB)
9. PROVIDE ACID NEUTRALIZATION TANK (ANT) AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
10. INSTALL WATER CLOSET FLUSH VALVE HANDLE TOWARDS WIDE SIDE OF THE ROOM. COORDINATE WITH GENERAL CONTRACTOR. (TYPICAL)
11. PROVIDE WALL MOUNTED ELECTRIC WATER HEATER AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET (TYPICAL). RUN 3/4" COLD WATER AND 3/4" HOT WATER DOWN IN WALL TO MOP SERVICE BASIN (MSB-1) AND RUN 3/4" COLD WATER AND 3/4" HOT WATER UP TO 2ND FLOOR TO SERVE MOP SERVICE BASIN (MSB-1).
12. PROVIDE A PPP MODEL MPB-500 ELECTRONIC TRAP PRIMER OR APPROVED EQUAL. TAP FROM TOP OF COLD WATER LINE AND CONNECT TO TRAP PRIMER BOX. LOCATE BOX ABOVE CEILING. SEE ASSOCIATED DETAIL ON DETAIL SHEET (TYPICAL).
13. DROP DOMESTIC WATER LINE INTO SOLENOID ENCLOSURE BOX TO SERVE LAB SINKS. RE: DETAIL SHEET. SOLENOID ENCLOSURE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE ALL CONNECTIONS AND MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR.
14. PROVIDE EMERGENCY EYE/FACE WASH AND SHOWER AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
15. RUN 2" CW AND 1" HW UP TO 2ND FLOOR.
16. RUN 3/4" CW AND 3/4" HW UP TO 2ND FLOOR TO SERVE MOP SERVICE BASIN (MSB-1).
17. RUN 1/2" CW DOWN TO 1ST FLOOR AND 1/2" CW UP TO 2ND FLOOR TO SERVE ELECTRIC DRINKING FOUNTAINS. (EDF-1 / EDF-2)
18. 2" WASTE DOWN FROM 2ND FLOOR.
19. CONNECT NEW DOMESTIC COLD WATER PIPING INTO EXISTING AT THIS APPROXIMATE LOCATION.
20. REFER TO SITE PLAN MEP 1.01; DETAIL 02 FOR FURTHER CONTINUATION.
21. REMOVE AND REPLACE CEILING TILES IN THE EXISTING BUILDING TO ACCOMMODATE NEW HOT AND COLD WATER PIPING.
22. PROVIDE 1/2" SOFT DRAW 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)
23. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
24. PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. 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)
25. CONNECT TO FLUSH VALVE TRAP-PRIMER (WC). SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
26. 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.
27. 4" VENT UP TO 2ND FLOOR.
28. 4" WASTE DOWN FROM 2ND FLOOR.
29. 3" ACID WASTE DOWN FROM 2ND FLOOR.
30. 3" ACID VENT UP TO 2ND FLOOR.
31. 2" VENT UP TO 2ND FLOOR.
32. CONNECT TO ELECTRONIC TRAP-PRIMER VALVE. ROUTE PIPING DOWN IN WALL CAVITY. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
33. PROVIDE ACID RESISTANT PIPING FOR ALL WASTE AND VENT SYSTEM SERVING SCIENCE LABS. REFER TO SPECIFITCATIONS FOR MORE INFORMATION.
34. 2" WASTE DOWN FROM 2ND FLOOR.
35. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL)
36. 3" WASTE UP TO 3" WALL CLEAN OUT TO CLEAR CONCRETE FOOTING. RUN 2" WASTE LINE TO EDF-1 ABOVE CONCRETE SLAB AND 2" VENT UP.
37. RUN 2" WASTE UP TO CLEAR CONCRETE FOOTING. RUN 2" WASTE LINE INSIDE WALL ABOVE CONCRETE SLAB.
38. 2" ACID VENT UP TO 2ND FLOOR.
39. PROVIDE PLUMBING CONNECTION TO INSTRUCTOR'S DESK AS PER DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
40. PROVIDE 2" HUB DRAIN FOR EMERGENCY EYEWASH DRAIN. PROVIDE A 2"X3" HUB INCREASER. PROVIDE A 12"X12" ACCESS PANEL FOR MAINTENANCE ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING.
41. RUN 2" COLD WATER UP TO 2ND FLOOR TO SERVE CHEMISTRY LAB CLASSROOM.
42. 3" WASTE DOWN FROM 2ND FLOOR.
43. PROVIDE 1/2" SOFT DRAW COPPER. ROUTE PIPING IN CEILING SPACE TO 2" HUB DRAIN.



