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#2020-00035

**Darlington Ct Apartments – Final PUD Amendment
Project Review for Planning and Zoning Commission**

Meeting Date:

May 6, 2020

Requests:

Final PUD Amendment to allow changes to approved site plan for a community center and trash enclosure.

Location:

590-595 Darlington Lane

Existing Zoning:

R-3B PUD – Multi-Family Residential Planned Unit Development

Surrounding Properties:

North: B-2 – General Commercial
South: R-2 – Single-Family Residential
East: R-2 PUD – Single-Family Residential Planned Unit Development & M-L – Manufacturing Limited
West: O PUD – Office Planned Unit Development & R-2 Single-Family Residential

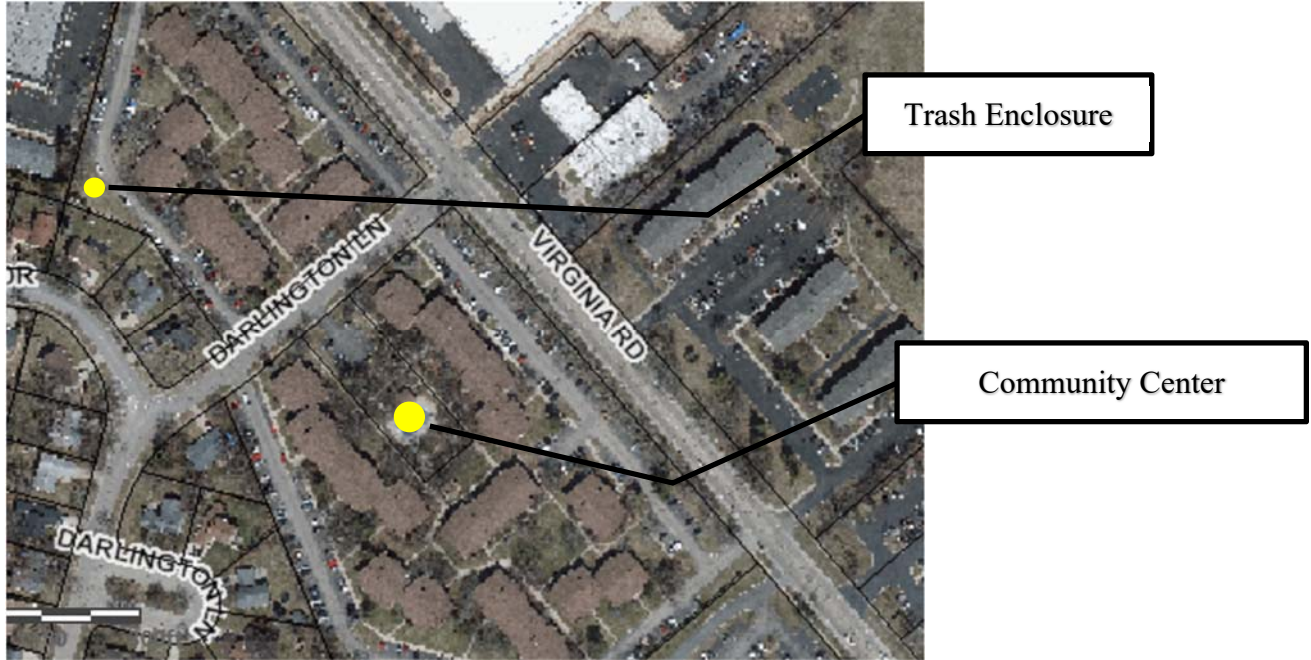
Staff Contact:

Kathryn Cowlin (815.356.3615)

Background:

- Existing Use: The subject property is a 234-unit apartment complex with an existing outdoor pool.
- Previous Approvals:
 - In 1966, the Final Planned Unit Development for Darlington Court Apartments (previously known as Coventry Green) was approved.
 - In 2006, the City Council approved a request to convert the apartments into condos. The condo plat was never completed.
 - In 2009, a variation from the Subdivision Ordinance was approved to defer the burial of the overhead utilities until an area wide program was initiated.

Map of Improvements



Comprehensive Land Use Plan 2030 Vision Summary Review:

The Comprehensive Plan designates the subject property as High Density Residential, which allows for existing and future commercial uses. The following goal is applicable to this request:

Land Use - Residential

Goal: Encourage a diversity of high quality housing in appropriate locations throughout the city that supports a variety of lifestyles and invigorates community character.

This can be accomplished with the following supporting action:

Supporting Action: Preserve and enhance the character and livability of existing residential area with architectural and development guidelines. Promote safe, clean and well-maintained housing by encouraging regular repair and maintenance of housing.

Findings of Fact:

FINAL PLANNED UNIT DEVELOPMENT AMENDMENT

The petitioner is requesting an amendment to the Final Planned Unit Development to allow changes to the approved site plan for a community center and trash enclosure. A Planned Unit Development is a Special Use and Special Uses require separate review because of their potential to impact surrounding properties and the orderly development of the City.

Section 2-400 B General Standards for all special uses in the Unified Ordinance establishes standards for all special uses in Crystal Lake. Briefly, the criteria are as follows:

1. The use is necessary or desirable, at the proposed location, to provide a service or facility which

will further the public convenience and general welfare.

Meets *Does not meet*

2. The use will not be detrimental to area property values.

Meets *Does not meet*

3. The use will comply with the zoning districts regulations.

Meets *Does not meet*

4. The use will not negatively impact traffic circulation.

Meets *Does not meet*

5. The use will not negatively impact public utilities or municipal service delivery systems. If required, the use will contribute financially to the upgrading of public utilities and municipal service delivery systems.

Meets *Does not meet*

6. The use will not negatively impact the environment or be unsightly.

Meets *Does not meet*

7. The use, where possible will preserve existing mature vegetation, and provide landscaping and architecture, which is aesthetically pleasing, compatible or complementary to surrounding properties and acceptable by community standards.

Meets *Does not meet*

8. The use will meet requirements of all regulating governmental agencies.

Meets *Does not meet*

9. The use will conform to any conditions approved as part of the issued Special Use Permit.

Meets *Does not meet*

10. The use will conform to the regulations established for specific special uses, where applicable.

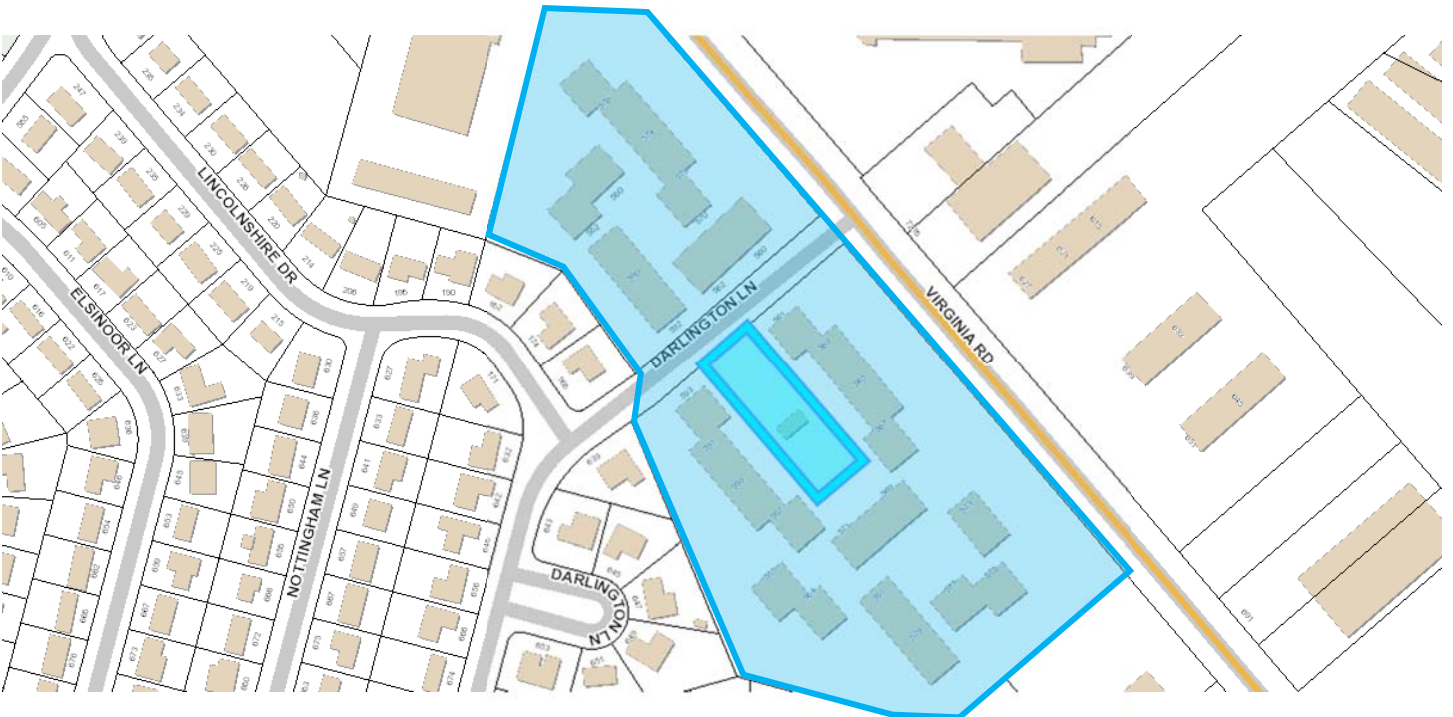
Meets *Does not meet*

Recommended Conditions:

If a motion is made to recommend approval of the petitioner's request, the following conditions are recommended:

1. Approved plans, to reflect staff and advisory board comments, as approved by the City Council:
 - A. Application (Cunat, dated 03/12/2020, received 03/12/2020).
 - B. Plan Set (RB Custom Design, dated 04/22/19, received 03/12/2020)
 - C. Trash Enclosure (RB Custom Design, dated 03/23/2020, received 03/24/2020)
2. Provide foundation landscaping around the community center.
3. Work with staff to preserve the existing trees in the common area near the new community center.
4. Work with staff to provide a landscape screen between the single-family lots and the trash enclosure.
5. The petitioner shall comply with all of the requirements of the Community Development and Fire Rescue Departments.

PLN-2020-00035 DARLINGTON COURT – PUD AMENDMENT



**City of Crystal Lake
Development Application**

Office Use Only
File # _____

Project Title: Darlington Court-Community Center

Action Requested

- Annexation
- Comprehensive Plan Amendment
- Conceptual PUD Review
- Final PUD
- Final PUD Amendment
- Final Plat of Subdivision
- Preliminary PUD
- Preliminary Plat of Subdivision
- Rezoning
- Special Use Permit
- Variation
- Other

Petitioner Information

Owner Information (if different)

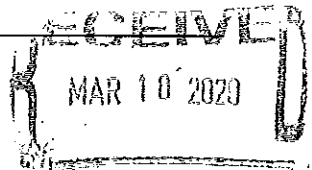
Name: Darlington-Conat, LLC Name: (same)
Address: 5400 W. Elm St Address: _____
Suite 110 McHenry IL
60050
Phone: 815-358-392 Phone: _____
Fax: _____ Fax: _____
E-mail: sspitson@conat.com E-mail: _____
jgrippa@conat.com

Property Information

Project Description: Construct New Community Center

Project Address/Location: 595 Darlington Lane
Crystal Lake, IL 60014

PIN Number(s): _____



Development Team

Please include address, phone, fax and e-mail

Developer: Carpentry Development Co. 5400 W. Elm St #110 McHenry, IL 60050
Ph: 815-759-8546 sspitson@conat.com

Architect: R. B. Custom Designs Inc. 2108 W. Johnsburg Rd, Johnsburg, IL 60050
Ph: 815-759-9459 fax: 815-307-8200 rbierman@rbcustomdesignsinc.com

Attorney: _____

Engineer: GEWALT HAMILTON ASSOC, INC. 625 FOREST EDGE DR VERNON HILLS, IL 60059
Ph: 847-478-9700 fax: 847-478-9701 csmith@gha-engineers.com

Landscape Architect: _____

Planner: _____

Surveyor: Vanderstappen Land Surveying, Inc. 1316 N. Madison St Woodstock, IL 60098
815-337-8310 fax: 815-337-8314 info@vandersinc.com

Other: _____

Signatures



3-12-2020

PETITIONER: Print and Sign name (if different from owner)

Date

As owner of the property in question, I hereby authorize the seeking of the above requested action.

President

3-12-2020

OWNER: Print and Sign name

Date

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.

Northwest Herald

NORTHWEST HERALD

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213731298

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Notice Publish Date:
Saturday, April 18, 2020

Notice Content

PUBLIC NOTICE BEFORE THE PLANNING AND ZONING COMMISSION OF THE CITY OF CRYSTAL LAKE, MCHENRY COUNTY, ILLINOIS IN THE MATTER OF THE PETITION OF Darlington-Cunat LLC LEGAL NOTICE Notice is hereby given in compliance with the Unified Development Ordinance of the City of Crystal Lake, Illinois that a public hearing will be held before the Planning and Zoning Commission upon the application by Darlington-Cunat LLC, for a Final Planned Unit Development Amendment, relating to the property at 590-595 Darlington Lane, Crystal Lake, Illinois 60014. PIN: 19-98-132-001 & 19-08-259-001. This application is filed for the purpose of seeking an amendment to an approved Final Planned Unit Development to allow changes to the site plan to allow for the removal of the existing outdoor pool and to construct a community center with indoor pool and add a trash enclosure pursuant to Article 4 and Article 9 of the Unified Development Ordinance. Plans for this project can be viewed at the Crystal Lake Community Development Department at City Hall. A public hearing before the Planning and Zoning Commission for this request will be held at 7:30 p.m. on Wednesday, May 6, 2020, at the Crystal Lake City Hall, 100 West Woodstock Street, at which time and place any person determining to be heard may be present. Tom Hayden, Chairperson Planning and Zoning Commission City of Crystal Lake (Published in the Northwest Herald April 18, 2020) 1772282

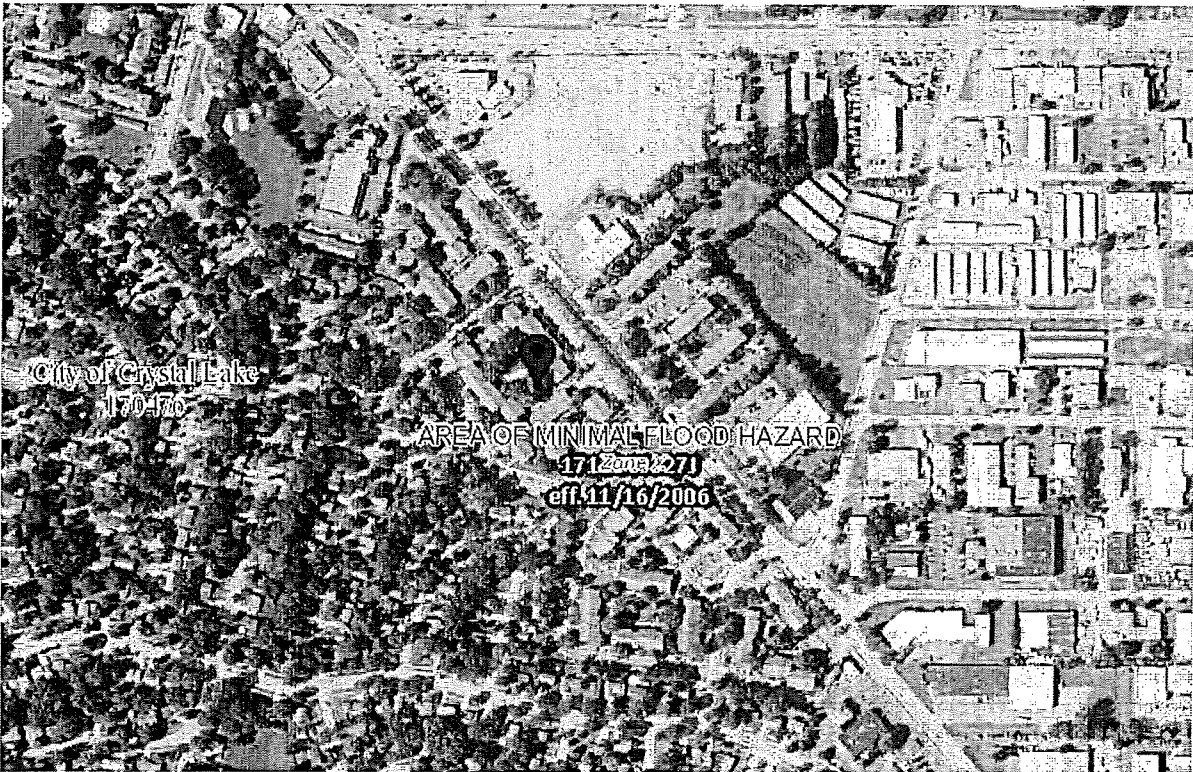
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MEMORANDUM

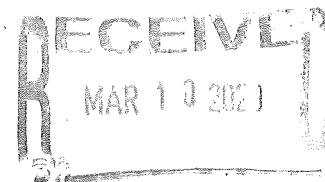
Date: February 12, 2020

Subject: Darlington Court Apartments in Crystal Lake, IL
Stormwater Memo
GHA Project # 5665.000

The Darlington Court Apartments are located on Virginia Avenue in the City of Crystal Lake. The complex was constructed in the 1950's, prior to the implementation of stormwater ordinances. The site does not consist of any wetland or special flood hazard areas, as it is located in a Zone X per FIRM Panel 17111C0327J (effective 11/16/2006).

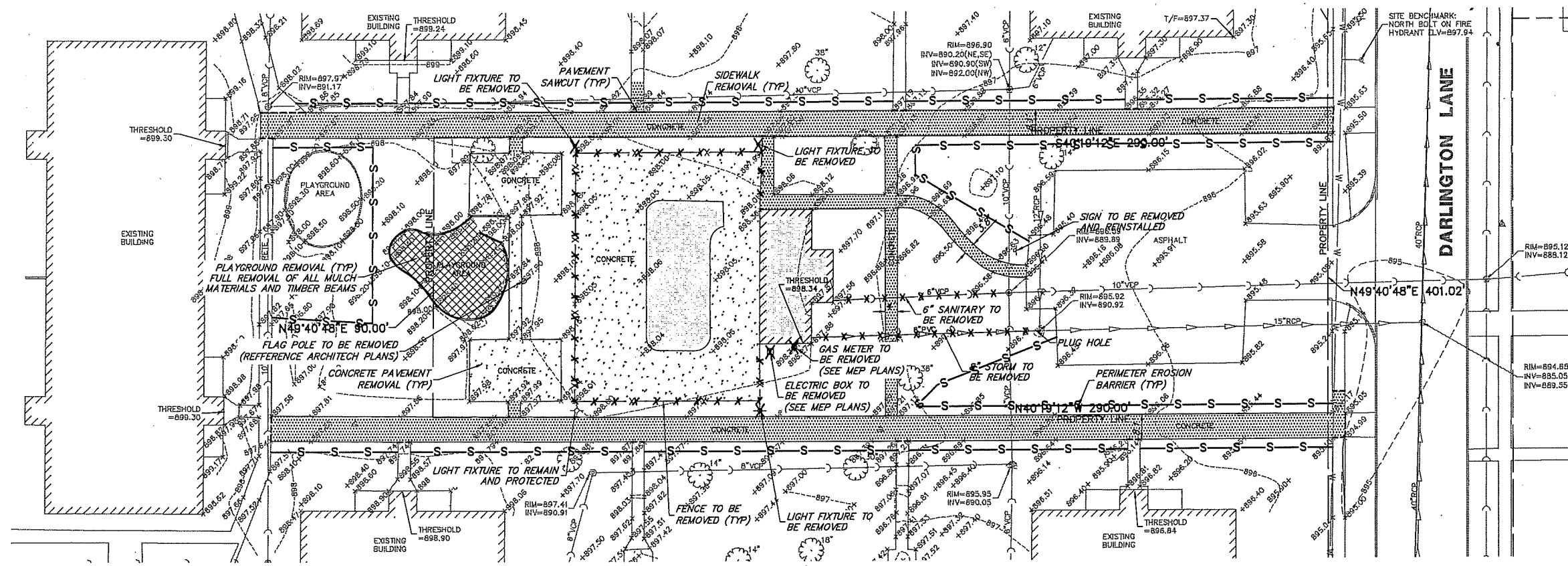


The proposed activities on the property include the removal of the existing pool, a poolhouse, and sidewalk. The proposed improvements include the construction of a new pool in an enclosed building, reconstructing utility service lines for the building, minor regrading to accommodate the new building, some storm sewer service lines to maintain existing drainage patterns, and reconfigured sidewalk.

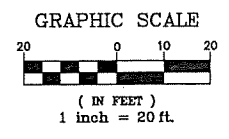


The project will disturb greater than 5,000 square feet, and therefore will require a stormwater management permit. As shown in the attached exhibit, the existing project area has an impervious surface area of 18,547 square feet. The proposed improvements will result in an impervious surface area of 17,795 square feet, which will reduce the impervious coverage of the site by approximately 752 square feet and therefor will not trigger requirements for detention.

A soil erosion and sediment control plan and details are included in the permit submittal to comply with the current Stormwater Management Ordinance.



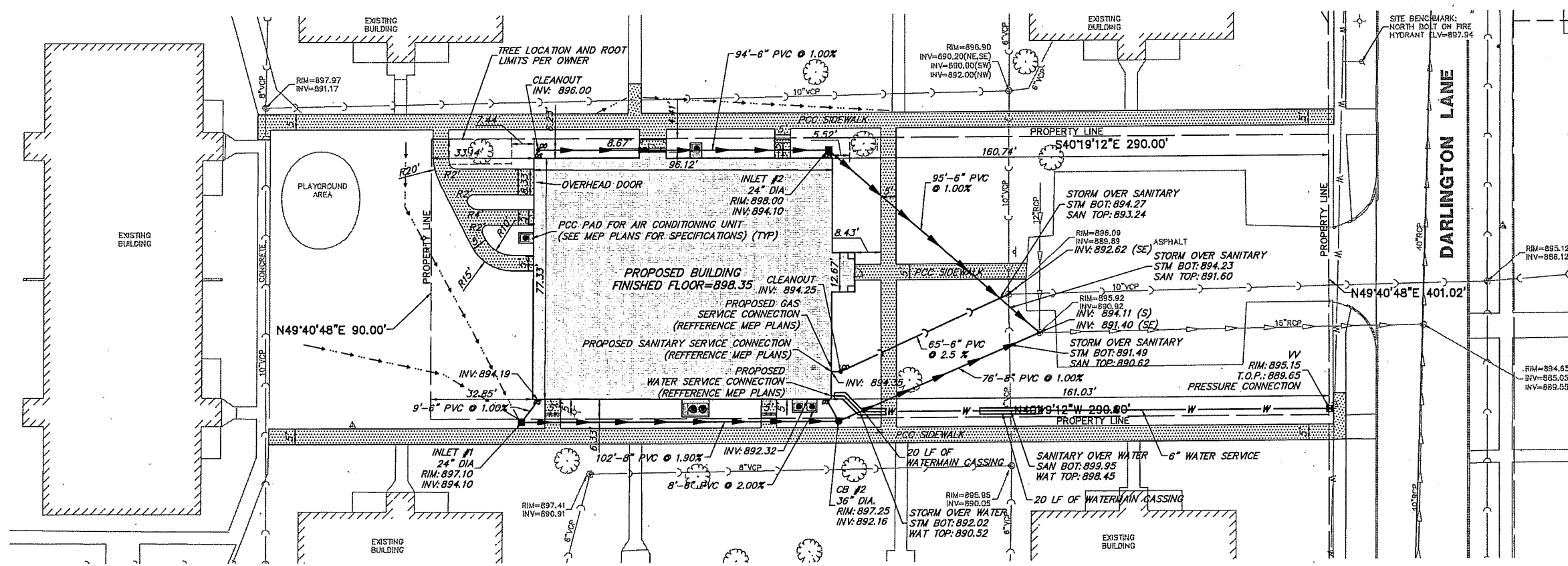
EXISTING CONDITIONS / DEMOLITION PLAN



SITE IMPROVEMENT LEGEND

- FULL DEPTH PAVEMENT
HMA SURFACE COURSE, N50, 2"
HMA BINDER COURSE, N50, 4"
AGGREGATE BASE COURSE, CA-6, 6"
- CONCRETE MEDIAN
PCC CONCRETE, 5"
AGGREGATE BASE COURSE, CA-6, 4"
- TOPSOIL, SEED AND BLANKET
- CONCRETE BARRIER CURB, 6"

- NOTE:
1. ANY IMPACT TO EXISTING CONDITIONS WHICH ARE NOT SHOWN SHALL BE REPAIRED AT NO COST TO THE OWNER.
 2. DAMAGE TO EXISTING PARKING LOT SHALL BE REPAIRED AS APPROVED BY ENGINEER AT NO COST TO THE OWNER.
 3. FOR TREE REMOVAL REFERENCE ARCHITECT PLAN



PROPOSED GEOMETRIC PLAN AND UTILITY PLAN

GEOMETRIC LEGEND

- PROPOSED BUILDING (REFERENCE ARCHITECT PLANS)
- PCC SIDEWALK, 5"
AGGREGATE BASE COURSE, TYPE B 4"
- PCC PADS FOR AIR CONDITIONING UNITS (SEE MEP PLANS FOR SPECIFICATIONS)

DRAINAGE & UTILITY LEGEND

- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN

NOTE:
BOUNDARY AND TOPOGRAPHY SUPPLIED BY VANDERSTAPPEN SURVEYING & ENGINEERING INC. ON ALTA/NSPS SURVEY COMPLETED APRIL 19, 2006.

SITE BENCHMARK:
NORTH BOLT ON FIRE HYDRANT LOCATED APPROX. 19' SOUTHEAST OF THE CENTERLINE OF DARLINGTON LN. AND APPROX. 390' SOUTHWEST OF THE CENTERLINE OF VIRGINIA RD.
ELV=897.94
SUPPLIED BY VANDERSTAPPEN SURVEYING & ENGINEERING INC.

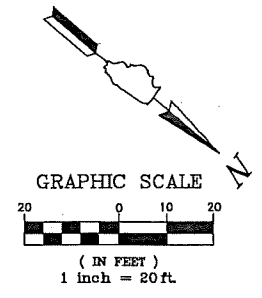
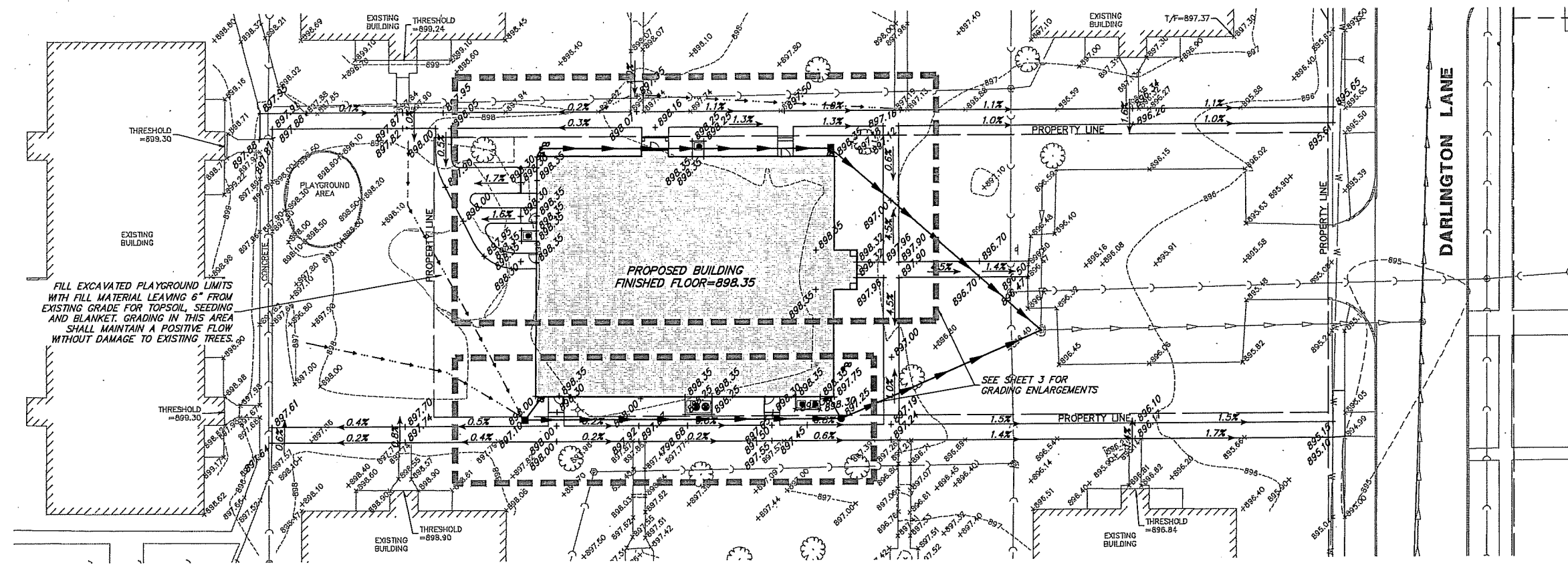
GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive • Vernon Hills, IL. 60061
TEL 847.478.9700 • FAX 847.478.9701

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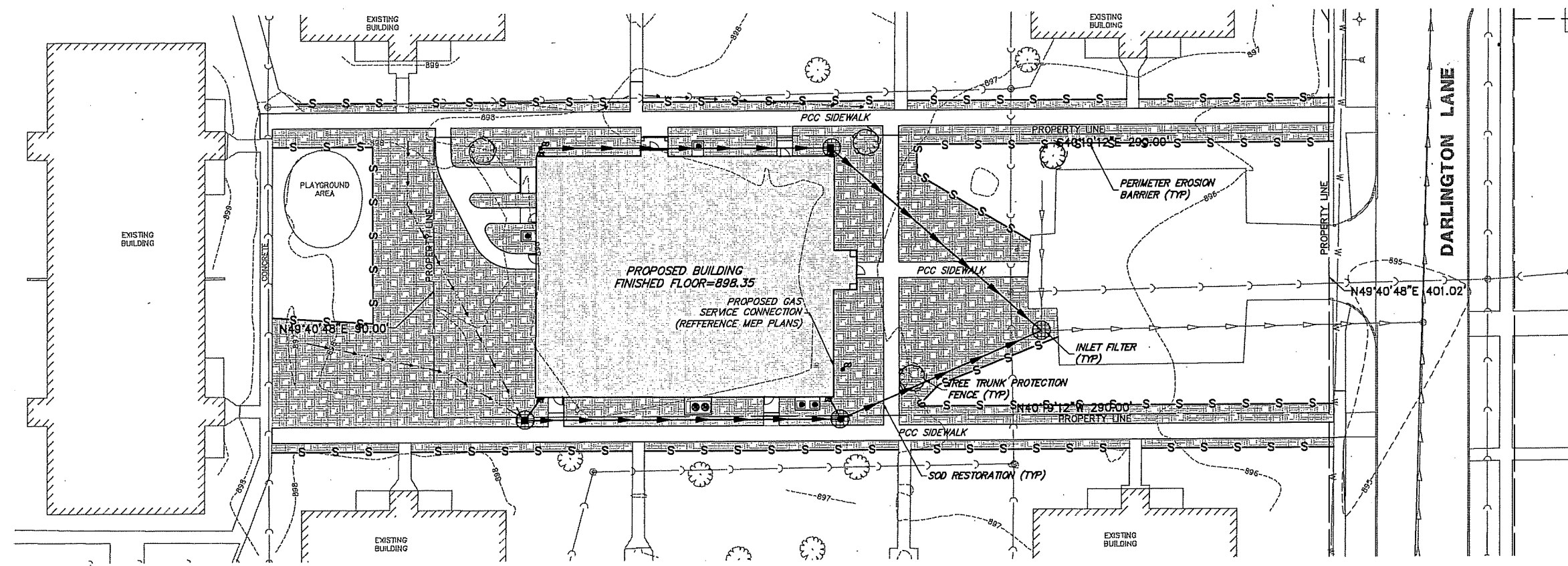
SITE PLAN
DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE 5655.000_PR.dwg	SHEET NUMBER
DRAWN BY: PJS DATE 02.14.2020	GHA PROJECT # 5655.000
CHECKED BY: CAS DATE 02.14.2020	SCALE 1"=20'
	C1.0 OF 7 SHEETS



GRADING PLAN



- EROSION LEGEND**
- TOPSOIL, 4" SEED, CLASS 2A EROSION CONTROL BLANKET, NAG75
 - INLET FILTERS
 - TREE TRUNK PROTECTION FENCE
 - PERIMETER EROSION BARRIER

SOIL EROSION AND SEDIMENT CONTROL PLAN

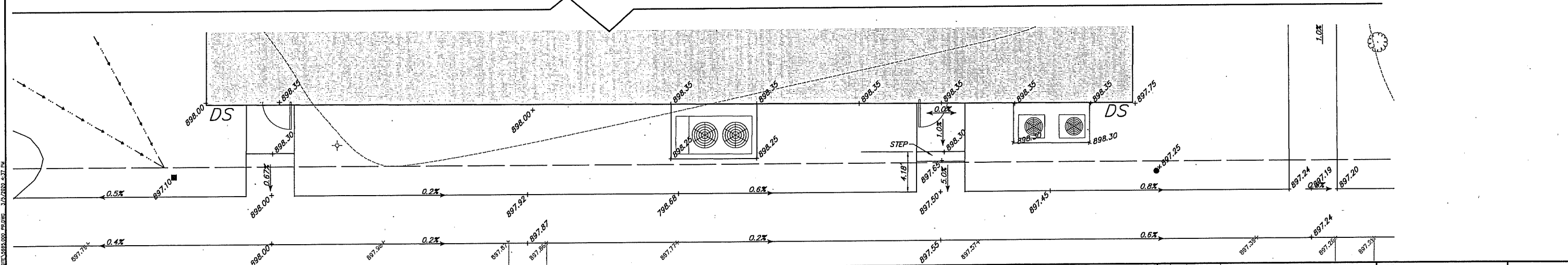
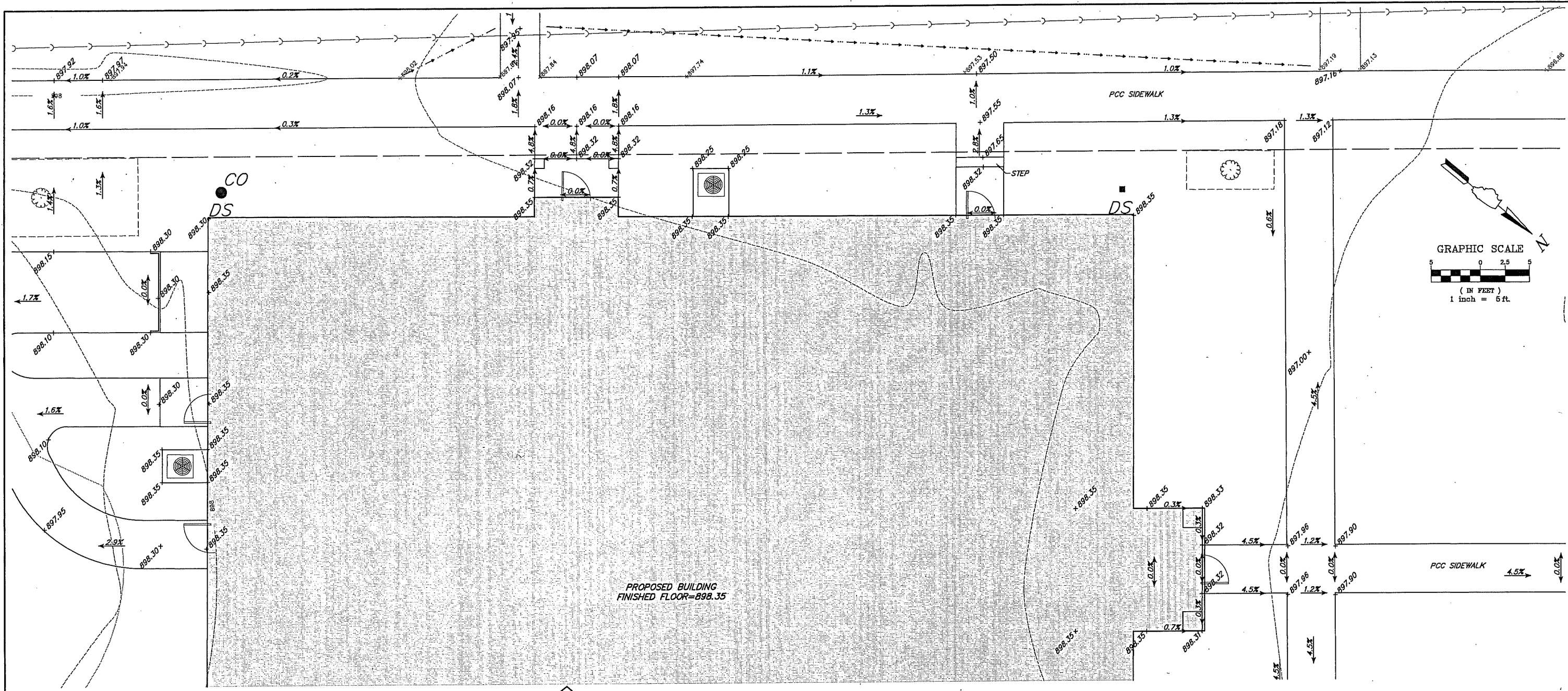
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SITE PLAN
DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 5665.000_PR.dwg	SHEET NUMBER:
DRAWN BY: PJS	GHA PROJECT #
DATE: 02.14.2020	5665.000
CHECKED BY: CAS	SCALE:
DATE: 02.14.2020	1" = 20'
	OF 7 SHEETS



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GRADING ENLARGEMENT DETAILS
DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE 5665.000_PR.dwg
DRAWN BY: PJS
DATE 02.14.2020
GHA PROJECT # 5665.000
CHECKED BY: CAS
DATE 02.14.2020
SCALE 1"=5'

SHEET NUMBER:
C3.0
OF 7 SHEETS

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" LATEST EDITION, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE DETAILS IN THESE PLANS, THE CONTRACT DOCUMENTS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, THE IEPA AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO.
- EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF FILTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE PRIOR TO ORDERING MATERIALS. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS/HER OWN RISK AND EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY COSTS INCURRED..
- ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
- IF DURING CONSTRUCTION THE CONTRACTOR ENCOUNTERS OR OTHERWISE BECOMES AWARE OF ANY SEWERS OR UNDERDRAINS OTHER THAN THOSE SHOWN ON THE PLANS, HE/SHE SHALL INFORM THE ENGINEER, WHO SHALL DIRECT THE WORK NECESSARY TO MAINTAIN OR REPLACE THE FACILITIES IN SERVICE AND TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION IF MAINTAINED. EXISTING FACILITIES TO BE MAINTAINED THAT ARE DAMAGED BECAUSE OF NON-COMPLIANCE WITH THIS PROVISION SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AND HAND SANITIZING STATIONS FOR THE USE OF ALL THE CONTRACTORS PERSONNEL EMPLOYED ON THE WORK SITE. THE FACILITIES SHALL BE MAINTAINED IN PROPER SANITARY CONDITION THROUGHOUT THE PROJECT. THE LOCATION OF THE TEMPORARY FACILITIES SHALL BE APPROVED BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE NPDES PERMIT AND SWPPP MANUAL. NO NPDES PERMIT OR SWPPP MANUAL IS NEEDED FOR THE PROJECT THE CONTRACTOR SHALL PERFORM SOIL EROSION SEDIMENT CONTROL BEST PRACTICES OR AS DIRECTED BY THE ENGINEER TO PREVENT ILLICIT DISCHARGES FROM THE SITE.
- CONTRACTOR TO PROVIDE TRAFFIC CONTROL BOTH ONSITE AND OFFSITE AS NEEDED.
- STREET IS TO BE KEPT CLEAN THROUGHOUT CONSTRUCTION.
- ANY CHANGES FROM APPROVED PLANS MUST BE REVIEWED BY THE CITY COMMUNITY DEVELOPMENT DEPARTMENT BEFORE PROCEEDING.
- JULIE LOCATES MUST BE MARKED PRIOR TO ANY WORK BEING PERFORMED.
- ANY DAMAGE TO CITY SIDEWALKS, CURBS, STREETS, OR ANY STRUCTURES WITHIN THE RIGHT-OF-WAY IS TO BE REPAIRED PRIOR TO FINAL INSPECTION.
- DO NOT STORE, STAGE, OR DUMP ANY MATERIALS ON CITY RIGHT-OF-WAY WITHIN ANY EASEMENTS.

