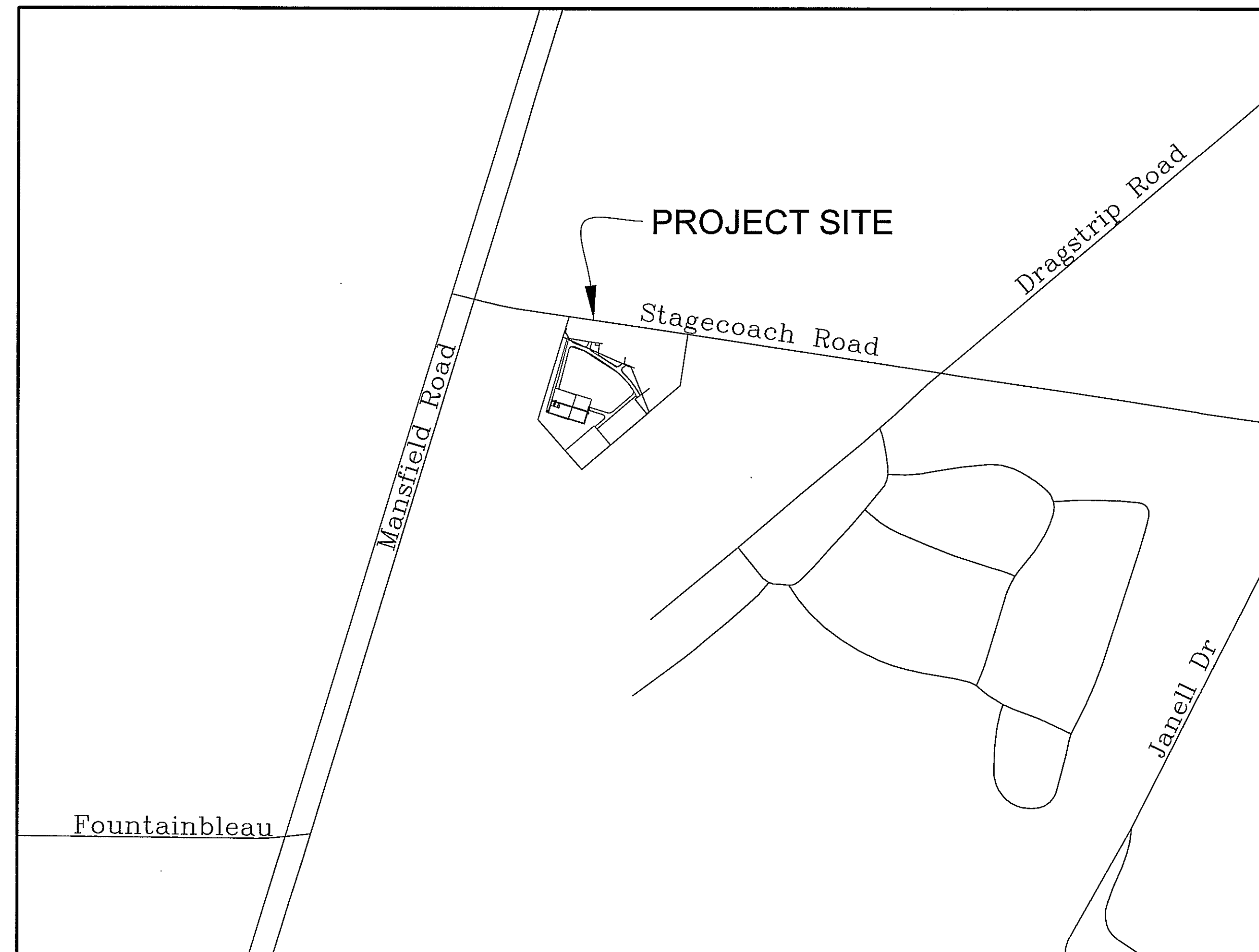


# WOOD GROUP PRESSURE CONTROL

PROPOSED BUILDING  
 WOOD GROUP PRESSURE CONTROL  
 3225 STAGECOACH ROAD  
 KEITHVILLE, LOUISIANA 71047

## INDEX TO DRAWINGS:

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A1	PROPOSED FLOOR PLAN
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S1	FOUNDATION PLAN & DETAILS
E1-E2	ELECTRICAL PLAN
M1	MECHANICAL PLAN
P1-P2	PLUMBING PLAN
SP1-SP2	SPECIFICATIONS

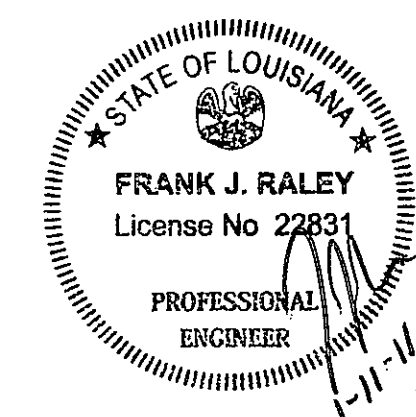


## VICINITY MAP

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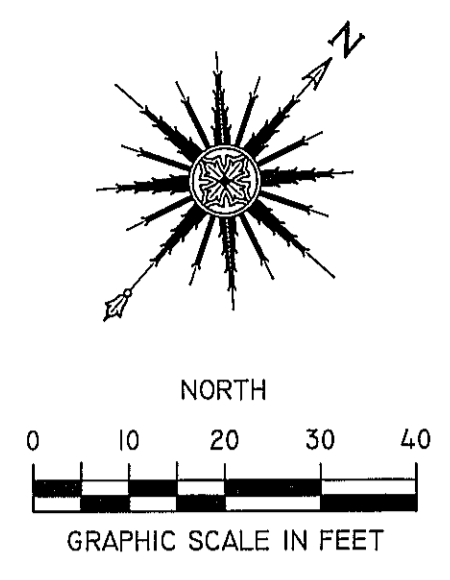
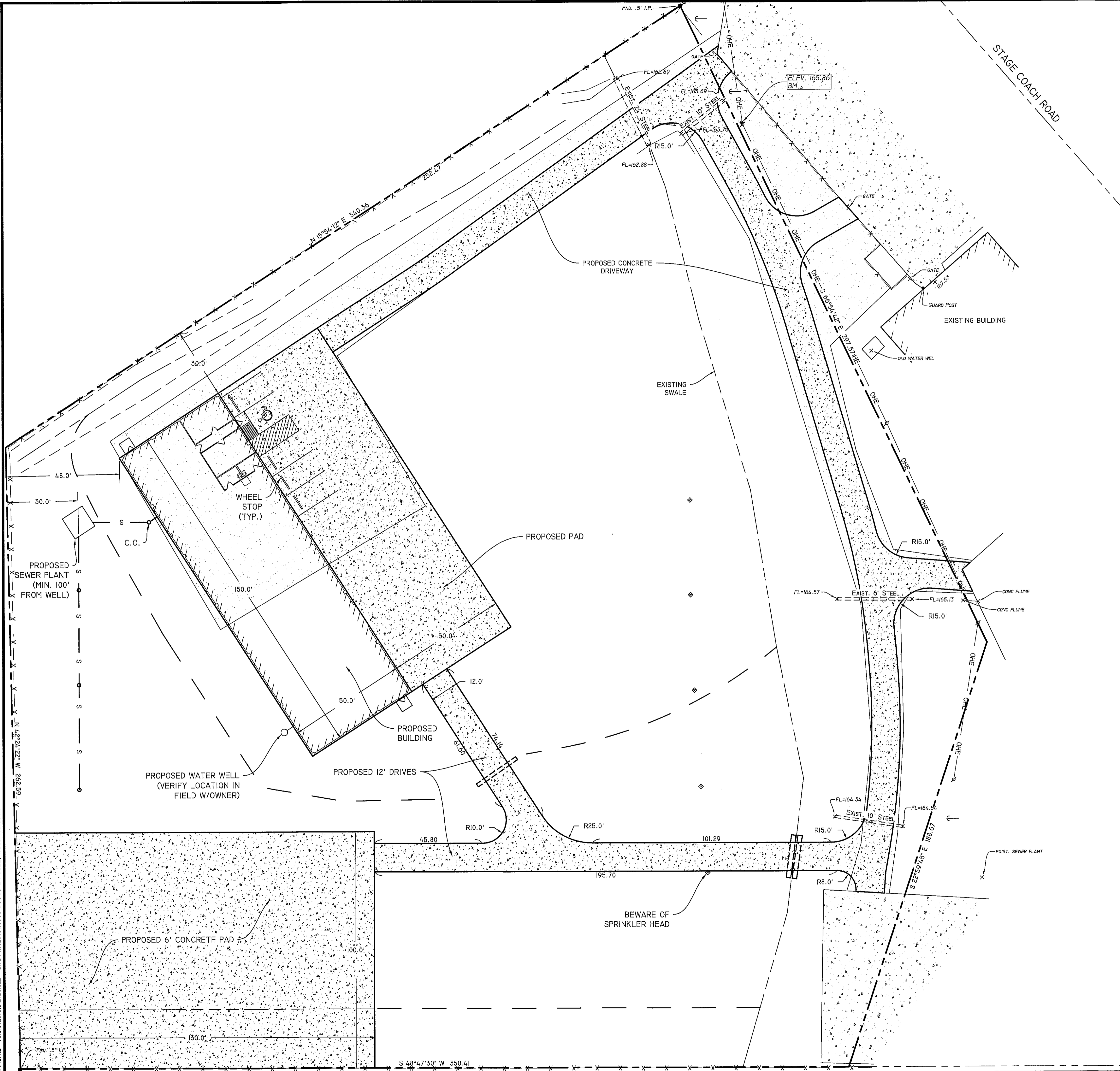
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 ASCE 7-98  
 LOUISIANA STATE PLUMBING CODE - 2000  
 INTERNATIONAL MECHANICAL CODE - 2006  
 NATIONAL ELECTRICAL CODE - 2005  
 OCCUPANCY - BUSINESS



**RALEY AND ASSOCIATES, INC.**  
 MEMBER OF L.E.S. AND A.S.C.E.  
 CONSULTING ENGINEERS

4913 SHED ROAD ♦ BOSSIER CITY, LA. 71111  
 PHONE: (318) 752-9025 ♦ FAX: (318) 752-9025  
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JAN 19, 2011 - 3:56PM  
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**GENERAL NOTES:**

1. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION. THE ENGINEER / SURVEYOR DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES OR ALL UTILITY SERVICES AFFECTING THIS TRACT ARE SHOWN IN THEIR EXACT LOCATION. THEY HAVE BEEN LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION PROVIDED BY ONE CALL OR THE LOCAL UTILITY COMPANY. LOUISIANA ONE CALL 811 OR UTILITY COMPANY.
2. CONTRACTOR SHALL INSTALL SILT FENCES, HAY BALES AND NECESSARY STORM WATER CONTROL MEASURES DURING CONSTRUCTION AS REQUIRED BY THE CITY.
3. CONTRACTOR(S) SHALL KEEP EXISTING PAVING CLEAN OF MUD AND OTHER CONSTRUCTION DEBRIS.
4. ALL TRENCH EXCAVATION SHALL BE PERFORMED IN STRICT ACCORDANCE WITH OSHA REGULATIONS AND APPLICABLE LOCAL CODES AND ORDINANCES.
5. CONTRACTOR SHALL FIELD VERIFY ALIGNMENT AND GRADE OF ALL PAVING, DRAINAGE PIPES AND PROPOSED MAINS. CONFLICTS, DISCREPANCIES OR IRREGULARITIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER. FAILURE TO DO SO MAY RESULT IN ADDITIONAL COSTS TO THE CONTRACTOR FOR REMOVAL, REPLACEMENT, OR REVISIONS TO ITEMS INSTALLED WITHOUT VERIFICATION BY OWNER.
6. CONTRACTOR SHALL REDISTRIBUTE TOPSOIL IN 4" LAYER AS PER OWNER.
7. CONTRACTOR SHALL COORDINATE AND PROVIDE FOR ALL SAFEGUARDS, SAFETY DEVICES AND REQUIRED JOB SITE SAFETY REGULATIONS AS NEEDED.
8. MATERIALS AND CONSTRUCTION SHALL BE IN STRICT COMPLIANCE WITH LOCAL SPECIFICATION STANDARDS AND/OR LOCAL BUILDING CODES.
9. CONTRACTOR SHALL COORDINATE WITH CITY AND LOCAL UTILITY COMPANIES FOR TYING INTO EXISTING MAINS. ALL UTILITY SERVICES SHALL BE INSTALLED PER CITY CODE AND GOVERNING UTILITY CODE.
10. ALL DISTURBED EARTH TO RECEIVE SLAB SOD UNLESS OTHERWISE DIRECTED BY OWNER/ENGINEER. POSITIVE DRAINAGE SHOULD BE MAINTAINED AT ALL TIMES.
11. MAXIMUM SLOPE IN ANY DIRECTION IN HANDICAP SPACES TO BE 2%.
12. ALL EXITS MUST HAVE A MINIMUM 5' x 5' LEVEL LANDING.

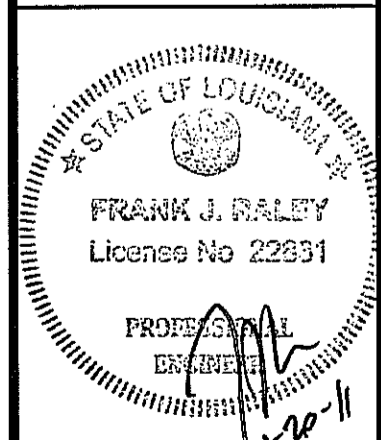
**LEGEND:**

- GUY WIRE
- POWER POLE
- SEWER SPRINKLER HEAD
- BENCH MARK
- EXISTING ELEVATION
- EXISTING DRAINAGE PIPE
- EXISTING FENCE
- EXISTING CL DITCH/SWALE
- EXISTING TOE
- EXISTING HIGH BANK
- PROPOSED A2000 / RCP
- EXISTING OH ELEC
- PROPOSED ELEVATION
- PROPOSED FLOW
- EXIST. CONC. PAVEMENT
- PROP. CONC. PAVEMENT

REVISIONS	BY

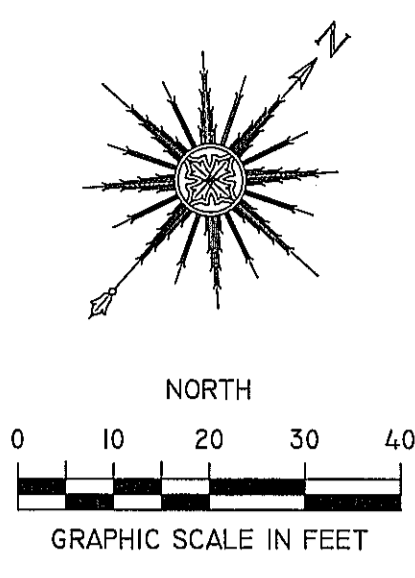
**MASTER SITE LAYOUT PLAN**  
**WOOD GROUP PRESSURE**  
**CONTROL BUILDING**  
 KEITHVILLE, LOUISIANA

**RALEY AND ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 MEMBER OF L.E.S. AND A.S.C.E.  
 4913 SHED ROAD ♦ BOSSIER CITY, LA. 71111  
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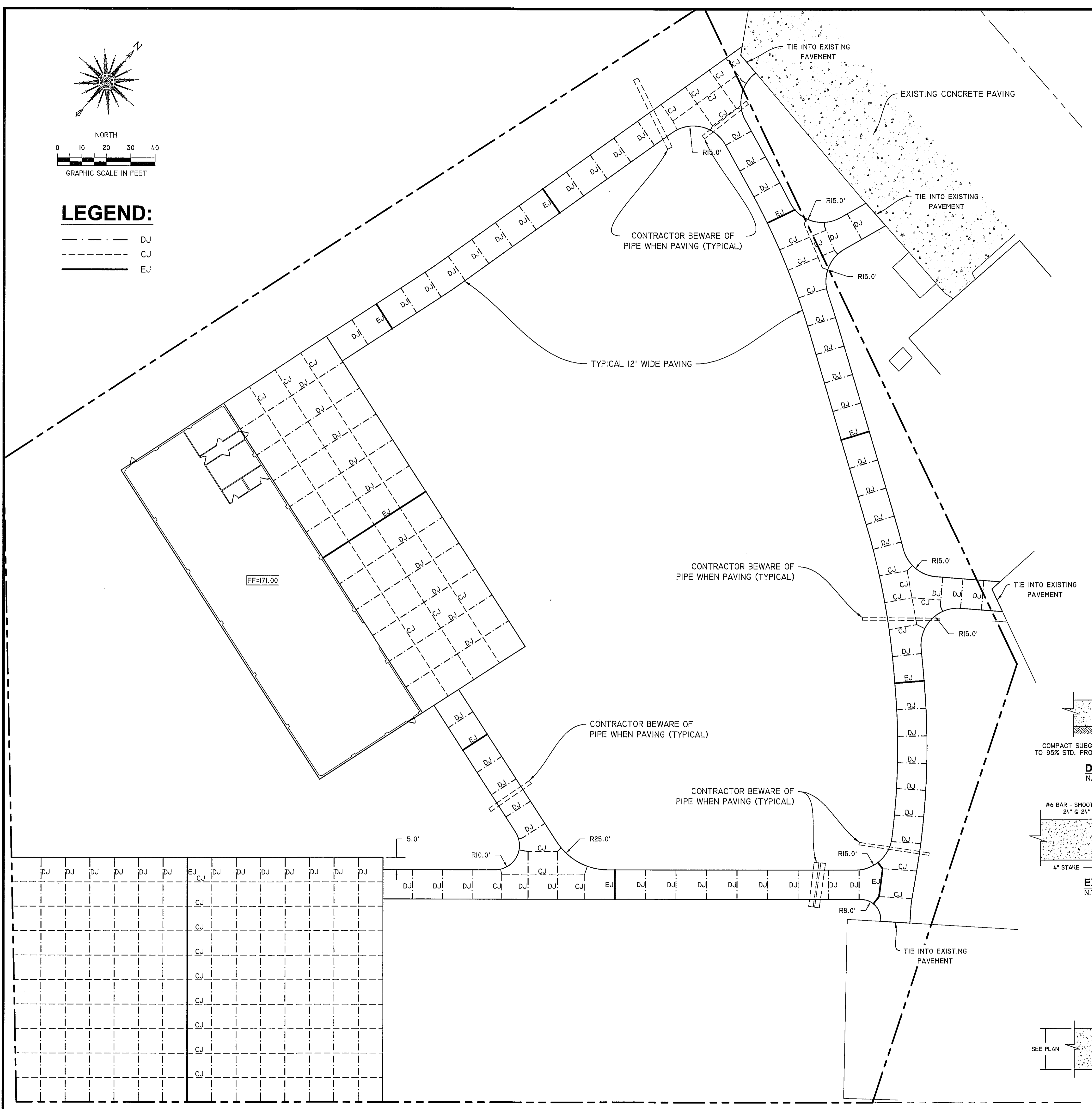
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 JOB: **10338**  
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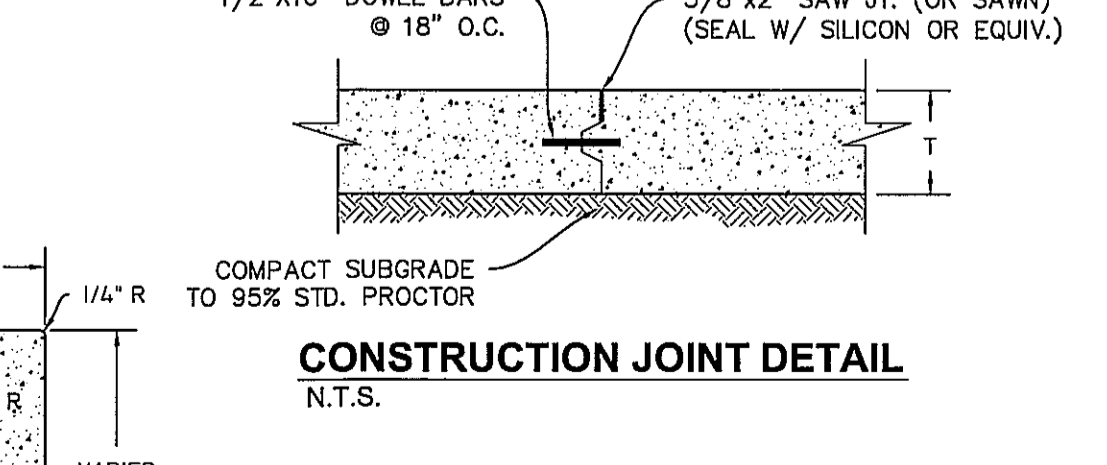
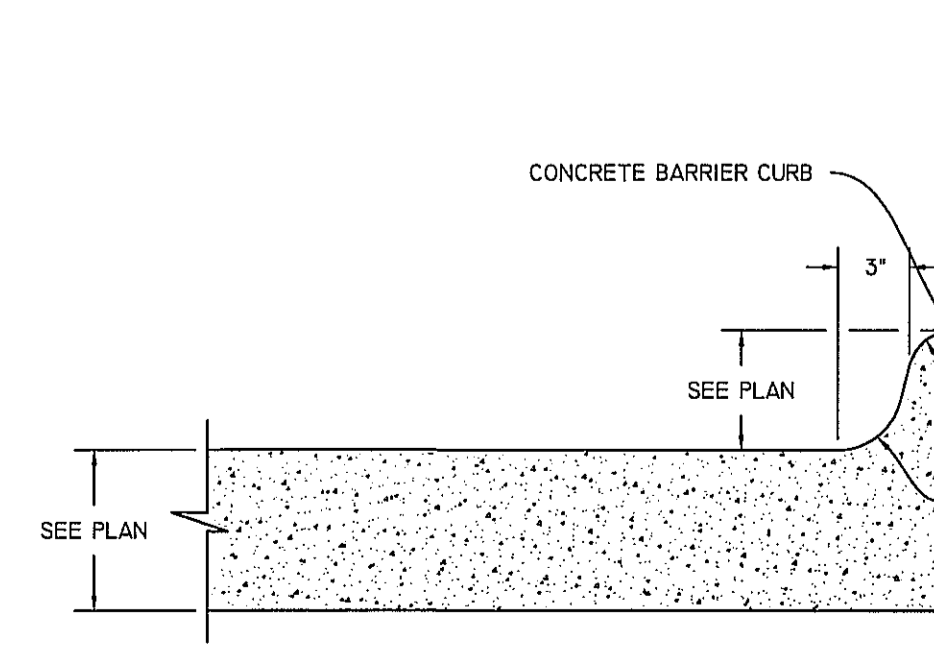
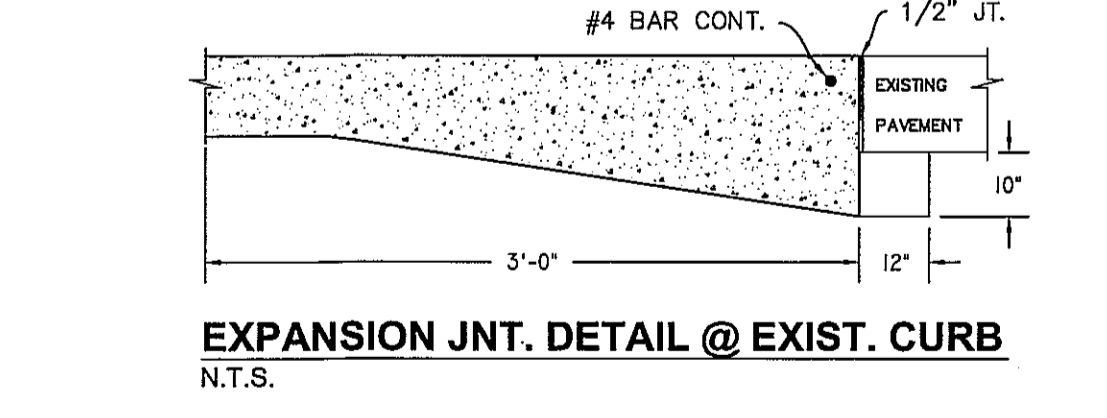
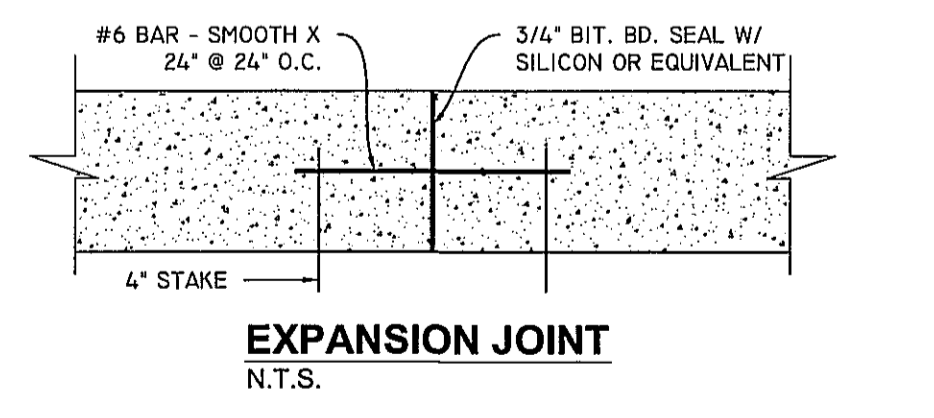
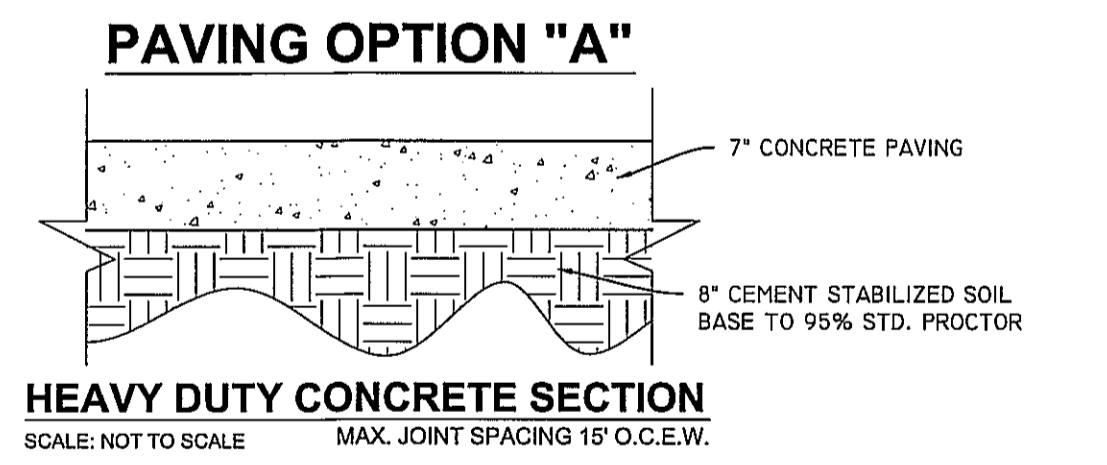
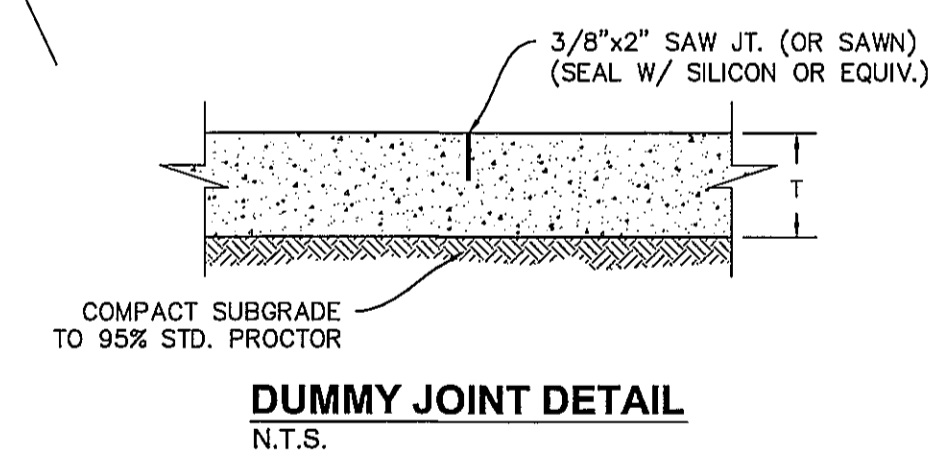
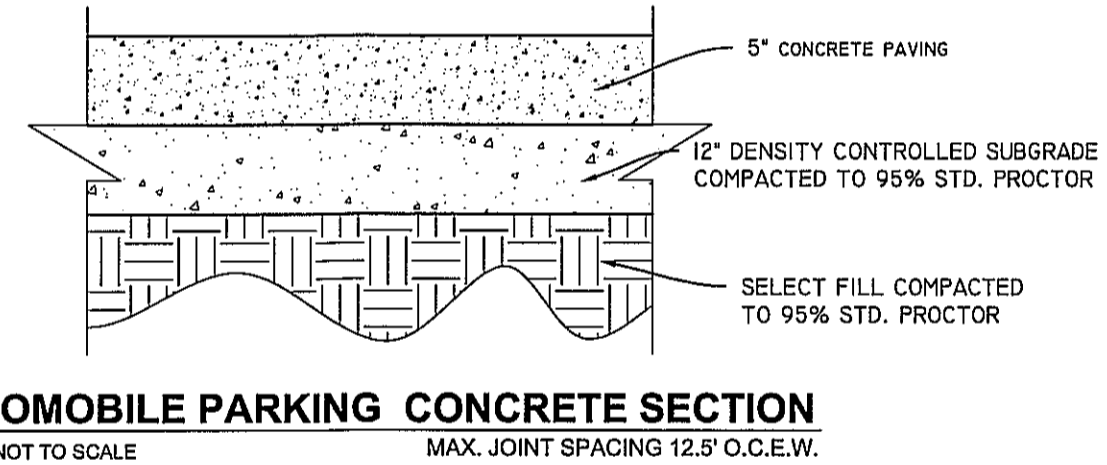
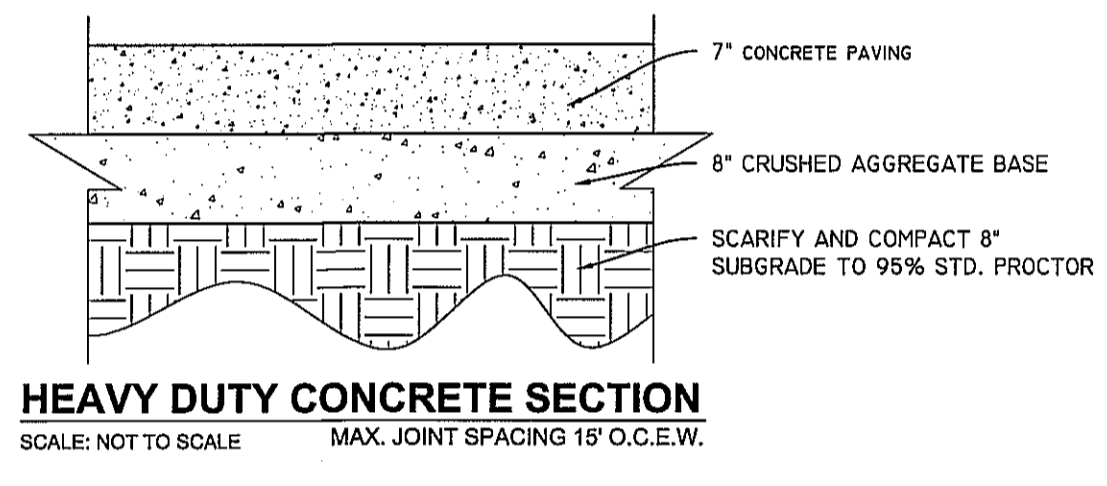
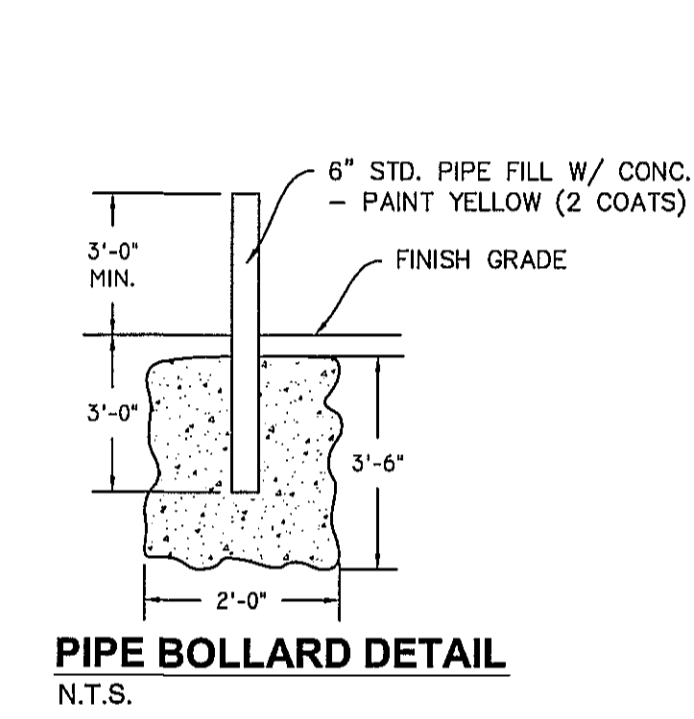
**LEGEND:**

