

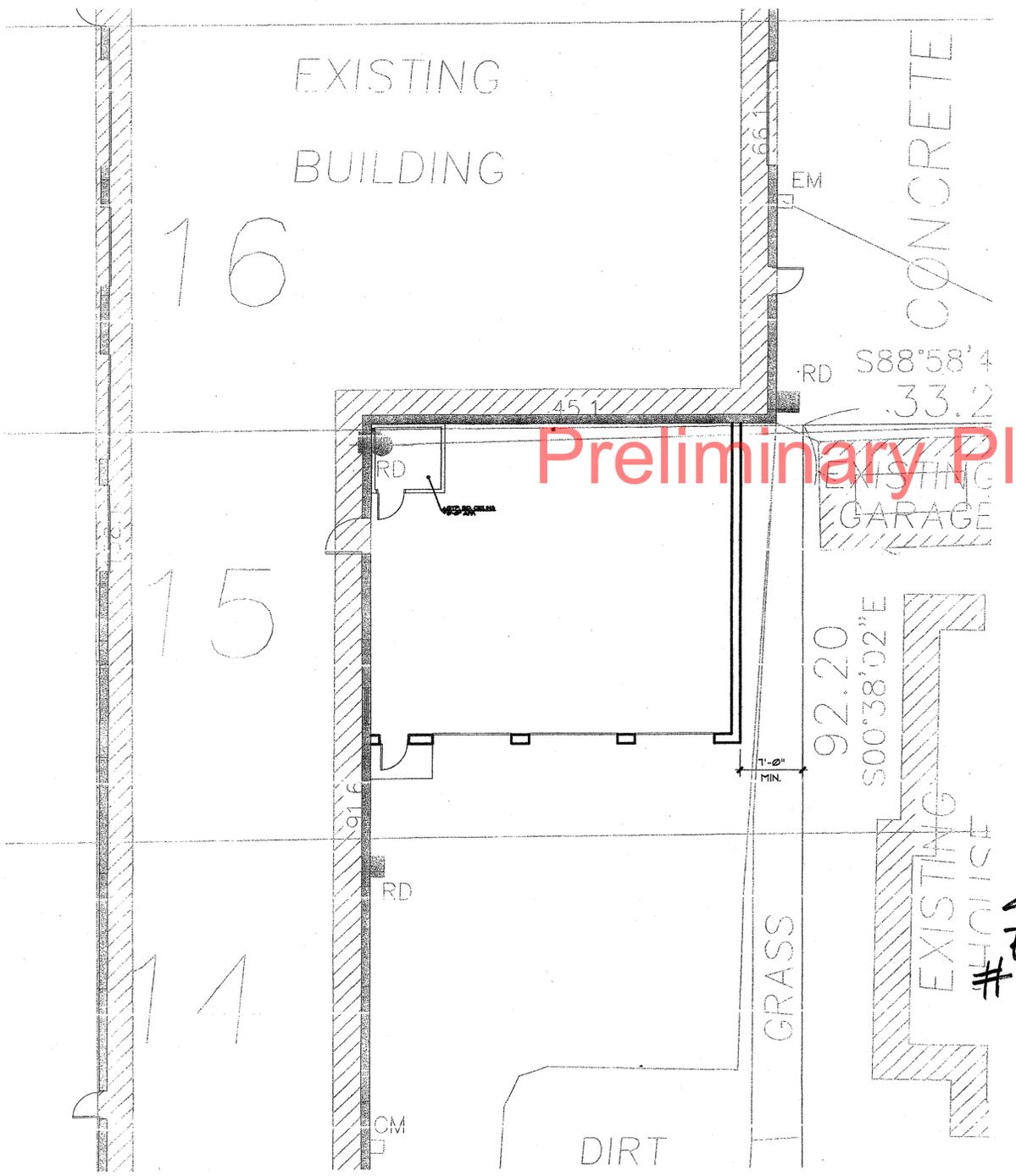
# 2801 CENTRAL AVE. BUILDING ADDITION

CITY OF MINNEAPOLIS  
CPED-PLANNING  
210 CITY HALL  
APPROVED

As to requirement of B22-4599  
As approved by the CPC on  
11/9/09 with conditions  
8/27/10  
DATE

Juan Vool  
DIRECTOR OF PLANNING OR  
AUTHORIZED AGENT

## MINNEAPOLIS, MINNESOTA



DRAWING INDEX	
GENERAL	
G-001	COVER SHEET
ARCHITECTURAL	
A-100	FLOOR PLAN, SECTION, RESTROOM
	ELEVATIONS & SCHEDULES
STRUCTURAL	
S1	FOUNDATION AND ROOF FRAMING PLANS
S2	DETAILS
S3	GENERAL STRUCTURAL NOTES & SECTIONS
MECHANICAL / ELECTRICAL	
	DESIGN/BUILD

DRAFTING SYMBOLS	
SYMBOL	DESCRIPTION
MANAGERS OFFICE	ROOM NAME
100	ROOM NUMBER
◆	PARTITION TYPE REFERENCE
⊙	ELEVATION REFERENCE
⊙	ELEVATION REFERENCE
△	REVISION REFERENCE

- GENERAL NOTES**
- DO NOT SCALE DRAWINGS
  - VERIFY EXISTING SITE CONDITIONS. IF ANY DISCREPANCIES EXIST, CONTACT ARCHITECT BEFORE COMMENCING WORK.
  - SUBMIT ALL COLOR SAMPLES TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION. ALLOW AMPLE TIME FOR SELECTIONS AND APPROVALS.
  - GENERAL CONTRACTOR AND ALL SUB-CONTRACTORS SHALL PERFORM WORK IN CONFORMANCE WITH ALL APPLICABLE BUILDING CODES AND LAWS.
  - IF ANY DISCREPANCIES EXIST BETWEEN THE DRAWINGS AND AS-BUILT CONDITIONS, CONSULT WITH CONTRACTOR & CONTACT ARCHITECT FOR RESOLUTION BEFORE COMMENCING WITH CONSTRUCTION.
  - STREET ADDRESS(ES) MUST BE POSTED ON THE BUILDING IN A CONSPICUOUS LOCATION, IN A CONTRASTING COLOR, AND VISIBLE FROM THE ROAD FRONTING THE PROPERTY. IF THE BUILDING IS NOT ABLE TO BE SEEN FROM THE STREET ON WHICH IT IS ADDRESSED, ADDITIONAL SIGNS MUST BE PROVIDED AT THE ENTRANCE TO THE PROPERTY AND AT OTHER LOCATIONS AS NEEDED TO PROVIDE CLEAR DIRECTION TO THE BUILDING.

### CODE REVIEW

APPLICABLE GOVERNING STANDARDS  
INTERNATIONAL BUILDING CODE (IBC) 2006 EDITION  
MINNESOTA STATE CODE 2007 EDITION

PROJECT DESCRIPTION  
REPAIR GARAGE ADDITION  
BUILDING AREA:  
TOTAL AREA (GROSS) 1,476 SF

OCCUPANCY GROUP:  
ASSEMBLY GROUP S-1  
REPAIR GARAGE

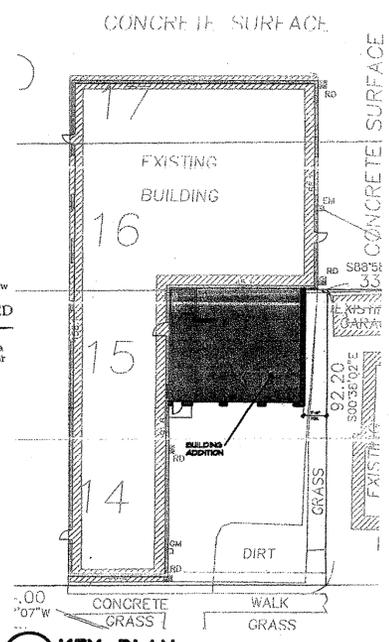
OCCUPANCY SEPARATION:  
NONE REQUIRED, ADJACENT USES ARE THE SAME  
OCCUPANCY TYPE:  
CONSTRUCTION TYPE:  
1-5 CONSTRUCTION - FIRE RESISTIVE REQUIREMENTS (TABLE 601):

EXTERIOR BEARING WALL	0 HR
INTERIOR BEARING WALL	0 HR
INTERIOR PARTITION WALLS	0 HR
SHAFT ENCLOSURES	0 HR
FLOOR/CEILING	0 HR

EXITING:  
TABLE 1016.1  
1 EXIT REQUIRED, 1 PROVIDED

OCCUPANT LOAD:  
1476 SF / 100 SF/PERSON = 15 OCCUPANTS

PLUMBING FIXTURES (TABLE 2002.1): GROUP A-2  
WATER CLOSETS - 1 PER 75 FOR EACH SEX:  
15 OCC. = 1 REQD, 1 PROVIDED  
LAVATORIES - 1 PER 200  
15 OCC. = 1 REQD, 1 PROVIDED  
SERVICE SINK  
1 REQD, 1 PROVIDED



City of Minneapolis  
Minnesota Building Code Plan Review  
Patrick Higgins, Building Official  
EXAMINED & APPROVED  
Date: 04/15/10  
Approval of these plans shall not be construed as permitting a violation of the Building Code or any other laws or ordinances.

reprise  
DESIGN  
INCORPORATED

12400 PORTLAND AVENUE SOUTH  
SUITE 100  
PORTLAND CORPORATE CENTER  
BURNSVILLE, MN 55337  
PHONE: (952) 252-4042  
FAX: (952) 252-4043

I hereby certify that this plan, specification, or report was prepared by me, or under my direct supervision and that I am a duly registered ARCHITECT under the laws of the State of MINNESOTA

