TEXAS
Health and Human Services

Attachment H

Project Scope of Work

ATTACHMENT H

20-114-LBL REPLACE FIRE ALARM SYSTEMS SCOPE OF WORK

The following Project Requirements are conditions of the Contract between the vendor and the STATE OF TEXAS acting through the Texas Health and Human Services Commission, hereinafter called the OWNER.

A. Specifications

1. Project Description: Remove the existing fire alarm systems in their entirety; plan/design, provide and install new fully addressable fire alarm systems on the Lubbock State Supported Living Center (SSLC) campus Buildings 504 (East/Quail & West/Sparrow) and ten homes Buildings 518, 519, 520, 521, 523, 524, 525, 526, 527, and 528, like-for-like or better alternate with documentation, meeting all applicable codes including, but not limited to NFPA 101 (2012 edition) and NFPA 72 (2010 edition) for buildings. The fire alarm systems plans and calculations for the replacement systems shall be prepared and sealed by a Fire Alarm Planning Superintendent (APS). See paragraph A.4 below for specific product information.

2. The Contractor shall include all materials, quantities, devices, equipment, re-programming and labor to provide a complete, working, Code compliant, addressable system in all respects integrated into the buildings listed and connected to the Facility's two campus-wide control centers at Buildings 501 and 511. The Contractor shall coordinate each device's descriptor/nomenclature with the SSLC's Plant Maintenance Manager (PMM) for identification within the programming protocols.

3. The Contractor shall be responsible for any repair of damaged surfaces that may be damaged as a result of the installation of this system, equipment or devices. This repair shall match the existing surrounding surfaces and provide a seamless transition.

4. Products (Basis of Design):

    a. For the Buildings listed in the Project Description paragraph A.1. above; design, provide, and test addressable fire alarm systems, Simplex-Grinnell 4100 series as acquired and installed by Johnson Controls to fully integrate with existing campus-wide systems, in accordance with NFPA 101 Life Safety Code (2012 Edition) and NFPA 72 National Fire Alarm and Signaling Code (2010 Edition). AutoCAD backgrounds will be provided by the Owner for reference. Verify the backgrounds and correct as required on the plans. Verify the room numbers and room occupancies with the Plant Maintenance Manager (PMM).
        i. Provide minimum ½" EMT conduit for all fire alarm wiring above hard ceilings and not in attic spaces. Provide plenum rated cable for all fire alarm wiring not in conduit. Existing conduit may be utilized, and all wiring shall be installed according to NFPA code. Plenum rated cable and new conduit shall be installed tight to roof structure.
        ii. Submit on the design and equipment with detailed calculations, plans, shop drawings, catalogue cuts marked in detail, and equipment lists. These items must be approved prior to ordering material and equipment and mobilization. The calculations, plans, and drawings shall be prepared under and sealed/signed by a registered Fire Alarm Designer.
        iii. Final testing shall be performed in the presence of the PMM, the Project Manager/ODR, and the Maintenance & Construction Life Safety Program Specialist at a single Substantial Completion Inspection and if accepted warranties shall begin on that date.
    b. The buildings shall have all the existing fire alarm components (to include but not necessarily limited to panels, devices, abandoned conduit and wiring, etc.) totally and completely removed if not utilized during the installation of the new systems. Removal can occur only after complete operational capabilities of the new systems are fully demonstrated. Patch and repair all visible surfaces and Code compliant seal all fire/smoke rated partitions from any demolition.
    c. Provide licensed electricians to perform all electrical work and licensed Fire Alarm Technicians (FAL) to perform all devices installation. All electrical and instrumentation wiring shall comply with the manufacturer's requirements and shall be in accordance with local and state electrical codes. The Contractor shall provide all necessary electrical upgrades to provide a complete and working system in all respects included in his Proposal/Bid.

d. Seven working days prior to mobilization, the Contractor shall provide a plan for the protection of grounds, sidewalks, roadways, etc. from heavy equipment such as cranes, trucks, etc. The Contractor shall repair all damage to the Facility caused by heavy equipment.
e. Provide all labor, equipment, and material for complete and operating fully addressable fire alarm systems.
f. The systems and services shall include, but not be limited to, the following items:

Fire Alarm Control Panels
Remote Annunciators (red, 4-line LCD w/20 character/line)
Printer Interface Module
All Accessories and Devices that are equivalent to those in the existing FACP
Manual Pull Stations
Smoke Detectors & Bases
Heat Detectors & Bases
Single Input Monitor Modules
Control or Relay Modules
Duct Detectors w/remote test switches w/wiring
Strobes, white (wall or ceiling mounted)
Horn/Strobes, red or white (wall or ceiling mounted)
Booster Power Supplies
Fire wire J-hooks and back boxes for the devices
Programming Labor
Pre-testing interfaces
Digital Dialer (connected)
Spare parts at the rate of two each pull stations, detectors (except duct), & strobes for each building.

g. Provide 3-year parts & labor comprehensive warranties on the fire alarm system and a 1-year parts and labor comprehensive warranty on all else. Time to start at date of substantial completion.
h. Provide training. Training shall include operation, maintenance, equipment descriptions and operating functions, emergency operations, adjustments, troubleshooting system repairs, and a review of the spare parts needed.
i. NFPA 101 Life Safety Code occupancy rating for all Buildings is Chapter 19 Existing Health Care Occupancies.

B. <u>Project Special Provisions and Submittal Requirements</u>

1. The awarded Contractor shall provide three (3) copies of shop drawings and product data submittals in accordance with paragraph A.5.a.ii above and the provisions below for review and approval to M&C PM/ODR and PMM within 21 calendar days of Notice of Award for all equipment, devices and materials.

   a. If a staging area is required, coordinate with the Facility.

   b. Provide the names, descriptions of experience, and length of experience of key construction team members. Provide name of field supervisor and 24/7/365 phone number who will oversee the project and provide a single point of contact.

   c. Provide names, addresses, company background material and references for subcontractors (if any).

   d. Provide a phasing/mobilization plan for the work. Provide the number of calendar days for the project work to be completed in each Building to assist the Facility in scheduling of personnel. The Contractor's crew shall be escorted at all times and the buildings will remain occupied and operational. If the successful respondent desires to utilize more than one crew, this will have to be pre-arranged with the Facility in writing prior to commencing work.

   e. Normal work hours are 8-5, Monday thru Friday, State holidays excepted. Other hours may be available on a case by case basis with advanced approval by the Facility's PMM.

f. There is no known asbestos. Report any found to the Facility.

g. Allow 14 calendar days total for submittal review and final test observation notice.

2. Submittals ("BIG THREE") required to be approved prior to initial pay application meeting: (Ideally, the following three submittals should also be included with the Mobilization Submittal but; in any event, they must be approved prior to the first pay app meeting being scheduled.)

   a. Progress Schedule. NOTE: The requirement for a Critical Path method work progress schedule outlined in Article 9.3 of the UGCs/SGCs is **not** required for this project. A Gnatt/bar chart type progress schedule in the format to be provided electronically prior to the pre-construction conference will be followed. Contractor's attention is directed to UGC Article 9.4 and the requirement to utilize 10 percent float in the schedule. This progress schedule shall be updated monthly by the Contractor and submitted with each of the Contractor's pay applications.

   b. A Schedule of Values (SOV). Use exactly the format provided electronically prior to the pre-construction conference. The approved SOV shall be submitted monthly by the Contractor with each of his pay application

   c. A Shop Drawing Log/Submittal Register in the format contained in the adjoining pages of this SOW.

