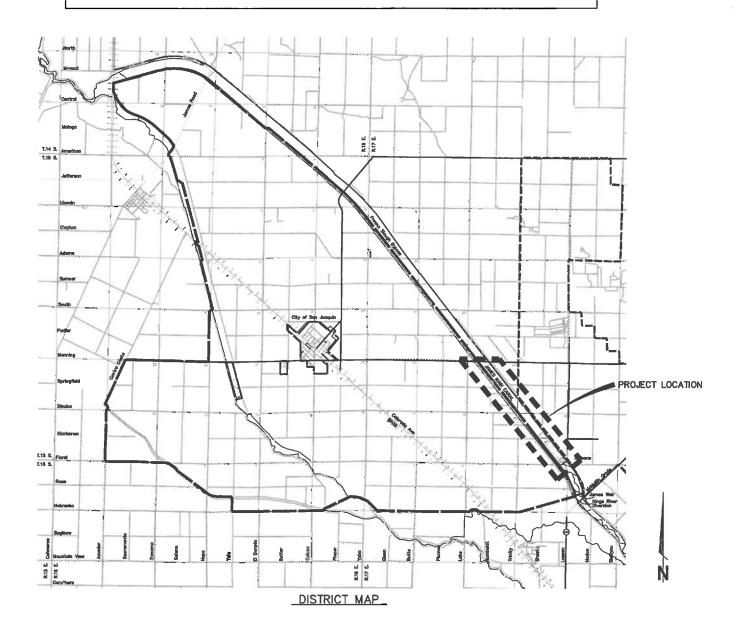
Appendix A Proposed Construction Designs

JAMES IRRIGATION DISTRICT

FRESNO COUNTY, CA

WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS



SITE SAFETY AND PROTECTION NOTES

STATE MAP

The duty of the Engineer, Owner or its agents to conduct construction review of the Contractor's performance and the undertaking of inspections or the giving of instructions as authorized herein is not intended to include review of the adequacy of the Contractor's actly measures in, on, or near the construction site and shall not be construed as supervision of the actual construction make the Engineer, Owner or its agents responsible for providing a safe piece for the performance of work by the Contractor, subcontractors, or suppliers, or for access, visits, use, work, travel or occupancy by any person

FRESNO COUNTY

FRESNO COUNTY

TULARE COUNTY

JAMES IRRIGATION DISTRICT

COUNTY MAP

The Contractor shall have at the work site, copies or suitable extracts of Construction Safety Drders, issued by Col-OSHA. He shall comply with provisions of these and all other applicable laws, ordinances and regulations. The Contractor must comply with provisions of the safety and health regulations for construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act, as set forth in Title 29 C.F.R.

To protect the lives and health of his employees under the Contract, the Contractor shall comply with all pertinent provisions of the "Manual of Accident Prevention in Construction" issued by the Associated Genera Contractors of America, inc., and shall maintain an accurate record of all cases of death, excuptional disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment or work under the Contract.

The Contractor agrees that it shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property, that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner, Provent & Pritchard Engineering Group, Inc., and their respective agents harmhess from any and all liability, real or alleged, in connection with the performance work on this project, excepting for liability arising from the sole negligence of Owner, Engineer, or their respective agents.

The Owner and its agenta' site responsibilities are limited solely to the activities of their employees on site. These responsibilities shall not be inferred by any party to mean that the Owner or its agents have responsibility for site safety. Safety in, on, or about the site is the sole and exclusive responsibility of the Contractor of the contractor of the contractor's methods of work performance, superintendence and the Contractor's employees, and sequencing of construction are also the sale and exclusive responsibilities of the Contractor.

AMERICAN COUNCIL OF ENGINEERING COMPANIES OF CALIFORNIA NOTE: Construction Contractor agrees that in accordance with generally accepted construction practices, construction Contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of the project, including safety of all persons and property, that this requirement shall be made to apply continuously and not be limited to normal working hours, and construction Contractor further agrees to defend, indemnify and hold design professional harmless from any and all liability, real and alleged, in connection with the performant of work on this project, excepting liability arising from the sole negligence of design professional.

SPECIAL NOTE

Where underground and surface structures are shown on the plans, the locations, depth and dimensions of structures are believed to be reasonably correct, but are not guaranteed, such structures are shown for the information of the Contractor, but information so given is not to be construed as a representation that such structures will, in all cases, be found where shown, or that they represent all of the structures which may be encountered.



SHEET INDEX DESCRIPTION

COVER SHEET

NOTES & LEGEND INDEX SHEET

BASIN 2 GRADING PLAN BASIN 3 GRADING PLAN

CELL 1 GRADING PLAN CELL 2 GRADING PLAN

CELL 3 GRADING PLAN CELL 4 GRADING PLAN

FRESNO SLOUGH X-SECTIONS FRESNO SLOUGH X-SECTIONS 2

EARTHEN CONTROL STRUCTURE

MAIN CANAL CONTROL STRUCTURE

BASIN 3 FACILITIES PLAN

SIPHON JUNCTION BOX BASIN 3 PUMP STRUCTURE AND

BASIN 3 DISCHARGE

RECHARGE INTERTIE

WELL DETAIL

E-BOOSTER MODIFICATIONS

SHEET NO.



PRELIMINARY
PLAN SET
T FOR CONSTRUCTION
08/09/2011
PHASES I, II, & III



R AUGMENTATION PROJECT SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA WATER FRESNO

DESIGN ENGINEER: ERIC A. ABRAHAMSEN LICENSE NO:

CE 52,000 RAFTED BY: CHECKED BY P&P BEE

SCALE: AS SHOWN DATE: 8/9/2011 JOB NO: 10510802

of **21**

WG. NO:

SHFFT JAMES IRRIGATION DISTRICT

ABBREVIATIONS

ANTENNA POLE ASSESSOR'S PARCEL NUMBER BC BEGIN CURVE BRICK & MORTAR B&M CALIFORNIA

CFS CUBIC FEET PER SECOND

CIP CAST IN PLACE CL CLASS

CLF CHAIN LINK FENCE C/L OR Q CENTER LINE CONC CONCRETE COR CORNER CY CUBIC YARD DIA OR Ø DIAMETER DISTRIBUTION

DISTRICT JAMES IRRIGATION DISTRICT

EC END OF CURVE EG EXISTING GRADE ELEC ELECTRICAL ELEV OR EL ELEVATION ELL ELBOW

EDGE OF PAVEMENT EP ESMT EASEMENT EW EACH WAY EXIST OR (E) EXISTING

F&d FURNISH & INSTALL FG FINISHED GRADE FL OR E FLOW LINE

FEET

FV&C FRESNO VALVES & CASTINGS GALVANIZED

GALV GRADE BREAK GB HGL HYDRAULIC GRADE LINE

HT HEIGHT

HIGH WATER LEVEL HWL ID INSIDE DIAMETER INV

IRR IRRIGATION LINEAR FEET LEFT LT MAX MAXIMUM

MCC MOTOR CONTROL CENTER MIN MINIMUM

NIC NOT IN CONTRACT NTS NOT TO SCALE OC ON CENTER OD OUTSIDE DIAMETER OH OVERHEAD

PE PERMANENT EASEMENT PH PHASE P/L OR L PROPERTY LINE

PROD PRODUCTION PROP OR (P) PROPOSED

POUNDS PER SQUARE INCH PSI PVC POLYMNYL CHLORIDE

RC RADIUS OF CURVE

RGRCP RUBBER GASKETED REINFORCED CONCRETE PIPE

ROW OR R/W RIGHT OF WAY RIGHT SLOPE SEC SECTION SF SQUARE FEET SP SERVICE POLE STA

TEMPORARY CONSTRUCTION EASEMENT TCE

TS TOP OF STRUCTURE TW TOP OF WALL

TWS TRAVELING WATER SCREEN

TYP

UNO UNLESS NOTED OTHERWISE

LEGEND

EXISTING	PROPOSED	
—————————————————————————————————————		RIGHT-DF-WAY PROPERTY LINE ELECTRIC LINE (UNDERGROUND) ELECTRIC LINE (AERIAL) TELEPHONE LINE (UNDERGROUND) IRRIGATION PIPELINE CHAIN LINK FENCE EDGE OF A.C. PAVEMENT UTILITY POLE AND ANCHOR
E	E	ELECTRIC VAULT
0	•	MANHOLE / STANDPIPE
	—	CULVERT (SIZE AS NOTED)
0	•	GUARD POST
Δ	Δ	CONTROL POINT
+	•	BENCHMARK
@	•	MONUMENT
III TEL	■ TEL	TELEPHONE RISER
T	T	TELEPHONE VAULT
Ħ		FLOW METER
8	8	WATER VALVE
Φ	•	CANAL GATE
0	•	WELL
	→	SLOPE LINE
	<u>×</u>	DETAIL NUMBER SHEET NUMBER

GENERAL NOTES

- James Irrigation District (559-693-4356) shall be contacted at least 48 hours prior to commencement of work on or near existing District facilities.
- Used material, rejects, misfits, or seconds, etc. are not acceptable for use on James Irrigation District facilities.
- 3. All construction shall be in conformance with these plans and project specifications.
- 4. Contractor shall field verify the horizontal and vertical locations of all existing facilities prior to commencing work. Call Underground Service Alert (USA) at 811. Contractor shall make Engineer aware of any discrepancies.
- 5. All cast-in-place concrete structures shall be formed inside and out and concrete vibrated sufficiently to provide for smooth surfaced walls/floors without voids and honeycombs.
- Engineer shall inspect all work phases on irrigation facilities for conformance to project specifications. Reinforcing shall not be encased in concrete without prior Engineer inspections. Likewise, concrete shall not be covered with earth prior to Engineer inspection.
- Concrete design mix shall be submitted to the engineer for review and approval. All concrete shail have a 28—day minimum compressive strength of 3000 psi unless otherwise specified.
- All steel pipe and fittings shall be furnished with a shop applied high solids epoxy coating on the interior and exterior, unless otherwise indicated. All other exposed steel shall be painted with a pre—treatment primer, an undercoat and a final coat of paint in accordance with project specifications.
- All nuts, bolts, and washers used to secure underground fittings shall be stainless steel. After installation, all steel hardware shall be coated with a rust preventative, wrapped with 4 mil polyethylene sheeting, and secure with PVC tape.
- All construction shall be performed in accordance with applicable health and safety laws of the State
 of California and CAL/OSHA standards.
- Trench backfill and reservoir embankments shall be compacted in accordance with the specifications and the geotechnical report contained in the specifications.
- Contractor will be responsible for the repair of all pipeline cracks, which develop during construction
 of improvements affecting existing facilities.
- Concrete vaults and boxes may be purchased from a precast manufacturer or Contractor may construct the structures if structural calculations and design is approved by the engineer.
- 16. All excess material and/or debris shall be removed upon completion of installation.
- 17. Contractor shall be responsible for providing adequate dust control at all times