- DJ
- CJ
- EJ



**PAVING NOTES:**

1. THE SITE SHALL BE STRIPPED OF ALL VEGETATION PRIOR TO FILL OR CONSTRUCTION.
2. ALL SELECT FILL SHALL BE 5-18 P.I. AND LIQUID LIMIT LESS THAN 35 AND CLASSIFIED AS LEAN SANDY CLAY OR CLAYEY SAND WITH NO MORE THAN 60% PASSING THE NO. 200 SIEVE, WITH A COMPACTION TEST RUN ON EACH 8' LIFT. 1 TEST / 5000 SF - COMPACTED TO 95% STD. PROCTOR. ALL TEST RESULTS MUST BE PROVIDED TO PROJECT ENGINEER FOR REVIEW.
3. ANY SOFT AREAS (TREE STUMP HOLES, ETC.) SHALL BE CUT OUT AND RE-COMPACTED TO SAID PROCTOR. CONTRACTOR SHALL PROOF-ROLL SITE W/ A HEAVILY LOADED PNEUMATIC-TIRED DUMP TRUCK (20-25 TONS). SOILS WHICH RUT OR DEFLECT EXCESSIVELY SHALL BE UNDERCUT AND REPLACED W/ PROPERLY COMPACTED STRUCTURAL FILL PER THE GEOTECH REPORT.
4. THE CONTRACTOR SHALL KEEP THE SITE SO IT WILL HAVE POSITIVE DRAINAGE AT ALL TIMES.
5. ALL EXCAVATION SHALL BE FREE OF ALL WATER BEFORE PLACING CONCRETE.
6. ALL STEEL BARS SHALL BE GRADE 60 STEEL. NUMBER 3 BARS MAY BE GRADE 40.
7. CLEAR DIMENSIONS FOR STEEL: STEEL AGAINST EARTH SHALL BE 3", STEEL AGAINST FORM 1/2".
8. ALL WIRE AND BARS SHALL BE SECURED PROPERLY BEFORE PLACING CONCRETE.
9. ALL CONCRETE SHALL HAVE A 3500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
10. CHAMFER ALL EXPOSED CONCRETE EDGES.
11. MAXIMUM SLUMP SHALL BE 5".
12. SUBMIT DESIGN MIX FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION.
13. ALL AGGREGATE BASE COURSE (IF USED) SHALL MEET THE LATEST LADOT REQUIREMENTS. THE AGGREGATE BASE SHALL BE COMPACTED TO 95% STANDARD PROCTOR (ASTM D698) AT OR NEAR OPTIMUM MOISTURE CONTENT.
14. THE AGGREGATE BASE COURSE (IF USED) SHALL EXTEND BEYOND THE BACK OF CURB AT LEAST 6".
15. SAW CUT JOINTS IN PAVEMENT AS QUICKLY AS POSSIBLE AFTER PLACING AND STRIKING OFF PAVEMENT WITHOUT EXCESS RAVELING ALONG THE CUT. DO NOT POUR ONE DAY AND SAW THE NEXT.
16. BRING SAW CUT JOINTS THRU THE BARRIER CURB.
17. ALL PROPOSED CONCRETE TO BE HEAVY DUTY. (VERIFY WITH OWNER).



REVISIONS	BY

**PAVING PLAN & DETAILS**  
**WOOD GROUP PRESSURE CONTROL BUILDING**  
 KEITHVILLE, LOUISIANA

**RALEY AND ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 MEMBER OF L.E.S. AND A.S.C.E.  
 4913 SHED ROAD ♦ BOSSIER CITY, LA. 71111  
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DATE: **12-30-10**  
 SCALE: **1"=20'**  
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### STANDARD FOR LAND GRADING

#### DEFINITION

RESHAPING OF THE EXISTING TOPOGRAPHY IN ACCORDANCE WITH A PLAN AS DETERMINED BY ENGINEERING SURVEYS, DESIGN AND LAYOUT.

#### PURPOSE

LAND GRADING IS USED FOR ONE OR MORE OF THE FOLLOWING PURPOSES: PROVIDE MORE SUITABLE SITES FOR BUILDING, FACILITIES, AND OTHER LAND USES; IMPROVE SURFACE DRAINAGE AND CONTROL EROSION.

#### DESIGN CRITERIA

THE LAND GRADING PLAN AND INSTALLATION SHALL BE BASED UPON ADEQUATE SURVEYS AND INVESTIGATIONS. THE PROPOSED LAND USE AND GRADING PLAN SHOULD FIT AND UTILIZE EXISTING TOPOGRAPHY AND NATURAL SURROUNDINGS AND MAKE EXTREME GRADE MODIFICATIONS UNNECESSARY. THE PLAN IS TO SHOW THE LOCATION, SLOPE, CUT, FILL AND FINISH ELEVATION OF THE SURFACES TO BE GRADED AND THE AUXILIARY PRACTICES FOR SAFE DISPOSAL OF RUNOFF WATER, SLOPE STABILIZATION, EROSION CONTROL, AND DRAINAGE SUCH AS WATERWAYS, LINED CHANNELS, DEVIATIONS, GRADE STABILIZATION STRUCTURES, RETAINING WALLS, AND SURFACE AND SUBSURFACE DRAINS.

THE GRADING PLAN SHALL BE IN ACCORDANCE WITH THE FOLLOWING

#### DESIGN CRITERIA:

- THE CUT FACE OF EARTH EXCAVATION WHICH IS TO BE VEGETATED SLOPES OF MATERIALS NOT TO BE VEGETATED SHALL BE AT THE SAFE ANGLE OF REPOSE FOR THE MATERIALS ENCOUNTERED. UNVEGETATED CUT SLOPES SHALL BE PROTECTED BY MECHANICAL TREATMENT TO PROTECT THEM FROM EROSION.
- THE PERMANENT EXPOSED FACES OF FILLS SHALL BE NO STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL.
- PROVISIONS ARE TO BE MADE TO SAFELY CONDUCT SURFACE WATER TO STORM DRAINS OR SUITABLE NATURAL WATER COURSES AND TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
- SUBSURFACE DRAINAGE IS TO BE PROVIDED IN AREAS HAVING HIGH WATER TABLE OR SEEPAGE CONDITIONS THAT WOULD AFFECT SLOPE STABILITY, BUILDING FOUNDATIONS, CREATE UNDESIRABLE WETNESS.
- EXCAVATIONS SHALL NOT BE MADE SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM EROSION, SLIDING, SETTLING, OR CRACKING.
- NO FILL IS TO BE PLACED WHERE IT WILL SLIDE, OR WASH UPON THE PREMISES OF ANOTHER OR SO PLACED ADJACENT TO THE BANK OF A CHANNEL AS TO CREATE BANK FAILURE OR REDUCE THE NATURAL CAPACITY OF THE STREAM.
- FILLS ARE TO CONSIST OF MATERIAL FROM CUT AREAS, BORROW PITS, OR OTHER APPROVED SOURCES.

#### GENERAL NOTES

- TIMBER, LOGS, BRUSH, RUBBISH, AND VEGETATIVE MATTER THAT WILL INTERFERE WITH THE GRADING OPERATION OR AFFECT THE PLANNED STABILITY OF FILL AREAS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE PLAN. AVOID UNNECESSARY REMOVAL OF TREES AND VEGETATION THAT COULD BE LEFT TO ENHANCE THE ATTRACTIVENESS OF THE DEVELOPMENT.
- TOP SOIL IS TO BE STRIPPED AND STOCKPILED IN AMOUNTS NECESSARY TO COMPLETE FINISH GRADING OF ALL EXPOSED AREAS REQUIRING TOPSOIL FOR THE ESTABLISHMENT OF VEGETATION.
- FILL MATERIAL IS TO BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, AND STUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS.
- CUT SLOPES WHICH ARE TO BE TOPSOILED WILL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL.
- ALL FILLS INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SEWERS AND CONDUITS SHOULD BE TESTED FOR STRENGTH AND THE FOUNDATIONS DESIGNED ACCORDINGLY. COMPACTION OF OTHER FILLS WILL BE AS REQUIRED TO REDUCE SLIPPING, EROSION, OR EXCESS SATURATION.
- MAXIMUM THICKNESS OF LAYERS OF FILLS ARE NOT TO EXCEED 8 INCHES.
- ALL AREAS ARE TO BE ROUGH GRADED TO WITHIN 0.2 FOOT OF THE PLANNED ELEVATION AFTER ALLOWANCE HAS BEEN MADE FOR THICKNESS OF TOPSOIL, PAVING, OR OTHER INSTALLATIONS.
- ALL DISTURBED AREAS SHALL BE LEFT IN A WELL DRAINED, NEAT, AND FINISHED APPEARANCE.

### STANDARDS FOR HAY BALE DIKE

#### DEFINITION

A TEMPORARY BARRIER CONSTRUCTED WITH HAY BALES WITH A LIFE EXPECTANCY OF 3 MONTHS OR LESS, INSTALLED ACROSS OR AT THE TOE OF A SLOPE.

#### PURPOSE

A PURPOSE OF A HAY BALE DIKE IS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM UNPROTECTED AREAS OF LIMITED EXTENT.

#### CONDITIONS WHERE PRACTICE APPLIES

THE HAY BALE DIKE IS USED WHERE:

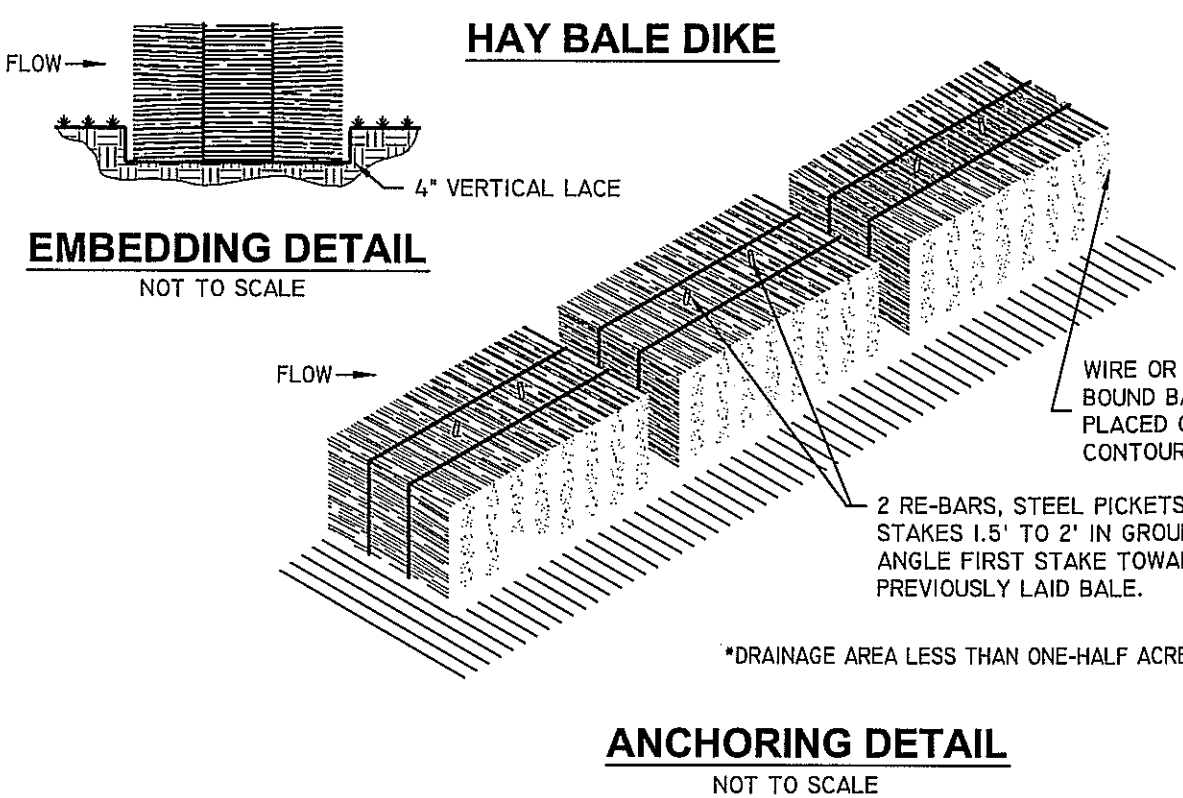
- NO OTHER PRACTICE IS FEASIBLE, AND
- THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY ABOVE THE BARRIER AND
- EROSION WOULD OCCUR IN THE FORM OF SHEET AND RILL EROSION, AND
- CONTRIBUTING DRAINAGE AREA IS LESS THAN ONE-HALF ACRE AND THE LENGTH OF SLOPE ABOVE THE DIKE AND LESS THAN 100 FEET, THE PRACTICE MAY ALSO BE USED FOR ALONE, SINGLE FAMILY LOT IF THE SLOPE IS LESS THAN 15 PERCENT. THE CONTRIBUTING DRAINAGE AREA IN THIS INSTANCE SHALL BE LESS THAN 1 ACRE AND THE LENGTH OF SLOPE ABOVE THE DIKE SHALL BE LESS THAN 200 FEET.

#### DESIGN CRITERIA

A DESIGN IS NOT REQUIRED. ALL BALES SHALL BE PLACED ON THE CONTOUR AND SHALL BE EITHER WIRE BOUND OR NYLON STRING TIED. SEE STANDARD DRAWING FOR HAY BALE DIKE FOR DETAILS.

#### GENERAL NOTES

- BALES SHALL BE PLACED IN A ROW WITH END TIGHTLY ABUTTING THE ADJACENT BALES.
- EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF FOUR INCHES, WHERE POSSIBLE.
- BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALE TOGETHER.
- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY CONTRACTOR.
- BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES.



### STANDARDS FOR SEDIMENT TRAP

#### DEFINITION

A SMALL TEMPORARY PONDING AREA FORMED BY CONSTRUCTING AN EARTHEN EMBANKMENT TO INTERCEPT SEDIMENT-LADEN RUNOFF AND TO TRAP AND RETAIN SEDIMENT.

#### PURPOSE

TO DETAIN SEDIMENT-LADEN RUNOFF FROM SMALL DISTURBED AREAS LONG ENOUGH TO ALLOW THE MAJORITY OF THE SEDIMENT TO SETTLE OUT.

#### CONDITIONS WHERE PRACTICE APPLIES

INSTALLED AT POINTS OF DISCHARGE FROM DISTURBED AREA FOR A MAXIMUM PERIOD OF 10 MONTHS.

#### DESIGN CRITERIA

IF ANY OF THE DESIGN CRITERIA PRESENTED HERE CAN NOT BE MET SEE STANDARDS FOR SEDIMENT BASIN.

DRAINAGE AREA - SHALL BE LESS THAN 5 ACRES.

LAYOUT - SHALL BE LOCATED TO MAXIMIZE STORAGE BENEFIT FROM TERRAIN, FOR EASE OF CONSTRUCTION.

SIZE - THE VOLUME OF THE TRAP MEASURED BELOW THE CREST OF THE OUTLET SHALL BE AT LEAST 1000 CUBIC FEET PER ACRE OF DRAINAGE AREA.

CLEANOUT - SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL CAPACITY WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE DESIGN VOLUME OR 1 FOOT, WHICHEVER IS LESS.

EMBANKMENT - THE EMBANKMENT SHALL HAVE A 3 FOOT TOP WIDTH, SIDE SLOPES OF 2:1 OR FLATTER, AND SHALL NOT EXCEED 5 FEET IN HEIGHT AS MEASURED AT THE LOW POINT OF THE ORIGINAL GROUND LINE. FILL MATERIAL SHALL BE FREE OF WOODY VEGETATION, LARGE STONES, AND OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED IN EIGHT-INCH LAYERS BY TRAVERSING WITH CONSTRUCTION EQUIPMENT.

EXCAVATION - ANY EXCAVATED PORTION OF SEDIMENT TRAP SHALL HAVE 2:1 OR FLATTER SLOPES. CARE SHALL BE TAKEN TO MINIMIZE EROSION AND WATER POLLUTION DURING EXCAVATION OPERATIONS.

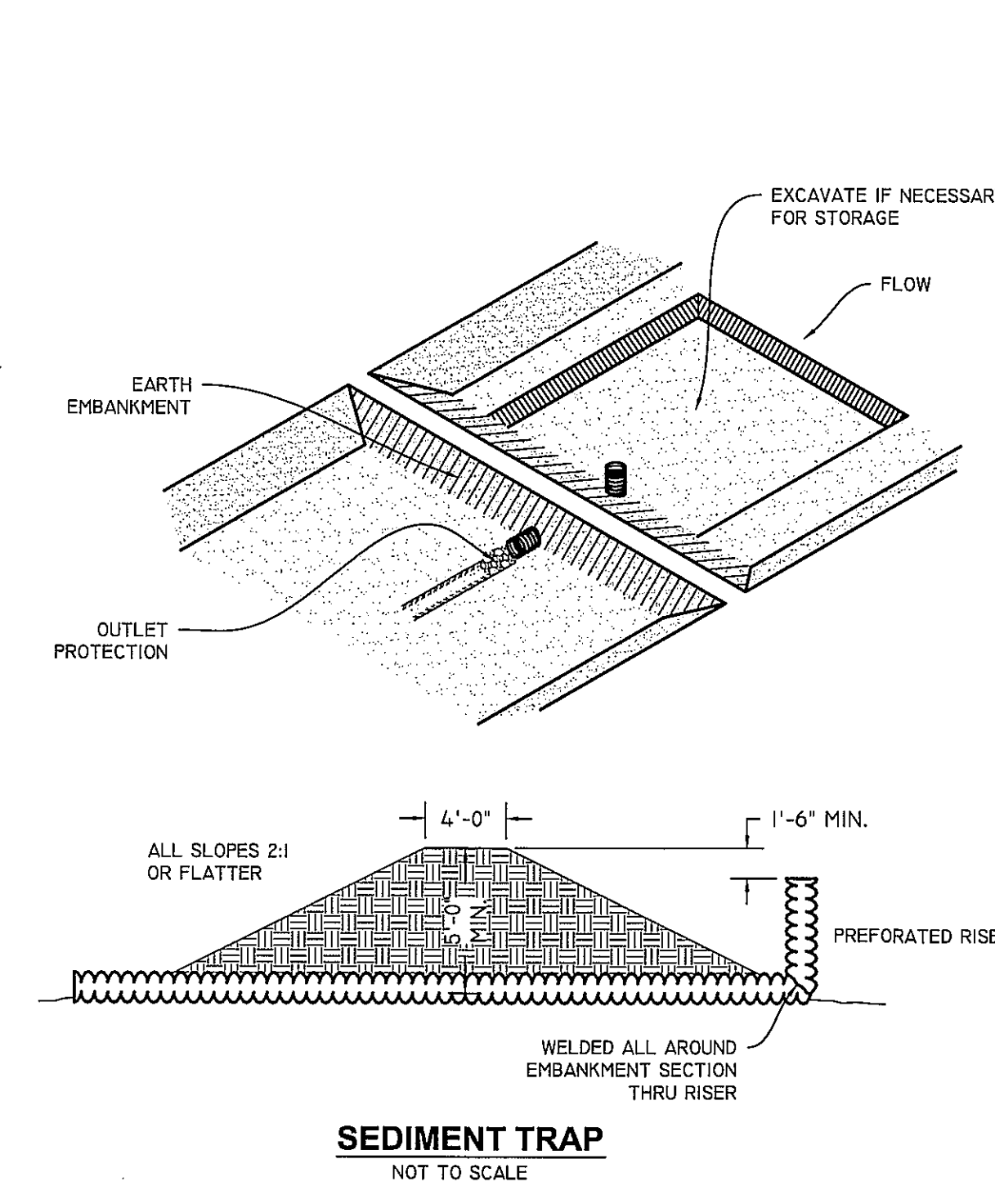
#### OUTLET

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. RISER DIAMETER SHALL BE ONE SIZE LARGER THAN THE PIPE. THE RISER SHALL BE WRAPPED WITH THREE LAYERS OF 125 MILS THICK NON-WOVEN U-V RESISTANT FILTER CLOTH. THE PORTION OF THE RISER ABOVE THE PIPE CONNECTIONS SHALL BE PERFORATED WITH ONE 1/2-INCH DIAMETER HOLE PER 40 SQUARE INCHES OF SURFACE AREA. THE RISER CREST SHALL BE 1/2 FEET BELOW THE TOP OF THE EMBANKMENT.
- UNLESS OTHERWISE SPECIFIED, PIPE SIZES SHALL BE SELECTED FROM THE FOLLOWING TABLE:

PIPE DIAMETER D, (INCHES)	MAXIMUM DRAINAGE AREA (ACRES)
12	0.75
15	1.25
18	2.0
21	3.0
24	5.0

#### GENERAL NOTES

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR EMBANKMENT SHALL BE FREE OF ROOTS OF OTHER WOODY VEGETATION, AS WELL AS STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP OR 1 FOOT, WHICHEVER IS LESS. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN APPROVED AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED BY THE CONTRACTOR.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
- THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
- ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.



### STANDARDS FOR SILT FENCE

#### DEFINITION

TEMPORARY BARRIER FENCE MADE OF BURLAP OR POLYPROPYLENE MATERIAL WHICH IS WATER PERMEABLE BUT WILL TRAP WATER-BORNE SEDIMENT.

#### PURPOSE

TO INTERCEPT AND DETAIN WATER-BORNE SEDIMENT FROM UNPROTECTED AREA OF LIMITED EXTENT.

#### CONDITIONS WHERE PRACTICE APPLIES

SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY.

#### DESIGN CRITERIA

SILT FENCE SHALL NOT BE CONSTRUCTED OUTSIDE THE PROPERTY LINES WITHOUT OBTAINING EASEMENTS FROM THE AFFECTED PROPERTY OWNERS. A DESIGN IS NOT REQUIRED FOR THE INSTALLATION OF SILT FENCE, HOWEVER THE FOLLOWING CRITERIA SHALL BE OBSERVED:

DRAINAGE AREA - LESS THAN 2 ACRES.

HEIGHT - 36 INCH MINIMUM HEIGHT MEASURED FROM THE EXISTING OR GRADED GROUND.

MATERIAL - BURLAP WEIGHING APPROXIMATELY 7-1/2 OUNCES PER SQUARE YARD OR APPROVED JUTE FABRIC OR GEOTEXTILE FABRIC.

SUPPORT - STEEL OR WOOD FENCE POSTS SPACED A MAXIMUM OF 8 FEET APART. POST SHALL HAVE A MINIMUM LENGTH OF 5 FEET AND BE SET AT LEAST 18 INCH DEEP. WOVEN LIVESTOCK WIRE TO SUPPORT THE MATERIAL SHALL BE AT LEAST 36 INCH HIGH WITH A MAXIMUM MESH OPENING OF 6 INCHES AND FABRICATED FROM 1/4 GAGE WIRE OR LARGER.

#### OUTLET

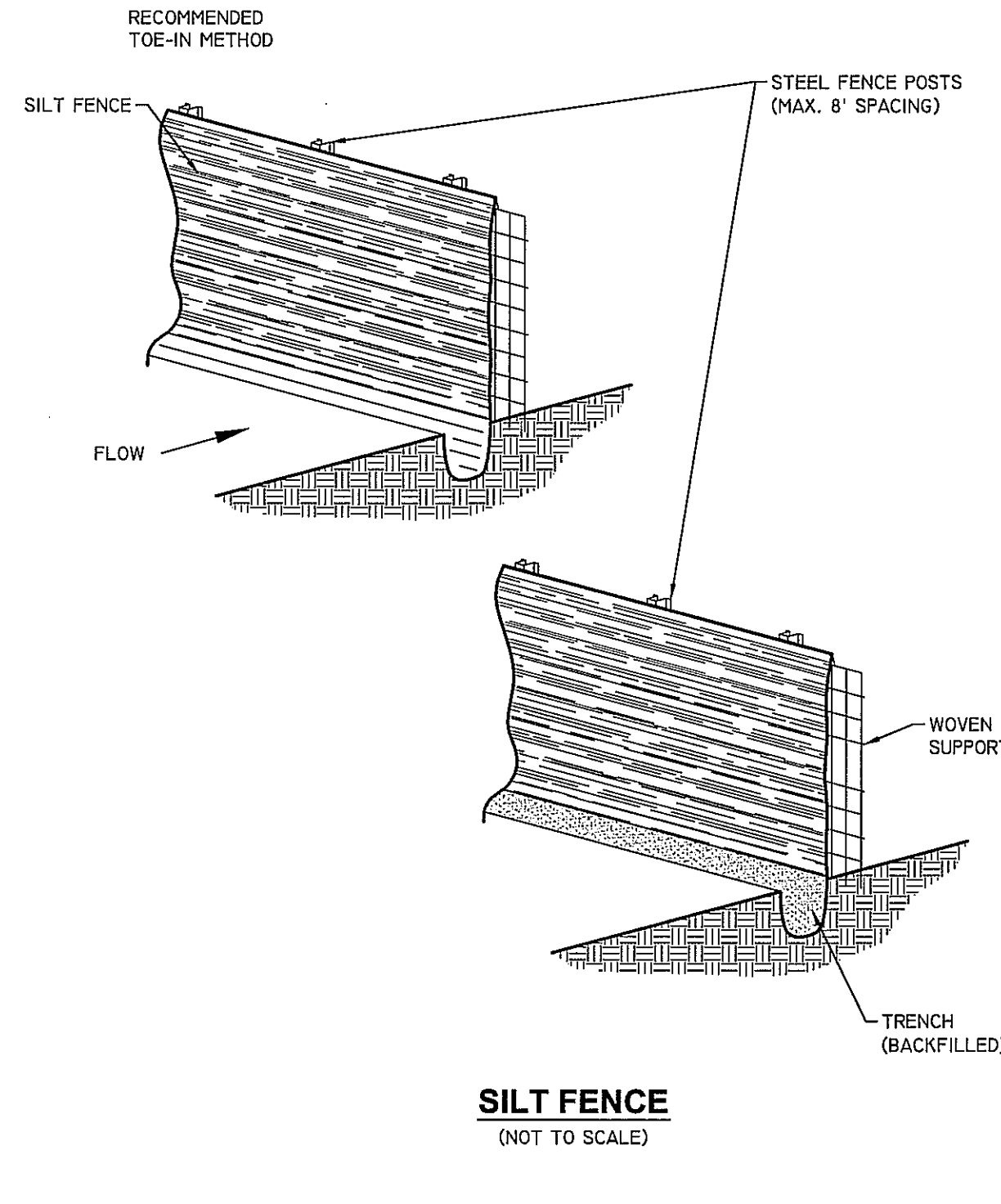
SILT FENCE SHALL BE PLACED AND CONSTRUCTED IN SUCH A MANNER THAT RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE INTERCEPTED, SEDIMENT TRAPPED AND THE SURFACE RUNOFF ALLOWED TO PERCOLATE THROUGH THE STRUCTURE.

