

# CUP-6-17

## Conditional Use Permit Request for Explosive Material Storage at 3640 S. Cactus Road

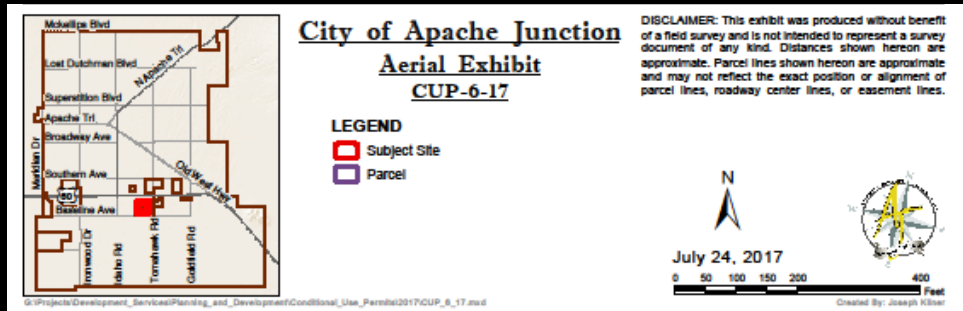


**City of Apache Junction**  
**Planning and Zoning Commission**  
**August 22, 2017**



# CUP-6-17 Aerial Map

Current  
Zoning:  
B-5 (Industrial)



Annexation: AN-2-06/Ordinance #1295





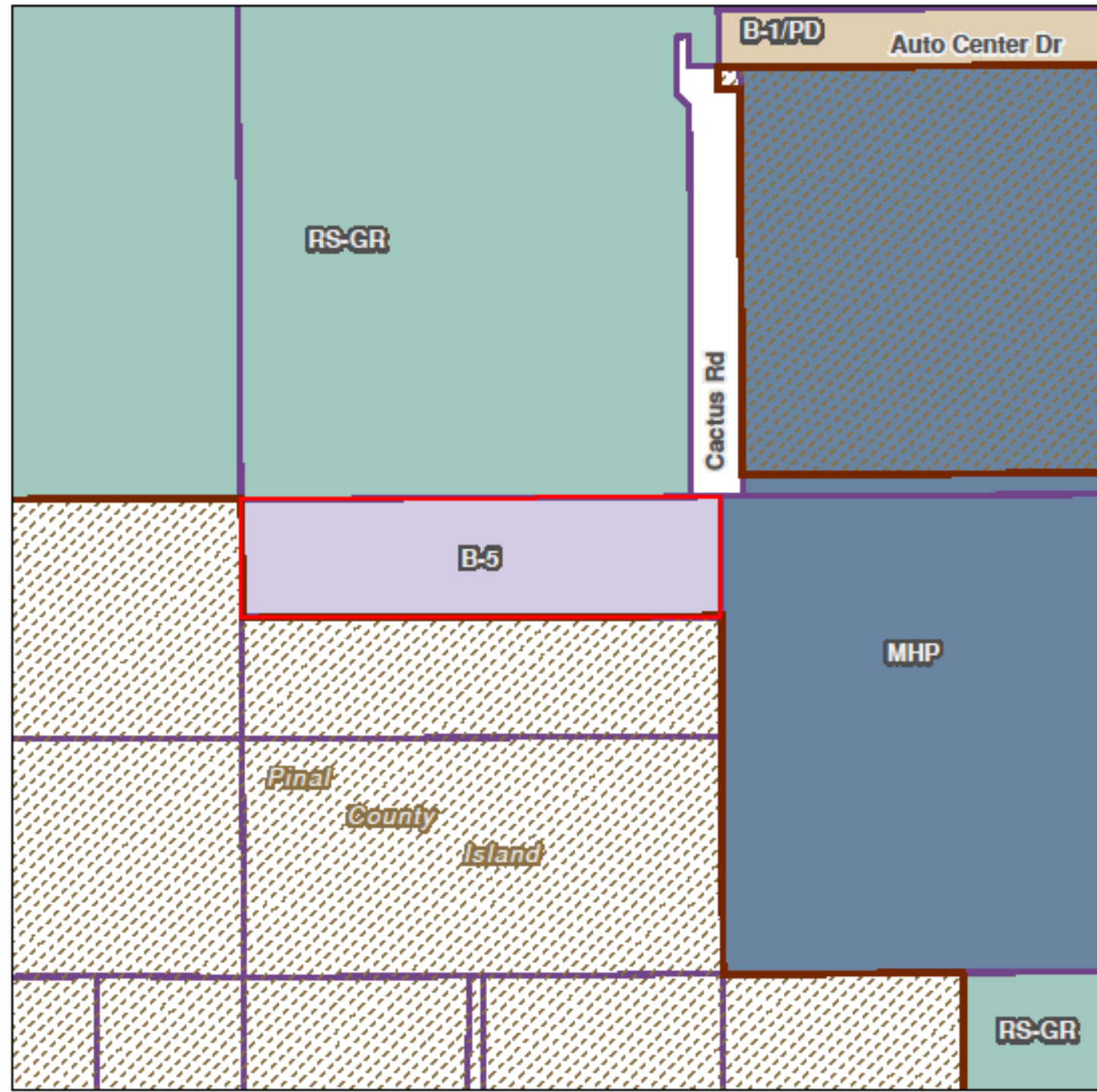
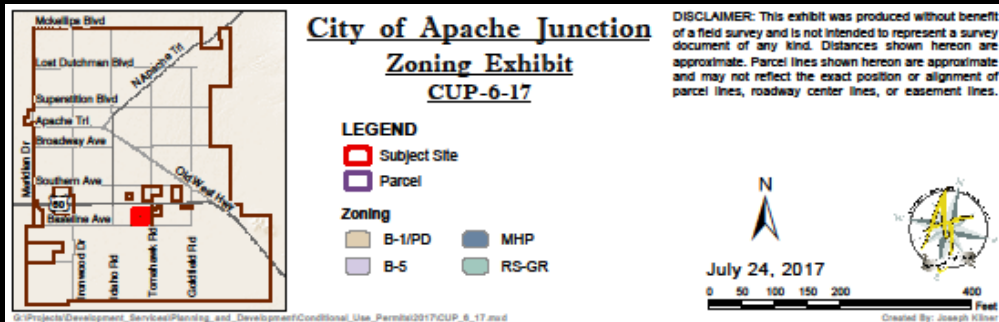
# CUP-6-17