PRELIMINARY
PLAN SET
T FOR CONSTRUCTION
08/09/2011
PHASES I, II, & III NOT



AUGMENTATION PROJECT SLOUGH BYPASS IMPROVEMENTS AMES IRRIGATION DISTRICT FRESNO COUNTY, CA

SLOU

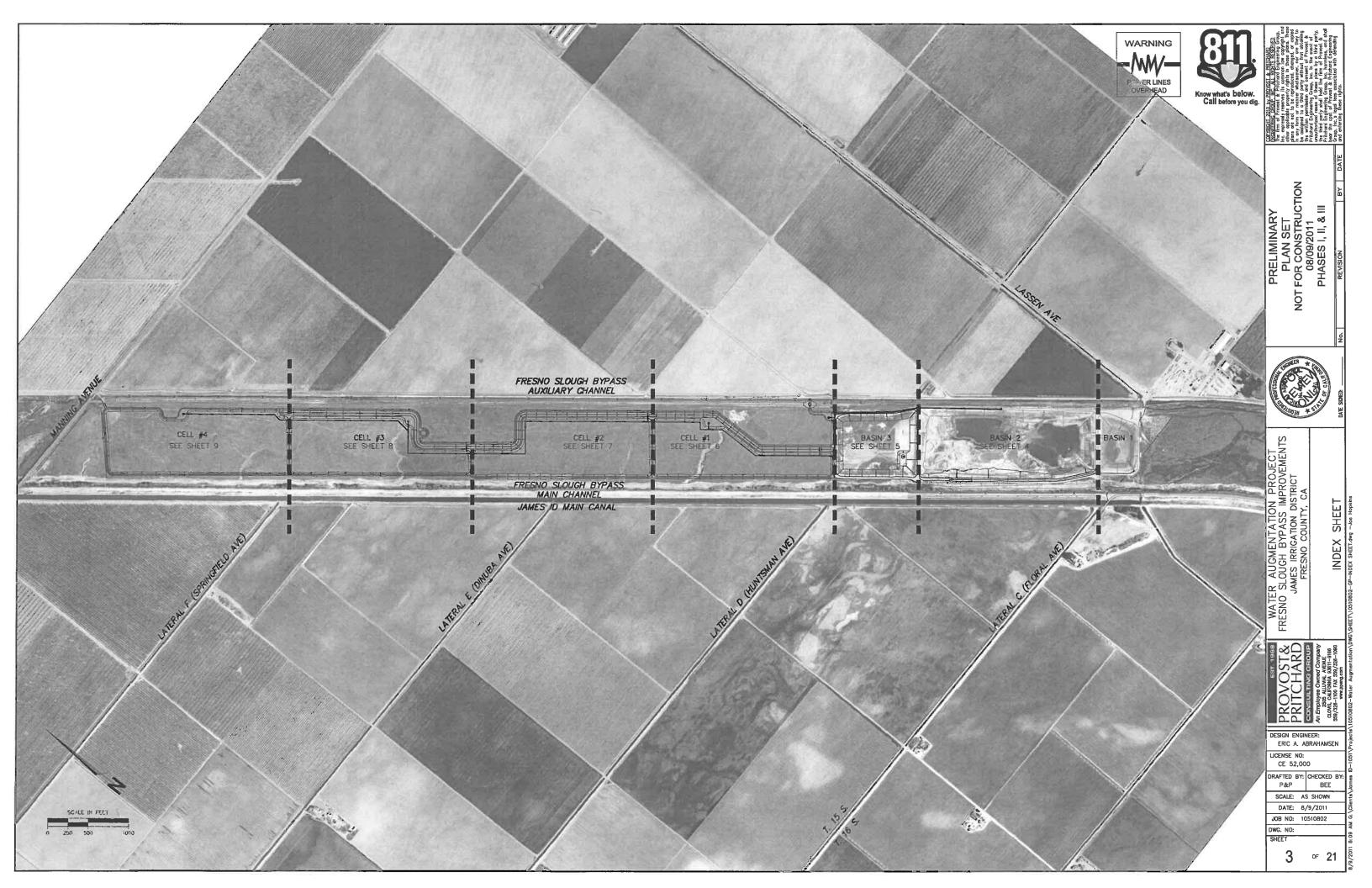
WATER FRESNO

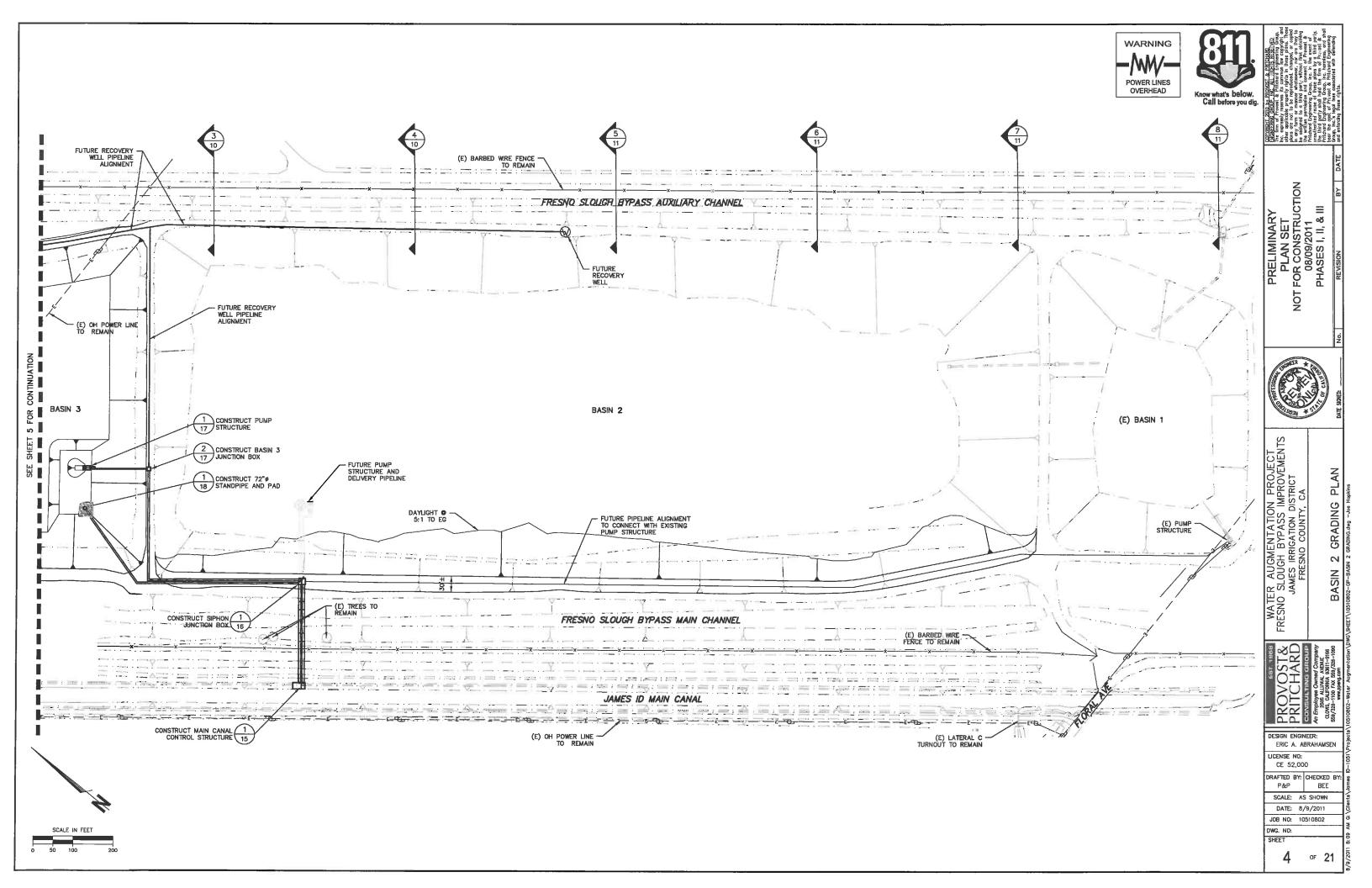
DESIGN ENGINEER: ERIC A. ABRAHAMSI LICENSE NO: CE 52,000 DRAFTED BY: CHECKED BY: P&P BEE

SCALE: AS SHOWN DATE: B/9/2011 JOB NO: 10510802

DWG. NO: SHEET

or 21

















WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA PLAN GRADING
GRADING. dwg -- Joe Hop

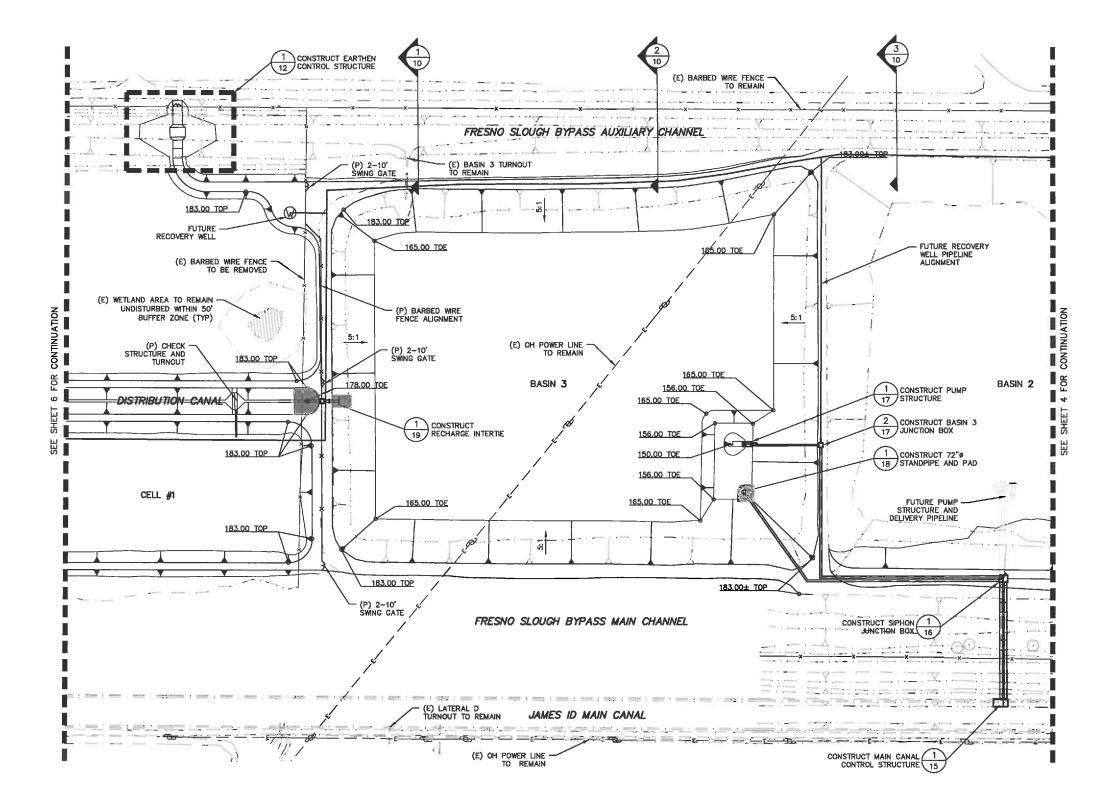
DESIGN ENGINEER: ERIC A. ABRAHAMSEN LICENSE NO:

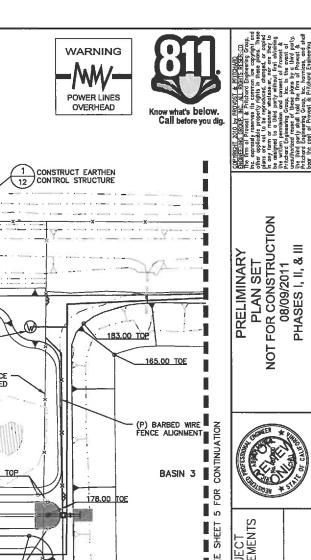
CE 52,000

DRAFTED BY: CHECKED BY: P&P BEE

SCALE: AS SHOWN DATE: 8/9/2011

JOB NO: 10510802 DWG, NO: SHEET





PLAN WATER AUGMENTATION FRESNO SLOUGH BYPASS IN JAMES IRRIGATION DIS FRESNO COUNTY,

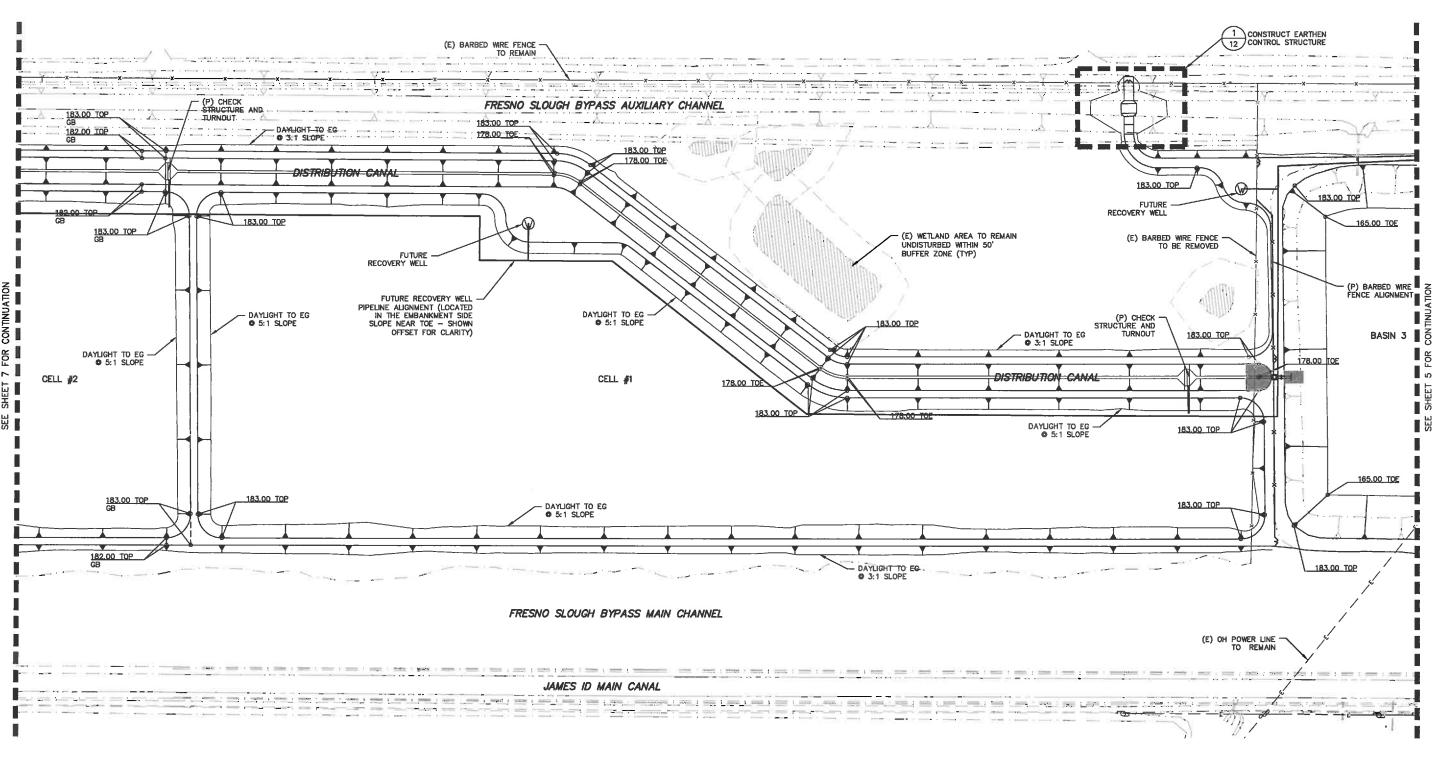
DESIGN ENGINEER:

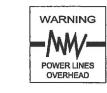
ERIC A. ABRAHAMSEN LICENSE NO: CE 52,000