PROJECT SPECIFIC NOTES

- ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 24 MONTHS FROM THE DATE OF SUBSTANTIAL COMPLETION OF THE WORK BY THE OWNER AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.
- ALL CONSTRUCTION WILL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITY AS WELL AS THE STANDARD SPECIFICATIONS.
- THE SEWER AND WATER CONTRACTOR SHALL BE REQUIRED TO BE LICENSED AND BONDED WITH THE CITY OF CRYSTAL LAKE BEFORE WORK IS STARTED.
- CONTRACTOR SHALL NOTIFY THE CITY OF CRYSTAL LAKE (815-459-2020) AND THE PROJECT ENGINEER (847-478-9700) AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.
- ALL ELEVATIONS ARE ON NAVD 88 VERTICAL DATUM.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL TO ADEQUATELY INFORM AND PROTECT THE PUBLIC OF ALL CONSTRUCTION OPERATIONS.
- STOCKPILING MATERIAL WITHIN THE 100 YEAR FLOOD PLAIN AND OR THE FLOODWAY IS STRICTLY PROHIBITED
- ALL PAVEMENT AND BUILDING SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY (ASTM D-1557). ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY (ASTM D-1557). TOPSOIL AND SUBGRADE 6" BELOW TOPSOIL SHALL BE COMPACTED TO 80% STANDARD PROCTOR DENSITY (ASTM D-698).
- ALL STONE USED ON THE PROJECT SHALL BE CRUSHED UNLESS SPECIFICALLY NOTED OTHERWISE.
- ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH APPLIED WITHIN 1 HOUR OF FINAL STRIKING.
- SEE ARCHITECTURAL SPECIFICATIONS FOR CONCRETE MIX DESIGN.
- ALL CONCRETE SHALL HAVE A WHITE, IDOT TYPE 3 CURING COMPOUND APPLIED TO THE SURFACE WITHIN 1 HOUR OF FINAL STRIKING AT THE MANUFACTURER RECOMMENDED APPLICATION RATE.
- 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 2, 3/4" x 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS AT (45') FIFTY FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S AND CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS.
- UNLESS OTHERWISE NOTED ON THE PLANS WHENEVER NEW CONCRETE ABUTS EXISTING/ OR NEW CONCRETE SET A 1/2" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS @ 24" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS AND BUILDING. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.
- ALL DOWEL BARS AND TIE BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE AN AS-BUILT SURVEY PRIOR TO PROJECT CLOSEOUT.

EROSION CONTROL NOTES

- AT A MINIMUM, THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S URBAN MANUAL.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.
- LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OF MATERIAL THAT IS FROM THE PROJECT. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS FIELD CONDITIONS WARRANT.
- ALL STORM WATER STRUCTURES WITH OPEN LIDS SHALL BE PROTECTED WITH INLET FILTER BASKETS. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED AS NEEDED, AND BASKETS SHALL BE REPAIRED OR REPLACED AS NEEDED.
- AFTER ACHIEVING PERMANENT VEGETATION, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED, AND THE DRAINAGE STRUCTURES SHALL BE CLEANED.
- THE CONTRACTOR SHALL KEEP A WATER SOURCE AT THEIR DISPOSAL FOR THE PURPOSE OF WATERING DOWN SOIL ON SITE AND ADJACENT ROADWAYS WHICH OTHERWISE MAY BECOME AIRBORNE.
- THE CONTRACTOR SHALL STABILIZE ALL IDLE, DISTURBED AREAS WITHIN SEVEN DAYS OF CESSATION OF THE CONSTRUCTION ACTIVITIES IN THAT AREA.
- THE CONTRACTOR IS EXPRESSLY ADVISED NOT TO DISTURB AREAS WHICH ARE OUTSIDE THOSE NECESSARY TO PROVIDE THE IMPROVEMENTS AS CALLED FOR IN THE PLANS.
- ALL EROSION CONTROL MEASURES SHALL BE REPLACED IF DAMAGED OR MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- ALL BYPASS CHANNELS, MUST BE CONSTRUCTED SO THAT CHANNEL FLOWS WILL NOT CAUSE EROSION OF EXCAVATED MATERIAL IN EACH CASE A SEDIMENTATION BASIN MUST BE CONSTRUCTED SO AS TO ALLOW THE SEDIMENT TO SETTLE PRIOR TO THE DOWNSTREAM OUTLET OF THE PROJECT AREA.
- PUMPS MAY BE USED AS BYPASS DEVICES, BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE THE PROJECT LIMIT. ALL PUMPED WATER SHALL BE FREE OF SILT. PUMPING MAY REQUIRE THE USE OF A SEDIMENT CONTAINMENT FILTER BAG AND OTHER SUPPLEMENTAL SEDIMENT CONTROL MEASURES.
- CONCRETE WASHOUT FACILITIES SHALL BE MADE AVAILABLE IF NEEDED, AND PROPERLY MAINTAINED THROUGHOUT THE PROJECT.
- PROPERLY MANAGE ALL MATERIAL STORAGE AREAS, PORTABLE TOILETS, AND EQUIPMENT FUELING, CLEANING, AND MAINTENANCE AREAS TO ENSURE THESE AREAS ARE FREE OF SPILLS, LEAKS, OR OTHER POTENTIAL POLLUTANTS.
- WASTE, CONSTRUCTION DEBRIS, AND BUILDING MATERIALS SHALL BE COLLECTED AND PLACED IN APPROVED RECEPTACLES.

EXISTING CONDITION AND DEMOLITION NOTES

- PRIOR TO STARTING ANY CONSTRUCTION, PROVIDE SOIL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS AND AS REQUIRED PER IEPA NPDES GUIDELINES. REFER TO NOTES AND DETAILS THROUGHOUT THE ENTIRE PLAN SET.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR FENCING THE ACTIVE WORK ZONE FROM THE PUBLIC AND PROTECTING THE PUBLIC FROM ANY CONSTRUCTION RELATED HAZARDS. AT A MINIMUM, ALL EXCAVATION, DEMOLITION AREAS AND OTHER AREAS POTENTIALLY HAZARDOUS TO PEDESTRIANS AND VEHICLES MUST BE PROTECTED.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION AND DISPOSAL OF ALL EXISTING IMPROVEMENTS ONSITE NECESSARY TO COMPLETE THE JOB. THESE IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO, EXISTING PAVEMENTS, CURBS, SIDEWALKS, UTILITIES, LIGHTING, LIGHT BASES, MANHOLES, FENCES, FOUNDATIONS, AND OTHER STRUCTURES WITHIN THE WORK AREA. EXCAVATE AND GRADE TO PROPOSED PAVEMENT AND BUILDING SUBBASE GRADES. (REFER TO FOUNDATION PLANS FOR PROPOSED BUILDING SUBBASE GRADES.) THESE ITEMS SHALL BE COMPLETELY REMOVED AND LEGALLY DISPOSED OF OFFSITE.
- TEMPORARILY REMOVE, STORE AND PROTECT SIGN AND POSTS WITHIN AFFECTED WORK ZONE FOR REINSTALLATION. COORDINATE ONSITE STORAGE WITH PROPERTY OWNER.
- THE CONTRACTOR SHALL INCLUDE ALL ASSOCIATED COSTS WITH THE REMOVAL, TRANSPORT, DISPOSAL, TESTING AND CERTIFICATION OF "UNCONTAMINATED SOIL" AS DEFINED UNDER 415 ILCS 5/3.160 INCLUDING ANY FEES, TAXES, OR SURCHARGES CHARGED BY OR THROUGH THE OPERATOR(S) OF CLEAN CONSTRUCTION OR DEMOLITION DEBRIS FILL OPERATIONS OR UNCONTAMINATED SOIL FILL OPERATIONS FOR THE ACCEPTANCE OF UNCONTAMINATED SOIL.

GEOMETRIC AND PAVING NOTES

- ALL PAVEMENT DIMENSIONS ARE TO EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. E=EDGE OF PAVEMENT, B=BACK OF CURB, F=FACE OF CURB. RADII DIMENSIONS ARE TO BACK OF CURB.
- INSTALL BITUMINOUS PAVEMENT AS SHOWN. REFER TO DETAIL SHEET FOR SPECIFIC PAVEMENT SECTIONS AND GENERAL NOTE SHEET FOR CONSTRUCTION, TESTING AND COMPACTION REQUIREMENTS.
- ALL PARKING LOT STALL MARKINGS SHALL MATCH EXISTING AND ALL OTHER PARKING LOT PAVEMENT MARKINGS SHALL BE PAINT, COLOR AS NOTED, IN ACCORDANCE WITH SECTION 780 OF THE IDOT STANDARD SPECIFICATIONS. (TWO SINGLE APPLICATIONS, 16 MILS EACH REQUIRED). SITE PAVEMENT MARKING SHALL BE COORDINATED WITH SITE ENGINEER. CONTRACTOR SHALL NOTIFY SITE ENGINEER 48 HRS PRIOR TO INSTALLING PAVEMENT MARKING. PAVEMENT MARKINGS REMOVED TO BE RESTORED IN KIND.
- CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL SEED AND BLANKET AS NECESSARY TO MEET SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS. REFER TO NOTES AND DETAILS THROUGHOUT THE PLAN SET FOR SPECIFIC MATERIAL REQUIREMENTS.
- FOR FINAL RESTORATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL DISTURBED TURF AREAS AND PROPOSED TURF AREAS AS FOLLOWS:
 - PRIOR TO PLACEMENT OF TOPSOIL RESTORATION AREA SUBGRADE MATERIAL SHALL BE ROTOTILLED AND RE-COMPACTED TO A MAXIMUM OF 80% STANDARD PROCTOR TO A DEPTH OF 6".
 - SPREAD A MINIMUM OF 6" OF EXISTING SITE SALVAGED SCREENED TOPSOIL OR NEW PULVERIZED TOPSOIL ON ALL DISTURBED AREAS. COMPACT TO 80% STANDARD PROCTOR.
 - TOPSOIL MUST BE FREE OF LITTER, BRUSH, ROCKS AND EARTH CLOUDS OF GREATER THAN 1 INCH IN ANY DIMENSION. CONTAIN BETWEEN 1%-10% ORGANIC MATTER, 12%-50% CLAY, AND LESS THAN 55% SAND CONTENT. PH SHALL BE BETWEEN 6.0 AND 8.0.
 - SEED RESTORATION AREAS AS FOLLOWS:
 - IDOT CLASS 1 SEED. (LAWN MIXTURE)
 - EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S75 OR APPROVED EQUAL INSTALLED FOLLOWING MANUFACTURER GUIDELINES.
- ONCE RESTORATION HAS BEEN COMPLETED, THE CONTRACTOR SHALL REMOVE EROSION CONTROL DEVICES. SILT FENCE TRENCHES SHALL BE BACKFILLED AND RESTORED IN KIND. STORM STRUCTURES SHALL BE CLEANED OF DEBRIS.

UTILITY NOTES

- UNDERGROUND WORK SHALL INCLUDE TRENCHING, DISPOSAL OF EXCESS MATERIAL, DEWATERING, INSTALLATION OF PIPE, CASTINGS, STRUCTURES, BACKFILLING OF TRENCHES AND COMPACTION, AND TESTING AS SHOWN ON THE CONSTRUCTION PLANS. FITTINGS AND ACCESSORIES NECESSARY TO COMPLETE THE WORK MAY NOT BE SPECIFIED BUT SHALL BE CONSIDERED AS INCLUDED TO THE COST OF THE CONTRACT. ALL SEWER SHALL BE INSTALLED USING A LASER AND BEGIN AT THE DOWNSTREAM END.
- MACHINE CORE ALL CONNECTIONS TO EXISTING STRUCTURES USING A CORE DRILL. HAMMERING OR SAWING OF STRUCTURES WILL NOT BE ALLOWED.
- STONE BEDDING AND BACKFILL SHALL BE OMITTED FOR A DISTANCE OF 15 FEET UP AND DOWNSTREAM OF SEWERS DRAINING TO OR FROM PONDS OR STREAMS. THE REPLACED BEDDING SHALL BE SILTY CLAY SOIL MECHANICALLY COMPACTED TO 90% MODIFIED PROCTOR DENSITY. THE USE OF PERMEABLE SOILS WILL NOT BE PERMITTED.
- ALL WORK MUST COMPLY WITH THE ILLINOIS PLUMBING CODE DATED APRIL 24, 2014.
- ALL CHANGE OF MATERIAL COUPLINGS SHALL BE STAINLESS STEEL NON-SHEAR COUPLINGS
- THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO INITIATING WORK. ANY DISCREPANCIES FOUND BETWEEN THE INFORMATION NOTED ON THE PLANS AND ACTUAL FIELD CONDITIONS, OR ANY CONFLICTS WITH PROPOSED IMPROVEMENTS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL NOT PROCEED ANY FURTHER UNTIL GIVEN WRITTEN CLARIFICATION ON HOW TO PROCEED.

UTILITY TABLE

SANITARY SEWERS	MODEL/SPECIFICATION	STANDARDS/REQUIREMENTS
	PVC SDR 26	PIPE:ASTM D-3034 JOINT:ASTM D-3212 AND F-477
WATER MAIN CLASS		
PIPE BEDDING MATERIAL	CA-11	
TRENCH BACKFILL	CA-6	
MANHOLE CONNECTIONS		ASTM: C-923
JOINT WRAP	MAC WRAP	ASTM: C-877 TYPE II

TESTING REQUIREMENTS	
WATER MAIN	ALL WATER MAIN SHALL HAVE A PRESSURE AND LEAKAGE TEST PERFORMED IN ACCORDANCE WITH SECTION 41-2.14 OF STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS ACCEPT THE PRESSURE DURING THE TESTS SHALL BE EQUAL TO 150PSI.
SANITARY SEWER	ALL SANITARY SEWER SHALL BE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS. ALL RIGID SANITARY SEWER PIPE SHALL BE TESTED BY EITHER METHOD A B OR C AS OUTLINED IN SECTION 31-1.12. ALL FLEXIBLE SANITARY SEWER PIPE SHALL BE TESTED BY METHOD D AND EITHER METHOD A B OR C. ALL SANITARY SEWER MUST BE TESTED BY METHOD E. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A COPY OF THE VIDEO ON A DIGITAL VIDEO DISC. THE VIDEO MUST BE IN COLOR AND PROCEED NO FASTER THAN 1 FOOT PER SECOND.
SEWER WATER MAIN CROSSINGS	ALL SEWERS THAT CROSS OR RUN PARALLEL TO WATER MAINS SUBJECT TO IEPA REQUIREMENTS FOR WATER MAIN QUALITY PIPE MUST BE PRESSURE TESTED ACCORDING TO 41-2.14 OF THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS
SANITARY MANHOLES	ALL SANITARY MANHOLES SHALL BE TESTED BY EITHER ASTM C-969 OR ASTM C-1244

GHA GEWALT HAMILTON ASSOCIATES, INC.
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061
 TEL 847.478.9700 ■ FAX 847.478.9701

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DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

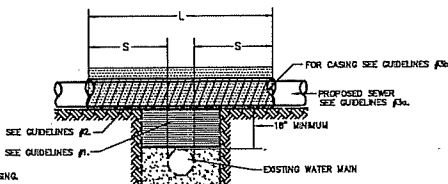
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DRAWN BY: PJS	GHA PROJECT #
DATE 02.14.2020	5665.000
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DATE 02.14.2020	NONE
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OF 7 SHEETS	

PROPOSED SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION ABOVE EXISTING WATER MAIN.

NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.208

GUIDELINES

1. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF PROPOSED SEWER TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
2. OMIT SELECT GRANULAR EMBEDEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
3. CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR:
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

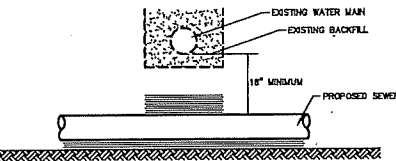


WATER AND SEWER SEPARATION REQUIREMENTS

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM VERTICAL SEPARATION.

GUIDELINES

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.



PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" VERTICAL SEPARATION.

GUIDELINES

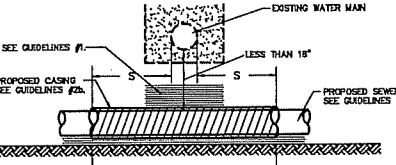
OMIT SELECT GRANULAR EMBEDEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF SEWER AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR "S" FEET ON EACH SIDE OF WATER MAIN.

CONSTRUCT "L" FEET OF PROPOSED SEWER OF WATER MAIN MATERIAL AND PRESSURE TEST, OR:

USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED SEWER AND SEAL ENDS OF CASING.

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH.

NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.208



WATER AND SEWER SEPARATION REQUIREMENTS

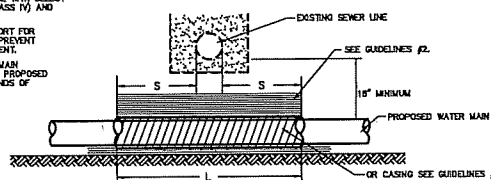
PROPOSED WATER MAIN BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.208

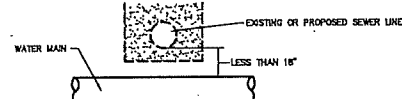
GUIDELINES

1. OMIT SELECT GRANULAR EMBEDEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT.
4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.

NOTE: "S" THE LENGTH NECESSARY TO PROVIDE 10 FEET OF SEPARATION AND MEASURED PERPENDICULAR TO EXISTING SEWER LINE.

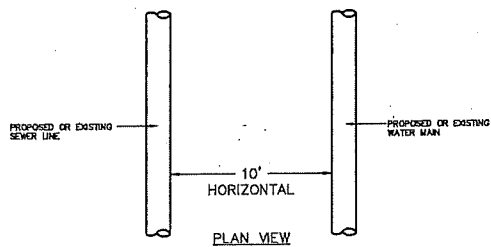


PLACEMENT OF WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL SEPARATION. NOT ALLOWED*

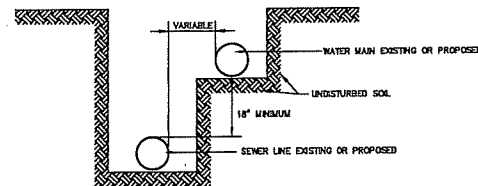


WATER AND SEWER SEPARATION REQUIREMENTS

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10 FEET OR MORE FROM EXISTING WATER (OR SEWER), NO SPECIAL CONSTRUCTION REQUIRED. SEE SECTION 41-2.018 (1)



WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER), DETAILS BELOW SHALL APPLY. SEE SECTION 41-2.018 (2)



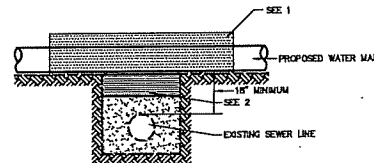
WATER AND SEWER SEPARATION REQUIREMENTS

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH 18" MINIMUM SEPARATION.

NOTE: CLASS IV MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR MAXIMUM DENSITY.

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF PIPE AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT FOR 10 FEET ON EITHER SIDE OF SEWER LINE.
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.

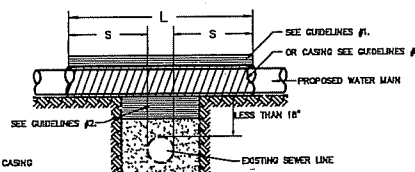


PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE WITH LESS THAN 18" VERTICAL SEPARATION.

NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.208

GUIDELINES

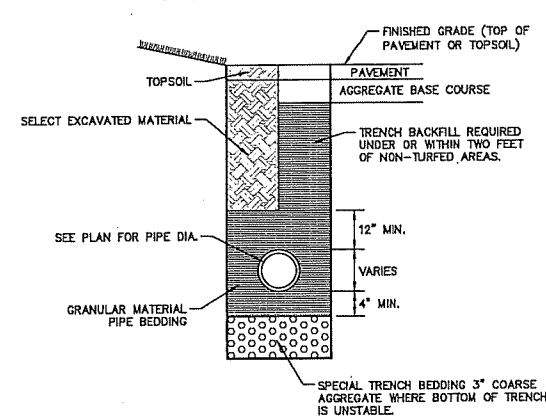
1. OMIT SELECT GRANULAR EMBEDEDMENT AND GRANULAR BACKFILL TO ONE (1) FOOT OVER TOP OF WATER MAIN AND USE SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".
2. IF SELECT GRANULAR BACKFILL EXISTS, REMOVE WITHIN WIDTH OF EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED MATERIAL (CLASS IV) AND COMPACT.
3. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER MAIN AND SEAL ENDS OF CASING.
4. POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN CASING AND SEWER.



WATER AND SEWER SEPARATION REQUIREMENTS

NOTE: SEE STORM TABLE FOR MATERIAL REQUIREMENTS.

TRENCH WIDTH
WIDTH (MAX) = 9" + 00 + 9" WHEN TRENCH ≤ 5 FT.
WIDTH (MAX) = 18" + 00 + 18" WHEN TRENCH > 5 FT.



03.15.2016

STORM TRENCH DETAIL FLEXIBLE PIPE INSTALLATION

Stabilization Type:	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Permanent Seeding		A			X	X	X	X	X			
Dormant Seeding	B											
Temporary Seeding		C			X	X	X	X	X			
Sodding			E	X	X	X						
Mulching					F							

A = KENTUCKY BLUEGRASS @ 90 LBS/AC. MIXED WITH PERENNIAL RYEGRASS @ 30 LBS/AC.
B = KENTUCKY BLUEGRASS @ 135 LBS/AC. MIXED WITH PERENNIAL RYEGRASS @ 45 LBS/AC.
C = SPRING OATS @ 100 LBS/AC.
D = WHEAT OR CEREAL RYE @ 150 LBS/AC.
E = SOD
F = STRAW MULCH (HYDROMULCH OR USE STRAW BLANKET) @ 2 TONS/AC.
XXX = IRRIGATION NEEDED
IRRIGATION SHOULD BE PROVIDED AS NECESSARY TO THOROUGHLY ESTABLISH INTENDED GROWTH.
NOTE: SPRAYED ON PRODUCTS CANNOT BE USED NOV.-FEB.

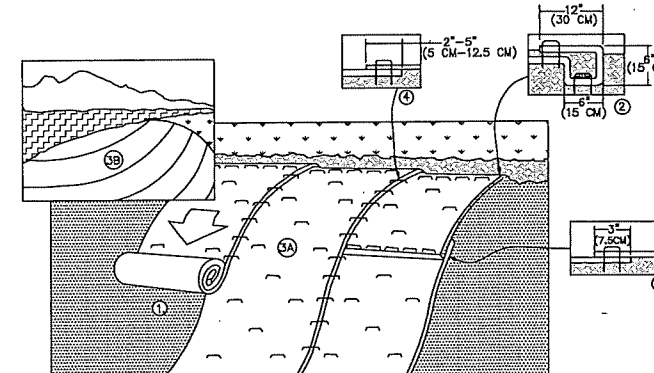
03.15.2016

TYPICAL SOIL PROTECTION CHART

- NOTES:
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP'S.
 3. ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5 CM - 12.5 CM) OVERLAP DEPENDING ON RECP'S TYPE.
 5. CONSECUTIVE RECP'S SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP'S WIDTH.

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

EROSION CONTROL BLANKET SLOPE INSTALLATION



03.15.2016

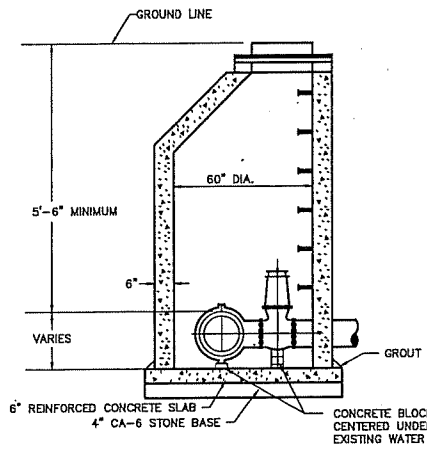
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DETAILS
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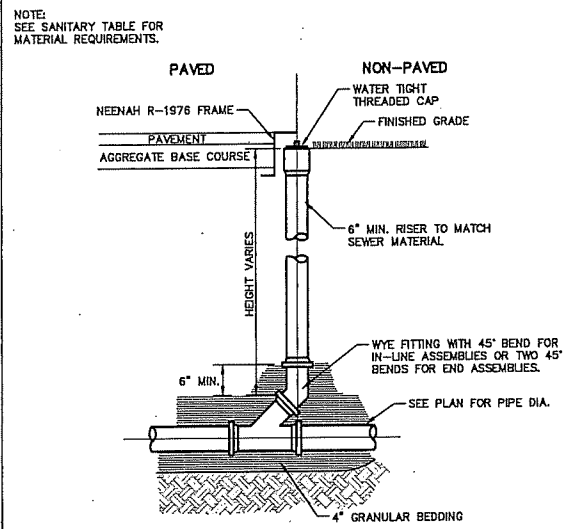
NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE 5665.000_PR.dwg	SHEET NUMBER
DRAWN BY: PJS	GHA PROJECT # 5665.000
DATE 02.14.2020	C5.0
CHECKED BY: CAS	SCALE NONE
DATE 02.14.2020	OF 7 SHEETS



- NOTES:
1. PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
 2. FRAME TO BE LAID IN 3/4" MASTIC BED.
 3. ADJUSTING RINGS NOT TO EXCEED 8".
 4. STEPS TO BE STEEL REINFORCED PLASTIC OR APPROVED EQUAL.
 5. STEPS TO BE IMBEDDED INTO WALL A MINIMUM OF 3".
 6. STEPS TO BE AT 16" CENTERS. FIRST STEP TO BE 8" BELOW FRAME.
 7. FRAME TO BE NEENAH R-1772-C LID WITH "WATER" IMPRINTED ON COVER.
 8. WATEROUS RESILIENT WEDGE GATE VALVE WITH NON RISING STEM AND MECHANICAL JOINT. (SIZE AS LABELED)

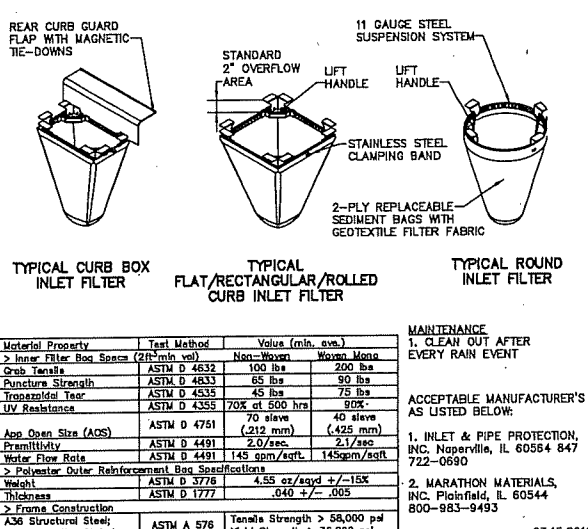
TAPPING VALVE AND VAULT



NOTE: SEE SANITARY TABLE FOR MATERIAL REQUIREMENTS.

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. SANITARY SEWER CLEAN-OUT DETAIL



MAINTENANCE: CLEAN OUT AFTER EVERY RAIN EVENT

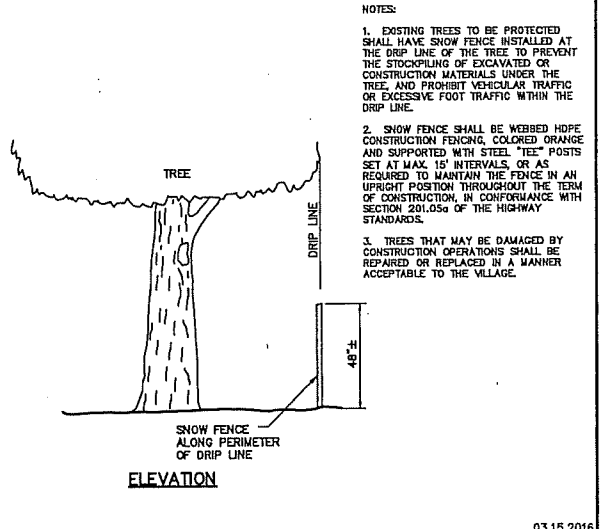
ACCEPTABLE MANUFACTURER'S AS LISTED BELOW:

1. INLET & PIPE PROTECTION, INC. Naperville, IL 60564 847 722-0690
2. MARATHON MATERIALS, INC. Plainfield, IL 60544 800-983-9493

Material Property	Test Method	Value (min. avg.)
Grab Tensile	ASTM D 4633	100 lbs
Puncture Strength	ASTM D 4633	65 lbs
Tensile Tear	ASTM D 4355	45 lbs
UV Resistance	ASTM D 4355	70% at 500 hrs
App. Open Str. (ACS)	ASTM D 4751	70 slave (212 mm)
Permittivity	ASTM D 4491	2.0/sec
Water Flow Rate	ASTM D 4491	145 gpm/ft. 145gpm/ft.
> Polyester Outer Reinforcement Bag Specifications		
Weight	ASTM D 3778	4.55 oz/sqyd +/- 15%
Thickness	ASTM D 1777	.040 +/- .005
> Frame Construction		
A36 Structural Steel	ASTM A 378	Tensile Strength > 58,000 psi
11 Gauge, Zinc Plated		Yield Strength > 36,000 psi

03.15.2016

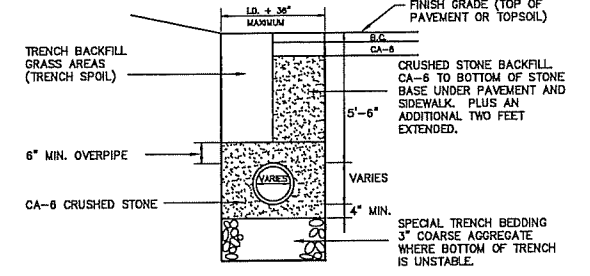
GEWALT HAMILTON ASSOCIATES, INC. INLET FILTER BASKET DETAIL



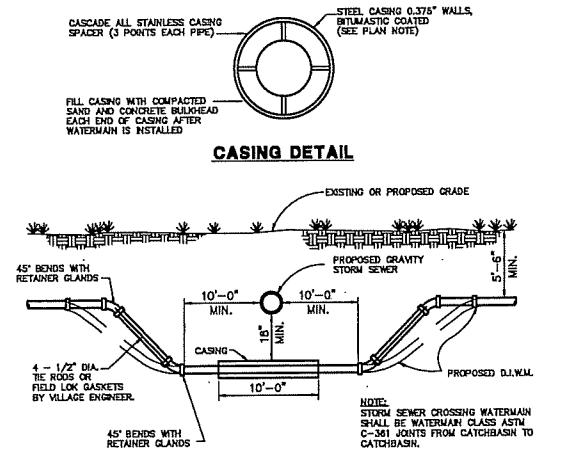
- NOTES:
1. EXISTING TREES TO BE PROTECTED SHALL HAVE SNOW FENCE INSTALLED AT THE DRIP LINE OF THE TREE TO PREVENT THE STOCKPILING OF EXCAVATED OR CONSTRUCTION MATERIALS UNDER THE TREE, AND PROHIBIT VEHICULAR TRAFFIC OR EXCESSIVE FOOT TRAFFIC WITHIN THE DRIP LINE.
 2. SNOW FENCE SHALL BE WEBBED HOPE CONSTRUCTION FENCING, COLORED ORANGE AND SUPPORTED WITH STEEL "TEE" POSTS SET AT MAX. 15' INTERVALS, OR AS REQUIRED TO MAINTAIN THE FENCE IN AN UPRIGHT POSITION THROUGHOUT THE TERM OF CONSTRUCTION, IN CONFORMANCE WITH SECTION 201.05a OF THE HIGHWAY STANDARDS.
 3. TREES THAT MAY BE DAMAGED BY REPAIR OPERATIONS SHALL BE REPAIRED OR REPLACED IN A MANNER ACCEPTABLE TO THE VILLAGE.