02 WASTE & VENT (FIRST FLOOR)

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

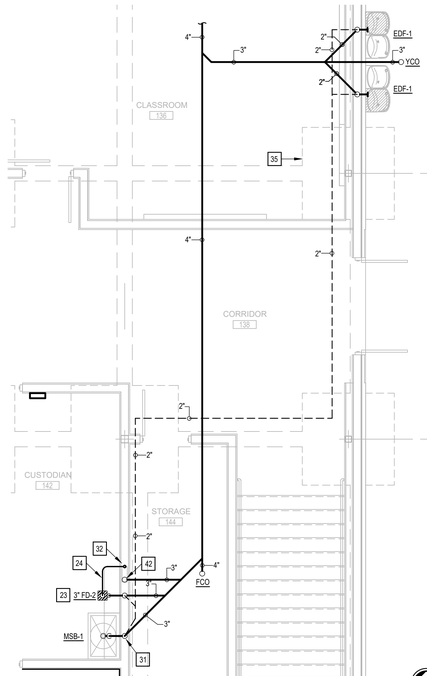
NORTH



03 WASTE & VENT (FIRST FLOOR)

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

NORTH



04 WASTE & VENT (FIRST FLOOR)

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

NORTH

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

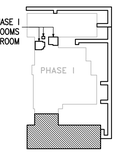
No.	REVISIONS	BY

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
ARCHITECT
6.13.2019

PHASE I CLASSROOMS & RESTROOM

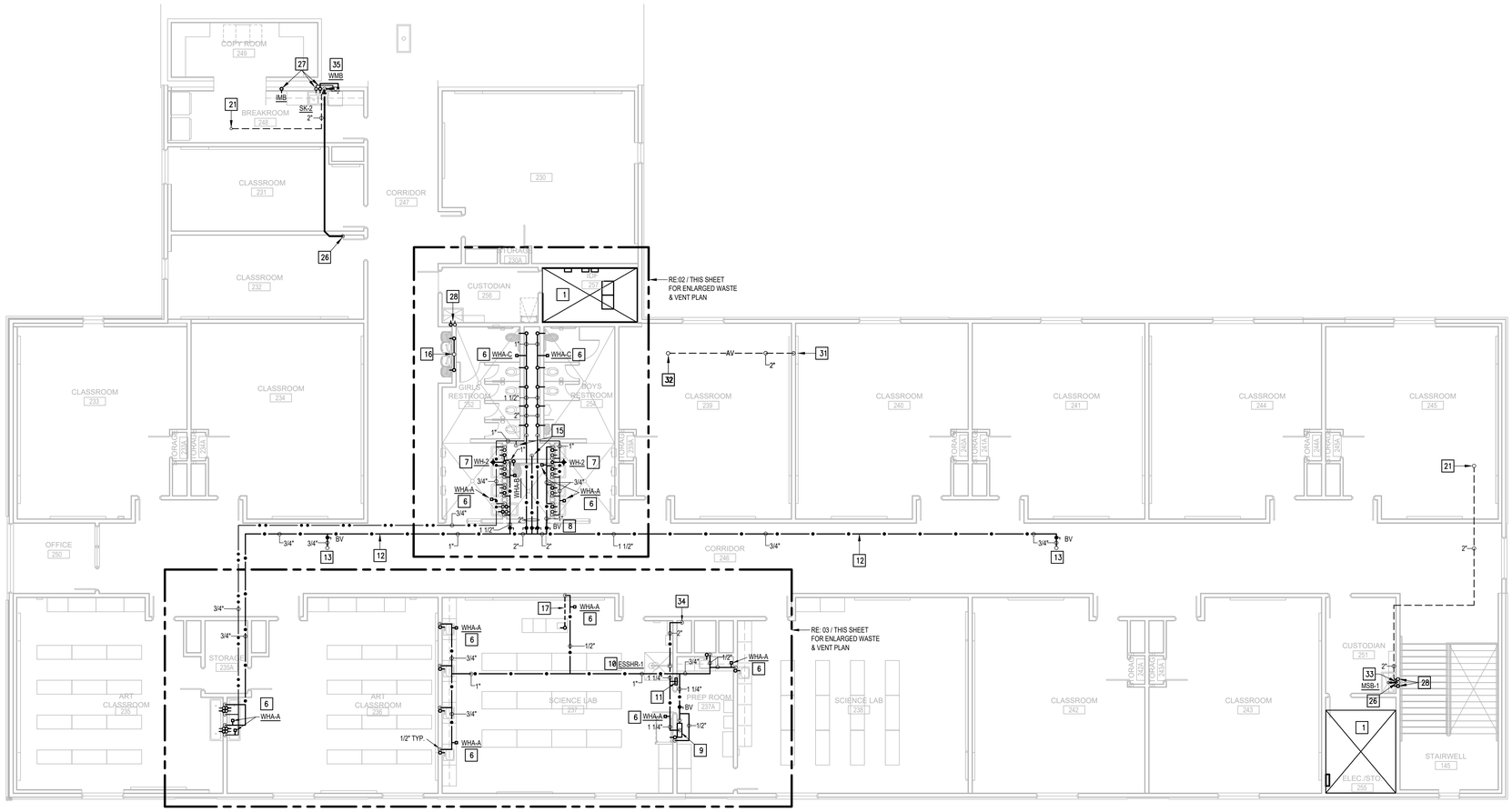


KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	P2.01

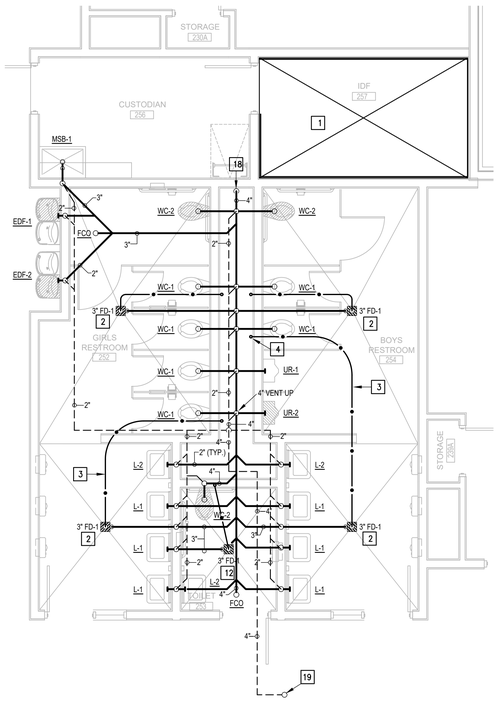


(2ND FLOOR)

01 PLUMBING PLAN

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

NORTH



(2ND FLOOR)

02 WASTE AND VENT

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

NORTH

(2ND FLOOR)

03 WASTE AND VENT

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

NORTH

PHASE I CLASSROOMS & RESTROOM

PHASE I

KEYPLAN

GENERAL NOTES:

1. LAB SINKS (LS-1), FUME HOODS (FH-1) AND FAUCETS AT PREP ROOMS AND SCIENCE LABS ARE PART OF THE MILLWORK. (PROVIDED BY GENERAL CONTRACTOR). PLUMBING CONTRACTOR SHALL PROVIDE AND CONNECT ALL SERVICES AND ACCESSORIES SUCH AS WATER, SEWER, VENT, WATER STOPS, STAINLESS STEEL FLEXIBLE RISERS, P-TRAPS, ETC. COORDINATE WITH GENERAL CONTRACTOR

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. (TYPICAL)
3. PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. (TYPICAL)
4. CONNECT TO FLUSH VALVE TRAP-PRIMER (WC). SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL.)
5. CONNECT TO ELECTRONIC TRAP-PRIMER VALVE. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
6. PROVIDE BELLOWS TYPE WATER HAMMER ARRESTOR (WHA), MIFAB (WHB SERIES) 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)
7. 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)
8. 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)
9. DROP DOMESTIC WATER LINE INTO SOLENOID ENCLOSURE BOX TO SERVE LAB SINKS. RE: DETAIL SHEET. SOLENOID ENCLOSURE PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE ALL CONNECTIONS AND MOUNTING HEIGHT WITH ELECTRICAL CONTRACTOR.
10. PROVIDE EMERGENCY EYE/FACE WASH AND SHOWER AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
11. PROVIDE A PPP MODEL WPB-500 ELECTRIC TRAP PRIMER OR APPROVED EQUAL. TAP FROM TOP OF COLD WATER LINE AND CONNECT TO TRAP PRIMER BOX. LOCAE BOX ABOVE CEILING SPACE. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
12. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
13. 3/4" CW UP TO ROOF HYDRANT.
14. 2" VENT UP FROM 1ST FLOOR.
15. 2" CW AND 1" HW FROM 1ST FLOOR.
16. 1/2" CW FROM 1ST FLOOR.
17. RUN 1/2" CW IN 1ST FLOOR CEILING SPACE.
18. 4" WASTE DOWN TO 1ST FLOOR.
19. 4" VENT UP FROM 1ST FLOOR AND UP TO 4" VENT THROUGH ROOF. (VTR)
20. 2" WASTE DOWN TO 1ST FLOOR.
21. 2" VENT UP TO 2" VENT THROUGH ROOF. (VTR)
22. PROVIDE ACID RESISTANT PIPING FOR ALL WASTE AND VENT SYSTEM SERVING SCIENCE LABS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
23. PROVIDE PLUMBING CONNECTION TO INSTRUCTORS DESK AS PER DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
24. 3" ACID WASTE DOWN TO 1ST FLOOR.
25. 3" ACID VENT UP FROM 1ST FLOOR.
26. 2" WASTE DOWN TO 1ST FLOOR.
27. 1/2" CW AND 1/2" HW FROM 1ST FLOOR.
28. 3/4" CW AND 3/4" HW FROM 1ST FLOOR.
29. PROVIDE CLAY TRAP, JOSAM CO., MODEL 6100-1/2 OR APPROVED EQUAL. INSTALL AS PER MANUFACTURER RECOMMENDATION.
30. 3" ACID VENT UP TO 3" VENT THROUGH ROOF. (VTR)
31. 2" ACID VENT UP FROM 1ST FLOOR.
32. 2" ACID VENT UP TO 3" VENT THROUGH ROOF (VTR).
33. 3" WASTE DOWN TO 1ST FLOOR.
34. 2" COLD WATER FROM 1ST FLOOR.
35. 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.
36. PROVIDE 1/2" SOFT DRAWN COPPER. ROUTE PIPING IN CEILING SPACE TO 2" HUB DRAIN.
37. PROVIDE 2" HUB DRAIN FOR EMERGENCY EYEWASH DRAIN. PROVIDE A 2"X3" HUB INCREASER. PROVIDE A 12"X12" ACCESS PANEL FOR MAINTENANCE ACCESS PANEL EQUAL TO ACUDOR MODEL UF5000 WITH CYLINDER LOCK AND KEY AND PAINT TO MATCH THE WALL/CEILING.

