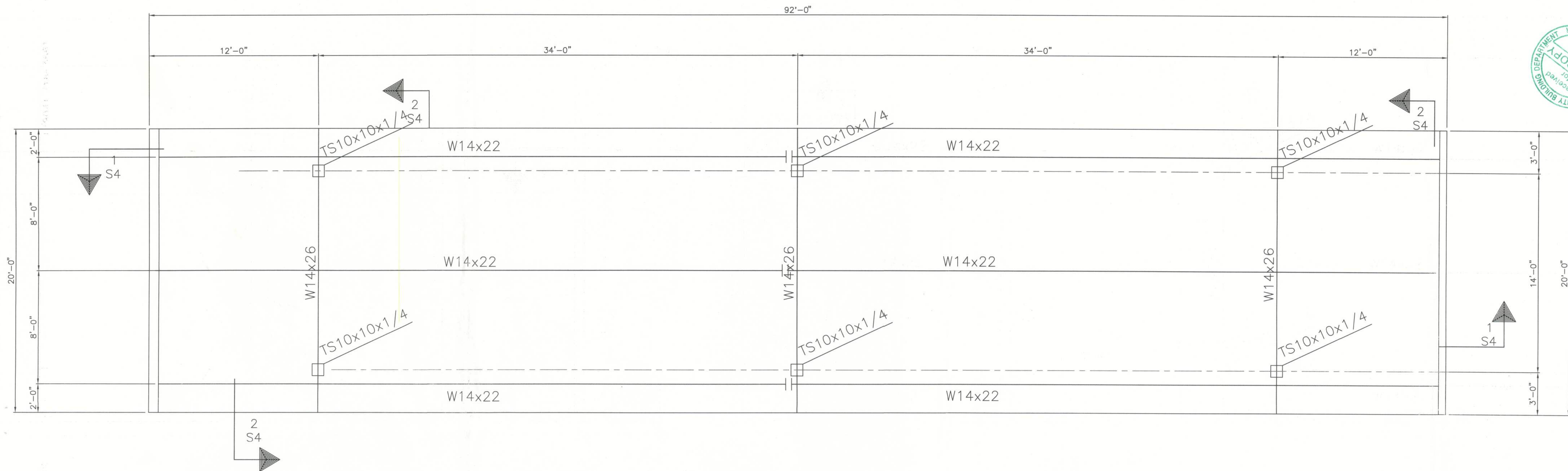




CANOPY STEEL FRAMING PLAN

36" A.C.M. FLAT FACIA
COLOR: WHITE

SEE SECTION 2/S4 FOR SECTION AT PERIMETER OF CANOPOY
SEE SECTION 3/S4 FOR SECTION AT COLUMN SHOWING FOOTING
SEE SECTION 4/S4 FOR FLANGE TO FLANGE CONNECTION ON BEAMS
SEE SECTION 5/S4 FOR DETAIL OF COLUMN BASE PLATE
SEE SECTION 6/S4 FOR DOWNSPOUT TO GUTTER HOLE ELEVATION
SEE SECTION 7/S4 FOR SCUPPER DETAIL
SEE SECTION 8/S4 FOR COLUMN ISOMETRIC WITH PVC DRAIN

SCOPE OF WORK:

- * INSTALL NEW 20' x 92' CANOPY
- * DESIGN FOR FLA. BUILDING CODE 2010 & ASCE 7-10
- * WIND LOADS PER 1609C; Vult - 120 MPH, Vasd - 93 MPH
- * BUILDING CATEGORY I - MONO SLOPE FREE ROOF
- * EXPOSURE CATEGORY B
- * 12 PSF PER SQ FT LIVE ROOF LOAD
- * TYPE "M" BUILDING - OCC. 309.1
- * TYPE II-B CONSTRUCTION TABLE 601 - GROUP "M"
- * OCCUPANCY
- * WIND LOADS-OPEN BUILDING-CLEAR FLOW
- * COMPONENTS & CLADDING-ROOF PRESSURES, $a=3.0$ FT:
- * MAX. NEGATIVE WIND LOADS, ZONE 2&3, $>9, </=36$ SF = -31.7 PSF
- * MAX. POSITIVE WIND LOADS, ZONE 2&3, $>9, </=36$ SF = 33.6 PSF
- * BASE PRESSURE, $q_h = 22.0$ PSF
- * FACIA PANELS-HORIZONTAL PRESSURES, $q_p=18.3$ PSF:
- * WINDWARD 27.5 PSF
- * LEEWARD -18.3 PSF

NOTES:

- * STEEL DESIGN - CURRENT AISC MANUAL 9TH EDITION - A36 (PRIMED)
- * WELDING ELECTRODES CLASS E-70XX (LOW HYDROGEN FOR A992 STEEL)
- * ALL WELDS ARE 3/16 FILLET UNLESS OTHERWISE NOTED
- * DECK SYSTEM TO BE ATTACHED TO PURLINS WITH DECK CLAMPS AT EACH CONTACT POINT ON MIDDLE PURLIN(S) 2 CLAMPS EACH CONTACT POINT ON EXTERIOR PURLINS

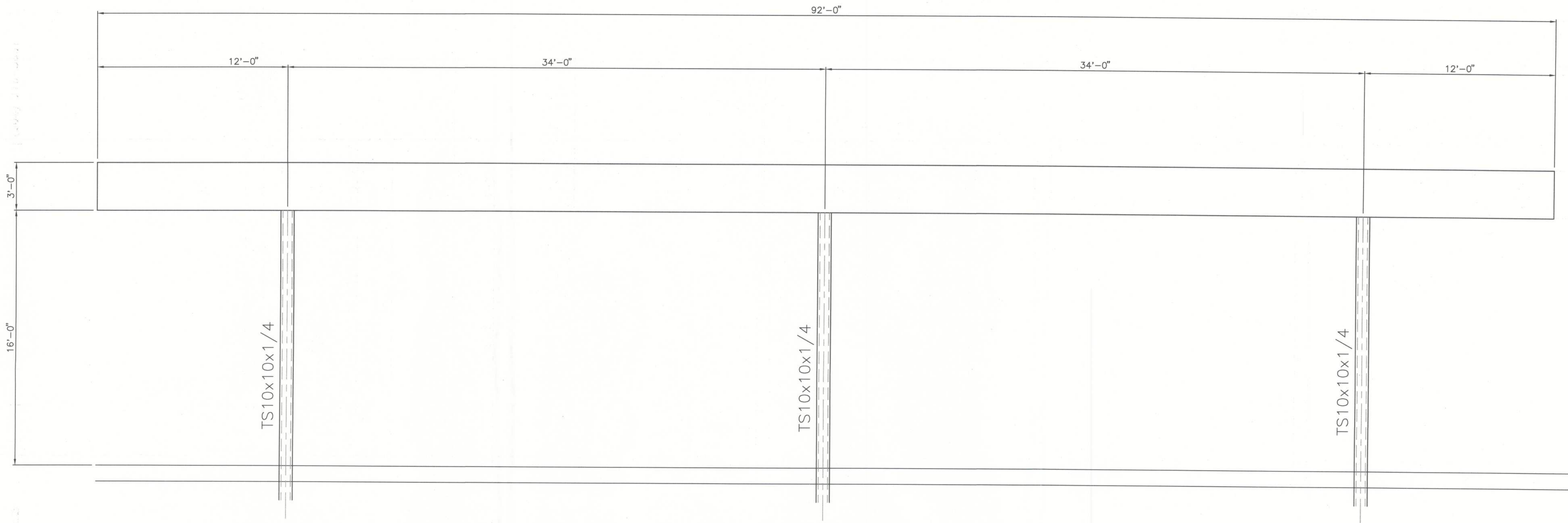
NOTES:

DESIGN CRITERIA: (ALL DESIGN PER 2010 FLORIDA BUILDING CODE, UNLESS OTHERWISE NOTED)

1. LIVE ROOF LOAD ----- 12 PSF
2. WIND ULTIMATE LOAD ----- 120 MPH PER 1609C
3. ALLOWABLE UNIT STRESS:
 - A) CONCRETE ----- 3000 PSI
 - B) REBAR ----- ASTM A3615 GRADE 10 & A305
 - C) HIGH TENSILE BOLTS ---- A325
 - D) WELD ELECTRODES ----- A233, CLASS E70XX
 - E) SOIL BEARING ----- 2,000 PSF
 - F) STEEL DESIGN ----- CURRENT AISC MANUAL (A36)

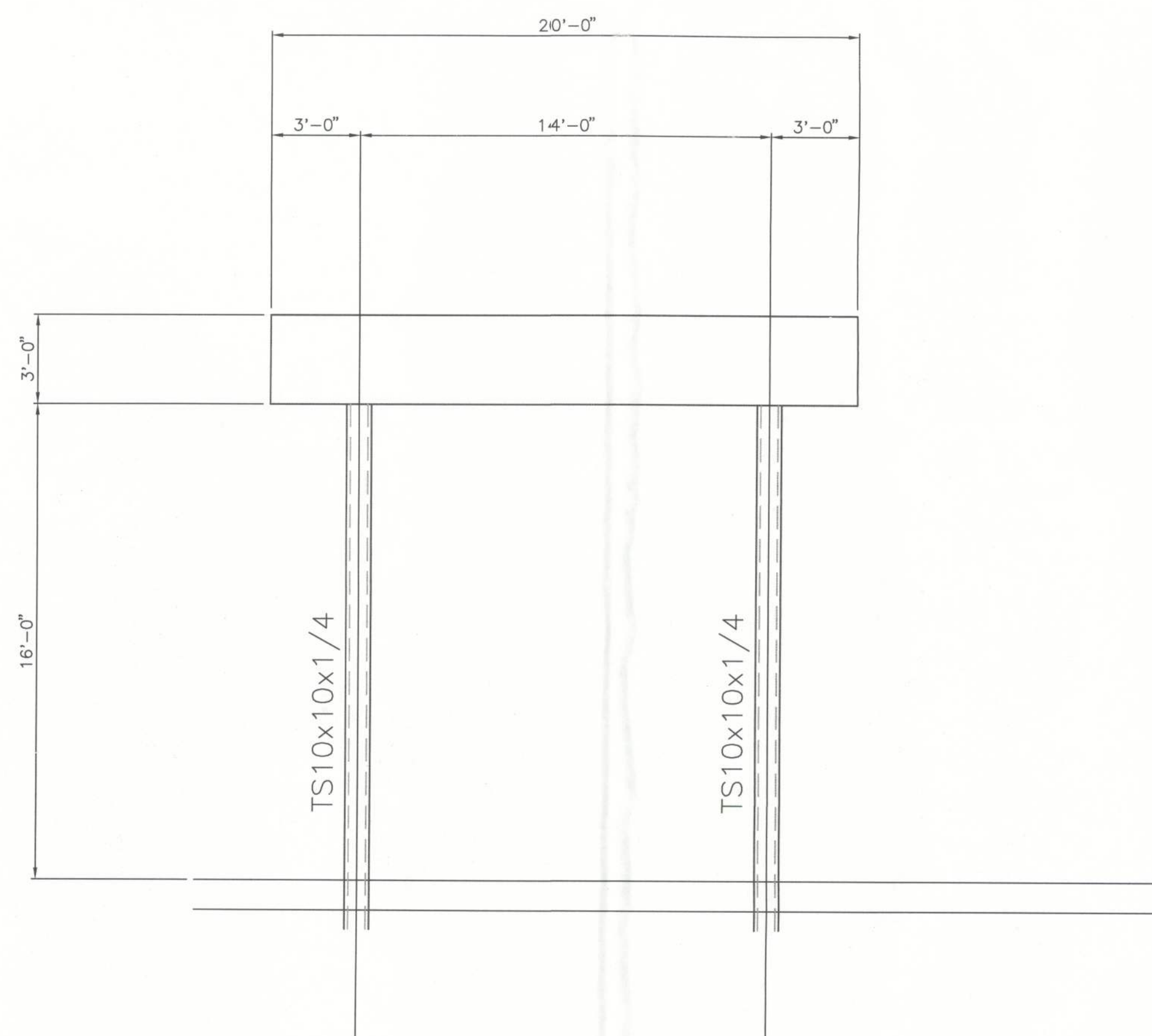
GENERAL STRUCTURAL NOTES:

1. UNLESS OTHERWISE SHOWN ON DRAWINGS, MINIMUM COVER FOR REBAR SHALL BE AS FOLLOWS:
FOOTINGS; ----- 3"
SLAB ON GRADE; -- CENTERED
2. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES DURING PLACING OF CONCRETE.
3. IF FOOTING ELEVATIONS SHOWN OCCUR IN A DISTURBED, UNSTABLE OR UNSUITABLE SOIL, THE ENGINEER SHALL BE NOTIFIED
4. ALL WELDS ARE 3/16" FILLET WELDS UNLSSES OTHERWISE NOTED. (USE LOW HYDROGEN RODS IF A992 STEEL IS USED)
5. ALL CONNECTIONS OF LITE GAGE FRAMING MEMBERS W/(2) #10 X 3/4" TEKS, & TO DECK W/4 #10 X 3/4" TEKS



CANOPY FRONT & BACK ELEVATION

36" A.C.M. FLAT FACIA
COLOR: WHITE



CANOPY SIDE ELEVATION

36" A.C.M. FLAT FACIA
COLOR: WHITE

DWN. BY SC
DATE 7-25
OK'D BY GKI
DATE 7-25
JOB NO.

DWG NO.

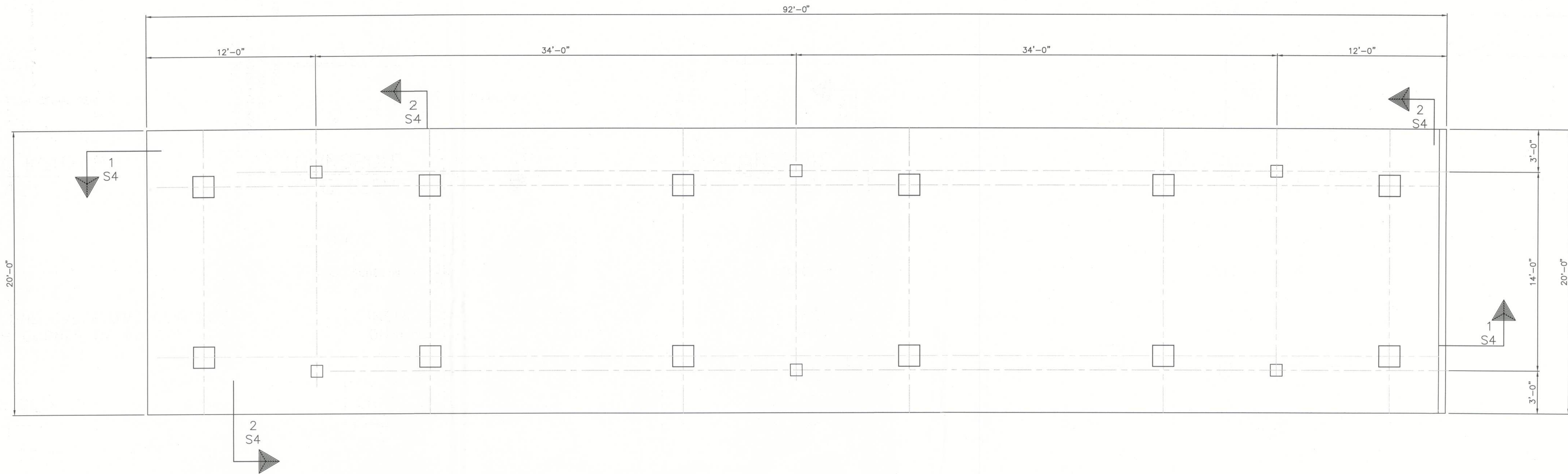
S-2

CARR-TECH INDUSTRIES, INC.
5988 COLLINS ROAD
Jacksonville, Florida 32244

HUNTER OIL #47 20'x92' CANOPY
124 S.W. CHAD PLACE
LAKE CITY, FLORIDA 32025 (COLUMBIA COUNTY)

REV. DATE DESCRIPTION

AUSTIN ACE, P.E.
5908 ORCHARD POND DRIVE
ORANGE PARK, FL 32003



CANOPY LIGHTING PLAN

36" A.C.M. FLAT FACIA
COLOR: WHITE

- SEE SECTION 2/S4 FOR SECTION AT PERIMETER OF CANOPOY
- SEE SECTION 3/S4 FOR SECTION AT COLUMN SHOWING FOOTING
- SEE SECTION 4/S4 FOR FLANGE TO FLANGE CONNECTION ON BEAMS
- SEE SECTION 5/S4 FOR DETAIL OF COLUMN BASE PLATE
- SEE SECTION 6/S4 FOR DOWNSPOUT TO GUTTER HOLE ELEVATION
- SEE SECTION 7/S4 FOR SCUPPER DETAIL
- SEE SECTION 8/S4 FOR COLUMN ISOMETRIC WITH PVC DRAIN

NOTES:

1. PROVIDE (1) OVERFLOW SCUPPER @ EACH CORNER
2. PROVIDE (12) NEW 320W LIGHTS
3. ALLOW 4 NEW - 20A CIRCUITS FOR LIGHTS
4. 3/4" CONDUITS ARE EXISTING FROM CANOPY TO STORE PANEL
5. ELECTRICIAN TO PULL SEPARATE PERMIT FOR ELECTRIC

AUSTIN ACE, P.E.
5908 ORCHARD POND DRIVE
ORANGE PARK, FL 32003
(904) 716-3661
CAN-8341

REV.	DATE	DESCRIPTION

HUNTER OIL #47 20'x92' CANOPY
123 S.W. CHAD PLACE
LAKE CITY, FLORIDA 32025 (DUVAL COUNTY)
CANOPY LIGHTING PLAN AND NOTES

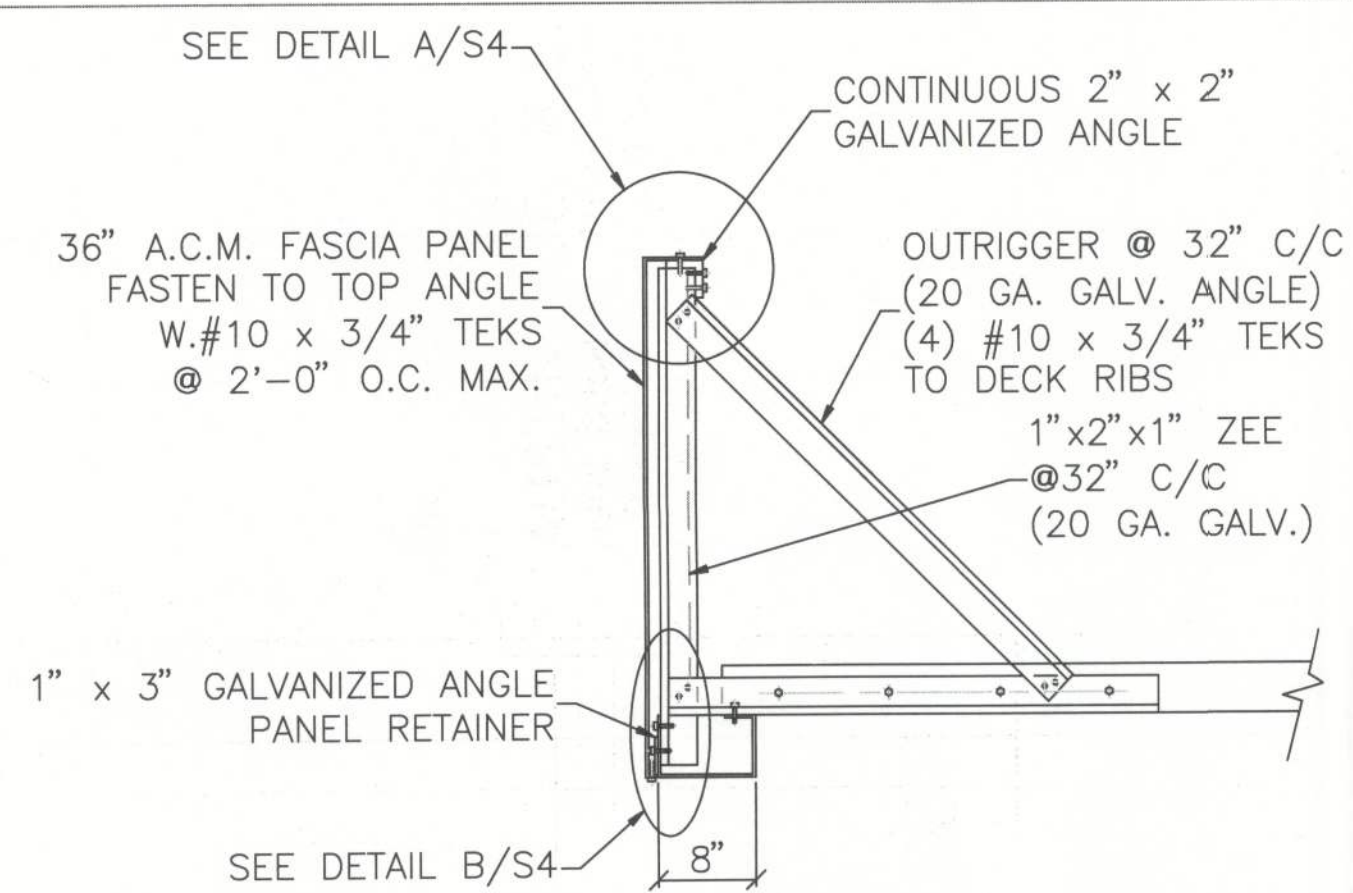
CARR-TECH INDUSTRIES, INC.
5988 COLLINS ROAD
JACKSONVILLE, FLORIDA 32244
(904) 771-2340