SILT FENCE SHALL BE PLACED IN SUCH A MANNER THAT SURFACE RUNOFF WHICH PERCOLATES THROUGH WILL FLOW ONTO AN UNDISTURBED STABILIZED AREA OR STABILIZED OUTLET. IF PLACED IN SERIES, THE FURTHEST DOWNSTREAM FENCE WILL FLOW ONTO AN UNDISTURBED STABILIZED AREA OR STABILIZED OUTLET.

#### GENERAL NOTES

- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
- THE TRENCH SHOULD BE A MINIMUM OF 6 INCHES DEEP AND 3 - 4 INCHES WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
- SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POSTS.
- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. \*
- SEDIMENT TRAPPED BY THIS PRACTICE SHALL BE DISPOSED OF IN AN APPROVED SITE IN A MANNER THAT WILL NOT CONTRIBUTE TP ADDITIONAL SILTATION.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES AND DISPOSED OF IN AN APPROVED SPOIL SITE OR AS IN NO.7 ABOVE.

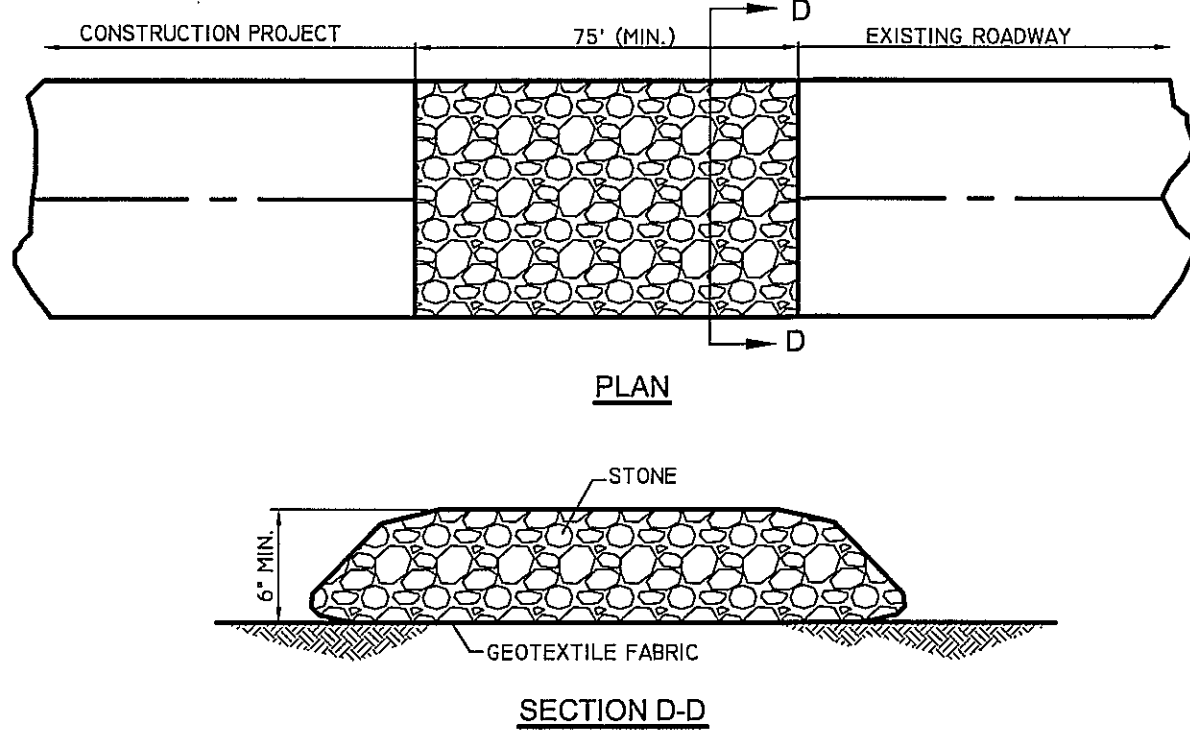
\* TO BE REMOVED BY CONTRACTOR WHEN PERMANENT EROSION MEASURES ARE DEEMED TO BE EFFECTIVE.



### TEMPORARY STONE CONSTRUCTION ENTRANCE

PAY AS "S - ITEM", TEMPORARY STONE CONSTRUCTION ENTRANCE. NOTES: TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON THE CONSTRUCTION SITE TO REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PUBLIC ROADS. IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL PAD IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF THE MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLE ENTERS A PUBLIC ROAD. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A STONE CONSTRUCTION ENTRANCE AND/OR WASH RACKS ARE:

- THE STONE LAYER MUST BE AT LEAST 6 INCHES THICK.
- THE STONE SHALL CONFORM TO SECTION 711(02)(CLASS 2LB) OF THE LA DOTD STANDARD SPECIFICATIONS.
- THE LENGTH OF THE PAD MUST BE AT LEAST 75 FEET AND IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS.
- A GEOTEXTILE FABRIC UNDERLINER IS REQUIRED. THE GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH SECTION 1019 (TYPE D) OF THE LA DOTD STANDARD SPECIFICATIONS.
- IF A WASH RACK IS NECESSARY, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF-SITE.



### STANDARDS FOR DIKES

#### DEFINITION

A DIKE IS A TEMPORARY RIDGE OF COMPACTED SOIL. A DIVERSION DIKE IS PLACED IMMEDIATELY ABOVE CUT OR FILL SLOPES. AN INTERCEPTOR DIKE IS LOCATED ACROSS RIGHT-OF-WAY OR DISTURBED AREAS. A PERIMETER DIKE IS PLACED ALONG THE PERIMETER OF THE DISTURBED AREA OR SITE.

#### PURPOSE

A DIVERSION DIKE INTERCEPTS STORM RUNOFF FROM SMALL UPLAND AREAS AND DIRECTS IT FROM THE EXPOSED SLOPES TO AN ACCEPTABLE OUTLET. AN INTERCEPTOR DIKE SHORTENS THE LENGTH OF EXPOSED SLOPES BY INTERCEPTING STORM RUNOFF AND DIVERTING IT TO AN ACCEPTABLE OUTLET. A PERIMETER DIKE PREVENTS OFFSITE STORM RUNOFF FROM ENTERING THE DISTURBED AREA OR PREVENTS SEDIMENT-LADEN WATER FROM LEAVING THE DISTURBED AREA.

#### CONDITIONS WHERE PRACTICE APPLIES

DIKES ARE CONSTRUCTED ADJACENT TO OR ACROSS DISTURBED AREAS TO PREVENT EXCESSIVE EROSION OR TO TRANSPORT SEDIMENT-LADEN WATER TO A SEDIMENT TRAPPING DEVICE. THE DIKES SHALL REMAIN IN PLACE UNTILL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.

#### DESIGN CRITERIA

DIKES SHALL NOT BE CONSTRUCTED OR DISCHARGED OUTSIDE THE PROPERTY LINES WITHOUT OBTAINING EASEMENTS FROM THE AFFECTED PROPERTY OWNERS. A DETAILED DESIGN IS NOT REQUIRED FOR DIKES, HOWEVER, THE FOLLOWING CRITERIA SHALL BE USED IN SELECTING SITES FOR PLACEMENT:

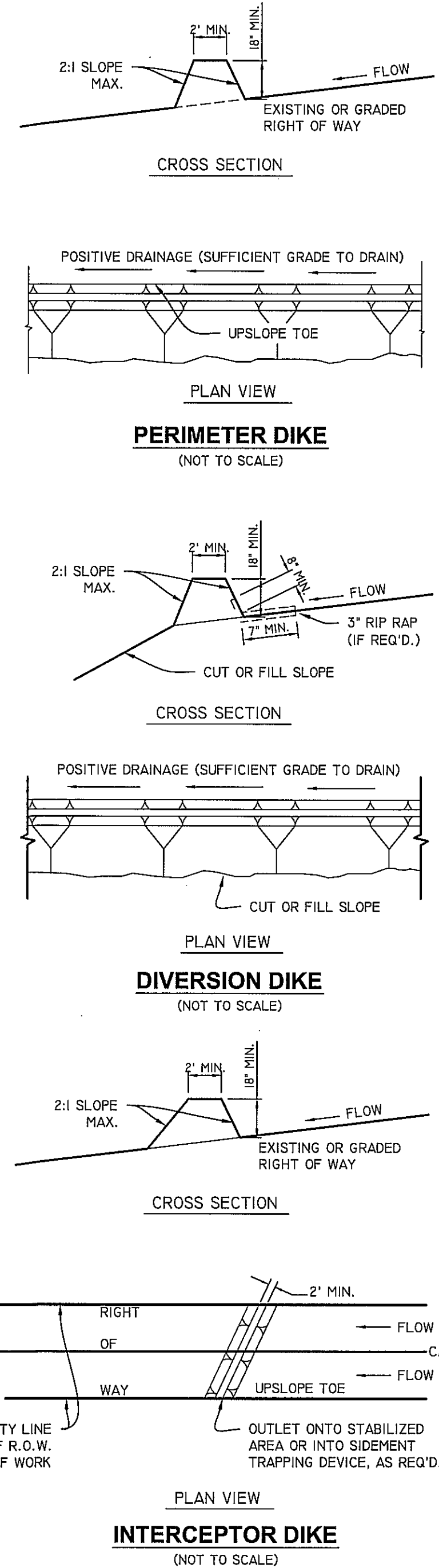
- DRAINAGE AREA - LESS THAN 5 ACRES (FOR LARGE AREAS, SEE STANDARDS FOR DIVERSION).
- TOP WIDTH - 2 FEET MINIMUM.
- HEIGHT - COMPACTED FILL SHALL BE 18 INCHES MINIMUM HEIGHT MEASURED FROM GROUND AT UPSLOPE TOE TO TOP OF THE DIKE.
- SIDE SLOPES - 2:1 OR FLATTER (FLAT ENOUGH TO ALLOW CONSTRUCTION TRAFFIC TO CROSS IF DESIRED).
- GRADE - DEPENDENT UPON TOPOGRAPHY, BUT MUST HAVE POSITIVE DRAINAGE. INTERCEPTOR DIKE SHOULD BE BETWEEN 0.4 PERCENT AND 1.0 PERCENT.
- STABILIZATION - WHERE SLOPE OF CHANNEL (FLOW AREA) IS: 1% - 5% - STABILIZATION MAY BE REQUIRED DEPENDING ON THE SITE CONDITIONS, OVER 5% - SEE STANDARDS FOR DIVERSION.
- SPACING - INTERCEPTOR DIKES SHALL BE PLACED SUCH THAT THE MAXIMUM VERTICAL DISTANCE BETWEEN DIKES IS 10 FEET.

#### OUTLET

- RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL OUTLET DIRECTLY ONTO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER (SEE STANDARDS FOR LEVEL SPREADER) OR GRADE STABILIZATION STRUCTURE (SEE STANDARDS FOR GRADE STABILIZATION STRUCTURE).
- STRUCTURE THAT WILL CONTROL THE RUNOFF FROM DIKES SHALL BE INSTALLED AND STABILIZED BEFORE DIKES ARE INSTALLED.

#### GENERAL NOTES:

- ALL DIKES SHALL BE MACHINE COMPACTED.
- FIELD LOCATION MAY BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR.



REVISIONS BY

EROSION CONTROL & TEMP. ENTRANCE DETAILS  
WOOD GROUP PRESSURE CONTROL BUILDING  
KEITHVILLE, LOUISIANA

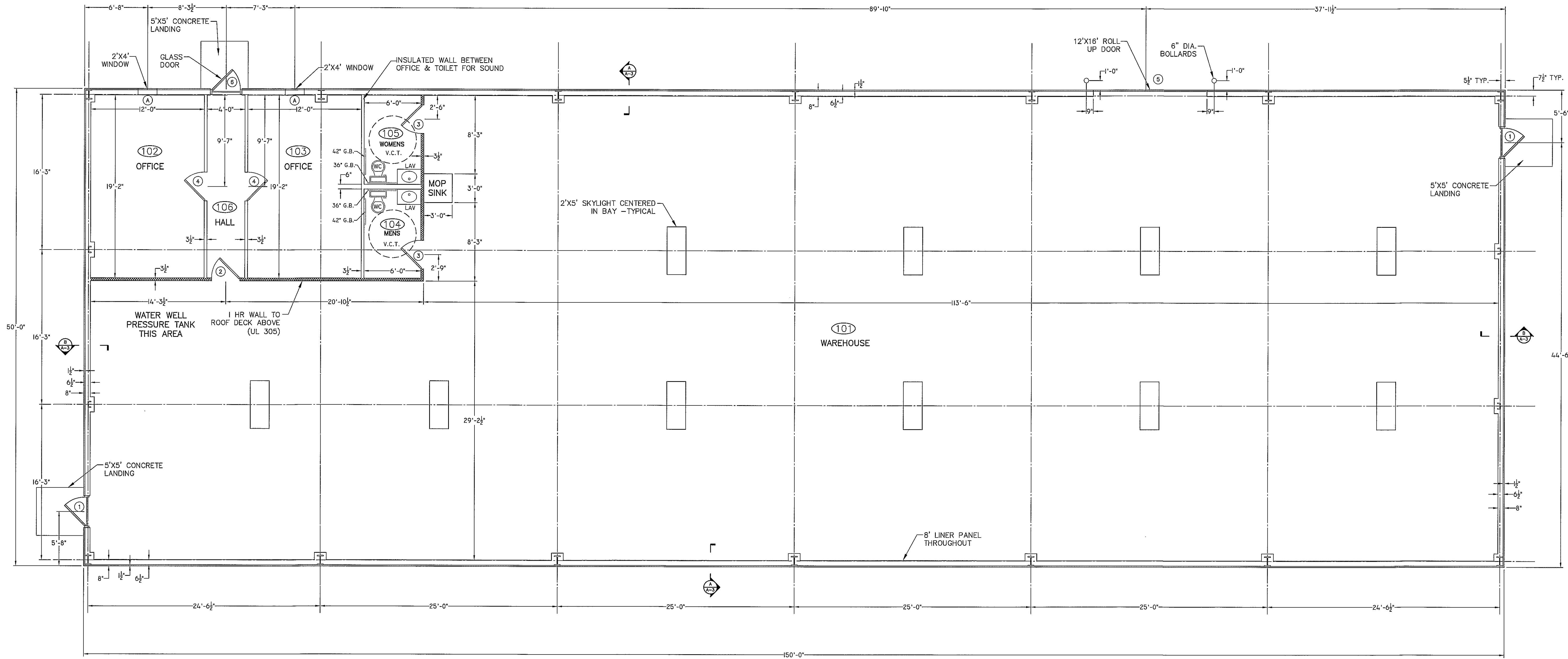
MEMBER OF L.E.S. AND A.S.C.E.  
RALEY AND ASSOCIATES, INC.  
CONSULTING ENGINEERS

4913 SHED ROAD ♦ BOSSIER CITY, LA. 71111  
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CIVIL, STRUCTURAL, SURVEYORS AND PLANNERS



DATE: 12/29/10  
SCALE: AS SHOWN  
DRAWN: NDV  
JOB: 10338  
SHEET: C4 OF 4 SHEET

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## FLOOR PLAN

SCALE: 3/16" = 1'-0"  
 SQUARE FEET = 7,500

### PRE-ENGINEERED METAL BUILDING:

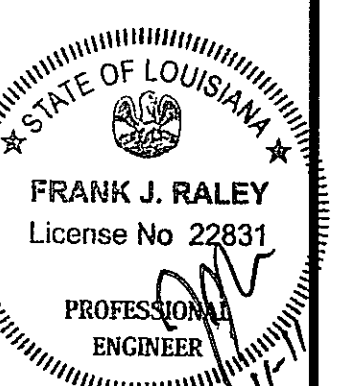
1. THIS PROTOTYPE SHOWN IS FOR GENERAL DESIGN PURPOSES. THE USE OF A PARTICULAR MANUFACTURER SHALL BE PER THE OWNER'S REQUEST.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN, COORDINATION, FABRICATION, AND ERECTION OF THE PRE-ENGINEERED METAL BUILDING SUPERSTRUCTURE INCLUDING COLUMN BASE PLATES AND ANCHORAGE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING ASPECTS OF THE METAL BUILDING CONSTRUCTION AND DESIGN CALCULATIONS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS AND CALCULATIONS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
3. SHOP DRAWING REVIEW IS FOR CONFORMANCE TO DESIGN INTENT ONLY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE DESIGN OF THE METAL BUILDING SUPERSTRUCTURE AS A RESULT OF SHOP DRAWING REVIEW.
4. G.C. TO COORDINATE THE INTEGRATION OF THE METAL BUILDING COMPONENTS WITH THE FOUNDATION REQUIREMENTS. DEVIATIONS TO BE COORDINATED BEFORE ERECTION COMMENCES.
5. SOME ELECTRICAL EQUIPMENT IS SUPPORTED BY THE ROOF GIRDERS AND PURLINS. THE ROOF GIRDERS, PURLINS, AND ANY AUXILIARY COMPONENTS SHALL BE DESIGNED TO SUPPORT SUCH LOADS. ALL INFORMATION (WEIGHTS AND LOCATIONS) PERTAINING TO EQUIPMENT SUSPENDED FROM THE BUILDING ROOF SHALL BE SUBMITTED TO THE PRE-ENGINEERED METAL BUILDING ENGINEER FOR APPROVAL.
6. DESIGN LOADS FOR PRE-ENGINEERED METAL BUILDING SHALL BE IN ACCORDANCE WITH LOCAL CODES AND DESIGN CONDITIONS. G.C. TO VERIFY LOADS WITH LOCAL BUILDING OFFICIALS AND ANY GEOTECHNICAL REPORTS.
7. THE CONCRETE FOUNDATION SHALL BE DESIGNED BASED ON THE VERTICAL AND LATERAL REACTIONS FURNISHED BY THE METAL BUILDING SUPPLIER. THE FOUNDATION DESIGN SHALL BE VERIFIED WITH REACTIONS SUPPLIED BY THE SELECTED BUILDING MANUFACTURER PRIOR TO ANY FOUNDATION CONSTRUCTION WORK BEGINNING.

REVISIONS	BY

**FLOOR PLAN**  
**WOOD GROUP PRESSURE**  
**CONTROL BUILDING**  
**SHREVEPORT, LOUISIANA**

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 CONSULTING ENGINEERS  
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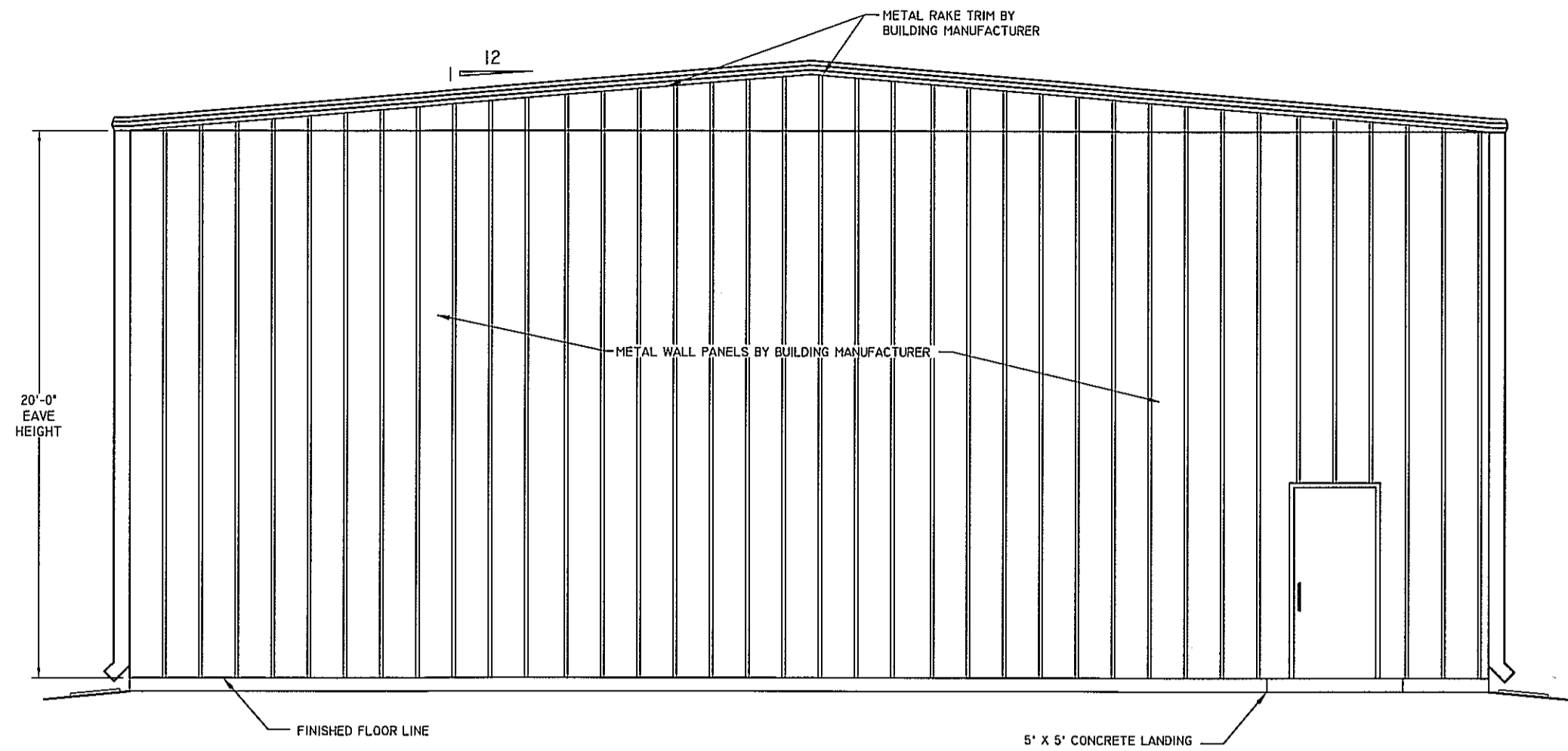
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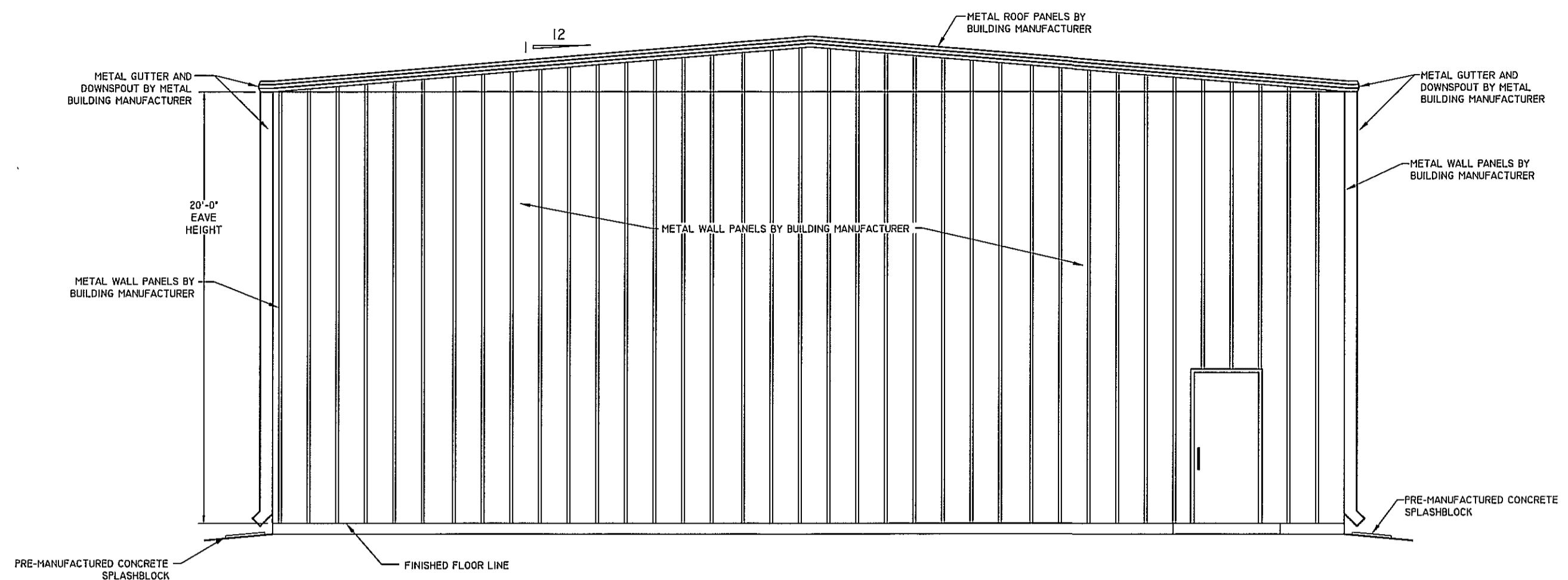
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 JOB: **10338**  
 SHEET:

**A-1**  
 OF 3 SHEET

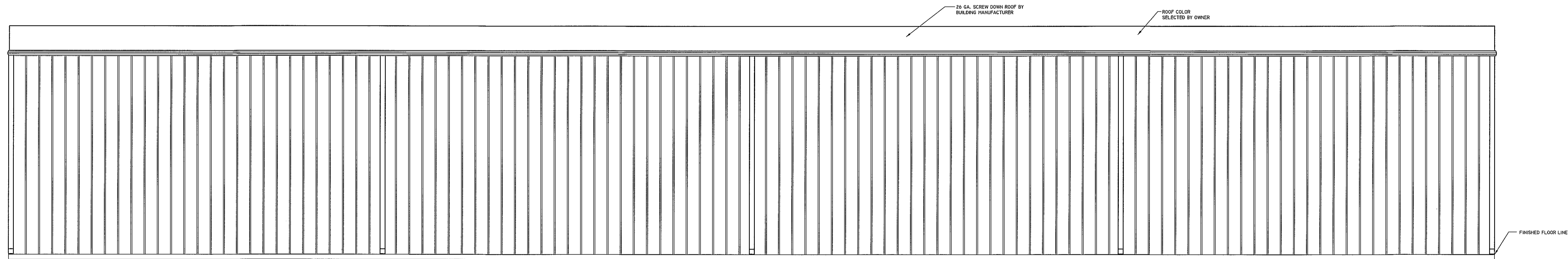
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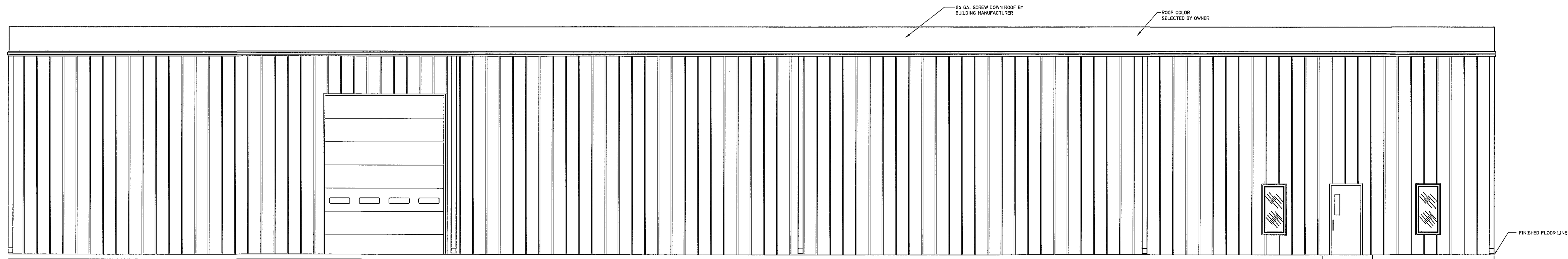
**FRONT ELEVATION**  
SCALE - 3/16" = 1'-0"



**REAR ELEVATION**  
SCALE - 3/16" = 1'-0"



**RIGHT ELEVATION**  
SCALE - 3/16" = 1'-0"



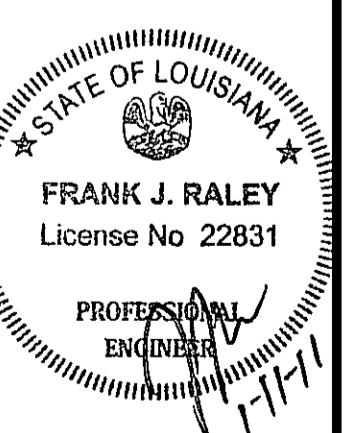
**LEFT ELEVATION**  
SCALE - 3/16" = 1'-0"

REVISIONS	BY

**ELEVATION PLAN**  
**WOOD GROUP PRESSURE**  
**CONTROL BUILDING**  
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JOB: **10338**  
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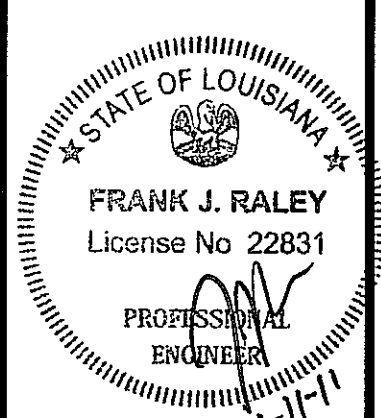
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OF 3 SHEET

9:172

REVISIONS	BY

**WALL SECTIONS & DETAILS PLAN**  
**WOOD GROUP PRESSURE CONTROL BUILDING**  
**SHREVEPORT, LOUISIANA**

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DATE: **12-30-10**  
 SCALE: **N.T.S.**  
 DRAWN: **EJM**  
 JOB: **10338**  
 SHEET: **A-3**  
 OF 3 SHEET

ROOM FINISH SCHEDULE (VERIFY WITH OWNER)							
MK	ROOM NAME	FLOOR	BASE	WALLS	CEILING	CLG. HGT	REMARKS
101	WAREHOUSE	F1	-	W1	C1	-	
102	OFFICE	F3	B2	W2	C3	9'-0"	
103	OFFICE	F3	B2	W2	C3	9'-0"	
104	TOILET	F3	B2	W2	C3	9'-0"	
105	TOILET	F3	B2	W2	C3	9'-0"	
106	HALLWAY	F3	B2	W2	C3	9'-0"	

WINDOW SCHEDULE (VERIFY WITH OWNER)					
MK	SIZE	TYPE	GLASS	FRAME	REMARKS
A	2'-0" x 4'-0"	FIXED	TINTED - INSULATED	ALUMINUM	

DOOR SCHEDULE (VERIFY WITH OWNER)						
MK	SIZE	TYPE	FINISH	FRAME	HARDWARE	REMARKS
1	3'-0" x 7'-0"	I.M.	I.M./PAINTED	H.M./PAINTED	H3,H4,H5,H6,H7	
2	3'-0" x 7'-0"	I.M.	I.M./PAINTED	H.M./PAINTED	H3,H4	45 MIN RATED
3	3'-0" x 7'-0"	I.M.	I.M./PAINTED	H.M./PAINTED	H2	45 MIN RATED
4	3'-0" x 7'-0"	S.C.	WOOD/PAINTED	H.M./PAINTED	H3	
5	12'-0" x 16'-0"	O.H.	BY MANUFACTURER	BY MANUFACTURER	BY MANUFACTURER	
6	3'-0" x 7'-0"	I.M.	I.M./PAINTED	H.M./PAINTED	H3,H4,H5,H6	WITH 1/2 LITE

**ROOM FINISH SPECIFICATIONS**

**FLOORS**

- F1 EXPOSED CONCRETE WITH CURRING SEALER
- F2 COMMERCIAL GRADE GLUE DOWN CARPET
- F3 CERAMIC TILE
- F3 VINYL COMPOSITION TILE

**BASE**

- B1 BASE AS SELECTED BY OWNER
- B2 6" VINYL BASE

**WALLS**

- W1 EXPOSED BUILDING INSULATION W/LINER PANEL.
- W2 5/8" FIRECODE GYPSUM BOARD PAINTED WITH MINIMUM ONE (1) COAT PRIMER AND TWO (2) COATS "BENJAMIN MOORE" BEST LATEX PAINT OR EQUIVALENT.
- W3 GYP. BD. PAINTED WITH FRP UP 48" A.F.F. WITHIN 2' OF WATER CLOSET.
- W4 GYPSUM BOARD - TAPED.