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

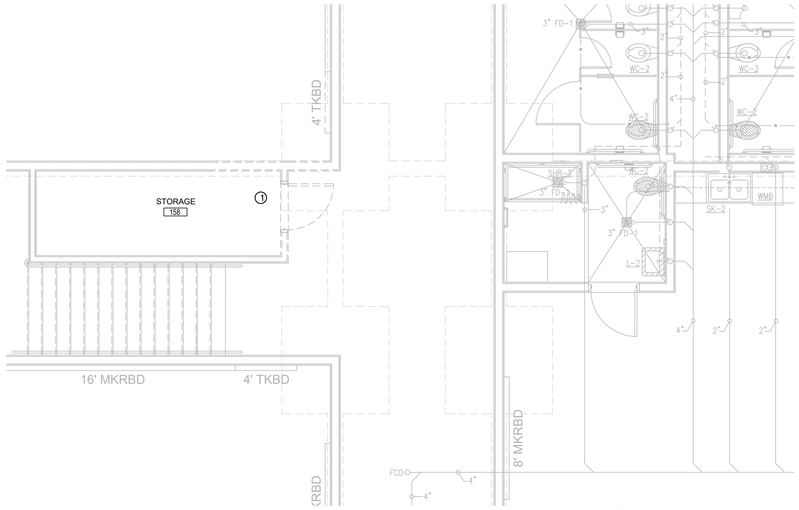
IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	P2.02

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-292-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

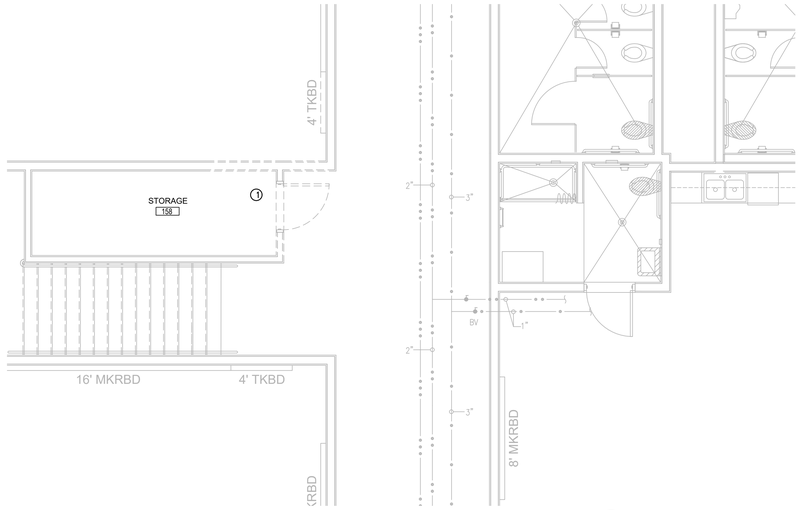


ALTERNATE NO.4 - 1ST FLOOR - PHASE I RENOVATION

03 DEMOLITION WASTE & VENT PLAN

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

PLAN NORTH



ALTERNATE NO.4 - 1ST FLOOR - PHASE I RENOVATION

01 DEMOLITION PLUMBING PLAN

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

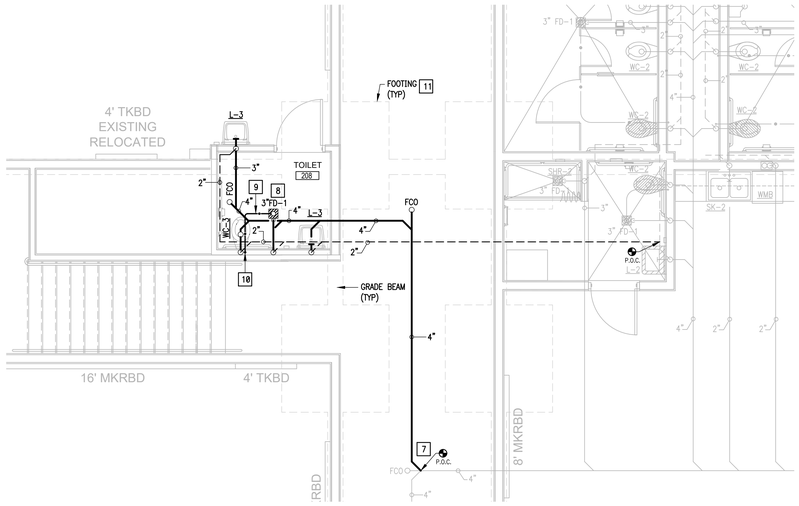
PLAN NORTH

DEMOLITION KEYED NOTES:

1. PREPARE AREA FOR NEW PLUMBING FIXTURES.

PLUMBING KEYED NOTES:

1. CONNECT NEW 1" DOMESTIC COLD WATER PIPING INTO EXISTING 3" DOMESTIC WATER PIPING AT THIS APPROXIMATE LOCATION.
2. CONNECT NEW 3/4" DOMESTIC HOT WATER PIPING INTO EXISTING 2" DOMESTIC HOT WATER PIPING AT THIS APPROXIMATE LOCATION.
3. PROVIDE PIPING SUPPORT AS PER SPECS AND DETAIL. SEE ASSOCIATED DETAIL ON DETAIL SHEET – TYPICAL.
4. 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)
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.
7. CONNECT NEW 4" SANITARY SEWER PIPING INTO EXISTING 4" SANITARY SEWER PIPING AT THIS APPROXIMATE LOCATION.
8. PROVIDE FLOOR DRAIN AS SCHEDULED. SET FLUSH WITH FINISHED FLOOR. SEE ASSOCIATED DETAIL ON DETAIL SHEET.
9. PROVIDE 1/2" SOFT DRAWN COPPER FROM TRAP-PRIMER. ENCASE PIPING INSIDE WALL AND UNDER FLOOR SLAB IN POLYETHYLENE SLEEVE. "POLY-SLEEVE" OR EQUAL.
10. CONNECT TO FLUSH VALVE TRAP-PRIMER (WC). SEE ASSOCIATED DETAIL ON DETAIL SHEET. (TYPICAL)
11. STRUCTURAL FOUNDATION SHOWN FOR REFERENCE AND COORDINATION PURPOSES. REFER TO STRUCTURAL DRAWINGS FOR MORE DETAILS. (TYPICAL).