DRAFTED BY: CHECKED BY: P&P BEE

SCALE: AS SHOWN DATE: 8/9/2011 JOB NO: 10510802

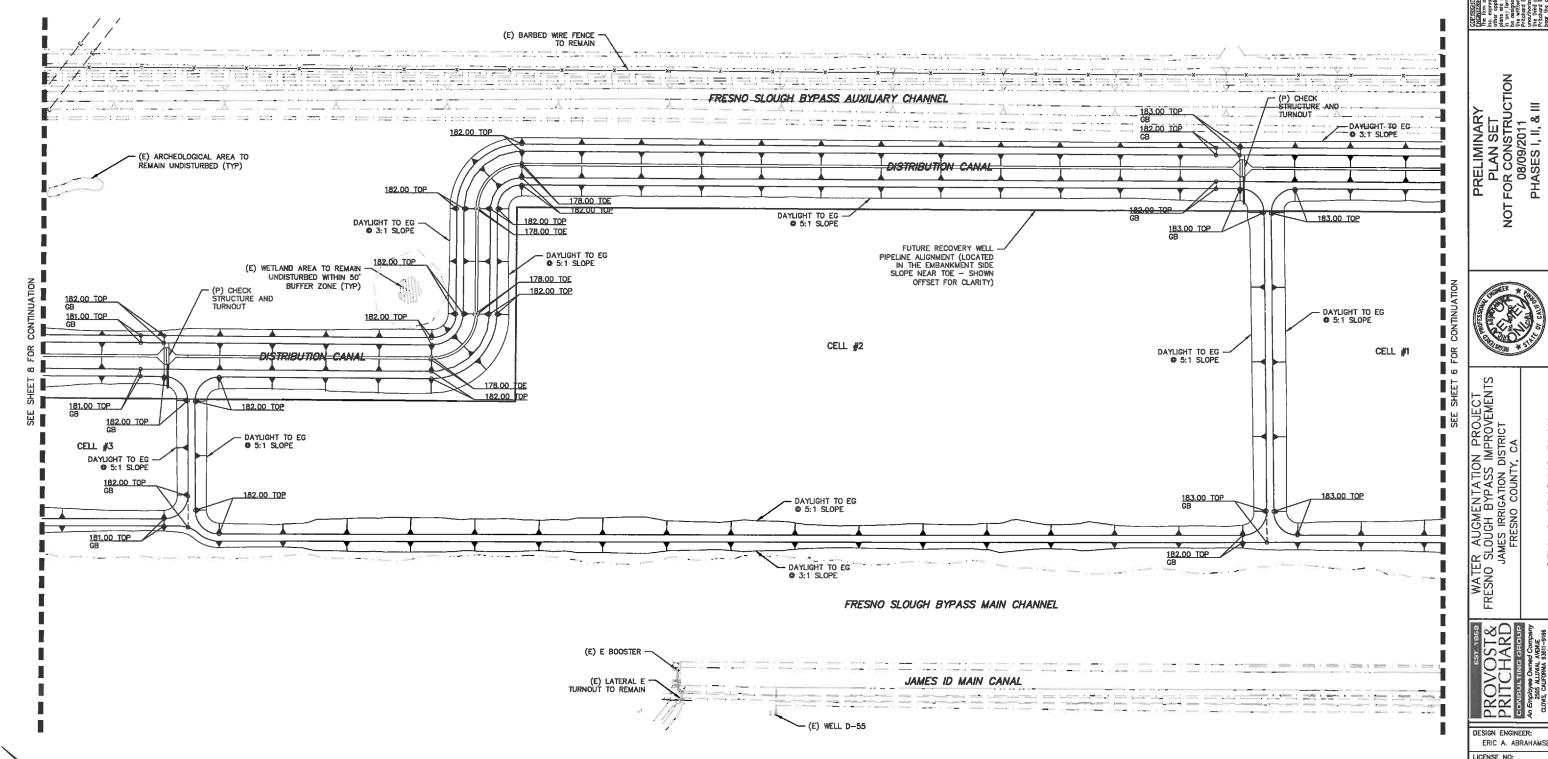
DWG. NO: SHEET











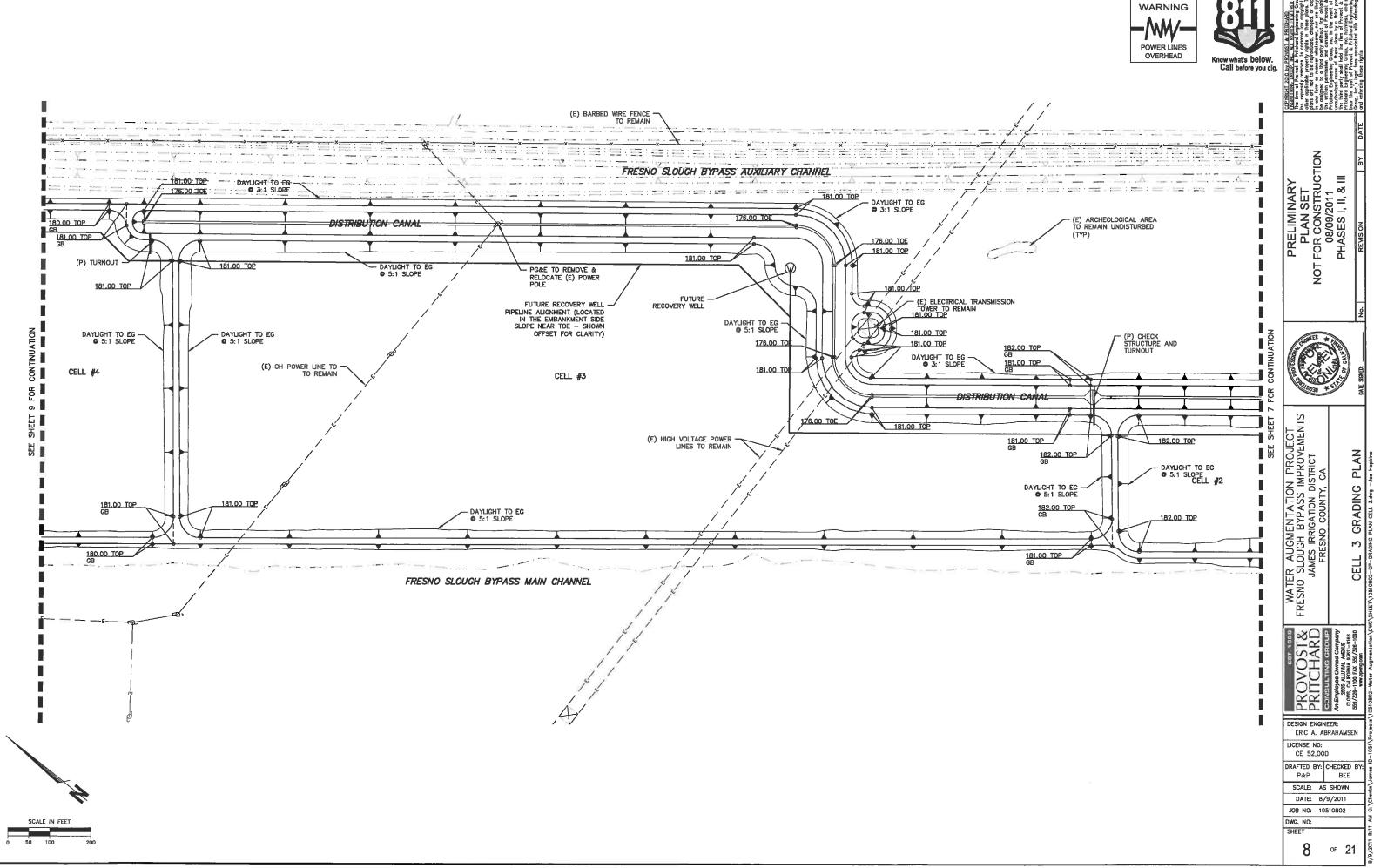
WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA GRADING PLAN CELL 2.4wg -JC

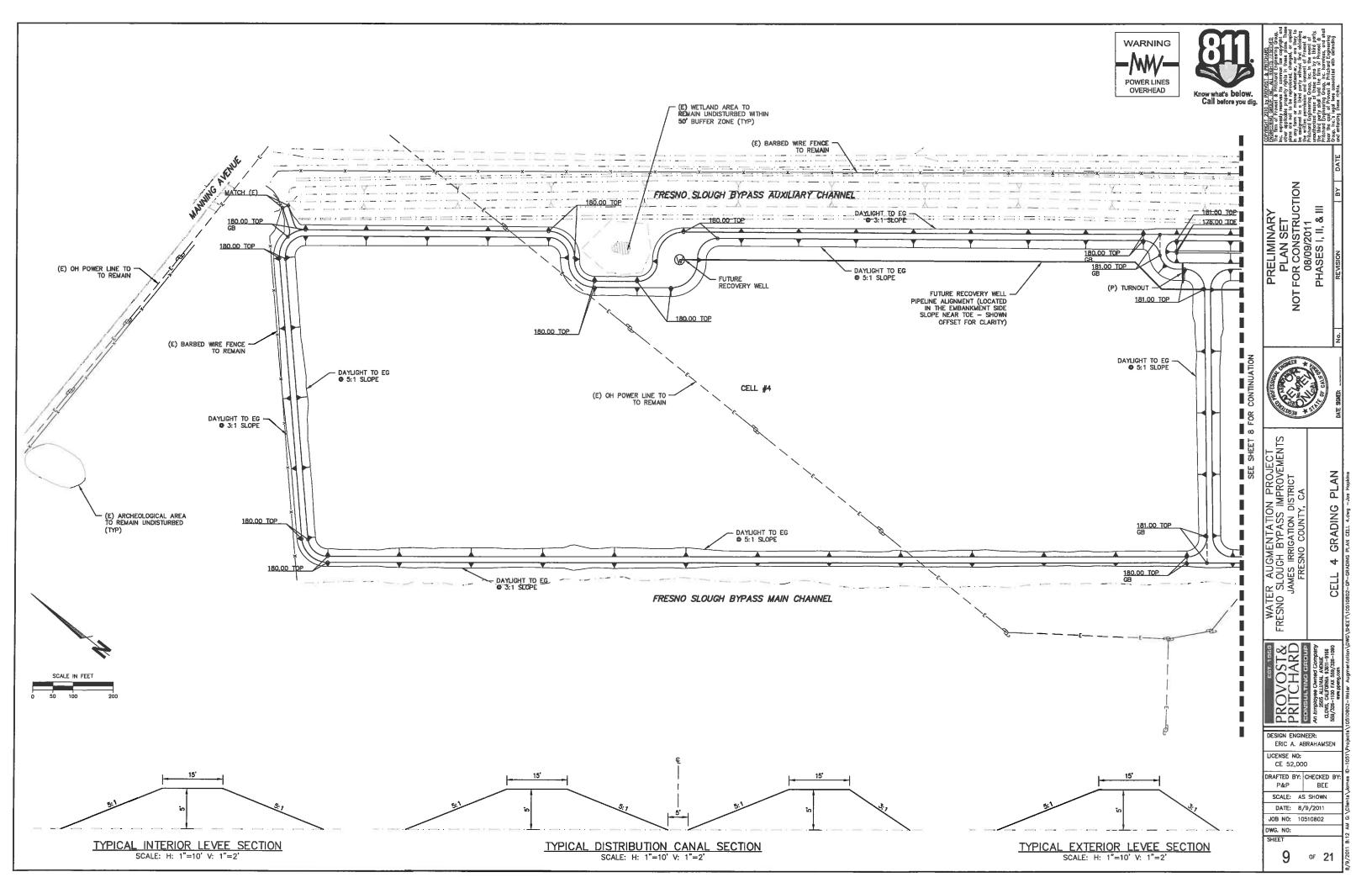
DESIGN ENGINEER: ERIC A. ABRAHAMSEN LICENSE NO: CE 52,000

DRAFTED BY: CHECKED BY: P&P BEE SCALE: AS SHOWN

DATE: 8/9/2011 JOB NO: 10510802 DWG. NO:

SHEET





матсн тв 180 180 176 176 172 172 168 168 164 164 160 160 80 200 240 180

WARNING POWER LINES OVERHEAD



COPPRIEST COLOR by ROOKST, Re The British of the Group by Prichard Inc. agreedy reserva its common of the agoldenic recently rights pleas are not to be reproduced to a restorate whiches the only from or manner whiches the only from one cross the without purposed are an office progressing cross price. In the first poly should note that the propriate frough the first poly and frough the progressing cross price. The progressing cross price and the progressing progressing progressing the progressing p

PRELIMINARY
PLAN SET
NOT FOR CONSTRUCTION
08/09/2011
PHASES I, II, & III

WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA FRESNO SLOUGH X—SECTIONS

PROVOST&
PRITCHARD
CONSULTING GROUP
An Employee Owned Company

DESIGN ENGINEER: ERIC A. ABRAHAMSEN

LICENSE NO: CE 52,000 DRAFTED BY: CHECKED BY:

P&P BEE SCALE: AS SHOWN

DATE: 8/9/2011 JOB NO: 10510802

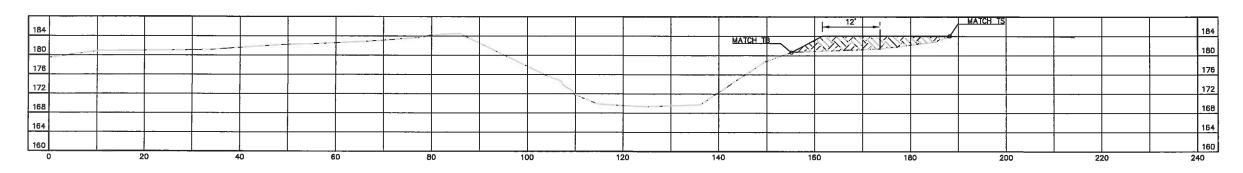
DWG. NO:

SHEET 10 of 21

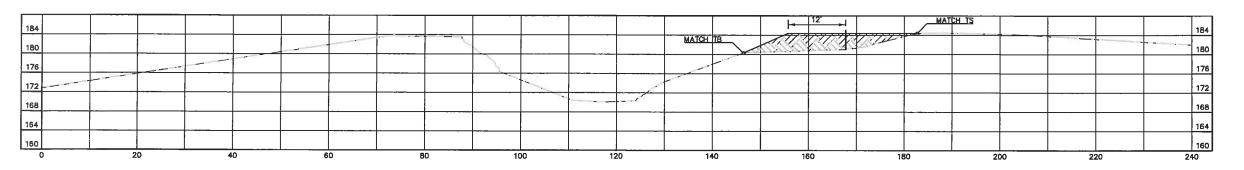
DESIGN NOTE:

SECTIONS ARE CUT EVERY 500 FEET ALONG THE FRESNO SLOUGH BYPASS AUXILLARY CHANNEL, BEGINNING AT THE EARTHEN DAM AND ENDING AT THE CON-SPAN BRIDGE NEAR BASIN 1.