## Zoning Map

Properties to west and south:  
zoned industrial (Pinal County)

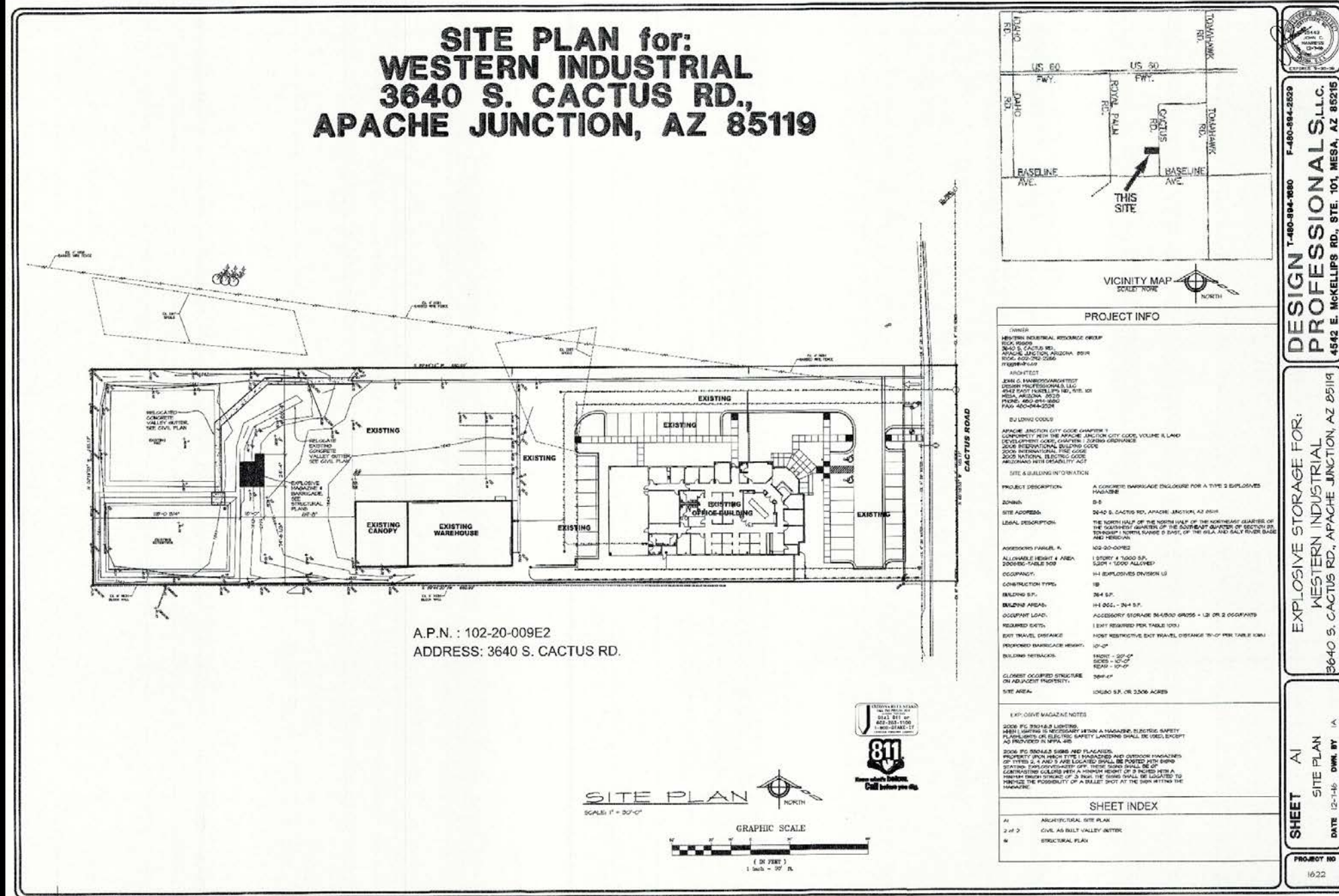
East: Manufactured Home Park

North: vacant zoned single-  
family residential (slated for  