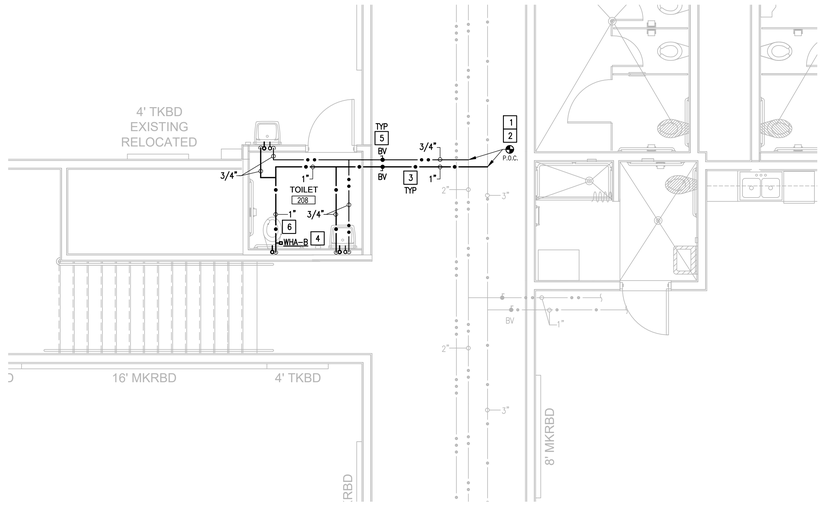


ALTERNATE NO. 4 - 1ST FLOOR - PHASE I RENOVATION

04 NEW WASTE & VENT PLAN

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

PLAN NORTH

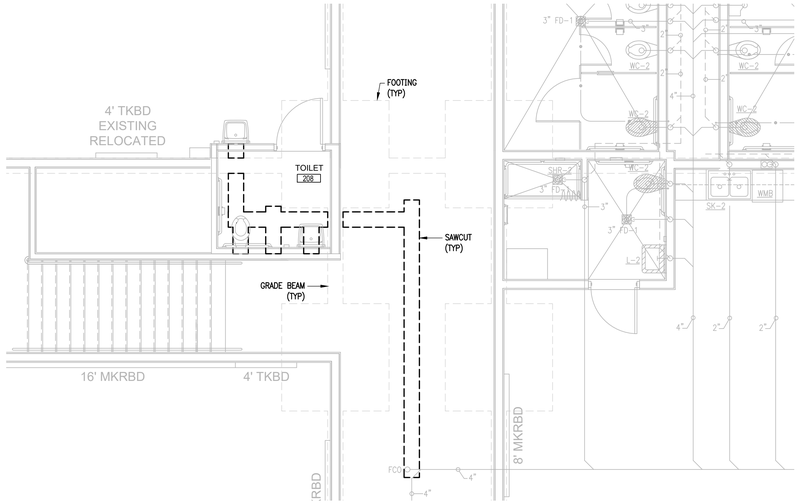


ALTERNATE NO. 4 - 1ST FLOOR - PHASE I RENOVATION

02 NEW PLUMBING PLAN

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

PLAN NORTH



ALTERNATE NO. 4 - 1ST FLOOR - PHASE I RENOVATION

05 SAWCUTTING PLAN

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

PLAN NORTH

ALTERNATE NO. 4 - PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS				NOTES	REMARKS
			WASTE	VENT	CW	HW		
WC-3	AMERICAN STD. 2282.001 SLOAN ROYAL #111-1.28 SEAT 5001G.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
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 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
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"	–	–		

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 (WHITE) LAV SHIELD MODEL #2018 (KO-K PRE-CUT). SHIELD SHALL BE SECURED TO WALL AS PER MANUFACRUER'S RECOMMENDATION.

No.	REVISIONS	BY

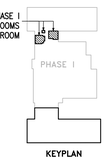
GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville TX 78526
(956) 546-0110
fax (956) 546-0196