03.15.2016

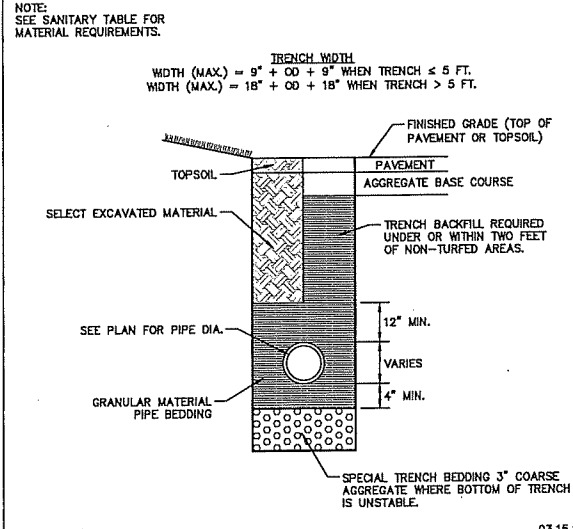
GEWALT HAMILTON ASSOCIATES, INC. TREE PROTECTION FENCING DETAIL



WATERMAIN TRENCH DETAIL



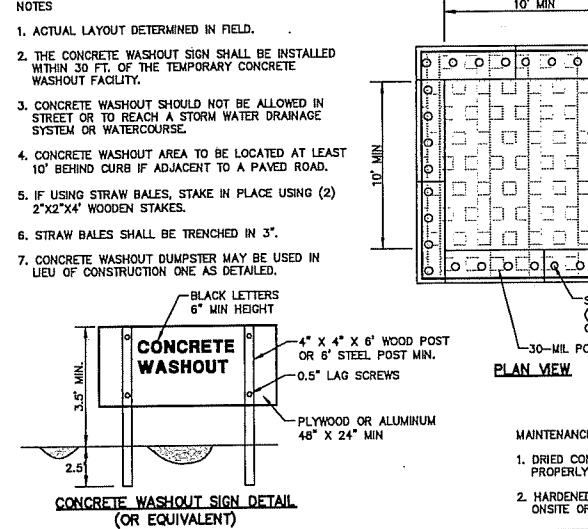
WATERMAIN CROSSING



NOTE: SEE SANITARY TABLE FOR MATERIAL REQUIREMENTS.

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. SANITARY TRENCH DETAIL

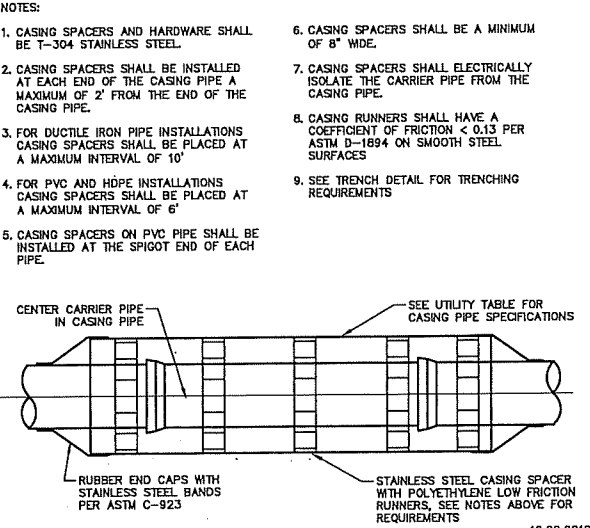


NOTES:

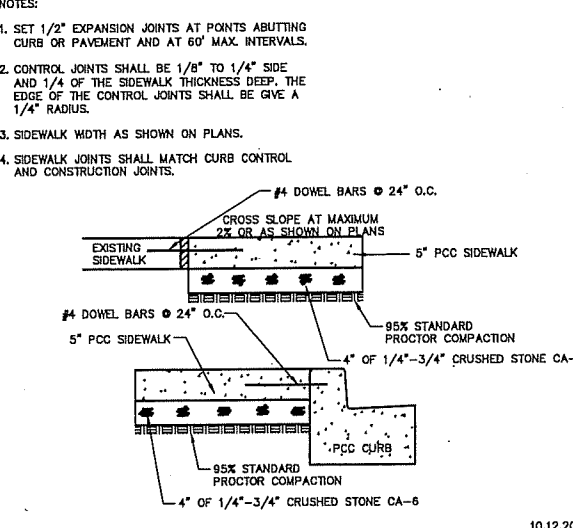
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
3. CONCRETE WASHOUT SHOULD NOT BE ALLOWED IN STREET OR TO REACH A STORM WATER DRAINAGE SYSTEM OR WATERCOURSE.
4. CONCRETE WASHOUT AREA TO BE LOCATED AT LEAST 10' BEHIND CURB IF ADJACENT TO A PAVED ROAD.
5. IF USING STRAW BALES, STAKE IN PLACE USING (2) 2"x2"x4" WOODEN STAKES.
6. STRAW BALES SHALL BE TRENCHED IN 3".
7. CONCRETE WASHOUT DUMPSTER MAY BE USED IN LIEU OF CONSTRUCTION ONE AS DETAILED.

03.15.2016

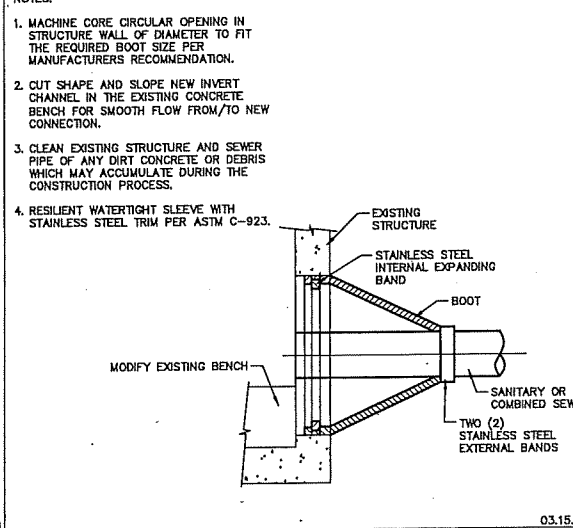
GEWALT HAMILTON ASSOCIATES, INC. CONCRETE WASHOUT



GEWALT HAMILTON ASSOCIATES, INC. PIPE CASING FOR WATER MAIN SEPARATION REQUIREMENTS



GEWALT HAMILTON ASSOCIATES, INC. PCC SIDEWALK DETAIL

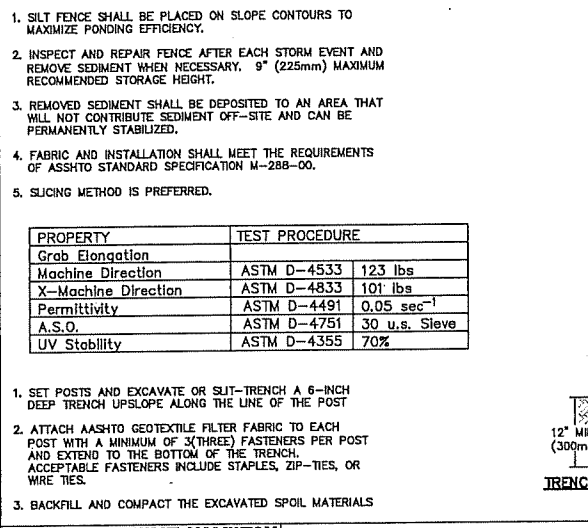


NOTES:

1. MACHINE CORE CIRCULAR OPENING IN STRUCTURE WALL OF DIAMETER TO FIT THE REQUIRED BOOT SIZE PER MANUFACTURER'S RECOMMENDATION.
2. CUT SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM/TO NEW CONNECTION.
3. CLEAN EXISTING STRUCTURE AND SEWER PIPE OF ANY DIRT CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.
4. RESILIENT WATERTIGHT SLEEVE WITH STAINLESS STEEL TRIM PER ASTM C-923.

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. SANITARY OR COMBINED SEWER PIPE CONNECTION TO EXISTING STRUCTURE DETAIL



NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. FABRIC AND INSTALLATION SHALL MEET THE REQUIREMENTS OF ASHTO STANDARD SPECIFICATION M-288-00.
5. SLICING METHOD IS PREFERRED.

03.15.2016

GEWALT HAMILTON ASSOCIATES, INC. SILT FENCE INSTALLATION DETAIL

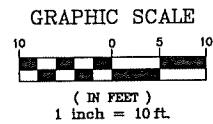
GEWALT HAMILTON ASSOCIATES, INC.
 625 Forest Edge Drive ■ Vernon Hills, IL. 60061
 Tel. 847.478.9700 ■ Fax 847.478.9701

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GEWALT HAMILTON ASSOCIATES, INC.
DETAILS
DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 5665.000_PR.dwg	SHEET NUMBER:
DRAWN BY: PJS	GHA PROJECT #
DATE: 02.14.2020	5665.000
CHECKED BY: CAS	SCALE
DATE: 02.14.2020	NONE
	OF 7 SHEETS



SITE IMPROVEMENT LEGEND

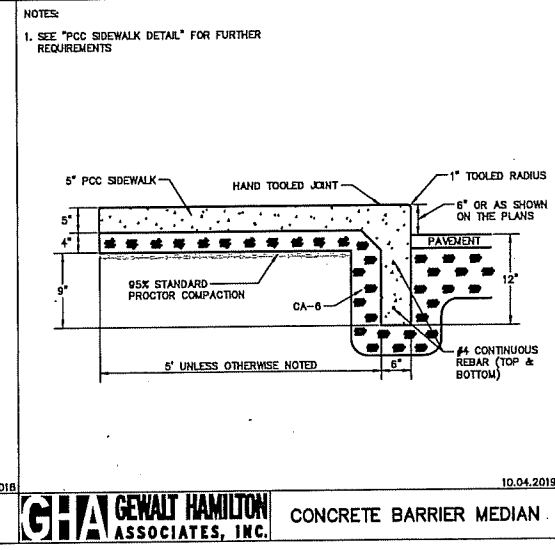
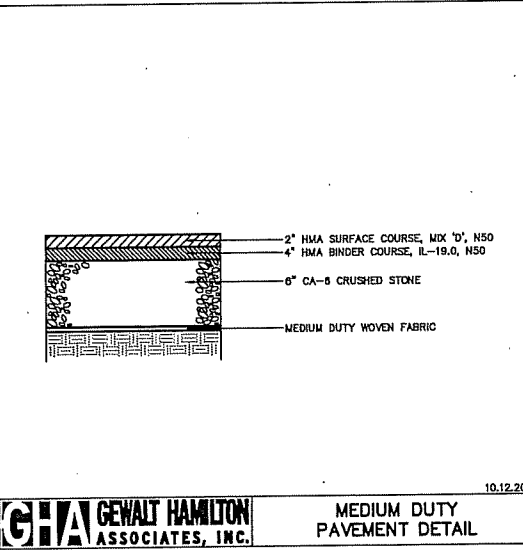
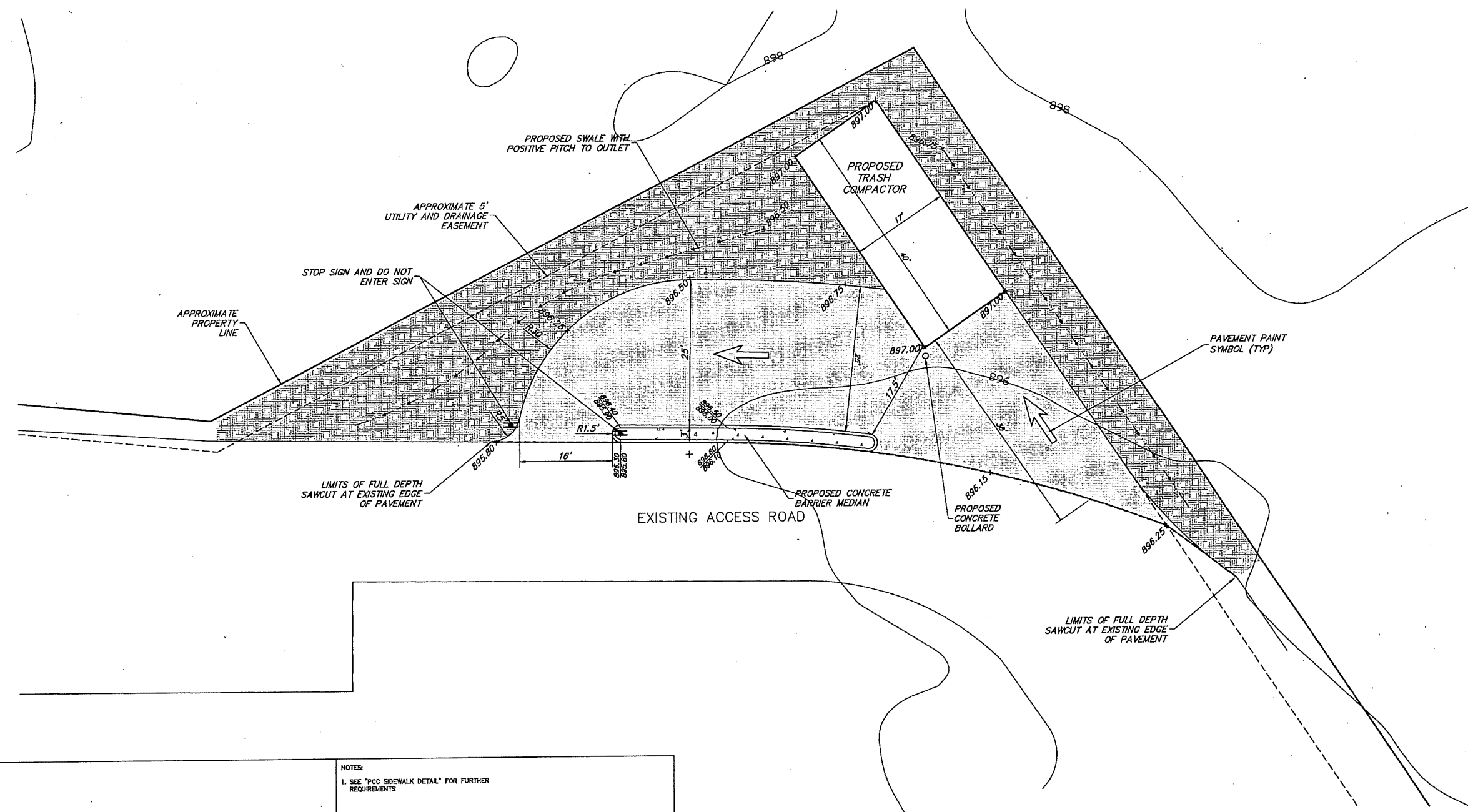
- FULL DEPTH PAVEMENT
HMA SURFACE COURSE, N50, 2"
HMA BINDER COURSE, N50, 4"
AGGREGATE BASE COURSE, CA-6, 6"
- CONCRETE BARRIER MEDIAN
PCC CONCRETE, 5"
AGGREGATE BASE COURSE, CA-6, 4"
- TOPSOIL, 4"
SEED, CLASS 2A
EROSION CONTROL BLANKET, NAG75

- NOTE:
1. ANY IMPACT TO EXISTING CONDITIONS WHICH ARE NOT SHOWN SHALL BE REPAIRED AT NO COST TO THE OWNER.
 2. DAMAGE TO EXISTING PAVEMENT SHALL BE REPAIRED AS APPROVED BY ENGINEER AT NO COST TO THE OWNER.
 3. BASE ELEVATIONS ARE SHOWN TO DEMONSTRATE DRAINAGE. ALL GRADES ALONG THE EXISTING ROAD SHALL MATCH EXISTING.
 4. REFERENCE ARCHITECT PLAN FOR TRASH COMPACTOR ENCLOSURE.

NOTE:
BOUNDARY SUPPLIED BY VANDERSTAPPEN SURVEYING & ENGINEERING INC. ON ALTA/NSPS SURVEY COMPLETED APRIL 19, 2006.

TOPOGRAPHY IS SHOWN FROM 2017 LIDAR 2' CONTOUR GENERATION. TOPO SHOWN IS FOR REFERENCE AND IS NOT FIELD VERIFIED.

SITE BENCHMARK:
NORTH BOLT ON FIRE HYDRANT LOCATED APPROX. 19' SOUTHEAST OF THE CENTERLINE OF DARLINGTON LN. AND APPROX. 390' SOUTHWEST OF THE CENTERLINE OF VIRGINIA RD.
ELV=897.94
SUPPLIED BY VANDERSTAPPEN SURVEYING & ENGINEERING INC.



GHA GEWALT HAMILTON ASSOCIATES, INC. 10.12.2018

GHA GEWALT HAMILTON ASSOCIATES, INC. 10.04.2019

GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ■ Vernon Hills, IL 60061
TEL 847.478.9700 ■ FAX 847.478.9701

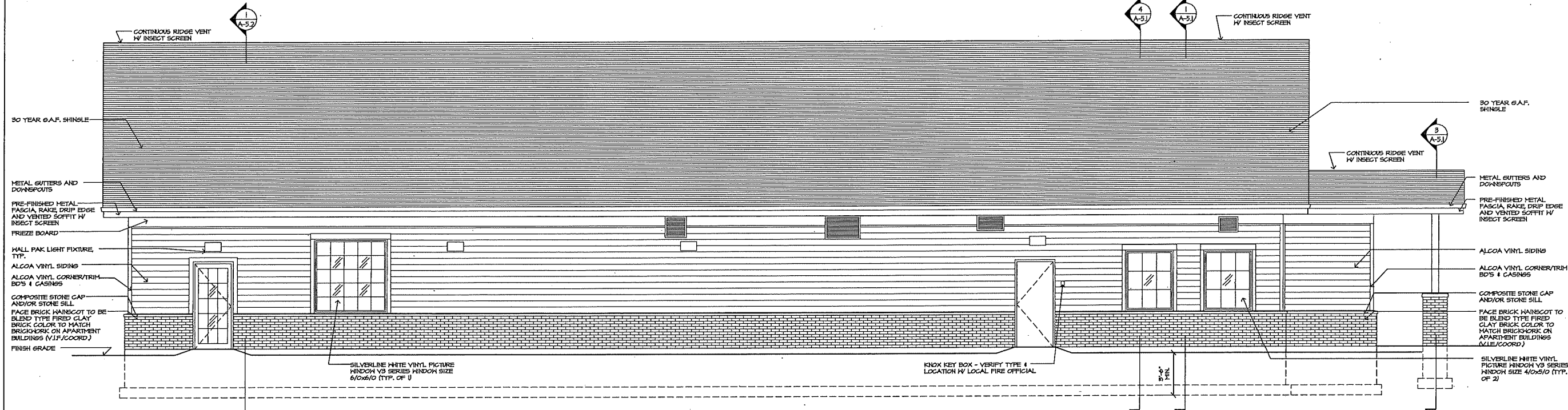
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TRASH COMPACTOR SITE IMPROVEMENTS
DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

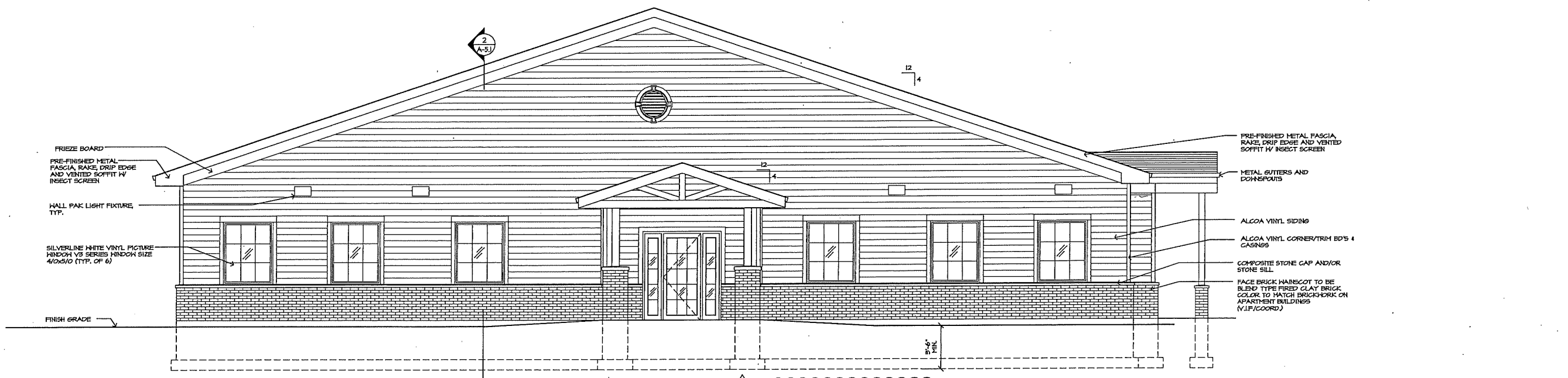
NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE 5665.000_PRR.dwg	SHEET NUMBER:
DRAWN BY: PJS DATE 02.14.2020	GHA PROJECT # 5665.000
CHECKED BY: CAS DATE 02.14.2020	SCALE 1"=10'
	C7.0 OF 7 SHEETS

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1	RB
2	RB
3	RB
4	RB
5	RB



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



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

NOTE:
THE BUILDING ADDRESS SHALL BE POSTED ON THE FRONT & REAR OF THE BUILDING WITH A MINIMUM OF 4 INCH LETTERS SIZE AND IN CONTRASTING COLOR. THE ADDRESS SHALL BE VISIBLE FROM THE STREET.

EXTERIOR ELEVATIONS

NEW COMMUNITY CENTER FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS 60014

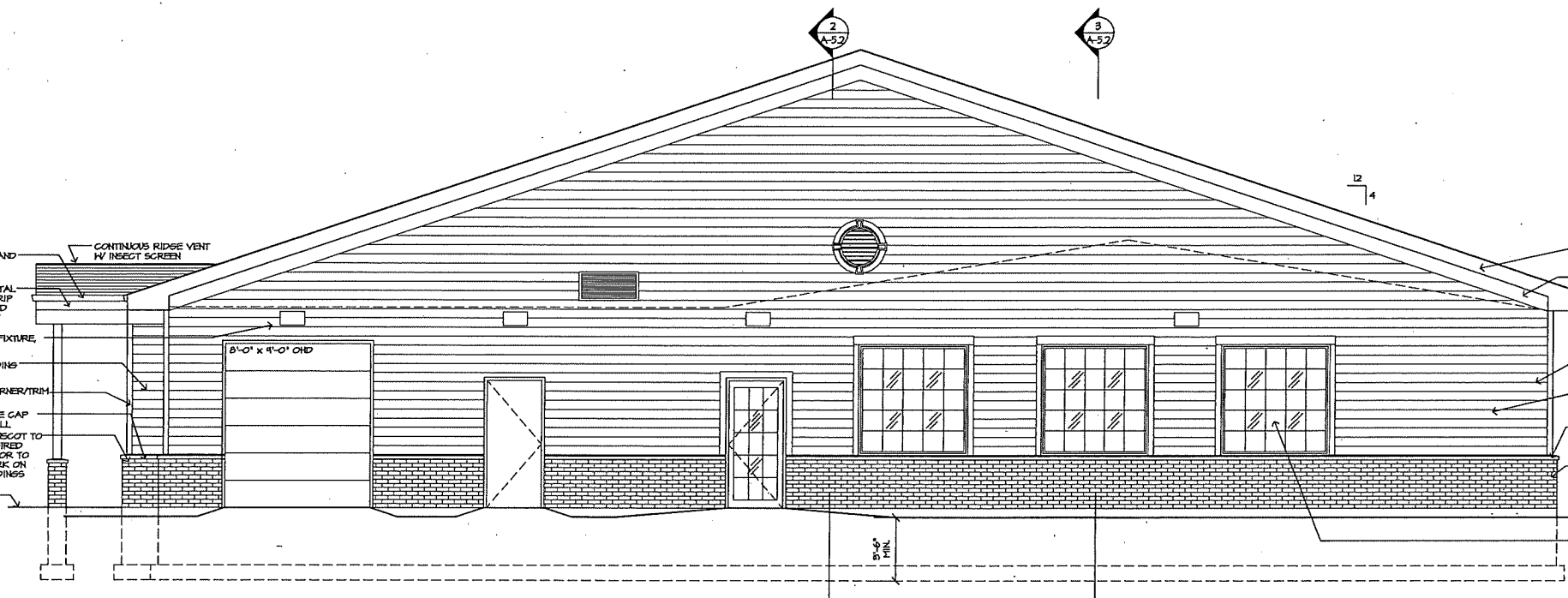
R.B. CUSTOM DESIGNS INC.
2108 N. Johnsonburg Road
Johnsonburg, Illinois 60051
Phone: 815-754-4494
Fax: 815-307-8200

Date	4/22/19
Scale	AS NOTED
Drawn	RJB
Job	1102
Sheet	A-11
of	11

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



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

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EXTERIOR ELEVATIONS

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Phone: 815-754-4489 Fax: 815-501-8200

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Job	1402
Sheet	A-1.2
of	2

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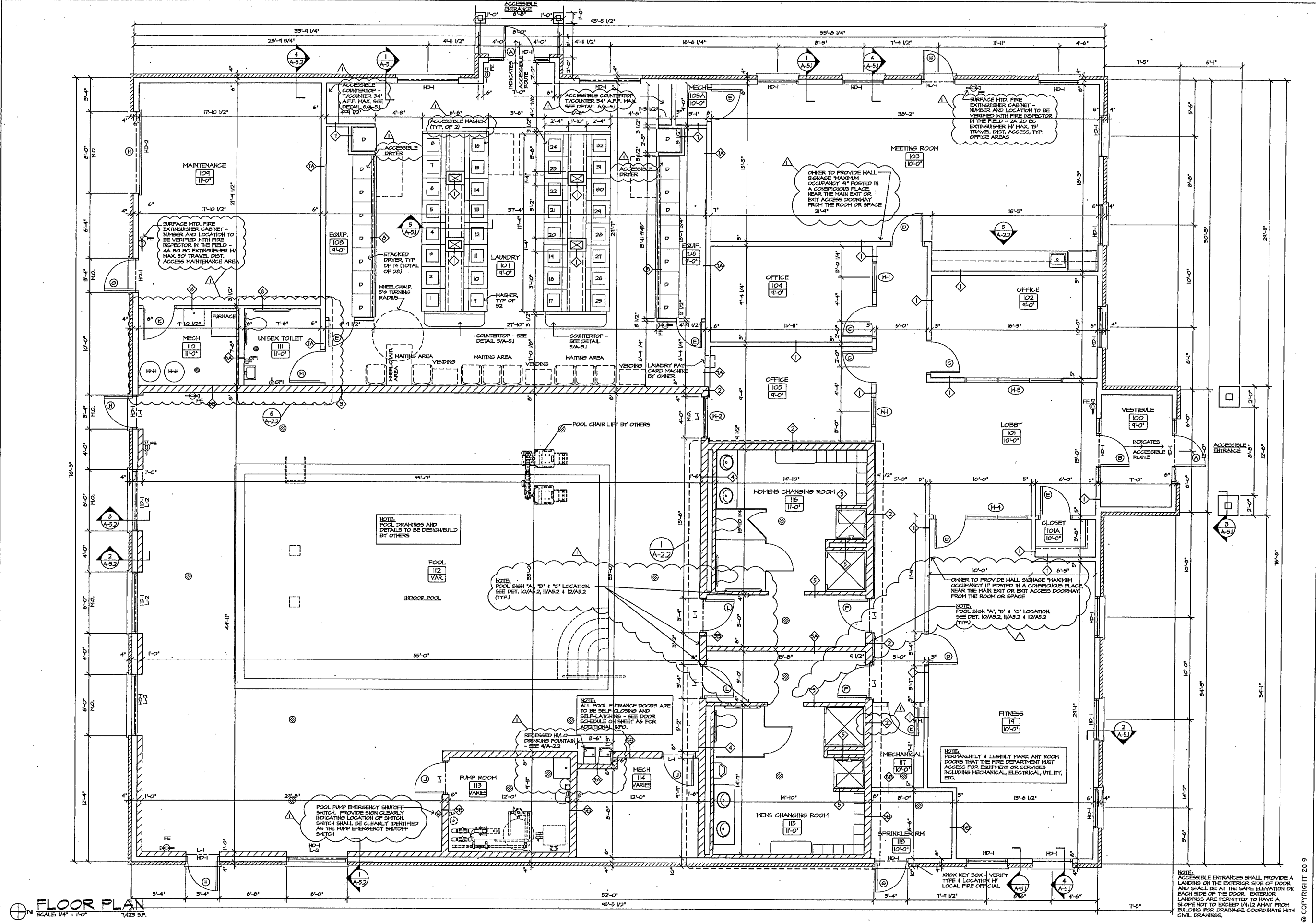
REVISIONS BY
4/20/14 RB

FLOOR PLAN

NEA COMMUNITY CENTER & LAUNDRY FACILITY FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LAKE
CRYSTAL LAKE, ILLINOIS 60014

R.B. CUSTOM DESIGNS INC.
2108 N. Johnson Road
Johnsonburg, Illinois 60051
Phone: 815-751-4451
Fax: 815-301-8200

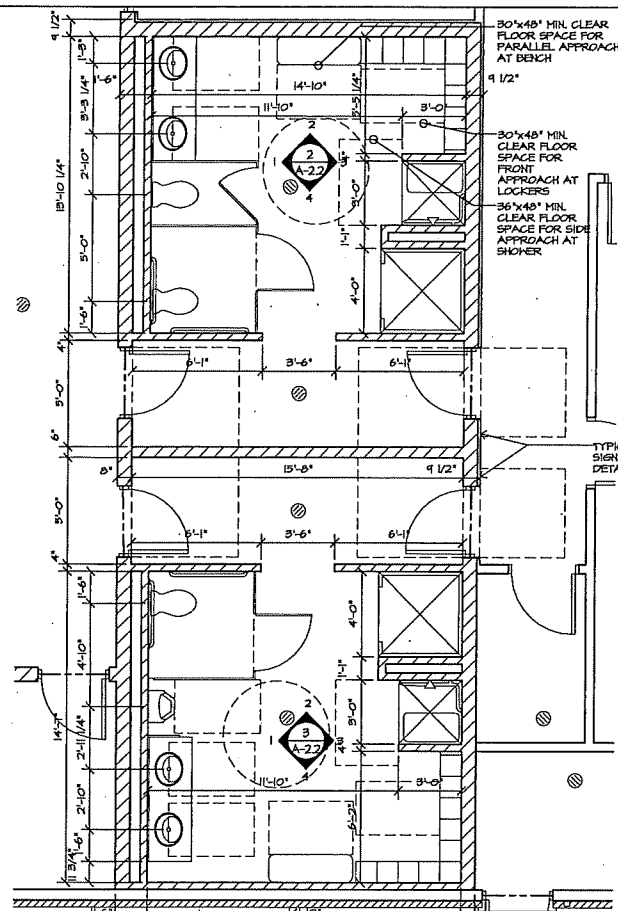
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Sheet	A-2
of	2



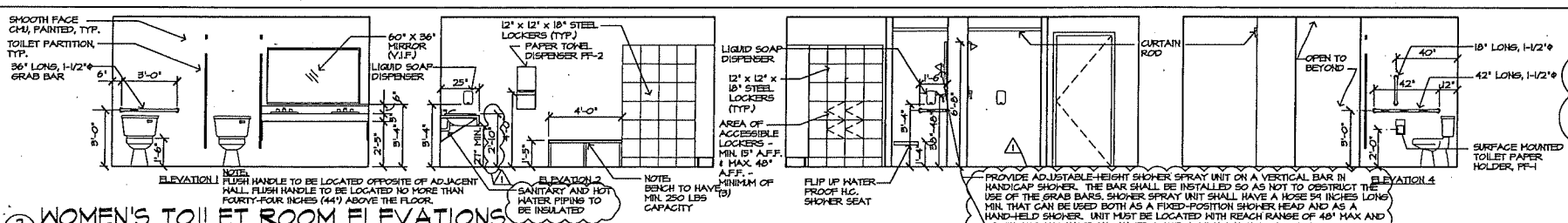
FLOOR PLAN
SCALE: 1/4" = 1'-0"
1429 SF.

NOTE: ACCESSIBLE ENTRANCES SHALL PROVIDE A LANDING ON THE EXTERIOR SIDE OF DOOR AND SHALL BE AT THE SAME ELEVATION ON EACH SIDE OF THE DOOR. EXTERIOR LANDINGS ARE PERMITTED TO HAVE A SLOPE NOT TO EXCEED 1/4" AWAY FROM BUILDING FOR DRAINAGE. COORDINATE WITH CIVIL DRAWINGS.