3. All equipment, materials and parts shall be new and supported by the manufacturer.

4. All work surfaces/workable areas shall be inspected by the Contractor prior to commencing work. All deficiencies found but not covered by this proposal shall be reported to the Facility PMM at the pre-construction conference. Contractor commencing work implies acceptance of work surfaces/workable areas, and any work deficiency shall become the responsibility of the contractor.

5. Verify all dimensions and connections prior to ordering equipment and materials.

6. Provide all cutting, patching, and structural support as required for a complete and operating system. All surfaces cut shall be patched to provide a seamless transition to surrounding areas. All wall penetrations shall be sealed in accordance with facility procedures.

7. All openings in rated walls, ceilings and floors associated with new systems installed as part of this contract shall be fire or smoke sealed in accordance with the required rating.

8. Contractor shall provide field supervisor to supervise installation, safety and project schedule. The field supervisor shall attend the pre-construction conference on site and any special meetings required to expedite the project.

9. Repair any damage caused by the Contractor at no cost to the Owner. Provide clean-up and legal disposition of all spoils created by the work. Contractor shall coordinate with the Facility on salvage of all items indicated for removal.

10. Install all equipment and material in accordance with the manufacturers' written instructions.

11. Notify the Plant Maintenance Manager 72-hours in advance of moving into any portion of any building so that the Plant Maintenance Manager can coordinate with the occupants. Maintain close coordination with the Plant Maintenance Manager on a day-to-day basis.

12. Included in this proposal/bid shall be materials and labor necessary to implement the Owner's Infection Control Risk requirements. Infection Control will be reviewed at the Pre-Construction conference and Contractor shall sign the Infection Control Construction Permit. Original permit shall be retained by the Facility.

    The following Type, Group and Class has been assigned to this project by the Facility PMM and M&C PM/ODR:

a. Construction Project Activity Type: C

b. Patient Risk Group: 2

c. Class of Precautions: II

3. **Project Close out Procedures**

1. Upon Final Completion Inspection and prior to submitting for final payment, the Contractor shall provide the following:

a. Training to Facility personnel designated by the Facility in the operations, adjustment and maintenance for all equipment and systems that are part of the work. Provide a copy of the training attendees list with date, project name and number.

b. Three (3) copies of the equipment Operation and Maintenance manuals.

c. Contractors and manufacturer's original warranties as noted under Paragraph A.5.

d. Consent of Surety to Final Payment and Power of Attorney from the bonding company.

e. A letter on Contractor's letterhead certifying that all materials and equipment provided as part of this contract does not contain asbestos.

f. Provide one (1) complete set of full-size as-built drawings and three digital (CD disc) copies of the project construction.

g. Contractor, M&C Project Manager, and Facility PMM shall inspect the work of the project to determine final completion. All outstanding items are to be completed prior to issuance of a final acceptance certificate.

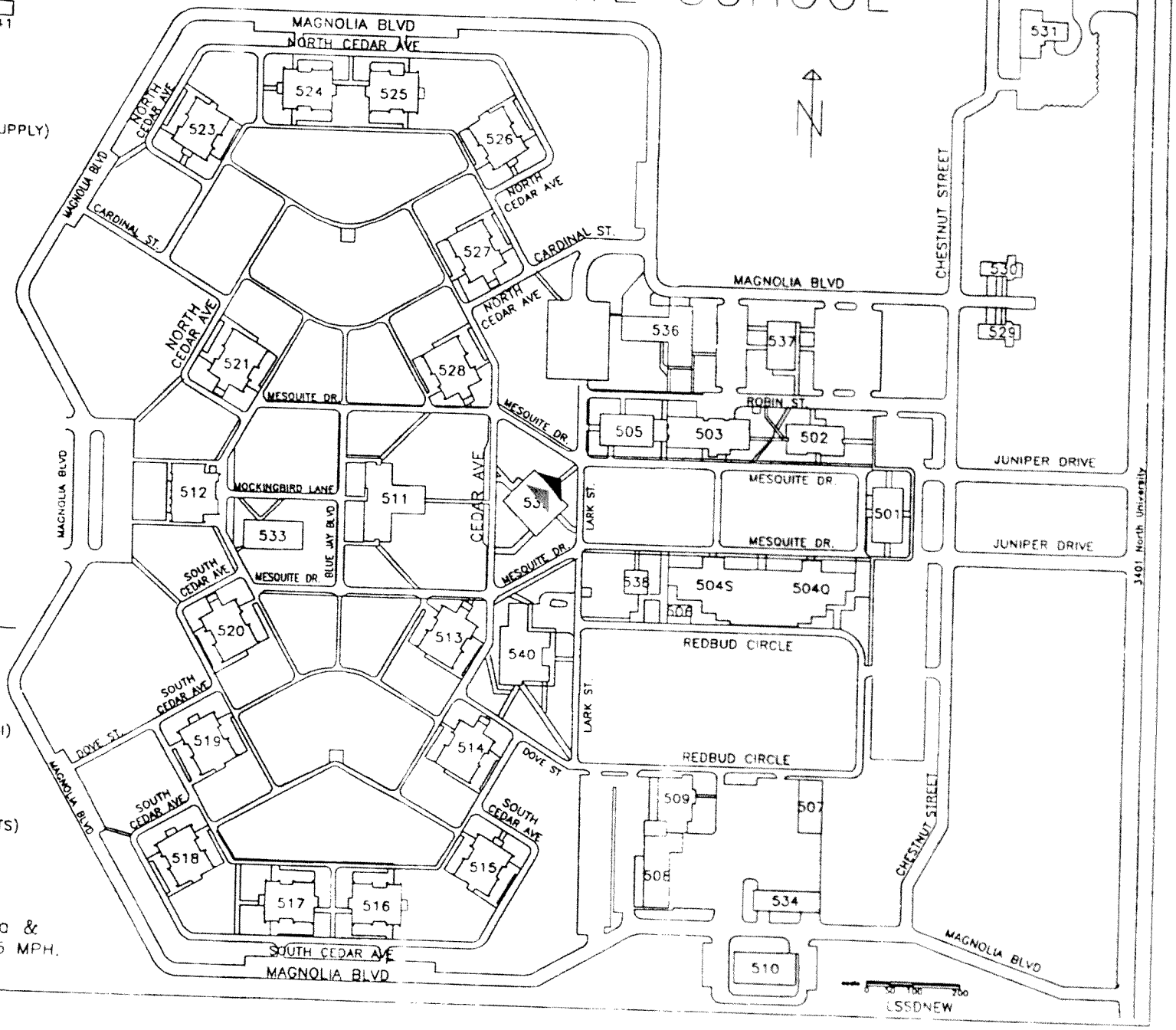
4. Inclusions attached hereto:

1. Campus Map
2. Infection Control Construction Permit
3. Shop Drawing Log/Submittal Register
4. Fire Alarm System Acceptance Test
5. Floor Plans Building 504 E/W & all homes for reference only. Any markings and annotations do not necessarily apply to this project and Contractor must field verify all dimensions, device locations, room and wall configurations, and room numbers.