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
ARCHITECT
6.13.2019

PHASE I CLASSROOMS & RESTROOM

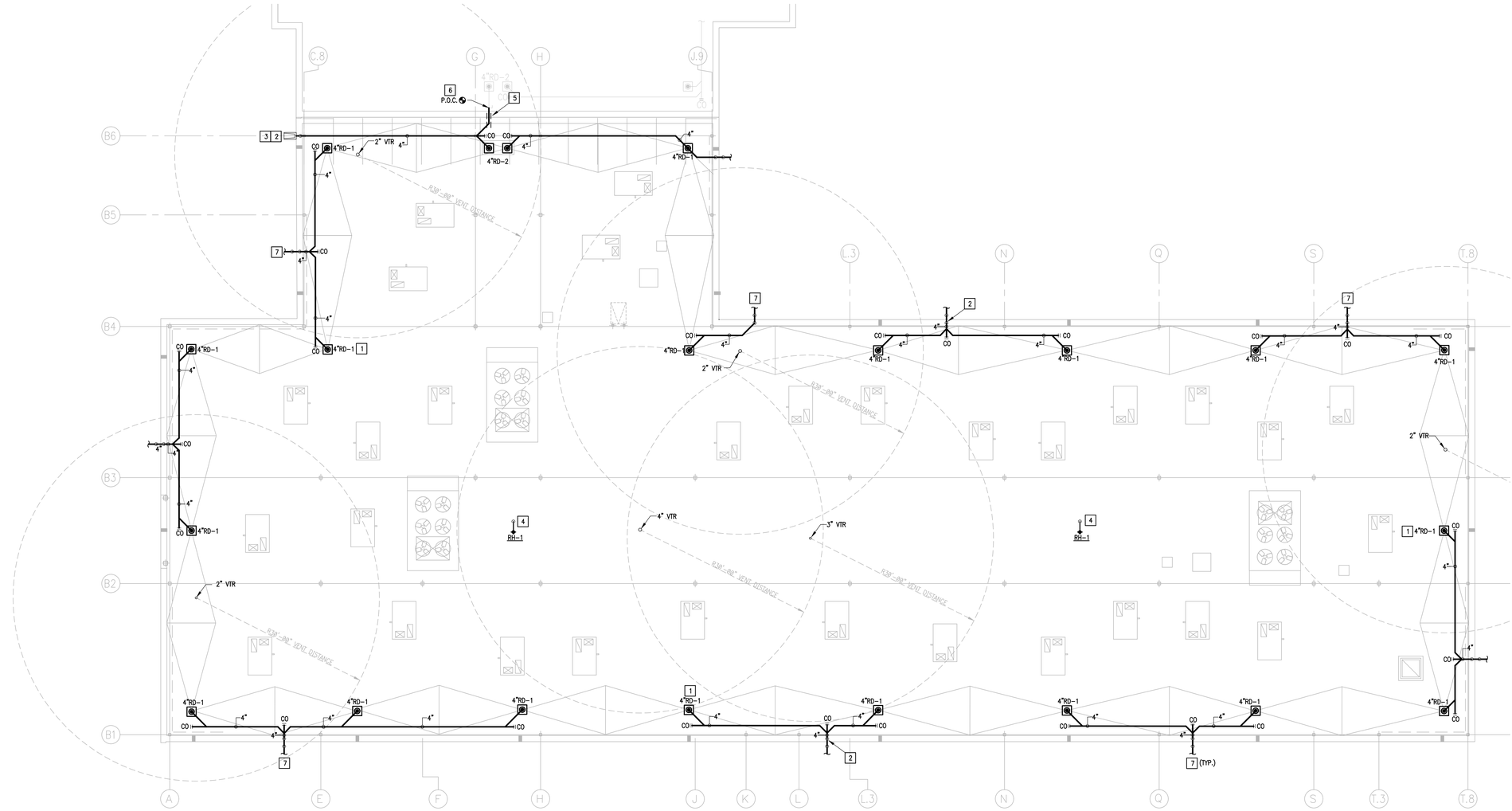


KEYPLAN

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	P2.03



01 PLUMBING ROOF PLAN
SCALE : 1/8" = 1'

NORTH

GENERAL NOTES:

1. ALL HORIZONTAL LEADERS TO BE A MINIMUM OF 1/4" 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 DETAIL SHEET. (TYPICAL)
2. DROP STORM PIPING IN WALL. REFER TO ARCHITECTURAL SHEET AND COORDINATE INSTALLATION WITH GENERAL CONTRACTOR. SEE ASSOCIATED DETAILS ON DETAILS SHEET. (TYPICAL)
3. PROVIDE SPLASH BLOCK AS SHOWN.
4. PROVIDE ROOF HYDRANT AS SCHEDULED. SEE ASSOCIATED DETAIL ON DETAILS SHEET. (TYPICAL)
5. PROVIDE PIPE PENETRATION ON EXISTING AND NEW WALL TO ACCOMMODATE SECONDARY STORM SEWER PIPE AS SHOWN. COORDINATE WORK WITH GENERAL CONTRACTOR.
6. CONNECT NEW ROOF DRAIN PIPING INTO EXISTING AT THIS APPROXIMATE LOCATION.
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)

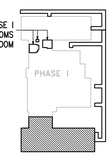
No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

PHASE I CLASSROOMS & RESTROOM



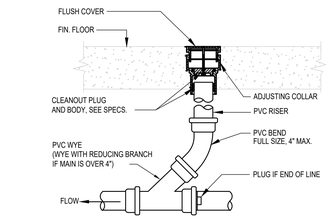
KEYPLAN

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
ARCHITECT
6.13.2019

ethos engineering
119 W. VAN BUREN AVE. STE 101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

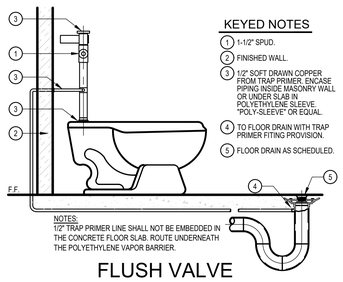
© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	P3.01



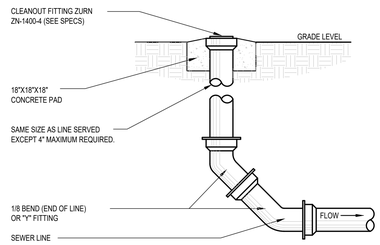
01 FLOOR CLEANOUT DETAIL

SCALE : NOT TO SCALE



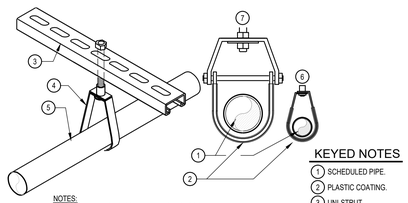
02 FLUSH VALVE TRAP PRIMER DETAIL

SCALE : NOT TO SCALE



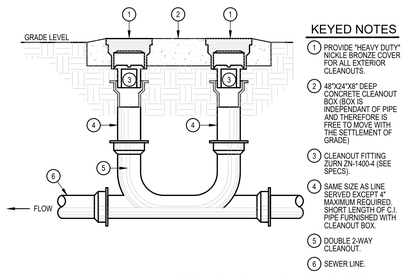
03 YARD CLEANOUT DETAIL

SCALE : NOT TO SCALE



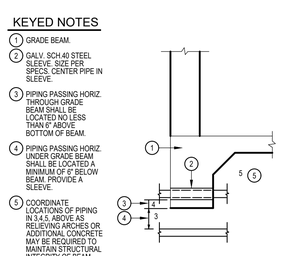
04 DOMESTIC WATER LINE PIPING SUPPORT DETAIL

SCALE : NOT TO SCALE



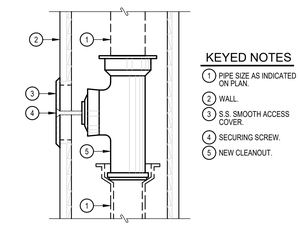
05 2-WAY YARD CLEANOUT DETAIL

SCALE : NOT TO SCALE



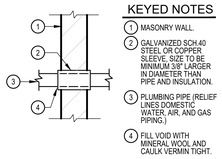
06 GRADE BEAM SLEEVE DETAIL

SCALE : NOT TO SCALE



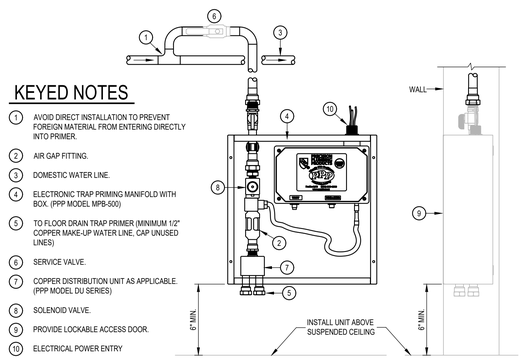
07 WALL CLEANOUT DETAIL

SCALE : NOT TO SCALE



08 WALL SLEEVE DETAIL

SCALE : NOT TO SCALE



09 ELECTRONIC TRAP PRIMER CONNECTION DETAIL

SCALE : NOT TO SCALE

ELECTRIC WATER HEATER SCHEDULE

MARK	LOCATION	SERVING	GALLON CAPACITY	KW	NUMBER OF ELEMENTS	RECOVERY IN GPH AT 120F RISE	ELECT. V/P/H	MANUFACTURER & MODEL	NOTES
EWH-1	SEE PLANS	SEE PLANS	10	3	1	10	208/1/60	AO SMITH DEL-10	ALL

NOTES:
1. MANUFACTURER & MODEL NUMBER ARE "OR APPROVED EQUAL".
2. PROVIDE IMMERSION TYPE THERMOSTAT.