Brian R. Johnson  
Signature  
04/15/10  
Date

18050  
Registration Number

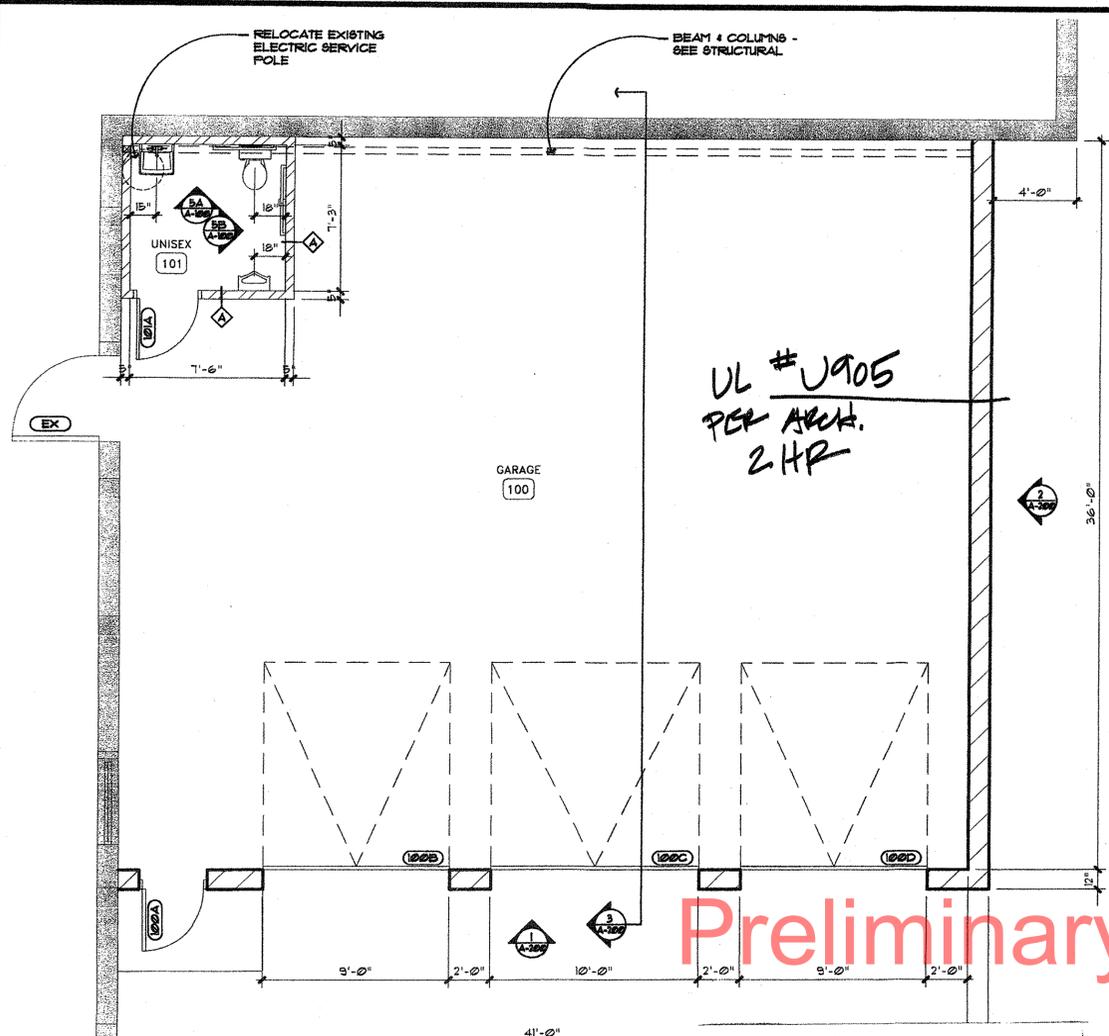
2801 CENTRAL AVE  
BUILDING ADDITION  
MINNEAPOLIS, MN  
COVER SHEET

DATE ISSUED  
PERMIT 04/15/10

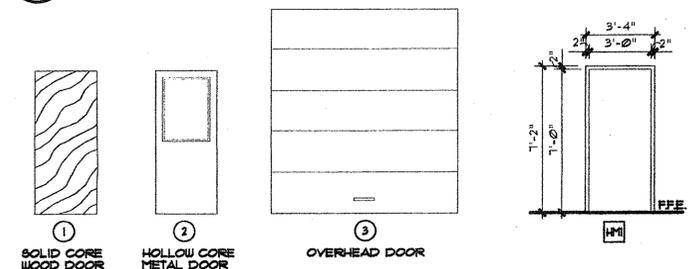
DRAWN BY KMD  
CHECKED BY CS  
JOB NO. 10049

G-001

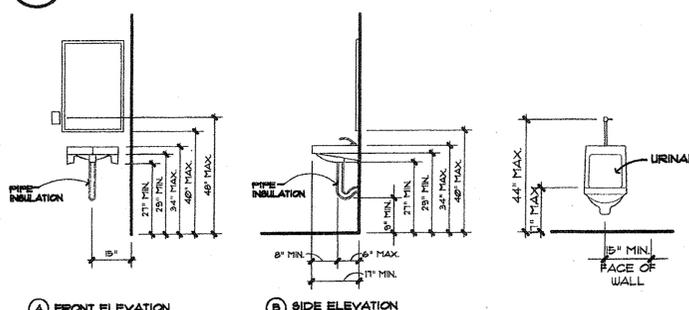
707172 FIRE TSO/CLM Bice T 70515



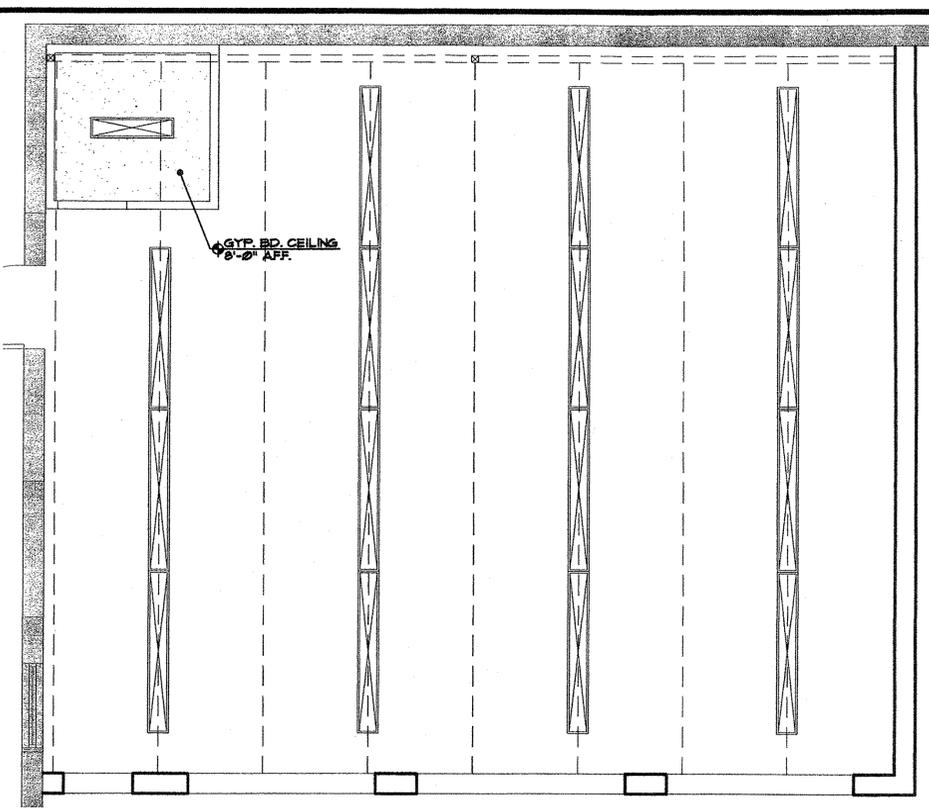
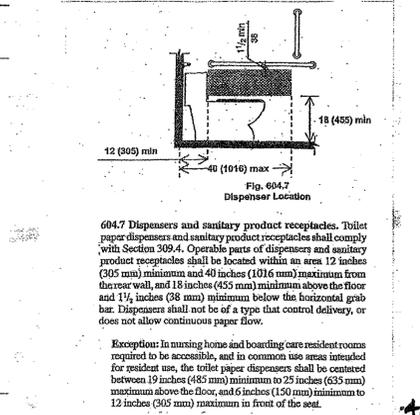
**1 FLOOR PLAN**  
1/4"=1'-0"



**2 DOOR & FRAME TYPES**  
NTS



**3 TYPICAL H.C. ELEVATIONS**  
3/8"=1'-0"



**4 REFLECTED CEILING PLAN**  
1/4"=1'-0"

**ROOM FINISH SCHEDULE**

ROOM NUMBER	ROOM NAME	FLOOR	WALLS	CEILING	REMARKS
100	GARAGE	CONC	SEAL NONE BLOCK	PTD OPEN - VARIOUS	
101	UNISEX RESTROOM	CONC	CT CT GYP	CT/PTD GYP	PTD 9'-0"

**DOOR SCHEDULE**

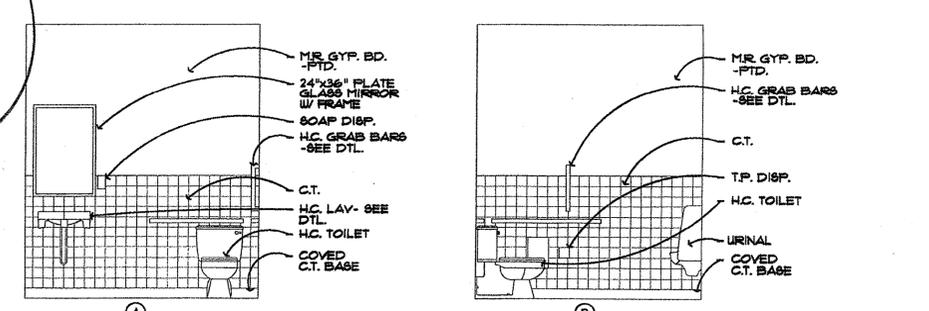
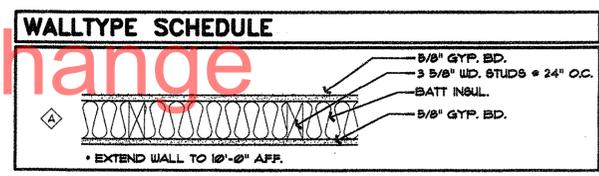
DOOR MARKER	DOOR SIZE	DOOR TYPE	FRAME FIN.	HWDE GROUP	RATING	REMARKS	
100A	3'-0"x7'-0"	2	PTD	HFD	PTD	A	
100B	9'-0"x0'-0"	3	-	-	-	-	HARDWARE BY DOOR MANUFACTURER
100C	10'-0"x0'-0"	3	-	-	-	-	HARDWARE BY DOOR MANUFACTURER
100D	9'-0"x0'-0"	3	-	-	-	-	HARDWARE BY DOOR MANUFACTURER
101A	3'-0"x7'-0"	1	PTD	HFD	PTD	B	