commercial development)



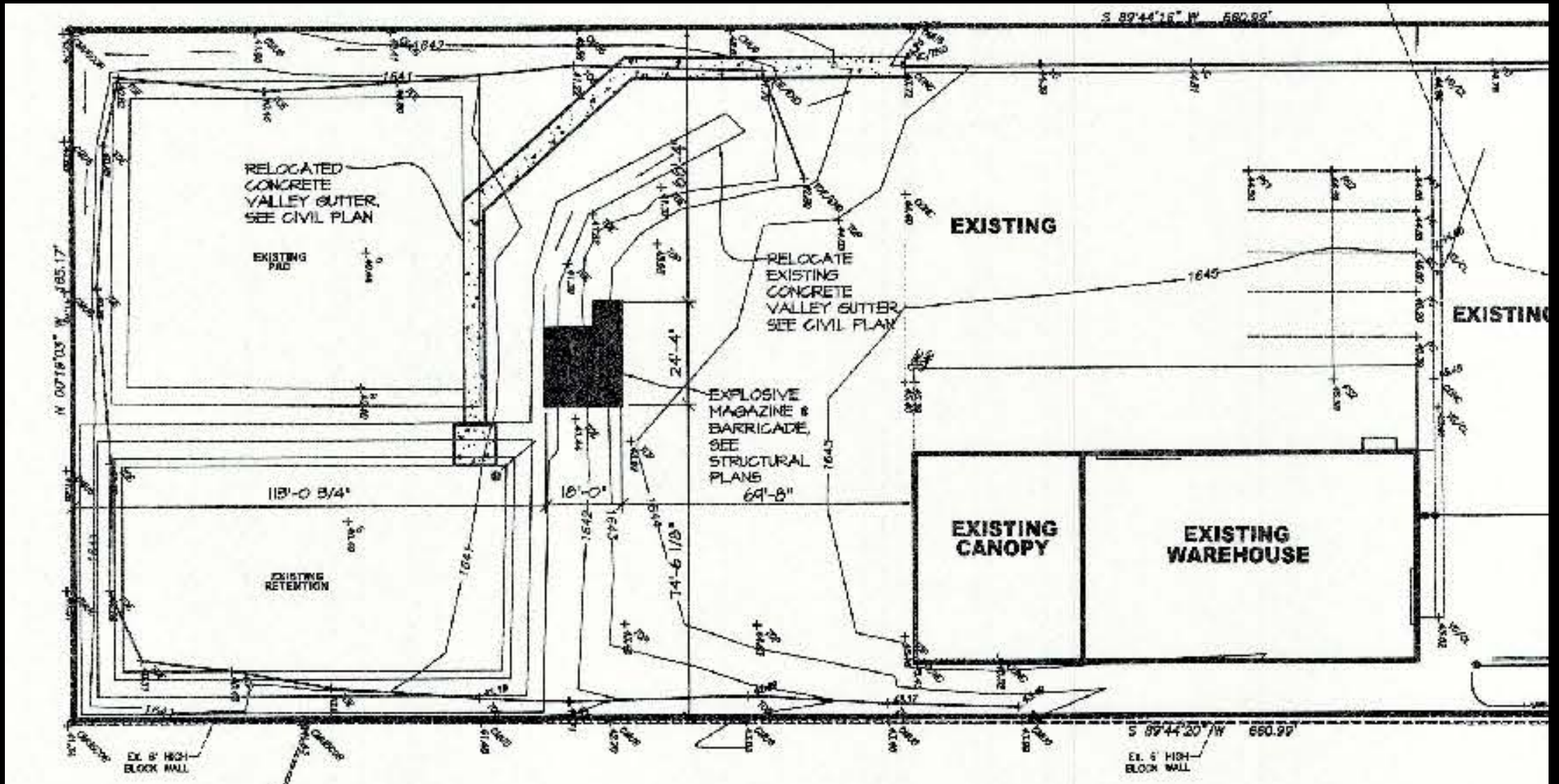
# CUP-6-17 Site Plan

Proposal:  
Place ATF approved  
magazine storage  
container and  
barricade to store  
explosive material  
for fracturing.