PLUMBING SYMBOLS LEGEND

COLD WATER SUPPLY		WCO	WALL CLEANOUT
HOT WATER SUPPLY			*GATE VALVE (GV)
GAS LINE	G		*BALL VALVE
SOIL & WASTE LINE - ENLARGED PLANS			VALVE IN RISER TYPE AS NOTED
VENT LINE - ENLARGED PLANS		WC	WATER CLOSET
ACID WASTE LINE - ENLARGED PLANS	AW	UR	URINAL
ACID VENT LINE - ENLARGED PLANS	AV	L	LAVATORY
FIRE SPRINKLER LINE		SK	SINK
FCO		EDF	ELECTRIC DRINKING FOUNTAIN
FCO-2		MSB	MOP SERVICE BASIN
FD FD		EESHR	EMERGENCY EYE/SHOWER
HDC		TP	TRAP PRIMER
FLOOR SINK		EWH	ELECTRIC WATER HEATER
YCO		VTR	VENT THRU ROOF
YCO-2		CO	CLEANOUT
WH		A.F.F.	ABOVE FINISH FLOOR
TRAP PRIMER		ADT	ACID DILUTION TANK
*WATER HAMMER		GT	GREASE TRAP

* PROVIDE 12"x12" ACCESS PANEL WHERE INSTALLED IN AN INACCESSIBLE AREA.

GENERAL NOTES: (APPLY TO ALL PLUMBING SHEETS)

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.
15. CONTRACTOR SHALL NOT CUT ANY EXTERIOR WALL METAL STUD.

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER & MODEL NUMBER	DESCRIPTION	CONNECTIONS WASTE	VENT	CW	HW	NOTES	REMARKS
WC-1	AMERICAN STD. 3451.001 SLOAN ROYAL #111-1.6 SEAT 5901.100	15" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.6GPF 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-2	AMERICAN STD. 3461.001 SLOAN ROYAL #111-1.6 SEAT 5901.100	16-1/2" HIGH LOW CONSUMPTION FLUSH VALVE, WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED SIPHON JET ACTION BOWL, 1.6GPF 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 ADULT STANDARD MOUNTING	2"	2"	3/4"	-	2	22" TO RIM OF BASIN
UR-2	SAME AS UR-1	SAME AS UR-1 EXCEPT FOR ADULT ADA MOUNTING	2"	2"	3/4"	-	2	17" TO RIM OF BASIN
L-1	KOHLER KINGSTON K-2005 CHICAGO FAUCETS 420-T41E2805ABCP 0.5 GPM AERATOR ZURN #Z1231 CARRIER 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO LAV SHIELD (KO-K PRE-CUT)	21" X 18" WALL MOUNTED WHITE VITREOUS CHINA, 4" ON CENTER HOLES LAVATORY WITH FRONT OVERFLOW AND CONCEALED ARMS SUPPORT. SINGLE LEVER, 4" ON CENTER, CHROME PLATED SOLID BRASS CONSTRUCTION FAUCET WITH THERMOSTATIC MIXING VALVE, ASSE 1070 COMPLAINT, SCALDING PROTECTION INCLUDED, SET AT 105 DEGREES. CHROME PLATED SUPPLY STOPS AND ESCUTCHEONS WITH STAINLESS STEEL FLEXIBLE CONNECTORS, CHROME PLATED DRAIN GRID AND TAILPIECE, P-TRAP AND CARRIER FOR ADULT STANDARD MOUNTING	2"	2"	1/2"	1/2"	3,4	32" FROM FLOOR TO RIM
L-2	SAME AS L-1	SAME AS L-1 EXCEPT FOR ADULT ADA MOUNTING	2"	2"	1/2"	1/2"	3,4	34" FROM FLOOR TO RIM
SHR-1	LEONARD AQUATROL 4500-H-06-1.5GPM-VS 515P(G)-D2L ADA RATED SHOWER	CONCEALED PRESSURE BALANCING VALVE ASSE 1016 LISTED WITH LOW FLOW INSTITUTIONAL 1.5GPM SHOWERHEAD AND VANDAL RESISTANT SCREWS. INLINE DIVERTER VALVE WITH LEVER HANDLE, 69" HAND HELD SHOWER AND 30" GLIDE BAR. SET HOT WATER TEMPERATURE AT 110 DEG. HIGH SCHOOL ADA MOUNTING.	3"	2"	1/2"	1/2"		
SK-1	ELKAY # LRAD-252160-3 SINK CHICAGO FAUCET 0.5 GPM # 1100-GN2AE3-317ABCP DRAIN # LKA99 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT 0.5GPM AERATOR LEONARD # 270-LF-BRKT-BV	25" X 21" SINGLE 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 WITH STAINLESS STEEL ESCUTCHEON. PROVIDE CHROME PLATED STOPS AND FLEXIBLE STAINLESS STEEL RISERS. CHROME PLATED DRAIN & TAILPIECE & P-TRAP.	2"	2"	1/2"	1/2"	6	SEE ARCHITECTURAL
SK-2	ELKAY # LRAD-292260-3 SINK CHICAGO FAUCET 0.5 GPM # 1100-GN2AE3-317ABCP DRAIN # LKAD18 17 GA. DRAIN AND 17 GA. P-TRAP W/CLEAN OUT TRUEBRO KIT 0.5GPM AERATOR 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 WITH STAINLESS STEEL ESCUTCHEON. PROVIDE CHROME PLATED STOPS AND FLEXIBLE STAINLESS STEEL RISERS. CHROME PLATED DRAIN GRID & TAILPIECE.	2"	2"	1/2"	1/2"	6	SEE ARCHITECTURAL
SK-3	ELKAY EWMA6020-4 SINK LK940GN05T4H, FAUCET (TWO) LK18B DRAIN 0.5GPM AERATOR	60" x 20" COMPARTMENT, 14 GAUGE TYPE 304 STAINLESS STEEL, TWO STATION FAUCET WITH 8"DEEP FURNISH WITH WALL HANGERS AND STAINLESS STEEL SUPPORT BRACKETS. CHROME PLATED MIXING FAUCET HIGH GOOSE NECK SPOUT 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 FLEXIBLES CONNECTORS	2"	2"	1/2"	-	5	SEE ARCHITECTURAL
EESHR-1	BRADLEY S19-314-AA1BBBA00	COMBINATION EMERGENCY EYE/FACE WASH AND SHOWER. BARRIER FREE. 1 1/4" GALVANIZED STEEL WITH BRADTECT SAFETY YELLOW COATING (CORROSION RESISTANT). STAY OPEN SHOWER AND EYEWASH CHROME PLATED BRASS BALL VALVE. YELLOW PLASTIC SHOWERHEAD WITH 10" DIA. PLASTIC SHROUD. HALO EYE/FACE WASH. YELLOW PLASTIC BOWL WITH PLASTIC DUST COVER. 304 SS HANDLE.	-	-	1-1/4"	-		
EDF-1	ELKAY LVRCTL8SC LKAPREZL APRON ZURN Z-1225 CARRIER	BI-LEVEL FILTERED 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"	1/2"	-		SEE ARCHITECTURAL
EDF-2	ELKAY LVRCTL8WSK/EZH20 LKAPREZL APRON ZURN Z-1225 CARRIER	BI-LEVEL FILTERED 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"	1/2"	-		SEE ARCHITECTURAL
DF-1	ELKAY EZH20/LK4430BF1M	OUTDOOR BOTTLE FILLING STATION TRI-LEVEL PEDESTAL. FEATURES SHALL INCLUDE 316 STAINLESS, LAMINAR FLOW, HEAVY DUTY VANDAL RESISTANT. FURNISHED WITH VANDAL RESISTANT BUBBLER. PRODUCT SHALL BE FLOOR MOUNTED/FREESTANDING FOR OUTDOOR APPLICATION. UNIT SHALL BE LEAD-FREE DESIGN. PROVIDE WATER SENTRY FILTER 51300C.	2"	-	1/2"	-		SEE ARCHITECTURAL COORDINATE COLOR WITH OWNER AND ARCHITECT
SHR-1	LEONARD AQUATROL 4500-H-06-1.5GPM-VS 515P(G)-D2L ADA RATED SHOWER	CONCEALED PRESSURE BALANCING VALVE ASSE 1016 LISTED WITH LOW FLOW INSTITUTIONAL 1.5GPM SHOWERHEAD AND VANDAL RESISTANT SCREWS. INLINE DIVERTER VALVE WITH LEVER HANDLE, 69" HAND HELD SHOWER AND 30" GLIDE BAR. SET HOT WATER TEMPERATURE AT 110 DEG. HIGH SCHOOL ADA MOUNTING.	3"	2"	1/2"	1/2"		
MSB-1	FIAT TSB 3003 MOP BASIN # 832-AA HOSE & BRACKET # 830-AA FAUCET # 889-CC MOP BRACKET # MSG 2424 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"		
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"	-		
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-P	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"	-	-		
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.	-	-	1/2"	-		
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.	2"	-	3/4"	3/4"		
RH-1	JAY R. SMITH 5906	NON-FREEZE ROOF HYDRANT WITH GALV. CASING AND ADJUSTABLE FLOW WHEEL LOCK HANDLE WITH DECK FLANGE AND UNDEER DECK CLAMP.	-	-	3/4"	-		