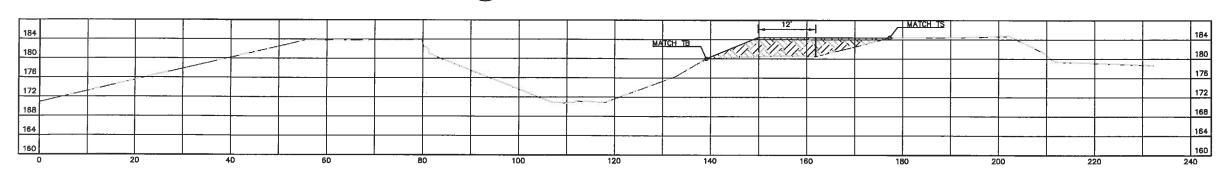
SECTION 1 SCALE: AS SHOWN 10









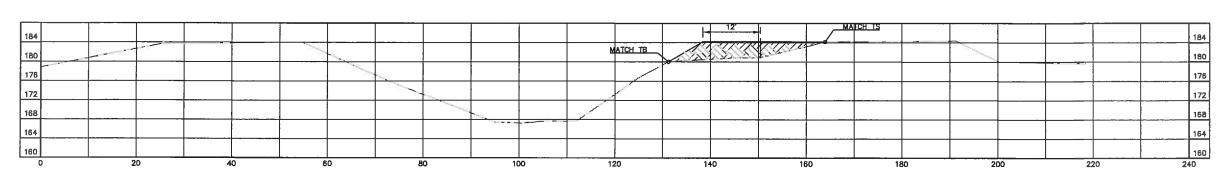


SECTION 4
SCALE: AS SHOWN 10

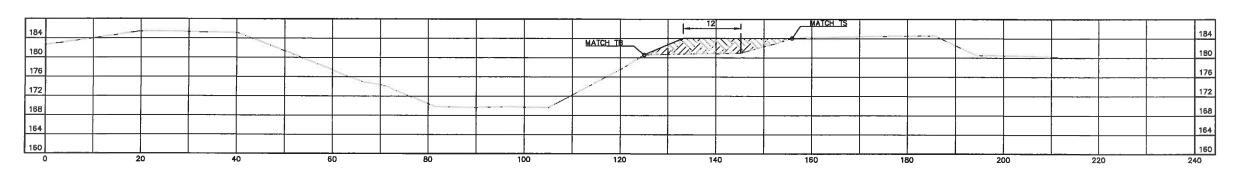
SCALE IN FEET

MATCH I 176 172 172 168 164 160 20 60 80 100 120 140 160 180 200 220 240

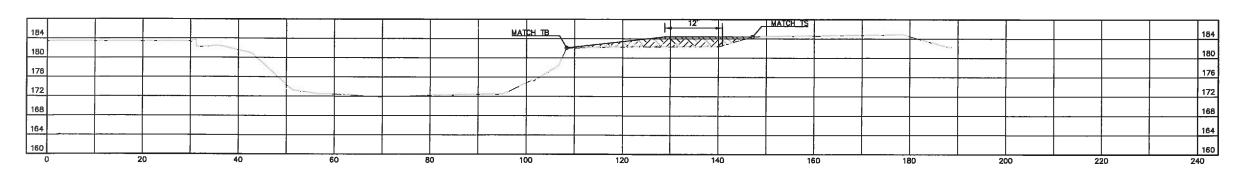
5 11 SECTION 5 SCALE: AS SHOWN



SECTION 6 SCALE: AS SHOWN



SECTION 7 SCALE: AS SHOWN



8 SECTION 8 11 SCALE: AS SHOWN

DESIGN NOTE:

SECTIONS ARE CUT EVERY 500 FEET ALONG THE FRESNO SLOUGH BYPASS AUXILLARY CHANNEL, BEGINNING AT THE EARTHEN DAM AND ENDING AT THE CON-SPAN BRIDGE NEAR BASIN 1.

WARNING POWER LINES OVERHEAD



COPRIGHT 2010 by PROJ PROSELENG CROUL MIS The time of prosest is pre-ted by the prosest is pre-ted by the prosest is pre-pare and pre-pare

PRELIMINARY
PLAN SET
NOT FOR CONSTRUCTION
08/09/2011
PHASES I, II, & III



SLOUGH X—SECTIONS FRESNO HEET\10510802-GN-S

WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA

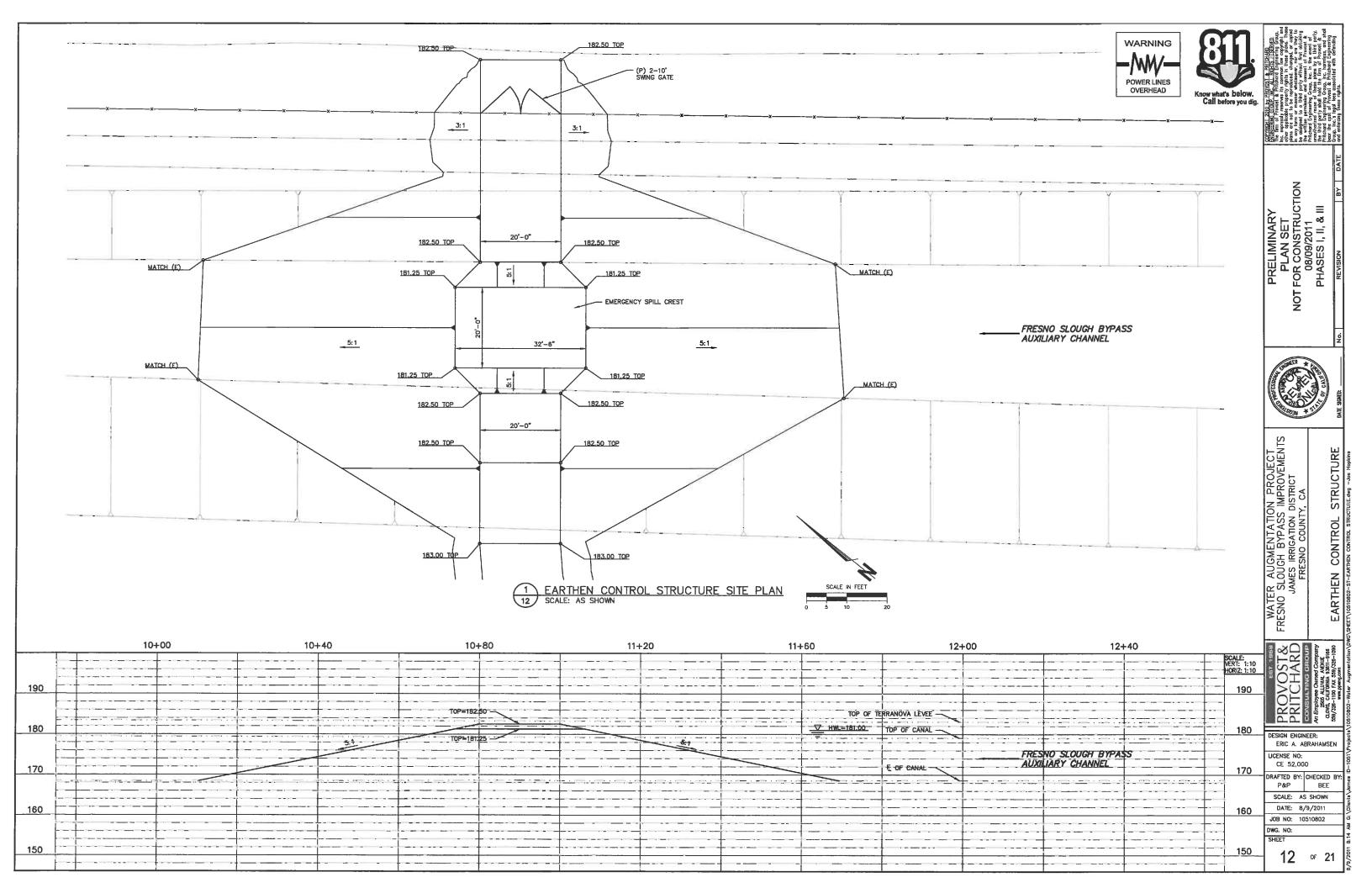
DESIGN ENGINEER: ERIC A. ABRAHAMSEN LICENSE NO:

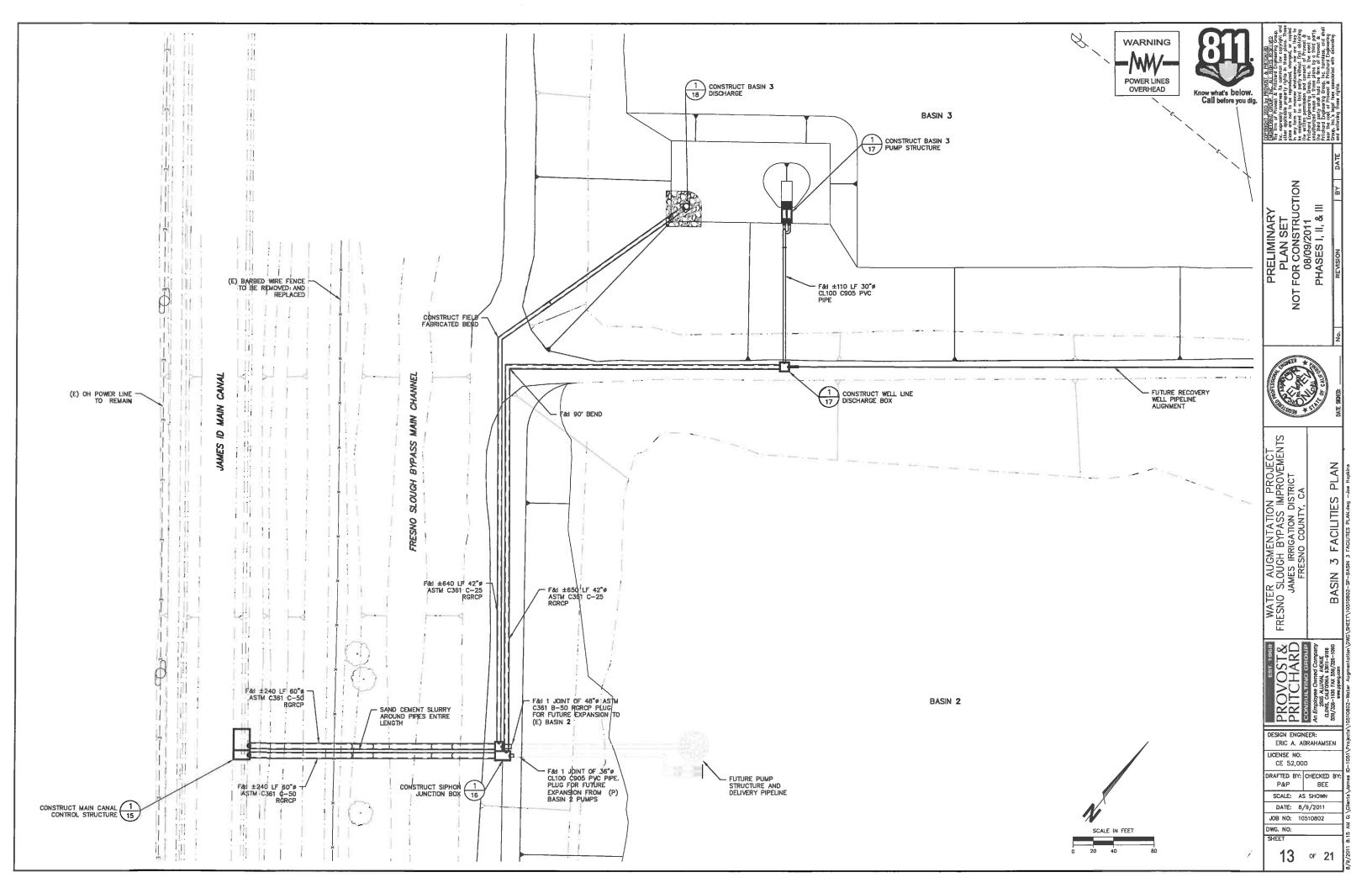
CE 52,000 DRAFTED BY: CHECKED BY: P&P BEE