LUBBOCK STATE SCHOOL

501 Juniper Drive (ADMINISTRATION)
502 Mesquite Dr. (D & E)
503 Mesquite Dr. (HEALTH SERVICES)
504 Mesquite Dr. (QUAIL/SPARROW)
505 Lark St. (HABILITATION THERAPY)
506 Redbud Circle (HOUSEKEEPING)
507 Magnolia BLVD (MAINTENANCE)
508 Magnolia BLVD (PURCHASING & SUPPLY)
509 FOOD SERVICE
510 Magnolia BLVD (LAUNDRY)
511 Blue Jay BLVD (EDUCATION)
512 Mesquite Dr. (GYMNASIUM)
513 South Cedar Ave (ASPEN)
514 South Cedar Ave (BIRCH)
515 South Cedar Ave (ELM)
516 South Cedar Ave (FIR)
517 South Cedar Ave (MAPLE)
518 South Cedar Ave (OAK)
519 South Cedar Ave (PINE)
520 South Cedar Ave (WILLOW)
521 North Cedar Ave (CANNA)
523 North Cedar Ave (VIOLET)
524 North Cedar Ave (LILY)
525 North Cedar Ave (ROSE)
526 North Cedar Ave (TULIP)
527 North Cedar Ave (IRIS)
528 North Cedar Ave (ZINNIA)
529 SUPT. RES.
530 ASST. SUPT. RES
531 Chestnut St. (CHAPEL)
532 GREENHOUSE
533 Mockingbird Lane (THERAPOOL)
534 Magnolia BLVD (Grounds/Moter Pool)
535 CAMP KIWANIS
536 Magnolia BLVD (WORKSHOP)
537 Robin St. (SERVICE CENTER)
538 Mesquite Dr. (FOSTER GRANDPARENTS)
539 Lark St. (ACTIVITY CENTER)
540 Lark St. (RESIDENTIAL SERVICES)
541 PAVILION

Note: Speed limit on Magnolia & Chestnut is 15 MPH all others 5 MPH.



Infection Control Construction Permit

	Permit No:
Location of Construction:	Project Start Date:
Project Coordinator:	Estimated Duration:
Contractor Performing Work:	Permit Expiration Date:
Supervisor:	Telephone:

YES	NO	CONSTRUCTION ACTIVITY	YES	NO	INFECTION CONTROL RISK GROUP
☐	☐	TYPE A: Inspection, non-invasive activity	☐	☐	GROUP 1: Low Risk
☐	☐	TYPE B: Small scale, short duration, moderate to high levels	☐	☐	GROUP 2: Medium Risk
☐	☐	TYPE C: Activity generates moderate to high levels of dust, requires greater 1 work shift for completion	☐	☐	GROUP 3: Medium/High Risk
☐	☐	TYPE D: Major duration and construction activities Requiring consecutive work shifts	☐	☐	GROUP 4: Highest Risk

CLASS I	1. Execute work by methods to minimize raising dust from construction operations. 2. Immediately replace any ceiling tile displaced for visual inspection.	3. Minor Demolition for Remodeling
CLASS II	1. Provides active means to prevent air-borne dust from dispersing into atmosphere 2. Water mist work surfaces to control dust while cutting. 3. Seal unused doors with duct tape. 4. Block off and seal air vents. 5. Wipe surfaces with disinfectant.	6. Contain construction waste before transport in tightly covered containers. 7. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area. 8. Place dust mat at entrance and exit of work area. 9. Remove or isolate HVAC system in areas where work is being performed.
CLASS III _____ Date _____ Initial	1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of the duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Do not remove barriers from work area until complete project is thoroughly cleaned by Env. Services Dept.	7. Wet mop with disinfectant 8. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 9. Contain construction waste before transport in tightly covered containers. 10. Cover transport receptacles or carts. Tape covering. 11. Remove or isolate HVAC system in areas where work is being performed/
CLASS IV _____ Date _____ Initial	1. Obtain infection control permit before construction begins. 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system. 3. Complete all critical barriers or implement control cube method before construction begins. 4. Maintain negative air pressure within work site utilizing HEPA equipped air filtration units. 5. Seal holes, pipes, conduits, and punctures appropriately. 6. Construct anteroom and require all personnel to pass through this room so they can be vacuumed using a HEPA vacuum cleaner before leaving work site or they can wear cloth or paper coveralls that are removed each time they leave the work site.	7. All personnel entering work site are required to wear shoe covers 8. Do not remove barriers from work area until completed project is thoroughly cleaned by the Environmental Service Dept. 9. Vacuum work area with HEPA filtered vacuums. 10. Wet mop with disinfectant. 11. Remove barrier materials carefully to minimize spreading of dirt and debris associated with construction. 12. Contain construction waste before transport in tightly covered containers. 13. Cover transport receptacles or carts. Tape covering. 14. Remove or isolate HVAC system in areas where work is being performed.

Additional Requirements:

_____ Date _____ Initial	_____ Date _____ Initial	Exceptions/Additions to this permit are noted by attached memoranda
Permit Request By:	Permit Authorized By:	
Date:	Date:	

SHOP DRAWING LOG / SUBMITTAL SCHEDULE & REGISTER: PROJECT NO.: **20-114-LBL** PROJECT NAME: **REPLACE FIRE ALARM SYSTEMS**

SUBMITTAL NUMBER	SPEC SECTION & DESCRIPTION	REC'D FROM CONRACTOR	RETURNED TO CONTRACTOR	ACTION		
(to be filled in by Contractor)		ESTIMATED/ ACTUAL	ESTIMATED/ ACTUAL	APPROVED	APP. AS NOTED	REJECTED
#	**MOBILIZATION ITEMS:** B.1.b: Organization Chart, responsibilities / contact info					
	B.1.c: List of major subs & suppliers (from HSP, if any)					
	A.5.c.: Licenses & certifications					
	B. 1. A. & d.: Phasing/Mobilization Plan					
	B.12.: Infection Control Permit					
#	**APPROVAL REQ'D PRIOR TO 1ST PAY APP MTG: ("BIG THREE"):**					
	B.2.a.: Progress Schedule (template to be provided prior to pre-con)					
	B.2.b.: Detailed Schedule of Values (template to be provided prior to pre-con)					
	B.2.c.: This Submittal Schedule w/ Contractor's proposed numbering (consecutively)					
	ALL OTHER ITEMS REQ'D BY SOW INCLUDING BUT NOT LIMITED TO:					
#	A.1. & A.5.a.ii.: Sealed fire alarm plans and design/calculations					
#	A.5.f. Component catalog data for items listed					
	ITEMS REQ'D @ CLOSE-OUT INCLUDING BUT NOT LIMITED TO:					
#	3.1.a.: Training documentation					
#	3.1. b., c. & e.: Three O&M Manuals w/ Certificates of Installation & warranties & completed FAS Acceptance tests					
#	3.1.e. No ACM use certification					
#	3.1.f. As-builts One full size set and three digital (CDs)					

FIRE ALARM SYSTEM ACCEPTANCE TEST

Date	Project Number
Campus	A/E
Building / Area	Contractor

INITIAL TEST

☐	FA contractor performed complete initial test

FINAL TEST DOCUMENTATION

☐	Copy of the "Fire Alarm Installation Certificate
☐	3 copies of O & M manuals including "psswords"
☐	Facility staff training

	TEST PROCEDURE	TIMES
☐	Support staff is present	
☐	Communication devices (walkie talkies etc) are available	
☐	Notify authorities (on & off site) of the test	
☐	Central station to record type and time of signals	
☐	Stablish contingency plan for occupied buildings	
☐	Normal power from dedicated circuit in EES Life Safety	
☐	Smoke detector @ FA panel location if not fully sprinklered	
☐	Correct wire size for FA devices (min. No. 18)	
☐	Dissconect FA battery - TROUBLE SIGNAL @ FA panel	☐
☐	Reconnect battery - batteries are not outdated	☐
☐	Disconnect normal power - TROUBLE SIGNAL @ FA panel - (system in EES power)	☐
☐	Area smoke detectors installed 1) Max. 30' o.c. (smoke detector with a 30' listing) 2) Max 15' from walls or max. 21' from any point served (smoke detector with a 30' listing in a ceiling not higher than 10') 3) Min. 3' from air moving devices 4) Min. 4" from wall when mounted on ceiling 5) Between 4" and 12" from ceiling when mounted on wall	
☐	Manual pull stations instaled 1) So that they are accessible, unobstructed, and visible 2) Within 5' of each exit door (or, located at continuously attended staff location in Health Care Occupancies patient sleeping areas.) 3) So that all occupiable spaces are within 200' of a pull station on the same floor 4) Between 42" and 54" a.f.f.	
☐	Air duct smoke detectors installed 1) In supply air ducts serving a unit greater than 2,000 cfm 2) In return air ducts serving a unit greater than 15,000 cfm (not required if entire area served is protected by area smoke detectors) 3) To be accessible for cleaning and in the listed position (vertical, horizontal etc.) 4) With a remote alarm indicator (and keyed test switch) when installed more than 10' a.f.f. or where indicator is not visible	
☐	Strobes are installed 1) In corridors, max. 15' from end of corridor and max. 100' apart 2) Between 80" and 96" a.f.f. or within 6" of the ceiling if it is lower than 80" a.f.f.	
☐	Start walk test - program system for walk test	☐
☐	Smoke test all smoke detectors	
☐	Test all pull stations	
☐	Smoke test all duct smoke detectors	