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 (WHITE) LAV SHIELD MODEL #2018 (KO-K PRE-CUT). SHIELD SHALL BE SECURED TO WALL AS PER MANUFACRUER'S RECOMMENDATION.
5. PROVIDE TRUEBRO LAVATORY GUARD MODEL #103 COLOR WHITE. COVER SHALL BE SECURED WITH SNAP-SLIP FLUSH REUSABLE FASTENERS. ANGLE STOPS SHALL HAVE LOCK-UP LOCKING ACCESS COVERS.
6. PROVIDE TRUEBRO (WHITE) BASIN GUARD UNDERSINK PROTECTIVE ENCLOSURE.

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

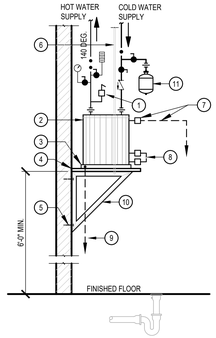
IDEA Public Schools



© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: JUNE 13, 2019
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: ETHOS
Job No. IDEA ELSA II
Sheet: P4.01

NOTE:
PROVIDE HEAT TRAP DEVICE OR AN ARRANGEMENT OF TUBING AS PER IEEC.
INSULATE THE FIRST 8' OF OUTLET PIPING AND THE INLET PIPING BETWEEN
THE STORAGE TANK AND A HEAT TRAP (INCLUDE THE HEAT TRAP).

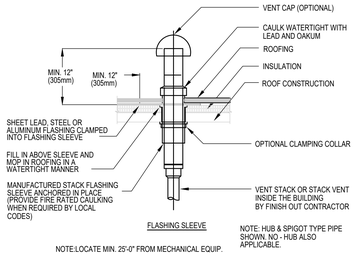


KEYED NOTES

1. P/SP-OFF. VALVE/ANTI-SIPHON DEVICE.
2. ELECTRIC WATER HEATER AS SCHEDULED.
3. PAN WITH DRAIN.
4. 3/4" MIN. MOISTURE RESISTANT PLYWD.
5. SECURE TO WALL AS REQUIRED.
6. (2) 3/8"Ø RODS, SECURE TO STRUCTURE.
7. RELIEF VALVE WITH 3/4"MIN. COPPER DRAIN LINE TO MOP SINK OR OPEN DRAIN.
8. HEATING ELEMENT AS SPEC'D.
9. COPPER DRAIN LINE TO MOP SINK OR OPEN DRAIN.
10. (2) KNEE BRACES, L 1.25X1.25X.25 GALV., @ 8" O.C. WITH WELDED JOINTS.
11. EXPANSION TANK: WESSELS COMPANY MODEL TTA-5.

01 WALL MOUNTED ELECTRIC WATER HEATER DETAIL

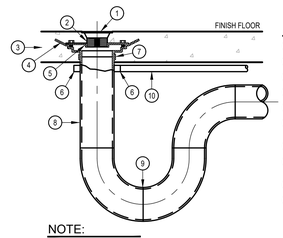
SCALE : NOT TO SCALE



NOTE:LOCATE MIN. 25'-0" FROM MECHANICAL EQUIP.

02 VENT THRU ROOF DETAIL

SCALE : NOT TO SCALE



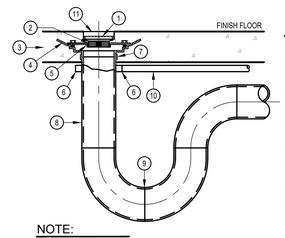
KEYED NOTES

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. 1/2" TRAP PRIMER LINE SHALL NOT BE EMBEDDED IN THE CONCRETE FLOOR SLAB. ROUTE UNDERNEATH THE POLYETHYLENE VAPOR BARRIER.

NOTE:
PROVIDE T.S.P. CONNECTION WHERE INDICATED.

03 FD-1 FLOOR DRAIN WITH TRAP PRIMER DETAIL

SCALE : NOT TO SCALE



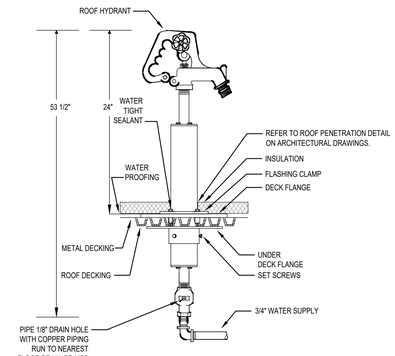
KEYED NOTES

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. 1/2" TRAP PRIMER LINE SHALL NOT BE EMBEDDED IN THE CONCRETE FLOOR SLAB. ROUTE UNDERNEATH THE POLYETHYLENE VAPOR BARRIER.
11. SET EXTENDED RIM FLUSH WITH FINISHED FLOOR.

NOTE:
PROVIDE T.S.P. CONNECTION WHERE INDICATED.