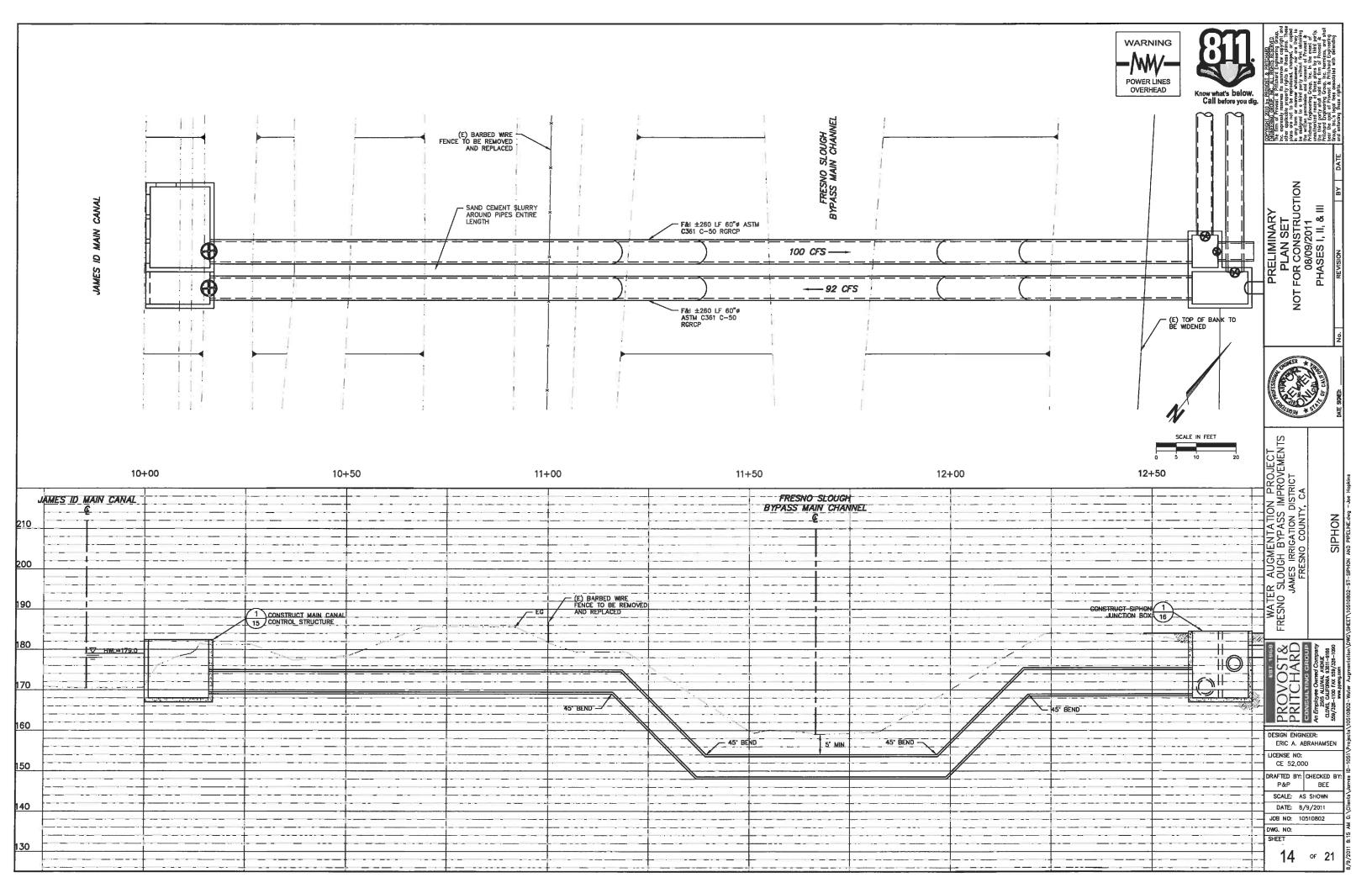
SCALE: AS SHOWN DATE: 8/9/2011

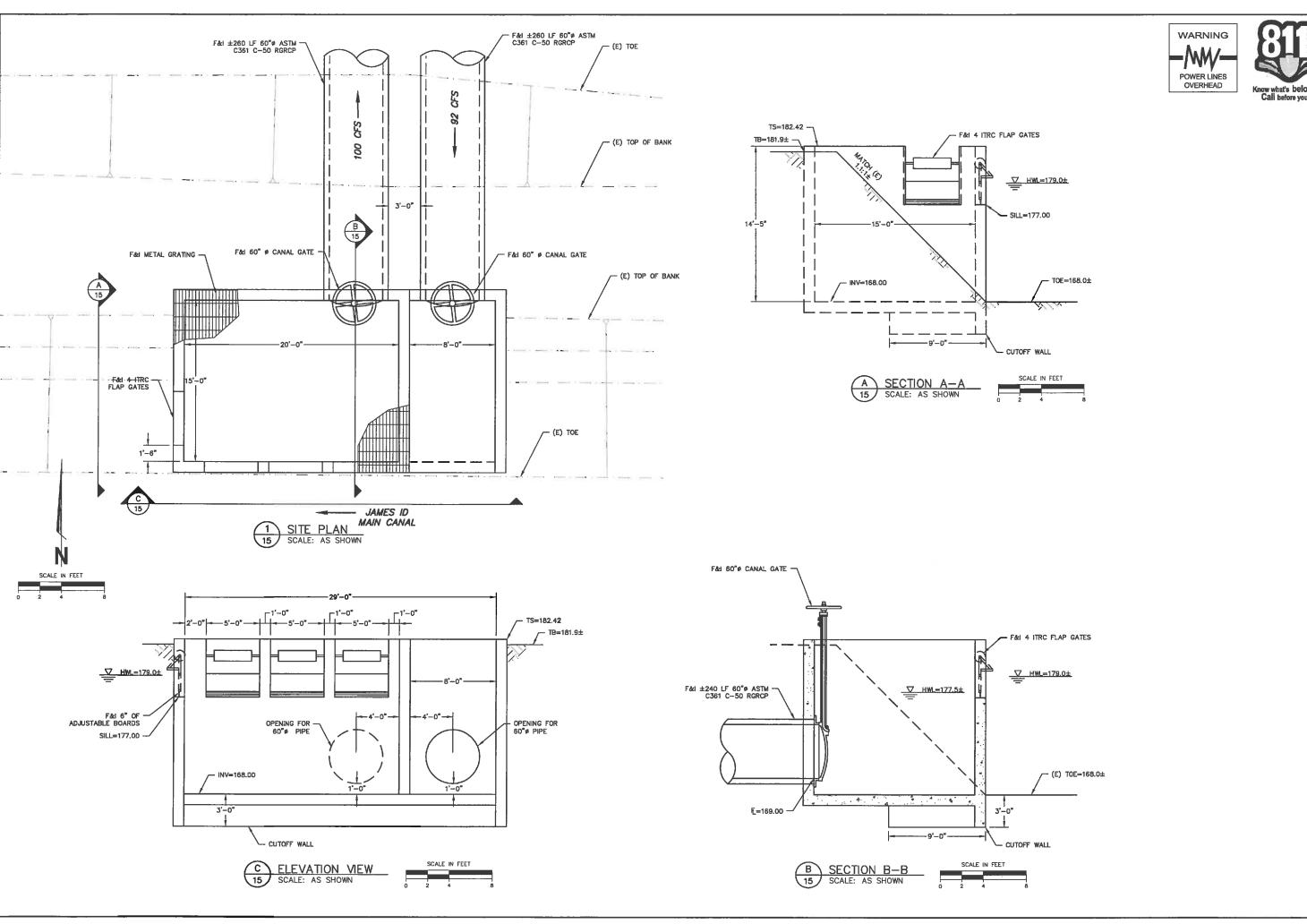
JOB NO: 10510802 DWG, NO:

SHEET of 21











PRELIMINARY PLAN SET NOT FOR CONSTRUCTION 08/09/2011 PHASES I, II, & III

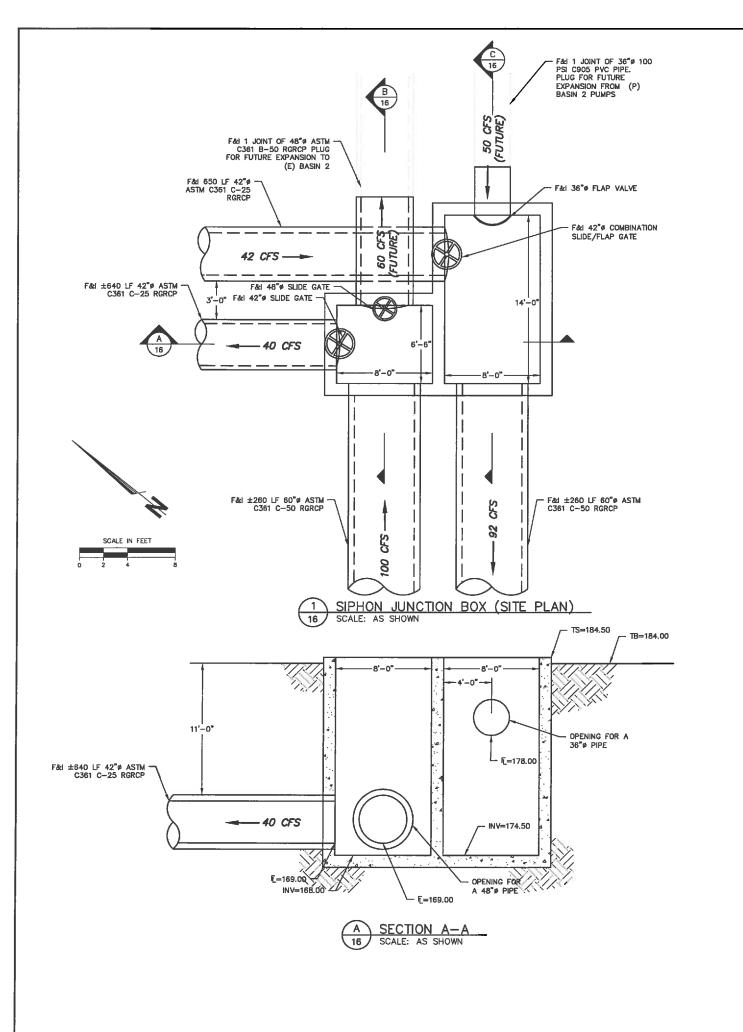


WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA

DESIGN ENGINEER: ERIC A. ABRAHAMSEN LICENSE NO: CE 52,000 DRAFTED BY: CHECKED BY:
P&P BEE

SCALE: AS SHOWN DATE: 8/9/2011 JOB NO: 10510802

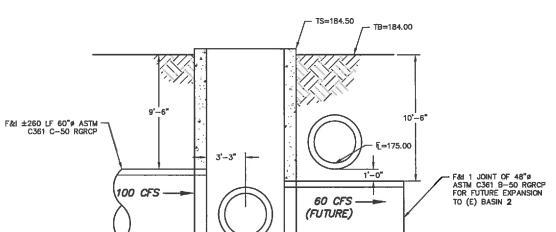
DWG. NO: SHEET







Know what's below. Call before you dig.