DWN. BY	SC
DATE	9-09
CK'D BY	GKI
DATE	9-09

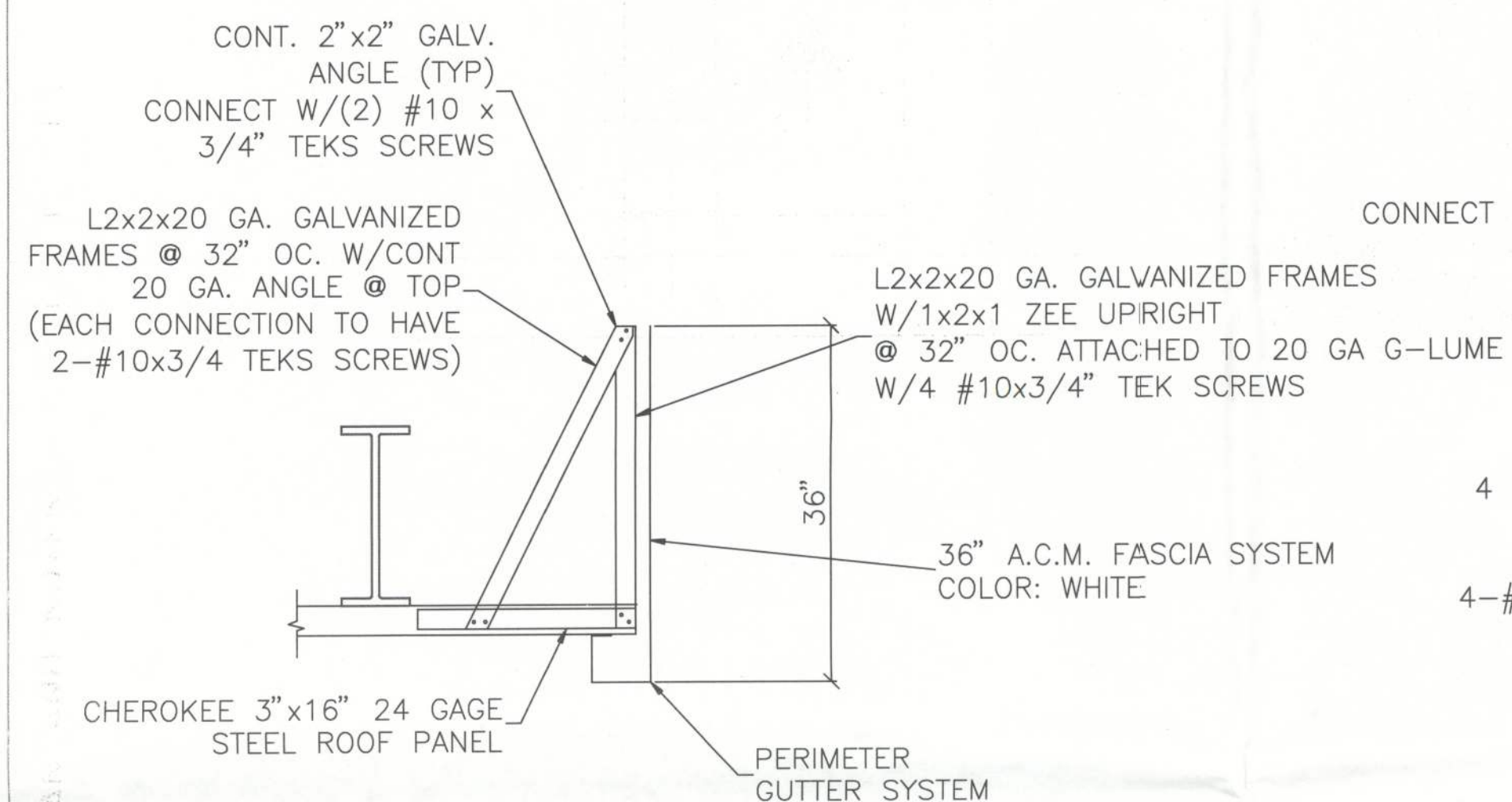
JOB NO.

DWG NO.

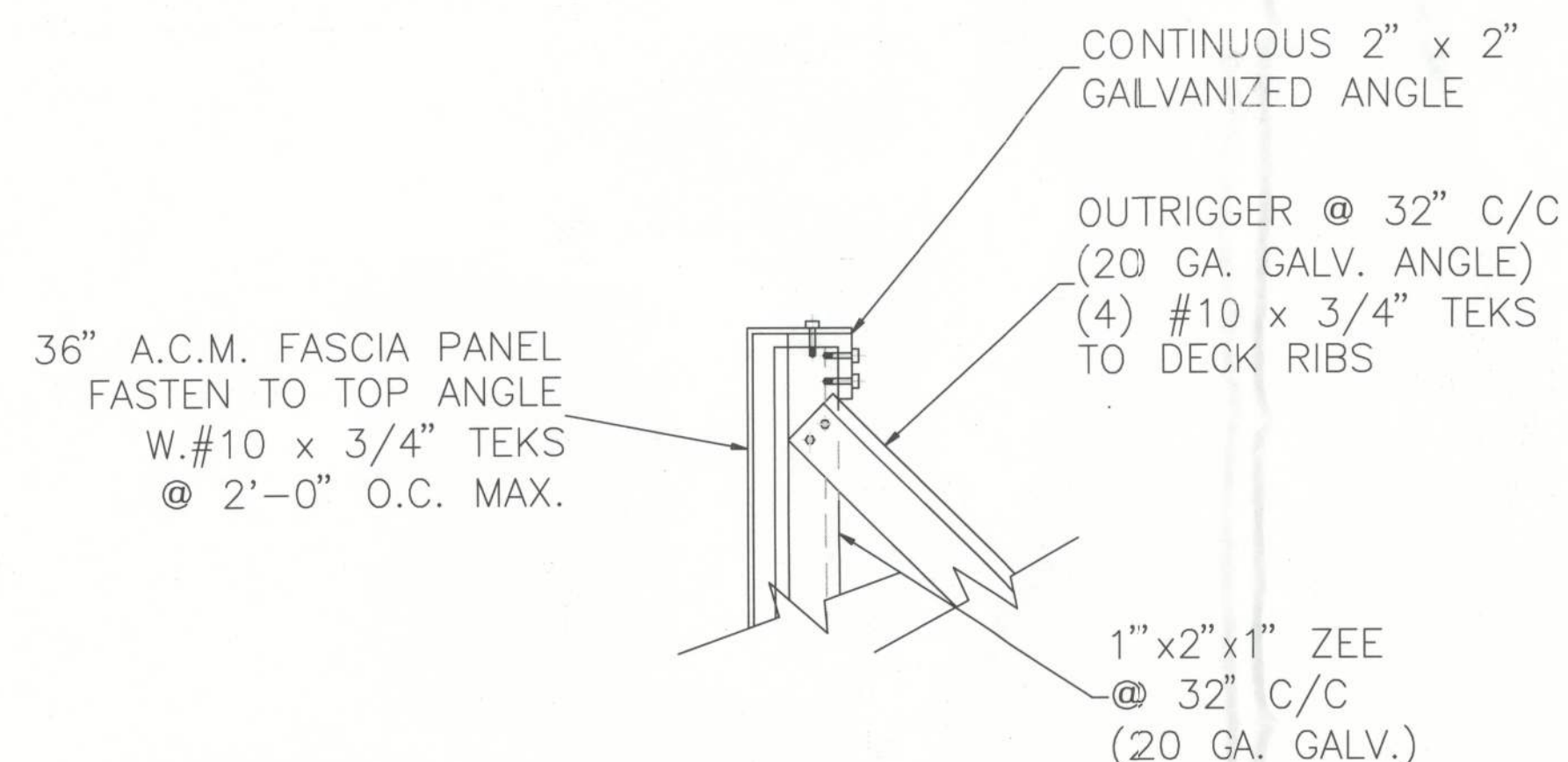
S-3



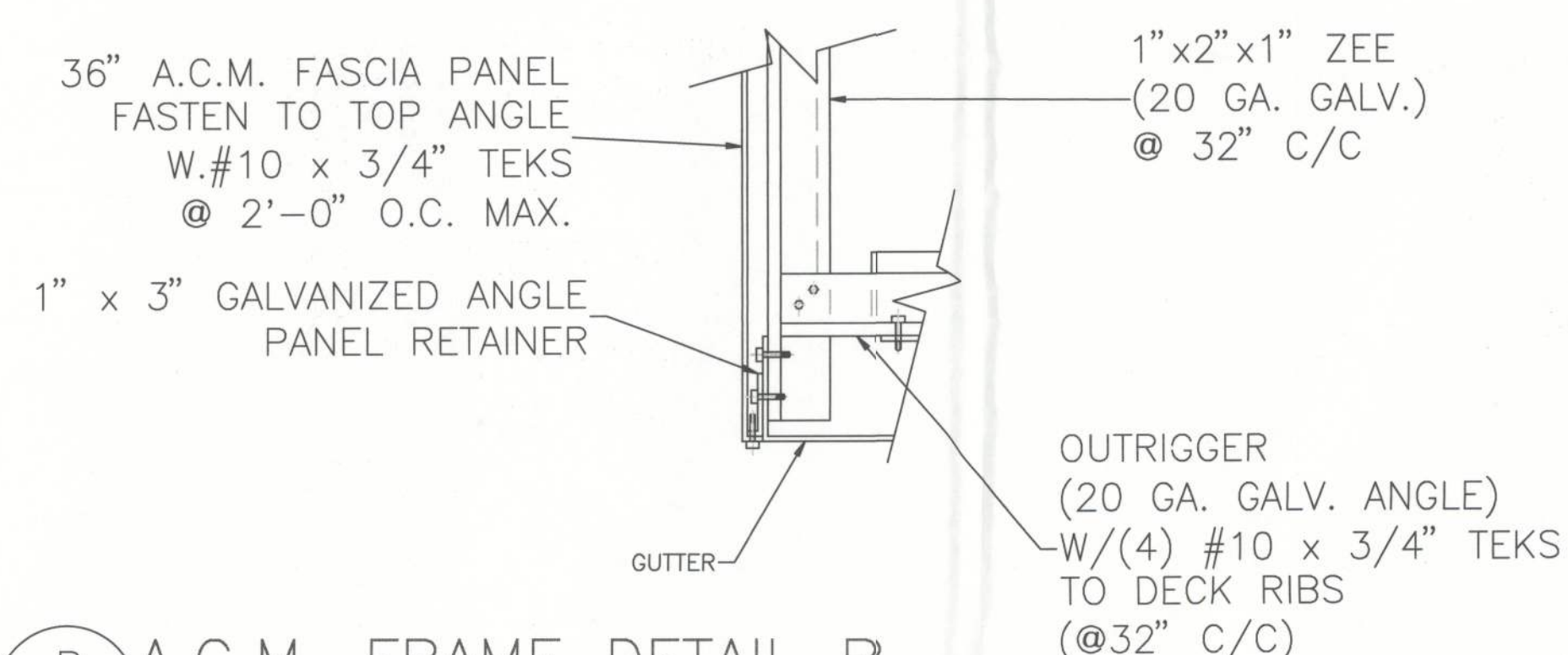
1 TYPICAL A.C.M. FRAME DETAIL
S-4 ALL CONNECTIONS OF LITE GAGE FRAMING MEMBERS
W/(2) #10 X 3/4" TEKS, & TO DECK W/4 #10 X 3/4" TEKS



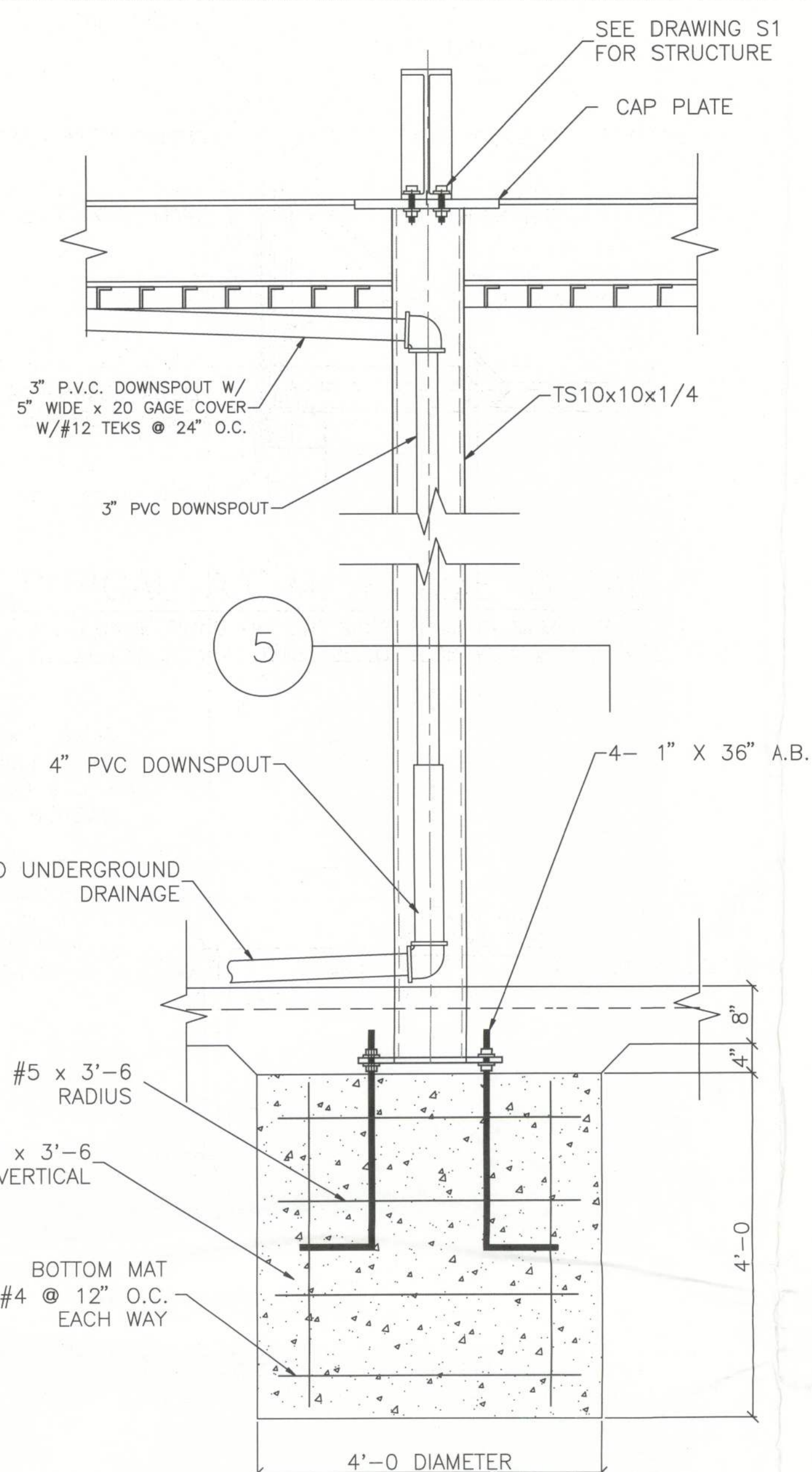
2 SECTION
S-4 ALL CONNECTIONS OF LITE GAGE FRAMING MEMBERS
W/(2) #10 X 3/4" TEKS, & TO DECK W/4 #10 X 3/4" TEKS



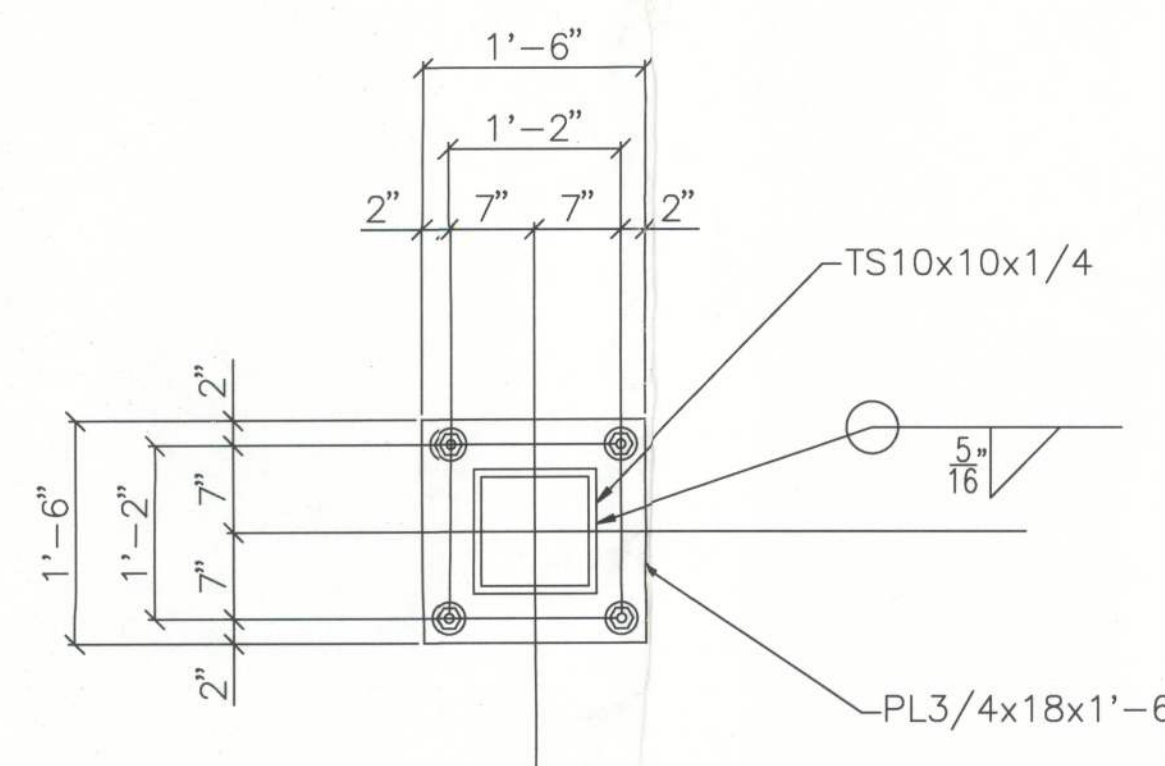
A A.C.M. FRAME DETAIL A
S-4 ALL CONNECTIONS OF LITE GAGE FRAMING MEMBERS
W/(2) #10 X 3/4" TEKS, & TO DECK W/4 #10 X 3/4" TEKS