**HARDWARE GROUPS**

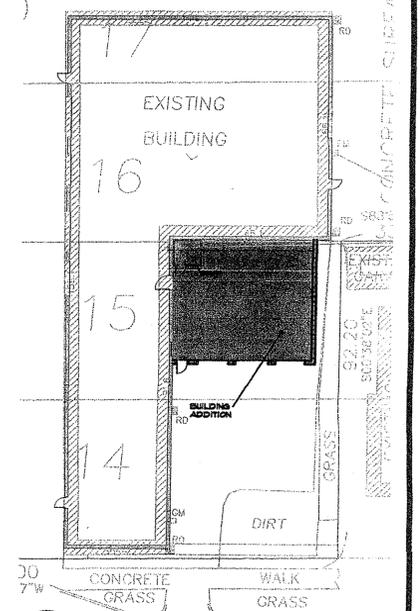
A. SURFACE MOUNTED CLOSER W/ 5# FORCE LEVER HANDLE	B. LEVER HANDLE
PANO HARDWARE	1/2 PAIR BS HINGES
1/2 PAIR BS HINGES	WALL STOP
CYLINDER	PRIVACY SET
ALUMINUM THRESHOLD	
WEATHERSTRIPPING	

**FIXTURE SCHEDULE**

1x2, 2 BULB6 - 4'-0" LONG EACH FLUORESCENT LIGHT FIXTURE WITH REFLECTOR
1x4 FLUORESCENT LIGHT FIXTURE



**5 RESTROOM ELEVATIONS**  
3/8"=1'-0"



**KEY PLAN**  
NTS

Preliminary Plan - Subject to change

**reprise DESIGN**  
INCORPORATED

12400 PORTLAND AVENUE SOUTH  
SUITE 100  
PORTLAND CORPORATE CENTER  
BURNSVILLE, MN 55337  
PHONE: (952) 252-4042  
FAX: (952) 252-4043

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered ARCHITECT under the laws of the State of MINNESOTA

*[Signature]*  
BRIAN R. JOHNSON  
18050  
Registration Number

04/15/10  
Date

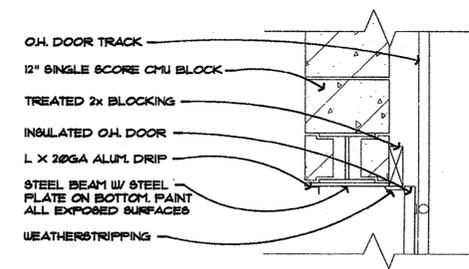
**2801 CENTRAL AVE**  
BUILDING ADDITION  
MINNEAPOLIS, MN

**FLOOR & REFLECTED CEILING PLANS & RESTROOM ELEVATIONS**

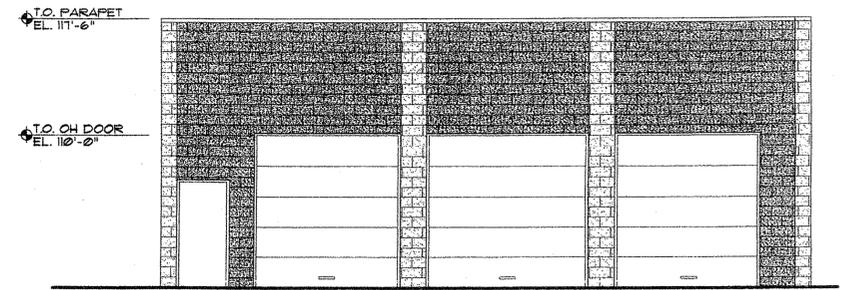
DATE ISSUED  
PERMIT 04/15/10

DRAWN BY KMD  
CHECKED BY CS  
JOB NO. 10049

**A-100**

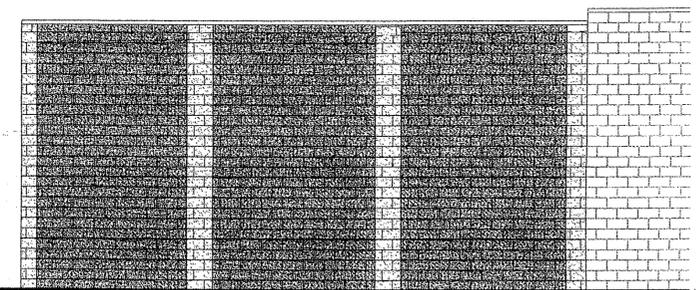


**4 DETAIL**  
1"=1'-0"

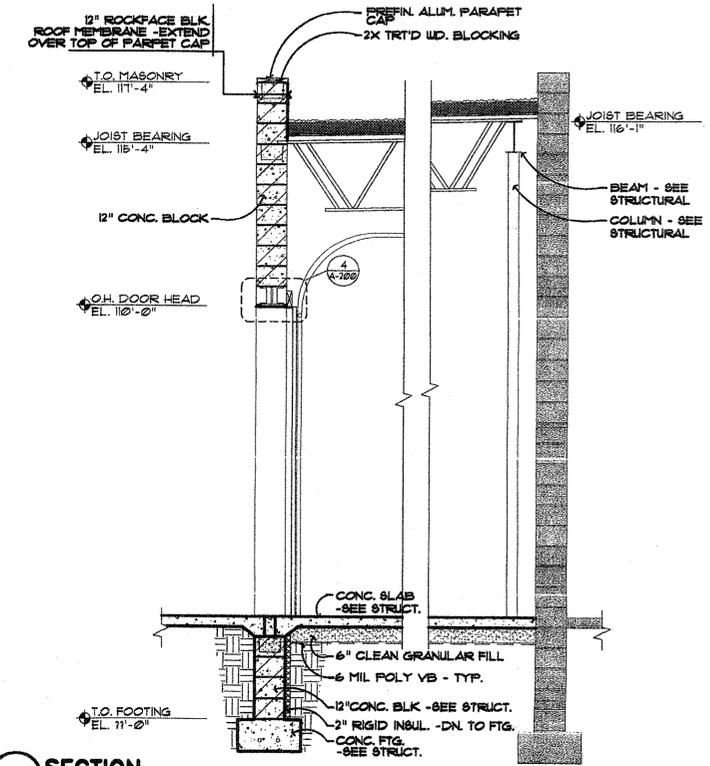


**1 FRONT ELEVATION**  
3/16"=1'-0"

- CMU-1: ANCHOR BLOCK - HICKORY SPLIT FACE
- CMU-2: ANCHOR BLOCK - MOJAVE SPLIT FACE



**2 SIDE ELEVATION**  
3/16"=1'-0"



**3 SECTION**  
3/8"=1'-0"

Preliminary Plan - Subject to change

**reprise**  
DESIGN  
INCORPORATED

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SUITE 150  
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Signature: *Brian R. Johnson*  
Date: 04/15/10  
Registration Number: 18050