**CEILING**

- C1 EXPOSED BUILDING INSULATION.
- C2 5/8" F.C. GYPSUM BOARD, PAINTED
- C3 2"x2" SUSPENDED ACOUSTIC "ARMSTRONG CORTEGA" MINABOARD, WHITE TILES IN WHITE BAKED ENAMEL FINISHED GRID.

FIRE EXTINGUISHERS TO BE 5# "CENTURY" BY ANSEL. EXTINGUISHER F.E. AND CABINET TO BE SUPPLIED BY GENERAL CONTRACTOR.

= WALLS WITH INSULATION

**DOOR HARDWARE SCHEDULE**

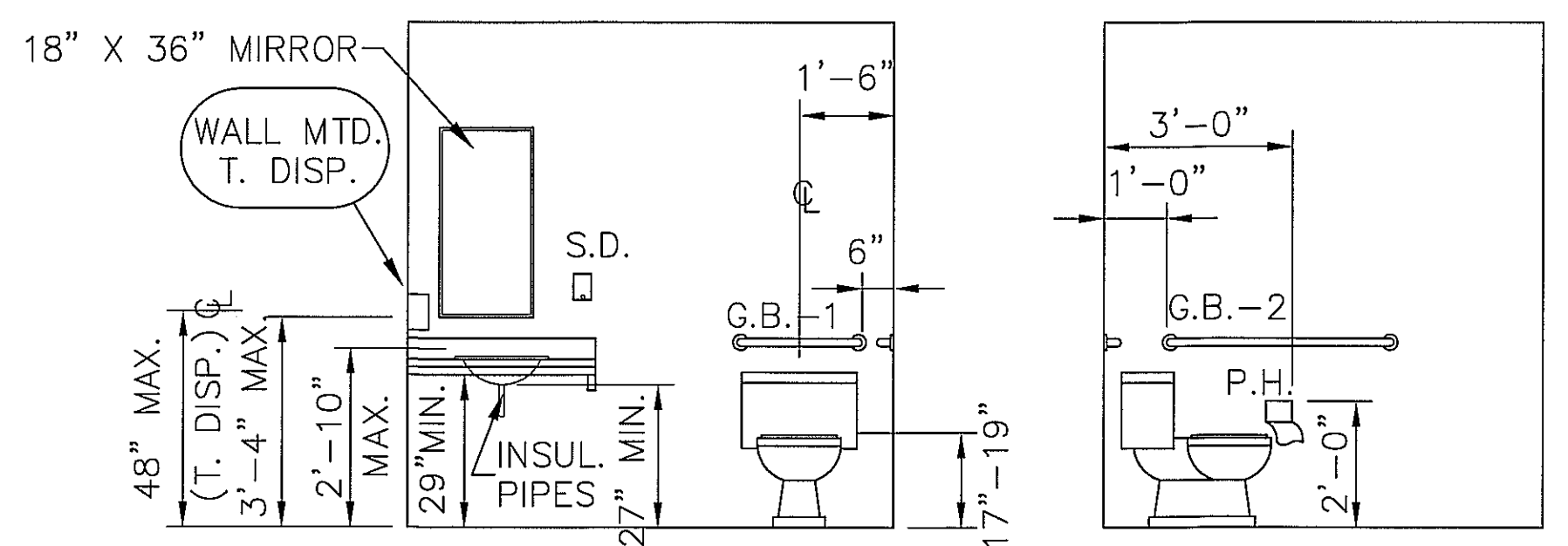
MARK	DESCRIPTION	MARK	DESCRIPTION
H1	PASSAGE SET	S.C.	SOLID CORE WOOD
H2	PRIVACY LATCH	H.C.	HOLLOW CORE WOOD
H3	LOCK SET	O.H.	OVERHEAD DOOR
H4	CLOSER: SIZE TO DOOR	C.O.	CASED OPENING
H5	WEATHER STRIPPING	H.M.	HOLLOW METAL
H6	THRESHOLD		
H7	PANIC HARDWARE		
H8	PUSH PLATE, PULL BAR		

**DOOR HARDWARE NOTES:**

1. ALL OUTSWING EXTERIOR DOORS TO HAVE NONREMOVABLE PIN HINGES.
2. ALL LABEL DOORS TO HAVE PROPER HARDWARE FOR LABELED OPENING.
3. ALL DOOR CLOSERS TO BE SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. ALL LOCKS TO BE MASTER KEYS.
5. FURNISH TWO KEYS FOR EACH LOCK.
6. FURNISH FOUR EACH MASTER KEYS.
7. ALL INTERIOR DOORS TO HAVE FLOOR MOUNTED DOOR STOPS, #436B10B.
8. 1 3/4" THICK DOORS = FBB179 4 1/2" x 4 1/2", 1 1/2 PR. PER LEAF.
9. ALL DOORS WITH CLOSERS TO HAVE BALL BEARING HINGES = FBB 179 4 1/2" x 4 1/2".
10. ALL DOOR HARDWARE TO HAVE MATCHING FINISH AS SELECTED BY OWNER.
11. ALL DOORS TO RECEIVE LEVER HANDLE TYPE KNOBS. -ADAG APPROVED

**DOOR TYPES**

MARK	DESCRIPTION
S.C.	SOLID CORE WOOD
H.C.	HOLLOW CORE WOOD
O.H.	OVERHEAD DOOR
C.O.	CASED OPENING
H.M.	HOLLOW METAL

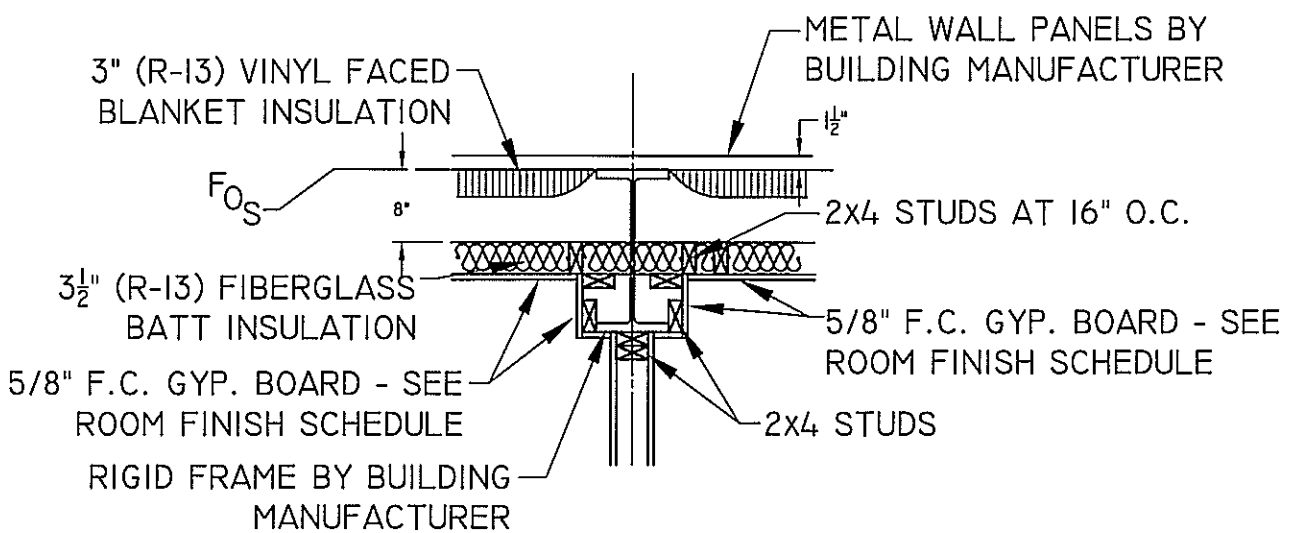


**RESTROOM**

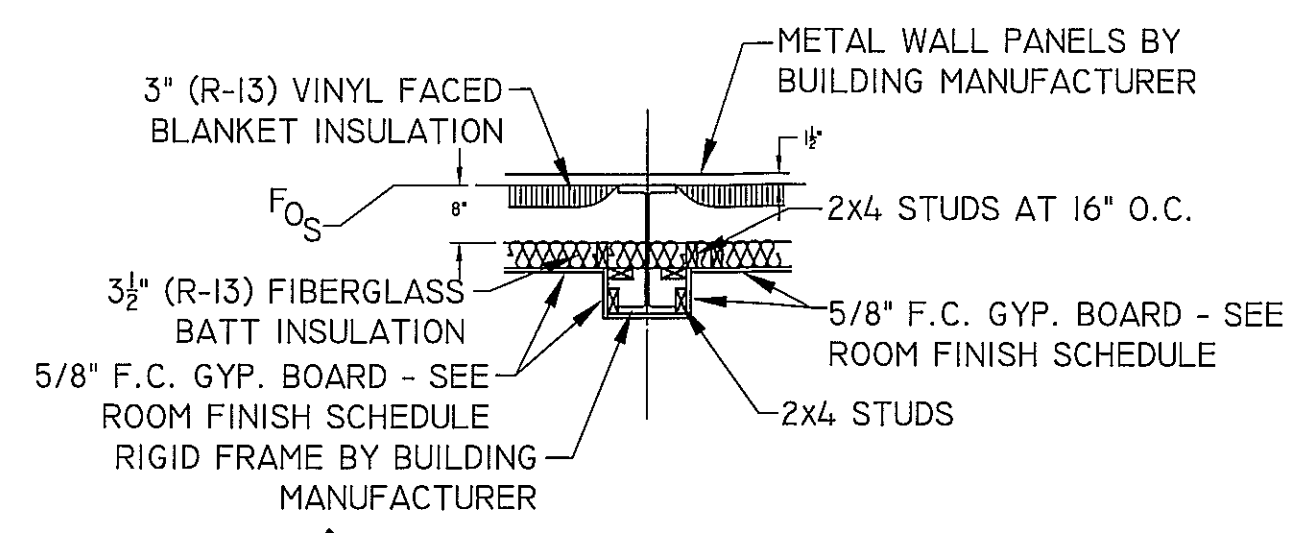
PAINT GRADE BIRCH - FLUSH  
PLAS. LAM. TOP, EDGE, & SPLASH

**NOTE:**

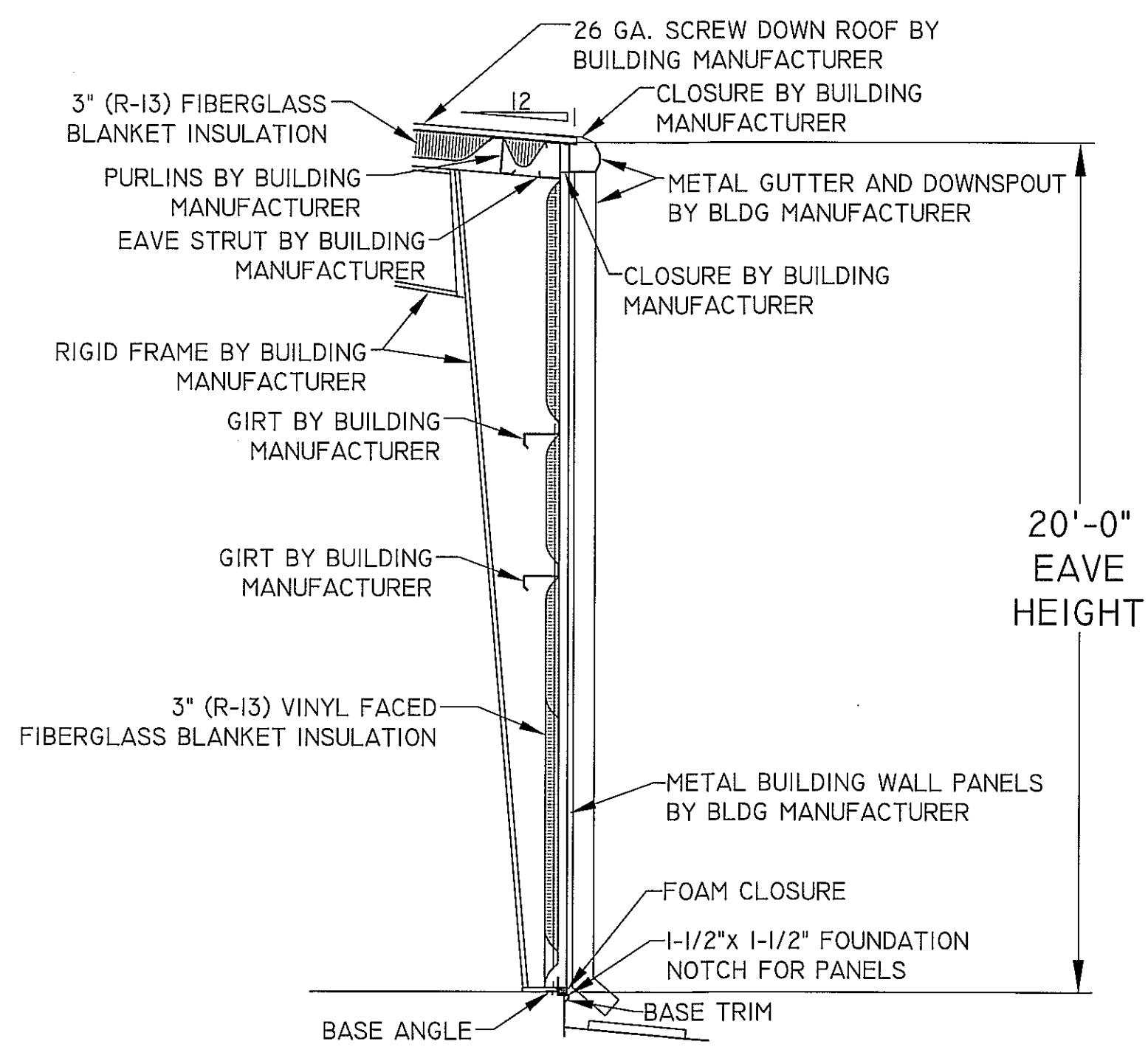
- GB-1 = 24" LONG, 1 1/2" DIA. ST. STL. GRAB BAR
- GB-2 = 42" LONG, 1 1/2" DIA. ST. STL. GRAB BAR
- GB-3 = 36" LONG, 1 1/2" DIA. ST. STL. GRAB BAR
- T. DISP. = PAPER TOWEL DISPENSER W/ TRASH RECEPTACLE
- S.D. = SOAP DISPENSER
- P.H. = PAPER HOLDER



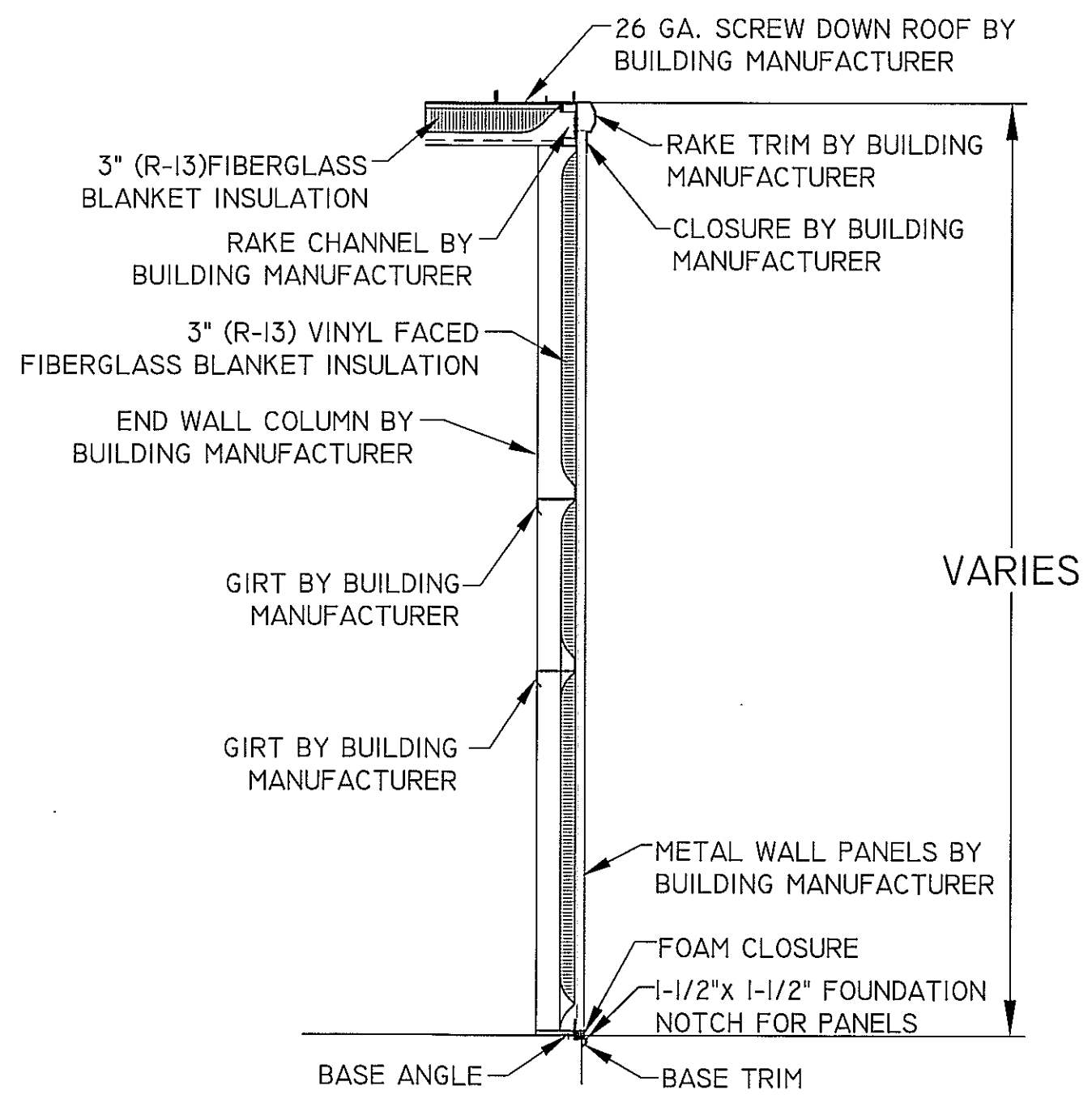
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SCALE - N.T.S.



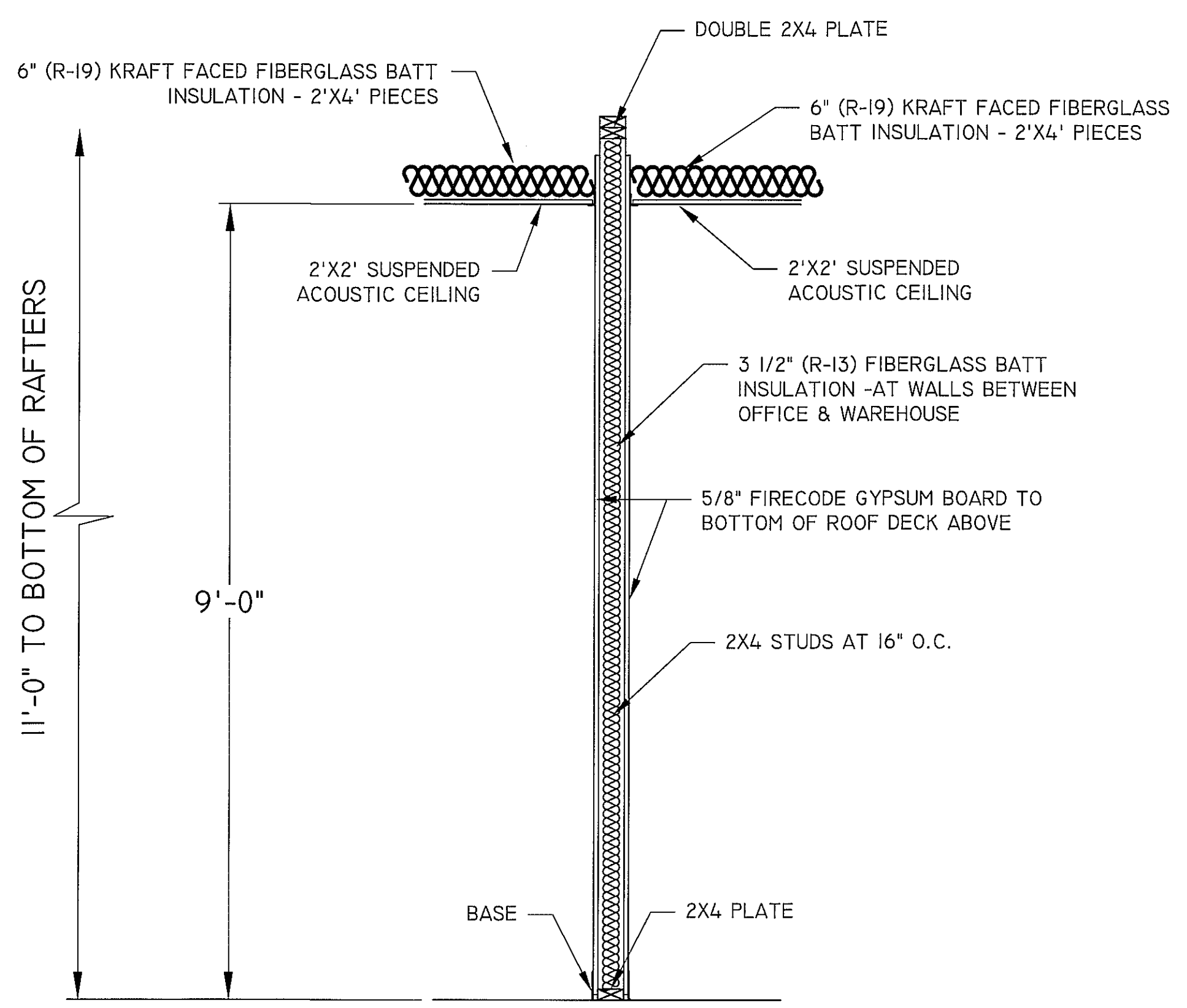
**2 COLUMN DETAIL**  
SCALE - N.T.S.



**A WALL SECTION**  
SCALE - N.T.S.



**B WALL SECTION**  
SCALE - N.T.S.



**TYPICAL WALL SECTION (UL305)**  
SCALE - N.T.S.

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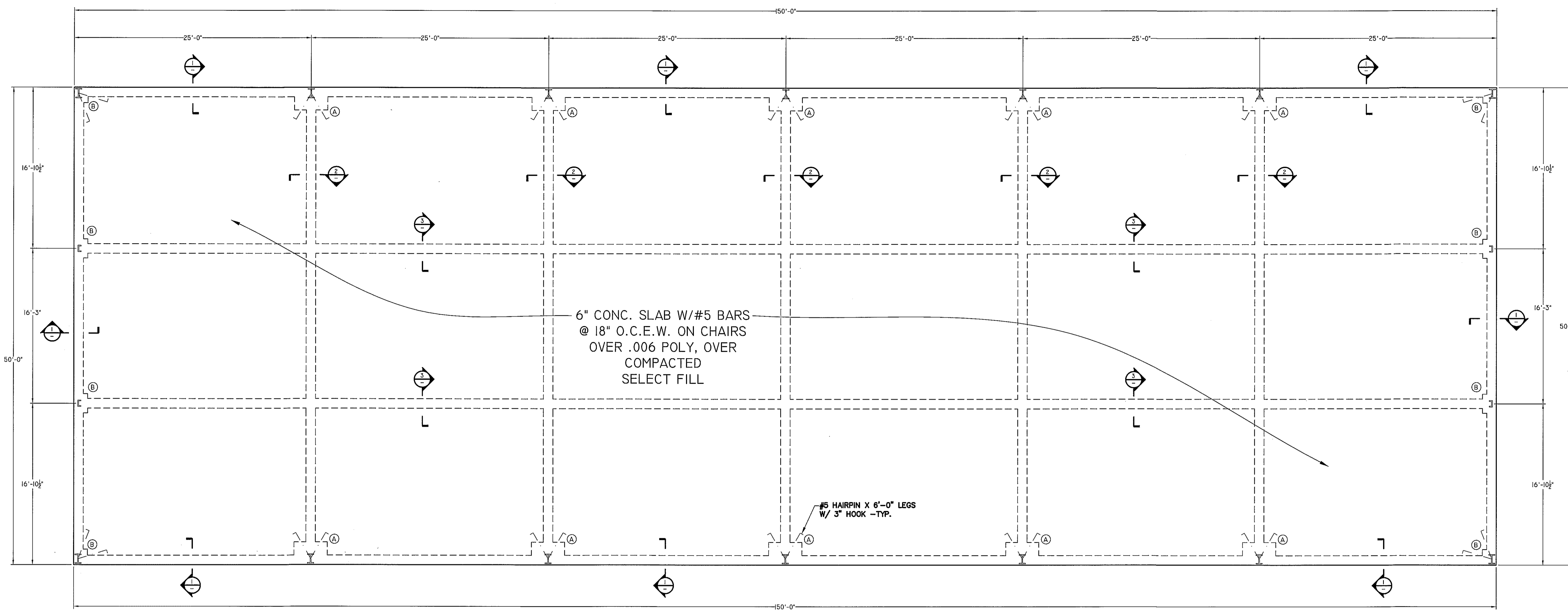
REVISIONS	BY

**FOUNDATION PLAN  
WOOD GROUP PRESSURE  
CONTROL BUILDING  
KEYIHVILLE, LOUISIANA**

**RALEY AND ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
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DATE: **12-30-10**  
SCALE: **3/16"=1'-0"**  
DRAWN: **EJM**  
JOB: **10338**  
SHEET: **S1**  
OF 1 SHEET



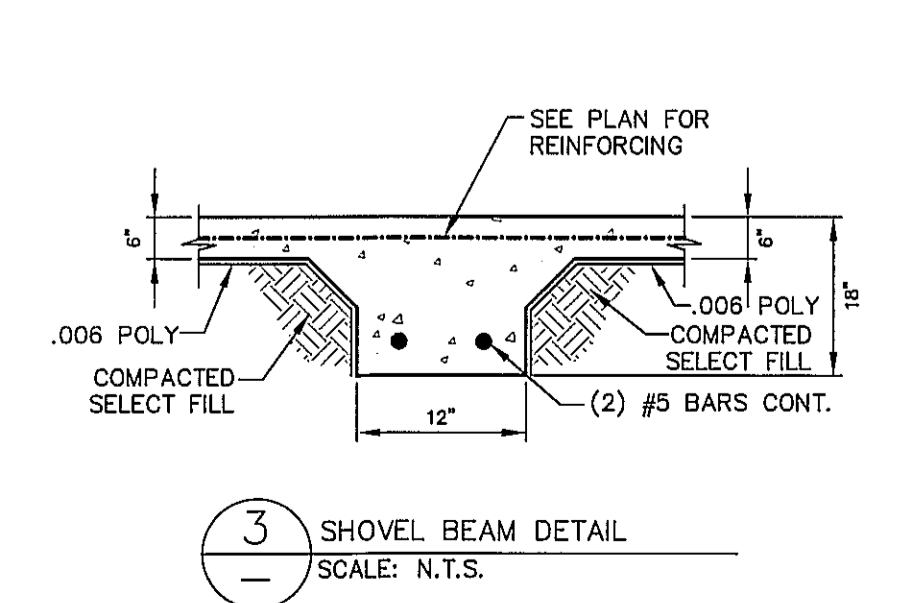
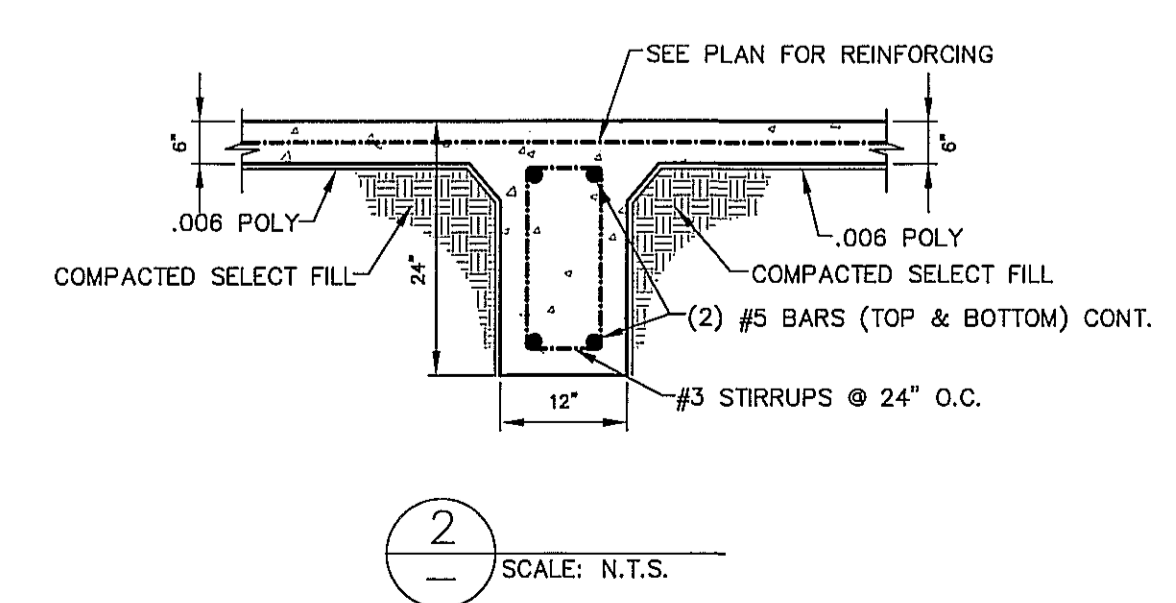
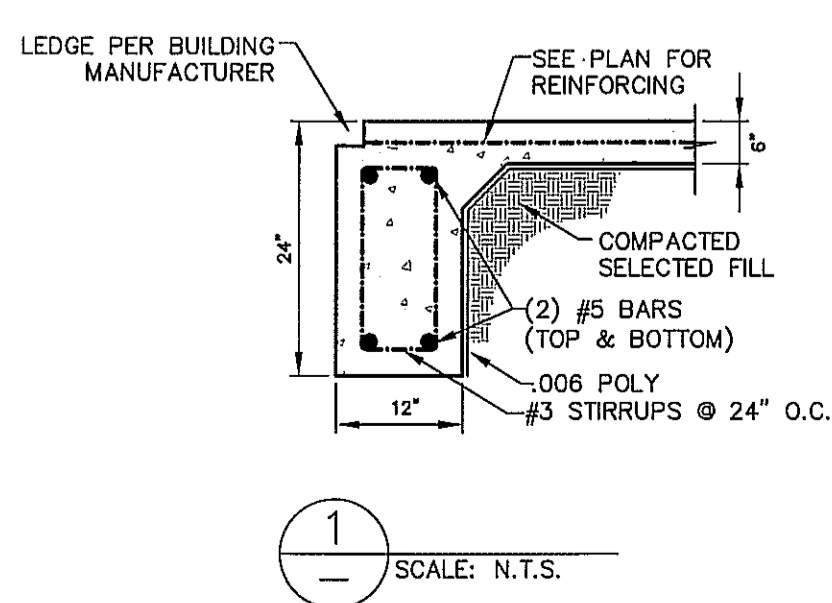
**FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"  
7,500 SQ.FT.