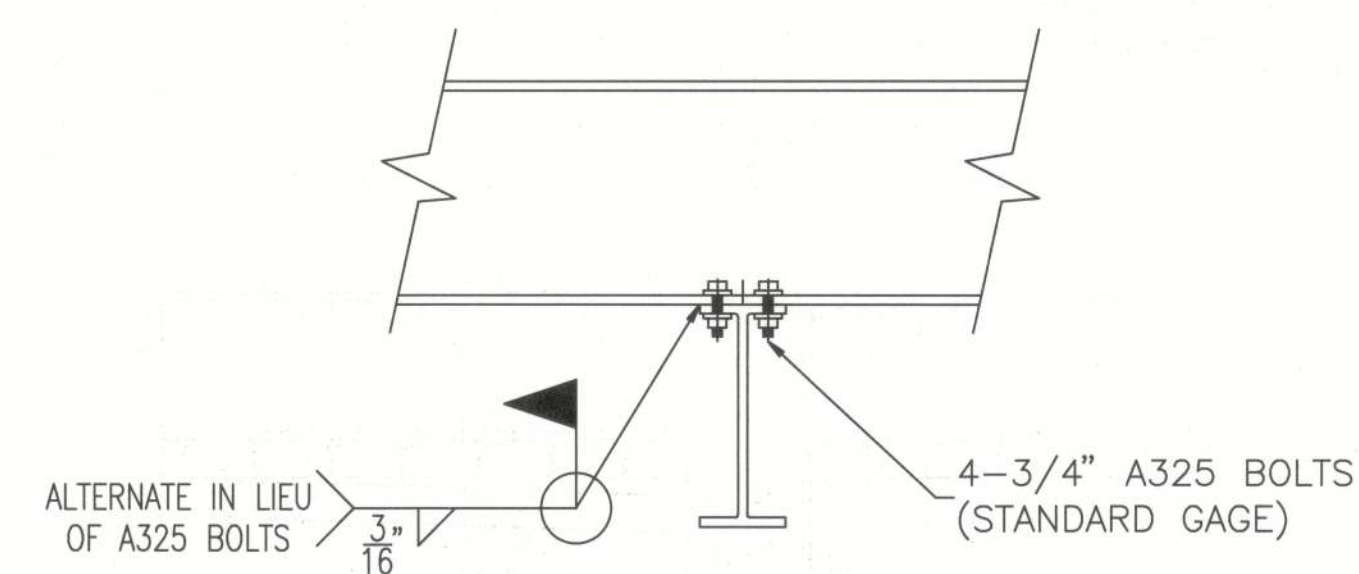
B A.C.M. FRAME DETAIL B
S-4 ALL CONNECTIONS OF LITE GAGE FRAMING MEMBERS
W/(2) #10 X 3/4" TEKS, & TO DECK W/4 #10 X 3/4" TEKS



3 COLUMN SECTION
S-4



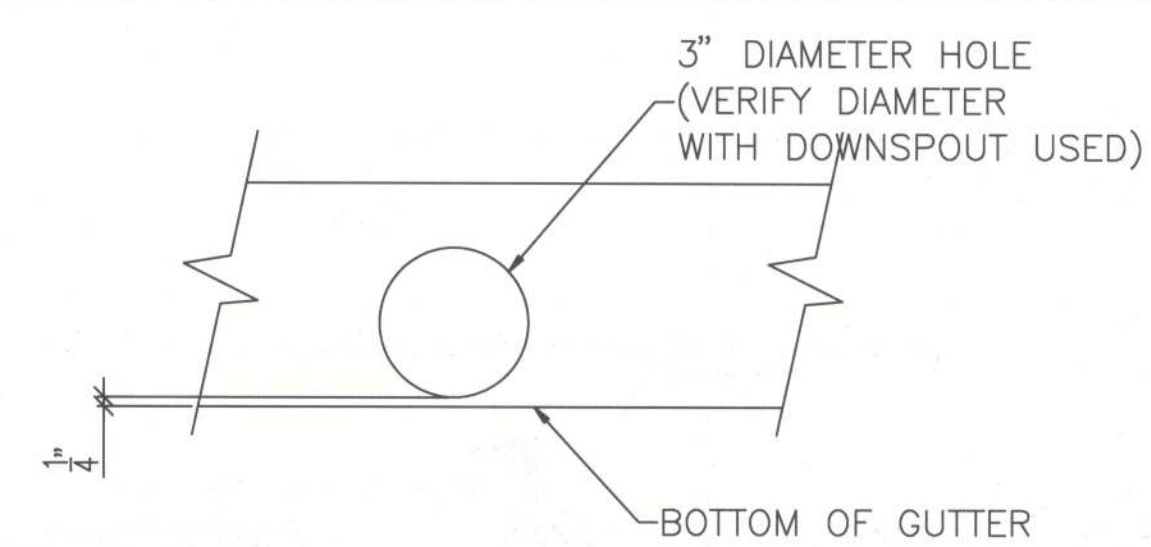
5 FOOTING DETAIL
S-4



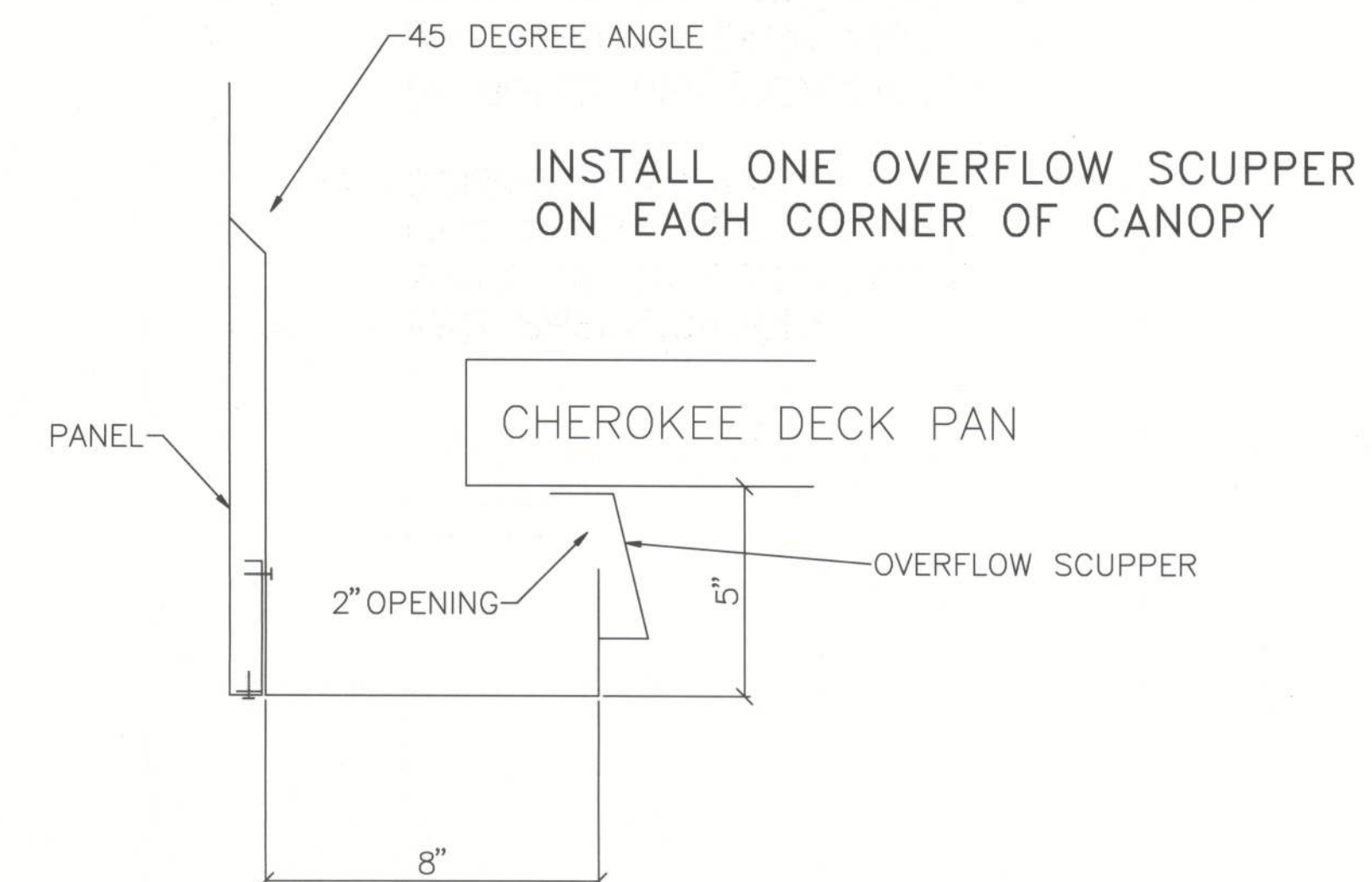
4 FLANGE TO FLANGE
S-4 BEAM CONNECTION
SCALE: NONE

NOTES:
BOLTS TO BE A325 x 2 1/2"
W/ WASHERS EACH SIDE
(4 BOLTS PER CONNECTION)

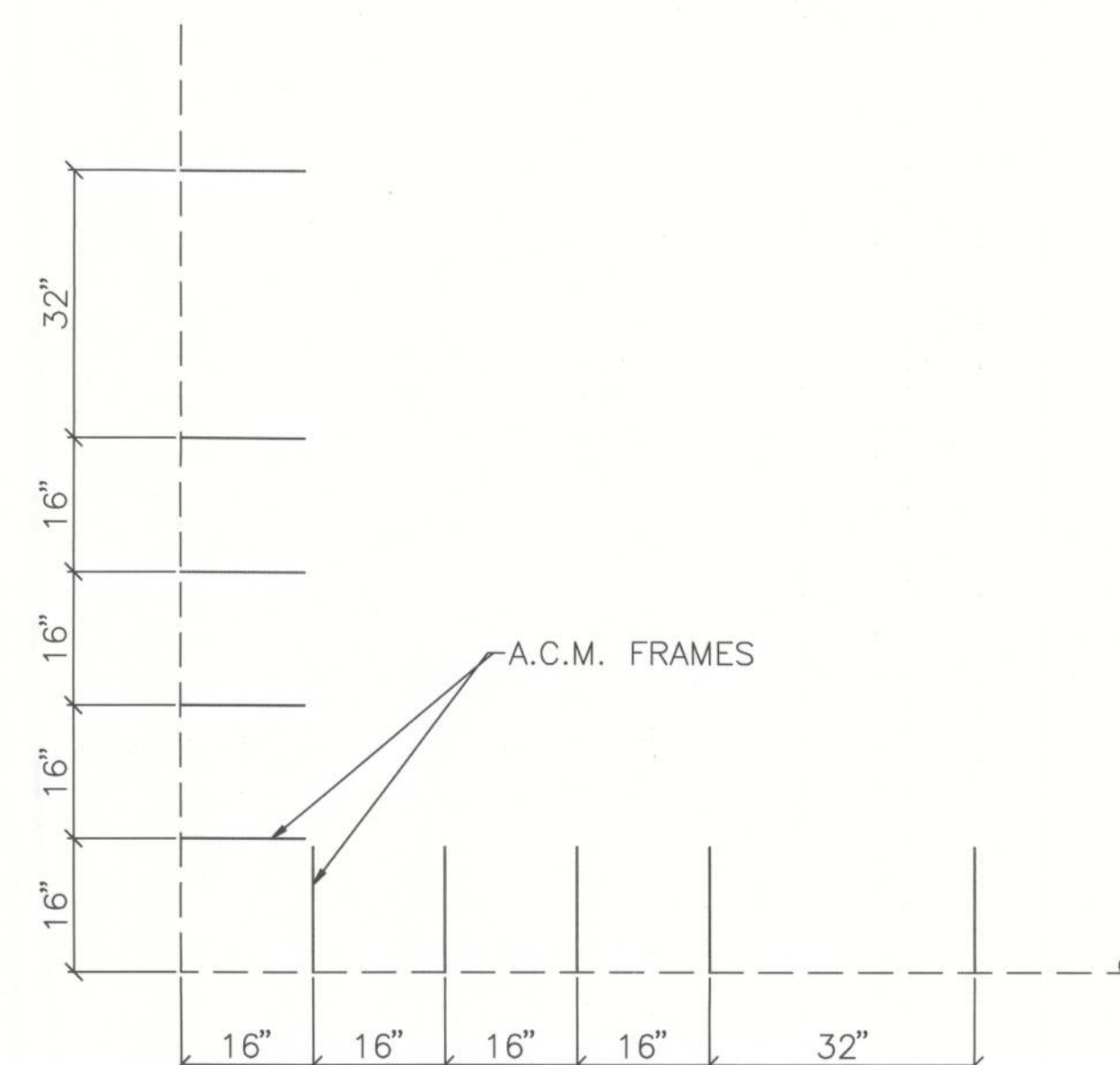
CONNECTIONS MAY BE WELDED IN
LIEU OF BOLTED. ALL WELDS
SHALL BE IN ACCORDANCE WITH
AWS SPECIFICATIONS.



6 DOWNSPOUT TO GUTTER
S-4 HOLE ELEVATION
SCALE: NONE



7 SCUPPER DETAIL
S-4
SCALE: NONE



9 A.C.M. FRAME SPACING
S-4 AT CORNERS
SCALE: NONE

8 DRAINAGE ISOMETRIC
S-4 (DOWNSPOUT ISOMETRIC)
SCALE: NONE

CONSTRUCTION DRAWINGS

FUELING STATION 47

124 S.W. CHAD PL.

COLUMBIA COUNTY, FLORIDA

FOR

G.W. HUNTER, INC.

OCTOBER, 2012

REVISION NO 1 NOVEMBER 28, 2012



JEROME J. LESZKIEWICZ, P.E.
CONSULTING ENGINEER
787 S.E. EVERGREEN DRIVE
LAKE CITY, FLORIDA

CONTENT	SHEET NO
COVER	1 *
CONTENT, NOTES	2 *
BOUNDARY SURVEY	3
SITE TOPOGRAPHIC MAP	4
CLEARING, GRUBBING AND TOPSOIL REMOVAL	5
PAVEMENT AND FUELING PAD DESIGN	6 *
PAVEMENT AND FUELING PAD SECTIONS	7 *
PAVEMENT PROFILES	8 *
GRADING AND DRAINAGE PLAN	9 *
WEST ENTRANCE & DITCH ENLARGEMENT	10 *
RETAINING WALL/DITCH END WALL PROFILE	11 *
RETAINING WALL DESIGN	12 *
MISCELLANEOUS DETAILS	13 *
CANOPY FOUNDATION DESIGN	14 *
FUEL STORAGE TANK UPLIFT DESIGN	15 *
STORAGE TANK TIE-DOWN DETAILS	16

* REVISION NO 1 11/28/12

NOTES

1. DESIGN IS IN ACCORDANCE WITH THE CURRENT FLORIDA BUILDING CODE, AND 2012 SUPPLEMENT
2. FINAL DESIGN OF THE CANOPY STRUCTURE, FUELING ISLAND PUMPS, UNDERGROUND FUEL LINES AND ELECTRICAL, CONTROL PANEL, AND FUEL STORAGE TANK IS THE RESPONSIBILITY OF OTHERS AND IS NOT CERTIFIED BY THE ENGINEER'S SIGNATURE AND SEAL ON THESE PLANS.
3. ALL BRUSH, WEEDS AND GRASSES WITHIN THE AREA DESIGNATED FOR TOPSOIL REMOVAL (SHEET 5) SHALL BE CLEARED AND GRUBBED. BOTH EXISTING DRIVEWAY ENTRANCES AND DIRT ROADS ACROSS THE COUNTRY DRAINAGE DITCH SHALL BE EXCAVATED AND REMOVED, ALONG WITH ANY EXISTING CULVERT PIPE.
4. TOPSOIL REMOVAL
ALL TOPSOIL CONTAINING ORGANICS AND ROOTS WITHIN THE AREA DESIGNATED ON SHEET SHALL BE STRIPPED TO A DEPTH OF 6 INCHES AND STOCKPILED ON SITE FOR USE AS NON-STRUCTURAL FILL SOIL TO BUILD UP GRADE AROUND THE FUELING STATION PAVEMENT AREA AS SHOWN ON SHEET.

5. BACKFILLING OF TREE STUMP HOLES

A TOTAL OF SEVEN TREE STUMP HOLES LOCATED ON SHEET 5 UP TO 10 FT IN DIAMETER AND 6 FEET DEEP SHALL BE BACKFILLED WITH STRUCTURAL FILL. STRUCTURAL FILL SHOULD CONSIST OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 12 PERCENT MATERIAL PASSING THE NO 200 MESH SIEVE (RELATIVELY CLEAN SAND WITH A UNIFIED SOIL CLASSIFICATION OF SP OR SP-SM). LOOSE SOILS IN THE STUMP EXCAVATIONS SHOULD BE REMOVED, THEN THE EXPOSED SURFACES (BOTTOM AND SIDES OF EXCAVATIONS) SHOULD BE RECOMPACTED, TESTED AND STABILIZED PRIOR TO BACKFILLING. STRUCTURAL FILL SHOULD BE PLACED IN THIN LOOSE LIFTS NOT TO EXCEED 12 INCHES IN THICKNESS AND COMPACTED WITH OVERLAPPING PASSES OF A RELATIVELY HEAVY WEIGHT DRUM ROLLER (WITH THE VIBRATORY FUNCTION DISENGAGED) HAVING A TOTAL OPERATING STATIC WEIGHT (WEIGHT OF FUEL AND WATER INCLUDED) OF AT LEAST 5 TONS AND A DRUM DIAMETER OF 5 FEET. FOR WALK BEHIND EQUIPMENT, THE MAXIMUM LOOSE THICKNESS SHALL NOT EXCEED 6 INCHES.

EACH LIFT SHOULD BE THOROUGHLY COMPACTED TO PROVIDE A DENSITY EQUIVALENT TO AT LEAST 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).

6. EXPOSED SUBGRADE

EXPOSED SUBGRADE WITHIN THE PAVEMENT AREAS WHERE IMPORTED STABILIZED SOIL IS TO BE PLACED SHALL BE PROPERLY PREPARED, RECOMPACTED AND PROOFROLLED WITH A FULLY-LOADED, TANDEM-AXLE DUMP TRUCK OR SIMILAR PNEUMATIC-TIRED EQUIPMENT. ANY SOFT OR LOOSE SOILS FOUND DURING THE PROOFROLLING PROCEDURE SHALL BE UNDERCUT AND REPLACED WITH SUITABLE, WELL-COMPACTED, ENGINEERED FILL.

7. STABILIZED SOIL LAYER

IN ALL AREAS TO RECEIVE ASPHALT AND CONCRETE PAVEMENT, THE LIMEROCK BASE LAYER MUST BE UNDERLAIN BY A 12" LAYER OF STABILIZED SOIL PROVIDING AN LBR OF 40. THE EXISTING FINE SAND SUBGRADE HAS AN LBR OF LESS THAN 20. CONTRACTOR MAY ELECT TO ESTABLISH A CUT GRADE AT THE BOTTOM OF THE DESIGNATED STABILIZED SOIL LAYER AND IMPORT STABILIZED SOIL THAT WILL MEET THE LBR 40 REQUIREMENT. CONTRACTOR MAY ALSO CHOOSE TO ESTABLISH CUT GRADE CONSISTENT WITH 6" TOPSOIL REMOVAL, AND BLEND MATERIAL SUCH AS LIMEROCK WITH THE IN-SITU SOIL TO ACHIEVE AN LBR OF 40 TO THE REQUIRED DEPTH.

THE 12" LIFT SHOULD BE THOROUGHLY COMPACTED TO PROVIDE A DENSITY EQUIVALENT TO AT LEAST 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D-1557).

8. LIMEROCK BASE

LIMEROCK BASE SHALL MEET THE REQUIREMENTS OF THE CURRENT FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." THE SELECTED BASE MATERIAL SHOULD BE COMPACTED TO 98 PERCENT OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D-1557). THE BASE SHALL HAVE A MINIMUM LBR VALUE OF 100 WHEN COMPACTED TO 98 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY.