FIRE ALARM SYSTEM ACCEPTANCE TEST

Date	Project Number
Campus	A/E
Building / Area	Contractor

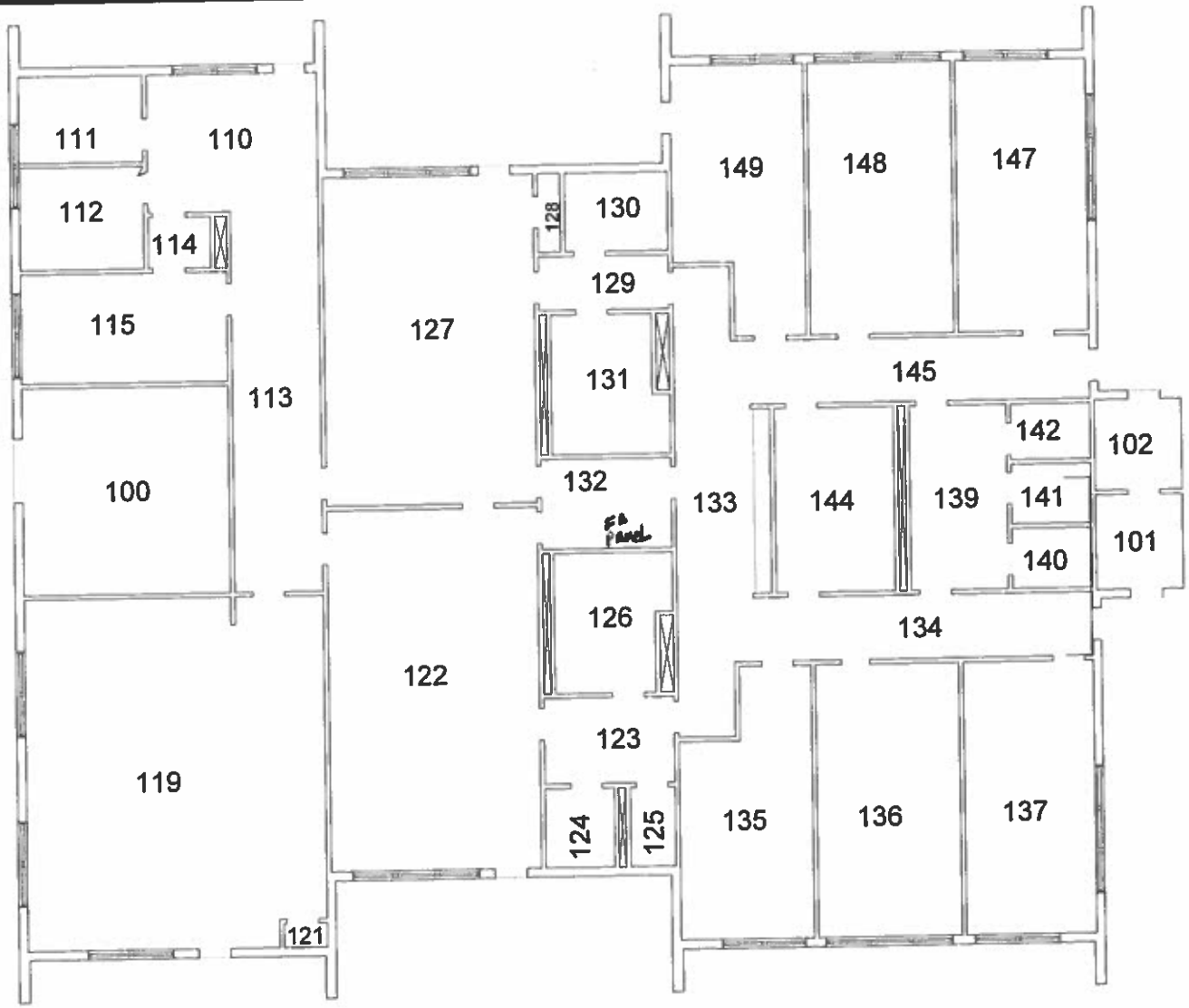
	Test sprinklers flow switches (drain has a 1/2" orifice - alarms in 90 sec)	
	Test sprinkler control valves - supervisory sifnal (not trouble) @ FAP in 2 revolutions	
	Verify initiating device address signals - FAP programed vs actual	
	Strobes are functional and synchronized	
	Audible alarms sound levels with doors closed	
	Audible alarms sound is the same throughout the building	
	Finish walk test - return system to normal	
	Activate FA	
	Dampers close	
	Mag-hold door close	
	HVAC shuts down	
	Alarm is audible	
	Magnetic or electric locks open	
	Silence FA	
	Activate an iniciating device - alarm overrides silence	
	Reset FAP - smoke dampers open, HVAC re-starts, mag-hold re-set	
	Remove smoke detector - trouble signal @ FAP	
	Activate an iniciating device - alarm overrides trouble signal	
	Reset FAP - activate sprinkler tamper switch (supervisory)	
	Activate an iniciating device - alarm overrides supervisory signal	
	Reset FAP	
	Test elevator recall - (see elevator test)	
	Perform any other test required by the system	
	Return system to noral power - verify all trouble signals are clear & system is reset to normal	
	Notify authorities (on & off site) that the test is concluded - system back to normal	
	Compare signal types and times with of FAP and central station to verify accuracy	