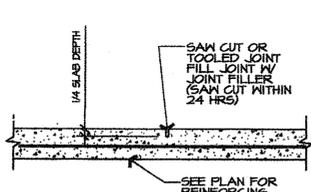
2801 CENTRAL AVE  
BUILDING ADDITION  
MINNEAPOLIS, MN  
ELEVATIONS & SECTIONS

DATE ISSUED  
PERMIT 04/15/10

DRAWN BY KMD  
CHECKED BY CS  
JOB NO. 10049

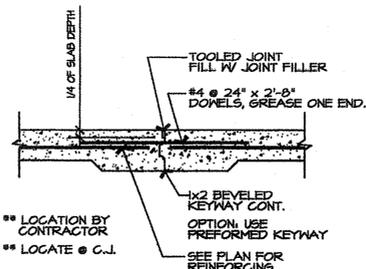
**A-200**





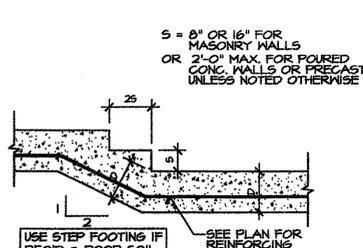
NOTE: SEE STRUCTURAL NOTES FOR SPACING

1 CONTROL JOINT - SLAB  
NO SCALE

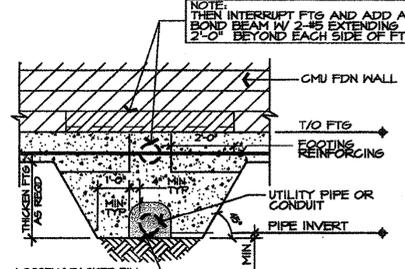


NOTE: LOCATION BY CONTRACTOR  
NOTE: LOCATE @ C.J.  
NOTE: OPTION: USE PREFORMED KEYWAY  
NOTE: SEE PLAN FOR REINFORCING

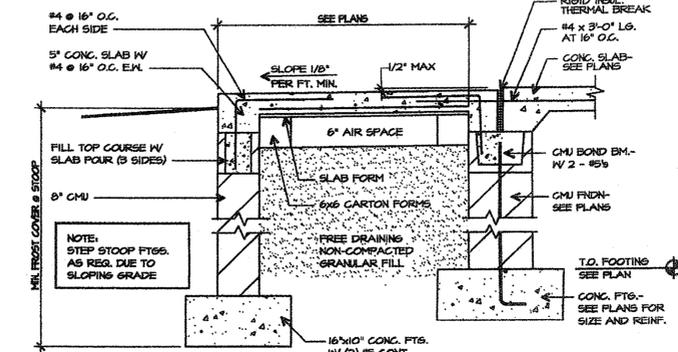
2 CONSTRUCTION JOINT - SLAB  
NO SCALE



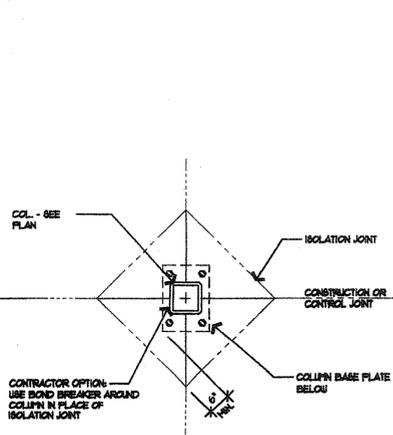
3 STEP FOOTING  
NO SCALE



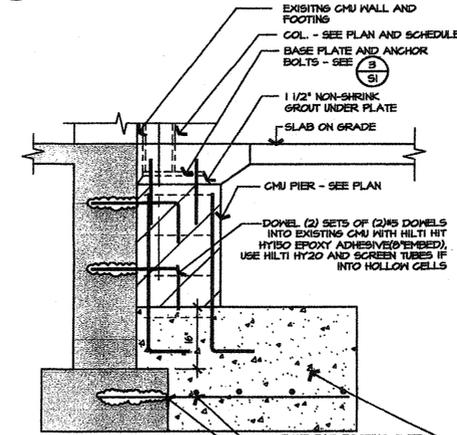
4 FOUNDATION AT UTILITY  
NO SCALE



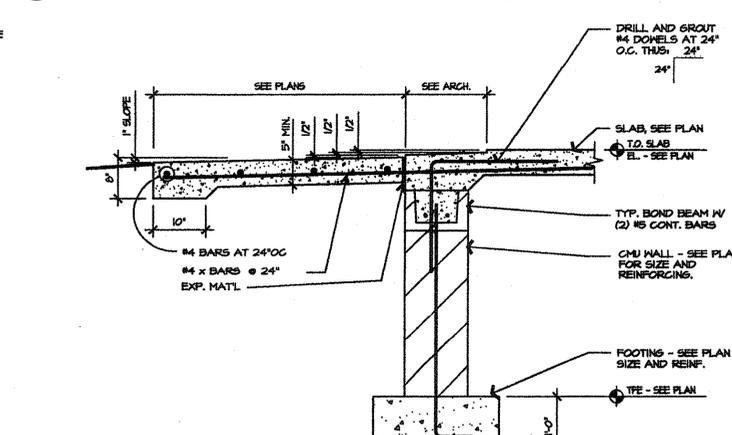
5 STOOP DETAIL  
NO SCALE



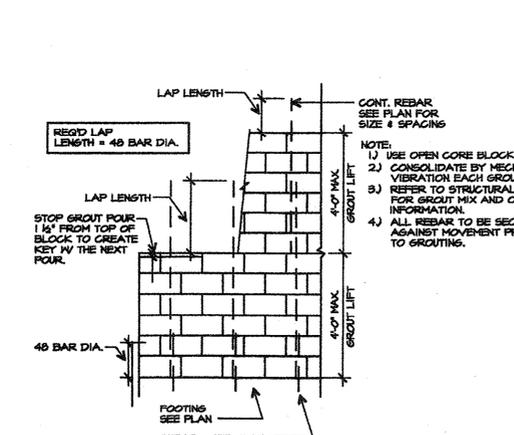
6 ISOLATION JOINT AT COLUMN  
NO SCALE



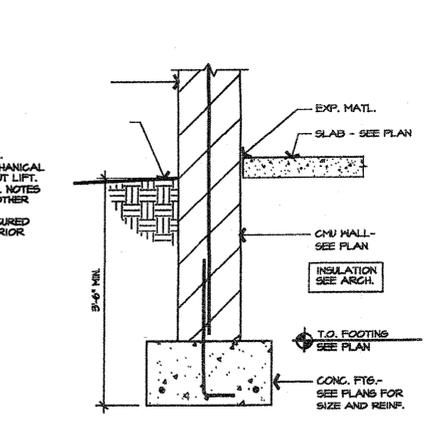
7 PAD FOOTING @ EXISTING  
NO SCALE



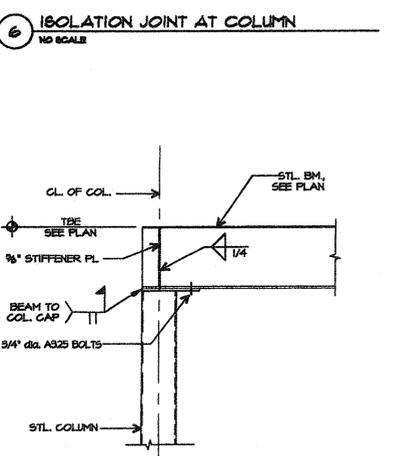
8 APRON SECTION  
NO SCALE



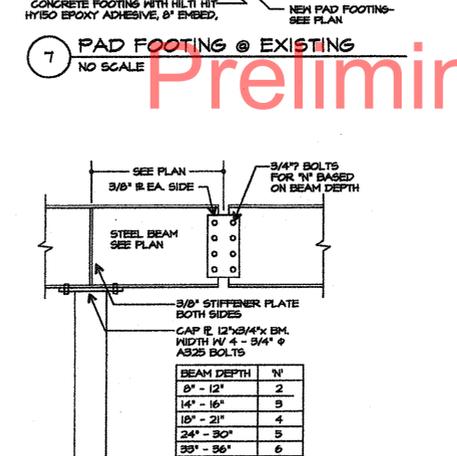
9 LOW LIFT GROUT DETAIL  
NO SCALE



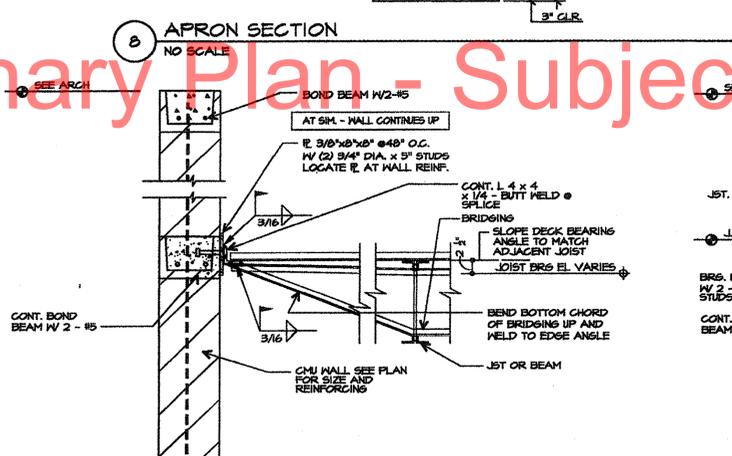
10 TYPICAL CMU FOUNDATION  
NO SCALE



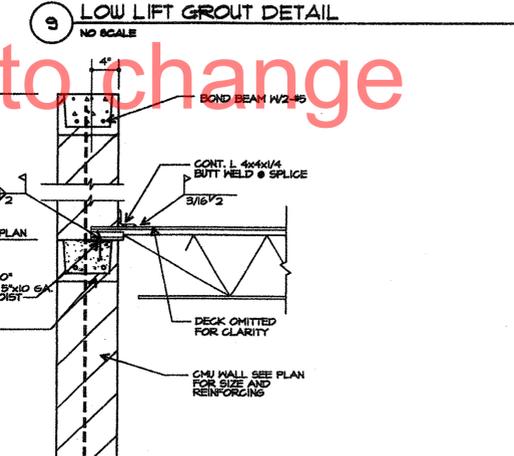
11 BEAM/COLUMN DETAIL  
NO SCALE



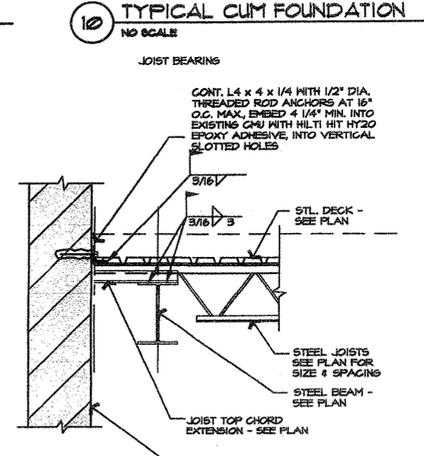
12 BEAM SPLICE @ COL. CONN.  
NO SCALE



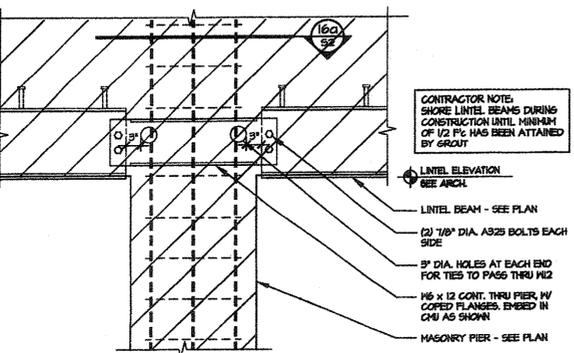
13 DECK BEARING DETAIL  
NO SCALE



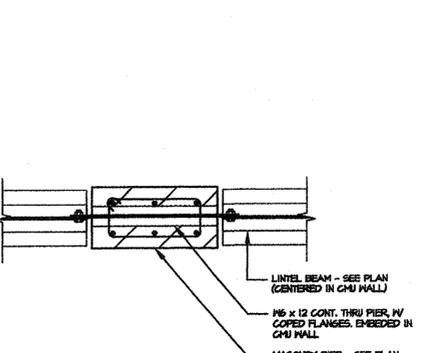
14 JOISTS BRG. AT CMU  
NO SCALE



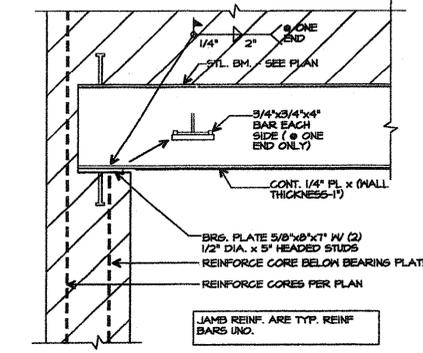
15 SECTION @ EXISTING WALL  
NO SCALE



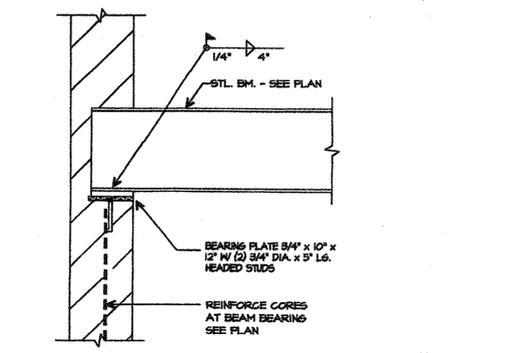
16 LINTEL ELEVATION AT CF3-2  
NO SCALE



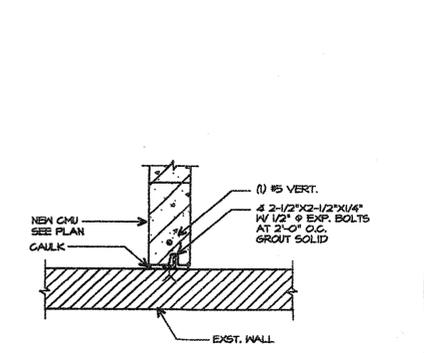
16a LINTEL DETAIL AT CF3-2  
NO SCALE



17 TYPICAL LINTEL AT OPENING  
NO SCALE



18 BEAM BRG. @ MASONRY  
NO SCALE



19 WALL CONNECTION DETAIL  
NO SCALE

Preliminary Plan - Subject to change

VOIGT & ASSOCIATES, INC.  
STRUCTURAL ENGINEERING SERVICES  
4635 NICOLS RD.  
SUITE 204  
EAGAN, MINNESOTA 55122  
PHONE (651) 686-7727