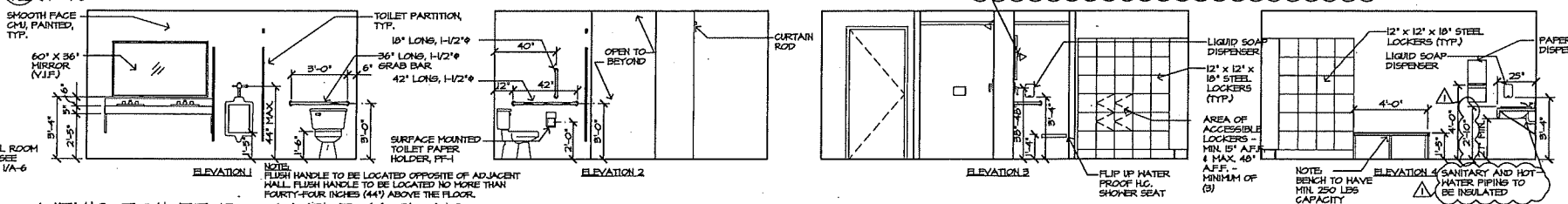
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1 ENLARGED TOILET PLAN
SCALE: 1/4" = 1'-0"



2 WOMEN'S TOILET ROOM ELEVATIONS
SCALE: 1/4" = 1'-0"

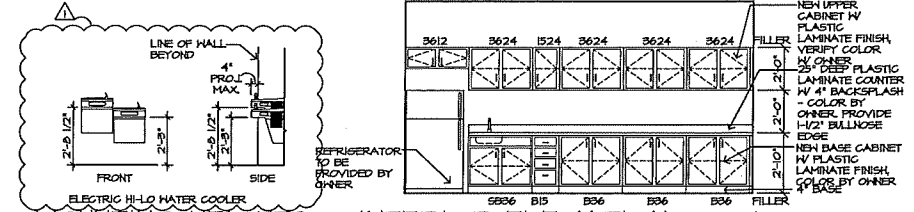


3 MEN'S TOILET ROOM ELEVATIONS
SCALE: 1/4" = 1'-0"

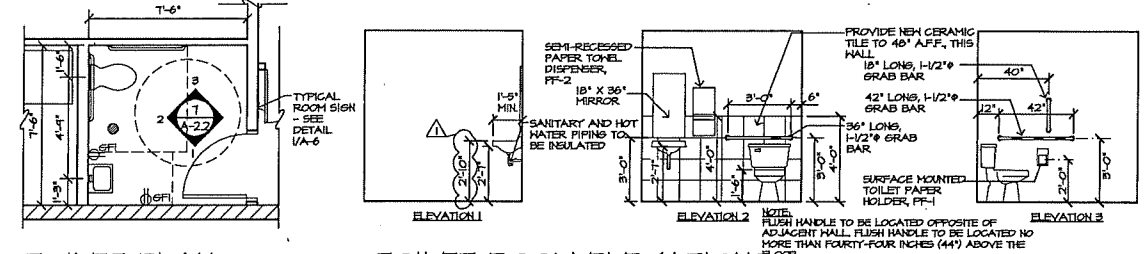
TOILET ROOM ACCESSORY SCHEDULE

MARK	MFR.	MODEL	DESCRIPTION	REMARKS
PF-1	BRADLEY	5402-BRACEX	TOILET TISSUE DISPENSER	SURFACE MOUNT, DUAL ROLL, STAINLESS STEEL
PF-2	BRADLEY	2441-10	PAPER TOWEL DISPENSER	SEM-RECESSED, SATIN FINISH

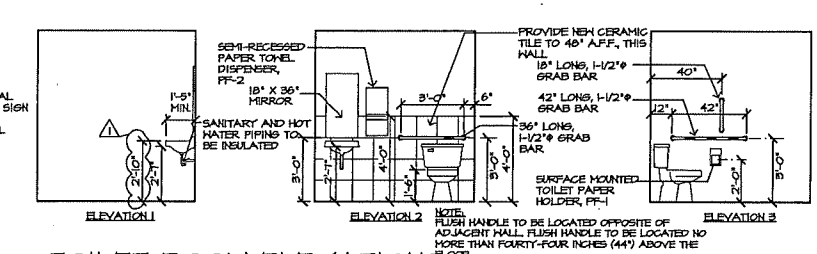
NOTES:
1. PROVIDE RIGID HOOD BLOCKING IN ALL METAL STUD HALLS TO SUPPORT ALL TOILET ROOM ACCESSORIES.



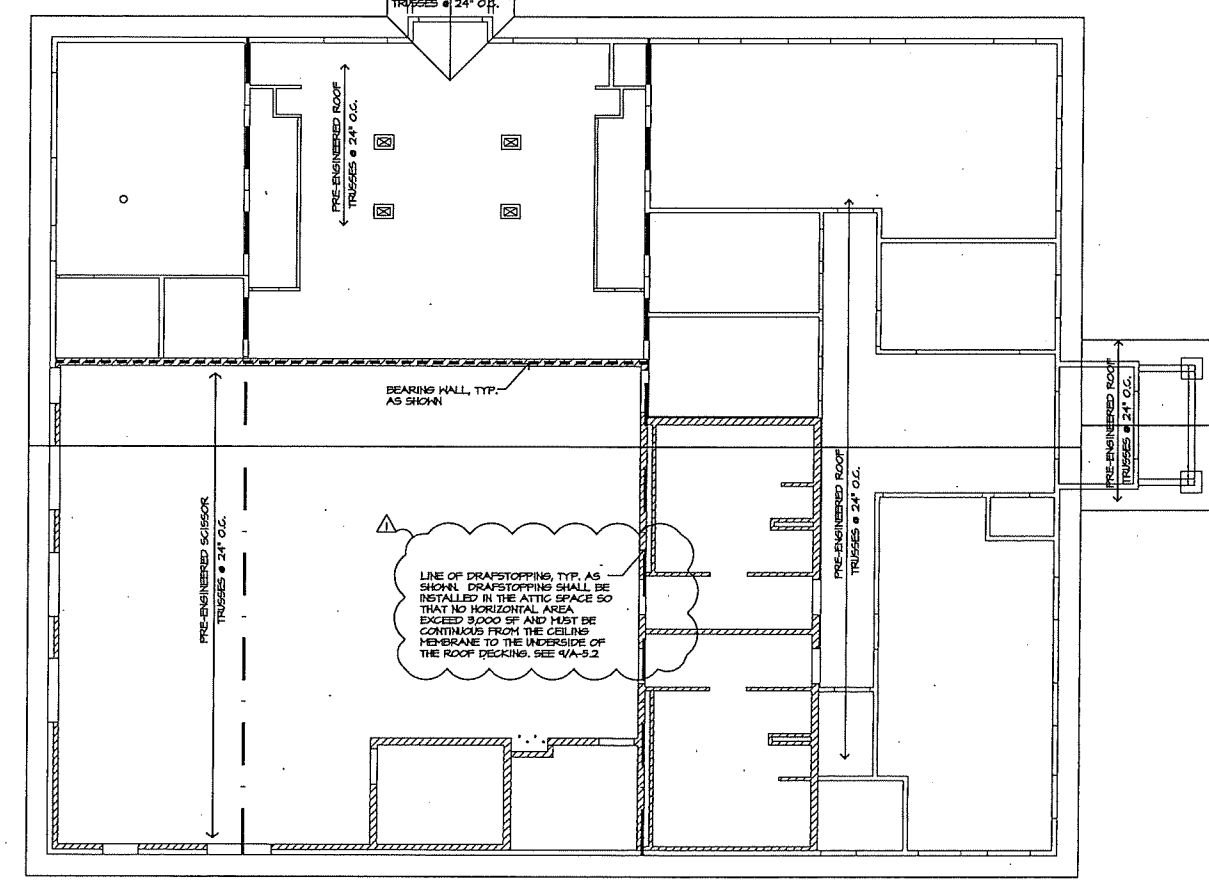
4 MOUNTING HEIGHTS INTERIOR ELEVATION
SCALE: 1/4" = 1'-0"



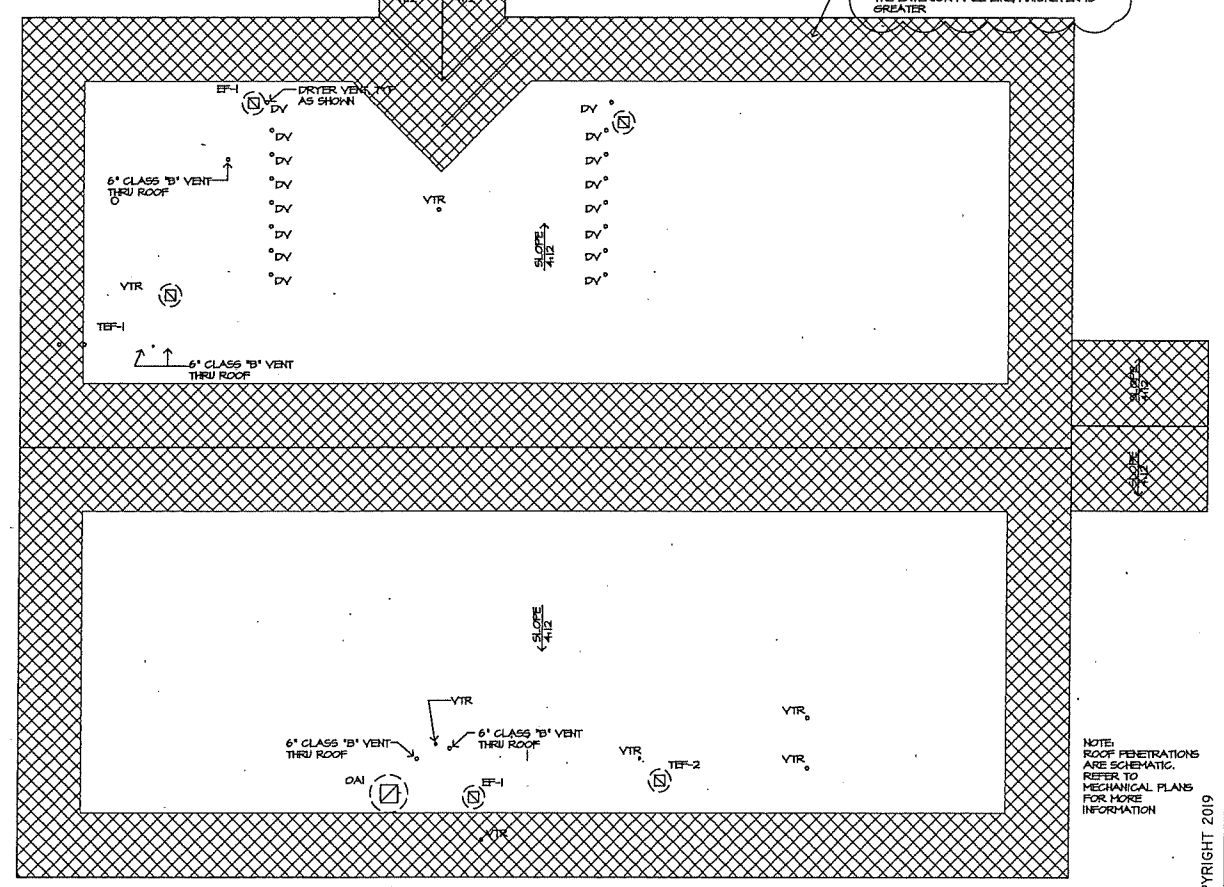
5 TOILET PLAN
SCALE: 1/4" = 1'-0"



6 TOILET ROOM ELEVATIONS
SCALE: 1/4" = 1'-0"



7 FRAMING PLAN
SCALE: 1/8" = 1'-0"



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

NOTES:
1. ALL OPERABLE PARTS (DOOR HARDWARE, LAYS, SRS'S, SHOWERS, FLUSH HANDLES, ACCESSIBLE LOCKERS, DRINKING FOUNTAINS, ETC) SHALL OPERATE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST.

PROVIDE ICE & WATER SHIELD AT ALL VALLEYS, HIPS, RIDGES AND MIN. 6'-0" FROM ALL ROOF EDGES OR 2'-0" BEYOND THE EXTERIOR WALL LINE, WHICHEVER IS GREATER.

REVISIONS BY

1	4/20/19	RB
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ENLARGED PLANS
MISC. DETAIL

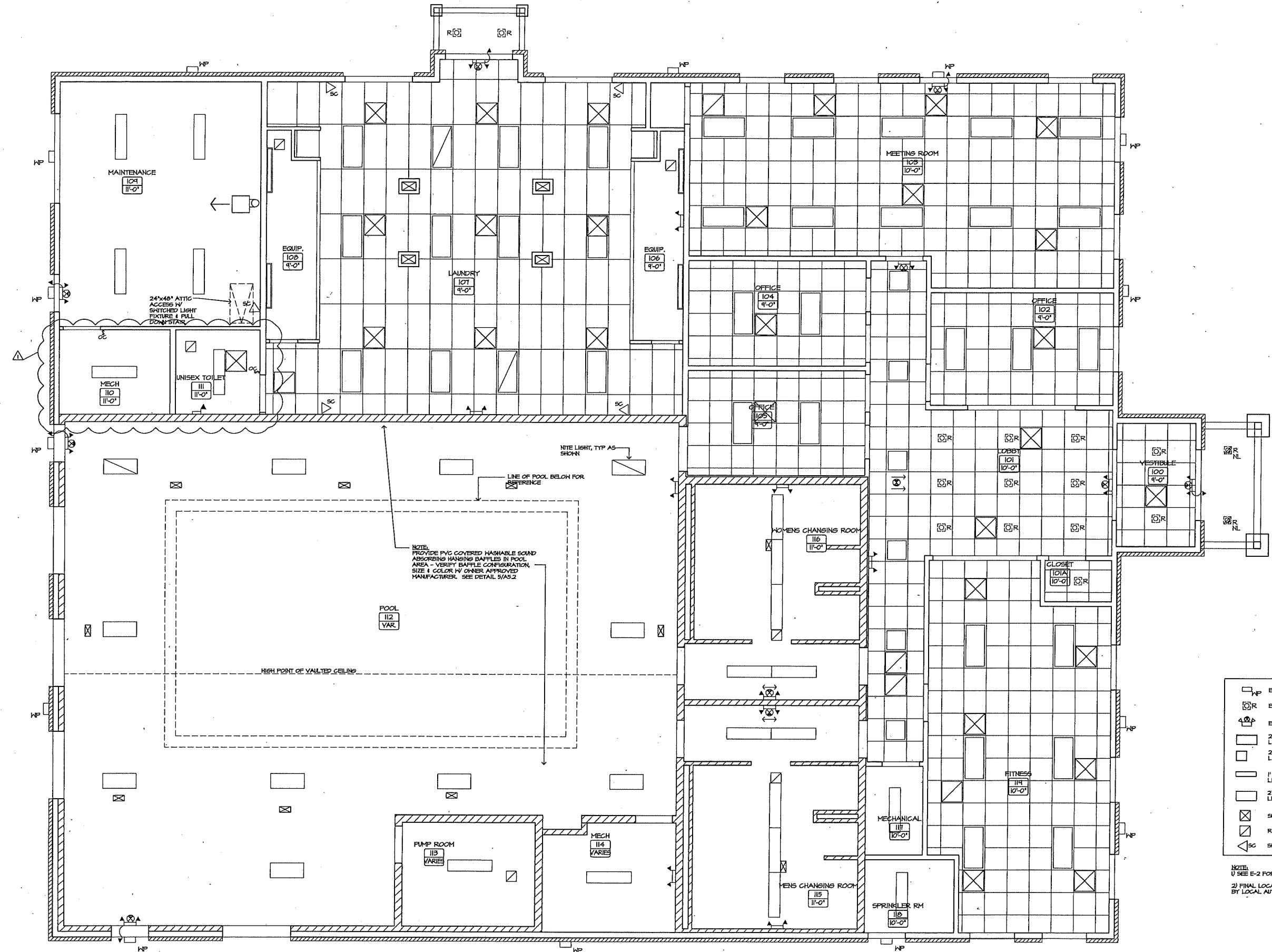
NEA COMMUNITY CENTER FOR:
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DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS 60014

R.B. CUSTOM DESIGNS INC.
2108 N. Johnsonburg Road
Johnsonburg, Illinois 60051
Phone: 815-754-4451 Fax: 815-507-8200

DATE: 4/22/19
SCALE: AS NOTED
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JOB: 19C2
SHEET: A-2.2
OF: 2 SHEETS

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LEGEND

- EXTERIOR HALL PAC LIGHT FIXTURE
- EXTERIOR RECESSED CAN LIGHT FIXTURE
- EMERGENCY LIGHT/EXIT SIGN COMBO
- 2' X 4' RECESSED LIGHT FIXTURE
- 2' X 2' RECESSED LIGHT FIXTURE
- 1' X 4' SURFACE MOUNTED LIGHT FIXTURE
- 2' X 4' SURFACE MOUNTED LIGHT FIXTURE
- SUPPLY DIFFUSER
- RETURN DIFFUSER
- SECURITY CAMERA BY OWNER

NOTE:
 1) SEE E-2 FOR LIGHT FIXTURE TYPES
 2) FINAL LOCATION OF EXIT SIGNS TO BE SUBJECT TO APPROVAL BY LOCAL AUTHORITIES.

REFLECTED CEILING PLAN
 SCALE: 1/4" = 1'-0"

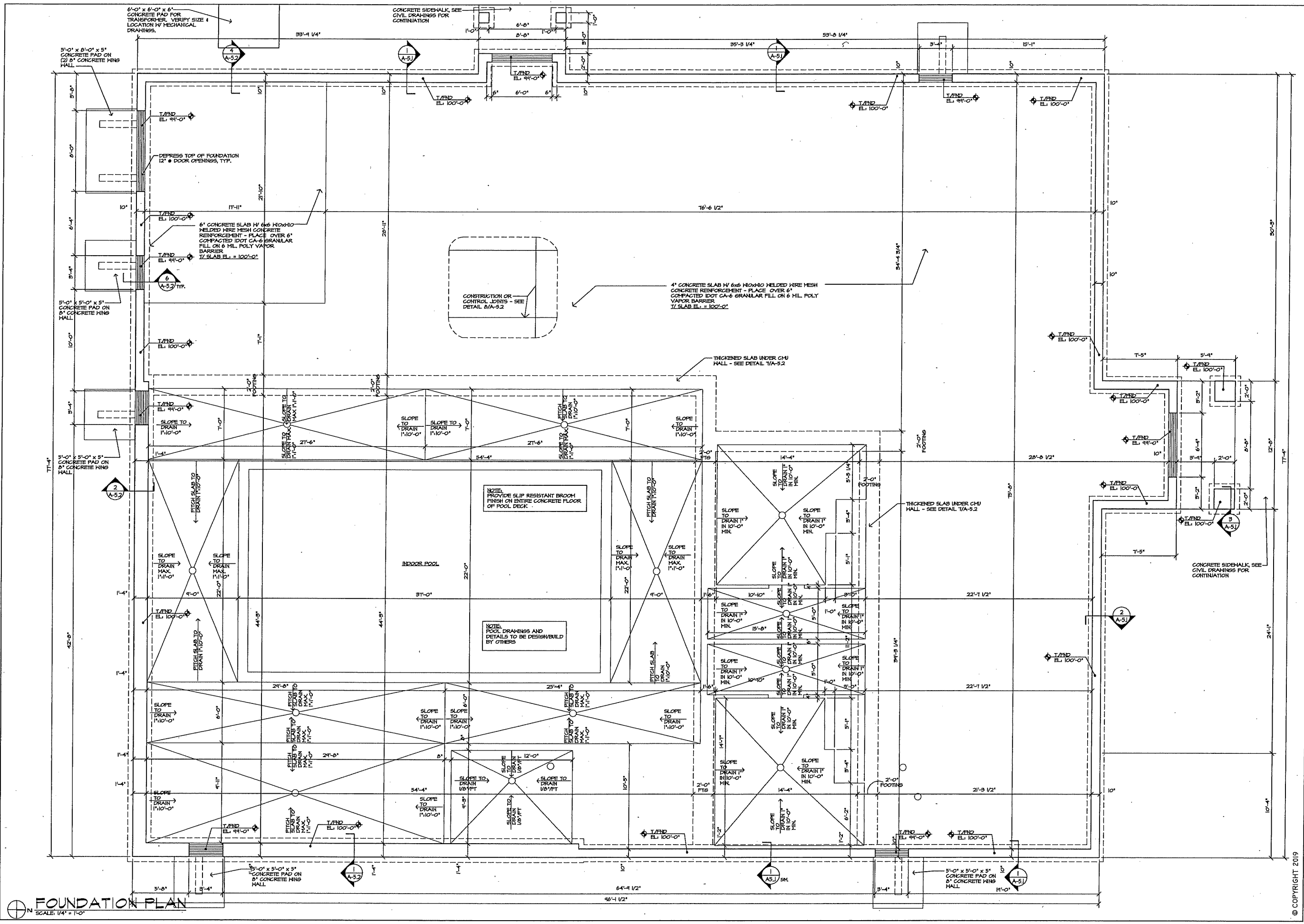
REFLECTED CEILING PLAN

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Of	3

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FOUNDATION PLAN

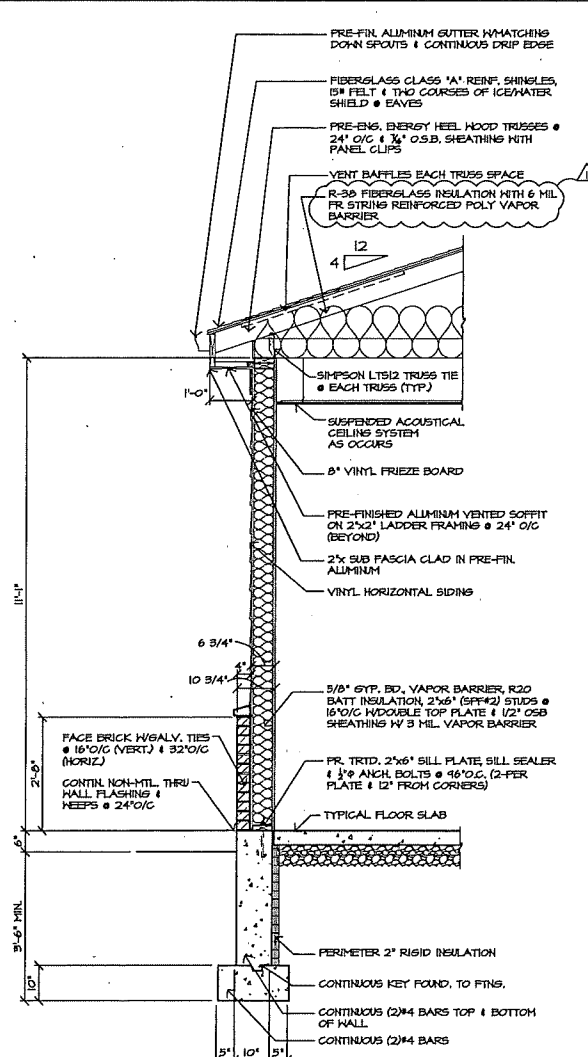
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Phone: 815-754-4451 Fax: 815-507-8200

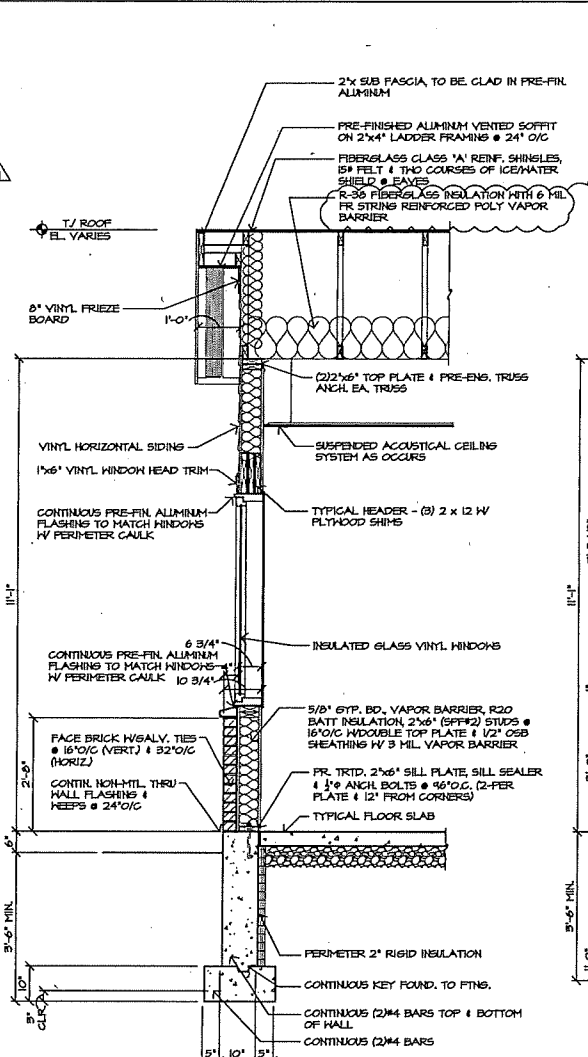
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Scale	AS NOTED
Drawn	R.B.
Job	1902
Sheet	A-4
Of	4

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

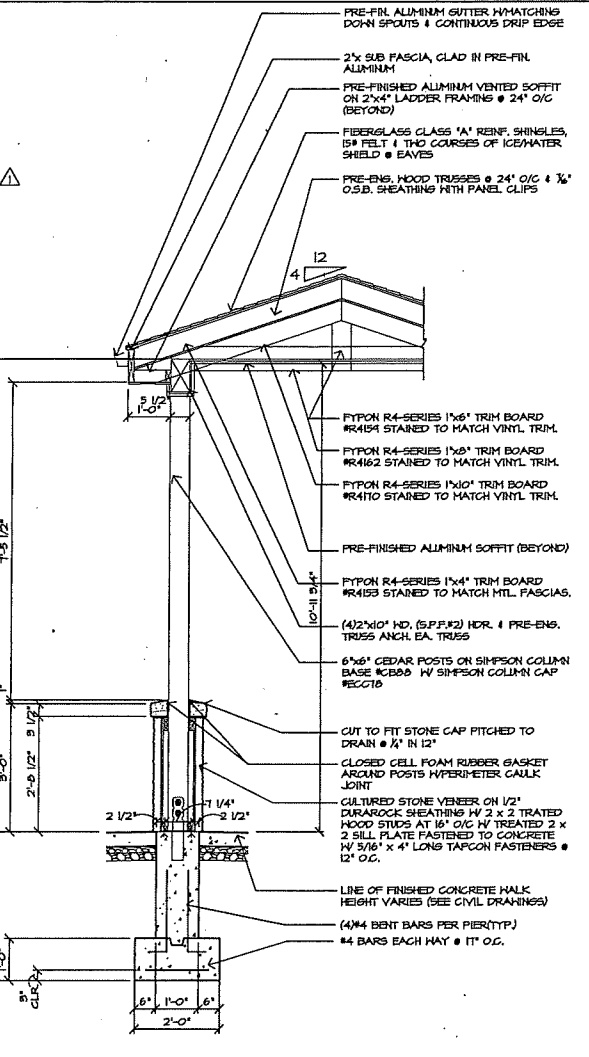
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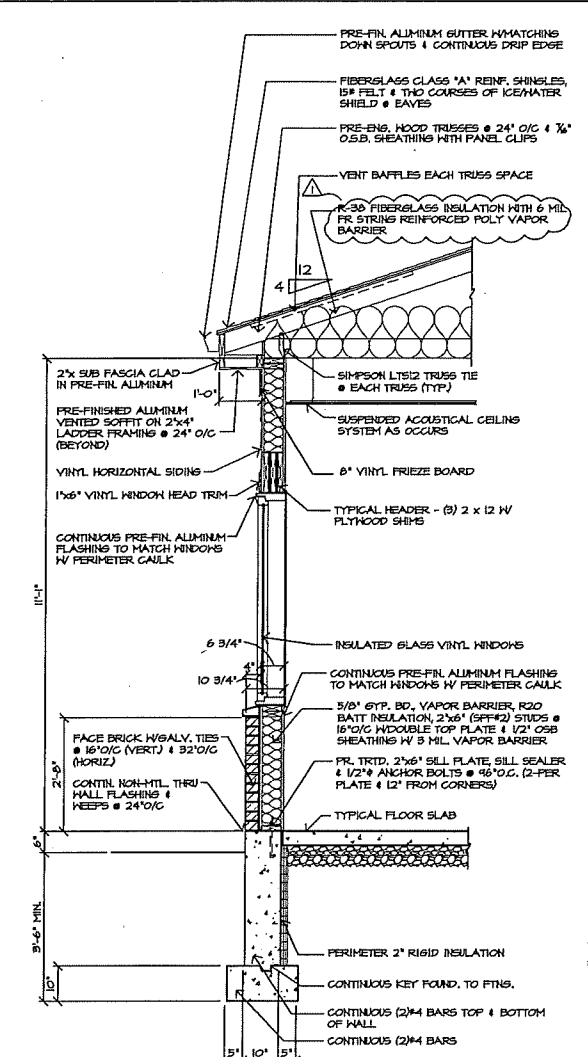
1 WALL SECTION
A-5.1 1/2" = 1'-0"



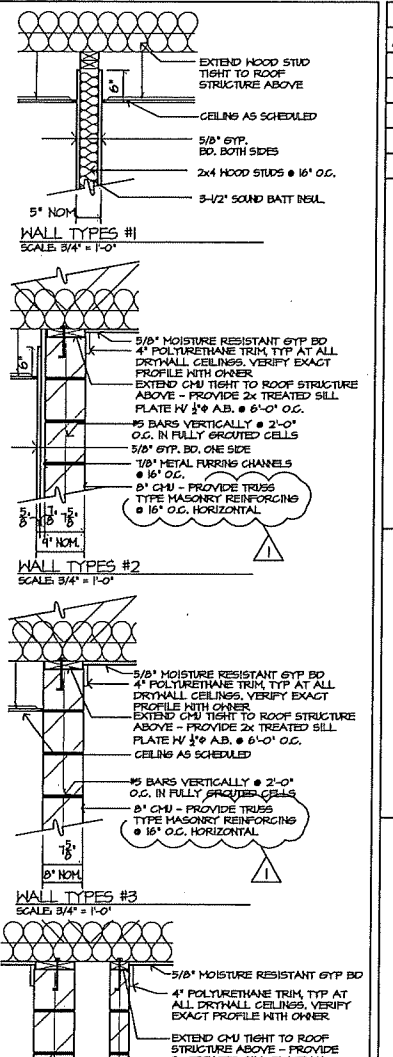
2 WALL SECTION
A-5.1 1/2" = 1'-0"



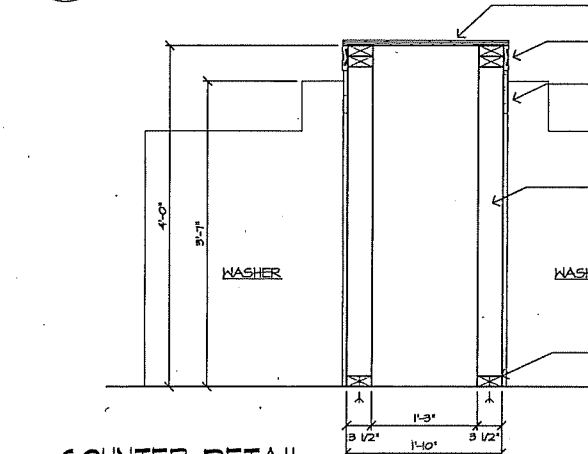
3 WALL SECTION
A-5.1 1/2" = 1'-0"



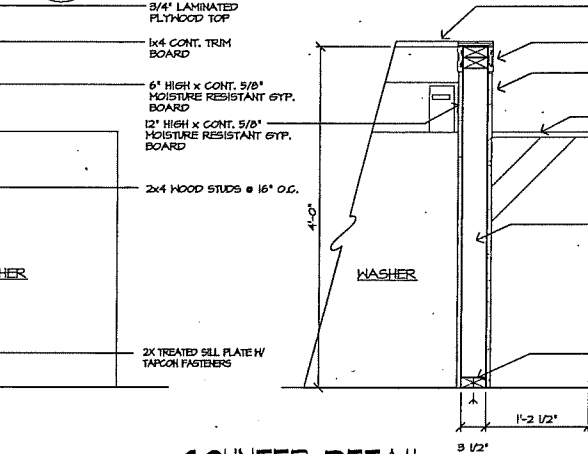
4 WALL SECTION
A-5.1 1/2" = 1'-0"



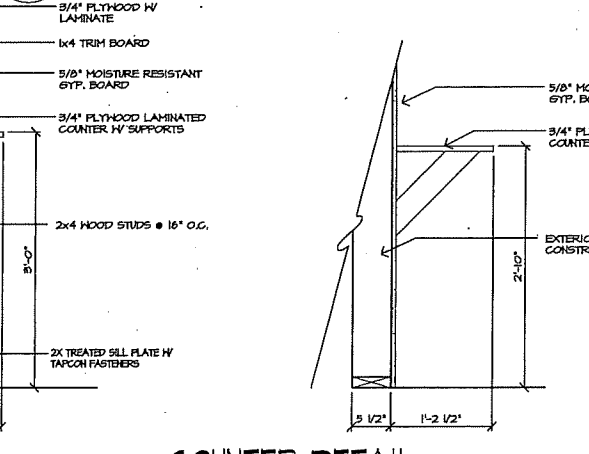
WALL TYPES #1, #2, #3, #4
SCALE 3/4" = 1'-0"



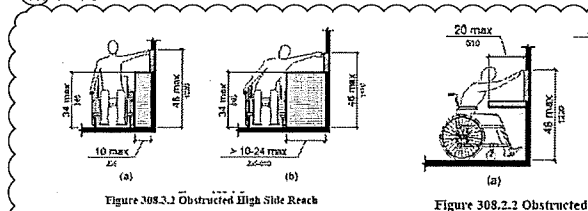
5 COUNTER DETAIL
A-5.1 1" = 1'-0"



6 COUNTER DETAIL
A-5.1 1" = 1'-0"



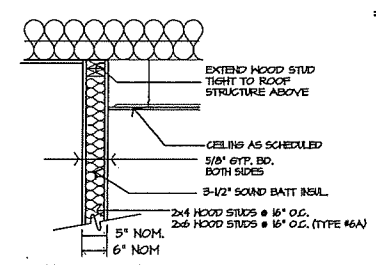
7 COUNTER DETAIL
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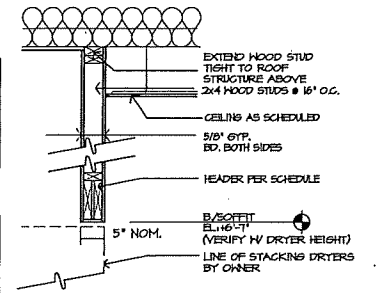
ACCESSIBLE REACH RANGES
SCALE: N.T.S.

LINTEL SCHEDULE			
MARK	SHAPE	DESCRIPTION	REMARKS
L-1	JL	(2) 3 1/2" x 3 1/2" x 5/16" STEEL ANGLE	4" MIN. BEARING E.E.
L-2	L	6" x 6" x 3/8" STEEL ANGLE ATTACHED TO HOOD HEADER W/ 3/8" x 5" LAG SCREWS @ 12" O.C.	4" MIN. BEARING E.E.

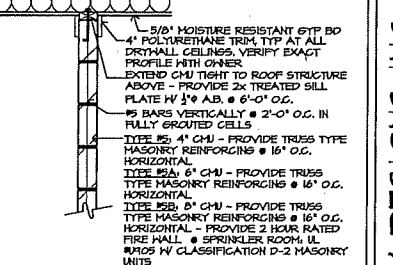
HEADER SCHEDULE			
MARK	SHAPE	DESCRIPTION	REMARKS
HD-1	JL	(2) - 2x12	3" MIN. BEARING E.E. PROVIDE (2) 2x6 JAMB STUD E.E.
HD-2	JL	(2) - 1-3/4"x11-7/8" 1.9E LVL HEADER	3" MIN. BEARING E.E. PROVIDE (2) 2x6 JAMB STUD E.E.