BUILDING 504
AREA OUTLINE PLAN

TOTAL–34909 Sq Ft

Room numbers enhanced 3/9/2011

NORTH



Lubbock SSLC
518 S. Cedar Ave.
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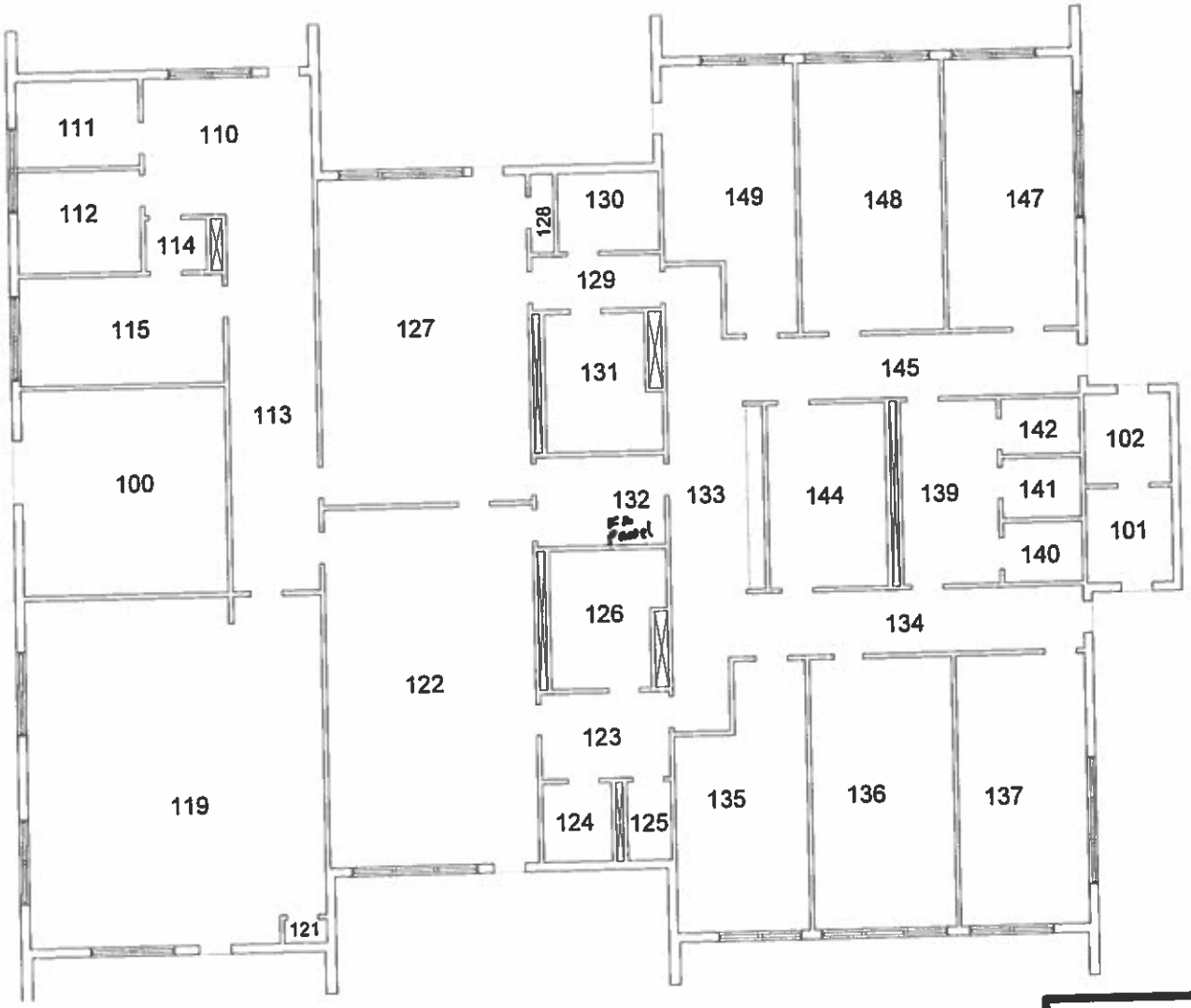
05/10/12 Tom S.



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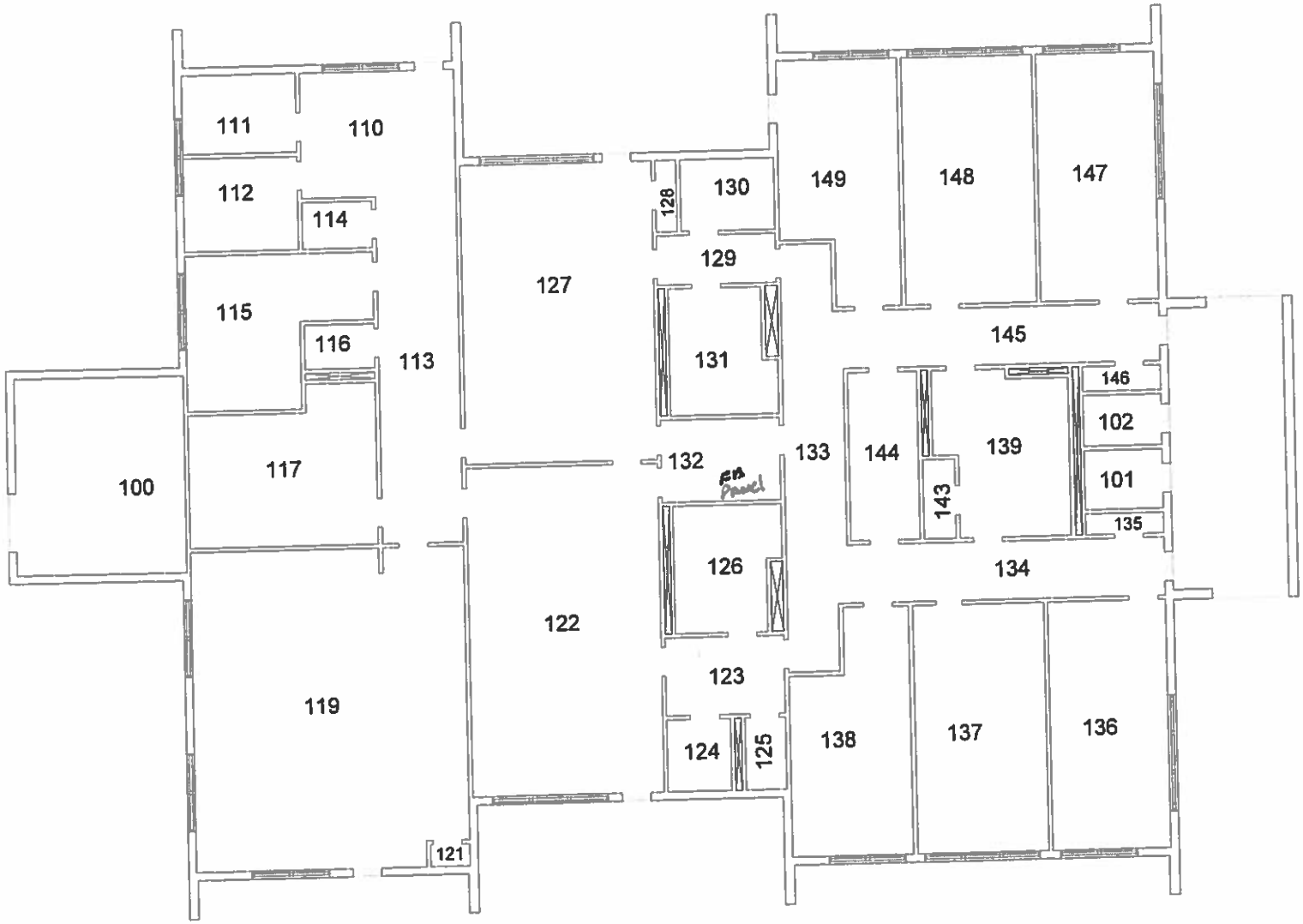