9. CONSTRUCTION MONITORING AND TESTING

CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT, 3RD PARTY MATERIALS TESTING LABORATORY THROUGHOUT THE COURSE OF THE CONTRACT TO TEST SAMPLES OF IMPORTED OFF-SITE MATERIALS PROPOSED FOR USE AS STRUCTURAL FILL TO DETERMINE COMPACTION AND CLASSIFICATION CHARACTERISTICS. THE TESTING LABORATORY SHALL PERFORM IN-PLACE FIELD DENSITY TESTS IN THE PROOFROLLED SUBGRADE AND IN EACH LIFT OF STRUCTURAL FILL OR BACKFILL TO VERIFY THE REQUIRED DEGREE OF COMPACTION HAS BEEN ACHIEVED. IN-PLACE DENSITY TESTS SHALL ALSO BE PERFORMED AT REPRESENTATIVE LOCATIONS IN THE BEARING LEVEL SOILS IN THE RETAINING WALL FOOTING EXCAVATION BOTTOMS.

DENSITY TESTING SHALL BE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

AREA	MINIMUM DENSITY TEST FREQUENCY
CONCRETE SLABS	1 TEST PER 2000 FT ² PER LIFT IN EXPOSED SUBGRADE, STABILIZED SOIL LAYER AND LIMEROCK BASE
ASPHALT PAVEMENT	1 TEST PER 2000 FT ² PER LIFT IN EXPOSED SUBGRADE, STABILIZED SOIL LAYER AND LIMEROCK BASE
STUMP HOLE BACKFILL	3 TESTS PER EACH TREE STUMP LOCATION
RETAINING WALL/CONTROL BOX WALL FOOTING	1 TEST PER 100 LINEAL FEET OF BEARING SURFACE

CONCRETE CYLINDER SAMPLES SHALL BE TAKEN FROM THE CONCRETE POUR AND TESTED FOR 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS

	NUMBER
9" CONCRETE FUELING PAD AND TANK PAD	6 AT REPRESENTATIVE LOCATIONS
CANOPY FOUNDATIONS	2 TOTAL
RETAINING WALL	3 TOTAL IN FOOTING 2 TOTAL IN WALL

JEROME J. LESZKIEWICZ, P.E.
CONSULTING ENGINEER

GW HUNTER, INC.
FUELING STATION 47
COLUMBIA COUNTY FLORIDA
CONTENT AND NOTES

REVISED 11/28/12 SHEET 2

3482
11/28/12

BOUNDARY SURVEY

IN SECTION 30
TOWNSHIP 4 SOUTH, RANGE 17 EAST
COLUMBIA COUNTY, FLORIDA

DESCRIPTION:

COMMENCE at the Northeast corner of the Northwest 1/4 of Section 30, Township 4 South, Range 17 East, thence run S 00°17'22" E, along the East line of said Northwest 1/4, a distance of 21.65 feet, to a point on the South Right-of-Way line of County Road No. 242, for the POINT OF BEGINNING. Thence continue along said East line of the Northwest 1/4, S 00°17'22" E, a distance of 414.94 feet; thence run N 89°08'24" W, a distance of 630.00 feet; thence run N 00°17'22" E, a distance of 414.94 feet, to a point on the South Right-of-Way line of County Road No. 242; thence run S 89°08'24" E, along said South Right-of-Way line of County Road No. 242, a distance of 630.00 feet to the POINT OF BEGINNING. Containing 6.00 acres, more or less.

NOTES:

- Monumentation is as shown and designated on the face of the plat.
- Boundary based on monumentation found in place, description furnished by client, prior survey by this Company.
- Bearings projected from Southerly Right-of-Way line of County Road No. 242 and based on above referenced prior survey by this Company.
- Interior improvements were located by field ties.
- Underground encroachments, if present, were not located with this survey.
- This survey was made without benefit of a title search. There may be additional easements, restrictions, etc. not shown hereon but found in the Public Records. Issues regarding title, land use & zoning, easements & other encumbrances are not a part of the scope of a Boundary Survey and can only be revealed with a title search.
- Date of field survey completion: September 27, 2006.
- Examination of the Flood Insurance Rate Maps (FIRM) for Columbia County shows that, per said maps, the described parcel lies within Flood Zone "X", which according to said maps is outside of the 500 year flood plain (ref: Community Panel No. 120070 0175 B).

REVISED 1/3/2007 - Update Survey & Add Certs. - TAD

CAD FILE: 4629B.DWG

Donald F. Lee and Associates, Inc.

SURVEYORS - ENGINEERS

140 Northwest Ridgewood Avenue, Lake City, Florida 32055

Phone: (386) 755-6166

FAX: (386) 755-6167

Certificate of Authorization # LB 7042

Date: 09/28/2006

Drafting: A V G/T A D

Computations: A V G

Checked: T A D

WESTFIELD GROUP

Scale: 1"=50'

Field Book: 05-455

Work Order: 06-5099

File: A-34-28 A

CERTIFIED TO:

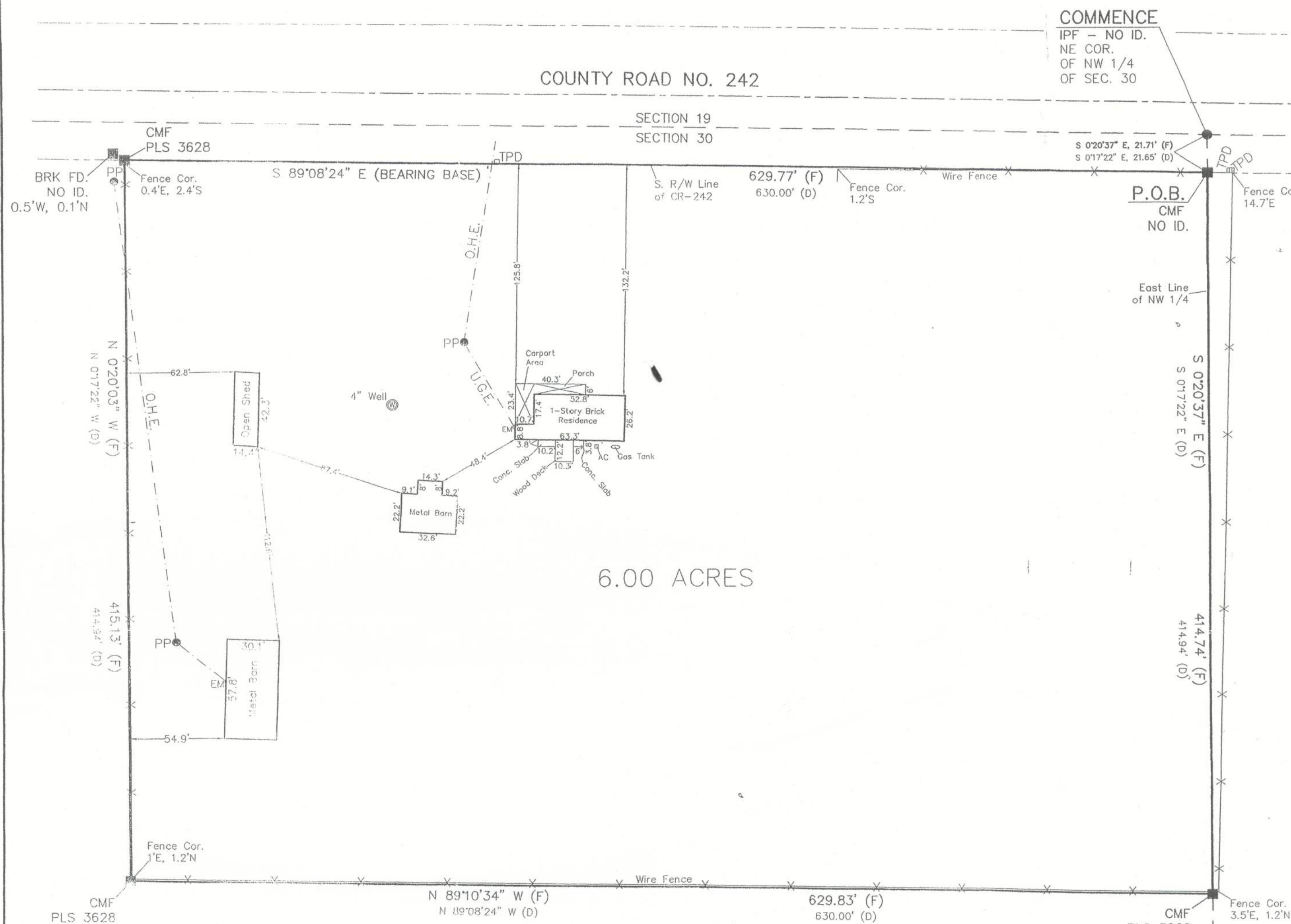
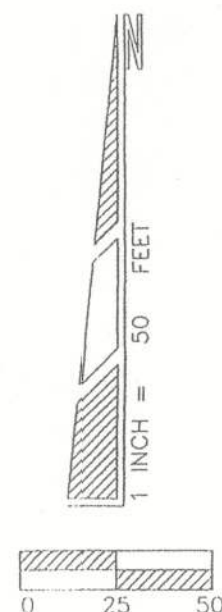
- CPGroup Investments, LLC
- Millennium Bank
- Terry McDavid
- Attorneys' Title Insurance Fund, Inc.
- First American Title Insurance Company
- Old Republic National Title Insurance Company

NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA REGISTERED PROFESSIONAL SURVEYOR AND MAPPER

Timothy A. Delbene, P.L.S.
Florida Reg. No. 5594

DATE: ____/____/2006

LEGEND	
CMF=CONCRETE MONUMENT FOUND	O.H.E.=OVERHEAD ELECTRIC LINE
CMS=CONCRETE MONUMENT SET	OH TEL=OVERHEAD TELEPHONE LINE
IPF=IRON PIPE FOUND	SEC.=SECTION
IPS=IRON PIPE SET	RGE.=RANGE
PLS=PROFESSIONAL LAND SURVEYOR	TWP.=TOWNSHIP
P.S.M.=PROFESSIONAL SURVEYOR & MAPPER	COR.=CORNER
R/W=RIGHT-OF-WAY	NE=NORTHEAST
C=CENTER LINE	NW=NORTHWEST
PL=PROPERTY LINE	SW=SWITHWEST
PP=POWER POLE	SE=SOUTHEAST
TPD=TELEPHONE PEDESTAL	LB=LICENSED BUSINESS
IRC=IRON REBAR & CAP	P.O.B.=POINT OF BEGINNING
NO ID=NO IDENTIFICATION	(F)=FIELD MEASUREMENTS
U.G.E.=UNDERGROUND ELECTRIC	(D)=DEED MEASUREMENTS
EM=ELECTRIC METER	FD=FOUND
BRK=	





DANIEL & GORE, LLC

Professional Surveying and Mapping

P.O. BOX 1501
LAKE CITY, FL 32056
PH.: (386) 208-4176
Fax: (904) 339-9229

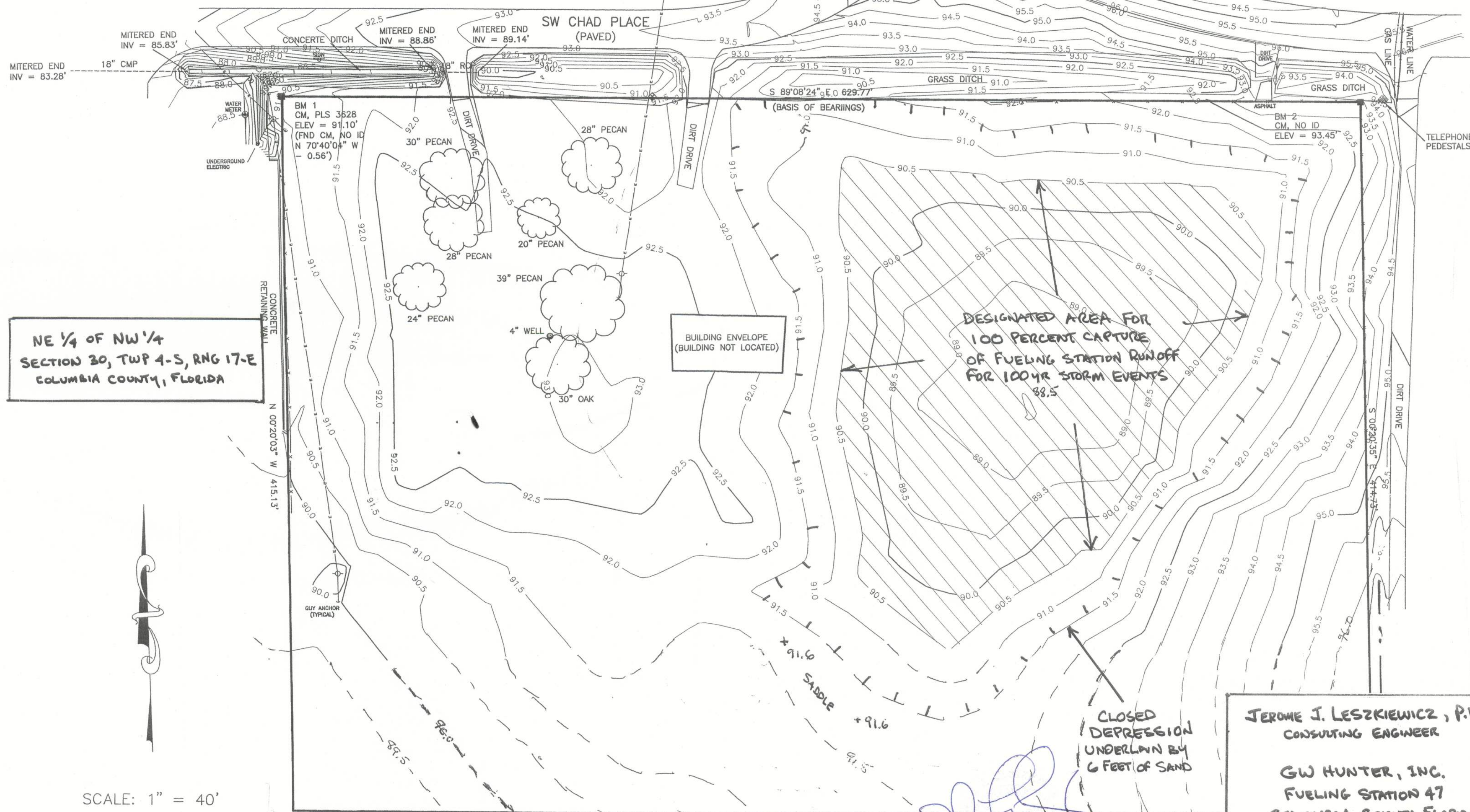
9916 84th TER.
LIVE OAK, FL 32060
Email: sdaniel@dgsurveying.com
LICENSE NO. LB 7683

Scott Daniel

BRIAN SCOTT DANIEL, PSM
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA CERTIFICATE NO. 6449

8-3-12
DATE OF CERTIFICATE
07/30/12
DATE OF FIELD SURVEY

Key: *92.0*
SURVEY BY DANIEL & GORE, LLC
7/30/12
91.5 ESTIMATED TOPOGRAPHY
BY J. LESZKIEWICZ, P.E.
FROM FIELD RECONNAISSANCE
8/14/12

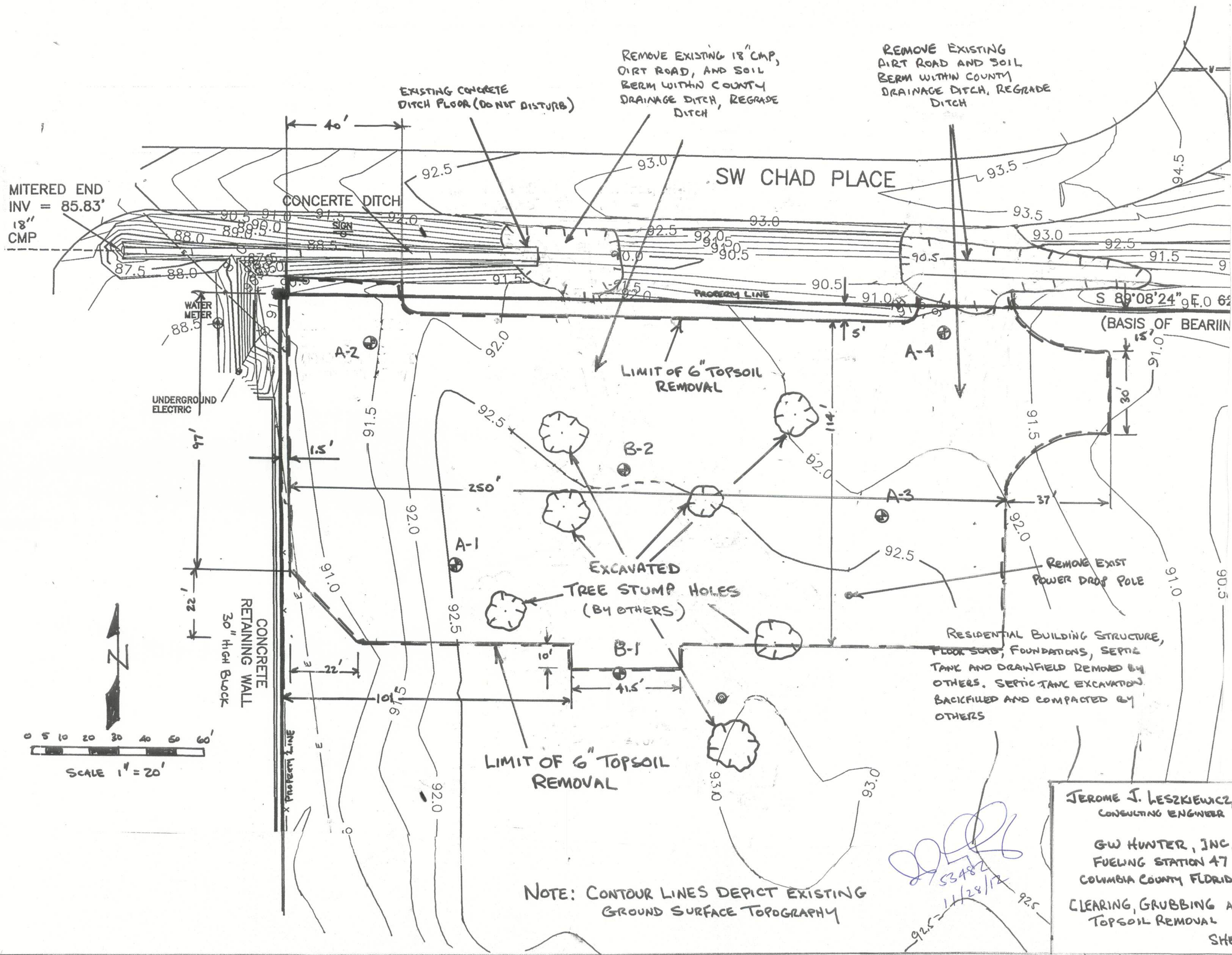


JEROME J. LESZKIEWICZ, P.E.
CONSULTING ENGINEER

GW HUNTER, INC.
FUELING STATION 47
COLUMBIA COUNTY FLORIDA

SITE TOPOGRAPHIC MAP

SHEET 4



MITERED END
INV = 85.83'
18"
CMP

EXISTING CONCRETE
DITCH FLOOR (DO NOT DISTURB)