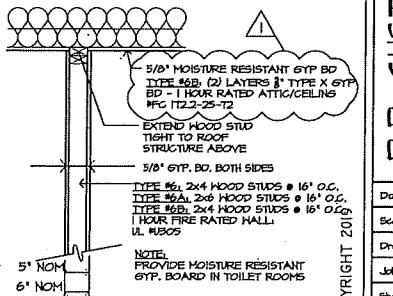
WALL TYPES #5, #6, #7A
SCALE 3/4" = 1'-0"



WALL TYPES #8
SCALE 3/4" = 1'-0"



WALL TYPES #9, #9A, #9B
SCALE 3/4" = 1'-0"



WALL TYPES #10, #10A, #10B
SCALE 3/4" = 1'-0"

REVISIONS BY
1/30/14 RB

WALL SECTIONS
WALL TYPES
MISC. DETAILS

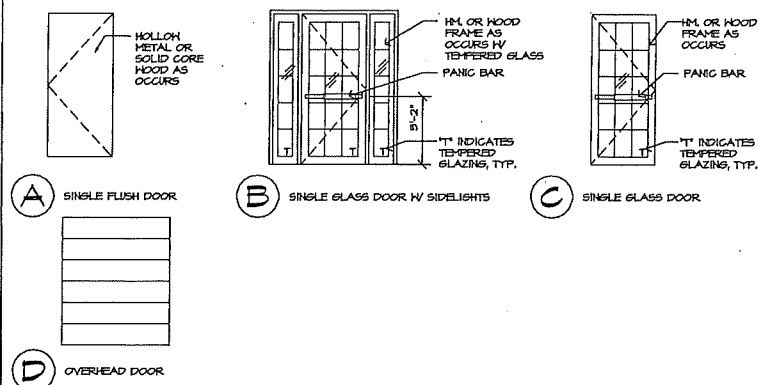
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Johnson, Illinois 60051
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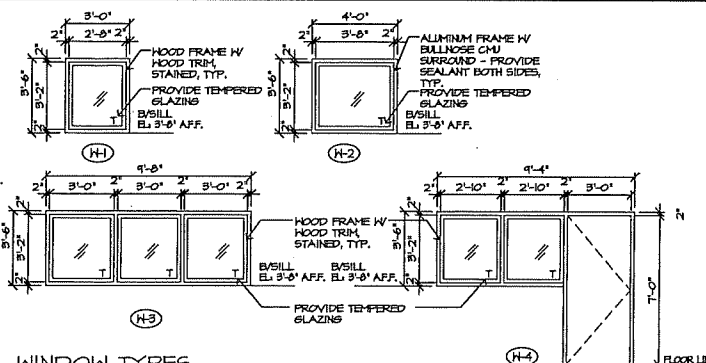
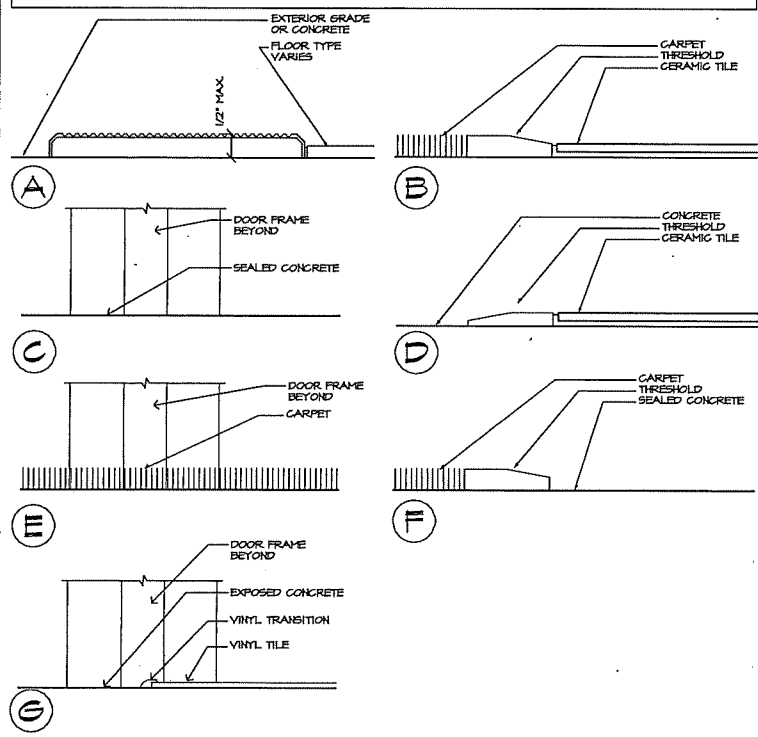
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Of: 5 Sheets

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DOOR TYPES

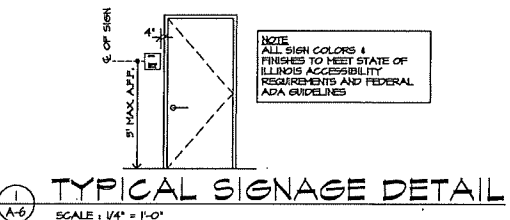


SILL TYPES



WINDOW TYPES

1/4" = 1'-0"



INTERIOR FINISH NOTES

INTERIOR FINISH MATERIALS SHALL BE GROUPED IN THE FOLLOWING CLASSES IN ACCORDANCE WITH THEIR FLAME SPREAD AND SMOKE DEVELOPED INDEXES.

CLASS A: FLAME SPREAD 0-25; SMOKE DEVELOPED 0-450
 CLASS B: FLAME SPREAD 26-75; SMOKE DEVELOPED 450-900
 CLASS C: FLAME SPREAD 76-200; SMOKE DEVELOPED 900-1500

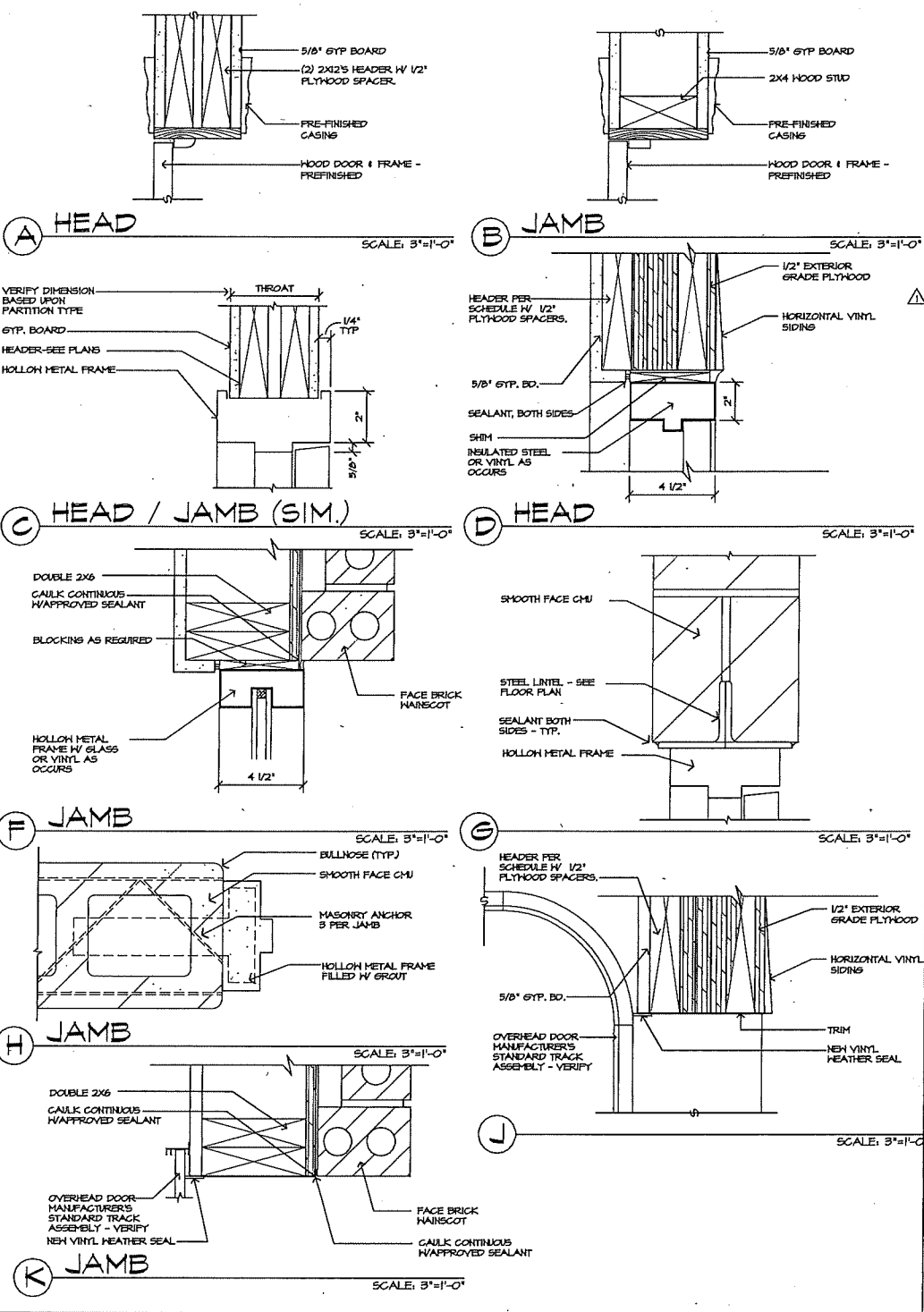
INTERIOR HALL AND CEILING FINISH REQUIREMENTS:

GROUP B (SPRINKLERED) EXIT ENCLOSURES AND EXIT PASSAGEWAYS
 CORRIDORS ROOMS AND ENCLOSED SPACES

CLASS B
 CLASS C

INTERIOR FLOOR FINISH:
 GROUP B NOT LESS THAN CLASS II MATERIALS

DOOR DETAILS



DOOR SCHEDULE

DOOR		FRAME		REMARKS	
MK.	TYPE	SIZE	THK.	MATL.	REMARKS
A	B	3'-0" x 7'-0"	1 3/4"	HV/VGL	F D A HM 1 16" SIDELITE BOTH SIDES
B	B	3'-0" x 7'-0"	1 3/4"	HO/VGL	B A B ND 4 16" SIDELITE BOTH SIDES
C	A	3'-0" x 7'-0"	1 3/4"	ND	B A E ND 5
D	A	3'-0" x 7'-0"	1 3/4"	ND	B A E ND 6
E	A	3'-0" x 7'-0"	1 3/4"	ND	B A E/G ND 2 WITH HALL BUMPER
F	A	3'-0" x 7'-0"	1 3/4"	HM	H G B HM 6
G	A	3'-0" x 7'-0"	1 3/4"	HM	F D A HM B
H	B	3'-0" x 7'-0"	1 3/4"	HV/VGL	F D A HM 1
J	A	3'-0" x 7'-0"	1 3/4"	HM	H G C HM 2 WITH SURFACE MOUNTED CLOSER
K	A	3'-0" x 7'-0"	1 3/4"	HM	C C G HM 2 WITH HALL BUMPER
L	A	3'-0" x 7'-0"	1 3/4"	HM	H G C D HM 6
M	A	3'-0" x 7'-0"	1 3/4"	HM	C C D HM T
N	D	2'-0" x 9'-0"	1 3/4"	RESL STL	K J - STL BY MFR

HARDWARE SCHEDULE

SET #	DESCRIPTION	MANUFACTURER	MODEL	FINISH
1	1/2" BUTT HINGE	STANLEY	BALL BEARING	626 or 605 VERIFY W/ OWNER
1	LEVER LATCHSET - ENTRY FUNCTION	SCHLAGE	5 KNOCKLE	626 or 605 VERIFY W/ OWNER
1	CYLINDER WITH PADLOCK	LEGUSSA	NO. 5 SERIES W/ RHODES LEVER	626 or 605 VERIFY W/ OWNER
1	CLOSERS - SURFACE MOUNTED	LCN	SURFACE MOUNTED	626 or 605 VERIFY W/ OWNER
1	HALL BUMPER	REESSE	VARIABLE (MAX 1/2" H)	ALUMINUM
1	THRESHOLD	REESSE	VARIABLE (MAX 1/2" H)	ALUMINUM
1	SET HEATHERSTRIPPING	YON DUFRIN	41 SERIES W/ 492L TRIM	PAINTED
1	H.H. FRAME	—	16ga. HELDED	PAINTED
1	H.H. DOOR	—	16ga. FACES	PAINTED

NOTES:
 1. DOOR HARDWARE SHALL BE CAPABLE OF OPERATION WITH THE USE OF ONE (1) HAND AND SHALL NOT REQUIRE TIGHT PINCHING, TIGHT GRASPING OR TWEETING OF THE FINGER TO OPERATE. THRESHOLD DEADLOCKS ARE PROHIBITED. LEVER OR PADLOCK DEVICES ARE ACCEPTABLE. DOOR THRESHOLD SHALL NOT EXCEED ONE-HALF INCH (1/2") IN HEIGHT. THRESHOLDS EXCEEDING ONE-QUARTER INCH (1/4") IN HEIGHT SHALL HAVE A 1/2" BEVEL. DOOR CLOSERS SHALL MEET OPERING FORCE AND SLEEP PERIOD REQUIREMENTS.
 2. OPERING FORCE FOR PUSH/PULLING EXTERIOR SWING DOORS SHALL NOT EXCEED 8.5 LBS. OPERING FORCE FOR PUSH/PULLING INTERIOR SWING DOORS SHALL NOT EXCEED 5 LBS. WHEN APPLIED TO THE LATCH SIDE OF THE DOOR. THESE FORCES DO NOT APPLY TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DEPRESSURE OTHER DEVICES THAT HOLD THE DOOR IN A CLOSED POSITION.
 3. PROVIDE TACTILE MARKING ON DOOR HARDWARE LEADING INTO HEAVY TRAFFIC ROOMS.
 4. THE WEARING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION IN THE DIRECTION OF EGRESS TRAVEL.

ROOM FINISH SCHEDULE

MK.	ROOM	FLOOR	BASE	HALL	CEILING	REMARKS
		CARPET OPT-1 SEALED CONCRETE SCH-1 QUARRY TILE GFT-1 VINYL COMP. TILE, VCT-1	4" HIGH VINYL VB-1 4" CERAMIC TILE COVERED CB-1 6" HIGH VINYL VB-2 EXPOSED CONSTRUCTION	PAINTED 9H-B, PNT-1 PAINTED CHU, PNT-2	200 ACoustical CEILING TILE ACT-1 204 ACoustical CEILING TILE ACT-2 PAINTED 9H-B, PNT-1 PAINTED STUCCO, PNT-3	
100	VESTIBULE					
101	LOBBY					
101A	CLOSET					
102	OFFICE					
103	MEETING ROOM					
103A	MECHANICAL					
104	OFFICE					
105	OFFICE					
106	EQUIPMENT ROOM					
107	LAUNDRY					
108	EQUIPMENT ROOM					
109	MAINTENANCE					
110	MECHANICAL					
111	UNISEX TOILET					
112	POOL					
113	PUMP ROOM					
114	MECHANICAL					
115	MEN'S CHANGING					
116	WOMEN'S CHANGING					
117	MECHANICAL					
118	SPRINKLER ROOM					
119	FITNESS					

FINISH LEGEND

MARK	DESCRIPTION	MANUFACTURER	MFR. #	COLOR
ACT-1	ACOUSTICAL CEILING TILE	ARMSTRONG OR EQUAL	FINE FIGURES F134, WHITE, 24"x24"x5/8" GRID TO BE 8" ARMSTRONG-HITE	NOTE 1
ACT-2	SUSP ACOUSTIC CEILING - MOISTURE RESIST.	USG, ARMSTRONG OR EQUAL		NOTE 1
PNT-1	PAINTED 9H-B	BENJAMIN MOORE OR EQUAL		NOTE 1
PNT-2	PAINTED CHU	BENJAMIN MOORE OR EQUAL		NOTE 1, 3
PNT-3	PAINTED STUCCO	BENJAMIN MOORE OR EQUAL		NOTE 1
VB-1	VINYL BASE - 4" HIGH	ROFFPE OR EQUAL		NOTE 1
VB-2	VINYL BASE - 6" HIGH	ROFFPE OR EQUAL		NOTE 1
SCH-1	SEALED CONCRETE	SONNEBORN KURE 4 SEAL HB		
CPT-1	CARPET TILE - 24 x 24	HANNINGTON COMMERCIAL OR EQUAL		NOTE 1

FINISH NOTES:
 1. VERIFY ALL COLORS WITH OWNER PRIOR TO ORDERING ANY MATERIALS.
 2. EGG SHELL FINISH ON WALLS, SEMI-GLOSS ON DOORS.
 3. PROVIDE BLOCK SEALER ON ALL CHU WALLS PRIOR TO PAINT.
 4. GRUNT COLORS BASE ON TRUCOLOR BY BOSTIK.

REVISIONS BY
 1/30/14 RB

NEW COMMUNITY CENTER FOR:
 DARLINGTON COURT APARTMENTS
 DARLINGTON LAKE
 CRYSTAL LAKE, ILLINOIS 60014

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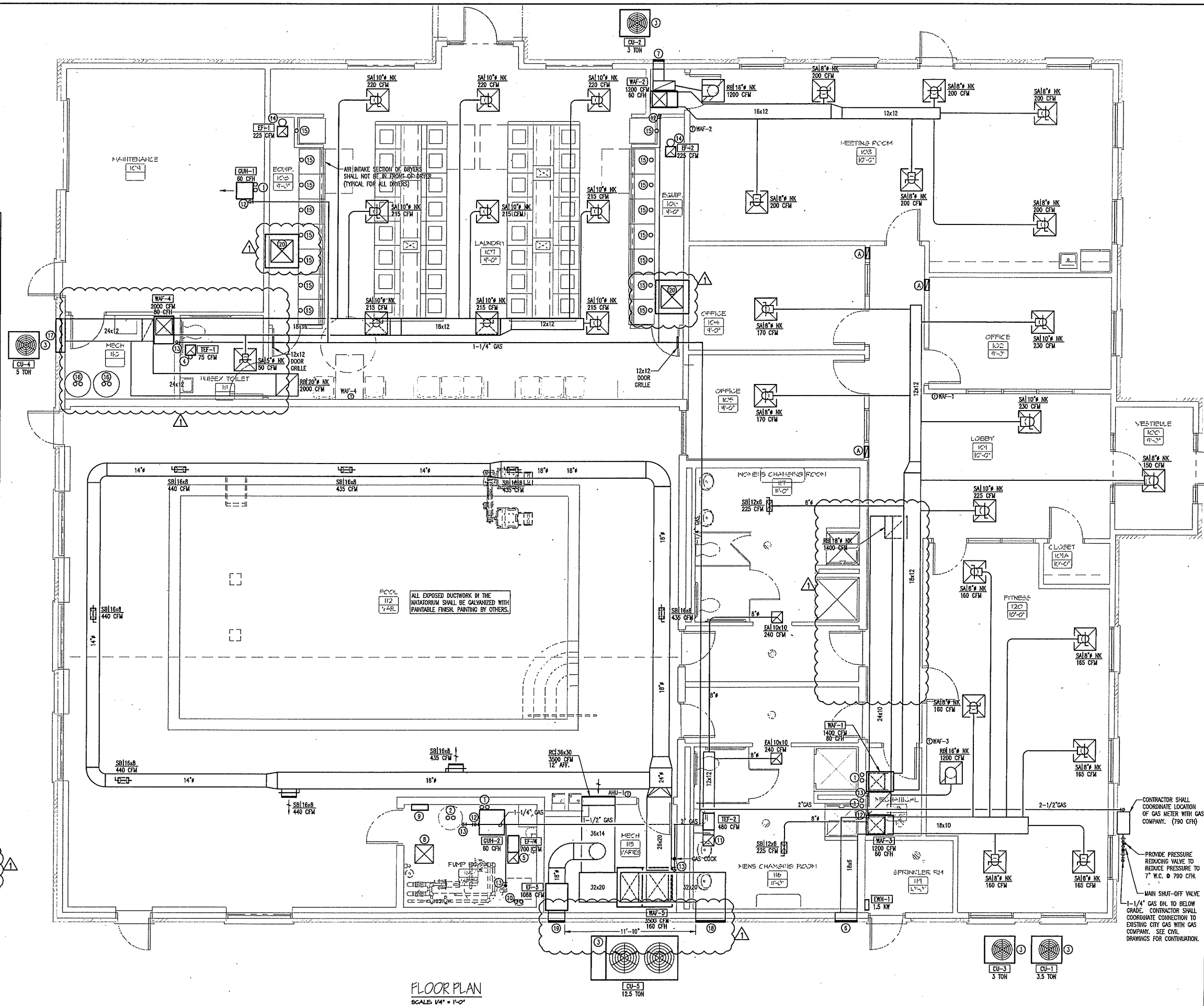
Date: 4/22/14
 Scale: AS NOTED
 Drawn: RLB
 Job: 1402
 Sheet: A-6
 Of: 6

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(A) RELIEF AIR GRILLE DETAIL
SCALE: NO SCALE

MECHANICAL DRAWING NOTES

- PROVIDE ECONOMIZERS FOR ALL MECHANICAL SYSTEMS PROVIDING A MINIMUM OF 54,000 BTUH OF COOLING. HALL GUARDS SHALL BE PROVIDED IN THIS REGION.
- FOR ALL PARTITIONS EQUAL TO OR GREATER THAN A 1.5 HOUR RATING, PROVIDE DUCTED FIRE DAMPER TO MATCH RATING OF PARTITION TO BE PENETRATED. FIRE CAULK PARTITION AROUND DUCT PENETRATION. FOR ALL PARTITIONS WITH A FIRE RATING OF 1 HOUR, ONLY FIRE CAULK PARTITION AROUND DUCT PENETRATION.
- FLUE VENT AND COMBUSTION AIR DUCT UP TO ROOF. TERMINATE WITH CONCENTRIC VENT MINIMUM 30" ABOVE ROOF. SIZE PER MANUFACTURER.
 - WATER HEATER B-VENT AND COMBUSTION AIR DUCT UP TO ROOF. TERMINATE WITH CONCENTRIC VENT MINIMUM 30" ABOVE ROOF. SIZE PER MANUFACTURER.
 - REFRIGERANT PIPING SHALL BE ROUTED TO ASSOCIATED FURNACE AS NOTED ON "AIR COOLED CONDENSING UNIT SCHEDULE". SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATION. DO NOT EXCEED MAXIMUM RECOMMENDED LENGTH OF PIPE.
 - 4" EXHAUST DUCT UP TO ROOF. TERMINATE WITH ROOF JACK MINIMUM OF 10'-0" AWAY OR 2'-0" ABOVE ALL FRESH AIR OPENINGS.
 - 14x14 E.A. HOOD SHALL BE MINIMUM OF 0.7 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" AWAY OR 2'-0" ABOVE ALL FRESH AIR OPENINGS. PROVIDE SPRING LOADED BACKDRAFT DAMPER.
 - 24x12 O.A. WALL LOUVER SHALL BE MINIMUM OF 0.92 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" ABOVE GRADE & 10'-0" AWAY OR 2'-0" BELOW ALL EXHAUST OPENINGS. DUCT 18x6 O.A. DUCT TO MAIN RETURN DUCT. PROVIDE WITH STATIONARY DAMPER TO BE BALANCED TO 450 CFM. SLOPE O.A. INTAKE DUCT DOWN TOWARD LOUVER A MINIMUM OF 1" PER 7'-0" OF RUN AND SOLDER ALL SEAMS FOR THE FIRST 6'-0" OF DUCT. PROVIDE STEEL LINTEL AT OPENING.
 - 12x12 O.A. WALL LOUVER SHALL BE MINIMUM OF 0.4 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" ABOVE GRADE & 10'-0" AWAY OR 2'-0" BELOW ALL EXHAUST OPENINGS. DUCT 12x6 O.A. DUCT TO MAIN RETURN DUCT. PROVIDE WITH STATIONARY DAMPER TO BE BALANCED TO 200 CFM. SLOPE O.A. INTAKE DUCT DOWN TOWARD LOUVER A MINIMUM OF 1" PER 7'-0" OF RUN AND SOLDER ALL SEAMS FOR THE FIRST 6'-0" OF DUCT. PROVIDE STEEL LINTEL AT OPENING.
 - 20x20 O.A. HOOD SHALL BE MINIMUM OF 1.4 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" AWAY OR 2'-0" BELOW ALL EXHAUST OPENINGS. PROVIDE WITH SPRING LOADED BACKDRAFT DAMPER.
 - PROVIDE VENTILATION SYSTEM EMERGENCY SHUT-OFF FOR EF-3 AND LABEL AS SUCH. COORDINATE WITH ELECTRICAL CONTRACTOR AND LOCAL INSPECTOR FOR EXACT LOCATION REQUIREMENT.
 - PROVIDE VENT AND COMBUSTION AIR FROM POOL HEATER. TERMINATE PER POOL HEATER MFR. RECOMMENDATIONS. BASED ON 150 BHP POOL HEATER COMBUSTION AIR SHALL BE 4", AND FLUE SHALL BE 5" WITH OPTIONAL YORK345 KIT.
 - 12x12 E.A. HOOD SHALL BE MINIMUM OF 0.48 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" AWAY OR 2'-0" ABOVE ALL FRESH AIR OPENINGS. PROVIDE SPRING LOADED BACKDRAFT DAMPER.
 - 3/4" GAS DN. FROM ABOVE CEILING. PROVIDE GAS COCK.
 - 1" GAS DN. FROM ABOVE CEILING. PROVIDE GAS COCK.
 - 8" EXHAUST DUCT UP TO ROOF. TERMINATE WITH ROOF JACK MINIMUM OF 10'-0" AWAY OR 2'-0" ABOVE ALL FRESH AIR OPENINGS.
 - 4" DRYER VENT UP TO MINIMUM OF 30" ABOVE ROOF. PROVIDE CLEANOUT AT BOTTOM OF VENT. INSULATE AND ENCAPSULATE WITH VAPOR BARRIER JACKET ON ALL HORIZONTAL ROUTING. TERMINATE WITH RAIN CAP AT ROOF. DRYER EXHAUST SHALL NOT EXCEED MAXIMUM LENGTHS AS INDICATED BY MANUFACTURER. PROVIDE BACKDRAFT DAMPER. PROVIDE DRYER BOOSTER FAN IF MAXIMUM LENGTH/NUMBER OF BENDS EXCEEDS MANUFACTURER'S RECOMMENDED LIMITATIONS.
 - WATER HEATER B-VENT AND COMBUSTION AIR DUCT UP TO ROOF. TERMINATE WITH CONCENTRIC VENT MINIMUM 30" ABOVE ROOF.
 - 36x16 O.A. WALL LOUVER SHALL BE MINIMUM OF 2.0 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" ABOVE GRADE & 10'-0" AWAY OR 2'-0" BELOW ALL EXHAUST OPENINGS. DUCT 24x12 O.A. DUCT TO MAIN RETURN DUCT. PROVIDE WITH STATIONARY DAMPER TO BE SET TO 400 CFM. SLOPE O.A. INTAKE DUCT DOWN TOWARD LOUVER A MINIMUM OF 1" PER 7'-0" OF RUN AND SOLDER ALL SEAMS FOR THE FIRST 6'-0" OF DUCT. PROVIDE STEEL LINTEL AT OPENING.
 - 32x20 O.A. WALL LOUVER SHALL BE MINIMUM OF 2.2 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" ABOVE GRADE & 10'-0" AWAY OR 2'-0" BELOW ALL EXHAUST OPENINGS. DUCT 32x20 O.A. DUCT TO MIXING BOX. PROVIDE WITH STATIONARY DAMPER TO BE SET TO 1088 CFM. SLOPE O.A. INTAKE DUCT DOWN TOWARD LOUVER A MINIMUM OF 1" PER 7'-0" OF RUN AND SOLDER ALL SEAMS FOR THE FIRST 6'-0" OF DUCT. PROVIDE STEEL LINTEL AT OPENING.
 - 18x18 E.A. WALL LOUVER SHALL BE MINIMUM OF 1.1 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 10'-0" ABOVE GRADE & 10'-0" AWAY OR 2'-0" ABOVE ALL FRESH AIR OPENINGS. PROVIDE SPRING LOADED BACKDRAFT DAMPER.
 - 32x32 O.A. INTAKE HOOD SHALL BE MINIMUM OF 3.6 SQ.FT. FREE AREA AND MOUNTED A MINIMUM OF 24" ABOVE ROOF & 10'-0" AWAY OR 2'-0" BELOW ALL EXHAUST OPENINGS. DUCT 18x18 O.A. DUCT TO 24x24 TITUS MODEL 272RL @ CEILING. PROVIDE WITH SPRING LOADED BACKDRAFT DAMPER. SOLDER ALL SEAMS FOR THE FIRST 6'-0" OF DUCT.



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

REVISIONS BY	
4/20/19	RB
MECHANICAL PLAN NEW COMMUNITY CENTER & LAUNDRY FACILITY FOR: DARLINGTON COURT APARTMENTS DARLINGTON LAKE CRYSTAL LAKE, ILLINOIS 60014	
R.B. CUSTOM DESIGNS INC. 2108 W. Johnson Road Johnsonburg, Illinois 60051 Phone: 815-754-4454 Fax: 815-507-8200	
Date	2/9/19
Scale	AS NOTED
Drawn	R.B.
Job	1402
Sheet	M-11

MECHANICAL INSULATION

Table with 4 columns: DUCTWORK TYPE, THICKNESS (INCHES), TYPE, and COMMENTS. Includes rows for Low Velocity Supply/Return, High Velocity Supply/Return, and Ductwork exposed to tempered space.

TESTING, ADJUSTING & BALANCING

Table with 4 columns: DUCTWORK TYPE, THICKNESS (INCHES), TYPE, and COMMENTS. Includes rows for Low Velocity Supply/Return, High Velocity Supply/Return, and Ductwork exposed to tempered space.

DUCTWORK:

Table with 4 columns: DUCTWORK TYPE, THICKNESS (INCHES), TYPE, and COMMENTS. Includes rows for Low Velocity Supply/Return, High Velocity Supply/Return, and Ductwork exposed to tempered space.

BASIC MECHANICAL REQUIREMENTS

Table with 4 columns: DUCTWORK TYPE, THICKNESS (INCHES), TYPE, and COMMENTS. Includes rows for Low Velocity Supply/Return, High Velocity Supply/Return, and Ductwork exposed to tempered space.

MECHANICAL NOTES FOR NEW WORK

MECHANICAL NOTES FOR NEW WORK
1. ALL DUCTWORK SIZES SHOWN ON THE DRAWINGS ARE INSIDE DIMENSIONS. WHERE DUCT LINING IS CALLED FOR...

HVAC ABBREVIATIONS

Table listing HVAC abbreviations: AFF (Above Finished Floor), BHP (Brake Horse Power), BTU (British Thermal Unit), CFM (Cubic Feet per Minute), etc.

MECHANICAL CODE NOTES

MECHANICAL CODE NOTES
HVAC TEST AND BALANCE REPORT MUST BE SUBMITTED TO BUILDING DEPARTMENT PRIOR TO FINAL INSPECTION. (MC 403.3.4)

MECHANICAL NOTES FOR GENERAL WORK

MECHANICAL NOTES FOR GENERAL WORK
1. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING AND DUCTWORK AS SHOWN DOES NOT INTEND TO SHOW EVERY JOINT, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE WORK.

CONTRACTOR NOTES

CONTRACTOR NOTES
DRAWINGS ARE DESIGNED FOR DIAGRAMMATIC AND INFORMATIONAL PURPOSES ONLY AND ARE WITHOUT WARRANTY. USE OF THESE DOCUMENTS IS AT THE OWNER'S SOLE RISK.

GAS PIPING NOTES

GAS PIPING NOTES
1. INSTALL A MANUAL SHUT OFF COCK AND BURN LED ON EACH BRANCH GAS LINE CONNECTED TO GAS FIRED EQUIPMENT.

CONDENSATE NOTES

CONDENSATE NOTES
PROVIDE CONDENSATE DRAIN SYSTEM FOR ALL EVAPORATORS AND COOLING COILS.
ALL CONDENSATE PIPING SHALL HAVE A MINIMUM SLOPE OF NOT LESS THAN 1/8" PER 1'-0" HORIZONTAL AND SHALL BE COLLECTED AND DISCHARGED TO AN APPROVED PLUMBING FIXTURE OR DISPOSAL AREA PER MANUFACTURER'S INSTRUCTIONS.

Project information and contact details for R.B. Custom Designs Inc., including address (2108 W. Johnsburg Road, Johnsburg, Illinois 60051), phone (815-307-8200), and revision table.

REVISIONS	BY
1	RB
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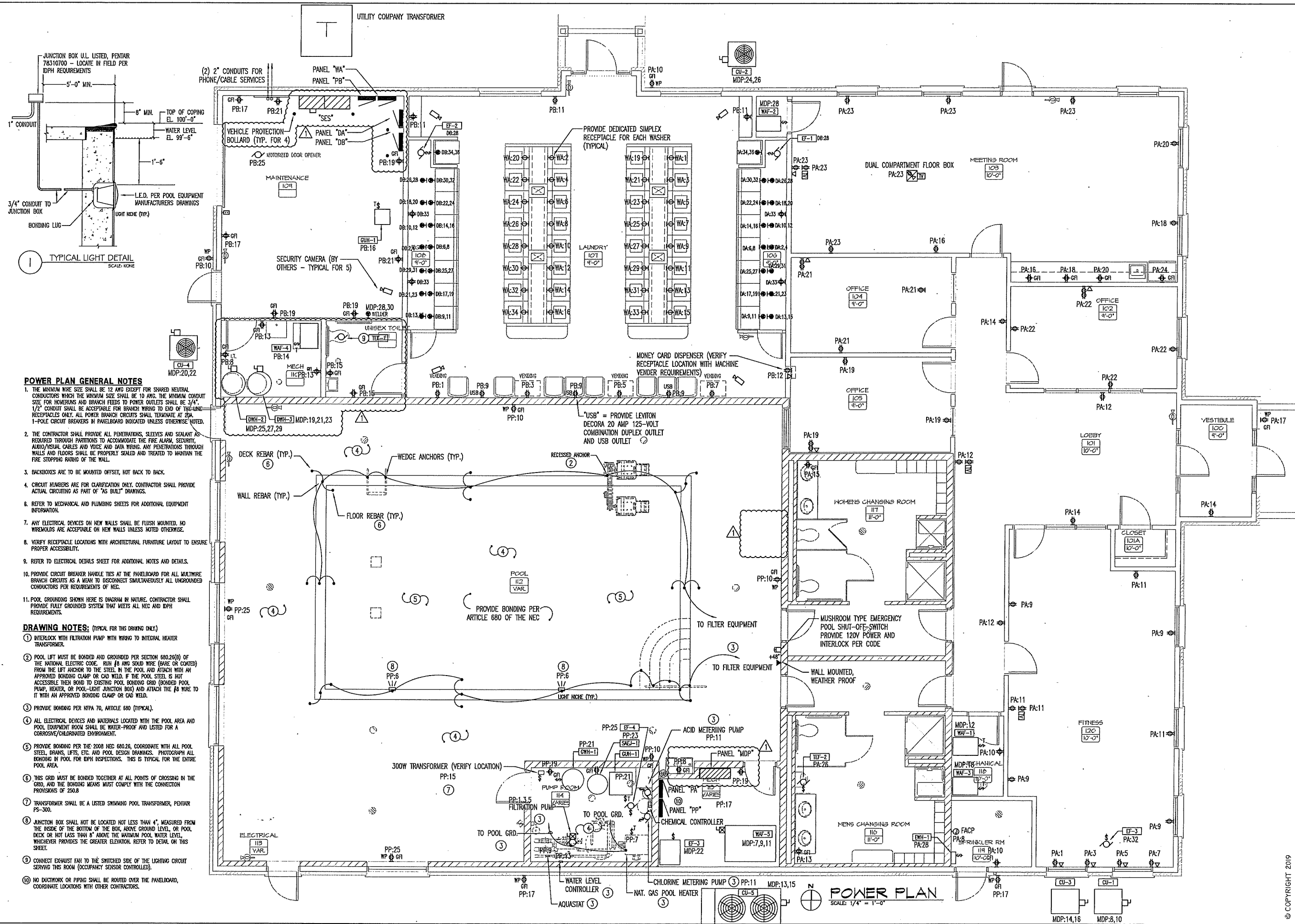
POWER PLAN

NEW COMMUNITY CENTER & LAUNDRY FACILITY FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LAKE
CRYSTAL LAKE, ILLINOIS 60014

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Date	2/9/19
Scale	AS NOTED
Drawn	RJB
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POWER PLAN GENERAL NOTES

- THE MINIMUM WIRE SIZE SHALL BE 12 AWG EXCEPT FOR SHARED NEUTRAL CONDUCTORS WHICH THE MINIMUM SIZE SHALL BE 10 AWG. THE MINIMUM CONDUIT SIZE FOR HOMERUNS AND BRANCH FEEDS TO POWER OUTLETS SHALL BE 3/4". 1/2" CONDUIT SHALL BE ACCEPTABLE FOR BRANCH WIRING TO END OF THE LINE RECEPTACLES ONLY. ALL POWER BRANCH CIRCUITS SHALL TERMINATE AT 20A 1-POLE CIRCUIT BREAKERS IN PANELBOARD INDICATED UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE ALL PENETRATIONS, SLEEVES AND SEALANT AS REQUIRED THROUGH PARTITIONS TO ACCOMMODATE THE FIRE ALARM, SECURITY, AUDIO/VISUAL CABLES AND VOICE AND DATA WIRING. ANY PENETRATIONS THROUGH WALLS AND FLOORS SHALL BE PROPERLY SEALED AND TREATED TO MAINTAIN THE FIRE STOPPING RATING OF THE WALL.
- BACKBOXES ARE TO BE MOUNTED OFFSET, NOT BACK TO BACK.
- CIRCUIT NUMBERS ARE FOR CLARIFICATION ONLY. CONTRACTOR SHALL PROVIDE ACTUAL CIRCUITING AS PART OF "AS BUILT" DRAWINGS.
- REFER TO MECHANICAL AND PLUMBING SHEETS FOR ADDITIONAL EQUIPMENT INFORMATION.
- ANY ELECTRICAL DEVICES ON NEW WALLS SHALL BE FLUSH MOUNTED. NO WIREMOLDS ARE ACCEPTABLE ON NEW WALLS UNLESS NOTED OTHERWISE.
- VERIFY RECEPTACLE LOCATIONS WITH ARCHITECTURAL FURNITURE LAYOUT TO ENSURE PROPER ACCESSIBILITY.
- REFER TO ELECTRICAL DETAILS SHEET FOR ADDITIONAL NOTES AND DETAILS.
- PROVIDE CIRCUIT BREAKER HANDLE TIES AT THE PANELBOARD FOR ALL MULTIWIRE BRANCH CIRCUITS AS A MEAN TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS PER REQUIREMENTS OF NEC.
- POOL GROUNDING SHOWN HERE IS DIAGRAM IN NATURE. CONTRACTOR SHALL PROVIDE FULLY GROUNDED SYSTEM THAT MEETS ALL NEC AND IDPH REQUIREMENTS.

DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY)

- INTERLOCK WITH FILTRATION PUMP WITH WIRING TO INTEGRAL HEATER TRANSFORMER.
- POOL LIFT MUST BE BONDED AND GROUNDED PER SECTION 680.26(B) OF THE NATIONAL ELECTRIC CODE. RUN #8 AWG SOLID WIRE (BARE OR COATED) FROM THE LEFT ANCHOR TO THE STEEL IN THE POOL AND ATTACH WITH AN APPROVED BONDING CLAMP OR CAD WELD. IF THE POOL STEEL IS NOT ACCESSIBLE THEN BOND TO EXISTING POOL BONDING GRID (BONDED POOL PUMP, HEATER, OR POOL-LIGHT JUNCTION BOX) AND ATTACH THE #8 WIRE TO IT WITH AN APPROVED BONDING CLAMP OR CAD WELD.
- PROVIDE BONDING PER NFPA 70, ARTICLE 680 (TYPICAL).
- ALL ELECTRICAL DEVICES AND MATERIALS LOCATED WITH THE POOL AREA AND POOL EQUIPMENT ROOM SHALL BE WATER-PROOF AND LISTED FOR A CORROSIVE/CHLORINATED ENVIRONMENT.
- PROVIDE BONDING PER THE 2008 NEC 680.26, COORDINATE WITH ALL POOL STEEL, DRAINS, LIFTS, ETC. AND POOL DESIGN DRAWINGS. PHOTOGRAPH ALL BONDING IN POOL FOR IDPH INSPECTIONS. THIS IS TYPICAL FOR THE ENTIRE POOL AREA.
- THIS GRID MUST BE BONDED TOGETHER AT ALL POINTS OF CROSSING IN THE GRID, AND THE BONDING MEANS MUST COMPLY WITH THE CONNECTION PROVISIONS OF 250.8.
- TRANSFORMER SHALL BE A LISTED SWIMMING POOL TRANSFORMER, PENTAIR PS-300.
- JUNCTION BOX SHALL NOT BE LOCATED NOT LESS THAN 4" MEASURED FROM THE INSIDE OF THE BOTTOM OF THE BOX ABOVE GROUND LEVEL, OR POOL DECK OR NOT LESS THAN 8" ABOVE THE MAXIMUM POOL WATER LEVEL, WHICHEVER PROVIDES THE GREATER ELEVATION. REFER TO DETAIL ON THIS SHEET.
- CONNECT EXHAUST FAN TO THE SWITCHED SIDE OF THE LIGHTING CIRCUIT SERVING THIS ROOM (OCCUPANCY SENSOR CONTROLLED).
- NO DUCTWORK OR PIPING SHALL BE ROUTED OVER THE PANELBOARD, COORDINATE LOCATIONS WITH OTHER CONTRACTORS.

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

REVISIONS	BY
1	FB



NEW COMMUNITY CENTER & LAUNDRY FACILITY FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS 60014

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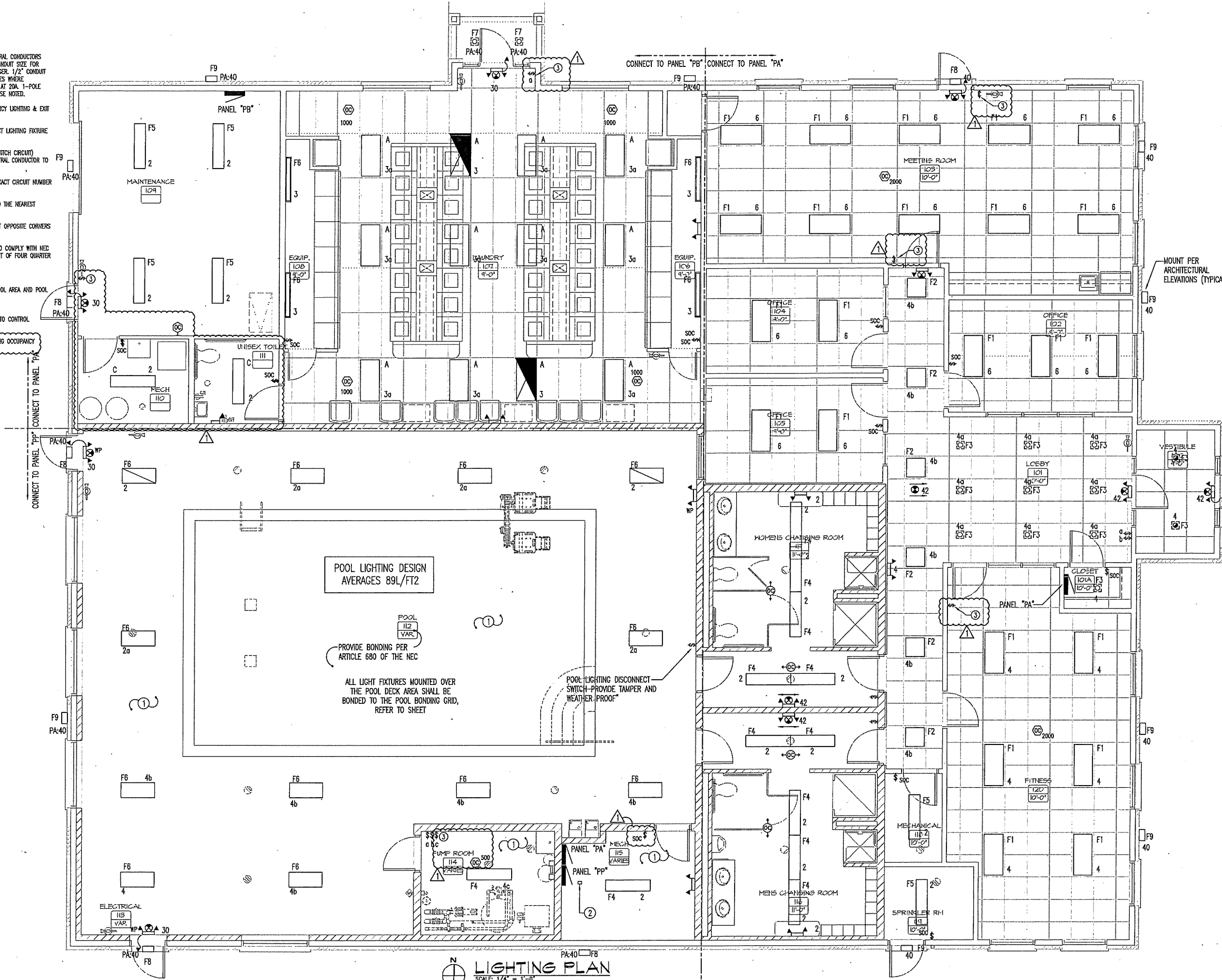
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Job	1802
Sheet	11-2
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LIGHTING PLAN GENERAL NOTES:

1. THE MINIMUM WIRE SIZE SHALL BE 12 AWG EXCEPT FOR NEUTRAL CONDUCTORS WHICH THE MINIMUM SIZE SHALL BE 10 AWG. THE MINIMUM CONDUIT SIZE FOR HORIZONTALS SHALL BE 3/4" UNLESS OTHERWISE INDICATED LARGER. 1/2" CONDUIT WILL BE ACCEPTABLE FOR BRANCH WIRING TO LIGHTING FIXTURES WHERE APPLICABLE. ALL LIGHTING BRANCH CIRCUITS SHALL TERMINATE AT 20A, 1-POLE CIRCUIT BREAKERS IN PANELBOARD INDICATED UNLESS OTHERWISE NOTED.
2. PROVIDE LOCK-ON CIRCUIT BREAKER DEVICE FOR ALL EMERGENCY LIGHTING & EXIT SIGN BRANCH CIRCUITS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LIGHTING FIXTURE LOCATIONS.
4. ALL FIXTURES SHOWN HALF SHADED SHALL BE WIRED (NON-SWITCH CIRCUIT) DIRECTLY TO THE EMERGENCY PANEL. PROVIDE DEDICATED NEUTRAL CONDUCTOR TO EACH BRANCH CIRCUIT TO THE EMERGENCY PANEL.
5. CIRCUIT NUMBER(S) ARE SHOWN FOR A GUIDE ONLY. VERIFY EXACT CIRCUIT NUMBER TO BE UTILIZED IN FIELD.
6. EMERGENCY BATTERY PACKS SHOWN ARE TO BE CONNECTED TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF LOCAL SWITCH U.I.A.O.
7. ALL LAY-IN FIXTURES SHALL BE INDEPENDENTLY SUPPORTED AT OPPOSITE CORNERS TO A STRUCTURAL MEMBER.
8. PROVIDE PULL BOX(ES) BETWEEN PULL POINTS AS REQUIRED TO COMPLY WITH NEC 344.26 THAT THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BEND (360 DEGREE TOTAL) BETWEEN PULL POINTS.

DRAWING NOTES: (TYPICAL FOR THIS DRAWING ONLY.)

- ① ALL ELECTRICAL DEVICES AND MATERIALS LOCATED WITH THE POOL AREA AND POOL EQUIPMENT ROOM SHALL BE WATER-PROOF AND LISTED FOR A CORROSIVE/CHLORINATED ENVIRONMENT (NATATORIUM LISTED).
- ② PROVIDE 120V NP TORK PHOTOCELL ON ROOF FACING NORTH TO CONTROL EXTERIOR LIGHTING.
- ③ PROVIDE ACuity LOW VOLTAGE SWITCH INTERLOCKED WITH CEILING OCCUPANCY SENSOR FOR MANUAL ON, AUTO OFF OPERATION.



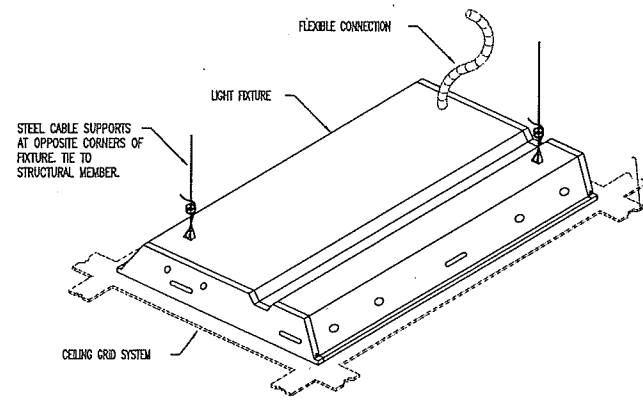
LIGHTING PLAN
SCALE: 1/4" = 1'-0"

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BRANCH CIRCUIT WIRING

BREAKER/FUSE	MIN. WIRE SIZE	BREAKER/FUSE	MIN. WIRE SIZE	BREAKER/FUSE	MIN. WIRE SIZE
15	#12	80	#3	300	350 kcmil
20	#12	90	#3	350	500 kcmil
25	#10	100	#2	400	600 kcmil
30	#10	110	#1	450	(2) 250 kcmil
35	#8	125	1/0	500	(2) 250 kcmil
40	#8	150	1/0	600	(2) 350 kcmil
45	#8	175	2/0	700	(2) 400 kcmil
50	#8	200	3/0	800	(2) 600 kcmil
60	#4	225	4/0	1200	(3) 600 kcmil
70	#4	250	250 kcmil	1600	(4) 600 kcmil

THIS CONTRACTOR SHALL SIZE ALL CONDUCTORS SO THAT NO RUN EXCEEDS 2% VOLTAGE DROP FOR FEEDERS AND 3% FOR BRANCH CIRCUITS.



LIGHT FIXTURE SUPPORT DETAIL
NO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	MOUNTING	LAMPS	VOLTAGE	MANUFACTURER & CATALOG NUMBER	APPROVED EQUAL MANUFACTURERS
F1	2x4 LED TROFFER	RECESSED	38W LED	120V	LITHONIA ZBLJ4 48L ADP E21 LP835	ARCHITECT APPROVED EQUAL
F2	2x2 LED TROFFER	RECESSED	26.5W LED	120V	LITHONIA ZBLT2 33L ADP E21 LP835	ARCHITECT APPROVED EQUAL
F3	6" LED DOWNLIGHT	RECESSED	20.5W LED	120V	LITHONIA LDN6 35/15 LOGAR LSS MVOLT E210	ARCHITECT APPROVED EQUAL
F4	4' LED STRIP LIGHT, WET LABEL, ROWS AS IN PLAN	SURFACE	49W LED	120V	KENALL MLH120MS-4/48-VMT-45L35K-CP-1-1-120	ARCHITECT APPROVED EQUAL
F5	4' LED STRIP LIGHT	SURFACE	27.5W LED	120V	LITHONIA CLX L48 4000LM SEF WOL MVOLT G210 35K 80CRI NH	ARCHITECT APPROVED EQUAL
F6	36" UPLIGHT, CLEAR ACRYLIC LENS, NATATORIUM LISTED, WITH EXTRA SS SAFETY CABLE, 18460 LUMENS	PENDANT	209.5W LED	120V	WYONKA LIGHTING WYANCR04 WL 36LONG AL144 30K MVOLT	ARCHITECT APPROVED EQUAL
F7	6" LED DOWNLIGHT, WET LABEL, EMERGENCY BACK UP	RECESSED	23.2W LED	120V	GOYTHAM EYO 35/20 BAR WMD LSS MVOLT E21 EL	ARCHITECT APPROVED EQUAL
F8	LED WALL PACK, FULL CUT OFF EMERGENCY OPTION	SURFACE	25W LED	120V	LITHONIA WST LED P2 30K VF MVOLT D08TXD E7WH	ARCHITECT APPROVED EQUAL
F9	LED WALL PACK, FULL CUT OFF	SURFACE	25W LED	120V	LITHONIA WST LED P2 30K VF MVOLT D08TXD	ARCHITECT APPROVED EQUAL

EXIT SIGN & EMERGENCY LIGHTING SCHEDULE

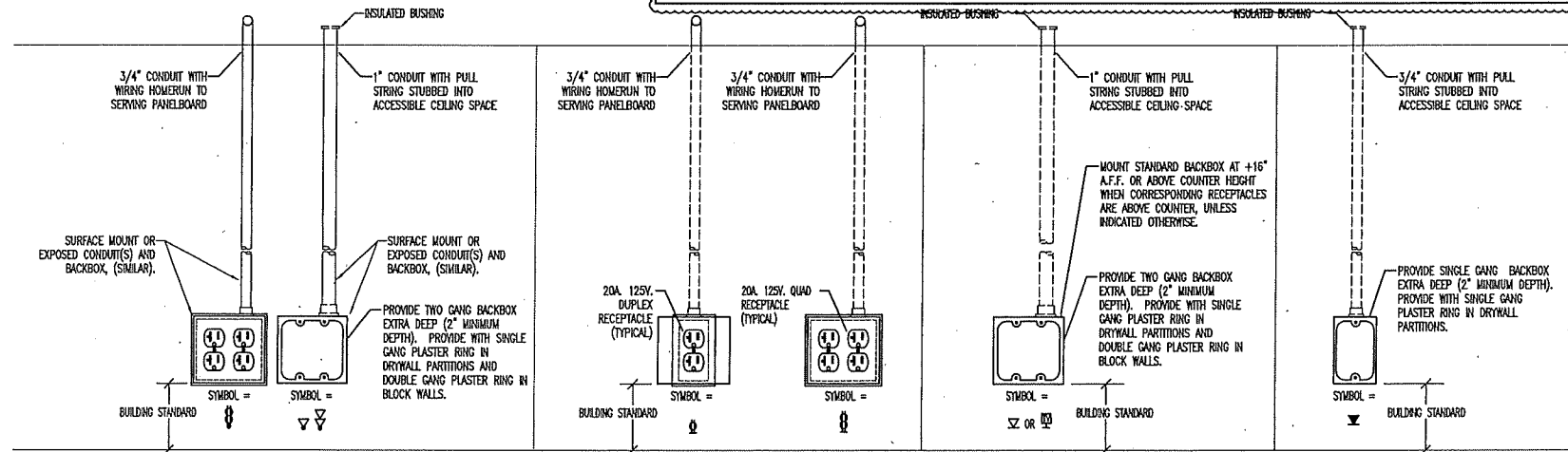
SYMBOL	DESCRIPTION	MOUNTING	LAMPS	VOLTAGE	MANUFACTURE & CATALOG NUMBER
ⓂⓂ	EMERGENCY LIGHT/EXIT SIGN COMBO, HOUSING WITH WHITE FINISH AND RED LETTERS, NICKEL CADMIUM FIELD KNOCKOUT ARROWS AS REQUIRED.	BACK	LONG LIFE LED	120V	LITHONIA LHOM EM SERIES
ⓂⓂ	EMERGENCY EXIT SIGN WEATHER PROOF, SINGLE FACE, NATATORIUM LISTED	BACK	LONG LIFE LED	120V	KENALL METDU EL SERIES
ⓂⓂ	DUAL HEAD EMERGENCY LIGHTING UNIT WITH WHITE CONTEMPORARY POLYCARBONATE ENCLOSURE, WALL MOUNTED	SURFACE WALL	LED	120V	LITHONIA ELMULT SERIES
ⓂⓂ	DUAL HEAD EMERGENCY LIGHTING UNIT WITH WHITE CONTEMPORARY POLYCARBONATE ENCLOSURE, WALL MOUNTED, WEATHER PROOF, NATATORIUM LISTED	SURFACE	LED	120V	KENALL METEL EL SERIES

OCCUPANCY SENSORS

SYMBOL	DESCRIPTION	COVERAGE	AREAS OF USE	MOUNTING	MANUFACTURER	SENSOR CATALOG NUMBER	CONTROL UNIT (POWER SUPPLY) CATALOG NUMBER
Ⓜ	RECESSED WALL MOUNTED, DUAL TECHNOLOGY, SINGLE CIRCUIT	400 SQFT	SMALL OFFICES, STORAGE CLOSETS, ETC.	RECESSED WALL	ACUTY BRANDS SENSORSWITCH	#WSX PDT XX COLOR BY ARCHITECT	INTEGRAL TO SENSOR
Ⓜ	CEILING MOUNTED WHERE THERE ARE RECESSED LIGHT FIXTURES, DUAL TECHNOLOGY, WITH AUXILIARY CONTACTS	500 SQFT	OFFICES, CONFERENCE ROOMS, CLASSROOMS, CAFETERIAS, LIBRARY, ETC.	CEILING	ACUTY BRANDS SENSORSWITCH	#CM PDT 9 R	SINGLE CIRCUIT #PP20 TWO CIRCUIT #PP20 + SP20
Ⓜ	CEILING MOUNTED WHERE THERE ARE RECESSED LIGHT FIXTURES, DUAL TECHNOLOGY, WITH AUXILIARY CONTACTS	1000 SQFT	OPEN OFFICES, CLASSROOMS, CAFETERIAS, LIBRARY, ETC.	CEILING	ACUTY BRANDS SENSORSWITCH	#CM PDT 10 R	SINGLE CIRCUIT #PP20 TWO CIRCUIT #PP20 + SP20
Ⓜ	CEILING MOUNTED WHERE THERE ARE RECESSED LIGHT FIXTURES, DUAL TECHNOLOGY, WITH AUXILIARY CONTACTS	2000 SQFT	OPEN OFFICES, CLASSROOMS, CAFETERIAS, LIBRARY, ETC.	CEILING	ACUTY BRANDS SENSORSWITCH	#CM PDT 10 R	SINGLE CIRCUIT #PP20 TWO CIRCUIT #PP20 + SP20
Ⓜ	CEILING MOUNTED, ULTRASONIC, WITH AUXILIARY CONTACTS	500 SQFT	GANG TOILET ROOMS	CEILING	ACUTY BRANDS SENSORSWITCH	#UY PDT 16 R+ WY ER	SINGLE CIRCUIT #PP20 TWO CIRCUIT #PP20 + SP20

OCCUPANCY SENSOR GENERAL NOTES:

- SENSOR PLACEMENT ON PLANS IS APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR ENGAGING A MANUFACTURERS REP TO PRODUCE A MOTION SENSOR LAYOUT THAT IS COMPLIANT WITH THE GOVERNING ENERGY CODE.
- CONTRACTOR IS RESPONSIBLE FOR: PROPER SENSITIVITY & TIME DELAY SETTINGS (FOR NON-ADAPTIVE PRODUCTS) RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH IN RESPECT TO POWER PLACEMENT.
- OCCUPANCY SENSORS SHALL HAVE AUXILIARY CONTACTS FOR USE BY BUILDING AUTOMATION SYSTEM (BAS) CONTRACTOR.
- UPON THE COMPLETION OF CONSTRUCTION THIS CONTRACTOR SHALL RETURN TO THE BUILDING TO VERIFY THAT ALL OCCUPANCY SENSORS ARE FUNCTIONING TO THE OWNERS SATISFACTION AND MAKE APPROPRIATE ADJUSTMENTS AS NEEDED. RELOCATE SENSORS OR ADJUST SENSITIVITY WHERE REQUIRED BY OWNER.
- THIS CONTRACTOR SHALL PROVIDE SUBMITTALS FOR THE OCCUPANCY SENSORS AND POWER PACKS FOR THE ENGINEERS APPROVAL PRIOR TO PURCHASING THE UNITS.
- WITH THE OCCUPANCY SENSOR SUBMITTALS PROVIDE A LIGHTING PLAN CLEARLY MARKED BY MANUFACTURER SHOWING PROPER PRODUCT, LOCATION, ORIENTATION AND COVERAGE OF EACH SENSOR.
- MOUNT CONTROL UNITS (POWER PACKS) WITHIN JUNCTION BOXES INSTALLED PER ALL CODE REQUIREMENTS. CONTROL UNIT SHALL PROVIDE POWER TO A MINIMUM OF TWO (2) SENSORS.
- CONTROL WIRING BETWEEN SENSORS AND CONTROLS UNITS SHALL BE CLASS II, 18-24 AWG, STRANDED OIL CLASSIFIED. ALL CONTROL WIRING SHALL BE ROUTED WITHIN CONDUIT AND BOXES.
- THE CONTRACTOR SHALL FIELD SET TIME DELAYS FOR THE SENSORS. SET PASSIVE INFERRED SENSORS FOR 15 MINUTES AND BETWEEN 10 AND 15 MINUTES FOR ULTRASONIC AND DUAL TECHNOLOGY.
- OCCUPANCY SENSORS AND LIGHTING SHALL BE MANUAL ON, AUTO OFF. WHERE CEILING MOUNTED, USE ACTIVITY LOW VOLTAGE SWITCHES INTERLOCKED WITH CEILING OCCUPANCY SENSORS FOR THIS CONTROL.



- ### ELECTRICAL SYMBOL LIST
- 2' X 4' FLUORESCENT LUMINAIRE, RECESSED OR SURFACE MOUNTED PER LUMINAIRE SCHEDULE.
 - 4' FLUORESCENT STRIP LUMINAIRE, PER LUMINAIRE SCHEDULE.
 - WALL MOUNTED INCANDESCENT OR HID LUMINAIRE PER LUMINAIRE SCHEDULE.
 - FLUORESCENT OR HID LUMINAIRE, RECESSED OR SURFACE MOUNTED PER LUMINAIRE SCHEDULE.
 - ◐ HALF SHADING DENOTES UNSWITCHED LUMINAIRE (NIGHTLIGHT)
 - Ⓜ EMERGENCY EXIT SIGN, SURFACE CEILING MOUNTED, SINGLE OR DOUBLE FACE, WITH OR WITHOUT DIRECTIONAL ARROWS PER EXIT SIGN SCHEDULE.
 - Ⓜ EMERGENCY EXIT SIGN, SURFACE WALL MOUNTED, SINGLE OR DOUBLE FACE, WITH OR WITHOUT DIRECTIONAL ARROWS PER EXIT SIGN SCHEDULE.
 - Ⓜ SELF-CONTAINED EMERGENCY LIGHTING FIXTURE, WITH BATTERY BACK-UP AND SOLID STATE CHARGER PER LIGHTING FIXTURE SCHEDULE.
 - Ⓜ SINGLE POLE 20 AMP 120/277 VOLT TOGGLE SWITCH INSTALLED 48" A.F.F.
 - Ⓜ SINGLE POLE 20 AMP 120/277 VOLT TOGGLE SWITCH WITH PILOT LIGHT INSTALLED 48" A.F.F.
 - Ⓜ MANUAL MOTOR STARTER, THERMAL OVERLOAD TOGGLE SWITCH.
 - Ⓜ OWNER SWITCH.
 - Ⓜ NON-FUSED SAFETY DISCONNECT SWITCH, AMPERE RATING AND NUMBER OF POLES AS NOTED.
 - Ⓜ FUSED DISCONNECT SWITCH, AMPERE RATING AND NUMBER OF POLES AS NOTED.
 - Ⓜ DATA JACK.
 - Ⓜ VOICE JACK.
 - SURFACE MOUNTED EXPOSED CONDUIT.
 - FURNITURE FEED POKE-THRU DEVICE.
 - Ⓜ MULTI-SERVICE POKE-THRU DEVICE.
 - Ⓜ DENOTES ELECTRICAL DEVICE MOUNTED ON SURFACE RACEMAY.
 - Ⓜ RECEPTACLE/LOW VOLTAGE OUTLET (OR DEVICE SHOWN) MOUNTED ON GRADED SURFACE RACEMAY
 - Ⓜ SPECIAL PURPOSE RECEPTACLE, PROVIDE NEMA CONFIGURATION PER EQUIPMENT REQUIREMENTS
 - Ⓜ POWER OUTLET, CEILING MOUNTED
 - Ⓜ 20 AMP 2P, 3 WIRE, GROUNDING TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLE NEMA 5-20R INSTALLED 16" A.F.F. UNLESS NOTED OTHERWISE
 - Ⓜ SAME AS ABOVE EQUIPPED WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER (GFI).
 - Ⓜ 20 AMP 2P, 3 WIRE, GROUNDING TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLE NEMA 5-20R INSTALLED 48" A.F.F. UNLESS NOTED OTHERWISE.
 - Ⓜ SAME AS ABOVE EQUIPPED WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER (GFI).
 - Ⓜ TWO 20 AMP 2P, 3 WIRE, GROUNDING TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLES NEMA 5-20R INSTALLED 16" A.F.F. UNLESS NOTED OTHERWISE.
 - Ⓜ 20 AMP 2P, 3 WIRE, ISOLATED GROUND TYPE, 120 VOLT SPECIFICATION GRADE DUPLEX RECEPTACLE NEMA 5-20R INSTALLED 16" A.F.F. UNLESS NOTED OTHERWISE
 - Ⓜ CIRCUIT BREAKER PANELBOARD.
 - Ⓜ MOTOR CONNECTION, HORSEPOWER, VOLTAGE AND PHASE AS NOTED.
 - Ⓜ CEILING JUNCTION BOX.
 - Ⓜ WALL MOUNTED JUNCTION BOX.
 - Ⓜ JUNCTION BOX WITH FLEXIBLE CONDUIT AND FIVL CONNECTION TO EQUIPMENT.

MOUNTING HEIGHT NOTE
REFER TO ARCHITECTURAL FLOOR PLANS FOR ADDITIONAL INFORMATION REGARDING MOUNTING HEIGHTS AND LOCATIONS OF ELECTRICAL DEVICES BEFORE ROUGH-IN.

- ### ELECTRICAL ABBREVIATIONS
- | | | | |
|--------|----------------------------------|--------|---------------------------|
| A.F.F. | ABOVE FINISH FLOOR | VA | VOLT - AMPERES |
| C | CONDUIT | W | WATS OR WIRE |
| C/B | CIRCUIT BREAKER | WP | WEATHER PROOF |
| E.C. | ELECTRICAL CONTRACTOR | TR | TRANSFORMER |
| GFI | GROUND FAULT CIRCUIT INTERRUPTER | P | SINGLE POLE |
| HP | HORSEPOWER | 2P | TWO POLE |
| MCA | MINIMUM CIRCUIT AMPS | 3P | THREE POLE |
| MCB | MAIN CIRCUIT BREAKER | PH | PHASE |
| MLO | MAIN LUGS ONLY | # | PHASE |
| U.A.O. | UNLESS NOTED OTHERWISE | GRD. | GROUND |
| Y | VOLTS | UNV | UNIVERSAL VOLTAGE BALLAST |
| | | N.L.C. | NOT IN CONTRACT |

JUNCTION BOX ROUGH-IN DETAIL
NO SCALE
NOTES:
a. DETAILS ARE FOR REFERENCE ONLY.
b. NOT ALL DEVICES ARE REQUIRED FOR THIS PROJECT.
c. PROVIDE TWO GANG BACKBOXES (2" MINIMUM DEPTH) WITH ALL RECEPTACLE OUTLETS.
d. WIREMOLD TO BE UTILIZED ON EXISTING WALLS IN PUBLIC AREAS.

REVISIONS	BY
9/30/19	RB

ELECTRICAL DETAILS AND NOTES

NEW COMMUNITY CENTER FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS 60014

R.B. CUSTOM DESIGNS INC.
2108 W. Jolietburg Road
Jolietburg, Illinois 60051
Phone: 815-754-4454 Fax: 815-507-8200

Date: 1/14/19
Scale: AS NOTED
Drawn: RJB
Job: 1902
Sheet: 1-4
Of: 4 Sheets

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LOCAL PLUMBING CODE NOTES

COMPLY WITH ILLINOIS PLUMBING CODE DATED 4/24/14 AND CRYSTAL LAKE AMENDMENTS APPROVED BY THE ILLINOIS DEPARTMENT OF PUBLIC HEALTH ON 2/7/18. PLUMBING PIPING WILL BE TESTED PER ILLINOIS PLUMBING CODE SECTION 890.1930, INCLUDING UNDERSLAB & ROUGH PLUMBING WASTE AND VENT ABOVE THE SLAB. COMPLY WITH THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE, SECTION C404 SERVICE WATER HEATING.

a. C404.3 HEAT TRAPS. WATER-HEATING EQUIPMENT NOT SUPPLIED WITH INTEGRAL HEAT TRAPS AND SERVING NON-CIRCULATING SYSTEMS SHALL BE PROVIDED WITH HEAT TRAPS ON THE SUPPLY AND DISCHARGE PIPING ASSOCIATED WITH THE EQUIPMENT.

b. C404.4 PIPE INSULATION. FOR AUTOMATIC-CIRCULATING HOT WATER SYSTEMS, PIPING SHALL BE INSULATED WITH 1 INCH OF INSULATION. THE FIRST 8 FEET OF PIPING IN NON-CIRCULATING SYSTEMS SERVED BY EQUIPMENT WITHOUT INTEGRAL HEAT TRAPS SHALL BE INSULATED WITH 1/2 INCH.

c. C404.5 TEST RESULTS BEFORE FINAL INSPECTION TO CITY OF CRYSTAL LAKE'S THIRD PARTY INSPECTION REPORTING COMPANY COMPLIANCE ENGINEER. NOTE HAS BEEN ADDED TO LOCAL PLUMBING CODE NOTES ON P-1.1.

BATHROOM LAVATORY FAUCET HOT WATER SHALL NOT EXCEED 110 DEGREES. IPC SECTION 890.680 E).

LAVATORY DRAIN AND WATER SUPPLIES SHALL BE PROTECTED AGAINST CONTACT BY INSULATION OR GUARDS. IAC SECTION 606.6.

ANY CHANGES FROM THE APPROVED PLANS CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT TO REVIEW BEFORE PROCEEDING.

IF A BUILDING HAS A PLENUM CEILING/CHASE THEN PVC PIPE IS NOT PERMITTED IN THE AREA UNLESS COVERED WITH AN APPROVED MATERIAL CITY TO REVIEW AND APPROVE COVERING MATERIAL BEFORE INSTALLATION.