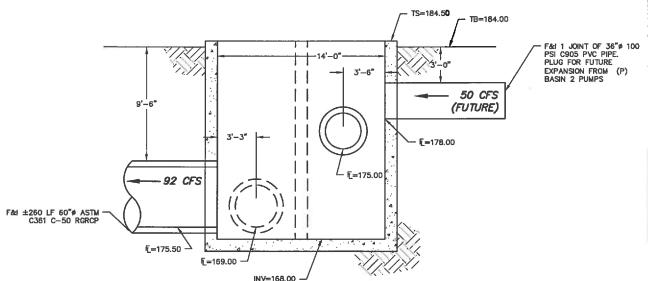


E=169.00 - INV=168.00

- F=169.00

B SECTION B-B
16 SCALE: AS SHOWN

[=169.00 **−**



SECTION C-C SCALE: AS SHOWN

DESIGN NOTE:

42" PIPELINE INVERT FROM BASIN 3 SET DEEP TO ACCOMODATE REVERSE FLOW.

PRELIMINARY
PLAN SET
NOT FOR CONSTRUCTION
08/09/2011
PHASES I, II, & III



WATER AUGMENTATION PROJECT FRESNO SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA BOX SIPHON JUNCTION

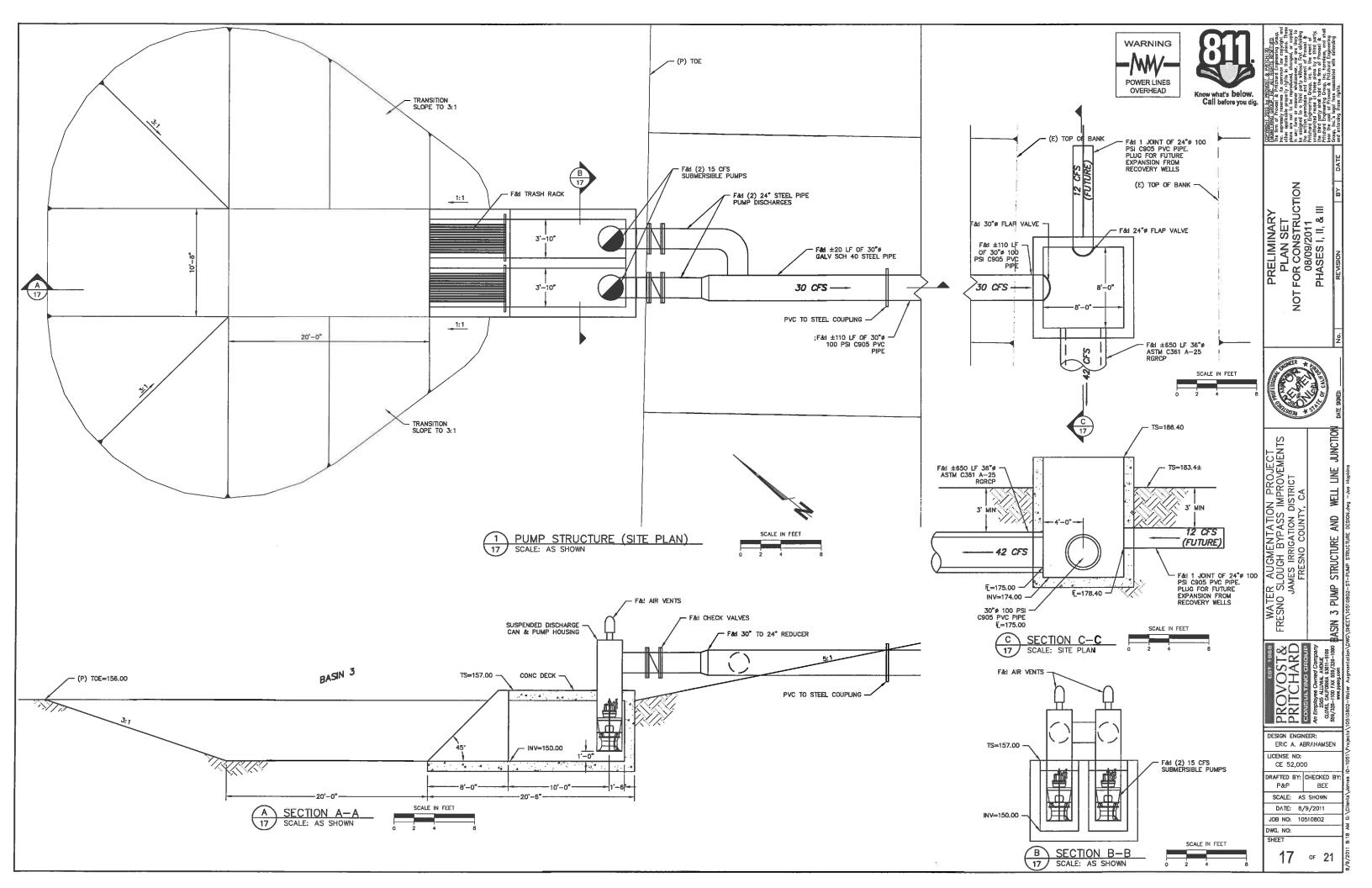
DESIGN ENGINEER: ERIC A. ABRAHAMSEN

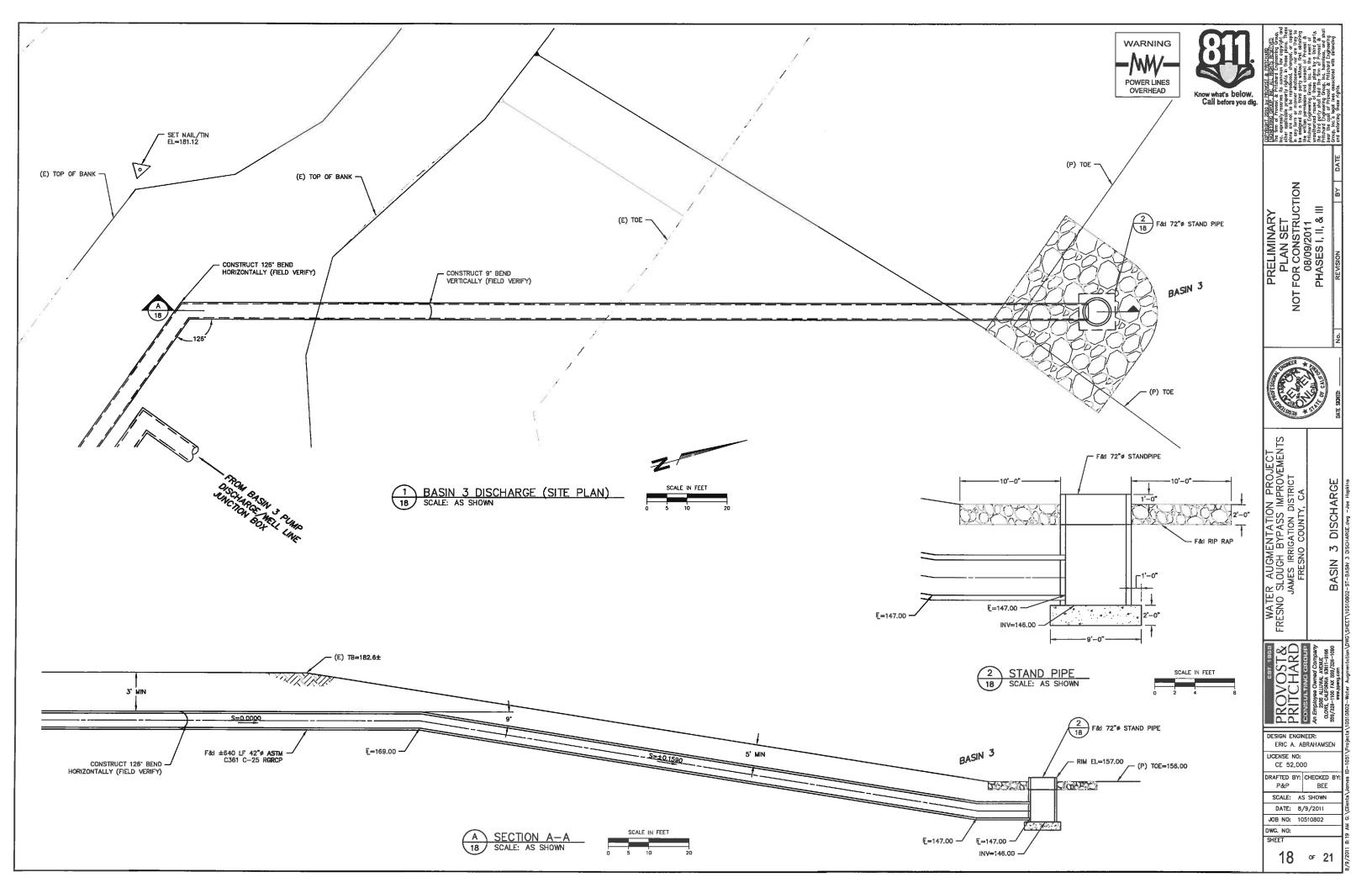
LICENSE NO: CE 52,000 DRAFTED BY: CHECKED BY: P&P BEE SCALE: AS SHOWN

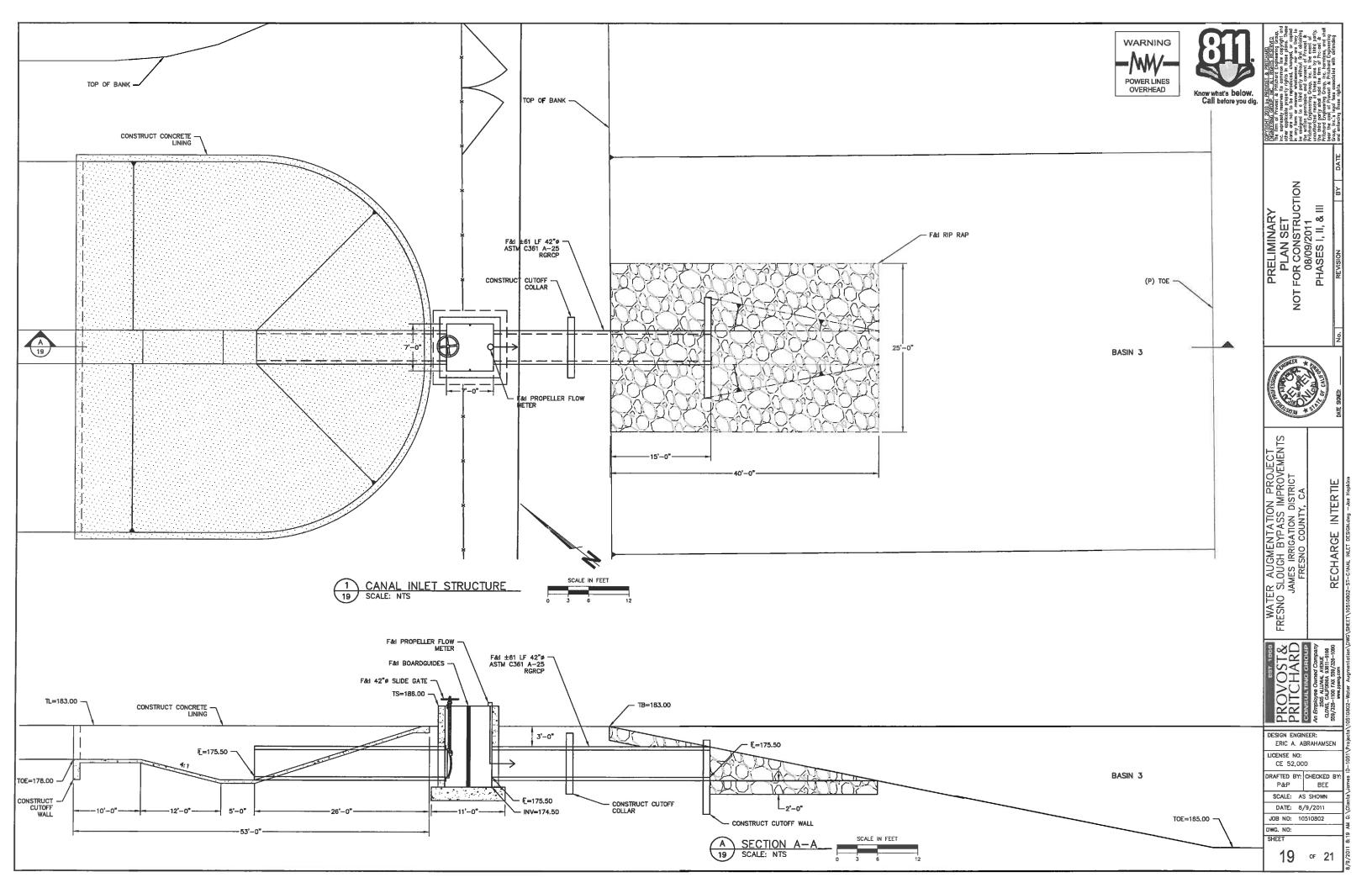
DATE: 8/9/2011

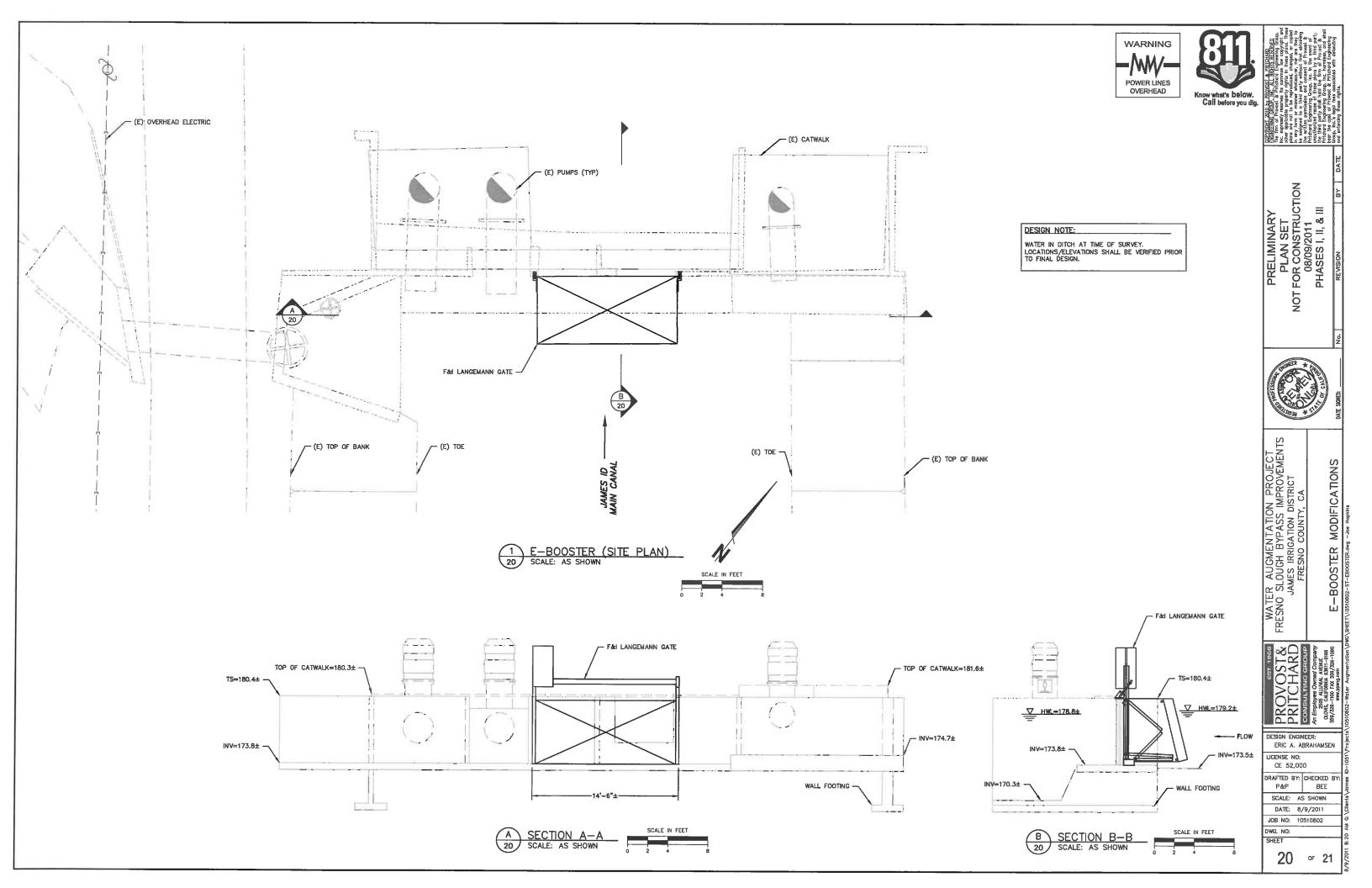
JOB NO: 10510802 DWG. NO: SHEET

16 or 21



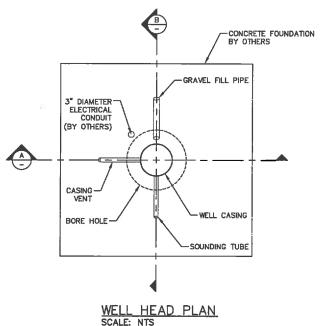


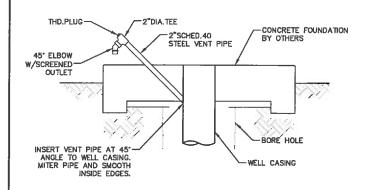






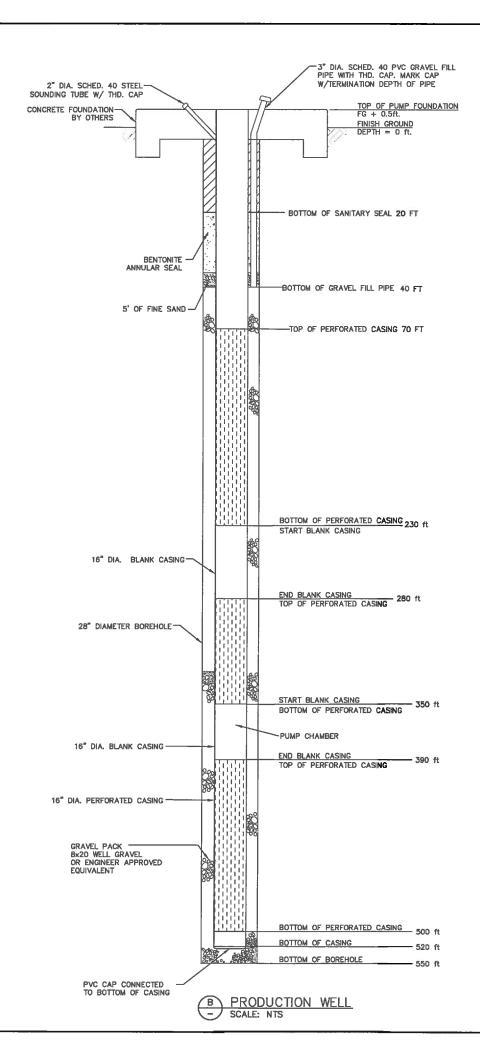








PRODUCTION WELL DATA	
FINISHED TOP OF WELL CASING	0.75 FOOT ABOVE GROUND
FINISHED TOP OF CONDUCTOR CASING	0.25 FOOT BELOW GROUND
DEPTH TO TOP OF PERFORATED CASING	70 FT
DEPTH TO BOTTOM OF PERFORATED CASING	500 FT
DEPTH TO TOP OF GRAVEL PACK	40 FT
TOTAL DEPTH OF BOREHOLE	550 FT



NOTES:

- CAL-OSHA SAFTEY REQUIREMENTS SHALL BE IN EFFECT DURING ALL CONSTRUCTION. SPECIAL PRECAUTIONS SHALL BE TAKEN WHEN WORKING IN THE VICINITY OF GAS, OIL, PHONE OR ELECTRIC LINES. CAUTION TO BE EXERCISED WHILE WORKING ALONG PLACER AVENUE DUE TO VEHICULER TRAFFIC.