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.  
Signature: Paul W. Voigt  
PAUL W. VOIGT

2801 CENTRAL AVENUE  
ADDITION  
MINNEAPOLIS, MINNESOTA  
DETAILS

ISSUED DATE  
PERMIT 3-18-10  
DRAWN BY DJM  
CHECKED BY RNS, PNY  
JOB NO. 10-022

S2

**GENERAL STRUCTURAL NOTES**

**BUILDING CODES USED FOR DESIGN**  
- IBC 2006 (WITH MINNESOTA AMENDMENTS)

**DESIGN LOADS**

- DESIGN LIVE LOADS:
  - ROOF: 20 PSF
  - 50 PSF GROUND SNOW
  - WIND: 40 MPH
- PLUS DRIFTING AND/OR SLIDING SNOW
- EXPOSURE B

**FOUNDATIONS**

- IN LIEU OF SOIL BORINGS, FOOTINGS HAVE BEEN DESIGNED FOR A MAXIMUM SOIL BEARING PRESSURE OF 2000 PSF, AND A LATERAL PRESSURE OF 50 PCF. IT WILL BE THE RESPONSIBILITY OF OTHERS TO VERIFY THESE ASSUMPTIONS TO INSURE THAT DAMAGING DIFFERENTIAL SETTLEMENT WILL NOT OCCUR.
- GRANULAR FILL SHALL BE COMPACTED TO 98% STANDARD DENSITY (ASTM D698-74).
- IF SOIL AT BOTTOM OF FOOTINGS AS DETAILED IS OF QUESTIONABLE BEARING VALUE, THE ARCHITECT'S OFFICE SHALL BE NOTIFIED AT ONCE.
- WALL FOOTING ELEVATION CHANGES SHALL BE STEPPED AT A RATIO OF (1) VERTICAL TO (2) HORIZONTAL. MAXIMUM VERTICAL STEP SHALL BE 1'-4" UNLESS NOTED OTHERWISE.
- ALL EXTERIOR WALL FOOTINGS SHALL HAVE A MINIMUM SOIL COVER OF 3'-0" MEASURED FROM BOTTOM OF FOOTING UNLESS NOTED OTHERWISE.

**BACKFILLING**

- BOTH SIDES OF FOUNDATION WALLS SHALL BE BACKFILLED SIMULTANEOUSLY SO AS TO PREVENT OVERTURNING OR LATERAL MOVEMENT OF WALLS.
- ALL GRADE BEAMS SHALL BE ADEQUATELY BRACED TO PREVENT LATERAL MOVEMENT.

**COLD WEATHER EXCAVATION**

- FROST SHOULD NOT BE ALLOWED TO PENETRATE INTO THE SOILS BELOW ANY PROPOSED STRUCTURE.
- WINTER EXCAVATION SHOULD BE LIMITED TO AREAS SMALL ENOUGH TO BE REFILLED TO A GRADE HIGHER THAN FOOTING GRADE ON THE SAME DAY.
- TRENCHING BACK DOWN TO UNFROZEN SOILS FOR FOUNDATION CONSTRUCTION CAN THEN BE PERFORMED JUST PRIOR TO FOOTING PLACEMENT.
- THE EXCAVATED TRENCHES SHOULD BE PROTECTED FROM FREEZING BY MEANS OF INSULATING OR HEATING DURING THE FOUNDATION CONSTRUCTION.
- BACKFILLING OF THE TRENCHES SHOULD BE PERFORMED IMMEDIATELY AFTER THE BELOW-GRADE FOUNDATION CONSTRUCTION IS FINISHED.
- ANY INTERIOR FOOTINGS, OR FOOTINGS DESIGNED WITHOUT FROST PROTECTION SHOULD BE EXTENDED BELOW FROST DEPTH, UNLESS ADEQUATE PRECAUTIONS ARE TAKEN TO PREVENT FROST INTRUSION UNTIL THE BUILDING CAN BE ENCLOSED AND SOIL PLACED.
- ANY FROST WHICH FORMS IN LOOSE LAYER, OR SNOW WHICH ACCUMULATES, SHOULD BE COMPLETELY REMOVED FROM THE FILL AREA PRIOR TO COMPLETION AND ADDITIONAL SOIL PLACEMENT.
- FROZEN SOILS, OR SOILS CONTAINING FROZEN MATERIAL, OR SNOW SHOULD NEVER BE USED AS FILL MATERIAL.
- AFTER THE STRUCTURE HAS BEEN ENCLOSED, ALL FLOOR SLAB AREAS SHOULD BE SUBJECTED TO AMPLE PERIODS OF HEATING TO ALLOW THAWING OF THE SOIL SYSTEM.
- THE FLOOR SLAB AREAS SHOULD BE CHECKED AT RANDOM AND REPRESENTATIVE LOCATIONS FOR REMAINT AREAS OF FROST, AND DENSITY TESTS SHOULD BE PERFORMED TO DOCUMENT FILL COMPACTION PRIOR TO SLAB PLACEMENT.

**DESIGN STRENGTHS - NOTE ALL MATERIALS MAY NOT BE USED ON THIS JOB.**

STRENGTH AT 28 DAYS (PSI)	TYPE MIX	LOCATION
3000	STD. WT.	INTERIOR SLABS AND WALLS
4000	STD. WT.	EXTERIOR SLABS AND WALLS
3000	AIR-ENTRAINED STD. WT.	FOOTINGS

MASONRY	F <sub>m</sub> = 1500 PSI (at 28 Days)
REINFORCEMENT	F <sub>y</sub> = 60,000 PSI ASTM A615
WIRE FLANGES SHAPES	F <sub>y</sub> = 60,000 PSI ASTM A72
STRUCTURAL TUBING	F <sub>y</sub> = 46,000 PSI ASTM A500 GRADE B
STANDARD STEEL PIPE	F <sub>y</sub> = 56,000 PSI ASTM A53 GRADE B
PLATES	F <sub>y</sub> = 56,000 PSI ASTM A572
MISC. STRUCTURAL SHAPES	F <sub>y</sub> = 56,000 PSI ASTM A36
BOLTS	F <sub>y</sub> = 120,000 PSI ASTM A502
ANCHOR BOLTS	F <sub>y</sub> = 60,000 PSI ASTM A307
WELDED ELECTRODE	F <sub>y</sub> = 10,000 PSI
WELDED WIRE FABRIC	ASTM A185

\*\* ALL ANCHOR BOLTS / FASTENERS IN DIRECT CONTACTS WITH TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL.

**CONCRETE**

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 308.

**CONCRETE COVERAGE FOR REINFORCEMENT**

FOOTINGS	5"
EXPOSED EXTERIOR CONCRETE	2"

**REINFORCING STEEL**

- THE REINFORCING STEEL CONTRACTOR SHALL FABRICATE ALL REINFORCEMENT AND FURNISH ALL ACCESSORIES, CHAIRS, SPACER BARS AND SUPPORTS NECESSARY TO SECURE THE REINFORCEMENT UNLESS SHOWN OTHERWISE ON THE PLANS AND/OR DETAILS.
- CONCRETE REINFORCEMENT SHALL BE PLACED ACCORDING TO THE CRSI RECOMMENDED PRACTICE FOR REINFORCING BARS.
- COMPRESSION AND TENSION LAP SPLICES FOR CAST-IN-PLACE CONCRETE SHALL BE 36 BAR DIAMETERS MINIMUM UNLESS OTHERWISE NOTED.
- TENSION LAP SPLICES FOR REINFORCED MASONRY SHALL BE 48 BAR DIAMETERS MINIMUM UNLESS OTHERWISE NOTED.
- HORIZONTAL REINFORCING STEEL IN FOOTINGS AND CONCRETE WALLS SHALL BE CONTINUOUS AROUND CORNERS.
- ALL LAPS IN W/F SHOULD BE ONE MESH PLUS TWO INCHES AT SPLICES.
- PROVIDE (2) #5 REINFORCING BARS EACH SIDE AROUND OPENINGS IN CONCRETE WALLS AND SLABS. BARS SHALL EXTEND 24" BEYOND THE CORNERS OF THE OPENINGS. ALSO PROVIDE (2) #5 DIAGONAL BARS AT EACH CORNER OF OPENING.
- TOP BARS SHALL BE HOOKED AT END SPANS.

**CONSTRUCTION AND CONTROL JOINTS IN CONCRETE**

- CONSTRUCTION JOINTS SHALL BE MADE AS DETAILED ON THE DRAWINGS.
- MAXIMUM SPACING FOR CONTROL JOINTS ON GRADE SHALL BE 12'-0".
- A 12'-0" MAXIMUM SPACING OF CONTROL JOINTS MAY NOT INSURE COMPLETE CONTROL OF SHRINKAGE CRACKS. A CLOSER SPACING MAY BE USED BY REQUEST OF OWNER IF MORE COMPLETE SHRINKAGE CRACK CONTROL IS DESIRED. CONTRACTOR TO VERIFY WITH OWNER.
- CONSTRUCTION JOINTS IN CONCRETE FOUNDATION WALLS SHALL BE LOCATED 50' NO SINGLE FOUR IS LONGER THAN 50 FEET.

**EXPANSION BOLTS**

- ALL EXPANSION BOLTS SHALL BE KNUK BOLTS OR RED HEAD AS NOTED ON THE DRAWINGS. MINIMUM EMBEDMENT UNLESS OTHERWISE NOTED SHALL BE: 4" FOR 1/2" DIAMETER, 5" FOR 3/8", 5 1/2" FOR 1/2" DIAMETER.