WATER SERVICE TESTING REQUIREMENTS:

AFTER WATER SERVICE HAS BEEN INSPECTED AND APPROVED THE FOLLOWING TESTS ARE REQUIRED. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT TO SCHEDULE INSPECTIONS WITH PERMIT NUMBER AND ADDRESS. MINIMUM OF 24 HOURS ADVANCE NOTICE IS REQUIRED.

a. DO NOT INSTALL THE RPZ BACKFLOW DEVICES UNTIL WATER TESTING HAS BEEN COMPLETED AND APPROVED.

b. ILLINOIS ENVIRONMENTAL PROTECTION AGENCY OPERATING PERMIT REQUIRED BEFORE WATER CAN BE TESTED TO BUILDING, IF APPLICABLE.

c. FULL-BORE FLUSH OF WATER SERVICE FOR A MINIMUM OF 5 MINUTES OR UNTIL PIPE IS DETERMINED TO BE CLEAR OF FOREIGN DEBRIS.

d. INSTALL PERMANENT VALVES FOR THE FIRE AND DOMESTIC SERVICE. THE FIRST DOMESTIC VALVE BEFORE THE WATER METER SHALL BE A LOCKABLE.

e. A HYDROSTATIC TEST OF A FIRE SERVICE FROM CITY VALVE (8-BOX, VALVE VALVE) TO THE FIRST PERMANENT VALVE OR VALVES IN BUILDING. THE TEST IS REQUIRED TO HOLD 200 PSI FOR A MINIMUM 2 HOURS WITH NO LOSS OF PRESSURE.

f. AFTER COMPLETION OF THE PRESSURE TESTING THE CHLORINATION CAN BE INSERTED INTO THE WATER SERVICE.

g. SAMPLES ARE REQUIRED AT EACH CONNECTION TO THE SERVICE AND INSIDE AT THE VALVE. AFTER 24 HOURS OF CHLORINATION IN THE SYSTEM THE FIRST DAY SAMPLE CAN BE TAKEN. THE FOLLOWING DAY THE SECOND DAY SAMPLE CAN BE TAKEN.

h. SUBMIT THE RESULTS FROM AN APPROVED TESTING AGENCY TO THE CRYSTAL LAKE COMMUNITY DEVELOPMENT DEPARTMENT. AFTER RECEIPT OF APPROVED RESULTS THE WATER MAY BE TURNED ON INTO THE BUILDING.

PLUMBING DRAWING NOTES

ALL PIPING CONTAINING DOMESTIC SUPPLY, OR SANITARY WATER MUST BE WITHIN HEATED SPACE AND/OR WITHIN INSULATED WALLS/CEILING.

ALL UNDERGROUND OR UNDER BASEMENT/CELLAR SANITARY AND STORM PIPING SHALL BE NO LESS THAN 4" IN DIAMETER.

CONTRACTOR SHALL PROVIDE CLEANOUTS IN SANITARY PIPING AT A MAXIMUM OF 50'-0" APART FOR ALL STRAIGHT PIPE RUNS, AT EVERY CHANGE OF DIRECTION, AT THE BEGINNING OF THE SYSTEM, AND WITHIN 5'-0" OF EXITING THE BUILDING. THERE SHOULD BE NO LENGTH OF SANITARY PIPE MORE THAN 50'-0" WITHOUT A CLEANOUT.

USE THE FOLLOWING CLEANOUTS FOR THE APPLICATIONS DESCRIBED BELOW (OR APPROVED EQUIV.):

FINISHED FLOORS - ZURN MODEL ZN-1420-2

MECHANICAL AREAS - ZURN MODEL Z-1420-2S

WALLS - ZURN MODEL ZN-1445-3

EXTERIOR - ZURN MODEL ZN-1460-15 W/Z-1450-8

PROVIDE REDUCED BACKFLOW PREVENTER FOR ALL PLUMBING FIXTURES WHERE DOMESTIC WATER SUPPLY OPENING CAN BE EXPOSED TO WASTE, SOLIDS, OR CONTAMINANTS OF ANY KIND. COMPLY WITH ASSE STANDARD 1013.

DEAD ENDS IN DOMESTIC WATER PIPING OVER 2'-0" IN LENGTH FROM A WATER LINE ARE NOT PERMITTED.

DEAD ENDS IN WASTE PIPING OVER 10'-0" HORIZONTALLY, OR 2'-0" VERTICALLY ABOVE THE FLOOR ARE NOT PERMITTED.

PLUMBING SCOPE OF WORK

PIPING SHOWN IS DIAGRAMMATIC ONLY. PLUMBING CONTRACTOR SHALL INVESTIGATE EXISTING UNDERGROUND PLUMBING SYSTEM TO DETERMINE SHORTEST ROUTING FOR NEW SYSTEM TO BE CONNECTED TO EXISTING. PLUMBING CONTRACTOR SHALL INCLUDE ALL WORK SHOWN ON THEIR PLANS TO PROVIDE A FULLY CODE COMPLIANT OPERATING SYSTEM. BELOW IS THE SCOPE OF WORK FOR UNDER SLAB SANITARY:

1. CONTRACTOR SHALL TELEVIEW EXISTING SANITARY SYSTEM AND INDICATE ROUTING ON PLAN. CONTRACTOR SHALL REPORT ALL FINDINGS AND RECOMMENDATIONS TO THE OWNER.
2. CONTRACTOR SHALL ROUTE ALL ABOVE SANITARY PIPING BY GRAVITY TO CONNECT TO CITY SEWER.

CONTRACTOR NOTES

CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SIZE AND LOCATION OF ANCHORS, CHASES, OPENINGS, ETC. REQUIRED FOR INSTALLATION OF THEIR WORK. FIELD MEASURE ALL DIMENSIONS PRIOR TO PERFORMING WORK.

ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE.

PROVIDE MANUFACTURER'S RECOMMENDED AND CODE REQUIRED CLEARANCE FOR ALL EQUIPMENT.

PROVIDE AND INSTALL ALL PIPE SLEEVES. SLEEVES SHALL BE OF SIMILAR MATERIAL TO PIPING. ALL SLEEVES SHALL BE MINIMUM OF 1.5 TIMES THE SIZE OF PIPING.

APPLIANCES, MECHANICAL EQUIPMENT, ETC. SERVING DIFFERENT AREAS (OR TENANT SPACES) SHALL BE PERMANENTLY MARKED IN AN APPROVED MANNER THAT UNQUELY IDENTIFIES THE APPLIANCE AND THE AREA/TENANT SPACE IT SERVES.

MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL APPLIANCES OR EQUIPMENT SHALL BE AVAILABLE TO BUILDING DEPARTMENT INSPECTORS AT THE TIMES OF INSPECTIONS. LISTING AND LABELING SHALL ALSO BE AVAILABLE.

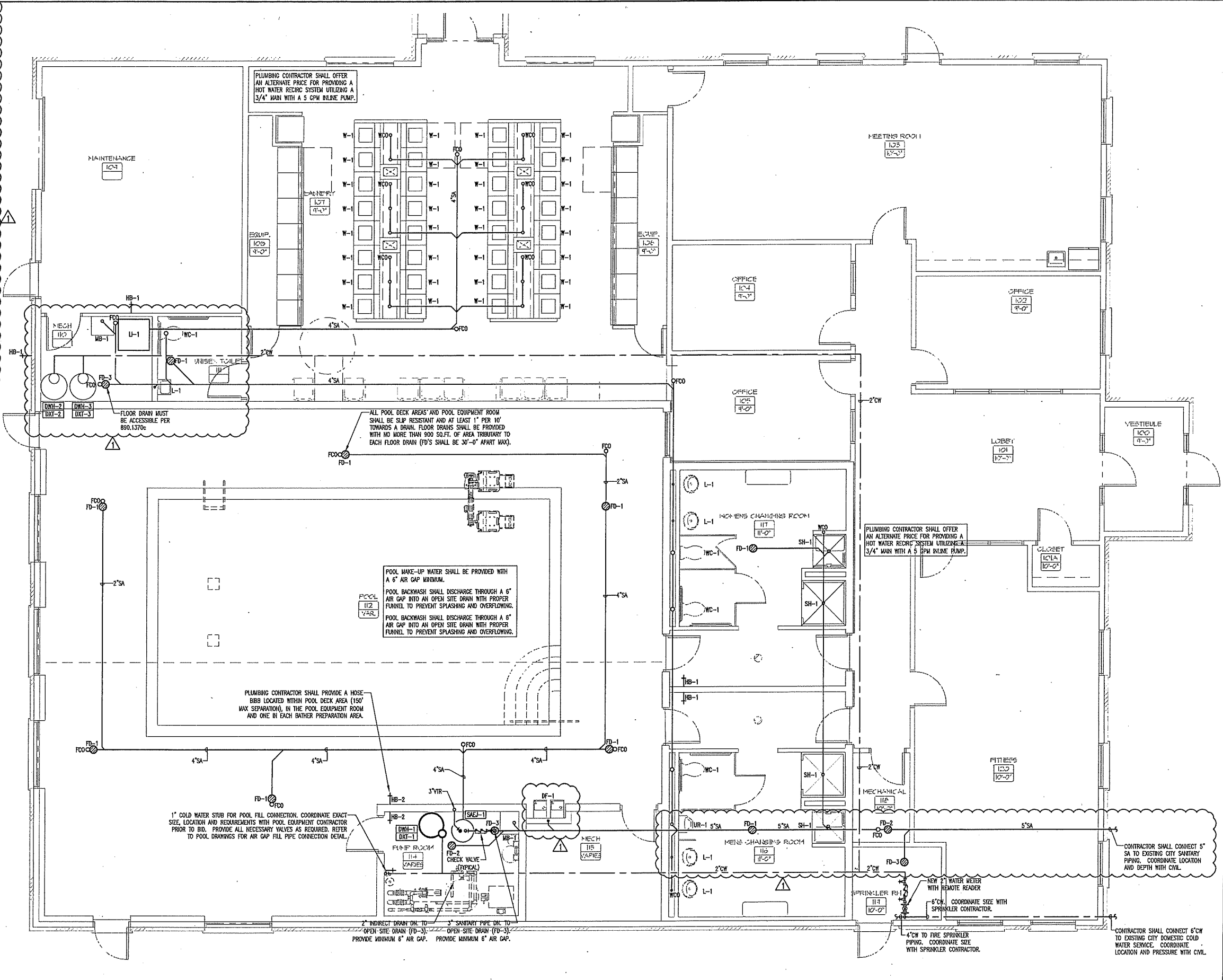
PRIOR TO INSTALLATION OF ALL EQUIPMENT, PIPING, INSULATION, SUPPORTS, ETC. CONTRACTOR TO COORDINATE WITH ALL TRADES. CONTRACTOR IS REQUIRED TO PROVIDE ALL REQUIRED OFFSETS AND EQUIPMENT RELOCATION DUE TO FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO CONTRACT.

ALL PLUMBING EQUIPMENT AND PIPING SHALL BE LABELED PER LOCAL CODES.

ALL P-TRAPS THAT ARE NOT INTEGRAL SHALL BE ACCESSIBLE FOR CLEANING. PROVIDE MINIMUM 12"x12" ACCESS PANEL IF REQUIRED.

ALL FLOWSHOWER VALVES AND TANKS SHALL BE PROVIDED WITH AN ACCESSIBLE VACUUM BREAKER.

CONTRACTOR SHALL NOT INTERRUPT ANY DEVICES OR SYSTEMS OUTSIDE AREA OF SCOPE WITHOUT THE EXPRESS CONSENT OF THE OWNER.



FLOOR PLAN
SCALE 1/4" = 1'-0"

REVISIONS	BY
1	4/30/19 RB

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PLUMBING PLAN

NEW COMMUNITY CENTER & LAUNDRY FACILITY FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LAKE
CRYSTAL LAKE, ILLINOIS 60014

Date: 2/2/19
Scale: AS NOTED
Drawn: R.B.
Job: 1902
Sheet: P-11

SPECIFICATIONS - PLUMBING

1. SCOPE
THE WORK COVERED BY THIS SPECIFICATION INCLUDES THE COMPLETE PLUMBING SYSTEM.

2. GENERAL
THIS SPECIFICATION IS INCLUSIVE FOR EACH ITEM REQUIRING ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO PROPERLY INSTALL, ALTER, ADJUST AND PUT IN OPERATION, THE COMPLETE PLUMBING AND FIRE PROTECTION SYSTEM.

THE DRAWINGS AND SPECIFICATIONS SHALL BE UNDERSTOOD TO COVER, ACCORDING TO THEIR INTENT AND MEANING, COMPLETE SYSTEMS AS DESCRIBED HEREIN.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER LAYOUT AND CONSTRUCTION OF THE WORK INSTALLED IN THIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE AND PAY FOR ALL CORING, CUTTING, PATCHING, REPAIRING AND REFINISHING OF BUILDING CONSTRUCTION REQUIRED TO ACCOMMODATE THE INSTALLATION OF THEIR WORK.

REFER TO ARCHITECTURAL DRAWINGS FOR EXISTING BUILDING CONSTRUCTION THAT IS TO REMAIN AND, THEREFORE, SUBJECT TO PATCHING, REPAIRING, AND REFINISHING.

CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP, THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/ENGINEER.

CONTRACTOR SHALL FURNISH MATERIALS AND USE INSTALLATION METHODS SUITABLE FOR THE ENVIRONMENTAL CONDITIONS OF THE AREA IN WHICH EQUIPMENT, FIXTURES AND DEVICES ARE INSTALLED.

CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.

CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.

SYSTEM INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES.

3. VISIT TO SITE
ATTENTION IS DIRECTED TO THE NECESSITY FOR CONTRACTOR TO VISIT THE SITE AND EXAMINE ALL CONDITIONS AFFECTING THE PROPER EXECUTION OF THIS CONTRACT.

NO EXTRA PAYMENT WILL BE ALLOWED THE CONTRACTOR FOR EXTRA WORK CAUSED BY FAILURE TO VISIT, EXAMINE AND CLARIFY.

4. LAWS, ORDINANCES AND REGULATIONS
ALL SYSTEMS SHALL CONFORM IN FULL AND/OR PART SHALL CONFORM TO ALL PERTINENT LAWS, ORDINANCES AND REGULATIONS OF ALL BODIES HAVING JURISDICTION AT ALL GOVERNING LEVELS, NOTWITHSTANDING ANYTHING IN THESE DRAWINGS OR SPECIFICATIONS TO THE CONTRARY.

THE CONTRACTOR SHALL PAY ALL FEES AND OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY ANY AUTHORITY HAVING JURISDICTION IN CONNECTION WITH HIS WORK.

7. COORDINATION WITH OTHER TRADES
THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THAT WORK OF THE OTHER TRADES. CONTRACTOR IS COMPLETELY RESPONSIBLE FOR FAILURE ON HIS PART TO COORDINATE EFFORTS RESULTS IN EXTRA WORK HAVING TO BE DONE TO COMPLETE A TASK, AS SUCH, HIS FAILURE SHALL NOT BE THE BASIS FOR ANY EXTRA CHARGE AGAINST THE OWNER.

CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED IS CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING, WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.

CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.

WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS, AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK.

PRODUCT SUBMITTAL SHALL BE PREPARED IN AN ORGANIZED, LEGIBLE FORMAT WITH COVER SHEET INDICATING PROJECT, LOCATION, DATE, CONTRACTOR(S) AND ENGINEER. INDIVIDUAL BULK SPACES OF MINIMUM 5 INCH BY 5 INCH SIZE FOR APPROVAL STAMPS FROM GENERAL CONTRACTOR, ARCHITECT AND ENGINEER.

REPRODUCTION OF THE CONTRACT DOCUMENTS FOR SUBMITTAL PURPOSES IS NOT ACCEPTABLE. ALL SUBMITTALS WHICH ARE NOT SUBMITTED IN ACCORDANCE WITH THESE REQUIREMENTS WILL BE REJECTED WITHOUT ANY ALLOWANCES MADE FOR DELAYS THAT MAY BE INCURRED.

9. PIPING INSULATION
PIPING INSULATION ON CONDENSATE DRAIN PIPING, DOMESTIC HOT WATER AND COLD WATER PIPING TO BE RIGID MOLDED FIBERGLASS WITH X VALUE OF .24 AT 75 DEGREES F, WITH VAPOR BARRIER JACKET WHITE KRAFT PAPER WITH FIBER YARN ON ALUMINIZED FILM. INSULATION THICKNESS TO BE 1/2 INCH.

10. PLUMBING PIPING
ELECTRIC UNIONS OR COUPLINGS SHALL BE USED WHERE JOINING PIPING OF DISSIMILAR METALS.

11. PLUMBING SPECIALTIES
ACCEPTABLE MANUFACTURERS - PLUMBING SPECIALTIES:
A. ANCO
B. ZURN
C. WADE CO.
D. APPROVED EQUAL

12. PLUMBING FIXTURES
ACCEPTABLE MANUFACTURERS - PLUMBING FIXTURES:
A. AMERICAN STANDARD
B. ELIER PLUMBINGWARE
C. KOHLER CO.
D. APPROVED EQUAL

13. FIRE STOPPING
CONTRACTOR SHALL FIRE STOP ALL PENETRATIONS THRU FIRE RATED WALLS, PARTITIONS, ROOFS AND/OR FLOORS SO THAT THE INTEGRITY OF THE FIRE RATING IS NOT COMPROMISED BY THE CONTRACTOR'S INSTALLATION OF ANY PIPE, FIRE STOPPING METHODS AND MATERIALS SHALL CONFORM TO LOCAL CODE AUTHORITY REQUIREMENTS, AS A MINIMUM, CONTRACTOR SHALL GROUT PIPES IN PENETRATION RATED PARTITION/FLOOR CONSTRUCTION WITH NON-SHRINK GROUT SO THAT ALL OPEN SPACES ARE FILLED IN SOLIDLY.

14. GUARANTEE
THIS CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE IN WRITING ALL MATERIAL, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE BY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EQUIPMENT INVOLVED IN HIS CONTRACT DURING THIS GUARANTEE PERIOD.

15. SUBSTITUTIONS
APPROVALS OF SUBSTITUTIONS, FOR "APPROVED EQUAL", MUST BE MADE IN WRITING AND SUBSTITUTIONS MUST BE APPROVED BEFORE INSTALLATION.

16. SHOP DRAWINGS
THE CONTRACTOR IS REQUIRED TO SUBMIT FIVE (5) SETS OF SHOP DRAWINGS FOR MATERIAL ITEMS SPECIALLY DESIGNATED IN THIS SPECIFICATION AND/OR CALLED OUT FOR ON THE DRAWINGS.

17. PLUMBING SYMBOLS
NOTE: NOT ALL SYMBOLS SHOWN MAY BE REQUIRED FOR THIS PROJECT.

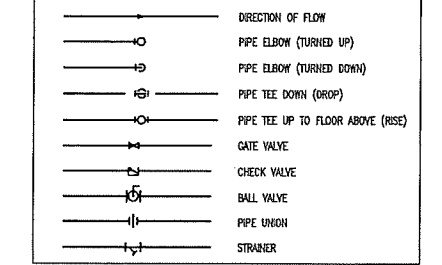


Table with 3 columns: Abbreviation, Name, and Notes for plumbing abbreviations.

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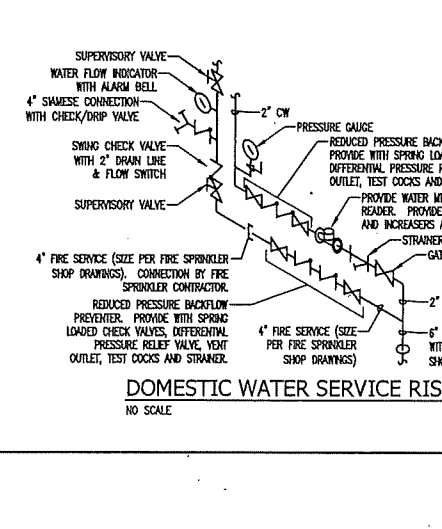


Table titled 'ILLINOIS PIPE MATERIALS 890.APPENDIX A' listing materials like cast iron, copper, and plastic with their respective specifications.

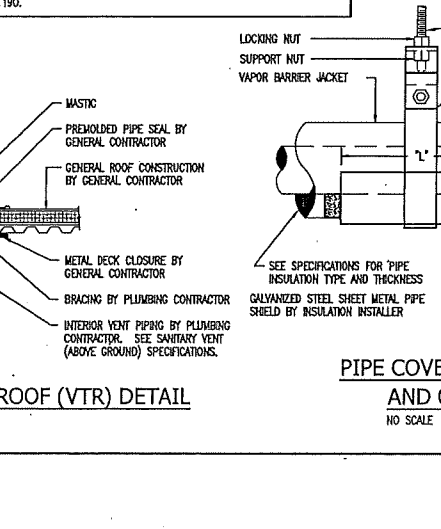
Table titled 'PLUMBING CODE NOTES' providing general instructions and requirements for plumbing work.

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GENERAL NOTES - ALL CONTRACTORS
1. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDENSATE, RACEWAYS, ETC. AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK.

GENERAL NOTES - PLUMBING
1. ALL WATER SUPPLY PIPING SHALL BE INSULATED, INCLUDING ALL PIPING WITHIN CEILING, INSIDE EQUIPMENT, CABINETS, PIPE CHASSES AND IN WALLS. SEE SPECIFICATIONS FOR TYPE AND THICKNESS OF INSULATION.

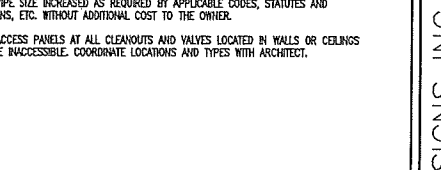
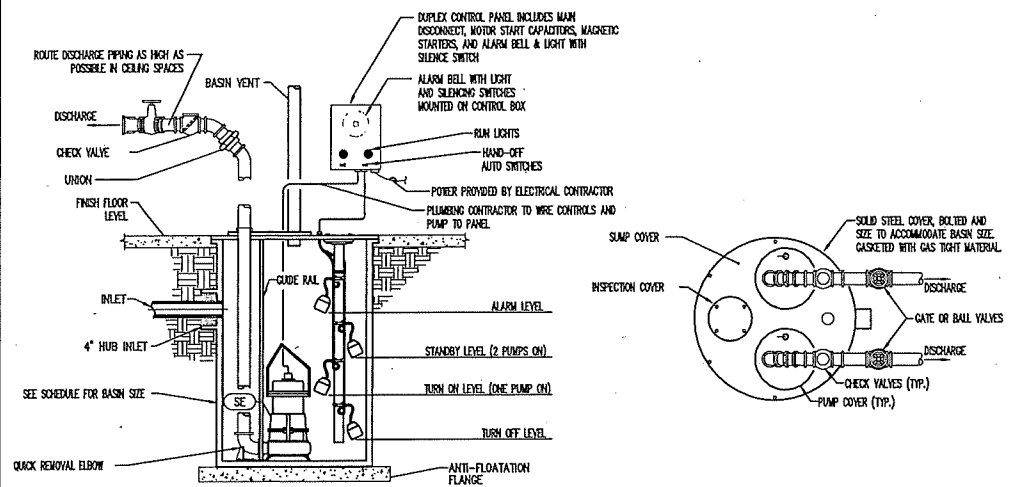
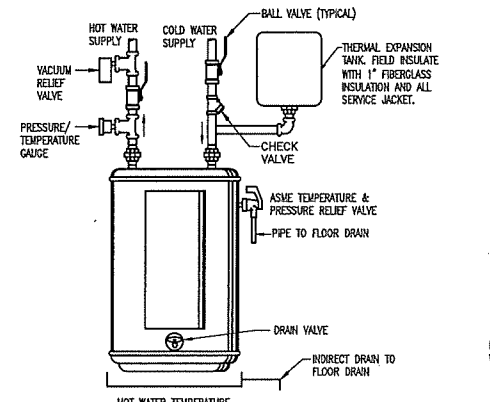


Table titled 'INSULATION PROTECTION SHIELD SCHEDULE' showing pipe size, length, and gauge requirements.

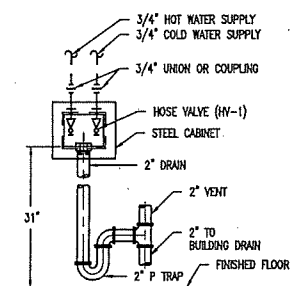
Project information including title 'NEW COMMUNITY CENTER & LAUNDRY FACILITY FOR: DARLINGTON COURT APARTMENTS', location 'DARLINGTON LAKE, ILLINOIS 60014', and contact details for R.B. Custom Designs Inc.



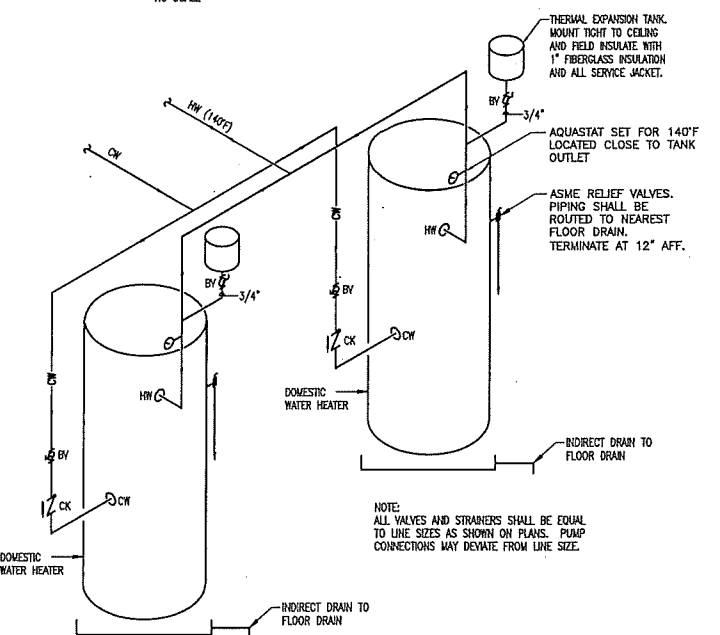
SEWAGE EJECTOR DETAIL
NO SCALE



DOMESTIC HOT WATER HEATER PIPING DIAGRAM
NO SCALE



RECESSED WASHING MACHINE CONNECTION DETAIL
NO SCALE



DOMESTIC HOT WATER HEATER PIPING DIAGRAM
NO SCALE

GAS FIRED WATER HEATER SCHEDULE

EQUIPMENT TAG	MANUFACTURER	MODEL	UNIT TYPE	CAPACITY (GALLONS)	WEIGHT (LBS.)	DIMENSIONS (INCHES)			HEATING		ELECTRICAL			NOTES			
						LENGTH	DEPTH	HEIGHT	FLUE	COMBUSTION AIR	INPUT (CFH)	RECOVERY @ 90°F RISE	MCA		MOC/P	PHASE	VOLTS
DWH-1	AD SMITH	BIT-80	DIRECT VENT	74	345	25-3/8	25-3/8	68	4	4	80	80	2.5	15	1	120	1,2,3,4

NOTES: 1. UNIT DIMENSIONS INCLUDE ASSOCIATED BRACKETS AND PIPE CONNECTIONS. 2. PROVIDE UNIT MOUNTED DISCONNECT. 3. UNIT SHALL BE MANUFACTURED FOR A MINIMUM OF 50 PSI. 4. MINIMUM 24"x24"x6"x6" CLEARANCE REQUIRED FOR MAINTENANCE.

ELECTRIC WATER HEATER SCHEDULE

EQUIPMENT TAG	MANUFACTURER	MODEL	UNIT TYPE	CAPACITY (GALLONS)	WEIGHT (LBS.)	DIMENSIONS (INCHES)			HEATING		ELECTRICAL			NOTES	
						LENGTH	DEPTH	HEIGHT	INPUT (KW)	RECOVERY CAPACITY @ 90 DEGREE RISE (GPH)	MCA	MOC/P	PHASE		VOLTS
DWH-2	AD SMITH	HPTU-80N	ELECTRIC HYBRID	82	307	27	27	69	4.5	84.0	15.6	20	3	208	1,2,3,4
DWH-3	AD SMITH	HPTU-80N	ELECTRIC HYBRID	82	307	27	27	69	4.5	84.0	15.6	20	3	208	1,2,3,4

NOTES: 1. UNIT DIMENSIONS INCLUDE ASSOCIATED BRACKETS AND PIPE CONNECTIONS. 2. PROVIDE UNIT MOUNTED DISCONNECT. 3. MINIMUM 24"x24"x6"x6" CLEARANCE REQUIRED FOR MAINTENANCE. 4. UNIT SHALL BE MANUFACTURED FOR A MINIMUM OF 50 PSI.

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURE TYPE	VALVE	REMARKS	QUANTITY	TOTAL NEW FIXTURE UNITS				PIPE SIZES					
					COLD	HOT	SFU	DFU	DRAIN	VENT	COLD	HOT		
DF-1	NEW DRINKING FOUNTAIN		ADA DUAL HEIGHT	1	0.25	0.25			1 1/2"	1-1/2"	3/8"			
FD-1	NEW FLOOR DRAIN		TRAP PRIMER	9					2"	2"				
FD-2	NEW FLOOR DRAIN			2					6"	2"				
FD-3	NEW OPEN SITE DRAIN			3					18"	4"	2"			
HB-1	NEW HOSE BIBB	BACKFLOW PREVENTER		4	16		16					1/2"		
HB-2	NEW HOSE BIBB	BACKFLOW PREVENTER		2	8		8					3/4"		
L-1	NEW PUBLIC LAVATORY	INTEGRAL MIXING VALVE		5	5	5	10	10	2"	1-1/2"	1/2"	1/2"		
MB-1	NEW MOP BASIN	BACKFLOW PREVENTER		2	4	4	6	6	3"	2"	1/2"	1/2"		
SH-1	NEW PUBLIC SHOWER	INTEGRAL MIXING VALVE		4	8	8	12	12	3"	2"	1/2"	1/2"		
UR-1	NEW URINAL	FLUSH TANK		1	3		3	3	3"	2"	1/2"			
W-1	NEW WASHER (20 LB)	BACKFLOW PREVENTER	STANDPIPE DRAIN	32	96	96	128	128	2"	1.5"	1/2"	1/2"		
WC-1	NEW WATER CLOSET	FLUSH TANK		4	16		16	16	4"	3"	1/2"			
TOTAL					69	156.25	113	199.3	226.3					

MINIMUM RECOMMENDED PIPE SIZE: COLD 2", HOT 2", SFU 2", DFU 3".

NOTES: 1. INSTALL BACKING AND SUPPORTS AS REQUIRED FOR ALL FIXTURES AND ACCESSORIES. 2. ALL FIXTURES SHALL MEET ADA AND LOCAL CODES. 3. SUPPLY PIPING AND FITTING FOR ALL FIXTURES SHALL BE INSTALLED SO AS TO PREVENT BACKFLOW. 4. ALL FIXTURES SHALL BE PROVIDED WITH ACCESSIBLE SHUT OFF VALVES AT COLD AND HOT WATER PIPING CONNECTIONS. 5. ALL SINKS, BATH, & SHOWER VALVES SHALL BE PROVIDED WITH APPROVED AUTOMATIC SAFETY WATER MIXING DEVICE AND PRESSURE BALANCE. 6. HOT WATER TO ALL LAVATORIES AND HAND SINKS SHALL NOT EXCEED 110 DEGREES. 7. PROVIDE INSULATION FOR ALL PIPING IN EXTERIOR WALLS.

SEWAGE EJECTOR PUMP SCHEDULE

EQUIPMENT TAG	MANUFACTURER	MODEL	PUMP TYPE	SYSTEM TYPE	GPM	FEET OF HEAD	MOTOR		ELECTRICAL			NOTES	
							HP	RPM	MCA	MOC/P	PHASE		VOLTS
SAE-1	ZOELLER PUMP COMPANY	M267	DUPEX SEWAGE EJECTOR PUMP & BASIN	SEWAGE (2" SOLIDS)	90.0	10	0.50	1725	10.40	15	1	120	1,2,3

NOTES: 1. SYSTEM MUST BE FACTORY WIRED, TESTED AND CALIBRATED. 2. PROVIDE DOUBLE CHECK VALVE ON VERTICAL SECTION OF DISCHARGE PIPE. 3. PROVIDE WITH ANTI-FLOATATION DEVICE.