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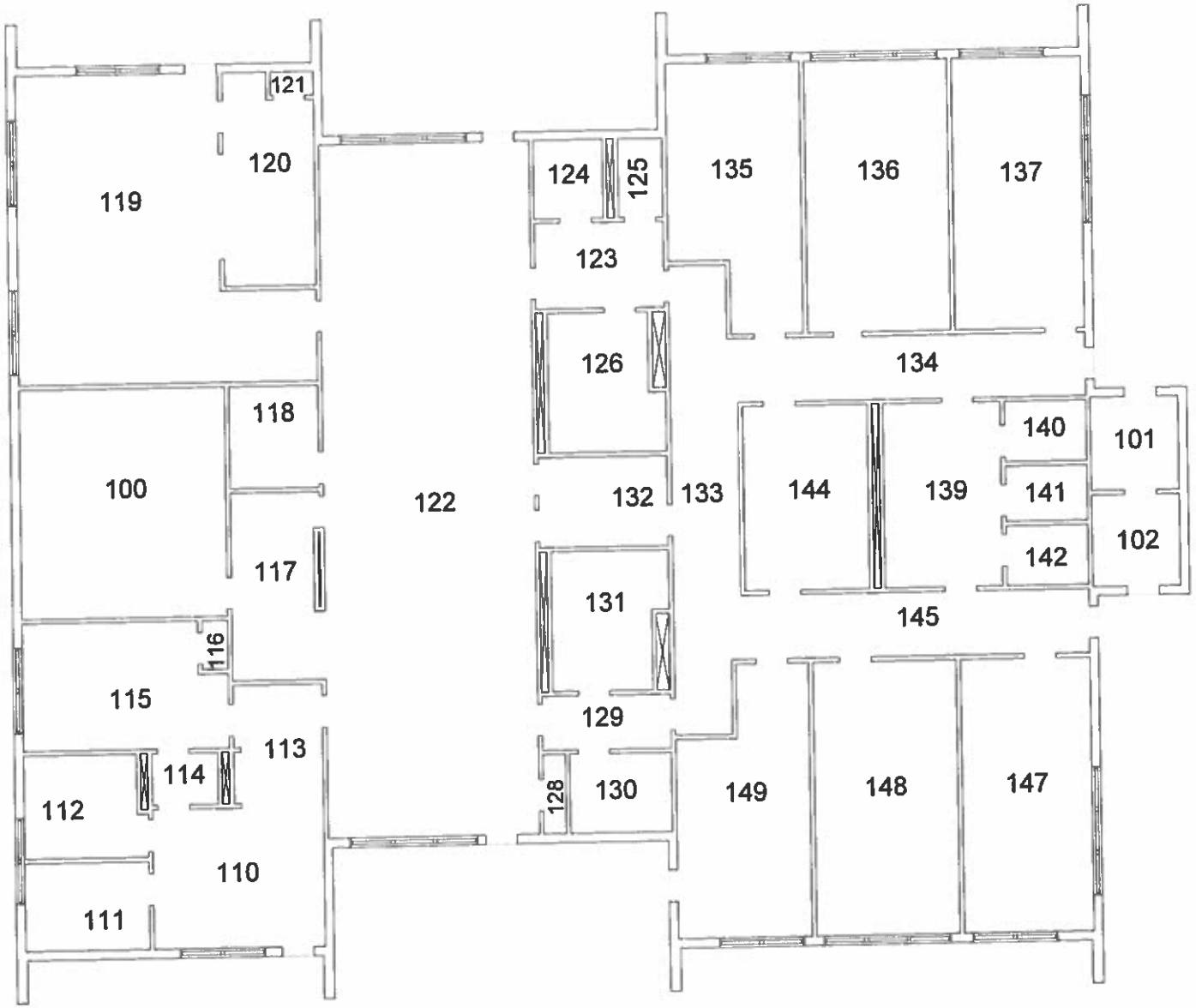

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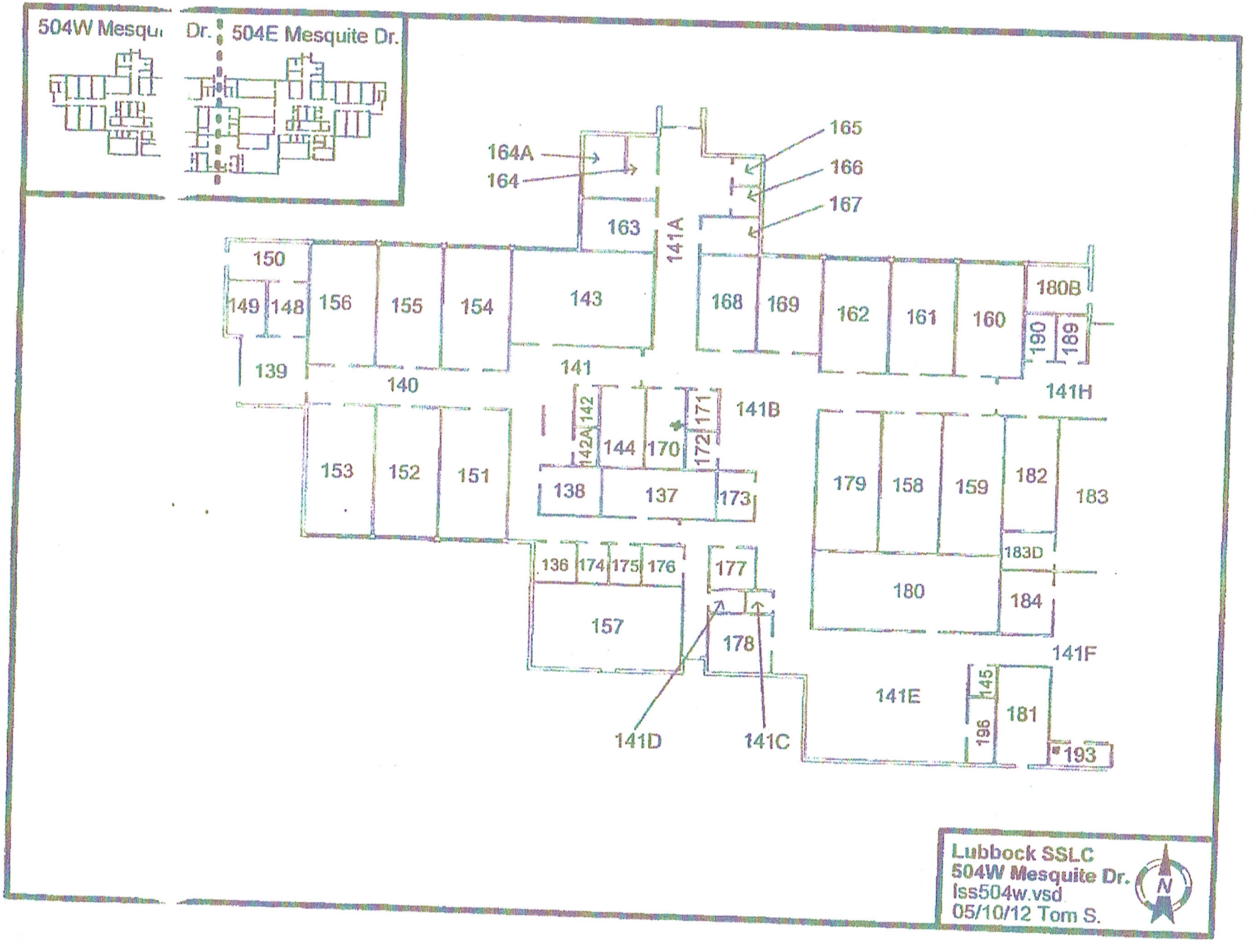
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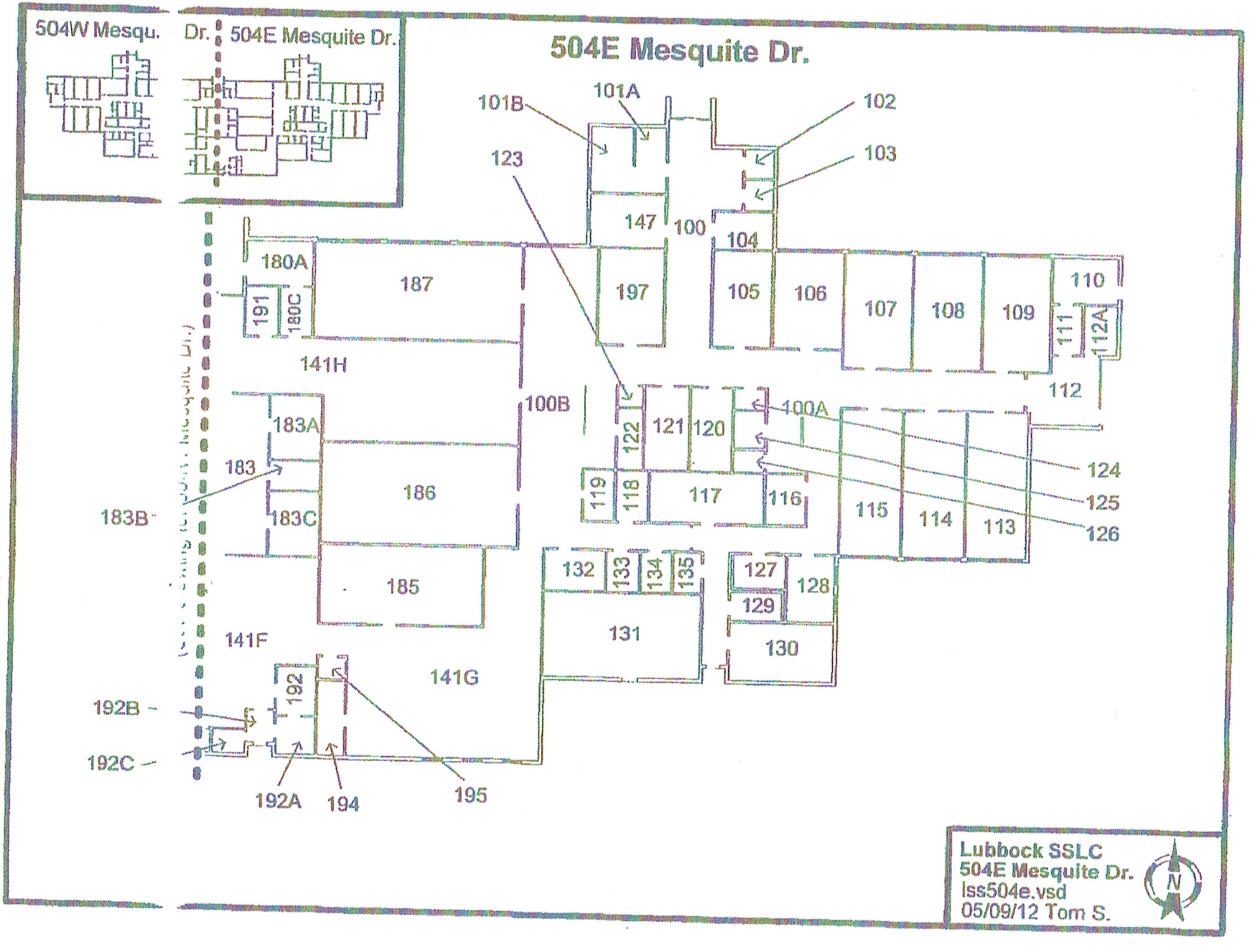
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Lubbock SSLC
523 N. Cedar Ave.
lss523.vsd
05/10/12 Tom S.