REMOVE EXISTING 18" CMP,
DIRT ROAD, AND SOIL
BERM WITHIN COUNTY
DRAINAGE DITCH, REGRADE
DITCH

REMOVE EXISTING
DIRT ROAD AND SOIL
BERM WITHIN COUNTY
DRAINAGE DITCH, REGRADE
DITCH

SW CHAD PLACE

CONCRETE DITCH

WATER
METER
UNDERGROUND
ELECTRIC

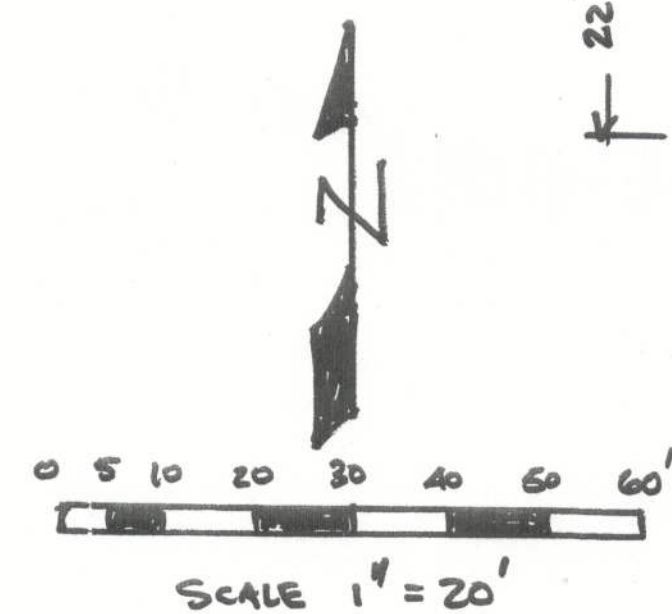
LIMIT OF 6" TOPSOIL
REMOVAL

EXCAVATED
TREE STUMP HOLES
(BY OTHERS)

RESIDENTIAL BUILDING STRUCTURE,
FLOOR SLAB, FOUNDATIONS, SEPTIC
TANK AND DRAINFIELD REMOVED BY
OTHERS. SEPTIC TANK EXCAVATION
BACKFILLED AND COMPACTED BY
OTHERS

LIMIT OF 6" TOPSOIL
REMOVAL

NOTE: CONTOUR LINES DEPICT EXISTING
GROUND SURFACE TOPOGRAPHY

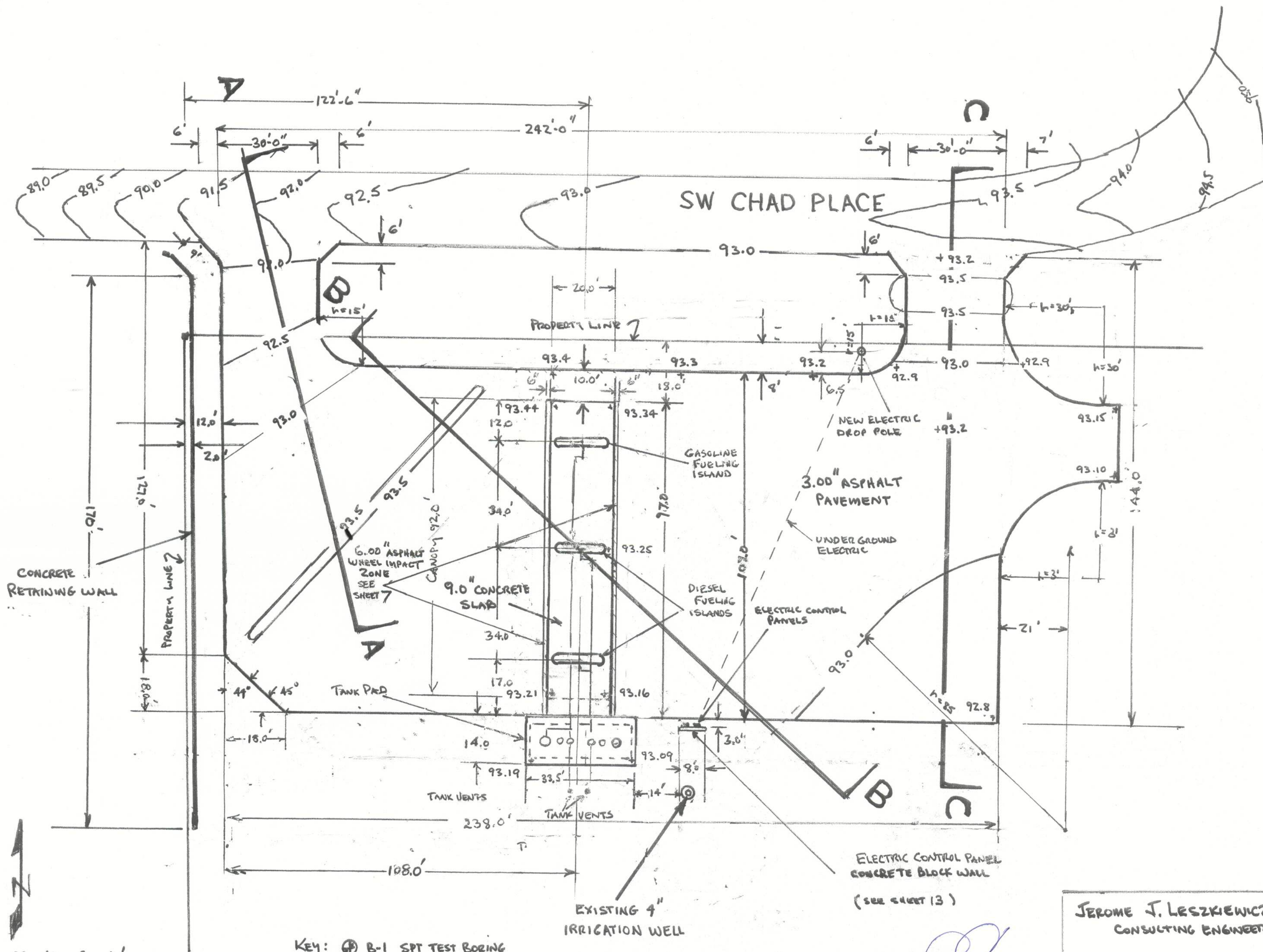


JEROME J. LESZKIEWICZ, P.E.
CONSULTING ENGINEER

GW HUNTER, INC.
FUELING STATION 47
COLUMBIA COUNTY FLORIDA

CLEARING, GRUBBING AND
TOPSOIL REMOVAL

SHEET 5



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CONSULTING ENGINEER

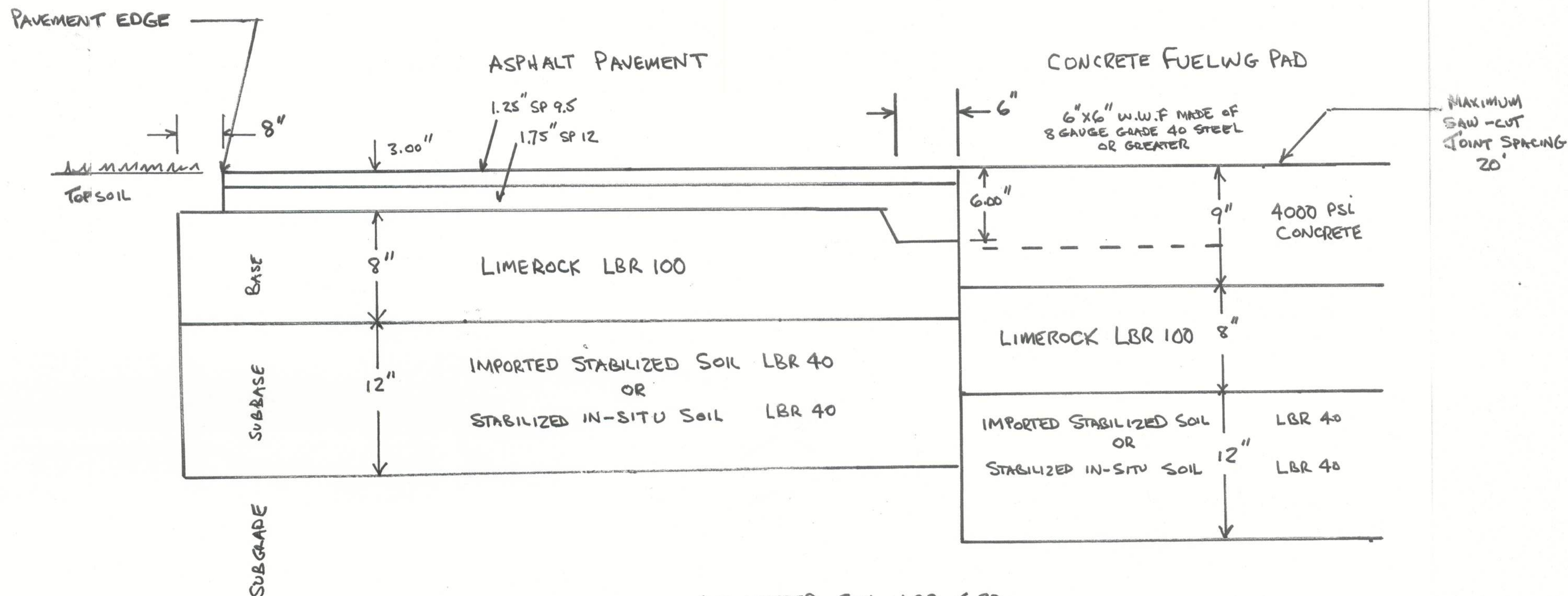
GW HUNTER, INC.
FUELING STATION 47
COLUMBIA COUNTY FLORIDA

PAVEMENT AND FUELING PAD
DESIGN

REVISED 11/28/12

SHEET 6

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11/28/12



UNDISTURBED SOIL LBR < 20
12" MINIMUM THICKNESS
OVER TOP OF CLAY

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S3482
11/28/12

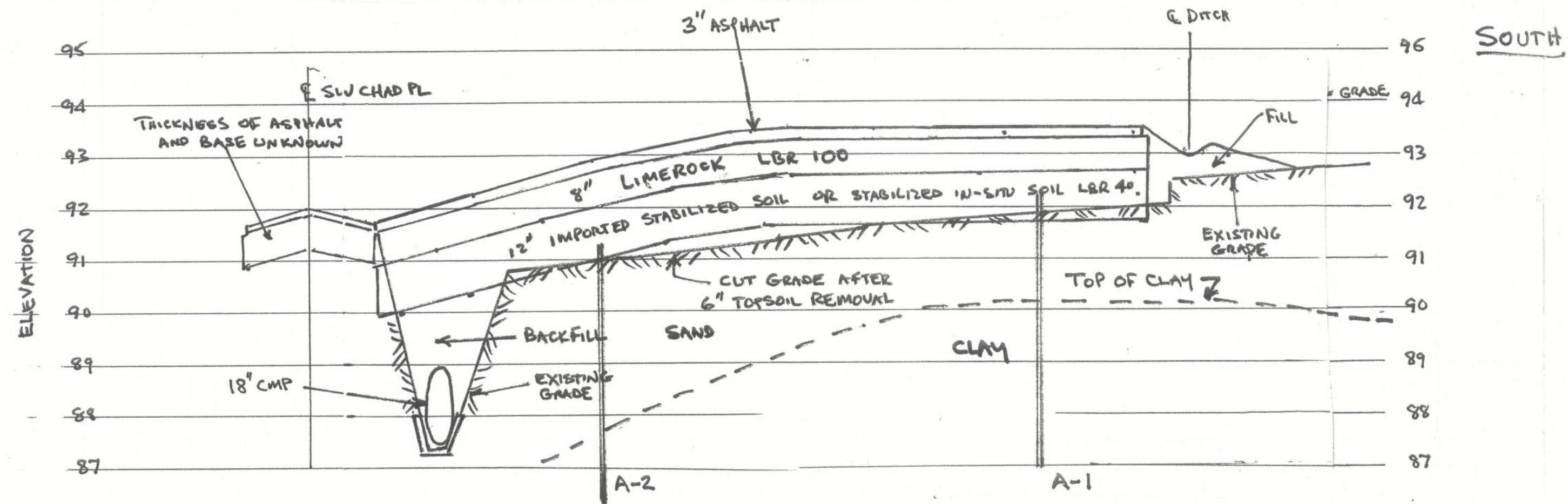
NOTE: STABILIZATION OF IN-SITU
SOILS MAY BE ACHIEVED BY
BLENDING IN LIMEROCK IN
ACCORDANCE WITH FDOT
STANDARDS

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FUELING STATION AT
COLUMBIA COUNTY FLORIDA
PAVEMENT AND FUELING PAD
SECTIONS

REVISED 11/28/12 SHEET 7

NORTH



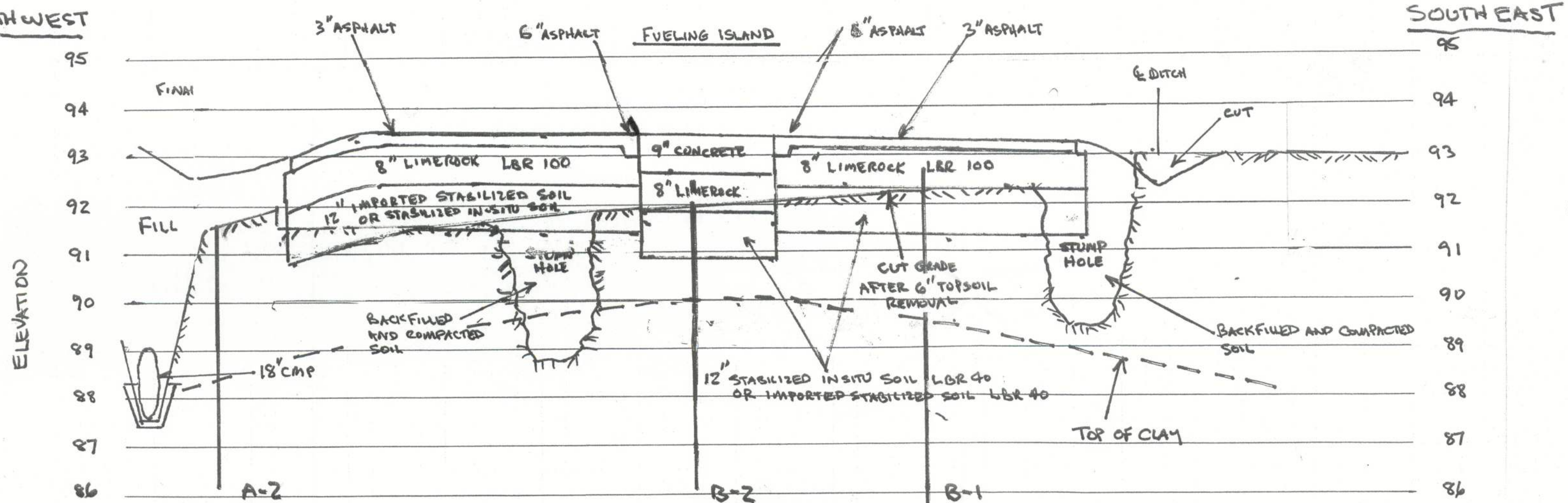
SOUTH

SECTION A-A

PROFILE OF WEST ENTRANCE

SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 2'

NORTH WEST



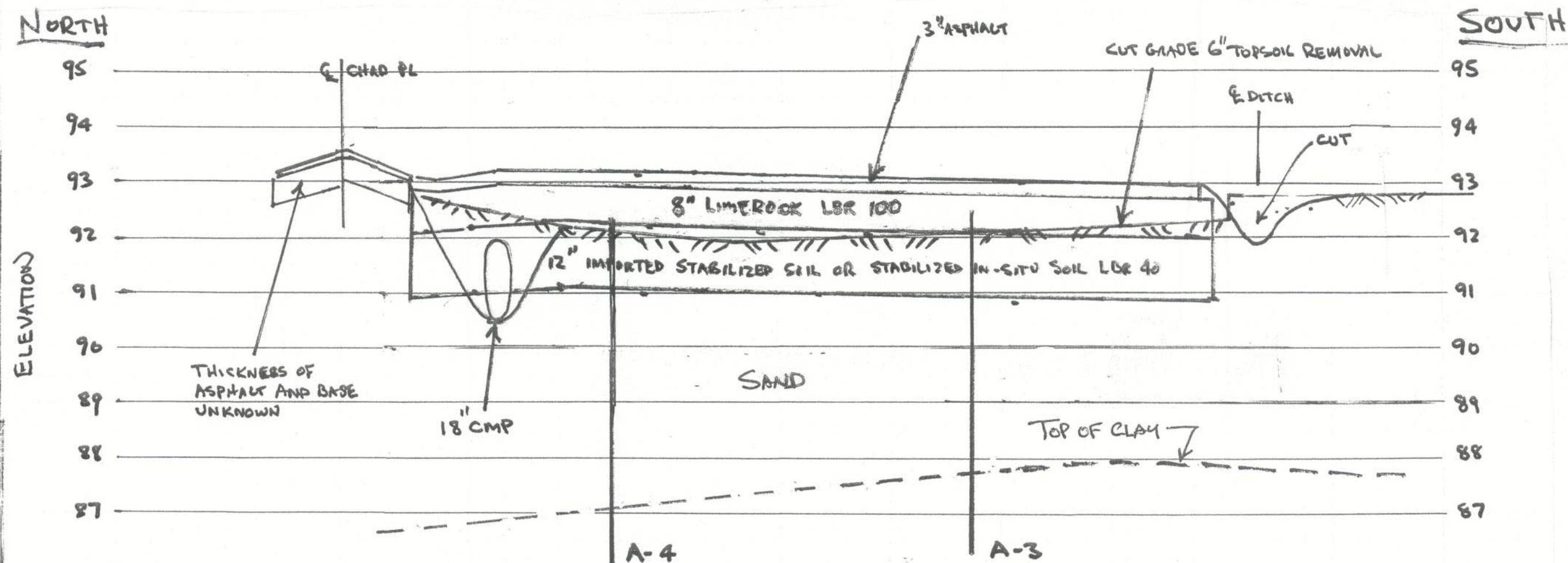
SOUTH EAST

SECTION B-B

PROFILE THROUGH FUELING ISLANDS
PARALLEL TO SLOPE OF
PAVEMENT

SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 2'

NORTH



SOUTH

SECTION C-C

PROFILE OF EAST ENTRANCE

SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 2'

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FUELING STATION 47
COLUMBIA COUNTY FLORIDA
PAVEMENT PROFILES

REVISED 11/28/12 SHEET 8

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ENLARGEMENT AREA
SEE SHEET 10

2' TAPER 9' LONG WING WALL 6' X 5' CONCRETE APRON

EXISTING CONC DITCH (DO NOT DISTURB)

EXISTING CONC. DITCH
(DO NOT DISTURB)

PIPE INV 87.40
(ON TOP OF CONC
DITCH FLOOR)

18" CMP, 58' LONG
TOP EL 92.85

MITERED END
INV. 88.55
(ON TOP OF CONC
DITCH FLOOR)

NEW ELECTRIC
DROP POLE

18" CMP, 73' LONG

MITERED END
INV 90.55

MITERED END
INV 90.40

GASOLINE
FUELING
ISLAND

DIESEL
FUELING
ISLANDS

EDGE OF
ASPHALT PAVEMENT

9" CONCRETE
FUELING
PAD

EDGE OF
CANOPY

8" CONCRETE
FUEL TANK PAD
14.0' X 33.5'

FUEL TANK
10.0' X 31.5'

TANK
VENTS

EXISTING
4" IRRIGATION WELL
(RAISE CAP FROM 92.9
TO 93.2')

NOTE: ALL SHALLOW, ON-SITE
DRAINAGE DITCHES SHALL BE
SODDED UP BOTH SIDESLOPES
A DISTANCE OF 30" FROM THE
DITCH INVERT WITH BERMUDA
GRASS PER FDOT STANDARDS