LINT INTERCEPTOR SCHEDULE

TAG	MANUFACTURER & MODEL	PHYSICAL DATA	CAPACITY
LI-1	ZURN MODEL ZL185 SIZE 10	14" PIPE OPENINGS 33"x33"x28" ENCLOSURE	100 GPM CAPACITY

EXPANSION TANK SCHEDULE

EQUIPMENT TAG	MANUFACTURER	MODEL	CAPACITY (GALLONS)	WEIGHT (LBS.)	DIMENSIONS (INCHES)	
					DIAMETER	HEIGHT
DXT-1	AD SMITH	PA6-5	4.6	4.5	11	14.75
DXT-2	AD SMITH	PA6-7	7.0	7	11	21.25
DXT-3	AD SMITH	PA6-7	7.0	7	11	21.25

DWH-1 CALCULATIONS

EQUIPMENT	QUANTITY	DEMAND PER UNIT (GALLONS PER HOUR)	GALLONS PER HOUR
Lavatory	4	2	8
Shower	4	20	80
Mop Sink	1	5	5
Total gallons per hour (GPH) recovery requirements (for 140 F)			93
Water heaters must be sized at the 110 F GPH recovery rate for			64

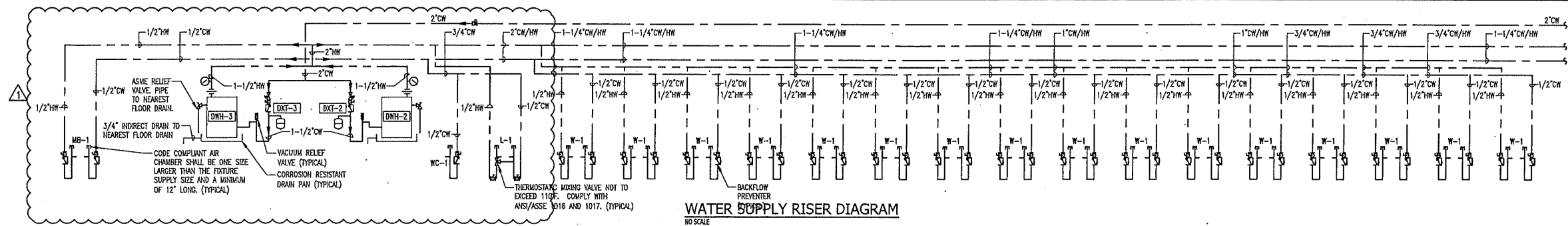
DWH-2 & 3 CALCULATIONS

EQUIPMENT	QUANTITY	DEMAND PER UNIT (GALLONS PER HOUR)	GALLONS PER HOUR
20 LB Clothes Washer	32	6	192
Lavatory	1	2	2
Mop Sink	1	5	5
Total gallons per hour (GPH) recovery requirements (for 140 F)			199
Water heaters must be sized at the 110 F GPH recovery rate for			137

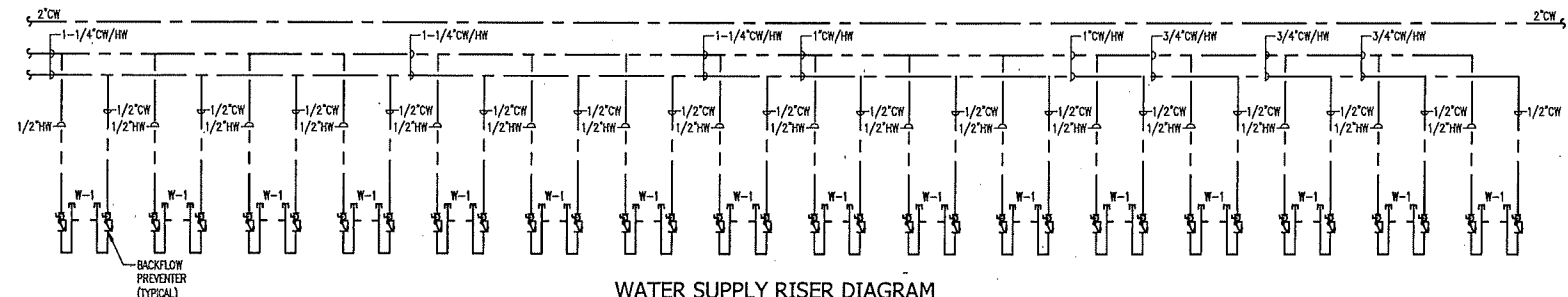


PLUMBING RISERS
NEW COMMUNITY CENTER & LAUNDRY FACILITY FOR:
DARLINGTON COURT APARTMENTS
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS 60014

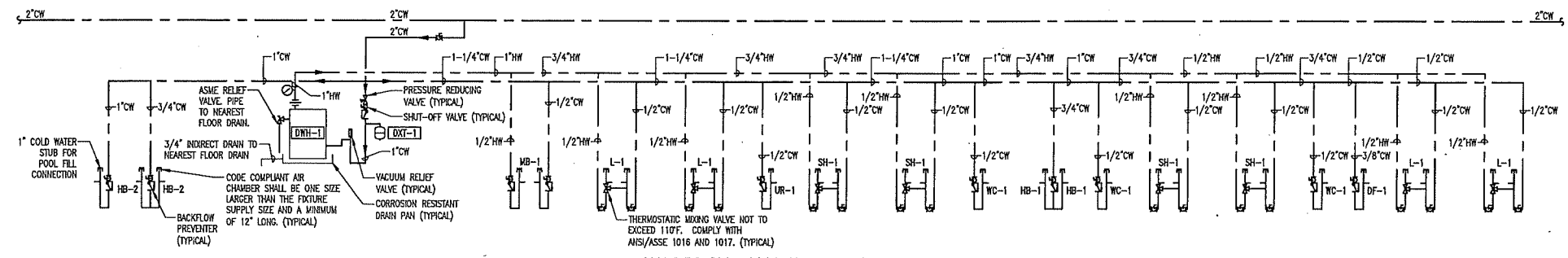
R.B. CUSTOM DESIGNS INC.
2108 W. Johnsbury Road
Johnsbury, Illinois 60051
Phone: 815-750-9459 Fax: 815-307-8200



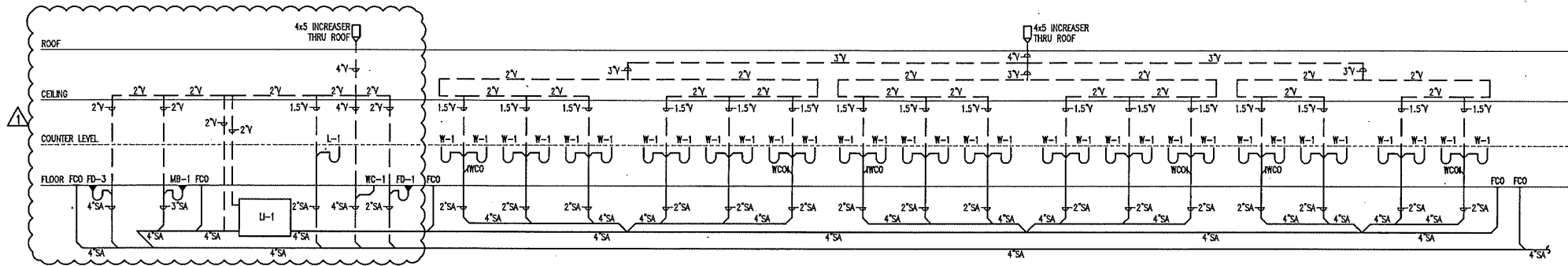
WATER SUPPLY RISER DIAGRAM
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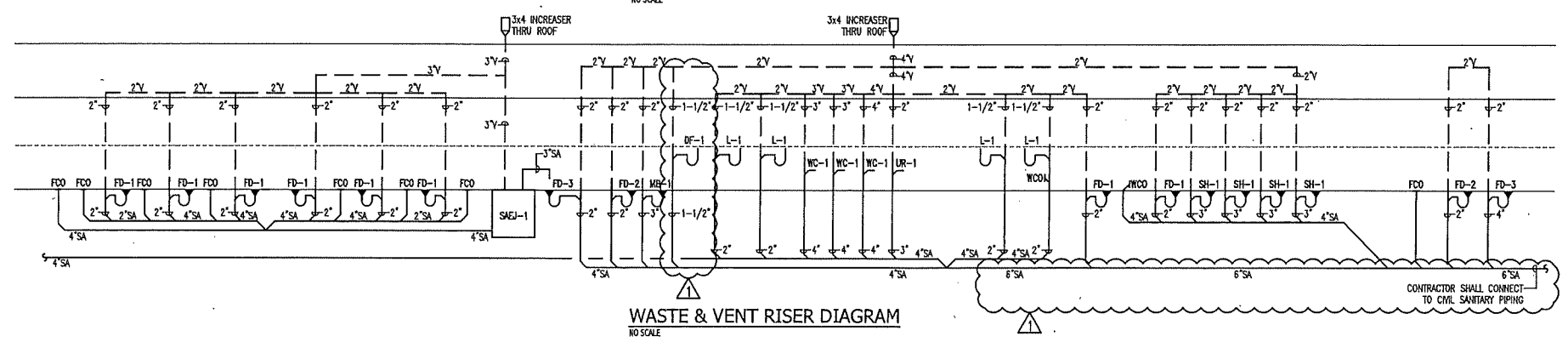
WATER SUPPLY RISER DIAGRAM
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WATER SUPPLY RISER DIAGRAM
NO SCALE



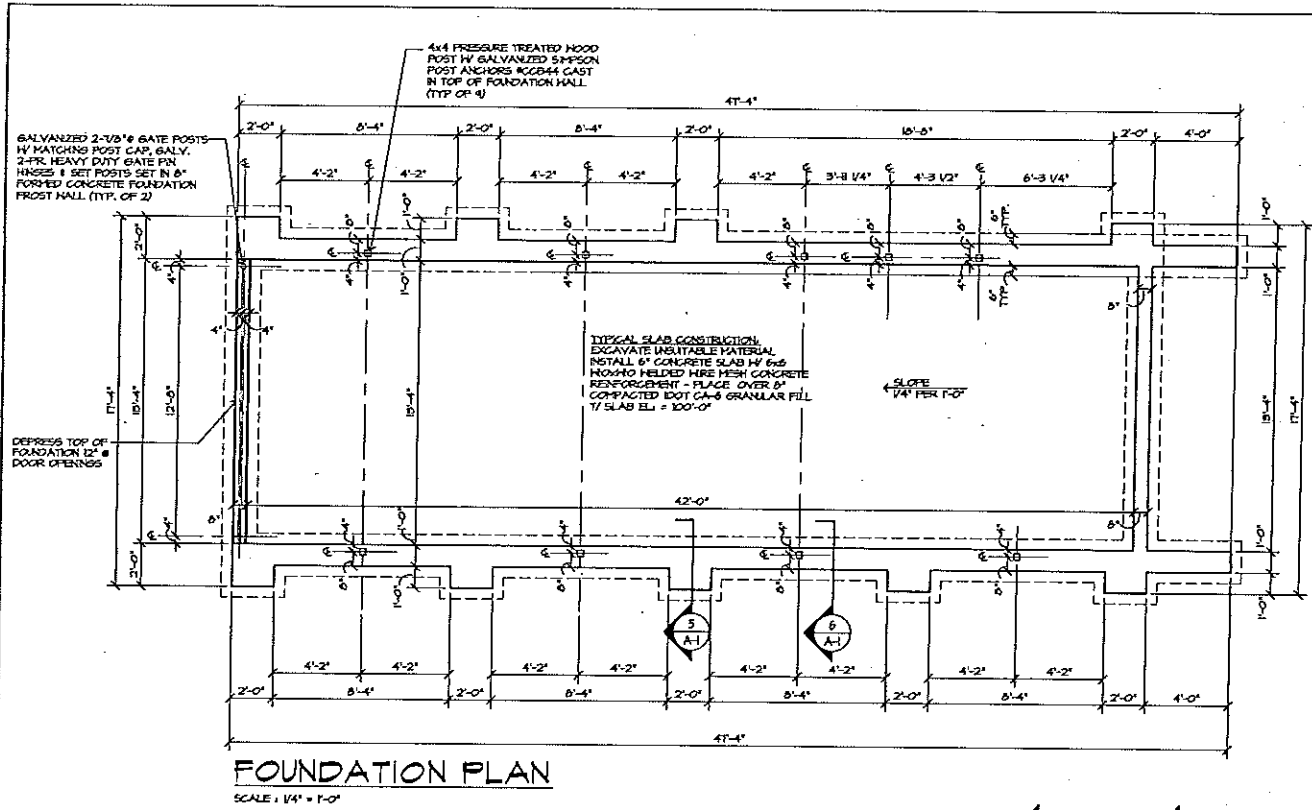
WASTE & VENT RISER DIAGRAM
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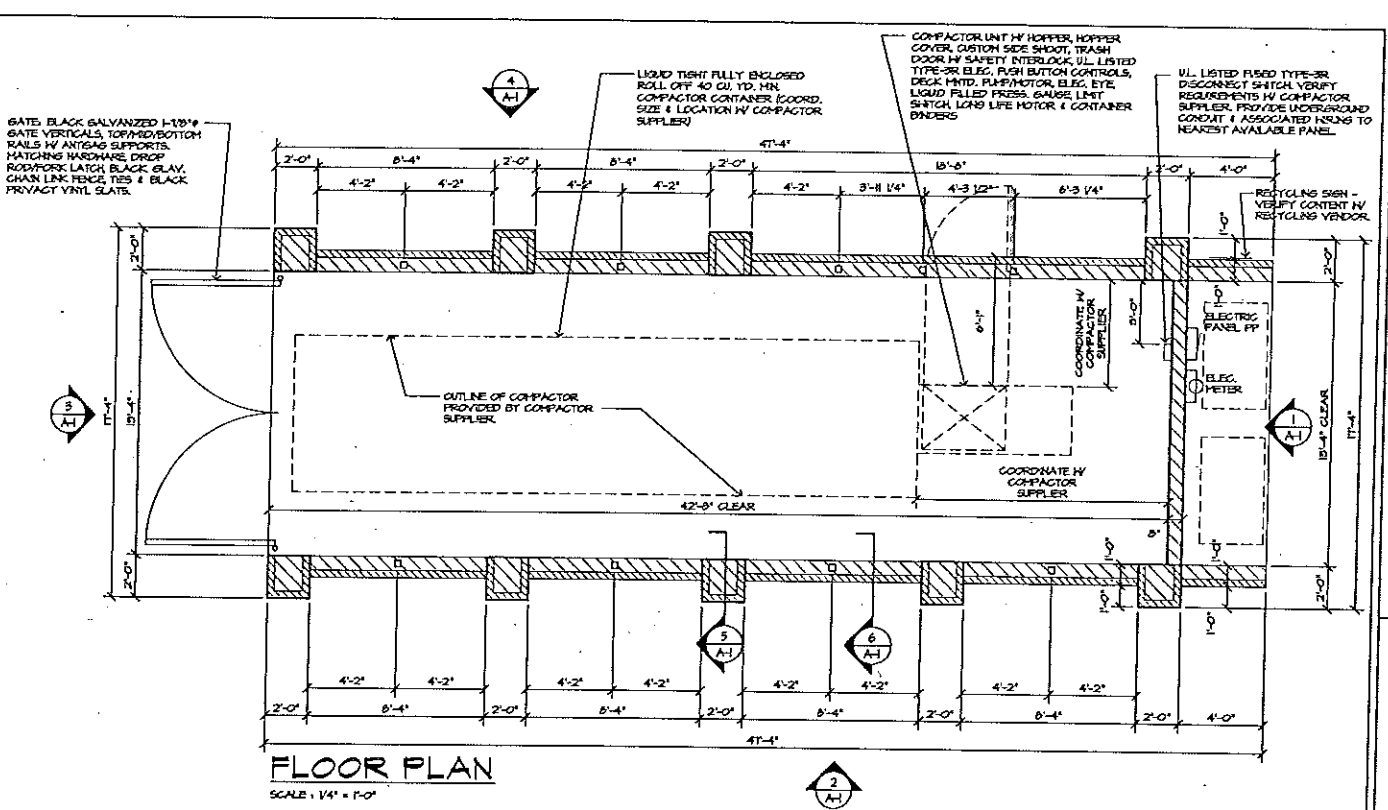
WASTE & VENT RISER DIAGRAM
NO SCALE

REVISIONS	BY
1	RB
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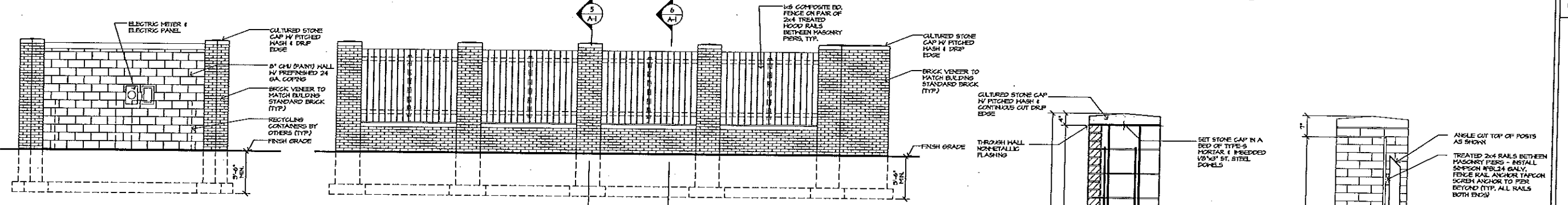
<p>PROBLOKMEI Mechanical Engineering 2108 N. Johnson Road Johnsburg, Illinois 60051 Phone: 815-154-4454 Fax: 815-501-8200</p>	<p>PLUMBING RISERS</p>
<p>NEA COMMUNITY CENTER & LAUNDRY FACILITY FOR: DARLINGTON COURT APARTMENTS DARLINGTON LAKE CRYSTAL LAKE, ILLINOIS 60014</p>	<p>R.B. CUSTOM DESIGNS INC.</p>
<p>Date: 2/5/11 Scale: AS NOTED Drawn: RLB Job: 1402 Sheet: P-31</p>	<p>CONTRACTOR SHALL CONNECT TO CIVIL SANITARY PIPING</p>



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

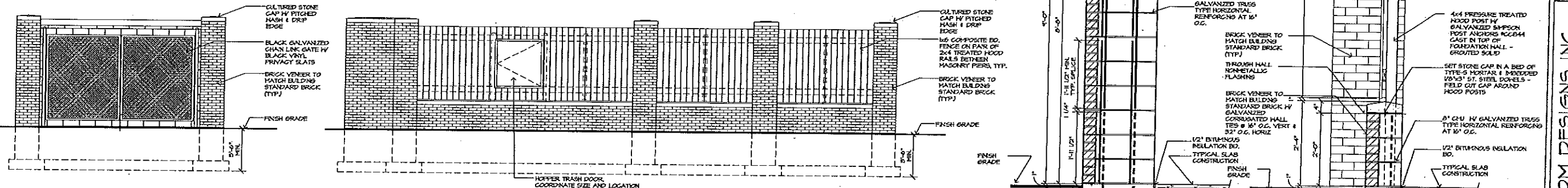


FLOOR PLAN
SCALE: 1/4" = 1'-0"



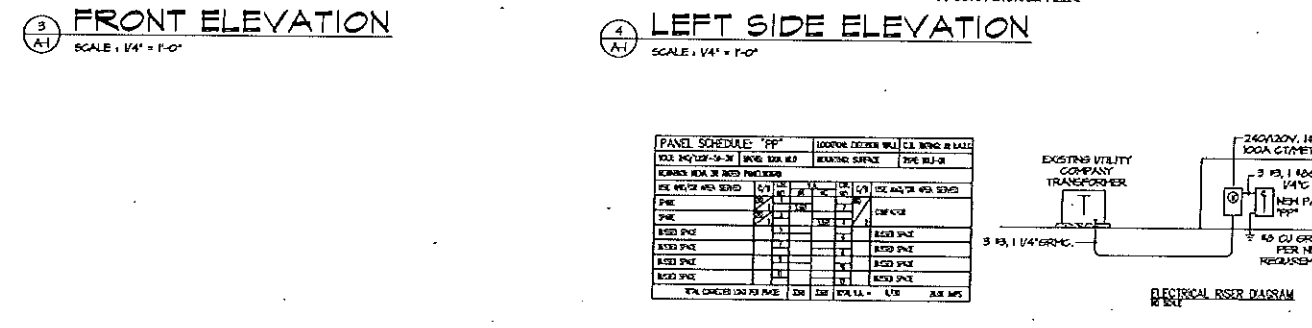
1 REAR ELEVATION
SCALE: 1/4" = 1'-0"

2 RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

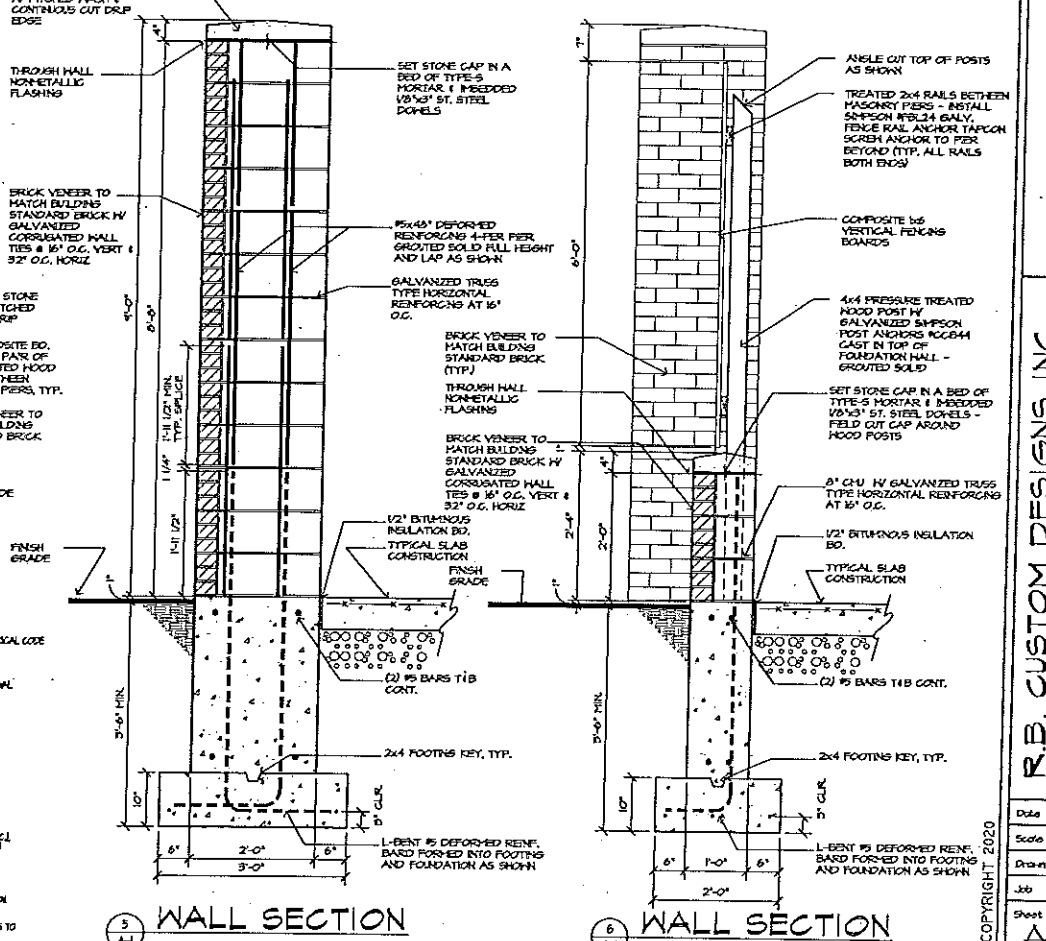


3 FRONT ELEVATION
SCALE: 1/4" = 1'-0"

4 LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"



- ELECTRICAL SPECIFICATIONS:**
- ALL WIRE SHALL BE DONE IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE AND SHALL CONFORM TO ALL LOCAL CODES.
 - PROVIDE ALL PERMITS AND INSPECTION FEES.
 - ALL MATERIAL AND LABOR SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE BY THE OWNER.
 - THE CONTRACTOR SHALL PROVIDE ALL THE OWNERS SCATTERING, ADDRESS REPAIRS, AND LEAVE SPACE BROOM CLEAN.
 - MINIMUM SIZE CONDUIT SHALL BE 3/4\"/>
 - MINIMUM SIZE WIRE SHALL BE #12 AWG WITH AN NEED FOR CONTROL WIRING.
 - WIRE IN PNEUMONIC SHALL BE COPPER BOND IN THROUGH AND HIGH SHALL BE 30\"/>
 - THE CONTRACTOR SHALL PROVIDE ALL NECESSARY GROUNDING AND FACTORS INCLUDING SLICES AND MISCELLANEOUS.
 - ALL NEW CARRY BREAKERS SHALL BE TEST BOLT-ON BUSBARS (BLOOD ALL) OR PANEL BY E.E. OR T.E. PROVIDE NEW CARRY BREAKERS COMPATIBLE WITH NEW PANELS. PROVIDE TYPICAL DIMENSIONS IN ALL PANELS.
 - BEFORE STARTING ANY WORK THE ELECTRICAL CONTRACTOR SHALL VERIFY THE USE TO ACCORDANCE WITH THE PROJECT.
 - THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS ON THE PROJECT.
 - THE CONTRACTOR SHALL MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL ELECTRICAL WIRING AND EQUIPMENT AS MAY BE REQUIRED BY THE WORK.



3 WALL SECTION
SCALE: 3/4" = 1'-0"

6 WALL SECTION
SCALE: 3/4" = 1'-0"

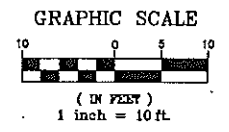
REVISIONS	BY

EXTERIOR ELEVATIONS
FLOOR PLAN
FOUNDATION PLAN
TYPICAL WALL SECTION

NEH COMPACTOR ENCLOSURE
DARLINGTON COURT APARTMENTS
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS 60014

R.B. CUSTOM DESIGNS INC.
2100 N. Johnsonburg Road
Johnsonburg, Illinois 60051
Phone: 615-754-4451 Fax: 615-307-9220

Date: 10/23/20
Scale: AS NOTED
Draw: RLB
Job: 11020
Sheet: A-1



SITE IMPROVEMENT LEGEND

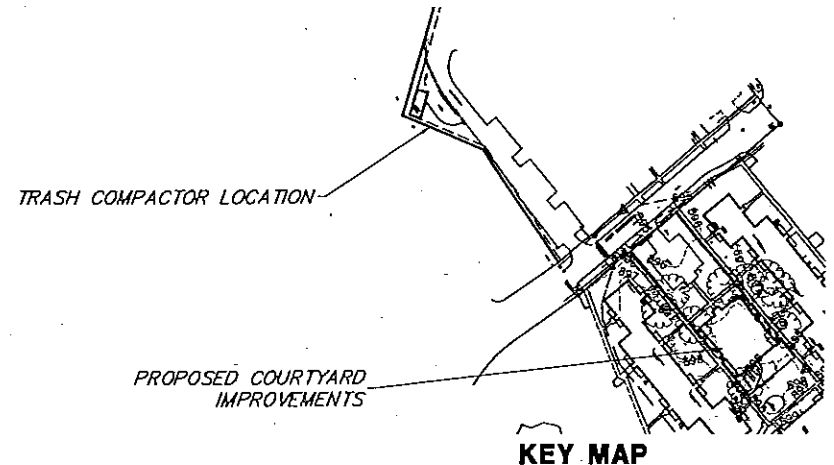
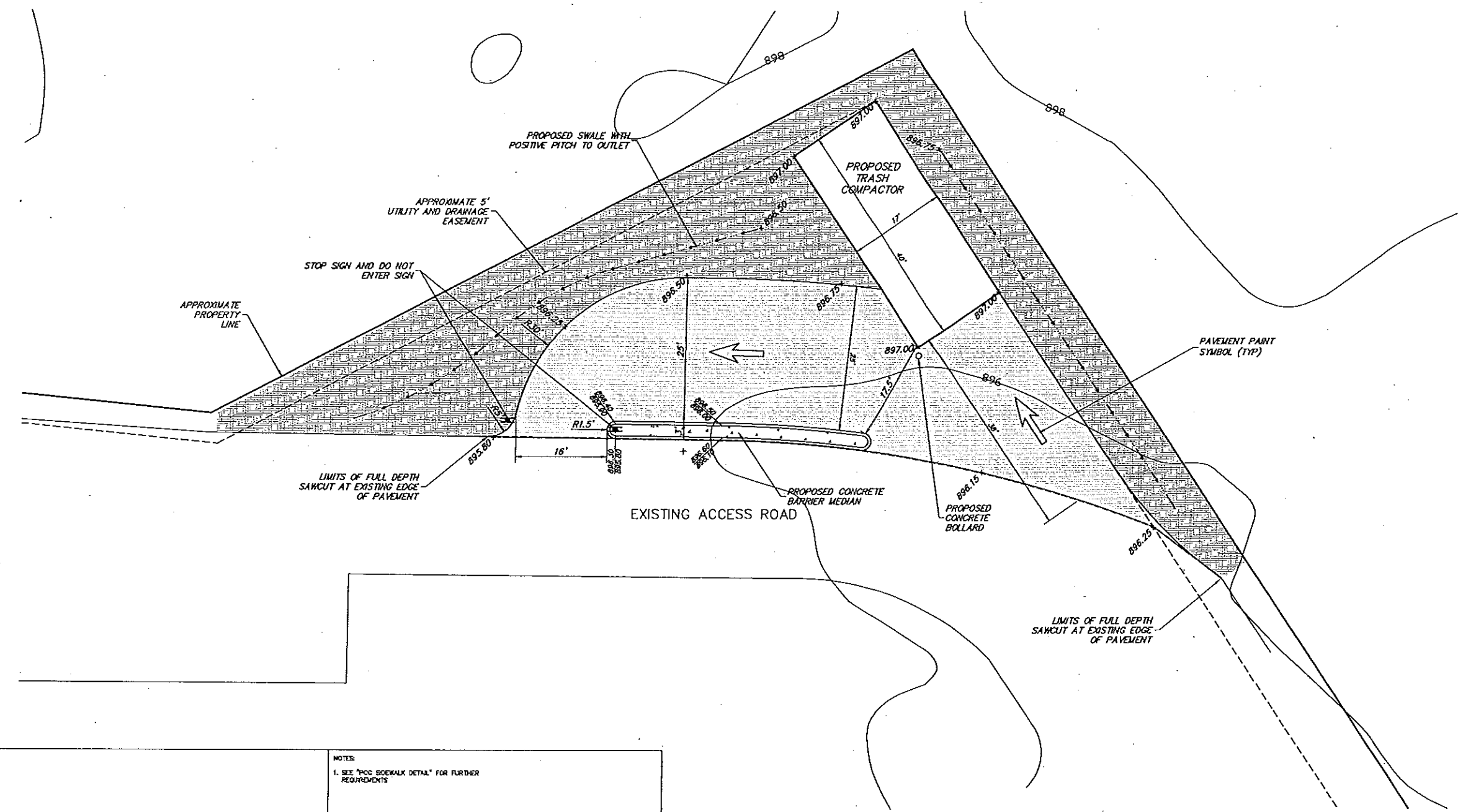
- FULL DEPTH PAVEMENT
HMA SURFACE COURSE, N50, 2"
HMA BINDER COURSE, N50, 4"
AGGREGATE BASE COURSE, CA-6, 6"
- CONCRETE BARRIER MEDIAN
PCC CONCRETE, 5"
AGGREGATE BASE COURSE, CA-6, 4"
- TOPSOIL, 4"
SEED, CLASS 2A
EROSION CONTROL BLANKET, NAG75

- NOTE:
1. ANY IMPACT TO EXISTING CONDITIONS WHICH ARE NOT SHOWN SHALL BE REPAIRED AT NO COST TO THE OWNER.
 2. DAMAGE TO EXISTING PAVEMENT SHALL BE REPAIRED AS APPROVED BY ENGINEER AT NO COST TO THE OWNER.
 3. BASE ELEVATIONS ARE SHOWN TO DEMONSTRATE DRAINAGE. ALL GRADES ALONG THE EXISTING ROAD SHALL MATCH EXISTING.
 4. REFERENCE ARCHITECT PLAN FOR TRASH COMPACTOR ENCLOSURE.

NOTE:
BOUNDARY SUPPLIED BY VANDERSTAPPEN SURVEYING & ENGINEERING INC. ON ALTA/NSPS SURVEY COMPLETED APRIL 19, 2006.

TOPOGRAPHY IS SHOWN FROM 2017 LIDAR 2' CONTOUR GENERATION. TOPO SHOWN IS FOR REFERENCE AND IS NOT FIELD VERIFIED.

SITE BENCHMARK:
NORTH BOLT ON FIRE HYDRANT LOCATED APPROX. 19' SOUTHEAST OF THE CENTERLINE OF DARLINGTON LN. AND APPROX. 390' SOUTHWEST OF THE CENTERLINE OF VIRGINIA RD.
ELV=B97.94
SUPPLIED BY VANDERSTAPPEN SURVEYING & ENGINEERING INC.



NOTES:

1. SEE "PCC SIDEWALK DETAIL" FOR FURTHER REQUIREMENTS

10.12.2018

10.04.2019

GHA GEWALT HAMILTON ASSOCIATES, INC. MEDIUM DUTY PAVEMENT DETAIL **GHA GEWALT HAMILTON ASSOCIATES, INC.** CONCRETE BARRIER MEDIAN

GHA GEWALT HAMILTON ASSOCIATES, INC.
625 Forest Edge Drive ■ Vernon Hills, IL 60061
Tel 847.478.9700 ■ Fax 847.478.9701

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TRASH COMPACTOR SITE IMPROVEMENTS
DARLINGTON COURT APARTMENTS COMMUNITY CENTER
DARLINGTON LANE
CRYSTAL LAKE, ILLINOIS

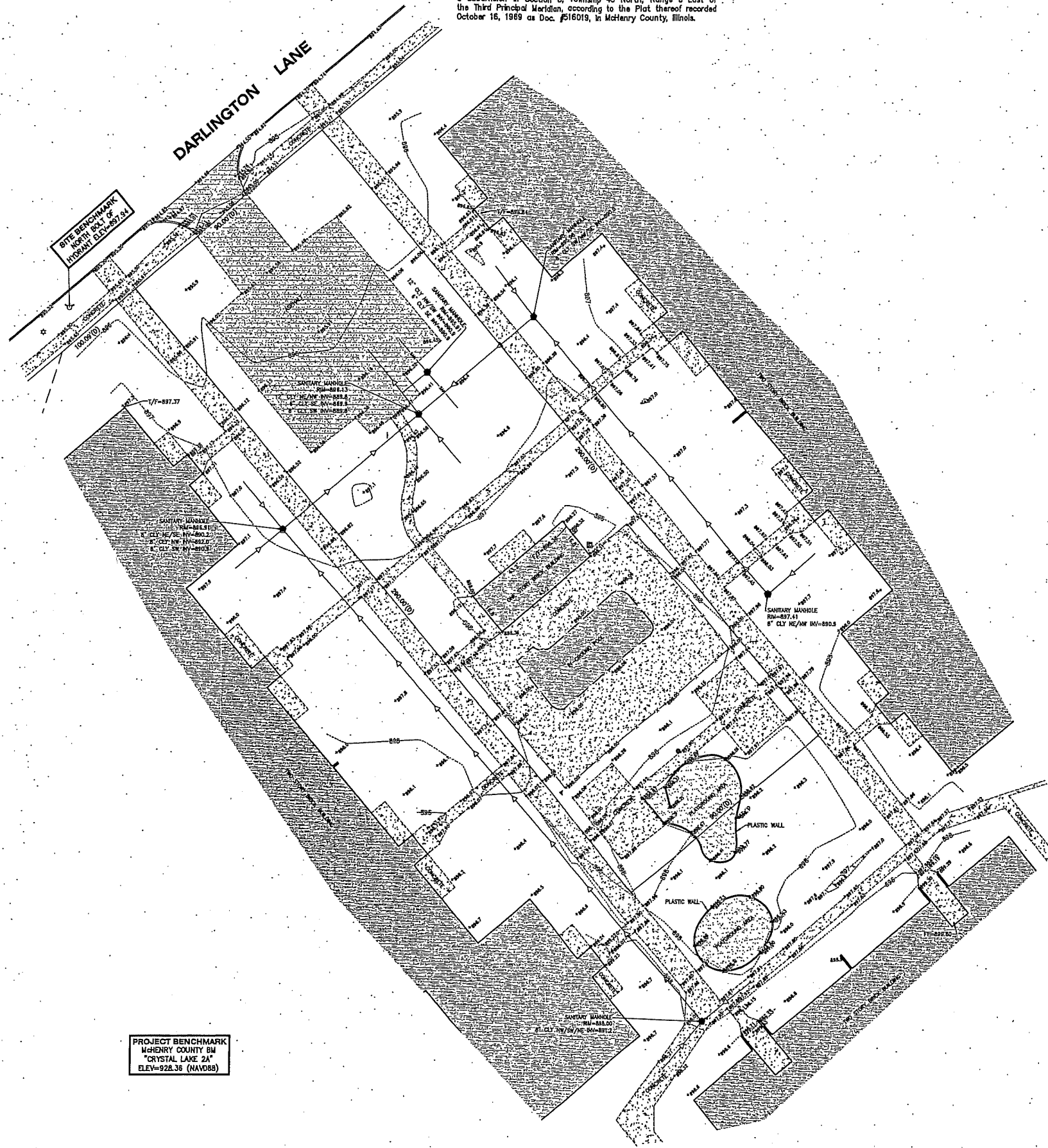
NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

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DATE: 02.14.2020	5665.000
CHECKED BY: CAS	SCALE:
DATE: 02.14.2020	1"=10'
	OF 7 SHEETS

C7.0

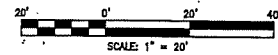
TOPOGRAPHIC SURVEY

Part of Lot A in First Addition to Coventry Green Subdivision, being a Subdivision in Section 8, Township 43 North, Range 8 East of the Third Principal Meridian, according to the Plat thereof recorded October 16, 1989 as Doc. #516019, in McHenry County, Illinois.



LEGEND	
▽	FIRE HYDRANT
●	FLAG POLE
⊗	GAS METER
☆	LIGHT
●	SANITARY MANHOLE
+	SIGN
■	TRANSFORMER
⊗	WV
◀	YARD LIGHT
(O)	DEED

PROJECT BENCHMARK
McHENRY COUNTY SW
"CRYSTAL LAKE 2A"
ELEV=928.36 (NAVD83)



RECEIVED
MAR 10 2019

CLIENT: CUNAT, INC.
DRAWN BY: DAM CHECKED BY: WJV
SCALE: 1"=20' SEC. 08 T. 43 R. 08 E.
BASIS OF BEARING: PER RECORD SUBDIVISION
P.L.N.: 19-08-258-001
JOB NO.: 190017 I.D. TPO
FIELDWORK COMP.: 1/14/19 BY PG
ALL DISTANCES SHOWN IN FEET AND DECIMAL INCHES UNLESS OTHERWISE NOTED.
POINTS THEREOF CONNECTED TO ONE F.

STATE OF ILLINOIS)
) S.S.
COUNTY OF McHENRY)

We, Vanderstappen Land Surveying, Inc. do hereby state that we have caused the above described property to be topographically surveyed and that the plat hereon drawn is a correct representation of said topography.

This professional service conforms to the current Illinois minimum standards for topographic surveys. This is not a Boundary Survey.

Dated at Woodstock, McHenry County, Illinois 1/23 A.D., 2019.

Vanderstappen Land Surveying, Inc.
Design Firm No. 184-002792

By: *Wm J. Vanderstappen*
Illinois Professional Land Surveyor No. 2709