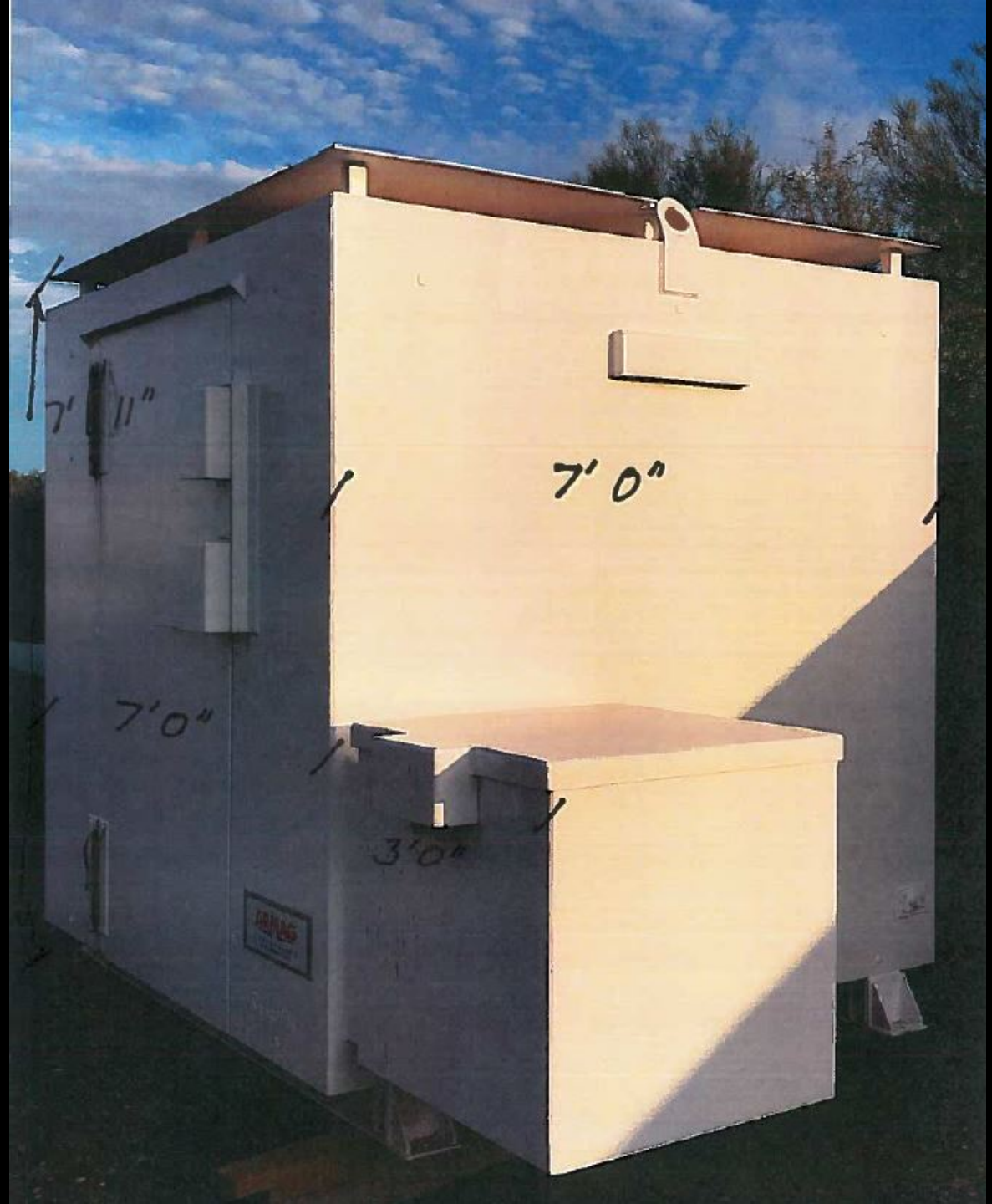


# Enlarged Site Plan



# Elevation

- Magazine Storage Container
  - Larger container will hold explosive material (size: 7' X 7')
  - Smaller container will hold ignitors (size: 3' X 3')
- Container will have a barricade built around it.
  - 12" thick concrete walls, engineered (size: 18' X 24')
- Will only hold material on an as-needed basis
  - Maximum 125 pounds





# Elevation

- Magazine storage container must meet ATF, NFPA, and ICC codes
- Will have inspections by Western Industrial on a weekly basis; daily when material is stored.
- ATF can inspect at a maximum of every 6 months.