Lubbock SSLC
525 N. Cedar Ave.
lss525.vsd
05/10/12 Tom S.

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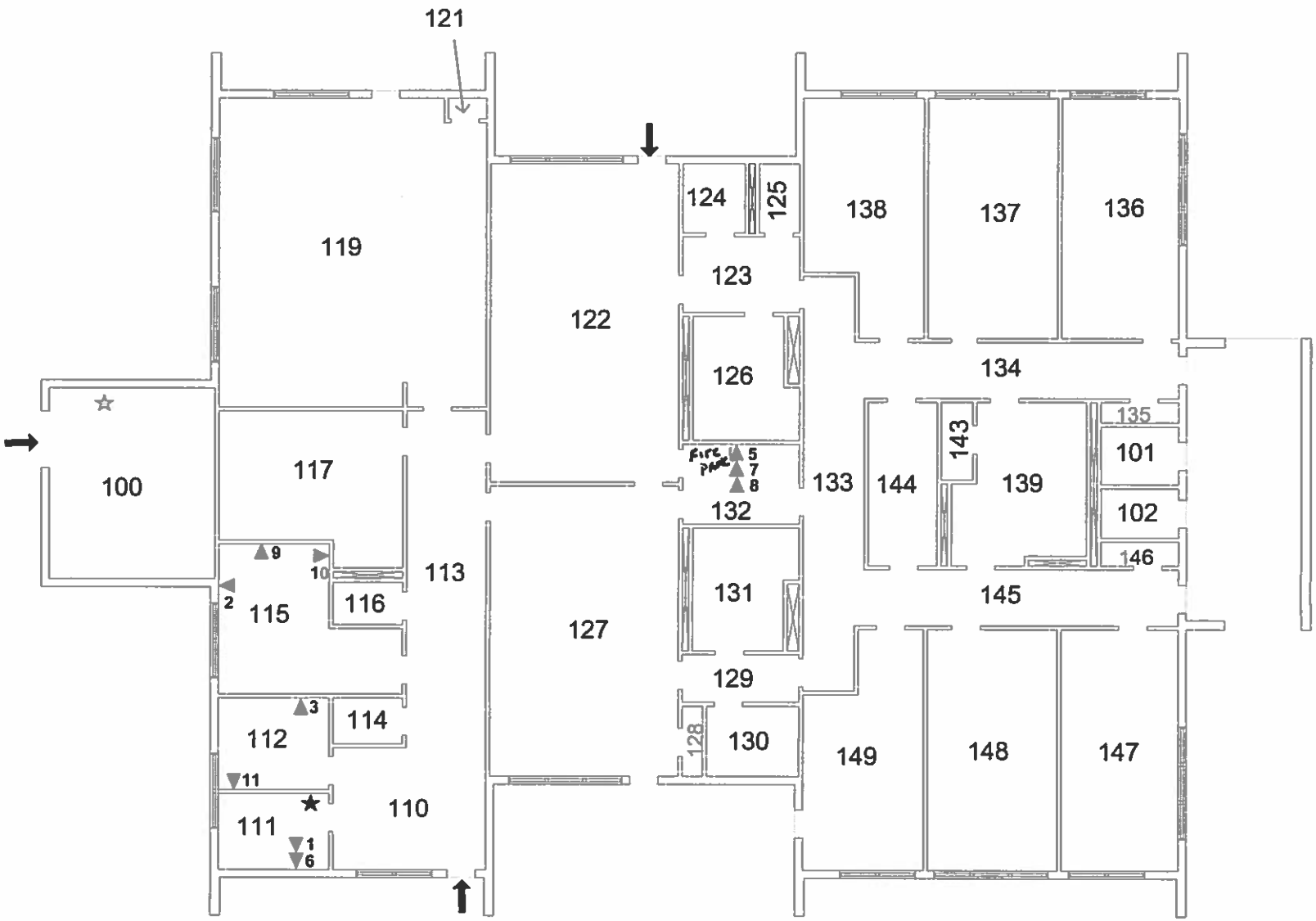
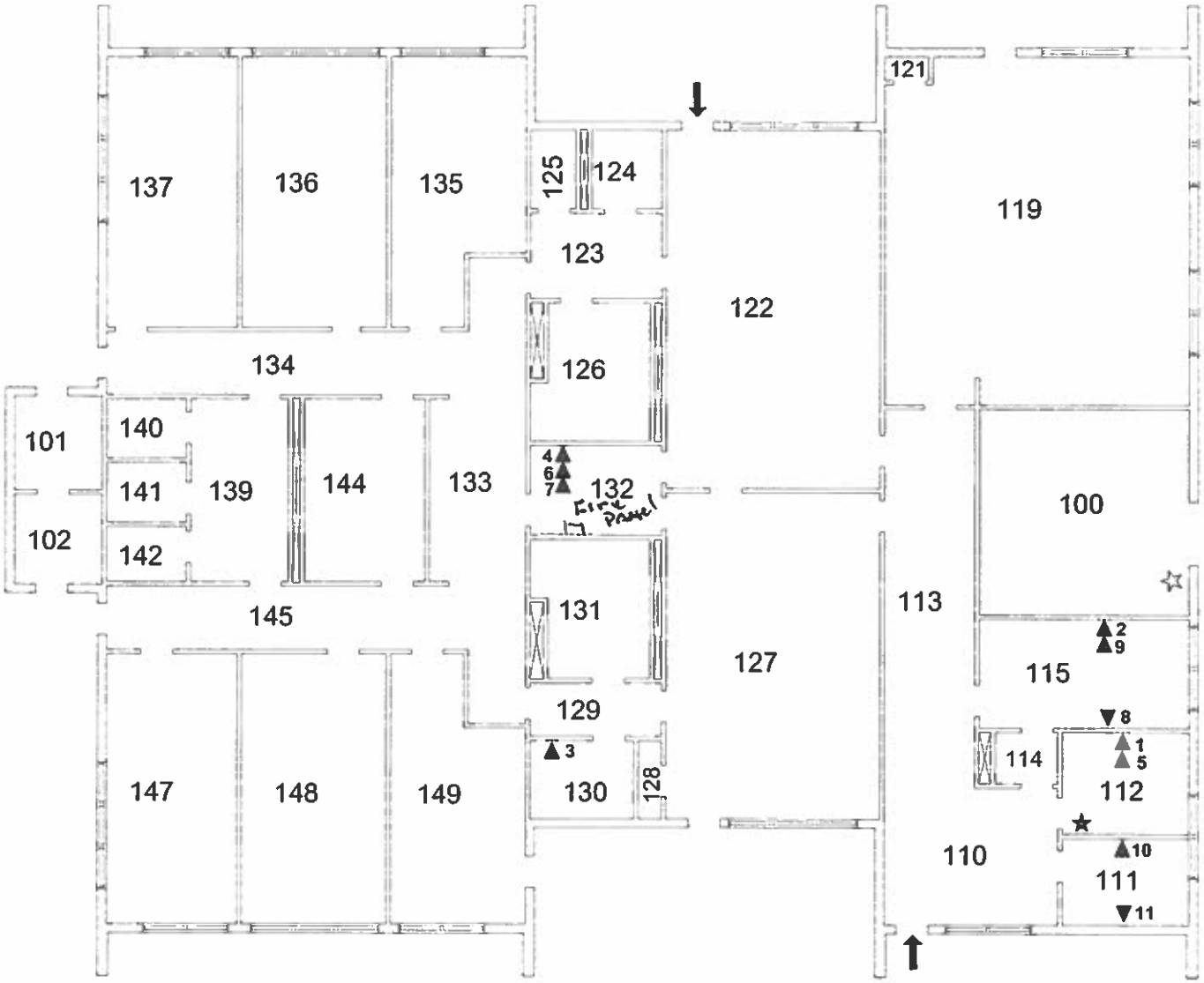