- 2. THE EXACT LOCATION OF WELLS SHALL BE STAKED IN THE FIELD AND APPROVED BY JAMES IRRIGATION DISTRICT.
- 3. OWNER SHALL MAKE WATER AVAILABLE TO THE WELL DRILLER FOR NO CHARGE FROM WELLS C-81 OR C-87. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ANY WELL PIPING MODIFICATIONS & TRUCKS/TANKS NEEDED TO ENABLE CONTRACTOR TO CONVEY WATER TO THE SITE.

 CONTRACTOR SHALL RETURN THE SITE AND WELL

 PIPING TO ITS ORIGINAL CONFIGURATION.
- 4. FINAL PERFORATION AND BLANK INTERVALS WILL BE BASED ON REVIEW BY THE DISTRICT'S ENGINEER AND GEOLOGIST OF TEST HOLE BAGGED DRILL CUTTING SAMPLES, ELECTRIC LOG AND SONIC LOG.
- 5. MONITOR WELL CONSTRUCTION SHALL BE ACCORDING TO THIS PLAN, TECHNICAL SPECIFICATION SECTION 0271, AND THE CONTRACT AGREEMENT.
- PRODUCTION WELL CONSTRUCTION SHALL BE ACCORDING TO THIS PLAN, TECHNICAL SPECIFICATION 0272, AND THE CONTRACT AGREEMENT.
- 7. QUANTITIES ARE NOT GUARANTEED. FINAL PAYMENT IS TO BE BASED ON ACTUAL QUANTITIES AND BID UNIT

COUNTRING IN THE STATE OF THE S

PRELIMINARY
PLAN SET
T FOR CONSTRUCTION
08/09/2011
PHASES I, II, & III NOT

ER AUGMENTATION PROJECT SLOUGH BYPASS IMPROVEMENTS JAMES IRRIGATION DISTRICT FRESNO COUNTY, CA

DESIGN ENGINEER: ERIC A. ABRAHAMSEN LICENSE NO: CE 52,000

DRAFTED BY: CHECKED BY: P&P BEE SCALE: AS SHOWN

DATE: 8/9/2011 JOB NO: 10510802

DWG. NO: SHEET