# GENERAL STRUCTURAL NOTES

IN ACCORDANCE WITH IBC 2012

## GENERAL STRUCTURAL:

ALL STRUCTURAL DRAWINGS ARE PRELIMINARY PRIOR TO CITY/COUNTY APPROVAL. ANY COST ESTIMATES COMPLETED BY OWNER/CONTRACTOR/ENGINEER PRIOR TO CITY/COUNTY APPROVAL ARE AT CLIENT'S OWN RISK. STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY COST/ESTIMATES COMPLETED BY CLIENT PRIOR TO CITY/COUNTY APPROVAL. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.

CONSTRUCTION MATERIALS SHALL BE SHOWN OUT IN PLAN OR FRAMED CONSTRUCTION. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD (PER SQUARE FOOT) SHOWN BELOW.

NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT AND GOVERNING BUILDING CODES.

THE PERMANENT LATERAL LOAD RESISTANCE SYSTEM OF THIS BUILDING RELIES ON ROOF SHEATHING, FLOOR SHEATHING (FOR TWO STORY HOMES), AND EXTERIOR AND INTERIOR WALL SHEATHING AS IDENTIFIED ON THE SHEAR WALL PLAN. IT IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY LATERAL BRACING DURING CONSTRUCTION. THE TEMPORARY BRACING SHALL BE MAINTAINED UNTIL THE PERMANENT LATERAL LOAD RESISTANCE SYSTEM IS FULLY INSTALLED AND FASTENED AS SCHEDULED.

## BUILDING CODES:

THESE PLANS ARE PREPARED UNDER THE IBC 2012, ASCE 07-10 AND SHALL COMPLY WITH OR EXCEED THE REQUIREMENTS OF THE CODE AND ITS AMENDMENTS.

## DESIGN LOADS:

DECK LIVE LOAD = 20 PSF

FLOOR DEAD LOAD = 5 PSF

WIND LOAD = 15 MPH, EXPOSED

## BLAST LOADING:

FRONT WALL IMPULSION = 489 PSF

HYPOTHECTIC OVER PRESSURE (P<sub>0</sub>) = 100 PSF

## CONVENTIONAL FOUNDATIONS:

BOTTOMS OF BRACING FOOTINGS SHALL BEAR ON UNDISTURBED SOIL 1'-0" BELOW EXISTING GRADE.

DESIGN SOIL PRESSURE: 1500 psf PER TABLE 1806.2 OF IBC 2012.

## CONCRETE:

SHALL MEET ALL THE REQUIREMENTS OF A.C.I. 308 TYPE II CEMENT.

FOUNDATION SUPPORTING WOOD SHALL EXTEND TO AT LEAST 8" ABOVE ADJACENT FINISHED GRADE (E.C. 1806.1). CONCRETE MIX DESIGN TO BE BASED ON VALUES SHOWN BELOW.

MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH AS FOLLOWS:

SLAB ON GRADE = 3000 psi, 6" THICK

FOUNDATIONS = 3000 psi

CONCRETE CAST IN PLACE WALLS = 3000 psi

ALL PROCEDURES, PLACEMENT, FORMWORK, LAP ETC. TO CONFORM TO LATEST A.C.I. STANDARDS. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THE SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER FLOORING, ETC. MAXIMUM SLUMP 4-1/2". ALL CONCRETE SLABS ON GRADE SHALL BE BOUNDED BY CONSTRUCTION JOINTS (KEYED OR SAW CUT) SUCH THAT THE FINISHED AREA DOES NOT EXCEED 40 SQUARE FEET.

KEYED CONSTRUCTION JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING (COLD JOINTS). ALL OTHER JOINTS MAY BE SAW-CUT OR MAY USE "20" STRIPS".

## REINFORCING STEEL:

ASTM A607 ALL ANCHOR BOLTS - MINIMUM EMBEDMENT OF ALL BOLTS IN GROUT OR CONCRETE TO BE 7" WITH A 3" HOOK AT SCHEDULED END.

ASTM A615 (F<sub>y</sub> = 60,000 PSI) DEFORMED BARS FOR ALL BARS.

WIRE PER AISI 1002.

LATEST A.C.I. CODE AND DETAILING MANUAL APPLY.