Drop
1 Drop #
Bldg Entrance
LIU
Equipment
(LIU in other location)

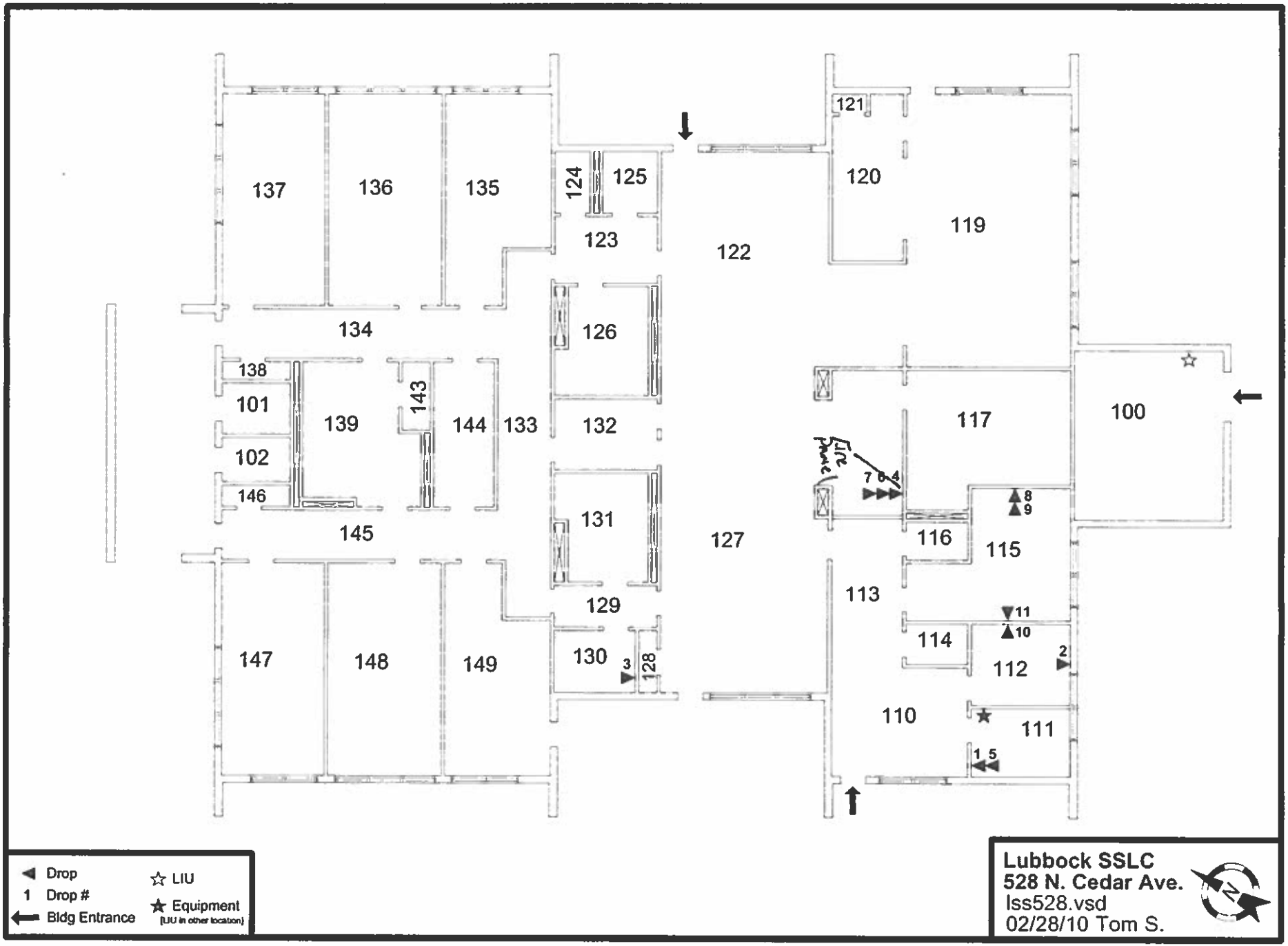
Note: Need to install UPS on switch in room 111

Lubbock SSLC
521 N. Cedar Ave.
lss521.vsd
03/02/10 Tom S.



◄ Drop
1 Drop #
Bldg Entrance
☆ LIU
★ Equipment
[LIU in other location]

Lubbock SSLC
526 N. Cedar Ave.
lss526.vsd
03/27/10 Tom S.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Fire Panel
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11
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2
3
1
5
Drop
Drop #
Bldg Entrance
LIU
Equipment
(LIU in other location)
Lubbock SSLC
528 N. Cedar Ave.
lss528.vsd
02/28/10 Tom S.