**LIGHT GAUGE STUDS AND JOISTS**

- ALL STUD (AND/OR) JOIST FRAMING MEMBERS SHALL BE OF THE TYPE, SIZE AND GAGE AS SHOWN ON THE PLANS.
- ALL STUDS, JOISTS AND ACCESSORIES SHALL BE PRIMED WITH RUST-INHIBITIVE PAINT MEETING THE PERFORMANCE REQUIREMENTS OF TYP. 656C, OR SHALL BE FORMED FROM STEEL HAVING AS-60 GALVANIZED COATING.
- ALL FRAMING MEMBERS SHALL MEET THE REQUIREMENTS OF ASTM A446, WITH A MINIMUM YIELD OF 59,000 PSI FOR 18 GA. OR LIGHTER, 50,000 PSI FOR 16 GA. OR HEAVIER.
- ALL TRACKS SHALL MEET THE REQUIREMENTS OF A446, GRADE 33, WITH A MINIMUM YIELD OF 59,000 PSI.
- ALL WELDING IS TO BE DONE PER MANUFACTURERS RECOMMENDATIONS ON ROD TYPE AND ANGLE.
- TRACKS SHALL BE SECURELY ANCHORED TO CONCRETE OR CMU. JOISTS SHALL BE SET SQUARE AND PLUMB INTO TRACKS AND SECURELY FASTENED TO WEB AND FLANGES.
- UNLESS DETAILED OTHERWISE, MAKE FIELD CONNECTIONS USING (3) #12 PAN HEAD SCREWS OR 1/8" BY 1 1/2" LONG FILLET WELDS.
- NO SPLICES IN STUDS SHALL BE PERMITTED.
- BRACE ALL WALLS WITH COLD ROLLED CHANNEL THROUGH THE STUD RINCHOUTS AT 4'-0" O.C. MAXIMUM.

**REINFORCED MASONRY**

- OLLOW LOAD BEARING MASONRY UNITS SHALL CONFORM TO ASTM C90, IN ADDITION TO THE REQUIREMENTS OF THE QUALITY CONTROL STANDARDS OF THE CONCRETE MASONRY ASSOCIATION, (BASED ON NET AREA). MINIMUM FACE SHELL THICKNESS TO BE 1 1/4" FOR 8" BLOCK, 1 3/8" FOR 10" BLOCK, AND 1 1/2" FOR 12" BLOCK.
- MASONRY UNITS SHALL HAVE BEEN CURED FOR NOT LESS THAN 28 DAYS WHEN PLACED IN THE STRUCTURE.
- THE USE OF ADMIXTURES WILL NOT BE PERMITTED IN THE GROUT OR MORTAR UNLESS SUBSTANTIATING DATA IS SUBMITTED TO AND APPROVED BY THE STRUCTURAL ENGINEER OR THE ARCHITECTS. GROUT FOR VERTICALLY REINFORCED MASONRY WALLS AND BOND BEAMS SHALL BE F<sub>c</sub> = 8000 PSI AT 28 DAYS. GROUT SLUMP SHALL BE 4" TO 10".
- ALL MASONRY WALLS SHALL HAVE HORIZONTAL REINFORCING CONSISTING OF GALVANIZED STAINLESS STEEL BARS AT 20'-0" WALL OR EQUAL. ALL REINFORCING SHALL BE LOCATED EVERY OTHER COURSE.
- DOPELS AS SHOWN SHALL MATCH SIZE AND NUMBER OF REINFORCING UNLESS OTHERWISE NOTED. HOOK INTO FOOTING 1'-0" MINIMUM AND LAP 30 DIAMETERS WITH MAIN STEEL.
- TYPE "M" MORTAR REQUIRED FOR BEARING WALLS BELOW GRADE. TYPE "N" MORTAR REQUIRED FOR BEARING WALLS ABOVE GRADE. MORTAR SHALL BE OF A PORTLAND CEMENT TYPE MIX.
- SEE ARCHITECTURAL PLANS FOR LOCATION AND DETAIL OF VERTICAL CONTROL JOINTS.
- MAXIMUM SPACING FOR CONTROL JOINTS IN BLOCK WALLS SHALL NOT EXCEED 26'-0" O.C.
- ALL STEEL BEAMS BEARING ON MASONRY SHALL BE WELDED TO BEARING PLATE AND HAVE (2) CORES MINIMUM FILLED WITH GROUT DIRECTLY BELOW THE BEARING POINT EXCEPT AS NOTED ON THE PLANS.
- CONTRACTOR TO PROVIDE REINFORCED OR THICKENED SLAB WITH (2) #5 BARS CONTINUOUS UNDER ALL MASONRY WALLS, UNLESS NOTED OTHERWISE.
- DO NOT USE MASONRY WHEN OUTSIDE AIR TEMPERATURE IS BELOW 40 DEGREES F. IF EXPECTED TO FALL BELOW 40 DEGREES F, UNLESS ALL MEASURES ARE IN PLACE AND FOLLOWED FOR HEATING AND PROTECTING ACCORDING TO THE ACCORDING TO THE UNIFORM CONSTRUCTION PROCEDURES DEFINED IN THE UNIFORM BUILDING CODE SECTION 2104.
- PROTECT MASONRY WALLS FROM EXCESSIVE MOISTURE AFTER LAYING.
- LOCATION OF REINFORCING BEFORE CORE DRILLING THERE SHALL NOT BE ANY CORE DRILLING THROUGH BEAMS OR COLUMNS. MAXIMUM CORE HOLD THROUGH SLABS SHALL BE PIPE DIAMETER PLUS 1".
- FOR ALL OPENINGS THROUGH MASONRY WALLS INCLUDING MECHANICAL AND ELECTRICAL OPENINGS, PROVIDE THE FOLLOWING UNLESS NOTED OTHERWISE: STEEL ANGLE LINTELS
- BEAR 8" ON EACH END.
- GROUT (2) CORES SOLID FOR (3) COURSES AT BEARING (UNO.)
- (1) 3 1/2 x 3 1/2 x 1/4 ANGLE FOR EACH 4" THICKNESS OF WALL FOR SPANS UP TO 4'-0"
- (1) 6 x 3 1/2 x 5/16 (LLV) ANGLE FOR EACH 4" THICKNESS OF WALL FOR SPANS UP TO 5'-0"
- (1) 6 x 3 1/2 x 5/16 (LLV) ANGLE FOR EACH 4" THICKNESS OF WALL FOR SPANS UP TO 6'-0"
- BLOCK LINTELS (6" HIGH UNO.)
- BEAR 8" ON EACH END.
- GROUT (2) CORES SOLID FOR (3) COURSES AT BEARING (UNO.)

MASONRY TYPE	SPALL	12" BLOCK	8" BLOCK	6" BLOCK
NON-BEARING	LESS THAN 3'-4"	(2) #4 BOT.	(2) #5 BOT.	(1) #6 BOT.
NON-BEARING	3'-5" TO 6'-4"	(2) #4 BOT.	(2) #5 BOT.	(1) #6 BOT.
BEARING	LESS THAN 4'-6"	(2) #5 BOT.	(2) #5 BOT.	(1) #6 BOT.
BEARING	4'-7" TO 6'-4" (8" HIGH)	(2) #5 T&B	(2) #5 BOT.	(1) #6 BOT.

**MASONRY COVERAGE FOR REINFORCEMENT**

3" MINIMUM (CENTER REBAR IN WALL UNO.)  
5" TO TIES

**STRUCTURAL STEEL**

- FABRICATION AND ERECTION OF STRUCTURAL STEEL MEMBERS IS TO BE IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE.
- ALL CONNECTIONS SHALL BE BOLTED OR WELDED AND SHALL DEVELOP THE FULL STRENGTH OF THE STRUCTURAL MEMBERS, UNLESS NOTED OTHERWISE. MINIMUM OF (2) BOLTS PER CONNECTION.
- ALL WELDING SHALL BE BY QUALIFIED WELDER AND SHALL CONFORM TO THE STANDARDS OF THE AMERICAN WELDING SOCIETY, D11-48 STRUCTURAL WELDING CODE - STEEL WELDING OF GALVANIZED PARTS IS NOT PERMITTED.
- ELECTRODES FOR ALL FIELD AND SHOP WELDING SHALL CONFORM TO MATCHING FILLER METAL REQUIREMENTS OF AWS D11-48.
- FIELD CONNECTIONS TO BE MADE TO USE 5/8" DIA. HIGH STRENGTH BOLTS AND NUTS (A502) UNLESS SHOWN OTHERWISE ON PLANS.
- STEEL COLUMN BASE PLATES SHALL BE SIZE SHOWN ON PLAN WITH 3/4" DIAMETER ANCHOR BOLTS AND (2) #5 BARS (A502) AND (2) #5 BARS FOR INFORM BEARING.
- UNLESS NOTED OTHERWISE, STRUCTURAL STEEL SUPPLIER IS TO FURNISH (3) 1/2" X 3/4" SHOP WELDED ANGLE BRACES AT ALL CORNERS.
- VERIFY SIZE AND LOCATION WITH MECHANICAL CONTRACTOR.
- ALL STRUCTURAL STEEL AND MISCELLANEOUS METALS SHALL BE PRIME FINISH. COAT WITH PRIMER OR EQUAL TO BE TOUCH UP ALL DISTURBED AREAS AFTER ERECTION.
- CUTS, HOLES (OPENINGS), ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK AND ACCESS SHALL NOT BE ALLOWED, EXCEPT BY WRITTEN PERMISSION FROM THE ARCHITECT.
- GROUT UNDER BEAM BEARING PLATES AND COLUMN BASE PLATES SHALL BE NON-SHRINKING AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 10,000 PSI.

**STEEL JOISTS**

- ALL STEEL JOISTS SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL JOISTS INSTITUTE STANDARD SPECIFICATIONS. JOIST FABRICATOR SHALL BE MEMBER OF THE IJI OR SHALL SUBMIT COMPLETE CALCULATIONS AND/OR LOAD TEST DATA CONFORMING TO SJI LOAD TEST TABLES.
- BRIDGINGS FOR "LH" SERIES STEEL JOISTS SHALL BE CONTINUOUS AS PER SJI RECOMMENDATION.
- BRIDGINGS FOR "K" SERIES STEEL JOISTS SHALL BE CONTINUOUS 5/8" DIAMETER OR EQUAL AT TOP AND BOTTOM OF JOISTS IN LENGTHS TO PERMIT LAPPING AT JOIST PANEL POINTS FOR WELDING. WELD BRIDGINGS TO CHORDS, SPACING OF BRIDGINGS IS NOTED ON DRAWINGS.
- PROVIDE FULL AREA OF BOTTOM CHORD FOR JOISTS FRAMING INTO COLUMNS.
- PROVIDE BOTTOM CHORD CEILING EXTENSIONS AS SHOWN ON ARCHITECTURAL DRAWINGS OR AS NOTED OTHERWISE.
- BEAR ANGLE FOR STEEL JOISTS SHALL BE DESIGNED AND FURNISHED BY THE JOIST FABRICATOR AS NOTED ON THE DRAWINGS.