CLEAR CONCRETE COVERS ARE AS FOLLOWS:

CURT AGAINST AND PERMANENTLY EXPOSED TO EARTH = 1-1/2"

EXPOSED TO EARTH OR WEATHER (AS SHOWN) = 3/4"

SLABS (IN ERROR) = 3/4"

ALL OTHER PER LATEST EDITION OF A.C.I. 308.

UNLESS NOTED OTHERWISE, LAP SPLICES IN CONCRETE SHALL BE 48 BAR.

DIAMETERS: MINIMUM STAGGER AT TYPICAL SPLICES A MINIMUM OF ONE LAP LENGTH. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT CORNERS AND INTERSECTIONS OF FOOTINGS AND WALLS. TYPICAL REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE. LAP WELDED WIRE FABRIC ON SPACING OF CROSS WIRES PLUS 2".

## REINFORCING NOTES:

REINFORCING BARS FOR MASONRY SHALL CONFORM TO

ASTM A476, GRADE 40 & BE LAPPED A MIN. OF 40 BAR DIA.

CONSTRUCTION JOINTS IN MASONRY SHALL NOT EXCEED 20"

UNLESS NOTED OTHERWISE ON THE DRAWINGS.

CONC. BLOCK UNITS - GRADE N: F<sub>y</sub> (Prime) = 1500 psi

F<sub>y</sub> (Unprime) (minimum) = 750 psi

GROUT = 2500 psi

MORTAR - TYPE III = 1500 psi

PROVIDE DURS-WRIP 1/2" 10" O.C. VERTICAL IN HORIZONTAL JOINTS. 5 GAUGE WIRE MINIMUM LAP REINFORCEMENT 10" SOLID GROUT ALL MASONRY CULLS FULL HEIGHT WHERE REBAR OCCURS.

LAP SPLICES SHALL BE 48 BAR DIAMETERS. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH DOWELS TO MATCH VERTICAL WALL OR COLUMN REINFORCING.

## STRUCTURAL STEEL:

ALL STEEL SHALL BE ASTM A572 MINIMUM F<sub>y</sub> 60 KSI UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL CONNECTIONS SHALL BE WELDED OR BOLTED. SHOP AND FIELD FASTENINGS SHALL BE ASTM A309-308 (HIGH STRENGTH BOLTS). WELDED TYPE CONNECTIONS USE "BUTTER NUT" METHOD IN ALL TIGHTENING ALL BOLTS.

HOLDS SHALL NOT BE CUT THROUGH BY FRAMES UNLESS INDICATED OR APPROVED BY THE STRUCTURAL ENGINEER. PROVIDE STANDARD ANGLE F.W. WALL ANCHORS FOR BEAMS RESTING ON MASONRY.

STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISC MANUAL, 13TH EDITION.

STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM STANDARDS:

W-SHAPE BEAMS AND COLUMNS = A502 (F<sub>y</sub> = 60 KSI)

STEEL PLATE, RAILS, CHANNELS AND ANGLES = A588 (F<sub>y</sub> = 50 KSI)

STRUCTURAL PIPES = A500-GRADE "B" (F<sub>y</sub> = 42 KSI)

HOLLOW STRUCTURAL SECTIONS: RECTANGULAR = A500-GRADE "B" (F<sub>y</sub> = 42 KSI)

HOLLOW STRUCTURAL SECTIONS: SQUARE = A500-GRADE "B" (F<sub>y</sub> = 42 KSI)