NOTE: VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS

FOOTING SCHEDULE		
NUMBER	SIZE	REINFORCEMENT (2 LAYERS)
A	3'-6" X 3'-6" X 24" DEPTH	5 #5 BARS EACH WAY
B	2'-0" X 2'-0" X 24" DEPTH	3 #5 BARS EACH WAY

- GENERAL**
- THE CONTRACTOR SHALL PROVIDE BRACING, TEMPORARY AND/OR SUPPORT, FOR WORK DURING CONSTRUCTION TO INSURE PROPER WORKMANSHIP.
  - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS RELATING TO EXISTING CONSTRUCTION AND EXISTING SERVICES ON AND TO THE SITE.
  - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF COLUMNS, WALLS, OPENINGS, ETC. WITH THE ARCHITECTURAL DRAWINGS AND METAL BUILDING DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.
  - THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY UNUSUAL CONDITIONS FOUND ON THE SITE PRIOR TO PROCEEDING WITH SAID AREA OF WORK.
  - THE CONTRACTOR IS TO ENSURE THAT POSITIVE DRAINAGE IS TO BE MAINTAINED AT ALL TIMES AROUND THE FOUNDATION. NO SPRINKLER LINES ARE TO BE INSTALLED WITHIN 24" OF THE FOUNDATION. SPRINKLER HEADS ARE NOT TO SPRAY AGAINST THE BUILDING OR FOUNDATION. IF THESE ITEMS ARE NOT ADHERED TO THE DESIGN WILL BE NULLIFIED.
  - THE CONTRACTOR SHALL FOLLOW THE SITE PREPARATION RECOMMENDATIONS PER THE MOST CURRENT GEOTECHNICAL REPORT PREPARED FOR THIS SITE BY GEOTECHNICAL ENGINEERING SERVICES, INC, DATED 11-10-10.
  - THE CONCRETE FOUNDATION IS TO BE DESIGNED BASED ON THE VERTICAL AND LATERAL REACTIONS FURNISHED BY THE METAL BUILDING SUPPLIER. THE FOUNDATION DESIGN SHALL BE VERIFIED WITH REACTIONS SUPPLIED BY THE SELECTED BUILDING MANUFACTURER PRIOR TO ANY CONSTRUCTION WORK BEGINNING.
  - THE DESIGN LOADS FOR THE PRE-ENGINEERED METAL BUILDING SHALL BE IN ACCORDANCE WITH LOCAL CODES AND DESIGN CONDITIONS. THE GENERAL CONTRACTOR IS TO VERIFY LOADS WITH LOCAL BUILDING OFFICIALS AND GEOTECHNICAL REPORTS.
- SITE**
- THE SITE SHALL BE CLEARED AND GRUBBED OF ALL VEGETATION PRIOR TO FILL OR CONSTRUCTION OF THE BUILDING FOUNDATION. THE CONTRACTOR SHALL FOLLOW THE SITE PREPARATION RECOMMENDATIONS PER THE MOST CURRENT GEOTECHNICAL REPORT PREPARED FOR THIS SITE BY GEOTECHNICAL ENGINEERING SERVICES, INC, DATED 11-10-10.
  - ALL SELECT FILL SHALL HAVE A PI RANGING FROM 5-18, A LL LESS THAN OR EQUAL TO 35, AND NO MORE THAN 60% PASSING THE NO. 200 SIEVE. SELECT FILL SHALL BE A LOW PLASTICITY SANDY CLAY OR CLAYEY SAND. THE SELECT FILL SHALL BE COMPACTED IN 6" LIFTS TO 95% STANDARD PROCTOR (ASTM D-698) WITH A COMPACTION TEST RUN EACH LIFT (1 TEST PER 3000 SF). SELECT FILL SHALL EXTEND A MINIMUM OF 5' BEYOND THE BUILDING PERIMETER.
  - ANY SOFT AREAS (TREE STUMP HOLES, ETC.) SHALL BE CUT OUT AND RECOMPACTED TO SAID PROCTOR. ALL SUBGRADE WITHIN THE FOUNDATION AREA SHALL BE COMPACTED TO 95% STANDARD PROCTOR UNLESS NOTED OTHERWISE IN THE GEOTECHNICAL REPORT FOR THIS SITE.
  - THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE ON THE SITE AT ALL TIMES.
  - ALL EXCAVATION SHALL BE OBSERVED BY THE ENGINEER/ARCHITECT PRIOR TO PLACING CONCRETE.
  - ALL EXCAVATION SHALL BE FREE OF WATER BEFORE PLACING CONCRETE.
- REINFORCING STEEL**
- ALL STEEL REINFORCEMENT SHALL BE GRADE 60, ASTM 615, DEFORMED BARS.
  - CLEAR DIMENSIONS FOR STEEL SHALL BE NO LESS THAN 3" FOR CONCRETE EXPOSED TO EARTH AND 1 1/2" FOR CONCRETE NOT EXPOSED TO WEATHER OR EARTH.
  - ALL STEEL REINFORCEMENT BARS SHALL BE SPLICED A MIN. LENGTH OF 36 TIMES THE BAR DIAMETER.
  - ALL CORNER AND INTERSECTION BARS SHALL HAVE CORNER BARS (TOP AND BOTTOM) INSTALLED.
  - ALL WELDED WIRE AND STEEL REINFORCEMENT BARS SHALL BE SECURED PROPERLY BEFORE PLACING CONCRETE.
  - COVER FOR ALL REINFORCING STEEL SHALL BE PER THE RECOMMENDATION OF ACI 318 LATEST EDITION.

- CONCRETE**
- ALL CONCRETE SHALL HAVE A MIN. COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING CYLINDERS MADE AND TESTED BY A CERTIFIED LAB. TEST REPORTS ARE TO BE PROVIDED TO OWNER, CONTRACTOR, ARCHITECT AND ENGINEER. PRODUCTION OF CONCRETE SHALL COMPLY WITH CHAPTER 7 OF ACI 301. PLACEMENT AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH PCA AND ACI LATEST RECOMMENDATIONS FOR THE CURRENT WEATHER CONDITIONS.
  - CONTRACTOR TO CHAMFER ALL EXPOSED CONCRETE EDGES.
  - MAXIMUM CONCRETE SLUMP SHALL BE NO MORE THAN 5". WATER/CEMENT RATIO SHOULD NOT EXCEED 0.50.
  - CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN FOR APPROVAL PRIOR TO BEGINNING CONSTRUCTION. SEPARATE SUBMISSIONS FOR FOUNDATION, FLOOR & FLAT WORK SHALL BE REQUIRED IF DIFFERENT MIXES ARE USED.
  - CONTRACTOR MAY USE MACROPOLYMERIC FIBERS (DENIER GREATER THAN 1000) IN THE CONCRETE MIX TO REDUCE TEMPERATURE/SHRINKAGE CRACKS. THE RATE OF APPLICATION SHALL BE PER THE MANUFACTURER'S RECOMMENDATIONS. USE STRUX 90/40 FIBERS BY W.R. GRACE OR EQUIVALENT.
  - CURING COMPOUND SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES PER MANUFACTURER'S RECOMMENDATIONS. USE SPINBORN KURE-N-SEAL OR EQUIVALENT.
  - CONTRACTOR IS RESPONSIBLE FOR VERIFYING WITH ARCHITECT IF CURING COMPOUND, FIBERS, CONCRETE ADMIXTURES, ETC. WILL HAVE AN ADVERSE EFFECT ON FINISH FLOORING PRODUCTS.
  - THE CONTRACTOR IS TO PROVIDE SAW JOINTS AT 15'-0" O.C. MAX. WITH A MAX. PANEL SIZE NOT TO EXCEED 225 SQ. FT. - MAX. DEPTH TO BE 1/3 AND WIDTH TO BE 1/8". SAW CUTS SHALL BE COMPLETED AS SOON AS THE CONCRETE WILL SUPPORT THE SAW AND NOT RAVE.
  - CONCRETE CONTRACTOR SHALL BE ADVISED THAT CONTROL AND MINIMIZATION OF SURFACE CRACKS IS CRITICAL AND SHALL FULLY EXERCISE AND COMPLY WITH SPECIFICATIONS AND GOOD PRACTICES TO INSURE THIS CRITERIA IS MET.
- TESTING**
- A TESTING LAB SHALL BE SELECTED BY THE OWNER. OWNER SHALL PAY FOR ALL TESTING EXCEPT ANY RETEST SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR.
  - THE SUBCONTRACTOR PERFORMING THE WORK TO BE TESTED SHALL COORDINATE ALL TESTING WITH THE GENERAL CONTRACTOR BUT IN ALL CASES SHALL BE RESPONSIBLE FOR INSURING THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH TESTING REQUIREMENTS BEFORE PROCEEDING.
  - THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY WORK THAT IS PERFORMED IN VIOLATION OF TESTING REQUIREMENTS.



JAN 11, 2011 - 3:17PM Z:\PROJECT FILES\CIVIL - ARCHITECTURAL\10338-BOGGS & POOLE, WOOD PRESSURE GROUP BLDG. - ADDITION\DRAWING FILES\10338-ARCHITECTURAL DWGS.DWG

TYPE: S.O. D OR G.E.  
 SERVICE: 120/ 208/3  
 MAIN: 225A MAIN BREAKER

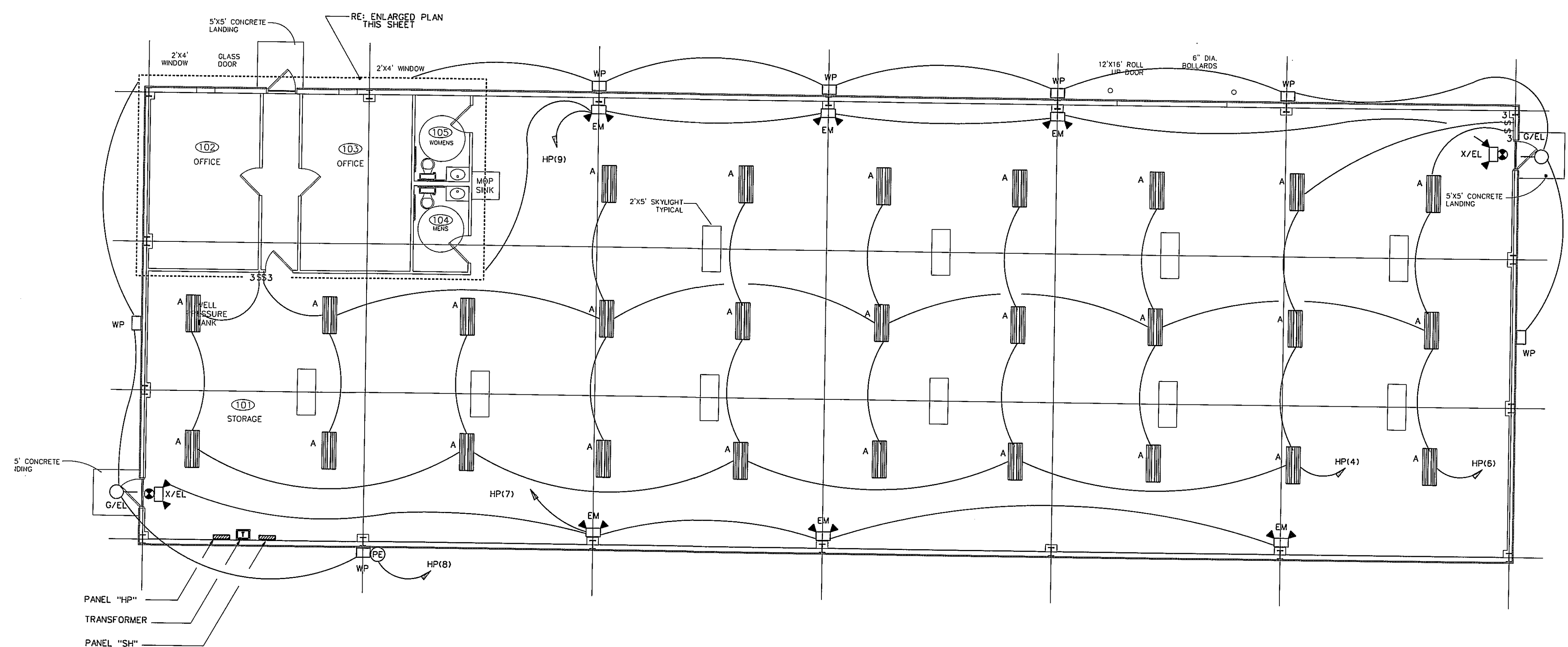
PANEL "HP"

MOUNTING SURFACE  
 A/C/

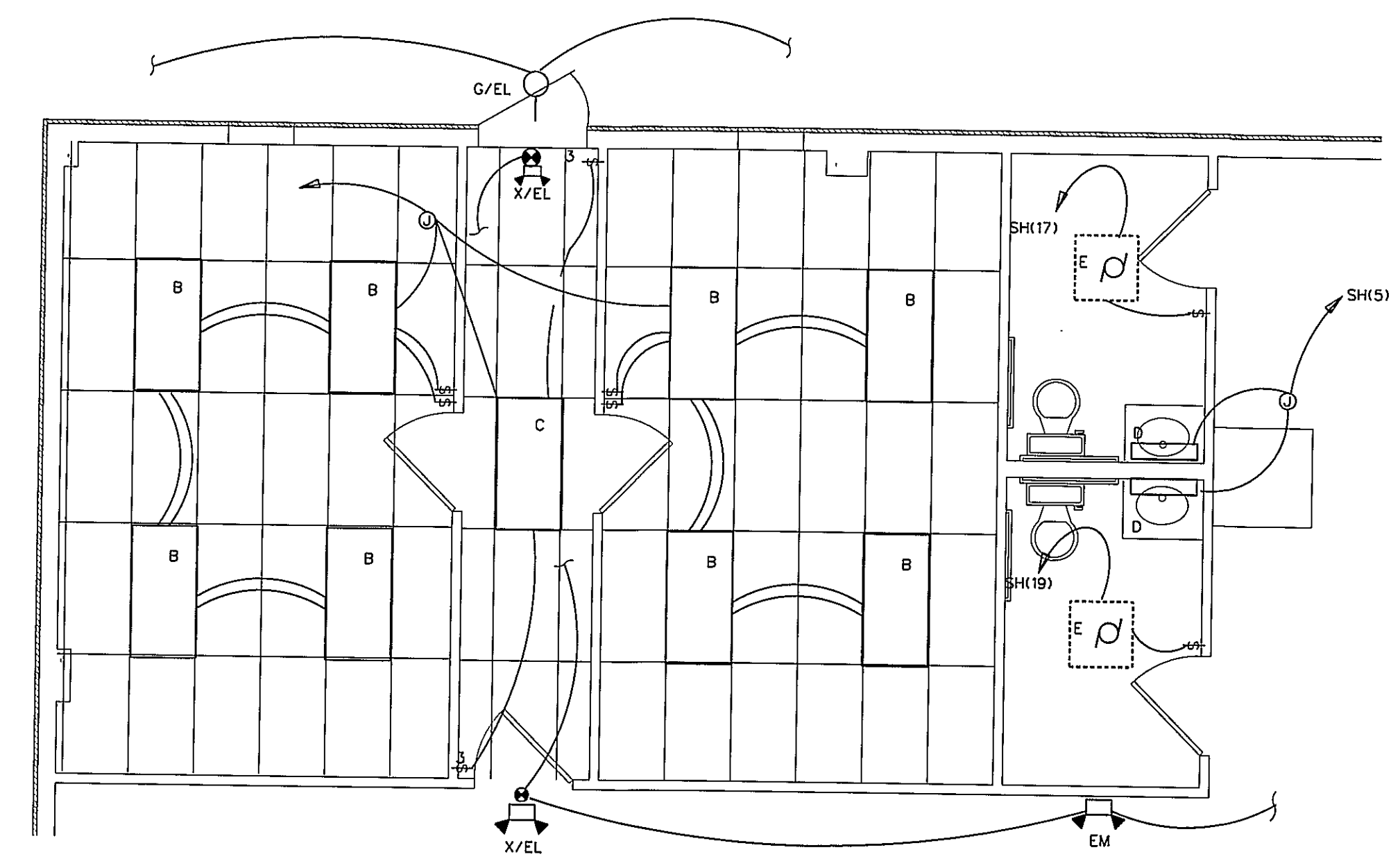
REMARKS:

NO.	TYPE	WIRE	CO	SERVICE	LOAD V. A.	NO.	TYPE	WIRE	CO	SERVICE	
1	125	3	1/0	1/2	TRANSFORMER "SH"-75 KVA	2	20	1	12	1/2	OFFICE LIGHTS
3	-	-	1/0	1/2	TRANSFORMER "SH"-75 KVA	4	20	1	12	1/2	SHOP LIGHTS
5	-	-	1/0	1/2	TRANSFORMER "SH"-75 KVA	6	20	1	12	1/2	SHOP LIGHTS
7	20	1	12	1/2	EMERGENCY/EXIT LIGHTS	8	20	1	12	1/2	WALL PACKS-EXTER.
9	20	1	12	1/2	EMERGENCY/EXIT LIGHTS	10	20	1	-	-	SPARE
11	20	1	-	-	SPARE	12	20	1	-	-	SPARE
13	-	-	-	-	SPARE	14	20	1	-	-	SPARE
15	-	-	-	-	SPARE	16	-	-	-	-	SPARE
17	-	-	-	-	SPARE	18	-	-	-	-	SPARE
19	-	-	-	-	SPARE	20	-	-	-	-	SPARE
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31	-	-	-	-	SPARE	32	-	-	-	-	SPARE
33	-	-	-	-	SPARE	34	-	-	-	-	SPARE
35	-	-	-	-	SPARE	36	-	-	-	-	SPARE
37	-	-	-	-	SPARE	38	-	-	-	-	SPARE
39	-	-	-	-	SPARE	40	-	-	-	-	SPARE
41	-	-	-	-	SPARE	42	-	-	-	-	SPARE

CONNECTED V.A. PER PHASE: 27000 30650 32100  
 TOTAL AMPS PER PHASE: 98 111 116  
 WIRE AMPS-1.25X116-145A.  
 USE 225A FEEDER, 2 1/2" C., 4" #1 #4G.



**ELECTRICAL LIGHTING PLAN**  
 SCALE: 1/8" = 1'-0"



**ENLARGED OFFICE AREA-LIGHTING PLAN**  
 SCALE: 1/4" = 1'-0"

SYMBOL SCHEDULE AND NOTES

SYMBOL	DESCRIPTION
[Symbol]	FLUORESCENT SURFACE MOUNTED LIGHTING FIXTURE.
[Symbol]	WALL MOUNTED LIGHTING FIXTURE.
[Symbol]	EXIT LIGHT FIXTURE. CEILING AND WALL MOUNTED. SHADED QUADRANT INDICATES LIGHTED FACE. ARROW INDICATES DIRECTION OF EGRESS.
[Symbol]	JUNCTION BOX. CEILING OR FLOOR MOUNTED AS INDICATED ON DRAWINGS.
[Symbol]	SINGLE POLE, SINGLE THROW TOGGLE WALL SWITCH. MOUNT 54" A.F.F.
[Symbol]	SINGLE POLE, DOUBLE THROW "THREE-WAY" TOGGLE WALL SWITCH. MOUNT 54" A.F.F.
[Symbol]	NON-FUSED DISCONNECT SWITCH RATED 30 AMPS UNLESS NOTED OTHERWISE.
[Symbol]	DUPLEX RECEPTACLE MOUNTED 15" A.F.F. UNLESS NOTED OTHERWISE. MOUNT WITH LONG DIMENSION VERTICAL UNLESS NOTED OTHERWISE.
[Symbol]	DUPLEX RECEPTACLE WITH INTEGRAL PERSONNEL GROUND FAULT CIRCUIT INTERRUPTER (GFCI).
[Symbol]	WEATHERPROOF DUPLEX RECEPTACLE.
[Symbol]	ELECTRIC MOTOR. NUMBER DENOTES HORSEPOWER.
[Symbol]	120/208V MAIN DISTRIBUTION PANELBOARD.
[Symbol]	120/208V MISCELLANEOUS LIGHTING AND POWER PANELBOARD.
[Symbol]	HOMERUN TO PANELBOARD. ARROWHEADS DENOTES NUMBER OF BRANCH CIRCUITS IN CONDUIT.
[Symbol]	CONDUIT CONCEALED IN CONCRETE SLAB OR IN EARTH. MINIMUM 3/4". REFER TO SPECS.
[Symbol]	WALL TELEPHONE OUTLET MOUNTED 48" A.F.F. RISE 3/4" CONDUIT UP TO ABOVE CEILING AND CONTINUE TO TELEPHONE BACKBOARD. MOUNT WITH LONG DIMENSION VERTICAL UNLESS NOTED OTHERWISE. PROVIDE CAT5 CABLE TO PHONEBOARD AND RJ45 JACK.
[Symbol]	TELEPHONE OUTLET MOUNTED 15" A.F.F. RISE 3/4" CONDUIT UP TO ABOVE CEILING AND CONTINUE TO TELEPHONE BACKBOARD. MOUNT WITH LONG DIMENSION VERTICAL UNLESS NOTED OTHERWISE. PROVIDE CAT5 CABLE TO PHONEBOARD AND RJ45 JACK.
[Symbol]	LINE VOLTAGE THERMOSTAT. PROVIDE OUTLET BOX WITH 1/2" CONDUIT TO FAN. MECHANICAL CONTRACTOR TO PROVIDE THERMOSTAT, E.C. TO INSTALL AND TERMINATE. MOUNT AT 48" A.F.F.
[Symbol]	DUCT MOUNTED SMOKE DETECTOR. FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. WIRED BY ELECTRICAL CONTRACTOR.
[Symbol]	DUCT DETECTOR REMOTE RESET SWITCH. PROVIDE OUTLET BOX, 1/2" C., TO ABOVE CEILING MECHANICAL CONTRACTOR TO PROVIDE WIRE AND TERMINATE. MOUNT 48" A.F.F. TO CENTER.
[Symbol]	DATA OUTLET BOX MOUNTED 15" A.F.F. WITH RJ45 JACK. STUB OUT 1/2" C., ABOVE CEILING. WIRING BY OWNER MOUNT WITH LONG DIMENSION VERTICAL UNLESS NOTED OTHERWISE.
[Symbol]	PENDANT MOUNTED HIGH-BAY LIGHT FIXTURE, 4'X15'. MOUNT WITH AIRCRAFT CABLES MOUNT 15'-0" A.F.F.
[Symbol]	PHOTOCELL. BY E.C.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	BASIC AREA OF USE	LAMP TYPE	NO. & WATTS	MANUFACTURER MODEL * (OR EQUAL TO)
A	4 LAMP HIGH BAY FIXTURE	SHOP AREA	TSHO 4/	54W	LITHONIA IB-54L-WD-277
B	2' X 4' PARABOLIC LAY-IN FIXTURE	OFFICES	TB	3. 32W	LITHONIA 2PMCOB-332-9-LS- INBOARD/OUTBOARD
C	2' X 4' ACRYLIC LAY-IN FIXTURE	CORRIDOR	TB	3/ 32W	LITHONIA 2SPB-3-32-A12-MVOLT-GE810IS-LP735
D	WALL BRACKET (48")	OVER LAVATORIES	TB	2/ 32W	LITHONIA WC-2-32-MVOLT-GE810IS-EL
E	HEAT/VENT/LIGHT	RESTROOMS	INC	1/ 100W	BY MECHANICAL CONTRACTOR
G/EL	SURFACE MOUNTED W/BATTERY BACKUP	EXTERIOR EXIT DOORS	CFL	2/ 26W	LITHONIA VGRIC-26DT-1200DBT-ELDW
X/EL	EXIT SIGN COMBO (DUAL HEADS)	EXIT DOORS	LED	2/ 5W	LITHONIA ELA T 6CS M12
EM	EMERGENCY LIGHTING	CORRIDORS/SHOP	LED	2/ 5W	LITHONIA EU2 M6
WP	WALL PACK	EXTERIOR WALLS	MH	1/ 100W	LITHONIA KL-100M-A-120