**STEEL ROOF DECK**

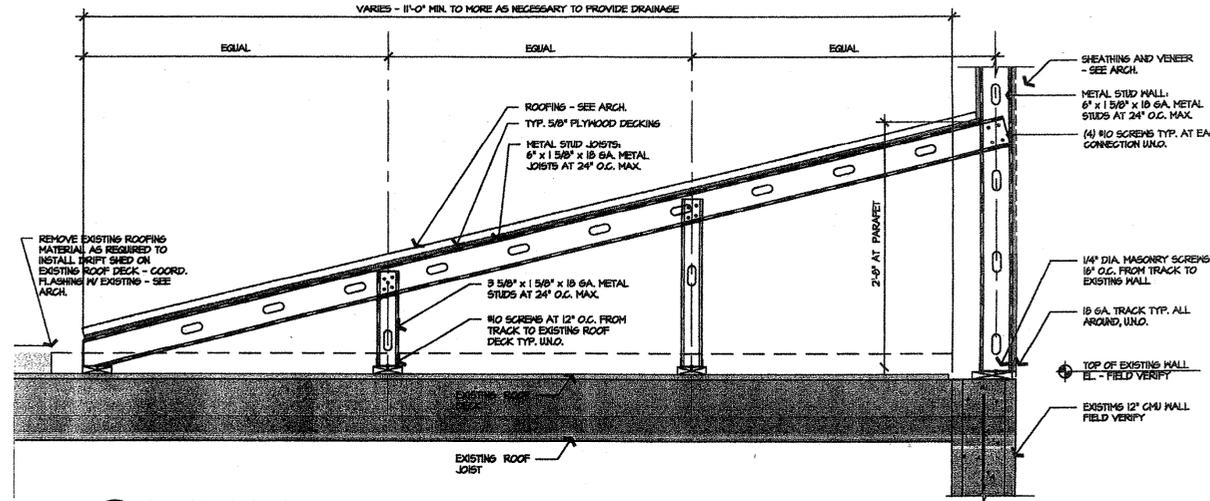
- STEEL DECK SHALL BE PAINTED.
- END JOINTS OF DECK SHALL BE STAGGERED WITH 2" MINIMUM END LAPS.
- DECK SHALL BE 1 1/2" - 22 GAUGE WIDE RIB DECK, TYPE B.
- METAL DECK SHALL BE PROVIDED IN 56" WIDE PANELS AND SHALL BE WELDED AT EACH JOIST WITH (4) WELDS PER PANEL (WELD SPACING AT 12" O.C.) WELDS SHALL HAVE AN EFFECTIVE FUSION DIAMETER OF 5/8".
- SIDLAPS SHALL BE FASTENED WITH #10 TEK SCREWS PER SPAN.

**WOOD SHEATHING**

- EACH PANEL OF CONSTRUCTION SHEATHING SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE-TRADE MARK OF THE AMERICAN PLYWOOD ASSOCIATION.
- GRADE AND TYPE SHALL BE AS FOLLOWS:
  - ROOF SHEATHING: 5/8" APA RATED SHEATHING EXPOSURE I, 5/8" THICKNESS
  - EXTERIOR WALL: 24/16 APA RATED SHEATHING EXPOSURE I, 1/2" THICKNESS
  - FLOORS: 24' O.C. APA RATED SHEATHING EXPOSURE I, 3/4" THICKNESS
- NAIL AND SHEATHING 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS WITH 8d NAILS.
- FOR ALL WALLS PANEL EDGES BACKED WITH 2" NOMINAL FRAMING OR WIDER.

**CONSTRUCTION PROCEDURE**

- THE STRUCTURE SHALL BE ADEQUATELY BRACED AND SHORED DURING ERECTION AGAINST WIND AND ERECTION LOADS. STRUCTURAL MEMBERS ARE DESIGNED FOR "IN-PLACE" LOADS.
- COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE AND FEDERAL LAWS, INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND REGULATIONS ADOPTED PURSUANT THERETO.
- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE NOTED, THEY DO NOT INDICATE THE MEANS OR METHOD OF CONSTRUCTION. PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE FROM OTHER PERSONS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO BRACING, SHORING FOR CONSTRUCTION EQUIPMENT, SHORING FOR THE BUILDING, SHORING FOR EACH BANKS, FORMS, SCAFFOLDING, PLANKING, SAFETY NETS, SUPPORT AND BRACING FOR CRANES AND 6IN POLES, ETC.
- ENGAGE PROPERTY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN THE FIELD. OBSERVATION VISITS TO THE SITE BY ENGINEER'S FIELD REPRESENTATIVE SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
- SUPERVISE AND DIRECT THE WORK SO AS TO MAINTAIN SOLE RESPONSIBILITY FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AS A PART OF THIS RESPONSIBILITY, RETAIN THE SERVICES OF A LICENSED STRUCTURAL ENGINEER TO DESIGN AND SUPERVISE ANY SCAFFOLDING FOR FORMWORK AND ALL BORING OF FORMS AND ELEMENTS OF THE CONSTRUCTION.



SECTION AT SNOW DRIFT SHED  
NO SCALE

**MISCELLANEOUS**

- PLACEMENT OF ANCHOR BOLT, PIPE SLEEVES, PADS AND OPENINGS FOR EQUIPMENT SHALL BE COORDINATED BETWEEN THE GENERAL CONTRACTOR AND THE OTHER CONTRACTORS.
- ALL CORE DRILLING SHALL BE DONE UNDER THE SUPERVISION OF THE GENERAL CONTRACTOR. NO REINFORCING SHALL BE CUT. VERIFY LOCATION OF REINFORCING BEFORE CORE DRILLING. THERE SHALL NOT BE ANY CORE DRILLING THROUGH BEAMS OR COLUMNS. MAXIMUM CORE HOLD THROUGH SLABS SHALL BE PIPE DIAMETER PLUS 1".

**COORDINATION WITH ARCHITECTURAL DRAWINGS**

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. WHERE DISCREPANCIES OCCUR IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT PRIOR TO CONSTRUCTION.

**SHOP DRAWINGS**

- SHOP DRAWINGS, UNLESS NOTED OTHERWISE, SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION ON REPRODUCIBLE TRANSPARENTS WITH ONE PRINT, SEND REPRODUCIBLE TRANSPARENTS AND PRINT IN A MAILING TUBE. TRANSPARENTS WHICH WILL NOT PRODUCE A LEGIBLE PRINT MAY BE RETURNED FOR REDESIGN.
- SHOP DRAWINGS TO BE PREPARED UNDER SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER, INCLUDING COMPLETE DETAILS AND SCHEDULES FOR FABRICATION AND ASSEMBLY OF STRUCTURAL STEEL MEMBERS, PROCEDURES AND DIAGRAMS.
- FABRICATORS SHALL DRAW THEIR OWN ERECTION PLANS, COPYING THE STRUCTURAL PLANS AND USING THEM AS ERECTION DRAWINGS IS NOT ACCEPTABLE.
- PRIOR TO SUBMITTAL, THE CONTRACTOR SHALL REVIEW THE SHOP DRAWINGS AND MAKE ANY CORRECTIONS REQUIRED. THE CONTRACTOR SHALL STAMP AND SIGN THE DRAWINGS AS EVIDENCE THAT HE HAS REVIEWED THEM.
- SHOP DRAWINGS SHALL BE FURNISHED FOR ALL STRUCTURAL COMPONENTS.
- TURN AROUND TIME FOR SHOP DRAWINGS SHALL BE ONE WEEK FROM DATE RECEIVED IN THE ENGINEERS OFFICE.
- SHOP DRAWINGS FOR ALL STRUCTURAL COMPONENTS AND SYSTEMS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION AND CONSTRUCTION.

**STRUCTURAL DRAWINGS**

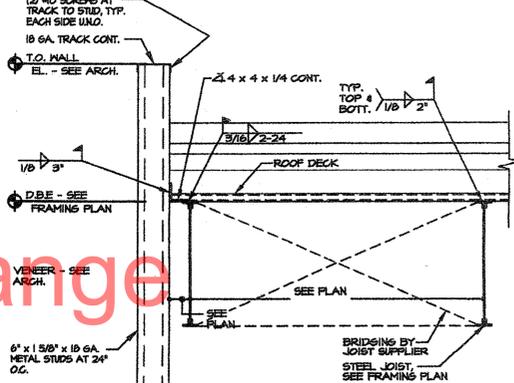
- THESE DRAWINGS SHOW INTENT OF DESIGN AND ARE NOT INTENDED TO CONFLICT WITH THE CONVENTION OF PROFESSIONAL CONSTRUCTION PRACTICES, BE EXCLUSIVE IN USE, NOR PURPORT TO INDICATE EVERY ITEM OF WORK OR MATERIAL NECESSARY FOR A COMPLETE AND SATISFACTORY PROJECT. ALL QUESTIONS REGARDING DESIGN INTENT OR MATERIALS SHOULD BE BROUGHT TO THE ARCHITECTS AND ENGINEERS ATTENTION IMMEDIATELY. DO NOT PROCEED WITH ANY DEGREE OF UNCERTAINTY WITH ANY ITEM OR PHASE OF THE WORK.

**SPECIAL INSPECTIONS**

- SPECIAL INSPECTIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE IBC. THE SPECIAL INSPECTOR SHALL BE EMPLOYED BY THE OWNER AND SHALL MEET THE QUALIFICATIONS OF THE CODE.