COMMON BOLTS = A307

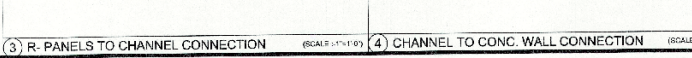
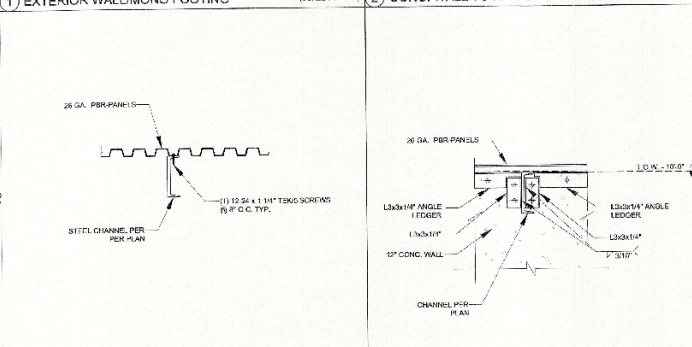
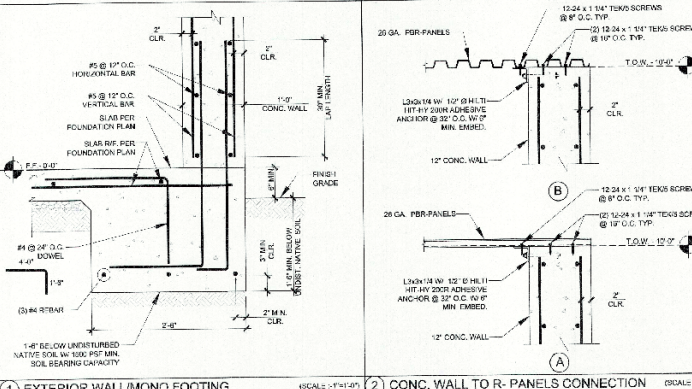
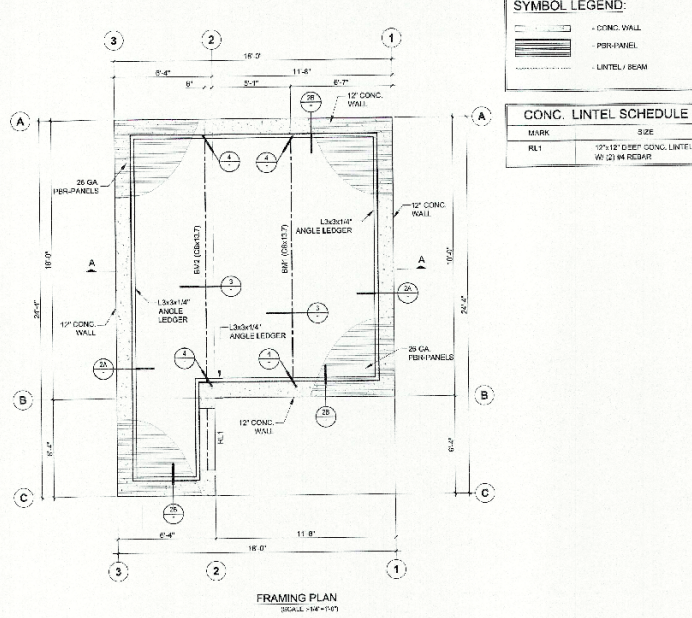
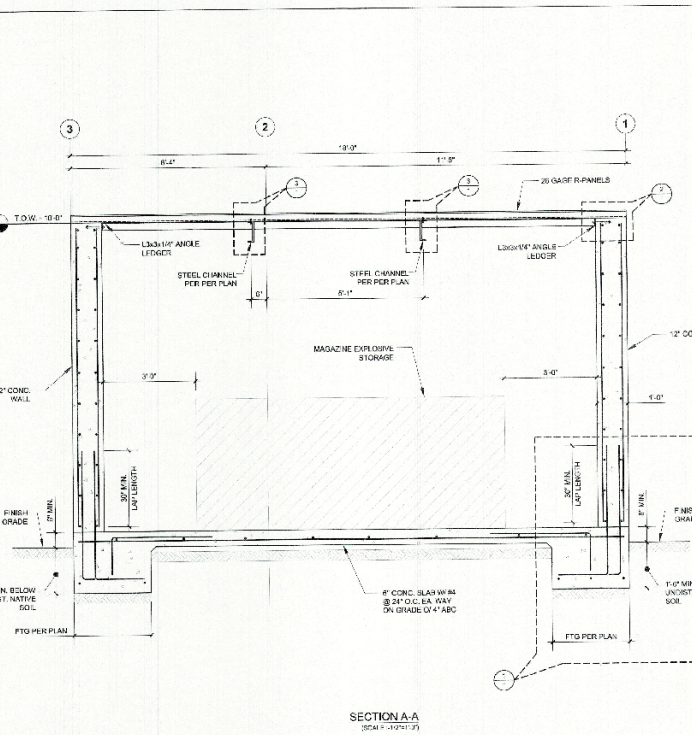
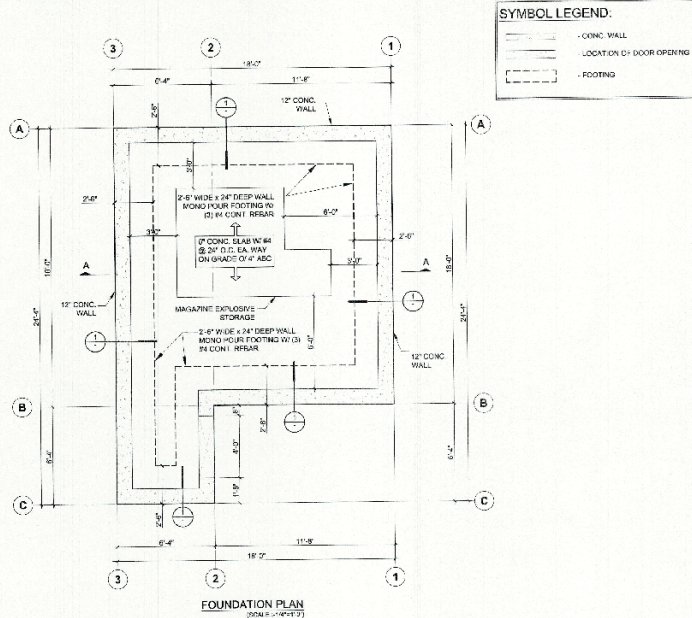
HIGH STRENGTH BOLTS = A325