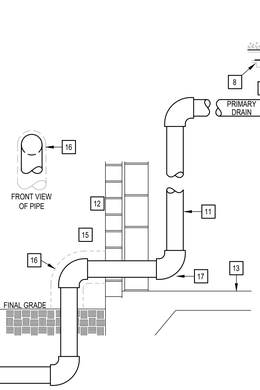
04 FD-2 FLOOR DRAIN WITH TRAP PRIMER DETAIL

SCALE : NOT TO SCALE



05 (RH-1) ROOF HYDRANT DETAIL

SCALE : NOT TO SCALE

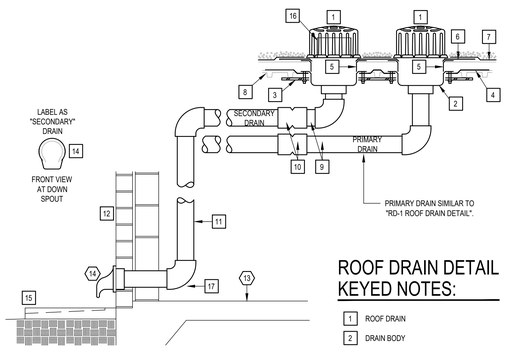


ROOF DRAIN DETAIL KEYED NOTES:

1. ROOF DRAIN
2. DRAIN BODY
3. UNDER DECK CLAMP
4. ROOF SUMP RECEIVER
5. EXTENSION COLLAR
6. 4# LEAD FLASHING-EXTEND MINIMUM 12" FROM DRAIN BODY
7. COUNTER FLASHING
8. ROOF DECK
9. MINIMUM 1/4" PER FEET SLOPE ON HORIZONTAL RUNS
10. RUBBER "O" RINGS TYPE EXPANSION COUPLING WITHIN 4 FEET OF EACH ROOF DRAIN.
11. RAIN WATER CONDUCTOR INSIDE PIPE CHASE
12. WALL
13. FLOOR
14. ROOF
15. PROVIDE DOWNSPOUT NOZZLE EQUAL TO JOSAM 2510.
16. ALUMINUM METAL JACKET
17. FILL BLOCK WITH CONCRETE AT ELBOW AREA

06 RD-1 PRIMARY ROOF DRAIN DETAIL

SCALE : NOT TO SCALE

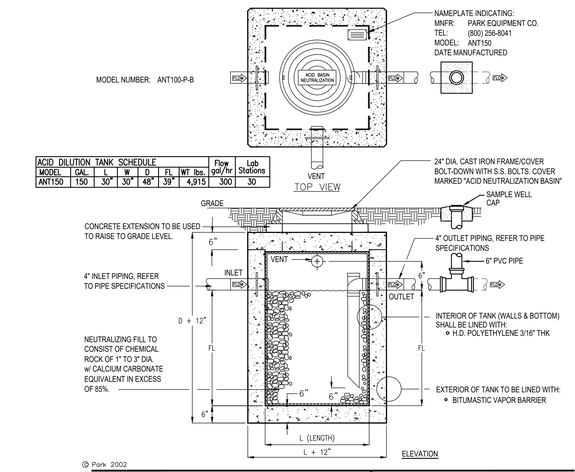


ROOF DRAIN DETAIL KEYED NOTES:

1. ROOF DRAIN
2. DRAIN BODY
3. UNDER DECK CLAMP
4. ROOF SUMP RECEIVER
5. EXTENSION COLLAR
6. 4# LEAD FLASHING-EXTEND MINIMUM 12" FROM DRAIN BODY
7. COUNTER FLASHING
8. ROOF DECK
9. MINIMUM 1/4" PER FEET SLOPE ON HORIZONTAL RUNS
10. EXPANSION COUPLING WITHIN 4 FEET OF EACH ROOF DRAIN.
11. RAIN WATER CONDUCTOR INSIDE PIPE CHASE
12. WALL
13. FLOOR
14. PROVIDE DOWNSPOUT NOZZLE EQUAL TO JOSAM 25010.
15. SPLASH BLOCK (GENERAL CONTRACTOR)
16. ADJUSTABLE STANDPIPE.
17. FILL BLOCK WITH CONCRETE AT ELBOW AREA

07 RD-2 COMBINATION SECONDARY WITH PRIMARY ROOF DRAIN DETAIL

SCALE : NOT TO SCALE



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.

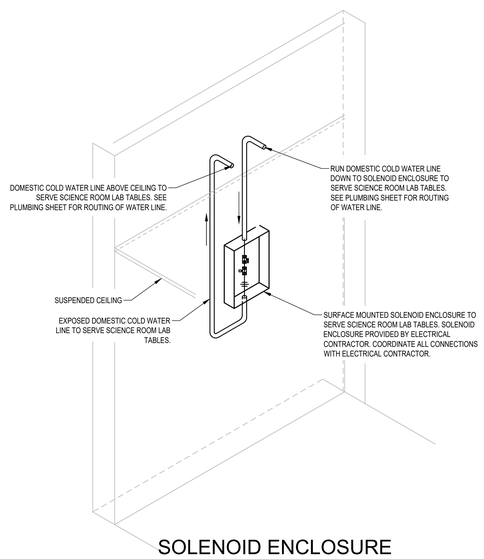
REINFORCEMENT: GRADE 60 REINFORCED WITH STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.

C.I. CASTINGS: MANHOLE FRAMES, COVERS OR GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30. MANHOLE SHALL HAVE 24 INCH INSIDE DIAMETER AND BE TRAFFIC DUTY.

PARK ENVIRONMENTAL EQUIPMENT
800-256-8041
www.park-USA.com

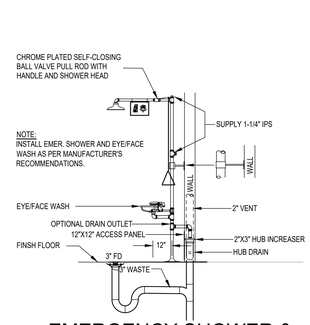
08 ANT-1 ACID NEUTRALIZATION TANK DETAIL

SCALE : NOT TO SCALE



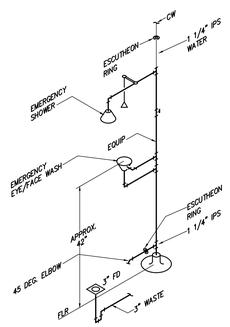
09 SOLENOID ENCLOSURE DETAIL

SCALE : NOT TO SCALE



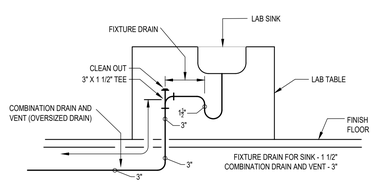
10 EMERGENCY SHOWER & EYE/FACE DETAIL

SCALE : NOT TO SCALE



11 EMERGENCY SHOWER & EYE/FACE PIPING SCHEMATIC

SCALE : NOT TO SCALE



12 INSTRUCTORS DESK SINK DRAIN DETAIL

SCALE : NOT TO SCALE

No.	REVISIONS	BY

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

IDEA-ELSA ACADEMY AND COLLEGE PREP PHASE II

IDEA Public Schools

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED
PROFESSIONAL ENGINEER
6.13.2019

© Copyright 2019
Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date:	JUNE 13, 2019
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	ETHOS
Job No.	IDEA ELSA II
Sheet:	P4.02

ethos engineering
119 W. VAN BUREN AVE. STE.101
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998