**NEW WORK IN CONJUNCTION WITH EXISTING CONSTRUCTION**

- THE CONTRACTOR SHALL VERIFY, BY FIELD CHECK, ALL SIZES, DIMENSIONS, ELEVATIONS, LOCATIONS, ETC. ELEMENTS OF THE EXISTING CONSTRUCTION WHICH ARE RELATIVE TO THE NEW CONSTRUCTION.
- ALL DIMENSIONS INVOLVING NEW WORK TYING INTO OR GOVERNED BY EXISTING CONSTRUCTION SHALL BE FIELD CHECKED BY THE CONTRACTOR AND FURNISHED TO THE SUBCONTRACTOR PRIOR TO FABRICATION OF ANY WORK. THE VERIFIED DIMENSIONS SHALL APPEAR AND BE NOTED AS SUCH ON THE FIRST SHOP DRAWINGS SUBMITTED.
- THE ENGINEER HAS MADE ASSUMPTIONS CONCERNING THE SOUNDNESS OF THE EXISTING BUILDINGS AND THESE ASSUMPTIONS ARE THAT THIS BUILDING HAS BEEN DESIGNED AND CONSTRUCTED IN CONFORMITY WITH GOOD DESIGN AND CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL TAKE EXTRAORDINARY PRECAUTIONS CONCERNING PRESERVATION OF THE BUILDING DURING DEMOLITION AND NEW CONSTRUCTION WORK. FURTHER, HE SHALL AGREE TO ASSUME ALL RESPONSIBILITY FOR THE PRESERVATION OF THIS PROPERTY.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD CONDITIONS.
- ALL HOLES THROUGH EXISTING CONCRETE OR MASONRY CONSTRUCTION SHALL BE CORE DRILLED OR SAM CUT. NEW OPENINGS MUST BE MADE WITH ENGINEER'S APPROVAL.
- CUTTING OF EXISTING STRUCTURAL STEEL IS PROHIBITED WITHOUT APPROVAL FROM THE ENGINEER.



JOIST @ LIGHT GAUGE-NON-BEARING  
NO SCALE

**VOIGT & ASSOCIATES, INC.**  
STRUCTURAL ENGINEERING SERVICES  
4635 NICOLS RD.  
SUITE 204  
EAGAN, MINNESOTA 55122  
PHONE (651) 686-7727  
FAX (651) 686-8444

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

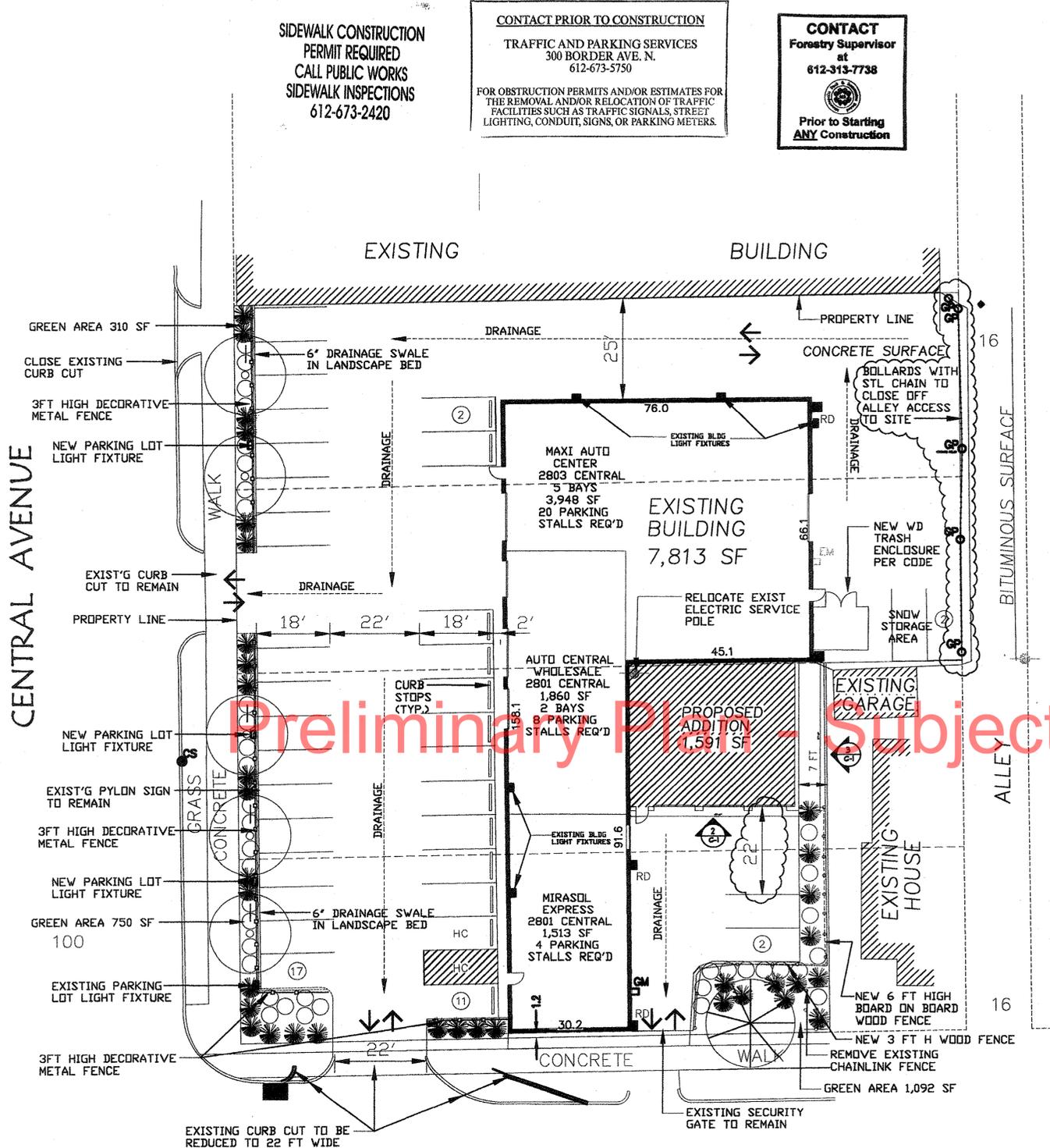
Signature: *Paul W. Voigt*  
PAUL W. VOIGT  
3-18-10  
20705  
Registration Number

2801 CENTRAL AVENUE  
ADDITION  
MINNEAPOLIS, MINNESOTA

GENERAL STRUCTURAL NOTES AND SECTIONS

ISSUED	DATE
PERMIT	3-18-10
DRAWN BY	DJM
CHECKED BY	RNS, PMV
JOB NO.	10-020

S3



ALL UNUSED CURB CUTS SHALL BE REMOVED AND REPLACED WITH CURB AND GUTTER TO MATCH EXISTING.

RIGHT OF WAY OBSTRUCTION PERMIT REQUIRED, CONTACT CITY OF MINNEAPOLIS TRANSPORTATION DIVISION 673-5750

ALL CURB CUTS TO CONFORM WITH MINNEAPOLIS STANDARD DRIVEWAY

**1 SITE PLAN**  
1/16"=1'-0"

#8398

**CITY OF MINNEAPOLIS**  
CPED-PLANNING  
210 CITY HALL  
APPROVED

As to requirement of 822-4599 as assessed by the CPC on 11/9/09 with conditions 9/27/10

DATE: 9/27/10  
DIRECTOR OF PLANNING OR AUTHORIZED AGENT

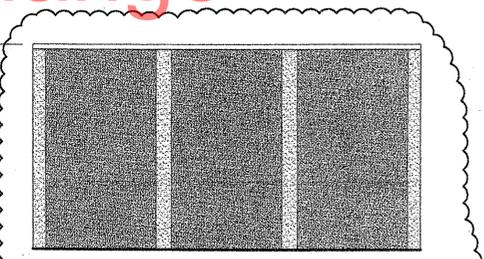
**SITE DATA**

SITE AREA	29,583.67 SF
GROSS BLDG AREA	7,813 SF
EXISTING	1,591 SF
PROPOSED	9,404 SF
TOTAL	
NET SITE AREA	20,179 SF
TOTAL PERVIOUS REQUIRED	4,035 SF
TOTAL PERVIOUS SHOWN	2,252 SF
PERVIOUS RATIO SHOWN	11%
PARKING REQUIRED	32 STALLS
PARKING SHOWN	35 STALLS

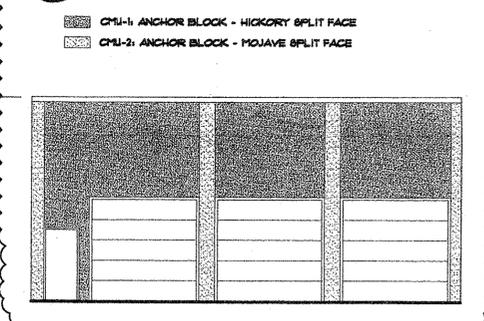
**LANDSCAPE SCHEDULE**

QTY	KEY	COMMON NAME	BOTANICAL NAME	SIZE
5	GL	GREENSPIRE LINDEN	<i>Lilja cordata greenspire</i>	2" B&B
1	AM	AMUR MAPLE	<i>Acer glabre Flare</i>	1-3/4" B&B
32	GB	GOLDMOUND SPIREA	<i>Spiraea japonica 'Goldmound'</i>	9" cont.
39	KL	DWARF KOREAN LILAC	<i>Syringa meyeri 'Palatin'</i>	9" cont.

- LANDSCAPE KEY**
- DWARF KOREAN LILAC
  - GOLDMOUND SPIREA
  - GREENSPIRE LINDEN
  - AMUR MAPLE



**3 PROPOSED EAST ELEVATION**  
1/8"=1'-0"



**2 PROPOSED SOUTH ELEVATION**  
1/8"=1'-0"

**reprise DESIGN**  
INCORPORATED

12400 PORTLAND AVENUE SOUTH  
SUITE 100  
PORTLAND CORPORATE CENTER  
BURNSVILLE, MN 55337  
PHONE: (952) 252-4042  
FAX: (952) 252-4043

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered ARCHITECT under the laws of the State of NORTH DAKOTA.

Signature: BRIAN R. JOHNSON  
Date: 09/16/09  
Registration Number: 1490

**2801 CENTRAL AVE. NE**  
BLDG. ADDITION  
2801-2803 Central Avenue NE  
Minneapolis, MN

**Site Plan**  
Exterior Elevations

DATE ISSUED  
SPA 10/09/09  
REVISED 03/29/10  
REVISED 04/06/10

DRAWN BY: CS  
CHECKED BY:  
JOB NO. 09132

**C-1**