REV DESCRIPTION

1	FIRE MARSHALL REVIEW 01-10-11

Date: DECEMBER 2010  
 Drawn by: SEN  
 Checked by: FWN  
 Sheet



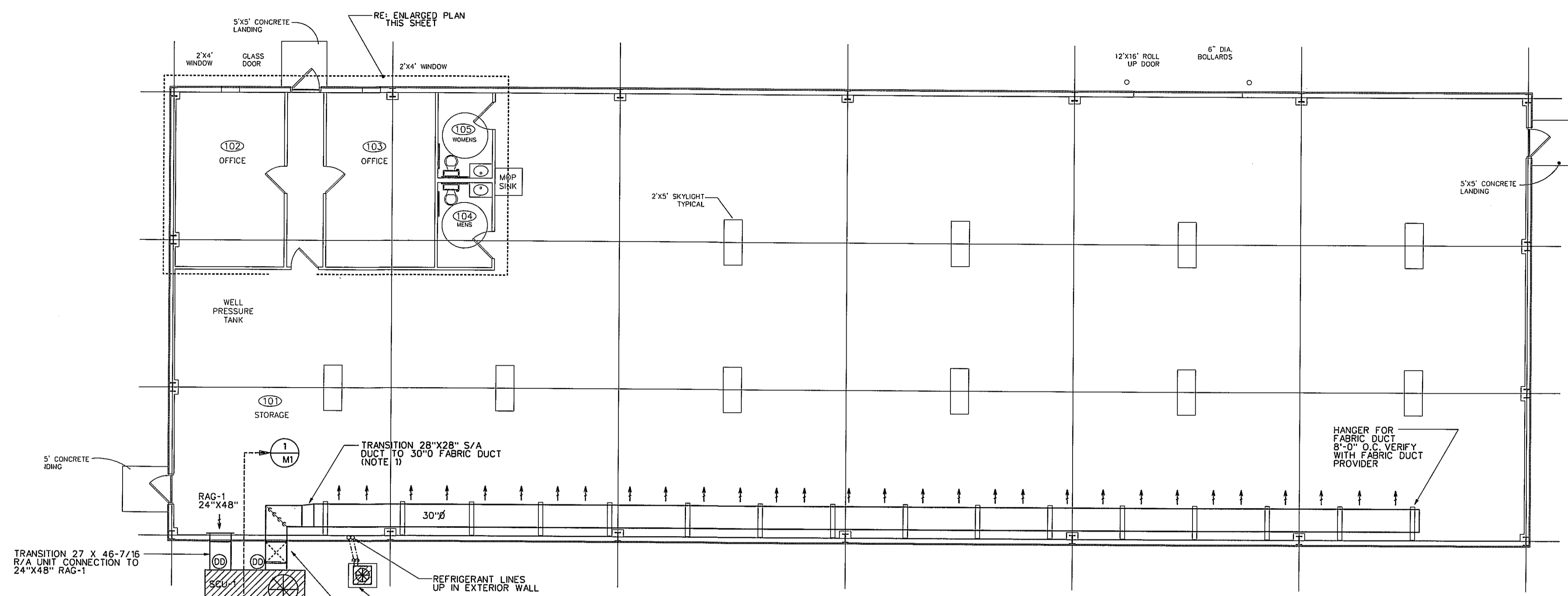


HVAC PLAN-DETAILS AND SCHEDULES

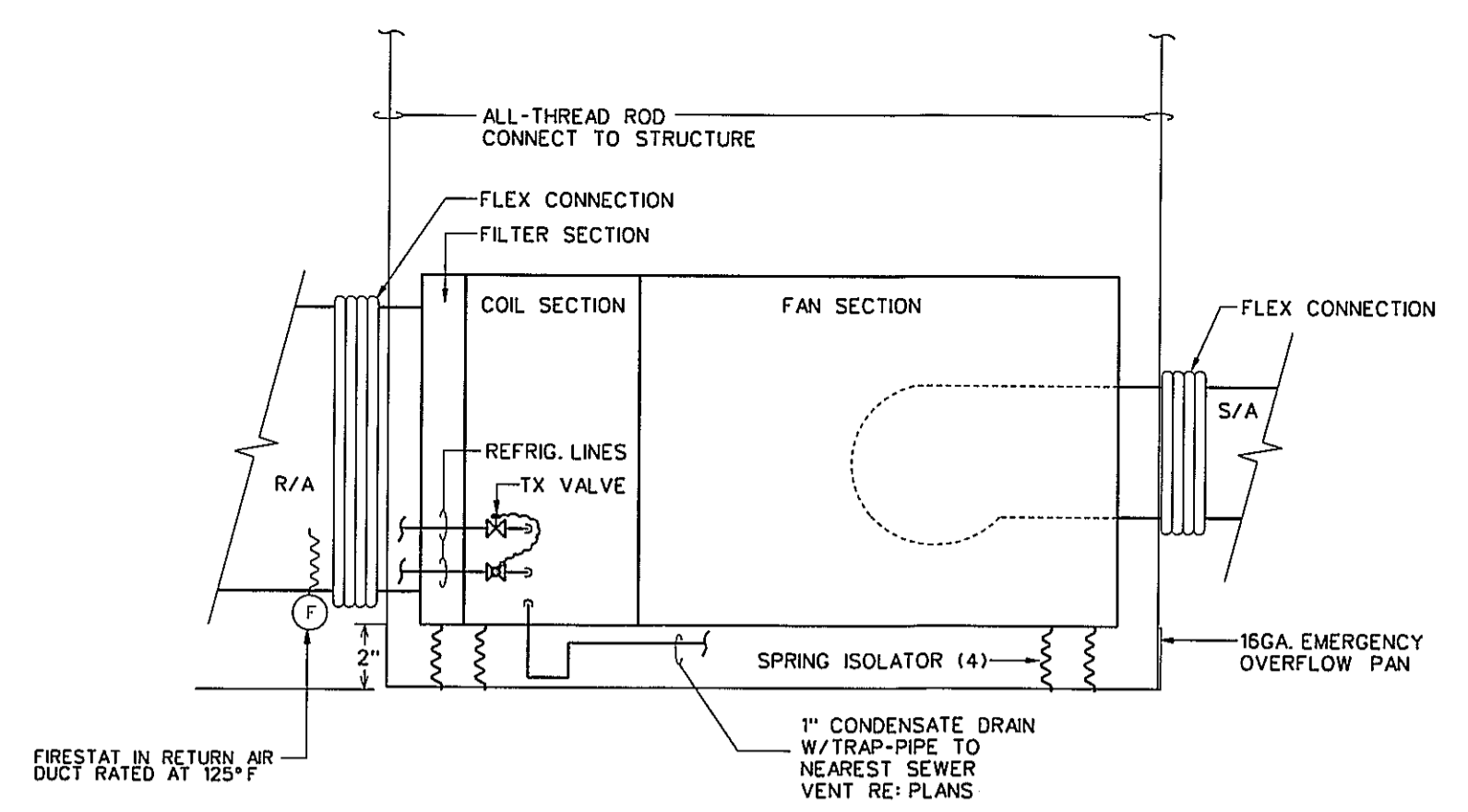
Proposed Building for:  
**WOOD GROUP PRESSURE CONTROL BUILDING**  
 Shreveport, Louisiana

REV	DESCRIPTION
01	FIRE MARSHALL REVIEW 01-10-11

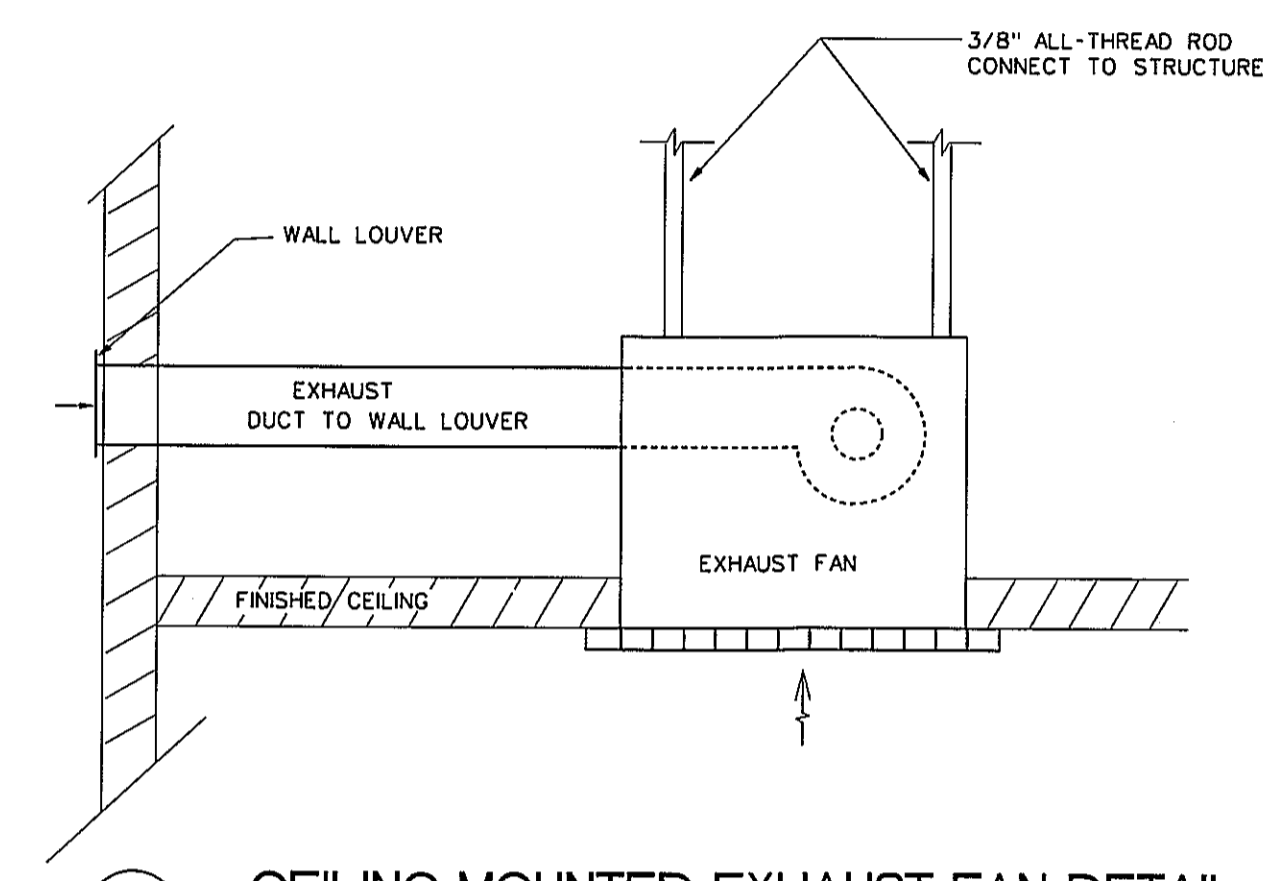
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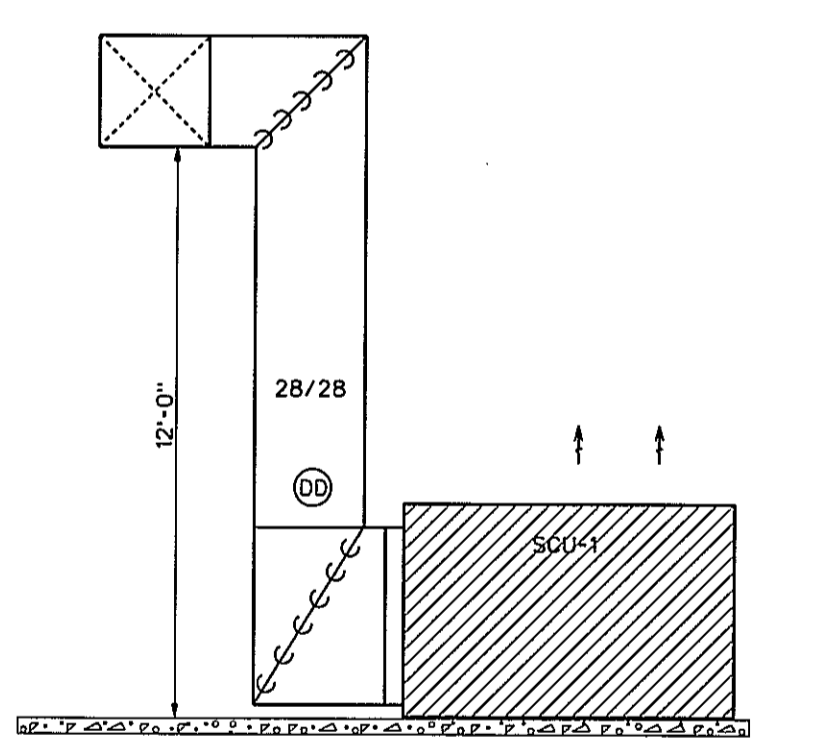
**HVAC PLAN**  
 SCALE: 1/8" = 1'-0"  
 NOTES:  
 1. VERIFY FABRIC DUCT SIZE, NOZZLE ARRANGEMENT WITH MATT BERRY AT 318-865-3515.



**2 AHU SUSPENDED FROM STRUCTURE**  
 N.T.S.



**1 CEILING MOUNTED EXHAUST FAN DETAIL**  
 N.T.S.



**SECTION AT SCU-1 SUPPLY DUCT**  
 SCALE: 1/4" = 1'-0"

ROOFTOP AIR CONDITIONING UNIT SCHEDULE													
UNIT MARK	AREA SERVED	TRANE MODEL #	SUPPLY CFM	OUTDOOR AIR CFM	ESP IN W.C.	COOLING CAPACITY		HEATING CAPACITY		ELECTRICAL DATA		NOTES	
						TOTAL MBH	SENSIBLE MBH	MBH	KW	FAN HP	VOLTS/PHASE		MCA
SCU-1	WAREHOUSE	BY OWNER	2000	500	.70	212	159	400	--	5	208/3	95 125	1, 2, 3, 4

NOTES: 1. PROVIDE MANUAL OUTDOOR AIR DAMPER, CONTROL TRANSFORMER AND PROGRAMMABLE THERMOSTAT WITH LOCKING COVER.  
 2. MECHANICAL CONTRACTOR TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.  
 3. PROVIDE SUPPLY/RETURN SMOKE DETECTORS, RESET SWITCH. 4. FURNISHED BY OWNER, INSTALLED BY MECHANICAL CONTRACTOR.

REGISTER, GRILLE AND DIFFUSER SCHEDULE							
UNIT MARK	AIR DISTRIBUTION TYPE	TITUS MODEL #	KRUEGER MODEL #	METAL AIRE MODEL #	PRICE MODEL #	MAXIMUM NC LEVEL	NOTES
CD-1	CEILING DIFFUSER: LOUVERED FACE, HIGH CAPACITY	TDC-AA-3	5SH.F23	5500-6	AMD-3P	35	(LAY-IN MODULE)
RAG-1	RETURN AIR GRILLE: 1/2 SPACING, 35 DEGREE DEFLECTION	355R	SB5	4538	535	35	

EXHAUST / SUPPLY FAN SCHEDULE									
UNIT MARK	AREA SERVED	BROAN MODEL #	DESIGN CFM	ESP. IN W.C.	RPM	TIP SPEED (4000 MAX)	MOTOR HP	VOLTS / PHASE	NOTES
EF-1	WOMEN'S TOILET	*659	50	.25"	20 AMPS	--		120/1	1,2,3,4
EF-2	MEN'S TOILET	*659	50	.25"	20 AMPS	--		120/1	1,2,3

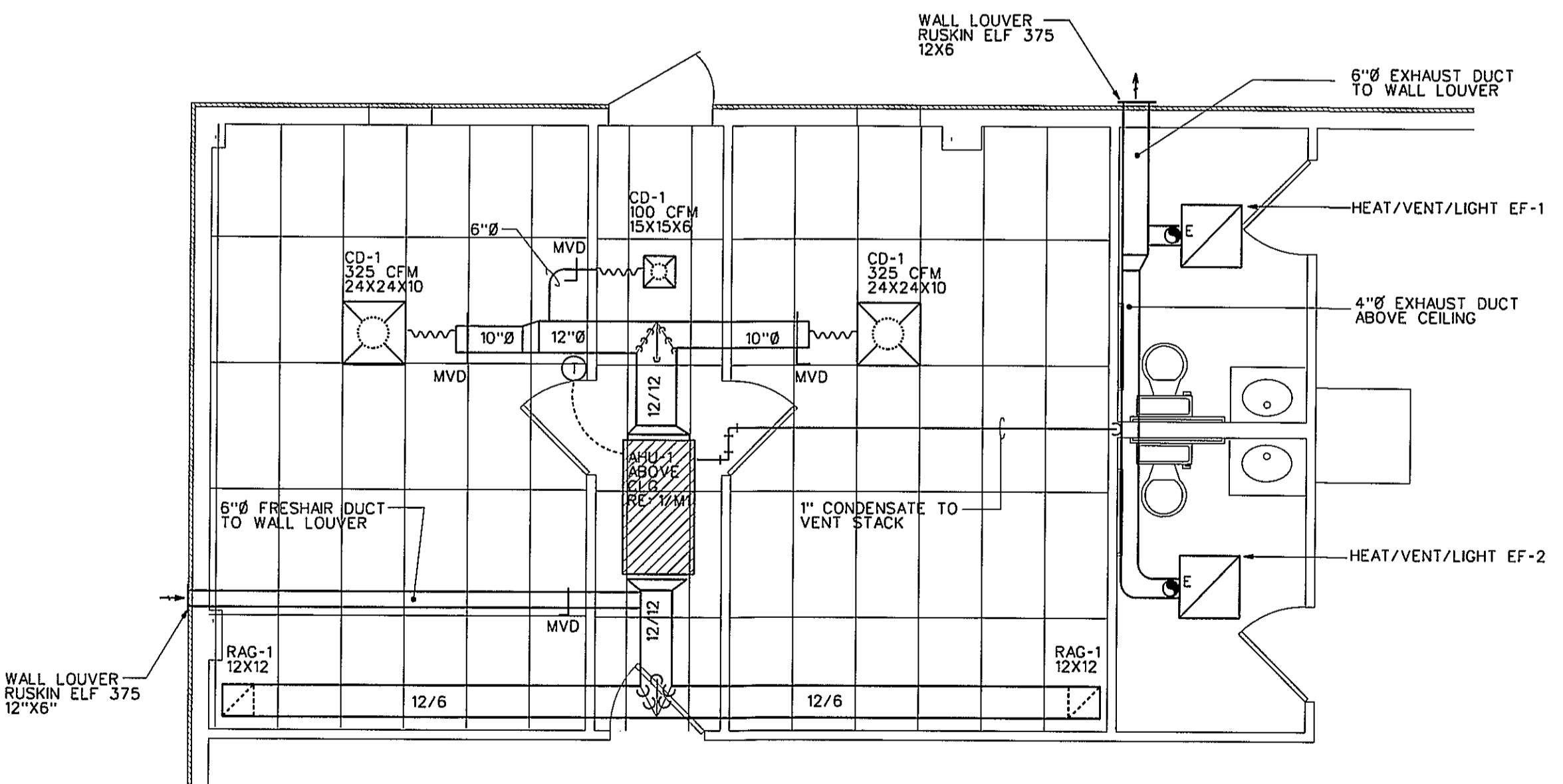
NOTES: 1. PROVIDE DISCONNECT SWITCH, BACKDRAFT DAMPER. 2. PROVIDE INTEGRAL CEILING GRILLE.  
 3. PROVIDE WALL SWITCH (3-WAY). 4. PROVIDE WALL LOUVER

AIR UNIT SCHEDULE												
UNIT MARK	AREA SERVED	TRANE MODEL #	SUPPLY CFM	OUTDOOR AIR CFM	ESP IN W.C.	TOTAL MBH	SENSIBLE MBH	ELECTRICAL DATA			NOTES	
								FAN HP	VOLTS/PHASE	ELEC. HEAT		MCA
AHU-1	OFFICES	BY OWNER	750	75	.50	30	22	1/4	208/ 1PHASE	5 KW	30 30	1,2,3

NOTES:  
 1. PROVIDE TWO (2) SETS OF FILTERS, ACROSS-THE-LINE MOTOR STARTER, ELECTRIC HEAT KIT.  
 2. PROVIDE PROGRAMMABLE THERMOSTAT, LOCKING COVER, DUCT FIRESTAT.  
 3. MECHANICAL CONTRACTOR TO COORDINATE ALL ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.

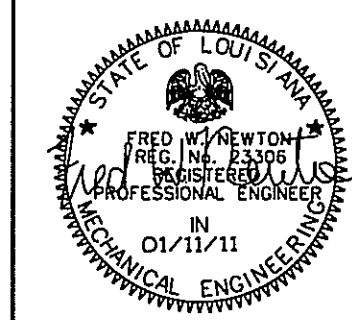
AIR COOLED CONDENSING UNIT SCHEDULE											
UNIT MARK	AREA SERVED	TRANE MODEL #	MIN. EER	NOM. TONS	ELECTRICAL DATA			REFRIGERANT LINES		NOTES	COMMENTS
					VOLTS / PHASE	MCA	MOP	ODL R-410A	ODS R-410A		
CU-1	OFFICES	BY OWNER	13.0	2.5	208/ 1PHASE	18	30	3/8"	7/8"	1	FURNISHED BY OWNER INSTALLED BY MECH. CONTR.

NOTES:  
 1. PROVIDE CRANKCASE HEATER, LIQUID LINE DRIER, SITE GLASS, CONTROL TRANSFORMER, 5 YEAR COMPRESSOR PARTS WARRANTY.



**ENLARGED OFFICE AREA-HVAC PLAN**  
 SCALE: 1/4" = 1'-0"

HVAC SYMBOL SCHEDULE	
UNIT MARK	DESCRIPTION
DD	SMOKE DETECTOR IN DUCT FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR
MVD	MANUAL VOLUME DAMPER
T	THERMOSTAT FOR HVAC EQUIPMENT, MOUNT 48" AFF
R	SMOKE DETECTOR RESET SWITCH AND AUDIBLE/VISUAL ALARM MOUNT 48" AFF
~	FLEXIBLE DUCT NOT TO EXCEED 6'-0"
□	CEILING DIFFUSER
□	RETURN AIR GRILLE OR EXHAUST GRILLE
⊗	MOTOR STARTER ACROSS THE LINE WITH HAND OFF AUTOMATIC SWITCH



PLUMBING PLAN—SEWER/VENT AND WATER  
ENLARGED PLANS AND RISERS

Proposed Building for:  
**WOOD GROUP PRESSURE CONTROL BUILDING**  
Shreveport, Louisiana