ANCHOR RODS: HOOKED, HEADED, THREADED AND NUTTED = F1554-GRADE "36" (F<sub>y</sub> = 36 KSI)

ROTTED CONNECTIONS TO USE AISC-TYPE III, HIGH STRENGTH BOLTS IN BEARING TYPE CONNECTIONS TIGHTENED TO A SLIGHTLY TIGHT CONDITION IN ACCORDANCE WITH HCSS SPECIFICATIONS.

BOLTS IN MOMENT CONNECTIONS AND WELDING FRAMES SHALL BE ASTM A325-TYPE 5C (SLIP CRITICAL). SLIP CRITICAL CONNECTIONS SHALL HAVE CONTACT SURFACES MEETING CLASS 2 SURFACE CONDITIONS. BOLTS SHALL BE TENSIONED.

SHOP CONNECTIONS TO BE WELDED OR BOLTED. FIELD CONNECTIONS TO BE BOLTED UNLESS OTHERWISE SHOWN. BOLTS ARE TO BE STANDARD ROUND HEADS (5/8"-1 1/2") UNLESS OTHERWISE NOTED. SHORT BOLTS SHALL BE PERMITTED NORMAL TO THE LOAD DIRECTION IN SLIP CRITICAL AND BEARING TYPE CONNECTIONS AS PER AISC REQUIREMENTS.



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PROPOSED

QUALITY

INNOVATION

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REVISIONS

1.

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PROJECT:

EXPLOSIVE ENCLOSURE WESTERN INDUSTRIAL

3640 SOUTH CACTUS ROAD

ARIZONA 85119

PROJECT #

DATE

DRAWN

DESIGN

CHECKED

SCALE

AS NOTED

SHEET TITLE:

GENERAL STRUCTURAL NOTES, FOUNDATION, FRAMING PLANS, SECTION & DETAILS

SHEET NO:

S-0.0

CUP-6-17





For Approval

Cactus Road

Vacant Lot

Proposed Magazine Location

WIRC  
Warehouse

WIRC  
Office

Occupied Building

Occupied Building

Occupied Building

Occupied Building

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Occupied Building

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# Public Input

- Applicant supplied a public participation summary of outreach (attached to staff report)
- Staff has received multiple calls and emails from property owners and renters nearby. The main concerns are explosion radius, property values, and theft.
- One nearby renter called staff to ask where the container is going on the site but was indifferent because regulations and requirements need to be met in order to store the material.
- Sign was posted at site, notices to property owners were sent out 300' around the subject site, and was advertised in newspaper.



# Planning & Zoning Commission Meeting 8/8/2017

- Seven (7) questions were asked by the commission for the applicant, an email with responses was attached to public hearing memo.
- Staff reached out to ATF, NFPA, ICC only ATF has responded so far.
- Police department will not require an extra patrol for Cactus Road.

# Applicant Requesting Continuance

- Applicant is requesting a continuance until the regularly scheduled Tuesday January 9<sup>th</sup>, 2018 public hearing date.
  - ATF is requiring further approval from their Washington DC office for the barricade structure.



# Analysis

Staff is recommending approval of the proposed explosive material magazine storage and barricade request.

- The current use of the property is permitted in the B-5 zoning district, the storage container requires a CUP.
- The use of the property does not correspond with the General Plan land use designation of “Community Commercial” but the surrounding properties to the west and south are zoned and used for industrial purposes.
- The proposal meets requirements for the criteria of a CUP, the addition of a barricade surrounding the magazine storage container further buffers the material from neighboring properties.
- The ATF, NFPA, and ICC have requirements specific to storing explosive material that must be met.

# Recommended Conditions

1. The applicant shall provide approval to staff from ATF for the barricade, before the container may be used to store material.
2. Upon approval of the CUP, a building permit will be required for the magazine storage container and the barrier and must meet ATF, NFPA and ICC standards along with applicable inspections by the building inspector and fire marshal.
3. The Apache Junction Police Department shall inspect the magazine once it is in place, before explosives are stored at the site.
4. The commission shall reserve the right to revoke a CUP for noncompliance with any condition prescribed as part of the permit approval.



# Questions and Discussion