NOTE: ALL AREAS DISTURBED BY CONSTRUCTION
SHALL BE SEEDED AND MULCHED PER
FDOT STANDARDS

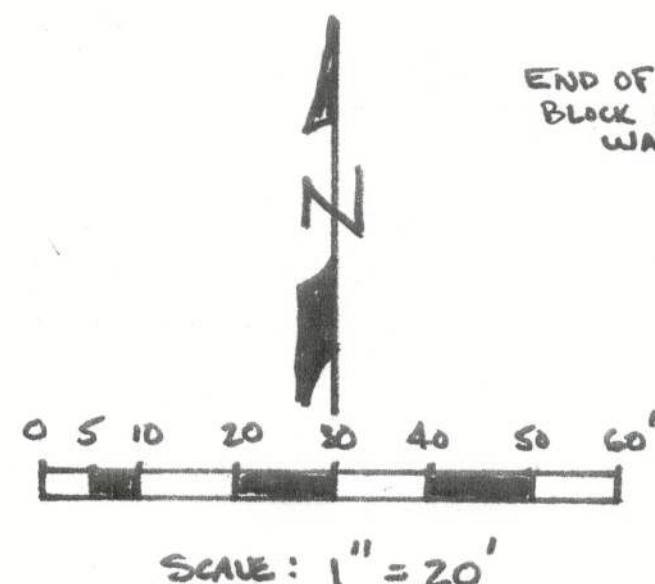
THE REGRADED COUNTY DRAINAGE DITCH
SHALL BE SODDED ON THE DITCH FLOOR
AND 5' UP BOTH SIDESLOPES (SEE SHEET 13)
WITH BAHIA GRASS AS PER FDOT STANDARDS

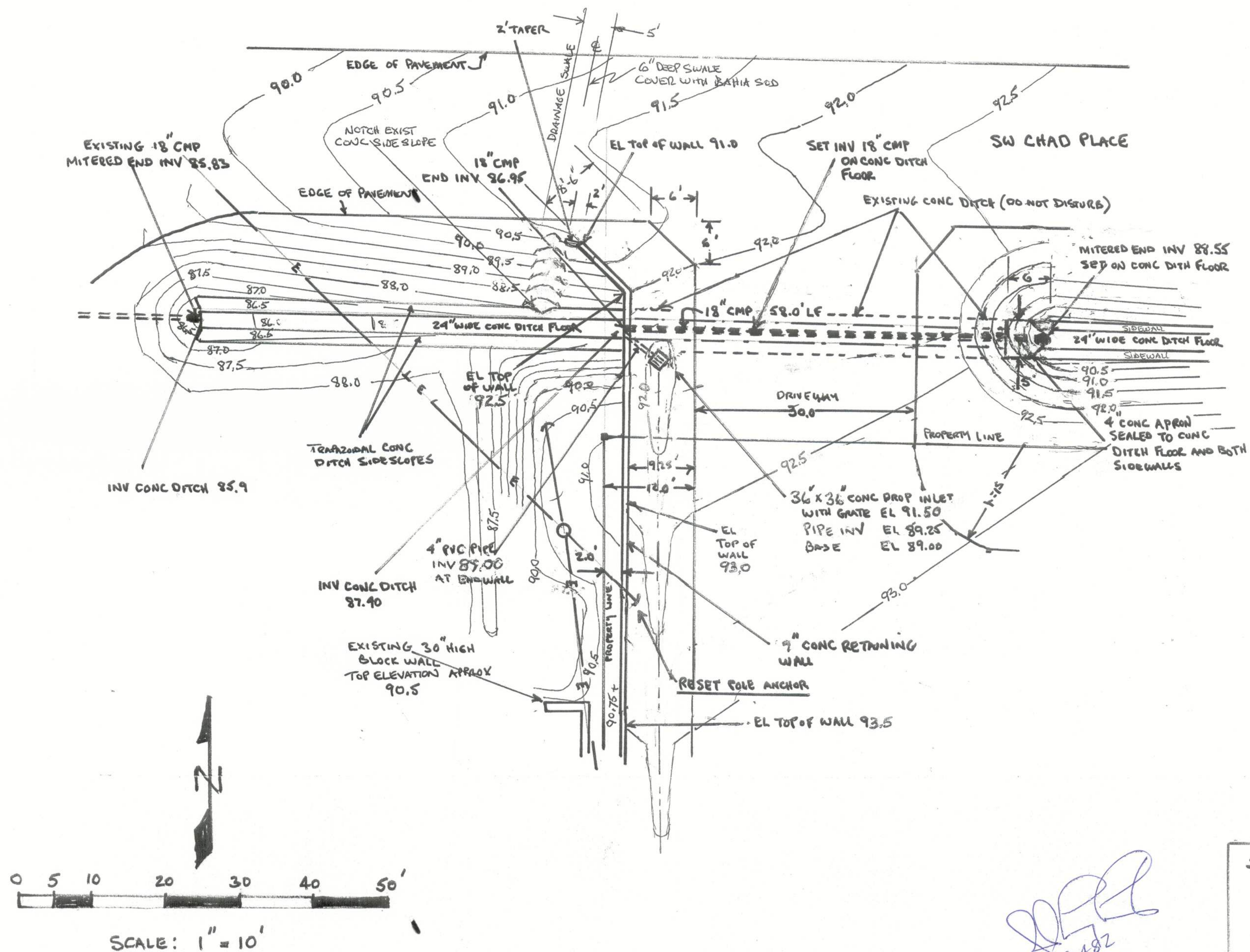
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FUELING STATION 47
COLUMBIA COUNTY FLORIDA

GRADING AND DRAINAGE PLAN

REVISED 11/28/12 SHEET 9



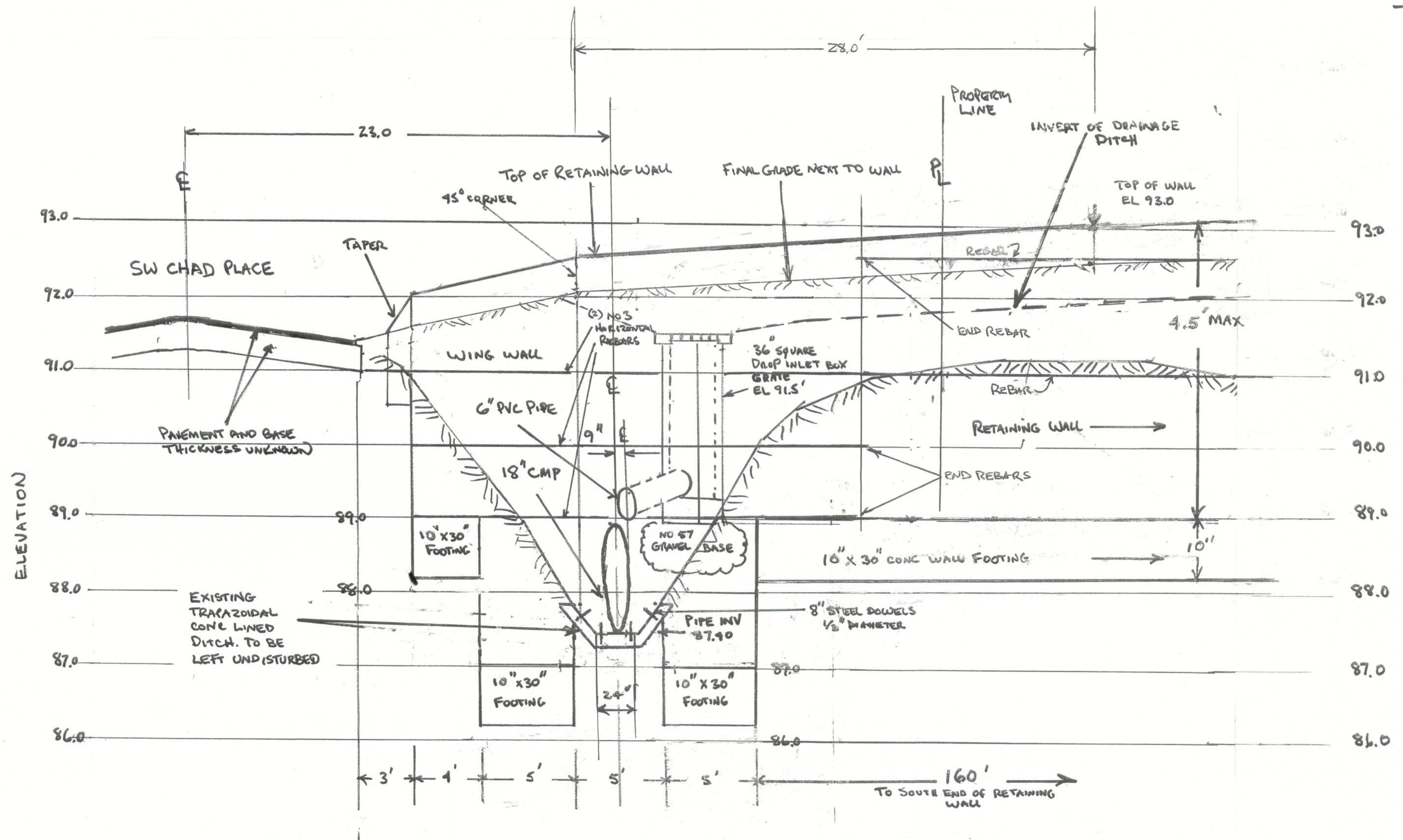


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FUELING STATION 47
COLUMBIA COUNTY FLORIDA
WEST ENTRANCE & DITCH
ENLARGEMENT
REVISED 11/28/12 SHEET 10

NORTH

SOUTH



SCALE: HORIZONTAL 1" = 4.0'
VERTICAL 1" = 1.0'

SECTION D-D
RETAINING WALL / END WALL PROFILE
ACROSS COUNTY DRAINAGE DITCH

NOTE:
LENGTH OF ENTIRE RETAINING
WALL INCLUDING 9' LONG
45° WING AND 2' TAPER
181.0'

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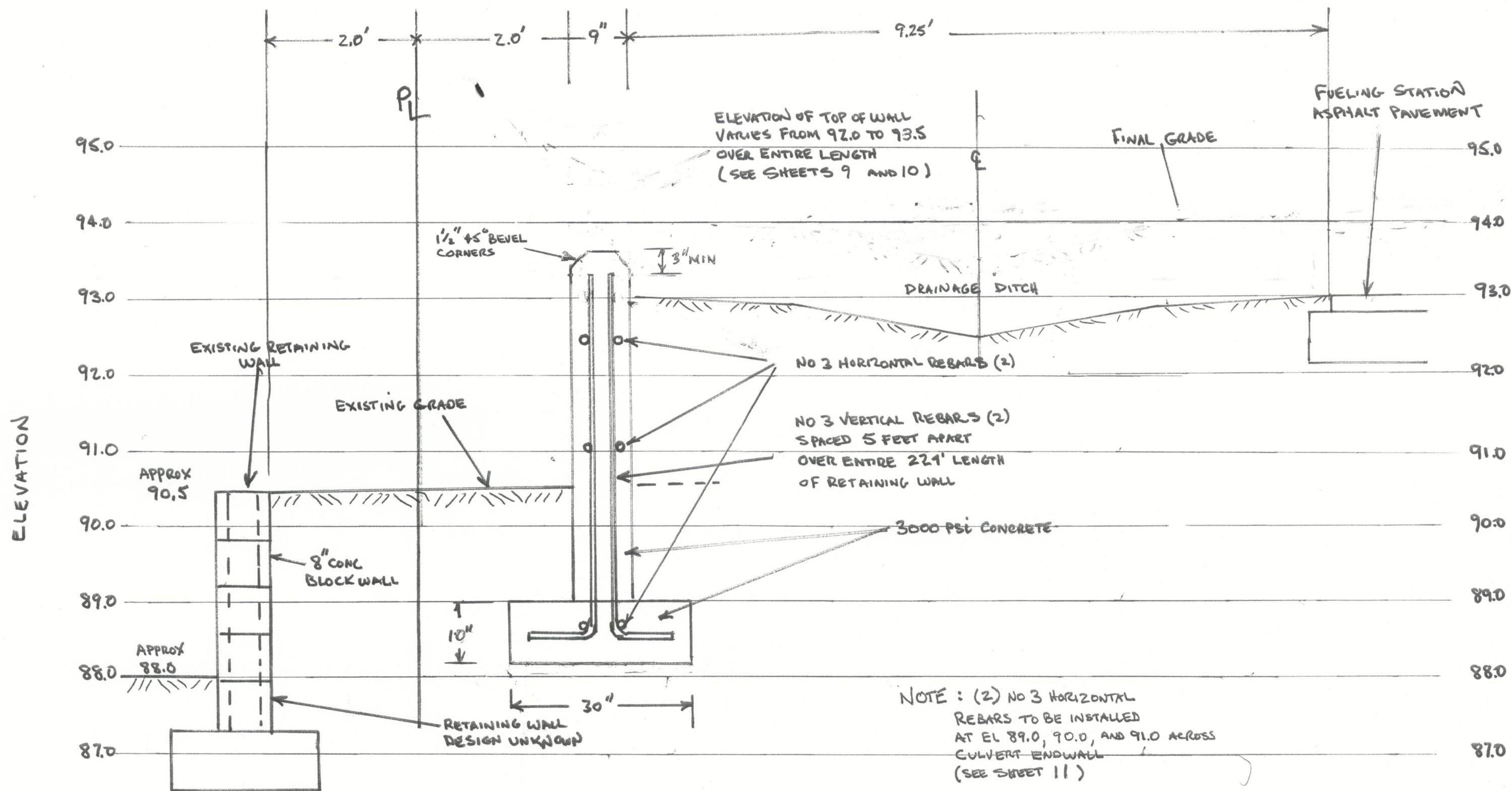
GW HUNTER, INC.
FUELING STATION 47
COLUMBIA COUNTY FLORIDA

RETAINING WALL / DITCH END
WALL PROFILE

REVISION 11/28/12 SHEET 11

WEST

EAST



SCALE: HORIZONTAL 1" = 1.0'
VERTICAL 1" = 1.0'

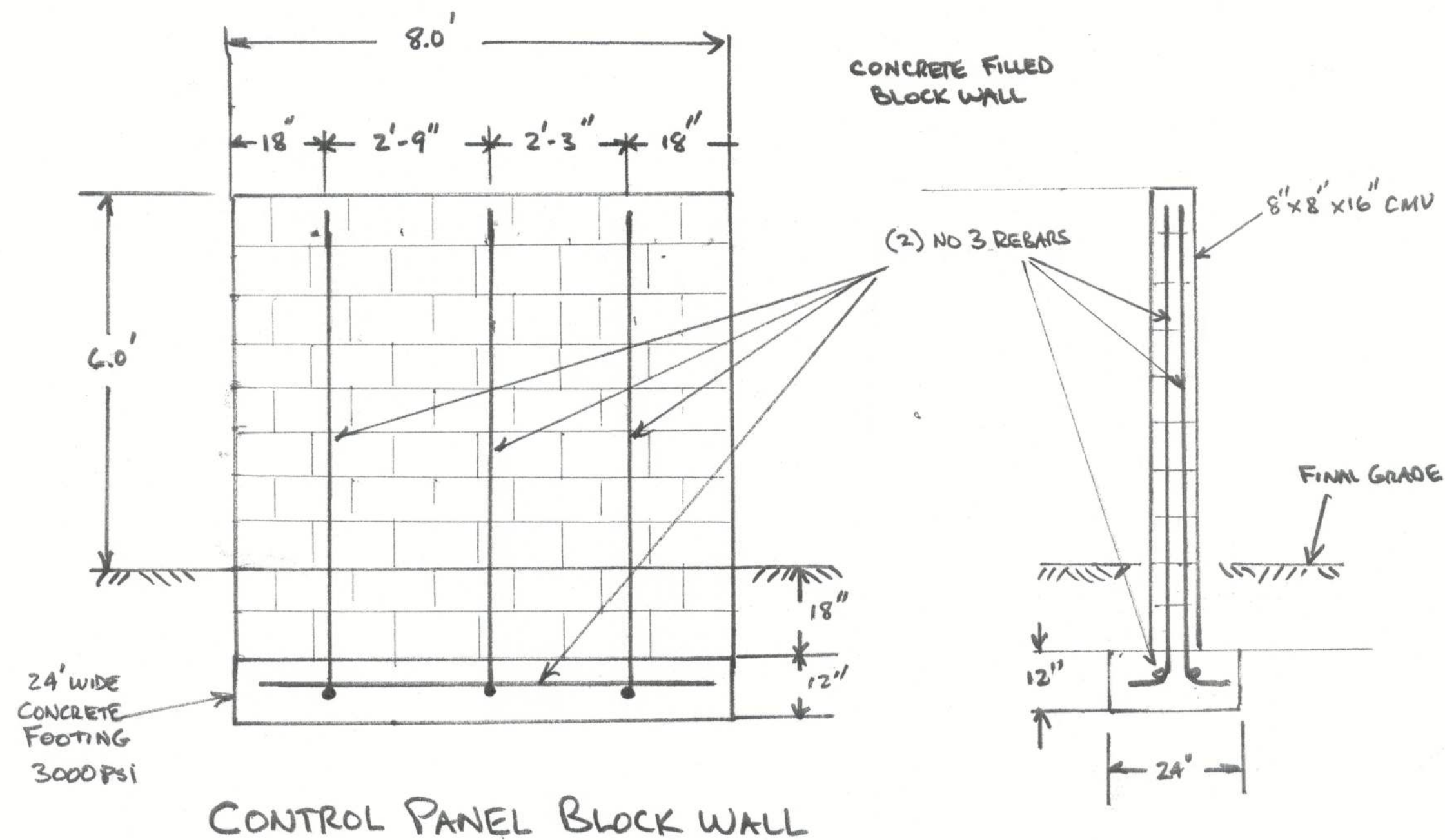
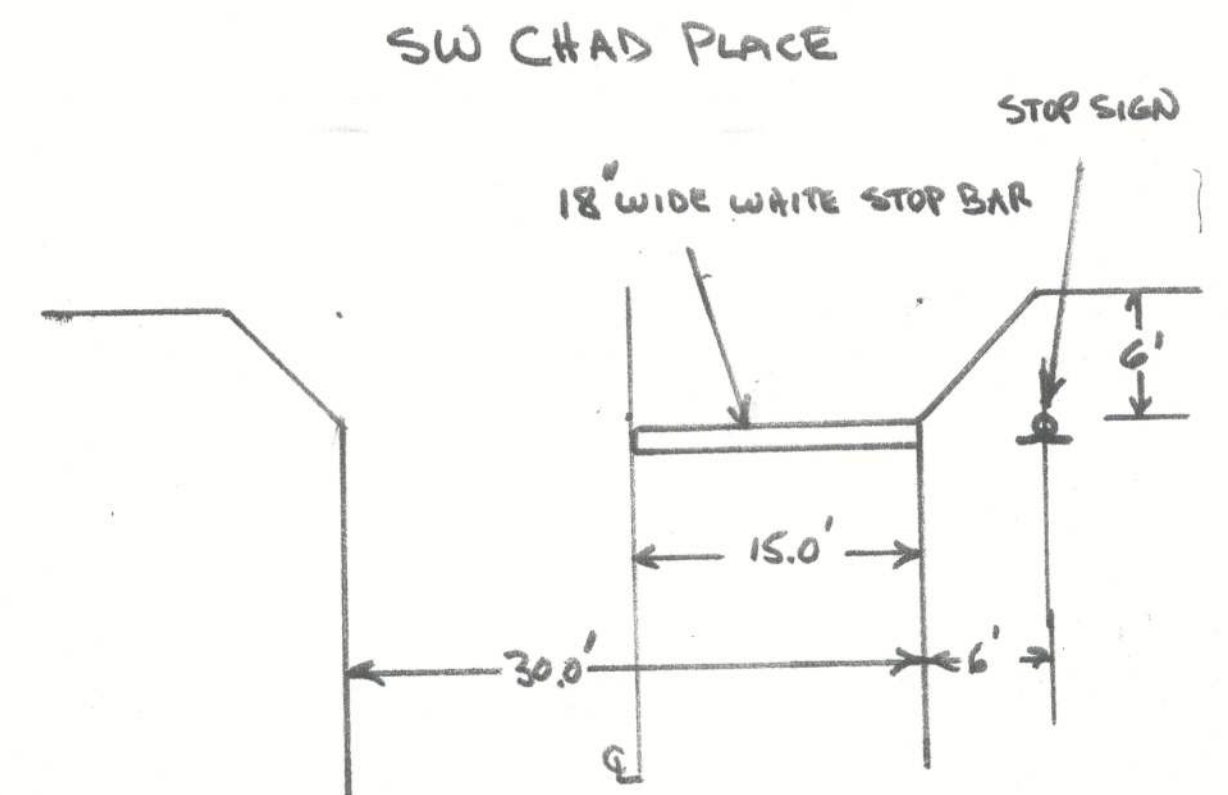
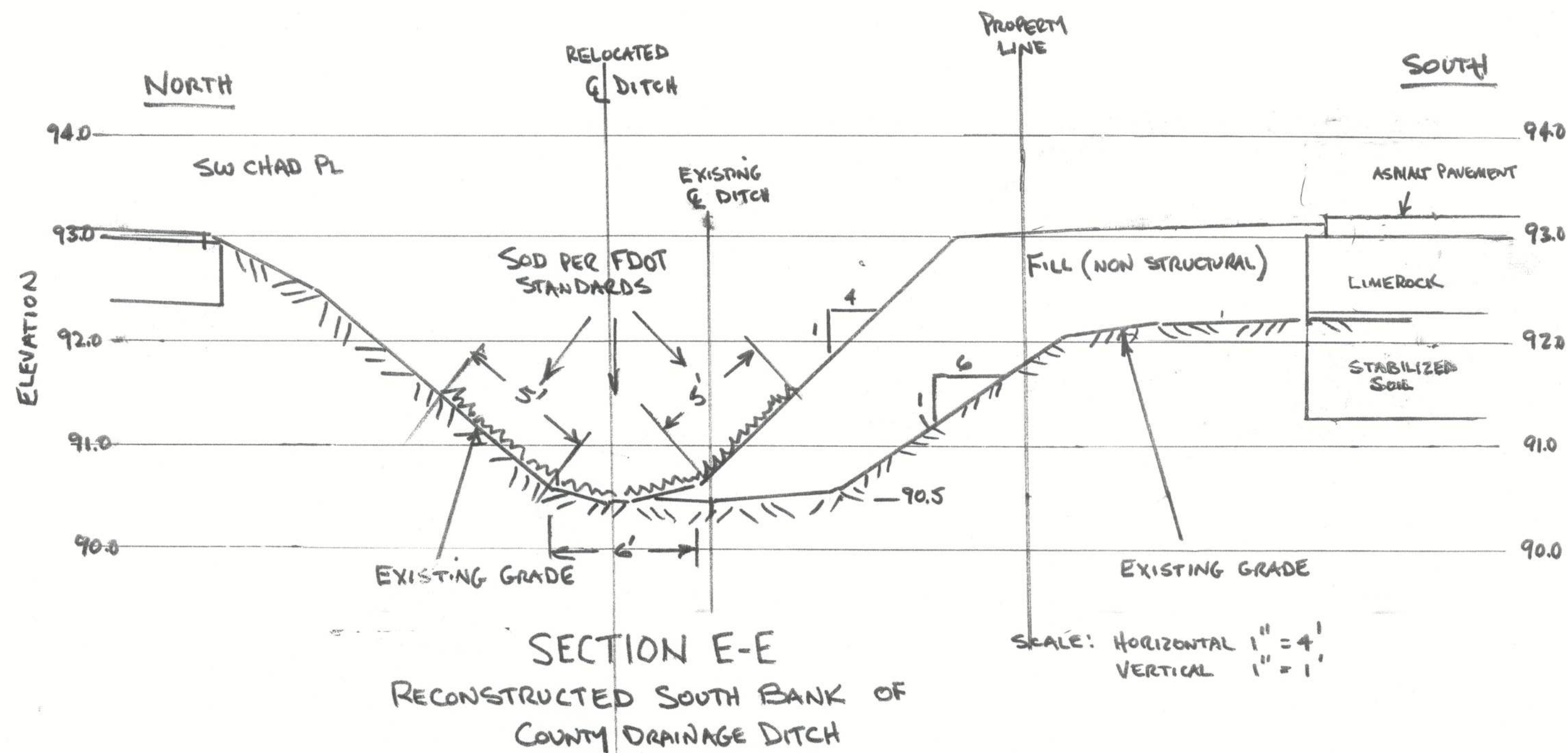
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FUELING STATION AT
COLUMBIA COUNTY FLORIDA