REV DESCRIPTION

1 FIRE MARSHALL REVIEW 01-10-11

Date: DECEMBER 2010

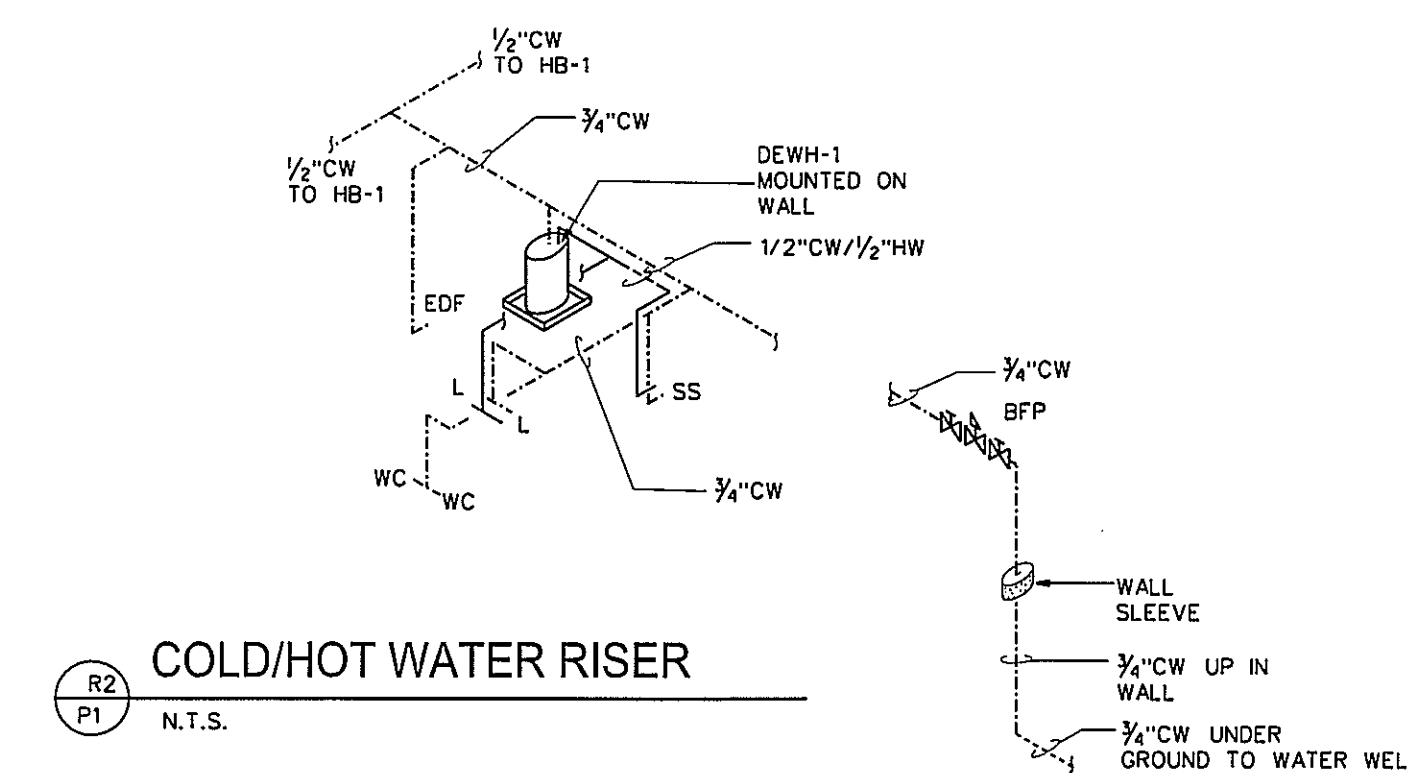
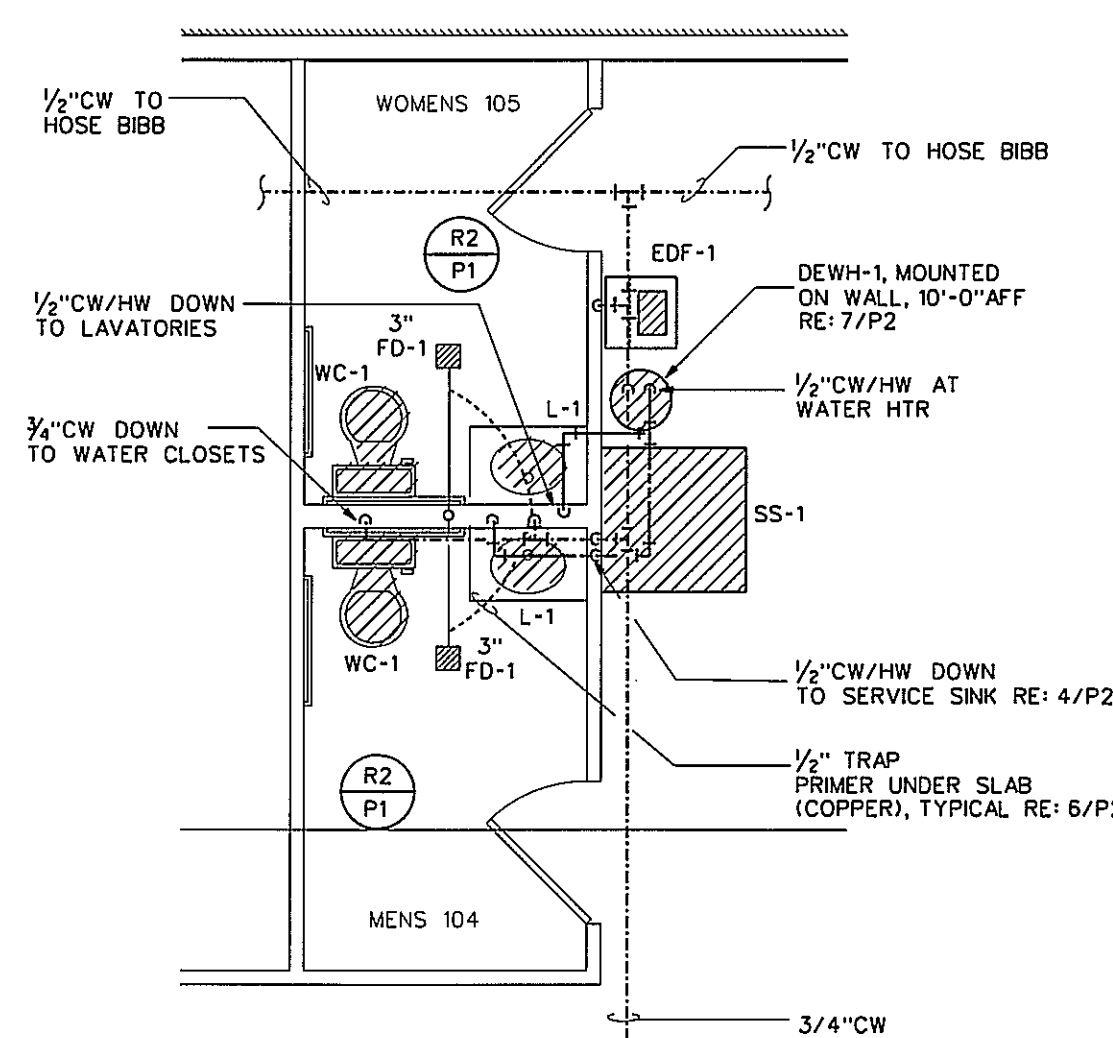
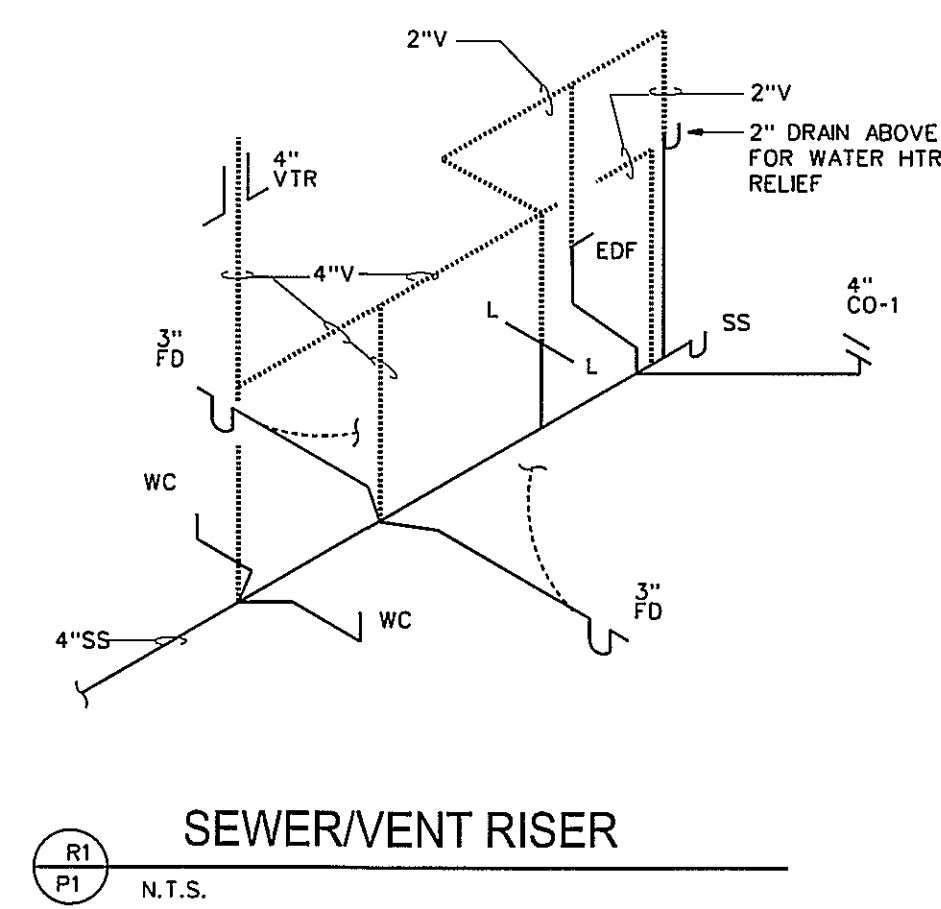
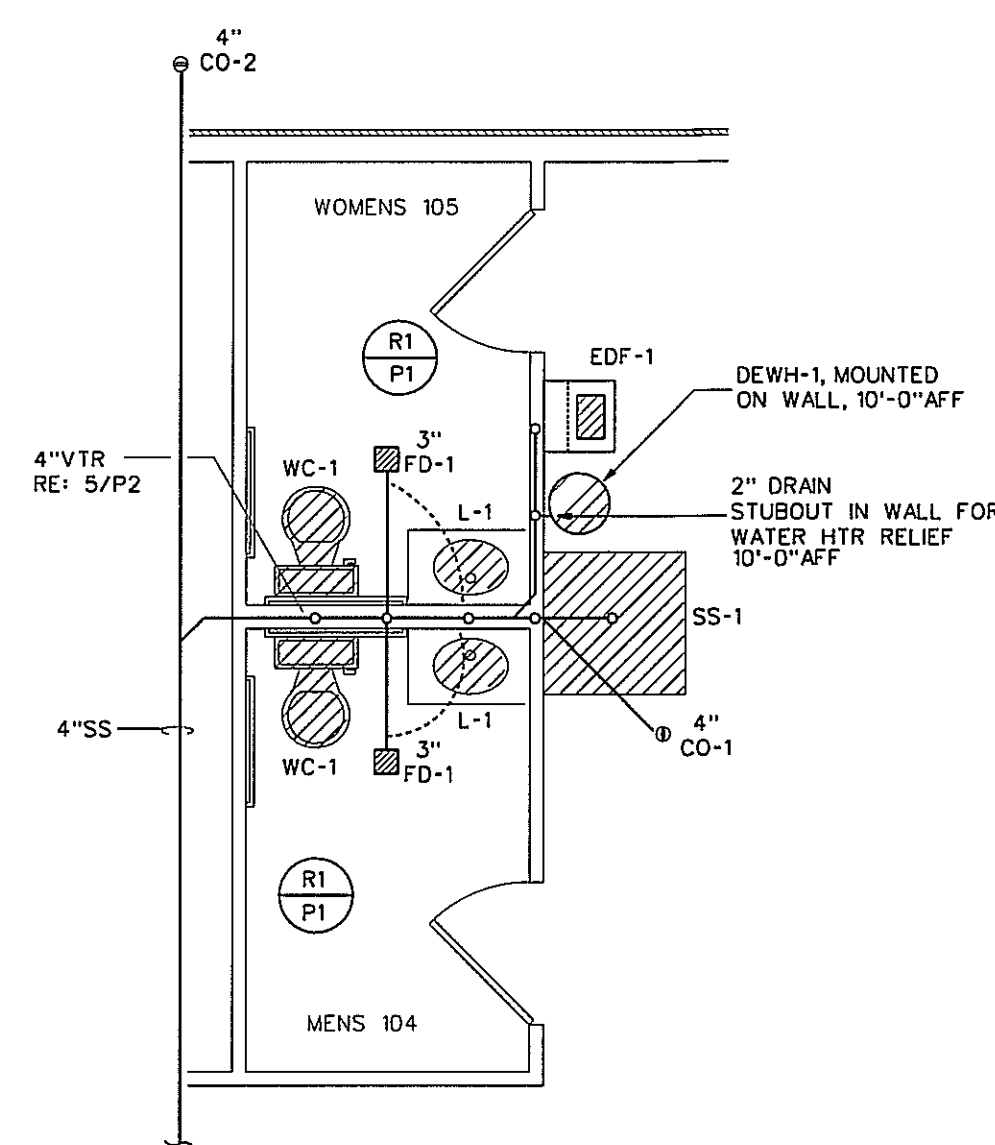
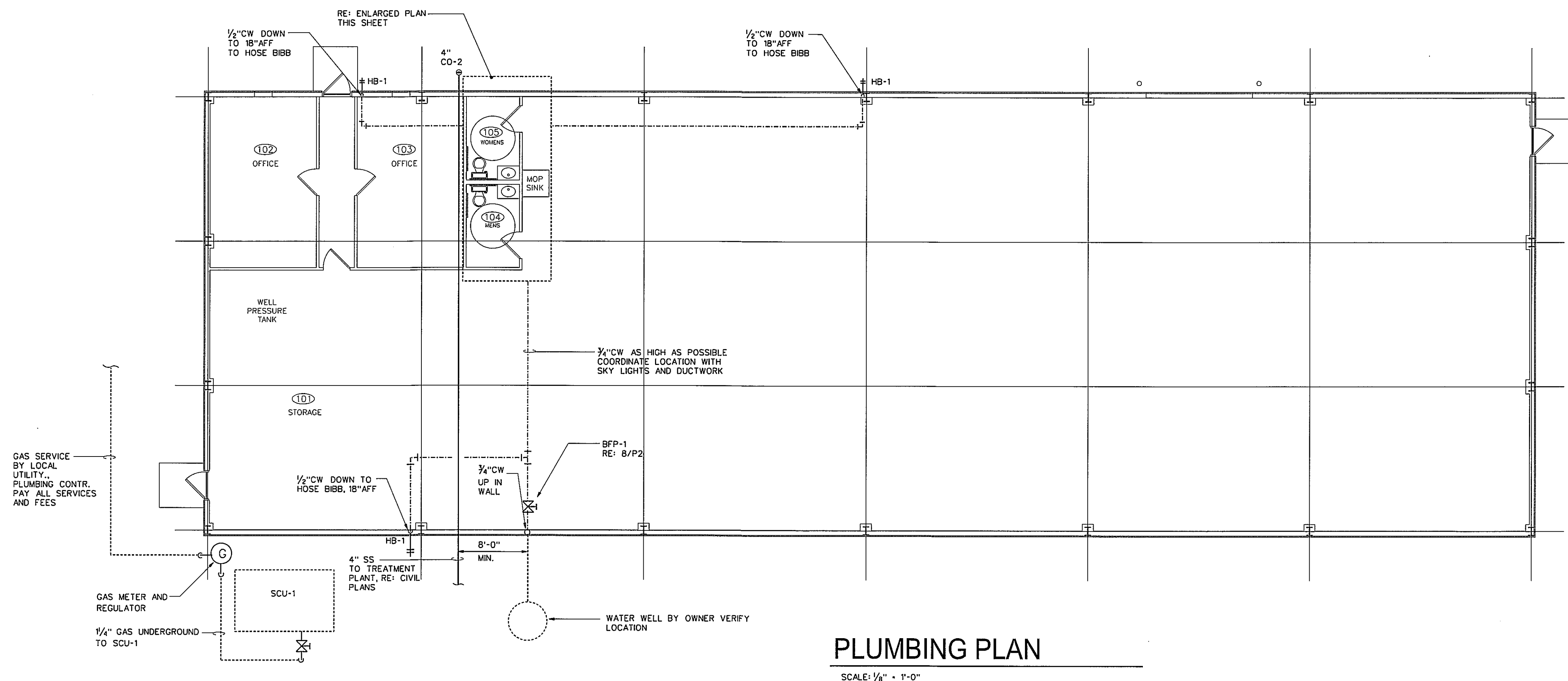
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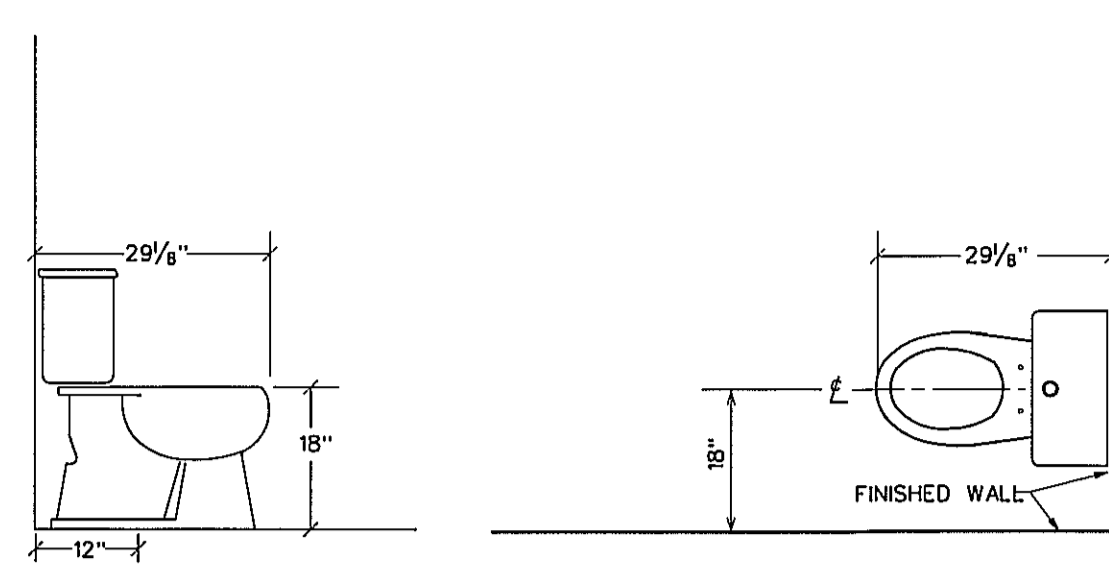
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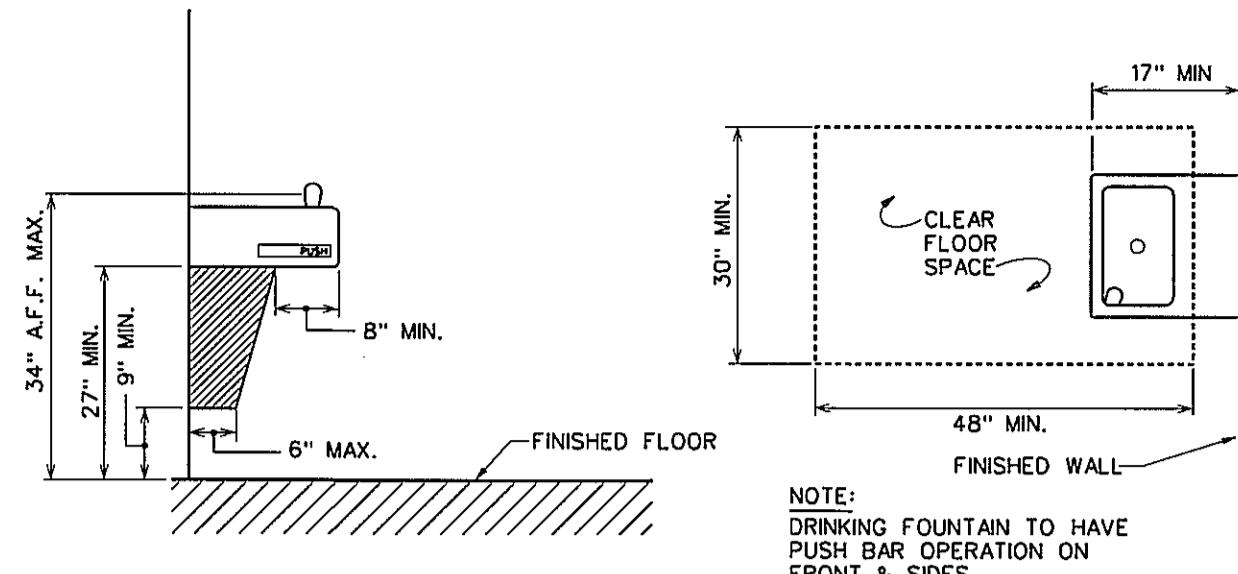
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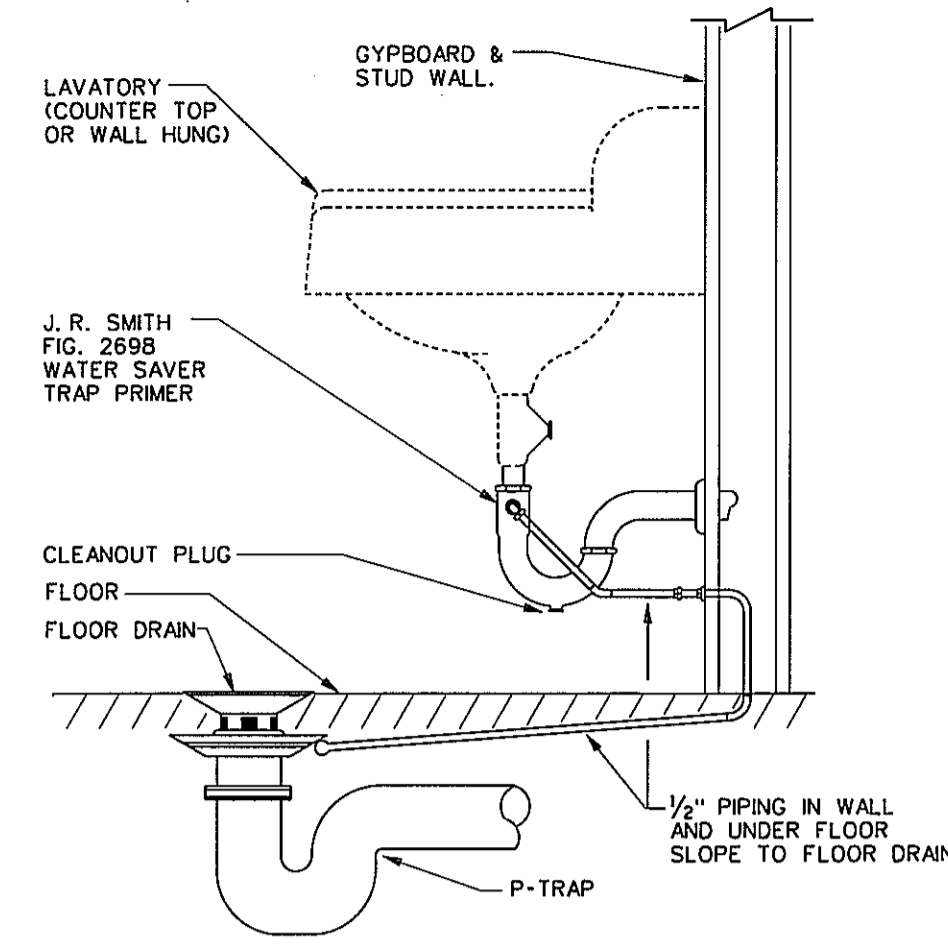
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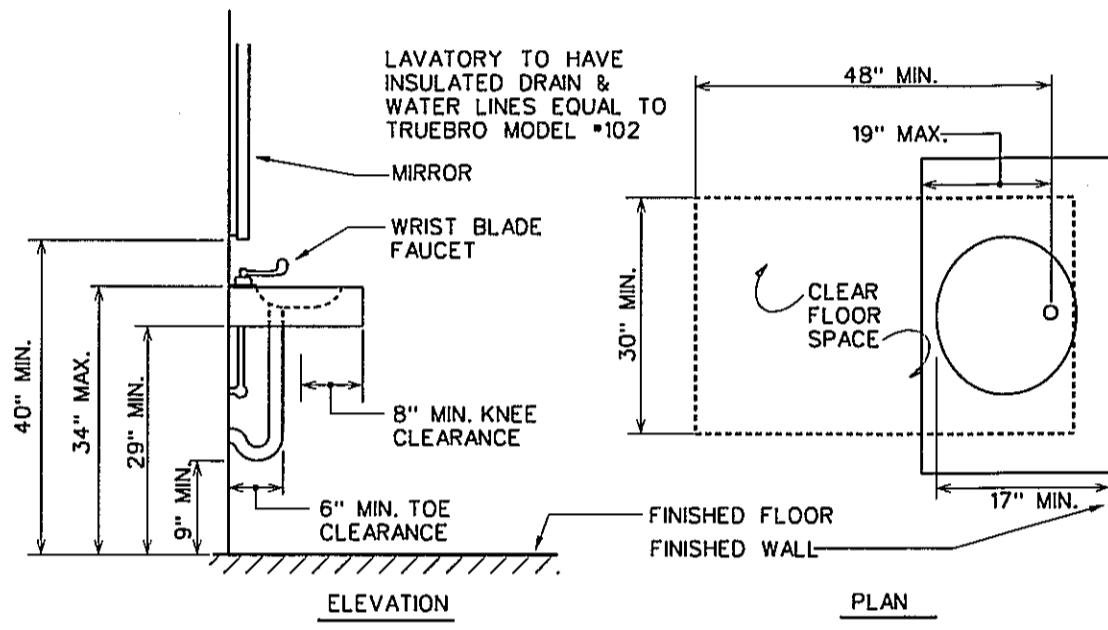
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P2  
HANDICAP TOILET DETAIL  
N.T.S.



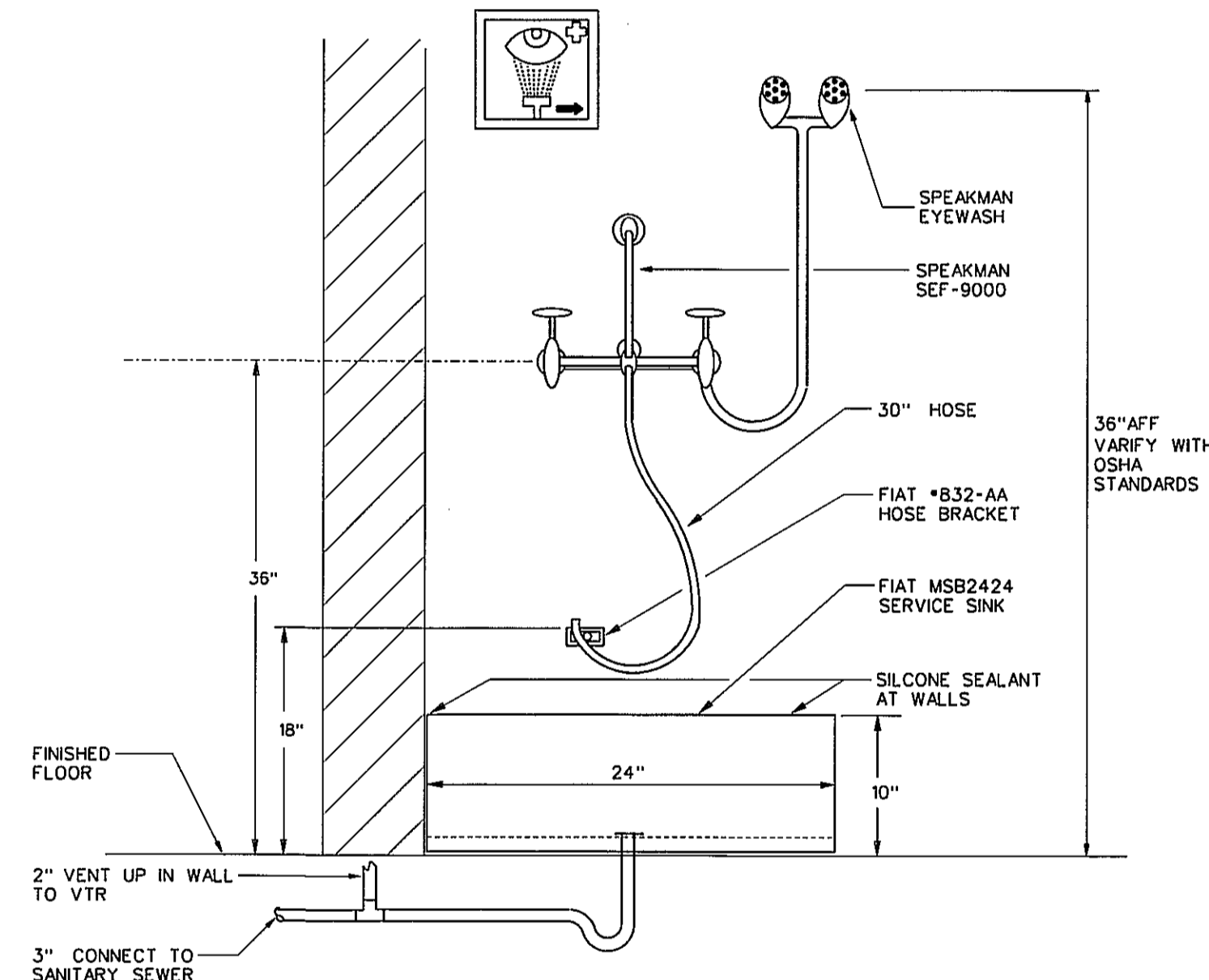
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P2  
SINGLE HANDICAPPED DRINKING FOUNTAIN DETAIL  
N.T.S.



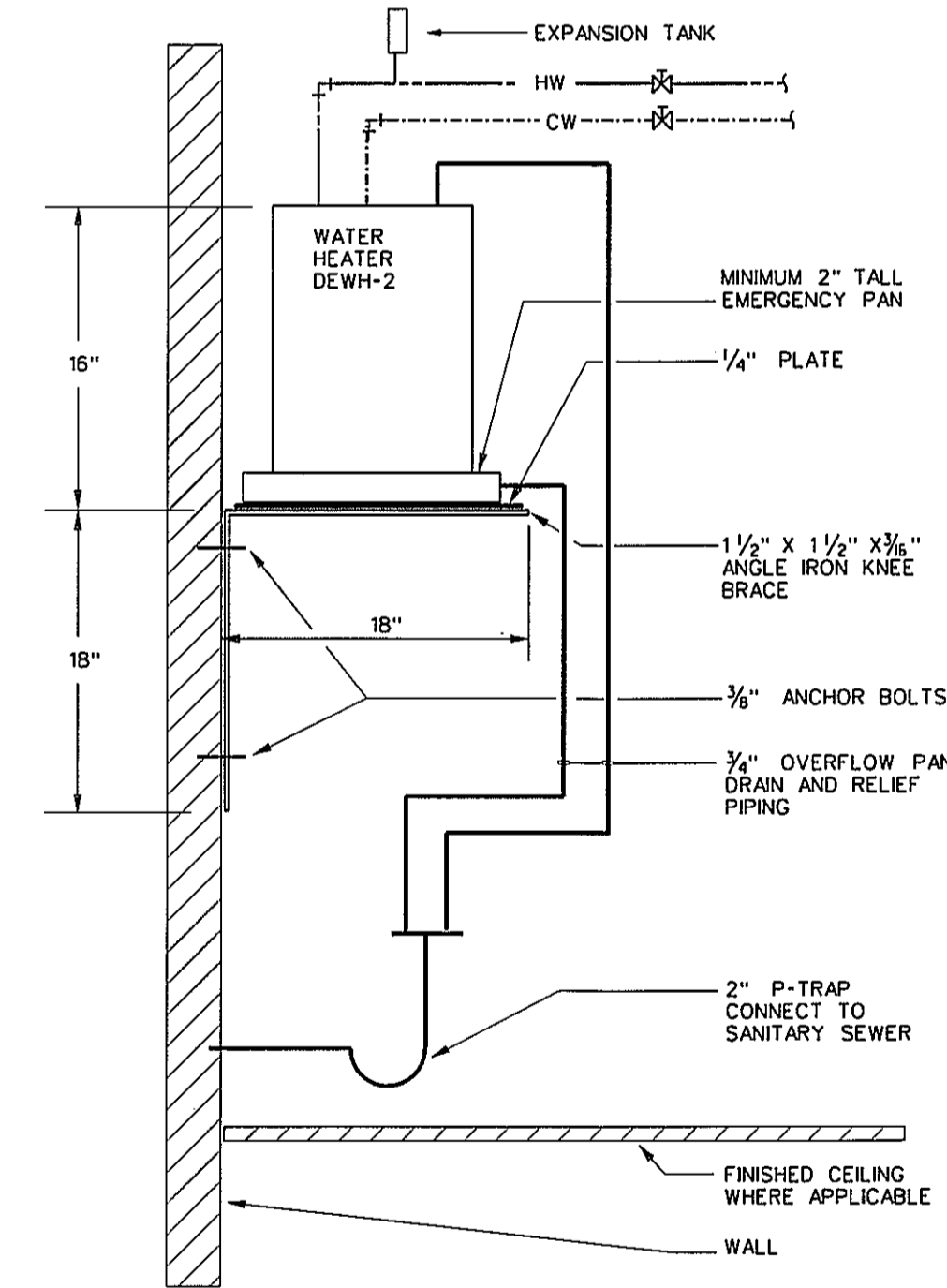
6  
P2  
FLOOR DRAIN TRAP PRIMER DETAIL  
N.T.S.



3  
P2  
COUNTERTOP HANDICAPPED LAVATORY DETAIL  
N.T.S.

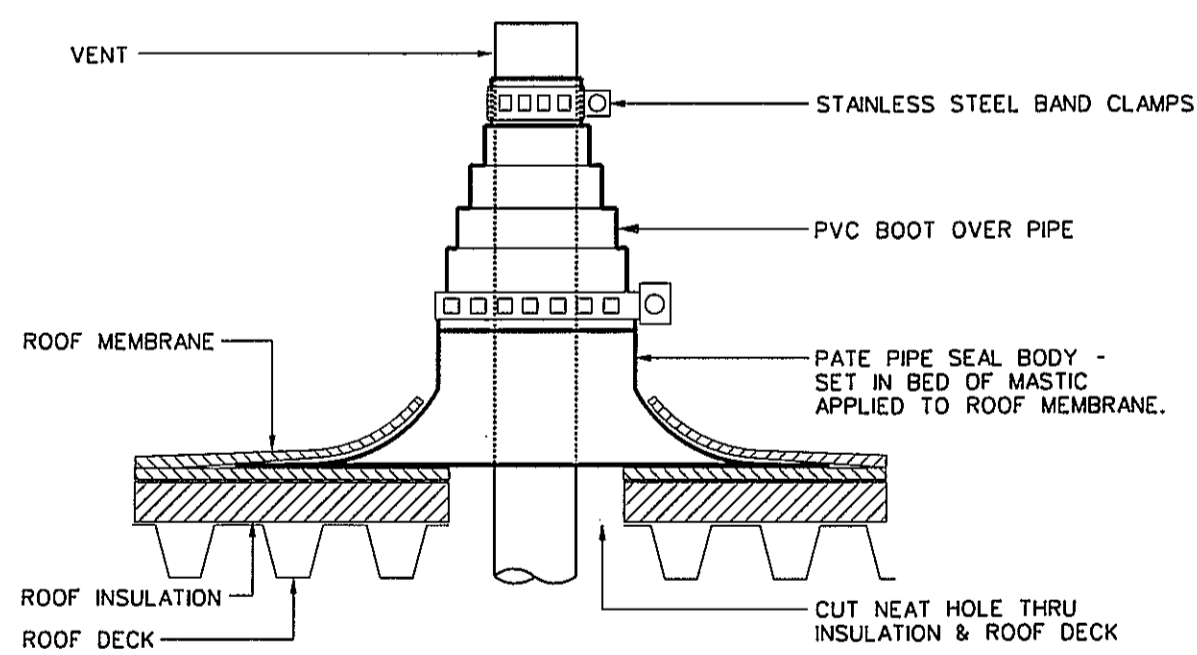


4  
P2  
SERVICE SINK INSTALLATION DETAIL  
N.T.S.

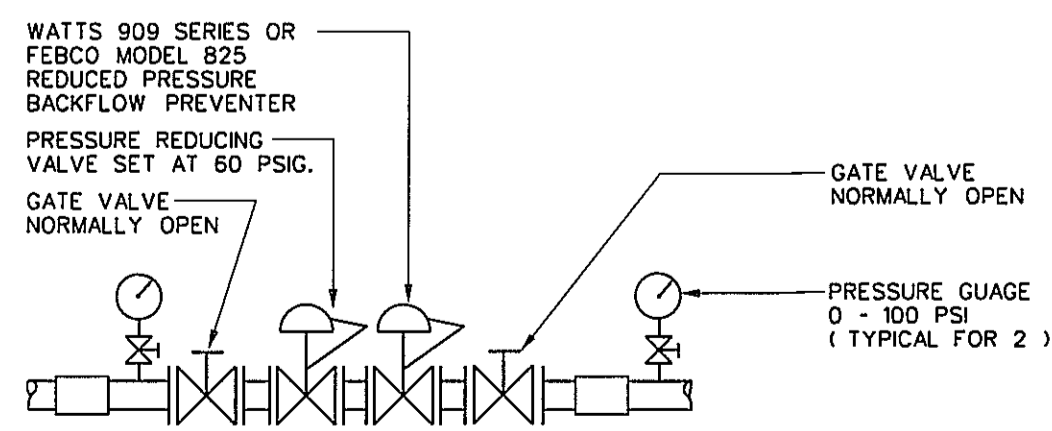


7  
P2  
WALL MOUNTED HOT WATER HEATER  
N.T.S.

PLUMBING FIXTURE SCHEDULE					
FIXTURE SYMBOL	DESCRIPTION WITH ACCESSORIES	WASTE	VENT	CW	HW
WC-1	HANDICAPPED TANK TYPE WATER CLOSET: CRANE 31002, LOW CONSUMPTION, VITREOUS CHINA, 17" ABOVE FINISHED FLOOR TO RIM TO COMPLY WITH ADA, PROVIDE OPEN FRONT SEAT LESS COVER.	4"	4"	1/2"	--
L-1	HANDICAPPED COUNTERTOP LAVATORY: CRANE 1280S, VITREOUS CHINA, 8" CENTERSET, SELF RIMMING, PROVIDE WASTE, TRAP, SUPPLIES, CHICAGO FAUCET *404CP, MOUNT 34" AFF TO RIM, PROVIDE PLUMBEREX (CLEAR) TRAP INSULATION.	2"	2"	1/2"	1/2"
FD-1	FLOOR DRAIN: JOSAM 30000-S, CAST IRON FLOOR DRAIN, 1/2" TRAP PRIMER, SQUARE TOP.	3"	2"	--	--
EDF-1	ELECTRIC DRINKING FOUNTAIN (SINGLE) ADA: ELKAY E20B, WALL MOUNTED, NO LEAD DESIGN, BARRIER FREE, EASY TOUCH CONTROLS WITH HANDS FREE, 120/ 1 PHASE.	2"	2"	1/2"	--
SS-1	SERVICE SINK: FIAT MSB2424M MOLDED STONE MOP SINK, PROVIDE SERVICE FAUCET * 830-AA, HOSE BRACKET 832-AA, MOP HANGER 889-CC.	2"	2"	1/2"	1/2"
DEWH-1	DOMESTIC ELECTRIC WATER HEATER: (POINT OF USE) 6 GALLONS, RUUD PEP6-1, 1440 WATT ELEMENT, 120/ 1 PHASE.	--	--	3/4"	3/4"
HB-1	HOSE BIBB: FREEZEPROOF JOSAM 7100D, BOX TYPE WALL HYDRANT, LATCHING HINGED COVER, INTEGRAL VACUUM BREAKER.	-	-	1/2"	-

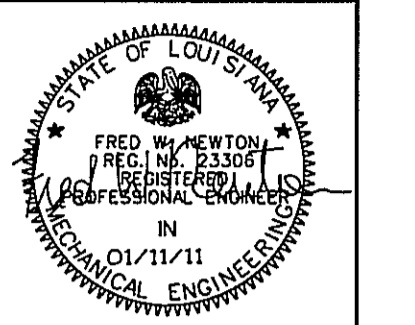


5  
P2  
VENT PIPE ROOF PENETRATION  
N.T.S.



8  
P2  
INCOMING DOMESTIC WATER RISER SCHEMATIC DIAGRAM  
N.T.S.

Fred Newton & Company, Inc.  
Consulting Engineers  
Mechanical / Electrical  
and Fire Protection  
6401 Line Avenue Bldg. #1  
Shreveport, Louisiana 71066  
318-861-1441 FAX 318-861-1448  
frednewton@aol.com



PLUMBING DETAILS AND SCHEDULES

Proposed Building for:  
**WOOD GROUP PRESSURE CONTROL BUILDING**  
Shreveport, Louisiana

REV	DESCRIPTION
1	FIRE MARSHALL REVIEW 01-10-11

Date: DECEMBER 2010  
Drawn by: SEN  
Checked by: FWN  
Sheet

# SPECIFICATIONS

## MECHANICAL 15070 PIPING SCHEDULE

### PART 1 - GENERAL

#### 1.01 SCOPE

- A. Provide piping systems as specified and shown on drawings in accordance with Section 15060.
- B. Provide optional systems for different code requirements only if approved by engineer prior to beginning installation of piping. Piping materials placed in air conditioning plenums or plenum chambers or other spaces used for environmental air handling purposes shall have a flame spread of not more than 25 and a smoke developed rating of not more than 50 when tested in accordance with ASTM E84. All such materials shall meet the requirements of noncombustible building materials as defined by the Standard Building Code or the material shall be enclosed within a fire resistant assembly meeting the noncombustible requirements.