RETAINING WALL DESIGN

REVISED 11/28/12 SHEET 12



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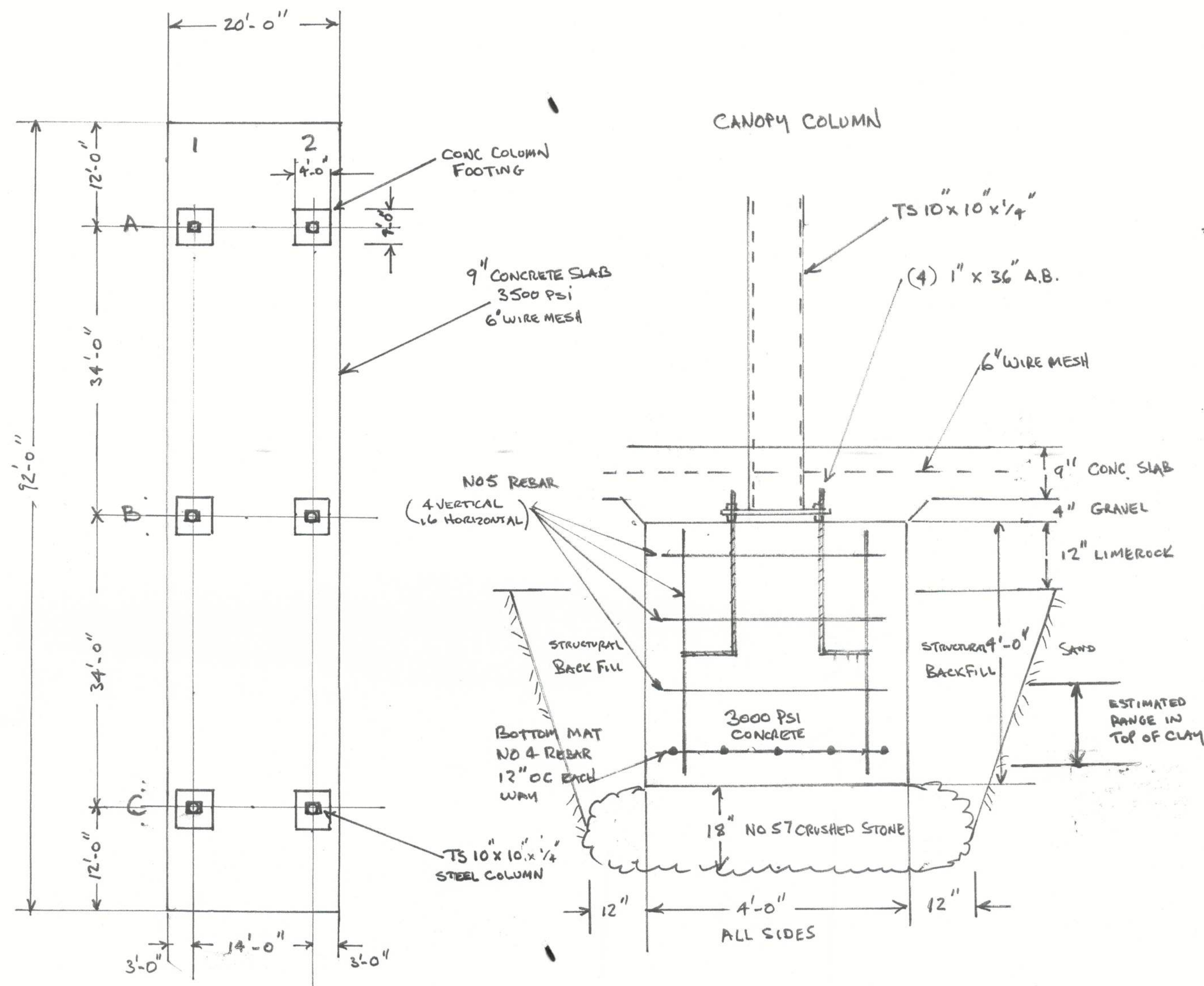
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FUELING STATION 47
COLUMBIA COUNTY FLORIDA

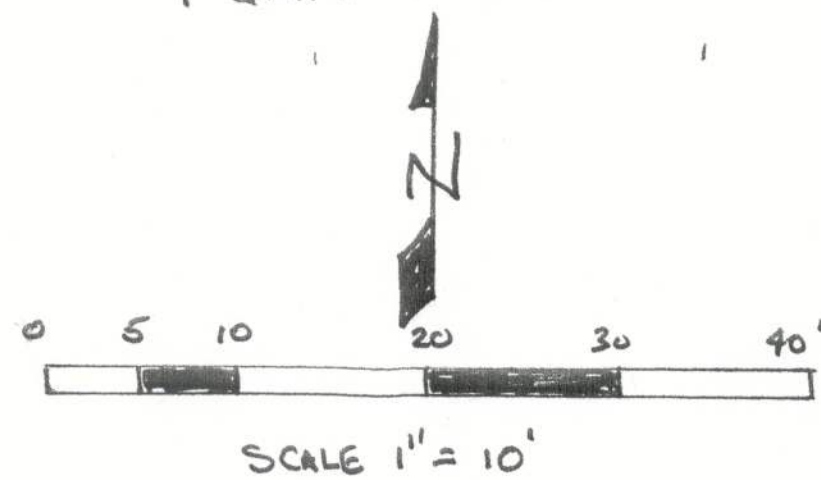
MISCELLANEOUS DETAILS

REVISED 11/28/12

SHEET 13



PLAN VIEW



NOT TO SCALE

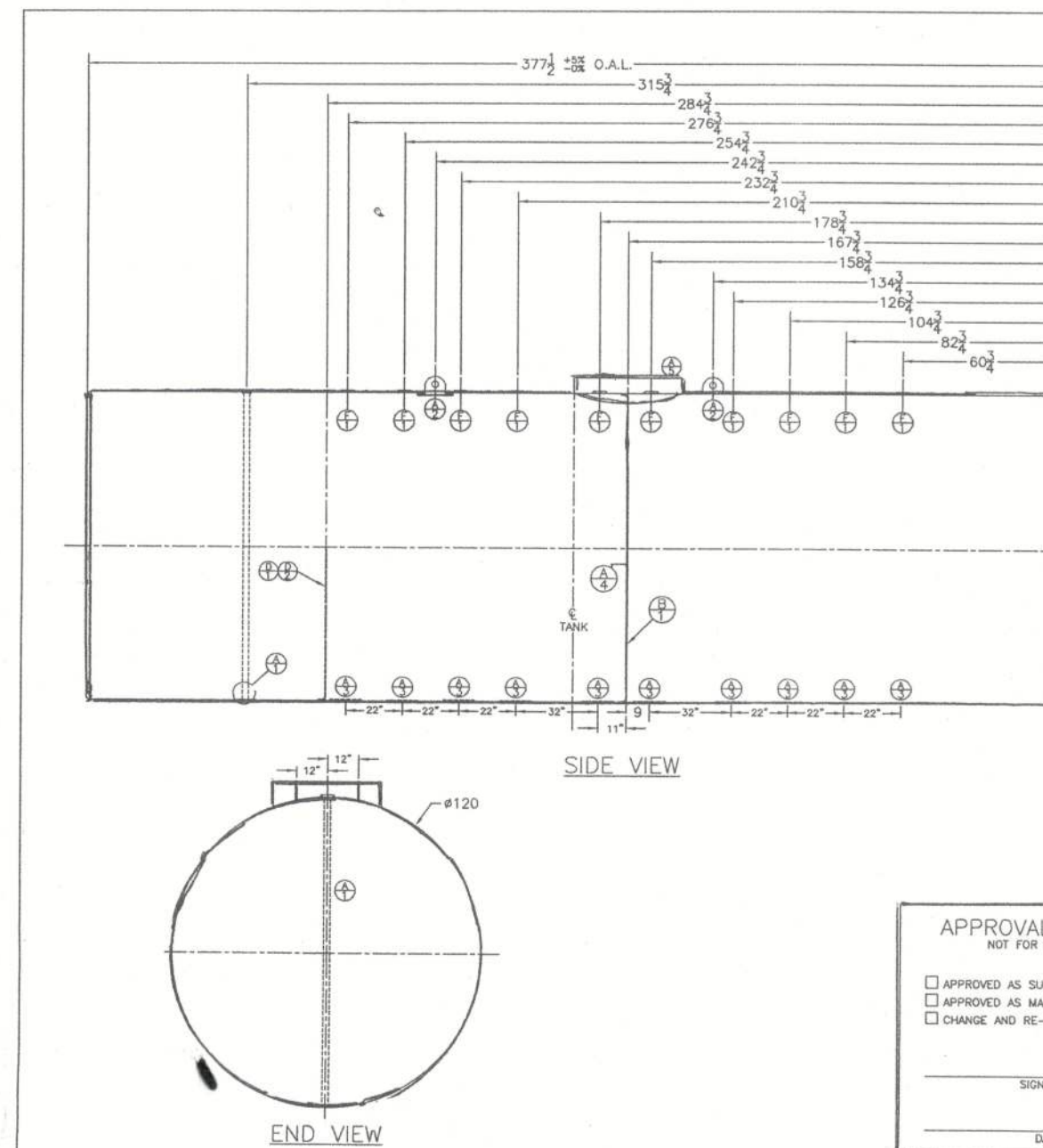
CANOPY FOOTING	ELEVATION TOP OF CONC SLAB	ELEVATION BOTTOM OF CONC FOOTING	ELEVATION TOP OF CLAY (ESTIMATE)	THICKNESS OF GRAVEL MAT, IN
A-1	93.39	89.31	89.6	18
A-2	93.37	89.29	89.3	18
B-1	93.31	89.23	90.2	18
B-2	93.29	89.21	90.1	18
C-1	93.24	89.16	90.5	18
C-2	93.21	89.13	90.5	18

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FUELING STATION 47
COLUMBIA COUNTY FLORIDA
CANOPY FOUNDATION DESIGN

REVISED 11/28/12 SHEET 14



BILL OF MATERIALS	
MARK	DESCRIPTION
1	1" x 60" x 128" SHEET -SEE DETAIL
2	1" x 72" x 128" SHEET -SEE DETAIL
3	7/8 SHEETS 60" WIDE x 378" LONG MIN THICKNESS: 0.1714
4	7/8 SHEETS 72" WIDE x 378" LONG MIN THICKNESS: 0.1714
5	1" x 60" x 128" SHEET (DONUT STIFFENER) -SEE DETAIL
6	1" x 72" x 128" SHEET (DONUT STIFFENER) -SEE DETAIL
7	1" x 126" CIRCLE FOR SINGLE BULKHEADS
FITTINGS	
MARK	DESCRIPTION
10	4" FRPT TANK FLANGES
ATTACHMENTS	
MARK	DESCRIPTION
1	MONITOR WELL -SEE DETAIL-
2	8" x 8" x 1" LIFT LUGS RE-PAD -SEE DETAIL- (OFFSET)
10	12" x 12" x 1/2" STRIKER PLATES (UNDER EACH 4" OPENING)
1	60" x 8.25" 118" LG
1	42" SUMP COLLAR

NOTES:

- TANK IS TO BE FABRICATED IN ACCORDANCE WITH U/L LISTED FRP PLASTIC ELUTRON TANK, U/L 58 AND 1746 360" SECONDARY CONTAINMENT TANKS.
- PRIOR TO SANDBLASTING, TEST EACH COMPARTMENT INDIVIDUALLY WITH 3 TO 5 PSIG AIR PRESSURE AND APPLY LEAK DETECTION SOLUTION TO ALL WELDS. REPAIR ANY LEAKS AND RE-TEST.
- TANK EXTERIOR IS TO BE SANDBLASTED PER SSPC-SP16 (COMMERCIAL BLAST), FOIL WRAPPED, AND FIBERGLASS COATED PER ELUTRON SPECIFICATIONS, 100 MILS MIN. TANK EXTERIOR SHALL HAVE A HOLIDAY TEST PERFORMED TO DETECT PINHOLES IN COATING. HOLIDAY DETECTOR SHALL BE SET AT 35,000 VOLTS. VACUUM TEST SECONDARY FOR LEAK TIGHTNESS.

EST WT. = 14,000 LB

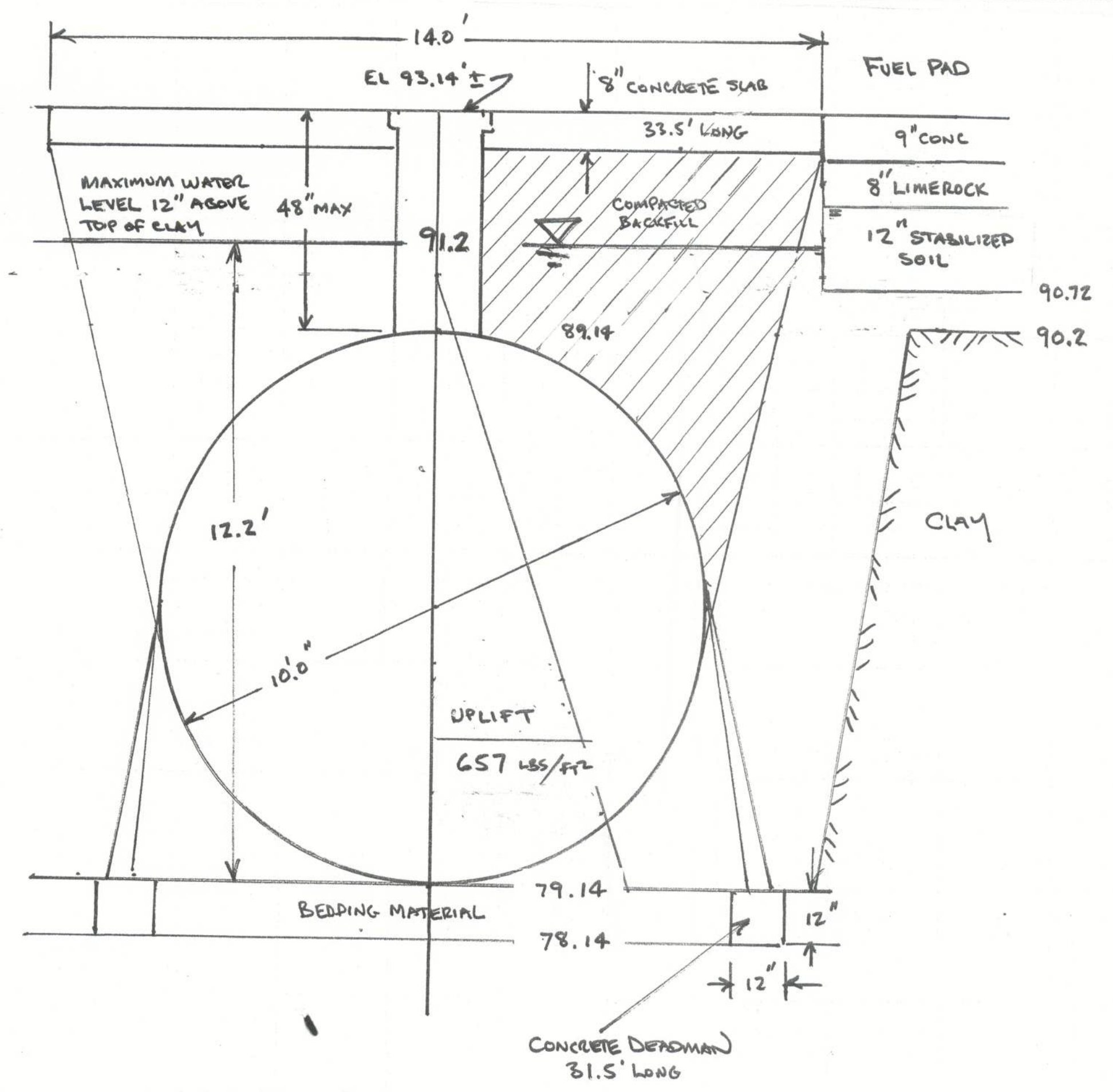
APPROVAL DRAWING
NOT FOR FABRICATION

☐ APPROVED AS SUBMITTED
☐ APPROVED AS MARKED
☐ CHANGE AND RE-SUBMIT FOR APPROVAL

SIGNATURE: _____
DATE: _____

HALL TANK COMPANY
NORTH LITTLE ROCK, ARKANSAS
ENGINEERED PRODUCTS PHONE: (501) 945-3031

DATE: 9/24/12
DRAWN BY: [Signature]
CHECKED BY: [Signature]
DATE: 9/24/12
SCALE: NTS
SHEET: 1 OF 1
JOB/CONTRACT NO.: 12-2737
REV: B



TANK UPLIFT CALCULATIONS

WEIGHT	
8" CONC SLAB	46,506 LBS
SOIL BACKFILL OVER TANK	106,329 LBS
TANK	14,000 LBS
TOTAL WEIGHT	256,671 LBS
DEADMAN OVERBURDEN	5,392 LBS
TOTAL	291,855 LBS
HYDROSTATIC UPLIFT	206,955 LBS

F.S. = 1.41

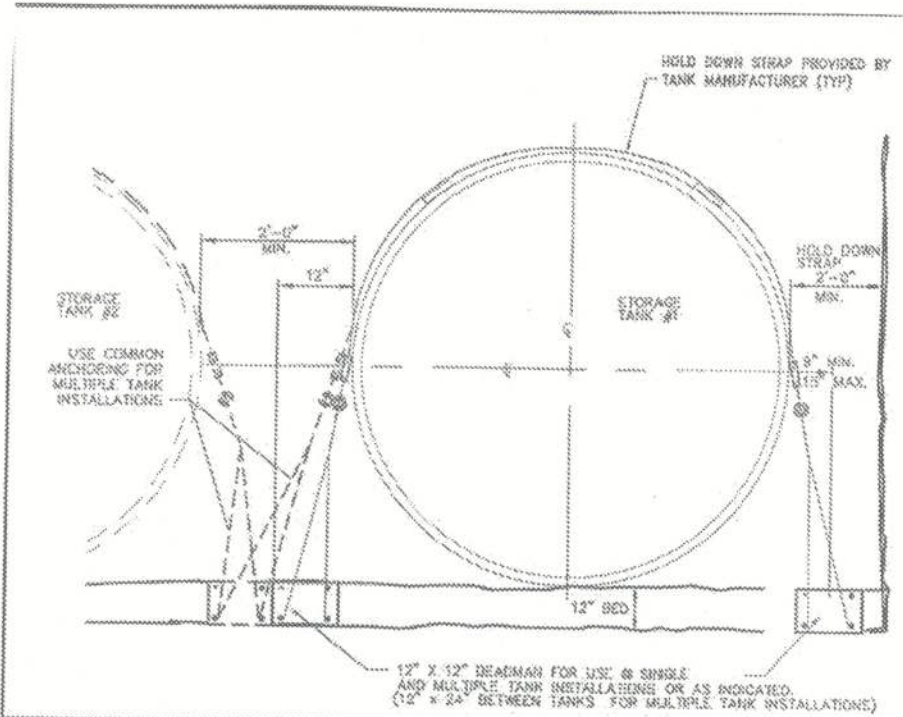
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COLUMBIA COUNTY FLORIDA

FUEL STORAGE TANK UPLIFT DESIGN

REVISED 11/28/12 **SHEET 15**



1 DEADMAN LOCATIONS

NO SCALE

SPECIFICATIONS

3.1 TANK HOLD-DOWNS (TIE-DOWNS):

A. HOLD-DOWN: WHICH SPECIFIED, THE "DEADMAN" SHALL BE INSTALLED PRIOR TO THE BED MATERIAL.

B. CAUTION: DO NOT PLACE TANKS ON CONCRETE SLABS, TIMBERS, BEAMS, CRADLES OR ABOUT THE TANKS IN WET CEMENT. THE TANK, WHETHER TIED DOWN OR NOT, MUST NEVER BE LEFT ON THE BED WITHOUT A BACKFILL TO THE TOP OF THE TANK IF THERE IS ANY CHANCE OF WATER, 12" OR MORE ABOVE THE TANK BOTTOM, IN THE HOLE.

3.2 TANK DEADMAN INSTALLATION

A. GENERAL REQUIREMENTS:

ANCHOR ALL UNDERGROUND STORAGE TANKS WITH CONCRETE DEADMAN WHEN THICKENED TOP-SLAB DOES NOT PROVIDE ADEQUATE WIDTH.

1. TANK BEDDING, BALLASTING AND TANK HOLE BACKFILL PROCEDURE ARE DESCRIBED IN THESE SPECIFICATIONS.

2. THE TANK ANCHORAGE SYSTEM SHOWN ON THE DRAWINGS IS DESIGNED FOR A MAXIMUM LEVEL OF GROUND WATER EQUAL TO THE SUBGRADE LEVEL.

3.3 MATERIALS

A. CONCRETE DEADMAN:

REINFORCED CONCRETE, 12" X 12" OR 12" X 24" IN CROSS-SECTION WITH CHAMFERED EDGES. LENGTH, AS SHOWN ON THE DRAWINGS. 1/2" DIAMETER #5 REBAR ANCHOR LOOPS ARE TO BE CAST INTO DEADMAN AT LOCATIONS SHOWN. PRECAST MATERIAL SHALL HAVE ACHIEVED ITS ULTIMATE COMPRESSIVE STRENGTH OF 2500 PSI (28 DAYS) PRIOR TO INSTALLATION.

NOTE: PRECAST CONCRETE FOUNDATION PILES WHICH MEET OR EXCEED ABOVE SPECIFICATIONS ARE ACCEPTABLE.

B. ANCHOR CABLE:

MINIMUM 1/2" DIAMETER, TRAWLING CABLE.

C. HARDWARE:

CABLE CLAMPS, CABLE GUIDES, GUARDS, ETC., SHALL BE FURNISHED BY CONTRACTOR.

D. PROTECTIVE COATING:

PRIOR TO BACKFILLING TANKS, APPLY A GENEROUS QUANTITY OF ASPHALT OR SIMILAR BITUMINOUS COATING BY BRUSH TO ALL EXPOSED STEEL CABLES, LOOPS AND HARDWARE.

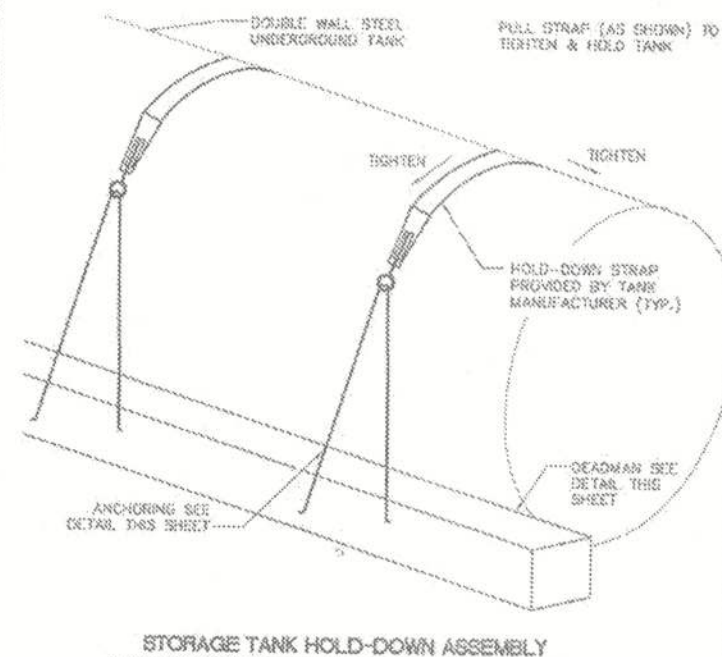
3.4 INSTALLATION PROCEDURE:

A. PREPARE THE TANK HOLE TO RECEIVE THE DEADMAN. INSTALL SHORING (OR SIDE SLOPING) IN ACCORDANCE WITH OSHA GUIDELINES.

B. PUMP THE WATER OUT OF THE TANK HOLE. KEEP WATER OUT OF THE TANK HOLE UNTIL TANKS HAVE BEEN SET, TIED DOWN, BALLASTED AND BACKFILLED.

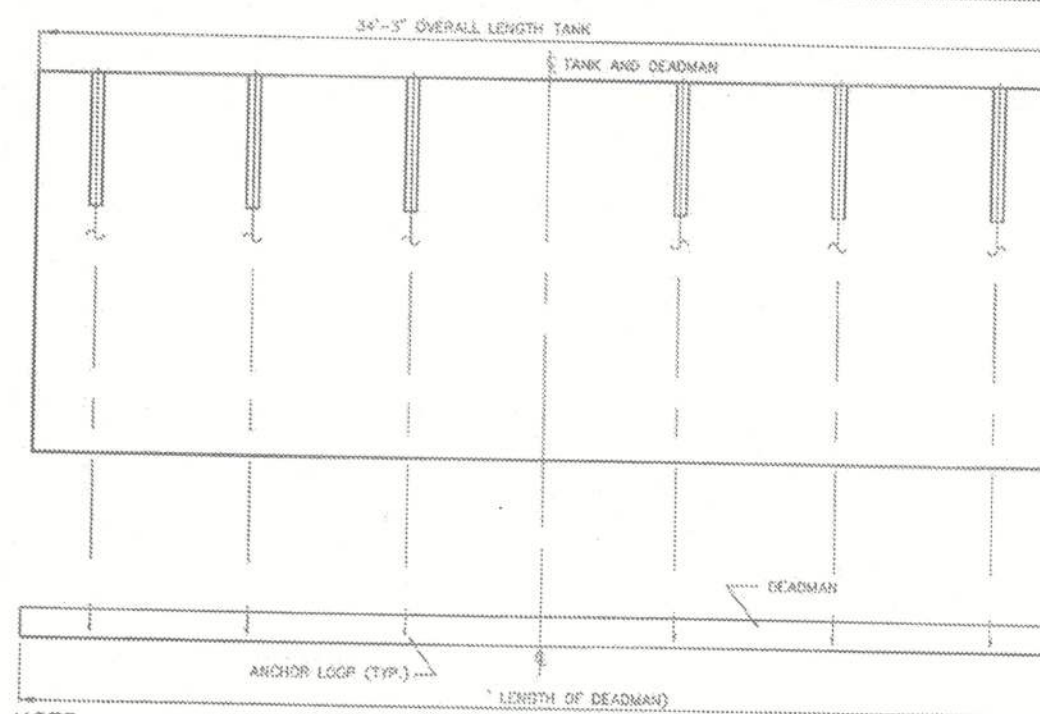
C. INSERT EACH CABLE THROUGH ITS OWN ANCHOR LOOP IN THE DEADMAN RESERVING SUFFICIENT CABLE SO THAT BOTH ENDS OF THE CABLE WILL BE KEPT AT THE TOP OF THE TANK HOLE AFTER THE DEADMAN ARE SET. LOWER AND POSITION THE DEADMAN IN THE TANK HOLE KEEPING BOTH ENDS OF THE CABLES AT THE TOP OF THE HOLE. INSTALL THE 12" MINIMUM THICK BEDDING MATERIAL IN TANK HOLE. SMOOTH AND SLOPE PER THE TANK BEDDING INSTRUCTIONS.

D. PROCEED WITH SETTING THE TANKS BY ADDING BALLAST AS NECESSARY TO SINK AND KEEP DOWN THE TANKS. USE ONLY ENOUGH BALLAST TO HOLD THE TANKS DOWN UNTIL THE BACKFILL IS EVEN WITH THE TOP OF THE TANKS. (REFER TO TANK INSTALLATION AND SPECIFICATION SHEETS FOR TANK SETTING REQUIREMENTS.) CAUTION: BALLAST LEVEL IN TANK MUST NEVER EXCEED WATER (OR BACKFILL) LEVEL IN TANK HOLE DURING INSTALLATION.



2 HOLD-DOWN STRAP ASSEMBLIES

NO SCALE

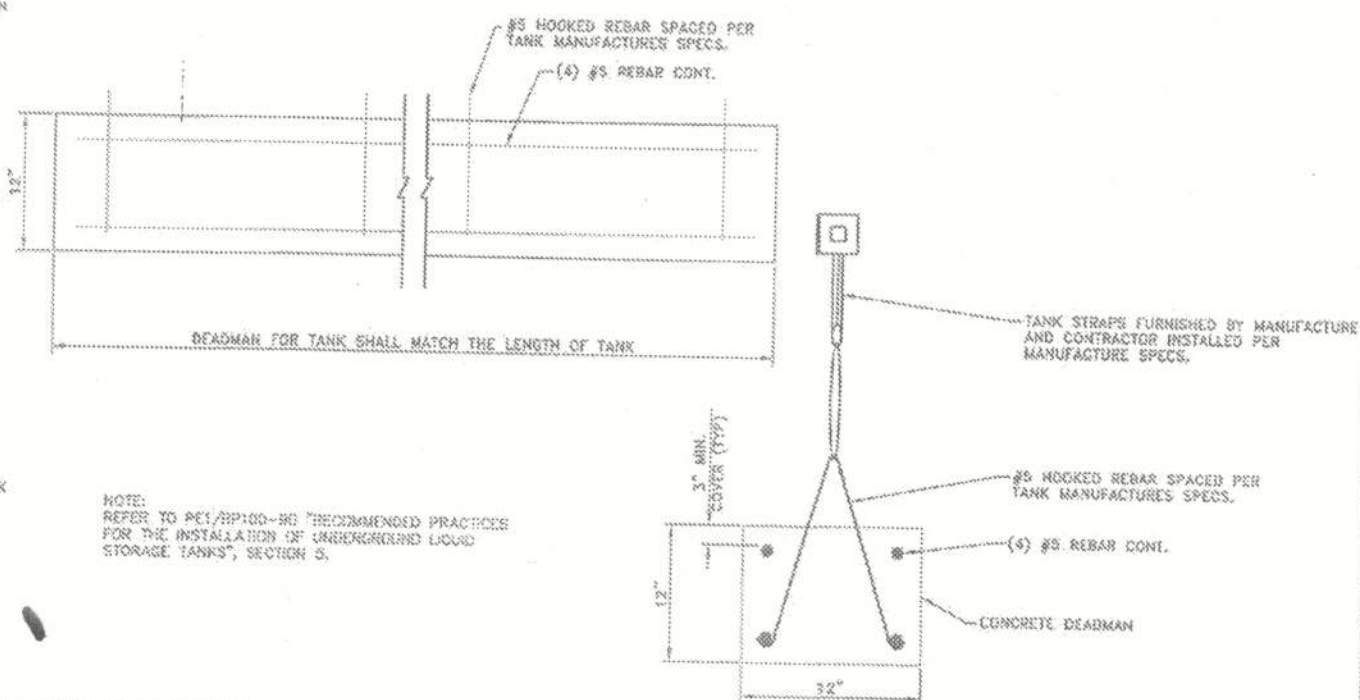


NOTE:

CONTRACTOR SHALL CONFIRM NUMBER AND LOCATION OF TANK TIE-DOWNS WITH MANUFACTURER PRIOR TO TANK INSTALLATION.

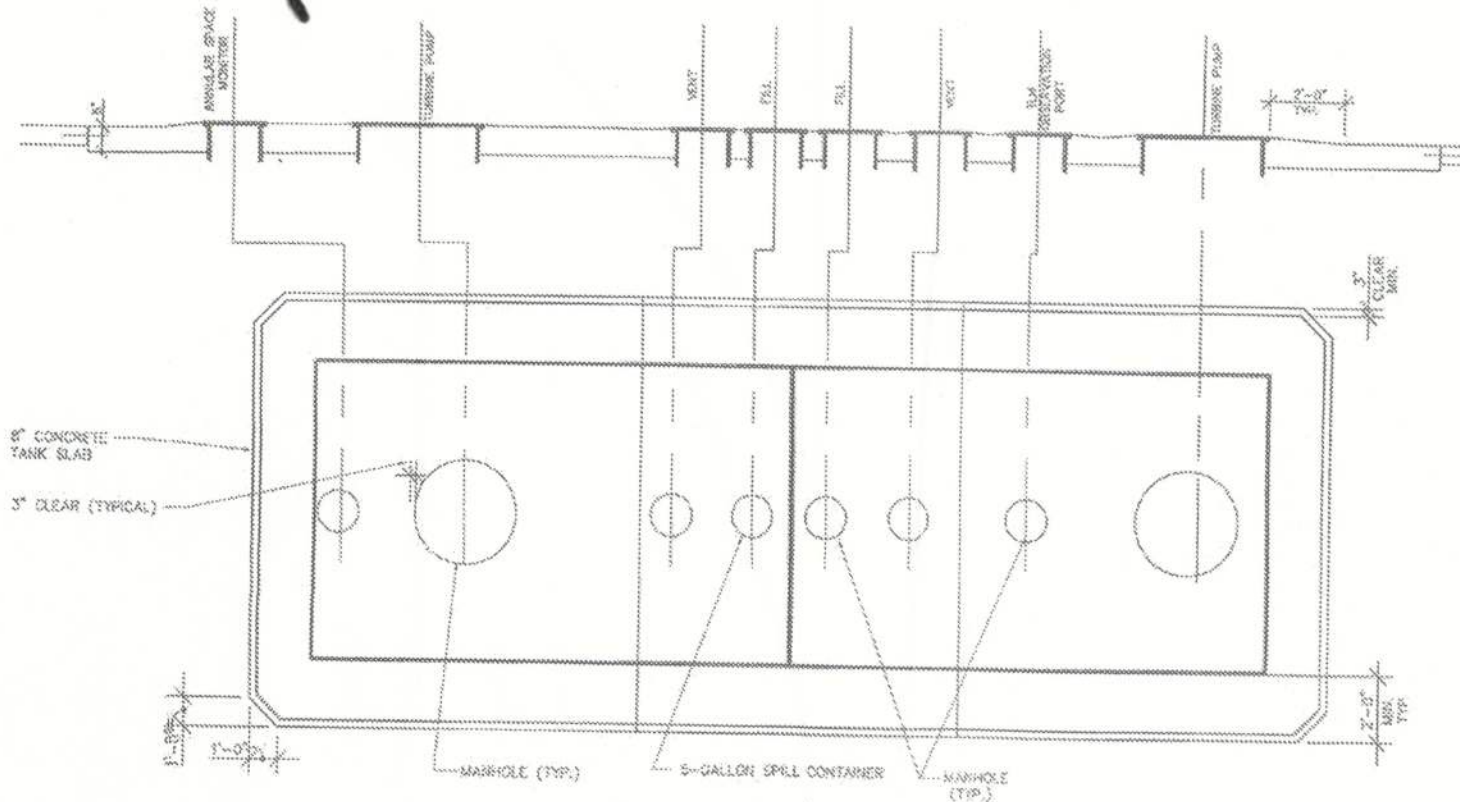
3 STORAGE TANK DEADMAN

NO SCALE



NOTE: REFER TO PREVIOUS-NO RECOMMENDED PRACTICES FOR THE INSTALLATION OF UNDERGROUND LIQUID STORAGE TANKS, SECTION 5.

3,500 PSI CONCRETE TANK SLAB SECTION



3,500 PSI CONCRETE TANK SLAB PLAN

4

8" CONCRETE SLAB AND REINFORCING FOR NEW TANK (TYPICAL)

NO SCALE

GENERAL NOTES:

1. ALL COVERS, GASKETS, AND SEALS TO BE IN PLACE AND WATER TIGHT.
2. CONCRETE SLAB SHALL HAVE A HEAVY BROOM FINISH.
3. CONCRETE SLAB TO BE SEALED WITH AQUACRETE W820 OR SIMILAR.
4. STEEL REBAR (IF USED) SHALL BE SUPPORTED BY CHAIRS (DOES) OR BRASSER BRIDGES.
5. API COLORED REFLECTORS SHALL BE INSTALLED AT THE FILL END MANHOLE PERIMETER.

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GW HUNTER, INC.
FUELING STATION AT
COLUMBIA COUNTY FLORIDA

**STORAGE TANK TIE-DOWN
DETAILS**

SHEET 16

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