### PART 2 - PRODUCTS

#### 2.01 PIPING SCHEDULE

- A. Sanitary waste and vent above slab within building:
1. Pipe size 10" or smaller: No-hub cast iron soil pipe, CISPI 301.
  2. Pipe Class: Service weight (SV).
- B. Fittings: No-hub cast iron soil pipe fittings, CISPI 301 with stainless steel clamps and Neoprene gaskets.
- C. Gaskets: Neoprene gasket joints, ASTM C-564.
2. Couplings: "Husky" heavy duty stainless steel clamps, CISPI 301.
3. Option if allowed by local code authorities and if in compliance with Section 15020-3.12 A, B, and C where applicable: Schedule 40 PVC with solvent weld fittings or mechanical joint fittings.
- B. Sanitary waste and vent underground; sanitary waste and vent above ground larger than 10":
1. Pipe: Cast iron, hub and spigot soil pipe, ASTM A74.
  2. Pipe Class: Service weight (SV).
- B. Fittings: Cast iron, hub and spigot soil pipe fittings.
- C. Gaskets: Neoprene compression gasket joints, ASTM C-564.
2. Option if allowed by local code authorities and if in compliance with Section 15020-3.12 A, B, and C where applicable: Schedule 40 PVC with solvent weld fittings or mechanical joint fittings.
- C. Domestic water piping; above ground:
1. All size, copper tube, lead free.
    - a. Wall Thickness: Type L, hard drawn temper?
    - b. Fittings: Wrought copper or cast bronze.
  2. Solder: 95-5 tin-antimony with compatible flux. Solder and fluxes shall be lead free.

- D. Domestic water underground:
1. Tube size 1/2" through 2": Copper tube, containing less than 8.0% lead.
  2. Wall Thickness: Type K, soft-tempered.
  3. Fittings: Wrought copper or cast bronze.
  4. Solder: Silver solder containing not more than 0.2% lead.
2. Tube size 2-1/2" through 4": Same as item #1 above except Type K hard drawn copper.
3. Pipe size larger than 4": Ductile-iron pipe, with cement-mortar lining, push-on joints.
- C. Pipe weight: Class 50.
- B. Fittings: Class 250 ductile-iron, mechanical joints.
- C. Option if allowed by local code authorities:
- PVC pipe C-900, Class 150, SDR-18 for pipe larger than 4".

- E. Condensate drains (HVAC), equipment drains, relief valve discharge drain piping:
1. All sizes copper water tube.
    - a. Type L.
    - b. Fittings: Wrought copper or cast bronze.
    - c. 50/50 solder.
  2. Option if allowed by local code authorities and if in compliance with Section 15020-3.12 A, B, and C where applicable: Schedule 40 PVC for condensate drains.

- F. Refrigerant piping - above slab:
1. All sizes.
    - a. Type ACR hard drawn copper tubing, wrought copper fittings, silver solder brazed joints.
    - b. Refrigerant piping - below slab:
      - i. All sizes.
      - ii. Type ACR soft drawn copper tubing, no joints below slab.
    - c. Natural gas piping - above ground:
      - i. Pipe size up to and including 2": Type: Black steel pipe.  
Class: Schedule 40, ASTM A-53.  
Fittings: Class 150 malleable iron threaded.
      - ii. Joints: Threaded.
    - d. Pipe size 2-1/2" and larger:
      - a. Type: Black steel pipe.  
Class: Schedule 40, ASTM A-53.  
Fittings: Standard weight wrought steel, butt-welded fitting.
      - b. Joints: Buttwelded.
    - e. Natural gas piping - underground:
      - i. All pipe sizes 1/2" and larger:  
Type: Black steel, Schedule 40.  
Wraps: Machine wrapped X-Tru-Coat, hand wrap joints.
      - ii. Joints: Butt-weld.
    - f. Option: Pipe sizes 1/2" through 12": Thermoplastic gas pressure pipe.
    - g. Tubing and fittings complying with ASTM D 2513.
  2. High and medium pressure piping outside of building and below grade from meter/regulator to gas main connection shall be Schedule 40 polyethylene and shall conform to the requirements of thermoplastic pipe as outlined in ANSI 31.8 for gas transmission. Riser to meter and extending five feet horizontally below grade shall be black steel pipe with asphalt based coating and plastic jacketed anodes riser.

- H. Natural gas piping - above ground:
1. Pipe size up to and including 2": Type: Black steel pipe.  
Class: Schedule 40, ASTM A-53.  
Fittings: Class 150 malleable iron threaded.
  2. Joints: Threaded.
2. Pipe size 2-1/2" and larger:
- a. Type: Black steel pipe.  
Class: Schedule 40, ASTM A-53.  
Fittings: Standard weight wrought steel, butt-welded fitting.
  - b. Joints: Buttwelded.

- I. Natural gas piping - underground:
- i. All pipe sizes 1/2" and larger:  
Type: Black steel, Schedule 40.  
Wraps: Machine wrapped X-Tru-Coat, hand wrap joints.
  - ii. Joints: Butt-weld.
2. Option: Pipe sizes 1/2" through 12": Thermoplastic gas pressure pipe.
- Tubing and fittings complying with ASTM D 2513.

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#### 2.04 SUPPORT AND BUILDING ATTACHMENTS

- A. Hangers and supports shall be attached to the building as follows:
- (1) from wood using coach screw on open construction and hanger flanges on sheathing, (2) from concrete using inserts, (3) from steel using beam clamps, rivets or bolts, (4) from concrete blocks using toggle or through bolts. Fasten supports to building in following order of preference: (1) steel framing, (2) concrete, (3) wood framing, (4) masonry, (5) wood sheathing. Do not support from roof deck without approval. All hangers, rods, and inserts shall be Underwriters' Laboratories approved for the service intended.
  - B. Piping shall not be run within bar joist webbing. Piping shall not rest directly on building structural steel but shall be supported with proper hangers and attachments.

#### 2.05 ROOF EQUIPMENT SUPPORTS

- A. General: Construct roof equipment supports using minimum 18-ga. galvanized steel with fully mitered and welded corners, 3" cont. internal bulkhead reinforcing, integral base plates, pressure treated wood nailer, and 18-ga. galvanized steel counter flashing. Roof mounted equipment such as rooftop air conditioning units, make-up air units and exhaust/supply fans shall be provided with factory curbs as a part of the rooftop equipment unless otherwise noted.
- B. Configuration: Construct to sizes as indicated, compensate for slope in roof so top of support is level and a minimum of 14" clearance is maintained between top of curb and finished roof.
- C. Equipment and pipe supports other than those provided with rooftop units, etc. shall be equal to Pole Company or Custom Curb, Inc.

#### 2.06 ANCHORS

- A. Piping requiring anchoring to the structure to prevent or limit movement shall be anchored using all-directional type anchors equal to Mason Type Anchors equal to Mason Type ADA. Provide necessary riser clamps or hangers.

### PART 3 - EXECUTION

#### 3.01 PIPING SUPPORT

- A. All hangers for insulated piping shall be sized to accommodate insulation and shield. No hangers for insulated piping may be installed directly on pipe.
- B. Maximum spacing between pipe supports to prevent excessive stress: This does not apply where there are concentrated loads between supports:

Pipe Size	Rod Dia.	Steel Max. Spac.	Copper Max. Spac.	PVC Max. Spac.	Cast Iron Max. Spac.
1. Up to 1/2"	1/4"	5 ft.	4 ft.	3-1/2 ft.	--
2. 3/4" - 1"	3/8"	6 FT.	5 FT.	4 FT.	--
3. 1-1/4"	1/2"	6 FT.	6 FT.	4 FT.	--
4. 1-3/4"	5/8"	9 FT.	8 FT.	4 FT.	--
5. 2", 2-1/2", 3"	3/4"	10 FT.	8 FT.	4 FT.	5 FT
6. 4" AND LARGER	1/2"	10 FT.	10 FT.	4 FT.	5 FT

- C. Install hangers and supports complete with necessary bolts, rods, nuts, washers and other accessories. Except as otherwise indicated for exposed continuous pipe runs, install hangers and supports of same type and style as installed for adjacent similar piping.

#### 3.02 PROVISIONS FOR MOVEMENTS

1. Install hangers and supports to allow controlled movement of piping systems and to permit freedom of movement between pipe anchors, and to facilitate action of expansion bends and similar units.
2. Load Distribution: Install hangers and supports so that piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
3. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes.

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56. Load Distribution: Install hangers and supports so that piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
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58. Load Distribution: Install hangers and supports so that piping live and dead loading and stresses from movement will not be transmitted to connected equipment.
59. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes.

### PART 3 - EXECUTION

#### 3.01 GENERAL

- A. Insulation materials shall not be applied until all systems tests have been satisfactorily completed and surfaces to be insulated have been cleaned and dried. Insulation shall be clean and dry when installed and during the application of any finish. Install materials neatly with smooth and even surfaces with jackets drawn tight and smoothly cemented down on longitudinal and end laps. Scrap pieces shall not be used where a full-length section will fit. Pipe insulation shall be continuous through sleeves, wall and ceiling openings, except at fire dampers in duct systems. Piping and ductwork shall be individually insulated. A complete moisture and vapor seal shall be provided wherever insulation terminates against metal hangers, anchors and other projections through insulation on surfaces for which a vapor seal is specified. Chrome plated pipes shall not be insulated. Omit insulation from vibration isolating connections, but adjacent insulation shall be neatly terminated and beveled and sealed. Fan nameplates, access plates in fan housings and ducts must be carefully beveled and sealed around.

#### 3.02 PIPE INSULATION

- A. Fiberglass: Sections of insulation shall be placed around the pipe tightly butted into place. The jacket laps shall be drawn tight and smooth and secured with a factory applied self sealing lap. Circumferential joints shall be covered with butt strips, not less than 3" wide, of material identical to the jacket material. Adhesive used to secure the butt strip shall be the same as used to secure the jacket laps. When a vapor barrier is required, seams of insulation that butt against flanges, unions, valves, and fittings, and joints at intervals of not more than 12 feet on continuous runs of pipe shall be coated with a vapor barrier coating. Breaks and punctures in the jacket material shall be patched by wrapping a strip of jacket material around the pipe and cementing, coating as specified for butt strips. The patch shall extend not less than 1-1/2" past the break in both directions. All penetrations such as thermometers, the voids in the insulation shall be filled with vapor barrier coating and the penetration sealed with a brush coat of the same coating. Insulation shall be additionally secured on 18" centers with 1/2" wide aluminum bands.

#### 3.03 FLEXIBLE UNICELLULAR INSULATION:

- Bond cuts, butt joints, ends, and longitudinal joints with adhesive. Miter 90 degree turns and elbows, tees, and valve insulation. Where pipes penetrate fire walls, provide mineral fiber or calcium silicate insulation inserts and sheet metal sleeves.

1. Apply two coats of manufacturer's approved exterior sealer finish to flexible unicellular insulation in outside locations.
2. Insulate flanges, valve bodies, and fittings in accordance with manufacturer's published instructions.

#### 3.04 URETHANE INSULATION:

- Apply urethane insulation to underground piping in some manner as fiberglass. Additionally, wrap insulation with 20 mil PVC jacket, solvent weld all seams and joints.

#### 3.05 DUCTS, PLENUMS AND CASINGS INSULATION

- A. Rigid insulation: Secure rigid insulation by impaling over pins or anchors located not more than 3" from edge of boards and spaced not more than 15" on centers and secured with washers and clips. Spot weld anchor pins or attach with a waterproof adhesive especially designed for use on metal surfaces. Apply insulation with joints tightly butted. Neatly bevel insulation around nameplates and access plates and load. Protruding ends of pins shall be cut off flush after clips are secured and sealed with coating compound.

- B. Flexible Blanket insulation: Apply insulation with all joints tightly butted. Insulation on the sides and bottoms of rectangular, horizontal, and sloping ducts shall be secured to ducts by impaling over anchor pins located not more than 3" from the edge and spaced not more than 15" on centers, secured with washers and clips. Anchor pins shall be spot welded or attached with a waterproof adhesive especially designed for use on metal surfaces. Sagging of flexible duct insulation will not be permitted. Protruding ends of pins shall be cut off flush after clips are secured and sealed with coating compound. Sloped seams shall be rotated such that seams are not exposed to view. Provide aluminum tape, minimum 2" wide, at all seams and joints.

- C. Insulation Finishes: A skilled mechanic will cut and fit all fittings with flexible insulation for a neat appearance and full coverage with a minimum of unnecessary overlaps. All breaks, punctures, and voids on exposed insulation shall be filled with vapor barrier metal tape. All joints shall be vapor barrier sealed by applying an approved pressure sensitive aluminum tape. All longitudinal and circumferential seams shall be sealed.

- D. Access Plates and Doors: On acoustically lined ducts, plenums, and casings, build insulation around access plates and doors. Seal exposed insulation at beveled cuts with approved material. On externally insulated ducts, plenums, and casings, provide insulation filled hollow steel panels and doors for access openings.

- E. Lined Ductwork: Except

SECTION 16050- BASIC ELECTRICAL MATERIALS AND METHODS

1. MANUFACTURERS
  - A. PRODUCTS BY SQUARE D ARE INDICATED ON DRAWINGS.
  - B. OTHER ACCEPTABLE MANUFACTURERS:
    1. GENERAL ELECTRIC.
    2. ITE.
2. CONDUIT AND FITTINGS
  - A. CONDUIT:
    1. METAL CONDUIT AND TUBING: GALVANIZED STEEL. ALL ELECTRICAL DISTRIBUTION: EMT FOR BRANCH CIRCUIT WIRING.
    2. FLEXIBLE CONDUIT: STEEL, LIGHT WIPS ONLY.
    3. PLASTIC CONDUIT AND TUBING: NEMA TC 2, PVC. USE SCHEDULE 40 CONDUIT.
  - B. CONDUIT FITTINGS:
    1. METAL FITTINGS AND CONDUIT BODIES: NEMA FB 1.
    2. PLASTIC FITTINGS AND CONDUIT BODIES: NEMA TC 3.
3. ELECTRICAL BOXES
  - A. BOXES:
    1. SHEET METAL: NEMA OS 1; GALVANIZED STEEL.
    2. CAST METAL: CAST FERROALLOY, DEEP TYPE, GASKETED COVER, THREADED HUBS.
    3. NONMETALLIC: NEMA OS 2.
  - B. HINGED COVER ENCLOSURES: NEMA 250; TYPE 1, STEEL ENCLOSURE WITH MANUFACTURER'S STANDARD ENAMEL FINISH AND CONTINUOUS HINGE COVER, HELD CLOSED BY FLUSH LATCH OPERABLE BY SCREWDRIVER.
4. WIRE AND CABLE
  - A. BUILDING WIRE:
    1. FEEDERS AND BRANCH CIRCUITS LARGER THAN 6 AWG: COPPER, STRANDED CONDUCTOR, 600 VOLT INSULATION, THHN/THWN.
    2. FEEDERS AND BRANCH CIRCUITS 6 AWG AND SMALLER: COPPER CONDUCTOR, 600 VOLT INSULATION, THHN/THWN. 6 AND 8 AWG, STRANDED CONDUCTOR; SMALLER THAN 8 AWG, SOLID CONDUCTOR.
    3. CONTROL CIRCUITS: COPPER, STRANDED CONDUCTOR, 600 VOLT INSULATION, THHN.
  - B. WIRING DEVICES AND WALL PLATES
    1. WALL SWITCH: AC GENERAL USE, QUIET-OPERATING SNAP SWITCH RATED 20 AMPERES AND 120-277 VOLTS AC, WITH IVORY PLASTIC TOGGLE HANDLE.
    2. RECEPTACLE:
      1. PROVIDE STRAIGHT-BLADE RECEPTACLES TO NEMA WD 1.
      2. PROVIDE LOCKING-BLADE RECEPTACLES TO NEMA WD 5.
      3. CONVENIENCE RECEPTACLE CONFIGURATION: TYPE 5-20 R, IVORY PLASTIC FACE.
      4. SPECIFIC-PURPOSE RECEPTACLE: AS INDICATED ON DRAWINGS.
    3. SELF-CONTAINED OCCUPANT WALL SWITCH:
      1. HUBBELL AD1277HW, RATED 120/277 VOLTS.
      2. DESIGNED TO FIT IN A SINGLE GANG BOX, IVORY.
      3. 170° HORIZONTAL FIELD OF VIEW.
      4. INFRARED DETECTOR BEHIND A FRESNEL LENS.
      5. ADJUSTABLE TIME-OUT DELAY OF 6 TO 12 MINUTES.
    4. DECORATIVE COVER PLATE: SMOOTH IVORY PLASTIC.
    5. WEATHERPROOF COVER PLATE: GASKETED CAST METAL WITH HINGED GASKETED DEVICE COVERS.
  - C. SWITCHBOARD: NEMA PB2
    1. LINE AND LOAD TERMINATIONS: ACCESSIBLE FROM FRONT ONLY OF SWITCHBOARD, SUITABLE FOR CONDUCTOR MATERIALS USED.
    2. MAIN SECTION DEVICES: PANEL MOUNTED.
    3. DISTRIBUTION SECTION DEVICES: PANEL MOUNTED.
  - D. RATINGS: AS SHOWN ON DRAWINGS.
  - E. BUSSING:
    1. BUS MATERIAL: COPPER, SIZED IN ACCORDANCE WITH NEMA PB 2.
    2. BUS CONNECTIONS: ACCESSIBLE FROM FRONT FOR MAINTENANCE.
    3. PROVIDE 1 X 1/4 INCH COPPER GROUND BUS THROUGH LENGTH OF SWITCHBOARD.
  - F. ENCLOSURE: TYPE 2 - RAINIGHT.
    1. ALIGN SECTIONS AT FRONT AND REAR.
    2. FINISH: MANUFACTURER'S STANDARD LIGHT GRAY ENAMEL OVER EXTERNAL SURFACES.
    3. PULL BOX: EXTEND SWITCHBOARD ENCLOSURE TO PROVIDE WIRE PULLING AND BENDING SPACE; SIZE AS SHOWN ON DRAWINGS.
    4. PROVIDE METERING TRANSFORMER COMPARTMENT FOR UTILITY COMPANY'S USE.
  - G. FUTURE PROVISIONS:
    1. FULLY EQUIP SPACES FOR FUTURE DEVICES WITH BUSSING AND BUS CONNECTION PROVISIONS, CONTINUOUS CURRENT RATING AS INDICATED ON DRAWINGS.
    2. DO NOT TAPER MAIN BUS RATING.
  - H. SWITCHING AND OVERCURRENT PROTECTIVE DEVICES:
    1. FUSIBLE SWITCH ASSEMBLIES: NEMA KS 1; PROVIDE FUSE CLIPS TO ACCOMMODATE CLASS R FUSES.
7. GROUNDING MATERIALS
  - A. GROUND RODS: COPPER-ENCASED STEEL, 5/8 INCH DIAMETER, MINIMUM LENGTH 10 FEET.
  - B. CLAMPS: BRONZE.
  - C. PANELBOARDS
    - A. DISTRIBUTION PANELBOARDS: NEMA PB 1; CIRCUIT BREAKER TYPE.
      1. ENCLOSURE: TYPE 1.
      2. PROVIDE SURFACE CABINET FRONT WITH SCREW COVER AND HINGED DOOR.
      3. BUS: COPPER.
      4. GROUND BUS: COPPER.
      5. VOLTAGE: AS SHOWN.
      6. MINIMUM INTEGRATED EQUIPMENT RATING: 22,000 AMPERES RMS SYMMETRICAL FOR 208 AND 25,000 AMPERES FOR 480 VOLT PANELBOARDS; OR AS SHOWN ON DRAWINGS.
    - B. LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARDS: NEMA PB 1; CIRCUIT BREAKER TYPE.
      1. ENCLOSURE: NEMA PB 1; TYPE 1.
      2. PROVIDE SURFACE CABINET FRONT.
      3. BUS: COPPER BUS.
      4. GROUND BUS: COPPER.
      5. VOLTAGE: AS SHOWN.
      6. MINIMUM INTEGRATED EQUIPMENT RATING: 10,000 AMPERES RMS SYMMETRICAL FOR 208 VOLT PANELBOARDS; OR AS SHOWN ON DRAWINGS.
  - D. ACCESSORIES: PROVIDE CIRCUIT BREAKER ACCESSORIES AS INDICATED ON DRAWINGS.

2.02 DUCT FITTINGS (SUPPLY/RETURN HVAC)

- A. ELBOWS SHALL BE PROVIDED WITH TURNING VANES.

2.03 DUCT HANGERS

- A. RECTANGULAR DUCTS WITH LARGEST OUTSIDE DIMENSION LESS THAN 60" SHALL BE SUPPORTED WITH GALVANIZED METAL STRAP HANGERS. SPACED ON 8'-0" CENTERS. SIZES TO BE AS SCHEDULED IN TABLE 4-1 OF SMACNA STANDARDS.
- B. RECTANGULAR DUCTS WITH LARGEST DIMENSION 60" OR GREATER SHALL BE SUPPORTED WITH GALVANIZED STEEL ANGLE IRON TRAPEZE HANGERS AND GALVANIZED ALL-THREAD RODS. SIZES SHALL BE AS SCHEDULED IN TABLE 4-3 OF SMACNA STANDARDS.

PART 3 - EXECUTION

3.01 INSTALLATION OF DUCTWORK

- A. FABRICATE AND ASSEMBLE DUCTWORK IN ACCORDANCE WITH SMACNA STANDARDS TO ACHIEVE LESS THAN 5% LEAKAGE AND NO OBJECTIONABLE NOISE.
- B. DUCT SHALL BE FABRICATED BASED ON FIELD MEASUREMENTS OF ACTUAL SPACE AVAILABLE AND SHALL BE RUN VERTICALLY AND HORIZONTALLY AND PARALLEL TO THE LINES OF THE BUILDING. HOLD DUCTS AS CLOSE AS POSSIBLE TO OVERHEAD CONSTRUCTION AND PROVIDE ADEQUATE SUPPORT FOR ALL DUCTS.
- C. COORDINATE LAYOUT OF DUCTWORK WITH RACK STORAGE, CONDUITS, LIGHTING AND SPRINKLER INSTALLATION.

15920 - TEST AND BALANCE

PART 1 - GENERAL

1.01 SCOPE

- A. Extent of testing, adjusting and balancing work is the revised return air ducts.
- B. The work consists of measuring return air and volume (flow) recording data, conducting tests, preparing and submitting reports, and recommending modifications to work as required by contract documents.
- C. The test and balance contractor shall verify the existing return air volume for each system prior to any duct revisions, measure the return air volume after duct revisions and make adjustments to each air unit as needed to maintain return air within 5% of existing conditions.

1.02 QUALITY ASSURANCE

- A. Comply with American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc. (ASHRAE), National Environmental Balancing Bureau (NEBB), or Associated Air Balance Councils (AABC) recommendations pertaining to measure, instruments, and testing, adjusting and balancing.
- B. Do not proceed with testing, adjusting and balancing work until work has been completed and is operable.
- C. Do not proceed until work scheduled for testing, adjusting and balancing is clean free from debris, dirt and discarded building materials.

1.03 SUBMITTALS

- A. Submit certified test report signed by test and balance supervisor who performed TAB work. Include identification and types of instruments used and their most recent calibration data with submission of final test report.

PART 2 - PRODUCTS

2.01 PATCHING MATERIALS

- A. Except as otherwise indicated, use same products as used by original installer for patching holes in insulation, ductwork and housing which have been cut or drilled for test purposes, including access for test instruments, attaching jigs, and similar purposes. At tester's option, plastic plugs with retainers may be used to patch drilled holes in ductwork and housings. Do not leave test holes uncovered.

PART 3 - EXECUTION

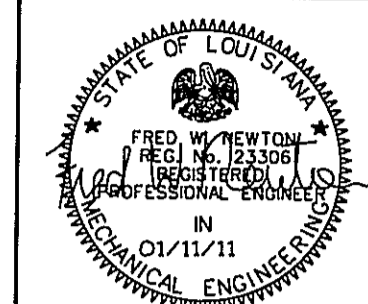
3.01 INSPECTION

- A. Examine installed work and conditions under which testing, is to be done to ensure that work has been completed, cleaned and is operable. Do not proceed with TAB work until unsatisfactory conditions have been corrected in manner acceptable to tester, contractor and roofing contractor. Insure that proper openings are provided for ductwork.
- B. Coordinate installation of dampers, balance valves, test ports, etc. with installer to insure adequate test and balance devices are installed to perform work properly.

3.03 TESTING, ADJUSTING AND BALANCING

- A. Test, adjust and balance environmental systems and components, as indicated, in accordance with procedures outlined in applicable standards.
- B. Air Balance: The air balance shall include the following air tests in accordance with the following requirements:
  1. Test and adjust blower RPM or vane setting to design requirements (within +/- 5% of design requirements).
  2. Test and record motor fullload amperes and voltages on all phases prior to and after revisions.
  3. Make pitot tube traverse of main return ducts and obtain design cfm prior to and after revisions.
  4. Test and record system static pressure prior to and after revisions.
  5. Test and adjust system for design recirculated air cfm.
  6. Prepare reports of test results, including instrumentation calibration reports, in format recommended by applicable standards.

Fred Newton & Company, Inc.  
 Consulting Engineers  
 Mechanical / Electrical  
 and Fire Protection  
 6401 Line Avenue Bldg. #1  
 Shreveport, Louisiana 71066  
 318-861-1441 FAX 318-861-1448  
 newtonco@aol.com



SPECIFICATIONS

Proposed Building for:  
**WOOD GROUP PRESSURE CONTROL BUILDING**  
 Shreveport, Louisiana

REV DESCRIPTION

1 FIRE MARSHALL REVIEW 01-10-11

Date: DECEMBER 2010

Drawn by: SEN

Checked by: FWN

Sheet

SP-2